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Determining Gene Fitness in *C. difficile* *In Vitro* and *In Vivo*
Using High-throughput Mutagenesis & Transposon
Sequencing

A dissertation presented for the degree of Doctor of Philosophy,
in the Faculty of Science.

By

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Declaration

I, Nadia Josceline Fernandes, declare that the work presented herein represents my own work, except where duly acknowledged in the text, and has not been previously presented for a higher degree at this or any other University. I agree that the Library of The University of Sheffield may lend or copy this thesis upon request.

A handwritten signature in black ink, appearing to read 'Nadia Fernandes', written in a cursive style. The signature is positioned above a horizontal line.

Nadia Fernandes

Summary

Clostridium difficile is a Gram-positive, spore forming, anaerobic bacterium (Tool, Hall) and is the leading cause of antibiotic-associated diarrhoea in the world (Ghose, 2013). Little is known about the mechanisms by which *C. difficile* colonizes and persists within the gut environment. Classical mutagenesis tools are ineffective on *C. difficile* and the available methods of producing single deletion mutants are rather time consuming. Herein, we use high-throughput mutagenesis, combined with transposon-directed insertion site sequencing (TraDIS) to determine genes essential for survival under a variety of *in vitro* and *in vivo* conditions.

High-density transposon mutagenesis was used to generate over 70,000 unique *C. difficile* mutants. Fitness of these mutants during their growth cycle was determined by TraDIS sequencing and analysis. The data helped elucidate genes essential for growth and sporulation *in vitro*. We have further exploited this method to assess gene fitness of a pool of *C. difficile* mutants in a mouse gut, thereby allowing us to gain insights into the infection and survival mechanisms of the bacterium. Our *in vivo* experiment has helped identify genes essential for colonisation, survival and pathogenesis of *C. difficile* and may even aid in identifying novel antimicrobial targets. A total of 62 *in vivo* datasets and 16 *in vitro* data sets have been analysed, making it one of the largest studies of its kind. Additionally, production of new libraries is underway to help decipher the mechanisms of the *C. difficile* S-layer, a component already showing promising results as an antimicrobial target.

Cumulatively, the data derived has helped decipher the functionality of the *C. difficile* genome quicker and with greater ease. This progress will hopefully, bringing us one step closer to discovering novel treatments against *C. difficile* infection. The project has also given us a chance to improve methods of library generation and analysis. Future generation of larger datasets would enable us to improve accuracy and rate of data analysis.

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sparkling western-blot and robust well-modded PC. As he leaves the Fagan Lab, I wish him all the very best on his new adventure!

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“It is better to seek for the truth, without wishing to define it before we have found it”

--Jules Bordet (1870-1961)

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Abbreviations

5-FC	5-fluorocytosine
ADP	Adenosine diphosphate
Alu element	Transposable element from <i>Arthrobacter leuteus</i>
AT%	Adenine Thymine percentage content
ATc	Anhydrotetracycline
Av-CD	Avidocin - <i>Clostridium difficile</i>
BAM	Binary Alignment Map
BHI	Brain Heart Infusion
BHIA	Brain Heart Infusion Agar
BI/NAP1/027	Restriction endonuclease analysis pattern, group BI; pulsed-field gel electrophoreses pattern, NAP1; PCR ribotype designation, 027
bp	base pairs
BWA	Burrows-wheel aligner
<i>C. difficile</i>	<i>Clostridium difficile</i> / <i>Peptoclostridium difficile</i> / <i>Clostridies difficile</i>
<i>C. saccharoperbutylacetonicum</i>	<i>Clostridium saccharoperbutylacetonicum</i>
<i>C. sporogenes</i>	<i>Clostridium sporogenes</i>
C57BL/6 mice	C57 mice developed by C.C. Little in 1921, Black Subline 6.
CD6 origin	<i>Clostridium difficile</i> 6 origin
CDI	<i>Clostridium difficile</i> infection

CDMM	<i>Clostridium difficile</i> minimal medium
CDMMA	<i>Clostridium difficile</i> minimal medium agar
CDT	<i>Clostridium difficile</i> transferase
CFU	Colony forming unit
cwp	Cell wall protein
DESeq2	Differential gene Expression analysis of Sequencing data 2
DMSO	Dimethyl sulfoxide
DNA	Deoxyribonucleic Acid
dNTPs	Deoxynucleotide Triphosphates
E. coli	<i>Escherichia coli</i>
EDTA	Ethylenediamine tetraacetic acid
EtOH	Ethanol
FASTA	FAST-all
FASTQ	FAST-quality score
FEN	Flap endonuclease
FMT	Fecal microbiota transplant
FWD	Forward
GBK file	Genbank file
GC%	Guanine Cytosine percentage content
gDNA	Genomic Deoxyribonucleic Acid
GTPase	Guanosine Triphosphosphate hydrolase
<i>H. irritans</i>	<i>Haematobia irritans</i>

HITS	High-throughput inserting tracking by deep sequencing
IAPs	Intra-cisternal A particles
INSeq	Insertion Sequencing
Kb	Kilobase
kDa	Kilodaltons
KEGG	Kyoto Encyclopedia of Genes and Genomes
<i>L. reuterii</i>	<i>Lactobacillus reuterii</i>
LB broth	Luria-Bertani broth
LBA	Luria-Bertani agar
LCT	Large Clostridial Toxins
Linc.	Lincomycin
MA plot	Log ratio (M) and mean average (A) plot
MM	Mastermix
NEB	New England Biolabs
NGS	Next Generation Sequencing
NTC	No Template Control
OD _{A600}	Optical Density at wavelength A600
ORF	Open Reading Frame
p-elements	Transposable element from <i>Drosophila</i>
<i>P. fluorescens</i>	<i>Pseudomonas fluorescens</i>
PaLoc	Pathogenicity Locus
PBS	Phosphate-buffered saline

PCR	Polymerase Chain Reaction
PLG	Phase Lock Gel
PMC	Pseudomembraneous colitis
qPCR	Quantitative Polymerase Chain Reaction
RCDI	Recurrent <i>Clostridium difficile</i> Infection
REV	Reverse
RNA	Ribonucleic Acid
RNase	Ribonuclease
RT	Ribotype
S-layer	Surface layer
SAM	Sequence Alignment Map
Sec	Secretory machinery (or translocase) provides a major pathway of protein translocation from the cytosol across the cytoplasmic membrane in bacteria
slp	Surface layer protein
SMALT	Pairwise sequence alignment program for the efficient mapping of DNA sequencing reads onto genomic reference sequences
SOC	Super Optimal broth with Catabolic repression
SOEing	Gene Splicing by Overlap Extension
SPRI	solid-phase reversible immobilization
STM	Single Transposon Mutagenesis

SYBR Safe	Cyanine dye used as a nucleic acid stain in molecular biology
T4 DNA ligase	DNA ligase from bacteriophage T4
T4 DNA polymerase	DNA polymerase from bacteriophage T4
TAE buffer	Tris(hydroxymethyl)aminomethane base, acetic acid and Ethylenediamine tetraacetic acid buffer
Taq polymerase	<i>Thermus aquaticus</i> polymerase
Tbf 1	Transformation Buffer 1
Tbf 2	Transformation Buffer 2
Tc1/mariner	Class and superfamily of interspersed repeats DNA (class II) transposons (e.g. Transposon of <i>Caenorhabditis elegans</i> Tc1 and mariner transposon of <i>Drosophila</i>)
Tcd	<i>Clostridium difficile</i> toxin
TE buffer	Tris(hydroxymethyl)aminomethane base and Ethylenediamine tetraacetic acid buffer
Thiam.	Thiamphenicol
TIS	Transposon insertion sequencing
Tn-seq	Transposon Sequencing
TraDIS	Transposon Directed Insertion Site Sequencing
Tris	Tris(hydroxymethyl)aminomethane
TWEEN	Polyoxyethylene sorbitan monooleate

TY broth	Tryptone-yeast extract broth
ty element	Yeast transposable element
TYG	Tryptone-yeast extract broth with glucose
UK	United Kingdom
US	United States
USER enzyme	Uracil-Specific Excision Reagent enzyme
UV	Ultraviolet
WT	Wild type
Z-buffer	A phosphate buffer at pH7 commonly used in β -Galactosidase Activity Assay

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Chapter 1: Introduction

1.1: *Clostridium difficile* pathogenesis

Clostridium difficile is a Gram-positive, spore forming, anaerobic bacterium (Hall and O'Toole, 1935) and is the leading cause of antibiotic-associated infectious diarrhoea in the world. Between 2004 to 2007, a *C. difficile* outbreak in the UK resulted in an increase in deaths from 2,238 in 2004 across England and Wales to 8,324 in 2007 over the same regions (Carter, 2009). In 2011, *C. difficile* was responsible for an estimated 29,000 deaths in the US alone (Banaei, Anikst and Schroeder, 2015). The bacterium is present in the large intestines of 66% of infants and in only 3% of adults, where it rarely causes any problems as it is usually kept in check by the gut microbiota. About 80% of *C. difficile* infection (CDI) cases occur in people over 65 years (Carter, 2009). However, it is not just the elderly that are prone to CDI. The rising number of immunocompromised individuals, patients on antimicrobials and individuals on therapy involving disruption of the gut microbiota (i.e. non-steroidal anti-inflammatory drugs and antacid/proton pump inhibitors) are also at high risk of CDI (Stabler *et al.*, 2009). CDI is a healthcare-associated infection and is developed as a direct result of healthcare intervention by medication (Bartlett, Chang, *et al.*, 1978; Bartlett, Moon, *et al.*, 1978). CDI can also be aggravated by further use of certain antibiotics (Baxter, Ray and Fireman, 2008). Composition of the intestinal microbiota is maintained in a delicate ecosystem. Intestinal dysbiosis can result in significant effects on structure and function of the indigenous intestinal microbial strains, thereby resulting in the breakdown of colonisation resistance (Antonopoulos *et al.*, 2009; Robinson and Young, 2010). Such dysbiosis of the gut microbiota can be caused by broad spectrum antibiotics, providing a niche for ingested or indigenous *C. difficile* spores to germinate, grow and spread within the intestine (Antonopoulos *et al.*, 2009; Carter, 2009;

Robinson and Young, 2010). In addition to infection by ingestion, CDI could also be recurrent, in which cases it is rather challenging to treat with conventional antibiotic therapy (Cohen *et al.*, 2010; Wilcox *et al.*, 2017).

C. difficile spores within the gut germinate, the vegetative bacteria rapidly propagate and produce toxins TcdA and TcdB. These toxins translocate to the cytosol of the colonic epithelia where they cause actin condensation and cell rounding, eventually leading to the death of the cell. These toxins are also involved in cytokine production, disruption of cell junctions, neuronal activation and infiltration by polymorphonuclear cells (Voth and Ballard, 2005). These processes and many others that are still being studied, cause pseudomembranous colitis (PMC) (Figure 1a and 1c) and/or toxic megacolon (Alterman *et al.*, 2012) (Figure 1b). PMC is characterised by raised yellow-white plaques on the colonic mucosa, composed of necrotic epithelial cells, leucocytes, mucous and fibrin (Bartlett, Moon, *et al.*, 1978; George *et al.*, 1978) (Figure 1a) and toxic megacolon is characterised by the severe inflammation of the colon (Figure 1b), all of which could possibly lead to perforation of the colon, sepsis and death of the patient.

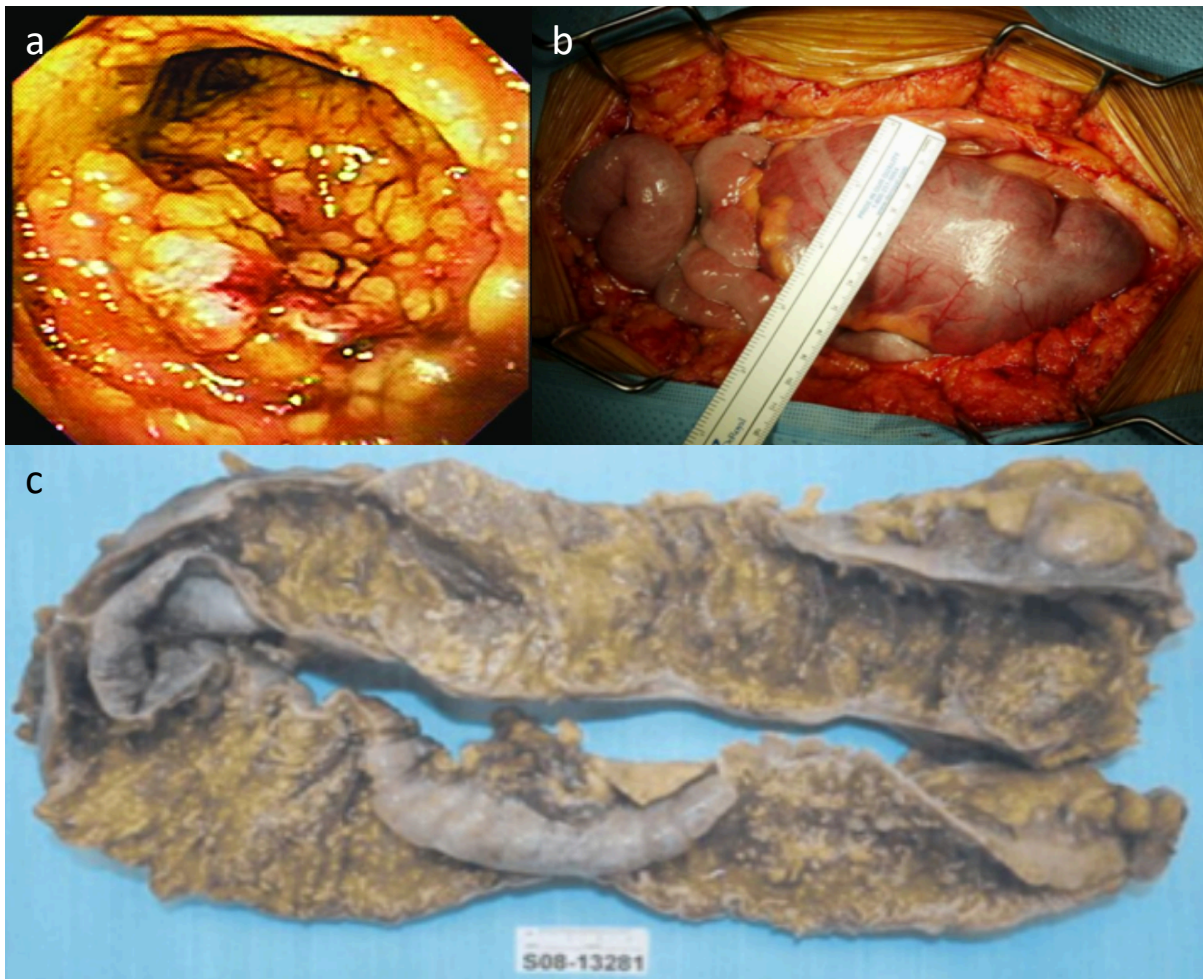


Figure 1: Symptoms of *C. difficile* infection.

(a) Endoscopic view of *Clostridium difficile*-induced pseudomembranous colitis. Yellow pseudomembranes attached to the colonic mucosa with friable erythematous colonic mucosa (Ofosu, 2016). Courtesy of Kenolisa Onwueme, MD, PhD. Available via creative commons license : CC BY-NC-SA 3.0 (b) A dilated and friable colon without evidence of perforation. Image from a case of toxic megacolon secondary to *C. difficile* colitis occurring in a 68-year old female renal transplant patient (Alterman et al., 2012). Published with permission from Daniel Alterman (c) Colon following an urgent subtotal colectomy in patient referred to in Figure 1b. Final pathologic evaluation revealed pseudomembrane formation consistent with pseudomembranous colitis (Alterman et al., 2012). Published with permission from Daniel Alterman.

1.2: *C. difficile* Epidemiology

For this project, multi-drug resistant *C. difficile* strain 630 was used as a wild-type reference strain, as the strain is extremely well characterised. The strain was isolated in Zurich, Switzerland in 1982, from a patient with a severe case of pseudomembranous colitis that had spread to multiple other patients within the same ward. Sequenced in 2006, strain 630 (PCR ribotype 012) was sequenced to reveal a 4,290,252 bp circular chromosome with a GC% of 29.06% (Accession number: AM180355) and a 7,881 bp plasmid with a GC% of 27.9% (Accession number: AM180356) (Sebahia *et al.*, 2006).

Over the 2003-2009 period (Figure 2, (Mulcahy, 2013)), new hyper-virulent strains of *C. difficile*, BI/NAP/027, emerged within North America (He *et al.*, 2013). In North America two distinct epidemic lineages, FQR1 and FQR2, were identified (He *et al.*, 2013). These lineages emerged after acquiring the same fluoroquinolone resistance-conferring mutation and a highly related conjugative transposon (He *et al.*, 2013). The two lineages independently acquired an identical Thr82Ile mutation in the DNA gyrase subunit A (*gyrA*), by recombination or mutation, resulting in resistance to Fluoroquinone (He *et al.*, 2013). The FQR2 lineage had a wider spread when compared to FQR1, and was the lineage that led to healthcare-associated outbreaks within the UK, continental Europe and Australia (He *et al.*, 2013). Data from a study on these two lineages suggests that acquisition of resistance to commonly used antibiotics is a major attribute of the continued persistence and evolution of BI/NAP/027 in healthcare environments (He *et al.*, 2013). These PCR-ribotype 027 strains have been associated with higher toxin production (O'Horo *et al.*, 2014), more severe diarrhoea, higher mortality and more cases of recurrence (Stabler *et al.*, 2009). The arrival of the epidemic 027 strains to the UK was marked by the CDI outbreak at Stoke Mandeville hospital in

Buckinghamshire (Stabler *et al.*, 2009). A total of 498 patients contracted CDI there between April 2003 and March 2006, and the infection proved fatal to 127 of them (Stabler *et al.*, 2009). Prior to 2003, only a handful of *C. difficile* clinical isolates were PCR-ribotyped 027, however currently most typed isolates are 027. This partly accounted for the 72% increase in mortality within the UK, with 6500 cases of CDI during 2006. Similarly, Canada had no documented PCR-ribotype 027 isolates in 2002; but in 2003, their percentage prevalence jumped to 75.2% of all PCR-ribotyped strains. A representative isolate from the Stoke Mandeville outbreak, hyper-virulent strain R20291, was used within this project (Stabler *et al.*, 2009).

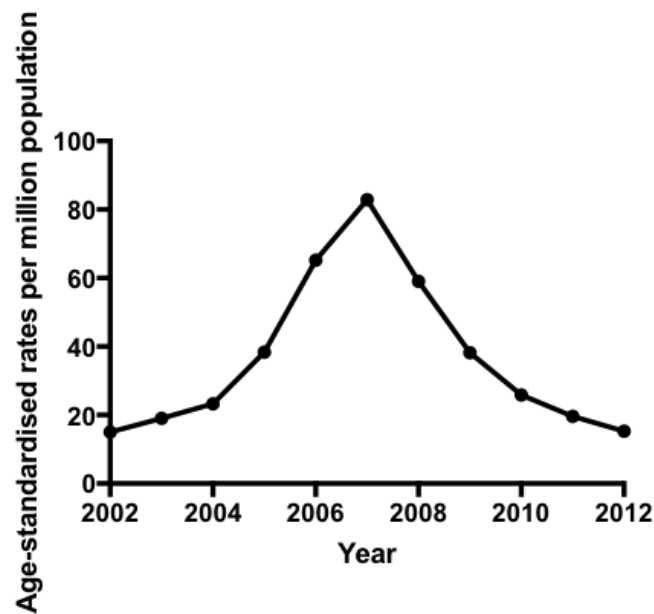


Figure 2: Age-standardised mortality rates per million population over time.

*Mortality rates for CDI related deaths in England and Wales recreated in R using data from (Mulcahy, 2013). A new hyper-virulent strain of *C. difficile*, BI/NAP/027, started to emerge within North America in 2003 (He *et al.*, 2013). Mortality rates started to decrease after 2007. This decrease in number of CDI cases is thought to be due to improved hygiene in hospitals (Stone *et al.*, 2012; Mulcahy, 2013).*

Although the genomes of 630 and R20291 are highly conserved, R20291, like other *C. difficile* PCR ribotype 027 strains, have 234 genes additional to 630 which control phenotypes like antibiotic resistance, motility and toxicity (Stabler *et al.*, 2009). The epidemic strain R20291 in particular has 5 unique genetic regions that are absent in both the non-epidemic PCR-ribotype 027 strain CD196 and the PCR-ribotype 012 630. These regions, containing a two-component regulatory system, transcription regulators and a novel phage-island (Stabler *et al.*, 2009), may contribute to hypervirulence.

1.3: *C. difficile* Virulence Factors

The following are the predominant virulence factors involved in *C. difficile* colonisation and infection and the role they play in *C. difficile* infection.

1.3.1. *C. difficile* Sporulation and Germination

Being an obligate anaerobe, vegetative *C. difficile* cells cannot survive in an aerobic environment. The bacterium survives extreme environments by inducing a sporulation pathway in response to the environmental stimuli, in order to produce dormant spores. These environmental stimuli may include quorum sensing, nutrient deprivation and other yet unidentified stress factors (Setlow, 2006; Rodriguez-Palacios and Lejeune, 2011; Deakin *et al.*, 2012; Higgins and Dworkin, 2012).

C. difficile sporulation is comprised of 4 morphogenetic stages (Edwards and McBride, 2014; Gil *et al.*, 2017). In stage 1, asymmetric septation resulting in a large mother cell and a smaller

compartment. In stage 2, the mother cell engulfs the smaller compartment (now the forespore) in a phagocytic-like motion, causing the forespore to move into the cytoplasm of the mother cell. Stage 3 involves assembly of the spore cortex and the coat layers, and in stage 4 lysis of the mother cell occurs resulting in the release of the mature spores. The architecture of a mature *C. difficile* spore is as follows: at the centre of a mature spore is the spore core which contains DNA, ribosomes, mRNA, proteins and pyridine-2,6-dicarboxylic acid as a calcium salt. The spore core is covered in an inner membrane, followed by a germ-cell wall containing peptidoglycan, followed by a cortex also containing peptidoglycan, then an outer membrane, followed by layers of coat protein (Edwards and McBride, 2014; Gil *et al.*, 2017). In some *C. difficile* strains, the layers of coat protein is surrounded by an exosporium layer. The aerotolerant dormant spores aid in persistence within the host as well as act as a medium of transfer through environmental contamination or patient-patient contact (Britton and Young, 2012).

Once the spores are ingested, they travel to the GI tract and into the large intestine. When germinant receptors in the spores detect the presence of small molecular germinants, germination is induced (Setlow, 2003; Sorg and Sonenshein, 2008). *C. difficile* germination is triggered in response to bile salt germinants (i.e. taurocholic acid/ cholic acid derivatives) and amino acids [e.g. alanine or glycine (Sorg and Sonenshein, 2008)]. Cholic-acid mediated germination can be repressed, with competitive inhibitors such as chenodeoxycholic acid-derivatives (Francis, Allen and Sorg, 2013).

C. difficile germination is characterised by 3 stages (Paredes-Sabja, Setlow and Sarker, 2011; Paredes-Sabja, Shen and Sorg, 2014). Stage 1 involves binding of the germinant to their respective Ger-type receptor at the inner spore membrane resulting in the release of monovalent cations and ample amount of dicarboxylic acid as a calcium salt in exchange for water. In stage 2, the release of dicarboxylic acid as a calcium salt and rehydration of the spore core triggers the activation of spore cortex lytic enzymes SleB and CwlJ. In the final stage, the activated enzymes degrade the peptidoglycan cortex, permitting full core rehydration and resumption of metabolism in the spore core. Once germinated the actively growing vegetative cells produce toxins which bring about the symptoms of the disease (Sorg and Sonenshein, 2008).

1.3.2. Mechanisms of *C. difficile* Colonisation

Primary bile acids which aid in digestion of fat, are produced in the liver, released into and reabsorbed by the small intestine. However, some of it is left unabsorbed and reaches the colon (Francis, Allen and Sorg, 2013b). Here, the primary bile acids are converted into secondary bile acids with the help of bile acid 7 alpha-dehydroxylating enzymes produced by bacterial members of the *Blautia*, *Lachnospiraceae* and *Ruminococcaceae* families (Wells and Hylemon, 2000; Theriot, Bowman and Young, 2016). These secondary bile acids inhibit *C. difficile* growth (Francis *et al.*, 2013b). Following dysbiosis, depletion of these Firmicutes has been shown to lead to a decrease in secondary bile acids (Buffie *et al.*, 2015; Theriot, Bowman and Young, 2016). Significantly higher levels of primary bile acids and lower levels of secondary bile acids were found in fecal samples from patients with CDI. This was especially prominent in patients with recurrent CDI (Allegretti *et al.*, 2016). The amount of germination

response to primary bile acids is strain-dependent and hypothesized to be due to mutations in the CspC receptor that recognise primary bile acids (Weingarden *et al.*, 2016).

In addition to bile acid presence, there are numerous other mechanisms that have also shown to play a part in conferring susceptibility to *C. difficile*. This includes diminished production of short-chained fatty acids, which when present, reduce the luminal pH and make the gut an unfavourable environment for *C. difficile* (Gupta *et al.*, 2016). Additionally, amino acids can increase germination in the presence of secondary bile salts. Also, lack of carbohydrate digestion due to depletion of Bacteroidetes, further disrupts the homeostasis of the colonocytes present in the gut (Bibbo *et al.*, 2014). Furthermore, any disruption to direct resistance mechanisms of the gut, such as competition for nutrients and niches, and antimicrobial production, results in an increased susceptibility to *C. difficile* (Sambol *et al.*, 2002; Rea *et al.*, 2010).

Risks factors for *C. difficile* colonisation have been widely researched. Studies have shown that antibiotic exposure 3 months prior, increases the risk of *C. difficile* colonisation in a community setting by 3.7-fold (Zomer *et al.*, 2017). Another study demonstrates that there was an increased risk of *C. difficile* colonisation in households that contained pet dogs (Stoesser *et al.*, 2017). In a hospital setting, risk factors for colonisation at the time of admission include, use of immunosuppressants, recent hospitalization, chronic dialysis, antibodies against toxin B and gastric acid suppressant medication (Eyre *et al.*, 2013; Leekha *et al.*, 2013; Kong *et al.*, 2015). Additionally, a large number of studies now agree that

individuals asymptotically colonised by toxigenic strains, may develop CDI during admission. However, it should be noted that there appears to be no risk of development of CDI, in individuals asymptotically colonised by non-toxigenic strains and indicating that these individuals may be protected from CDI development (Crobach *et al.*, 2018).

1.3.3. Importance of the S-layer and Surface Proteins

Surface proteins are crucial in the host-pathogen interactions. Unfortunately, mechanisms of these interactions are not very well characterised. Many cell wall polymers and surface proteins present in *C. difficile* are unique to *C. difficile* making them a good target for novel species-specific therapeutics (Kirk *et al.*, 2017; Kirk, Banerji and Fagan, 2017).

As a Gram-positive bacterium, *C. difficile* possesses a cell membrane, followed by a layer of peptidoglycan and cell wall polymers, which is then followed by a surface-exposed proteinaceous two-dimensional para-crystalline array, known as the S-layer (surface layer) (Fagan and Fairweather, 2014; Kirk, Banerji and Fagan, 2017) (Figure 3). The peptidoglycan is a vital component of the cell wall and is responsible for maintenance of cell shape, cell integrity and anchoring of cell wall proteins (CWP) (Kirk, Banerji and Fagan, 2017). The S-layer of bacteria coats the entire cell (Fagan and Fairweather, 2014), and is commonly composed of one or more S-layer proteins (SLPs) that self-assemble into the array. The *C. difficile* S-layer is largely composed of S-layer protein (SlpA), interspersed with 28 cell wall proteins (Kirk *et al.*, 2017). The S-layer precursor SlpA is secreted *via* the cell membrane and undergoes cleavage by Cwp84 (Oatley *et al.*, 2018) at the cell surface to generate low molecular weight

and high molecular weight SLPs, which interact to form a heterodimer. The heterodimer is the basic building block of a mature S-layer (Kirk *et al.*, 2017) (Figure 3). Our laboratory has recently documented that S-layer formation is observed at specific sites coinciding with cell wall synthesis, while conversely SlpA secretion is delocalised. This suggests that the delocalised secretion of SlpA results in a pool of precursor in the cell wall, readily available to repair openings that occur in the S-layer after damage or during growth (Oatley *et al.*, 2018).

While the sequence of the Slp low molecular weight coding region is highly variable, the high molecular weight region is highly conserved and contains cell wall binding motifs (Kirk *et al.*, 2017). SlpA is suggested to be involved in sporulation, toxin production, bacteriophage receptor recognition and resistance to innate immunity effectors (Kirk *et al.*, 2017). The S-layer, along with related cell wall proteins, have been suggested to be involved in the colonisation of host tissues (Fagan and Fairweather, 2014) and induction of host immune response, using Toll-like receptor 4 signalling (Ryan *et al.*, 2011).

In 2017, while our laboratory was investigating genetically modified bacteriocins, known as Avidocins, that act as *C. difficile*-specific antimicrobials; some *C. difficile* strains resistant to the Avidocin treatment were isolated (Kirk *et al.*, 2017). These strains were found to have mutations in the surface layer and exhibited defensive defects and attenuated virulence (Kirk *et al.*, 2017). However, these mutants were still able to colonise and persist in hamster guts for the duration of a 14-day study, suggesting that selective pressure of antimicrobials can force the species into forgoing virulence in favour of survival (Kirk *et al.*, 2017). One such

Avidocin-resistant mutant is the *C. difficile* FM2.5 strain, which carries a distinct point mutation in the *slpA* gene (Kirk *et al.*, 2017).

FM2.5 is a spontaneous mutant of R20291 (appearing at a frequency of $< 1 \times 10^{-9}$) and is resistant to killing by Avidocin Av-CD291.2 (Kirk *et al.*, 2017). The strain encodes a point mutation in the *slpA* gene, which results in the truncation of *slpA* at a site N-terminal to a post-translational cleavage site. It lacks detectable SLP subunits, and therefore an S-layer (Figure 3). However, it still does synthesize minor cell wall proteins such as Cwp2 and Cwp6. Growth of this strain is comparable to wild type R20291, except it does demonstrate a statistically significant earlier entry into stationary phase (Kirk *et al.*, 2017). A strain called FM2.5 revertant, created by reverting the point mutation in the FM2.5 *slpA* gene to recreate wild type R20291 (Kirk *et al.*, 2017), was also used as one of the controls in this study.

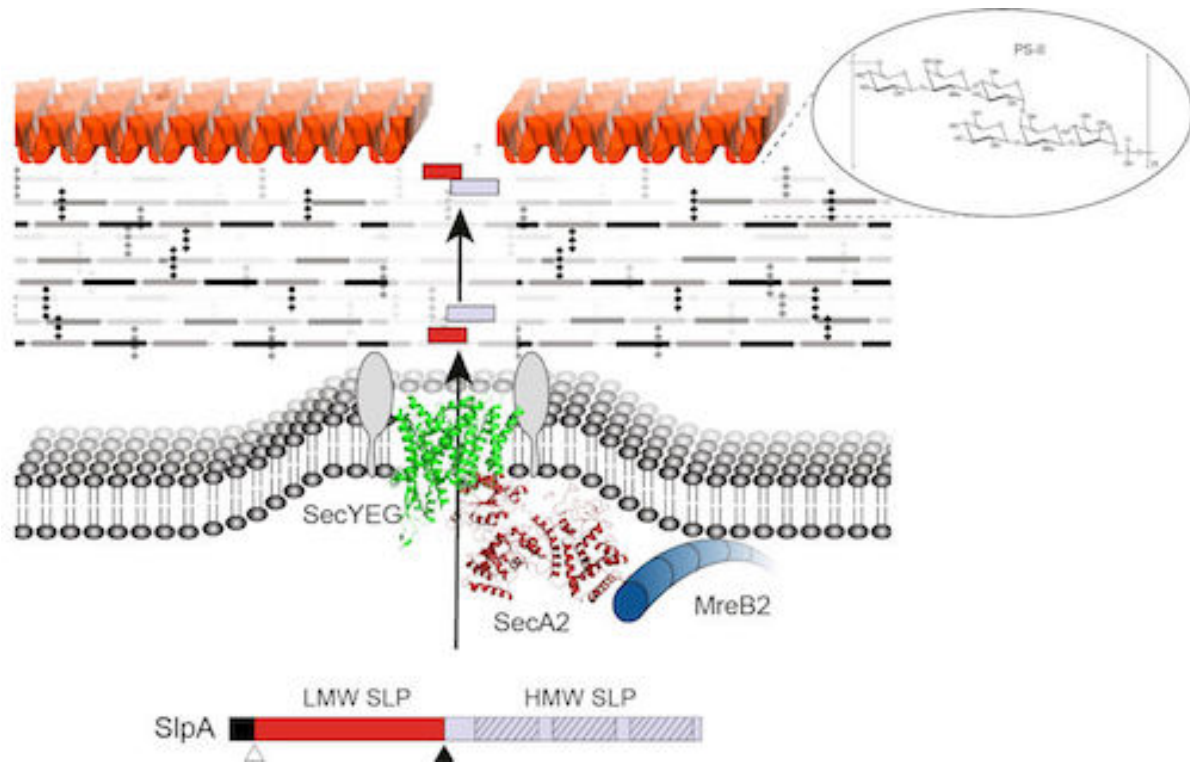


Figure 3: Schematic of S-layer formation in *C. difficile*.

The S-layer is depicted in orange and contains mature SlpA. Right below the S-layer, a mesh of peptidoglycan and cell wall polymers can be seen. Under that is the membrane that contains the SecYEG protein conducting channel. The SlpA protein is translated in the cytosol (below the membrane) and targeted for secretion across the membrane using secA2 (depicted in red) most likely via the SecYEG protein conducting channel (depicted in green). The Cwp84 cleaves the SlpA protein into low molecular weight (red rectangle) and high molecular weight (grey rectangle) protein subunits. These two subunits then assemble into a hetero-dimer that form the basic unit of the S-layer. Thus, the S-layer (orange) is mainly composed of low molecular weight-slp anchored to the cell wall (peptidoglycan and cell wall polymer layer) via cell wall binding domains of the high molecular weight subunit. Reproduced by permission from Dr. Robert Fagan.

1.3.4. Regulation of Toxin Expression and their Mode of Action of Toxins

C. difficile is transmitted through the oral-faecal route through spores. These spores can resist the acid pH of the stomach, to travel to the small intestine, where they germinate due to the presence of primary bile acids (Sorg and Sonenshein, 2008; Giel *et al.*, 2010). The *C. difficile* genome carries a 19.6 Kb region known as the pathogenicity locus (PaLoc). This locus includes the two genes that encode toxin A and toxin B, *tcdA* and *tcdB* (Hammond and Johnson, 1995; Braun *et al.*, 1996). Clinical strains that do not secrete at least one of these toxins appear to be avirulent in animal models (Kuehne *et al.*, 2010). The TcdA (308 kDa) and TcdB (270 kDa) proteins are two large glucosylating toxins and are primary mediators of *C. difficile* pathogenesis (Chandrasekaran and Lacy, 2017). These toxins belong to the family of large clostridial toxins (LCTs), which are glycosyltransferases that inactivate certain Rho and Ras GTPases (Chandrasekaran and Lacy, 2017). Some *C. difficile* strains produce binary toxin *C. difficile* transferase (CDT), a third toxin which is an actin-specific ADP-ribosyltransferase that can also contribute to virulence and disease severity (Chandrasekaran and Lacy, 2017). The toxins released act on the colonic epithelium and immune cells, inducing a host of mechanisms that result in inflammation, fluid secretion and tissue damage, all diagnostic features of CDI (Chandrasekaran and Lacy, 2017).

In addition to TcdA, TcdB and CDT, the PaLoc of most pathogenic strains also code for TcdC, TcdE and TcdR, three proteins that regulate toxin production and secretion (Bouillaut *et al.*, 2015; Monot *et al.*, 2015; Smits *et al.*, 2016). TcdR regulates its own expression through positive feedback (Mani *et al.*, 2002), and is a part of the extra-cytoplasmic function family of sigma factors and is vital in inducing the expression of *tcdA* and *tcdB* (Moncrief, Barroso and Wilkins, 1997; Mani and Dupuy, 2001). However, research regarding the role of TcdC have

resulted in a lot of conflicting viewpoints, with several studies propose that TcdC is an anti-sigma factor that negatively regulates toxin expression (Matamouros, England and Dupuy, 2007; Carter *et al.*, 2011).

The following is the mechanism by which *C. difficile* toxins bring about the symptoms of *C. difficile* infection (Di Bella *et al.*, 2016). Toxins released by *C. difficile* within the human gut bind to the host cell surface receptor and internalised through receptor-mediated cytosol through a clatherin- and dynamin-dependant mechanism (Jank and Aktories, 2008; Papatheodorou *et al.*, 2010). The endosome then undergoes acidification. The acidification process results in a pH-induced conformational change of the toxin structure, in turn allowing the exposure of hydrophobic regions and facilitating the entry of the toxin into the host cell (Qa'Dan, Spyres and Ballard, 2000; Barth *et al.*, 2001). The toxin moves from the endosome into the host cell through a pore-forming mechanism of translocation (Genisyuerk *et al.*, 2011). Once the toxin has entered the host cell it undergoes auto-catalytic cleavage resulting in the release of GTD, a glucosyltransferase domain of the toxin, which targets Rho proteins in the cytosol (Just *et al.*, 1995; Egerer *et al.*, 2007, 2009; Reineke *et al.*, 2007; Genisyuerk *et al.*, 2011). As a result of this the Rho GTPases undergo inactivation by glucosylation. Under normal conditions Rho proteins interact with host cell effectors like kinases and phospholipases, affecting several signal transduction pathways. These pathways in turn regulate multiple entities like the actin cytoskeleton, myosin filaments, cell cycle progression, cell division, phagocytosis and cytokine production (Popoff, 2014; Chen *et al.*, 2015; Jank, Belyi and Aktories, 2015). Glycosylation of Rho proteins not only inhibits their interactions with effectors, but it also causes the Rho proteins to irreversibly bind to the cell membranes,

preventing translocation of unaffected Rho to these membranes for signalling (Genth, Aktories and Just, 1999).

These processes result in the cytotoxic and cytopathic effects typical of CDI. The cytopathic effects are characterised by shrinking and rounding of cells, formation of neurite-like retraction fibres that block Rho-dependent signalling and disrupt the actin cytoskeleton and adherent and tight junctions, increase in epithelial permeability and loss of cell-cell contacts. All these processes are thought to contribute to CDI diarrhoea (Ottlinger and Lin, 1988). These cytopathic mechanisms lead to cell apoptosis and cell loss. The cell loss being due to the combination of inhibition of cell proliferation due to inhibition of cell cycle progression and actin dependant cytokinesis, combined with limited epithelial cell renewal (Triadafilopoulos *et al.*, 1987; Hecht *et al.*, 1988, 1992; Moore *et al.*, 1990; Johal *et al.*, 2004; Just and Gerhard, 2004; Yang *et al.*, 2008; Jank, Belyi and Aktories, 2015). The cytotoxic effects are characterised by cells upregulating a pro-apoptotic immediate early gene product RhoB, which briefly evades glucosylation while active and regulates programmed cell death (Gerhard *et al.*, 2005; Genth *et al.*, 2006; Huelsenbeck *et al.*, 2007). Another characteristic of the cytotoxic effect is the glycosylated RhoA-induced activation of the inflammasome, which is the probable cause of colitis and inflammation typical of CDI (Ng *et al.*, 2010).

1.4: *Clostridium difficile* Infection (CDI) treatment

Treatment for CDI includes discontinuation of the associated antibiotic and treatment with one of several different treatment approaches. These include metronidazole, which is given as the first-line antibiotic or vancomycin for severe cases of CDI (O'Horo *et al.*, 2014). Fidaxomicin is just as effective as vancomycin but has less of an effect on the microbiota and has a reduced risk of relapse (Mullane *et al.*, 2011; Louie *et al.*, 2012). Unfortunately, a full-course of Fidaxomicin is expensive (Bartsch *et al.*, 2013). Other treatment options include nitazonxanide, rifampin, immunoglobulins like Bezlotoxumab, probiotics and faecal microbiota transplant (FMT), all having their own list of pros and cons.

FMT has been used since 1958 for the treatment of pseudomembranous colitis (Eiseman *et al.*, 1958) and its current use in the treatment of CDI has shown over 90% success rate (Brandt *et al.*, 2012; van Nood *et al.*, 2013; Oprita *et al.*, 2016). Although FMT was highly efficacious in a single randomized trial, the procedure may not be the most aesthetically pleasing option (O'Horo *et al.*, 2014). In addition to that, there are risks involved in the clinical use of faecal matter, such as transference of other infections from donor to patient. Hence the FMT procedure involves screening donor faeces for any pathogens and checking donor's medical history for malignant, autoimmune and metabolic diseases (Gupta, Allen-Vercoe and Petrof, 2016). Following the success of FMT in treating CDI, there was a need for development of International/ European standardised protocols for donor screening, transfer of faecal samples among institutions and countries, and faecal suspension preparation (Terveer *et al.*, 2017). This need was met in 2015, by the foundation of Netherlands Donor Faeces Bank (NDFB), which developed standard protocols for donor recruitment, selection, screening, faecal suspension production, storage and distribution for FMT for the benefit of patients

suffering from recurrent CDI (Terveer et al., 2017). Additional risks of FMT include the side effects and long-term effects it may have on the patient. For example, composition of the gut microbiota has been shown to effect human health and metabolism (Clemente et al., 2012), and there are reports of cases with patient weight gain after FMT (Alang and Kelly, 2015). Given the drawbacks of FMT, companies and institutions have sought to build a synthetic cocktail of bacterial species that have a proven record of being beneficial for CDI resolution. This synthetic cocktail of carefully selected bacterial species would provide the benefits of FMT without the added dangers of donor-dependant effects. A study has shown that six carefully chosen phylogenically distinct intestinal bacterial species were sufficient to resolve CDI in mice (Lawley et al., 2012). Some examples of these synthetic compositions are the RePOOPulate human probiotic (Petrof et al., 2013) and rectal bacteriotherapy (Emanuelsson et al., 2014). Unfortunately, these synthetic compositions have had mixed results. We could speculate that this may be due to the effect of FMT being a result of the whole microbial community structure in donor faeces, rather than by a few critical bacteria (Wilson et al., 2019). Due to the lack of reliability of the synthetic compositions, research has shifted back to FMT and the search for super-donors, which are donors whose stool results in significantly more successful resolution of CDI than other donors (Wilson et al., 2019).

Having acknowledged that in some parts of the world, like Netherlands, there exists stringent protocols around FMT collection, screening, storage and admission, we must also acknowledge that this is not true for all countries around the globe. Recent unfortunate events within the U.S. have highlighted the severity of risks associated with administration of FMT. The therapy has not been approved by the Food and Drug Administration (FDA) of the United States Department of Health and Human Services (McSeveney, 2019). Although

unapproved by the FDA, the agency is still responsible for assuring patient safety when facilitating access to unapproved treatments, such as FMT, in the event of the patient being unresponsive to standard therapies (McSeveney, 2019). Therefore, it was the FDA that sent out an alert in July 2019, when two immunocompromised patients were diagnosed with infections caused by extended-spectrum beta-lactamase (ESBL)-producing *E. coli*, following receipt of investigational FMT (FDA, 2019). Both the patients had received stool from the same donor. The stool sample was not tested for extended-spectrum beta-lactamase-producing organisms prior to FMT (FDA, 2019). The infection proved fatal to one of the two patients. Tests conducted post-mortem revealed that the stored stool FMT preparations from this donor tested positive for the same ESBL-producing *E. coli* as the strains found in both patients (FDA, 2019). Following this incident, the FDA has now decreed that donor screening and stool testing protections are now required for any investigational use of FMT. The agency has identified the need of donor screening with a specific focus on risk factors of multi-drug resistant organisms (MDROs) and exclusion of donors at higher risk of colonisation by MDROs. The agency has also noted the need for testing of donor stool for MDROs and exclusion of samples that test positive for MDROs. FDA scientists have now identified the appropriate method and frequency of such testing (FDA, 2019).

Unfortunately, treatment of CDI is not the only problem that needs to be tackled: CDI has a tendency to relapse. Recurrent CDI (RCDI) occurs in about 20-30% of patients after initial CDI, and up to 45% of patients suffer subsequent recurrences (Johnson, 2009). Both initial and first recurrence CDI are treated with either metronidazole or vancomycin. RCDI with subsequent recurrences are treated with tapering or pulse-dose vancomycin (O'Horo *et al.*, 2014). Recurrence of CDI is not well understood. Studies have shown that reoccurrence is not due

to microbial resistance to vancomycin or metronidazole (Bartlett *et al.*, 1980) and is instead, most likely due to reinfection by the same or different *C. difficile* strains from the environment as with the initial infection ((Walters *et al.*, 1983; Young and McDonald, 1986; Wilcox *et al.*, 1998; Maroo and Lamont, 2006). Another cause if RCDI may be due to persistence of *C. difficile* spores in the patient gut, which germinate into vegetative cells after discontinuation or completion of antibiotic treatment (Tedesco, Gordon and Fortson, 1985; Cornely *et al.*, 2012). To elaborate on this, studies have also suggested that *C. difficile* spores and vegetative cells can also be held in bacterial biofilms within the gut, causing *C. difficile* infection at a later stage (James *et al.*, 2018; Vuotto *et al.*, 2018). Furthermore, there also exists evidence that individuals previously infected with *C. difficile* either in infancy or by acute infection later on in life and have developed the appropriate serum immune response to *C. difficile* toxin A, are much less likely to develop RCDI (Kyne *et al.*, 2000, 2001). Other contributing factors may include age (Kyne *et al.*, 2001), poor immune response to *C. difficile* and frequent dysbiosis of the gut (Johnson, 2009).

Studies evaluating efficacy of RCDI treatments present weak to moderate evidence to support their use. In some cases, number of RCDI studies on the treatment were very few or non-existent, as with the case of nitazoxanide and intravenous metronidazole therapy. Use of fidaxomicin for treatment of CDI and RCDI was intensively studied, but guidelines on appropriate use is currently lacking (O'Horo *et al.*, 2014).

In the face of growing antimicrobial resistance among the pathogenic bacteria, we currently find ourselves in need of newer antibiotics and treatment options for both primary CDI and

RCDI. This threat only grows with the passage of time, hence there is an urgent need of finding viable antimicrobial targets quickly and feasibly.

1.5: Genetic tools used in *C. difficile* research

Not much is known about the factors involved in adherence, colonisation and the complete mechanism of *C. difficile* pathogenesis, as compared to other well documented microbes, such as *E. coli* and *Salmonella*, or *Shigella* spp. This is largely due to the lack of well-developed mutagenesis tools available to study the species. However, recently developed tools have attempted to overcome this barrier.

For example, Clostron a mutagenesis technique that uses the mobile group II intron from the *ltrB* gene of *Lactococcus lactis* for the directed inactivation of specified genes (Heap *et al.*, 2007). Although the mutants developed by this technique are extremely stable (Heap *et al.*, 2007), it is not possible to make precise deletions or avoid the polar effects resulting from the insertion of a group II intron. An alternative to this technique that improved on the drawbacks, was generated in 2012, with the use of pseudosucide homologous recombination vectors (Cartman *et al.*, 2012). Genomic regions flanking the region to be altered were included in these vectors. These vectors were then introduced into the *C. difficile* bacterium where they modified the genome with two recombination events *via* the process of allele exchange. The plasmids contain sub-optimal origins of replication, that restrict rate of replication (Cartman *et al.*, 2012). So, when grown on plates with antibiotic selection, bacterial cells containing the plasmid have a restricted rate of growth. However, after first recombination occurs between the genomic DNA and the plasmid, the cell growth rate is no longer restricted. In this manner, cells where first recombination event has occurred can be

chosen by selecting for higher growth rate and therefore larger colonies. After second recombination occurs, the plasmid is excised from the genome and the plasmid is eventually cured from the strain (Cartman *et al.*, 2012). The plasmid contains a gene that codes for cytosine deaminase CodA enzyme that converts cytosine to uracil. If the bacterial cell still contains the excised plasmid, it will not be able to survive on plates supplemented with 5-fluorocytosine, as the CodA enzyme will convert it to 5-fluorouracil, which is toxic to the bacterium. There is a 50% chance of the bacterial cell growing on the 5-fluorocytosine plate being wild type *C. difficile*, with the other 50% being growth of a *C. difficile* mutant with the desired genetic modification (Cartman *et al.*, 2012). In addition to these techniques, use of transposons to alter gene expression has introduced newer methods of generating *C. difficile* mutants.

1.5.1. Use of transposons in Genetic Engineering

Transposons are motile genetic elements that can jump to new locations. Originally discovered by Barbara McClintock in 1950 in *Zea mays*, transposons are now identified across all kingdoms of life. In addition to changing its location within the chromosome, McClintock also discovered that depending on their position they could reversibly alter the expression of genes (McClintock, 1950). There are two classes of transposons, Class I elements are retroelements that transpose by use of a reverse transcriptase and an RNA intermediate. Examples of some Class I elements include Ty elements in yeast, intra-cisternal A particles (IAPs) in rodents, gypsy and copia-like elements in *Drosophila*, and Alu elements in primates (Hamer *et al.*, 2001). Class II elements are transposons that typically contain terminal inverted repeats, encode a transposase and transpose by excising themselves from donor DNA and reinserting themselves at another DNA site. Class II transposable elements include the

activator, suppressor-mutator and mutator elements in maize, Tn elements in bacteria, P-elements in *Drosophila* and the Tc1/mariner superfamily of transposons (Hamer *et al.*, 2001). The mariner transposable element has been used in this project.

By transposition, transposable elements are able to produce various genetic alterations like excisions, insertions, translocations or duplications at the site of transposable element integration. By DNA transposons integrating into exons, intron or regulatory regions; they are able to alter or inactivate expression of genes (Jordan, Saedler and Starlinger, 1968; Rubin, Kidwell and Bingham, 1982; Kazazian *et al.*, 1988; Clegg and Durbin, 2003; Lerman and Feder, 2005). By observing phenotypes of mutants with transposon inserts, the functionality of these disrupted loci can be deciphered.

In 1995, the Holden group developed a method of screening small pools of transposon mutants with signature-tagged mutagenesis (Hensel *et al.*, 1995). Within this method each transposon mutant carries a transposon with a unique DNA sequence tag. When a host is infected with a mixed population of mutants each with unique tags, it enabled easier identification of recovered mutants, especially ones with attenuated virulence phenotypes (Hensel *et al.*, 1995). Detection was done *via* PCR amplification, radiolabelling and hybridization analysis (Hensel *et al.*, 1995). Unfortunately, STM is a very labour and time intensive and screening every gene within the bacterial genome was simply not feasible. There was a need for a quicker and less labour-intensive process which was free of biases of selection by preconceived importance of genes.

Over the years, this need has led to the invention of a large assortment of independently developed transposon insertion sequencing (TIS) techniques, which can handle larger pools of mutants. The following are a few examples of such techniques used in genome-wide studies: insertion sequencing (INSeq), transposon insertion site sequencing (Tn-seq), high-throughput inserting tracking by deep sequencing (HITS) and transposon-directed insertion site sequencing (TraDIS). These experimental techniques vary in transposons used, complexity of libraries generated, constraints imposed by selective pressure used and reliability with which representative libraries are created and sequenced (Chao *et al.*, 2016). These differences in experimental parameters play a large role in the choice of TIS technique for a genome-wide study.

1.5.1.1. Transposon Directed Insertion Site Sequencing (TraDIS)

Transposon directed insertion site sequencing (TraDIS) uses Illumina sequencing on genomic DNA from pools of transposon mutants, to prime to the transposon and sequence outward into the adjacent target DNA of the bacterial genome (Langridge *et al.*, 2009). By aligning these reads to the reference genome, the position of the transposons can be deciphered. The frequency of gene insertions across annotated genes within the reference genome, displays a bimodal distribution (Langridge *et al.*, 2009) (Figure 4). This bimodal distribution is representative of genes essential and non-essential for growth. To elaborate on this, one mode of the bimodal distribution (left peak, Figure 4) represents genes which cannot tolerate insertions, as insertions within them severely inhibit cellular growth and mutants with these insertions display low fitness (Langridge *et al.*, 2009). The other mode in the bimodal distribution (right wide peak, Figure 4) is representative of genes that can tolerate transposon insertions as it does not adversely affect cellular growth and mutants with these insertions

are fit and well (Langridge *et al.*, 2009). However, there also are genes that can tolerate a few insertions and these fall an ambiguous classification of essentiality (Dembek *et al.*, 2015) (Trough between peaks, Figure 4). Among these ambiguous genes there also might be genes that display partial essentiality, where only certain domains within the gene are essential for growth. These will be explored further, within Chapter 3.

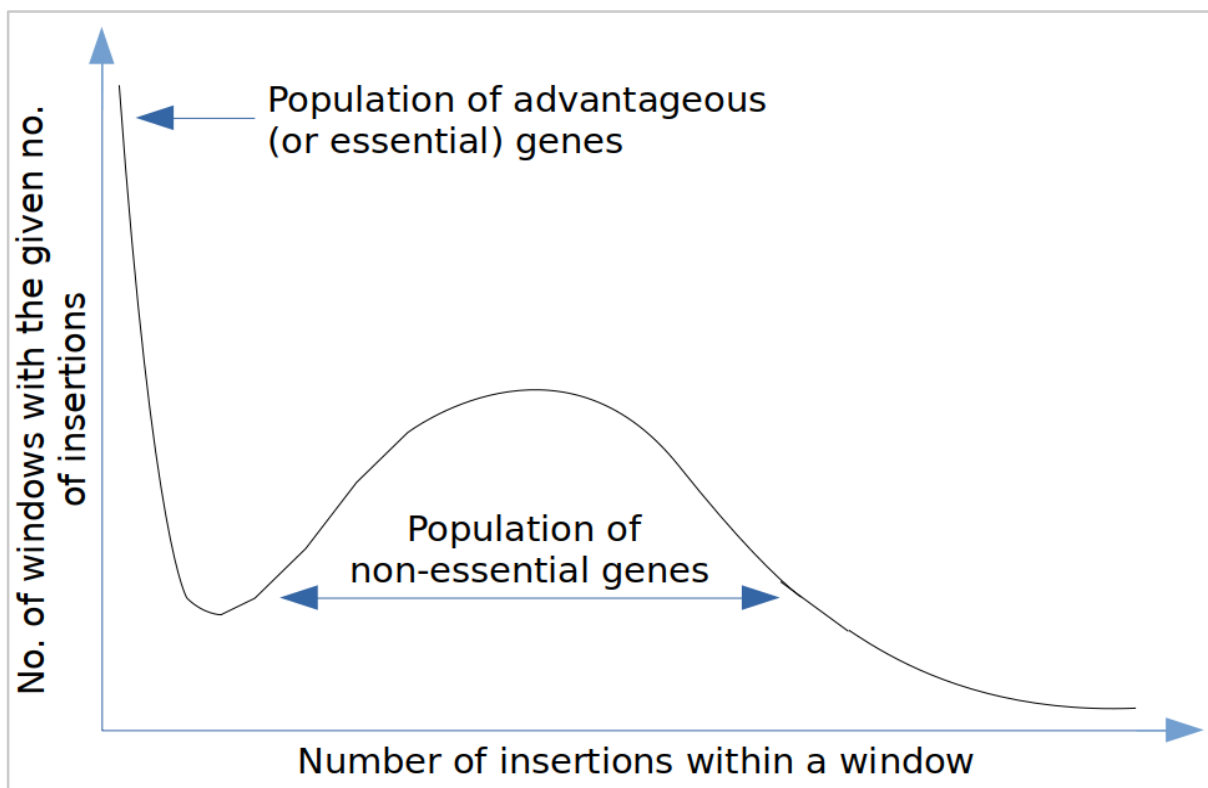


Figure 4: Schematic representation of a bimodal distribution within a library

Left narrow peak represents essential genes and is derived from mutants in the library that have low fitness/ or mutants that have died out. The right wide peak represents non-essential genes and is derived from fit mutants in the library. The trough between the two peaks/ modes represents ambiguous genes and is derived from mutants in the library that are not at peak fitness but are not sick either.

The TraDIS method can be further exploited, to test gene essentiality not just for growth, but for gene essentiality under other selective pressures like *in vitro* sporulation, germination (Dembek *et al.*, 2015), *in vivo* colonisation and survival as well. In these cases the newly generated library is sampled and the pool of mutants rescued after the selective pressure is sampled as well. The bacterial mutants from these samples are lysed and prepared for sequencing. The genomic DNA is sequenced from the transposon outwards. Reads containing the transposon tag are selected for and aligned against the reference genome. The control library is compared to the library exposed to selective pressure (Langridge *et al.*, 2009).

In 2010, a mariner-based transposon system was devised to carry out TIS within *C. difficile*. The mariner transposable element functions by randomly inserting into a TA site within the genome, by a cut and paste mechanism. This makes it ideal for use as a transposon in genomes with low-GC content, such as the *C. difficile* genome (Cartman and Minton, 2010). Unfortunately, the inefficiency of the mariner plasmid delivery into *C. difficile* by conjugation and the lack of control over timing of transposition largely limited the size and complexity of the library the laboratory was able to generate. In 2015 that changed with the design of a novel conditional mariner delivery vector, which enabled generation of the first comprehensive high-density transposon library (i.e. highly-saturated transposon library) in *C. difficile* (Dembek *et al.*, 2015).

There are many advantages to using random transposon mutagenesis along with TraDIS to generating and screening deletion mutants. For example, the method is more rapid and feasible compared to generation and screening of single deletion mutants using the *codA* allele exchange method. Additionally, gene fitness and therefore essentiality can be

determined under a wide variety of selection pressures with this method. The method allows for nucleotide-level resolution when locating transposons. Above all, the method allows for analysis of fitness levels of different genomic regions, independent of annotation (Barquist, Boinett and Cain, 2013). However, there are still concerns about TraDIS that need to be addressed. It is generally assumed that transposons used for TIS do not demonstrate biases for certain genomic sequences. However, in practice this is not true. It must be noted that at the time of writing this thesis, there is one known bias of the mariner transposon. Histone like nucleotide structures preferentially bind to AT-rich sequences, modulating the frequency of transposon insertion (Kimura *et al.*, 2016). This is especially concerning as *C. difficile* is an AT-rich genome and nucleotide binding proteins with a preference for AT-rich sequences can alter the frequency of mariner transposon insertion. The output data might therefore systematically reflect factors independent from the role of the gene in fitness of the mutant. This bias must be taken into account when drawing biological conclusions from gene essentiality data. As the transposon is used in higher-density libraries (Kimura *et al.*, 2016), an added disadvantage of the method is that only genomic regions that can tolerate insertion under the *in vitro* conditions of library creation, can be further assayed under the chosen selective pressure condition. To elaborate, only genes active at 37°C, in mutants growing on BHI + ATc + Lincomycin plates will be able to tolerate transposon insertions. Any genes inactivated in these conditions due to 3-dimensional attributes of the DNA would not be able to tolerate transposon insertions. Therefore, mutants of these genes would not be present in the input library and by extension we would not be able to assess essentiality of such genes under *in vivo* selective pressures. Furthermore, range of fitness effects is dependent on mutant abundance in this initial library (Barquist, Boinett and Cain, 2013). And finally, recovery of the library from a frozen stock is never 100% viable due to uncontrollable factors

such as stochastic loss and cold shock. As a result the sequencing data would not be completely replicable.

As the years progress, novel methods of mutant generation have emerged. The latest uses CRISPRi for targeted knock-down of gene expression in *C. difficile* (Müh *et al.*, 2019). Clustered regularly spaced short palindromic repeats interference or CRISPRi, is a simplified version of the bacterial CRISPR/Cas9 antiviral defense system, that allows for the sequence specific repression of gene expression in eukaryotic and prokaryotic (Qi *et al.*, 2013). The system uses the type II CRISPR system's RNA-guided DNA endonuclease, Cas9, along with a guide RNA, to create a complex that will specifically bind to a targeted region of the genome and interfere with RNA polymerase binding, transcription factor binding or transcriptional elongation. The developer claims that the system represses without any detectable off-target effects and can be used for repression of multiple target genes simultaneously and reversibly (Qi *et al.*, 2013). Unfortunately, recent research has shown that CRISPRi has polar effects on downstream and in some cases upstream genes as well (Peters *et al.*, 2016) and is therefore inferior to targeted gene deletions. Additionally, the current CRISPRi plasmid in use with *C. difficile* is not suitable for animal studies due to its instability and requirement for xylose for induction (Müh *et al.*, 2019). However, the advantages of the CRISPRi plasmid far outweigh its limitations as the use of the plasmid is not background specific, is a lot faster compared to deletion mutants and is an excellent tool for inactivating essential genes. It can also be used to fine tune expression of genes to suboptimal levels and allows interpretation of gene silencing without the implication of compensatory changes that are seen in deletion mutants (Müh *et al.*, 2019).

1.6: Project Overview

Considering the urgent need of identifying novel antimicrobial targets for *C. difficile*, it has become imperative to understand the mechanisms of colonisation and survival within the gut. This project was designed to help relate gene function to gene locus on a genome wide scale using *in vitro* assays and a rodent model of CDI. We have done this by combining insertion mutagenesis with high-throughput TraDIS to determine gene essentiality under different conditions.

This project builds upon a preliminary study (Dembek *et al.*, 2015) that used mariner transposon mutagenesis to identify essential genes and genes required for sporulation of approximately 75,000 R20291 mutants (Dembek *et al.*, 2015). Following this preliminary *in vitro* study, an *in vivo* experiment was conducted (Figure 5), where spores from the starter library were used to infect 10 mice following induction of dysbiosis by treatment with clindamycin. Colonisation of the mice was monitored by counting CFUs of *C. difficile* cultured from faecal pellets. Faecal pellet samples were also harvested 1-day post-infection and again after 3 and 5 days. To obtain sufficient *C. difficile* DNA from these faecal samples, each pellet was put through an enrichment broth which enriched for *C. difficile* within the sample (Figure 5). As a control, the initial library was grown under the same conditions, to control for any changes made to the population composition by factors other than the mouse gut (for example, changes cause by the enrichment broth) (Figure 5). Sequencing and TraDIS analysis of the samples (Figure 5) yielded data on genes essential for colonisation and survival of *C. difficile* within the mouse gut. A deeper bioinformatics analysis on this data also gave us an insight into pathways and mechanisms involved. The project also sought to improve on the library generation techniques of TraDIS. These improvements were applied to the generation

of new libraries in a strain of *C. difficile* that lacks its characteristic S-layer. We hope that the data generated from these libraries will hopefully confirm what we know about the S-layer (Kirk *et al.*, 2017) and uncover it's more complex functions. The following are the aims of the project:

- Determine genes essential for *C. difficile* colonisation and survival under a variety of *in vivo* and *in vitro* conditions
- Improve the efficiency of insertion mutagenesis and the TraDIS technique
- Determine any interesting and/ or unique genomic features in the hyper-virulent R20291 strain through phylogenetic analysis

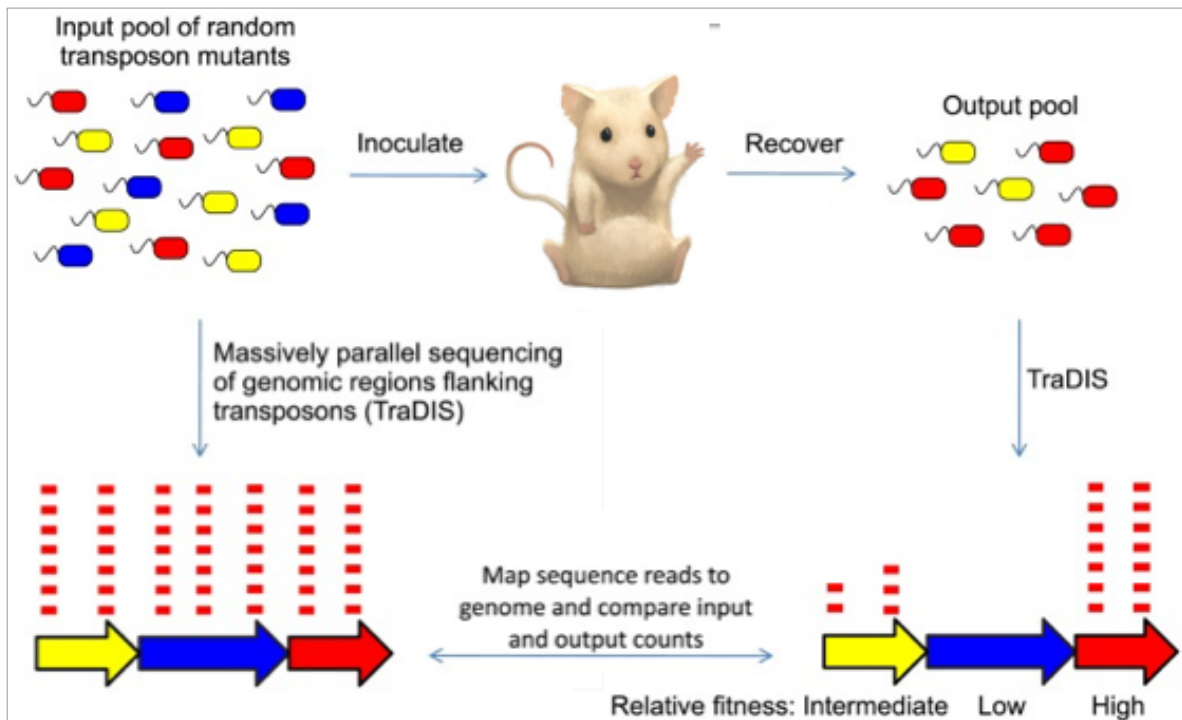


Figure 5: Schematic of the in vivo experiment and TraDIS sequencing.

An input pool of random transposon mutants was created using a conditional mariner vector. The library was used to inoculate mice via oral gavage. Faecal matter from the mice was collected and passed through a *C. difficile* enrichment broth. As a control, the library was also passed through the enrichment broth without being passed through an animal. All the libraries were sequenced from the transposons outwards. Data was aligned to an annotated reference genome. Genes with low mutant fitness are essential (blue), genes with high mutant fitness are non-essential (red) and genes with intermediate mutant fitness are ambiguous in essentiality (yellow).

1.7: Scope of thesis

Analysis of the data sets obtained from TraDIS and high-throughput sequencing helped identify genes essential for colonisation, survival and pathogenesis of *C. difficile* within the mouse gut. By combining our present knowledge of these genes and the context of their essentiality, we could elucidate the specific mechanisms critical for colonisation, survival and pathogenesis. Additionally, TraDIS experiments done on S-layer-deficient *C. difficile* strains, would help us identify genes that help the strain compensate for a lack of a S-layer. These mechanisms could help shed light on potential protein targets or even alternative treatment methods. Hence, the scope of thesis includes but is not limited to development of new antimicrobial targets to combat *C. difficile* infection.

A total of 62 *in vivo* datasets and 16 *in vitro* data sets have been analysed for this project, making it one of the largest studies of its kind. The production of new libraries with higher transposition frequencies is underway. This wealth of data generated would help discern any transposon bias if it does indeed exist. The method of library generation has also been revised and optimised such that libraries no longer need to be produced on solid agar but can be generated in liquid media. Generating the library in liquid media is a less expensive and quicker than growth on solid agar. Additionally, growth in liquid media would mean that libraries size can be greatly increased, translating to higher resolution of data generated (i.e. fewer number of base pairs between transposons). This higher resolution allows us to discern gene essentiality data of smaller genes which may have been missed in previous such experiments.

In addition to optimizing the TraDIS technique for *C. difficile*, this project has resulted in the set up and development of a TraDIS pipeline in Sheffield. This pipeline will see the elucidation of gene essentiality in multiple different bacterial species, under a variety of different *in vitro* conditions. For example, the TraDIS pipeline optimised within this project will also be used for the analyses of TraDIS data from *Clostridium saccharoperbutylacetonicum*. That analysis will focus on identifying genes involved in butanol production, to help optimise butanol production efficiency of the bacterium.

Chapter 2: Materials and Methods

Methods and materials outlined within this chapter are ones used across multiple Results chapters. Specialist techniques which are being developed and optimised within this thesis, are described within their respective Results chapters.

2.1: Bacterial strains, oligonucleotides, plasmids and growth conditions

This section outlines the strains (Table 1), plasmids (Table 2) and media or agar (Table 3) within the thesis. The section also outlines stock and working concentrations of antibiotics and additives used in the media and/or agar (Table 4). Specific antibiotics or additives supplemented into the media are mentioned within the Methods subsection of the respective thesis chapters.

Please note, as *C. difficile* is an anaerobic bacterium, protocols that deal with the species often involve using “pre-reduced” broth or agar. The term is used within this thesis to describe broth that has been left in an anaerobic cabinet until all the oxygen within it has been lost (2 hrs for 5 mL of broth). It has also been used to describe agar plates that have been kept in the cabinet for 15 min until the surface layer of oxygen on the agar has been lost. It is also worth noting that anaerobic cabinets get rid of oxygen by reacting a hydrogen gas mix with oxygen in the presence of a palladium catalyst, to produce a water molecule. Unfortunately, this leads to a layer of moisture forming on the surface of equipment newly introduced into the cabinet. As moisture interferes with spectroscopy readings, equipment like cuvettes and spectrometers are usually put into the cabinet the day before the experiment and left overnight so the moisture generated has a chance to vapourise.

Table 1: *C. difficile* and *E. coli* strains used within this thesis.

Strain	Ribotype	Source	Date Isolated/ created (and source where possible)
<i>C. difficile</i> 630	RT012	Isolated from a patient with severe pseudomembranous colitis in Zurich, Switzerland	1982 (Wüst <i>et al.</i> , 1982)
<i>C. difficile</i> R20291	RT027	A hypervirulent strain isolated following an outbreak in Stoke Mandeville Hospital, U.K.	2006 (Stabler <i>et al.</i> , 2009)
<i>C. difficile</i> FM2.5	RT027	AvidBiotics. Diffocin resistant derivative of R20291.	09/07/2013 (Kirk <i>et al.</i> , 2017)
<i>C. difficile</i> FM2.5R	RT027	FM2.5 reverted (plasmid pRPF233 recombination with chromosome to restore <i>slpA</i> , plasmid then lost)	31/03/2014 (Kirk <i>et al.</i> , 2017)
<i>C. difficile</i> CDR20291 Δ 3222	RT027	pNJF009 used to create deletion of CDR20291_3222	21/05/2018
<i>C. difficile</i> CDR20291 Δ cbiD	RT027	pNJF009 used to create deletion of CDR20291_cbiD	22/06/2018
<i>C. difficile</i> CDR20291 Δ 1329	RT027	pNJF009 used to create deletion of CDR20291_1329	21/09/2018
<i>C. difficile</i> CDR20291 Δ purL	RT027	pNJF009 used to create deletion of CDR20291_purL	22/09/2018

<i>C. difficile</i> CDR20291::catP	RT027	Control for co-infection animal experiments with TraDIS deletion mutants	12/12/2018
<i>E. coli</i> Top 10	-	ThermoFisher Scientific. Chemically Competent <i>E. coli</i> used interchangeably with <i>E. coli</i> NEB5 α .	Commercially available
<i>E. coli</i> NEB5 α	-	New England BioLabs. Chemically Competent <i>E. coli</i> used for high efficiency transformations.	Commercially available
<i>E. coli</i> CA434 (HB101 carrying R702)	-	Electrocompetent <i>E. coli</i> donor strain used for conjugative transfer of plasmids into <i>C. difficile</i> .	Regularly made in-house.

Table 2: List of plasmids used within this thesis.

Plasmid Name	Description	Source
pRPF144	pRPF144-P _{cwp2} (<i>gusA</i>)	(Purcell <i>et al.</i> , 2012)
pRPF185	pRPF185-P _{tet} (<i>gusA</i>)	(Purcell <i>et al.</i> , 2012)
pRPF215	Mariner transposon vector	(Dembek <i>et al.</i> , 2015)
pRPF239	pRPF239-P _{cpr} (<i>gusA</i>)	(Purcell <i>et al.</i> , 2012)
pJAK080	Vector to introduce DNA into the <i>pyrE</i> locus of 630	Dr. Joseph Kirk
pJAK081	Vector to introduce DNA into the <i>pyrE</i> locus of R20291	Dr. Joseph Kirk

pJAK112	Recombination vector for R20291	Dr. Joseph Kirk
pNJF001	pRPF239-P _{cpr} (<i>polA</i>)	This work
pNJF002	pRPF144-P _{cwp2} (<i>polA</i>)	This work
pNJF003	pRPF185-P _{tet} (<i>polA</i>)	This work
pNJF004	pMTL-SC7315 + upstream of <i>polA</i> in 630 + P _{tet} and accessories + N-term <i>polA</i>	This work
pNJF005	pMTL-SC7215 (homology arms for <i>CDR20291_2212</i> deletion)	This work
pNJF006	pJAK112 (homology arms for <i>CDR20291_cbiD</i> deletion)	This work
pNJF007	pJAK081 with <i>mreB</i> replaced with <i>polA</i>	This work
pNJF009	pJAK112 (homology arms for <i>CDR20291_3222</i> deletion)	This work
pNJF010	pJAK112 (homology arms for <i>CDR20291_1329</i> deletion)	This work
pNJF011	pJAK112 (homology arms for <i>CDR20291_purL</i> deletion)	This work
pNJF012	pJAK112 (homology arms for <i>CDR20291_0593</i> deletion)	This work
pNJF013	pRPF215 mariner transposon with c9 <i>himar1</i> instead of WT <i>himar1</i>	This work
pNJF014	pJAK080 with <i>polA</i> replacing <i>mreB</i>	This work

pNJF015	pJAK112 (homology arms for <i>CDR20291_0386</i> deletion)	This work
pNJF016	pJAK112 (homology arms for <i>CDR20291_hemD</i> deletion)	This work
pNJF017	pJAK112 (homology arms for <i>CDR20291_treR</i> deletion)	This work
pNJF018	pJAK112 (homology arms for <i>CDR20291_1922 (araC)</i> deletion)	This work
pNJF019	pJAK081 with <i>mreB</i> replaced with <i>catP</i> + native promoter	This work

Table 3: List of the media and agar used within this thesis.

Media	Components (per 400mL)	Amount	Use
LB	Fisher LB broth powder	10 g	LB broth was used to grow <i>E. coli</i> (NEB-5 alpha and CA434s) overnight cultures
LBA	Sigma LB agar powder	16 g	LBA plates were used to grow <i>E. coli</i> strains: NEB-5 alpha and CA434s
BHIA	Thermo Scientific BHI Agar powder	20.8 g	Pre-reduced BHIA plates were used to grow <i>C. difficile</i> within the anaerobic cabinet

Tbf 1	Per 250mL: KAc RbCl ₂ CaCl ₂ .2H ₂ O MnCl ₂ .4H ₂ O glycerol pH 5.8 (achieved using 0.2 M acetic acid	0.735 g 3.025 g 0.37 g 2.475 g 37.5 mL 5.8	To make CA434 Competent Cells
Tbf 2	Per 250mL: MOPS RbCl ₂ CaCl ₂ .2H ₂ O Glycerol pH (achieved using KOH)	0.21 g 0.12 g 1.1 g 15 mL 6.5	To make CA434 Competent Cells
TY	Bacto Tryptose Yeast Extract	12 g 8 g	Pre-reduced TY broth was used to grow <i>C. difficile</i> strains
TYG	Bacto Tryptose Yeast Extract Glucose	12 g 8 g 0.5 %	TYG broth was used to grow <i>C. difficile</i> for the transposon library as opposed to TY, as the glucose increases growth rate and extent. The glucose and TY were autoclaved separately, and glucose was later added to the TY.

			Autoclaving the mixture together would burn the media.
SOC	NEB Super Optimal broth with Catabolic repression	700 μ L for 50 μ L cells	To provide optimum growth conditions for transformed <i>E. coli</i>
Glycerol stock	<i>C. difficile</i> and <i>E. coli</i> strains <i>C. difficile</i> TraDIS strains	20% 10%	Used to create glycerol stocks for storage in a -80°C freezer

All media was made up to volume with distilled water, mixed thoroughly, then autoclaved. The only exception to this was the TYG broth, where the TY broth and 10% glucose was made separately, autoclaved and then mixed together after autoclaving. For agar plates the media was cooled to approximately 50°C before addition of supplements. Plates used to grow *C. difficile* were pre-reduced in the anaerobic cabinet for a minimum of 15 min before use. Broth used to grow *C. difficile* was cooled then pre-reduced in the anaerobic cabinet for a minimum of 2 hours per 5 mL broth, before inoculating the media.

Preparation of *C. difficile* Minimal Media slightly differs to the preparation of other media. Filter sterilised components were prepared as follows:

Amino acids (5X): Prepared fresh on the day, 80 mL solution, filter sterilized and incubated at 50°C

Casamino Acids 4 g in 80 mL

L-Tryptophan 0.2 g in 80 mL

L-Cysteine 0.2 g in 80 mL

Salts (10X): Prepared in stock of 400 mL, autoclaved and 40 mL incubated at 50°C

Na₂HPO₄ 20 g in 400 mL

NaHCO₃ 10 g in 400 mL

KH₂PO₄ 3.6 g in 400 mL

NaCl 3.6 g in 400 mL

Glucose (20X): Prepared in stock of 200 mL, autoclaved and 20 mL incubated at 50°C

D-Glucose 40 g in 200 mL

Trace Salts (50X): Prepared in stock of 100 mL, autoclaved and 8 mL incubated at 50°C

(NH₄)₂SO₄ 0.2 g in 100 mL

CaCl₂.2H₂O 0.13 g in 100 mL

MgCl₂.6H₂O 0.1 g in 100 mL

MnCl₂.4H₂O 0.05 g in 100 mL

CoCl₂.6H₂O 0.005 g in 100 mL

Iron (100X) Prepared fresh on the day in stock of 10 mL, filter sterilised and 4 mL incubated at 50°C

FeSO₄.7H₂O 0.004 g in 10 mL

Vitamins: Prepared in stocks of 2 mg/mL, filter sterilized and then 0.4 mL of each was added to 400 mL CDMMA. Stocks were stored at -20 °C.

D-Biotin 400 µL

Calcium-D-Pathothenate 400 mL

Pyridoxine 400 mL

5-FC: Prepared in stocks of 10 mg/mL, filter sterilized and then 2 mL was added to 400 mL CDMMA. Stocks were stored at -20°C.

6 g agar was added to 250 ml of distilled water and the mixture was autoclaved. After being cooled to approximately 60°C, all solutions incubated in the 50°C incubator were added to

the agar solution (amino acids, salts, glucose, trace salts, iron, vitamins and 5-FC). The mixture was swirled and then poured into petri dishes.

Table 4: Stock and working concentrations of antibiotics and additives added to the media.

Antibiotic/ additive	Stock Concentration	Solvent	Working Concentration
Carbenicillin	50 mg/mL	H ₂ O	50 µg/mL
Kanamycin	50 mg/mL	H ₂ O	50 µg/mL
Chloramphenicol	30 mg/mL	70% EtOH	15 µg/mL
Thiamphenicol	15 mg/mL	MeOH	15 µg/mL
Erythromycin	5 mg/mL	70% EtOH	5 µg/mL
Lincomycin	20 mg/mL	H ₂ O	20 µg/mL
Cycloserine	50 mg/mL	H ₂ O	250 µg/mL
Anhydrotetracycline	2 mg/mL	EtOH	20-500 ng/mL
Nisin	1 mg/mL	H ₂ O	1 µg/mL
Hypoxanthine	-	H ₂ O	0.2 mM
Adenine	-	H ₂ O	1 mM

2.3: Nucleic acid methodologies

2.3.1. Purification of plasmid and genomic DNA

2.3.1.1. Purification of plasmid DNA

Purification of plasmid DNA was performed using either the GeneJET Plasmid Miniprep Kit or the NucleoSpin Plasmid Kit. A 5mL overnight was set up in a 50mL Falcon tube using LB, supplemented with the appropriate antibiotic to select for the plasmid and inoculated with a single *E. coli* colony. The following morning, the overnight was harvested by centrifugation at 4000xg for 10 minutes and the supernatant was discarded, removing as much of the liquid as possible.

For the NucleoSpin Plasmid Kit the following protocol was followed:

The cell pellet was re-suspended in 250 μ L of buffer A1 and the mixture was transferred to a 1.5mL microcentrifuge tube. Buffer A2 (250 μ L) was added and the tube was mixed by inverting 6-8 times. The solution went from being cloudy blue to being translucent blue due to cell lysis caused by buffer A2. Buffer A3 (300 μ L) was added to neutralise the mixture and produce a white precipitate of all the protein and chromosomal DNA. Tube was inverted 6-8 times. After neutralisation the entire blue mixture turns colourless with white flecks. Clarification of lysate was done by centrifuging the tube at 11000xg for 5min at room temperature. A NucleoSpin Plasmid Column was placed in a 2mL Collection Tube. About 750 μ L of the supernatant was transferred to the NucleoSpin Plasmid Column and the column and collection tube were centrifuged at 11000xg for 1 min. While the supernatant passed through the silica membrane the plasmid DNA bound to the membrane. Flow through was discarded and the column replaced into the collection tube. The silica membrane in the column was washed by adding Buffer A4 supplemented with ethanol (600 μ L) to the column and

centrifuging the column and collection tube at 11000xg for 1 min. Flow through was discarded and column replaced into the empty collection tube, after which they were spun at 11000xg for 2 min to dry the column. Collection tube was discarded, and the column was placed into a fresh 1.5 mL microcentrifuge tube. Nuclease free water (60 μ L) was pipetted into the column and the column was left to stand for 2 min to elute the plasmid DNA attached to the membrane. The column and microcentrifuge tube were spun at 11000g for 1 min. What is left in the microcentrifuge tube is the plasmid DNA in nuclease free water. Concentration of the plasmid DNA in this mixture was measured using the Thermo Scientific Nanodrop Lite Spectrophotometer or DeNovix DS-11 Spectrophotometer. Care was taken throughout purification to prevent the tapered end of the column touching the collection tube.

For the GeneJet Plasmid Miniprep Kit the following protocol was followed:

The cells were resuspended in 250 μ L of resuspension buffer and the mixture was transferred to a microcentrifuge tube. The bacteria was thoroughly resuspended using pipettes and a vortex to ensure no cell clumps were left behind. A 250 μ L aliquot of the lysis solution was added to the mixture and the tube was inverted 4-6 times until the mixture became viscous and slightly clear. A 350 μ L aliquot of the neutralisation solution was added and the tube was inverted 4-6 times once again. A white flaky suspension had started to form. These white flakes were the cell debris and chromosomal dna, which was pelleted by centrifuging the tubes at 11000xg for 5 min. The supernatant was pipetted into a GeneJet spin column with a collection tube, without disturbing the white pellet. The column and collection tube were centrifuged at 11000xg for 1 min. The flow through was discarded and the column was placed back in to the collection tube. About 500 μ L of the wash buffer was added to the column. The column and collection tube were centrifuged at 11000xg for 1 min, flow through

was discarded and the column was placed back into the collection tube. This wash step was repeated one more time and the flow through was discarded. The column and the collection tube were centrifuged for an additional 1 min to remove residual wash solution. The GeneJet spin column was then transferred to a fresh 1.5 mL microcentrifuge tube and 60 μ L of nuclease free water was added to the center of the membrane in the column. The column and microcentrifuge tube were incubated at room temperature for 2 min then centrifuged at 11000xg for 2 min. The flow through contained the purified plasmid.

2.3.1.2. Purification of genomic DNA (gDNA)

2.3.1.2.1. Purification of genomic DNA using phenol extraction

This method was used if good quality DNA was required, for example, for sequencing or PCR amplification of DNA fragments to be used in cloning. 5 mL TY broth (supplemented with appropriate antibiotics if required) was inoculated using a single colony of *C. difficile*. The next morning, 1.5mL of the overnight culture was harvested by centrifugation at 11000xg for 5 min. Supernatant was discarded and pellet was re-suspended in 200 μ L of lysis buffer (200mM NaCl, 50 mM EDTA, 10mM Tris-HCl pH 8.0). If gDNA would only be used for PCRs, PBS was used instead of lysis buffer. A 10 μ L aliquot of *C. difficile* endolysin was added and the mixture was incubated at 37°C in a water bath for an hour. Pronase (10uL) was then added followed by a 55°C incubation for an hour. 80 μ L of 10% N-laurylsarcosine solution was added, followed by incubation of the mixture at 37°C for 1 hour.

The mixture was then transferred to a 1.5mL heavy phase lock gel (PLG) tube. An equal volume of phenol:chloroform:isoamyl alcohol (25:24:1) and mixed by inversion. The emulsion was centrifuged at 18000xg for 2 min. The aqueous phase supernatant was then transferred

to a fresh PLG tube, an equal volume of phenol:chloroform:isoamyl alcohol (25:24:1) was added once again and mixed by inversion. The emulsion was centrifuged at 18000xg for 2 min once again and the aqueous phase supernatant was transferred to yet another fresh PLG tube. This time, an equal volume of chloroform:isoamyl alcohol was added to the mixture, sparing the phenol this time around. The emulsion was centrifuged at 18000xg for 2 min. The aqueous phase supernatant was transferred into a new 1.5mL microcentrifuge tube.

The DNA was precipitated by adding 2.5 volumes of ice-cold 99% ethanol or 1 volume of ice-cold isopropanol if space was lacking in the microcentrifuge tube. The mixture was incubated overnight at -20°C, but only for 30 mins when required urgently. The mixture was centrifuged at 1700xg for 15 min at 4°C, after which a white pellet of DNA was visible. The supernatant was discarded the pellet was washed with 500 µL of 70% ethanol. The microcentrifuge tube was spun at 1700xg for 10 mins at 4°C, after which the ethanol was discarded. The pellet was air dried for 15 min, then re-suspended in 50 µL of nuclease-free water. If there was any difficulty re-suspending the pellet, the mixture was left at 4°C overnight, as excessive pipetting would shear the gDNA. Quantity and quality of gDNA was determined using the Thermo Scientific Nanodrop Lite Spectrophotometer or DeNovix DS-11 Spectrophotometer and gel electrophoresis.

2.3.1.2.2. Purification of genomic DNA using Genomic Wizard Kit

If high quality gDNA was not required (e.g. for PCR screening), the Genomic Wizard Kit was used. This kit sacrifices some of the quality of the phenol preparation sample, however the sample derived can be stored for later use, unlike a chelex preparation (described later). Overnights were set up using 5ml of the TY (supplemented with respective antibiotics if

required), inoculated with a single colony of *C. difficile*. The next morning, 1mL of the overnight culture was transferred to a 1.5mL microcentrifuge tube. The microcentrifuge tube was spun down at 13000-16000xg for 2 min to pellet the cells. Supernatant was discarded and the pellet was resuspended in 480 μ L of 50mM EDTA. Purified bacteriophage endolysin CD27L catalytic domain (Mayer, Narbad and Gasson, 2008) (10 μ L amidase + 110 μ L NFH_2O) was gently pipetted into the mixture, to bind to and hydrolyse the cell wall weaken the cell wall, so that efficient lysis can take place (Mayer, Narbad and Gasson, 2008). the sample was incubated at 37°C for 30-60 min. The mixture was then spun down at 13000-16000xg for 2 min and the supernatant was discarded. Nuclei Lysis Solution (600uL) was used to re-suspend the cells. The mixture was incubated at 80°C for 5 min to lyse the cells, then cooled to room temperature. RNase Solution (3uL) was added to the cell lysate and the tube was inverted 2-5 times to mix its contents. The sample was then incubated at 37°C for 15-60 min and then cooled to room temperature. Protein Precipitation Solution (200uL) was added to the RNase-treated cell lysate and vortexed vigorously at high speed for 20 seconds to mix the protein precipitation solution with the cell lysate. The sample was then incubated in ice for 5 min, then centrifuged at 13000-16000xg for 3 min.

The supernatant containing the DNA was transferred to a clean fresh 1.5mL microcentrifuge tube containing 600 μ L of room temperature isopropanol. The mixture was gently mixed by inversion until thread-like strands of DNA formed a visible mass. The tube was spun at 13000-16000xg for 2 min. The supernatant was carefully poured out of the tube and the tube was drained on absorbent paper. 600 μ L of 70% room-temperature ethanol was added and the tube inverted several times to wash the DNA pellet. The tube was spun down at 13000-16000xg for 2 min and the ethanol was carefully aspirated. The tube was drained on clean

absorbent paper and allowed to air dry for 10-15 min. DNA Rehydration Solution (100 μ L (composed of 10mM Tris-HCl pH 7.4 and 1mM EDTA pH 8.0)) was added to the tube and incubated for 1 hour at 65°C, periodically mixing the solution by gently tapping the tube to rehydrate the DNA. Alternatively, if time was available, DNA was rehydrated by incubating it overnight in the DNA rehydration solution, at room temperature or at 4°C. The rehydrated DNA was stored in a freezer to prevent degradation.

2.3.1.2.3. Chelex preparation for quick screening of gDNA or plasmid DNA

In the event that presence or absence of a certain region of the genomic DNA or plasmid DNA needed to be checked within *C. difficile*, a chelex preparation was a quick alternative to gDNA purification using phenol or the Genomic Wizard Kit. Here 100 μ L of nuclease free water was added to a PCR tube. A mini spatula was used to transfer a small amount of chelex beads (approx. 20-30 beads) into this PCR tube. A loop was used to mix a single *C. difficile* colony into the slurry. The slurry was heated to 100°C for 10 mins, left to cool for a minute, then 2 μ L of the chelex preparation was used in 20 μ L of the desired PCR reaction.

2.3.2. *In vitro* manipulations of DNA

2.3.2.1. Restriction endonuclease digestion of DNA

The reaction mix was set up in a PCR tube as follows. For more or less than 2 enzymes, nuclease-free water was added to adjust accordingly:

Component	For 20 μ L reaction
DNA	stock concentration measured and required amount added
10x CutSmart Buffer	2 μ L (1X)

Enzyme 1	0.5 μ L per 500 μ g of DNA
Enzyme 2	0.5 μ L per 500 μ g of DNA
Nuclease-free water	to 20 μ L

The reaction mix was incubated at 37°C for 5-15 min if enzymes were time saver qualified. If enzymes were not time saver qualified, incubation times were varied according to instructions by the manufacturer.

2.3.2.2. Purification of DNA fragments

2.3.2.2.1. PCR clean-up/ PCR purification

2 volumes for Buffer NT1 was mixed with 1 volume of sample. A NucleoSpin Gel and PCR Clean-up Column was placed into a 2 mL collection tube and up to 700 μ L of the mixture was pipetted into the column. The column and collection tube were spun at 11000xg for 1 min and the flow through was discarded. If there was more than 700 μ L of the (PCR reaction + Buffer NT1) mixture remained, aliquots of 700 μ L were repeated transferred to the column and the column and collection tube were spun down, each time discarding flow through.

To wash the silica membrane, 700 μ L of Buffer NT3 was added to the column, the column and collection tube were spun at 11000xg for 1 min. The flow through was discarded. To dry the silica membrane, the column and collection tube were spun at 11000xg for 2 min. The column and collection tube were left to air dry on the bench. Nuclease free water (20 μ L) was added to the column and the column was placed inside a fresh 1.5 microcentrifuge tube. The column and microcentrifuge tube were left to stand for 2 min, to elute the DNA from the silica membrane. They were then spun at 11000xg for 1 min and the column then discarded. The

flow through contained DNA fragments and was stored in the freezer to prevent degradation. Care was taken throughout purification to prevent the tapered end of the column touching the collection tube.

2.3.2.2.2. DNA extraction from agarose gels/ gel purification

When there were multiple DNA fragments in the PCR reaction and only one was required, all of the PCR reaction was run on a 0.8% or 1% agarose gel and the PCR product representing the required PCR product was excised using a clean scalpel. The piece of agarose was transferred to a microcentrifuge tube and the weight determined. For each 100 mg of agarose gel, 200 μ L of Buffer NT1 was added and the sample was incubated at 50°C for 5-10 min, inverting the sample every 2-3 min, until the gel slice dissolved completely.

The rest of the protocol followed the same steps as a PCR purification:

A NucleoSpin Gel and PCR Clean-up Column was placed into a 2 mL collection tube and up to 700 μ L of the mixture was pipetted into the column. The column and collection tube were spun at 11000xg for 1 min and the flow through was discarded. If there was more than 700 μ L of the (PCR reaction + Buffer NT1) mixture remained, aliquots of 700 μ L were repeated transferred to the column and the column and collection tube were spun down, each time discarding flow through.

To wash the silica membrane, 700 μ L of Buffer NT3 was added to the column, the column and collection tube were spun at 11000xg for 1 min. The flow through was discarded. To dry the silica membrane, the column and collection tube were spun at 11000g for 2 min. The column and collection tube were left to air dry on the bench. Nuclease free water (20 μ L) was added

to the column and the column was placed inside a fresh 1.5 microcentrifuge tube. The column and microcentrifuge tube were left to stand for 2 min, to elute the DNA from the silica membrane. They were then spun at 11000g for 1 min and the column then discarded. The flow through contained DNA fragments and was stored in the freezer to prevent degradation. Care was taken throughout purification to prevent the tapered end of the column touching the collection tube.

2.3.2.3. Ligation of DNA fragments

Some plasmids in this thesis were made by ligation of previously restriction digested sticky ended DNA fragments. This was done using T4 DNA ligase and the following protocol:

The following reaction was set up in a PCR tube (the PCR tube and the reagents were placed on ice during the entire course of this assembly):

Component	For 20 μL reaction
T4 DNA Ligase Buffer (10X)	2 μ L
Vector DNA (4 kb)	50 ng (0.020 pmol)
Insert DNA (1 kb)	37.5 ng (0.060 pmol)
Nuclease-free water	to 20 μ L
T4 DNA Ligase	1 μ L

T4 DNA Ligase was added last. The ligation reactions used a molar ratio of 1:3 vector to insert. The reaction was gently mixed using a pipette, centrifuged briefly and incubated at 16°C overnight or at room temperature for 2 hours. Then the reaction was chilled on ice and 1-4 μ L of the reaction was transformed into 50 μ L of competent cells.

2.3.2.4. Gibson assembly

In a PCR tube, 25 ng of linearized vector and a two-fold molar excess of insert (for 2-3 fragments in total including vector), or approximately 200 ng of vector DNA and equimolar insert (for more than 3 fragments in total including vector) was added and made up to 5 μ L with nuclease free water, then 5 μ L of NEBuilder HiFi DNA Assembly Master Mix was added to the mixture. Reaction mix was incubated at 50°C for 30 min (for fewer than three fragments including vector) or 1 h (more than three fragments including vector) in a PCR machine. In some cases, the two homology arms were spliced together using SOEing PCR and a restriction/ligation was performed.

2.3.2.5. Agarose gel electrophoresis

Agarose gel electrophoresis was used to separate DNA fragments according to size, to analyse PCR products, to select for a single DNA fragment among others in a PCR reaction or restriction digest before gel purification and to check size of plasmids. 0.8-2% agarose gels supplemented with SYBR safe DNA gel stain (4 μ L SYBR safe in a 50 mL gel or 10 μ L in a 100 μ L gel) were routinely used. High percentage agarose gels were used to improve resolution of low molecular weight species, whereas low percentage agarose gels were used to give better resolution and separation of high molecular weight fragments. The agarose gel was placed in an electrophoresis gel tank and covered in conductive TAE buffer up to the recommended buffer volume markings on the tank. The wells on the agarose gel were loaded with either a PCR reaction mix or a restriction digest reaction mix, both containing a loading dye. An electric current was applied along the agarose gel, with a negative charge on the top end of the gel and a positive charge at the bottom end of the gel. A 110V voltage was applied

on the gel for 30 minutes. DNA is negatively charged and therefore migrates down the gel, separating according to molecular weight. Fragments with a higher molecular weight take longer to travel, whereas low molecular weight fragments quickly travel further. As the DNA travelled through the gel the SYBR safe DNA stain bound to the DNA. After the 30 min run, the gel was imaged in a BIO-RAD ChemiDoc MP Imaging System. The imager momentarily exposes the gel to UV, then takes an image of the gel. The SYBR safe DNA stain lights up when bound to DNA to report the position of the DNA fragments within the gel. The gel was analysed and required bands were cut out using a clean scalpel and the slices were gel purified.

2.3.2.6. Polymerase Chain Reaction

Polymerase chain reactions were used to amplify sections of DNA from genomic DNA or from plasmids. This would be either to confirm if a certain region of DNA exists within the genomic DNA or plasmid, or for use of the amplified DNA in creating plasmids and/or creating bacterial mutants.

2.3.2.6.1. Amplification of DNA by polymerase chain reaction

The following reaction mix was set up in a PCR tube, on ice:

Component	For 20 μL reaction
10 μ M Forward Primer	1 μ L
10 μ M Reverse Primer	1 μ L
DMSO (optional)	1 μ L

2x Phusion High-Fidelity PCR Master Mix	10 μ L
with HF Buffer OR Taq Master Mix	
Template DNA: genomic DNA	< 1 ng
Template DNA: plasmid DNA	<0.1 ng
Nuclease-free water	to 20 μ L

The reaction was gently mixed using a pipette and then transferred to a thermocycler. The following PCR program was run on the sample:

Step	Temperature	Time
Initial Denaturation	98°C	30 sec
32-35 Cycles	98°C	5-10 sec
	56°C	10-30 sec
	72°C	15-30 sec per kb (Phusion) OR 30 sec per kb (Taq)
Final Extension	72°C	5-10 min
Hold	4°C	∞

During the initial denaturation step, DNA goes from being double stranded to single stranded. At 56°C most primers bind to the template strand. However, this temperature is largely based on primer design, mainly the length and GC% of the primer. Higher annealing temperature is associated with primers that have higher GC% and are longer in length. At 72°C the polymerase polymerises DNA from the primer into the DNA strand. Processivity of Phusion is about 15 sec per kb, whereas Taq is 30 sec per kb. It should also be noted that Taq's processivity drops off after 2-3kb. Final extension time of 5 mins at 72°C was given to enable

any incomplete strands to finish polymerisation. Loading dye was then added to the PCR reaction and the reaction mix was loaded onto an agarose gel for gel electrophoresis. After the gel was imaged, depending on the result, a PCR purification or a gel purification may have been conducted.

2.3.2.6.2. Splicing by Overlap Extension PCR (SOEing PCR)

Gibson assemblies were most effective when fewer DNA fragments were involved. Hence, if a 3 fragment Gibson assembly had to be conducted (as required for recombination vectors), a SOEing PCR was done to sew 2 fragments together. This way the Gibson assembly would now involve only two fragments and thus be more efficient.

To splice together two DNA fragments specially designed primers were used. For each DNA fragment the primer on the end that has to be spliced, has a 5' overhang that is complementary to the DNA fragment it is to be spliced with. During the first PCR, the primer with the overhang and a flanking primer will amplify the fragment from gDNA or plasmid. The product of this PCR will include a complementary length of DNA at the splicing end. This first PCR is used to amplify DNA fragment 1 and another identical PCR was conducted to amplify DNA fragment 2. A third PCR was then performed with both the amplified DNA fragments (both containing complementary ends where the splice needs to occur) and two flanking primers. This time after the DNA denaturation step, when the reaction mixture cools, a percentage of DNA strand 1 will anneal to DNA strand 2 in the complementary region. The primers anneal to the flanking ends and the polymerisation occurs from the flanking primers inwards towards the splice zone. The result is a single DNA fragment containing DNA fragment

1 spliced to DNA fragment 2. This reaction mixture was run on an agarose gel and the spliced product was gel purified.

Considering the way Gibson works, Gibson primers are designed to rather long, most reaching to about 60 bp in length. These primers can be used to amplify individual fragments from genomic or plasmid template DNA. However, it is imperative that these individual amplified fragments are gel purified as opposed to PCR purified, to remove the residual long Gibson primers. If the long Gibson primers remain with the amplified fragments, they will reduce the efficiency of the Gibson assembly in the steps that follow.

2.3.3. Transformation of *E. coli* strains

E. coli strains (NEB-5alpha (New England Biolabs) and CA434 (made in house)) were transformed using the same method. A 50 μ L aliquot of the chemically-competent cells, in a 1.5 mL microcentrifuge tube, was thawed on ice for 10 min. Approximately 10 ng (4 μ L) of ligation mixture, that had been kept on ice during, was added into the competent cells, gently mixed and incubated on ice for 30 min. The cells were heat shocked at 42°C for 30-45 seconds. 950 μ L of room temperature S.O.C. medium was added, and the tube placed on a shaker (250rpm) at 37°C for 60 min. LB chloramphenicol plates were placed in 37°C to warm for 60 min. A 100 μ L aliquot of the mixture was spread onto an LB chloramphenicol plate. The mixture was harvested by centrifugation at 4000xg for 2 min. About 800 μ L of the supernatant was discarded, the pellet re-suspended in the remaining 100 μ L of supernatant and this 100 μ L was spread on a fresh LB chloramphenicol plate. The plates were incubated overnight at 37°C.

2.3.4. Generation of CA434 Competent Cells

The following is the protocol for generation of competent *E. coli* CA434 cells (Cohen, Chang and Hsu, 1972; Hanahan, 1983; Inoue, Nojima and Okayama, 1990). On day 1, the required *E. coli* strain was streaked from frozen stock using a sterile platinum wire, onto an LB agar plate supplemented with the required antibiotic the strain is resistant to. The plate was incubated at 37°C and left to grow overnight for 16 hrs. On day 2, a 5 mL overnight of LB with the required antibiotic was setup in a 50 mL falcon tube and inoculated with a colony that was picked from the plate aseptically. The culture was left to grow overnight at 37°C with the lid of the falcon tube loosely capped, in an orbital incubator rotating at 200 rpm. On day 3, a subculture was set up by 50 mL of pre-warmed LB was inoculated with 100 µL from the overnight culture. This subculture was placed in an orbital incubator at 200 rpm and 37°C and OD_{A600} was measured every 30 min. A centrifuge was precooled during this time, as all of the steps from now were either done on ice or in a cold environment. When the OD_{A600} reached 0.4-0.6, which was roughly after 2 to 4 hours, the culture was transferred to a fresh cool 50 mL falcon tube and chilled on ice for 5 min. The cells were centrifuged in a swinging bucket rotor for 10 min at 4400xg and the supernatant was discarded. The cells were gently resuspended in 20 mL of ice-cold Tbf1 and incubated on ice for 5 min. The cells were then centrifuged using a swinging-bucket rotor for 10 min at 4400xg and the supernatant was discarded. The cells were gently resuspended in 2 mL Tbf2, keeping the tube cold throughout the resuspension. The tube was never vortexed at this stage. The tube was incubated on ice for 15 min. 50 µL aliquots of the suspension were transferred to the fresh, sterile, cooled microcentrifuge tubes. The tubes were frozen in a dry ice/ ethanol mixture and then stored at -70°C. To assess the competency of the cells, the cells were transformed with supercoiled

plasmid DNA. The competency (no. of colony forming units per μg of plasmid DNA) was calculated with the following formula:

$$\text{Competency} = ((\text{No. of colonies})/x) * (301/y) * 10^6$$

Where x = μg of plasmid DNA was used in the transformation and y = μL transformation mixture plated.

2.3.5. Conjugation of *E. coli* and *C. difficile* strains

The following conjugation protocol has been designed and optimised in house (Kirk and Fagan, 2016). Overnight cultures of donor and recipient were inoculated using colonies from freshly streaked plates (no older than 3 days). The *C. difficile* recipient strain was inoculated into 5 mL pre-reduced TY. The *E. coli* CA434 overnight was grown in 5 mL LB chloramphenicol. At the same time non-selective BHI plates were reduced overnight. In the morning, 200 μL of *C. difficile* overnight culture was heated to 52°C for 5 min (for 8-hour conjugations) or to 50°C for 15 min (for 24-hour conjugations). A 1.2mL aliquot of *E. coli* donor was centrifuged at 4000xg for 2 mins and the supernatant was discarded. The *C. difficile* was removed from heat block and left to cool to 37°C for 2 min. The *E. coli* pellet was gently re-suspended with the 200 μL heat-treated *C. difficile*. The mixture was spotted (~10-20 μL spots) onto the pre-reduced non-selective BHI plates and allowed to dry. The plates were incubated for 8 or 24 hours. Growth was harvested using 700 μL pre-reduced TY broth and 100 μL of cell suspension and multiple 1:5 dilutions (80 μL pre-reduced TY and 20 μL cell suspension) were spread on BHI supplemented with thiamphenicol and cycloserine. These were incubated overnight and transconjugants were re-streaked twice onto BHI thiamphenicol cycloserine plates. The transconjugants were then maintained on BHI agar supplemented with thiamphenicol alone. Overnights were set up using colonies from this BHI thiamphenicol plate and incubating at

37°C. A 1mL aliquot of the overnight was frozen down to make a 20% glycerol stock which was stored at -80°C. 8 hour conjugations were routinely used for transfer of plasmids with the stable pCD6 origin of replication. Transfer of less stable plasmids (e.g. pMTLSC-7315 and pMTLSC-7215) is far less efficient so conjugations were extended to 24 hours to increase the probability of isolating a successful transconjugant.

2.3.6. Making mutants with the *codA* allele exchange vectors

Homologous recombination was carried out as described previously (Chapter 1: Introduction, section 1.5) using the appropriate vector, pMTLSC7215 for *C. difficile* R20291 and pMTLSC7315 for *C. difficile* 630. Oligonucleotides were designed for inserting right and left homology arms. The homology arms were approx. 1200 bp and were inserted into these vectors using Gibson assembly, or a combination of SOEing PCR and restriction/ligation. Homology arms were PCR amplified using the newly designed oligonucleotides. Oligonucleotides RF311 and RF312 were used to linearise the vector in 2x25 µL PCR reactions, with annealing temp of 56°C and extension time of 3 min 20 sec. The chosen vector was linearised by PCR using oligonucleotides RF311 and RF312. The amplified homology arms and linearised vector were gel purified as residual oligonucleotides left over by PCR purification, left behind because the oligonucleotides are very large, would have reduced the efficiency of the Gibson assembly (as explained in section 2.3.2.4 of Chapter 2: Materials and Methods). Gibson assembly or restriction/ligation performed. Restriction digests were conducted if the Gibson assembly did not work. For the restriction digest, the two homology arms were amplified by PCR, gel purified, then spliced together by SOEing PCR, the spliced fragment was PCR purified and restriction digested with Bam-HI and SacI-HF. The chosen vector was also restriction digested with BamHI-HF and and SacI-HF and the larger DNA fragment, which is

the plasmid backbone, was gel purified. The digested SOEing product, and the purified vector backbone were then ligated using T4 ligase. An aliquot of 50 μ l of NEB5alpha *E. coli* cells were transformed with 4 μ L of the reaction (or 25 μ L of NEB5alpha transformed with 2 μ L of reaction). The *E. coli* colonies were screened using PCR with RF21 and RF22 oligonucleotides that prime to the plasmid backbone on either side of the double homology arm insert, amplifying across the insert. The PCRs were conducted with Taq polymerase, which can only polymerise a PCR product of maximum length 1.5kb reliably. Since the double homologous arm insert is 2400 kb, it cannot be amplified, whereas an empty plasmid containing no insert or a one homology arm insert, will produce a PCR product. *E. coli* colonies that show no PCR product, and therefore inferred to carry a plasmid with a double homology arm insert, were selected and re-streaked onto fresh plates. Overnight cultures were inoculated from single colonies, plasmids were isolated and sequenced by GATC Biotech.

Plasmids were transformed into *E. coli* strain CA434 and transferred by conjugation into *C. difficile*. A transconjugant was re-streaked to purity as standard. Cells which have undergone first recombination event formed large colonies. As explained in the introductory chapter: the way the plasmids work is that they contain sub-optimal origins of replication, that restrict rate of replication (Cartman *et al.*, 2012). So, when grown on plates with antibiotic selection, bacterial cells containing the plasmid have a restricted rate of growth. However, after first recombination occurs between the genomic DNA and the plasmid, the cell growth rate is no longer restricted. Two large colonies were screened for single recombination by PCR using oligonucleotides flanking the insert site (oligonucleotides A and B), and RF21 and RF22 oligonucleotides. There were two reactions per colony screened: RF21+A and RF22+B. A wild type control was also included. Positive single recombinants were re-streaked onto BHI plates

and incubated for 2-3 days. Growth was harvested from the BHI plate using 800 μL pre-reduced PBS. Serial dilutions of the harvested material were prepared (i.e. 10^{-2} - 10^{-6}) and 100 μL of each was spread on CDMM agar supplemented with 50 $\mu\text{g}/\text{mL}$ 5-FC. Colonies usually appeared after 48 hours of incubation. Eight colonies that could grow on 5-FC were screened by PCR with oligonucleotides flanking the region to be deleted using Phusion polymerase. Positive mutants were restreaked to a BHI plate. A single colony was picked from the BHI plate and re-streaked onto a fresh BHI plate and on another fresh BHI plate containing thiamphenicol. It is possible for plasmid-bearing cells to occasionally grow on 5-FC CDMMMA if there are mutations on the plasmid. Colonies that grew on BHI thiamphenicol were discarded. Whereas, if there was no growth on BHI thiamphenicol, the plasmid was considered lost. The colony's counterpart streaked on the BHI plate was then screened once more with primers flanking the insert before cryostorage. If this colony was positive, it was used to inoculate 5 mL of pre-reduced TY. A 1 mL aliquot of this overnight was frozen down with 20% glycerol and stored at -80°C .

2.4: Enzyme Assays for Beta-galactosidase Activity

The beta-glucuronidase assay specified herein is only used with *C. difficile* 630 and is not used with *C. difficile* R20291. An overnight culture of the *C. difficile* 630 strain to be investigated was set up using 5 mL TY, a single colony of the strain and supplemented with the required antibiotics. The following day the $\text{OD}_{\text{A}600}$ of the 5mL *C. difficile* 630 overnight culture was measured in a spectrometer, and subcultured to an $\text{OD}_{\text{A}600}$ of 0.05 in TY. When the culture reached mid-log, expression of the *gusA* gene on the plasmid was induced with the respective inducer for the promoter of *gusA* expression on the plasmid (i.e. anhydrotetracycline-induced P_{tet} promoter and Nisin induced the P_{cpr} promoter). When the culture reached stationary

phase, the culture was centrifuged at 4000xg for 15 min, supernatant was discarded, and the pellet was frozen. The pellet was thawed and resuspended in 90 μ L of Z-buffer and 10 μ L *C. difficile* endolysin. The sample was incubated at 37°C for 30 min to an hour. It was then cooled on ice for 5 min and centrifuged at 18000xg for 10 min in a centrifuge maintained at 4°C. Z-buffer (700 μ L) was added and the sample was incubated at 37°C for 5 min to equilibrate the sample. To start the reaction, 0.16 mL of 6 mM p-nitrophenyl- β -D-glucuronide was added to the mixture and the mixture was incubated at 37°C. A timer was immediately started to record the start of the reaction. Over time, the mixture develops a yellow colour. When the colour of the reaction resembled the colour of post-it notes, 0.4 mL of 1 M Na₂CO₃ was added to stop the reaction and the timer was stopped as well. The mixture was centrifuged at 18000xg for 10 minutes to remove all the cell debris and the A₄₀₅ of the supernatant was measured. The β -glucuronidase activity was calculated using the following formula: $(OD_{A405} \times 1000) / (OD_{A600} \times \text{reaction time (mins)} \times 1.25 \times \text{vol of culture (ml)})$.

2.5: Specialist Bioinformatics Methodologies

Although the techniques for TraDIS *versus* RNA-seq differ, the same programs are used for analysis of the sequencing output. Where RNA-seq analysis programs are concerned, change in total reads across a gene correspond to change in gene expression and hence the term “significantly differentially expressed (SDE) genes” is used. Whereas, for TraDIS analysis, change in total reads across a gene correspond to change in fitness and hence we use terms like “change in fitness of the mutant.” This mutant refers to bacteria with a transposon insert in a particular position within this gene. This section explains the choice of software used for TraDIS data analysis.

2.5.1: Comparison and Choice of Differential Expression Software (DESeq2 *versus* EdgeR)

SDE gene analysis programs test the null hypothesis that the log fold change between the treated sample's gene expression and the control sample's gene expression is exactly zero (Love, Huber and Anders, 2014). The output of a such programs is often a table of genes that have passed multiple-test adjustment, presented with their \log_2 fold change from reference and p-values for these \log_2 fold changes. Often in such experiments, significantly differentially expressed genes while depending on the biology of the experiment, also depend on the sample size and other factors of the experimental design (Love, Huber and Anders, 2014). Hence, the default statistical controls built into the analysis software, that accounts for factors other than the biology, is of grave importance to the software's reliability and reproducibility.

EdgeR is a R/Bioconductor package that moderates each gene dispersion estimate towards a common estimate across all genes, or towards a local estimate derived from genes with a similar expression strength, using a weighted conditional likelihood (Love, Huber and Anders, 2014). The package was used to analyse differentially expressed *C. difficile* genes for a previous publication from our lab that outlines genes necessary for *in vitro* growth, sporulation and germination (Dembek *et al.*, 2015). Within this thesis, I have used another DE analysis package, called DESeq2, to redo the analysis on the *in vitro* dataset to assess the package's performance against edgeR. DESeq2 models the dependence of the dispersion on the average expression strength across all samples and uses this model to correct dispersion estimates that appear to be too low (Love, Huber and Anders, 2014). The package with the better performance will then be used for DE analysis on newer TraDIS datasets.

Within literature, edgeR and DESeq2 performance statistics appear to be very similar (Love, Huber and Anders, 2014; Schurch *et al.*, 2016), except few differences in gene calling that result from their defaults settings. It should be noted that with most DE software, these defaults can be changed by the user as and when required. Some examples of such default settings are as follows:

DESeq2 uses model to find an optimal value at which low count genes are discarded (Love, Huber and Anders, 2014; Love, 2016). In the event of genes with large outlier counts, the program discards these outliers if there are greater than 6 replicates, but merely flags these outliers within the dataset when number of replicates are 6 or less (Love, 2016). When calculating the dispersion prior and dispersion moderation, the program excludes genes with extremely high variance within its group (Love, 2016). The program also moderates log fold changes with small statistical support (Love, 2016). EdgeR on the other hand provides a robust dispersion estimation function, called using the “estimateGLMRobustDisp” command. This function reduces the effect on individual outlier counts on the analysis (Love, 2016). EdgeR also ensures that hyperparameters are not overly affected by genes that display an extremely high variance within its group, by providing a robust argument to “estimateDisp” (Love, 2016). Additionally, the method for filtering low count genes outlined within the EdgeR user guide, reduces multiple testing burden and increase power, while also discarding genes with uninformative log fold changes (Love, 2016). A paper that compared DESeq2, edgeR, DSS, EBSseq, voom, limma, samr and Cuffdiff 2 found that DESeq2 and edgeR have the highest sensitivity for algorithms that controlled type-I error (i.e. $FDR \leq 0.1$) (Love, Huber and Anders, 2014), and DESeq2 exhibited higher sensitivity under small fold changes (e.g. fold change of 2 or 3) (Zhou, Lindsay and Robinson, 2014).

2.5.1.1. Normalisation methods of DESeq2 versus EdgeR

We are interested in genes that appear to become essential for biological reasons and would like to avoid false positive essential genes. For example, genes that appear to become essential due to errors in sequencing or data analysis, would be considered false positives. With most RNA-seq analysis software available today there are mainly 3 factors we can control for during normalisation: sequencing depth, gene length and DNA content (HBC training, 2017). For TraDIS data analysis we compare the same gene between different sequencing samples, gene length is immaterial. Sequencing depth affect can different between samples and can lead to a false increase or decrease in gene reads when comparing these samples (HBC training, 2017). DNA content such as the sequence itself or DNA modifications, can affect amplification and mapping ability of the sequence.

To control for these two factors DESeq2 normalises counts by dividing each gene's raw count by the sample's size factor (a.k.a. normalisation factor)(Anders and Huber, 2010). The size factor is calculated by first creating a pseudo-reference by calculating the geometric mean for each gene across all the samples being analysed (HBC training, 2017). Then it calculates the ratio of each gene in each sample to its geometric mean (HBC training, 2017). Then the size factor is calculated for each sample by taking the median of all the gene ratios within that sample (HBC training, 2017). As stated previously, each gene's raw counts are then divided by the sample size factor to give normalised counts (HBC training, 2017). This sample median of gene ratios method assumes that some genes will have a zero log₂-fold change (HBC training, 2017). Hence, by considering this mean we are taking into account factors like sequencing depth and DNA composition of the sample (HBC training, 2017). This median of gene ratios

method is robust to the imbalance in the number of positive to negative log₂-fold change of genes and to large numbers of genes with large log₂-fold change (HBC training, 2017).

EdgeR on the other hand uses a weighted trimmed mean of the log expression ratios between samples (Robinson and Oshlack, 2010). “Expression” is the term used as the software was originally used for RNA-seq analysis and refers to the relative increase or decrease in reads relative to reference. The method accounts for sequencing depth, gene length and DNA composition (HBC training, 2017). Since it takes into account gene length, the software additionally allows for comparison between genes within the same sample.

2.5.2: Number of samples needed to ensure valid biological interpretation

With the increase of genome-wide differential gene experiments across genomic research, we also see a rise in the number of analysis tools now available to analyse such data. While analysing 11 of such software (*baySeq*, *cuffdiff*, *DEGSeq*, *DESeq*, *DESeq2*, *EBSeq*, *edgeR* (*exact* and *glm modes*), *limma*, *NOISeq*, *PoissonSeq*, and *SAMSeq*), it was found that having 3 biological replicates could only identify 20% – 40% of the SDE genes, whereas at with 20+ biological replicates this percentage discovery increased to >85% (Schurch *et al.*, 2016). The study goes on to suggest that a minimum of 6 biological replicates needed to be used to reliably detect SDE genes in an RNA-seq experiment. This number increases to 12, when one intends on identifying SDE genes for all fold changes (Schurch *et al.*, 2016). Since we were only interested in identifying SDE genes and not SDE genes across all fold changes, we chose an experimental design with 10 biological replicates. DESeq2 and EdgeR are the recommended leading tools for analysis of data with under 12 biological replicates, due to their well-controlled FDR at lower fold changes and superior true positive identification (Schurch *et al.*,

2016). For higher replicate numbers DESeq2 outperforms the other 10 tools (Schurch *et al.*, 2016).

2.6: Statistical Analysis

2.6.1. FastQC (Quality Control) (Andrews, 2010)

All fastq files within this project output from Illumina runs were statistically analysed using FastQC. This Java based tool, written by Babraham Bioinformatics, is used to check the quality of high throughput raw sequence data before using the data for any downstream analysis (Andrews, 2010). This step exists so that there are no problems or biases in the raw data files, that may eventually translate into errors in the interpretation of our results. While QC reports provided by the sequencing facility identify problems created by the sequencer itself, FastQC helps identify problems originating either in the sequencer or the starting library material (Andrews, 2010).

The following is a summary of the analyses modules and their pass, warning and fail thresholds:

- Basic Statistics (Andrews, 2010):

This module outputs simple compositions statistics for the input file. These include file name, file type, encoding, total sequences, filtered sequences, sequence length, %GC. This module never raises a warning or an error.

- Per Base Sequence Quality (Andrews, 2010):

This module outputs a range of quality values as a Box-Whisker plot for each base position within the reads of the fastq file. If median of a base is <25 and/or lower quartile of a base is <10, warning status is issued from this module. If median of a base is <20 and/or lower quartile of a base is <5, the module raises a failure notification

Quality scores on the Y-axis. Good quality score range indicated in green, reasonable quality scores indicated in orange and poor quality indicated in red. For each Box-Whisker plot the read line indicates the median value, the yellow box shows the interquartile range of 25-75% and the upper and lower whiskers indicate the 10% and 90% points. The mean-quality is represented by the smooth-flowing blue line. Title states type of quality score encoding used in the file.

- Per Sequence Quality Scores (Andrews, 2010):

This module checks if a certain subset of the sequences within the fastq file have universally low quality values. This usually is the case for the sequences just out of the field of view and are therefore poorly imaged. When this is only a small percentage of the sequences, it is acceptable but becomes a problem when we have a large percentage of sequences with low quality scores. This may occur when part of the run has a systemic problem (e.g. one end of the flowcell is damaged). If most frequently observed mean quality <27 (0.2% error rate), a warning is issued. If most frequently observed mean quality <20 (1% error rate), the module raises a failure notification.

- Per Base Sequence Content (Andrews, 2010):

This module shows proportion of G/A/T/C at each base position within a file. In a truly random library, the four lines seen in the graph would run roughly parallel with each other. If strong biases which change in different bases are visible, an over-represented sequence is contaminating our library. However, if the bias is consistent across all bases this would be interpreted as a sequence bias in the original library or systematic sequencing problem. If the difference between G and C, or A and T >10% at a base position, a warning is issued. If this difference is >20% module issues a failure notification.

- Per Base GC Content (Andrews, 2010):

This module simply provides the GC content for each base position within the file. In a random library you would expect a horizontal line across the graph, which the GC content of the line reflecting that of the genome being analysed. GC content bias suggests an over-represented sequence contaminating the library. If GC content >5% of mean GC content, warning is raised, whereas if GC content >10% of mean GC content, module indicates failure.

- Per Sequence GC Content (Andrews, 2010):

This module measures the GC content of each sequence read in the file and compares it to a normal distribution GC content model, where the central peak indicates overall genome GC content. In a random normal library, we would expect the GC distribution from the file to match the normal distribution GC model. Unusual distribution would indicate biased subset of reads or contaminants. Systemic bias would show up as a shifted normal distribution and does not raise any notifications by the module. If sum of the deviations from normal distribution corresponds to >15% of reads, warning is flagged up. If the sum is >30% of the reads, module declares failure.

- Per Base N Content (Andrews, 2010):

N= within fastq files N is placed in base positions where the base cannot be called with sufficient confidence. The module generates a graph of percentage of N calls at each base position. We expect to see a small increase in percentage of N calls towards the end of the sequence read. If this percentage increases, it would indicate that the analysis pipeline could not make sufficiently valid base calls. If the N percentage of any base position >5% the module raises a warning, but if the value is >20% the module flags up a failure.

- Sequence Length Distribution (Andrews, 2010):

This module creates a graph demonstrating the distribution of read fragment sizes within the file. Usually we would expect a single peak at one size, but in the case of variable length Fastq files, the graph would show the relative quantities of the different sized read fragments. If all reads are not of the same length, a warning is flagged, but if any of the sequences have zero length, the module flags up a failure.

- Duplicate Sequences (Andrews, 2010):

This module first calculates the degree of duplication for each of the read sequences, then plots a graph of sequence duplication level (X-axis) *versus* relative number of sequences (Y-axis). This duplication detection involves an exact sequence match. Most sequences only appear once in the final set of a diverse library and low duplication is therefore interpreted as a very high level of coverage. And vice-versa, high level of duplication can be indicative of

enrichment bias due to things like PCR over amplification. If non-unique read sequences >20% of total reads, warning is issued, but if value is >50% of total reads, module flags up a failure.

Only the first 200,000 reads in the file are considered by this module, in order to cut back on memory requirements. These 200,000 reads are checked for duplication against all the reads within the file. Any read sequences that had higher than 10 duplicates were categorised under the “10 duplicates” category to truncate the plot to make it more readable. Additionally, read sequences over 75bp are truncated to 50bp. This is because longer reads tend to contain more errors as the read tails off, under-representing highly duplicated sequences and artificially increasing the perceived diversity of the sample.

- Over-represented Sequences (Andrews, 2010):

An over-represented sequence could be indicative of several things. Either the sequence is contaminating in the library, the library is not as diverse as previously thought or the over-representation could be attributed to a genuine biological phenomenon. This module generates a list of over-represented sequence reads (non-unique read sequences >0.1% of total reads). Each over-represented sequence read is matched to the most likely contaminant from a database of contaminants. These contaminant hits must be at least 20bp with a tolerance of 1bp mismatch. Many adapter sequences are very similar therefore the contaminant hit needs to be investigated further for a conclusive answer. If a sequence read account for >0.1% of the total reads, a warning is issued, but if the sequence read accounted for >1% of the total reads, the module flags up a failure.

Again, only the first 200,000 reads in the file are considered by this module, in order to cut back on memory requirements. Unfortunately, this means some over-represented sequences may be missed. And additionally, once again, read sequences over 75bp are truncated to 50bp for the same reasons as in the “Duplicate Sequences” module.

- Over-represented Kmers (Andrews, 2010):

The previously introduced modules search for read duplicates without any mismatch tolerance between duplicates. Therefore, if you have large sequence reads with low read quality, random sequencing errors will decrease the number of duplicate reads identified. This would give a false observation of greater diversity in the library. Furthermore, if you have partial sequences present in a variety of places within a sequence (i.e. IS elements), these will not be detected by the “Duplication Sequence” module nor the “Per Base Sequence Content” module.

To help detect such events this module records the enrichment of every 5-mer within the library. Based on the base content of the library as a whole the module also calculates the expected level at which the 5-mer should exist within the library. It then draws up a ratio for each 5-mer by dividing observed enrichment by expected enrichment. In addition to this list of 5-mers and their ratio, the module also plots a graph of the top six 5-mer hits demonstrating the pattern of enrichment of each of the six 5-mers across the length of the reads. This would demonstrate if there is a bias pattern across the length of the read. If the 5-mer’s overall enrichment > 3-fold, or if the 5-mer’s enrichment at an individual position > 5-fold, a warning is raised by the module. But if the 5-mer’s enrichment at an individual position > 10-fold, the

module flags up a failure. It is to be noted that the module only runs on 20% of the library and the results are extrapolated to the rest of the library. This is to save time on the analysis.

2.6.2. DESeq2: Hypothesis testing using Wald Test (Love, Huber and Anders, 2014; HBC training, 2017)

For each gene analysed by DESeq2, a null hypothesis is considered. This null hypothesis being that “there is no differential expression of the gene across the two sample groups being analysed (i.e. Log₂ fold Change == 0)” (Love, Huber and Anders, 2014; HBC training, 2017).

The parametric Wald test is used to determine if the null hypothesis is true, by comparing the two sample groups. The Wald test statistic (log₂ fold change) for each gene is calculated with its own probability value (Love, Huber and Anders, 2014; HBC training, 2017). This probability value is the probability that the test statistic at least as extreme as the observed value were selected at random. This probability, referred to as the p-value of the test, is a value from 0 to 1. The null hypothesis is rejected if the p-value is small, as there is evidence against the null hypothesis. In other words, the gene is differentially expressed (Love, Huber and Anders, 2014; HBC training, 2017).

2.6.3. Benjamini-Hochberg correction to p-value (Love, Huber and Anders, 2014; HBC training, 2017)

If we intend on using the Wald test p-value and choose to set the p-value cut-off point at $p < 0.05$, we have chosen to a 5% chance of obtaining false positive. This would mean one false positive in a sample of 20 genes. This also means that if we are testing larger samples of genes, we face the multiple testing problem. To elaborate, if we are testing 30,000 genes, then we are likely to get 1,500 false positives. DESeq2 pipeline reduces the number of these false

positives to an extent before execution of the Wald test. This is done by removing genes with low count numbers and outlier samples when carrying out gene-level quality control (Love, Huber and Anders, 2014; HBC training, 2017). Given a list of independent p-values, the Benjamini-Hochberg (BH) approach attempts to correct for multiple testing, by using an algorithm to control the expected false detection rate below a specified level (Love, Huber and Anders, 2014; HBC training, 2017). In the case of DESeq2, the BH correction involved ranking the genes by p-values, then multiplying each p-value by total number of tests/ ranks (Love, Huber and Anders, 2014; HBC training, 2017).

Chapter 3: Genes essential for survival, sporulation and germination

in vitro

3.1: Introduction

We have come a long way with the help of sequencing technologies and are now generating complete genomes and facilitating the high-throughput identification of a large number of genes (Hall, 2007; MacLean, Jones and Studholme, 2009). Characterization of the functionality and biological importance of these genes are some of the challenges currently being tackled on this front. Many laboratories have approached this by attempting to identify the minimal gene set required for bacterial cell viability (Baba *et al.*, 2006; Liberati *et al.*, 2006; Gallagher *et al.*, 2007; De Berardinis *et al.*, 2008; French *et al.*, 2008). Their approaches range from creating and testing single deletion mutants to generating and analysing data from large transposon libraries. Techniques used include Signature-tagged mutagenesis (Hensel *et al.*, 1995), transposon-site hybridisation (Sasseti, Boyd and Rubin, 2001) and transposon mediated differential hybridization (Chaudhuri *et al.*, 2009). Unfortunately, these approaches tend to demonstrate inaccuracy in estimation of the transposon insertion site from microarrays and may also skip analysis smaller genes by chance (Langridge *et al.*, 2009). Some microarrays also demonstrate limitations of resolution and errors in distinguishing positive from negative signals (Langridge *et al.*, 2009). Unlike microarrays, sequencing produces a signal of a “digital” nature, and for TraDIS any sequence read with a 10-bp transposon tag adjacent to the genomic sequence is almost certainly indicative of a transposon insertion site (Langridge *et al.*, 2009). Combining an extremely large pool of transposon mutants with high-throughput Illumina sequencing gives a remarkable degree of resolution to a transposon screen (Langridge *et al.*, 2009). The resolution of such a screen is mostly limited by the number

of transposons within the pool. At the time of publishing the first TraDIS study this resolution was one transposon insert every 39 bp (Langridge *et al.*, 2009) and allowed for the essentiality classification of 99.6% of all genes in the *Salmonella* Typhi genome. This resolution has now increased to one transposon insert every 5.14bp (Goodall *et al.*, 2018). Using transposon insertion mutagenesis combined with TraDIS we have generated and analysed a *C. difficile* transposon library in *in vitro* growth conditions to determine genes essential for growth, sporulation and germination of the bacterium.

At the outset of this project in 2015, we created R20291 and 630 *C. difficile* transposon libraries, using a novel conditional *mariner* delivery vector (pRPF215) (Dembek *et al.*, 2015). A tetracycline-inducible expression plasmid previously designed for *C. difficile*, has demonstrated plasmid instability when induced with the non-antibiotic tetracycline analogue, anhydrotetracycline (Fagan and Fairweather, 2011). These plasmids have a pair of divergent promoters: P_{tet} and P_{tetR} , with overlapping *tet* operator sequence (*tetO*). The P_{tetR} promoter drives the expression of the *tetR* gene, which encodes the transcriptional regulator tetR that binds to this *tetO*. Under native conditions *tetR* is expressed at low levels and in turn represses the activity of P_{tetR} and the P_{tet} promoter. Anhydrotetracycline induces a conformational change in tetR, leading to the repression being relieved, allowing transcription from both the promoters (Geissendorfer and Hillen, 1990). The P_{tetR} promoter is directed towards the CD6 origin of replication in the pRPF215 plasmid. Transcriptional read-through from the P_{tetR} promoter into the CD6 origin of replication is responsible for plasmid instability (Fagan and Fairweather, 2011). The P_{tet} promoter on this plasmid controls expression of a codon-optimised *Himar1* transposase gene. The transposon consists of *mariner* inverted terminal repeats on either side of an erythromycin resistance gene (*ermB*).

This pRPF215 vector tightly regulates timing of transposition and plasmid loss by use of anhydrotetracycline induction (Dembek *et al.*, 2015). Induction of transposition within *C. difficile* with growth on solid agar, resulted in a wide range of colony morphologies, suggesting random transfer of the transposon (Dembek *et al.*, 2015). Transposition frequency, of the different strains were measured. This frequency is a measure of the total number of bacteria on the plate that have undergone transposition divided by the total number of bacteria on the plate. Transposition frequency in R20291 was 1.5×10^{-3} , whereas transposition frequency in 630 was 1.18×10^{-4} . This difference in transposition frequency could be attributed to the 234 additional genes R20291 carries or could be due to the functionality of the 5 unique genetic regions in R20291 implicated in hypervirulence (Stabler *et al.*, 2009).

To generate the transposon library for *C. difficile* strain 630, transposition was induced in this strain and 85,000 erythromycin-resistant colonies were pooled. Using TraDIS sequencing and analysis, this library was determined to be composed of 44,102 unique insertions, which translates to a library density of one insertion every 97 bp (Dembek *et al.*, 2015). A library of higher density was then generated in *C. difficile* strain R20291 in order to obtain higher resolution gene essentiality data. For this library 750,000 erythromycin resistant colonies were pooled and sequenced. The data showed 77,256 unique insertion sites, translating to a library density of one insertion every 54 bp (Dembek *et al.*, 2015). Each of the two libraries were sampled at the time of library generation (input samples) and before the induction of sporulation (pre-sporulation samples). Spore samples of the libraries were collected after sporulation (sporulation samples) and germinated cell samples were collected after germination with 0.5% taurocholate (germination samples). Genomic DNA extracted from all these samples were sequenced from the transposon outwards, using the TraDIS sequencing

technique. These samples were the basis of the *in vitro* TraDIS analysis of gene essentiality (Dembek *et al.*, 2015). Herein we have replicated the analysis on this dataset, experimenting with alternative analysis tools and parameters, to try improving the design of the analysis pipeline and the validity of the output data. This optimised TraDIS analysis pipeline was then used on newly generated datasets.

3.2: Methods and Results

3.2.1. Characterisation of File Formats used within this section

FASTA: It is a text-based file that contains peptide or nucleotide sequences, wherein each amino acid or each nucleotide base pair is represented as a single alphabet. Each sequence is usually preceded by a descriptive line starting with the “>” symbol.

FASTQ: It is a text-based file that contains nucleotide sequences and its quality score. Each sequence is preceded by a sequence identifier line starting with the “@” symbol. Each base pair is represented as a single alphabet (i.e. G/A/T/C) and is followed by a line with the “+” symbol, then a line for the quality score. The quality score for each base pair is stated using one of the following characters, stated in order of increasing quality:

```
!"#$%&'()*+,-./0123456789;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstuvwxyz{|}~
```

GENBANK (.gb/ .gbk): The Genbank file carries the sequence and the annotation for each feature of the genome. Start of the feature’s sequence is indicated by the word “ORIGIN” and the end of the same feature’s sequence is marked by “//”. The annotation section is indicated by the word “LOCUS”.

SAM: Sequence Alignment Map file contains alignment information of short reads (i.e. Illumina reads) aligned to the reference genome. The file usually starts with a couple of header lines, indicated by an “@” symbol at the start. The header section is followed by a tab-delimited line for each read.

BAM: Binary Alignment Map file is a lossless compressed binary representation of the SAM file. The BAM is compressed in blocked GNU zipped format.

***NOTAG.FQ:** The cutadapt command finds reads with a specified adapter sequence, trims the adaptor sequence from those reads and puts these reads in to this .cutadapt fastq file. Input reads that did not carry the adaptor sequence are discarded.

.CUTADAPT: Summary file generated by the cutadapt command.

.TEMP: Temporary files contain intermediate data when a command is run. It’s contents and format can differ depending on command run.

.ANN: This file contains the number of reads at each unique insertion site. The file also carries columns describing overlapping genes and its product, which is useful in the event that the insertion is intergenic.

.COUNT: This file contains total read counts in each annotated gene. Intergenic reads are discarded.

3.2.1. Bioinformatics Analysis of 630 and R20291 *C. difficile* *in vitro* datasets

Genomic DNA was extracted from the R20291 and 630 samples, fragmented by sonication and sequenced from the transposon outwards on either the Illumina HiSeq2500 or Illumina HiSeq2000 platforms. The Illumina data from the sequencing runs was provided in the form of FastQ files. For each sample we had generated about 2 million 50bp single-end reads. FASTQ files from the previously published analysis of the *in vitro* *C. difficile* datasets were used as a starting point to create an optimised bioinformatics pipeline for TraDIS dataset analysis. This optimised pipeline was then used to analyse the *C. difficile* TraDIS datasets from the *in vivo* experiment. Commands used are stated in bold with \$ at the start of the line indicative of a ready Linux terminal for normal user.

3.2.1.1. Description and download of sequencing data

In the case of R20291, for each sampled time-point of the *in vitro* experiment, there were two biological and 2 technical samples taken. Therefore, for each sampled time-point there were 4 samples sequenced. Henceforth within this thesis the biological samples are denoted by numbers, whereas the technical replicates are denoted by alphabets. The following is a list of the sequenced samples along with their accession numbers:

Table 5: Details of samples collected for the *in vitro* experiment.

<i>C. difficile</i> strain:	Time-point:	Biological replicate:	Technical replicate:	Accession Number:
630 Δ <i>erm</i>	Input	1	a	ERR237766
	Prespore	1	a	ERR245853
	Sporulation	1	a	ERR245854
	Germination	1	a	ERR245855

R20291	Input	1	a	ERR377408
			b	ERR377416
		2	a	ERR377409
			b	ERR377417
	Presporulation	1	a	ERR377410
			b	ERR377418
		2	a	ERR377411
			b	ERR377419
	Sporulation	1	a	ERR377412
			b	ERR377420
		2	a	ERR377413
			b	ERR377421

Firstly, the gzipped FASTQ files were downloaded from the SRA server, onto our local server (hactar.shef.ac.uk) and unzipped. These FASTQ files carry the reads called by the sequencer and the corresponding quality scores for each base in the read.

```
$ curl "ftp://ftp.sra.ebi.ac.uk/vol1/fastq/ERR237/ERR237766/ERR237766.fastq.gz" >
```

```
Input_1a.fastq.gz
```

```
$ gunzip Input_1a.fastq.gz
```

The reference FASTA, GFF and GBK files of the *C. difficile* 630 and R20291 strains, were also downloaded from NCBI server. The reference FASTA files were indexed using burrows wheel aligner tools:

```
$bwa index reference.fasta
```

3.2.1.2. Quality checks on the sequencing data

The data was put through quality checks using tool FastQC (Andrews, 2010). FastQC is a quality control tool that provides a simple way to do some quality control checks on raw Illumina sequence data (Andrews, 2010). The tool analyses an input BAM, SAM or FastQ file, determining basic statistics of the file, per base sequence quality, per sequence quality scores, per base sequence content, per base GC content, per sequence GC content, per base N content, sequence length distribution, sequence duplication levels, overrepresented sequences and Kmer content (Andrews, 2010). It returns a simple pass or fail on each of these modules, to help determine if there is any problem with the raw data that we should be aware of before doing any further analysis (Andrews, 2010). Please refer to the Methods chapter (Chapter 2) of this thesis, for more details on the statistical tests FastQC uses.

3.2.1.3. Assessing the insertion landscape across the genome

After we have checked the quality of the sequencing data, we needed to check the pattern of transposon insertion across the genome, per sequencing sample. For reliable and reproducible TraDIS essentiality classification, it is important to have transposon libraries with maximum transposon saturation. This means that in theory (if we assume all genes within the genome are non-essential), the pool of mutants should be sufficiently diverse to ensure a minimum of a single transposon insert within every gene across the *C. difficile* genome. If the library is not completely saturated, we risk obtaining false positives from the TraDIS analysis. We used Tn-seq explorer to assess if the transposon insertions, within a sample, across the genome follow a bimodal distribution (Figure 4), which is a good indication of maximum saturation. Libraries with low saturation tend to have a unimodal distribution, as will be explained later.

Tn-seq Explorer (Solaimanpour, Sarmiento and Mrázek, 2015) uses two approaches to this saturation analysis: the insertion density approach and the sliding window approach. The former approach is based on the insertion density of each gene, which is calculated by the number of total reads or number of unique insertions occurring across a gene, divided by gene length (Solaimanpour, Sarmiento and Mrázek, 2015). If transposons are inserted randomly throughout the genome the insertion density of each gene is expected to be equal for all the genes, apart from random variance. However, this is not the case, and the empirical distribution of insertion densities among different genes is generally bimodal (Figure 4): with second wider peak representing the non-essential genes which demonstrate little to no change in insertion densities as a result of selection, and the first narrow peak representing the essential or advantageous genes which demonstrate low insertion densities as a result of selection eliminating the corresponding mutants. This distribution allows us to assign a cut-off point for essentiality at the point separating the two peaks. Genes with lower insertion-densities than the cut-off point are considered essential. Although this method is widely used, it is erroneous as it compares insertion densities among genes of varying gene lengths, completely ignoring the fact that random variance of these insertion densities is higher in genes of smaller length (Solaimanpour, Sarmiento and Mrázek, 2015). This is much less of a problem when the library is densely saturated with transposon inserts and has shown to be successfully used in such situations.

Within the sliding window approach, instead of counting inserts within genes, we count the number of unique inserts (N_w) across a “window” of a fixed bp size (l) (Sarmiento, Mrázek and Whitman, 2013). Then the window is moved down the genome by a fixed bp distance, usually

lesser than the fixed bp size. In this new position insertions within the window are counted once again. Insertion counts between the two window positions are compared to give an essentiality index value. This comparison is done all the way down the whole genome. Therefore, the essentiality index for a given genomic DNA segment from point x to point y , is calculated by comparing the combination of windows between x and y , deriving the maximum N_w among those windows using the following formula (Sarmiento, Mrázek and Whitman, 2013):

$$S_{x,y} = \max_{x \leq w \leq y-l+1} N_w$$

If the gene (g) is smaller than the window size, the essentiality index is calculated by this formula instead (Sarmiento, Mrázek and Whitman, 2013):

$$S_g = \min_{x \leq \alpha, y \geq \beta} S_{x,y}$$

This method therefore avoids comparisons among genes of variable length (Solaimanpour, Sarmiento and Mrázek, 2015). In order to understand the density of transposon insertion across the genome, within each library, we performed a sliding window analysis using Tn-seq Explorer.

A graph of number of insertions within a window *versus* number of windows with the given number of insertions, was compiled (Figure 6). The graph changes its shape as the samples get denser (left to right, Figure 6a). Low transposon density/ saturation of sample is denoted by a unimodal distribution (far-left graph, Figure 6a) and maximum transposon density/ saturation of sample is denoted by a bimodal distribution (far-right graph, Figure 6a). The

majority of windows in TraDIS samples for R20291 contain 25 to 75 inserts and demonstrates a bimodal distribution (Figure 6b). The samples are therefore suitably dense for our analysis. However, the majority of windows in the 630 samples (Figure 6b) have very few inserts and have a unimodal distribution, indicating that the 630 transposon library was less dense. Conclusions drawn from the 630 transposon library would have to be validated further with experimentation or alternatively TraDIS could be repeated with a higher density library.

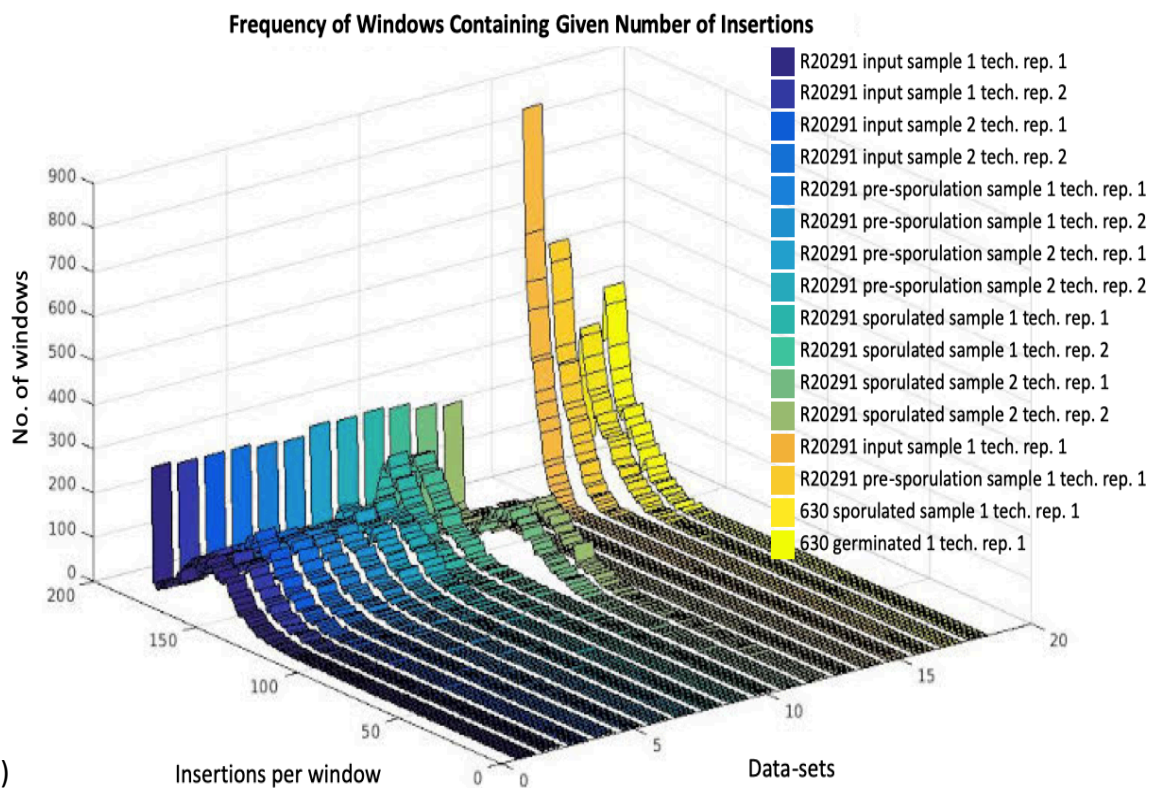
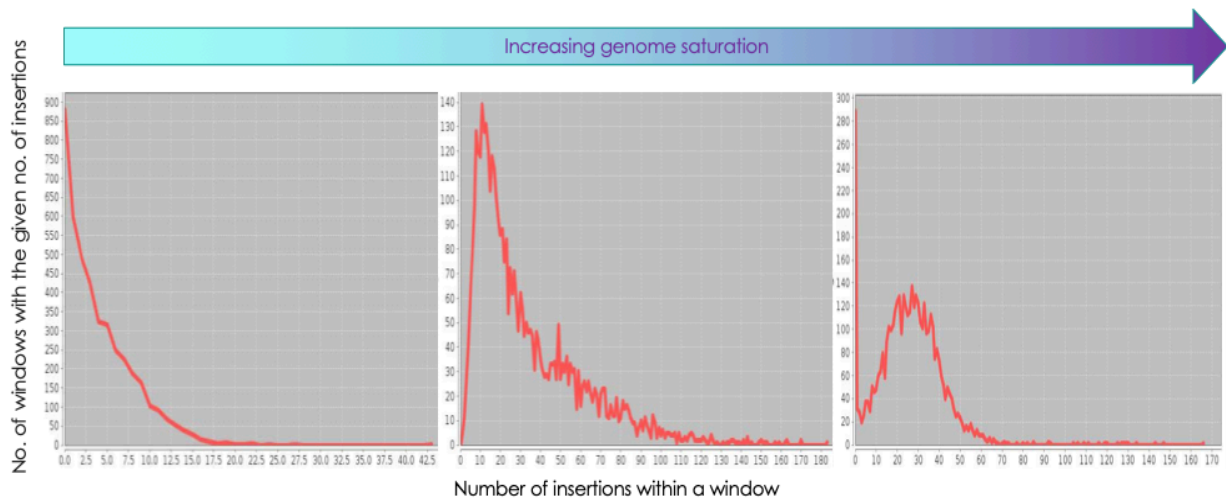


Figure 6: Transposon saturation levels of samples derived from *in vitro* experiment.

Figure 6a: The Y-axis shows the number of window positions that yield the insertion count shown by the X-axis. First graph is from a low-density library, second graph is from a medium density library and the third graph is from a high-density library. Figure 6b: Rainbow volcano graphs of number of insertions within a window (X-axis) *versus* number of windows with the given number of insertions (Y-axis). The Z-axis are the datasets, labelled in the legend (Note: Tech. rep. = technical replicate).

3.2.1.3. Filtering true reads and alignment to reference genome

Figure 7 is an infographic showing how the data was processed. Firstly, fastq files of technical replicates were merged together. Then reads that did not match the transposon tag (3'-CAACCTGTTA-5') were filtered out. Then this 10bp transposon tag was stripped from the remaining reads. These reads were then aligned to the respective *C. difficile* genome using bowtie alignment. The reads and their alignment to the different genomic regions were viewed using Artemis (Berriman *et al.*, 2005) (Figure 8) and Dalliance (Down, Piipari and Hubbard, 2011). Here distribution of the unique transposon inserts was checked by visually scanning for discrepancies.

To elaborate on the methodology, firstly FASTQ files of technical replicates were merged:

```
$cat Input_1a.fq Input_1b.fq > Input_1.fq
```

Reads in this merged file that carried the 10bp transposon tag “CAACCTGTTA,” with a mismatch tolerance of 2bp, were trimmed and put in a file with the suffix “.cutadapt”. These files were later unzipped for further analysis. Reads that did not carry the transposon tag were discarded.

```
$cutadapt -g '^CAACCTGTTA' -O 10 -e 0.20 --no-indels --discard-untrimmed Input_1.fq -o  
Input_1_notag.fq.gz >& Input_1.cutadapt
```

```
$gunzip Input_1_notag.fq.gz
```

The filtered reads were then aligned to the respective reference genome (i.e. *C. difficile* 630 or *C. difficile* R20291) using Burrows-Wheeler Aligner and these aligned reads were put into a SAM file. The filtered SAM file was then converted to a sorted BAM file using SAMTOOLS.

```
$ bwa mem -t 3 -L 100,5 newsequenceR20291.fa Input_1_notag.fq | chifilter | samtools  
view -b - | samtools sort -O bam -T tradis.tmp -> Input_1_mapped.bam
```

A reference Genbank file for the *C. difficile* strain being studied was used to obtain the nucleotide start and end position for each gene. Using this information total number of reads per gene was counted. To elaborate, firstly, the start, end and strand of each read were extracted from the filtered BAM files. The number of reads at each unique insertion site were then counted and collated into a “.ann” file, adding columns describing the overlapping gene and its product (in the event that the insertion is intragenic). This process is reflected in the following command:

```
$ls *.bam | parallel -j 8 'bedtools bamtobed -i {} | cut -f 1-3,6 | uniq -c | uniqbed2ann --  
locus --gb sequenceR20291.gb > {}.ann'
```

The .ann file generated by the previous command was then used to count the total number of read in each annotated gene. Intergenic reads are discarded:

```
ls *.ann | parallel -j 8 'perl -lne '"@F=split /\t/; next if not $F[3] or $F[3]=~/upstream/ or  
$F[3] eq q(gene); push @g, $F[3] if not exists $c{$F[3]}; $c{$F[3]}+= $F[5]; }{ print join "\t",  
$_, $c{$_} for @g'" {} > {}.count' &
```

These “.count” files were used to calculate log₂ fold change between reference and samples reads as described below. The DESeq2 program was used to normalize the datasets and calculate the log₂ fold change of number of inserts between two data sets (Figure 7 and Supplementary material, Table S1). The pairs chosen for comparison were:

- Input sample *versus* pre-sporulation sample for R20291 to tell us about growth

- Pre-sporulation sample *versus* sporulation sample for R20291, and sporulation sample *versus* germination sample (for each strain, where available) to tell us about temporal changes in infection
- Input sample *versus* sporulation sample for R20291 to tell us about sporulation mechanisms

Each \log_2 fold change was calculated with its own p-value (Figure 7). The p-value stated herein is actually the “adjusted p-value” output from the DESeq2 analysis. To determine the significance of difference in insertion frequency, a Wald statistical test is used on the dataset to generate a two-tailed p-value. The Benjamini-Hochberg correction is then applied to the derived p-values to give the adjusted p-values used for this thesis. Genes that showed a decrease in number of reads compared to the reference, were denoted by a negative \log_2 fold change value (Supplementary data, Table S1, Table S2, Table S3, Table S4 and Table S5). Whereas, genes that showed an increase in number of reads compared to the reference, were denoted by a positive \log_2 fold change value (Supplementary data, Table S1). Genes that show no difference in number of inserts between sample and reference, have a \log_2 fold change value of zero.

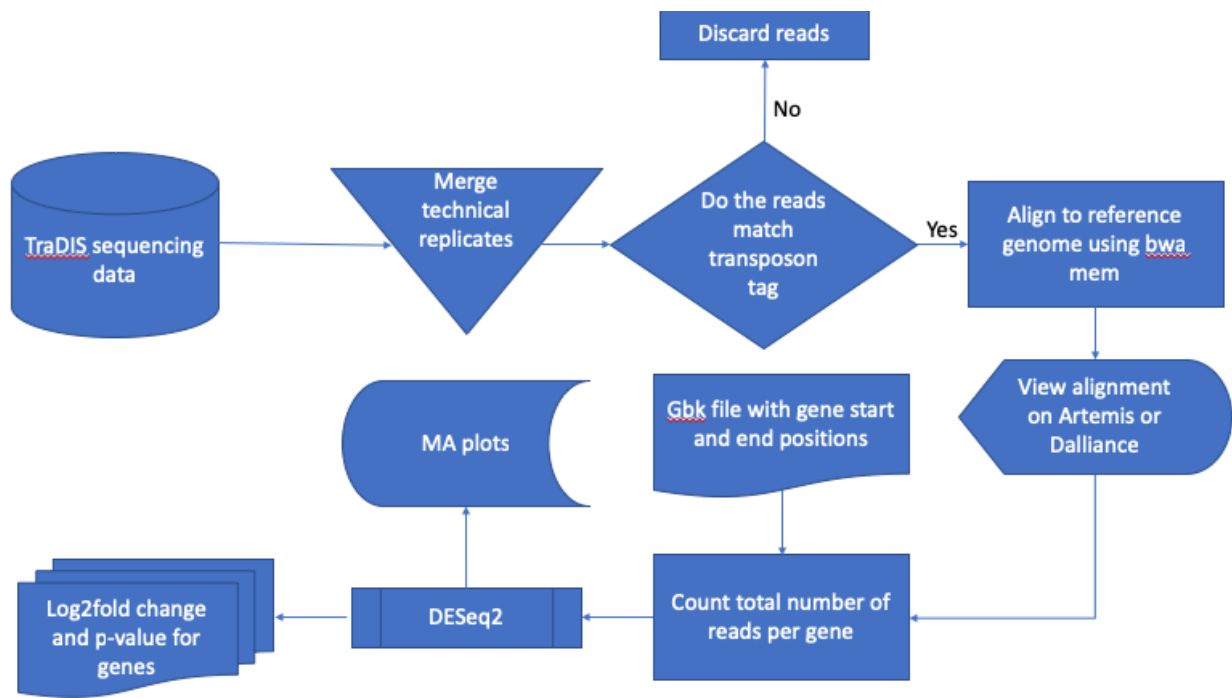


Figure 7: Flow of data when analysing output from Illumina sequencing runs.

Flowchart symbols: Cylinder indicates database, downward facing triangle indicates storage of finished goods, diamond indicates decision-making, rectangle indicates process step, rectangles with lines on left and right indicate predefined process, concave rectangle indicates stored data, rectangle with wave-motif at bottom indicates document, multiple rectangles with wave-motif at bottom indicates multi-document, rectangle with convex end on right and pointed end on the left indicates display.

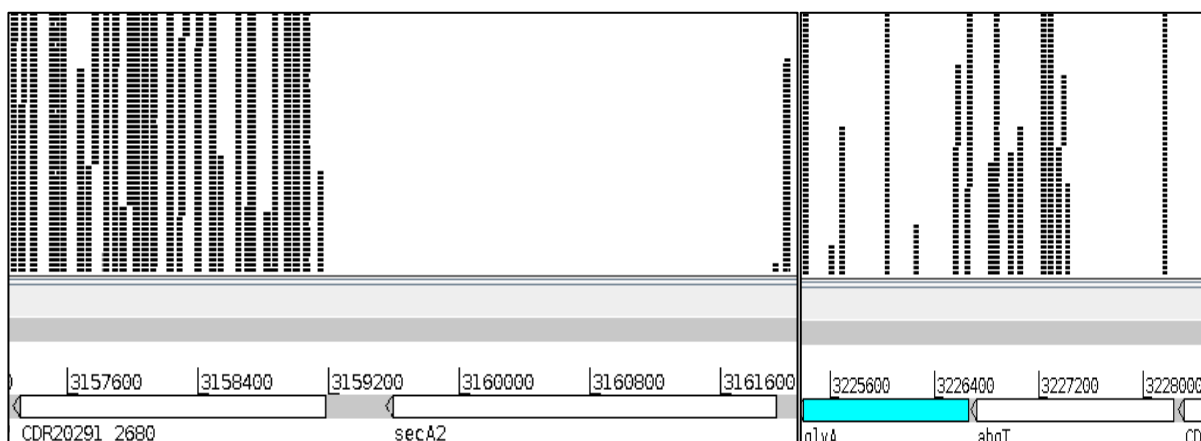


Figure 8: Example of TraDIS data visualisation in Artemis.

Screenshot from Artemis Comparison Tool software showing reads from reference/control sample aligned to a *C. difficile* R20291 GenBank file. Each black tower indicates one unique transposon insert. The height of each tower denotes the number of PCR amplifications of the transposon read. The *secA2* gene is an example of a gene which is essential *in vitro*. The *CDR20291_2680* gene is an example of a non-essential gene *in vitro*. The *glyA* and *abgT* genes are examples of genes of ambiguous essentiality *in vitro*.

Unfortunately, after the cutadapt filtering where reads that did not carry the 10bp transposon tag (with a tolerance of 2bp) were discarded from the *in vitro* experiment sequencing files, very few reads were left to be analysed with “.count” files only carrying about 20-30 genes showing read change from reference. Hence the DESeq2 analysis was redone after skipping cutadapt filtering.

3.2.2. Summary of *in vitro* dataset analyses

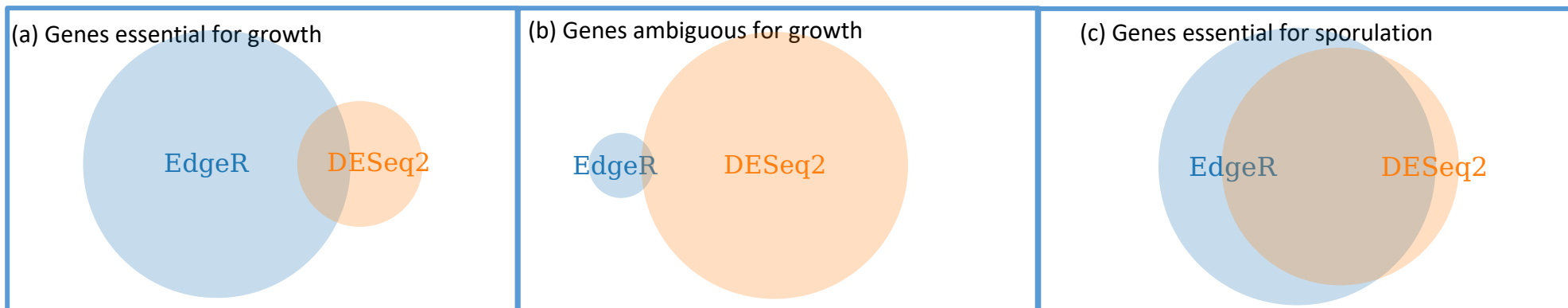
Our analysis, using DESeq2 within our pipeline, shows that 89 genes were required for basic survival and growth of *C. difficile* R20291 in a laboratory environment and 555 genes were classified as ambiguous essentiality for growth (Figure 9 and Supplementary data Table S2

and Table S3). It should also be noted that 43 genes, when disrupted by transposon, show a significant increase in fitness of mutants in *in vitro* conditions (Figure 9 and Supplementary data Table S2 and Table S3). The for *in vitro* growth, the mutants were grown in an anaerobic cabinet, at 37°C, in rich media from induction until mid- logarithmic-phase, followed by growth on solid BHI agar, supplemented with anhydrotetracycline and erythromycin (for 630 Δ erm) or lincomycin (for R20291), for growth over 36 generations (18-hours) before being harvested (Dembek *et al.*, 2015). Furthermore, 585 genes were essential for sporulation of R20291, and 682 genes had ambiguous essentiality for sporulation of R20291 in a laboratory environment (Table 5, Supplementary data Table S4 and Table S5). Additionally, 418 genes, when disrupted by transposon, show a significant increase in fitness of mutants during sporulation (Table 5, Supplementary data Table S4 and Table S5).

When comparing hits using the DESeq2 pipeline *versus* the edgeR pipeline used in the last analysis paper (Dembek *et al.*, 2015) (Table 5), it was evident that there was very little overlap between the hits from the two pipelines when calling for essential and ambiguous genes for growth in *in vitro* conditions (Figure 9a and 9b). However, there is a large overlap in hits between the two pipelines when calling for genes essential for sporulation, with a large percentage of DESeq2 hits matching EdgeR hits (Figure 9c). Additionally, DESeq2 appears to call a smaller number of essential genes compared to EdgeR (Figure 9d). Genes with positive log₂fold change reported for the DESeq2 pipeline cannot be compared to the genes with positive log₂fold change from the edgeR pipeline, as they were not reported within the (Dembek *et al.*, 2015) paper (Figure 9d).

Where genes that map correctly to the genome are called concordant reads (Liu *et al.*, 2015). When the mapping span or mapped orientation of the read is inconsistent with the reference genome, the read is classified as a discordant read (Liu *et al.*, 2015). But apart from these two mapped read types, we also have split reads (Liu *et al.*, 2015). These are reads that span a structural variation breakpoint. If both parts of this read uniquely map to the reference genome they are classified as soft-clipped read by most mapping algorithms like the Burrow-Wheeler Alignment tool (Li and Durbin, 2009; Liu *et al.*, 2015) used in our TraDIS data analysis pipeline. If either or both of the reads cannot be mapped they are simply categorised as unmapped reads (Liu *et al.*, 2015). The term “split reads” used within this thesis, refers to soft-clipped reads. Within our *in vitro* and *in vivo* data analysis (explored in Chapter 4) we observe some genes had no transposon insertions save for a few (e.g. 1-5 reads) that aligned to the gene. These reads were hypothesized to have come from split reads, however the phenomenon requires further investigation.

We also see genes that are known to be essential sporting a small number of transposon insertions. These insertions could be attributed to mutants from the initial library that are unable to grow and divide but still get harvested and sequenced (Langridge *et al.*, 2009). Even though these mutants are present in low frequency, TraDIS is sufficiently sensitive to occasionally identify these sequences (Langridge *et al.*, 2009). Previous TraDIS studies (Langridge *et al.*, 2009) and this one as well, have seen such insertions lost over time.



(d) Statistics of edgeR pipeline *versus* DESeq2 pipeline

Category	Log2fold change cut-off	p-adj cut-off	Previous TraDIS data analysis pipeline with EdgeR analysis	TraDIS data analysis pipeline with DESeq2 analysis	Common hits from both pipelines	EdgeR pipeline exclusive hits	DESeq2 pipeline exclusive hits
Genes essential for growth	$x \leq -2$	$x \leq 0.05$	404	89	32	372	57
Genes displaying ambiguous essentiality for growth	$-2 \leq x \leq 0$	$x \leq 0.05$	33	555	4	29	551
Genes with positive log2fold change	$x \geq 2$	$x \leq 0.05$	Unreported	43	Not applicable	Not applicable	Not applicable
Genes essential for sporulation	$x \leq -2$	$x \leq 0.05$	798	585	529	269	56
Genes displaying ambiguous essentiality for sporulation	$-2 \leq x \leq 0$	$x \leq 0.05$	Unreported	682	Not applicable	Not applicable	Not applicable
Genes with positive log2fold change	$x \geq 2$	$x \leq 0.05$	Unreported	418	Not applicable	Not applicable	Not applicable

Figure 9: Comparison of TraDIS analysis results from (Dembek et al., 2015) versus this work.

Venn diagram showing overlapping gene hits between pipeline using DESeq2 and pipeline using edgeR when analysing genes (a) essential for growth (b) ambiguous for growth and (c) essential for sporulation, in *C. difficile in vitro*. The table (d) shows comparison statistics of TraDIS analysis pipeline using DESeq2 versus pipeline using edgeR.

3.2.2.1. Analysis and validation of partial essentiality

Yet another phenomena was visible in these datasets, instances of partial essentiality. In these cases, a single gene has a region lacking transposon inserts, followed by a region with a large number of transposons inserts within the same gene. This may be due to the presence of an essential domain followed by one that is dispensable. If this were genuinely the case, then this would allow for a domain level resolution of essentiality under a selective pressure. However, there are some limitations to this analysis. For example, if a gene contains a non-essential domain, followed by an essential domain, this would not be evident from the TraDIS datasets. This is because any transposon inserts in the first non-essential domain would mean the mutant would have a problem in transcribing the following probably-essential domain. This event manifests itself as a gene with two domains, neither of which tolerates insertions –the probable non-essentiality of the first domain is masked by the essentiality of the second.

One way to study partial essentiality is to make *C. difficile* mutants where the expression of the native gene is repressed in some way, while an expression vector drives the expression of either the full-form or a truncated form of the gene. If the mutant can survive with only one domain, the other domains within the gene can be deemed non-essential. For this technique to work, the promoter controlling native gene repression and the promoter controlling

expression of the full/ truncated gene copy on the expression vector, cannot be the same. Hence, there was a need to explore multiple promoters that can work within *C. difficile*.

3.2.2.1.1. Testing repression of different promoters

As outlined in the previous section, in order to test partial essentiality, a variety of promoters were needed to control independent processes in conditional mutants. Three promoters commonly used in *C. difficile* genetics were studied. The constitutive P_{cwp2} promoter has previously been used to study Sec secretion systems in *C. difficile* (Fagan and Fairweather, 2011). The P_{tet} promoter that has been previously used to construct the first inducible promoter system for controlled expression of a plasmid-borne gene in *C. difficile* (Fagan and Fairweather, 2011). The Nisin-inducible P_{cpr} promoter has been used in plasmids to study motility and aggregation of *C. difficile* (Purcell *et al.*, 2012).

Three plasmids were made, each where one of the 3 promoters controlled the expression of the *gusA* gene, encoding β -glucuronidase, and the activity of this enzyme was assessed using the β -glucuronidase assay. Read-out of β -glucuronidase activity was used as a read-out of promoter strength (Figure 10). All three of the promoters (P_{tet}, P_{cpr}, P_{cwp}) work in the 630 *C. difficile*. In presence of 0 ng/mL of anhydrotetracycline and 0 ng/mL of Nisin, expression of *gusA* in 630 *C. difficile*, is comparable to wild type 630. The *gusA* expression is tightly repressed by P_{tet} as well as P_{cpr} promoters. Therefore, P_{tet} and P_{cpr} would likely be useful for the construction of conditional strains.

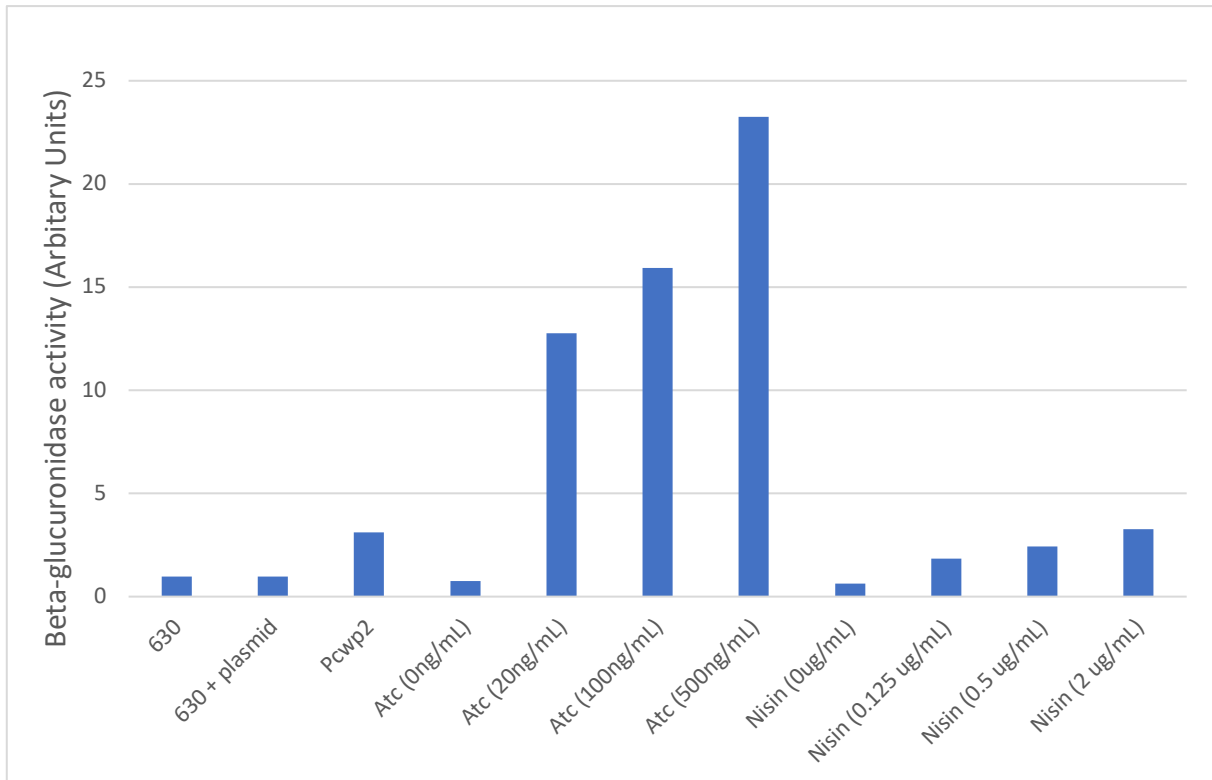


Figure 10: Analysis of inducible promoters in *C. difficile*.

Beta-glucuronidase activity was used as a read-out of promoter strength. Wild type strain 630 with no plasmid and with an empty vector, were compared to 630 carrying plasmids with *gusA* under the control of P_{cwp2} , P_{tet} or P_{cpr} induced with the indicated concentration of anhydrotetracycline (Atc) or nisin as appropriate. (n=1 due to time restrictions of rapid colour change)

3.2.2.1.2. Partial essentiality and the *polA* gene

An example of the partial essentiality phenomenon in R20291 is the *polA* gene (Figure 11). The *polA* gene codes for DNA polymerase I –a protein that fills DNA gaps that arise during DNA repair, recombination and replication (Patel *et al.*, 2001). Pol I is composed of three domains: a 5' to 3' exonuclease domain (Flap endonuclease, FEN domain), a 3' to 5' exonuclease domain and a polymerase domain (Patel *et al.*, 2001). The 5'-3 DNA polymerase domain located towards the C-terminus and the 5'-3'exonuclease domain located towards the N-terminus, both exist on the same polypeptide (Patel *et al.*, 2001). During DNA

replication, the 5' nuclease activity of Pol I is used to remove the ribonuclease portion of newly synthesized Okazaki fragments and the DNA polymerase activity fills in the resulting gap (Patel *et al.*, 2001). The proofreading 3'-5' exonuclease domain excises DNA replication errors and is considered non-essential (Patel *et al.*, 2001). When DNA is damaged, DNA lesions like UV-induced thymidine dimer, the oxidative lesion 8-oxo guanine and the alkylation lesion 4-methyl adenine occur. Gaps that result from removal of these DNA lesions are also filled by Pol I (Patel *et al.*, 2001). The 5'-3' exonuclease activity of Pol I often made it unstable for many molecular biology research applications. Hence deletion of the 5'-3' exonuclease domain, resulted in the Klenow fragment (Figure 11, inset) which has been used for testing the first PCR protocols and is the source of heat-tolerant Taq polymerase (Pelt-Verkuil, E., Belkum and Hays, 2008).

In the 630 TraDIS datasets the DNA sequence encoding the FEN domain does not tolerate transposon inserts, but the rest of the gene does (Figure 11). This would mean that mutants with a transposon insert within the FEN domain were less fit under the conditions of initial library creation. Therefore, it is hypothesized that the FEN domain is essential for survival and growth of 630 *C. difficile in vitro*.

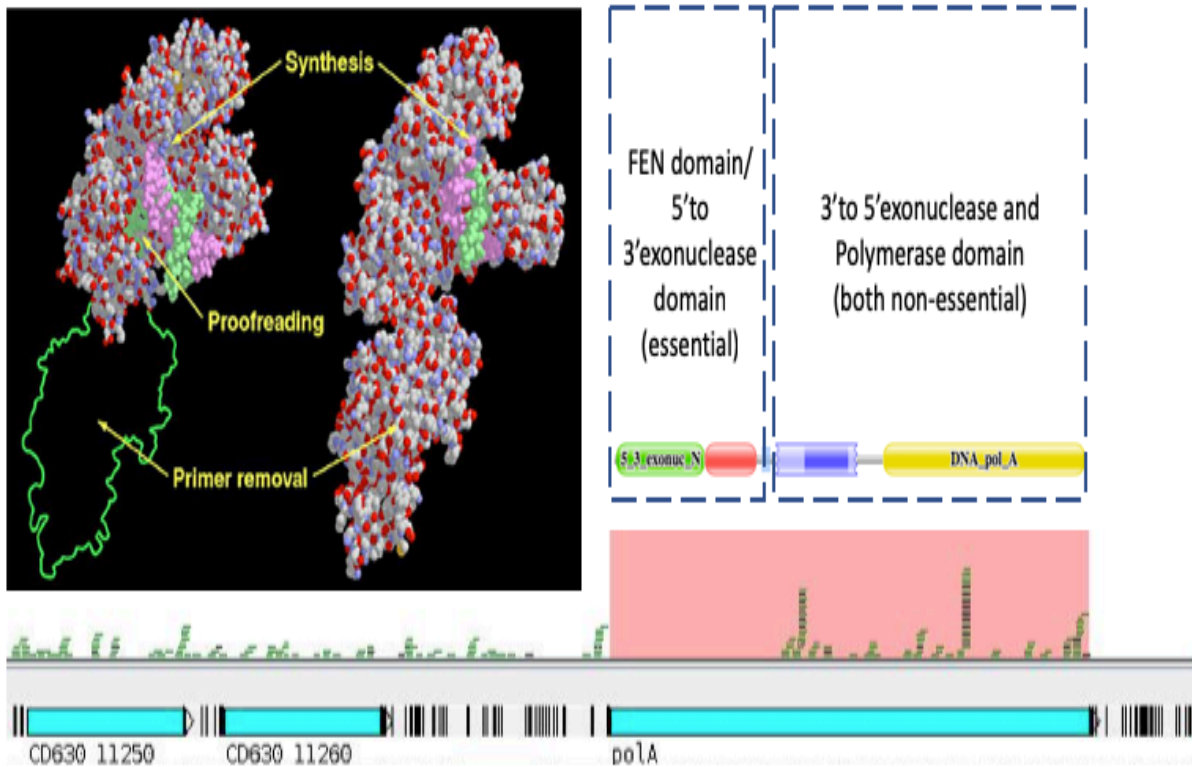


Figure 11: Partial essentiality of the *polA* gene.

Inset PDB image: On the left is the Pol I enzyme from *E. coli* which is only composed of the Klenow fragment and is missing the 5'-3'exonuclease domain (PDB entry 1KLN). On the right is the Pol I enzyme from *Thermus aquaticus* composed of all three domains (PDB entry 1TAU). (Permission: PDB image is from Wikimedia Commons and is classified as public domain). The bottom track shows reads from in vitro TraDIS data aligned to the 630 *C. difficile* genome. Each green and black tower indicates a single transposon insert. The 3' to 5'exonuclease domain and the polymerase domain of the *polA* gene have many transposon inserts; whereas the 5' to 3' exonuclease domain have none.

To test if the partial essentiality seen in the *polA* TraDIS data was a biological phenomenon and not just an artefact of sequencing or the analysis techniques, we decided to create a conditional mutant (Figure 12a). The conditional mutant would be the *C. difficile* strain 630 Δ P_{*polA*}::P_{*tet*} carrying an expression vector with another copy of the *polA* gene under tight control of a promoter. Two different promoters were being studied for this purpose: P_{*cwp2*}

and P_{cpr} promoters were being tested against P_{tet} , as elaborated in the previous section (4.2.2.1.1.). When the genomic P_{tet} promoter is left un-induced, the bacterium is entirely reliant on *polA* expressed from the expression vector, for survival. Experiments could then be conducted using variations of this expression plasmid. Variations include presence and absence of the FEN domain, and with and without the 3' to 5' exonuclease domain and polymerase domain to validate domain essentiality data.

For this cloning design (Figure 12a), we first needed to create a $630\Delta P_{polA}::P_{tet}$ background strain into which the expression plasmid would be introduced. To create the background strain a recombinant plasmid carrying P_{tet} along with the homologous regions around P_{polA} , was introduced into *C. difficile* 630. We isolated bacterial cells that had successfully undergone a single recombination event. The genome of these cells had undergone plasmid integration and formed a merodiploid possessing both wild type and inducible copies of *polA*. In theory a second recombination event, to excise the vector, would resolve this merodiploid and leave behind either wild type or an anhydrotetracycline inducible genomic *polA*. However, when putative mutants were screened by PCR, only wild type or merodiploid genotypes were to be detected (Figure 12c). The PCR products from the merodiploid included a 2000bp fragment carrying a *polA* copy with the P_{tet} promoter from the plasmid and a 1399bp fragment carrying the native *polA* promoter (1399 bp). The wild type generated only the latter shorter 1399bp fragment. Mutants with an anhydrotetracycline inducible genomic *polA*, which would have generated the former longer 2000bp fragment, could not be isolated. Initially, the merodiploid clones were thought to actually be a mixed population of wild type and anhydrotetracycline-inducible *polA* mutant. However, after multiple attempts to streak these colonies to purity, the double-fragment occurrence on the gel persisted. We

hypothesize that the plasmid fragment carrying P_{tet} and the fragment containing native P_{polA} kept competing for the same place in the genome. In essence, we believed we had encountered a transient phase involving the switching of the two DNA fragments carrying the two different promoters. This barrier leads us to pursue a change in mutant design (Figure 12b).

The second take on mutant design involved placing the *polA* under the control of a P_{tet} promoter into the *pyrE* locus (Figure 12b). Our lab have adopted this genomic location based on previous observations that insertions here do not seem to cause any unintended phenotypic effects or have negative impacts on the bacterium (Roberts *et al.*, 2016). We are the only lab doing this. We have previously used the *pyrE* locus as a complementation locus for deletion mutants (Dembek *et al.*, 2015) and have also ventured into using the genomic location to study independent promoter-gene pairs. While inducing this mutant with anhydrotetracycline to induce expression of the *polA* gene from the *pyrE* locus, a clean deletion of the native *polA* gene could be made. Following deletion of the native *polA* gene, growth would be entirely dependent on the inducible copy inserted at the *pyrE* locus. Removal of induction would be lethal in this case. This could then be complemented *in trans* from a constitutive expression vector bearing the full length *polA* gene or truncated versions to test if the 5' to 3' exonuclease domain coding for the flap endonuclease can functionally replace the full DNA Pol I protein.

The plasmid designed to deliver the *polA* gene controlled by a P_{tet} promoter into the *pyrE* locus, while being just fine in NEB5alpha *E.coli*, was toxic to CA434 *E. coli*. This strain grew a lot slower when carrying the plasmid. Hence, the plasmid was put into a NEB5alpha *E.coli*

strain already carry the conjugative plasmid R702. Conjugation with this strain and 630 *C. difficile* was in process at the time of writing this thesis and will be carried forward by PhD student Shauna O’Beirne.

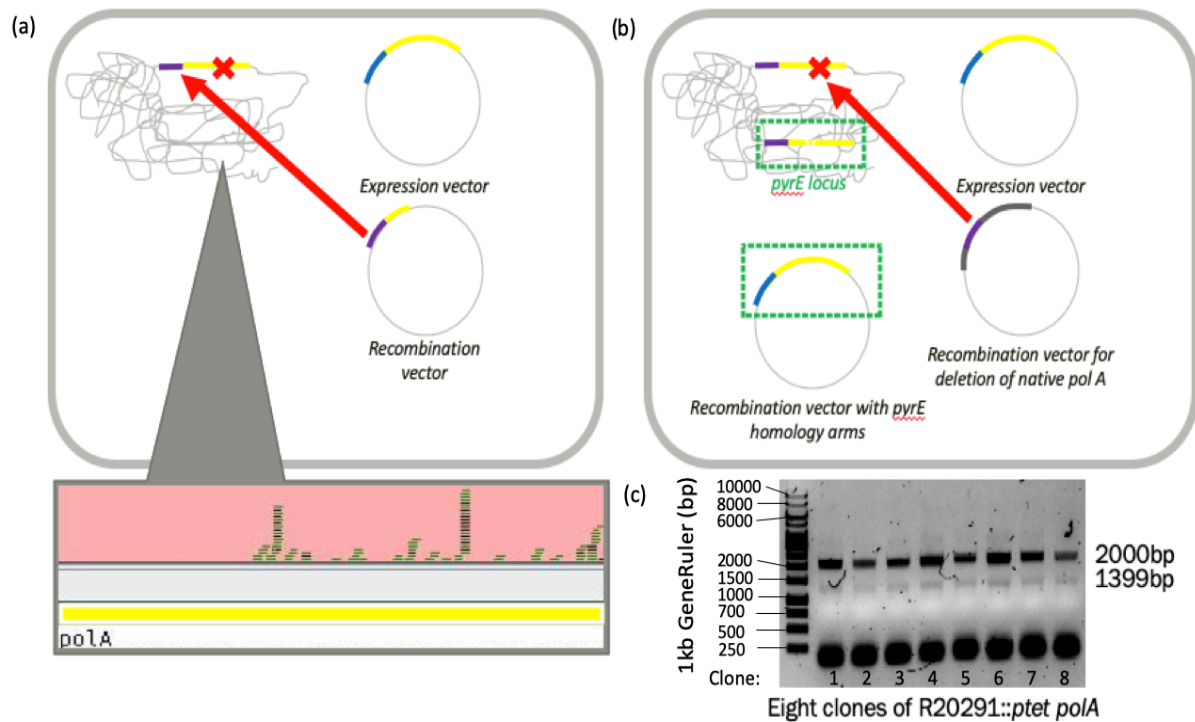


Figure 12: Molecular cloning designs for validating partial essentiality of the *polA* gene.

(a) First design to make a conditional mutant *C. difficile* strain 630 Δ *polA*::*P*_{tet using the *codA* allele exchange vector. An expression vector with an extra copy of the *polA* gene under tight control of either *P*_{cpr} or *P*_{cwp2} is also present in this mutant. Lack of anhydrotetracycline turns off expression of the native *polA* gene and growth would be entirely dependent on the inducible copy inserted at the *pyrE* locus. Therefore, removal of anhydrotetracycline induction and induction of the expression vector would be lethal in this case. (b) Second design to make a conditional *polA* mutant by clean deletion of the native *polA* gene using the *codA* allele exchange vector. An expression vector with an extra copy of the *polA* gene under tight control of either *P*_{cpr} or *P*_{cwp2} is also present in this mutant. Just the removal of induction of the expression vector would be lethal in this case. Both strains (in case a and case b), could then be complemented in trans using a constitutive expression vector bearing the full length *polA* gene}

*or truncated versions, to test if the 5' to 3' exonuclease domain coding for the flap endonuclease, can functionally replace the full DNA Pol I protein. (c) Checking for second recombination event in mutants made using design from Figure 12a. Gel shows a transient phase where fragment from WT 630 is 1399bp in length and the fragment from mutant 630 where P_{tet} controls *polA* expression, is 2000bp in length. The P_{tet} promoter is bigger than the native P_{polA} promoter, therefore it yields a larger 2000bp PCR product.*

3.3: Discussion

When comparing the DESeq2 and edgeR pipelines (Figure 9), we see that there is a large overlap of negative log₂-fold-change genes during sporulation, but a very small overlap when considering negative log₂-fold-change genes during growth. One possible reason for this could be that the library was not grown for enough generations for mutants with extremely low fitness to die out. As a result, log₂-fold-change between mutants of high fitness and mutants of low fitness are not significantly differentiated. The DESeq2 pipeline (Figure 7) was chosen for future TraDIS data analyses, as it gives us a smaller list of essential genes to work with, than the EdgeR pipeline used within the previous analysis (Figure 9d). Even though DESeq2 calls a smaller number of essential genes, a large percentage of DESeq2 genes essential for sporulation matched EdgeR genes essential for sporulation (Figure 9c). This would suggest that DESeq2 may be outputting a larger percentage of true positive hits. We seek to test this theory by choosing genes with negative log₂-fold change values and generating *C. difficile* gene deletion mutants. These mutants will then be tested for their fitness in various conditions, to validate the DESeq2 analysis pipeline.

There are a couple of other reasons why we chose DESeq2 over edgeR. DESeq2 shows higher sensitivity under small log₂-fold-changes (Zhou, Lindsay and Robinson, 2014). It has a robust normalisation method when faced with a large imbalance in positive *versus* negative log₂-fold-changes and large log₂-fold-change values (HBC training, 2017). This is extremely useful as we are expecting a larger number of genes to exhibit negative log₂-fold change than positive, and we expect a subset of these genes to carry large negative log₂-fold-change values. It should be acknowledged, that out of the two software only edgeR takes into account the gene length (HBC training, 2017). Although, this may be an advantage for other RNA-seq experiments, it's a moot point for TraDIS data analysis as we are not comparing genes within the same sample but are rather comparing the same gene across different samples.

The TraDIS data analysed for the R20291 library grown in *in vitro* conditions, indicated that some genes can have a positive log₂ fold change (Supplementary data, Table S1). Mutants with transposon inserts within these genes would perform better than wild type in *in vitro* conditions. This is most likely due to the fact that the pathways these genes are involved in consuming a lot of energy and under stressful conditions these pathways can be disposed so as to redirect energy into survival mechanisms. This can be validated by generating deletion mutants of these genes and testing them under different conditions, so see if results can be replicated. This has not been done within this thesis but can be taken up as further research into the topic.

This phenomenon can be interpreted in two ways: firstly, there might be an error in the normalization of the sample reads *versus* the reference reads. To understand this bias, we have to first understand normalisation and methods by which DESeq2 and edgeR normalise

data. Normalisation of TraDIS data is required so that genes are not classified as essential for non-biological factors. For example, genes should not be classified as essential due to factors like sequencing artefacts or bias in the chosen analysis method.

Essentiality classification for TraDIS analysis is not only dependant on choice of program for differential expression analysis, but is also dependant on cut-offs used. One of the biggest problems in using insertion mutagenesis combined with TraDIS, is that there is no predefined cut off value for negative \log_2 fold change that helps classify a gene as essential. For example, there is no set number of unique transposon inserts within a gene of a given length before the gene is considered unambiguously essential in a certain environment. Additionally, we cannot be certain what is the smallest possible gene length the TraDIS analysis works with. Answers to many of these problems can be solved by creating highly dense libraries and experimentally validating the data with deletion mutants.

The 630 library was not completely saturated with transposons and therefore did not have a high enough resolution to allow for a confident classification of essential genes. Hence, the partial essentiality data (such as the data on *polA*) needed to be validated experimentally. An increase in transposition frequency and number of mutants harvested, would improve saturation of the transposon library. These methods were used in Chapter 5 to improve the quality and resolution of the new transposon libraries.

Partial essentiality seen in *polA* could just be attributed to an unsaturated library and therefore does need some experimental evidence to support the phenomenon. The inability to get rid of the native *polA* gene in the first design (Figure 12a) could be down to a number

of reasons. It could be possible that the native *polA* promoter controls more than just the *polA* gene controlling a whole operon of genes essential *in vitro*. Additionally, within the second design (Figure 12b) the *polA* gene on the *pyrE* recombination plasmid, is under the control of the P_{tet} promoter. Although this promoter highly represses *polA* expression, there is still some leaky expression of the protein in the absence of any induction. This may be lethal to certain bacterial strains, such as CA434 *E. coli*.

As far as can be deciphered by the UniProtKB results, 630 *C. difficile* has genes encoding pol I, pol IV and components of pol III. The pol I protein has two major functional domains, a 5' to 3' polymerase (towards the C-terminus) and 5' to 3' exonuclease (towards the N-terminus). The additional proofreading 3' to 5' exonuclease which excises DNA replication errors has long been considered non-essential (Patel *et al.*, 2001). As stated previously, the 5' to 3' exonuclease domain is responsible for removing the ribonucleotide primer of newly synthesized Okazaki fragments and the 5' to 3' polymerase fills in the resulting gap. The polymerase domain also fills in the DNA gaps that result from removal of a variety of DNA lesions during DNA repair. Given the importance of the polymerase domain it is extremely interesting that the domain appears to be non-essential within our *in vitro* data.

Chapter 4: Genes essential for colonisation and survival *in vivo*

4.1: Introduction

From the previously published analysis, 404 genes were required for *C. difficile* growth *in vitro* while 798 genes identified were likely to impact sporulation (Dembek *et al.*, 2015). After assessing the resolution and coverage depth of the R20291 and 630 library samples, we decided to only expose the R20291 library to the *in vivo* environment of the mouse gut. The 630 library had low transposon density and was not sufficiently saturated for good resolution. This *in vivo* experiment would give us a chance to monitor the fitness of the introduced mutants over the course of the infection, through collection of faecal samples, extraction of *C. difficile* gDNA and TraDIS.

Mutants that were fit within the mouse gut and survived were therefore sequenced. These mutants had inserts in genes not required for survival within the mouse gut. However, we are more interested in the mutants with low fitness within the gut and mutants that completely die out in the gut environment. These are mutants with insertions in genes required or absolutely essential, respectively, for survival within the gut environment. We intended to identify these genes and create a network of biological functions they may be involved in. The data derived from such an analysis would give us a better insight into the colonisation and infection mechanisms of *C. difficile*. This in turn would give us a series of different proteins and pathways we could target to produce novel antibiotics or treatments to combat *C. difficile* infection.

4.2 Methods and Results

Animal experiments, library preparation and genomic DNA extraction for sequencing (outlined in sections 4.2.1. and 4.2.2. of this chapter) were carried out by Jo Monger and Ana Arbeloa at Professor Neil Fairweather's Laboratory, at the Faculty of Natural Sciences, Department of Life Sciences, Imperial College London.

4.2.1. Passage of the R20291 transposon library through the mouse gut

Twelve C57BL/6 mice were brought to the facility and divided into two cages of 5 mice each (Figure 13) and a third cage with 2 mice. They were given 5 days to acclimatise. The mice were then pre-treated with clindamycin to make them susceptible to *C. difficile* infection; 250 mg/L of clindamycin in drinking water for 7 days, with the water being changed daily. It should be noted that this pre-treatment can be done with a cocktail of antibiotics. This cocktail would typically include Vancomycin, Colistin, Gentamycin, Metronidazole and Kanamycin (Chen *et al.*, 2008; Hutton *et al.*, 2014; Erikstrup *et al.*, 2015). This week of antibiotic pre-treatment was followed by no antibiotic treatment for one day, where the water was replaced with normal drinking water. The next day, each of the ten mice in cage 1 and 2 were infected with 5×10^6 spores in 200 μ L PBS, by oral gavage, from the recently generated R20291 library. This was from a batch of 9.4×10^9 spores generated *in vitro* from this library. The final two mice were treated with clindamycin but not infected.

From the day of infection, two faecal pellets were collected from each of the ten infected mice each day, over a period of five days (Figure 13). The singular weight of the faecal pellets was 25mg. The two pellets from each mouse were resuspended in 1 mL PBS per 100 mg of faeces. The mixture then underwent ten-fold serial dilutions and 100 μ L of each of the

dilutions were plated onto Brazier's agar plates. These plates were made the night before collection and were supplemented with cycloserine/ cefoxidine, and a defibrinated horse blood and egg yolk emulsion. Brazier's plates contain cholic acid which promotes germination of the spores. The remainder of the pellet suspension (approximately 480 μ L) was added to 5 mL *C. difficile* enrichment broth (TY, cycloserine/ cefoxidine and lincomycin (20 μ g/mL) and supplemented with taurocholate (0.1%). The next day the overnights were centrifuged at 4,000 xg for 10 minutes. The supernatant was discarded, and the pellet was resuspended in 1 mL PBS, transferred to a microcentrifuge tube, centrifuged and then frozen for sequencing later (Figure 13).

C. difficile colonisation within each mouse was tracked by counting CFUs in excreted faeces (Figure 13). CFU counts after 24 hours growth, on plates containing taurocholate, were attributed to total spores and vegetative cells. Whereas, counts from samples which were heated to 55/65°C for 30 min then grown on taurocholate containing plates for 48 hours were attributed to germinated spores alone. At peak infection, $1 \times 10^{7-8}$ CFU (Figure 13) could be found in a gram of the faeces. As control samples, two additional 5mL enrichment broth cultures were set up alongside each day's pellet-containing enrichment broth overnight batch. These two overnight cultures were inoculated with 10^6 spores from the R20291 library and processed alongside the pellet-containing enrichment broth (Figure 13).

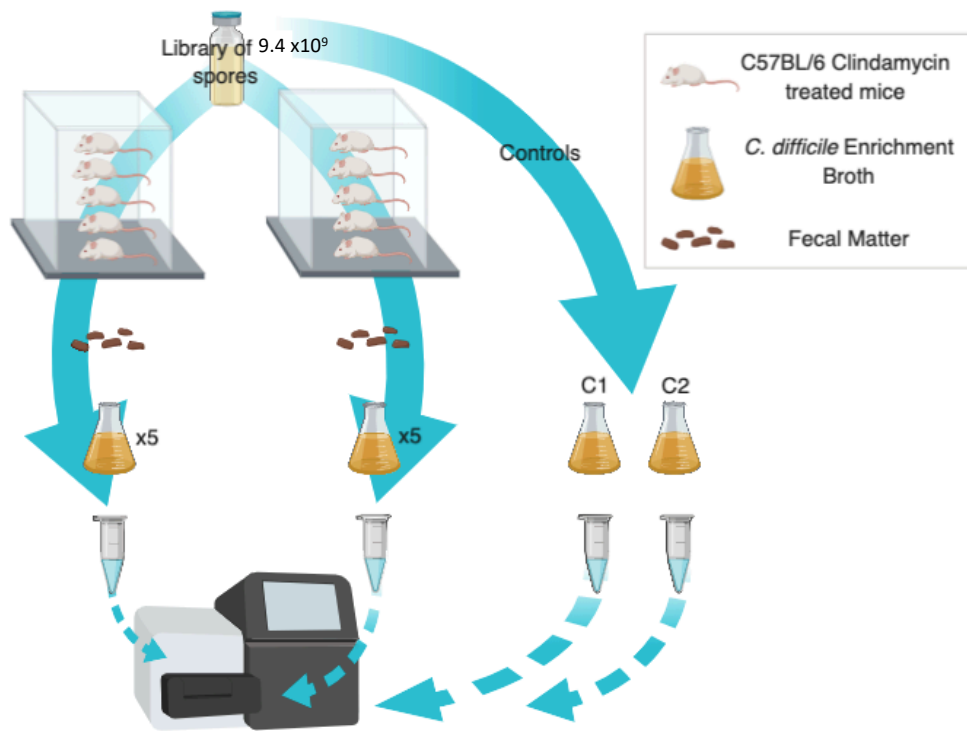


Figure 13: Schematic on how the R20291 sporulation library was used in the *in vivo* experiment.

For the *in vivo* experiment, a library of 5×10^6 spores from the R20291 transposon library were introduced into each clindamycin-treated mice through oral gavage. Faecal samples from these mice were collected and grown in a *C. difficile* enrichment broth. Genomic DNA was then extracted from the bacteria in this broth and sequenced from the transposon outwards using Illumina sequencing. As a control, the sporulation library was also grown in the enrichment broth, and sequenced.

4.2.2. Sequencing of gDNA samples after *in vivo* experiment

Sending all five samples from each of the ten mice for sequencing would be a rather expensive and excessive. A comparison of CFU (colony forming units) from spores *versus* spores and vegetative cells was performed (Figure 14). When comparing total CFUs (spores and vegetative cells) to spore CFUs over time, we see that although the total CFU count stays uniform, the number of spores being shed in the faeces (spore CFU counts) rapidly decreases from day 1 to day 3, after which it remains uniform until day 5 (Figure 14). Decrease in

shedding of spores is associated with decrease in diarrhoea and recovery of the gut from infection (Donskey, 2010). Hence this data suggests that the infection has massively decreased by day 3. The CFUs being seen past day 3 are mostly due to the shedding of vegetative cells as the infection clears out. With this information in mind, it would be sufficient to sequence samples at day 1, day 3 and day 5 as these timepoints corresponding to the most dramatic changes. Genomic DNA was extracted from the frozen samples collected on these 3 days. The gDNA samples were sent to The Wellcome Sanger Institute for Illumina sequencing (Figure 13). Samples sent were in technical duplicates. The Wellcome Sanger Institute divided each technical duplicate in half and each replicate was sequenced on a separate lane, resulting in four datasets for each mouse at each time point. The course of infection was consistent between the two cages (Figure 14 and 15).

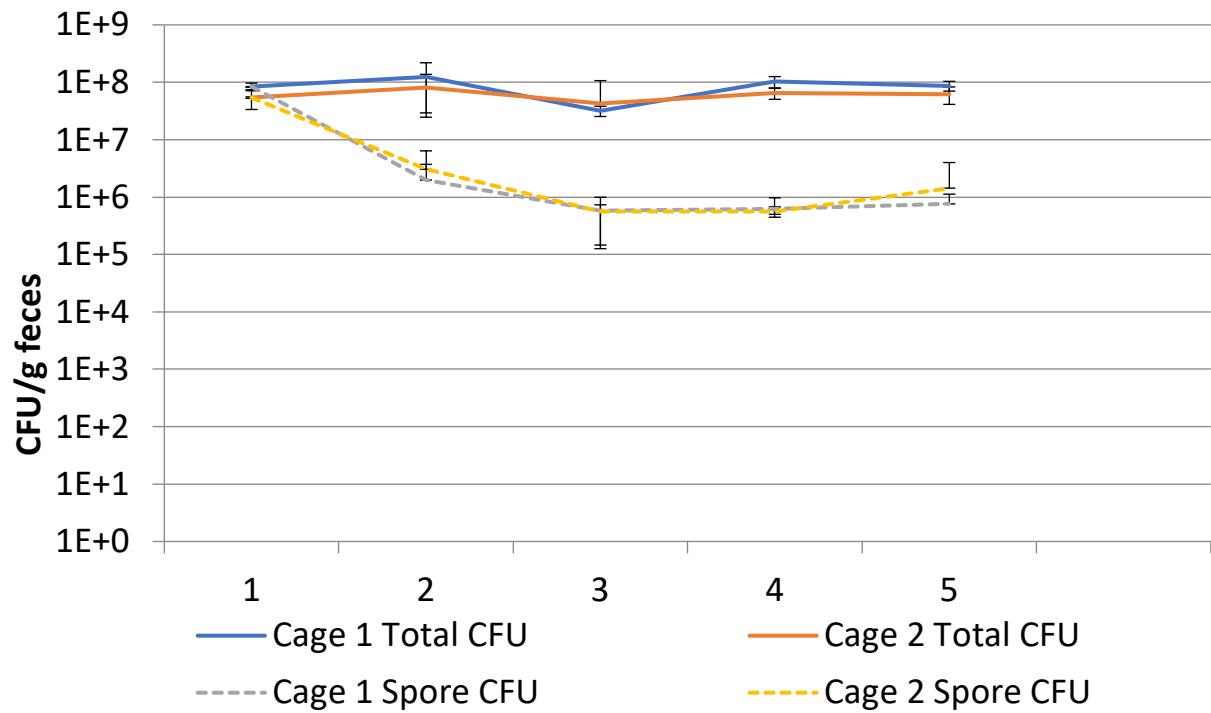


Figure 14: CFUs study from faeces of mice infected with *C. difficile*.

Infection of mice with *C. difficile*. Graphs of average total CFUs (from spores and vegetative cells) and average spore CFUs, for each cage, over the first 5 days of infection. Faecal pellets were collected from each mouse on day, total cell and spore CFUs were enumerated on Braziers agar.

4.2.3. Genes and pathways essential for colonisation and survival in the mouse gut

Reads from the Illumina runs came back as fastq files from The Wellcome Sanger Institute. Therefore, the fasta files contained four technical replicates for each sample. These four fasta files were first merged together. The reads in the merged fasta file were trimmed to remove the transposon tag (CAACCTGTTA). The merged fasta file was then aligned to the R20291 Genbank file, using Burrows-Wheeler Aligner. The alignment was viewed in Artemis to check the pattern of insertion. Insertion patterns across the 10 mice on the same day of the infection, were uniform across their genomes (Figure 15). This suggests we have not ignored any cage effects. That there were no infection bottlenecks resulting in stochastic loss of mutants.

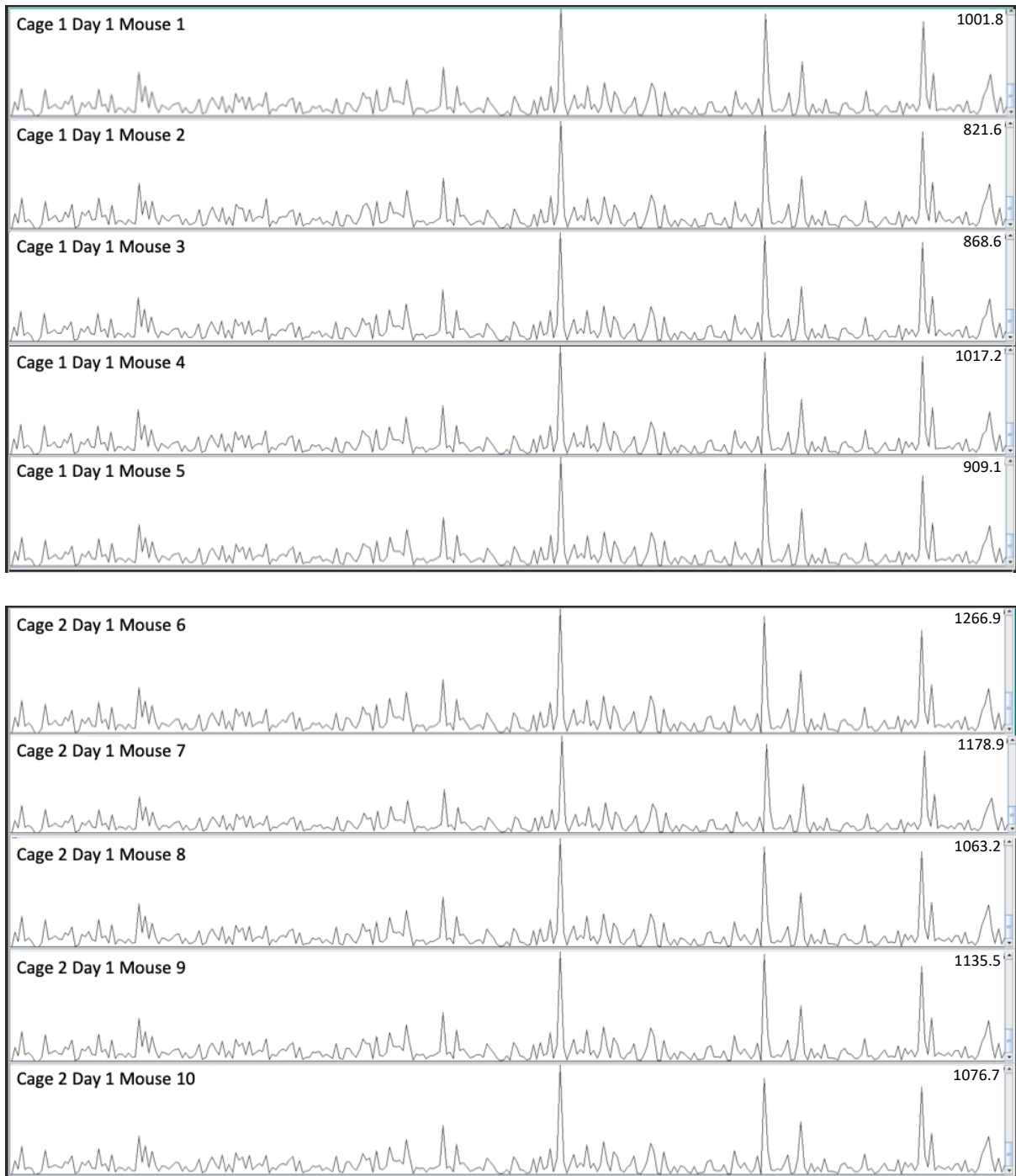


Figure 15: Transposon insertion densities of gDNA processed from faecal samples of infected mice. Shown is the insertion density across whole *C. difficile* bacterial genomes for each mouse on day 1 of infection. X-axis is the genome, Y-axis is amplitude of transposon towers. Number on the top right of each panel is the maximum coverage value for the panel.

The total number of reads per unique insertion was counted. This number was tallied across the length of the gene to give total number of reads per gene. The DESeq2 module was then used to normalize the data and conduct comparisons between the reference data set and data set from a particular day of infection.

Comparisons were made between the following datasets (Supplementary data: Table S6 and Table S7):

- Reference *versus* day 1, reference and day 3, reference and day 5.
- Temporal comparisons were also made: day1 *versus* day 3, day 3 *versus* day 5.

The comparisons gave a table of genes, \log_2 fold change for each gene and a p-value for the \log_2 fold change. The \log_2 fold change is the measure of the doubling of reads from reference number of reads within a particular gene. All \log_2 fold change values were plotted on MA-plots (Figure 16). When genomic data is represented as Bland-Altman plot, the plot is known as an MA-plot. The plot demonstrates the difference in measurements of a particular parameter between two samples (Robinson, McCarthy and Smyth, 2010; Love, Huber and Anders, 2014). Within this thesis it demonstrates difference in \log_2 -change of the same gene between two samples (i.e. Reference vs. day 1). Additionally, \log_2 fold change values for all the genes from a single data sample were plotted into a histogram to give a better idea of the \log_2 fold range at which the majority of essential genes exist. The MA-plots and histograms were compared an arbitrary cut off value of -2 was decided to be the cut off point for essentiality (Figure 16 and Figure 17). Any gene with a \log_2 fold change value of -2 or lower, with a p-value of lower than 0.05 was considered essential *in vivo* (Supplementary data, Table S7).

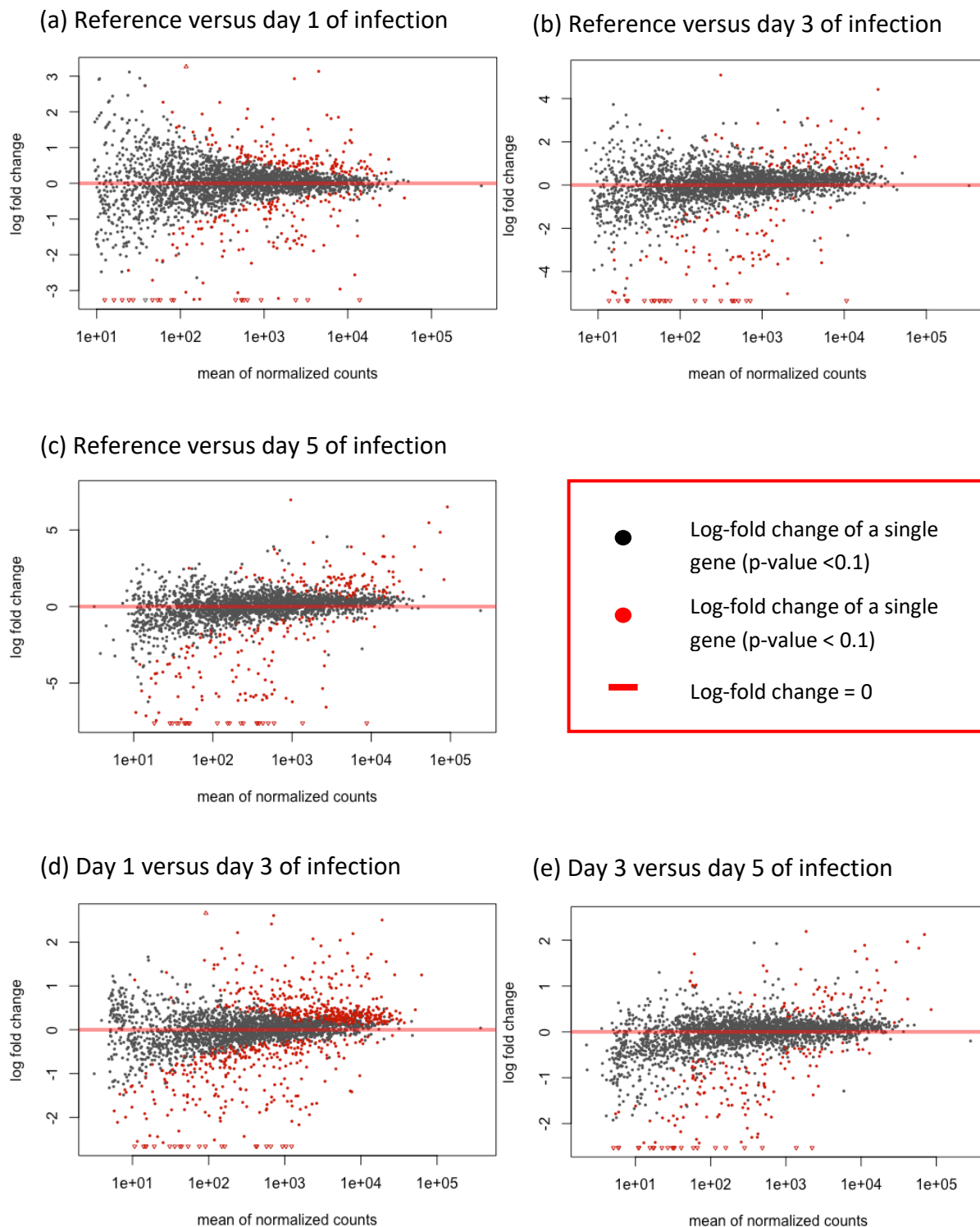


Figure 16: MA-plots showing log₂-fold change of genes in samples *versus* control.

MA-plots showing log₂-fold change in total number of reads per gene between two samples (Y axis: Log ratio (M)), *versus* the mean of normalized counts (X axis: mean average (A)). The more negative the Y-value of a gene, fewer the number of total reads within the gene when compared to reference, the lesser the fitness of the mutant in vivo and the more likely the gene is essential in vivo. Red points

indicate genes that have an adjusted p-value of less than 0.1. (a, b, c) Log-fold change of total number of reads within a gene from before oral gavage to day 1, day 3 and day 5 of infection (d, e) Temporal log-fold change of total number of reads within a gene from day 1 to day 3, and day 3 to day 5 of infection.

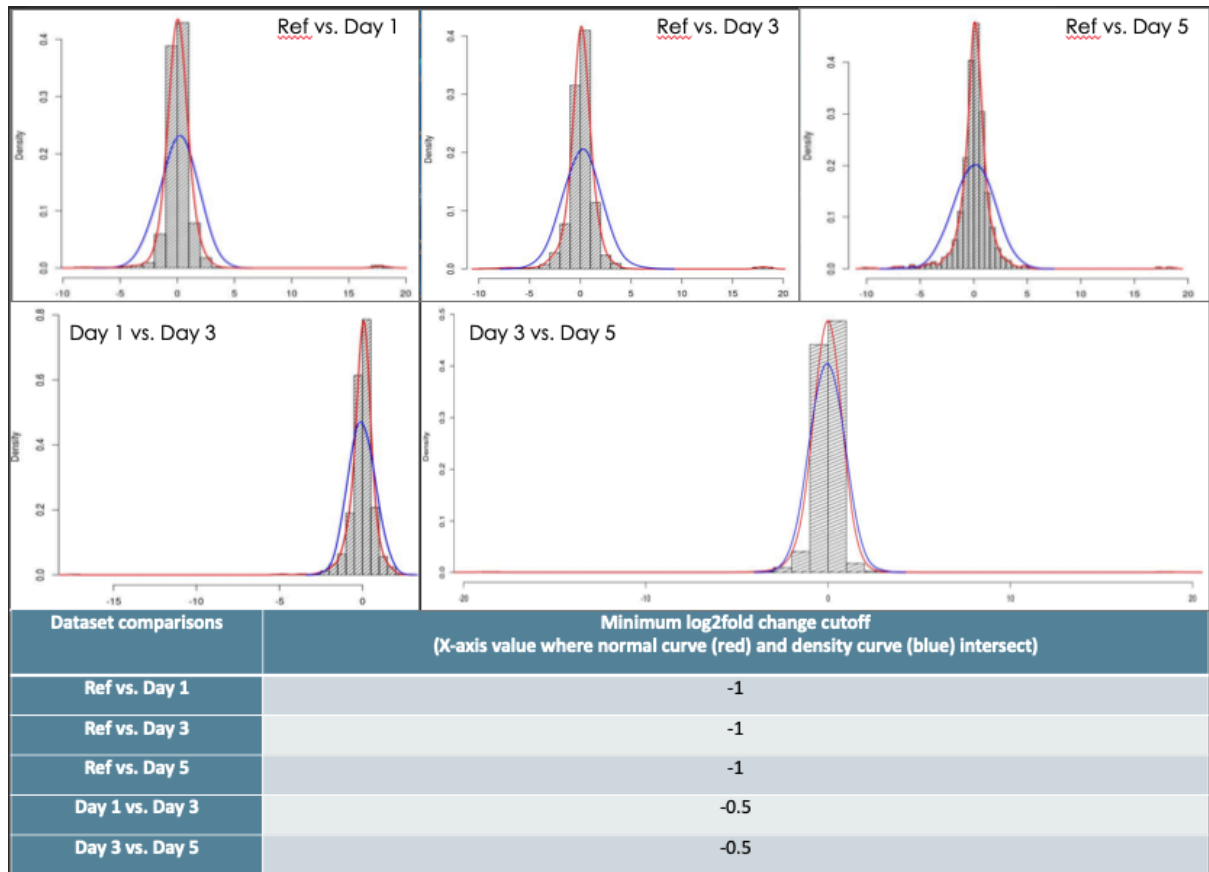


Figure 17: Histograms of the distribution of log₂-fold change values of genes each DESeq2 comparison.

The red line denotes normal curve and the blue line denotes density curve. Minimum log₂-fold change cut-off for essentiality was determined by the intersection of these two curves, so as to only consider the small subset of genes that show extreme loss of total number of reads.

This set of essential genes along with data from the GenomeNet database was used to correlate the essential genes with all the pathways they were associated with. This allows us

to decipher the pathways most essential for colonisation and survival in the mouse gut (Figure 18). For example, the purine, pyrimidine and sugar metabolism pathways become immediately vital upon introduction into the gut environment. Whereas, the porphyrin and chlorophyll metabolism pathway only appears to become absolutely essential on day 3, and would therefore be more likely required for survival rather than colonisation of the gut. More on this pathway will be covered later in the discussion section of this chapter.

Furthermore, essential genes can be mapped to each and every KEGG metabolic pathway they are involved in. We can now pin point essential reaction paths within the these KEGG pathways. For example, the metabolic map of the pyrimidine metabolism map (Figure 19), shows a number of essential reactions that do not seem to be directly related. However, the purine metabolism map (Figure 20), shows 13 consecutive reactions where the proteins involved are encoded by essential genes. This segment of the metabolic map, and perhaps maybe the intermediate products along it, are therefore essential for colonisation and survival in the mouse gut. As a result, this essential subset of the map could potentially be a starting point for designing novel antimicrobial targets. Similarly, these maps could also point to large operons or loci of genes that are essential for survival *in vivo*. This can be seen in the porphyrin and chlorophyll synthesis pathway (Figure 21), where the segment of essential genes on the KEGG metabolism map translates to an entire locus of 16 genes were essential for survival in the mouse gut (Figure 22).

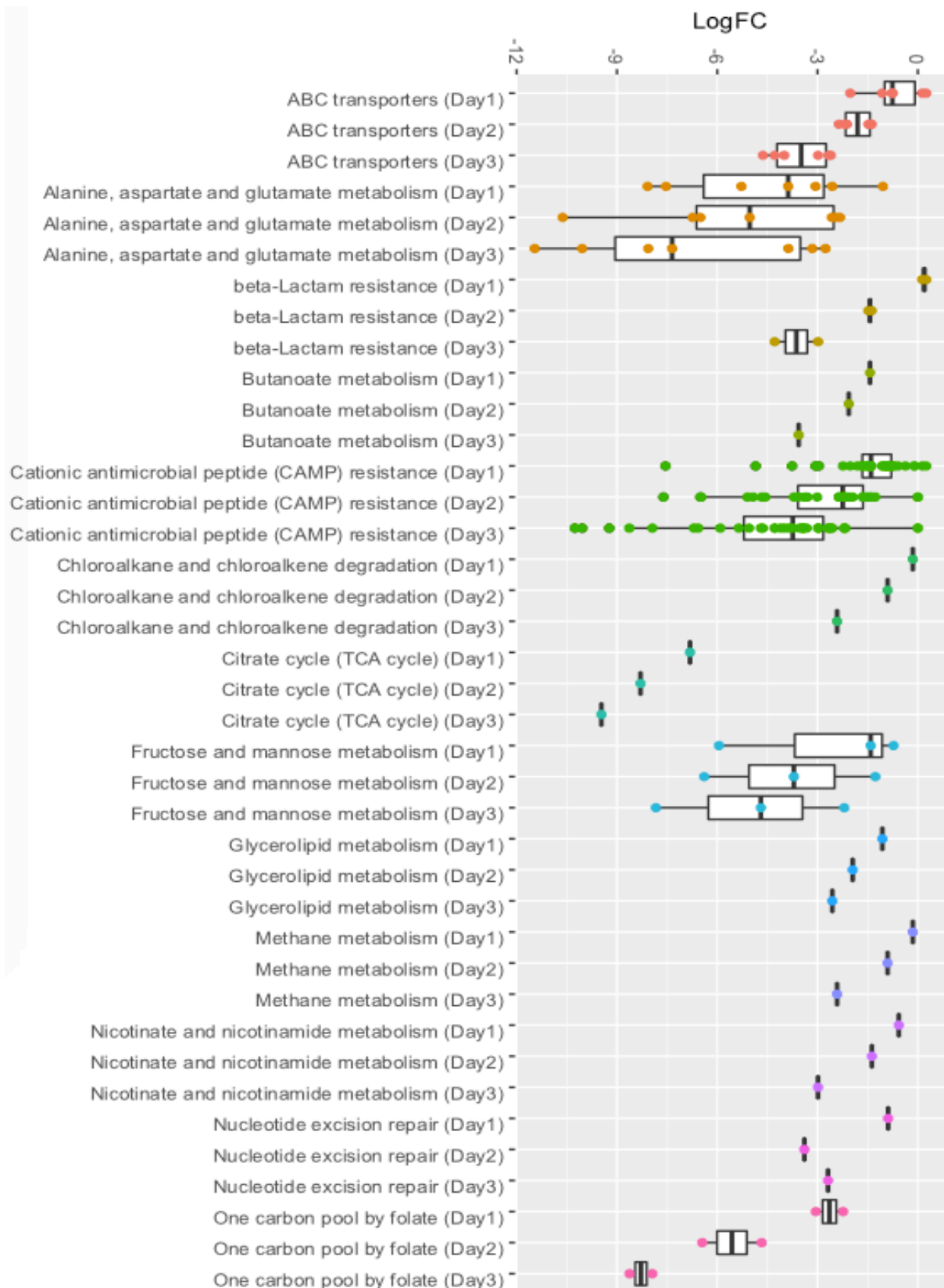


Figure 18a: Pathways for colonisation and survival within the mouse gut.

Genes with log-fold change lesser than or equal to -2 and p-value under 0.05 over day 1, 3 and/or 5 of infection and their associated pathways. Decreasing log-fold change are visible for nearly all genes.

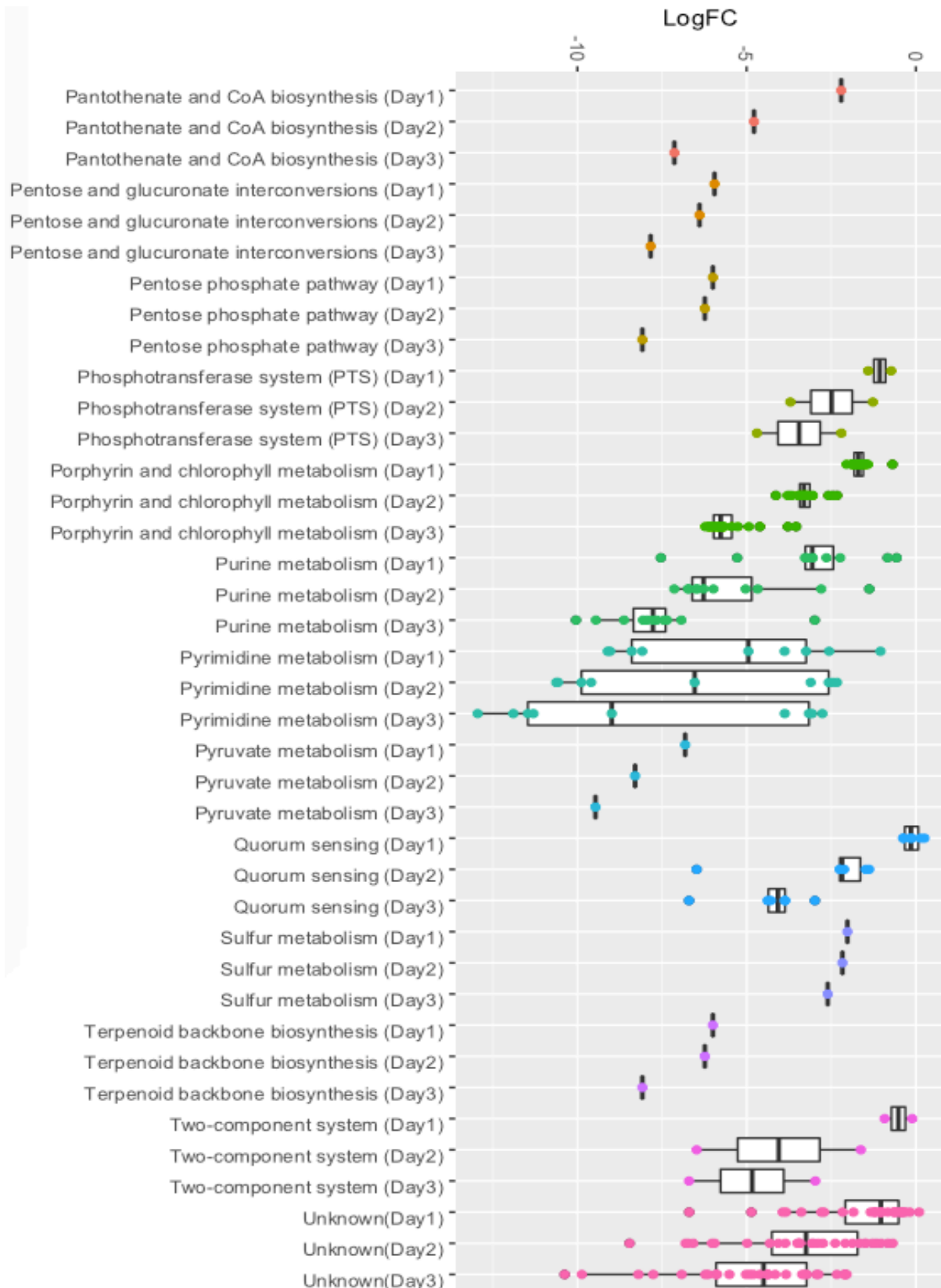


Figure 19b: More pathways for colonisation and survival within the mouse gut.

Genes with log-fold change lesser than or equal to -2 and p-value under 0.05 over day 1, 3 and/or 5 of infection and their associated pathways. Decreasing log-fold change are visible for nearly all genes.

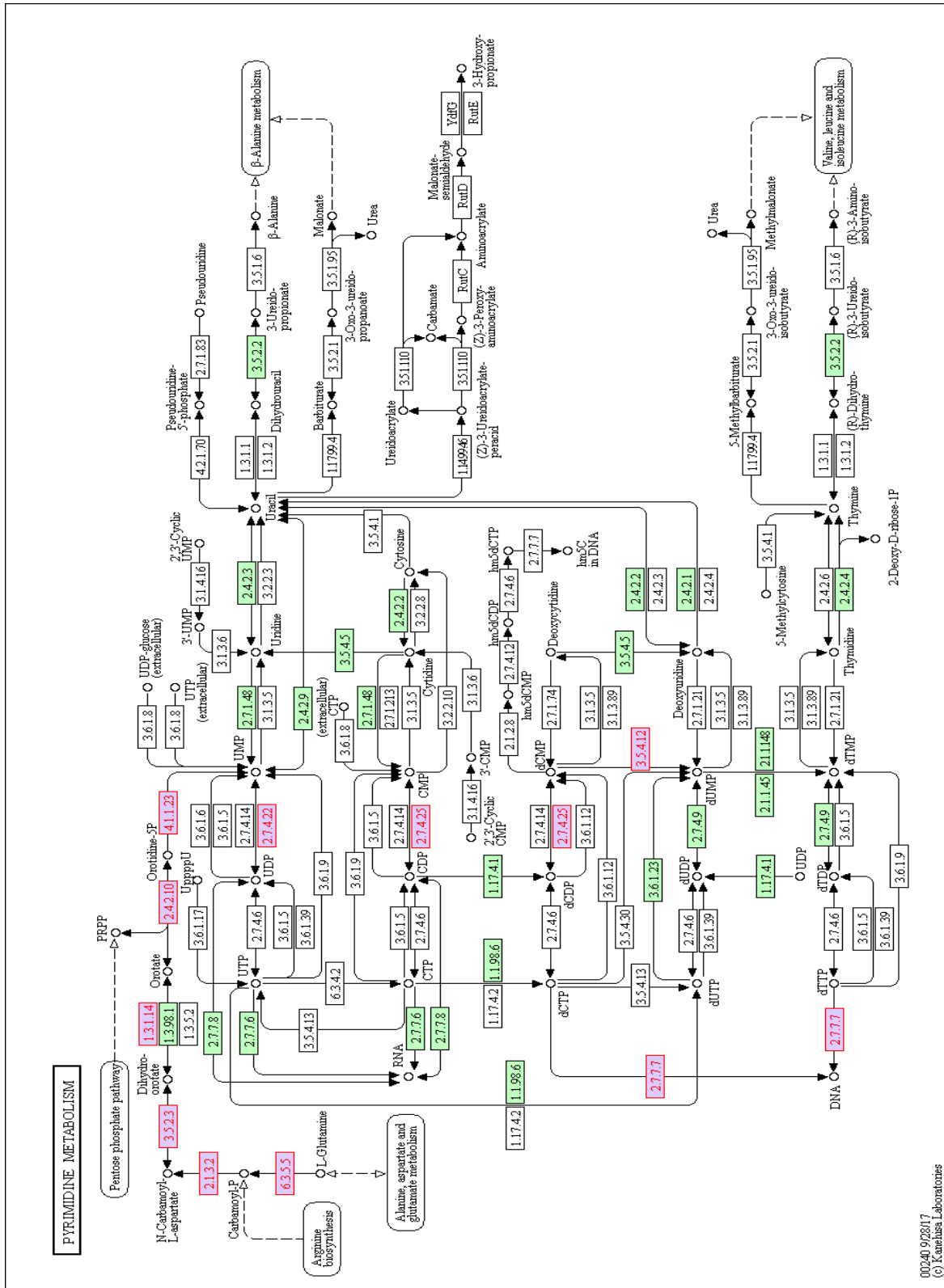


Figure 20: Pyrimidine metabolism KEGG pathway map.

Map shows essential genes from TraDIS analysis highlighted in pink. The green boxes indicate organism-specific pathways.

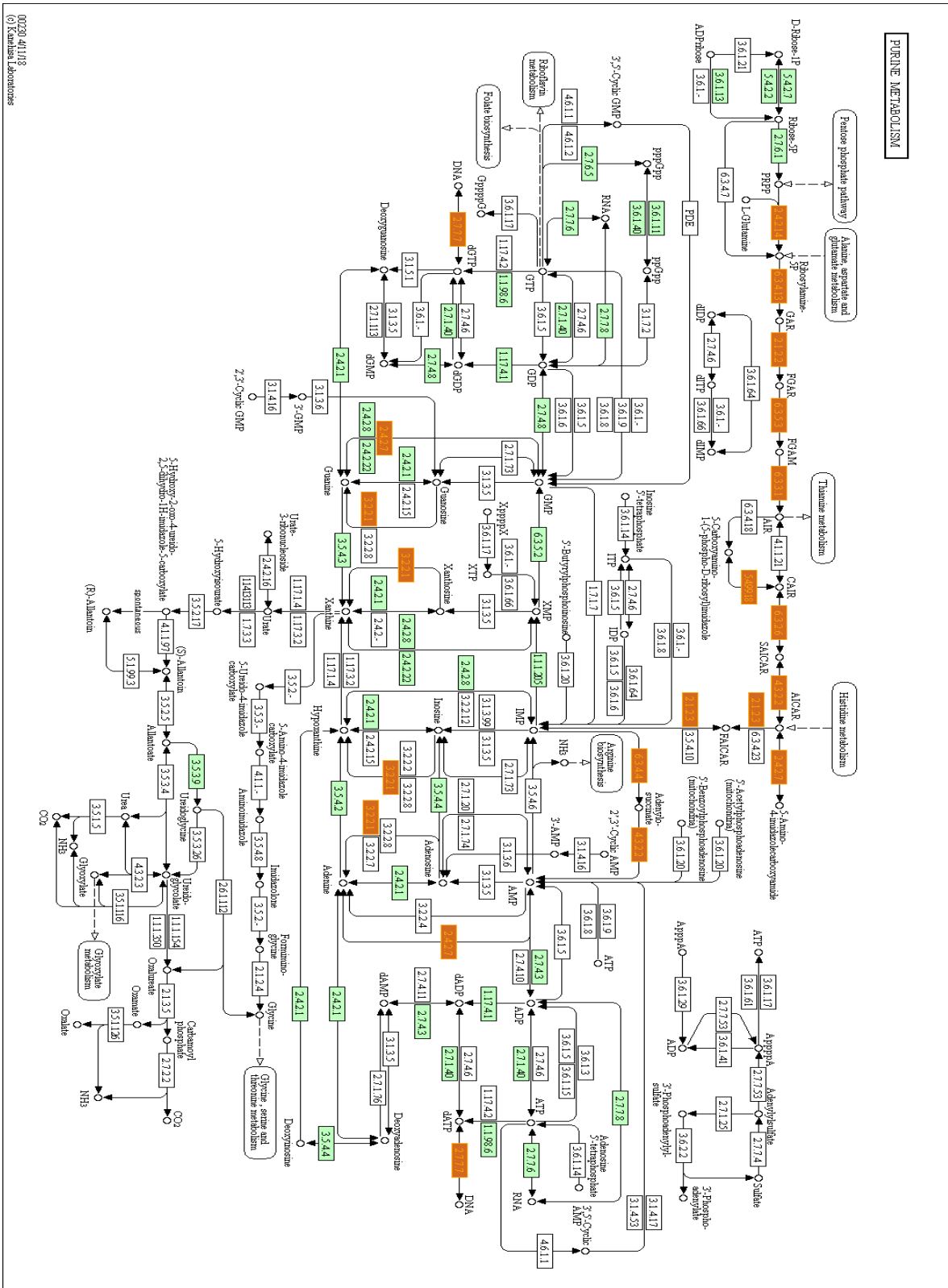


Figure 21: Purine metabolism KEGG pathway map.

Map shows essential genes from TraDIS analysis highlighted in orange. The green boxes indicate organism-specific pathways.

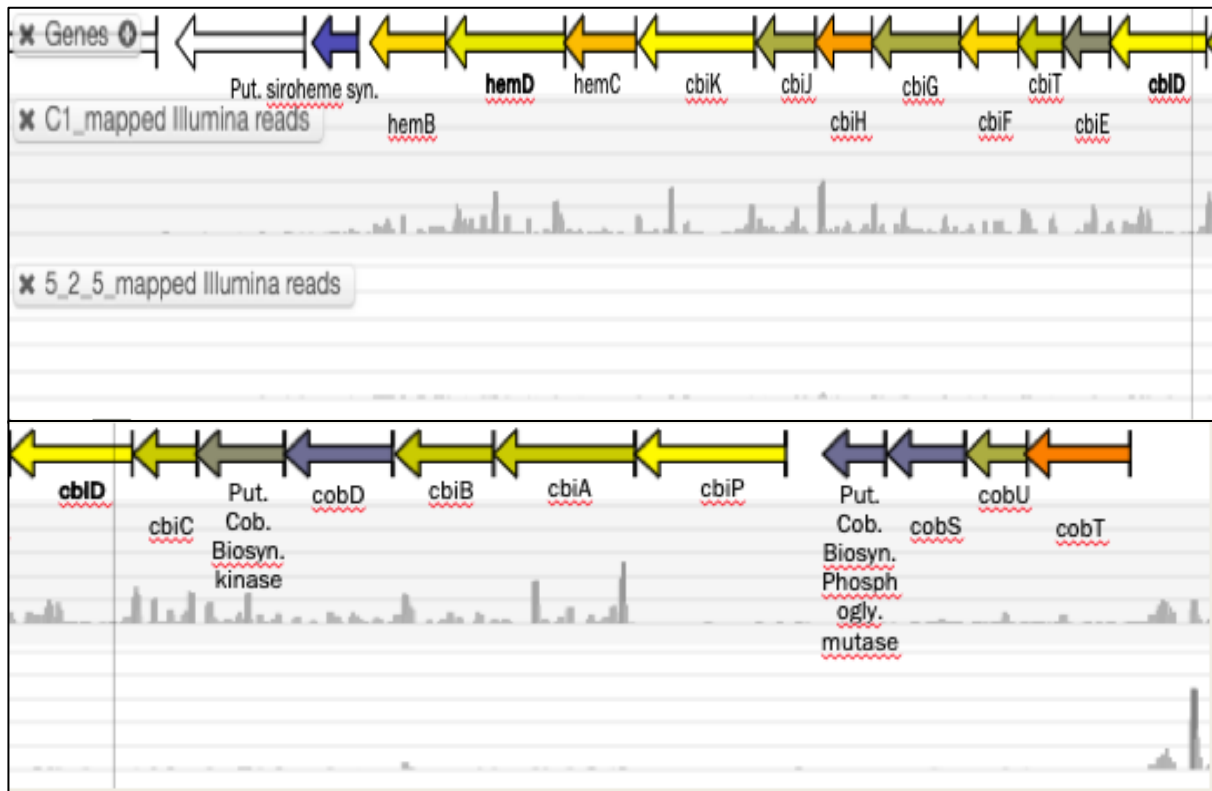


Figure 23: Insertion map of the sixteen B12 synthesis genes.

Map demonstrates a large number of transposon inserts in reference sample, followed by little to no transposon inserts in day 5 of infection sample.

4.2.4. Validating the *in vivo* TraDIS data

One way of validating the results obtained from R20291 TraDIS library, would be to pick genes that show the largest decrease in insertions when moving from an *in vitro* to an *in vivo* environment, and create single deletion mutants of these genes in *C. difficile* R20291. The data shows that if the gene is essential for colonisation and survival *in vivo*, mutants of that gene would be less fit or die out in the *in vivo* environment. Therefore, these single deletion mutants could then be tested in the mouse model, and in theory, the mutants would be less fit or die out. However, there is a small possibility that the fitness of this mutant is due to quorum effects brought about by co-surviving or competition with other *C. difficile* mutants

from the library. To choose the genes for the single deletion mutant experiment, genes with negative log₂-fold-change were ordered according to their p-adj values. Genes with p-adj values over 0.05 were discarded. Genes with highest negative log₂-fold change values were viewed in Artemis to crosscheck if the gene's read density in both samples reflected its calculated log₂-fold change. Some genes were chosen due to its locus and relationship to surrounding genes, others were chosen due to large changes in read density across the gene or in a particular domain. Preference was given to genes with unknown function. The list of chosen genes for further analysis is as follows: *purL*, *0386*, *0593*, *1329*, *3222*, *hemD*, *cbiD*, *treR*, *araC(1922)*, *3528*.

Homology arms of around 1200bp upstream and downstream of each gene were cloned into a recombination vector and introduced into wild type R20291. The mutated allele, lacking the gene of interest, was then transferred to the chromosome using standard methods (as stated in Chapter 2). Not all desired deletion mutants could be made, with plasmids/ mutants failing at different steps in the pipeline (Figure 23). The following mutants were successfully created: *R20291ΔpurL*, *R20291Δ1329*, *R20291Δ3222* and *R20291ΔcbiD*.

	CDR20291_purL	CDR20291_0386	CDR20291_0593	CDR20291_1329	CDR20291_3222	CDR20291_hemD	CDR20291_cbiD	CDR20291_treR	CDR20291_araC(1922)	CDR20291_3528
Deletion number	1	2	3	4	5	6	7	8	9	10
Homologous arms generation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
SOEing PCR	✓	✓	✓	✓	✓	X	✓	X	X	X
Gel purification	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ligation with pJET1.2	✓	✓	✓	✓	✓	X	X	X	X	X
Transformation NEB5alpha	✓	✓	✓	✓	✓	✓	X	✓	✓	✓
Storage	✓		✓	✓	✓		X			
Colony PCR	✓		✓	✓	✓		X			
Miniprep	✓		✓	✓	✓		X			
Restriction Digest	✓		✓	✓	✓		X			
Sequencing	X		X	X	✓		X			
Gel purification	✓		✓	✓	✓		X			
Ligation with pJAK112	✓		✓	✓	✓		✓			
Transformation NEB5alpha	✓		✓	✓	✓		✓			
Storage	✓			✓	✓		✓			
Colony PCR	✓			✓	✓		X			
Miniprep	✓			✓	✓		✓			
Restriction Digest	✓			✓	✓		✓			
Sequencing	✓			✓	X		✓			
Transformation CA434	✓			✓	✓		✓			
Storage	✓			✓	✓		✓			
Conjugation R20291	✓T*			✓T*	✓		✓			
Storage	✓			✓	✓		✓			

Figure 24: Progress record of generation of deletion mutants.

Mutants generated to validate TraDIS analysis and the different steps they skipped succeeded and failed at. (NOTE: T* = Transient plasmid)

The *CDR20291_purL* gene is 3807 bp in length, is predicted to code for a formyl glycinamide ribonucleotide synthase (uniprot) and is thought to be involved in the following KEGG pathways: cdl00230 purine metabolism, cdl01100 metabolic pathways, cdl01110 biosynthesis

of secondary metabolites, cdl01130 biosynthesis of antibiotics (GenomeNet). Being a fairly sizable gene with insertions all across its length (Figure 24) within the reference library, it was classified as non-essential *in vitro*. A dramatic decrease in the number of reads for transposons within the ORF can be seen on day 1, with a large decrease number of unique insertions on day 3. Samples from day 5 show almost no insertions across the gene length. This gene therefore displays what we would ideally expect from a gene that was essential for gut colonisation and survival.

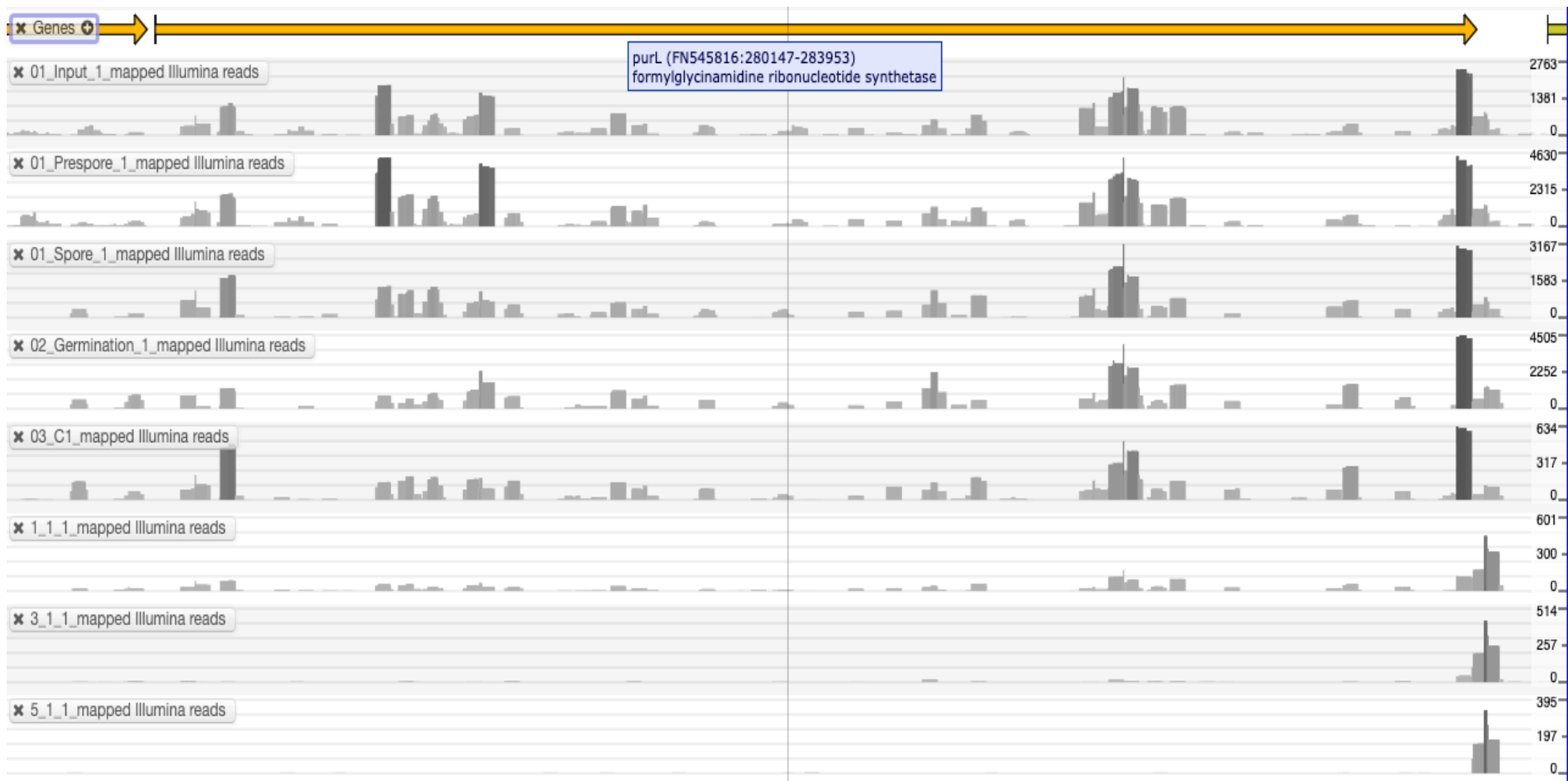


Figure 25: Insertion map of *CDR20291_purL* gene.

Map shows reference library sample and samples from day 1, day 3 and day 5 after infection of 10 mice. First 4 panels are *in vitro* samples, panel 5 is *in vivo* reference sample, panel 6 to 8 are *in vivo* samples from day 1, day 3 and day 5 of infection, respectively. Coverage axis on the right.

The *R20291_1329* gene is only 159 bp in length (Figure 25) and is predicted to encode a putative exported protein, sharing 100% identity with another *protein* (05260; FeoB-associated Cys-rich membrane protein) in another *C. difficile* strain. It is located within the *C. difficile* genome after the *FeoA1* (*R20291_1327*) and the *FeoB* (*R20291_1329*) genes. The protein has a predicted trans-membrane helix from amino acids 6 to 24 (outside to inside). Although iron is abundant in nature, it is often growth limiting to *C. difficile*, as the dominating oxidised ferric iron form is not very soluble (Dersch *et al.*, 2018). To overcome this issue, bacteria such as *C. difficile*, use high affinity transporters and high affinity chelators, which are secreted and imported when they acquire iron to cope with iron demand (Dersch *et al.*, 2018). Iron acquisition can also be increased by release of ferric reductases (Dersch *et al.*, 2018). However, build-up of iron within the cell needs to also be prevented as this may result in generation of reactive oxygen species generation *via* the Fenton reaction (Dersch *et al.*, 2018). As such, *C. difficile* has a complex and rigorous system in place to regulate iron concentration within the cell (Dersch *et al.*, 2018). We could speculate that the protein encoded by the *R20291_1329* gene, could be an example of a high affinity chelator. However, if this is the case, deletion of the gene would not hamper iron acquisition as the bacterium would still have multiple ways of acquiring iron.

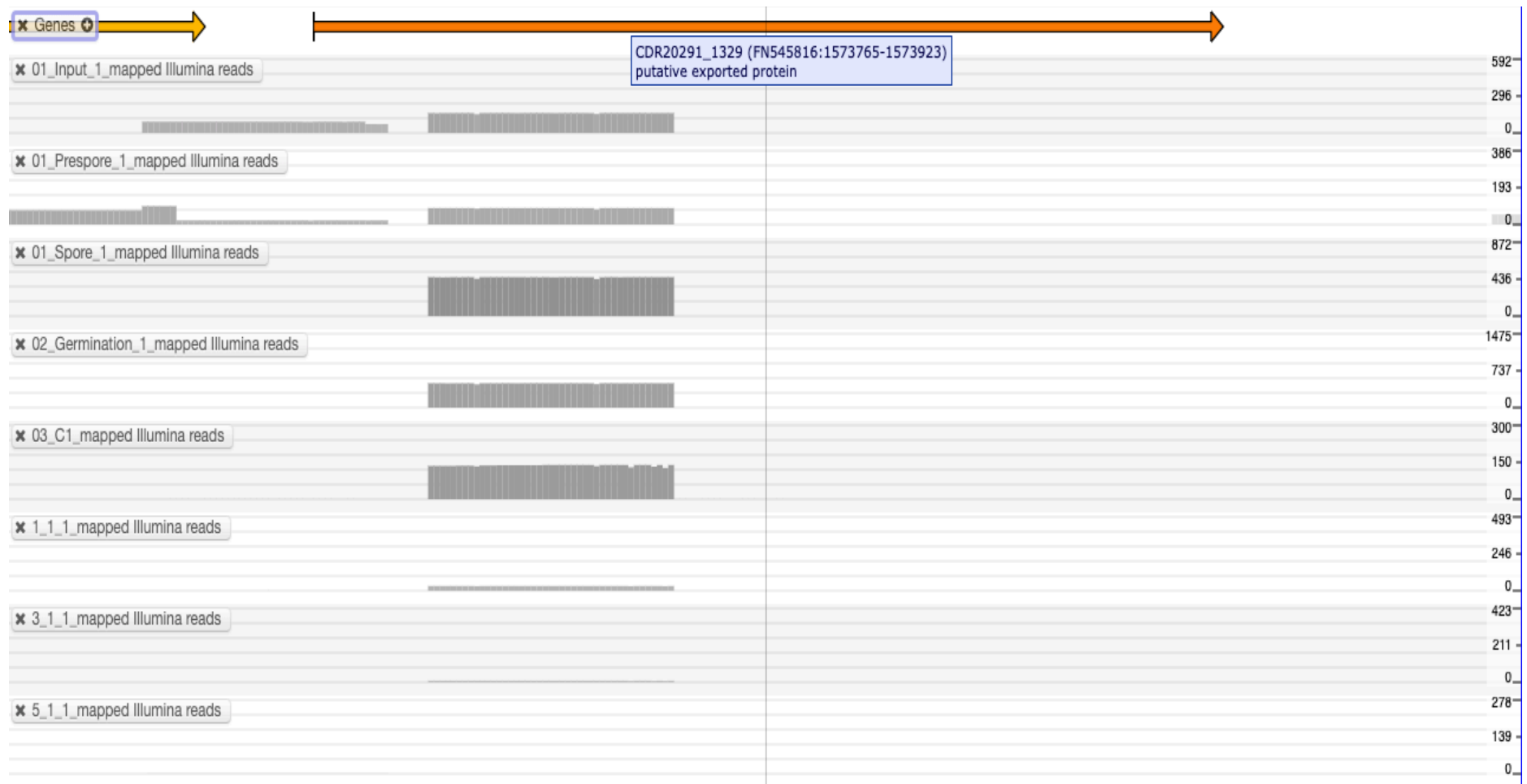


Figure 26: Insertion map of *CDR20291_1329* gene.

Map shows reference library sample and samples from day 1, day 3 and day 5 after infection of 10 mice. First 4 panels are *in vitro* samples, panel 5 is *in vivo* reference sample, panel 6 to 8 are *in vivo* samples from day 1, day 3 and day 5 of infection, respectively. Coverage axis on the right.

The *CDR20291_3221* gene is 1119 bp long and its homology suggests that the gene may encode for a putative gluconeogenesis factor. Whereas the *CDR20291_3222* gene is 858 bp long and its homology suggests that the gene encodes for a nucleotide-binding protein. Genes *CDR20291_3221* and *CDR20291_3222* can both tolerate insertions *in vitro* and are therefore non-essential in this environment. However, these mutants suffer from low fitness in the mouse gut environment. The *CDR20291_3221* mutants have a lower fitness than *CDR20291_3222* mutants, and we therefore see most of the unique insertions from *CDR20291_3221* disappear on day 1 from inoculation. By day 5 there are almost no insertions across the *CDR20291_3221* genome. Given the loci and essentiality data of these two genes, it is likely they are both involved in the same pathway. *CDR20291_3222* was chosen for deletion for the simple reason that its essentiality *in vivo* is ambiguous when compared to the *CDR20291_3221* gene (Figure 26).

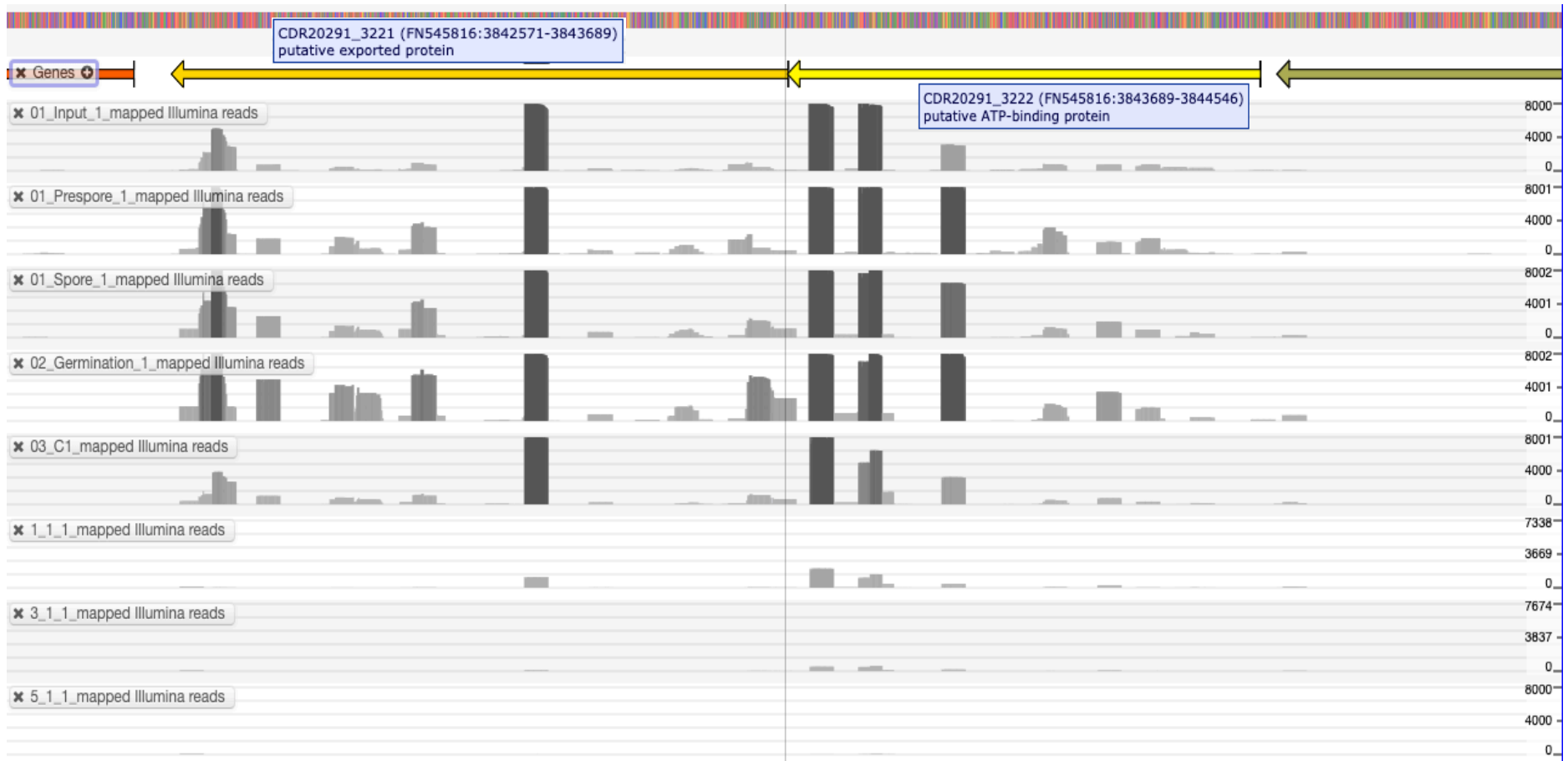


Figure 27: Insertion map of *CDR20291_3221* and *CDR20291_3222* genes.

Map shows reference library sample and samples from day 1, day 3 and day 5 after infection of 10 mice. First 4 panels are *in vitro* samples, panel 5 is *in vivo* reference sample, panel 6 to 8 are *in vivo* samples from day 1, day 3 and day 5 of infection, respectively. Coverage axis on the right.

The *CDR20291_cbiD* gene was chosen because it was a part of the vitamin B12 synthesis locus that had appeared to be necessary for colonisation and survival in the mouse gut (Figure 27). The gene is 1227 bp long and encodes cobalt-precorrin-5B C(1)-methyltransferase. In the predicted KEGG pathway of Porphyrin and Chlorophyll metabolism, the gene is part of a series of reactions that lead to the production of Cob(II)yrinate a,c diamide, ultimately leading to the production of the vitamin B12 coenzyme.

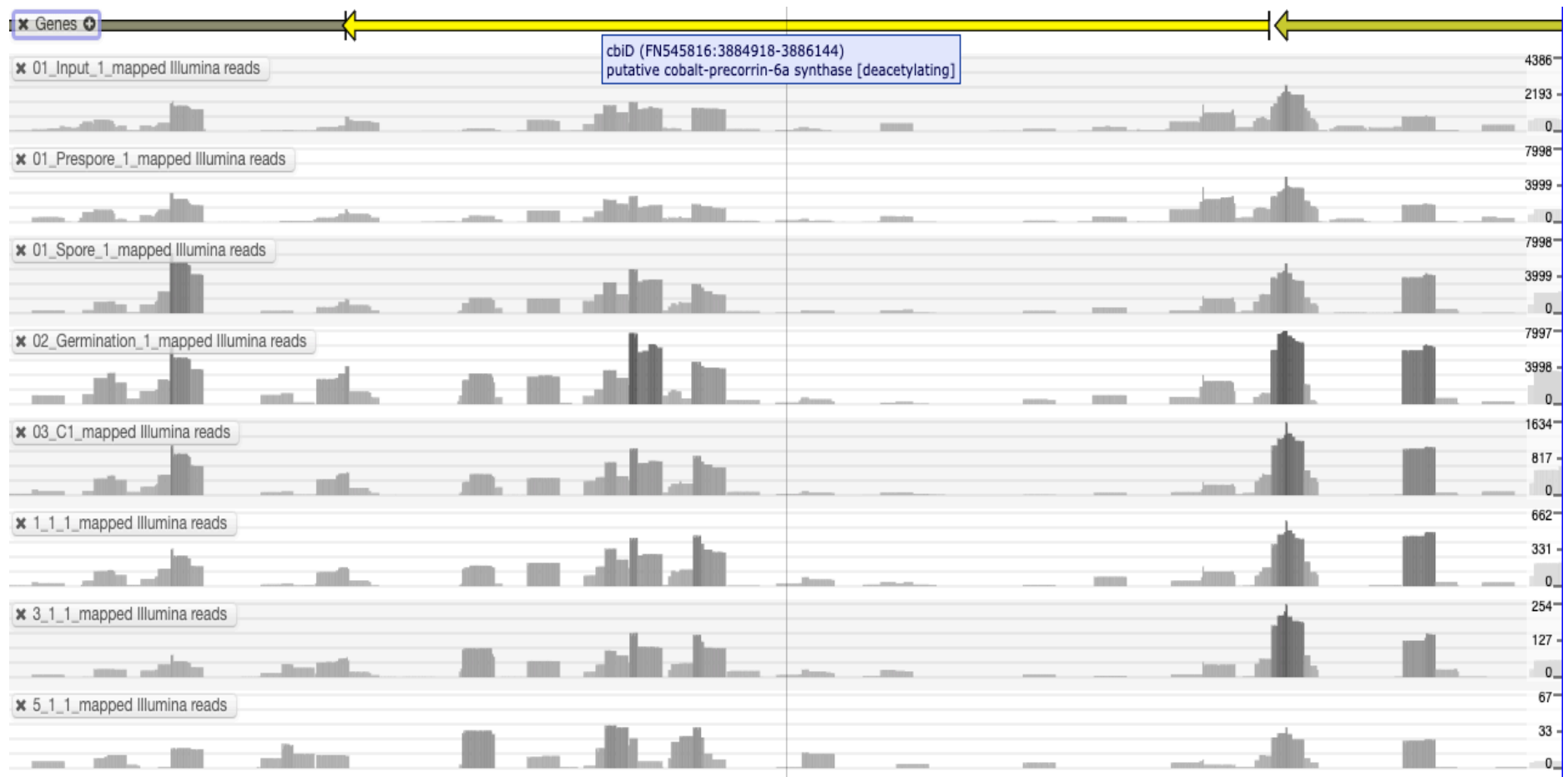


Figure 28: Insertion map of *CDR20291_cbiD* gene.

Map shows reference library sample and samples from day 1, day 3 and day 5 after infection of 10 mice. First 4 panels are *in vitro* samples, panel 5 is *in vivo* reference sample, panel 6 to 8 are *in vivo* samples from day 1, day 3 and day 5 of infection, respectively. Coverage axis on the right.

A co-infection study will be performed where each mouse would be infected with a combination of one mutant and a *C. difficile* R20291::*catP*(*pyrE locus*) control strain, through oral gavage. The faecal pellets of the mouse will be resuspended in PBS, then serially diluted 10-fold. Each of the 10 dilutions will be spread on two plates: one containing BHI and the mutant-specific additive, the other containing BHI supplemented with thiamphenicol. Each specialist agar, containing the mutant specific additive, will complement the deleted gene in the mutant enabling the *C. difficile* mutant to grow. Only the thiamphenicol-resistant control strain will grow on the BHI + thiamphenicol plates as the strain carries the *catP* gene conferring thiamphenicol resistance. CFU counts from both plates will be compared. Fitness of the mutant strain can be described as a percentage of the control strain, where fitness of the control strain is considered to be 100%.

C. difficile R20291::*catP*(*pyrE locus*) was used instead of wild type *C. difficile* R20291 to make it easier to isolate the control strain onto petri dishes in mixed infections. The *pyrE* locus was adopted as an insertion point for the *catP* gene as we have previously observed that insertions here do not seem to cause any unintended phenotypic effects or have negative impacts on the bacterium (Roberts *et al.*, 2016).

To confirm that each mutant was fit *in vitro*, the growth of the different mutants was assessed. It is imperative to assess if mutants are healthy; as if the strain is weak *in vitro*, *in vivo* effects on the strain would be difficult to measure. These growth assays would also give us an indication of which additives the mutant-specific agar would have to be supplemented with, to complement the deleted genes. Additionally, growth of the R20291::*catP* (*pyrE locus*) had to be compared to wild type R20291. Theoretically, since the *catP* gene was inserted into

the *pyrE* locus, we do not envisage disruption of any pathways or mechanisms. Therefore, for all intents and purposes this *R20291::catP* (*pyrE* locus) strain should grow like wild type R20291, and can be treated as wild type R20291 in experiments. However, this has to be confirmed using comparative growth curves. The growth curves have not been done at the time of writing this thesis, but will be done shortly after by my colleague, Shauna O'Beirne, who will be continuing this project.

Growth curves show that growth rate of R20291 and *R20291ΔpurL* mutant in rich TY media was identical and both the strains entered stationary phase at the same time (Figure 28a and 28b). *Pseudomonas fluorescens* purine auxotrophs display growth defects that can be rescued by supplementing the medium with adenine and hypoxanthine (Yoshioka and Newell, 2016). To test this in *C. difficile*, both the wild type R20291 and the *R20291ΔpurL* mutant were grown in CDMM media, with and without hypoxanthine and adenine. As expected, wild type R20291 grew a lot better than *R20291ΔpurL* in CDMM media (Figure 28a and 28b). Surprisingly, supplementation of hypoxanthine and adenine within the medium dropped the growth rate of R20291 drastically. A negligible drop in growth of the *R20291ΔpurL* mutant was seen with the supplementation. These results suggest that the concentrations of hypoxanthine and adenine used, while being appropriate for rescuing growth of *P. fluorescens* purine auxotrophs, may have been lethal for *C. difficile* strains.

Growth curves for *R20291Δ1329* were not reliable as there was an error with OD_{A600} measurements and have therefore been left out of this thesis. This experiment therefore needs to be repeated and as no conclusions could be drawn. Interestingly, growth of both R20291 and *R20291Δ1329* in CDMM media containing iron sulphate, gave the transparent

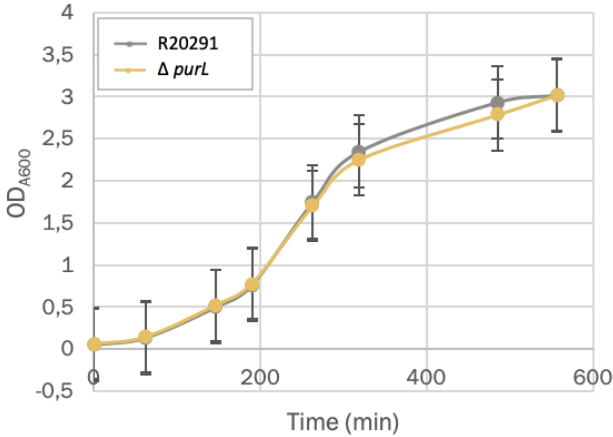
media a greyish hue (Figure 28g). This may be due to the bacterial cells displacing the iron from the iron sulphate by some sort of biochemical reaction. The displaced iron could be responsible for the grey hue of the resultant solution.

InterPro comparisons show *CDR20291_3222* is similar to the gene coding for MF_00636, a Rap-Z like protein family. RNase adapter protein RapZ is responsible for regulating glucosamine-6-phosphate within the bacterial cell. It has two modes of action: decreasing glucosamine-6-phosphate concentrations when concentrations are high and *vice-versa* (Göpel *et al.*, 2013). Without RapZ or a RapZ-like protein the bacterium should not be able to grow well in environments with unusually high concentrations or unusually low concentrations of glucosamine-6-phosphate. Our results show that the *R20291Δ3222* strain grows just as well as R20291 in TY (Figure 28c and 28d). Furthermore, when both the strains were grown in a minimal media culture lacking glucose, they also demonstrated similar growth rates and entry into stationary phase. However, when the strains were grown in minimal media lacking glucose overnight, then followed by a subculture into minimal media containing glucose, growth of both strains increased exponentially – with the wild type R20291 demonstrating a much higher growth rate than *R20291Δ3222* (Figure 28c and 28d). This suggests that *R20291Δ3222* may not be able to decrease build-up of glucose-6-phosphate within the cell as well as wild type and hence growth of this mutant suffers.

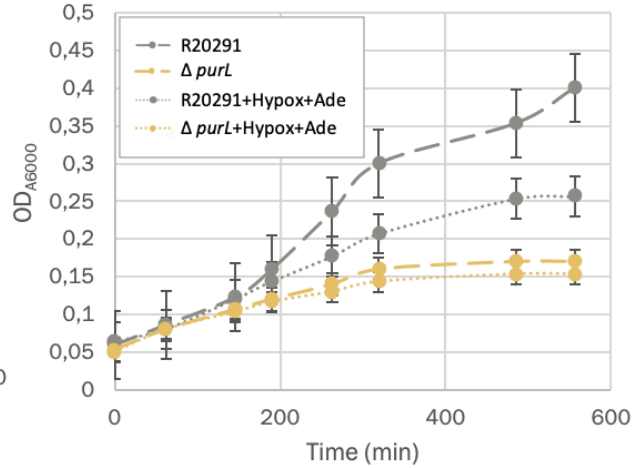
KEGG pathway analysis had determined that the *cbiD* gene encoded an enzyme involved in synthesis of vitamin B12 (cobalamine). However, we first needed to check if there was a growth defect in *R20291ΔcbiD* compared to wild type R20291. Both strains grew well in TY and minimal media, demonstrating similar growth rates and time of entry into stationary

phase (Figure 28e and 28f). This suggests that production of cobalamin is not intrinsic to the growth and survival of *C. difficile* but may be more involved in quorum sensing effects or metabolic demand when present in the gut environment.

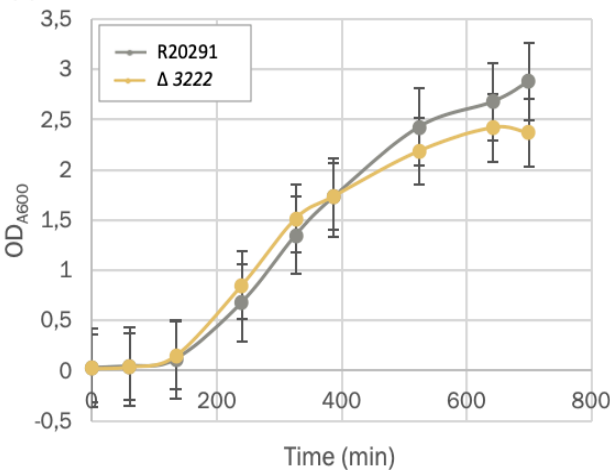
(a) R20291 and R20291 $\Delta purL$ in TY



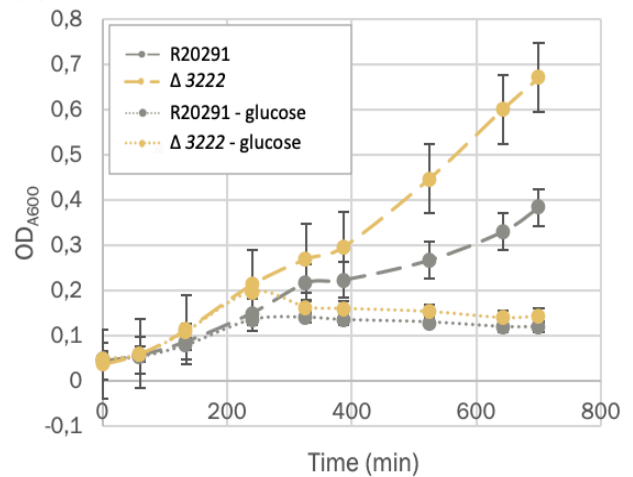
(b) R20291 and R20291 $\Delta purL$ in CDMM



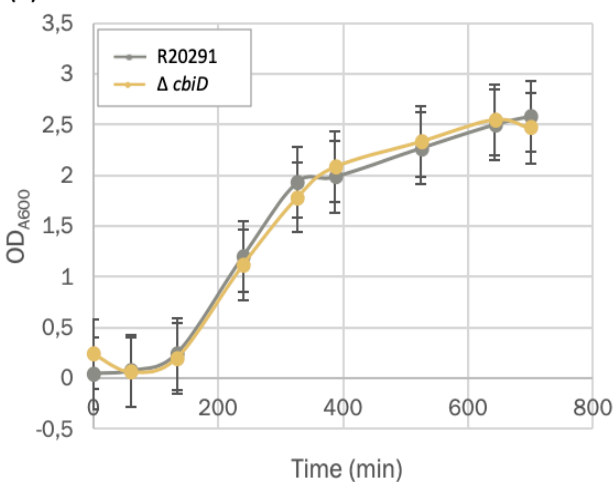
(c) R20291 and R20291 $\Delta 3222$ in TY



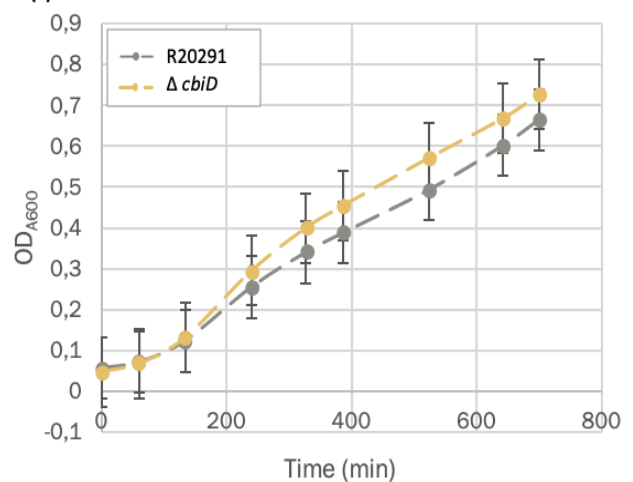
(d) R20291 and R20291 $\Delta 3222$ in CDMM



(e) R20291 and R20291 $\Delta cbiD$ in TY



(f) R20291 and R20291 $\Delta cbiD$ in CDMM



(g) Colour of culture with growth of R20291 and R20291 Δ 1329

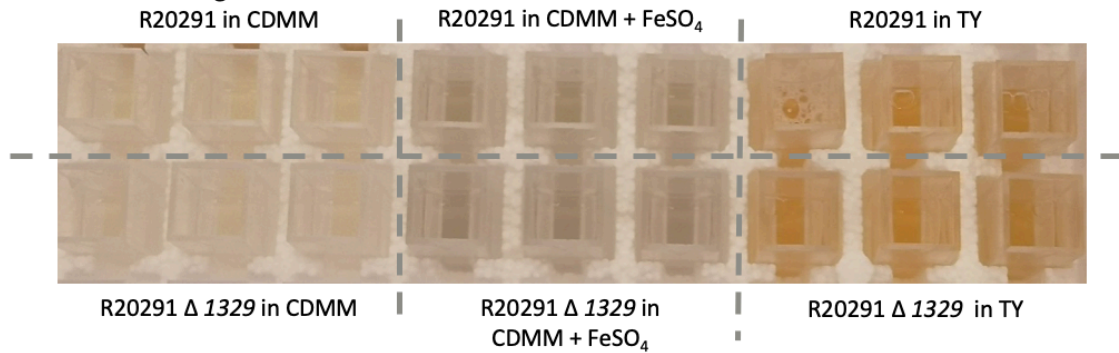


Figure 29: Growth curves of the chosen deletion mutants in different media.

(a and b) Growth of R20291 *versus* R20291 Δ purL in rich (TY) media and minimal (CDMM) media. Growth with and without Hypoxanthine(H) and Adenine(A) in minimal media was recorded. **(c and d)** Growth of R20291 *versus* R20291 Δ 3222 in rich (TY) media and minimal (CDMM) media. Growth with and without glucose in minimal media was recorded. **(e and f)** Growth of R20291 *versus* R20291 Δ cbiD in rich (TY) media and minimal (CDMM) media. CDMM media was not supplemented with any additive. **(g)** Grey colour change that occurs when both R20291 and R20291 Δ 1329 strains are grown in CDMM with iron sulphate. (NOTE: Hypoxanthine (Hypox), Adenine (Ade), C. difficile Minimal Media (CDMM), n=3)

When comparing our analysis to other published studies, some studies supported and further informed our analysis. One example of this is the growth response of R20291 in environments with low concentrations of the disaccharide trehalose. A study conducted roughly a year ago identified a L172I amino acid substitution in the binding pocket of the *treR* gene (Collins *et al.*, 2018). The gene codes for the *treR* repressor that, in cases without the substitution, represses *treA* expression and therefore indirectly represses the metabolism of trehalose-6-phosphate into glucose and glucose-6-phosphate (Collins *et al.*, 2018). The paper goes on to state that in dietary concentrations of trehalose (300 mM) the R20291 strain increased mice mortality compared with the R20291-infected mice without trehalose (Collins *et al.*, 2018). Additionally, with only 5 mM of trehalose in the mouse diet, R20291 produced significantly higher amount of toxin than the R20291 Δ *treA* strain, contributing to increase in disease severity (Collins *et al.*, 2018).

Our data shows that the *treA* gene is essential for the growth of R20291, both *in vitro* and *in vivo* (Figure 29). However, mutants with transposon inserts in the *treR* gene thrive *in vitro*, especially during sporulation and germination (Figure 29). Since there is no trehalose present in the BHI plates where they were grown, this suggests that in the absence of trehalose, expression of *treA* may provide an alternative mechanism to consume other sugar sources. This is especially useful for powering energy-intensive processes like sporulation and germination. Finally, these *treR* mutants demonstrated low fitness *in vivo* within the mouse gut, with most of them completely dying out by day 5 of infection (Figure 29). Conclusions about this observation cannot be made at this time without thorough assessment of trehalose content in the mouse diet.



Figure 30: Insertion map of the *treA* and *treR* genes.

Map shows reference library sample and samples from day 1, day 3 and day 5 after infection of 10 mice. First 4 panels are *in vitro* samples, panel 5 is *in vivo* reference sample, panel 6 to 8 are *in vivo* samples from day 1, day 3 and day 5 of infection, respectively. Coverage axis on the right.

4.3: Discussion

Considering the design of the *in vivo* experiment involving the infection of 10 mice (i.e. 10 biological replicates) with *C. difficile*, both DESeq2 and edgeR would be appropriate for data analysis, as these tools outperform other available tools for experiments with under 12 replicates (Schurch *et al.*, 2016). It must be stated that although using 12 replicates would be more advisable when trying to identify change in read counts across genes for all log fold changes (Schurch *et al.*, 2016); we have chosen 10 replicates with respect to morality and value of life.

Having carried out a detailed analysis of transposon mutant fitness *in vivo*, we set out to construct a number of clean deletion strains, not just to validate the TraDIS analysis, but also to determine the resolution of the dataset. If the deletion mutants show the same phenotype *in vivo* as the TraDIS analysis prediction, this would validate the dataset. If the *in vivo* results are not a reproduction of the TraDIS analysis prediction, it could be due to the fact that mutant fitness was dependant on other *C. difficile* mutants in the library that were co-introduced into the mouse gut environment. It is a possibility that the *in vivo* results for the mutants with deletions in the large genes are the only ones that can be reproduced. In this eventuality, we may be able to conclude that the library was not saturated enough, and higher transposon densities may be required to reliably assess the fitness of shorter genes.

A large number of genes from the porphyrin and chlorophyll metabolism pathway, that were classified as essential *in vivo*, were also based within the same genomic loci. Although, this pathway is identical in *Lactobacillus reuterii*, where it is involved in the production of reuterin, it is rarely found in bacteria that do not carry chlorophyll. Hence the pathway and its products

probably contribute to some other mechanism essential for *C. difficile* survival. One can only speculate on what this may be. If we zoom out of the porphyrin and chlorophyll metabolism pathways, it appears that the B12 co-factor (cobalamin) is involved in a large range of metabolic pathways that may be responsible for the apparent essentiality of B12 biosynthesis. This is more likely the case, as it agrees with the other essential pathways that have been deemed essential by our analysis. However, recent research has shown that in addition to increasing the production of short-chain fatty acids, such as butyrate and propionic acid, cobalamins reduce the total gut bacteria and reduce the diversity and homogeneity of colonic flora (Xu *et al.*, 2018). Studies have also shown that dietary haem, which also sports a porphyrin ring structure, also reduces diversity of faecal flora in mice (Constante *et al.*, 2017). These studies strongly suggest that essentiality in the synthesis of co-factor B12 seen in our *in vivo* data, may be required to modulate intestinal flora. It is possible, that in this way the opportunistic pathogen *C. difficile* may worsen the gut dysbiosis already brought about by antibiotics.

TraDIS analysis pipelines are currently being improved. Determining essential genes based on log-2-fold change may not be completely reliable and in future we may have to switch to relying on mathematical modelling algorithms. This approach will be further elaborated on in Chapter 6: Discussion. Additionally, it would also be useful to identify transposon mutants that have increased fitness in either the *in vitro* or *in vivo* environment. These mutants may be able to help identify pathways *C. difficile* can afford to dispose during stress. KEGG functional analysis for the derived essential genes is the limiting step of the analysis pipeline. The KEGG database encompasses pathways for prokaryotes as well as eukaryotes, many of which may not be relevant to the particular bacterium under study. However, with growing

numbers of functional databases, experimental studies and improving technology the TraDIS analysis pipeline could soon break free from such limitations. A recent alternative to deciphering functionality is to compare the datasets to other upcoming high-throughput sequencing databases currently being generated. For example, differentially expressed genes due to methylation control of genomes *in vivo* (Oliveira *et al.*, 2018).

Chapter 5: Generating Novel Libraries to Determine Genes Essential for Survival Without the S-layer

5.1: Introduction

In 2017, a spontaneous S-layer mutant of R20291, named FM2.5, was generated (Kirk *et al.*, 2017). The mutant appeared at a frequency of $< 1 \times 10^{-9}$ and is resistant to killing by avidocin Av-CD291.2. *C. difficile* FM2.5 encodes a point mutation in the *slpA* gene, which results in the truncation of SlpA at a site N-terminal to the post-translational cleavage site. It lacks detectable SLP subunits, and therefore an S-layer. However, it still does synthesize minor cell wall proteins such as Cwp2 and Cwp6. Its growth is comparable to wild type R20291, except it does demonstrate a statistically significant earlier entry into stationary phase (Kirk *et al.*, 2017). Given the importance of the S-layer (refer to Chapter 1 section 1.3.3.), we realised it would be interesting to see how the *C. difficile* mutant has adapted to surviving without an S-layer.

To answer the question regarding survival without an S-layer, random transposon insertion mutagenesis was performed in the FM2.5 strain, the library was sequenced and analysed using TraDIS tools. *C. difficile* FM2.5 revertant strain, created by reverting the point mutation in the FM2.5 *slpA* gene, and wild type R20291 were used as controls for this experiment. This experiment was also used as a basis to improve number of mutants generated, which in turn would hopefully guarantee library saturation and improve resolution of the datasets derived.

One suggested improvement was to increase transposition frequency of the plasmid. This could be done by mutating the Himar1 transposase. The *Himar1* element, isolated from the horn fly, *Haematobia irritans*, is an active transposase when appropriately expressed in *E. coli* (Lampe *et al.*, 1999). It has recently been shown that two point mutations, Q131R and E137K, in the non-specific DNA binding domain of *Himar1* (C9 mutant) (Lampe *et al.*, 1999) increases transposition frequency 50-fold in *E. coli*. The Q131R mutation alone accounts for a 4-fold increase in hyperactivity, whereas the E137K mutation accounts for a 20-fold increase in hyperactivity. Hence, the 50-fold increase in hyperactivity could be attributed to the mutations acting synergistically (Lampe *et al.*, 1999). The C9 mutant is more stable at higher temperatures (32 – 37°C) compared to wild-type Himar1 with an optimal temperature of 30°C (Lampe *et al.*, 1999). Hyperactivity was demonstrated to be intrinsic to the transposase protein itself and not wholly due to the interaction of the transposase with *E. coli* (Lampe *et al.*, 1999). As a result, using the C9 transposase in *C. difficile* to increase transposition frequency seemed plausible and promising.

The previous transposon libraries analysed in this thesis were all made on solid agar (Dembek *et al.*, 2015) (Figure 30a and 30b). Mutant colonies were harvested into a liquid media for sample storage and gDNA extraction. This limited the practical size of the transposon library to the number and size of the agar plates that could physically fit into the anaerobic cabinet. One way to increase the number of mutants in the library would be to swap the solid for liquid media (Figure 30c). In theory, mutant density per mL of liquid media would be a lot higher than mutant density per square cm of agar. However, this method had to be well characterised before use. Such as determining the possible transposon library size theoretically and experimentally, testing if the interactions between unique transposon

mutants results in an unpredicted bias and determining if selected mutants had an unfair advantage over the rest of the population when grown in a liquid media.

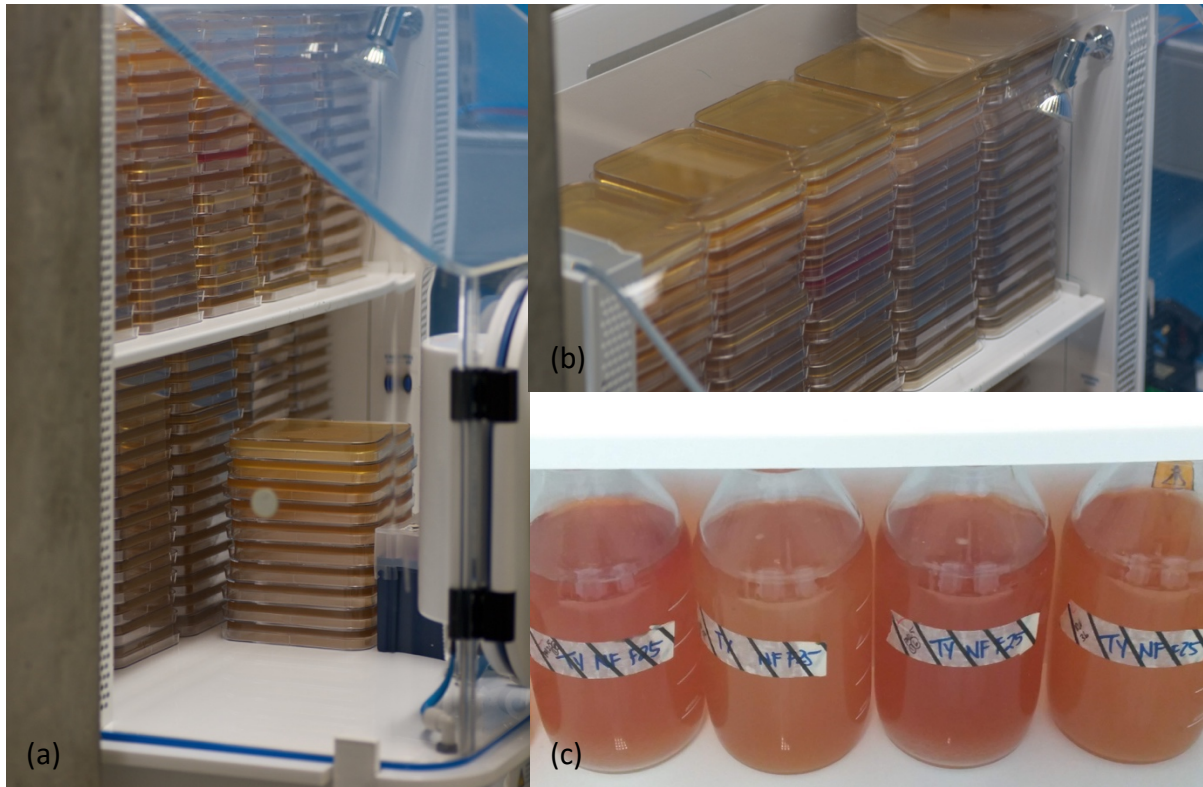


Figure 31: Generating transposon libraries on solid versus liquid media.

(a and b) Generating transposon libraries in *C. difficile* R20291 and 630, by plating on solid agar then harvesting colonies from the agar for gDNA extraction (c) Generating transposon libraries in *C. difficile* FM2.5 (1st and 3rd bottle), FM2.5RW (2nd and 4th bottle) and R20291 (not pictured), by growth in liquid media, then centrifuging 1 mL samples for gDNA extraction.

5.2: Methods and Results

5.2.1. Characterising FM2.5 *via* growth curves and CFUs

Before creating a transposon library in FM2.5 and FM2.5RW, growth of the strain needed to be characterised. This included comparing growth rate of the strain to R20291, in which one of the previous transposon libraries were made. The growth subcultures were started at an

$OD_{A600} = 0.03$ (back-calculated value) and transposition was then induced, with anhydrotetracycline, after an hour when the OD_{A600} was approximately 0.06. It is to be noted that the $OD_{A600} = 0.03$ is a theoretical value, as it is derived from OD_{A600} versus dilution calculations and cannot be verified by our spectrometer due to minimum measurable OD_{A600} being 0.05. However, since the OD_{A600} of the culture doubles after an hour ($\sim OD_{A600}=0.06$), we can safely assume starting OD_{A600} was ~ 0.03 . The subcultures for each growth curve was done in triplicates, except for the “FM2.5 pRPF215 induced” growth curve as two of the triplicates were contaminated. Growth of R20291 is almost identical to growth of FM2.5RW (Figure 31). FM2.5 has a slightly slower growth of rate and reaches stationary phase earlier, than R20291 and FM2.5RW (Figure 31), as described previously (Kirk *et al.*, 2017). Growth of R20291 and FM2.5 was also characterized by plotting optical density of the culture against colony forming units (Figure 32), to directly determine the number of bacteria present at different time points during growth.

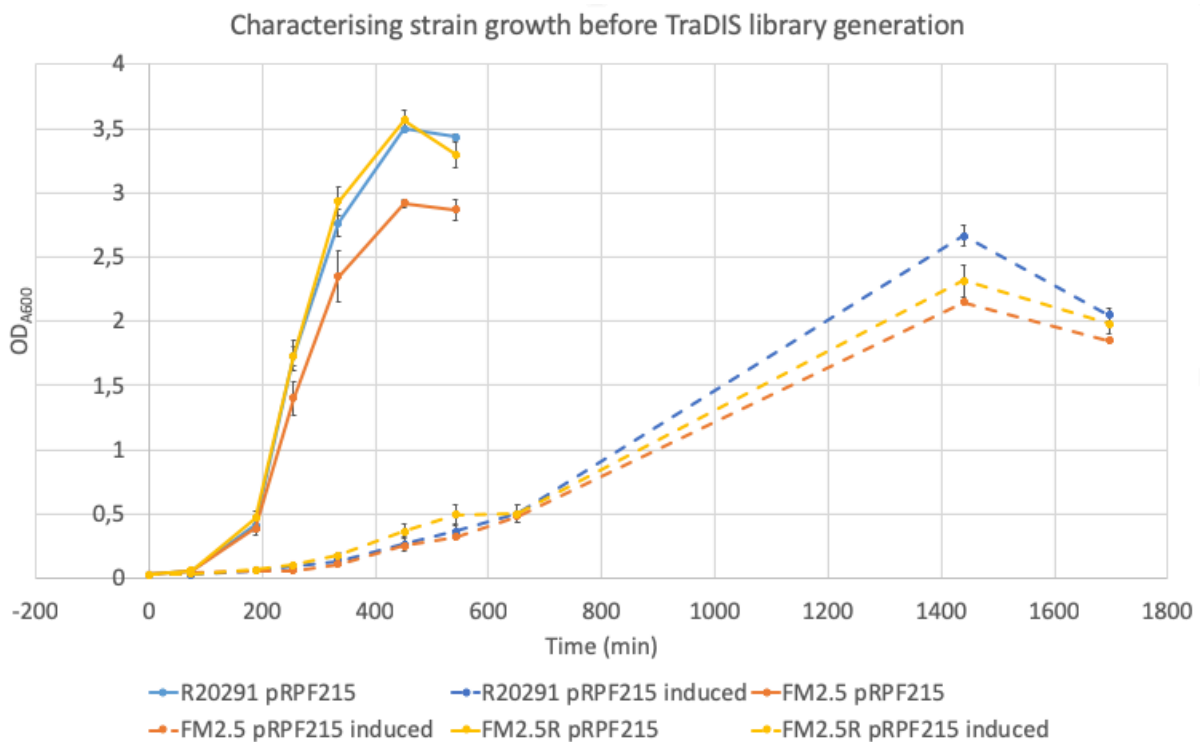


Figure 32: Growth curves of *C. difficile* R20291, FM2.5 and FM2.5RW with and without induction of transposition.

Strains were grown in TY and all strains carrying pRPF215 transposition plasmid, without any induction is depicted by solid lines. Growth curves of R20291, FM2.5 and FM2.5RW in TY, all carrying pRPF215 transposition plasmid, induced with anhydrotetracycline and lincomycin selection at time of inoculation is depicted by dash lines. Error bars display standard deviation. (n=3 for all curves except the curve for FM2.5 pRPF215, where n=1 due to contamination of the other replicates).

Secondly, growth of these three strains following induction of transposition was also documented. For this the transposition plasmid pRPF215 was introduced into each of the three strains using conjugation and they were grown overnight. On the day of the experiment, the overnight cultures were sub-cultured into 5 mL TY so that the OD_{A600} of the culture was 0.05. Simultaneously, transposition in the strains was induced by adding anhydrotetracycline (20 ng/mL) and the cells which had undergone transposition were selected for by inclusion of lincomycin in the culture media. The growth rate of all three strains fell dramatically, and it took about 23 hours, as opposed to the normal 7-8 hours, for the cultures to reach stationary phase. This can be attributed to the possibility that 99.9% of the cells in the culture have not undergone transposition. For example, in the case of R20921, at $OD_{A600} = 0.06$ (approx. 3.67×10^7 cells; Figure 32), about 3.66633×10^7 cells are lost to lincomycin selection; whereas only 3.67×10^4 cells continue to grow – translating to a resultant OD_{A600} of roughly 0.00006. Suggested improvements to overcome this large lag phase and low growth rate was firstly to induce one hour after sub-culturing, secondly by finding a way to increase transposition frequency; and thirdly by adding glucose to the TY media to promote growth and increase possible OD_{A600} of stationary phase. For the library generation, the overnights were sub-

cultured to an OD_{A600} of 0.03, but only induced with anhydrotetracycline and lincomycin selection at an $OD_{A600}=0.05$. Additionally, new libraries were generated using pRPF215 containing wild type Himar transposase and pNJF013 containing a hyper-transposition Himar mutant transposase. New libraries were also generated in TY with 0.5% glucose.

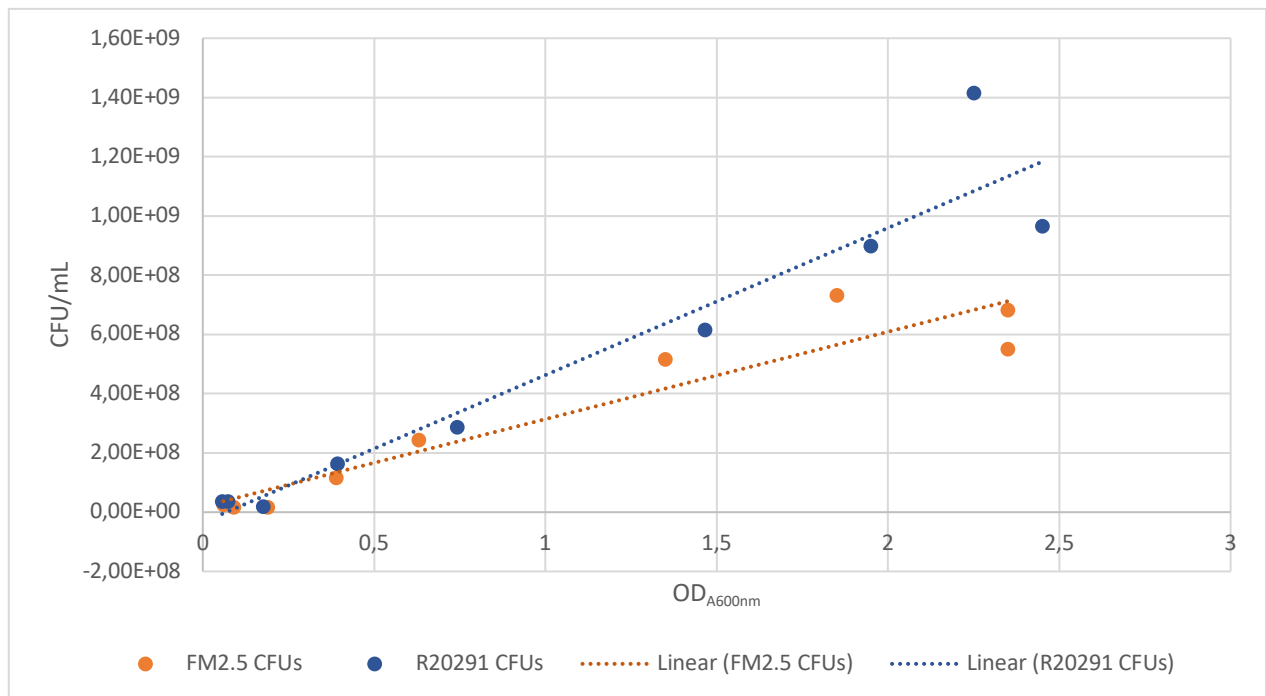


Figure 33: CFU graphs of *C. difficile* R20291 and FM2.5.

OD_{A600} optical density of *C. difficile* R20291 and FM2.5 cultures versus colony forming units. R20291 appears to have more CFUs/mL for a give OD_{A600} than FM2.5.

5.2.2. Determining transposition frequency

Transposition frequency of the different transposition plasmids were determined using the following protocol (Figure 33). The strains to be tested (i.e. R20291pRPF215, R20291pNJF013 and FM2.5pRPF215, FM2.5pNJF013) were streaked onto fresh BHI + thiamphenicol (15 $\mu\text{g}/\text{mL}$) agar, two days before the transposition frequency experiment. On the day before the experiment overnights of these strains were set up using a single colony and pre-reduced 5

mL TY. Thiamphenicol was not added to select for plasmid in the overnight. This was done so that there was no hint of thiamphenicol in the subcultures that will be set up later. TY (270 μ L) was added to each well in a 96-well plate and placed in the anaerobic cabinet to reduce. For each strain, 21 plates of (BHI + Thiamphenicol (15 μ g/mL)) plates and 21 plates of (BHI + ATc (20 ng/mL) + Lincomycin (20 μ g/mL)) were kept in the anaerobic cabinet to reduce. For each strain, thirteen 1.5 mL cuvettes were placed into the anaerobic cabinet as well. On the day of the experiment, optical density (A_{600}) of the overnight 5 mL cultures were checked and 1 mL subcultures with an $OD_{A_{600}}$ of 0.05, were set up in cuvettes. Three technical replicates were set up from the same overnight culture. ODs were measured on an hourly basis. When ODs of the cultures reached log-phase ($OD_{A_{600}} = 0.4 - 0.8$), 30 μ L of each of the subcultures were transferred to a well on the 96-well plate. 10-fold serial dilutions were carried out using the other wells on the 96 well plate (Figure 33). From each well, 100 μ L of the mixture was spread onto a BHI + Thiamphenicol plate and 100 μ L of the the mixture from the same well was spread onto a BHI + ATc + Lincomycin plate. This was repeated for each and every well, thereby plating out all serial dilutions of the culture. The plates were left in the cabinet for 36 hours after which the colonies on each plate were counted. Colony morphology on the BHI + Thiamphenicol plates were identical. Whereas, BHI + Anhydrotetracycline + Thiamphenicol on a single plate showed widely varying colony morphologies to each other as is to be expected after a random transposition events across the genome (Dembek *et al.*, 2015). Transposition frequency was then determined using the following equation:

$$\textit{Transposition Frequency} = \frac{\text{No. of colonies per 100}\mu\text{L BHI + ATc + Linc}}{\text{No. of colonies per 100}\mu\text{L BHI + Thiam}}$$

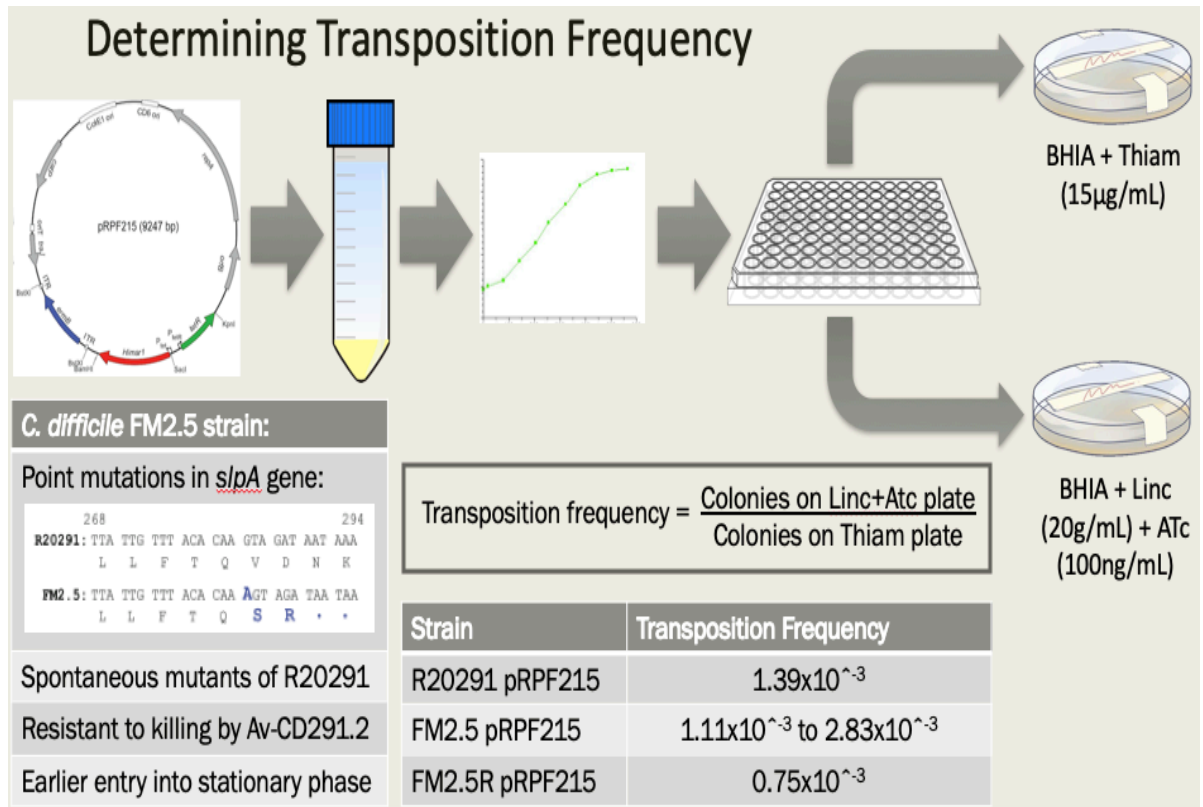


Figure 34: Determining transposition frequency.

Transposition plasmid pRPF215 was transferred into *C. difficile* R20291, FM2.5 or FM2.5RW. Overnights were set up with the strains and sub-cultured. A 96-well plate was used to carry out 1 to 6 serial dilutions of each strain cultured. From each well 100 µL was plated onto the BHIA + Thiamphenicol plate, whereas 100 µL was plated onto the BHIA + Lincomycin + Anhydrotetracycline plate. Transposition frequency was calculated as described by the equation in this figure. Transposition frequency of R20291 and FM2.5 were similar; whereas transposition frequency of FM2.5RW was an order of a magnitude lower.

5.2.3. Improving transposition frequency

Transposition frequency was improved by 5.6-fold by use of the new plasmid, pNJF013 in place of pRPF215. The only difference between the two is that while pRPF215 carries a gene that encodes wild type Himar transposase, the pNJF013 carries a gene that encodes the c9

mutant Himar1 transposase with two point mutations (Q131R and E137K) in the non-specific DNA binding domain (Figure 34). The experiment to determine transposition frequency was repeated using FM2.5 pRPF215 and FM2.5 pNJF013. The transposition frequency for FM2.5 pRPF215 was roughly as expected from the previous FM2.5 pRPF215 transposition frequency experiment. Although, transposition frequency for FM2.5 pNJF013 was 5.6-fold higher (Figure 34).

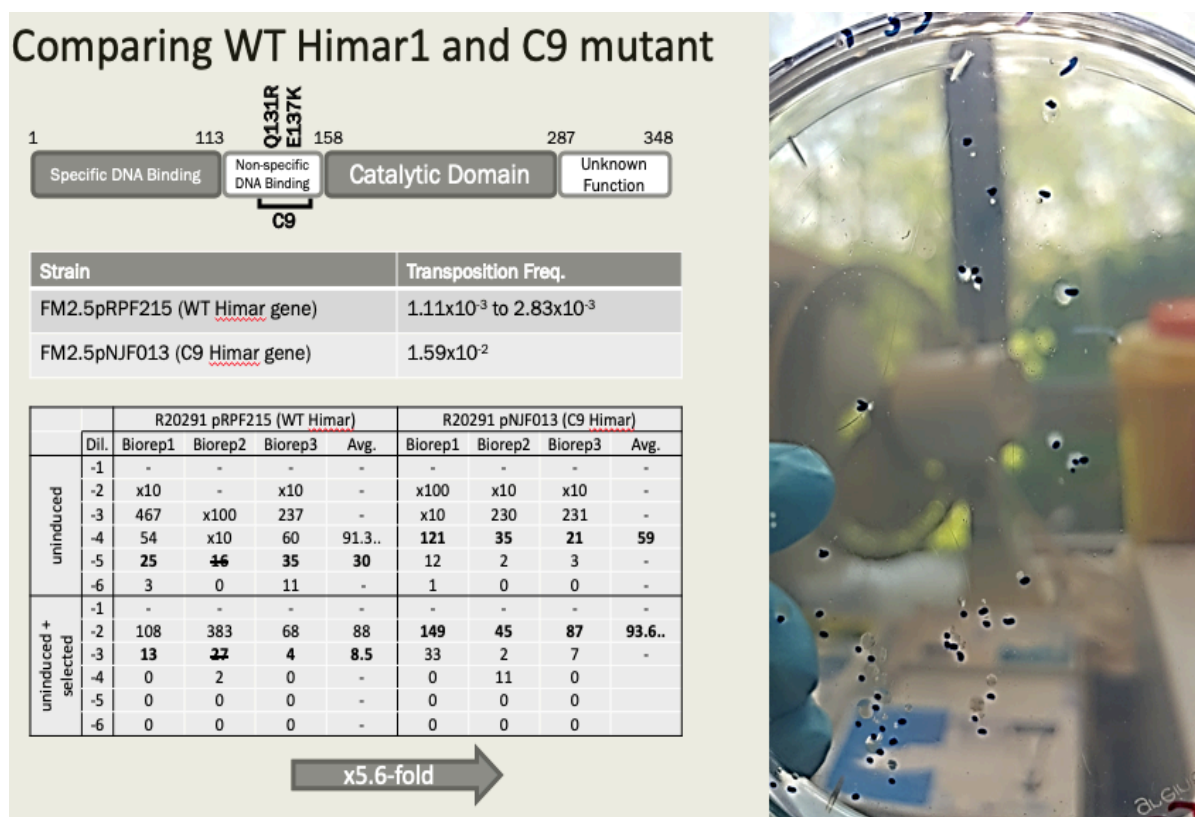


Figure 35: Comparing WT Himar1 and C9 mutant.

Experimentally derived transposition frequencies for the pRPF215 plasmid containing WT Himar1 transposase and pNJF013 plasmid containing C9 Himar1 hyper-transposase, in various *C. difficile* background strains.

5.2.3.1. Plasmid background effects

To check efficiency of plasmid curing of the new transposition plasmid (pNJF013), the following strains were streaked from frozen stock onto a BHI + Thiamphenicol plate two days before the experiment: R20291 pRPF215, FM2.5 pRPF215, FM2.5RW pRPF215 and R20291 pNJF013. On the day before the experiment a single colony from each plate was used to set up a 5 mL pre-reduced TY overnight. For each strain another 5 ml TY aliquot was placed in the cabinet to reduce. On the day of the experiment, the sample was sub-cultured into TY to make up a resultant concentration of $OD_{A600} = 0.05$. The OD_{A600} of these subcultures were measured every hour, until their growth reached log-phase ($OD_{A600} = 0.4 - 0.8$). A 6-fold serial dilution was conducted with the subcultures.

100 μ L aliquots from the undiluted culture, 1-fold and 2-fold dilutions were plated onto BHI + anhydrotetracycline + thiamphenicol plates. The anhydrotetracycline was used to induce transposition and the thiamphenicol selects for the plasmid. However, in theory the plasmid should not be able to confer thiamphenicol resistance after the transposition event. Therefore, cells that have already undergone transposition, will not survive on the BHI + anhydrotetracycline + thiamphenicol plates. 100 μ L aliquots from the 4-fold, 5-fold and 6-fold dilutions were plated onto the BHI + Thiamphenicol plates. These plates therefore acted as controls, only selecting for cells containing the plasmid, that have not necessarily undergone transposition. Strains that carried pRPF215 (Figure 35a, 35b and 35c) did not grow well on the BHI + anhydrotetracycline + thiamphenicol plates, after the transposition event. With only one or two colonies appearing from the undiluted culture on these plates. On the other hand, R20291 carrying the pNJF013 plasmid had a 3-fold increase in growth compared to these strains on the same type of plates (Figure 35d). Therefore, although this plasmid (pNJF013)

confers hyper-transposition, it persists within the host cells well past induction of the population.

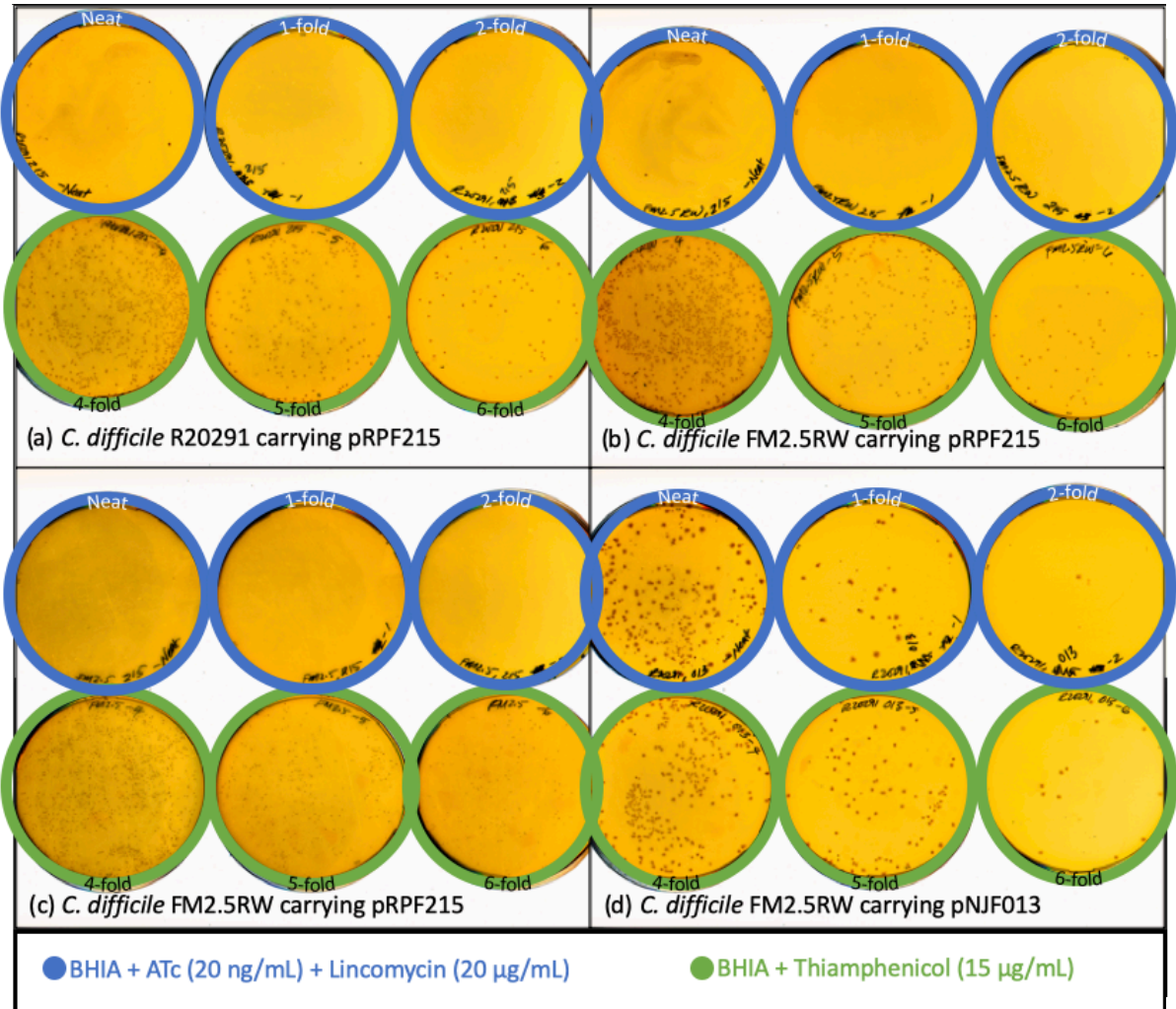


Figure 36: Check for plasmid background after induction of transposition.

Experiment to check persistence of plasmid within *C. difficile* strains after induction of transposition. Growth of *C. difficile* (a)R20291 carrying pRPF215 (b)FM2.5RW carrying pRPF215 (c)FM2.5RW carrying pRPF215 and (d)R20291 carrying pNJF013, with (blue) and without (green) induction. Unlike the strains carrying pRPF215, R20291 strain carrying pNJF013 has a significant number of lincomycin-resistant colonies after the induction of transposition by anhydrotetracycline. Additives supplemented onto the plate are indicated by plate circumference colour and dilution factor stated on this circumference as well.

5.2.4. Generating New Transposon Libraries in Liquid Media

Strains (*C. difficile* R20291, FM2.5, FM2.5RW) were streaked from frozen stocks onto pre-reduced BHI + Thiamphenicol plates and were left to grow overnight. Simultaneously, *E. coli* CA434 carrying the pRPF215 plasmid and *E. coli* CA434 carrying the pNJF013 plasmid were streaked onto LB + chloramphenicol plates and were left to grow overnight. All three *C. difficile* strains were conjugated so that each strain carried either one of the two transposon plasmids. Thus, the following six strains were created: R20291 pRPF215, R20291 pNJF013, FM2.5 pRPF215, FM2.5 pNJF013, FM2.5R pRPF215, FM2.5R pNJF013. It was imperative that the transposon libraries were generated right after the conjugation protocol (stated in the Introduction Chapter) had been completed. Such precautions were put in place to avoid spontaneous transposition events before library generation.

Two days before library generation, two 500 mL Duran bottles per strain were put into the anaerobic cabinet. Each of these bottles contained 400 mL of autoclaved TY with 0.5% glucose. The media was left to reduce overnight for a minimum of 12 hours. On the day before library generation, 10 mL pre-reduced TY overnight cultures were set up with each of the strains. On the day of library generation, the OD_{A600} of the overnight cultures were measured. A measured amount of overnight culture of each strain was carefully used to subculture the media in both the Duran bottles (Figure 30c), so that the resultant $OD_{A600} = 0.03$. After an hour when the OD_{A600} of each subculture was about 0.05, anhydrotetracycline (20ng/mL) and lincomycin (20 μ g/mL) was added. The anhydrotetracycline would induce the transposition event and the lincomycin would select for bacteria with the lincomycin gene. Ten Eppendorf tubes and ten glycerol tubes were labelled and put in the cabinet for later use. It is also worth

noting that the *C. difficile* FM2.5 strain settled to the bottom of the media rather than remain suspended (Figure 30c). Therefore, it had to be swirled on hourly basis. As an alternative to this, stirring fleas and a stirrer were used for future experiments.

The subcultures were grown for 8 hours, then samples were taken. Five 1 mL samples were taken from each Duran and transferred to 5 microcentrifuge tubes. These were centrifuged at 18000xg and the supernatant was discarded. The pellets were stored at -80°C. At the time of sample preparation for Illumina, a single pellet was thawed and gDNA was extracted using the phenol chloroform extraction method. Another five 1 mL samples were taken from each Duran and transferred to glycerol tubes, to make a 10% glycerol stocks. These were gently vortexed and then stored at -80°C as well. These stocks can be recovered and sequenced to replicate most of the library.

5.2.5. Genomic DNA Extraction and Shearing

The method that will be described in Section 5.2.5, was designed and optimised by the Henderson Laboratory at the University of Birmingham (Goodall *et al.*, 2018). The laboratory had first designed it to preparing samples of *E. coli* transposon libraries for sequencing using Illumina sequencers. The protocol was adapted and developed further for use with *C. difficile* samples for this project.

A 1.5 mL sample of the library was taken from the culture and gDNA was extracted using the phenol genomic DNA extraction technique and measure the concentration of gDNA from the sample using a Nanodrop. All liquid handling steps were performed using filter tips to avoid nuclease contamination. Sterile nuclease-free water (500 µL) was added to a 15 mL centrifuge

tube. Genomic DNA was added to the tube so that the final concentration of gDNA was 2 $\mu\text{g}/\text{ml}$ (1 μg in 500 μL). The sample was vortexed to mix well, then centrifuged for a couple of seconds to collect the sample at the bottom of the tube. The samples were then kept on ice for 10 min before shearing.

A 250mL beaker was filled with crushed ice and added to the water bath of a Biorupter sonicator. The crushed ice was no more than 1 cm thick. The water bath was topped up with distilled water up to the red line. The lid to the water bath and metal spacers were added to the outer 6 positions. Blanks were used if ethanol and tissues were used to clean the probes. The probes were air dried and then screwed into the sample. First the blue lid then the black lid was screwed onto the sample. Falcons were rechecked to ensure the probes were sitting in the centre of each falcon tube. Samples were loaded onto the outer 6 spaces, leaving the centre position empty. Blanks (500 μL water in falcon tubes) were used if there were fewer than 6 samples to be sonicated. The sonicator was set to carry out the following: cycle conditions 30 seconds on/ 90 seconds off, low intensity (push button in) and 13 cycles. If multiple sonication runs were required, 20 min gaps were left between multiple sonicating runs. Water and ice were replaced between sonicating runs.

The samples were transferred to 1.5mL Eppendorf tubes and then condensed until only ~ 50 μL of the sample was left. This was done by placing the microcentrifuge tubes in a vacuum centrifuge/ concentrator that spins the sample, evaporating excess water, making the sample more concentrated. This took approximately 2 to 3 hours depending on the number of samples being processed. The samples were made up to 55.5 μL using sterile nuclease free water and the samples were stored at 4°C to be used on the following day.

5.2.6. Quantifying NGS Libraries Using Multiple Methods

When sequencing a multitude of libraries in parallel it is imperative that the libraries are quantified to avoid large variations in library coverage when the multiple samples are included in one sequence analysis (Hussing *et al.*, 2018). There are a number of ways by which the NGS samples prepared can be quantified. These include methods like spectrophotometry (i.e. Nanodrop, Qubit), gel electrophoresis (i.e. TapeStation, Bioanalyser, GX Touch, Fragment Analyzer) and qPCR (Hussing *et al.*, 2018). For the sake of accuracy and precision, multiple methods were used to quantify the library samples. The samples were preliminary quantified after gDNA isolation, using Qubit. After shearing of the DNA, the sample was quantified using TapeStation. During sample preparation for Illumina sequencing, size exclusion was conducted to select for 350bp fragments. Lastly, we quantified the Illumina-prepared sample using qPCR.

Qubit and Nanodrop DNA concentration estimates match those of electrophoresis-based techniques when comparing chemically synthesized double-stranded DNA oligos. Except, when estimates from massively parallel libraries were quantified, Qubit and Nanodrop predicted higher values (Hussing *et al.*, 2018). This is because the Qubit and Nanodrop does not differentiate between different DNA lengths. Therefore the higher concentration estimate can be attributed to a mixture of primer dimers, adapter dimers and DNA fragments without adapters; present in the reaction in addition to the relevant PCR products (Hussing *et al.*, 2018).

Electrophoresis-based techniques, like Tape-Station, provides a chance to visually assess the quality of the library (Figure 36). The percentage of small molecules such as primer and adapter dimers and large molecules that cannot be sequenced by Illumina short-read sequencing, can be eliminated from the concentration estimates (Hussing *et al.*, 2018). The percentage of remaining molecules gives an estimate of how much of the sample is comprised of 350bp fragments before Illumina-preparation (Figure 36). Within the R20291 pRPF215 transposon library sample, concentration of 200-350bp fragments is lesser than 880 pg/ μ L and comprises of roughly 17% of the total sample. Within the R20291 pNJF013 sample, the concentration of 200-350bp fragments is lesser than 2920 pg/ μ L and comprises of roughly 19% of the total sample. Both libraries were suitable for sample preparation and Illumina sequencing. This is these percentages of the samples that will be sequenced by the Illumina run and therefore if this stage acted as a checkpoint to determine if the sample concentration was enough to go ahead with sample preparation and sequencing. More importantly, the fact that this method cannot differentiate between fragments with and without adapters must be considered when assessing concentration at this checkpoint (Hussing *et al.*, 2018).

Chapter 5: Generating Novel Libraries to Determine Genes Essential for Survival Without the S-layer

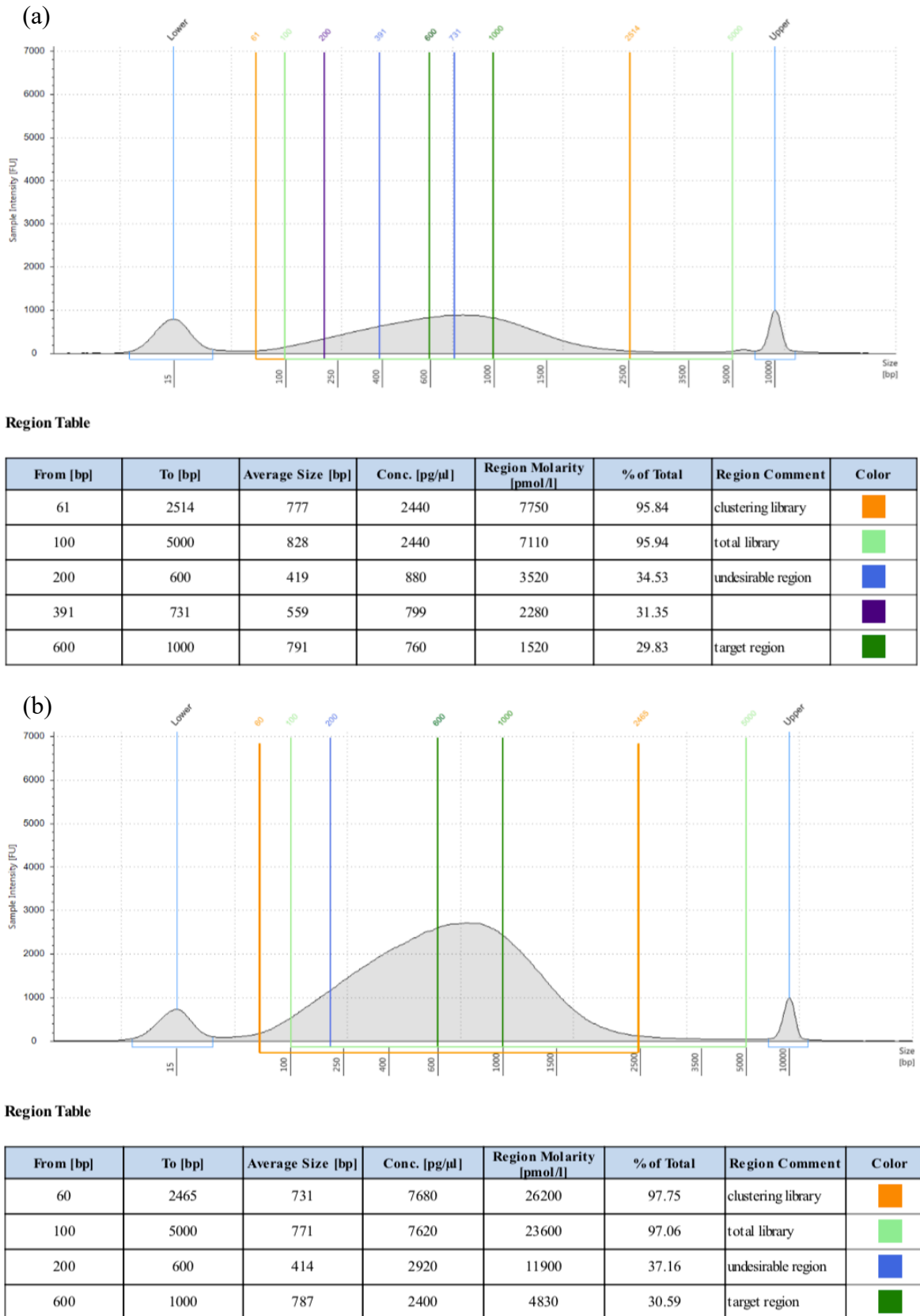


Figure 37: TapeStation analysis of DNA shearing.

Samples from (A) R20291 pRPF215 transposon library. (B) R20291 pNJF013 transposon library.

During the sample preparation phase, size exclusion was used to select for DNA fragments roughly 350bp in size. This was done using Beckman Coulter's solid-phase reversible immobilization (SPRI) paramagnetic bead technology (commercially known as Agencourt AMPure XP beads) for high-throughput purification of PCR amplicons (Beckman Coulter, 2016). An optimised buffer was used to enable the beads to selectively bind to DNA fragments that were 100bp or larger (Beckman Coulter, 2016). Ordinarily the beads are used for PCR purification of clonal DNA fragments from a PCR reaction containing primers, nucleotides, salts and enzymes. However, the beads can also be used for cloning, genotyping, fragment analysis, primer walking and next generation sequencing applications (Beckman Coulter, 2016). Here we have purified the library samples several times using the SPRI beads to select for DNA fragments that are 350bp in length (Figure 37).

Real-time PCR, commonly referred to as qPCR, was used to quantify the amount of DNA in the library sample that can be sequenced by Illumina. qPCR estimates the number of amplifiable target molecules in the library (Hussing *et al.*, 2018). In order to derive a quantitative estimate of the initial template concentration in a sample, the qPCR method tracks target concentration as a function of PCR cycle number (Illumina, 2011). The process is the same as a regular PCR, using polymerase, dNTPs and two primers that match the sequences within the adaptors flanking each fragment in the Illumina sequencing library (Illumina, 2011). One of the main reasons qPCR is apt for measuring libraries before generating clusters, is because it only amplifies template with adaptors on either ends, which are the only templates that will form clusters on the Illumina flow cell when sequencing (Illumina, 2011). Furthermore, highly diluted library samples may not be able to reach the threshold of DNA detection of conventional spectrophotometric methods. qPCR can amplify

from very low DNA template concentration, therefore can quantify such samples with ease (Illumina, 2011).

Although the qPCR method is 5-10 times more costly and more time consuming than spectrophotometric assays, it provides a more accurate prediction than Qubit or TapeStation (Hussing *et al.*, 2018). It is also the most sensitive method compared to other existing methods and quantification estimates were better correlated with the library coverage of the downstream sequencing reaction (Hussing *et al.*, 2018).

5.2.7. Sample preparation using NEBNext Ultra DNA Library Prep Kit for Illumina (E7370)

5.2.7.1. NEBNext End Prep kit Ultra I

The following components were transferred to a sterile nuclease-free tube (total volume 65 μL):

3 μL	End Prep Enzyme Mix
6.5 μL	End Repair Reaction Buffer (10x)
55.5 μL	Fragmented DNA (5 ng – 1 μg)

When composing the mixture, all the reagents were kept on ice, except for the enzymes which were kept on a cold block. The mixture was mixed by pipetting. The sample was then placed in a thermocycler where it was heated to 20°C for 30 min, then heated to 65°C for 30 min after which it was switched to hold at 4°C.

5.2.7.2. Adaptor Ligation and U-Excision

The following was added directly to the End Prep reaction mixture (total volume 83.5 μ L):

15 μ L	Blunt/ TA Ligase Master Mix
2.5 μ L	NEBNext Adaptor for Illumina (from NEBNext Singleplex Oligos for Illumina Kit)
1 μ L	Ligation Enhancer

The sample was mixed well by pipetting and spun down briefly to collect all the liquid from the side of the tube. The sample was then incubated at 20°C for 15 min in a thermocycler. To this sample 3 μ L of USER enzyme was added from the NEBNext Singleplex or Multiplex Oligos for Illumina Kit. The sample was mixed well and then incubated at 37°C for 15 min.

5.2.7.3. Size selection of fragments/ Clean-up of Adaptor Ligated DNA (Figure 37)

AMPure XP beads were removed from the fridge half an hour before this step and allowed to reach room temperature. The beads were vortexed thoroughly to resuspend the beads into a slurry. Distilled water (13.5 μ L) was added to the ligation reaction to bring total volume up to 100 μ L. The mixture was transferred to an Eppendorf and 55 μ L of resuspended AMPure XP beads was added to the 100 μ L ligation reaction. The two were mixed by pipetting up and down 10 times. The mixture was incubated at room temperature for 5 min. The tube was placed on a magnetic stand to separate the beads from the supernatant. After roughly 2 to 5 min when the solution was clear, the supernatant containing the DNA was transferred to a new microcentrifuge tube. The beads, carrying the unwanted large fragments of DNA, were discarded. If beads were disturbed when trying to aspirate the supernatant, the mixture was allowed to rest on the magnetic stand for another 2 mins until the mixture became clear once again. Fresh AMPure XP beads (25 μ L) were added to the supernatant, mixed well by pipetting and then left to rest for 5 min at room temperature. The tube was once again kept on a

magnetic stand so that the beads separated from the supernatant. After 5 min when the supernatant became clear, the supernatant containing the unwanted DNA was carefully removed and discarded. Caution was taken not to disturb the beads. If they were disturbed the mixture was allowed to rest on the magnetic stand for another 5 mins, until the supernatant turned clear once again.

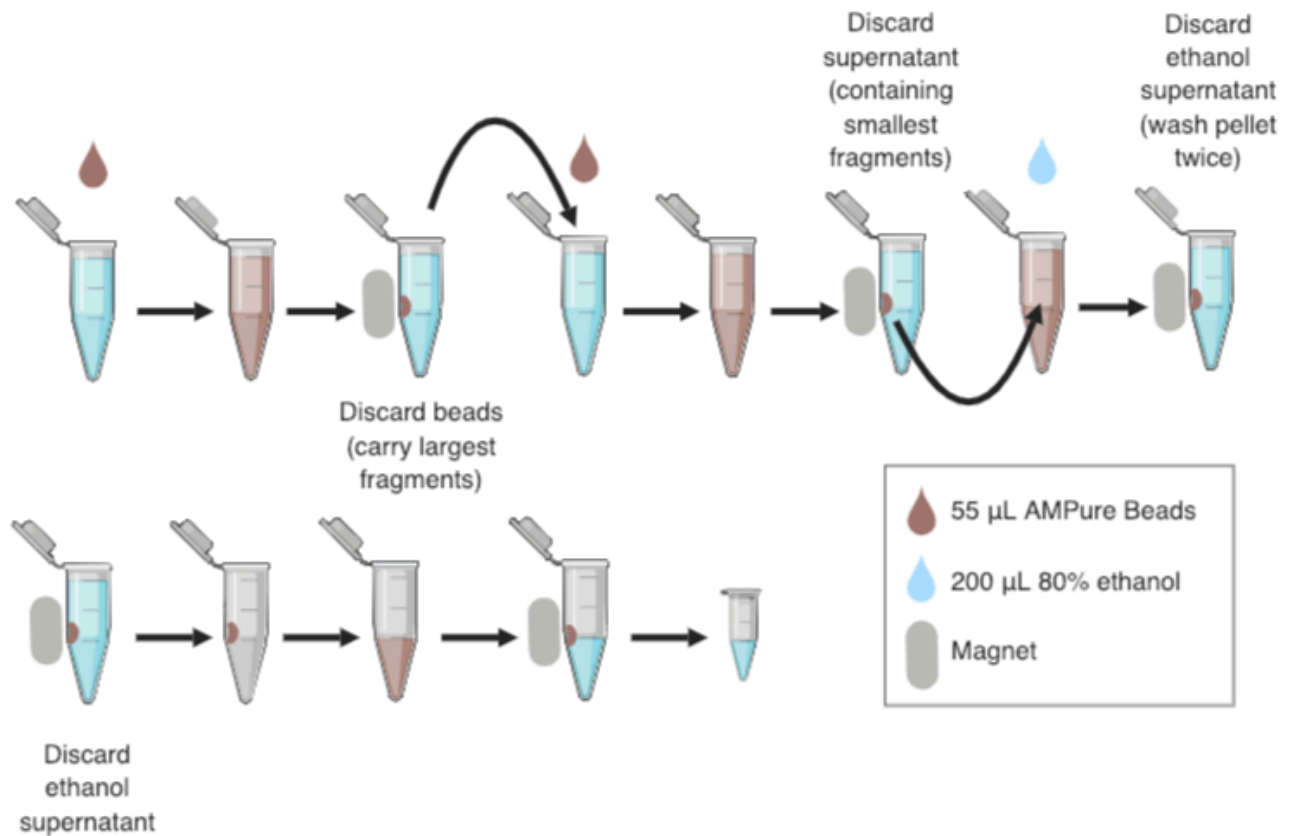


Figure 38: Size exclusion purification protocol.

First 55 µL Ampure beads were added to the sample and the largest DNA fragments that adhered to the beads were discarded. The medium and small fragments stayed in the supernatant. Another 55 µL aliquot was added to this supernatant and the medium fragments adhered to the beads. This time the supernatant carrying the smallest fragments was discarded. The medium sized fragments attached to the beads contain the 350bp fragments required for sequencing. These medium sized fragments were eluted from the beads and transferred to a PCR tube.

While the Eppendorf and beads were still on the magnetic stand, 200 μ L of 80% freshly prepared ethanol was added to the tube. The tube was incubated at room temperature for 30 seconds, after which the 80% ethanol was carefully removed and discarded. The ethanol wash was repeated once more, and the ethanol was carefully removed from the bottom of the tube once again. The Eppendorf lids were opened, and the beads were air dried for exactly 5 min (as over drying may result in loss of DNA target). Qiagen elution buffer (17 μ L) was used to elute the DNA targets from the beads. The mixture was mixed well by pipetting and left to rest off of the magnetic stand for 2 min. The tubes were then placed on the magnetic stand for 5 min until the supernatant cleared. The supernatant (16 μ L) was transferred to a PCR tube for amplification. DNA concentration was measured using 1 μ L of the sample and a Qubit or Nanodrop.

5.2.7.4. PCR Amplification of the Transposon Junction

The following components were mixed in a nuclease-free tube (total volume 50 μ l):

15 μ l	Adaptor Ligated DNA Fragments (our samples)
25 μ l	KAPA HiFi polymerase
2.5 μ l	10 μ M PCR1-F Primer* (RF1520)
2.5 μ l	10 μ M PCR1-R Primer** (RF1522)
5 μ l	nuclease free water

PCR1-F primer is specific to the transposon, whereas the PCR1-R primer is the same for every library as it is specific for the adapter. The PCR tube was placed in a thermocycler and the following run on the following program:

Temperature	Duration	Cycles	Description
98°C	3 min	1	Initial Denaturation
98°C	15 sec	10*	Denaturation
65°C	30 sec		Annealing
72°C	30 sec		Extension
72°C	1 min	1	Final Extension
4°C	∞	-	Hold

*The number of cycles will vary with the amount of template DNA: 4 cycles for 1 µg DNA, 7 – 8 cycles for 50 ng and 12 cycles for 5ng.

5.2.7.5. Clean-up of PCR Amplification

Fresh AMPure XP beads were vortexed to resuspend the beads and left to rest for an hour to reach room temperature. The PCR reaction was transferred to an Eppendorf tube. The resuspended AMPure XP beads (45 µL) were added to the PCR reaction (~50 µL) in a ratio of 0.9:1, beads to PCR reaction. The mixture was mixed well using a pipetting by up and down 10 times. The sample was incubated for 5 min at room temperature. The tube was then spun briefly and placed on the magnetic stand to separate the beads from the supernatant. After 5 mins when the supernatant was clear, it was carefully removed and discarded. Care was taken to not disturb the beads carrying the DNA targets. Freshly prepared 80% ethanol (200 µL) was added to the tube while the tubes were still on the magnetic stand. The tubes were incubated at room temperature for 30 seconds, after which the supernatant was carefully discarded. The ethanol wash was repeated one more time and residual ethanol was removed and discarded. The lids were opened and the tubes were left to air dry for exactly 5 min as over drying the beads may result in lower recovery of DNA target.

The rack was taken off the magnetic stand and the DNA target was eluted from the beads using 17 μL of elution buffer. The sample was mixed by pipetting up and down, then leaving the sample to rest for 2 min. The rack and tubes were placed back onto the magnetic stand, until all the beads separate from the supernatant. After 2 - 5 min when the solution cleared, the supernatant (16 μL) was transferred to a PCR tube for amplification. DNA concentration was measured using 1 μL of the sample and a Qubit or Nanodrop.

5.2.7.6. Second PCR Amplification for Library Preparation

The following components were added to a PCR tube and mixed *via* pipetting (total volume 50 μL):

15 μL	Adaptor Ligated DNA Fragments (sample)
25 μL	KAPA HiFi polymerase
2.5 μL	10 μM inline index custom forward primer (unique to each sample being processed) (e.g. E7316AA NEBNext Index 6 Primer for Illumina from kit E7335L)
2.5 μL	10 μM Illumina index primer (E7335 and E7500) (unique to each condition being tested) (e.g. E7317AA NEBNext Index 7 Primer for Illumina from kit E7335L)
5 μL	Nuclease free water

The PCR tube was then placed in a thermocycler and put through the following PCR program:

Temperature	Duration	Cycles	Description
98°C	3 min	1	Initial Denaturation
98°C	15 sec	20	Denaturation

65°C	30 sec		Annealing
72°C	30 sec		Extension
72°C	1 min	1	Final Extension
4°C	∞	-	Hold

5.2.7.7. Clean-up of Second PCR Amplification

The clean-up of second PCR samples were processed as previously done in section 6.2.4.5. However, the final elution was done by transferring 33 µL of elution buffer into the tube. Only 32 µL of this elution was transferred to a nuclease free labelled Eppendorf. The prepared libraries were safely stored at -20°C.

5.2.8. Quantitative Polymerase Chain Reaction (qPCR)

The KAPA kit KK4824 was used for this process. Care was taken to accurately pipette stated volumes and all samples were vortexed thoroughly. Reagents were kept on ice at all times. The SYBR MM pot covered in foil was taken out of the fridge and left to thaw on bench top, while samples were being diluted. The samples were diluted until the DNA concentration read-out of the samples was between concentration of sample 1 to sample 4. Two dilutions were used for qPCRS (1:50,000 and 1:500,000), with three replicates for each dilution. To make the dilutions first, 1 µL of sample was added to 99 µL of 10mM Tris-HCl (pH 8, 0.05% TWEEN 20). This mixture was vortexed thoroughly and 2 µL of this sample was added to 998 µL of 10mM Tris-HCl (pH 8, 0.05% TWEEN 20) to make the 1:50,000 dilution sample. This 1:50,000 dilution sample was vortexed thoroughly and 100 µL of this sample was added to 900 µL of 10mM Tris-HCl (pH 8, 0.05% TWEEN 20) to made the 1:500,000 dilution sample. Three replicates of each dilution were made. A semi-skirted 96-well PCR plate (BioRAD Hard

Shell High Profile for the Aria Mx) was placed on a cold block while the PCR master mix was prepared. The following components were mixed in an Eppendorf tube to make the master mix. Quantities stated are for each sample. The volumes for each component was multiplied by number of samples plus four to account for errors in pipetting. (Total reaction volume = 10 μ L)

6 μ L SYBR + primer MM (containing P5 forward sequencing primer and P7 reverse sequencing primer)

2 μ L Nuclease-free water

2 μ L sample/ standard/ TE buffer

Aliquots of 8 μ L of the prepared master mix was transferred to each well in the 96-well plate. This includes wells for 6 standards (x2, in different positions on the plate), 3 no template controls (where 2 μ L of TE buffer was used instead of the sample) and 6 samples per library for quantification (where 2 μ L of the sample was added to each well). Mixtures in all wells were mixed by pipetting. The plates were sealed using Geneflow Opti-seal P3-0300 when using Aria Mx. Whereas the plate was sealed with 8-strip optical seal caps if a semi-skirt plate and Mx3005P were being used. The 96-well plate was left on a cold block until it was ready to be loaded into the machine. When plate was placed in the Agilent Mx3005P, a brown mat was placed on top of the plate and holes were aligned with the plate caps. No brown mat was used with the Aria Mx.

The following settings were setup on the Mx3005P before running the qPCR:

- Lamp warmed up 20 min before use
- Instrument >> Filter set gain settings >> Load factory default >> FAM = x8
- File >> New >> Sybr green >> Dissoc.
- Options >> Optics config. >> 5 = SYBR (492 + 516 = ex. and em.)
- RHS: Amplification >> Normal 2 step

The following thermal profile was then used to conduct the qPCR:

Temperature	Duration	Cycles
95°C	5 min	1
95°C	30 sec	35
60°C	30 sec	
65 - 95°C Melt		1

The data was analysed to confirm that the efficiency is between 90% to 110%, that R2 coefficient of correlation value is greater than 0.99, the ΔCq value is in between 3.1 and 3.6. The NTC amplification curve was checked to ensure that it was at least 3 cycles ahead of standard curve last run. Any samples that were amplified ahead of standards were ignored and outliers were removed. The spreadsheets were then used to calculate molarity.

5.2.9. Illumina MiSeq sequencing

DNA concentration of the library samples were adjusted to 8 nM and 1.5 μ L of each of the available samples were pooled together. Illumina MiSeq short-read sequencing of the samples were outsourced to the Sheffield Children's Hospital. Here only one end of the

amplicon underwent sequencing (forward sequencing). As of date a library made using pRPF215 in R20291 and library made using pNJF013 in R20291 have been sequenced. However, libraries made using the same plasmids in FM2.5 and FM2.5RW have been generated, pelleted and stored for future sequencing and analysis. At first glance density of the library is one insert per 1000-1500 bp. Unfortunately, a large percentage of the sequencing reads have come from the transposition plasmid. Some experimental changes needed to be made to avoid squandering such resources on plasmid reads.

5.3: Discussion

The use of the C9 mutant Himar1 transposase did not mimic the 50-fold increase in transposition frequency seen in *E. coli*; although, it did result in a 5.6-fold increase in transposition frequency in *C. difficile*. The difference in fold-increase between *E. coli* and *C. difficile*, could possibly be due to the difference in mechanisms of HIMAR-regulated transposition catalysis between the two species. Even though the difference in fold increase is only 1/10th of the expected change, it still has resulted in a much larger number of generated mutants. The data will have to be analysed further to determine if this indeed translated to a higher insertion density and better resolution in the datasets. Since Himar1 requires no host-specific factors for transposition, the limited fold-change in transposition frequency and high percentage of plasmid retention, could be attributed to insufficient induction. For these libraries the transposition event was induced using 20 ng/mL anhydrotetracycline. A higher concentration of anhydrotetracycline (between 20 – 500 ng/mL) could be used for induction. However, lack of induction could be a misconception as Figure 35d shows cells that have been induced with 20 ng/mL ATc seems to have varying morphologies within the same plate, indicative of the occurrence of a transposition event.

Furthermore, it must be noted that the transposon libraries were created at a temperature of 37°C, which is the optimum temperature for growth of *C. difficile*. Coincidentally, this is also the optimal temperature for the C9 mutant transposase as opposed to wild type Himar1 which prefers lower temperatures, as stated earlier. Hence, all things considered, the move to C9 mutant Himar1 from a wild type Himar1 transposase was an advantageous decision.

The method using liquid media *versus* the solid agar for library generation, was adopted to decrease the amount of space used within anaerobic cabinets, which in itself are often extremely confined spaces. Less space usage would also mean transposon libraries can be generated in multiple strains simultaneously. In addition to allowing us to generate a much larger number of mutants, use of liquid media meant preparation for the library is also a lot quicker and cheaper. Usually 20% glycerol stocks are used for storage of *E. coli*. However, when working with *C. difficile*, our laboratory found that's decreasing glycerol concentration, dramatically increases viability. We have therefore decided to use 10% glycerol stocks for the TraDIS libraries. Previous experiments within the Henderson Laboratory have shown that occasionally AT-rich bacterial genomes do not undergo shearing well. Therefore, yield of template fragments 350bp in size will be highly reduced. As stated in the introductory chapter, *C. difficile* has an AT-rich genome and therefore this was a real concern. However, the TapeStation data demonstrates that shearing was not a problem.

A large amount of reads from the preliminary dataset derived from this experiment came from the transposition plasmid. This could be due to the low concentration of anhydrotetracycline that was used to induce transposition. However, sequencing reads from the plasmid is using up precious resources. Therefore, to avoid this the sample will be digested

using restriction enzyme BstXI and EcoRI after adapter ligation. These enzymes cut the plasmid so that reads amplified from the plasmid are extremely short and negligible. These restriction enzymes were chosen as their restriction sites although present on the plasmid, is very rare in the *C. difficile* genome. Another precaution put in place against wasting sequencing resources, is a linker PCR test devised for *C. difficile* transposon libraries. This is to ensure there is a relatively wide distribution of mutants in the library rather than a couple of mutants that have biased the library. In such an event sequencing the library would result in a waste of time and money.

To perform the linker PCR, the gDNA sample would be restriction digested with Apol-HF enzyme. The Apol-HF restriction site (5'-RAATTY-3') cuts the *C. difficile* R20291 genome 15,090 times. With the *C. difficile* R20291 genome being 4,191,339 base pairs, Apol-HF can cut the genome in roughly 278 bp fragments. The enzyme would leave the fragments with 5bp overhangs on both sides of the fragment which was blunted using T4-polymerase. A smaller double-stranded fragment of DNA would then be synthesized and ligated to the ~278bp gDNA fragment. Two primers would then be used to amplify the region from the transposon within the gDNA to the ligated fragment. Multiple dilutions of the PCR reaction would be run on a 0.8% agarose gel. If the library was sufficiently diverse, it would appear as a smear within the PCR lane, less diverse libraries would appear as ladders. Designs for this tool, reagents, components and equipment for this method have been put in place but have not been tested yet.

This experiment, with all its changes applied to improve previous protocols for *C. difficile* transposon insertion generation, aided in the setup of a TraDIS pipeline in Sheffield. Protocols

from this experiment have now been applied to other *Clostridia*, generating libraries in *Clostridium saccharoperbutylacetonicum*, *Clostridium sporogenes*, and many other projects within Sheffield and its collaborators. At the time of writing this thesis, the first TraDIS Mini Symposium was held at the university.

Chapter 6: General Discussion

6.1: Summary of the thesis

This project has shown that it is possible to generate large pools of *C. difficile* mutants simultaneously through insertion mutagenesis, on solid agar and in liquid media. Transposon libraries we generated in *C. difficile* is a good example of the importance and need for a dense library saturated with transposons. The R20291 library was denser than the 630 library and therefore had better resolution for analysis of gene fitness under *in vitro* and *in vivo* conditions. The project has also shown how a *C. difficile* library can be tested in an *in vivo* environment. Here gene essentiality for colonisation and survival in the human gut, during the course of CDI infection, could be mimicked. The *in vivo* experiment has also shown that the protocol used to generate the transposon mutant library, produced a sufficiently abundant number of mutants, to surpass infection bottlenecks.

For the past 70 years, research in *C. difficile* has demonstrated that colonisation resistance of the microbiota to the opportunistic pathogen could be overcome by administering antibiotics in small animal models (Smith and Robinson, 1945; Bohnhoff, Drake and Miller, 1954; Freter, 1955; Bohnhoff and Miller, 1962; van der Waaij, Berghuis-de Vries and Lekkerkerk-v, 1971). This colonisation resistance was thought to be a result of a combination of mechanisms such as competition for nutrients by members of the gut microbiota, production of bacteriocins, niche occupation and host response (Theriot and Young, 2015). Data from the *in vivo* TraDIS analysis suggest that success of colonisation and survival of *C. difficile* seems to be largely dependent on ability of the bacterium to win the competition for nutrients against the other members of the gut microbiota. Surprisingly, none of the other potential mechanisms have

been identified in our KEGG analysis. However, the one exception to this observation is the essentiality of the porphyrin and chlorophyll pathway, which could either be connected to generic metabolic pathways for the bacterium's survival or, more intriguingly, may be involved in production of bactericidal compounds.

Additionally, within our animal experiment datasets, we also see mutants that seem to have a growth advantage when put in an *in vivo* environment. These mutants include ones that have a transposon insertion in genes required for synthesis of the different components of the flagellum. Most of these mutants with a growth advantage *in vivo*, tend to have insertion in genes whose function is not important at the time of colonisation. Hence, we hypothesize that *C. difficile* can tolerate insertions in these genes as the bacterium passively demonstrates preference for mechanisms that would increase its chances of survival, i.e. metabolic pathways. However, a small proportion of these mutants with a growth advantage could lead us to novel repression pathways that give the bacterium a pathogenic advantage. An example of such a mutant is the one that has a transposon insertion in the *tcdB* gene that codes for toxin B. This mutant while being sick *in vitro*, demonstrates peak fitness *in vivo*. "Sick" here is characterised by a large number of mutants dying off before sequencing, translating to fewer reads at a unique transposition site within the *tcdB* gene. Vice-versa, "peak fitness" is characterised by a large number of these mutants persisting in the sequenced population, translating to large number of reads at the same unique transposition site within the *tcdB* gene. Further investigation into growth advantage mutants could give us a better grasp of *C. difficile* pathogenesis. A research has shown that deletion of the *tcdB* gene resulted in a 2- to 3-fold increase in production of toxin A (Carter, Rood and Lyras, 2010). The paper goes on to show that introducing the *tcdB* deletion mutants into hamsters did not prove lethal, whilst

introducing wild type *C. difficile* and *tcdA* deletion mutants were lethal to the hamsters. This would suggest that toxin B is an essential virulence factor for *C. difficile*. However, there are a number of studies that demonstrate purified toxin A is a major virulence factor of *C. difficile* (Lyerly *et al.*, 1985; Just and Gerhard, 2004; Voth and Ballard, 2005). Additionally, research has also shown that, toxin B is more potent than toxin A in damaging human colonic epithelium (Riegler *et al.*, 1995). Taking all these observations into consideration, our traDIS results suggest that deletion of the *tcdB* gene, results in a fitness advantage of the mutant *in vivo* allowing for rapid growth of this specific mutant population and is the probable reason for the increase in toxin A within the gut. Our data confirms a synergistic relationship between the two toxins. However, further investigation will be needed to elucidate the mechanism of that relationship. And finally, deeper analysis of the datasets derived from the *in vivo* experiment could help uncover complex networks of interdependent mutants within the gut microbiota. For example, it could help identify “cheaters” where one deletion mutant thrives by scavenging of the produce of another mutant, as commonly seen in complex microbial populations (Katzianer *et al.*, 2015).

As stated earlier in this thesis, the S-layer, largely composed of SlpA protein, has been suggested to be involved in sporulation, toxin production, bacteriophage receptor recognition, resistance to innate immunity effectors (Kirk *et al.*, 2017). Along with related cell wall proteins, the S-layer has been suggested to be involved in the colonisation of host tissues (Fagan and Fairweather, 2014) and induction of host immune response, using Toll-like receptor 4 signalling (Ryan *et al.*, 2011). By conducting insertion mutagenesis followed by TraDIS on a *C. difficile* FM2.5 strain that lacks an S-layer, we aimed to investigate how the strain copes with mechanisms the S-layer is originally responsible for.

When we compare the R20291 to the FM2.5 *in vitro* TraDIS datasets, we would expect to find *slpA* gene to be non-essential in the latter. Comparison of our PacBio and Illumina sequencing data of FM2.5 and R20291 have shown that in addition to the *slpA* gene, FM2.5 sports mutations in seven other genes that have a moderate to high effect on their putative functions, along with several mutations in intergenic regions. It would be worth further investigating these genes to check if they are compensatory mutations for lack of an S-layer. It also would be worth investigating mutations in intergenic regions, as they may mark boundaries for phase variable switches. We may also speculate that in the absence of the S-layer proteins implicated in the biosynthesis of the S-layer, like *secA2* which targets *slpA* for secretion across the membrane (Oatley *et al.*, 2018), may be non-essential to the strain. This concept might also extend to PSII, an anionic polymer involved in anchoring of proteins containing the CWB2 motifs to the cell wall (Willing *et al.*, 2015), may be non-essential in FM2.5. Finally, the FM2.5 TraDIS analysis could also give us a better insight into the expression and function of *cwpV*. The expression of this protein is controlled by a phase variable promoter and although only 5% of *C. difficile* cells express it under normal laboratory conditions (Emerson *et al.*, 2009), it is overexpressed in the FM2.5 strain (Kirk, 2017). Our current knowledge about *cwpV* is that it is a self-aggregating and aggregates in liquid broth, its expression is linked with a change in colony morphology, it plays a role in phage resistance (Reynolds *et al.*, 2011; Sekulovic *et al.*, 2015), is a substrate of *secA2* (Fagan and Fairweather, 2011) and auto-proteolyses post-secretion (Dembek, Reynolds and Fairweather, 2012).

While appreciating the wealth of knowledge regarding gene essentiality generated by the methods of random transposon mutagenesis combined with TraDIS, we must also take into

account that a percentage of our conclusions may potentially be biased. As mentioned earlier, mariner transposon insertion distribution has been shown to be biased by H-NS binding to AT-rich sequences (Kimura *et al.*, 2016). There may also be other biases in transposon insertion frequency that have yet to be characterised, such as binding of site-specific DNA-binding proteins or other nucleotide binding proteins such as HU, Fis and Rok (Kimura *et al.*, 2016). One potential way of avoiding false positives in these instances, would be to fully study and define the mechanisms of action of these DNA/nucleotide-binding proteins so this data can be incorporated into the TraDIS analysis pipeline, resulting in a more reliable prediction of gene essentiality.

The project has led to the set-up of the Sheffield TraDIS pipeline within the University of Sheffield, as a collaboration between the Molecular Biology and Biotechnology Department, the School of Mathematics and Statistics and the Core Genomic Facility housed within the Sheffield University Medical School. At the time of writing this thesis, the first “TraDIS Mini-Symposium” was held to communicate ideas and data among the multiple TraDIS projects that rely on this pipeline.

6.2: Further Work

Our TraDIS *in vitro* studies have shown that some genes may exhibit partial essentiality, for example the *C. difficile* 630 *polA* gene. Here, only the coding sequence for FEN domain within the 5' third of the gene appeared essential. However, it was difficult to validate this phenomenon as a conditional mutant was difficult to make by replacement of the native *polA* promoter. The new approach, where *polA* controlled by a P_{tet} promoter is inserted into the *201yre* locus, followed by deletion of the native *polA*, needs to be tested. If generation of this

mutant is a success, an expression vector with the essential domain alone, under the control of a new promoter (e.g. nisin), could be inserted into the mutant. This could be followed by simultaneous inhibition of the P_{tet} promoter at the *pyrE* locus, and induction of the promoter on the expression vector. If the mutant still survives this switch to the expression of the truncated form of *polA*, it could confirm essentiality of the FEN domain.

As part of this project, I have written a program to help identify other genes with partial essentiality. The program is in the process of being optimised and once up and running, it will help identify essentiality at domain level. It does this by comparison of total number of reads per domain in reference sample to total number of reads in the same domain with the infection sample. Another variable, domain length, will need to be included in the calculations within the script, to give a more realistic depiction of gene essentiality. Simultaneously, our collaborators at the School of Mathematics and Statistics are also using mathematical modelling to identify essential domains. This will be elaborated on later within this section.

Our TraDIS *in vivo* studies have resulted in four single deletion mutants and one R20291::*catP* control that will be used within further co-infection experiments on mice pre-treated with clindamycin. The fitness of the four mutants after passing through the mouse gut will be compared to the fitness of the control after passing through the mouse gut. These fitness results will be used to validate the TraDIS analysis described within this thesis. Theoretically, as indicated by the TraDIS data, fitness of these deletion mutants should drop dramatically in the gut. It is to be noted that before these mice co-infection experiments are done, growth curves comparing growth of R20291::*catP* (in the *pyrE* locus) to wild type R20291 need to be

carried out. This is to ensure that the insertion mutant grows as well as wild type R20291 and can be used as a valid control.

Sequencing data derived from the R20291 pRPF215 library and R20291 pNJF013 library has already shown that the hyper-transposition plasmid can produce a higher density library. These libraries need to be further analysed by calculation of total number of reads per gene and comparison between the two libraries. The comparison with the denser library could indicate if the mariner transposon is biased towards certain sequences or certain parts of the *C. difficile* genome. The libraries could also be checked for plasmid contamination, by aligning the reads to the plasmid sequence. This would give us an indication of the proportion of reads from plasmid contamination, for comparison with newer libraries that will be built with fail-safes to reduce or eliminate plasmids in the sample. These fail-safes include digestion of the plasmid at either the BstXI or EcoRI sites, after adapter ligation, mentioned in chapter 5. The R20291 pRPF215 library generated in liquid media could also be compared to the R20291 pRPF215 library generated on solid media. This could help identify any biases in mutant population brought about by the use of liquid media. If the method results in a large skew in population the method might be discarded in favour of the labour-intensive solid media method of library generation.

Additionally, transposon libraries in FM2.5 pNJF013 and FM2.5RW pNJF013 have been generated and stored. These libraries have yet to be Illumina sequenced. Data from such a sequencing run would allow us to determine genes and therefore pathways required for survival of *C. difficile* in an *in vitro* environment without an S-layer. In other words, this study

might reveal compensatory mechanisms the bacterium adopts to replace the role of the S-layer in adhesion and induction of innate immunity.

And finally, we could take the usability of the generated libraries one step further by plating the frozen library samples onto BHI plates supplemented with commonly used antibiotics. Colonies that survive would be derived from mutants that have conferred resistance to the particular antibiotic on the plate. These transposon mutants can be studied for its disrupted genes, helping identify genes that confer antibiotic resistance, making them prime candidates for novel therapeutics.

6.3: Future potential

The establishment of the Sheffield pipeline for transposon library sequencing and TraDIS analysis has paved the way for future prokaryotic TraDIS research within the university. Study of genes required for butanol production in *Clostridium saccharoperbutylacetonicum*, is just one of such examples. This project identifies genes involved in butanol production, to improve butanol production mechanisms for industrial use. As more projects use the pipeline and transposon library production moves to liquid media methods, the cost of generating and analysing a transposon library for TraDIS will greatly drop. Additionally, as protocols are further optimised the time taken for library preparation can be decreased.

A collaboration with the University of Sheffield's Molecular Biology and Bioinformatics the School of Mathematics and Statistics has led to a project, carried out by PhD researcher Valentine Nlebedim, seeking to model insertion of transposon across genes and across sequence motifs. In terms of TraDIS data analysis, the more examples of transposon libraries

we accumulate within a species, the better we can train the mathematical model for gene essentiality cut-offs within that species. Single deletion mutants in these libraries can help validate the library and identify false positives in the analysis results. This information can be used to revise the model's parameters and thereby train the algorithm. This species-specific model can then be used to gauge gene essentiality within new libraries with higher confidence.

Additionally, data we have obtained thus far is currently being used to inform research on chimeric reads occurring in TraDIS data sets. This project, carried out by summer student Ross Thornber, investigates the percentage of these chimeric reads in a sequencing run, whether these percentages are correlated with average read length of the sequencing run and if the split position along the read follows a predictable pattern. The project also explores different read alignment algorithms (BWA vs. SMALT) to check if this effects percentage of chimeric reads identified in a sample and explores the probability of masked chimeric reads. On the biological side, the project seeks to hypothesize on probable causes of chimeric read genesis within the data.

6.4 Conclusion

This thesis outlines a project that has improved our current methods of transposon library generation, resulting in a wealth of data on the essentiality of genes in *C. difficile* under different conditions. As we accumulate data generated from the genesis, sequencing and analysis of new transposon libraries, we can inform and optimize our current predictive models. The data and predictive models generated therefore provide the field of prokaryotic genetics a cheaper, quicker and less labour-intensive alternative to generating a large number

of mutants using classical *C. difficile* cloning techniques. This alternative also offers a time-efficient alternative to analyzing the large datasets derived using the TraDIS bioinformatics pipeline. Additionally, as our models improve, we will be able to design more bioinformatics tools to complement the pipeline and diversify the questions we ask of the datasets. Overall, we hope that this project accelerates the discovery of novel antimicrobial targets, as well as discovery of other preventive and therapeutic interventions, to combat CDI.

Supplementary Data

Considering the length and number of these supplementary tables, we have archived them on our university server with the following links. We hope the digitised version of these tables make them easier to search through.

Table S1: Gene \log_2 fold change data and p-values for R20291 *in vitro* samples.

(<https://hactar.shef.ac.uk/~nadia/Thesis/TableS1.xlsx>)

Table S2: Genes essential for growth of R20291 *in vitro*.

(<https://hactar.shef.ac.uk/~nadia/Thesis/TableS2.xlsx>)

Table S3: Genes ambiguous for growth of R20291 *in vitro*.

(<https://hactar.shef.ac.uk/~nadia/Thesis/TableS3.xlsx>)

Table S4: Genes essential for sporulation of R20291 *in vitro*.

(<https://hactar.shef.ac.uk/~nadia/Thesis/TableS4.xlsx>)

Table S5: Genes ambiguous for sporulation of R20291 *in vitro*.

(<https://hactar.shef.ac.uk/~nadia/Thesis/TableS5.xlsx>)

Table S6: Gene \log_2 fold change data and p-values for R20291 *in vivo* samples.

(<https://hactar.shef.ac.uk/~nadia/Thesis/TableS6.xlsx>)

Table S7: Genes essential for colonisation and survival of R20291 *in vivo*.

(<https://hactar.shef.ac.uk/~nadia/Thesis/TableS7.xlsx>)

List of Primers

Primers used within the Fagan Laboratory:

Primer	Sequence	Use
RF21	GGATTTACATTTGCCGTTTTGTAAAC	To screen for insert in pMTL-SC7215 and pMTL-SC7315 (NF2169)
RF22	GATCTTTTCTACGGGGTCTGAC	To screen for insert in pMTL-SC7215 and pMTL-SC7315 (NF2170)
RF311	TAGGGTAACAAAAACACCG	Forward to amplify pMTL-SC7315 without PmeI
RF312	CCTTTTTGATAATCTCATGACC	Reverse to amplify pMTL-SC7315 without PmeI
RF862	CAAGTTTATGAATCTGATGAGTGTCC	Screening inserts into pJAK080 and pJAK081
RF863	CAGCTAACCTTCATTTATAAGGCTAAC	Screening inserts into pJAK080 and pJAK081
RF881	GGACATTAGAAGACTACTTATTAGG	Screening single recombination events when using pJAK080/081 based plasmids (<i>codA</i> , <i>pyrE</i> insertion system)
RF882	GAAGCAGCTACAACAGACATTTTC	Screening single recombination events when using pJAK080/081 based plasmids (<i>codA</i> , <i>pyrE</i> in)

RF568	cgtagaaatacgggtgtttttgttacctaTATG GAATTAATAAATAACATTAATAAATTAAT AAAC	to anneal pMTL -SC7315 to upstream sequence of <i>polA</i> (via Gibson Assembly) FWD
RF569	tatttttatgctagcttgCCAATATACTGTTA TTTAATATTCCC	to anneal upstream sequence of <i>polA</i> to P_{tet} promoter assembly (via Gibson Assembly) REV
RF570	ataacagtatattggCAAGCTAGCATAAAA ATAAGAAG	to anneal upstream sequence of <i>polA</i> to P_{tet} promoter assembly (via Gibson Assembly) FWD
RF571	cactcctaaaaattaCAGGAGCTCAGATCT GTAAAC	to anneal P_{tet} promoter assembly to <i>polA</i> sequence (via Gibson Assembly) REV
RF572	agatctgagctcctgTAATTTTTAGGAGTG ATATAATTTGG	to anneal P_{tet} promoter assembly to <i>polA</i> sequence (via Gibson Assembly) FWD
RF573	gggattttggtcatgagattatcaaaaaggATTA AGTACTCAGCTATTGTTATATCAAAT AC	to anneal pMTL -SC7315 to <i>polA</i> sequence (via Gibson Assembly) REV
RF949	CATATTTTCATCCTGACTCATATGTGC	Internal primer for <i>polA</i> expression vector (rev)
RF950	CCAATAGAAGTGGATTTAGATAGTAT G	Internal primer for <i>polA</i> expression vector (FWD)
RF961	CCTTATATTTATGATTTAGAATG	primer for sequencing pRPF293 upstream of <i>gusA</i> gene

RF962	GGTTAATTATTACAATAAGTCTC	primer for sequencing pRPF144 upstream of <i>gusA</i> gene
RF1090	AAGAACTTACTGGTGGAAAAGGCGT	for sequencing insert in pMTL-SC7215 carrying <i>CDR20291_2212</i> gene deletion
RF1100	GAG GTA GAT GAA GTT GAA TC	PCR to detect 1st recombination event (pNJF004) [upstream <i>polA</i> + P _{tet} + N-term <i>polA</i>]
RF1101	GGA TTC CAA TTC AGA AAC CAA G	PCR to detect 1nd recombination event (pNJF004) [upstream <i>polA</i> + P _{tet} + N-term <i>polA</i>]
RF1102	CCACTCGGGCATGTCATG	PCR to detect 2nd recombination event (pNJF004) [upstream <i>polA</i> + P _{tet} + N-term <i>polA</i>]
RF1103	GCATTGGTCTTTAGCCCTTC	PCR to detect 2nd recombination event (pNJF004) [upstream <i>polA</i> + P _{tet} + N-term <i>polA</i>]
RF1130	GATC GAGCTC GAATTACAAATGTAGCAGAATG	<i>CDR20291_purL</i> : homology arm LHS FWD (backbone: pJAK112)
RF1131	catcaaagctttatcCATACCTTATCCTCCA TTTTAG	Δ <i>CDR20291_purL</i> : homology arm LHS REV (backbone: pJAK112)
RF1132	ggaggataaggtatgTAAAGCTTTGATGTT TAATTGATAG	Δ <i>CDR20291_purL</i> : homology arm RHS FWD (backbone: pJAK112)

RF1133	GATC GGATCC CCATCCTTAAATTTGTTTTTG	Δ CDR20291_purL: homology arm RHS REV (backbone: pJAK112)
RF1134	GATC GAGCTC GGAAATAGTTTAGGTGCTATGG	Δ CDR20291_0138: homology arm LHS FWD (backbone: pJAK112)
RF1135	tgtaacactactttaCATGTTAAAATCCCC TCC	Δ CDR20291_0138: homology arm LHS REV (backbone: pJAK112)
RF1136	gggaattttaacatgTAAAGTAGTGTTACA TAATTAAAATAGAG	Δ CDR20291_0138: homology arm RHS FWD (backbone: pJAK112)
RF1137	GATC GGATCC CTAACTCTATTCTATCTGCACCAC	Δ CDR20291_0138: homology arm RHS REV (backbone: pJAK112)
RF1138	GATC GAGCTC CTGTGTAGTTATAATAGCTTCTATGTA AC	Δ CDR20291_0593: homology arm LHS FWD (backbone: pJAK112)
RF1139	aaatacgtttgcttaCATGATAAAACCTTGC TACTC	Δ CDR20291_0593: homology arm LHS REV (backbone: pJAK112)
RF1140	caaggttttatcatgTAAGCAAACGTATTTC TTATAGC	Δ CDR20291_0593: homology arm RHS FWD (backbone: pJAK112)
RF1141	GATC GGATCC CACTGCTTTACAAATTCAATTG	Δ CDR20291_0593 homology arm RHS REV (backbone: pJAK112)
RF1142	GATC GAGCTC GTAATTTTCTAGCTTCTTTAAATGTAGC	Δ CDR20291_1329: homology arm LHS FWD (backbone: pJAK112)
RF1143	ctcttatcctatttaCATCACTCCTTATTAT ATGAATTAATTTTTC	Δ CDR20291_1329: homology arm LHS REV (backbone: pJAK112)

RF1144	aaataaggagtgatgTAAATAGGATAAGA GCCTGATAAAAAG	Δ CDR20291_1329: homology arm RHS FWD (backbone: pJAK112)
RF1145	GATC GGATCC GCCATCAATGAACTTATTA AAAAAC	Δ CDR20291_1329: homology arm RHS REV (backbone: pJAK112)
RF1146	GATC GAGCTC CTAACCTCTTCTCTCATCGATG	Δ CDR20291_3222: homology arm LHS FWD (backbone: pJAK112)
RF1147	gggaggagttagcaatgTAATGGAGGCAA ACATGG	Δ CDR20291_3222: homology arm LHS REV (backbone: pJAK112)
RF1148	tgtttgccctcattaCATTGCTAACTCCTCCC	Δ CDR20291_3222: homology arm RHS FWD (backbone: pJAK112)
RF1149	GATC GGATCC GACTGATGGATATGGAAGG	Δ CDR20291_3222: homology arm RHS REV (backbone: pJAK112)
RF1154	GATC GAGCTC CTGCTCCTACAAAATGTACTTTATTC	Δ CDR20291_cbiD: homology arm LHS FWD (backbone: pJAK112)
RF1155	gtaggtacctatgatgTGATAAACATAATAG GTCTAGGACC	Δ CDR20291_cbiD: homology arm LHS REV (backbone: pJAK112)
RF1156	ctattatgtttatcaCATATAGGTACCTACA TAGTATATAATATAGC	Δ CDR20291_cbiD: homology arm RHS FWD (backbone: pJAK112)
RF1157	GATC GGATCC CATTGATAGATAAAGATTTAAGTAGT G	Δ CDR20291_cbiD: homology arm RHS REV (backbone: pJAK112)
RF1383	GGGTACTATAGCAACTGATTG	check for 1° recombination event Δ CDR20291_1329

RF1384	CAGCATAGTCTAACCTACTTC	check for 1° recombination event <i>ΔCDR20291_1329</i>
RF1385	CTCCAAATACAACCTCCAAGTGG	check for 1° recombination event <i>ΔCDR20291_1329</i>
RF1386	GGTACTGGAGGAAGTATTGC	check for 1° recombination event <i>ΔCDR20291_1329</i>
RF1387	GCCAAACAGGACTACACC	check for 1° recombination event <i>ΔCDR20291_3222</i>
RF1388	GCTGGAGCATATGGTGGTG	check for 1° recombination event <i>ΔCDR20291_3222</i>
RF1389	GGCAAGTGATTTTTGGGATGC	sequencing mariner hypertransposase plasmid (pNJF013)
RF1439	GCTATATGCTGGAAACTAAGC	check for 1° recombination event <i>ΔCDR20291_purL</i>
RF1440	CCCTCCTGCTAAAATAATTCC	check for 1° recombination event <i>ΔCDR20291_purL</i>
RF1441	GGCTGAGTTACTCATGGTATC	check for 1° recombination event <i>ΔCDR20291_0593</i>
RF1442	GCCTTAATAATAACCACTCC	check for 1° recombination event <i>ΔCDR20291_0593</i>
RF1443	CAGCTCTTTATCTCCAGGTC	check for 1° recombination event <i>ΔCDR20291_cbiD</i>

RF1444	GGAGCTACAATAAAGGCAAC	check for 1° recombination event <i>ΔCDR20291_cbiD</i>
RF1445	aatacgggtgtttttgttacctagagctcGGAG GGTGTATATATGAGAAAAG	Gibson primer <i>ΔCDR20291_0386</i> : homology arm RHS FWD (backbone: pJAK112)
RF1446	gattcctatttgagCATTTTTTCATCCCCTT ATTAATTG	Gibson primer <i>ΔCDR20291_0386</i> : homology arm RHS REV (backbone: pJAK112)
RF1447	gggatgaaaaaatCTCCAAATAGGAAT CCAAG	Gibson primer <i>ΔCDR20291_0386</i> : homology arm LHS FWD (backbone: pJAK112)
RF1448	ttggtcatgagattatcaaaaaggggatccGCC TGTATATTCTGTTTCTTG	Gibson primer <i>ΔCDR20291_0386</i> : homology arm LHS REV (backbone: pJAK112)
RF1449	aatacgggtgtttttgttacctagagctcCTCAT CTAATTTTAAATTAATAGGATATAG	Gibson primer <i>ΔCDR20291_hemD</i> : homology arm RHS FWD (backbone: pJAK112)
RF1450	agtatgagaattatgTAATTTTGGAGGCTT GAATATG	Gibson primer <i>ΔCDR20291_hemD</i> : homology arm RHS REV (backbone: pJAK112)
RF1451	aagcctcaaaattaCATAATTCTCATACTC CTTCAATAC	Gibson primer <i>ΔCDR20291_hemD</i> : homology arm LHS FWD (backbone: pJAK112)

RF1452	ttggtcatgagattatcaaaaaggggatccGTA ATTCCTTGACTATGGAAGATG	Gibson primer $\Delta CDR20291_hemD$: homology arm LHS REV (backbone: pJAK112)
RF1453	aatacgggtgtttttgttacctagagctcCACCT TTTACTTCTTGCTTC	Gibson primer $\Delta CDR20291_treR$: homology arm RHS FWD (backbone: pJAK112)
RF1454	gtttcaggtgtatgcCATATACCCCTATCCC TCC	Gibson primer $\Delta CDR20291_treR$: homology arm RHS REV (backbone: pJAK112)
RF1455	ggataggggtatatgGCATACACCTGAAAC ATTTG	Gibson primer $\Delta CDR20291_treR$: homology arm LHS FWD (backbone: pJAK112)
RF1456	ttggtcatgagattatcaaaaaggggatccCATT CCATCCCTTTCCTTC	Gibson primer $\Delta CDR20291_treR$: homology arm LHS REV (backbone: pJAK112)
RF1457	aatacgggtgtttttgttacctagagctcCATTC CAAGCGTCTTGAC	Gibson primer $\Delta CDR20291_araC$: homology arm RHS FWD (backbone: pJAK112)
RF1458	cgaggtgagtttatgGAATATGCTGGATAA TAAGTATTAAATAAG	Gibson primer $\Delta CDR20291_araC$: homology arm RHS REV (backbone: pJAK112)

RF1459	ttatccagcatattcCATAAACTCACCTCGT AGTTTTTATC	Gibson primer $\Delta CDR20291_araC$: homology arm LHS FWD (backbone: pJAK112)
RF1460	ttggcatgagattatcaaaaaggggatccCATT GTTTGCGTTTTTGAC	Gibson primer $\Delta CDR20291_araC$: homology arm LHS REV (backbone: pJAK112)
RF1461	aatacgggtgtttttgttacctagagctcCTATC AAGCATTATTAGCCTTG	Gibson primer $\Delta CDR20291_3528$: homology arm RHS FWD (backbone: pJAK112)
RF1462	gtgggaatagtagtggTAGGGTAAATAAACC TATAAGGG	Gibson primer $\Delta CDR20291_3528$: homology arm RHS REV (backbone: pJAK112)
RF1463	ggtttatttacctaCCATACTATTCCCACCT TTTG	Gibson primer $\Delta CDR20291_3528$: homology arm LHS FWD (backbone: pJAK112)
RF1464	ttggcatgagattatcaaaaaggggatccGAG CATCAGTAATCGCTC	Gibson primer $\Delta CDR20291_3528$: homology arm LHS REV (backbone: pJAK112)
RF1473	GGAAATGTTGCTGGTTGTAG	sequencing of pNJF015 ($\Delta CDR20291_0386$ in pJAK112) Tradisdel2
RF1474	CTGCTTTAGCATGGCTTACAG	sequencing of pNJF016 ($\Delta CDR20291_hemD$ in pJAK112)

RF1475	GCACCAGCATAGTCTTTCC	sequencing of pNJF017 (Δ CDR20291_ <i>treR</i> in pJAK112) Tradisdel8
RF1476	GCCATAAGCATCCCTAGTC	sequencing of pNJF018 (Δ CDR20291_1922(<i>araC</i>) in pJAK112)
RF1477	CGTCATTTCCAAGTCCCATC	sequencing of pNJF019 (Δ CDR20291_3528 in pJAK112)
RF1478	catttgcaggcttcttattttatggtaccAGTGG GCAAGTTGAAAAATTC	PCR amplify <i>catP</i> module from pMTL- SC7215 (FWD primer)
RF1479	tttaaagttttattaaaacttataggatccTTAG GGTAACAAAAAACACCG	PCR amplify <i>catP</i> module from pMTL- SC7215 (reverse primer)
RF1544	GCT TCG AAT TCC TAA GTT CCC TCT CAA ATT C	Inverse primer to replace <i>catP</i> on pJAK81 with <i>erm</i> (linerize pJAK81 to exclude backbone <i>catP</i>)
RF1545	CTT AGG AAT TCG AAG CAA ACT TAA GAG TGT G	Gibson primer to replace <i>catP</i> on pJAK81 with <i>erm</i>
RF1546	CGA TGG AAT TCC CTT TAG TAA CGT GTA ACT TTC C	Gibson primer to replace <i>catP</i> on pJAK81 with <i>erm</i>
RF1547	CTA AAG GGA ATT CCA TCG TAG AAA TAC GGT G	Inverse primer to replace <i>catP</i> on pJAK81 with <i>erm</i> (linerize pJAK81 to exclude backbone <i>catP</i>)
RF1581	CGACTGGACCTGGAGGTTCCGATCCC TGCTTATC	Non-phosphorylated Linker 2 [5' -> 3'] (complementary to linker 1)
RF1582	GACTGGACCTGGAGGTTTC	Primer for Linker PCR

RF1587 [PHO]GATAAGCAGGGATCGGAACCTC Phosphorylated Linker 1 [5' -> 3']
CAGGTCCAGTCG

Primers used within the Fagan Laboratory in collaboration with the Henderson Laboratory:

Description	Sequence
RF1520: Forward Primer 1st PCR (Specific for Erm Transposon)	GAAAGTTACACGTTACTAAAGGCATAAAAATAAGAAGC CTGCAAATGC
RF1522: Reverse Primer 1st PCR (NEB Adapter)	GACTGGAGTTCAGACGTGTGCTCTTCCGATC
P5 + FWD sequencing priming site (Illumina Standard)	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTA CACGACGCTCTTCCGATCT
P7 + REV sequencing priming site (Illumina Standard) [upstream of this seq are the illumina indices and adapter primer]	GTG ACT GGA GTT CAG ACG TGT GCT CTT CCG ATC T

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Appended Supplementary Data

The supplementary data is provided in tabular form if URL links above fail to work.

Table S1a: Gene log₂ fold change data and p-values for R20291 *in vitro* samples (Input versus Prespore samples)

Genes	InputR20291_1	InputR20291_2	PresporeR20291_1	PresporeR20291_2	log2FoldChange	padj
CDR20291_0001	2915	2915	18528	5828	1.61313319	0.078104146
CDR20291_0002	14018	14018	71770	25365	1.342504217	0.114743628
CDR20291_0003	75	75	221	30	0.296461362	0.856801403
CDR20291_0004	210	210	317	191	-0.179230752	0.799644879
CDR20291_0005	205	205	382	33	-0.427571155	0.789695359
CDR20291_0006	125	125	266	7	-0.316530437	0.884296813
CDR20291_0007	182	182	217	9	-1.131568193	0.523317215
CDR20291_0008	269	269	897	345	0.756229343	0.295839539
CDR20291_0009	4179	4179	34902	9011	1.944829683	0.058265597
CDR20291_0010	16418	16418	47036	29208	0.761602071	0.070313895
CDR20291_0011	5651	5651	9872	7941	0.200769747	0.266608763
CDR20291_0012	5075	5075	8248	9388	0.338985336	0.001870636
CDR20291_0013	6144	6144	8037	11180	0.185631744	0.397998516
CDR20291_0014	10782	10782	19094	19247	0.373062438	5.72E-13
CDR20291_0015	15669	15669	27120	25874	0.30110809	3.12E-06
CDR20291_0016	11107	11107	20595	21269	0.456872231	3.82E-20
CDR20291_0017	6959	6959	13379	15332	0.58653916	1.06E-09
CDR20291_0018	169	169	276	489	0.717341034	0.224456119
CDR20291_0019	11994	11994	18591	19829	0.221948917	0.00036843
CDR20291_0020	1897	1897	3078	2933	0.207073725	0.163173707
CDR20291_0021	703	703	1144	1497	0.450456959	0.113618765
CDR20291_0022	1201	1201	1205	1474	-0.301084758	0.204949422
CDR20291_0023	2015	2015	2661	2827	-0.012060991	0.942674127
CDR20291_0024	5351	5351	9939	11198	0.52390326	6.78E-08

CDR20291_0025	931	931	1161	1115	-0.167224005	0.471048938
CDR20291_0026	2524	2524	4739	3771	0.297931592	0.155295183
CDR20291_0027	1838	1838	1133	1037	-1.216997928	2.26E-13
CDR20291_0028	4850	4850	4692	4082	-0.600913239	1.20E-05
CDR20291_0029	5343	5343	5199	7266	-0.237366377	0.290425856
CDR20291_0029; CDR20291_0030	76	76	0	0	-9.147800671	3.88E-06
CDR20291_0030	1185	1185	1001	1059	-0.659770655	0.000302159
CDR20291_0031	84	84	255	6	0.192164391	0.929360288
CDR20291_0032	1019	1019	1562	1582	0.168213072	0.39913061
CDR20291_0033	519	519	719	876	0.161236979	0.638307793
CDR20291_0034	1212	1212	1042	946	-0.742563538	0.000204206
CDR20291_0035	2718	2718	4911	4267	0.299486572	0.064059409
CDR20291_0036	62	62	98	112	0.301989721	0.722557303
CDR20291_0037	9	9	12	4	-0.620469381	0.803571697
CDR20291_0038	179	179	107	131	-1.047487994	0.047855483
CDR20291_0039	2387	2387	3512	3857	0.168475169	0.228703018
CDR20291_0040	737	737	858	631	-0.440399323	0.206756128
CDR20291_0041	137	137	31	26	-2.721276415	3.39E-05
CDR20291_0042	6587	6587	12695	12296	0.466795134	2.24E-10
CDR20291_0043	14	14	7	52	0.60736855	0.784838061
CDR20291_0044	12011	12011	26004	27832	0.706592081	2.02E-37
CDR20291_0045	11846	11846	19319	24395	0.424878234	0.001352272
CDR20291_0046	1196	1196	2850	3000	0.832718301	8.45E-10
CDR20291_0047	1970	1970	3168	3025	0.195616758	0.181882852
CDR20291_0048	1492	1492	2314	2482	0.226955217	0.153770842
CDR20291_0049	15631	15631	32511	30191	0.547490861	3.01E-14
CDR20291_0050	1816	1816	3447	3578	0.494330718	4.24E-05
CDR20291_0051	1807	1807	2148	2290	-0.161271433	0.313827621
CDR20291_0052	2	2	2	0	-1.444506643	0.803571697
CDR20291_0053	38	38	8	6	-2.896136315	0.022799429

CDR20291_0054	7	7	22	19	1.094052783	0.557261806
CDR20291_0055	12	12	11	74	1.356739283	0.479380701
CDR20291_0056	24	24	31	29	-0.134770057	0.922583792
CDR20291_0057	30	30	18	12	-1.45458816	0.282797243
CDR20291_0058	57	57	36	17	-1.557394711	0.162760465
CDR20291_0059	1682	1682	1714	1578	-0.487793734	0.004116779
CDR20291_0060	218	218	189	130	-0.90539685	0.102349174
CDR20291_0061	275	275	336	249	-0.366086412	0.469321256
CDR20291_0062	4	4	10	6	0.546204086	0.844242074
CDR20291_0063	31	31	12	15	-1.657861247	0.203126959
CDR20291_0064	111	111	81	59	-1.120192435	0.116798152
CDR20291_0065	1705	1705	1883	2266	-0.17544427	0.413516542
CDR20291_0066	27	27	16	6	-1.746771054	0.270484768
CDR20291_0067	17	17	16	23	-0.261614292	0.883283486
CDR20291_0068	58	58	12	8	-2.990955585	0.004651238
CDR20291_0069	25	25	6	6	-2.516055237	0.093895096
CDR20291_0070	39	39	88	70	0.562801619	0.567019605
CDR20291_0071	3	3	3	9	0.536130842	0.868913662
CDR20291_0072	9	9	5	8	-0.929599244	0.69116377
CDR20291_0073	65	65	65	69	-0.413828111	0.648004096
CDR20291_0074	11	11	15	17	0.082582006	0.964158719
CDR20291_0075	11	11	2	6	-1.922699117	0.403998823
CDR20291_0076	9	9	35	36	1.52248198	0.287297566
CDR20291_0077	41	41	11	11	-2.355280827	0.043680224
CDR20291_0078	9	9	8	8	-0.62707341	0.784838061
CDR20291_0079	15	15	16	10	-0.660556169	0.726423005
CDR20291_0080	5	5	8	4	-0.189734038	0.944576474
CDR20291_0081	8	8	15	143	2.83497387	0.101106623
CDR20291_0082	30	30	26	21	-0.808047129	0.545599004
CDR20291_0083	28	28	23	61	0.121530111	0.936002426

CDR20291_0084	18	18	19	28	-0.075069302	0.961200027
CDR20291_0085	14	14	7	5	-1.677491116	0.383025526
CDR20291_0086	9	9	20	13	0.420198126	0.841072507
CDR20291_0087	72	72	30	96	-0.65711441	0.60064115
CDR20291_0088	57	57	145	55	0.360159471	0.770974263
CDR20291_0089	12	12	19	16	0.088327098	0.960311843
CDR20291_0090	4	4	11	6	0.634272275	0.81837329
CDR20291_0091	5	5	4	1	-1.449769716	0.654409142
CDR20291_0092	3	3	4	38	2.338735391	0.346017417
CDR20291_0093	5	5	81	8	2.708318414	0.179797248
CDR20291_0094	16	16	25	79	1.235970858	0.408432739
CDR20291_0095	57	57	22	9	-2.330551561	0.047440474
CDR20291_0096	22	22	41	24	0.109360362	0.942227256
CDR20291_0097	9	9	13	5	-0.451251072	0.852068332
CDR20291_0098	139	139	35	87	-1.651164124	0.057235657
CDR20291_0099	68	68	44	24	-1.453265911	0.142574733
CDR20291_0100	475	475	527	620	-0.186393487	0.596657571
CDR20291_0101	2328	2328	3837	2970	0.092605593	0.733104437
CDR20291_0102	8	8	44	73	2.409742928	0.052916952
CDR20291_0103	4	4	38	7	2.044357858	0.35850531
CDR20291_0104	2497	2497	13196	4726	1.393179713	0.096479047
CDR20291_0105	179	179	1632	557	2.162184713	0.000995968
CDR20291_0106	103	103	310	47	0.346694535	0.818070026
CDR20291_0107	1619	1619	3995	1879	0.407304137	0.408919169
CDR20291_0108	2956	2956	26802	10418	2.203607642	0.002682251
CDR20291_0109	9516	9516	43670	24146	1.38023962	0.004882886
CDR20291_0110	66	66	185	206	1.10874077	0.058654464
CDR20291_0111	1083	1083	1811	1292	0.063869223	0.868782355
CDR20291_0112	1078	1078	3098	2373	0.888199217	0.000179932
CDR20291_0113	1168	1168	2131	1540	0.197286082	0.556184801

CDR20291_0114	146	146	196	290	0.27514534	0.674920333
CDR20291_0115	1119	1119	1594	1575	0.044752568	0.842066219
CDR20291_0116	2172	2172	3348	4209	0.340025875	0.078435218
CDR20291_0117	582	582	1008	1115	0.409171158	0.090124521
CDR20291_0118	25	25	130	38	1.299072781	0.326196506
CDR20291_0119	55	55	95	66	0.094885227	0.923099306
CDR20291_0120	10271	10271	16964	17081	0.271673075	8.80E-07
CDR20291_0121	1592	1592	2783	3921	0.614605321	0.012883421
CDR20291_0122	85	85	35	35	-1.737263406	0.025431034
CDR20291_0123	11644	11644	25055	27074	0.704807833	1.74E-32
CDR20291_0124	2110	2110	4274	3905	0.49817184	0.000339934
CDR20291_0125	361	361	293	258	-0.84624309	0.020740705
CDR20291_0126	70	70	50	67	-0.718014171	0.413973611
CDR20291_0127	8	8	34	90	2.490658864	0.068097659
CDR20291_0128	651	651	595	894	-0.266364803	0.525776533
CDR20291_0129	29	29	79	117	1.296879062	0.151172653
CDR20291_0130	1244	1244	887	897	-0.937096423	1.24E-07
CDR20291_0131	12518	12518	22855	20898	0.348877046	5.69E-05
CDR20291_0132	2212	2212	6066	3533	0.664205114	0.049139747
CDR20291_0133	12662	12662	39714	20036	0.786075732	0.192535437
CDR20291_0134	257	257	663	339	0.510512167	0.421084113
CDR20291_0135	1936	1936	3381	2357	0.112886962	0.740186979
CDR20291_0136	1074	1074	1576	1880	0.227734285	0.320947251
CDR20291_0137	562	562	829	597	-0.111522467	0.803146437
CDR20291_0138	1576	1576	1764	1329	-0.48241433	0.071742465
CDR20291_0139	2925	2925	3431	2972	-0.325823978	0.052284464
CDR20291_0140	828	828	1040	1101	-0.086954037	0.736722114
CDR20291_0141	1522	1522	3781	2950	0.68947561	0.001581718
CDR20291_0142	127	127	96	96	-0.860872507	0.156183404
CDR20291_0143	32	32	69	26	0.119000417	0.935913033

CDR20291_0144	36654	36654	67042	69448	0.439361275	1.15E-42
CDR20291_0145	4724	4724	10681	9003	0.603024653	1.56E-05
CDR20291_0146	3681	3681	8051	5552	0.43126599	0.086974067
CDR20291_0147	4172	4172	4861	4310	-0.319957548	0.022498949
CDR20291_0148	75	75	13	9	-3.2245518	0.000623812
CDR20291_0149	72	72	16	93	-0.868861005	0.566053
CDR20291_0150	15	15	38	8	0.168568105	0.935913033
CDR20291_0151	221	221	251	120	-0.704817544	0.339436781
CDR20291_0152	2878	2878	4231	4251	0.102158672	0.403962356
CDR20291_0153	69	69	166	85	0.410398708	0.677872553
CDR20291_0153;CDR20291_0154	1	1	1	0	-1.446755366	0.842066219
CDR20291_0154	719	719	1120	1534	0.424750394	0.166731411
CDR20291_0155	4960	4960	7289	8737	0.233571655	0.100239263
CDR20291_0156	2675	2675	6178	6175	0.750108712	2.22E-16
CDR20291_0157	5381	5381	7551	8680	0.134677612	0.289745255
CDR20291_0158	2852	2852	5305	5599	0.477292675	1.33E-06
CDR20291_0159	5234	5234	7601	8950	0.202630389	0.128859686
CDR20291_0160	1510	1510	1437	1756	-0.378174338	0.078075712
CDR20291_0161	3846	3846	3729	4180	-0.417799862	0.000501501
CDR20291_0162	62	62	52	52	-0.710905908	0.428590304
CDR20291_0163	414	414	346	455	-0.506848762	0.188926462
CDR20291_0164	365	365	381	493	-0.19918079	0.651239283
CDR20291_0165	1038	1038	1116	806	-0.566069205	0.075463494
CDR20291_0166	1163	1163	1561	1538	-0.043094252	0.845530002
CDR20291_0167	8470	8470	10184	10860	-0.144615628	0.064059409
CDR20291_0168	2016	2016	4003	3711	0.479369381	0.000437777
CDR20291_0169	10660	10660	18244	18404	0.324321024	9.00E-10
CDR20291_0170	9370	9370	19060	19973	0.60110234	2.53E-28
CDR20291_0171	520	520	445	656	-0.377600917	0.368514058
CDR20291_0172	2579	2579	3474	3316	-0.060225021	0.70261349

CDR20291_0173	1	1	5	0	0.878509508	0.88870591
CDR20291_0174	7517	7517	10484	9650	-0.03515171	0.784838061
CDR20291_0175	6670	6670	13563	14267	0.603384918	3.01E-21
CDR20291_0176	2402	2402	3682	4289	0.272308562	0.080693819
CDR20291_0177	10880	10880	18894	21118	0.420820291	1.04E-07
CDR20291_0178	3878	3878	5980	7254	0.312349822	0.038693785
CDR20291_0179	2140	2140	3881	3033	0.236519668	0.317937524
CDR20291_0180	634	634	1240	975	0.349294448	0.265469828
CDR20291_0181	1249	1249	1068	1021	-0.7148071	9.22E-05
CDR20291_0182	6958	6958	13896	13235	0.50639853	7.38E-11
CDR20291_0183	228	228	875	824	1.440854735	1.74E-07
CDR20291_0184	2847	2847	4866	4252	0.223085679	0.169999448
CDR20291_0185	5202	5202	9753	9577	0.436685105	1.41E-08
CDR20291_0186	4243	4243	8292	7436	0.433809639	0.000321234
CDR20291_0187	1973	1973	3787	4546	0.620010602	0.000103921
CDR20291_0188	4167	4167	7050	6831	0.27910486	0.003208018
CDR20291_0189	1803	1803	2311	2916	0.076801991	0.764340819
CDR20291_0190	3919	3919	6955	8275	0.499981153	0.000153295
CDR20291_0191	1857	1857	1812	1972	-0.430785743	0.004410183
CDR20291_0192	3880	3880	7725	9122	0.660038791	9.68E-08
CDR20291_0193	13030	13030	25180	27275	0.551534342	5.60E-20
CDR20291_0194	78	78	1	9	-4.429503629	0.001659759
CDR20291_0195	569	569	2333	1568	1.323014406	3.08E-05
CDR20291_0196	1846	1846	3384	4120	0.564723037	0.000989199
CDR20291_0197	5177	5177	10832	12057	0.686565708	1.44E-14
CDR20291_0198	135	135	20	41	-2.607583699	0.000964509
CDR20291_0199	16354	16354	29374	33809	0.491742943	4.48E-09
CDR20291_0200	1739	1739	3416	3379	0.50914506	4.42E-05
CDR20291_0201	449	449	691	781	0.255001187	0.408871508
CDR20291_0202	324	324	778	705	0.737991757	0.012650834

CDR20291_0203	2410	2410	4044	3506	0.191308174	0.287743183
CDR20291_0204	3454	3454	4345	4649	-0.076916817	0.547975215
CDR20291_0205	13330	13330	26116	27279	0.544579069	7.92E-31
CDR20291_0206	1149	1149	1169	1485	-0.251022538	0.345878971
CDR20291_0207	294	294	89	149	-1.765389833	0.000881194
CDR20291_0208	519	519	461	430	-0.676990013	0.020685442
CDR20291_0209	673	673	494	576	-0.789252433	0.003043354
CDR20291_0210	662	662	512	728	-0.554143263	0.121730591
CDR20291_0211	2529	2529	3087	3547	-0.066801572	0.714860192
CDR20291_0212	865	865	1277	1004	-0.056566479	0.874280137
CDR20291_0213	964	964	851	583	-0.881577607	0.01006916
CDR20291_0214	624	624	1334	870	0.366366232	0.375614981
CDR20291_0215	404	404	803	1459	1.023863492	0.021151507
CDR20291_0216	2052	2052	2505	3278	0.035743034	0.893323488
CDR20291_0217	9520	9520	15257	14817	0.202544262	0.004003137
CDR20291_0217; CDR20291_0218	1	1	0	0	-2.899834904	0.676955796
CDR20291_0218	4716	4716	7511	6863	0.151319635	0.22723179
CDR20291_0218; CDR20291_0219	50	50	219	423	2.220896773	0.000764153
CDR20291_0219	3192	3192	5265	4833	0.204994258	0.127920612
CDR20291_0219; CDR20291_0220	6	6	0	0	-5.484761516	0.279746907
CDR20291_0220	9838	9838	16447	17004	0.30823628	2.88E-08
CDR20291_0221	3238	3238	7216	6009	0.57425764	0.000305302
CDR20291_0222	23591	23591	44907	49494	0.542728012	7.36E-20
CDR20291_0223	2743	2743	3317	5203	0.174765204	0.593629648
CDR20291_0224	3462	3462	4225	5062	-0.034811835	0.858182986
CDR20291_0225	2847	2847	3160	2495	-0.46538774	0.026167715
CDR20291_0226	3856	3856	5349	5120	-0.015895416	0.905196248
CDR20291_0226; CDR20291_0227	38	38	0	0	-8.147790247	0.000709301
CDR20291_0227	3146	3146	3597	5087	0.005235185	0.984515222
CDR20291_0228	2332	2332	2957	3964	0.110191737	0.676955796

CDR20291_0229	1121	1121	1398	1555	-0.060482745	0.800537708
CDR20291_0230	689	689	715	690	-0.428913436	0.085050012
CDR20291_0231	806	806	1419	1820	0.547803683	0.030394478
CDR20291_0232	1629	1629	1855	2087	-0.183017009	0.321255093
CDR20291_0233	2124	2124	3089	4008	0.281436696	0.19252792
CDR20291_0234	1224	1224	2029	1804	0.190545416	0.376194626
CDR20291_0234; CDR20291_0235	0	0	2	0	1.99863724	0.783977106
CDR20291_0235	693	693	594	862	-0.388649788	0.298947495
CDR20291_0236	512	512	732	1001	0.29972493	0.412949234
CDR20291_0237	581	581	604	469	-0.570363717	0.098545555
CDR20291_0238	3174	3174	3275	3046	-0.462795031	0.000304369
CDR20291_0239	695	695	737	869	-0.249890336	0.382117358
CDR20291_0240	3338	3338	4890	5483	0.177832393	0.169636973
CDR20291_0241	8613	8613	9801	11492	-0.152482067	0.215690763
CDR20291_0242	8026	8026	10347	10720	-0.065157982	0.403998823
CDR20291_0242; CDR20291_0243	11	11	0	0	-6.359257189	0.102481834
CDR20291_0243	4871	4871	7013	8044	0.170032808	0.174280152
CDR20291_0244	6528	6528	10020	9816	0.146405721	0.074287923
CDR20291_0245	2580	2580	3199	3201	-0.146451035	0.257376671
CDR20291_0246	12898	12898	23660	25815	0.481791509	7.44E-14
CDR20291_0247	5531	5531	9200	9528	0.302196888	4.23E-05
CDR20291_0248	1306	1306	1898	1738	0.020661402	0.926925389
CDR20291_0249	876	876	1569	1582	0.389603841	0.036339724
CDR20291_0250	958	958	1203	1089	-0.197952028	0.416208428
CDR20291_0251	4212	4212	4285	5794	-0.200513245	0.366823981
CDR20291_0252	2548	2548	3080	3597	-0.068395205	0.721249672
CDR20291_0252; CDR20291_0253	87	87	98	128	-0.081726091	0.916521139
CDR20291_0253	4083	4083	5617	7067	0.176531598	0.332054568
CDR20291_0254	4563	4563	5374	6012	-0.138721292	0.259060973
CDR20291_0255	1260	1260	1073	1166	-0.628279145	0.0005245

CDR20291_0256	4029	4029	4660	5238	-0.161244908	0.209505823
CDR20291_0257	2483	2483	2627	3380	-0.184362141	0.412702623
CDR20291_0258	2242	2242	3248	4027	0.239498195	0.216814474
CDR20291_0259	1776	1776	2401	2128	-0.10574219	0.61751714
CDR20291_0260	2346	2346	3269	2582	-0.136991592	0.585312202
CDR20291_0260; CDR20291_0261	0	0	1	0	0.995828447	0.892707332
CDR20291_0261	4360	4360	5927	5218	-0.102245526	0.528026402
CDR20291_0262	1589	1589	1987	2249	-0.043418999	0.841859257
CDR20291_0263	989	989	1402	1570	0.129464988	0.576111371
CDR20291_0264	1187	1187	2729	2589	0.706785598	2.63E-06
CDR20291_0265	436	436	355	496	-0.49461383	0.223684663
CDR20291_0266	9266	9266	12437	12226	-0.044697059	0.593240254
CDR20291_0267	8980	8980	12422	12880	0.037068478	0.638307793
CDR20291_0267; CDR20291_0268	1	1	46	24	4.676551251	0.020306984
CDR20291_0268	3522	3522	4365	5239	-0.011191638	0.950980742
CDR20291_0268; CDR20291_0269	110	110	0	0	-9.681235979	1.47E-07
CDR20291_0269	4573	4573	7450	6984	0.201567828	0.066438713
CDR20291_0270	2395	2395	3103	3415	-0.013404378	0.936002426
CDR20291_0271	688	688	538	809	-0.490707243	0.201653393
CDR20291_0272	3167	3167	4249	5190	0.116958282	0.538852194
CDR20291_0273	5624	5624	6668	8510	-0.026568269	0.895902468
CDR20291_0274	3571	3571	4290	4983	-0.081487287	0.622133902
CDR20291_0275	1028	1028	1246	1281	-0.159750902	0.453721811
CDR20291_0276	7129	7129	9237	11465	0.079313227	0.648182718
CDR20291_0277	10141	10141	20431	18974	0.501564708	4.02E-10
CDR20291_0278	4613	4613	7299	7400	0.214699815	0.010956657
CDR20291_0279	4180	4180	9306	8242	0.613454572	3.68E-07
CDR20291_0280	1079	1079	818	1141	-0.599039181	0.044222651
CDR20291_0281	839	839	1052	1118	-0.086610172	0.736722114
CDR20291_0282	2344	2344	4307	5130	0.550976208	0.00026313

CDR20291_0283	405	405	770	549	0.248669401	0.578304959
CDR20291_0284	101	101	89	277	0.393007778	0.722126157
CDR20291_0285	5853	5853	9595	10006	0.286243465	9.76E-05
CDR20291_0286	10149	10149	18888	20780	0.508818569	1.46E-12
CDR20291_0287	213	213	454	227	0.224392037	0.772830322
CDR20291_0288	370	370	215	433	-0.653435756	0.282659016
CDR20291_0289	545	545	96	242	-2.152411582	0.00044024
CDR20291_0290	125	125	97	33	-1.393761433	0.159880916
CDR20291_0291	257	257	282	456	0.061389305	0.916521139
CDR20291_0292	1113	1113	1980	1519	0.197216226	0.516143827
CDR20291_0293	163	163	46	56	-2.134680396	0.000226631
CDR20291_0294	6590	6590	3822	4067	-1.198001407	2.20E-48
CDR20291_0295	1200	1200	1191	1302	-0.402905272	0.033750114
CDR20291_0296	1475	1475	1067	1140	-0.876220768	1.11E-07
CDR20291_0297	702	702	559	809	-0.497183999	0.169385867
CDR20291_0298	12789	12789	25292	26229	0.55285896	5.49E-33
CDR20291_0299	657	657	1342	1434	0.621438393	0.001918169
CDR20291_0300	1397	1397	1219	1732	-0.380737205	0.198430002
CDR20291_0301	2516	2516	2994	3041	-0.195032051	0.123527498
CDR20291_0302	1251	1251	2137	2132	0.313686009	0.050740944
CDR20291_0303	1692	1692	1918	2288	-0.144654969	0.503766815
CDR20291_0304	1993	1993	1559	2142	-0.566402645	0.02152591
CDR20291_0304; CDR20291_0305	2	2	48	88	4.626146367	0.001438017
CDR20291_0305	1139	1139	1017	1314	-0.425745685	0.104421695
CDR20291_0306	2164	2164	1833	2606	-0.423091092	0.109834952
CDR20291_0307	800	800	1496	1394	0.396341094	0.059811346
CDR20291_0308	1482	1482	1621	2045	-0.152109907	0.554678045
CDR20291_0309	164	164	108	52	-1.488000441	0.052578392
CDR20291_0310	4512	4512	7204	6631	0.159924066	0.190972579
CDR20291_0311	15855	15855	32248	33629	0.597399312	2.44E-43

CDR20291_0311;CDR20291_0312	15	15	60	217	2.741580748	0.018033756
CDR20291_0312	1100	1100	1234	1890	0.045748447	0.907790882
CDR20291_0313	4665	4665	8497	9151	0.461893572	5.49E-08
CDR20291_0314	9811	9811	22085	24715	0.796091975	5.46E-26
CDR20291_0315	7643	7643	12119	11672	0.181324174	0.025738666
CDR20291_0316	1358	1358	1816	954	-0.424270347	0.367104135
CDR20291_0317	1128	1128	1411	752	-0.513511411	0.273783966
CDR20291_0318	2447	2447	5366	4016	0.483806945	0.03266499
CDR20291_0319	2072	2072	5810	2405	0.536094063	0.296137503
CDR20291_0320	502	502	1614	534	0.647344937	0.377623935
CDR20291_0321	2868	2868	8076	5366	0.774402471	0.002561015
CDR20291_0322	1643	1643	3201	3329	0.533333971	2.13E-05
CDR20291_0322;CDR20291_0323	0	0	3	0	2.583997128	0.710762635
CDR20291_0323	3251	3251	8412	6235	0.716651393	0.000507603
CDR20291_0324	3607	3607	5509	4457	0.010581821	0.961179394
CDR20291_0325	3514	3514	4915	6356	0.222456888	0.257769144
CDR20291_0325;CDR20291_0326	365	365	412	846	0.323078687	0.610899375
CDR20291_0326	207	207	458	420	0.628043284	0.100707663
CDR20291_0327	12980	12980	17007	18818	0.006817191	0.94450869
CDR20291_0328	15848	15848	28014	27760	0.35821183	1.11E-13
CDR20291_0329	940	940	919	1187	-0.295151219	0.307964939
CDR20291_0329;CDR20291_0330	0	0	2	0	1.99863724	0.783977106
CDR20291_0330	855	855	545	1118	-0.502290807	0.337923124
CDR20291_0331	1959	1959	2829	2905	0.09209597	0.548637177
CDR20291_0332	1185	1185	1367	1290	-0.291840112	0.139525978
CDR20291_0333	1781	1781	2532	3940	0.401250816	0.190585708
CDR20291_0334	8348	8348	15770	19433	0.617556299	5.46E-07
CDR20291_0335	401	401	1193	700	0.785583808	0.085512742
CDR20291_0336	292	292	674	496	0.547465479	0.187909576
CDR20291_0337	522	522	727	600	-0.109771075	0.778362973

CDR20291_0338	80	80	34	125	-0.47426931	0.719686549
CDR20291_0339	1760	1760	1323	1700	-0.678485745	0.00191124
CDR20291_0340	674	674	836	1764	0.485402291	0.361498266
CDR20291_0341	1532	1532	1588	2140	-0.176256699	0.541536518
CDR20291_0342	3358	3358	3187	3320	-0.503034901	1.49E-06
CDR20291_0343	3495	3495	3921	3387	-0.391929298	0.013240127
CDR20291_0344	7460	7460	9649	11506	0.045355161	0.774799558
CDR20291_0345	9154	9154	13977	13927	0.15087692	0.02125068
CDR20291_0346	1727	1727	2408	2186	-0.044990348	0.837307301
CDR20291_0347	177	177	60	72	-1.881519491	0.000545264
CDR20291_0348	4381	4381	6822	7131	0.213791765	0.016320776
CDR20291_0348; CDR20291_0349	11	11	0	0	-6.359257189	0.102481834
CDR20291_0349	16347	16347	33131	36282	0.628390428	2.46E-25
CDR20291_0350	6761	6761	10813	11969	0.294726618	0.000989199
CDR20291_0351	49	49	9	14	-2.550890433	0.022849735
CDR20291_0352	5926	5926	10515	11280	0.421231678	4.47E-08
CDR20291_0353	5718	5718	13497	14361	0.826930435	2.37E-34
CDR20291_0354	1463	1463	1226	826	-0.966284216	0.001993659
CDR20291_0355	6815	6815	8393	8387	-0.157184946	0.043907782
CDR20291_0356	5948	5948	10407	10628	0.365024255	8.57E-08
CDR20291_0357	1539	1539	1969	1803	-0.163200946	0.406633832
CDR20291_0358	1486	1486	813	693	-1.436785709	4.70E-12
CDR20291_0359	1303	1303	1549	1448	-0.255002723	0.187316348
CDR20291_0360	1913	1913	2066	1689	-0.482756297	0.024386317
CDR20291_0361	437	437	363	428	-0.602218263	0.071742465
CDR20291_0362	1482	1482	1128	1267	-0.765455153	1.41E-05
CDR20291_0363	2618	2618	4839	4708	0.409627261	0.000176517
CDR20291_0364	5987	5987	10560	11963	0.453466997	3.73E-06
CDR20291_0365	886	886	1403	1181	0.088285042	0.773339549
CDR20291_0366	361	361	135	254	-1.353618087	0.014290237

CDR20291_0367	229	229	190	142	-0.919355195	0.071696865
CDR20291_0368	108	108	75	339	0.472284105	0.705585028
CDR20291_0369	197	197	175	101	-0.966982267	0.138483261
CDR20291_0370	95	95	44	131	-0.582773998	0.607383974
CDR20291_0371	242	242	129	251	-0.810640204	0.213590203
CDR20291_0372	149	149	168	72	-0.763834303	0.385092743
CDR20291_0373	1758	1758	2282	2170	-0.116282134	0.513389975
CDR20291_0374	62	62	25	130	-0.14485464	0.923449696
CDR20291_0375	2215	2215	3235	4372	0.320739233	0.164191912
CDR20291_0376	3783	3783	5328	6294	0.160934605	0.291873195
CDR20291_0376; CDR20291_0377	4470	4470	7407	8084	0.335327814	0.00044925
CDR20291_0378	4934	4934	5140	5821	-0.30646419	0.008755531
CDR20291_0379	3266	3266	5482	7061	0.482339455	0.006422038
CDR20291_0380	202	202	67	360	-0.387139173	0.763135196
CDR20291_0381	2725	2725	5375	5684	0.563359962	1.11E-08
CDR20291_0382	1270	1270	1705	1751	-0.013054421	0.946785032
CDR20291_0382; CDR20291_0383	1	1	1	0	-1.446755366	0.842066219
CDR20291_0383	304	304	289	236	-0.667529728	0.114534948
CDR20291_0384	3418	3418	4080	4452	-0.138016967	0.273441317
CDR20291_0385	1600	1600	1377	1093	-0.829098727	0.000378447
CDR20291_0386	375	375	731	642	0.416123185	0.195185432
CDR20291_0387	1008	1008	1059	1544	-0.091110557	0.815427735
CDR20291_0388	193	193	208	263	-0.171621339	0.766512801
CDR20291_0389	1680	1680	1565	1723	-0.489053627	0.002398854
CDR20291_0390	2527	2527	2380	3516	-0.237593941	0.417333246
CDR20291_0391	887	887	509	563	-1.184519314	1.17E-07
CDR20291_0392	536	536	891	801	0.20201431	0.506839439
CDR20291_0393	332	332	633	512	0.33042118	0.4002312
CDR20291_0394	2355	2355	4129	3863	0.306149538	0.022482494
CDR20291_0395	5761	5761	7289	6400	-0.207594555	0.132393645

CDR20291_0396	2990	2990	3742	2861	-0.31226094	0.174598875
CDR20291_0397	748	748	1329	1259	0.333954902	0.127409998
CDR20291_0398	2962	2962	6495	7675	0.799868201	6.70E-10
CDR20291_0399	710	710	508	387	-1.121223915	0.00047043
CDR20291_0400	1516	1516	1656	1493	-0.40180843	0.03266499
CDR20291_0401	6091	6091	6824	7046	-0.270149104	0.000515521
CDR20291_0402	4631	4631	8293	9022	0.444892856	6.18E-07
CDR20291_0403	3078	3078	4845	5512	0.292491528	0.025634555
CDR20291_0404	818	818	1440	1630	0.450060842	0.029801618
CDR20291_0405	2671	2671	4382	4870	0.334503656	0.007543875
CDR20291_0406	488	488	573	451	-0.386233248	0.300232065
CDR20291_0407	2973	2973	6026	6285	0.592519744	8.05E-11
CDR20291_0408	2499	2499	4943	5570	0.614768947	4.35E-07
CDR20291_0409	966	966	854	765	-0.711392275	0.001598124
CDR20291_0410	1467	1467	1097	1589	-0.587149339	0.04452909
CDR20291_0411	1096	1096	1546	1230	-0.114781419	0.713203412
CDR20291_0412	7156	7156	11208	13583	0.334075789	0.010078937
CDR20291_0413	2675	2675	3562	4159	0.071017531	0.699828374
CDR20291_0414	1363	1363	3017	2253	0.495947831	0.056597751
CDR20291_0415	6980	6980	8475	9996	-0.054351819	0.719909095
CDR20291_0416	9342	9342	16944	17773	0.436361499	2.65E-14
CDR20291_0417	1941	1941	2875	3787	0.320059449	0.155013451
CDR20291_0418	1427	1427	2113	2009	0.073560737	0.713955584
CDR20291_0419	4851	4851	6731	7756	0.120260696	0.372800195
CDR20291_0420	497	497	220	214	-1.652528808	5.73E-08
CDR20291_0421	199	199	249	207	-0.259622986	0.636734428
CDR20291_0421; CDR20291_0422	0	0	2	0	1.99863724	0.783977106
CDR20291_0422	234	234	165	139	-1.078449696	0.020784548
CDR20291_0423	2046	2046	3070	3437	0.21125591	0.166140831
CDR20291_0424	334	334	198	188	-1.248060063	0.000709301

CDR20291_0425	4316	4316	4220	4677	-0.414232808	0.000180198
CDR20291_0426	216	216	203	257	-0.368147758	0.475884566
CDR20291_0427	1291	1291	1214	930	-0.723471818	0.006752847
CDR20291_0428	2952	2952	2786	2762	-0.546815258	1.23E-06
CDR20291_0429	1454	1454	1655	1162	-0.500524537	0.104588165
CDR20291_0430	1933	1933	3456	3222	0.331918424	0.022332459
CDR20291_0431	216	216	84	66	-1.981695859	0.000129017
CDR20291_0432	1322	1322	2336	2361	0.371797789	0.013371878
CDR20291_0433	451	451	797	512	0.08320818	0.878877696
CDR20291_0434	435	435	332	272	-0.982273417	0.005887902
CDR20291_0435	1461	1461	1962	1857	-0.070529562	0.732990842
CDR20291_0436	1669	1669	2732	2929	0.304446551	0.033529926
CDR20291_0437	1175	1175	857	1303	-0.581701474	0.081403849
CDR20291_0438	1948	1948	1879	2199	-0.392366771	0.026025114
CDR20291_0439	3795	3795	6157	4479	0.031912268	0.909379194
CDR20291_0440	4097	4097	4265	4206	-0.409088607	2.65E-05
CDR20291_0441	5319	5319	8066	8400	0.172837468	0.035893454
CDR20291_0442	16863	16863	25997	30233	0.279254921	0.002794844
CDR20291_0443	11951	11951	21671	23798	0.469944932	8.13E-12
CDR20291_0444	6520	6520	9443	10648	0.165614133	0.122978078
CDR20291_0445	1365	1365	1970	1914	0.051693366	0.800537708
CDR20291_0446	11471	11471	19984	19906	0.340918361	1.80E-10
CDR20291_0447	1306	1306	3351	3064	0.83977914	2.88E-08
CDR20291_0448	15275	15275	26753	29312	0.418136327	9.23E-11
CDR20291_0449	12137	12137	18012	19986	0.188631335	0.020690067
CDR20291_0450	5245	5245	5318	5398	-0.426497871	2.13E-07
CDR20291_0451	6258	6258	8548	9494	0.069704694	0.547030744
CDR20291_0452	397	397	270	404	-0.696295353	0.117456955
CDR20291_0453	4812	4812	11079	10648	0.717915778	3.43E-19
CDR20291_0454	3610	3610	7749	7142	0.587803206	7.01E-08

CDR20291_0455	3178	3178	4999	4996	0.195945074	0.06369964
CDR20291_0456	1463	1463	1062	1072	-0.912582867	2.01E-08
CDR20291_0457	3062	3062	2599	2416	-0.744871879	7.08E-09
CDR20291_0458	635	635	1462	1183	0.602783752	0.026280389
CDR20291_0459	3698	3698	6037	5686	0.207799116	0.073068644
CDR20291_0459; CDR20291_0460	0	0	62	0	6.954006157	0.203463793
CDR20291_0460	3902	3902	7648	7225	0.473665682	1.88E-06
CDR20291_0461	5134	5134	10247	11010	0.592136103	3.01E-14
CDR20291_0462	4617	4617	8141	7808	0.331585845	0.000338523
CDR20291_0463	5800	5800	10619	9701	0.352274766	0.000802727
CDR20291_0464	7927	7927	13399	13895	0.326339845	1.09E-07
CDR20291_0465	3262	3262	6102	4893	0.297452327	0.125309842
CDR20291_0466	6439	6439	12920	12615	0.530590457	3.55E-14
CDR20291_0467	2465	2465	2835	3753	-0.040876456	0.882852957
CDR20291_0468	1534	1534	1440	1323	-0.607632048	0.00058182
CDR20291_0469	3132	3132	5760	6014	0.453004465	1.15E-06
CDR20291_0470	3122	3122	6102	6774	0.586264971	4.92E-08
CDR20291_0471	8059	8059	12218	12741	0.173451951	0.010472452
CDR20291_0472	56	56	1	4	-4.947621854	0.000413431
CDR20291_0473	10848	10848	17738	21277	0.38815435	0.000539416
CDR20291_0474	424	424	864	784	0.502107684	0.075270723
CDR20291_0475	480	480	510	622	-0.220741388	0.541536518
CDR20291_0476	673	673	898	716	-0.19360916	0.578585408
CDR20291_0477	2212	2212	2159	3183	-0.187859672	0.547127396
CDR20291_0478	1283	1283	1486	1212	-0.383353379	0.122978078
CDR20291_0479	3968	3968	6409	6291	0.221327341	0.02186183
CDR20291_0480	4550	4550	8400	7982	0.391387135	3.39E-05
CDR20291_0481	98	98	339	390	1.436944888	0.000909876
CDR20291_0482	15187	15187	30424	24943	0.410480727	0.001687632
CDR20291_0483	1657	1657	7105	3168	1.180619599	0.006402366

CDR20291_0484	608	608	1350	779	0.354730242	0.468167574
CDR20291_0485	641	641	2259	1180	0.970970515	0.030158316
CDR20291_0486	7104	7104	16524	11672	0.534136811	0.011286278
CDR20291_0487	1473	1473	3282	3495	0.744307836	5.12E-09
CDR20291_0488	2541	2541	3353	3265	-0.07596527	0.60649828
CDR20291_0489	14346	14346	18796	20228	-0.01394624	0.871008581
CDR20291_0490	441	441	866	1034	0.648770129	0.018731808
CDR20291_0491	1627	1627	4033	2558	0.564365571	0.080720094
CDR20291_0492	4857	4857	7425	8363	0.242709759	0.028786073
CDR20291_0493	5771	5771	10220	11003	0.421074937	9.89E-08
CDR20291_0494	5997	5997	11327	11285	0.457656179	1.96E-11
CDR20291_0495	1677	1677	2143	1957	-0.166776229	0.379888999
CDR20291_0496	2032	2032	2538	3582	0.131046456	0.662083331
CDR20291_0497	3288	3288	5042	6072	0.298635955	0.054678949
CDR20291_0498	104	104	181	123	0.09298521	0.905196248
CDR20291_0499	8278	8278	12223	13516	0.178749374	0.046147005
CDR20291_0499; CDR20291_0500	4662	4662	7928	8305	0.342441813	2.22E-05
CDR20291_0501	5839	5839	7718	8716	0.034890624	0.798810255
CDR20291_0502	1268	1268	1753	1693	-0.014540186	0.94450869
CDR20291_0503	21351	21351	33470	40315	0.330543864	0.001522488
CDR20291_0504	675	675	2062	1596	0.982765849	0.000155527
CDR20291_0505	4040	4040	5181	6168	0.031761882	0.863639355
CDR20291_0506	6543	6543	10633	10807	0.255022665	0.000196916
CDR20291_0507	4856	4856	4258	3985	-0.693288262	5.68E-11
CDR20291_0508	767	767	1801	1420	0.614743567	0.020856979
CDR20291_0509	1439	1439	4040	1329	0.449749684	0.503245692
CDR20291_0510	340	340	385	101	-0.933379499	0.317465918
CDR20291_0511	275	275	137	141	-1.441686944	0.000429267
CDR20291_0512	420	420	826	303	-0.023910495	0.975190628
CDR20291_0513	9649	9649	14457	13050	0.054935528	0.664736423

CDR20291_0513;CDR20291_0514	5117	5117	9599	9573	0.448503986	1.05E-09
CDR20291_0515	6487	6487	6000	6021	-0.567238764	3.38E-14
CDR20291_0516	1426	1426	1357	1400	-0.50623413	0.001891162
CDR20291_0517	167	167	508	675	1.365397523	0.000372614
CDR20291_0518	634	634	1235	1458	0.62835739	0.006974548
CDR20291_0519	8012	8012	11342	12608	0.121901628	0.211464701
CDR20291_0520	2949	2949	4134	3685	-0.049578013	0.789711105
CDR20291_0521	166	166	50	100	-1.607877824	0.027112177
CDR20291_0522	86	86	59	1	-1.962870976	0.35074096
CDR20291_0523	130	130	554	177	1.041614182	0.236237234
CDR20291_0524	204	204	369	701	0.929393262	0.098781815
CDR20291_0525	689	689	1519	1227	0.539112724	0.046191976
CDR20291_0526	410	410	510	343	-0.397481039	0.406633832
CDR20291_0527	245	245	381	234	-0.125983478	0.849551323
CDR20291_0528	169	169	488	300	0.767405936	0.169999448
CDR20291_0529	4260	4260	8200	6640	0.344933208	0.048101881
CDR20291_0529;CDR20291_0530	4850	4850	8101	8954	0.356291231	0.000243446
CDR20291_0531	2463	2463	3484	3708	0.088401395	0.535493422
CDR20291_0532	1614	1614	2473	3374	0.397711581	0.107304185
CDR20291_0533	1952	1952	2645	1986	-0.208744913	0.456209384
CDR20291_0534	897	897	846	1357	-0.164160286	0.710195257
CDR20291_0535	7890	7890	7713	6735	-0.583408808	1.21E-06
CDR20291_0536	435	435	297	76	-1.670569095	0.052448433
CDR20291_0537	1258	1258	2094	2628	0.449522174	0.037952141
CDR20291_0538	1999	1999	4576	4939	0.793248492	1.27E-12
CDR20291_0539	2065	2065	3200	3165	0.166947738	0.22322146
CDR20291_0540	1483	1483	1397	1414	-0.534665859	0.000806686
CDR20291_0541	192	192	109	208	-0.738117005	0.289284133
CDR20291_0542	44	44	11	4	-3.004232001	0.025775335
CDR20291_0543	14	14	60	146	2.416072483	0.027724275

CDR20291_0544	206	206	542	275	0.535202062	0.424801511
CDR20291_0545	904	904	359	515	-1.50828662	1.73E-06
CDR20291_0546	22703	22703	18846	19702	-0.693678514	3.86E-54
CDR20291_0547	1334	1334	1225	1362	-0.502347836	0.006122917
CDR20291_0548	924	924	790	480	-0.994830054	0.013056259
CDR20291_0549	474	474	491	277	-0.756997499	0.145030422
CDR20291_0549; CDR20291_0550	1	1	1	0	-1.446755366	0.842066219
CDR20291_0550	277	277	12	179	-2.006001324	0.151891301
CDR20291_0551	12852	12852	19417	22329	0.241504834	0.011222725
CDR20291_0552	3822	3822	6960	6259	0.333821903	0.009089471
CDR20291_0553	884	884	928	730	-0.548155611	0.061394652
CDR20291_0554	1639	1639	2364	2357	0.069149884	0.694947616
CDR20291_0555	4317	4317	2738	2438	-1.194538312	4.58E-20
CDR20291_0556	1082	1082	1794	1919	0.321274731	0.06955431
CDR20291_0557	863	863	1787	1711	0.562253259	0.001918621
CDR20291_0558	5419	5419	8066	9533	0.241064947	0.066545137
CDR20291_0559	1175	1175	1069	1114	-0.56377545	0.001867743
CDR20291_0560	878	878	2350	1768	0.7745247	0.003448121
CDR20291_0561	2737	2737	3279	3168	-0.220878158	0.08598953
CDR20291_0562	1853	1853	4516	4809	0.873658606	1.83E-15
CDR20291_0563	3108	3108	3762	4266	-0.088967277	0.574647725
CDR20291_0564	42	42	58	78	0.235983572	0.83153997
CDR20291_0565	2266	2266	3439	4016	0.259827363	0.107634257
CDR20291_0566	2453	2453	2286	2241	-0.573006206	5.20E-06
CDR20291_0567	1825	1825	2601	2372	-0.010284432	0.958599635
CDR20291_0567; CDR20291_0568	77	77	306	421	1.779652584	0.000304369
CDR20291_0568	6039	6039	10728	10824	0.378232762	2.57E-08
CDR20291_0569	2055	2055	3544	3756	0.371211093	0.002328855
CDR20291_0570	3923	3923	6516	6643	0.288741401	0.000936262
CDR20291_0571	2199	2199	3066	2959	-0.002788305	0.984515222

CDR20291_0572	1312	1312	983	937	-0.907490556	4.35E-07
CDR20291_0573	965	965	947	700	-0.68380348	0.027112177
CDR20291_0574	256	256	202	82	-1.301488785	0.084826451
CDR20291_0574; CDR20291_0575	0	0	2	1	2.574959243	0.711194614
CDR20291_0575	3348	3348	2903	3078	-0.620457415	8.63E-09
CDR20291_0576	3953	3953	4671	5753	-0.059730252	0.766512801
CDR20291_0577	5342	5342	6845	7129	-0.070132381	0.468244954
CDR20291_0578	1692	1692	1443	2680	-0.176501396	0.703457508
CDR20291_0579	361	361	505	528	0.0593182	0.881058607
CDR20291_0580	2782	2782	3830	3639	-0.031999079	0.842066219
CDR20291_0581	0	0	2	84	7.39790678	0.037464097
CDR20291_0582	10273	10273	10372	11234	-0.385125912	1.47E-07
CDR20291_0583	517	517	345	579	-0.622984621	0.181727325
CDR20291_0584	13746	13746	15751	17453	-0.185523109	0.021881742
CDR20291_0585	1024	1024	893	1121	-0.482869867	0.059484834
CDR20291_0586	703	703	600	266	-1.150814904	0.044404137
CDR20291_0587	282	282	630	784	0.86734593	0.008434289
CDR20291_0588	933	933	778	720	-0.773538091	0.00042358
CDR20291_0589	2225	2225	3403	3228	0.118641282	0.439022717
CDR20291_0590	604	604	390	550	-0.82139242	0.021481528
CDR20291_0591	829	829	723	693	-0.684487201	0.002201358
CDR20291_0592	2824	2824	2605	2884	-0.499041326	0.000120556
CDR20291_0593	246	246	373	686	0.644614142	0.248693359
CDR20291_0594	1250	1250	2298	2161	0.378073159	0.025250179
CDR20291_0595	2955	2955	5651	5130	0.410799711	0.0015311
CDR20291_0596	5492	5492	8942	10029	0.330439557	0.000975913
CDR20291_0597	1058	1058	1226	353	-0.871509591	0.235997059
CDR20291_0598	1426	1426	1518	1316	-0.465291669	0.02536477
CDR20291_0599	1045	1045	1030	928	-0.550557483	0.011682561
CDR20291_0600	3699	3699	6573	7312	0.450428096	2.15E-05

CDR20291_0601	882	882	1189	1090	-0.086998054	0.748326143
CDR20291_0602	809	809	1277	1681	0.411335385	0.139525978
CDR20291_0603	1078	1078	921	1244	-0.453229787	0.115260844
CDR20291_0604	2442	2442	949	1557	-1.42327304	2.36E-06
CDR20291_0605	864	864	886	1169	-0.209040394	0.517330324
CDR20291_0606	1438	1438	1882	2175	0.038199503	0.870685619
CDR20291_0607	3222	3222	3284	2859	-0.525187107	0.000691912
CDR20291_0608	1933	1933	2200	3022	-0.025627149	0.931187293
CDR20291_0609	2710	2710	3532	4392	0.089251516	0.67933304
CDR20291_0610	667	667	963	645	-0.184834096	0.682151857
CDR20291_0611	8	8	4	8	-0.876484985	0.725101522
CDR20291_0612	10	10	11	3	-0.964240811	0.695169484
CDR20291_0613	1	1	6	2	1.549555286	0.696343618
CDR20291_0614	1205	1205	1982	2477	0.428974321	0.05064973
CDR20291_0615	5133	5133	6611	6507	-0.10336382	0.289182512
CDR20291_0616	1355	1355	557	846	-1.40980651	4.20E-06
CDR20291_0617	683	683	674	1001	-0.165700298	0.69655752
CDR20291_0618	4469	4469	7746	9303	0.473216867	0.000375079
CDR20291_0619	703	703	1268	1262	0.390427077	0.064987135
CDR20291_0620	1679	1679	2164	1970	-0.156558959	0.416979598
CDR20291_0621	11803	11803	11880	10288	-0.546790042	1.72E-06
CDR20291_0622	20	20	23	33	0.025859224	0.984515222
CDR20291_0623	443	443	170	953	-0.125268875	0.910988378
CDR20291_0624	2674	2674	4105	4930	0.298087836	0.068487984
CDR20291_0625	73	73	27	26	-1.918825601	0.024156233
CDR20291_0626	157	157	127	96	-0.949002954	0.112980425
CDR20291_0627	54	54	15	9	-2.624113112	0.016985942
CDR20291_0628	1708	1708	2245	1650	-0.265653088	0.362204159
CDR20291_0629	13800	13800	25636	26208	0.452210392	1.80E-24
CDR20291_0630	561	561	1494	1137	0.77432071	0.009430195

CDR20291_0631	5351	5351	8246	8880	0.220647184	0.01351871
CDR20291_0632	3774	3774	6638	7943	0.491505398	0.000313412
CDR20291_0633	16838	16838	23950	27258	0.146581876	0.105192793
CDR20291_0634	1947	1947	2895	2546	0.026375006	0.901362656
CDR20291_0635	1691	1691	844	879	-1.430372085	6.01E-20
CDR20291_0636	4522	4522	8609	8625	0.473066175	6.56E-10
CDR20291_0637	32	32	39	32	-0.306074194	0.816509553
CDR20291_0638	4325	4325	6288	6769	0.136394844	0.190043744
CDR20291_0639	10348	10348	16786	17750	0.28121493	3.42E-06
CDR20291_0640	6374	6374	7987	6883	-0.233950343	0.101106623
CDR20291_0641	49	49	240	267	1.913243767	0.000350069
CDR20291_0642	1963	1963	2768	2749	0.033723938	0.842476324
CDR20291_0643	7480	7480	14746	13600	0.465468478	2.72E-07
CDR20291_0644	2101	2101	2514	2369	-0.24004618	0.117805802
CDR20291_0645	37	37	44	39	-0.290750689	0.811829404
CDR20291_0646	184	184	57	36	-2.438713799	0.000110762
CDR20291_0647	104	104	121	110	-0.305194268	0.675660815
CDR20291_0648	1489	1489	2667	3117	0.499486318	0.003083856
CDR20291_0649	938	938	1704	1464	0.299829999	0.206933922
CDR20291_0650	1068	1068	2486	2915	0.880052491	3.83E-07
CDR20291_0651	691	691	1434	1501	0.62914179	0.001050726
CDR20291_0652	412	412	576	892	0.372937982	0.403998823
CDR20291_0653	1073	1073	1698	2343	0.453645061	0.099189003
CDR20291_0654	317	317	509	722	0.497694355	0.227485293
CDR20291_0655	3215	3215	5701	5467	0.339627155	0.00147598
CDR20291_0656	516	516	1045	1205	0.666346898	0.006132901
CDR20291_0657	1749	1749	1978	2005	-0.269915062	0.073068644
CDR20291_0658	1222	1222	1178	1797	-0.176465696	0.64265254
CDR20291_0658; CDR20291_0659	24	24	0	261	1.971240998	0.5094274
CDR20291_0659	2828	2828	3184	2997	-0.328671036	0.01295395

CDR20291_0660	1336	1336	1879	1993	0.077608392	0.693287242
CDR20291_0661	55	55	74	62	-0.149846831	0.884637223
CDR20291_0662	422	422	761	552	0.182648717	0.686288627
CDR20291_0663	3371	3371	5713	6341	0.38038899	0.000638812
CDR20291_0664	5932	5932	10379	9431	0.283175928	0.010444063
CDR20291_0665	2424	2424	2520	2361	-0.446912295	0.001427527
CDR20291_0666	570	570	1061	1194	0.526130366	0.026139799
CDR20291_0666; CDR20291_0667	47	47	0	23	-2.502113698	0.333100261
CDR20291_0667	702	702	395	569	-1.002086675	0.003676099
CDR20291_0668	1180	1180	1139	1257	-0.43597731	0.024287566
CDR20291_0669	2446	2446	2476	2104	-0.551082844	0.00208151
CDR20291_0670	426	426	274	389	-0.821380618	0.043515668
CDR20291_0671	4986	4986	11820	11094	0.743580509	2.38E-17
CDR20291_0672	5458	5458	11847	10910	0.603308912	3.45E-10
CDR20291_0673	7644	7644	11173	11656	0.121029936	0.097354033
CDR20291_0674	555	555	956	1176	0.483058977	0.081045809
CDR20291_0675	4660	4660	7579	8421	0.321786226	0.001585995
CDR20291_0676	13148	13148	26011	25393	0.510063821	9.71E-21
CDR20291_0677	8193	8193	10295	12028	-0.012181351	0.931187293
CDR20291_0678	1399	1399	1368	1542	-0.401343352	0.030554564
CDR20291_0679	1757	1757	2158	2191	-0.149681623	0.344526889
CDR20291_0680	1012	1012	2003	2258	0.616003459	0.000450093
CDR20291_0681	2268	2268	3234	2846	-0.033596838	0.87539147
CDR20291_0682	3621	3621	4035	3965	-0.313416198	0.00283185
CDR20291_0683	2943	2943	5952	5970	0.56110023	1.03E-09
CDR20291_0684	835	835	1496	973	0.109959156	0.807413697
CDR20291_0685	10940	10940	20747	22886	0.53796753	3.74E-14
CDR20291_0686	4852	4852	5517	7259	-0.062312884	0.785063783
CDR20291_0687	8404	8404	11722	13521	0.128577807	0.264440679
CDR20291_0688	989	989	514	693	-1.171806466	3.14E-05

CDR20291_0689	10139	10139	14394	15921	0.122260924	0.167238231
CDR20291_0690	2509	2509	2379	2608	-0.466715736	0.000466646
CDR20291_0691	424	424	572	584	-0.010283758	0.975190628
CDR20291_0692	576	576	773	810	0.001054111	0.996437979
CDR20291_0693	644	644	1112	1324	0.461021939	0.065085303
CDR20291_0694	951	951	446	1330	-0.563218477	0.417227555
CDR20291_0695	1233	1233	1455	1973	0.015908224	0.959164171
CDR20291_0696	358	358	133	137	-1.864344447	3.24E-07
CDR20291_0697	4295	4295	6808	7389	0.267140663	0.006463171
CDR20291_0698	7995	7995	9778	9057	-0.220357424	0.027279987
CDR20291_0699	313	313	810	682	0.79706881	0.012583083
CDR20291_0700	104	104	8	5	-4.455124902	7.68E-07
CDR20291_0701	2573	2573	3524	2687	-0.183844136	0.47609774
CDR20291_0702	334	334	378	343	-0.346336783	0.369799728
CDR20291_0703	1270	1270	747	896	-1.086876122	2.95E-07
CDR20291_0704	2878	2878	1487	1048	-1.637784292	3.30E-11
CDR20291_0705	8640	8640	14062	15636	0.323368576	0.000129017
CDR20291_0706	789	789	1554	951	0.21301553	0.647474324
CDR20291_0707	664	664	999	934	0.08490241	0.774459236
CDR20291_0708	646	646	2136	1150	0.893903508	0.042408153
CDR20291_0709	1528	1528	7345	2996	1.307608446	0.004924253
CDR20291_0710	330	330	2747	218	1.722702183	0.356970673
CDR20291_0711	188	188	1308	290	1.639514642	0.06507814
CDR20291_0712	1363	1363	4500	1662	0.726135023	0.201034787
CDR20291_0713	1531	1531	1482	1800	-0.358394832	0.090248263
CDR20291_0714	2369	2369	3686	2489	-0.072196163	0.841437698
CDR20291_0715	5294	5294	8493	8559	0.230311248	0.003067665
CDR20291_0716	4112	4112	7049	7657	0.380770718	6.38E-05
CDR20291_0717	4443	4443	6548	7623	0.215117205	0.104641612
CDR20291_0718	896	896	1419	1711	0.346140959	0.139525978

CDR20291_0719	11022	11022	15774	17710	0.14512139	0.116456615
CDR20291_0720	1255	1255	2133	2314	0.367436502	0.024476087
CDR20291_0721	1512	1512	2319	1608	-0.077585399	0.837988464
CDR20291_0722	954	954	1243	1088	-0.167336518	0.528467948
CDR20291_0723	292	292	9	51	-3.749408764	0.000138806
CDR20291_0724	84	84	241	75	0.461791902	0.691890725
CDR20291_0725	27	27	54	306	2.269723854	0.070157767
CDR20291_0726	3090	3090	4793	4569	0.142397157	0.259060973
CDR20291_0727	3254	3254	6901	4895	0.403321534	0.101715409
CDR20291_0728	839	839	702	785	-0.632241866	0.005915808
CDR20291_0729	350	350	202	204	-1.243092357	0.000470529
CDR20291_0730	523	523	401	334	-0.964982104	0.00277101
CDR20291_0731	439	439	450	727	-0.037654248	0.942796697
CDR20291_0732	200	200	404	139	-0.009226832	0.990966896
CDR20291_0733	547	547	516	506	-0.555235034	0.045234275
CDR20291_0734	793	793	754	799	-0.487874978	0.031669774
CDR20291_0735	425	425	647	802	0.310887801	0.36062669
CDR20291_0736	697	697	448	1066	-0.343878384	0.598874184
CDR20291_0737	1862	1862	2059	2893	-0.048388979	0.882959409
CDR20291_0738	4567	4567	7400	8721	0.361313803	0.004765881
CDR20291_0739	1090	1090	1722	1989	0.309332067	0.126091452
CDR20291_0740	1855	1855	2486	2694	0.023833723	0.894502693
CDR20291_0741	4917	4917	9380	10823	0.580560473	8.57E-08
CDR20291_0742	8661	8661	17170	21538	0.701257542	4.66E-08
CDR20291_0743	258	258	717	641	0.939675387	0.002561015
CDR20291_0744	1907	1907	3596	3501	0.438944191	0.000463867
CDR20291_0745	3017	3017	4208	5423	0.21562567	0.287743183
CDR20291_0746	9083	9083	8645	9789	-0.436889936	4.02E-06
CDR20291_0747	3183	3183	3265	2606	-0.572330961	0.00329838
CDR20291_0748	1060	1060	1013	1053	-0.494634181	0.010431427

CDR20291_0749	5877	5877	7771	8662	0.025538278	0.844242074
CDR20291_0750	1478	1478	3136	2625	0.506787902	0.01062905
CDR20291_0751	283	283	619	522	0.555463706	0.124496931
CDR20291_0752	216	216	359	335	0.227232514	0.621360952
CDR20291_0753	229	229	265	229	-0.346992263	0.476219767
CDR20291_0754	303	303	588	739	0.672043103	0.050133798
CDR20291_0755	749	749	1013	1104	0.041247366	0.884603325
CDR20291_0756	65	65	117	50	-0.090207854	0.937872764
CDR20291_0757	2404	2404	4668	3754	0.353134391	0.080333625
CDR20291_0758	5909	5909	10078	8327	0.183336266	0.272906106
CDR20291_0759	2336	2336	3179	2930	-0.069682271	0.696241311
CDR20291_0760	1987	1987	3069	3473	0.261132713	0.090903285
CDR20291_0761	1023	1023	1396	1107	-0.164668714	0.596096194
CDR20291_0762	4208	4208	4834	5498	-0.162132077	0.220519051
CDR20291_0763	2599	2599	4369	4673	0.341074171	0.002398854
CDR20291_0764	1727	1727	2407	2204	-0.039722554	0.849551323
CDR20291_0765	1464	1464	1792	2550	0.108809299	0.744397817
CDR20291_0766	7986	7986	12927	14013	0.296494757	9.90E-05
CDR20291_0767	1489	1489	3604	2969	0.686440821	0.000424541
CDR20291_0768	2135	2135	4787	3731	0.540912769	0.010214924
CDR20291_0769	5566	5566	10478	9636	0.396938361	9.70E-05
CDR20291_0770	9855	9855	17276	19491	0.441482612	1.90E-07
CDR20291_0771	7764	7764	13277	14209	0.366206164	1.57E-07
CDR20291_0772	7570	7570	11068	11991	0.149260018	0.078075712
CDR20291_0773	6059	6059	9263	9561	0.178057331	0.018710528
CDR20291_0774	3551	3551	4838	6064	0.159548336	0.399666204
CDR20291_0775	222	222	252	223	-0.358950898	0.460786071
CDR20291_0776	3361	3361	5863	4854	0.217141242	0.237735923
CDR20291_0777	745	745	728	904	-0.327310623	0.261875039
CDR20291_0778	1960	1960	1970	2931	-0.137728114	0.680761

CDR20291_0779	1179	1179	1692	1232	-0.144529752	0.680761
CDR20291_0780	479	479	875	941	0.465019529	0.068134016
CDR20291_0781	1809	1809	2811	3171	0.267451466	0.091653913
CDR20291_0782	1496	1496	2411	2088	0.13235844	0.557992772
CDR20291_0783	5663	5663	9562	9276	0.277074443	0.000852823
CDR20291_0783; CDR20291_0784	88	88	82	2	-1.510738833	0.467166967
CDR20291_0784	5183	5183	7575	8837	0.204656748	0.112980425
CDR20291_0785	8515	8515	15125	17473	0.478533304	9.06E-07
CDR20291_0786	1821	1821	4658	3633	0.731444485	0.000422614
CDR20291_0787	4531	4531	6789	7351	0.184182437	0.066826005
CDR20291_0788	9906	9906	14620	15177	0.131388445	0.035964999
CDR20291_0789	406	406	103	162	-2.075587347	4.32E-06
CDR20291_0790	1176	1176	548	227	-2.052890542	0.00010957
CDR20291_0791	937	937	1166	1376	-0.018448911	0.945023574
CDR20291_0792	25	25	42	50	0.421370785	0.742414826
CDR20291_0793	1690	1690	1913	2856	0.036688453	0.914706743
CDR20291_0794	962	962	2342	3032	1.022915987	2.07E-06
CDR20291_0795	3586	3586	6259	4664	0.151879835	0.549681357
CDR20291_0796	3334	3334	6513	5458	0.388334897	0.018248554
CDR20291_0797	8342	8342	13609	12700	0.20043819	0.029801618
CDR20291_0798	832	832	1574	1472	0.415579039	0.040939973
CDR20291_0799	3091	3091	8202	7006	0.842668471	1.93E-09
CDR20291_0800	8622	8622	16415	14268	0.375208894	0.001353384
CDR20291_0801	3611	3611	5242	6156	0.200031887	0.171834513
CDR20291_0802	1160	1160	1652	1570	0.017035046	0.939195564
CDR20291_0803	1709	1709	2993	3197	0.39918567	0.002854218
CDR20291_0804	2302	2302	4174	3834	0.342005371	0.015126062
CDR20291_0805	483	483	588	702	-0.041089235	0.909717881
CDR20291_0806	1265	1265	1588	1664	-0.095276458	0.638910381
CDR20291_0807	1764	1764	3082	2725	0.262662833	0.14416216

CDR20291_0808	3834	3834	4150	3789	-0.406403807	0.001442478
CDR20291_0809	6237	6237	10025	11353	0.319179233	0.001625257
CDR20291_0810	700	700	2078	2209	1.156971457	1.67E-12
CDR20291_0811	7025	7025	11717	11356	0.258709914	0.000820697
CDR20291_0812	1998	1998	2742	3159	0.104270333	0.577940238
CDR20291_0813	3694	3694	5853	6745	0.311794836	0.015043152
CDR20291_0814	1904	1904	2198	3188	0.040406162	0.901234749
CDR20291_0814; CDR20291_0815	0	0	11	33	6.437736918	0.066265023
CDR20291_0815	6896	6896	9654	10754	0.107399756	0.310077511
CDR20291_0816	2817	2817	4363	3928	0.100980487	0.55017627
CDR20291_0817	4805	4805	5733	6361	-0.126186298	0.285212547
CDR20291_0818	6899	6899	11799	10519	0.237425213	0.04415464
CDR20291_0819	858	858	1869	1824	0.648766777	0.000176769
CDR20291_0820	1495	1495	1826	1774	-0.189098781	0.279746907
CDR20291_0821	6252	6252	10691	11425	0.365093069	1.28E-06
CDR20291_0822	4158	4158	5207	6128	-0.011470114	0.945023574
CDR20291_0823	6990	6990	10699	11574	0.2142374	0.00955075
CDR20291_0824	5733	5733	10241	11327	0.453676513	3.38E-07
CDR20291_0825	4697	4697	6589	7624	0.13922566	0.305211828
CDR20291_0825; CDR20291_0826	4835	4835	7629	9064	0.329287889	0.012757385
CDR20291_0827	1185	1185	2497	3192	0.804407111	0.000106788
CDR20291_0828	131	131	82	270	-0.038759219	0.969896043
CDR20291_0829	2907	2907	3382	3712	-0.170720144	0.203984049
CDR20291_0830	501	501	634	671	-0.076366695	0.820767331
CDR20291_0831	1548	1548	1763	2950	0.145473613	0.723459403
CDR20291_0832	473	473	370	669	-0.325946131	0.558144853
CDR20291_0833	1377	1377	1440	1677	-0.279568256	0.1710581
CDR20291_0834	6424	6424	9851	10233	0.187094428	0.011405588
CDR20291_0835	6029	6029	7727	7644	-0.106851896	0.226081044
CDR20291_0836	1750	1750	1748	2141	-0.306515356	0.141471967

CDR20291_0837	2515	2515	4047	4375	0.285919112	0.018487553
CDR20291_0838	4171	4171	6457	6864	0.217668606	0.02215507
CDR20291_0839	1629	1629	2309	2551	0.119135103	0.509251082
CDR20291_0840	8	8	12	15	0.296244534	0.892707332
CDR20291_0841	4179	4179	6787	7317	0.297206696	0.001752963
CDR20291_0842	897	897	574	777	-0.868382823	0.003067665
CDR20291_0843	919	919	526	479	-1.327474087	6.87E-09
CDR20291_0844	414	414	342	356	-0.703822003	0.027606547
CDR20291_0845	1465	1465	2080	1741	-0.072846899	0.784838061
CDR20291_0846	535	535	766	966	0.236069911	0.479658055
CDR20291_0847	2487	2487	2847	3153	-0.18729444	0.200732831
CDR20291_0848	2208	2208	3533	3653	0.245072728	0.04549701
CDR20291_0849	12717	12717	21633	21399	0.301583164	2.45E-08
CDR20291_0850	6348	6348	10039	10439	0.232285172	0.001260051
CDR20291_0851	11672	11672	15972	16142	0.002931333	0.965845372
CDR20291_0852	1371	1371	1300	1724	-0.317891334	0.232576953
CDR20291_0852; CDR20291_0853	29	29	73	35	0.444645589	0.746355903
CDR20291_0853	708	708	1356	990	0.273451068	0.444793541
CDR20291_0854	413	413	662	833	0.397189526	0.234727766
CDR20291_0855	757	757	1027	1229	0.117011238	0.691890725
CDR20291_0856	1205	1205	1267	2162	0.047863496	0.913576053
CDR20291_0857	3179	3179	5007	4606	0.139854808	0.324147943
CDR20291_0858	2950	2950	4939	5456	0.359263322	0.001972663
CDR20291_0859	141	141	98	259	-0.123318708	0.901074127
CDR20291_0860	2211	2211	2972	2821	-0.06717473	0.69202535
CDR20291_0861	6631	6631	7069	6372	-0.437069744	0.000107505
CDR20291_0862	1479	1479	2188	1745	-0.044541339	0.882959409
CDR20291_0863	8572	8572	11870	12657	0.059075502	0.48899982
CDR20291_0864	7105	7105	9637	13275	0.229763159	0.254419984
CDR20291_0865	2873	2873	3816	3688	-0.07180965	0.614837808

CDR20291_0866	540	540	1263	1892	1.086614306	0.000691912
CDR20291_0867	1731	1731	3060	3057	0.364079016	0.005511553
CDR20291_0868	33	33	43	8	-0.819640561	0.65495798
CDR20291_0869	1925	1925	2084	2102	-0.336492854	0.017447553
CDR20291_0870	1835	1835	2283	2096	-0.201733495	0.252351963
CDR20291_0871	105442	105442	168621	182914	0.279491841	4.47E-10
CDR20291_0872	11334	11334	20013	22408	0.446174448	1.38E-08
CDR20291_0873	2637	2637	2010	1726	-0.953494009	1.35E-08
CDR20291_0874	1742	1742	1493	1372	-0.738781782	9.35E-06
CDR20291_0875	413	413	480	455	-0.277960089	0.417079136
CDR20291_0876	766	766	795	701	-0.490593111	0.059484834
CDR20291_0877	1337	1337	1098	1104	-0.737371561	1.34E-05
CDR20291_0878	3619	3619	4883	4884	-0.024824086	0.844935925
CDR20291_0879	1559	1559	2696	1740	0.054589435	0.892707332
CDR20291_0880	5355	5355	4413	4890	-0.661044601	5.24E-11
CDR20291_0881	2166	2166	1598	2076	-0.696656517	0.000959517
CDR20291_0882	1430	1430	1209	1075	-0.780797622	5.45E-05
CDR20291_0883	2342	2342	1837	1535	-0.930034316	5.58E-07
CDR20291_0884	1266	1266	1292	1260	-0.445627747	0.012920781
CDR20291_0885	6911	6911	7393	7820	-0.319193709	3.75E-05
CDR20291_0886	6035	6035	7595	6666	-0.215567536	0.113618765
CDR20291_0887	3586	3586	4036	4161	-0.264634898	0.010078937
CDR20291_0888	1069	1069	2009	1274	0.164818042	0.698357272
CDR20291_0889	3073	3073	7461	3865	0.42937239	0.281505008
CDR20291_0890	2171	2171	10612	3648	1.26548556	0.148465916
CDR20291_0891	6119	6119	21212	9619	0.881331761	0.200231284
CDR20291_0892	4920	4920	12474	7394	0.560278506	0.062324141
CDR20291_0893	6083	6083	7895	7123	-0.152577805	0.22570011
CDR20291_0894	8685	8685	8995	10228	-0.311813797	0.001794257
CDR20291_0895	1238	1238	1829	1335	-0.101185595	0.778913299

CDR20291_0895;CDR20291_0896	0	0	1	0	0.995828447	0.892707332
CDR20291_0896	252	252	48	177	-1.628732042	0.074028568
CDR20291_0897	642	642	217	156	-2.238403507	4.06E-10
CDR20291_0898	4150	4150	5531	6015	0.018482578	0.892707332
CDR20291_0898;CDR20291_0899	0	0	0	1	0.981173656	0.892870402
CDR20291_0899	24924	24924	34479	36739	0.057115218	0.32680427
CDR20291_0900	8543	8543	16610	16920	0.515364224	2.12E-21
CDR20291_0901	624	624	655	755	-0.28204074	0.327805528
CDR20291_0902	8289	8289	14268	16282	0.423820229	6.50E-06
CDR20291_0903	3211	3211	6107	6489	0.514304788	4.26E-08
CDR20291_0904	1676	1676	2784	2774	0.272421934	0.053149612
CDR20291_0905	12	12	9	13	-0.585070636	0.778913299
CDR20291_0906	4521	4521	6410	7778	0.191440033	0.218038048
CDR20291_0906;CDR20291_0907	0	0	1	0	0.995828447	0.892707332
CDR20291_0907	4644	4644	6866	7802	0.201188275	0.093895096
CDR20291_0908	1930	1930	4532	5484	0.917138269	2.27E-09
CDR20291_0909	1307	1307	1937	1822	0.067365883	0.756451664
CDR20291_0910	799	799	1621	1641	0.5722588	0.001522111
CDR20291_0911	382	382	791	1060	0.817465011	0.012044915
CDR20291_0912	289	289	398	552	0.257444474	0.585632774
CDR20291_0913	1667	1667	3076	3438	0.508369041	0.000418606
CDR20291_0914	1061	1061	2091	2477	0.647805917	0.000611211
CDR20291_0915	673	673	1067	1619	0.536704495	0.128687595
CDR20291_0916	3631	3631	5170	6305	0.201504547	0.22486199
CDR20291_0917	1874	1874	2865	4354	0.48556732	0.087075115
CDR20291_0918	2844	2844	4520	4470	0.203329961	0.07192814
CDR20291_0919	299	299	345	177	-0.648709477	0.317465918
CDR20291_0920	598	598	422	353	-1.081897028	0.000378447
CDR20291_0921	91	91	68	64	-0.920150048	0.206933922
CDR20291_0922	117	117	51	331	0.239352238	0.871419802

CDR20291_0923	9426	9426	11720	11519	-0.155195606	0.030180404
CDR20291_0924	269	269	256	179	-0.761306454	0.133097857
CDR20291_0925	3055	3055	4645	4324	0.097130138	0.508463645
CDR20291_0926	1159	1159	1311	1130	-0.381526122	0.098823453
CDR20291_0927	2491	2491	3633	2194	-0.227557374	0.55371014
CDR20291_0928	3896	3896	6721	7816	0.441452301	0.000372128
CDR20291_0929	19037	19037	28731	33114	0.241691368	0.006707101
CDR20291_0930	503	503	378	423	-0.786659388	0.008195509
CDR20291_0931	4702	4702	6702	8634	0.246626007	0.169385867
CDR20291_0932	1907	1907	2518	2614	-0.029186605	0.868469783
CDR20291_0933	158	158	247	157	-0.099611429	0.892707332
CDR20291_0934	283	283	396	364	-0.031373818	0.94305659
CDR20291_0935	410	410	159	282	-1.355853605	0.00736173
CDR20291_0936	454	454	287	441	-0.778843709	0.073408236
CDR20291_0936; CDR20291_0937	1	1	0	0	-2.899834904	0.676955796
CDR20291_0937	1680	1680	2164	1783	-0.223489162	0.341989399
CDR20291_0938	696	696	897	1071	0.041199055	0.895202099
CDR20291_0939	1571	1571	2169	2046	-0.032894513	0.874866004
CDR20291_0940	5697	5697	7414	8850	0.055007522	0.73985637
CDR20291_0941	2302	2302	4357	3692	0.349952879	0.049611917
CDR20291_0942	1713	1713	3993	4209	0.80193983	2.34E-12
CDR20291_0943	15954	15954	21468	24929	0.0819019	0.461781121
CDR20291_0944	3028	3028	3811	3865	-0.115254061	0.339925801
CDR20291_0945	1366	1366	1141	1701	-0.402997299	0.20924111
CDR20291_0946	449	449	351	200	-1.157983712	0.023222644
CDR20291_0947	1112	1112	1503	1308	-0.118253464	0.652048042
CDR20291_0948	2786	2786	3194	5260	0.140768991	0.69702376
CDR20291_0948; CDR20291_0949	36	36	0	0	-8.069786622	0.000978553
CDR20291_0949	10277	10277	13885	13628	-0.036321014	0.66307096
CDR20291_0950	149	149	96	205	-0.447773505	0.600055717

CDR20291_0951	2242	2242	1347	1921	-0.916011127	0.000243613
CDR20291_0952	1458	1458	812	1359	-0.88636453	0.012371383
CDR20291_0953	6753	6753	10520	11132	0.22336218	0.002749114
CDR20291_0954	7785	7785	14924	14597	0.465983585	1.33E-12
CDR20291_0955	21047	21047	59812	58977	1.039672825	3.99E-145
CDR20291_0956	3199	3199	5895	5274	0.347451055	0.011141668
CDR20291_0957	3291	3291	5142	5587	0.247195856	0.026459751
CDR20291_0958	1744	1744	1737	1555	-0.539819505	0.002328855
CDR20291_0959	5409	5409	8752	7972	0.172004001	0.150758064
CDR20291_0960	1942	1942	2444	3519	0.158769224	0.601083855
CDR20291_0961	762	762	1189	975	0.050077505	0.884768792
CDR20291_0962	1266	1266	1457	848	-0.588876373	0.149115268
CDR20291_0963	1093	1093	1299	1308	-0.203097765	0.310601613
CDR20291_0964	7818	7818	11260	6571	-0.263817935	0.424581632
CDR20291_0965	48	48	25	10	-1.907279511	0.128859686
CDR20291_0966	353	353	165	233	-1.286354747	0.002701706
CDR20291_0967	8380	8380	14037	14233	0.297008052	5.68E-07
CDR20291_0968	5327	5327	8760	8694	0.255069026	0.001288444
CDR20291_0969	2860	2860	4334	3932	0.074712773	0.662814637
CDR20291_0970	1202	1202	1784	1275	-0.107152462	0.774136605
CDR20291_0971	3152	3152	4957	6196	0.364363951	0.032784841
CDR20291_0972	3711	3711	7145	7648	0.537416254	1.72E-09
CDR20291_0973	362	362	846	477	0.416586977	0.451703895
CDR20291_0974	273	273	196	65	-1.514949649	0.068453693
CDR20291_0975	141	141	335	69	0.070940477	0.954566624
CDR20291_0976	230	230	411	289	0.151013785	0.797517389
CDR20291_0977	150	150	220	60	-0.548572287	0.632265257
CDR20291_0978	798	798	2532	1201	0.773876165	0.117016303
CDR20291_0979	267	267	310	240	-0.412806101	0.394941596
CDR20291_0980	8	8	27	10	0.758624762	0.722734949

CDR20291_0981	6	6	14	11	0.603368385	0.793579383
CDR20291_0982	29	29	37	16	-0.581836482	0.708859079
CDR20291_0983	125	125	32	24	-2.613879642	0.000195789
CDR20291_0984	5	5	8	7	0.128698557	0.959164171
CDR20291_0985	142	142	162	49	-0.878255081	0.404931705
CDR20291_0986	12	12	9	8	-0.953892141	0.639865783
CDR20291_0987	100	100	15	54	-2.000146316	0.071696865
CDR20291_0988	3	3	8	3	0.423373523	0.893610757
CDR20291_0989	13	13	33	25	0.702283769	0.662814637
CDR20291_0990	1444	1444	2290	2544	0.285272208	0.086974067
CDR20291_0991	1281	1281	1565	1702	-0.107025604	0.604356432
CDR20291_0992	797	797	545	341	-1.30119892	0.000978553
CDR20291_0993	7206	7206	12927	11259	0.290748244	0.020182707
CDR20291_0994	2303	2303	4119	4527	0.450715659	0.000236085
CDR20291_0995	10603	10603	17533	18444	0.30510477	1.29E-07
CDR20291_0996	3179	3179	4429	5057	0.119153206	0.426894972
CDR20291_0997	3551	3551	3574	3366	-0.490023407	3.08E-05
CDR20291_0998	4	4	12	3	0.457846432	0.882959409
CDR20291_0999	45	45	4	5	-3.780191018	0.002291511
CDR20291_1000	8	8	4	8	-0.876484985	0.725101522
CDR20291_1001	23	23	60	23	0.400525107	0.803146437
CDR20291_1002	413	413	770	936	0.587900817	0.047510805
CDR20291_1003	2966	2966	3369	3250	-0.298805897	0.014140159
CDR20291_1004	251	251	284	111	-0.796788024	0.323460304
CDR20291_1005	1259	1259	845	911	-0.977636941	7.12E-08
CDR20291_1006	2807	2807	3119	3352	-0.252680689	0.043511582
CDR20291_1007	1378	1378	1848	1462	-0.191242001	0.494412366
CDR20291_1008	511	511	948	656	0.195713041	0.664252139
CDR20291_1009	1629	1629	1478	2018	-0.357613343	0.177437785
CDR20291_1010	3384	3384	4013	4120	-0.19226895	0.075086445

CDR20291_1011	3168	3168	3625	3032	-0.384583014	0.031127332
CDR20291_1012	249	249	386	586	0.504763066	0.297855292
CDR20291_1013	90	90	306	345	1.396681551	0.002078052
CDR20291_1014	89	89	97	1	-1.304182677	0.576111371
CDR20291_1015	12	12	7	6	-1.340708004	0.511387042
CDR20291_1016	50	50	16	21	-1.893248197	0.071408305
CDR20291_1017	57	57	26	17	-1.861126309	0.068708834
CDR20291_1018	11	11	58	48	1.81265508	0.131387731
CDR20291_1019	30	30	26	24	-0.71965447	0.58411486
CDR20291_1020	10	10	17	57	1.422776776	0.403998823
CDR20291_1021	4	4	4	12	0.536082685	0.85271095
CDR20291_1022	301	301	540	49	-0.476638926	0.752067983
CDR20291_1023	9303	9303	14926	15641	0.258737046	2.36E-05
CDR20291_1024	10963	10963	16622	16746	0.148625325	0.010564475
CDR20291_1025	6	6	4	22	0.648746046	0.807987404
CDR20291_1026	289	289	213	48	-1.595212601	0.105014458
CDR20291_1027	1030	1030	1036	1014	-0.464024031	0.01959661
CDR20291_1028	356	356	269	237	-0.949044121	0.010078937
CDR20291_1029	488	488	456	663	-0.262481537	0.552632774
CDR20291_1030	919	919	888	771	-0.604002574	0.013267108
CDR20291_1030; CDR20291_1031	0	0	1	0	0.995828447	0.892707332
CDR20291_1031	559	559	589	593	-0.376884535	0.170855756
CDR20291_1032	46	46	3	22	-2.346940335	0.154050635
CDR20291_1033	224	224	163	164	-0.911399422	0.041761467
CDR20291_1034	1341	1341	1035	1118	-0.774628423	9.10E-06
CDR20291_1035	449	449	433	584	-0.279676954	0.49492148
CDR20291_1036	104	104	114	305	0.546719972	0.570352039
CDR20291_1037	287	287	153	286	-0.848209663	0.156690863
CDR20291_1038	1	1	5	5	1.864767476	0.601312686
CDR20291_1039	2801	2801	3555	3630	-0.098243811	0.445415445

CDR20291_1039;CDR20291_1040	47	47	179	48	0.823017455	0.525739637
CDR20291_1040	6306	6306	7187	8231	-0.168280903	0.158647611
CDR20291_1041	4578	4578	8992	7953	0.431802102	0.000515488
CDR20291_1042	56	56	58	295	1.189360705	0.340673747
CDR20291_1043	436	436	224	354	-1.053518505	0.018906252
CDR20291_1044	3	3	8	3	0.423373523	0.893610757
CDR20291_1045	564	564	336	516	-0.864933586	0.032016653
CDR20291_1046	655	655	1094	1368	0.451557124	0.094539359
CDR20291_1047	11330	11330	16441	19356	0.201381708	0.071742465
CDR20291_1048	6771	6771	11281	10615	0.236512425	0.010530647
CDR20291_1049	6209	6209	11167	11811	0.430285387	1.21E-09
CDR20291_1050	699	699	624	1040	-0.209410847	0.665169507
CDR20291_1051	1022	1022	459	664	-1.323714024	1.81E-05
CDR20291_1052	1410	1410	2331	3224	0.518650632	0.039210029
CDR20291_1053	18	18	19	26	-0.137312886	0.932259692
CDR20291_1054	125	125	77	57	-1.354881076	0.044222651
CDR20291_1055	99	99	37	49	-1.662038935	0.02536477
CDR20291_1056	16	16	12	17	-0.601445708	0.741068046
CDR20291_1057	45	45	17	46	-0.977986154	0.464605151
CDR20291_1058	306	306	437	703	0.436978088	0.377826128
CDR20291_1059	3236	3236	3586	3981	-0.232358947	0.073226405
CDR20291_1060	2793	2793	4611	4566	0.259128429	0.018290333
CDR20291_1061	7307	7307	9144	9464	-0.108810754	0.155478229
CDR20291_1062	2999	2999	5310	4882	0.308330305	0.017236016
CDR20291_1063	2389	2389	2881	2536	-0.275165898	0.112980425
CDR20291_1064	6590	6590	10373	10255	0.189187259	0.012933778
CDR20291_1065	3230	3230	4188	4916	0.036694918	0.842432356
CDR20291_1065;CDR20291_1066	29	29	0	0	-7.757837696	0.003275944
CDR20291_1066	4357	4357	5430	6052	-0.059934608	0.664252139
CDR20291_1067	3426	3426	3168	3304	-0.539746414	1.92E-07

CDR20291_1068	3446	3446	6251	5698	0.337405204	0.007097151
CDR20291_1069	2109	2109	3112	3882	0.27085257	0.169385867
CDR20291_1070	1779	1779	2506	2224	-0.045537765	0.841013517
CDR20291_1071	191	191	244	198	-0.245248391	0.669296835
CDR20291_1071;CDR20291_1072	0	0	1	1	1.985467932	0.784609239
CDR20291_1072	1246	1246	1789	1962	0.132189061	0.50709821
CDR20291_1073	299	299	120	208	-1.327279125	0.015219277
CDR20291_1074	1076	1076	1159	1330	-0.248204036	0.267330258
CDR20291_1075	321	321	138	580	-0.304608985	0.780900547
CDR20291_1076	822	822	1456	2199	0.692608037	0.029801618
CDR20291_1077	1015	1015	1776	1420	0.199217675	0.489838394
CDR20291_1078	2902	2902	3687	4064	-0.040484899	0.799644879
CDR20291_1079	1447	1447	4290	4180	1.092333743	1.34E-20
CDR20291_1080	81	81	1	53	-2.055746175	0.321255093
CDR20291_1081	934	934	533	861	-0.882731974	0.018471778
CDR20291_1081;CDR20291_1082	2	2	0	0	-3.899802682	0.556903403
CDR20291_1082	926	926	641	503	-1.150488682	4.24E-05
CDR20291_1082;CDR20291_1083	0	0	0	2	1.972199527	0.784838061
CDR20291_1083	1468	1468	2851	1560	0.134328292	0.784838061
CDR20291_1083;CDR20291_1084	34	34	133	1	0.535620437	0.845530002
CDR20291_1084	941	941	460	507	-1.418467918	1.03E-10
CDR20291_1085	11	11	8	11	-0.670715603	0.754301742
CDR20291_1086	1717	1717	2677	2310	0.08217348	0.721935624
CDR20291_1087	85	85	5	78	-1.503975866	0.393944295
CDR20291_1088	1599	1599	2564	2224	0.126107079	0.568532946
CDR20291_1089	1142	1142	1316	1366	-0.225654777	0.242422058
CDR20291_1090	81	81	109	72	-0.294350134	0.751303201
CDR20291_1091	4	4	1	3	-1.463192506	0.672080418
CDR20291_1092	34	34	56	27	-0.164774142	0.905110463
CDR20291_1093	35	35	32	3	-1.445761078	0.469321256

CDR20291_1094	46	46	114	98	0.748254891	0.360534054
CDR20291_1095	8	8	9	59	1.619884092	0.421075321
CDR20291_1096	58	58	7	8	-3.408963282	0.001236088
CDR20291_1097	11	11	6	7	-1.217114718	0.565972743
CDR20291_1098	51	51	30	20	-1.483132029	0.159880916
CDR20291_1099	599	599	696	427	-0.547028165	0.233573511
CDR20291_1100	5108	5108	7121	8902	0.190580006	0.25418032
CDR20291_1101	9777	9777	14415	14718	0.117900967	0.058265597
CDR20291_1102	3442	3442	4961	5212	0.105940358	0.347385387
CDR20291_1103	3224	3224	5520	5457	0.310493515	0.001734891
CDR20291_1104	168	168	85	168	-0.871018832	0.235997059
CDR20291_1105	375	375	564	679	0.270435863	0.449955887
CDR20291_1106	2413	2413	3493	3290	0.03436522	0.842066219
CDR20291_1107	2022	2022	4328	3902	0.568695735	7.61E-05
CDR20291_1108	2117	2117	3958	3408	0.342774659	0.050467189
CDR20291_1109	1498	1498	1339	2040	-0.28654654	0.399666204
CDR20291_1109; CDR20291_1110	0	0	0	2	1.972199527	0.784838061
CDR20291_1110	8681	8681	13106	16969	0.33363784	0.032522457
CDR20291_1111	241	241	365	200	-0.22381115	0.758251175
CDR20291_1112	2587	2587	2059	2487	-0.645141652	0.000134931
CDR20291_1113	4587	4587	5249	6146	-0.145477332	0.319615436
CDR20291_1114	496	496	150	282	-1.66068809	0.000917977
CDR20291_1115	12	12	24	17	0.317758947	0.866734851
CDR20291_1116	5108	5108	5502	5950	-0.292916805	0.002264466
CDR20291_1117	1089	1089	1173	1668	-0.076221961	0.839238776
CDR20291_1118	91	91	129	223	0.490745998	0.534684541
CDR20291_1119	60	60	39	172	0.348066848	0.810765771
CDR20291_1120	49	49	102	13	-0.215405508	0.905047681
CDR20291_1121	13	13	16	9	-0.510019289	0.801984842
CDR20291_1122	157	157	46	106	-1.509246771	0.061476676

CDR20291_1123	22	22	5	1	-3.324249178	0.087843664
CDR20291_1124	565	565	369	226	-1.379173333	0.001789974
CDR20291_1125	126	126	34	9	-3.000646787	0.004322566
CDR20291_1126	365	365	390	586	-0.040982039	0.936041576
CDR20291_1127	359	359	109	126	-2.069388624	5.34E-08
CDR20291_1128	5073	5073	8303	9775	0.375021479	0.002329546
CDR20291_1129	1274	1274	4110	3586	1.138567085	1.32E-12
CDR20291_1130	35	35	2	1	-4.999091482	0.002422092
CDR20291_1131	627	627	272	126	-2.10774281	0.000116549
CDR20291_1132	99	99	105	100	-0.406696228	0.574770467
CDR20291_1133	344	344	98	307	-1.228969949	0.124836955
CDR20291_1134	2343	2343	3607	3132	0.068028599	0.746355903
CDR20291_1135	816	816	1393	2088	0.632862189	0.048761307
CDR20291_1136	934	934	1114	1002	-0.276573348	0.248363259
CDR20291_1137	1068	1068	803	1088	-0.63501655	0.025092859
CDR20291_1138	159	159	129	151	-0.641804671	0.245742264
CDR20291_1139	3047	3047	5264	4865	0.276439312	0.030790278
CDR20291_1140	6523	6523	9020	9845	0.074348277	0.471302334
CDR20291_1141	4479	4479	3425	3256	-0.87991613	1.96E-17
CDR20291_1142	117	117	98	123	-0.541137935	0.421191211
CDR20291_1143	303	303	831	680	0.862372099	0.008640342
CDR20291_1144	10338	10338	14977	14870	0.072533013	0.296770221
CDR20291_1145	11878	11878	18045	20581	0.243200468	0.008680977
CDR20291_1146	163	163	123	161	-0.657940055	0.252866433
CDR20291_1147	47	47	7	3	-3.685654885	0.004587752
CDR20291_1148	19	19	16	79	0.855386183	0.629151758
CDR20291_1149	38	38	6	1	-3.890040201	0.019570756
CDR20291_1150	3	3	5	4	0.129267197	0.965845372
CDR20291_1151	118	118	162	46	-0.631477527	0.591614017
CDR20291_1152	109	109	100	135	-0.350844314	0.638307793

CDR20291_1153	18	18	14	13	-0.871704063	0.603444501
CDR20291_1154	7743	7743	8759	8999	-0.259827418	0.000156799
CDR20291_1155	17	17	13	19	-0.547098599	0.758846038
CDR20291_1156	0	0	2	0	1.99863724	0.783977106
CDR20291_1157	2	2	2	3	-0.13777727	0.968944954
CDR20291_1158	3560	3560	5629	4904	0.108801083	0.530071786
CDR20291_1159	296	296	214	230	-0.872667447	0.024110737
CDR20291_1160	278	278	289	133	-0.849785006	0.224181513
CDR20291_1161	1951	1951	2416	2627	-0.087653372	0.608924946
CDR20291_1162	93	93	55	83	-0.890512717	0.261875039
CDR20291_1163	101	101	13	63	-1.876512679	0.127864658
CDR20291_1164	2275	2275	4193	4134	0.414882368	0.000253588
CDR20291_1165	1058	1058	1433	1119	-0.185122319	0.554524928
CDR20291_1166	442	442	298	345	-0.917356155	0.004747697
CDR20291_1167	247	247	200	370	-0.25489807	0.713267646
CDR20291_1167; CDR20291_1168	44	44	0	3	-5.340276533	0.004844671
CDR20291_1168	6963	6963	4639	4549	-1.056976324	4.23E-41
CDR20291_1169	210	210	237	123	-0.675112	0.340552238
CDR20291_1170	117	117	25	173	-0.708843743	0.629151758
CDR20291_1171	69	69	13	90	-0.88974415	0.577940238
CDR20291_1172	8612	8612	11890	14383	0.150658398	0.273691048
CDR20291_1173	1343	1343	1893	1904	0.042213843	0.837964256
CDR20291_1174	5386	5386	9733	12027	0.55573764	5.32E-05
CDR20291_1175	2794	2794	4504	4842	0.284370397	0.012583083
CDR20291_1176	2461	2461	4097	4805	0.396617971	0.007947347
CDR20291_1177	3320	3320	4006	4341	-0.127625177	0.312448414
CDR20291_1178	3443	3443	3395	4430	-0.274603752	0.177939918
CDR20291_1179	3738	3738	4173	4955	-0.170320782	0.287021772
CDR20291_1180	8596	8596	12130	13218	0.102387857	0.24316651
CDR20291_1181	2701	2701	4883	6209	0.579101651	0.000846964

CDR20291_1182	4313	4313	7006	7460	0.28832175	0.001378461
CDR20291_1183	2602	2602	3390	3862	0.020703814	0.906367824
CDR20291_1184	865	865	1095	982	-0.192667604	0.460680183
CDR20291_1185	9446	9446	17726	19381	0.51614162	2.56E-13
CDR20291_1186	1918	1918	3171	2568	0.125546664	0.610899375
CDR20291_1187	11956	11956	18409	19425	0.204429317	0.000515092
CDR20291_1187;CDR20291_1188	0	0	1	0	0.995828447	0.892707332
CDR20291_1188	1992	1992	2431	2228	-0.230739602	0.170712691
CDR20291_1188;CDR20291_1189	208	208	51	157	-1.464288118	0.094539359
CDR20291_1189	9274	9274	11463	10849	-0.190201032	0.028123305
CDR20291_1190	3829	3829	6378	7098	0.357458545	0.000964509
CDR20291_1191	975	975	396	559	-1.489391752	7.83E-07
CDR20291_1192	270	270	78	48	-2.553658431	3.96E-06
CDR20291_1193	273	273	539	706	0.730147064	0.047626426
CDR20291_1194	3204	3204	4281	5634	0.170642705	0.437493706
CDR20291_1195	517	517	873	923	0.339022053	0.1867903
CDR20291_1196	1214	1214	933	565	-1.150395275	0.002053883
CDR20291_1197	4	4	5	2	-0.644319359	0.844282136
CDR20291_1198	4449	4449	8402	9331	0.537001688	2.44E-08
CDR20291_1199	2823	2823	3415	3817	-0.100751989	0.514491737
CDR20291_1200	745	745	920	975	-0.110657705	0.67933304
CDR20291_1201	1056	1056	1453	1060	-0.204127338	0.557992772
CDR20291_1202	0	0	3	0	2.583997128	0.710762635
CDR20291_1203	3	3	1	3	-1.048280917	0.784609239
CDR20291_1204	245	245	358	236	-0.176594392	0.780718245
CDR20291_1205	303	303	192	314	-0.72067861	0.172751885
CDR20291_1206	2060	2060	3472	3239	0.247222321	0.094455646
CDR20291_1207	127	127	70	235	-0.200870527	0.866260341
CDR20291_1208	600	600	830	454	-0.355361828	0.51720331
CDR20291_1209	2	2	1	3	-0.463466209	0.909202465

CDR20291_1209;CDR20291_1210	1	1	2	0	-0.444052037	0.945214427
CDR20291_1210	1434	1434	1200	1305	-0.652949604	0.000127223
CDR20291_1211	187	187	163	127	-0.822458979	0.129611364
CDR20291_1212	792	792	640	652	-0.751240608	0.000793356
CDR20291_1213	9	9	1	4	-2.312189894	0.371866163
CDR20291_1214	509	509	1782	857	0.922158439	0.072383777
CDR20291_1215	1101	1101	1222	1481	-0.162732365	0.532258146
CDR20291_1216	621	621	572	476	-0.700919963	0.020991815
CDR20291_1217	864	864	1075	1132	-0.104516251	0.674920333
CDR20291_1218	7038	7038	7966	10261	-0.086110617	0.662814637
CDR20291_1219	414	414	826	836	0.547988746	0.035937838
CDR20291_1220	997	997	1159	1609	0.013731371	0.967755513
CDR20291_1221	10	10	3	42	0.700508786	0.788431238
CDR20291_1222	277	277	378	409	0.048792271	0.909717881
CDR20291_1223	3	3	29	1	1.877913357	0.54805325
CDR20291_1224	221	221	242	142	-0.656465449	0.302843356
CDR20291_1225	766	766	1235	1101	0.152274375	0.576111371
CDR20291_1226	3499	3499	2532	3245	-0.735511342	4.57E-05
CDR20291_1227	3575	3575	4749	5556	0.069080026	0.684518579
CDR20291_1228	1983	1983	2606	2352	-0.134358074	0.476219767
CDR20291_1229	2030	2030	2592	3437	0.111298767	0.676955796
CDR20291_1230	3049	3049	2779	2760	-0.595813353	7.64E-08
CDR20291_1231	1811	1811	1430	1120	-0.961732841	2.90E-05
CDR20291_1232	3853	3853	4217	4761	-0.237578241	0.064825246
CDR20291_1233	2068	2068	1904	3306	-0.127972899	0.76387549
CDR20291_1234	1005	1005	1232	1749	0.108992616	0.76585205
CDR20291_1235	351	351	293	538	-0.217944921	0.731739816
CDR20291_1236	695	695	1132	1141	0.252311758	0.270600829
CDR20291_1237	1902	1902	1833	1880	-0.492251776	0.000433513
CDR20291_1238	51	51	37	46	-0.755977468	0.456958245

CDR20291_1239	2719	2719	2485	2970	-0.453886106	0.005807612
CDR20291_1240	11141	11141	17299	18575	0.229416529	0.000535485
CDR20291_1241	670	670	1377	1552	0.670198886	0.00126022
CDR20291_1242	6365	6365	9413	10671	0.199784171	0.06507814
CDR20291_1243	614	614	698	464	-0.534010821	0.198703274
CDR20291_1244	602	602	503	634	-0.541335226	0.084549305
CDR20291_1245	2341	2341	2378	3304	-0.180196279	0.511316761
CDR20291_1246	1585	1585	2548	1749	-0.015633869	0.964158719
CDR20291_1247	4491	4491	6997	7584	0.241275085	0.013240127
CDR20291_1248	545	545	850	986	0.294066068	0.295290391
CDR20291_1249	7165	7165	8530	9459	-0.129792383	0.202310337
CDR20291_1250	24045	24045	30498	29216	-0.144505179	0.02197624
CDR20291_1251	2030	2030	3193	3707	0.306925986	0.056850417
CDR20291_1252	6152	6152	8904	10296	0.183806129	0.126679992
CDR20291_1253	6662	6662	10153	10957	0.206222616	0.013514077
CDR20291_1254	292	292	451	736	0.562725915	0.245892824
CDR20291_1255	46	46	6	13	-2.737176106	0.026877762
CDR20291_1256	5629	5629	6318	7118	-0.202826372	0.073633826
CDR20291_1257	5554	5554	8390	9114	0.198363114	0.032209319
CDR20291_1258	1681	1681	2874	4193	0.611954045	0.019000286
CDR20291_1259	7232	7232	9544	9536	-0.057546272	0.499688328
CDR20291_1260	770	770	701	512	-0.799324534	0.017235652
CDR20291_1261	1965	1965	2692	3140	0.111240654	0.566178264
CDR20291_1262	10879	10879	17309	19182	0.288123569	0.000260743
CDR20291_1263	351	351	57	1	-4.041036434	0.009808479
CDR20291_1264	1699	1699	1150	2118	-0.517679111	0.200400748
CDR20291_1265	1290	1290	1308	1620	-0.276089131	0.248918688
CDR20291_1266	8266	8266	12001	12295	0.098144625	0.156684198
CDR20291_1267	3341	3341	4507	5630	0.14255726	0.463347373
CDR20291_1268	6124	6124	9873	9928	0.235842658	0.001122506

CDR20291_1269	1826	1826	2617	2500	0.029780454	0.875285548
CDR20291_1270	662	662	696	745	-0.335442176	0.190292601
CDR20291_1271	404	404	334	886	0.130797434	0.874062087
CDR20291_1272	2873	2873	3781	4128	0.003184401	0.982708477
CDR20291_1273	1462	1462	2867	2401	0.393421304	0.057382125
CDR20291_1274	2429	2429	3240	3105	-0.071595441	0.652048042
CDR20291_1275	163	163	81	79	-1.483792748	0.006403833
CDR20291_1276	267	267	532	273	0.139579404	0.847973532
CDR20291_1277	612	612	476	461	-0.842419315	0.001267257
CDR20291_1278	1017	1017	2786	2079	0.803055462	0.001776112
CDR20291_1279	1973	1973	2008	1826	-0.498032714	0.002290324
CDR20291_1280	7149	7149	7513	7244	-0.41130788	5.46E-07
CDR20291_1281	618	618	284	343	-1.437537812	8.75E-07
CDR20291_1282	1086	1086	908	804	-0.799661978	0.000251534
CDR20291_1283	484	484	272	964	-0.112632504	0.901362656
CDR20291_1284	6011	6011	7306	8083	-0.101628432	0.357321941
CDR20291_1285	6798	6798	11838	13850	0.459651082	2.60E-05
CDR20291_1286	2288	2288	2569	3150	-0.136900548	0.517229848
CDR20291_1287	6230	6230	8078	12500	0.263546859	0.313745573
CDR20291_1288	1578	1578	3053	2313	0.310576927	0.234167276
CDR20291_1288; CDR20291_1289	0	0	39	0	6.285181162	0.303798865
CDR20291_1289	26102	26102	52782	54062	0.575961894	2.38E-67
CDR20291_1290	3345	3345	8170	8367	0.848308868	2.22E-27
CDR20291_1291	4529	4529	5886	6936	0.043052878	0.800048368
CDR20291_1292	3614	3614	5150	4827	0.008316491	0.953456262
CDR20291_1293	1868	1868	2629	2522	0.00649773	0.968944954
CDR20291_1294	7757	7757	13736	15578	0.459982133	5.46E-07
CDR20291_1295	13118	13118	19283	19549	0.108457666	0.047510805
CDR20291_1296	2379	2379	3410	3330	0.045410017	0.774459236
CDR20291_1297	680	680	1088	647	-0.102189372	0.847217038

CDR20291_1298	117	117	13	73	-1.910953756	0.126091452
CDR20291_1299	66	66	13	10	-2.976528504	0.002131555
CDR20291_1300	5	5	6	2	-0.772662391	0.8031564
CDR20291_1300; CDR20291_1301	0	0	0	2	1.972199527	0.784838061
CDR20291_1301	7	7	29	6	0.873889888	0.714157412
CDR20291_1301; CDR20291_1302	206	206	254	288	-0.062354975	0.903318128
CDR20291_1302	1029	1029	1296	1404	-0.065978276	0.784838061
CDR20291_1303	30	30	25	122	0.826233737	0.597660561
CDR20291_1304	62	62	76	13	-0.925700671	0.557992772
CDR20291_1305	173	173	378	137	0.123327669	0.899104896
CDR20291_1306	2068	2068	3829	4037	0.469882713	5.18E-05
CDR20291_1307	2980	2980	4464	4689	0.161447707	0.154931299
CDR20291_1308	3045	3045	3871	4879	0.06405758	0.778347807
CDR20291_1309	1625	1625	2441	2348	0.102405939	0.563892016
CDR20291_1310	5294	5294	8615	8860	0.265522965	0.00047604
CDR20291_1311	795	795	759	1445	0.009485984	0.984515222
CDR20291_1312	374	374	527	332	-0.25432794	0.648182718
CDR20291_1313	3159	3159	2567	2622	-0.741303445	5.00E-12
CDR20291_1314	2606	2606	1856	2536	-0.70629948	0.001625257
CDR20291_1315	2842	2842	4561	4275	0.179793796	0.176794145
CDR20291_1316	4990	4990	4014	5056	-0.596712956	0.000190034
CDR20291_1317	8188	8188	13118	14877	0.315549948	0.000884877
CDR20291_1318	9506	9506	11708	13086	-0.074847999	0.476219767
CDR20291_1319	580	580	358	333	-1.204041352	1.67E-05
CDR20291_1320	8337	8337	14673	16231	0.432336276	6.48E-08
CDR20291_1321	2609	2609	3728	4192	0.14404072	0.333540518
CDR20291_1322	7274	7274	6341	7680	-0.511732595	9.20E-05
CDR20291_1323	1383	1383	1786	1871	-0.054605336	0.786590497
CDR20291_1324	994	994	1731	1637	0.303814391	0.117039675
CDR20291_1325	2518	2518	4482	4801	0.424690901	0.000129017

CDR20291_1326	2222	2222	2370	2709	-0.265385997	0.102349174
CDR20291_1327	509	509	804	680	0.087768524	0.813389812
CDR20291_1328	3098	3098	2170	2134	-0.982697974	4.07E-18
CDR20291_1329	163	163	89	352	-0.029797268	0.978209055
CDR20291_1330	1177	1177	1876	1675	0.136754766	0.553288829
CDR20291_1331	909	909	1073	1583	0.087027327	0.831082491
CDR20291_1332	612	612	764	894	-0.020387534	0.947245766
CDR20291_1333	1174	1174	1841	1114	-0.121891874	0.792716311
CDR20291_1334	308	308	172	138	-1.44636547	0.000675162
CDR20291_1335	692	692	523	603	-0.75574612	0.003601753
CDR20291_1336	293	293	221	195	-0.950633106	0.019062238
CDR20291_1337	3441	3441	5181	6180	0.264798856	0.079635866
CDR20291_1338	4900	4900	8176	8923	0.345302208	0.000172949
CDR20291_1339	8078	8078	13226	14904	0.342049393	0.00018461
CDR20291_1339; CDR20291_1340	0	0	109	1	7.780963513	0.030756982
CDR20291_1340	3319	3319	5212	5206	0.19311926	0.062277519
CDR20291_1341	4428	4428	7609	6620	0.22795528	0.117631059
CDR20291_1342	779	779	447	578	-1.062964899	0.00022308
CDR20291_1343	810	810	1318	1347	0.260845701	0.210118149
CDR20291_1344	2845	2845	4602	3167	-0.005184809	0.984767476
CDR20291_1345	8239	8239	11732	12321	0.088191207	0.240855916
CDR20291_1346	4804	4804	7543	8518	0.283253379	0.010431427
CDR20291_1347	498	498	781	1130	0.480377175	0.189669246
CDR20291_1348	7409	7409	11398	11715	0.184018598	0.00641189
CDR20291_1349	1916	1916	2471	2854	0.016535239	0.935913033
CDR20291_1350	1020	1020	1480	1397	0.039246523	0.874747226
CDR20291_1351	765	765	1943	1524	0.724729005	0.005280809
CDR20291_1352	357	357	350	448	-0.298373166	0.47884527
CDR20291_1353	6742	6742	8917	10121	0.039595655	0.766512801
CDR20291_1354	4051	4051	5970	7074	0.228691456	0.112980425

CDR20291_1355	552	552	318	597	-0.732361522	0.150739046
CDR20291_1356	52	52	133	57	0.417885932	0.722416798
CDR20291_1357	1937	1937	1426	1957	-0.654884983	0.007543875
CDR20291_1358	879	879	1034	1452	0.040365829	0.911831257
CDR20291_1359	1111	1111	1495	1973	0.183150288	0.530490391
CDR20291_1360	742	742	1196	1216	0.243478331	0.272906106
CDR20291_1361	1144	1144	1166	1295	-0.352705724	0.078427335
CDR20291_1362	401	401	677	624	0.241361807	0.467027009
CDR20291_1363	975	975	1422	1207	-0.02496268	0.931187293
CDR20291_1364	21891	21891	31286	35743	0.156351478	0.073372593
CDR20291_1365	2150	2150	3105	3526	0.166858347	0.303798865
CDR20291_1366	3178	3178	3226	3530	-0.369714967	0.002131555
CDR20291_1367	33	33	12	177	1.048110923	0.582116265
CDR20291_1368	119	119	51	92	-1.195973494	0.124496931
CDR20291_1369	42464	42464	59762	69436	0.147049589	0.094684097
CDR20291_1370	38	38	110	88	0.925822736	0.281625514
CDR20291_1371	3465	3465	5190	5638	0.186119409	0.101526413
CDR20291_1372	6269	6269	10252	12103	0.375965464	0.00149703
CDR20291_1373	1629	1629	2134	2905	0.169826736	0.547864111
CDR20291_1374	1409	1409	1528	1479	-0.363273168	0.034954668
CDR20291_1375	2882	2882	4077	5006	0.197502245	0.276293558
CDR20291_1376	5755	5755	7582	7181	-0.097667068	0.372139517
CDR20291_1377	1580	1580	1806	2078	-0.160497858	0.422190148
CDR20291_1378	657	657	1387	715	0.225242823	0.696181498
CDR20291_1379	4547	4547	4565	5783	-0.272455992	0.124206631
CDR20291_1380	1389	1389	1353	2054	-0.165626248	0.653430711
CDR20291_1381	740	740	965	646	-0.331981885	0.419434809
CDR20291_1381;CDR20291_1382	0	0	1	0	0.995828447	0.892707332
CDR20291_1382	4499	4499	5975	4762	-0.200610214	0.317465918
CDR20291_1383	2536	2536	3009	3134	-0.181036402	0.156690863

CDR20291_1384	1191	1191	1830	1958	0.21165164	0.239824894
CDR20291_1385	204	204	38	16	-3.369684447	7.74E-06
CDR20291_1386	525	525	114	71	-2.958994791	1.85E-11
CDR20291_1387	6796	6796	7242	8783	-0.220947241	0.123255402
CDR20291_1388	506	506	471	265	-0.912637267	0.071742465
CDR20291_1389	1200	1200	1361	1837	-0.045115232	0.892707332
CDR20291_1390	3526	3526	6402	6859	0.453460819	1.38E-06
CDR20291_1391	711	711	2060	2247	1.141011564	1.21E-11
CDR20291_1392	907	907	967	1314	-0.128796281	0.713071303
CDR20291_1393	4	4	0	47	2.083012568	0.576031656
CDR20291_1394	3677	3677	9454	9472	0.90661031	7.24E-34
CDR20291_1395	1569	1569	1341	899	-0.940692698	0.002428461
CDR20291_1396	477	477	405	473	-0.577967307	0.069423151
CDR20291_1397	1194	1194	1385	714	-0.638662437	0.173224007
CDR20291_1398	1166	1166	1514	1409	-0.130770473	0.55728676
CDR20291_1399	653	653	395	597	-0.856732239	0.023990851
CDR20291_1400	303	303	288	121	-1.018606342	0.156774547
CDR20291_1401	1136	1136	1235	1255	-0.32507437	0.084377956
CDR20291_1402	318	318	329	271	-0.539893228	0.191933016
CDR20291_1403	1083	1083	497	813	-1.186011484	0.000978553
CDR20291_1404	4320	4320	6495	7939	0.281797249	0.066265023
CDR20291_1405	21692	21692	33981	32478	0.158481786	0.012793268
CDR20291_1406	11831	11831	20099	21861	0.368705633	3.36E-08
CDR20291_1407	2408	2408	3392	4087	0.176552647	0.338157954
CDR20291_1408	1186	1186	1102	1283	-0.450304868	0.032475418
CDR20291_1409	5059	5059	8061	8366	0.241742788	0.002400167
CDR20291_1410	6432	6432	10191	11146	0.272245517	0.001685781
CDR20291_1411	2839	2839	3878	5142	0.208596525	0.349544475
CDR20291_1412	148	148	121	44	-1.293800975	0.160616009
CDR20291_1413	879	879	675	925	-0.5951925	0.053523426

CDR20291_1414	730	730	765	1105	-0.102643777	0.804373763
CDR20291_1415	1433	1433	1864	1941	-0.048565867	0.806470333
CDR20291_1416	125	125	112	206	-0.114179287	0.892870402
CDR20291_1417	5385	5385	9831	9775	0.407171105	2.92E-08
CDR20291_1418	1038	1038	1599	1887	0.289467009	0.183501396
CDR20291_1419	412	412	787	425	0.103789013	0.873426811
CDR20291_1420	213	213	265	190	-0.359858061	0.535901037
CDR20291_1421	662	662	1109	1308	0.410022099	0.098738924
CDR20291_1422	474	474	344	499	-0.62905647	0.122227164
CDR20291_1423	379	379	134	111	-2.085381258	7.82E-08
CDR20291_1424	1023	1023	1036	753	-0.648572977	0.038507229
CDR20291_1425	2053	2053	1789	1440	-0.80227526	0.000146364
CDR20291_1426	1196	1196	988	892	-0.803939444	7.51E-05
CDR20291_1427	796	796	519	625	-0.935157874	0.000295501
CDR20291_1428	414	414	483	256	-0.616857513	0.287743183
CDR20291_1429	3364	3364	6189	5221	0.306117559	0.065858375
CDR20291_1430	587	587	417	816	-0.391021573	0.486807386
CDR20291_1431	555	555	927	1038	0.366043173	0.152147623
CDR20291_1431; CDR20291_1432	0	0	2	0	1.99863724	0.783977106
CDR20291_1432	1549	1549	1320	974	-0.888493091	0.000915615
CDR20291_1433	443	443	392	700	-0.159557178	0.787410548
CDR20291_1433; CDR20291_1434	30	30	0	66	-0.334052004	0.916484168
CDR20291_1434	1031	1031	915	1007	-0.559232911	0.006136937
CDR20291_1435	147	147	161	69	-0.805745488	0.35850531
CDR20291_1436	399	399	722	826	0.497868559	0.086194562
CDR20291_1437	455	455	303	274	-1.113779082	0.000515092
CDR20291_1438	222	222	130	112	-1.331729033	0.005055266
CDR20291_1439	2801	2801	3953	3929	0.035514632	0.803571697
CDR20291_1440	766	766	904	1069	-0.09332771	0.760065096
CDR20291_1441	619	619	372	904	-0.419514814	0.530744964

CDR20291_1442	176	176	133	69	-1.254025078	0.08184002
CDR20291_1443	2077	2077	3021	3477	0.187367372	0.262873109
CDR20291_1444	335	335	374	414	-0.223803731	0.570451389
CDR20291_1445	316	316	385	269	-0.405313667	0.41887678
CDR20291_1446	2327	2327	3126	2585	-0.160530036	0.468158003
CDR20291_1447	1254	1254	1751	1577	-0.04830215	0.843925465
CDR20291_1448	1545	1545	2400	2891	0.317482323	0.102349174
CDR20291_1449	1321	1321	2067	1917	0.135963319	0.500642075
CDR20291_1450	347	347	420	300	-0.401767752	0.397927466
CDR20291_1451	2430	2430	2884	4040	0.051115422	0.867170633
CDR20291_1452	84	84	54	7	-1.90807611	0.198195879
CDR20291_1453	110	110	148	56	-0.559760715	0.596207902
CDR20291_1454	858	858	905	819	-0.449755458	0.060119164
CDR20291_1455	339	339	352	742	0.228010094	0.742667014
CDR20291_1456	193	193	265	218	-0.13238962	0.820244784
CDR20291_1457	1268	1268	1044	1237	-0.611198499	0.003323357
CDR20291_1458	388	388	472	417	-0.260174435	0.491590403
CDR20291_1458; CDR20291_1459	1	1	0	0	-2.899834904	0.676955796
CDR20291_1459	55	55	39	2	-1.86843595	0.34024051
CDR20291_1460	418	418	432	488	-0.319845021	0.349966227
CDR20291_1461	29	29	64	160	1.486150761	0.158956694
CDR20291_1462	4840	4840	6360	7990	0.109204135	0.561123242
CDR20291_1463	521	521	580	501	-0.403134676	0.208048026
CDR20291_1464	8416	8416	10967	12514	0.022209094	0.867674395
CDR20291_1465	107	107	87	9	-1.602222377	0.292073808
CDR20291_1466	2489	2489	1887	1944	-0.835194341	8.82E-12
CDR20291_1467	1296	1296	1641	2275	0.13586744	0.672080418
CDR20291_1468	10670	10670	15880	17209	0.175082686	0.017981976
CDR20291_1468; CDR20291_1469	4156	4156	6737	7088	0.276515235	0.001861636
CDR20291_1470	2781	2781	3222	4335	-0.017038241	0.946364518

CDR20291_1471	801	801	958	746	-0.366354162	0.24675772
CDR20291_1472	536	536	277	675	-0.634399918	0.332471797
CDR20291_1473	1405	1405	3017	3221	0.692914427	1.86E-07
CDR20291_1474	3809	3809	4958	4657	-0.120834838	0.350031432
CDR20291_1475	924	924	497	618	-1.187540245	3.04E-06
CDR20291_1476	11730	11730	22647	22349	0.482542655	1.35E-19
CDR20291_1477	514	514	580	1056	0.209027952	0.706553133
CDR20291_1478	199	199	169	264	-0.338592854	0.593648042
CDR20291_1479	1166	1166	1497	1474	-0.107661063	0.607383974
CDR20291_1480	300	300	339	610	0.200244124	0.752278419
CDR20291_1481	648	648	367	765	-0.657355118	0.22958145
CDR20291_1482	5771	5771	9712	9502	0.278271646	0.000468923
CDR20291_1483	927	927	1414	1402	0.145917595	0.503245692
CDR20291_1484	1389	1389	1400	891	-0.732049302	0.036709203
CDR20291_1485	1057	1057	1021	1347	-0.295383872	0.307406643
CDR20291_1486	772	772	447	848	-0.715276014	0.133797822
CDR20291_1487	1068	1068	534	521	-1.474662514	2.52E-13
CDR20291_1488	983	983	1122	1277	-0.170865579	0.478858282
CDR20291_1489	459	459	632	633	0.005413174	0.984767476
CDR20291_1490	680	680	487	469	-0.965424686	0.000109779
CDR20291_1491	280	280	386	231	-0.313772998	0.614837808
CDR20291_1492	647	647	353	644	-0.837449488	0.076205019
CDR20291_1493	794	794	867	738	-0.440675496	0.104637994
CDR20291_1494	1626	1626	3388	3589	0.643734936	2.11E-07
CDR20291_1495	1331	1331	827	1372	-0.736338637	0.041283244
CDR20291_1496	852	852	770	865	-0.517572277	0.024921977
CDR20291_1497	286	286	402	147	-0.509739281	0.554130724
CDR20291_1498	778	778	873	904	-0.265783255	0.259060973
CDR20291_1499	370	370	496	250	-0.440817719	0.498027667
CDR20291_1500	2887	2887	4453	5171	0.278869603	0.054122971

CDR20291_1501	470	470	318	575	-0.535217924	0.310077511
CDR20291_1502	1660	1660	1423	1544	-0.619878884	8.82E-05
CDR20291_1503	89	89	99	175	0.161281724	0.861008362
CDR20291_1504	1000	1000	671	874	-0.831357736	0.001820472
CDR20291_1505	468	468	105	217	-2.001389464	0.00026304
CDR20291_1505; CDR20291_1506	29	29	0	0	-7.757837696	0.003275944
CDR20291_1506	917	917	989	1160	-0.229572257	0.362350665
CDR20291_1507	2086	2086	2651	2554	-0.137732065	0.374466501
CDR20291_1508	1136	1136	1115	1471	-0.272320785	0.339290627
CDR20291_1509	2270	2270	2282	2036	-0.528684742	0.001113038
CDR20291_1510	1201	1201	1272	1543	-0.229586926	0.340398146
CDR20291_1511	903	903	1058	1353	-0.042026328	0.895444731
CDR20291_1512	3325	3325	4198	4416	-0.084164731	0.495222426
CDR20291_1513	8572	8572	8687	8453	-0.457294701	4.31E-10
CDR20291_1514	2102	2102	1904	1573	-0.729732242	0.000241839
CDR20291_1515	1970	1970	2688	2624	-0.025922093	0.884768792
CDR20291_1516	947	947	1342	1931	0.329469593	0.307743218
CDR20291_1516; CDR20291_1517	148	148	27	163	-1.106941962	0.387223392
CDR20291_1517	4623	4623	5137	7336	-0.027773789	0.916484168
CDR20291_1518	7622	7622	10046	10738	-0.010375919	0.914141475
CDR20291_1519	7608	7608	11389	12779	0.209551484	0.030674442
CDR20291_1520	536	536	690	1051	0.239524302	0.582211953
CDR20291_1521	5610	5610	10015	11257	0.464913239	1.30E-06
CDR20291_1522	3788	3788	5234	5890	0.096196373	0.48899982
CDR20291_1523	2930	2930	5394	6446	0.556290314	9.76E-05
CDR20291_1524	217	217	218	65	-1.066395112	0.258783985
CDR20291_1525	337	337	276	476	-0.302910155	0.60502849
CDR20291_1526	1505	1505	1775	1435	-0.362845127	0.132436033
CDR20291_1527	2277	2277	3046	2737	-0.111714288	0.547756115
CDR20291_1528	2257	2257	2172	3011	-0.260070457	0.320893357

CDR20291_1529	336	336	326	497	-0.167626568	0.760298972
CDR20291_1530	4980	4980	5657	6609	-0.157793113	0.259060973
CDR20291_1531	4692	4692	6588	6597	0.033466509	0.762926401
CDR20291_1532	2103	2103	3124	4189	0.338789482	0.137420481
CDR20291_1533	2307	2307	3915	3529	0.233644755	0.137786686
CDR20291_1534	2263	2263	3953	4578	0.456302176	0.001542398
CDR20291_1535	7094	7094	9304	10131	-0.003753407	0.970051443
CDR20291_1536	3809	3809	6200	6866	0.320474757	0.003002229
CDR20291_1537	2463	2463	3994	4436	0.317239556	0.014868105
CDR20291_1538	12548	12548	20603	18991	0.20126416	0.023459211
CDR20291_1539	8686	8686	12661	15546	0.240678302	0.077959773
CDR20291_1540	2864	2864	4279	4058	0.084719652	0.558029662
CDR20291_1541	6010	6010	10460	11028	0.380581998	1.31E-07
CDR20291_1542	2890	2890	5407	4242	0.283898143	0.179560908
CDR20291_1543	549	549	651	558	-0.317152552	0.32680427
CDR20291_1544	1069	1069	1309	1299	-0.170413608	0.412886863
CDR20291_1545	742	742	433	340	-1.396471769	4.02E-06
CDR20291_1546	605	605	718	661	-0.267967528	0.351522036
CDR20291_1547	470	470	351	484	-0.630233146	0.101106623
CDR20291_1548	769	769	222	268	-2.108556303	1.15E-14
CDR20291_1549	4461	4461	5695	6483	-0.009215884	0.948642161
CDR20291_1550	3208	3208	6559	5443	0.447716891	0.007377618
CDR20291_1551	960	960	1028	917	-0.437699934	0.060119164
CDR20291_1552	577	577	795	808	0.016873143	0.95355279
CDR20291_1553	6617	6617	19272	10391	0.711621581	0.196369456
CDR20291_1554	315	315	1232	694	1.159045058	0.012993507
CDR20291_1555	6928	6928	24907	15023	1.073416381	0.012674269
CDR20291_1555;CDR20291_1556	0	0	1	0	0.995828447	0.892707332
CDR20291_1556	1758	1758	2957	2472	0.170872406	0.446008228
CDR20291_1557	5092	5092	7953	8574	0.240852128	0.007763852

CDR20291_1558	165	165	331	204	0.243263054	0.728322448
CDR20291_1559	1271	1271	1844	1544	-0.041431158	0.884779695
CDR20291_1560	1472	1472	1782	1298	-0.38976008	0.185687604
CDR20291_1561	1701	1701	1398	1335	-0.772736094	8.71E-07
CDR20291_1562	358	358	254	138	-1.322146916	0.018926723
CDR20291_1563	2222	2222	1636	2042	-0.731625569	0.000130375
CDR20291_1564	654	654	1021	1272	0.35119548	0.208948713
CDR20291_1565	1372	1372	912	1252	-0.801929105	0.002432982
CDR20291_1566	798	798	1279	862	-0.030549687	0.943234321
CDR20291_1567	962	962	606	788	-0.92382528	0.000595971
CDR20291_1568	1557	1557	2077	1825	-0.130799036	0.556903403
CDR20291_1569	2962	2962	2557	2383	-0.718725597	2.88E-08
CDR20291_1570	1731	1731	1621	1452	-0.628348109	0.000394229
CDR20291_1571	156	156	46	155	-1.099135206	0.270889323
CDR20291_1572	4988	4988	9860	9798	0.521481718	1.15E-12
CDR20291_1573	3191	3191	4823	5100	0.179236715	0.102210002
CDR20291_1574	560	560	1342	909	0.552665464	0.141296813
CDR20291_1575	156	156	68	15	-2.358773002	0.030472087
CDR20291_1576	170	170	5	59	-2.878264012	0.036384173
CDR20291_1577	2245	2245	2536	2999	-0.156448341	0.406633832
CDR20291_1578	673	673	1210	1183	0.373151068	0.090009026
CDR20291_1578; CDR20291_1579	143	143	217	75	-0.420315069	0.691147612
CDR20291_1579	6694	6694	11139	11717	0.314136283	7.02E-06
CDR20291_1580	2239	2239	2717	3212	-0.05338149	0.799644879
CDR20291_1581	1117	1117	923	1317	-0.455759345	0.14392801
CDR20291_1582	1627	1627	846	1667	-0.834639434	0.04903436
CDR20291_1583	2674	2674	3844	3293	-0.039733204	0.853165192
CDR20291_1584	3608	3608	3299	3718	-0.498317757	6.11E-05
CDR20291_1585	4977	4977	4369	5804	-0.427764232	0.024186722
CDR20291_1586	2482	2482	2519	2847	-0.34564754	0.019393946

CDR20291_1586;CDR20291_1587	91	91	0	91	-1.471566413	0.595531257
CDR20291_1587	4526	4526	5794	5162	-0.180916069	0.201326943
CDR20291_1588	123	123	364	265	0.89946403	0.087336656
CDR20291_1589	4995	4995	7681	8484	0.236475774	0.019902994
CDR20291_1590	3400	3400	4358	3576	-0.233226793	0.22794149
CDR20291_1591	717	717	573	710	-0.619137262	0.02886754
CDR20291_1592	1882	1882	2654	2659	0.040100053	0.815819111
CDR20291_1593	8491	8491	11558	10491	-0.079747841	0.515329783
CDR20291_1594	4105	4105	7495	7958	0.454871406	9.85E-08
CDR20291_1595	164	164	52	60	-2.008248386	0.000380228
CDR20291_1596	231	231	445	270	0.176359184	0.78838896
CDR20291_1597	1149	1149	1324	1010	-0.432824703	0.133081419
CDR20291_1598	538	538	976	471	-0.024758512	0.968211014
CDR20291_1599	3072	3072	3538	3989	-0.165082444	0.250352975
CDR20291_1600	474	474	454	897	0.049233596	0.936041576
CDR20291_1601	474	474	431	363	-0.711730862	0.033688006
CDR20291_1601;CDR20291_1602	0	0	1	0	0.995828447	0.892707332
CDR20291_1602	448	448	1398	1081	1.012857259	0.000563969
CDR20291_1603	272	272	622	302	0.312083569	0.663201929
CDR20291_1604	721	721	1020	1321	0.240101208	0.437779866
CDR20291_1605	997	997	1428	707	-0.353725355	0.516647205
CDR20291_1606	539	539	446	818	-0.231697429	0.681617638
CDR20291_1607	8931	8931	15376	14452	0.283070072	0.00066389
CDR20291_1608	7606	7606	9174	8642	-0.228761947	0.01413079
CDR20291_1609	692	692	1068	496	-0.27550406	0.667687509
CDR20291_1610	738	738	1223	1402	0.372532398	0.104641612
CDR20291_1611	6494	6494	10738	11060	0.289666632	1.97E-05
CDR20291_1612	1755	1755	2864	3474	0.394052376	0.03144653
CDR20291_1613	976	976	1379	1734	0.214604327	0.42253207
CDR20291_1614	324	324	745	672	0.672344254	0.026596774

CDR20291_1615	903	903	634	725	-0.868304402	0.000138054
CDR20291_1616	712	712	832	732	-0.320976527	0.245742264
CDR20291_1617	3064	3064	4615	4088	0.049807464	0.788431238
CDR20291_1618	2846	2846	3651	4590	0.075119842	0.737259924
CDR20291_1619	2647	2647	5344	5469	0.573031189	2.04E-09
CDR20291_1620	2796	2796	4758	5184	0.372430233	0.000978553
CDR20291_1621	183	183	5	186	-1.409088805	0.444793541
CDR20291_1622	1206	1206	1885	1077	-0.156886268	0.748968238
CDR20291_1623	11652	11652	13949	13275	-0.232494176	0.002398854
CDR20291_1624	1077	1077	1612	2350	0.419405405	0.169805095
CDR20291_1625	398	398	392	758	0.069106957	0.911831257
CDR20291_1626	4108	4108	5964	5829	0.064434807	0.577940238
CDR20291_1627	3759	3759	6119	5637	0.188409422	0.137786686
CDR20291_1628	4417	4417	5555	6011	-0.068940313	0.565628717
CDR20291_1629	9461	9461	9846	11586	-0.278597152	0.016054496
CDR20291_1630	2519	2519	3345	4114	0.107526545	0.60502849
CDR20291_1630;CDR20291_1631	38	38	91	90	0.794849187	0.362204159
CDR20291_1631	4146	4146	4309	4968	-0.296202272	0.02536477
CDR20291_1632	873	873	1070	1146	-0.113711218	0.646998954
CDR20291_1633	1463	1463	2392	2135	0.173274698	0.391039895
CDR20291_1634	2971	2971	2783	2714	-0.569282264	8.45E-07
CDR20291_1635	5232	5232	6800	7239	-0.033572015	0.766512801
CDR20291_1636	5049	5049	6967	6814	-0.008381603	0.940728378
CDR20291_1637	1032	1032	617	947	-0.86032188	0.011776289
CDR20291_1638	518	518	712	291	-0.497842298	0.479380701
CDR20291_1639	163	163	332	529	0.940758232	0.067325253
CDR20291_1640	1178	1178	1144	823	-0.715187522	0.019062238
CDR20291_1641	1583	1583	946	958	-1.190863119	5.78E-14
CDR20291_1642	2030	2030	2174	3374	-0.009761751	0.977021358
CDR20291_1643	1940	1940	3475	3705	0.430338339	0.000515521

CDR20291_1644	1857	1857	2297	2726	-0.022765772	0.916100468
CDR20291_1645	5052	5052	6578	8378	0.106930885	0.581834294
CDR20291_1646	955	955	2022	988	0.203994808	0.722435156
CDR20291_1647	394	394	207	81	-1.903173886	0.005446832
CDR20291_1648	1056	1056	376	929	-1.157784129	0.036004737
CDR20291_1649	979	979	1117	857	-0.443555542	0.137786686
CDR20291_1650	163	163	314	416	0.703928591	0.131694076
CDR20291_1651	178	178	370	274	0.400118853	0.45807665
CDR20291_1652	883	883	1737	1600	0.461492075	0.02034369
CDR20291_1653	4831	4831	4967	5358	-0.361919384	0.00017754
CDR20291_1654	993	993	530	651	-1.208391349	6.66E-07
CDR20291_1655	265	265	46	170	-1.760191334	0.050296519
CDR20291_1656	82	82	321	226	1.283142065	0.025250179
CDR20291_1657	585	585	1034	1305	0.540610785	0.050740944
CDR20291_1658	4623	4623	8487	7746	0.355532242	0.00157868
CDR20291_1659	3027	3027	3185	3614	-0.290588707	0.038040213
CDR20291_1660	2462	2462	3539	3964	0.149702161	0.317883306
CDR20291_1661	543	543	712	737	-0.041349232	0.894996209
CDR20291_1662	810	810	522	602	-0.985457211	4.88E-05
CDR20291_1663	766	766	1279	1485	0.393158735	0.085042543
CDR20291_1664	17639	17639	27392	29854	0.240652806	0.000163383
CDR20291_1665	517	517	342	488	-0.776635368	0.042459045
CDR20291_1666	873	873	1326	706	-0.233924742	0.668668744
CDR20291_1667	1019	1019	1338	2243	0.352435428	0.372753583
CDR20291_1668	4745	4745	7690	7491	0.220823628	0.015555256
CDR20291_1669	645	645	183	369	-1.686495271	0.000744856
CDR20291_1670	1274	1274	1291	2064	-0.063494726	0.882959409
CDR20291_1671	478	478	395	493	-0.565108787	0.097933773
CDR20291_1672	3809	3809	5389	6414	0.173293963	0.262465675
CDR20291_1673	2618	2618	3542	3871	0.043832428	0.784838061

CDR20291_1674	170	170	483	722	1.36546979	0.001427289
CDR20291_1675	107	107	6	11	-4.114081966	2.93E-06
CDR20291_1676	56	56	11	17	-2.45973853	0.018927695
CDR20291_1676; CDR20291_1677	0	0	1	0	0.995828447	0.892707332
CDR20291_1677	10	10	33	10	0.654582588	0.75723445
CDR20291_1678	68	68	74	16	-1.043782096	0.463832537
CDR20291_1679	6910	6910	9975	10961	0.141422664	0.135062111
CDR20291_1680	2447	2447	1159	774	-1.794513375	1.09E-10
CDR20291_1681	371	371	319	353	-0.600788226	0.083477152
CDR20291_1682	854	854	850	1362	-0.08740023	0.847992138
CDR20291_1683	75	75	61	40	-1.024979552	0.248774523
CDR20291_1684	372	372	397	440	-0.28792096	0.427344839
CDR20291_1685	2745	2745	3956	3913	0.062302485	0.653220741
CDR20291_1686	537	537	569	647	-0.278873808	0.362204159
CDR20291_1687	2579	2579	3957	3784	0.128872181	0.350031432
CDR20291_1688	282	282	138	449	-0.407075257	0.67061834
CDR20291_1689	203	203	33	69	-2.454674737	0.000419404
CDR20291_1690	230	230	241	108	-0.850202152	0.256555326
CDR20291_1691	289	289	654	460	0.491919768	0.273793041
CDR20291_1692	3082	3082	4115	5481	0.179384906	0.427969689
CDR20291_1693	1417	1417	2813	3110	0.605644728	3.25E-05
CDR20291_1694	1898	1898	3604	2871	0.314871811	0.157331124
CDR20291_1695	2917	2917	5534	4828	0.37256988	0.013738319
CDR20291_1696	9447	9447	13258	16074	0.176027495	0.185971882
CDR20291_1697	709	709	693	526	-0.673400996	0.040426313
CDR20291_1698	1412	1412	1690	1874	-0.122099434	0.546328468
CDR20291_1699	3676	3676	4588	4916	-0.087223595	0.476249957
CDR20291_1700	3383	3383	4093	4140	-0.174110491	0.110865666
CDR20291_1701	1356	1356	1342	1125	-0.592522904	0.008249042
CDR20291_1702	158	158	145	153	-0.54212177	0.321255093

CDR20291_1703	2694	2694	3716	3794	0.021773773	0.882959409
CDR20291_1704	2317	2317	2507	3643	-0.051462046	0.875979506
CDR20291_1705	2048	2048	2402	2842	-0.10186759	0.620475306
CDR20291_1706	3580	3580	4149	5431	-0.038989894	0.874280137
CDR20291_1707	433	433	430	754	-0.009804776	0.984515222
CDR20291_1708	1191	1191	892	1362	-0.539789893	0.109466687
CDR20291_1709	36	36	38	9	-1.064057939	0.519281335
CDR20291_1710	441	441	268	576	-0.525878572	0.403998823
CDR20291_1711	37	37	4	8	-3.085380865	0.023405629
CDR20291_1712	53	53	6	78	-0.804929369	0.682769209
CDR20291_1713	67	67	8	8	-3.523265611	0.000374349
CDR20291_1714	1830	1830	2627	2595	0.055695907	0.74804735
CDR20291_1715	1246	1246	737	630	-1.322383206	1.93E-09
CDR20291_1716	989	989	1034	1021	-0.401967012	0.047736442
CDR20291_1717	32957	32957	29129	30201	-0.609218283	1.16E-60
CDR20291_1718	10230	10230	14623	15646	0.107417984	0.145157186
CDR20291_1719	1854	1854	2529	3394	0.216460606	0.39291687
CDR20291_1720	1645	1645	2227	2501	0.065193348	0.747359376
CDR20291_1721	2353	2353	4332	4683	0.480139823	2.85E-05
CDR20291_1722	3640	3640	6003	5187	0.164094005	0.320343716
CDR20291_1723	7856	7856	11595	11607	0.105229065	0.146516433
CDR20291_1724	1142	1142	1428	1535	-0.082145166	0.710853868
CDR20291_1725	2020	2020	2933	3489	0.210303955	0.248918688
CDR20291_1726	282	282	1123	598	1.156711146	0.022308436
CDR20291_1727	3035	3035	4717	4174	0.094368193	0.590259223
CDR20291_1728	1198	1198	1453	1274	-0.269548883	0.233573511
CDR20291_1729	2646	2646	3622	4182	0.102249326	0.551383566
CDR20291_1729;CDR20291_1730	2	2	0	0	-3.899802682	0.556903403
CDR20291_1730	1323	1323	1573	1774	-0.118919019	0.579315853
CDR20291_1731	1820	1820	1769	2157	-0.349405533	0.083162862

CDR20291_1732	2266	2266	2545	2950	-0.180201277	0.301567151
CDR20291_1733	275	275	378	463	0.154131965	0.737259924
CDR20291_1734	2452	2452	3016	3803	0.016819614	0.942674127
CDR20291_1735	4709	4709	5373	6713	-0.09888048	0.603444501
CDR20291_1736	18618	18618	26123	28445	0.09361088	0.181433727
CDR20291_1737	1286	1286	1321	982	-0.614445995	0.030689386
CDR20291_1737;CDR20291_1738	716	716	973	1393	0.264755967	0.463832537
CDR20291_1738	205	205	344	299	0.19301227	0.701067569
CDR20291_1739	27914	27914	70638	38923	0.519738394	0.349544475
CDR20291_1739;CDR20291_1740	134	134	239	36	-0.409400826	0.784775443
CDR20291_1739;CDR20291_1741	66	66	12	4	-3.495862837	0.003250261
CDR20291_1739;CDR20291_1742	178	178	534	86	0.353638922	0.791628872
CDR20291_1739;CDR20291_1743	1559	1559	10793	2744	1.669695856	0.112980425
CDR20291_1739;CDR20291_1743; CDR20291_1744	52	52	1586	172	3.633758334	0.000805747
CDR20291_1739;CDR20291_1743; CDR20291_1745	11	11	298	10	3.363665527	0.067754515
CDR20291_1739;CDR20291_1743; CDR20291_1746	45	45	424	5	1.809923762	0.38689126
CDR20291_1739;CDR20291_1743; CDR20291_1747	7	7	263	9	3.836391783	0.040749651
CDR20291_1739;CDR20291_1743; CDR20291_1748	581	581	3053	842	1.296080596	0.065858375
CDR20291_1739;CDR20291_1743; CDR20291_1749	655	655	4332	732	1.503869456	0.289745255
CDR20291_1739;CDR20291_1743; CDR20291_1750	70	70	592	32	1.711916853	0.274742323
CDR20291_1739;CDR20291_1743; CDR20291_1750;CDR20291_1751	0	0	5	0	3.321293107	0.622133902

CDR20291_1739; CDR20291_1743; CDR20291_1751	98	98	511	77	1.138437559	0.364634021
CDR20291_1739; CDR20291_1743; CDR20291_1752	528	528	1836	238	0.52779862	0.657630053
CDR20291_1739; CDR20291_1743; CDR20291_1753	117	117	681	109	1.308630789	0.256152059
CDR20291_1739; CDR20291_1743; CDR20291_1754	88	88	843	80	1.945539352	0.129279039
CDR20291_1739; CDR20291_1743; CDR20291_1755	14	14	425	170	3.958384518	2.53E-06
CDR20291_1739; CDR20291_1743; CDR20291_1755; CDR20291_1756	0	0	23	5	5.80200438	0.172582501
CDR20291_1739; CDR20291_1743; CDR20291_1756	16	16	376	53	3.298511555	0.011129529
CDR20291_1739; CDR20291_1743; CDR20291_1757	11	11	228	52	3.221696458	0.010193752
CDR20291_1739; CDR20291_1743; CDR20291_1758	36	36	1335	320	4.074400324	8.52E-07
CDR20291_1739; CDR20291_1743; CDR20291_1759	34	34	512	42	2.581357691	0.069798718
CDR20291_1739; CDR20291_1743; CDR20291_1759; CDR20291_1760	0	0	4	0	2.999240624	0.663201929
CDR20291_1739; CDR20291_1743; CDR20291_1760	21	21	308	36	2.588159224	0.069929092
CDR20291_1739; CDR20291_1743; CDR20291_1761	28	28	1970	503	5.016120538	3.92E-11
CDR20291_1739; CDR20291_1743; CDR20291_1762	29	29	580	69	3.038293182	0.015355005
CDR20291_1739; CDR20291_1743; CDR20291_1763	89	89	659	126	1.693448292	0.111890729

CDR20291_1739; CDR20291_1743; CDR20291_1764	193	193	913	47	0.870314526	0.585596069
CDR20291_1739; CDR20291_1765	134	134	2283	483	2.91976168	0.000294763
CDR20291_1739; CDR20291_1766	162	162	896	218	1.333308994	0.144551764
CDR20291_1739; CDR20291_1767	14	14	421	229	4.084013103	1.10E-08
CDR20291_1739; CDR20291_1768	91	91	884	527	2.5011833	2.11E-07
CDR20291_1739; CDR20291_1769	16	16	494	300	4.179336968	3.71E-11
CDR20291_1739; CDR20291_1769; CDR20291_1770	0	0	42	19	6.921627986	0.022474374
CDR20291_1739; CDR20291_1770	87	87	1261	639	2.996404694	5.63E-09
CDR20291_1739; CDR20291_1771	535	535	10417	1736	3.058839735	0.020322642
CDR20291_1739; CDR20291_1772	1130	1130	18811	1678	2.73542794	0.107446964
CDR20291_1739; CDR20291_1773	13	13	384	23	3.524069227	0.026280389
CDR20291_1739; CDR20291_1774	3386	3386	27961	4525	1.815480938	0.157604224
CDR20291_1739; CDR20291_1775	1342	1342	9693	1887	1.661809517	0.201866037
CDR20291_1739; CDR20291_1776	210	210	530	144	0.233430453	0.83394663
CDR20291_1739; CDR20291_1777	240	240	2632	445	2.233554578	0.011856679
CDR20291_1739; CDR20291_1778	8	8	364	13	4.114682207	0.019342673
CDR20291_1739; CDR20291_1778; CDR20291_1779	0	0	3	0	2.583997128	0.710762635
CDR20291_1739; CDR20291_1779	931	931	7529	910	1.734442205	0.282797243
CDR20291_1739; CDR20291_1780	105	105	1460	66	2.417352021	0.08466013
CDR20291_1739; CDR20291_1781	9	9	322	31	3.848303773	0.009896521
CDR20291_1739; CDR20291_1781; CDR20291_1782	0	0	2	1	2.574959243	0.711194614
CDR20291_1739; CDR20291_1782	9	9	285	13	3.60522507	0.040839863
CDR20291_1739; CDR20291_1783	2	2	168	5	4.990999305	0.02183327
CDR20291_1739; CDR20291_1784	52	52	906	73	2.789862781	0.03144653
CDR20291_1739; CDR20291_1785	62	62	640	40	2.010776319	0.173241062

CDR20291_1739; CDR20291_1785; CDR20291_1786	0	0	29	1	5.905700718	0.209505823
CDR20291_1739; CDR20291_1786	39	39	1083	69	3.440090082	0.009552498
CDR20291_1739; CDR20291_1787	30	30	446	45	2.587300248	0.061641667
CDR20291_1739; CDR20291_1788	242	242	6370	412	3.36420933	0.06584974
CDR20291_1739; CDR20291_1789	178	178	1496	393	1.95896003	0.012921251
CDR20291_1739; CDR20291_1790	1813	1813	4052	1911	0.265706052	0.60649828
CDR20291_1739; CDR20291_1791	293	293	245	299	-0.565789565	0.173835272
CDR20291_1739; CDR20291_1792	304	304	806	700	0.852416608	0.005326694
CDR20291_1739; CDR20291_1793	139	139	294	221	0.434314575	0.456209384
CDR20291_1739; CDR20291_1794	726	726	1562	1200	0.47238573	0.111328686
CDR20291_1739; CDR20291_1795	2377	2377	2059	1730	-0.783256901	1.97E-05
CDR20291_1739; CDR20291_1796	643	643	623	663	-0.457568925	0.073633826
CDR20291_1739; CDR20291_1797	25007	25007	42934	43380	0.330046005	1.48E-19
CDR20291_1739; CDR20291_1798	9395	9395	14131	15956	0.221170192	0.018840002
CDR20291_1739; CDR20291_1799	2891	2891	3269	4486	-0.035831304	0.895444731
CDR20291_1739; CDR20291_1800	708	708	555	894	-0.427222095	0.313827621
CDR20291_1739; CDR20291_1801	1226	1226	502	1131	-1.049105713	0.036004737
CDR20291_1739; CDR20291_1802	688	688	718	743	-0.37090433	0.132223862
CDR20291_1739; CDR20291_1803	446	446	805	515	0.111394095	0.838232799
CDR20291_1739; CDR20291_1804	828	828	673	750	-0.676646498	0.003168938
CDR20291_1739; CDR20291_1805	645	645	594	1044	-0.116499503	0.832059373
CDR20291_1739; CDR20291_1806	11970	11970	19150	21064	0.290456976	7.75E-05
CDR20291_1739; CDR20291_1807	2511	2511	3369	2934	-0.128396042	0.50528746
CDR20291_1739; CDR20291_1808	326	326	327	310	-0.490367217	0.187480551
CDR20291_1739; CDR20291_1809	8966	8966	13447	14137	0.163802923	0.014682921
CDR20291_1810	208	208	72	140	-1.434053528	0.031276332
CDR20291_1811	746	746	491	319	-1.335447087	0.000515092
CDR20291_1812	2518	2518	3422	4382	0.173039875	0.423522481
CDR20291_1813	804	804	665	1170	-0.270561213	0.576111371

CDR20291_1814	3304	3304	4415	4789	0.020339236	0.891108576
CDR20291_1815	424	424	655	530	0.027072481	0.945523316
CDR20291_1816	1538	1538	2769	2891	0.422303312	0.001874681
CDR20291_1817	2798	2798	3581	4343	0.043328488	0.839772232
CDR20291_1818	1071	1071	667	646	-1.163032258	4.62E-09
CDR20291_1819	548	548	930	594	0.021602743	0.964158719
CDR20291_1820	176	176	221	117	-0.511400003	0.501853158
CDR20291_1821	111	111	124	107	-0.398819566	0.568012687
CDR20291_1822	290	290	133	298	-0.890907712	0.192535437
CDR20291_1823	511	511	916	1514	0.788893695	0.04665785
CDR20291_1824	453	453	162	269	-1.532375833	0.000845342
CDR20291_1825	3230	3230	3545	3286	-0.37605758	0.003684328
CDR20291_1825; CDR20291_1826	511	511	584	520	-0.345010156	0.276246398
CDR20291_1825; CDR20291_1827	399	399	180	153	-1.716969541	2.66E-06
CDR20291_1825; CDR20291_1828	706	706	593	455	-0.885430448	0.005652448
CDR20291_1825; CDR20291_1829	377	377	390	313	-0.556685915	0.156759187
CDR20291_1825; CDR20291_1830	457	457	452	1008	0.213086987	0.757260339
CDR20291_1825; CDR20291_1831	1288	1288	1996	1599	0.025276316	0.931187293
CDR20291_1825; CDR20291_1832	11144	11144	17312	17856	0.200636523	0.000267884
CDR20291_1825; CDR20291_1833	973	973	815	890	-0.648482324	0.001752963
CDR20291_1825; CDR20291_1834	379	379	188	224	-1.337856697	0.000226823
CDR20291_1825; CDR20291_1835	756	756	620	900	-0.452122344	0.206756128
CDR20291_1825; CDR20291_1836	59	59	22	19	-1.981340182	0.038747382
CDR20291_1825; CDR20291_1837	367	367	69	404	-1.101282539	0.306276352
CDR20291_1825; CDR20291_1838	752	752	857	1079	-0.094469767	0.783161896
CDR20291_1825; CDR20291_1839	49	49	4	3	-4.263276086	0.000691912
CDR20291_1825; CDR20291_1840	1177	1177	775	943	-0.912869886	4.64E-05
CDR20291_1825; CDR20291_1841	285	285	345	275	-0.334288714	0.476282414
CDR20291_1825; CDR20291_1842	100	100	265	209	0.789386256	0.161332367
CDR20291_1825; CDR20291_1843	78	78	4	46	-2.110356757	0.19258921

CDR20291_1825;CDR20291_1844	271	271	139	132	-1.456819011	0.000468359
CDR20291_1825;CDR20291_1845	397	397	474	399	-0.319124751	0.404724251
CDR20291_1825;CDR20291_1846	311	311	588	418	0.238874233	0.630157883
CDR20291_1825;CDR20291_1847	5018	5018	8680	8868	0.348828378	2.98E-06
CDR20291_1825;CDR20291_1848	346	346	728	821	0.704515083	0.013307596
CDR20291_1825;CDR20291_1849	679	679	431	585	-0.877821407	0.006880688
CDR20291_1825;CDR20291_1850	905	905	682	1083	-0.496689052	0.195185432
CDR20291_1851	2122	2122	708	1060	-1.723240437	1.55E-10
CDR20291_1851;CDR20291_1852	0	0	1	0	0.995828447	0.892707332
CDR20291_1852	156	156	58	131	-1.185646099	0.140553709
CDR20291_1853	2158	2158	3067	2645	-0.05180228	0.81837329
CDR20291_1854	109	109	5	201	-0.552584358	0.799305177
CDR20291_1855	4190	4190	5011	5303	-0.157953398	0.125613466
CDR20291_1856	2591	2591	3929	3822	0.123917733	0.349544475
CDR20291_1857	1197	1197	1301	1634	-0.164797171	0.544526284
CDR20291_1858	474	474	758	902	0.349873869	0.242525169
CDR20291_1859	14	14	9	16	-0.624351198	0.752067983
CDR20291_1860	8	8	14	11	0.188319157	0.930322638
CDR20291_1861	41	41	33	20	-1.083539033	0.36503333
CDR20291_1862	6	6	4	8	-0.461504373	0.868531736
CDR20291_1863	460	460	233	312	-1.214485397	0.000944194
CDR20291_1864	633	633	1577	1216	0.686227775	0.017188657
CDR20291_1865	1470	1470	2471	3159	0.4784392	0.025038553
CDR20291_1866	315	315	535	575	0.359494144	0.285034602
CDR20291_1867	220	220	211	157	-0.712945221	0.172016292
CDR20291_1868	684	684	761	1056	-0.049940754	0.898680466
CDR20291_1869	1035	1035	1298	1771	0.10880995	0.748326143
CDR20291_1870	42	42	93	316	1.818667853	0.071801757
CDR20291_1871	2088	2088	2329	1977	-0.411771655	0.03266499
CDR20291_1872	1228	1228	1150	1535	-0.330552051	0.233715544

CDR20291_1873	2001	2001	2619	2781	-0.025319882	0.885743393
CDR20291_1874	349	349	266	247	-0.900924874	0.012529371
CDR20291_1875	2361	2361	3362	3809	0.144760777	0.361407187
CDR20291_1876	30208	30208	48176	50974	0.257140068	2.84E-09
CDR20291_1877	4531	4531	4171	4546	-0.513735584	4.11E-07
CDR20291_1878	493	493	221	199	-1.687676642	1.08E-07
CDR20291_1879	2080	2080	3256	3858	0.315740241	0.061394652
CDR20291_1880	424	424	476	276	-0.62673079	0.235462507
CDR20291_1881	2352	2352	2704	3251	-0.118222764	0.558144853
CDR20291_1882	1805	1805	3180	3384	0.405001093	0.001722534
CDR20291_1882; CDR20291_1883	0	0	1	1	1.985467932	0.784609239
CDR20291_1883	1899	1899	1319	1865	-0.713973062	0.005837661
CDR20291_1884	232	232	692	436	0.827650009	0.089980414
CDR20291_1885	2016	2016	3489	2826	0.191638139	0.40224684
CDR20291_1886	2244	2244	3110	2330	-0.17756173	0.522830744
CDR20291_1887	534	534	908	924	0.321241373	0.203896397
CDR20291_1888	704	704	540	474	-0.929860343	0.000496554
CDR20291_1889	638	638	537	278	-1.099407402	0.031669774
CDR20291_1890	436	436	568	635	0.006326557	0.984515222
CDR20291_1891	4051	4051	6445	8094	0.384811885	0.017893051
CDR20291_1892	9795	9795	14298	13942	0.070654145	0.369216045
CDR20291_1893	7248	7248	11280	12169	0.236196702	0.002747038
CDR20291_1894	1015	1015	907	1043	-0.516106141	0.018926723
CDR20291_1895	10712	10712	15377	18845	0.217097027	0.100901561
CDR20291_1896	286	286	121	10	-2.571627983	0.049623331
CDR20291_1897	1711	1711	3015	4439	0.663285541	0.011106204
CDR20291_1898	552	552	316	300	-1.298550088	4.91E-06
CDR20291_1899	8305	8305	8711	8955	-0.368412564	1.96E-08
CDR20291_1900	14192	14192	16183	16095	-0.271635251	6.55E-07
CDR20291_1901	5230	5230	7152	9981	0.252372099	0.242828396

CDR20291_1902	3967	3967	6471	5155	0.095715249	0.67061834
CDR20291_1903	4708	4708	6630	6943	0.070089693	0.492984199
CDR20291_1904	453	453	720	812	0.299858754	0.313453553
CDR20291_1905	610	610	731	1345	0.305540463	0.552237666
CDR20291_1906	3835	3835	6345	6969	0.337845522	0.001111497
CDR20291_1907	761	761	734	675	-0.567876851	0.020741809
CDR20291_1908	1905	1905	3440	3355	0.377709718	0.003149208
CDR20291_1909	1487	1487	2196	2214	0.111171071	0.522330571
CDR20291_1910	7794	7794	9311	7901	-0.312991549	0.02546246
CDR20291_1911	1031	1031	618	1084	-0.737857278	0.071742465
CDR20291_1912	463	463	664	232	-0.497751246	0.536604556
CDR20291_1913	265	265	91	401	-0.573534627	0.596283941
CDR20291_1914	2212	2212	2940	2977	-0.037718321	0.813487609
CDR20291_1915	227	227	448	402	0.448372394	0.260403298
CDR20291_1916	2553	2553	3425	3949	0.072113387	0.689071637
CDR20291_1917	307	307	339	332	-0.328933023	0.402350934
CDR20291_1918	573	573	819	947	0.165730625	0.58393433
CDR20291_1919	1719	1719	2599	2354	0.070278006	0.736389031
CDR20291_1919; CDR20291_1920	17	17	18	0	-1.36076252	0.691147612
CDR20291_1920	309	309	335	744	0.341439692	0.626838985
CDR20291_1921	1614	1614	2387	2255	0.067352793	0.72839038
CDR20291_1922	4161	4161	4990	4962	-0.19905274	0.044287931
CDR20291_1923	341	341	599	718	0.491010764	0.136084179
CDR20291_1924	341	341	340	694	0.138357852	0.842166519
CDR20291_1925	238	238	282	229	-0.353366151	0.478858282
CDR20291_1926	618	618	587	799	-0.294034237	0.420504298
CDR20291_1927	679	679	719	1121	-0.022025749	0.959810537
CDR20291_1928	1018	1018	1509	1426	0.070865806	0.768953798
CDR20291_1929	595	595	441	100	-1.585393973	0.068453693
CDR20291_1930	6	6	32	2	1.057726903	0.710195257

CDR20291_1931	1695	1695	1659	1719	-0.462504764	0.00191124
CDR20291_1932	2051	2051	3003	4123	0.337372046	0.161980037
CDR20291_1933	6872	6872	9108	7706	-0.165087941	0.287743183
CDR20291_1934	1801	1801	1395	2021	-0.536239872	0.055842601
CDR20291_1935	1326	1326	2539	2367	0.430809464	0.008545672
CDR20291_1936	697	697	803	799	-0.256470697	0.310120729
CDR20291_1937	2400	2400	2463	2442	-0.425871687	0.000716214
CDR20291_1938	263082	263082	400231	431514	0.202944645	5.16E-07
CDR20291_1939	1081	1081	1880	2988	0.710547406	0.027170595
CDR20291_1940	775	775	522	957	-0.528983745	0.262465675
CDR20291_1941	2777	2777	5556	5063	0.478560351	0.000183045
CDR20291_1942	748	748	1259	1972	0.650567024	0.062324141
CDR20291_1943	325	325	297	223	-0.777128546	0.078104146
CDR20291_1944	385	385	291	703	-0.094698885	0.900982824
CDR20291_1945	350	350	70	247	-1.607936385	0.054619218
CDR20291_1946	203	203	185	352	-0.058093307	0.936999141
CDR20291_1947	265	265	170	181	-1.052086465	0.010754638
CDR20291_1948	418	418	504	673	0.034389994	0.936041576
CDR20291_1949	1898	1898	1990	2075	-0.35865654	0.012190136
CDR20291_1950	939	939	1291	786	-0.308369863	0.48899982
CDR20291_1951	245	245	498	566	0.660613928	0.05692286
CDR20291_1952	2790	2790	4410	4956	0.289207043	0.026541343
CDR20291_1953	366	366	506	981	0.560768679	0.30461979
CDR20291_1954	1283	1283	1924	1674	0.031500821	0.900753833
CDR20291_1955	475	475	713	672	0.087145891	0.799326712
CDR20291_1956	2411	2411	3238	4138	0.154327014	0.48899982
CDR20291_1957	5815	5815	7217	7392	-0.128304732	0.126091452
CDR20291_1958	2032	2032	1934	2397	-0.366846063	0.069327148
CDR20291_1959	4084	4084	6171	6333	0.157010311	0.094749906
CDR20291_1960	7921	7921	12750	12636	0.223195547	0.000957862

CDR20291_1961	5394	5394	6590	8643	0.038695094	0.86573008
CDR20291_1962	1429	1429	2232	2825	0.364470686	0.097469301
CDR20291_1963	16542	16542	26967	28296	0.282699621	5.19E-09
CDR20291_1964	1546	1546	1706	2045	-0.179671685	0.413430741
CDR20291_1965	5624	5624	7484	7578	-0.035987707	0.717351268
CDR20291_1966	24	24	19	96	0.793868236	0.640399851
CDR20291_1967	2670	2670	3700	3118	-0.103425529	0.62758362
CDR20291_1968	1651	1651	1990	2077	-0.156814307	0.340286808
CDR20291_1969	8068	8068	12038	11994	0.117553157	0.101544363
CDR20291_1970	2423	2423	3718	3765	0.169589385	0.166549967
CDR20291_1971	880	880	858	1424	-0.085963512	0.856801403
CDR20291_1972	890	890	1835	2084	0.680576776	0.000230251
CDR20291_1973	6805	6805	9960	11870	0.223252433	0.084826451
CDR20291_1974	861	861	757	1007	-0.424360284	0.159880916
CDR20291_1975	3708	3708	2583	2504	-1.000767609	9.04E-21
CDR20291_1976	6239	6239	9508	8514	0.074014273	0.597727223
CDR20291_1977	7260	7260	10122	12504	0.181287761	0.226181629
CDR20291_1978	4957	4957	5988	6356	-0.14128574	0.144564948
CDR20291_1979	11144	11144	16272	15877	0.071534154	0.337395453
CDR20291_1980	1645	1645	1658	1801	-0.385443688	0.017128103
CDR20291_1981	338	338	578	626	0.375045413	0.242595774
CDR20291_1982	916	916	1141	978	-0.246114654	0.355916769
CDR20291_1983	4135	4135	6670	6863	0.25317981	0.003507042
CDR20291_1984	657	657	989	596	-0.183096212	0.722557303
CDR20291_1985	1096	1096	816	620	-1.065443998	0.000142556
CDR20291_1986	1500	1500	1177	1380	-0.688747069	0.000305302
CDR20291_1986; CDR20291_1987	39	39	0	2	-5.74956936	0.003501406
CDR20291_1987	920	920	910	1403	-0.130117709	0.760065096
CDR20291_1988	161	161	220	107	-0.430070313	0.607383974
CDR20291_1989	696	696	486	446	-1.035335211	5.45E-05

CDR20291_1990	1885	1885	1633	2021	-0.503718068	0.012454343
CDR20291_1991	1336	1336	1647	1678	-0.141840412	0.446008228
CDR20291_1992	402	402	464	531	-0.150567074	0.691389829
CDR20291_1993	285	285	288	383	-0.223750489	0.652670801
CDR20291_1994	608	608	936	827	0.079599033	0.807987404
CDR20291_1995	147	147	260	155	0.043692323	0.952746233
CDR20291_1996	978	978	957	792	-0.617216894	0.016766324
CDR20291_1997	305	305	134	168	-1.472891658	0.000429267
CDR20291_1998	674	674	387	275	-1.480753323	3.14E-05
CDR20291_1999	6897	6897	10810	11932	0.26347943	0.003048315
CDR20291_2000	5042	5042	5779	7414	-0.071212118	0.736451315
CDR20291_2000; CDR20291_2001	56	56	0	0	-8.70722432	4.88E-05
CDR20291_2001	4992	4992	4836	5692	-0.381748991	0.003773269
CDR20291_2002	1455	1455	2064	1205	-0.285541298	0.508211852
CDR20291_2003	1412	1412	1609	2069	-0.077727073	0.786764811
CDR20291_2004	520	520	418	645	-0.428588872	0.328667272
CDR20291_2005	934	934	1759	1121	0.170601332	0.694475883
CDR20291_2006	9902	9902	15150	15251	0.161135087	0.007604952
CDR20291_2007	1418	1418	1663	1721	-0.202508998	0.2410964
CDR20291_2008	1813	1813	3630	3308	0.479648305	0.001275681
CDR20291_2009	5722	5722	9490	8845	0.223362025	0.029576518
CDR20291_2010	10209	10209	18203	20733	0.47319265	6.75E-08
CDR20291_2011	5227	5227	4486	4033	-0.751700761	3.02E-10
CDR20291_2012	644	644	482	818	-0.447431792	0.332054568
CDR20291_2013	5227	5227	6972	7695	0.030684677	0.812527789
CDR20291_2014	5094	5094	7076	7591	0.068070576	0.525143038
CDR20291_2015	4456	4456	8473	7672	0.400827693	0.0005245
CDR20291_2016	1598	1598	2108	1786	-0.170998612	0.462430885
CDR20291_2017	7911	7911	17157	18022	0.695294557	1.84E-33
CDR20291_2018	4931	4931	6461	6580	-0.054169716	0.594527619

CDR20291_2019	397	397	353	336	-0.661453174	0.046650483
CDR20291_2020	103	103	44	148	-0.566333046	0.63195254
CDR20291_2020;CDR20291_2021	0	0	1	1	1.985467932	0.784609239
CDR20291_2021	1544	1544	1630	1940	-0.249102918	0.22974017
CDR20291_2022	8369	8369	11120	12028	0.010067611	0.916603973
CDR20291_2023	2787	2787	2140	3351	-0.481953405	0.102164148
CDR20291_2024	4365	4365	7412	7599	0.324648659	6.65E-05
CDR20291_2025	12609	12609	19075	19623	0.160463633	0.002422092
CDR20291_2026	8937	8937	15489	19075	0.492772828	8.40E-05
CDR20291_2027	1556	1556	1959	2921	0.189071445	0.570352039
CDR20291_2028	753	753	1600	1605	0.63243519	0.000535485
CDR20291_2029	22	22	5	7	-2.333591241	0.143107762
CDR20291_2030	9310	9310	13563	14477	0.133033755	0.07028656
CDR20291_2031	2263	2263	1763	2641	-0.499415396	0.07842166
CDR20291_2032	1833	1833	3561	4373	0.655244268	0.000141159
CDR20291_2033	1192	1192	1076	1540	-0.325679008	0.307646463
CDR20291_2034	1844	1844	3134	2564	0.171894016	0.461781121
CDR20291_2035	173	173	107	30	-1.78594497	0.07067314
CDR20291_2036	1686	1686	2077	2758	0.060766095	0.838238695
CDR20291_2037	53	53	18	21	-1.900632961	0.059317657
CDR20291_2038	2202	2202	3669	3823	0.309107139	0.009488325
CDR20291_2039	2484	2484	4223	4600	0.370864817	0.001819359
CDR20291_2040	2111	2111	3589	3341	0.258283134	0.076953448
CDR20291_2041	27	27	5	11	-2.216638561	0.146513616
CDR20291_2042	16	16	10	5	-1.546052779	0.408919169
CDR20291_2043	103	103	37	111	-0.941174107	0.378022468
CDR20291_2044	22	22	12	27	-0.636350698	0.708499538
CDR20291_2045	10	10	10	10	-0.45714789	0.837450475
CDR20291_2046	60	60	21	14	-2.232303447	0.026280389
CDR20291_2047	15	15	9	10	-1.116788007	0.544526284

CDR20291_2048	713	713	410	633	-0.911373302	0.016253304
CDR20291_2049	532	532	335	883	-0.268599248	0.724109494
CDR20291_2050	1166	1166	1834	3040	0.60283384	0.081613484
CDR20291_2051	391	391	172	401	-0.911447785	0.163173707
CDR20291_2052	9985	9985	16416	16612	0.268627431	1.27E-06
CDR20291_2053	3049	3049	5009	4717	0.216784831	0.081403849
CDR20291_2054	3087	3087	7075	7033	0.735132288	1.70E-17
CDR20291_2055	8329	8329	13647	15703	0.359003547	0.000326163
CDR20291_2056	769	769	1336	925	0.101346037	0.812371153
CDR20291_2057	2427	2427	3645	3811	0.161775281	0.196369456
CDR20291_2058	3883	3883	3704	4729	-0.339998718	0.065085303
CDR20291_2059	2262	2262	3768	4575	0.424451888	0.011791301
CDR20291_2060	3753	3753	5809	6511	0.256941946	0.029221824
CDR20291_2061	5979	5979	12121	12421	0.579961884	4.89E-20
CDR20291_2062	15039	15039	20025	20766	-0.017854646	0.78896499
CDR20291_2063	1317	1317	1522	1878	-0.090332699	0.736722114
CDR20291_2064	9966	9966	7106	6972	-0.958663678	3.74E-46
CDR20291_2065	513	513	384	676	-0.414015879	0.420689319
CDR20291_2066	1129	1129	1345	1634	-0.058716789	0.837267092
CDR20291_2067	1169	1169	1591	3266	0.592661093	0.187995518
CDR20291_2068	3495	3495	4684	5611	0.100159708	0.571700112
CDR20291_2069	10342	10342	16930	17857	0.29251682	8.64E-07
CDR20291_2070	691	691	907	755	-0.189712482	0.558364409
CDR20291_2071	3569	3569	4325	5564	0.011372503	0.958999079
CDR20291_2072	1163	1163	1449	1010	-0.374388364	0.268344275
CDR20291_2073	1417	1417	1476	1386	-0.442534551	0.013164819
CDR20291_2074	2094	2094	2278	1884	-0.464797188	0.022616907
CDR20291_2075	795	795	1361	696	-0.080990261	0.892707332
CDR20291_2076	4128	4128	5881	6550	0.132529336	0.277730121
CDR20291_2077	2231	2231	3624	4078	0.329573799	0.018840002

CDR20291_2078	2205	2205	4075	4058	0.425891785	0.000161947
CDR20291_2079	1549	1549	2109	3123	0.296104134	0.332471797
CDR20291_2080	3464	3464	7385	6996	0.596889193	1.82E-09
CDR20291_2081	1207	1207	1698	1765	0.063184894	0.764324289
CDR20291_2082	1694	1694	3163	3380	0.491913656	0.000155527
CDR20291_2083	731	731	1062	827	-0.085718745	0.819562324
CDR20291_2084	1151	1151	2023	826	-0.143517169	0.835166332
CDR20291_2085	5298	5298	11324	11957	0.678109454	3.74E-22
CDR20291_2086	19236	19236	28203	33216	0.216560038	0.03144653
CDR20291_2087	1125	1125	2037	1487	0.192369537	0.563627952
CDR20291_2088	3458	3458	3344	3449	-0.4832468	2.18E-06
CDR20291_2089	612	612	511	684	-0.493749134	0.146513616
CDR20291_2090	798	798	569	1388	-0.168993811	0.806001824
CDR20291_2091	633	633	506	665	-0.571561335	0.07842166
CDR20291_2092	6971	6971	8669	7793	-0.216686412	0.069327148
CDR20291_2093	7807	7807	10747	10538	-0.010012401	0.914141475
CDR20291_2094	11871	11871	17089	16896	0.060390557	0.379888999
CDR20291_2095	1797	1797	4514	3486	0.699109067	0.001066242
CDR20291_2096	6433	6433	7173	6462	-0.372656033	0.001183556
CDR20291_2097	4471	4471	5889	7325	0.104703073	0.574770467
CDR20291_2098	3998	3998	7580	7011	0.411135399	0.000176517
CDR20291_2099	9940	9940	16421	17382	0.308292101	4.73E-07
CDR20291_2100	2904	2904	3532	2472	-0.406728888	0.133417643
CDR20291_2101	138	138	347	220	0.584687621	0.348341116
CDR20291_2102	1320	1320	843	894	-1.061480655	1.44E-09
CDR20291_2103	94	94	295	40	0.387195816	0.803571697
CDR20291_2104	152	152	117	313	0.036627456	0.968211014
CDR20291_2105	432	432	543	444	-0.263742581	0.49930387
CDR20291_2106	3	3	17	5	1.424809319	0.596283941
CDR20291_2107	688	688	465	336	-1.235537876	0.000368928

CDR20291_2108	501	501	267	105	-1.880546293	0.00367516
CDR20291_2109	1638	1638	4184	4170	0.893409871	2.14E-15
CDR20291_2110	3941	3941	5769	5290	0.032052152	0.841013517
CDR20291_2111	447	447	504	732	0.007592422	0.984767476
CDR20291_2112	8207	8207	14628	14466	0.368727499	4.73E-09
CDR20291_2113	785	785	675	944	-0.415138046	0.218475089
CDR20291_2114	1392	1392	2090	2024	0.106456605	0.572227102
CDR20291_2115	1412	1412	1279	1506	-0.478334132	0.017075619
CDR20291_2116	7823	7823	12188	14051	0.28776447	0.006238591
CDR20291_2117	5804	5804	11074	11375	0.494200594	7.18E-14
CDR20291_2118	15438	15438	26300	24889	0.272598643	8.69E-05
CDR20291_2119	1015	1015	967	1211	-0.357180567	0.169999448
CDR20291_2120	1350	1350	1872	1501	-0.134519351	0.638025091
CDR20291_2121	1116	1116	873	1387	-0.442395963	0.22958145
CDR20291_2122	1071	1071	1308	1616	-0.009634397	0.970577879
CDR20291_2123	3992	3992	4367	4868	-0.247899326	0.039612731
CDR20291_2124	282	282	124	377	-0.635242313	0.468167574
CDR20291_2125	1670	1670	3205	4019	0.654203635	0.000449244
CDR20291_2126	5483	5483	7306	10274	0.221320424	0.321397837
CDR20291_2127	10439	10439	17994	15150	0.210859151	0.125903858
CDR20291_2128	5055	5055	6063	6485	-0.145935524	0.137660522
CDR20291_2129	361	361	266	184	-1.136730768	0.012479821
CDR20291_2130	1243	1243	932	599	-1.153425958	0.000819836
CDR20291_2131	894	894	851	949	-0.448238431	0.046108304
CDR20291_2132	1166	1166	893	594	-1.103477041	0.000970287
CDR20291_2133	1694	1694	2272	2302	-0.024214504	0.892870402
CDR20291_2134	1512	1512	3795	3307	0.775597358	2.45E-06
CDR20291_2135	3460	3460	4858	6260	0.225106529	0.248043708
CDR20291_2136	936	936	807	931	-0.56527329	0.013283346
CDR20291_2137	335	335	304	120	-1.111111657	0.127814115

CDR20291_2138	1151	1151	1078	1326	-0.396030044	0.098272611
CDR20291_2139	280	280	561	583	0.573177302	0.07408874
CDR20291_2140	1966	1966	2845	3510	0.234003709	0.241659453
CDR20291_2141	1456	1456	1893	2210	0.036446633	0.879577812
CDR20291_2142	8349	8349	12023	15547	0.264440282	0.101956312
CDR20291_2143	4120	4120	5229	4545	-0.209847473	0.178211285
CDR20291_2144	63	63	19	21	-2.113123434	0.022850916
CDR20291_2145	92	92	168	101	0.094220228	0.913576053
CDR20291_2146	2167	2167	2044	1852	-0.610173126	0.000115787
CDR20291_2147	2351	2351	2352	3335	-0.185221209	0.515426585
CDR20291_2148	852	852	1116	1181	-0.026708355	0.914141475
CDR20291_2149	693	693	498	538	-0.877568797	0.000366877
CDR20291_2150	7252	7252	11352	12925	0.285075944	0.004844234
CDR20291_2151	2469	2469	3775	3815	0.162953928	0.182350461
CDR20291_2152	5731	5731	7757	8673	0.061545637	0.620475306
CDR20291_2153	14656	14656	25901	25110	0.342393306	3.74E-09
CDR20291_2154	207	207	142	137	-1.026280173	0.029146237
CDR20291_2155	13228	13228	23093	22079	0.315009682	2.01E-06
CDR20291_2156	547	547	169	511	-1.150348762	0.110210352
CDR20291_2157	4413	4413	7698	8277	0.398334293	6.19E-06
CDR20291_2158	755	755	1196	1266	0.247745141	0.263639461
CDR20291_2159	6026	6026	8860	10601	0.232893242	0.083572532
CDR20291_2160	12830	12830	16618	19018	0.015710824	0.894502693
CDR20291_2161	6764	6764	9948	10852	0.162881595	0.071740666
CDR20291_2162	3169	3169	3150	3309	-0.430199235	8.55E-05
CDR20291_2163	1441	1441	1438	1897	-0.248470364	0.352439449
CDR20291_2164	7810	7810	8137	8277	-0.385731646	1.01E-08
CDR20291_2165	4095	4095	5991	4004	-0.166932534	0.589236411
CDR20291_2166	5469	5469	9082	8332	0.214365367	0.057105061
CDR20291_2167	483	483	818	762	0.253171637	0.390115708

CDR20291_2168	2075	2075	4641	3893	0.584216885	0.000778491
CDR20291_2169	2596	2596	5914	5014	0.617699933	9.11E-05
CDR20291_2170	3411	3411	4921	5489	0.151795902	0.239524412
CDR20291_2171	4432	4432	4223	5263	-0.360859329	0.029043904
CDR20291_2172	6542	6542	9718	9712	0.113340265	0.150739046
CDR20291_2173	10282	10282	13516	15196	0.023559989	0.841859257
CDR20291_2174	2172	2172	2229	1868	-0.540364956	0.005083092
CDR20291_2175	362	362	191	278	-1.08608252	0.01351871
CDR20291_2176	189	189	125	71	-1.400942757	0.034114686
CDR20291_2177	645	645	224	524	-1.249110039	0.030472087
CDR20291_2178	1175	1175	1219	1304	-0.35512619	0.060027011
CDR20291_2179	210	210	219	103	-0.835433853	0.261875039
CDR20291_2180	264	264	345	163	-0.507792056	0.490966357
CDR20291_2181	1982	1982	2049	1401	-0.654825307	0.025775335
CDR20291_2182	1936	1936	2262	2260	-0.233259916	0.108033519
CDR20291_2183	4870	4870	5420	6215	-0.201627303	0.114534948
CDR20291_2184	3533	3533	3497	3763	-0.418572529	0.000131612
CDR20291_2185	670	670	725	446	-0.648268426	0.139648597
CDR20291_2186	542	542	173	210	-1.959342427	8.45E-10
CDR20291_2187	9171	9171	11034	12187	-0.117563135	0.206756128
CDR20291_2188	2471	2471	3872	3577	0.135360267	0.382364524
CDR20291_2189	1255	1255	1663	1323	-0.205013137	0.467768882
CDR20291_2190	447	447	368	711	-0.190326079	0.764340819
CDR20291_2191	2961	2961	3206	3441	-0.291012205	0.015774809
CDR20291_2192	404	404	435	539	-0.189051315	0.638910381
CDR20291_2193	70	70	20	83	-0.908488341	0.504567252
CDR20291_2194	1259	1259	1269	2002	-0.082895539	0.842066219
CDR20291_2195	1211	1211	1591	1622	-0.049557037	0.81837329
CDR20291_2196	1216	1216	1466	1597	-0.124930661	0.553288829
CDR20291_2197	162	162	101	88	-1.233856088	0.025831636

CDR20291_2199	0	0	33	74	7.721471902	0.00197303
CDR20291_2200	430	430	531	502	-0.192333551	0.580745072
CDR20291_2201	420	420	492	810	0.171655599	0.749916381
CDR20291_2202	4	4	3	108	3.323607383	0.148465916
CDR20291_2202;CDR20291_2203	22	22	0	0	-7.359280952	0.01250482
CDR20291_2203	67	67	13	183	0.078980154	0.965090547
CDR20291_2204	331	331	292	343	-0.518311775	0.175233635
CDR20291_2205	320	320	316	112	-1.030849657	0.192262432
CDR20291_2206	4601	4601	6023	6165	-0.05186455	0.625556906
CDR20291_2207	5098	5098	8563	8760	0.307382594	4.89E-05
CDR20291_2208	3317	3317	5788	5542	0.315354605	0.003188401
CDR20291_2209	5244	5244	8343	10059	0.352648049	0.009244609
CDR20291_2210	1928	1928	2407	2801	-0.024577135	0.905196248
CDR20291_2211	593	593	1293	1910	0.973423804	0.001867743
CDR20291_2212	1343	1343	1321	1544	-0.365145384	0.074044333
CDR20291_2213	238	238	165	132	-1.136166215	0.017565832
CDR20291_2214	1836	1836	1863	1793	-0.463187674	0.002003391
CDR20291_2215	315	315	328	437	-0.179010577	0.711194614
CDR20291_2216	3015	3015	3485	3371	-0.271709945	0.024458064
CDR20291_2217	11882	11882	14760	16066	-0.082369384	0.318479306
CDR20291_2218	3067	3067	4385	4492	0.075931896	0.538852194
CDR20291_2219	7213	7213	9996	12893	0.207019806	0.222691702
CDR20291_2220	1646	1646	1732	1623	-0.429354487	0.01038764
CDR20291_2221	4255	4255	6723	7758	0.308774922	0.012583083
CDR20291_2222	1952	1952	1723	2010	-0.522826843	0.002266964
CDR20291_2223	963	963	484	562	-1.338866291	4.73E-09
CDR20291_2224	117	117	67	95	-0.989978779	0.153464208
CDR20291_2225	7430	7430	13300	13376	0.386923183	3.45E-10
CDR20291_2226	2171	2171	4090	4512	0.528482739	1.89E-05
CDR20291_2227	658	658	793	932	-0.067821366	0.837963763

CDR20291_2228	5469	5469	2338	2401	-1.664020888	4.87E-80
CDR20291_2229	72	72	1	70	-1.491211018	0.513389975
CDR20291_2230	1007	1007	451	791	-1.1584173	0.003639473
CDR20291_2231	565	565	634	729	-0.187639391	0.554157924
CDR20291_2232	1162	1162	1147	918	-0.626067194	0.015008319
CDR20291_2233	423	423	676	558	0.088796092	0.83153997
CDR20291_2234	1190	1190	1273	601	-0.79684189	0.114396057
CDR20291_2235	174	174	353	339	0.534817579	0.208948713
CDR20291_2236	668	668	1394	748	0.228221144	0.679937334
CDR20291_2237	333	333	145	75	-2.050857706	0.000473928
CDR20291_2238	711	711	616	724	-0.543936081	0.040682102
CDR20291_2239	1094	1094	2532	1187	0.313376044	0.570451389
CDR20291_2240	367	367	1407	568	0.976976382	0.117615355
CDR20291_2241	1693	1693	4406	2626	0.60086374	0.083732089
CDR20291_2242	81	81	44	65	-1.031383462	0.216445716
CDR20291_2243	676	676	596	778	-0.43569816	0.171139497
CDR20291_2244	60	60	86	8	-0.797723416	0.671502526
CDR20291_2245	2289	2289	1958	2225	-0.58820395	9.57E-05
CDR20291_2246	3581	3581	3290	4920	-0.262978077	0.340999514
CDR20291_2247	557	557	961	1039	0.38656723	0.11421337
CDR20291_2248	938	938	1438	1691	0.279769162	0.216594137
CDR20291_2248; CDR20291_2249	0	0	0	1	0.981173656	0.892870402
CDR20291_2249	1760	1760	2967	3479	0.41456714	0.012689126
CDR20291_2250	4735	4735	7471	8664	0.310565017	0.011081951
CDR20291_2251	702	702	1211	566	-0.112033004	0.867508831
CDR20291_2252	2755	2755	4305	4905	0.283089785	0.039670781
CDR20291_2253	2080	2080	3470	3464	0.279969781	0.024818507
CDR20291_2254	5679	5679	7660	9813	0.162507481	0.368904191
CDR20291_2255	251	251	567	347	0.410771999	0.469095945
CDR20291_2256	1512	1512	3264	3090	0.614443814	1.04E-05

CDR20291_2257	1176	1176	877	1218	-0.626370815	0.029152332
CDR20291_2258	1123	1123	1613	1513	0.02025424	0.930322638
CDR20291_2259	1096	1096	771	1302	-0.541324809	0.16960528
CDR20291_2260	486	486	423	598	-0.388581575	0.339110734
CDR20291_2261	388	388	434	588	-0.06197905	0.892870402
CDR20291_2262	441	441	577	590	-0.053345326	0.883303176
CDR20291_2263	1885	1885	3149	3715	0.406178992	0.01413079
CDR20291_2264	2769	2769	4038	4734	0.205277814	0.19258921
CDR20291_2265	10380	10380	16979	17044	0.255531902	4.95E-06
CDR20291_2266	1326	1326	2045	2729	0.388935304	0.118173538
CDR20291_2267	295	295	302	310	-0.404508397	0.303029433
CDR20291_2268	1709	1709	1967	2092	-0.209595714	0.188682038
CDR20291_2269	1035	1035	1577	1538	0.132626515	0.530744964
CDR20291_2270	14334	14334	22870	26436	0.32414285	0.000429267
CDR20291_2271	12277	12277	18923	19060	0.172200177	0.001397074
CDR20291_2272	8610	8610	13679	12587	0.152560063	0.133958176
CDR20291_2273	480	480	835	907	0.40192258	0.126946166
CDR20291_2274	875	875	1012	836	-0.3772124	0.172611876
CDR20291_2275	2445	2445	3692	3653	0.129854401	0.321139132
CDR20291_2276	3292	3292	5679	7534	0.545762933	0.00347649
CDR20291_2277	2484	2484	5017	4671	0.506890773	3.76E-05
CDR20291_2278	1811	1811	2167	4013	0.309361702	0.455885723
CDR20291_2279	5543	5543	6818	7852	-0.054009627	0.711194614
CDR20291_2279; CDR20291_2280	1795	1795	1852	2727	-0.108827316	0.752067983
CDR20291_2280	2319	2319	4851	4271	0.519605163	0.000506526
CDR20291_2281	1758	1758	1004	1377	-1.021709789	3.16E-05
CDR20291_2282	418	418	75	184	-2.153521845	0.000707349
CDR20291_2283	3893	3893	6291	6608	0.270819711	0.003106443
CDR20291_2284	12267	12267	20299	21870	0.323731738	2.81E-07
CDR20291_2285	812	812	758	472	-0.854754679	0.034517673

CDR20291_2286	5363	5363	9332	11791	0.518887842	0.000498353
CDR20291_2287	9915	9915	15908	16785	0.263778574	1.78E-05
CDR20291_2288	3394	3394	3570	4508	-0.207782134	0.283808701
CDR20291_2289	80	80	38	2	-2.444745229	0.165138186
CDR20291_2290	66	66	55	3	-1.630997285	0.391039895
CDR20291_2291	296	296	1006	414	0.811069649	0.222633231
CDR20291_2292	2651	2651	2671	3746	-0.184177161	0.497224349
CDR20291_2293	28	28	3	2	-3.940752312	0.014464552
CDR20291_2294	8338	8338	13199	13155	0.20312617	0.001867743
CDR20291_2295	516	516	698	548	-0.183607492	0.644654433
CDR20291_2296	13743	13743	26619	26529	0.494197885	1.29E-25
CDR20291_2297	10647	10647	17118	17745	0.253855139	4.32E-06
CDR20291_2298	3915	3915	5718	7931	0.34223467	0.112980425
CDR20291_2299	2436	2436	2289	2579	-0.459152288	0.001520475
CDR20291_2300	47	47	2	3	-4.691451791	0.000525447
CDR20291_2301	5815	5815	8633	9365	0.172272863	0.062617142
CDR20291_2302	473	473	629	1165	0.461843054	0.362350665
CDR20291_2303	1672	1672	1665	2287	-0.218371161	0.441332579
CDR20291_2304	977	977	1316	2106	0.347957151	0.352716541
CDR20291_2305	621	621	329	565	-0.935178629	0.035199808
CDR20291_2306	336	336	358	261	-0.57350424	0.206756128
CDR20291_2307	730	730	308	522	-1.275540767	0.00196111
CDR20291_2308	869	869	505	314	-1.539388971	7.29E-05
CDR20291_2309	20	20	9	67	0.458035191	0.829047316
CDR20291_2310	1651	1651	735	1466	-1.047088548	0.013017931
CDR20291_2311	1632	1632	1384	1009	-0.902755066	0.000819836
CDR20291_2312	566	566	771	852	0.061957516	0.844935925
CDR20291_2313	748	748	1181	1480	0.372135557	0.161332367
CDR20291_2314	1621	1621	1197	1326	-0.819583321	6.94E-07
CDR20291_2315	1298	1298	1598	1805	-0.067469301	0.770385871

CDR20291_2316	249	249	376	460	0.288821052	0.508463645
CDR20291_2317	429	429	422	222	-0.866685	0.124496931
CDR20291_2318	1406	1406	1448	1834	-0.235817526	0.34339691
CDR20291_2319	690	690	1055	844	0.004983581	0.986727162
CDR20291_2320	309	309	306	506	-0.066744789	0.909717881
CDR20291_2321	48	48	18	36	-1.291643894	0.266258755
CDR20291_2322	1299	1299	2065	2884	0.470228152	0.076953448
CDR20291_2323	928	928	863	892	-0.538097417	0.009244609
CDR20291_2324	34	34	27	26	-0.816443071	0.507915154
CDR20291_2325	12	12	12	17	-0.186432753	0.921723395
CDR20291_2326	3123	3123	4244	4206	-0.021066495	0.882852957
CDR20291_2326; CDR20291_2327	0	0	95	0	7.569692884	0.121750821
CDR20291_2327	241	241	54	114	-1.982550945	0.002823626
CDR20291_2328	16514	16514	19696	19659	-0.204275574	6.75E-05
CDR20291_2329	833	833	1181	1113	0.004737387	0.984515222
CDR20291_2330	404	404	726	860	0.514645563	0.084243885
CDR20291_2331	785	785	1255	956	0.038698641	0.914141475
CDR20291_2332	8	8	115	34	2.769733761	0.045904568
CDR20291_2333	3364	3364	4991	6680	0.335458911	0.101555954
CDR20291_2334	23518	23518	34641	35076	0.110513278	0.008680977
CDR20291_2335	108	108	96	1	-1.598147087	0.471302334
CDR20291_2336	3507	3507	5897	4959	0.174273202	0.333158744
CDR20291_2337	351	351	299	336	-0.602648573	0.094539359
CDR20291_2338	404	404	401	498	-0.304663974	0.42589412
CDR20291_2339	2	2	4	5	0.711299776	0.841013517
CDR20291_2340	611	611	943	699	-0.028842331	0.943385643
CDR20291_2341	2025	2025	981	860	-1.593701358	1.48E-19
CDR20291_2342	1547	1547	2325	1924	0.001838175	0.993275151
CDR20291_2343	2034	2034	4448	3974	0.593494971	4.93E-05
CDR20291_2344	5404	5404	6697	7582	-0.05622073	0.680761

CDR20291_2345	1231	1231	1291	1456	-0.299945027	0.134915464
CDR20291_2346	973	973	937	1225	-0.307155624	0.290031504
CDR20291_2347	3177	3177	3228	3764	-0.32017744	0.031537081
CDR20291_2348	2050	2050	1986	1637	-0.634233068	0.001691543
CDR20291_2349	5284	5284	10024	9667	0.440943728	8.31E-08
CDR20291_2350	3871	3871	4978	4878	-0.108711286	0.33530581
CDR20291_2351	6135	6135	8968	10000	0.170522013	0.099189003
CDR20291_2352	1670	1670	1370	1741	-0.561284333	0.010956657
CDR20291_2353	568	568	1173	1080	0.531311945	0.025605118
CDR20291_2354	237	237	220	166	-0.751529652	0.133401699
CDR20291_2355	39	39	227	14	1.183026409	0.523446282
CDR20291_2356	1756	1756	1703	1071	-0.79421572	0.018859144
CDR20291_2357	3943	3943	4770	5366	-0.095843783	0.493055186
CDR20291_2358	1477	1477	1695	2024	-0.126134706	0.584909016
CDR20291_2359	1841	1841	1814	1608	-0.561963535	0.001558201
CDR20291_2360	2917	2917	3387	2610	-0.4155406	0.06224063
CDR20291_2361	202	202	174	241	-0.420607048	0.454651678
CDR20291_2362	552	552	525	545	-0.502530263	0.068064432
CDR20291_2363	424	424	475	307	-0.571031993	0.230566445
CDR20291_2364	567	567	1272	1177	0.654166019	0.003689889
CDR20291_2365	1400	1400	2763	2465	0.444488424	0.011885055
CDR20291_2366	5	5	7	32	1.497354882	0.510107142
CDR20291_2367	438	438	402	176	-1.051471432	0.101884588
CDR20291_2368	4169	4169	4055	4359	-0.444551192	1.05E-05
CDR20291_2369	11147	11147	18916	21384	0.396108152	2.54E-06
CDR20291_2370	2154	2154	4090	4297	0.503649637	6.21E-06
CDR20291_2371	1722	1722	1972	1527	-0.432487563	0.083765531
CDR20291_2372	3300	3300	6048	4997	0.287073439	0.10922825
CDR20291_2373	3788	3788	6363	5837	0.230836904	0.06584974
CDR20291_2374	2708	2708	5399	5743	0.583134611	4.81E-09

CDR20291_2375	61	61	10	49	-1.514340632	0.287211177
CDR20291_2376	312	312	279	375	-0.391425239	0.390217926
CDR20291_2377	1611	1611	1407	1343	-0.685359166	2.18E-05
CDR20291_2378	2020	2020	2990	2826	0.06891659	0.692802445
CDR20291_2379	2084	2084	1394	2074	-0.725187153	0.009091857
CDR20291_2380	362	362	275	370	-0.625859819	0.129963461
CDR20291_2381	2718	2718	1622	2930	-0.717325566	0.042454681
CDR20291_2382	1038	1038	1890	1515	0.25826205	0.340673747
CDR20291_2383	1931	1931	2744	3082	0.135205435	0.42589412
CDR20291_2384	740	740	868	1193	0.018379395	0.95958545
CDR20291_2385	62	62	26	21	-1.855426334	0.048184697
CDR20291_2386	3015	3015	3260	4542	-0.087811261	0.756451664
CDR20291_2387	1248	1248	1505	1375	-0.250073932	0.225120189
CDR20291_2388	942	942	1538	835	-0.119980735	0.82894814
CDR20291_2389	428	428	218	397	-0.938253757	0.071742465
CDR20291_2390	3312	3312	6296	7294	0.578586815	2.57E-06
CDR20291_2391	373	373	353	317	-0.611437234	0.0856619
CDR20291_2392	2455	2455	2570	2797	-0.329333661	0.014682921
CDR20291_2393	3584	3584	6079	4921	0.162225691	0.423173063
CDR20291_2394	1926	1926	2568	2460	-0.072474192	0.680761
CDR20291_2395	3146	3146	3149	3182	-0.448304527	3.04E-05
CDR20291_2396	674	674	916	1332	0.27805059	0.456695766
CDR20291_2397	5607	5607	8039	11016	0.305474173	0.125464427
CDR20291_2398	3352	3352	5630	4580	0.151216869	0.463703722
CDR20291_2399	1688	1688	2805	3462	0.43383124	0.023336354
CDR20291_2400	8117	8117	12031	11357	0.07001278	0.492984199
CDR20291_2401	406	406	548	766	0.23493677	0.582114581
CDR20291_2402	4381	4381	4864	4448	-0.368689138	0.002443514
CDR20291_2403	752	752	502	787	-0.682813148	0.077559415
CDR20291_2404	219	219	435	334	0.356739142	0.46607123

CDR20291_2405	215	215	190	154	-0.777664732	0.117615355
CDR20291_2406	2947	2947	2521	3241	-0.491590947	0.011648729
CDR20291_2407	3855	3855	4863	5385	-0.047314805	0.742060961
CDR20291_2408	2039	2039	2871	3572	0.2011853	0.332471797
CDR20291_2409	1510	1510	2594	3892	0.642760984	0.02093118
CDR20291_2410	126	126	40	94	-1.373857024	0.116043782
CDR20291_2411	547	547	658	1253	0.343104831	0.521284783
CDR20291_2412	775	775	1195	1225	0.185422086	0.416347948
CDR20291_2413	54	54	23	75	-0.604711156	0.664252139
CDR20291_2414	2008	2008	3102	3033	0.154312519	0.283295381
CDR20291_2415	5035	5035	6112	6350	-0.149936472	0.098545555
CDR20291_2416	120	120	355	292	0.974944229	0.040561273
CDR20291_2417	1495	1495	1813	1872	-0.155846649	0.366823981
CDR20291_2418	81	81	5	72	-1.542523155	0.37624953
CDR20291_2419	960	960	996	1266	-0.222320476	0.441054138
CDR20291_2420	3045	3045	4136	4233	0.001307265	0.990966896
CDR20291_2421	719	719	511	1117	-0.283452716	0.647474324
CDR20291_2422	3698	3698	3821	3727	-0.427628493	4.57E-05
CDR20291_2423	752	752	1001	1268	0.134458473	0.676955796
CDR20291_2424	3461	3461	4031	2915	-0.449846186	0.065631658
CDR20291_2425	1225	1225	709	1307	-0.742672479	0.075861904
CDR20291_2426	290	290	234	162	-1.005215804	0.041328491
CDR20291_2427	7473	7473	8643	8175	-0.286508817	0.001464687
CDR20291_2428	3201	3201	5578	5097	0.281132427	0.031359087
CDR20291_2429	4438	4438	4072	5275	-0.384385492	0.036004737
CDR20291_2430	7341	7341	8482	8890	-0.214753706	0.003894144
CDR20291_2431	2240	2240	2727	3061	-0.088379714	0.612030807
CDR20291_2431;CDR20291_2432	1	1	1	0	-1.446755366	0.842066219
CDR20291_2432	3780	3780	5579	5800	0.13250217	0.190989108
CDR20291_2433	1138	1138	1582	1432	-0.051277985	0.841388424

CDR20291_2434	34302	34302	57891	62327	0.351619801	2.06E-13
CDR20291_2435	6213	6213	10322	11496	0.354253498	0.000134402
CDR20291_2436	15175	15175	27993	26416	0.385420647	1.65E-08
CDR20291_2437	4873	4873	8138	8415	0.306833709	8.84E-05
CDR20291_2438	851	851	464	866	-0.817251597	0.072555859
CDR20291_2439	658	658	400	292	-1.382332411	6.88E-05
CDR20291_2440	170	170	98	292	-0.266293727	0.797983339
CDR20291_2441	1386	1386	1460	1513	-0.356397753	0.034237433
CDR20291_2442	3434	3434	4660	3831	-0.149707868	0.463703722
CDR20291_2443	274	274	274	144	-0.843468526	0.184636354
CDR20291_2444	54	54	63	6	-1.091924024	0.556903403
CDR20291_2445	6283	6283	8774	8971	0.04058795	0.658367216
CDR20291_2446	4684	4684	6989	8972	0.309812942	0.073003593
CDR20291_2447	829	829	1278	1286	0.171762585	0.441910963
CDR20291_2448	26	26	1	2	-4.575336899	0.011607079
CDR20291_2449	323	323	241	381	-0.514904994	0.319058168
CDR20291_2450	1273	1273	1410	1499	-0.265273267	0.146516433
CDR20291_2451	3474	3474	5128	3412	-0.156609066	0.628691651
CDR20291_2452	424	424	222	436	-0.827713721	0.141346334
CDR20291_2453	459	459	590	712	0.045721637	0.901362656
CDR20291_2454	899	899	1356	1090	-0.011585014	0.969362218
CDR20291_2455	1540	1540	1086	1081	-0.964351621	1.51E-09
CDR20291_2456	1712	1712	2652	2800	0.213583069	0.144067109
CDR20291_2456; CDR20291_2457	0	0	0	1	0.981173656	0.892870402
CDR20291_2457	422	422	327	501	-0.487696756	0.287743183
CDR20291_2458	1318	1318	1923	2228	0.196938856	0.331936642
CDR20291_2459	1259	1259	1946	2323	0.30323643	0.14065366
CDR20291_2460	34	34	94	6	0.11175954	0.957740469
CDR20291_2461	107	107	10	9	-3.950214797	1.16E-06
CDR20291_2462	22	22	29	87	0.934358532	0.516143827

CDR20291_2463	13	13	9	33	0.226826179	0.910988378
CDR20291_2464	2079	2079	3280	3590	0.266648886	0.053523426
CDR20291_2465	2154	2154	1824	2889	-0.330758033	0.313949424
CDR20291_2466	10260	10260	14369	16172	0.115735268	0.237735923
CDR20291_2467	4070	4070	3430	2607	-0.886397767	1.17E-05
CDR20291_2468	2617	2617	2148	1513	-0.970351485	0.000156799
CDR20291_2469	3709	3709	4651	3350	-0.345657772	0.16311
CDR20291_2470	143	143	10	20	-3.713824302	1.99E-06
CDR20291_2471	47	47	4	68	-0.85443616	0.685707466
CDR20291_2472	166	166	152	114	-0.774971658	0.186547253
CDR20291_2473	20	20	14	18	-0.780719545	0.629395864
CDR20291_2473; CDR20291_2474	1	1	2	0	-0.444052037	0.945214427
CDR20291_2474	1	1	3	2	0.867383711	0.844767498
CDR20291_2475	88	88	6	12	-3.75020581	9.41E-05
CDR20291_2476	19	19	14	16	-0.79905918	0.627552289
CDR20291_2477	56	56	13	14	-2.510066234	0.012885392
CDR20291_2478	4356	4356	5667	5381	-0.114076104	0.335567977
CDR20291_2479	1712	1712	2146	903	-0.618613007	0.250457323
CDR20291_2480	8184	8184	10994	11920	0.027641511	0.787478402
CDR20291_2481	3495	3495	6297	6030	0.361614882	0.000435764
CDR20291_2482	802	802	1171	918	-0.074304459	0.839772232
CDR20291_2483	2289	2289	1676	2012	-0.770288251	7.20E-06
CDR20291_2484	2763	2763	2310	2475	-0.665331871	3.62E-08
CDR20291_2485	2771	2771	2152	2259	-0.786776162	1.93E-11
CDR20291_2486	244	244	499	404	0.432164564	0.309022198
CDR20291_2487	2589	2589	4793	4120	0.327445519	0.049900535
CDR20291_2488	3303	3303	5920	6910	0.499435094	0.000116249
CDR20291_2489	3264	3264	4409	5721	0.174926254	0.404724251
CDR20291_2490	4036	4036	6974	8045	0.437636918	0.000242382
CDR20291_2491	5041	5041	7225	7519	0.090925421	0.327489679

CDR20291_2492	18839	18839	29462	32608	0.262308378	0.000153554
CDR20291_2493	765	765	512	479	-1.083283219	6.74E-06
CDR20291_2494	469	469	668	480	-0.163384729	0.724109494
CDR20291_2495	5373	5373	8298	7926	0.137505865	0.169385867
CDR20291_2496	2306	2306	3313	3296	0.061927822	0.679608802
CDR20291_2497	3401	3401	6819	6148	0.474404148	0.000140481
CDR20291_2498	6134	6134	7846	7362	-0.146767937	0.166549967
CDR20291_2499	4833	4833	6726	7795	0.128964197	0.346404995
CDR20291_2500	1492	1492	1830	1299	-0.386275304	0.208291179
CDR20291_2501	3371	3371	5705	6365	0.382265657	0.000752854
CDR20291_2502	33	33	67	47	0.333758908	0.784609239
CDR20291_2503	391	391	1019	801	0.763242604	0.017982596
CDR20291_2504	1739	1739	3139	3312	0.433748694	0.00073756
CDR20291_2505	1418	1418	3213	3781	0.843969681	1.16E-07
CDR20291_2506	5	5	7	96	2.895007434	0.156690863
CDR20291_2507	13	13	20	6	-0.449889317	0.841776243
CDR20291_2508	1157	1157	1906	1881	0.253610777	0.146740151
CDR20291_2509	1276	1276	2179	2416	0.390575165	0.019342673
CDR20291_2510	2996	2996	4943	5606	0.35796905	0.004739149
CDR20291_2511	348	348	583	663	0.382112356	0.240675362
CDR20291_2512	9281	9281	14480	13305	0.125413579	0.224121734
CDR20291_2513	2272	2272	1797	1546	-0.898925609	2.88E-07
CDR20291_2514	1219	1219	1238	962	-0.603580959	0.02422959
CDR20291_2515	6657	6657	7126	6566	-0.416180948	5.40E-05
CDR20291_2516	5420	5420	6942	6684	-0.126885567	0.207698635
CDR20291_2517	2729	2729	4034	5161	0.29358473	0.131694076
CDR20291_2518	169	169	268	324	0.350122199	0.48899982
CDR20291_2519	58	58	23	55	-1.035304625	0.371793982
CDR20291_2520	149	149	66	32	-2.057021245	0.008670473
CDR20291_2521	97	97	51	64	-1.213058124	0.096515779

CDR20291_2522	17	17	31	201	2.302826235	0.110120327
CDR20291_2523	789	789	391	385	-1.481022617	3.10E-10
CDR20291_2524	1653	1653	1504	1166	-0.763613	0.00161402
CDR20291_2525	13243	13243	21588	21777	0.254095261	2.72E-07
CDR20291_2526	44	44	4	8	-3.335260117	0.009091857
CDR20291_2527	2118	2118	3176	3416	0.180365115	0.194041392
CDR20291_2528	2915	2915	3749	3945	-0.057258045	0.678440188
CDR20291_2529	1296	1296	1661	1240	-0.292603769	0.331936642
CDR20291_2530	345	345	580	463	0.140487144	0.75549365
CDR20291_2531	329	329	557	534	0.272634709	0.4349582
CDR20291_2532	688	688	875	703	-0.258010205	0.435520799
CDR20291_2533	2977	2977	6722	5282	0.556165209	0.003355343
CDR20291_2534	594	594	1360	814	0.418267761	0.35850531
CDR20291_2535	5228	5228	14463	13230	0.948684015	3.36E-24
CDR20291_2536	2283	2283	4863	5273	0.692776661	2.72E-10
CDR20291_2537	5630	5630	11213	10209	0.471410867	5.12E-06
CDR20291_2538	1503	1503	1908	1985	-0.084380029	0.651496552
CDR20291_2539	107	107	227	301	0.843827983	0.11768742
CDR20291_2540	564	564	1286	1354	0.769268872	0.000174742
CDR20291_2541	19	19	52	15	0.368700655	0.842066219
CDR20291_2542	10	10	77	24	1.886529649	0.214096876
CDR20291_2543	20	20	20	16	-0.607681223	0.708859079
CDR20291_2544	18887	18887	13470	14294	-0.901732485	3.53E-65
CDR20291_2545	1441	1441	1089	606	-1.218870415	0.002120957
CDR20291_2546	3899	3899	7945	7675	0.545315514	1.05E-09
CDR20291_2547	995	995	336	418	-1.858715387	1.47E-13
CDR20291_2548	2137	2137	1696	1885	-0.713090562	1.13E-06
CDR20291_2549	3346	3346	3478	3374	-0.422852527	0.000147705
CDR20291_2550	1627	1627	1594	1442	-0.556501403	0.001781073
CDR20291_2551	13171	13171	22966	23395	0.358273114	1.59E-14

CDR20291_2552	193	193	477	253	0.466509647	0.493055186
CDR20291_2553	221	221	281	449	0.26346485	0.662814637
CDR20291_2554	454	454	541	684	-0.02674826	0.945023574
CDR20291_2555	453	453	653	298	-0.381883775	0.576111371
CDR20291_2556	958	958	1280	1096	-0.145630715	0.601083855
CDR20291_2557	330	330	594	644	0.449770847	0.151582918
CDR20291_2558	1038	1038	1268	1587	0.000973274	0.996437979
CDR20291_2559	564	564	786	857	0.08482612	0.784879655
CDR20291_2560	6582	6582	10869	11612	0.314502615	3.05E-05
CDR20291_2561	10650	10650	18153	20713	0.409571906	4.15E-06
CDR20291_2562	2077	2077	4004	4295	0.54080432	3.44E-06
CDR20291_2563	2727	2727	5116	4238	0.322465455	0.07842166
CDR20291_2564	60	60	238	184	1.358853319	0.02577044
CDR20291_2565	271	271	393	486	0.238959557	0.58411486
CDR20291_2566	126	126	169	54	-0.626258444	0.567862847
CDR20291_2567	318	318	578	471	0.266190004	0.520552908
CDR20291_2568	1026	1026	1123	1060	-0.367473153	0.078435218
CDR20291_2569	136	136	151	99	-0.575973705	0.417333246
CDR20291_2570	1238	1238	1847	1852	0.121958465	0.52089291
CDR20291_2571	9	9	82	5	1.828469792	0.408380026
CDR20291_2572	3433	3433	5804	5488	0.261005798	0.022011524
CDR20291_2573	6182	6182	12489	12683	0.568422021	8.71E-20
CDR20291_2574	397	397	285	122	-1.415629077	0.030583502
CDR20291_2575	1117	1117	1079	1316	-0.358122928	0.134517148
CDR20291_2576	239	239	224	283	-0.373762329	0.444793541
CDR20291_2577	18231	18231	32843	36708	0.473740112	1.06E-11
CDR20291_2578	13108	13108	23801	21235	0.324308851	0.000927337
CDR20291_2579	13492	13492	16409	16578	-0.167423726	0.001928537
CDR20291_2580	16566	16566	25524	32431	0.347844069	0.008739446
CDR20291_2581	2456	2456	3294	3266	-0.039703446	0.797262847

CDR20291_2582	1087	1087	2468	3033	0.880743452	4.20E-06
CDR20291_2583	5402	5402	8581	9708	0.301395856	0.004466636
CDR20291_2584	1198	1198	924	733	-0.987604656	0.000101352
CDR20291_2585	867	867	959	412	-0.790303611	0.171899154
CDR20291_2586	202	202	270	222	-0.171506185	0.762926401
CDR20291_2587	381	381	501	533	-0.017196351	0.961200027
CDR20291_2588	9658	9658	16379	19885	0.450209657	0.000142556
CDR20291_2589	3471	3471	5933	5888	0.31083539	0.001035275
CDR20291_2590	2602	2602	3203	3260	-0.144684888	0.256715839
CDR20291_2591	1895	1895	2773	2650	0.060060159	0.736722114
CDR20291_2592	11160	11160	18292	18479	0.263015336	6.86E-07
CDR20291_2593	1935	1935	3305	3325	0.319487366	0.011339259
CDR20291_2594	1913	1913	2520	3339	0.155683085	0.547756115
CDR20291_2595	446	446	233	282	-1.250886174	0.000222782
CDR20291_2596	326	326	228	244	-0.923686041	0.012044915
CDR20291_2597	776	776	315	563	-1.282955526	0.002836526
CDR20291_2598	255	255	72	44	-2.590467621	5.05E-06
CDR20291_2599	942	942	902	1181	-0.314156016	0.285212547
CDR20291_2600	3155	3155	4626	5984	0.290738852	0.133797822
CDR20291_2601	8807	8807	14601	14078	0.246384613	0.000819836
CDR20291_2602	24	24	18	90	0.703319606	0.683987572
CDR20291_2603	103	103	35	29	-2.142499193	0.003422265
CDR20291_2604	1982	1982	2510	2657	-0.075166524	0.650873037
CDR20291_2604;CDR20291_2605	41	41	125	266	1.791199489	0.02826011
CDR20291_2605	9257	9257	15647	14786	0.260277616	0.001256202
CDR20291_2606	5054	5054	8304	6680	0.112339712	0.578304959
CDR20291_2607	1978	1978	8351	3259	1.102474619	0.16311
CDR20291_2608	3958	3958	25229	9479	1.681869582	0.031669774
CDR20291_2609	6257	6257	16619	9535	0.610273468	0.04285835
CDR20291_2610	49752	49752	115027	109538	0.717519321	3.02E-49

CDR20291_2610;CDR20291_2611	0	0	1	0	0.995828447	0.892707332
CDR20291_2611	3882	3882	9788	9486	0.854859793	1.14E-25
CDR20291_2612	6568	6568	14173	11878	0.531939159	8.56E-05
CDR20291_2613	2322	2322	3428	2946	0.000755009	0.996437979
CDR20291_2613;CDR20291_2614	118	118	64	94	-1.038556395	0.139395774
CDR20291_2614	9404	9404	17375	17638	0.439294673	1.51E-16
CDR20291_2615	1887	1887	2933	3947	0.407064393	0.076438476
CDR20291_2616	1127	1127	2423	1876	0.47618186	0.063796987
CDR20291_2617	588	588	598	1149	0.109327662	0.85271095
CDR20291_2618	441	441	334	337	-0.85167601	0.005837661
CDR20291_2619	512	512	643	633	-0.139628459	0.664695315
CDR20291_2620	797	797	1437	1287	0.316696117	0.173224007
CDR20291_2621	2046	2046	1789	2277	-0.468029512	0.026014389
CDR20291_2622	822	822	612	389	-1.169791008	0.002407598
CDR20291_2623	2695	2695	2358	2469	-0.616617618	1.66E-07
CDR20291_2624	3957	3957	6572	6626	0.280637683	0.001400257
CDR20291_2625	4503	4503	8161	7823	0.370821582	5.69E-05
CDR20291_2626	2594	2594	3465	3595	-0.012909369	0.929280825
CDR20291_2627	1113	1113	521	755	-1.262522905	3.03E-05
CDR20291_2628	311	311	379	298	-0.333256762	0.467027009
CDR20291_2629	22	22	23	19	-0.522996591	0.737259924
CDR20291_2629;CDR20291_2630	0	0	1	0	0.995828447	0.892707332
CDR20291_2630	87	87	44	14	-2.035208504	0.067961159
CDR20291_2631	78	78	11	90	-1.095412148	0.494666495
CDR20291_2632	5	5	9	6	0.130469657	0.959164171
CDR20291_2633	132	132	161	90	-0.526078543	0.513788555
CDR20291_2634	253	253	157	268	-0.712451716	0.222717544
CDR20291_2635	13935	13935	21736	24095	0.259735946	0.000532609
CDR20291_2636	12224	12224	20516	19285	0.246385986	0.001493289
CDR20291_2637	605	605	1607	1588	0.943746161	4.32E-07

CDR20291_2638	414	414	150	113	-2.109905076	1.50E-07
CDR20291_2639	89	89	114	53	-0.544112955	0.593459358
CDR20291_2640	4725	4725	6368	8252	0.170566011	0.376990532
CDR20291_2641	4992	4992	6642	7748	0.069144318	0.652080569
CDR20291_2642	590	590	286	563	-0.936718433	0.070237163
CDR20291_2643	833	833	1205	1329	0.147207987	0.544526284
CDR20291_2644	34	34	1	201	1.099233298	0.678449483
CDR20291_2645	7258	7258	11865	10927	0.194325	0.059895009
CDR20291_2646	7231	7231	10356	10440	0.066836894	0.40224684
CDR20291_2647	2104	2104	3342	4798	0.492181251	0.048406794
CDR20291_2648	5557	5557	7396	8730	0.078691328	0.605116203
CDR20291_2649	4835	4835	7928	8792	0.332116541	0.000832305
CDR20291_2650	727	727	1210	815	0.023523703	0.95644832
CDR20291_2651	1615	1615	2468	2595	0.190967131	0.210118149
CDR20291_2652	66687	66687	115151	127316	0.404446577	5.81E-14
CDR20291_2653	3050	3050	4339	4795	0.124597377	0.355916769
CDR20291_2654	151	151	190	155	-0.263714785	0.676955796
CDR20291_2655	8007	8007	8800	8396	-0.354078464	2.15E-05
CDR20291_2656	1855	1855	3374	2998	0.324013468	0.055696528
CDR20291_2657	101	101	119	86	-0.43368568	0.579140722
CDR20291_2658	26	26	42	9	-0.476221798	0.804373763
CDR20291_2659	20	20	16	75	0.719552581	0.686189799
CDR20291_2659; CDR20291_2660	1	1	0	1	-1.461440878	0.842066219
CDR20291_2660	9	9	61	13	1.591513145	0.388059989
CDR20291_2661	15	15	11	13	-0.780165203	0.673618515
CDR20291_2662	9	9	70	7	1.651311616	0.43348434
CDR20291_2663	79	79	37	17	-2.001227408	0.04554382
CDR20291_2664	94	94	12	83	-1.452396054	0.309378247
CDR20291_2665	18	18	11	7	-1.454336761	0.400217979
CDR20291_2666	32	32	13	43	-0.657152725	0.686578843

CDR20291_2667	126	126	73	59	-1.388652734	0.031873808
CDR20291_2668	154	154	29	41	-2.59674067	4.90E-05
CDR20291_2669	42	42	24	39	-0.87536174	0.45807665
CDR20291_2670	34	34	59	78	0.551514419	0.601312686
CDR20291_2671	59	59	74	68	-0.189471523	0.844753103
CDR20291_2672	1704	1704	282	324	-2.949523399	3.02E-54
CDR20291_2673	3242	3242	6116	5723	0.411913245	0.000263757
CDR20291_2674	8323	8323	13100	13000	0.19178194	0.004223675
CDR20291_2675	5299	5299	8414	7599	0.139030551	0.280876157
CDR20291_2676	1536	1536	2662	2078	0.170318674	0.535493422
CDR20291_2677	3725	3725	6140	6023	0.250174161	0.010646276
CDR20291_2678	18859	18859	28986	33868	0.278492597	0.003015972
CDR20291_2679	4438	4438	7387	6985	0.238527055	0.022474374
CDR20291_2680	112749	112749	226289	240638	0.592499304	1.64E-67
CDR20291_2681	170	170	127	50	-1.392910932	0.102164148
CDR20291_2682	91	91	58	130	-0.415691134	0.686932059
CDR20291_2683	14709	14709	24448	27894	0.373184849	9.01E-06
CDR20291_2684	19262	19262	35535	37152	0.458483975	2.41E-27
CDR20291_2685	14559	14559	13160	14665	-0.523436275	8.97E-12
CDR20291_2686	45672	45672	48776	54850	-0.275979333	4.73E-05
CDR20291_2687	4069	4069	7081	8862	0.511434168	0.000869104
CDR20291_2688	4089	4089	3988	3694	-0.546881497	2.97E-06
CDR20291_2689	679	679	345	377	-1.369145281	9.32E-08
CDR20291_2690	1647	1647	2298	2295	0.022457961	0.900982824
CDR20291_2691	806	806	708	489	-0.884012208	0.012894248
CDR20291_2692	2238	2238	3025	3221	0.023144854	0.890652865
CDR20291_2693	1128	1128	945	760	-0.859639066	0.000693494
CDR20291_2694	71	71	203	34	0.292027545	0.851261535
CDR20291_2695	170	170	118	72	-1.293413153	0.049358967
CDR20291_2696	33	33	14	45	-0.626123178	0.695442296

CDR20291_2697	1805	1805	3421	3168	0.411452799	0.004971352
CDR20291_2698	827	827	1504	1451	0.380300274	0.056597751
CDR20291_2699	4248	4248	4776	6691	-0.026911451	0.916521139
CDR20291_2700	2430	2430	2650	3935	-0.021717325	0.945023574
CDR20291_2701	961	961	1459	1660	0.240435817	0.266568952
CDR20291_2702	129	129	65	91	-1.185190178	0.072742822
CDR20291_2703	2035	2035	4007	3007	0.330109176	0.183096095
CDR20291_2704	1007	1007	1389	1864	0.232494463	0.433656548
CDR20291_2705	996	996	1251	1575	0.045790452	0.884290024
CDR20291_2706	10735	10735	17189	18442	0.273173129	3.05E-05
CDR20291_2707	6521	6521	9415	9126	0.050625849	0.614837808
CDR20291_2708	1598	1598	1748	1958	-0.244330822	0.170712691
CDR20291_2709	2279	2279	2594	2558	-0.280321006	0.035227558
CDR20291_2710	227	227	551	397	0.607335279	0.183693881
CDR20291_2711	318	318	193	380	-0.612240897	0.327321303
CDR20291_2712	1122	1122	803	716	-1.019326458	1.69E-06
CDR20291_2713	6361	6361	7562	8258	-0.14333383	0.142302482
CDR20291_2714	711	711	1107	1370	0.342040063	0.203631586
CDR20291_2715	4064	4064	7293	7546	0.411040229	5.24E-07
CDR20291_2715; CDR20291_2716	4183	4183	6360	7855	0.306158859	0.052578392
CDR20291_2717	1053	1053	1861	1600	0.260596963	0.262836239
CDR20291_2718	979	979	2095	1457	0.404675474	0.218276681
CDR20291_2719	1419	1419	1839	1894	-0.061887604	0.753894373
CDR20291_2720	1804	1804	1952	2080	-0.297283836	0.050268082
CDR20291_2721	1321	1321	2293	1820	0.183048292	0.503245692
CDR20291_2722	5651	5651	9761	9654	0.323524624	1.82E-05
CDR20291_2723	6035	6035	10121	8458	0.166389699	0.307646463
CDR20291_2724	4126	4126	3748	4704	-0.424200496	0.012548489
CDR20291_2725	735	735	1399	1375	0.45912481	0.022466572
CDR20291_2726	1589	1589	786	706	-1.547312223	5.97E-17

CDR20291_2727	716	716	508	601	-0.82705649	0.001704996
CDR20291_2728	526	526	477	543	-0.502591625	0.090898661
CDR20291_2729	707	707	412	1016	-0.449012102	0.492984199
CDR20291_2730	1128	1128	750	1003	-0.823096598	0.002109863
CDR20291_2731	4000	4000	5067	7007	0.134379128	0.58393433
CDR20291_2732	1184	1184	1320	1443	-0.235189192	0.23521241
CDR20291_2733	2768	2768	7038	6591	0.84308278	1.70E-15
CDR20291_2734	4925	4925	8931	8753	0.387243946	1.59E-06
CDR20291_2735	1250	1250	2324	2455	0.477256343	0.00145613
CDR20291_2736	2137	2137	1661	1981	-0.689219731	7.39E-05
CDR20291_2737	4018	4018	4416	4592	-0.292684583	0.002428461
CDR20291_2738	768	768	853	1604	0.216184677	0.679608802
CDR20291_2739	3784	3784	5460	6642	0.218727975	0.173406254
CDR20291_2740	6260	6260	10746	11017	0.340325021	4.11E-07
CDR20291_2741	30145	30145	44525	43800	0.093876345	0.053699311
CDR20291_2742	360	360	1052	764	0.879800847	0.013738319
CDR20291_2743	3358	3358	5376	5485	0.236198301	0.016054496
CDR20291_2744	5126	5126	8961	9363	0.380379844	4.54E-07
CDR20291_2745	1632	1632	3515	4276	0.796637513	2.01E-06
CDR20291_2746	13052	13052	19383	21408	0.186132674	0.016985942
CDR20291_2747	6345	6345	8889	9564	0.08250915	0.387487266
CDR20291_2748	3882	3882	8005	7912	0.578632432	1.90E-12
CDR20291_2749	13281	13281	25114	24538	0.445508311	5.54E-16
CDR20291_2750	1497	1497	901	1044	-1.080446562	7.02E-09
CDR20291_2751	1628	1628	1836	1577	-0.388147272	0.05861622
CDR20291_2752	232	232	151	184	-0.928431006	0.045234275
CDR20291_2753	1072	1072	633	784	-1.056066976	9.77E-06
CDR20291_2754	5439	5439	5458	6260	-0.350792679	0.002788311
CDR20291_2755	1028	1028	1097	698	-0.64984449	0.086218161
CDR20291_2756	622	622	951	831	0.062298297	0.850254757

CDR20291_2757	3669	3669	3827	3835	-0.394828395	8.28E-05
CDR20291_2758	119	119	158	189	0.08560381	0.897315946
CDR20291_2759	1197	1197	969	1272	-0.554317027	0.033290989
CDR20291_2760	1565	1565	1515	1154	-0.685102476	0.007570285
CDR20291_2761	2329	2329	2310	3665	-0.10117639	0.784838061
CDR20291_2762	5482	5482	6957	6700	-0.14001825	0.157986128
CDR20291_2763	5036	5036	6546	7848	0.056687189	0.74263306
CDR20291_2764	1240	1240	1214	1084	-0.566332192	0.005767025
CDR20291_2765	4627	4627	6991	5540	-0.018128058	0.936002426
CDR20291_2766	291	291	380	445	0.04514607	0.916484168
CDR20291_2767	312	312	174	265	-0.967318542	0.046498073
CDR20291_2768	768	768	900	683	-0.411742812	0.212221798
CDR20291_2769	3683	3683	6360	5738	0.259399134	0.050038451
CDR20291_2770	1073	1073	934	1312	-0.393811429	0.20535071
CDR20291_2771	323	323	385	99	-0.865231615	0.366545097
CDR20291_2772	1012	1012	1020	939	-0.503676117	0.019033901
CDR20291_2773	1451	1451	737	656	-1.515230727	7.54E-15
CDR20291_2774	1272	1272	768	1275	-0.777086149	0.032209319
CDR20291_2775	2581	2581	3089	3572	-0.09035033	0.614837808
CDR20291_2776	400	400	967	1033	0.864325434	0.000320188
CDR20291_2777	1204	1204	2178	1831	0.279483341	0.224121734
CDR20291_2778	955	955	1419	1388	0.098460933	0.66970833
CDR20291_2779	2158	2158	4285	4341	0.541761276	4.73E-07
CDR20291_2780	37	37	128	162	1.511675827	0.03534034
CDR20291_2781	7586	7586	13711	13420	0.381536411	2.03E-08
CDR20291_2782	3803	3803	5242	5602	0.054082785	0.664695315
CDR20291_2783	6983	6983	10430	11551	0.196475787	0.036498223
CDR20291_2784	15316	15316	41586	40233	0.960490438	4.99E-77
CDR20291_2785	484	484	424	552	-0.447082826	0.215302357
CDR20291_2786	939	939	1992	1659	0.503238234	0.030165973

CDR20291_2787	490	490	956	899	0.4638444	0.071742465
CDR20291_2788	1061	1061	1029	1062	-0.478593507	0.01295316
CDR20291_2789	1959	1959	2016	2056	-0.401661426	0.003587156
CDR20291_2790	374	374	865	652	0.564946239	0.124928349
CDR20291_2790;CDR20291_2791	23	23	97	15	0.837024394	0.647474324
CDR20291_2791	390	390	294	225	-1.043082976	0.009229835
CDR20291_2792	556	556	1320	1330	0.795637796	9.20E-05
CDR20291_2793	101	101	187	172	0.373056387	0.556903403
CDR20291_2794	7352	7352	10371	13712	0.252664962	0.153890213
CDR20291_2795	88	88	175	251	0.815640813	0.190330045
CDR20291_2796	127	127	241	85	-0.09031759	0.932259692
CDR20291_2797	6938	6938	10317	11428	0.190228359	0.044740115
CDR20291_2798	2037	2037	2850	4514	0.393644861	0.202310337
CDR20291_2799	6909	6909	8698	9137	-0.089322776	0.287743183
CDR20291_2800	2081	2081	4083	4125	0.522537156	2.23E-06
CDR20291_2801	490	490	443	533	-0.464308187	0.15477024
CDR20291_2802	1001	1001	494	1061	-0.826897377	0.102392125
CDR20291_2803	907	907	1015	602	-0.619364733	0.146765801
CDR20291_2804	2732	2732	2912	3762	-0.17035987	0.447658912
CDR20291_2805	1623	1623	2184	1916	-0.119270884	0.590259223
CDR20291_2806	4368	4368	4276	3066	-0.705579088	0.00196111
CDR20291_2807	6146	6146	12639	12484	0.574230411	1.15E-17
CDR20291_2808	1586	1586	1962	1630	-0.276451782	0.227259741
CDR20291_2809	3917	3917	5496	5690	0.056488499	0.617692848
CDR20291_2810	326	326	299	391	-0.377256838	0.387259799
CDR20291_2810;CDR20291_2811	0	0	0	1	0.981173656	0.892870402
CDR20291_2811	4524	4524	6410	5441	-0.066639282	0.724551097
CDR20291_2812	1144	1144	772	962	-0.858637903	0.000280767
CDR20291_2813	4957	4957	6716	6304	-0.063511515	0.618296318
CDR20291_2814	2850	2850	2857	2327	-0.592595063	0.001840713

CDR20291_2815	1257	1257	1219	1256	-0.479906837	0.006154758
CDR20291_2816	2649	2649	2746	3092	-0.317939798	0.026280389
CDR20291_2817	761	761	906	1119	-0.046656408	0.89022594
CDR20291_2818	1205	1205	1132	873	-0.720768477	0.007518771
CDR20291_2819	1991	1991	1632	1649	-0.73657708	7.56E-08
CDR20291_2820	720	720	790	423	-0.700328492	0.158845436
CDR20291_2821	445	445	489	305	-0.618558384	0.20193416
CDR20291_2822	1800	1800	1809	1729	-0.481903077	0.001656035
CDR20291_2823	861	861	362	917	-0.892444833	0.133958176
CDR20291_2824	1475	1475	3105	3849	0.77846467	1.93E-05
CDR20291_2825	3416	3416	3763	3551	-0.358393467	0.002810348
CDR20291_2826	1500	1500	1891	2799	0.184710305	0.577940238
CDR20291_2827	1136	1136	1336	1291	-0.247460887	0.210118149
CDR20291_2828	1156	1156	2011	1823	0.273247046	0.168798629
CDR20291_2829	1535	1535	2827	3142	0.501370323	0.000665175
CDR20291_2830	8164	8164	15350	17622	0.555766833	3.32E-09
CDR20291_2831	1528	1528	2076	3105	0.301594816	0.332427817
CDR20291_2832	10829	10829	18380	18365	0.305508443	2.42E-08
CDR20291_2833	11577	11577	17309	18541	0.173085704	0.009839639
CDR20291_2833; CDR20291_2834	5715	5715	9858	10084	0.345682296	8.05E-07
CDR20291_2835	2565	2565	5196	4525	0.465983103	0.002156215
CDR20291_2836	1916	1916	2073	2753	-0.126414316	0.643777511
CDR20291_2837	1263	1263	1471	1054	-0.455374845	0.143107762
CDR20291_2838	1629	1629	1906	615	-0.819745978	0.204735324
CDR20291_2839	509	509	1257	362	0.220190733	0.811736923
CDR20291_2840	531	531	882	237	-0.373425368	0.69116377
CDR20291_2841	9814	9814	24622	14614	0.545828469	0.255092318
CDR20291_2842	279	279	802	364	0.611468823	0.355916769
CDR20291_2843	889	889	1355	1070	-0.007760491	0.980717217
CDR20291_2844	1059	1059	1280	1704	0.035393266	0.911831257

CDR20291_2845	5412	5412	6788	7180	-0.089640981	0.354504911
CDR20291_2846	5191	5191	6362	7464	-0.044973378	0.784609239
CDR20291_2847	715	715	1034	993	0.046461238	0.871143297
CDR20291_2848	5153	5153	5508	5260	-0.393562059	5.33E-05
CDR20291_2849	2943	2943	2034	2417	-0.861497376	2.23E-08
CDR20291_2850	4098	4098	5044	5865	-0.045678254	0.784844669
CDR20291_2851	1435	1435	1641	1371	-0.386220701	0.08964749
CDR20291_2852	3482	3482	3995	5097	-0.074189295	0.741999781
CDR20291_2853	2631	2631	3517	3325	-0.077950599	0.618429106
CDR20291_2854	879	879	1249	1789	0.329513288	0.313827621
CDR20291_2855	2451	2451	4826	4851	0.5240078	2.69E-07
CDR20291_2856	2652	2652	2652	1728	-0.730270291	0.014049219
CDR20291_2857	3325	3325	3682	4514	-0.157015918	0.397927466
CDR20291_2858	2654	2654	2168	3081	-0.475752311	0.057242487
CDR20291_2859	1108	1108	845	804	-0.883183494	6.16E-06
CDR20291_2860	470	470	308	532	-0.623174747	0.207009622
CDR20291_2861	1702	1702	3111	2672	0.308515816	0.108426416
CDR20291_2862	592	592	531	313	-0.941865343	0.042262743
CDR20291_2863	409	409	542	216	-0.560911381	0.449955887
CDR20291_2864	498	498	480	504	-0.474965264	0.103882029
CDR20291_2864; CDR20291_2865	0	0	0	1	0.981173656	0.892870402
CDR20291_2865	1110	1110	1260	1118	-0.357133793	0.110131244
CDR20291_2866	1131	1131	2993	2815	0.903726584	1.08E-09
CDR20291_2867	915	915	606	899	-0.741962226	0.028134282
CDR20291_2868	775	775	627	1089	-0.314201763	0.506962969
CDR20291_2869	5634	5634	7107	8976	0.054497741	0.784838061
CDR20291_2870	2159	2159	2734	2799	-0.099609138	0.503245692
CDR20291_2871	7663	7663	11056	12005	0.131753099	0.128698734
CDR20291_2872	1924	1924	3449	3839	0.463522441	0.000662096
CDR20291_2873	3593	3593	4184	4728	-0.147436834	0.287211177

CDR20291_2874	1094	1094	1189	1132	-0.371679847	0.063866126
CDR20291_2875	3096	3096	3945	3909	-0.114062374	0.351565379
CDR20291_2876	6829	6829	13976	12697	0.509176165	2.24E-07
CDR20291_2877	4620	4620	7692	7299	0.241354829	0.017277826
CDR20291_2878	1729	1729	2989	2033	0.083912189	0.820462039
CDR20291_2879	8998	8998	15949	16718	0.402685198	6.82E-12
CDR20291_2880	1633	1633	1798	2515	-0.058345026	0.859011926
CDR20291_2881	1241	1241	1172	2015	-0.10024341	0.831529625
CDR20291_2882	2163	2163	1586	1339	-1.020574	4.05E-08
CDR20291_2883	565	565	770	1149	0.3040845	0.449613
CDR20291_2884	674	674	494	174	-1.463222	0.02914624
CDR20291_2885	1429	1429	1677	2273	0.007560398	0.9797149
CDR20291_2886	2127	2127	2288	3072	-0.1258124	0.6446544
CDR20291_2887	4072	4072	5795	6460	0.1316566	0.2856639
CDR20291_2888	2157	2157	5057	5458	0.8276739	1.07E-14
CDR20291_2889	10586	10586	13043	13139	-0.1507794	0.01484285
CDR20291_2890	1012	1012	1067	827	-0.551145	0.05467817
CDR20291_2891	3123	3123	4557	4052	0.006596279	0.968945
CDR20291_2892	268	268	155	285	-0.7460044	0.219754
CDR20291_2893	1127	1127	1790	1968	0.2796769	0.1290315
CDR20291_2894	378	378	390	485	-0.2477433	0.5430881
CDR20291_2895	751	751	796	549	-0.613841	0.09852088
CDR20291_2896	3596	3596	4716	6925	0.2348728	0.3703689
CDR20291_2897	1207	1207	1498	1723	-0.04203035	0.8673789
CDR20291_2898	1930	1930	2544	1868	-0.2621264	0.3560164
CDR20291_2899	1413	1413	1135	1357	-0.6398322	0.001625257
CDR20291_2900	3298	3298	3146	3199	-0.513233	8.52E-07
CDR20291_2901	777	777	1040	1501	0.2496884	0.4898384
CDR20291_2902	727	727	1137	1257	0.2615584	0.2628731
CDR20291_2903	2186	2186	3334	3139	0.1094138	0.4948165

CDR20291_2904	1359	1359	2150	2494	0.3146421	0.09089866
CDR20291_2905	3428	3428	4434	4221	-0.1206384	0.3495445
CDR20291_2906	2356	2356	3555	4216	0.2634163	0.1138967
CDR20291_2907	2378	2378	2604	3346	-0.1357723	0.5659727
CDR20291_2908	8047	8047	10167	10918	-0.06794646	0.4519963
CDR20291_2909	9185	9185	12958	12007	-0.01404748	0.9040566
CDR20291_2910	1153	1153	1820	2162	0.3297528	0.1130464
CDR20291_2911	5890	5890	7867	8850	0.04700423	0.7193547
CDR20291_2912	4144	4144	5200	5631	-0.0716259	0.5601662
CDR20291_2913	241	241	267	326	-0.1595111	0.7557427
CDR20291_2914	1983	1983	2322	2284	-0.2412055	0.09743749
CDR20291_2915	1555	1555	1121	1499	-0.7065183	0.003947915
CDR20291_2916	1059	1059	1139	1202	-0.3130911	0.1147436
CDR20291_2917	1531	1531	1973	2239	0.002009873	0.9909669
CDR20291_2918	1286	1286	1469	1612	-0.1972746	0.3125516
CDR20291_2919	204	204	79	70	-1.90965	0.000155238
CDR20291_2920	1340	1340	1642	1868	-0.06879848	0.7651388
CDR20291_2921	165	165	66	326	-0.2182893	0.8684698
CDR20291_2922	1415	1415	1826	1291	-0.3153446	0.3265812
CDR20291_2923	1294	1294	1300	2052	-0.0871689	0.8361399
CDR20291_2924	2577	2577	2166	2516	-0.596749	9.35E-05
CDR20291_2925	1370	1370	1721	1849	-0.07588978	0.7095615
CDR20291_2926	3357	3357	2651	3822	-0.5124715	0.03496914
CDR20291_2927	3493	3493	4774	4391	-0.0648913	0.6780267
CDR20291_2927; CDR20291_2928	31	31	90	174	1.628559	0.06932715
CDR20291_2928	4148	4148	7793	8347	0.5025296	5.53E-09
CDR20291_2929	5019	5019	6517	8787	0.1491611	0.4943808
CDR20291_2930	535	535	771	892	0.1780261	0.5661783
CDR20291_2931	6597	6597	11144	10638	0.266437	0.001712977
CDR20291_2932	1175	1175	895	1188	-0.6331098	0.01731205

CDR20291_2933	3423	3423	3413	3028	-0.5442858	0.000148722
CDR20291_2934	1249	1249	2405	1705	0.2636571	0.4144939
CDR20291_2935	1683	1683	1301	1920	-0.5234047	0.07532772
CDR20291_2936	482	482	721	272	-0.4079065	0.5968936
CDR20291_2937	5328	5328	8704	10136	0.3639088	0.001874851
CDR20291_2938	14062	14062	26267	27208	0.4696729	2.46E-25
CDR20291_2939	823	823	512	751	-0.8419023	0.01351953
CDR20291_2940	2982	2982	2891	2624	-0.5693943	4.82E-05
CDR20291_2941	3758	3758	6670	8453	0.5498749	0.000618526
CDR20291_2942	2502	2502	2741	3076	-0.2407495	0.1046416
CDR20291_2943	888	888	1320	1502	0.2100473	0.3614983
CDR20291_2944	1237	1237	2285	2844	0.5931453	0.003506322
CDR20291_2945	8837	8837	13437	13649	0.1586647	0.01187204
CDR20291_2946	935	935	1602	1010	0.02821391	0.9478355
CDR20291_2947	454	454	593	209	-0.6293856	0.4181237
CDR20291_2948	1284	1284	1798	1363	-0.1554577	0.6244293
CDR20291_2949	7087	7087	13279	14503	0.5131388	2.34E-11
CDR20291_2949; CDR20291_2950	5730	5730	9091	10696	0.329647	0.006780693
CDR20291_2951	431	431	778	1285	0.7983264	0.0532876
CDR20291_2952	1260	1260	1057	1007	-0.7448038	4.64E-05
CDR20291_2953	311	311	546	664	0.5015191	0.1489463
CDR20291_2954	3899	3899	6502	5420	0.1566048	0.3934197
CDR20291_2955	6390	6390	10896	11933	0.379197	5.99E-06
CDR20291_2956	1403	1403	1819	1931	-0.03918018	0.8473066
CDR20291_2957	1149	1149	1303	1782	-0.03445168	0.9161005
CDR20291_2958	923	923	2269	1423	0.5461471	0.1400262
CDR20291_2959	867	867	2455	1445	0.7159534	0.06653805
CDR20291_2960	611	611	3334	1621	1.567492	0.00035966
CDR20291_2961	3935	3935	15276	10557	1.260283	2.44E-09
CDR20291_2962	1375	1375	1979	938	-0.3669519	0.4930552

CDR20291_2962; CDR20291_2963	0	0	3	15	5.145808	0.3190582
CDR20291_2963	2314	2314	4830	3722	0.4305881	0.04959566
CDR20291_2964	925	925	1473	1409	0.1827044	0.3992633
CDR20291_2965	1339	1339	2551	1570	0.1681163	0.6911638
CDR20291_2966	242	242	188	258	-0.5772595	0.2483633
CDR20291_2967	4547	4547	4447	4097	-0.546579	2.00E-06
CDR20291_2968	2184	2184	2582	2331	-0.2868039	0.08482645
CDR20291_2969	15045	15045	22477	23395	0.1509066	0.003336461
CDR20291_2970	1228	1228	1048	1983	-0.1580976	0.7570137
CDR20291_2971	1229	1229	1401	1379	-0.2794405	0.1303969
CDR20291_2972	1202	1202	1244	1463	-0.287007	0.1922624
CDR20291_2973	3622	3622	3279	3692	-0.5133868	3.26E-05
CDR20291_2974	1989	1989	2824	3173	0.1342428	0.424541
CDR20291_2975	1768	1768	1448	2149	-0.4352463	0.1441622
CDR20291_2976	573	573	1456	1513	0.9159586	1.94E-06
CDR20291_2977	5346	5346	6466	7013	-0.1235267	0.2300053
CDR20291_2978	1647	1647	1359	1902	-0.4740305	0.08069382
CDR20291_2979	270	270	696	719	0.9324003	0.001118746
CDR20291_2980	7023	7023	13571	15264	0.5796845	4.47E-11
CDR20291_2981	7915	7915	12044	14475	0.2859094	0.02269965
CDR20291_2982	2432	2432	3078	2871	-0.16616	0.2783638
CDR20291_2983	4159	4159	7527	7746	0.419331	1.74E-07
CDR20291_2984	2036	2036	2412	2558	-0.1700404	0.2502492
CDR20291_2985	2224	2224	3486	3245	0.1410177	0.3689042
CDR20291_2986	15363	15363	18479	19764	-0.1418788	0.02577533
CDR20291_2987	671	671	327	860	-0.6406613	0.3343178
CDR20291_2988	2515	2515	1935	3042	-0.4756163	0.1167021
CDR20291_2989	5218	5218	7492	8020	0.1141983	0.2354625
CDR20291_2990	10812	10812	22173	23025	0.6062181	7.59E-35
CDR20291_2991	48199	48199	93555	100999	0.5554052	1.06E-35

CDR20291_2992	729	729	897	1415	0.204811	0.6355075
CDR20291_2993	696	696	928	503	-0.4130429	0.4300897
CDR20291_2994	9788	9788	11045	13458	-0.1346809	0.3461936
CDR20291_2995	2019	2019	3232	3176	0.2092072	0.1229781
CDR20291_2996	3498	3498	5914	5891	0.2976766	0.001606524
CDR20291_2997	3421	3421	5928	6245	0.3736889	6.92E-05
CDR20291_2997;CDR20291_2998	2	2	0	0	-3.899803	0.5569034
CDR20291_2998	2325	2325	3522	3610	0.1597599	0.206668
CDR20291_2999	910	910	1030	1112	-0.2226493	0.3240514
CDR20291_3000	1371	1371	1187	1856	-0.3100171	0.3866158
CDR20291_3001	850	850	435	259	-1.746148	1.83E-05
CDR20291_3002	311	311	160	282	-0.953853	0.08504254
CDR20291_3003	68	68	91	171	0.4845334	0.5990627
CDR20291_3004	298	298	86	134	-1.897845	0.000152093
CDR20291_3005	35	35	8	10	-2.417831	0.05845855
CDR20291_3006	11	11	16	27	0.5061922	0.7867648
CDR20291_3006;CDR20291_3007	29	29	0	52	-0.6290473	0.8502454
CDR20291_3007	3388	3388	4915	5523	0.1653791	0.2073234
CDR20291_3008	4888	4888	11083	8487	0.5460998	0.003005792
CDR20291_3009	1838	1838	3564	2306	0.2211647	0.536466
CDR20291_3010	7198	7198	20301	14597	0.8227025	1.54E-05
CDR20291_3011	53	53	49	7	-1.367334	0.4089192
CDR20291_3012	1152	1152	2704	2081	0.5990924	0.01586222
CDR20291_3013	923	923	1044	1179	-0.189875	0.4318617
CDR20291_3014	770	770	690	884	-0.4273516	0.1487372
CDR20291_3015	3687	3687	4533	6078	0.0658111	0.7919639
CDR20291_3016	266	266	440	296	0.01387789	0.980042
CDR20291_3017	518	518	174	581	-0.9213628	0.2403576
CDR20291_3018	8197	8197	10036	11183	-0.08571648	0.4169796
CDR20291_3019	749	749	829	1224	-0.005176025	0.9882087

CDR20291_3020	149	149	400	281	0.7376521	0.1606987
CDR20291_3021	1690	1690	3466	4419	0.7632205	5.19E-05
CDR20291_3022	203	203	133	352	-0.2070744	0.8285739
CDR20291_3023	1296	1296	1153	623	-0.9983174	0.0191819
CDR20291_3024	7	7	0	4	-2.277247	0.5568142
CDR20291_3025	1847	1847	3419	3210	0.3869018	0.006269518
CDR20291_3026	139	139	36	111	-1.383513	0.1535938
CDR20291_3027	45	45	47	105	0.2935942	0.8128413
CDR20291_3028	13	13	13	14	-0.4031901	0.8390543
CDR20291_3029	57	57	80	29	-0.5153645	0.6944759
CDR20291_3030	21	21	18	50	0.2314694	0.8927073
CDR20291_3031	261	261	30	73	-2.804045	6.69E-05
CDR20291_3032	284	284	115	302	-0.909345	0.2347278
CDR20291_3033	2824	2824	3181	1949	-0.5924708	0.07120505
CDR20291_3034	1528	1528	2245	2021	0.02482575	0.9097179
CDR20291_3035	681	681	613	654	-0.5618952	0.02284974
CDR20291_3036	977	977	862	882	-0.621334	0.001824538
CDR20291_3037	3406	3406	2649	3122	-0.6975445	1.26E-06
CDR20291_3038	4276	4276	4848	5011	-0.2521935	0.007348197
CDR20291_3039	3452	3452	4124	3677	-0.2801131	0.05792915
CDR20291_3040	987	987	1354	650	-0.4303408	0.4322246
CDR20291_3041	2810	2810	3927	4338	0.09860811	0.4980277
CDR20291_3042	10799	10799	19722	19396	0.3999076	3.48E-12
CDR20291_3043	700	700	830	1103	0.006286983	0.9845152
CDR20291_3044	3819	3819	6495	7355	0.4005997	0.000456475
CDR20291_3045	1010	1010	1103	834	-0.5157263	0.08554242
CDR20291_3045; CDR20291_3046	39	39	0	0	-8.185265	0.000603432
CDR20291_3046	289	289	602	529	0.5122074	0.1423025
CDR20291_3047	1267	1267	1329	1183	-0.4689264	0.02320398
CDR20291_3048	9039	9039	17394	17398	0.4873739	1.32E-18

CDR20291_3049	868	868	881	1015	-0.3309242	0.1710581
CDR20291_3050	2843	2843	3589	3829	-0.07397484	0.5962839
CDR20291_3051	1408	1408	1170	916	-0.8883546	0.000343328
CDR20291_3051; CDR20291_3052	1	1	0	0	-2.899835	0.6769558
CDR20291_3052	1367	1367	1682	2003	-0.02770971	0.9097179
CDR20291_3053	1190	1190	1160	1037	-0.5718065	0.006029644
CDR20291_3054	3921	3921	6062	8533	0.4365985	0.04277695
CDR20291_3055	2844	2844	1909	2352	-0.8753265	3.08E-07
CDR20291_3055; CDR20291_3056	0	0	1	0	0.9958284	0.8927073
CDR20291_3056	637	637	707	579	-0.4422451	0.1583204
CDR20291_3057	517	517	484	499	-0.5303274	0.06255639
CDR20291_3058	2056	2056	1779	1782	-0.6647188	8.05E-07
CDR20291_3059	1229	1229	689	990	-1.00954	0.000545264
CDR20291_3060	1464	1464	1305	1355	-0.5958916	0.000222833
CDR20291_3061	869	869	1187	1590	0.2169034	0.491582
CDR20291_3062	1873	1873	1847	1881	-0.4642211	0.000978553
CDR20291_3063	5577	5577	8670	9996	0.2847001	0.01351408
CDR20291_3064	8336	8336	12582	15569	0.297092	0.03075698
CDR20291_3065	1511	1511	1610	2069	-0.1750931	0.5032457
CDR20291_3066	4558	4558	8996	8706	0.5005242	2.95E-09
CDR20291_3067	2802	2802	3069	3574	-0.2128305	0.1841698
CDR20291_3068	8337	8337	12893	12413	0.1450012	0.07447274
CDR20291_3069	655	655	1199	1549	0.6098733	0.02394449
CDR20291_3070	1606	1606	1700	1818	-0.3263208	0.04272585
CDR20291_3071	3774	3774	5346	6784	0.2255753	0.2165767
CDR20291_3072	2754	2754	4135	3774	0.06546183	0.7024271
CDR20291_3073	855	855	830	629	-0.6842406	0.02685627
CDR20291_3074	535	535	471	396	-0.7594774	0.01727038
CDR20291_3075	3639	3639	3946	4851	-0.1851329	0.2998338
CDR20291_3076	2256	2256	2721	2315	-0.2974991	0.1224615

CDR20291_3077	2650	2650	5173	4998	0.4834916	6.76E-06
CDR20291_3078	1834	1834	1621	1936	-0.5027084	0.007056507
CDR20291_3079	1210	1210	1438	1562	-0.1477572	0.4723277
CDR20291_3079; CDR20291_3080	25	25	226	79	2.15853	0.03656252
CDR20291_3080	48	48	93	5	-0.4146371	0.8498296
CDR20291_3081	16	16	49	9	0.4104758	0.8449359
CDR20291_3082	3387	3387	5804	6640	0.4192784	0.000622677
CDR20291_3083	2250	2250	4720	4313	0.5487709	4.03E-05
CDR20291_3084	17	17	23	16	-0.2568023	0.8850409
CDR20291_3085	52	52	28	132	0.1550954	0.9164842
CDR20291_3086	117	117	23	51	-2.123027	0.01386808
CDR20291_3087	113	113	82	21	-1.58263	0.1636537
CDR20291_3088	6294	6294	26367	14114	1.232451	0.01900029
CDR20291_3089	667	667	2723	1099	1.067565	0.05352343
CDR20291_3090	308	308	3141	240	2.011729	0.2771517
CDR20291_3091	3770	3770	17684	8039	1.318724	0.04428793
CDR20291_3092	1362	1362	2284	1697	0.09236181	0.7846092
CDR20291_3093	6298	6298	8902	8923	0.04377366	0.6356994
CDR20291_3094	1303	1303	3449	3864	1.030686	1.09E-13
CDR20291_3095	557	557	396	602	-0.6186736	0.1296146
CDR20291_3096	7783	7783	11422	12091	0.1375201	0.06846556
CDR20291_3097	719	719	1030	936	-0.005287573	0.9845152
CDR20291_3098	797	797	589	772	-0.6869925	0.01990299
CDR20291_3099	372	372	1126	393	0.579551	0.449397
CDR20291_3100	2711	2711	4979	4652	0.3721917	0.002443514
CDR20291_3101	343	343	483	223	-0.4104511	0.5668452
CDR20291_3102	158	158	333	183	0.2544041	0.742061
CDR20291_3103	650	650	1815	650	0.4727516	0.5037668
CDR20291_3104	3898	3898	5803	5571	0.08807169	0.4657089
CDR20291_3105	937	937	1288	950	-0.1989205	0.5749002

CDR20291_3106	5812	5812	8565	9198	0.1541278	0.08507107
CDR20291_3107	51	51	3	2	-4.806138	0.000280937
CDR20291_3108	269	269	188	193	-0.95514	0.01874019
CDR20291_3109	4622	4622	6449	5092	-0.1352772	0.5319234
CDR20291_3110	610	610	1366	1533	0.7907273	0.000146364
CDR20291_3111	144	144	17	82	-2.006837	0.07602286
CDR20291_3112	18839	18839	16261	18604	-0.5700427	8.13E-12
CDR20291_3113	90565	90565	184920	207730	0.6582373	5.52E-31
CDR20291_3114	124	124	221	218	0.3668283	0.5137298
CDR20291_3115	2739	2739	3485	2813	-0.2543824	0.2286273
CDR20291_3116	1197	1197	1282	1047	-0.4954499	0.04649807
CDR20291_3117	5691	5691	8048	7522	-0.004654414	0.968945
CDR20291_3118	607	607	423	406	-1.007203	0.000150699
CDR20291_3119	936	936	949	1030	-0.3775129	0.07842166
CDR20291_3120	1077	1077	1616	1637	0.1375172	0.4930552
CDR20291_3121	199	199	143	105	-1.137522	0.03750087
CDR20291_3122	653	653	968	690	-0.110488	0.7996449
CDR20291_3123	157	157	81	140	-0.9675183	0.1583204
CDR20291_3124	820	820	917	1429	0.05625318	0.896319
CDR20291_3124; CDR20291_3125	1	1	0	0	-2.899835	0.6769558
CDR20291_3125	771	771	1224	919	0.01969477	0.9573855
CDR20291_3126	1518	1518	2358	2114	0.1023652	0.6328709
CDR20291_3127	6287	6287	9031	9610	0.1104594	0.203984
CDR20291_3128	3676	3676	4913	5447	0.03695166	0.8019848
CDR20291_3129	9589	9589	18789	20785	0.5872412	2.14E-15
CDR20291_3130	16064	16064	25180	23653	0.1473292	0.05861622
CDR20291_3131	3142	3142	4085	4755	0.03415249	0.8502454
CDR20291_3132	252	252	205	351	-0.3191667	0.6148378
CDR20291_3133	474	474	477	1116	0.2858701	0.6769558
CDR20291_3134	1330	1330	1948	1998	0.1116442	0.5463285

CDR20291_3135	6129	6129	8878	10854	0.2282377	0.1167982
CDR20291_3136	2990	2990	3024	2715	-0.5157422	0.000377002
CDR20291_3137	903	903	1552	1990	0.512874	0.03740613
CDR20291_3138	277	277	326	126	-0.7444365	0.3513959
CDR20291_3139	446	446	265	523	-0.6406345	0.2608424
CDR20291_3140	129	129	317	22	-0.05072793	0.9751906
CDR20291_3141	3450	3450	5568	6332	0.3282452	0.00805371
CDR20291_3142	909	909	713	1028	-0.5221279	0.1167982
CDR20291_3143	4148	4148	7217	6179	0.2352779	0.1307893
CDR20291_3144	776	776	1407	1590	0.4913969	0.01859371
CDR20291_3145	2634	2634	2533	2467	-0.5322964	1.53E-05
CDR20291_3146	63	63	99	35	-0.3616729	0.7847754
CDR20291_3147	9532	9532	14383	15502	0.1909015	0.009455405
CDR20291_3148	6434	6434	9555	9475	0.1073998	0.1900437
CDR20291_3148; CDR20291_3149	406	406	902	1395	1.039991	0.004322566
CDR20291_3149	1782	1782	3986	4221	0.7458149	8.67E-11
CDR20291_3150	1816	1816	2666	3522	0.3095937	0.1808546
CDR20291_3151	13420	13420	23652	28499	0.4998298	2.87E-06
CDR20291_3152	898	898	859	674	-0.6838981	0.01798031
CDR20291_3153	513	513	582	534	-0.3352555	0.2756232
CDR20291_3154	1096	1096	683	799	-1.022908	2.11E-06
CDR20291_3155	868	868	1108	713	-0.3850981	0.346405
CDR20291_3156	1436	1436	1262	958	-0.8267194	0.001535244
CDR20291_3157	2088	2088	2163	1586	-0.6105718	0.01824965
CDR20291_3158	1727	1727	2213	2663	0.03898954	0.8711433
CDR20291_3159	1125	1125	1172	1563	-0.1775439	0.5648798
CDR20291_3160	2054	2054	1216	1362	-1.130094	1.55E-13
CDR20291_3161	15	15	17	19	-0.1948556	0.9101967
CDR20291_3162	67	67	76	67	-0.3625169	0.6888995
CDR20291_3163	685	685	399	636	-0.8649053	0.03016597

CDR20291_3163;CDR20291_3164	48	48	20	0	-2.706426	0.2832954
CDR20291_3164	663	663	614	362	-0.8956299	0.04746521
CDR20291_3165	112	112	191	62	-0.2742971	0.8166367
CDR20291_3166	24	24	19	7	-1.335617	0.4245816
CDR20291_3167	357	357	210	228	-1.162686	0.000986681
CDR20291_3168	2202	2202	3670	4376	0.4110727	0.01120061
CDR20291_3169	1103	1103	1521	2652	0.4586068	0.2410964
CDR20291_3170	160	160	85	121	-1.09492	0.07015777
CDR20291_3171	5378	5378	8876	9698	0.3303782	0.000236085
CDR20291_3172	3273	3273	5446	4885	0.201918	0.16311
CDR20291_3173	4349	4349	3202	3883	-0.7544119	2.38E-07
CDR20291_3174	4582	4582	6204	6058	-0.03683685	0.758846
CDR20291_3175	5685	5685	6777	8093	-0.07122928	0.6633814
CDR20291_3176	582	582	691	824	-0.07813148	0.8229601
CDR20291_3177	1128	1128	2659	2370	0.7001685	7.46E-05
CDR20291_3178	2213	2213	4299	4588	0.5480966	8.81E-07
CDR20291_3179	4547	4547	6479	6803	0.08900327	0.3748425
CDR20291_3180	7049	7049	12343	14105	0.449577	4.22E-06
CDR20291_3181	1402	1402	2178	2985	0.4213491	0.09985228
CDR20291_3182	753	753	756	832	-0.3813093	0.1171768
CDR20291_3183	1077	1077	1536	1235	-0.09222776	0.7708279
CDR20291_3184	22579	22579	25026	23683	-0.3475439	9.44E-08
CDR20291_3185	3740	3740	3733	4295	-0.3561209	0.007961167
CDR20291_3186	3527	3527	3933	5219	-0.08350722	0.7334042
CDR20291_3187	1541	1541	1236	1471	-0.6455158	0.000916041
CDR20291_3187A	2	2	5	123	4.529528	0.04056127
CDR20291_3188	9897	9897	17826	15383	0.2904278	0.01711227
CDR20291_3188;CDR20291_3189	10	10	52	0	0.9356618	0.8005377
CDR20291_3189	14182	14182	30295	22586	0.4436603	0.0106518
CDR20291_3190	1094	1094	1722	902	-0.1904991	0.7231904

CDR20291_3191	3456	3456	18380	6488	1.396913	0.09967317
CDR20291_3192	2604	2604	9452	4757	0.9956482	0.007113458
CDR20291_3193	555	555	3568	592	1.459246	0.3122389
CDR20291_3194	668	668	2366	670	0.7351823	0.3308513
CDR20291_3195	4739	4739	11776	6594	0.5016419	0.1304538
CDR20291_3195; CDR20291_3196	0	0	1	0	0.9958284	0.8927073
CDR20291_3196	2611	2611	7319	4814	0.7621028	0.004227858
CDR20291_3197	3052	3052	4060	3605	-0.1277783	0.4531467
CDR20291_3198	835	835	1096	1146	-0.03251362	0.8979514
CDR20291_3199	1359	1359	2449	2490	0.4044129	0.005371246
CDR20291_3200	6632	6632	14148	14421	0.6496568	2.98E-28
CDR20291_3201	4188	4188	7492	8242	0.4517391	3.02E-06
CDR20291_3202	1537	1537	2524	3110	0.4154273	0.03516798
CDR20291_3203	3301	3301	2557	3320	-0.6268072	0.00097541
CDR20291_3204	5624	5624	9239	10501	0.3534044	0.00073756
CDR20291_3205	5348	5348	7508	8075	0.08525095	0.4039624
CDR20291_3206	5140	5140	7708	7217	0.08120869	0.5032637
CDR20291_3207	4195	4195	4626	5875	-0.135056	0.4967095
CDR20291_3207; CDR20291_3208	34	34	89	0	-0.05452238	0.9845152
CDR20291_3208	3190	3190	4255	2858	-0.297416	0.317544
CDR20291_3209	13062	13062	26947	28495	0.6280672	1.12E-35
CDR20291_3210	3566	3566	5306	5396	0.1282396	0.2156908
CDR20291_3211	5890	5890	10575	12320	0.5004635	5.04E-06
CDR20291_3212	1307	1307	1412	1356	-0.3742879	0.03817823
CDR20291_3213	262	262	496	409	0.3325408	0.4349367
CDR20291_3214	2964	2964	3895	4161	-0.01508253	0.9141415
CDR20291_3215	9503	9503	17357	17549	0.4197984	5.02E-15
CDR20291_3216	1002	1002	1250	1917	0.2000812	0.6008428
CDR20291_3217	12	12	18	15	0.003504778	0.9978321
CDR20291_3218	394	394	639	426	-0.01973851	0.968211

CDR20291_3219	43	43	16	61	-0.6247528	0.6877499
CDR20291_3220	1057	1057	2290	1963	0.5524455	0.007455676
CDR20291_3221	78014	78014	242792	276858	1.277645	1.83E-97
CDR20291_3221; CDR20291_3222	1	1	0	0	-2.899835	0.6769558
CDR20291_3222	37464	37464	135374	152360	1.483165	1.51E-140
CDR20291_3223	111	111	363	165	0.7981676	0.3139494
CDR20291_3224	14	14	19	16	-0.1340713	0.9400828
CDR20291_3225	2936	2936	4681	6044	0.4100925	0.0282011
CDR20291_3226	14219	14219	23582	26173	0.3491372	1.54E-06
CDR20291_3227	2819	2819	5477	4239	0.3298648	0.1260915
CDR20291_3228	4298	4298	10086	9143	0.705102	5.22E-11
CDR20291_3229	4622	4622	7061	7654	0.2129919	0.02949655
CDR20291_3230	12725	12725	23085	23005	0.3996678	1.47E-15
CDR20291_3231	835	835	638	695	-0.7828946	0.00047604
CDR20291_3232	8284	8284	13779	17062	0.437777	0.000841268
CDR20291_3233	10246	10246	15625	13949	0.07293776	0.5650446
CDR20291_3234	8353	8353	16514	16331	0.5182407	3.41E-18
CDR20291_3235	2893	2893	3123	4190	-0.1213298	0.6321885
CDR20291_3236	1286	1286	2053	2186	0.2632551	0.1135481
CDR20291_3237	334	334	473	404	-0.06333449	0.8902259
CDR20291_3238	1773	1773	5698	2898	0.8250428	0.03824406
CDR20291_3238; CDR20291_3239	1	1	3	0	0.1412477	0.9816614
CDR20291_3239	3358	3358	12033	5202	0.9082778	0.2099969
CDR20291_3240	6486	6486	19554	10758	0.7715607	0.1439895
CDR20291_3241	4738	4738	14993	7696	0.8071706	0.1686205
CDR20291_3242	14742	14742	33702	27051	0.5874679	1.36E-05
CDR20291_3242; CDR20291_3243	1	1	1	0	-1.446755	0.8420662
CDR20291_3243	1904	1904	3275	3444	0.3617201	0.004062946
CDR20291_3244	9394	9394	17620	16130	0.3885648	1.87E-05
CDR20291_3245	5872	5872	11495	13150	0.6112725	6.84E-10

CDR20291_3246	8319	8319	13374	13126	0.2144959	0.002007394
CDR20291_3246; CDR20291_3247	1	1	0	0	-2.899835	0.6769558
CDR20291_3247	7585	7585	12544	13567	0.3257428	1.66E-05
CDR20291_3247; CDR20291_3248	237	237	392	679	0.7150422	0.1707127
CDR20291_3248	2929	2929	5475	5187	0.407231	0.00030309
CDR20291_3248; CDR20291_3249	0	0	1	0	0.9958284	0.8927073
CDR20291_3249	3083	3083	6280	5813	0.5151658	7.92E-06
CDR20291_3250	3506	3506	6757	8207	0.6350716	6.07E-06
CDR20291_3250; CDR20291_3251	0	0	0	60	6.877729	0.2148044
CDR20291_3251	9506	9506	16580	18830	0.4391978	6.87E-07
CDR20291_3252	9089	9089	16456	16938	0.42005	1.59E-14
CDR20291_3252; CDR20291_3253	16	16	57	80	1.638548	0.1259887
CDR20291_3253	7961	7961	14565	13512	0.361758	5.18E-05
CDR20291_3254	4111	4111	6657	7076	0.2825173	0.002053883
CDR20291_3255	3887	3887	7221	5468	0.2516954	0.2541803
CDR20291_3256	13041	13041	21841	22439	0.3062681	1.98E-10
CDR20291_3257	6964	6964	11290	10703	0.2022885	0.02445827
CDR20291_3258	1763	1763	2214	2404	-0.06847625	0.7106382
CDR20291_3259	4325	4325	7179	7043	0.2603393	0.00390567
CDR20291_3260	3169	3169	5687	5349	0.3434023	0.002695141
CDR20291_3260; CDR20291_3261	1	1	0	1	-1.461441	0.8420662
CDR20291_3261	5745	5745	9008	9182	0.2054887	0.00641189
CDR20291_3262	12790	12790	20370	23636	0.3244781	0.000704118
CDR20291_3263	3696	3696	4402	4416	-0.2026826	0.05046668
CDR20291_3264	1330	1330	1355	1373	-0.4208206	0.01373832
CDR20291_3265	2727	2727	1882	1843	-1.007085	1.18E-16
CDR20291_3266	1981	1981	1882	2197	-0.4162302	0.0166965
CDR20291_3267	209	209	208	149	-0.6824658	0.2155192
CDR20291_3268	2151	2151	1617	1663	-0.8486494	1.36E-10
CDR20291_3269	4370	4370	4382	4037	-0.5105597	1.27E-05

CDR20291_3270	1708	1708	1693	1528	-0.5412409	0.00204295
CDR20291_3271	965	965	1159	962	-0.3197082	0.2343166
CDR20291_3272	6883	6883	12870	15362	0.5778146	4.61E-07
CDR20291_3273	5327	5327	7674	8448	0.1398187	0.1817273
CDR20291_3274	1681	1681	1832	2242	-0.1814296	0.4172276
CDR20291_3275	4457	4457	7519	6778	0.2251592	0.077891
CDR20291_3276	895	895	1047	850	-0.3719381	0.1893526
CDR20291_3277	635	635	671	638	-0.41317	0.1170163
CDR20291_3278	909	909	734	627	-0.8737604	0.000440426
CDR20291_3279	8255	8255	11426	11791	0.03447876	0.6753269
CDR20291_3280	1346	1346	1732	2134	0.06355762	0.8123219
CDR20291_3281	8142	8142	17905	18093	0.687244	9.16E-38
CDR20291_3282	789	789	1120	858	-0.129336	0.7234594
CDR20291_3283	486	486	403	454	-0.6396127	0.03549556
CDR20291_3284	1427	1427	1257	1322	-0.6036622	0.00024904
CDR20291_3285	298	298	587	434	0.3215559	0.4838194
CDR20291_3286	1822	1822	2236	1842	-0.2934443	0.1866326
CDR20291_3287	890	890	989	785	-0.4604126	0.1136188
CDR20291_3288	603	603	766	811	-0.07058389	0.8183733
CDR20291_3289	1282	1282	1956	1694	0.05336038	0.8397722
CDR20291_3290	1090	1090	984	1468	-0.2903167	0.4129492
CDR20291_3291	5448	5448	10508	9908	0.4491729	5.70E-07
CDR20291_3292	1578	1578	1827	3232	0.2196081	0.6010839
CDR20291_3293	65	65	58	175	0.3775466	0.7593493
CDR20291_3294	3549	3549	5838	5301	0.1936716	0.15459
CDR20291_3295	607	607	692	559	-0.4123607	0.2076986
CDR20291_3296	1103	1103	497	664	-1.385182	2.23E-07
CDR20291_3297	522	522	1262	1503	0.9467908	4.93E-05
CDR20291_3297; CDR20291_3298	0	0	1	0	0.9958284	0.8927073
CDR20291_3298	681	681	1284	982	0.2791604	0.4039988

CDR20291_3299	3495	3495	8407	8751	0.8380933	8.16E-27
CDR20291_3300	7510	7510	12821	12047	0.2707029	0.002085411
CDR20291_3301	1991	1991	3055	4211	0.4082464	0.08707511
CDR20291_3302	2	2	9	5	1.354068	0.6608754
CDR20291_3303	7	7	36	7	1.17117	0.6013127
CDR20291_3304	49	49	98	43	0.07312943	0.9509807
CDR20291_3305	72	72	16	37	-1.904346	0.06829933
CDR20291_3306	52	52	53	43	-0.5712299	0.5761114
CDR20291_3307	12	12	13	14	-0.2877142	0.887258
CDR20291_3308	12	12	7	8	-1.136071	0.5761114
CDR20291_3309	9	9	6	4	-1.302646	0.5779402
CDR20291_3310	16	16	20	11	-0.4990812	0.7893931
CDR20291_3311	2	2	5	4	0.7142452	0.8406699
CDR20291_3312	0	0	3	2	3.310168	0.6236939
CDR20291_3313	37	37	6	3	-3.493205	0.01273931
CDR20291_3314	5435	5435	8449	10534	0.3456389	0.02209222
CDR20291_3315	2505	2505	5896	4565	0.6068234	0.002561015
CDR20291_3316	900	900	1597	1732	0.4293858	0.02211194
CDR20291_3317	5499	5499	9931	10866	0.4613584	7.12E-08
CDR20291_3318	40	40	25	14	-1.490017	0.2250288
CDR20291_3319	2535	2535	2720	4322	0.01358051	0.968211
CDR20291_3320	79	79	129	168	0.4515787	0.535901
CDR20291_3321	362	362	198	431	-0.6653294	0.3076465
CDR20291_3322	1984	1984	2357	3211	0.02941629	0.9165211
CDR20291_3323	8	8	2	0	-3.446249	0.3234578
CDR20291_3324	170	170	32	26	-3.007395	6.37E-07
CDR20291_3325	6576	6576	10935	12810	0.3940719	0.00047863
CDR20291_3326	3878	3878	4183	5135	-0.1938856	0.2634247
CDR20291_3327	7811	7811	8150	8597	-0.3571894	7.30E-07
CDR20291_3328	4193	4193	7086	7121	0.3033671	0.000347098

CDR20291_3329	653	653	1596	1794	0.9181707	2.29E-06
CDR20291_3330	2233	2233	4375	5124	0.6305335	9.35E-06
CDR20291_3331	177	177	1230	1022	2.21355	1.56E-14
CDR20291_3332	3738	3738	6037	7006	0.3447421	0.00759397
CDR20291_3333	281	281	485	500	0.352198	0.3231418
CDR20291_3334	3919	3919	5863	6518	0.201685	0.0831637
CDR20291_3335	460	460	458	367	-0.6128726	0.09000903
CDR20291_3336	873	873	1008	1118	-0.1737673	0.4791184
CDR20291_3337	5415	5415	9145	8876	0.2777091	0.000989047
CDR20291_3338	4610	4610	5581	6090	-0.1176611	0.2984791
CDR20291_3339	102	102	63	80	-0.9712834	0.1700663
CDR20291_3340	2861	2861	3753	4332	0.04057894	0.8253144
CDR20291_3341	4200	4200	7079	8323	0.4163651	0.001053242
CDR20291_3341; CDR20291_3342	26	26	315	204	2.865038	1.33E-05
CDR20291_3342	4642	4642	8580	7614	0.3463478	0.006097433
CDR20291_3343	6963	6963	12368	13406	0.4304258	1.50E-08
CDR20291_3344	1415	1415	2365	3587	0.6124791	0.03409034
CDR20291_3345	2497	2497	3305	4443	0.1743846	0.4774372
CDR20291_3346	6556	6556	7738	9232	-0.08629782	0.5734099
CDR20291_3347	8137	8137	13295	15466	0.3633242	0.000551286
CDR20291_3348	4701	4701	7088	7580	0.1840219	0.05064973
CDR20291_3349	15981	15981	29505	28972	0.4144968	2.13E-16
CDR20291_3350	5305	5305	11330	11604	0.6547523	1.88E-23
CDR20291_3351	265	265	212	213	-0.7757111	0.05757289
CDR20291_3352	245	245	58	48	-2.664753	6.26E-08
CDR20291_3353	320	320	656	1009	0.9192182	0.02178766
CDR20291_3354	6649	6649	12534	11077	0.3719908	0.001353384
CDR20291_3355	202	202	867	604	1.409766	0.000429267
CDR20291_3356	3054	3054	4011	4324	-0.009182068	0.946785
CDR20291_3357	4812	4812	8561	8131	0.3376658	0.000362232

CDR20291_3358	5342	5342	10915	9707	0.4924267	1.87E-05
CDR20291_3359	2543	2543	1967	2607	-0.6122	0.004019934
CDR20291_3360	4427	4427	10859	9920	0.7742256	2.65E-14
CDR20291_3361	5197	5197	6984	8487	0.1152866	0.4831221
CDR20291_3362	1417	1417	1203	1310	-0.6311536	0.000236085
CDR20291_3363	780	780	650	785	-0.5789322	0.02842311
CDR20291_3364	2419	2419	2765	2334	-0.3801507	0.0436508
CDR20291_3365	698	698	605	908	-0.3438576	0.3866158
CDR20291_3366	1489	1489	1009	1114	-0.9460529	3.67E-08
CDR20291_3367	1557	1557	1388	2084	-0.3030057	0.3523279
CDR20291_3368	1284	1284	1258	861	-0.7317524	0.02292887
CDR20291_3369	1048	1048	1164	855	-0.5089858	0.1023492
CDR20291_3369; CDR20291_3370	1	1	1	0	-1.446755	0.8420662
CDR20291_3370	1659	1659	1372	2176	-0.3636941	0.2894707
CDR20291_3371	1374	1374	959	955	-0.9789146	7.62E-09
CDR20291_3372	590	590	589	694	-0.3375341	0.258784
CDR20291_3373	653	653	1134	468	-0.1564514	0.8339466
CDR20291_3374	3339	3339	6671	7142	0.5909189	1.39E-10
CDR20291_3375	2458	2458	3323	3553	0.02647802	0.8689137
CDR20291_3376	1389	1389	2203	1480	-0.04749954	0.9013627
CDR20291_3377	506	506	702	589	-0.1046544	0.7848381
CDR20291_3378	68	68	124	61	-0.008483128	0.9924977
CDR20291_3379	1158	1158	1956	1396	0.07862515	0.8368565
CDR20291_3380	11141	11141	25468	22935	0.6628288	9.02E-14
CDR20291_3381	3073	3073	6964	5040	0.5109636	0.02674578
CDR20291_3382	2430	2430	5494	5762	0.7541903	6.67E-15
CDR20291_3383	93	93	154	165	0.3206349	0.6356994
CDR20291_3384	66	66	29	55	-1.113383	0.2673907
CDR20291_3385	66	66	86	23	-0.7252913	0.5974146
CDR20291_3386	925	925	1533	631	-0.2249679	0.742061

CDR20291_3387	296	296	1216	228	0.8391329	0.4138389
CDR20291_3388	524	524	1534	738	0.6642207	0.2185669
CDR20291_3389	27	27	226	28	1.787821	0.2365079
CDR20291_3390	16	16	60	5	0.5771742	0.8067334
CDR20291_3391	938	938	1417	1360	0.1090028	0.6405184
CDR20291_3392	58	58	113	119	0.5424988	0.4863653
CDR20291_3393	40	40	23	158	0.7100798	0.6709131
CDR20291_3394	7798	7798	11747	15261	0.3331938	0.03817823
CDR20291_3394;CDR20291_3395	1455	1455	2178	1418	-0.1487428	0.7088591
CDR20291_3395	980	980	1331	1230	-0.07074988	0.7848381
CDR20291_3396	1375	1375	867	849	-1.137395	4.81E-11
CDR20291_3397	140	140	45	138	-1.077854	0.2724767
CDR20291_3398	4892	4892	9007	9473	0.4599733	1.69E-09
CDR20291_3399	28	28	203	160	2.240989	0.000963664
CDR20291_3400	664	664	846	613	-0.3191756	0.4039988
CDR20291_3401	1918	1918	1643	2066	-0.5073167	0.01452612
CDR20291_3402	4260	4260	9769	9835	0.7450308	3.98E-25
CDR20291_3402;CDR20291_3403	117	117	60	12	-2.148453	0.07583722
CDR20291_3403	45	45	13	44	-1.123539	0.4275893
CDR20291_3404	8165	8165	10212	9113	-0.2133898	0.07145194
CDR20291_3405	460	460	434	373	-0.6451858	0.05357052
CDR20291_3406	4960	4960	10082	10365	0.58614	2.97E-17
CDR20291_3407	4604	4604	8264	10076	0.5354777	9.14E-05
CDR20291_3408	525	525	454	552	-0.5202385	0.1023492
CDR20291_3409	1115	1115	2560	2627	0.7605323	7.89E-08
CDR20291_3410	1271	1271	1997	1627	0.05591589	0.8479193
CDR20291_3411	916	916	567	466	-1.282404	1.06E-06
CDR20291_3412	1267	1267	1173	1094	-0.6173071	0.000987172
CDR20291_3413	3516	3516	3057	3562	-0.5455313	8.88E-05
CDR20291_3414	4756	4756	5357	5381	-0.2822736	0.001427289

CDR20291_3415	3506	3506	7119	6987	0.551396	4.97E-10
CDR20291_3416	3954	3954	8696	7951	0.6173694	1.27E-08
CDR20291_3417	224	224	291	472	0.3076938	0.6013127
CDR20291_3418	10732	10732	14421	15854	0.03839668	0.6970238
CDR20291_3419	4766	4766	8736	8422	0.3911419	7.16E-06
CDR20291_3420	3283	3283	5361	5462	0.263739	0.006780693
CDR20291_3421	14093	14093	26142	25721	0.4226974	3.13E-16
CDR20291_3422	2366	2366	4034	2893	0.0950024	0.7641799
CDR20291_3423	582	582	2088	1094	0.9981985	0.02729767
CDR20291_3424	851	851	1945	1212	0.4375097	0.2673303
CDR20291_3424; CDR20291_3425	0	0	1	0	0.9958284	0.8927073
CDR20291_3425	244	244	1308	377	1.338622	0.08610447
CDR20291_3426	33199	33199	62623	64557	0.480303	1.69E-51
CDR20291_3427	13013	13013	25861	26404	0.5486021	3.28E-35
CDR20291_3428	22436	22436	36666	37615	0.2698551	2.17E-12
CDR20291_3429	11249	11249	21988	26131	0.6384297	2.81E-10
CDR20291_3430	4821	4821	12162	11652	0.8475643	8.16E-27
CDR20291_3431	5451	5451	9337	9814	0.3553362	2.31E-06
CDR20291_3432	672	672	919	1096	0.1258815	0.680761
CDR20291_3433	3109	3109	4203	4435	0.01673116	0.9013627
CDR20291_3434	19531	19531	37283	40505	0.5360495	7.41E-22
CDR20291_3434; CDR20291_3435	20	20	0	0	-7.221775	0.01819086
CDR20291_3435	4607	4607	7273	9167	0.376517	0.01871053
CDR20291_3435; CDR20291_3436	96	96	40	12	-2.334551	0.03342765
CDR20291_3436	5301	5301	9787	10387	0.4706017	5.32E-10
CDR20291_3437	643	643	268	407	-1.389913	0.000227373
CDR20291_3438	17312	17312	34334	35227	0.5491827	3.67E-44
CDR20291_3439	3379	3379	4914	6009	0.2341312	0.1606987
CDR20291_3440	9893	9893	13223	14942	0.05141403	0.6535571
CDR20291_3441	9998	9998	21292	20388	0.6028088	5.47E-20

CDR20291_3442	8677	8677	17683	17468	0.5612388	6.66E-22
CDR20291_3443	11567	11567	19683	20954	0.3551964	1.61E-09
CDR20291_3444	610	610	1315	2019	0.9902057	0.002456979
CDR20291_3445	9660	9660	16589	14791	0.2434295	0.02512574
CDR20291_3446	2972	2972	5139	3805	0.1344862	0.619434
CDR20291_3447	3531	3531	5946	6130	0.3166378	0.000525615
CDR20291_3448	4632	4632	6873	7779	0.203375	0.08466013
CDR20291_3449	434	434	345	491	-0.5137642	0.2153024
CDR20291_3450	5715	5715	10017	8671	0.253175	0.0659046
CDR20291_3451	1055	1055	2432	1187	0.326165	0.5409749
CDR20291_3452	3904	3904	4913	4288	-0.2193454	0.1583909
CDR20291_3453	1123	1123	3876	1528	0.8158112	0.1337182
CDR20291_3454	26	26	281	95	2.404069	0.01521928
CDR20291_3455	1146	1146	3792	1893	0.8582368	0.04751081
CDR20291_3456	1423	1423	5031	2176	0.8890529	0.06393918
CDR20291_3457	3550	3550	14769	8633	1.267399	6.76E-06
CDR20291_3458	300	300	1786	223	1.297544	0.2335735
CDR20291_3459	246	246	2333	137	1.883509	0.3495445
CDR20291_3460	107	107	1537	335	2.681028	0.00154271
CDR20291_3461	4932	4932	35424	10377	1.765928	0.06507814
CDR20291_3462	15	15	546	88	3.954704	0.000611211
CDR20291_3463	236	236	1469	211	1.385276	0.1900437
CDR20291_3464	259	259	2472	212	1.928409	0.2833632
CDR20291_3464;CDR20291_3465	0	0	1	0	0.9958284	0.8927073
CDR20291_3465	1236	1236	12704	2120	2.137392	0.1181735
CDR20291_3465;CDR20291_3466	1	1	2	0	-0.444052	0.9452144
CDR20291_3466	433	433	6277	509	2.525291	0.1523271
CDR20291_3467	100	100	502	89	1.116062	0.3476048
CDR20291_3468	5637	5637	15776	7615	0.6008778	0.3685989
CDR20291_3469	1795	1795	5244	2528	0.6622148	0.128965

CDR20291_3470	312	312	1228	568	1.073309	0.05948483
CDR20291_3471	471	471	280	162	-1.545141	0.00158766
CDR20291_3472	187	187	298	171	-0.1267952	0.8689137
CDR20291_3473	467	467	770	475	-0.03913109	0.9426741
CDR20291_3474	245	245	855	212	0.6742405	0.4909993
CDR20291_3475	403	403	343	352	-0.6710901	0.03828309
CDR20291_3476	3285	3285	5179	5695	0.2691106	0.0191907
CDR20291_3477	9976	9976	18154	18575	0.423082	3.64E-16
CDR20291_3477;CDR20291_3478	5183	5183	8401	8281	0.229387	0.005979992
CDR20291_3479	2401	2401	3689	2241	-0.1492286	0.7089245
CDR20291_3480	1252	1252	4170	2250	0.9055163	0.01967863
CDR20291_3481	2891	2891	4714	4858	0.2698984	0.009779353
CDR20291_3482	1149	1149	2983	2755	0.863582	2.43E-08
CDR20291_3483	5216	5216	9720	7809	0.2931542	0.09437056
CDR20291_3484	1308	1308	3068	3371	0.8416726	1.44E-09
CDR20291_3485	777	777	1599	1468	0.5242908	0.01137464
CDR20291_3486	6728	6728	9820	8676	0.002702976	0.9845152
CDR20291_3487	498	498	869	648	0.1519094	0.7193562
CDR20291_3488	533	533	740	959	0.2135284	0.5480532
CDR20291_3489	959	959	924	909	-0.5224346	0.01095666
CDR20291_3490	1255	1255	1382	1623	-0.19858	0.3767957
CDR20291_3491	105	105	6	95	-1.525727	0.3689042
CDR20291_3492	5120	5120	5211	6391	-0.2784318	0.07337259
CDR20291_3493	2087	2087	3209	3115	0.1424655	0.3259713
CDR20291_3494	481	481	622	291	-0.5274015	0.4068286
CDR20291_3494;CDR20291_3495	0	0	0	1	0.9811737	0.8928704
CDR20291_3495	175	175	160	242	-0.26013	0.694702
CDR20291_3496	2104	2104	2593	2698	-0.1270125	0.3881842
CDR20291_3497	1255	1255	1118	1087	-0.6438686	0.000320579
CDR20291_3498	2631	2631	3991	4110	0.1651404	0.1608605

CDR20291_3499	1765	1765	1921	2698	-0.07163008	0.8265899
CDR20291_3500	1766	1766	2894	1905	-0.01193611	0.9730344
CDR20291_3501	1916	1916	2829	2055	-0.1049124	0.7463559
CDR20291_3502	3037	3037	3362	3809	-0.2184854	0.1259142
CDR20291_3503	905	905	561	959	-0.7127821	0.08210797
CDR20291_3504	711	711	679	665	-0.538397	0.02543103
CDR20291_3505	6502	6502	10755	11218	0.2993392	1.62E-05
CDR20291_3506	2069	2069	2859	2971	0.03715219	0.8217917
CDR20291_3507	1485	1485	3621	3140	0.7306381	1.69E-05
CDR20291_3508	3796	3796	5921	6715	0.2769592	0.02280162
CDR20291_3509	14197	14197	27096	28518	0.5123594	6.07E-26
CDR20291_3510	7546	7546	14948	11886	0.3747835	0.02166655
CDR20291_3511	1484	1484	2314	1750	-0.001759313	0.9946281
CDR20291_3512	28	28	77	13	0.2373716	0.8982198
CDR20291_3513	38	38	149	19	0.6982777	0.6911638
CDR20291_3514	12517	12517	56908	25835	1.273061	0.05369931
CDR20291_3515	2121	2121	7809	4429	1.075406	0.000916041
CDR20291_3516	48	48	96	26	-0.1033159	0.9438934
CDR20291_3517	48	48	20	90	-0.2697234	0.8689137
CDR20291_3518	104	104	41	117	-0.8605231	0.4127625
CDR20291_3519	48	48	12	18	-2.137694	0.05299581
CDR20291_3520	30	30	2	9	-2.912236	0.08507107
CDR20291_3521	46	46	45	1	-1.443701	0.5409749
CDR20291_3522	19	19	10	6	-1.70196	0.3174659
CDR20291_3523	32	32	2	6	-3.462557	0.02693562
CDR20291_3524	487	487	356	526	-0.6029759	0.14372
CDR20291_3525	4	4	5	5	-0.1352205	0.9612
CDR20291_3526	4	4	3	3	-0.8721873	0.7867648
CDR20291_3527	268	268	327	427	0.03334828	0.9450236
CDR20291_3528	6399	6399	11685	14142	0.5544552	6.76E-06

CDR20291_3529	4375	4375	6795	7984	0.2979079	0.0239779
CDR20291_3530	4406	4406	5707	7212	0.09314453	0.6413584
CDR20291_3531	11047	11047	19790	22065	0.4638289	1.60E-09
CDR20291_3532	14816	14816	36227	39083	0.8880036	1.10E-61
CDR20291_3533	3618	3618	7356	8182	0.644644	1.85E-10
CDR20291_3534	2402	2402	3773	3598	0.1608078	0.245188
CDR20291_3534;CDR20291_3535	1	1	0	0	-2.899835	0.6769558
CDR20291_3535	163	163	199	201	-0.1620875	0.7839771
CDR20291_3536	186	186	208	127	-0.6049411	0.3585053
CDR20291_3537	195	195	76	84	-1.743194	0.000535485
CDR20291_3538	87	87	46	172	-0.14012	0.9118313
CDR20291_3539	147	147	7	54	-2.736674	0.03150071
CDR20291_3540	7	7	9	6	-0.3549885	0.8906529
CDR20291_3541	8	8	4	9	-0.7617137	0.7643408
CDR20291_3551	2280	2280	11667	5891	1.492648	1.92E-05
CDR20291_3552	1112	1112	8498	3917	2.029059	3.15E-07

Table S1b: Gene log₂ fold change data and p-values for R20291 *in vitro* samples (Input versus Spore samples)

Genes	InputR20291_1	InputR20291_2	SporeR20291_1	SporeR20291_2	log2FoldChange	padj
CDR20291_0001	2915	2915	5839	2560	0.766455117	0.215353634
CDR20291_0002	14018	14018	102232	40798	2.602245541	0.003983338
CDR20291_0003	75	75	217	92	1.283797965	0.185829915
CDR20291_0004	210	210	92	32	-1.500408657	0.134788335
CDR20291_0005	205	205	205	134	-0.091332294	0.907529626
CDR20291_0006	125	125	35	43	-1.595577282	0.019839611
CDR20291_0007	182	182	99	75	-0.90580473	0.212214879
CDR20291_0008	269	269	178	109	-0.715001539	0.337368759
CDR20291_0009	4179	4179	40342	13853	2.965140064	0.002272415
CDR20291_0010	16418	16418	41966	28337	1.280132555	0.001619624
CDR20291_0011	5651	5651	5400	5973	0.114869255	0.670583297
CDR20291_0012	5075	5075	6499	6222	0.454408577	0.139174073
CDR20291_0013	6144	6144	8133	12067	0.776534321	4.54E-12
CDR20291_0014	10782	10782	18074	28708	1.166195481	2.09E-34
CDR20291_0015	15669	15669	29060	43153	1.263730289	2.77E-38
CDR20291_0016	11107	11107	23764	38555	1.533761967	5.06E-56
CDR20291_0017	6959	6959	22933	34895	2.110371557	1.32E-108
CDR20291_0018	169	169	14	86	-1.87058159	0.059257895
CDR20291_0019	11994	11994	25794	35813	1.43077445	1.89E-31
CDR20291_0020	1897	1897	227	434	-2.497143684	1.74E-25
CDR20291_0021	703	703	279	556	-0.735653175	0.022730112
CDR20291_0022	1201	1201	966	2208	0.396607623	0.217380887
CDR20291_0023	2015	2015	3804	5394	1.256943718	1.92E-17
CDR20291_0024	5351	5351	17932	25060	2.07511856	4.88E-63
CDR20291_0025	931	931	1252	1270	0.55653284	0.107887177
CDR20291_0026	2524	2524	3094	4027	0.576175225	0.002045207
CDR20291_0027	1838	1838	388	408	-2.096511792	1.35E-11

CDR20291_0028	4850	4850	886	1363	-2.055038173	9.36E-51
CDR20291_0029	5343	5343	2208	2693	-1.034749237	2.99E-07
CDR20291_0029; CDR20291_0030	76	76	0	2	-6.289770741	0.000104655
CDR20291_0030	1185	1185	436	509	-1.231340027	2.87E-05
CDR20291_0031	84	84	41	57	-0.709413822	0.353608223
CDR20291_0032	1019	1019	1167	2041	0.689009903	0.00075202
CDR20291_0033	519	519	383	719	0.110674666	0.751737516
CDR20291_0034	1212	1212	180	456	-1.947505931	2.21E-07
CDR20291_0035	2718	2718	3196	4390	0.55211184	0.000712944
CDR20291_0036	62	62	50	79	0.106856615	0.899106612
CDR20291_0036; CDR20291_0037	0	0	0	1	1.443698351	0.810176602
CDR20291_0037	9	9	7	32	1.029019558	0.561309331
CDR20291_0038	179	179	80	176	-0.48115555	0.412006366
CDR20291_0039	2387	2387	207	627	-2.559090099	2.27E-10
CDR20291_0040	737	737	1453	2953	1.59136656	1.84E-10
CDR20291_0041	137	137	26	115	-1.04246929	0.258024334
CDR20291_0042	6587	6587	12635	11465	1.008517109	0.001034433
CDR20291_0043	14	14	33	82	2.022798288	0.05627016
CDR20291_0044	12011	12011	7946	15921	0.003932673	0.985990972
CDR20291_0045	11846	11846	13907	17667	0.498374313	0.003031902
CDR20291_0046	1196	1196	571	1333	-0.337185561	0.336687294
CDR20291_0047	1970	1970	1228	1482	-0.448718724	0.070110901
CDR20291_0048	1492	1492	562	897	-0.983881685	5.64E-07
CDR20291_0049	15631	15631	20817	30393	0.774046772	2.05E-13
CDR20291_0050	1816	1816	14	56	-5.741997696	7.02E-33
CDR20291_0051	1807	1807	352	383	-2.192637363	1.76E-13
CDR20291_0052	2	2	6	9	1.964296476	0.409347609
CDR20291_0053	38	38	9	32	-0.945379798	0.461966696
CDR20291_0054	7	7	17	65	2.480459517	0.073147244
CDR20291_0055	12	12	14	62	1.577563498	0.264934246

CDR20291_0056	24	24	26	84	1.147234766	0.304063676
CDR20291_0057	30	30	63	59	1.152579423	0.227359359
CDR20291_0058	57	57	9	31	-1.560057613	0.161413715
CDR20291_0059	1682	1682	1603	1903	0.15369911	0.577600137
CDR20291_0060	218	218	283	384	0.685982409	0.076870486
CDR20291_0061	275	275	264	424	0.370360325	0.315274838
CDR20291_0062	4	4	47	51	3.721817621	0.002508394
CDR20291_0063	31	31	25	66	0.531259952	0.635579857
CDR20291_0064	111	111	51	255	0.362376608	0.715856429
CDR20291_0065	1705	1705	350	379	-2.119835641	2.67E-12
CDR20291_0066	27	27	8	26	-0.712020519	0.620016333
CDR20291_0067	17	17	53	87	2.08589066	0.020390252
CDR20291_0067; CDR20291_0068	0	0	0	1	1.443698351	0.810176602
CDR20291_0068	58	58	42	74	0.034095721	0.969825651
CDR20291_0069	25	25	10	27	-0.456998175	0.748376304
CDR20291_0070	39	39	40	111	0.923153991	0.320882874
CDR20291_0071	3	3	4	28	2.28883552	0.282586409
CDR20291_0072	9	9	11	43	1.514121687	0.326527153
CDR20291_0073	65	65	20	96	-0.257582017	0.82744494
CDR20291_0074	11	11	18	47	1.541620125	0.244892365
CDR20291_0075	11	11	5	24	0.309295568	0.871355819
CDR20291_0076	9	9	4	27	0.663116136	0.744919136
CDR20291_0077	41	41	61	54	0.624704943	0.524675609
CDR20291_0078	9	9	11	46	1.584435065	0.304367619
CDR20291_0079	15	15	15	48	1.023401911	0.455986335
CDR20291_0080	5	5	8	24	1.63965857	0.365938984
CDR20291_0081	8	8	11	62	2.079990063	0.17877309
CDR20291_0082	30	30	12	55	0.072154368	0.960977658
CDR20291_0083	28	28	12	55	0.171536014	0.904537946
CDR20291_0084	18	18	8	83	1.180792416	0.470758307

CDR20291_0085	14	14	4	19	-0.369345012	0.845078708
CDR20291_0086	9	9	14	55	1.866424729	0.194715137
CDR20291_0087	72	72	77	126	0.540062179	0.426500956
CDR20291_0088	57	57	41	56	-0.161917579	0.859672013
CDR20291_0089	12	12	36	89	2.365997805	0.023684524
CDR20291_0090	4	4	7	27	2.018713997	0.282881452
CDR20291_0091	5	5	4	15	0.863245691	0.696082902
CDR20291_0092	3	3	4	10	1.208980146	0.619087247
CDR20291_0093	5	5	6	38	2.018740618	0.277838447
CDR20291_0094	16	16	17	45	0.931562618	0.479809597
CDR20291_0095	57	57	20	65	-0.470966395	0.663913758
CDR20291_0096	22	22	27	89	1.346667781	0.225510582
CDR20291_0097	9	9	6	47	1.421964823	0.426400235
CDR20291_0098	139	139	76	75	-0.76139066	0.2670901
CDR20291_0099	68	68	43	75	-0.169195505	0.840548483
CDR20291_0100	475	475	268	154	-0.969453432	0.156627085
CDR20291_0101	2328	2328	3382	2487	0.502868247	0.257123675
CDR20291_0102	8	8	44	35	2.457159729	0.051231921
CDR20291_0103	4	4	38	30	3.242110446	0.022155623
CDR20291_0104	2497	2497	5669	2366	0.931813391	0.139478533
CDR20291_0105	179	179	615	293	1.570827775	0.03498779
CDR20291_0106	103	103	347	215	1.639948986	0.021737863
CDR20291_0107	1619	1619	13311	6052	2.815495228	3.19E-07
CDR20291_0108	2956	2956	46543	20700	3.745879433	6.96E-06
CDR20291_0109	9516	9516	51951	28259	2.287502601	1.30E-06
CDR20291_0110	66	66	3	15	-2.948210775	0.014939162
CDR20291_0111	1083	1083	1512	1328	0.532293621	0.187261809
CDR20291_0112	1078	1078	939	935	-0.080822757	0.840371584
CDR20291_0113	1168	1168	637	832	-0.590883609	0.017458029
CDR20291_0114	146	146	67	46	-1.197940654	0.141033583

CDR20291_0115	1119	1119	425	703	-0.945186952	2.76E-05
CDR20291_0116	2172	2172	1468	1349	-0.490568235	0.179157735
CDR20291_0117	582	582	404	760	0.024054614	0.944927731
CDR20291_0118	25	25	39	151	1.853696534	0.066565916
CDR20291_0119	55	55	35	159	0.728853136	0.489413908
CDR20291_0120	10271	10271	11186	17603	0.537260551	7.62E-08
CDR20291_0121	1592	1592	3318	5768	1.547924137	3.86E-23
CDR20291_0122	85	85	35	121	-0.180909359	0.851812261
CDR20291_0123	11644	11644	1536	2705	-2.42330808	6.20E-69
CDR20291_0124	2110	2110	69	122	-4.426629939	7.62E-77
CDR20291_0125	361	361	21	85	-2.835982963	4.61E-05
CDR20291_0126	70	70	46	75	-0.165116969	0.84101527
CDR20291_0127	8	8	32	49	2.394310231	0.043341538
CDR20291_0128	651	651	41	131	-2.962129015	2.00E-08
CDR20291_0129	29	29	38	110	1.315836115	0.174238443
CDR20291_0130	1244	1244	53	111	-3.905450795	6.31E-35
CDR20291_0131	12518	12518	12951	9943	0.033706943	0.937799962
CDR20291_0132	2212	2212	4095	2546	0.779365091	0.11484262
CDR20291_0133	12662	12662	59302	32283	2.066651942	1.25E-05
CDR20291_0134	257	257	335	270	0.388249311	0.523083782
CDR20291_0135	1936	1936	1315	939	-0.608023399	0.202679486
CDR20291_0136	1074	1074	1357	1590	0.552330822	0.043256978
CDR20291_0137	562	562	2123	2105	2.034134299	4.47E-10
CDR20291_0138	1576	1576	296	614	-1.781508052	1.14E-10
CDR20291_0139	2925	2925	599	682	-2.092104121	1.50E-16
CDR20291_0140	828	828	34	242	-2.715534796	0.000658052
CDR20291_0141	1522	1522	5838	8751	2.318670017	8.95E-77
CDR20291_0142	127	127	140	294	0.780981647	0.139385417
CDR20291_0143	32	32	194	323	3.055877823	4.82E-09
CDR20291_0144	36654	36654	48502	48447	0.525540392	0.047153929

CDR20291_0145	4724	4724	9533	9765	1.14851652	1.09E-05
CDR20291_0146	3681	3681	2320	2249	-0.561964237	0.075411917
CDR20291_0147	4172	4172	3821	4013	0.022925355	0.941629086
CDR20291_0148	75	75	13	42	-1.490381844	0.130121833
CDR20291_0149	72	72	18	62	-0.901496497	0.371185735
CDR20291_0150	15	15	11	33	0.514753638	0.738338186
CDR20291_0151	221	221	1673	2476	3.290383165	6.38E-58
CDR20291_0152	2878	2878	1606	3066	-0.279835373	0.187018747
CDR20291_0153	69	69	374	942	3.234352231	3.99E-12
CDR20291_0153; CDR20291_0154	1	1	1	6	1.701120244	0.628964492
CDR20291_0154	719	719	760	1304	0.558851929	0.016438531
CDR20291_0155	4960	4960	8500	13999	1.224751589	3.73E-27
CDR20291_0156	2675	2675	1689	2296	-0.35231171	0.055616761
CDR20291_0157	5381	5381	2081	2636	-1.106230031	2.68E-09
CDR20291_0158	2852	2852	5585	8103	1.325751824	8.86E-25
CDR20291_0159	5234	5234	3055	4380	-0.429025324	0.002031637
CDR20291_0160	1510	1510	194	380	-2.374974295	1.94E-19
CDR20291_0161	3846	3846	2641	2761	-0.395420006	0.167881972
CDR20291_0162	62	62	5	21	-2.318466957	0.046779459
CDR20291_0163	414	414	40	16	-3.654803263	8.55E-06
CDR20291_0164	365	365	117	128	-1.471982521	0.001350158
CDR20291_0165	1038	1038	329	406	-1.411871415	8.12E-07
CDR20291_0166	1163	1163	337	841	-0.998312414	0.00712591
CDR20291_0167	8470	8470	1519	2365	-2.072851768	2.60E-70
CDR20291_0168	2016	2016	2014	2631	0.283222831	0.171622962
CDR20291_0169	10660	10660	29258	42727	1.817505629	2.33E-69
CDR20291_0170	9370	9370	8481	12519	0.224493872	0.052493695
CDR20291_0171	520	520	14	53	-4.006441397	5.88E-11
CDR20291_0172	2579	2579	4119	6165	1.053536738	2.78E-16
CDR20291_0173	1	1	5	7	2.65252816	0.33519992

CDR20291_0174	7517	7517	2743	5329	-0.878917583	1.86E-06
CDR20291_0175	6670	6670	10756	14889	1.013289547	1.91E-14
CDR20291_0176	2402	2402	2722	4873	0.691516816	4.41E-05
CDR20291_0177	10880	10880	9259	12033	0.048975165	0.794387634
CDR20291_0178	3878	3878	10295	15116	1.77315995	7.27E-55
CDR20291_0179	2140	2140	1783	2962	0.191020453	0.25974751
CDR20291_0180	634	634	20	153	-3.00723183	0.000383852
CDR20291_0181	1249	1249	476	731	-0.995403609	2.55E-06
CDR20291_0182	6958	6958	8563	14070	0.745349064	2.51E-11
CDR20291_0183	228	228	1026	731	2.118939631	4.85E-05
CDR20291_0184	2847	2847	7744	10837	1.774921733	3.15E-39
CDR20291_0185	5202	5202	16191	27515	2.109076499	9.69E-74
CDR20291_0186	4243	4243	24634	32441	2.828088005	4.41E-84
CDR20291_0187	1973	1973	10623	18038	2.899172604	1.18E-120
CDR20291_0188	4167	4167	23007	29925	2.747410288	7.19E-74
CDR20291_0189	1803	1803	1253	2950	0.211107547	0.524711727
CDR20291_0190	3919	3919	11866	17656	1.972255654	4.23E-74
CDR20291_0191	1857	1857	995	1858	-0.355682492	0.10780668
CDR20291_0192	3880	3880	7581	8707	1.16964834	6.94E-08
CDR20291_0193	13030	13030	25361	25760	1.091686374	1.66E-05
CDR20291_0194	78	78	6	19	-2.673100732	0.008400863
CDR20291_0195	569	569	1024	1427	1.175715178	2.37E-07
CDR20291_0196	1846	1846	1179	1649	-0.316509638	0.103458665
CDR20291_0197	5177	5177	7728	13462	1.067850089	1.17E-15
CDR20291_0198	135	135	25	121	-0.980835832	0.306907659
CDR20291_0199	16354	16354	48725	72065	1.944821097	2.17E-90
CDR20291_0200	1739	1739	2573	4947	1.132289278	1.47E-08
CDR20291_0201	449	449	758	836	0.933198746	0.006990927
CDR20291_0202	324	324	327	567	0.500326585	0.136785503
CDR20291_0203	2410	2410	230	405	-2.888342978	5.80E-46

CDR20291_0204	3454	3454	3537	6095	0.516055941	0.000449002
CDR20291_0205	13330	13330	29582	44216	1.527264452	5.62E-57
CDR20291_0206	1149	1149	954	1982	0.362139114	0.200853133
CDR20291_0207	294	294	9	48	-3.455854849	2.71E-05
CDR20291_0208	519	519	426	438	-0.14912924	0.743757358
CDR20291_0209	673	673	30	55	-3.950335419	1.01E-25
CDR20291_0210	662	662	40	156	-2.82371789	2.75E-06
CDR20291_0211	2529	2529	1126	2854	-0.366176444	0.287960394
CDR20291_0212	865	865	135	356	-1.839281669	1.25E-05
CDR20291_0213	964	964	2	50	-5.38898064	2.37E-07
CDR20291_0214	624	624	520	615	-0.043076277	0.906728753
CDR20291_0215	404	404	838	1110	1.346252774	3.89E-07
CDR20291_0216	2052	2052	1241	1979	-0.30155352	0.074266624
CDR20291_0217	9520	9520	7060	9760	-0.108370567	0.472391706
CDR20291_0217; CDR20291_0218	1	1	0	0	-2.355605325	0.688257277
CDR20291_0218	4716	4716	3105	4636	-0.226717276	0.089149791
CDR20291_0218; CDR20291_0219	50	50	95	363	2.123214595	0.006840679
CDR20291_0219	3192	3192	3015	3417	0.11255238	0.683648366
CDR20291_0219; CDR20291_0220	6	6	0	0	-4.940501712	0.326216645
CDR20291_0220	9838	9838	9473	13565	0.292576342	0.017781539
CDR20291_0221	3238	3238	2365	3824	-0.01911753	0.905264163
CDR20291_0222	23591	23591	25430	37813	0.481837098	1.15E-06
CDR20291_0223	2743	2743	1811	2845	-0.18603425	0.227719127
CDR20291_0224	3462	3462	1551	2588	-0.70065141	2.90E-06
CDR20291_0225	2847	2847	216	356	-3.270459192	2.99E-70
CDR20291_0226	3856	3856	1264	2091	-1.157724881	2.27E-15
CDR20291_0226; CDR20291_0227	38	38	1	2	-4.630544127	0.003717441
CDR20291_0227	3146	3146	1899	2040	-0.56576341	0.040831024
CDR20291_0228	2332	2332	308	447	-2.565641554	3.33E-41
CDR20291_0229	1121	1121	559	939	-0.540875247	0.015115025

CDR20291_0230	689	689	1007	1171	0.757558565	0.010694695
CDR20291_0231	806	806	370	420	-0.929391964	0.005837588
CDR20291_0232	1629	1629	452	973	-1.188599442	3.22E-05
CDR20291_0233	2124	2124	1735	3248	0.254307449	0.226434673
CDR20291_0234	1224	1224	326	719	-1.226821696	0.000101602
CDR20291_0234; CDR20291_0235	0	0	0	1	1.443698351	0.810176602
CDR20291_0235	693	693	5	113	-3.742899671	0.000980943
CDR20291_0236	512	512	65	216	-1.916881912	0.000790228
CDR20291_0237	581	581	133	280	-1.482893482	7.43E-05
CDR20291_0238	3174	3174	537	522	-2.459980332	4.59E-15
CDR20291_0239	695	695	497	880	0.019423414	0.949117574
CDR20291_0240	3338	3338	1049	2111	-1.065441768	1.60E-06
CDR20291_0241	8613	8613	3501	5407	-0.898226375	4.56E-16
CDR20291_0242	8026	8026	4435	4912	-0.674642473	0.004249675
CDR20291_0242; CDR20291_0243	11	11	0	0	-5.814998962	0.14004098
CDR20291_0243	4871	4871	5558	5987	0.355028232	0.174630981
CDR20291_0244	6528	6528	6849	9153	0.369386521	0.018408236
CDR20291_0245	2580	2580	1117	2408	-0.546564452	0.03858663
CDR20291_0246	12898	12898	17736	31288	0.958939084	8.42E-14
CDR20291_0247	5531	5531	7777	7920	0.623893331	0.021726526
CDR20291_0248	1306	1306	1443	2080	0.49529191	0.007408421
CDR20291_0249	876	876	540	376	-0.760356728	0.160406976
CDR20291_0250	958	958	21	125	-3.822711597	6.48E-08
CDR20291_0251	4212	4212	1850	3010	-0.748132214	4.08E-08
CDR20291_0252	2548	2548	995	2003	-0.751816033	0.00127808
CDR20291_0252; CDR20291_0253	87	87	263	275	1.741673018	0.000985955
CDR20291_0253	4083	4083	4430	6707	0.503908877	3.71E-05
CDR20291_0254	4563	4563	4283	5455	0.176982887	0.368292431
CDR20291_0255	1260	1260	226	264	-2.269441514	2.36E-14
CDR20291_0256	4029	4029	2916	4036	-0.142940248	0.396281607

CDR20291_0257	2483	2483	2099	3429	0.199402685	0.203649083
CDR20291_0258	2242	2242	2925	3393	0.592743759	0.013626336
CDR20291_0259	1776	1776	1309	1983	-0.053609218	0.784888567
CDR20291_0260	2346	2346	530	1525	-1.22827352	0.00147994
CDR20291_0260; CDR20291_0261	0	0	0	1	1.443698351	0.810176602
CDR20291_0261	4360	4360	1101	1379	-1.729057798	2.76E-18
CDR20291_0262	1589	1589	1501	2265	0.301585612	0.080777925
CDR20291_0263	989	989	276	706	-1.030257906	0.008950952
CDR20291_0264	1187	1187	915	1349	-0.008342414	0.971659908
CDR20291_0265	436	436	404	1027	0.694504409	0.103511169
CDR20291_0266	9266	9266	8667	13637	0.317631138	0.002463112
CDR20291_0267	8980	8980	6163	9253	-0.162805409	0.16455098
CDR20291_0267; CDR20291_0268	1	1	47	362	7.534969162	1.55E-06
CDR20291_0268	3522	3522	1636	2507	-0.711391104	3.79E-07
CDR20291_0268; CDR20291_0269	110	110	0	1	-7.729840203	7.85E-06
CDR20291_0269	4573	4573	2945	4899	-0.179598935	0.208184156
CDR20291_0270	2395	2395	1335	1912	-0.496429686	0.003677296
CDR20291_0271	688	688	251	508	-0.844331377	0.010931861
CDR20291_0272	3167	3167	2276	2712	-0.251036525	0.294596029
CDR20291_0273	5624	5624	1427	1865	-1.69415779	1.43E-22
CDR20291_0274	3571	3571	3233	4353	0.1614545	0.36860062
CDR20291_0275	1028	1028	55	121	-3.536408279	2.25E-24
CDR20291_0276	7129	7129	4748	6959	-0.223158812	0.077611799
CDR20291_0277	10141	10141	33860	47793	2.076708372	4.06E-73
CDR20291_0278	4613	4613	4834	7614	0.482336523	3.88E-05
CDR20291_0279	4180	4180	2498	3782	-0.356556736	0.007613048
CDR20291_0280	1079	1079	160	395	-1.972354821	1.44E-07
CDR20291_0281	839	839	97	57	-3.254662519	5.74E-08
CDR20291_0282	2344	2344	7969	13460	2.231921445	1.51E-70
CDR20291_0283	405	405	381	694	0.437078026	0.17707762

CDR20291_0284	101	101	129	267	0.981318006	0.073398184
CDR20291_0285	5853	5853	13718	22032	1.657850279	3.78E-60
CDR20291_0286	10149	10149	9983	13582	0.288397671	0.046223054
CDR20291_0287	213	213	298	312	0.630664764	0.194608429
CDR20291_0288	370	370	44	58	-2.785971729	4.44E-10
CDR20291_0289	545	545	6	35	-4.814694712	4.34E-11
CDR20291_0290	125	125	65	81	-0.691688864	0.28570034
CDR20291_0291	257	257	205	442	0.336251025	0.471757179
CDR20291_0292	1113	1113	1060	1977	0.473017456	0.04081336
CDR20291_0293	163	163	5	39	-3.011543064	0.004976084
CDR20291_0294	6590	6590	469	512	-3.643672506	2.27E-51
CDR20291_0295	1200	1200	1014	1949	0.324343048	0.191770348
CDR20291_0296	1475	1475	157	394	-2.435618034	1.10E-11
CDR20291_0297	702	702	945	1532	0.864962505	3.56E-05
CDR20291_0298	12789	12789	28095	41264	1.500292538	1.48E-49
CDR20291_0299	657	657	750	1278	0.664584728	0.004538216
CDR20291_0300	1397	1397	2440	2982	1.046216686	2.97E-06
CDR20291_0301	2516	2516	748	1748	-1.019779872	0.000594721
CDR20291_0302	1251	1251	226	604	-1.617421763	4.14E-05
CDR20291_0303	1692	1692	1748	1241	-0.005378165	0.991633833
CDR20291_0304	1993	1993	356	418	-2.271343848	4.88E-18
CDR20291_0304;CDR20291_0305	2	2	1	3	-0.030221156	0.99283294
CDR20291_0305	1139	1139	1642	3138	1.090139653	4.92E-07
CDR20291_0306	2164	2164	573	1063	-1.377064419	7.61E-11
CDR20291_0307	800	800	1030	1217	0.58452681	0.042451482
CDR20291_0308	1482	1482	481	592	-1.378947999	9.24E-08
CDR20291_0309	164	164	67	69	-1.158161214	0.068186062
CDR20291_0310	4512	4512	11373	18777	1.783209745	3.18E-58
CDR20291_0311	15855	15855	76096	86507	2.460187794	4.80E-35
CDR20291_0311;CDR20291_0312	15	15	0	115	1.708589909	0.538363382

CDR20291_0312	1100	1100	4000	4959	2.113493814	3.14E-25
CDR20291_0313	4665	4665	14061	19764	1.926133267	3.02E-54
CDR20291_0314	9811	9811	9997	10000	0.149201085	0.623268464
CDR20291_0315	7643	7643	3657	5967	-0.622628854	1.39E-07
CDR20291_0316	1358	1358	456	806	-1.072136725	1.88E-06
CDR20291_0317	1128	1128	43	106	-3.923532051	1.86E-25
CDR20291_0318	2447	2447	310	242	-2.992551218	3.88E-13
CDR20291_0319	2072	2072	1624	990	-0.469174989	0.391225681
CDR20291_0320	502	502	2633	1546	2.258599648	1.93E-05
CDR20291_0321	2868	2868	5960	4195	0.999586568	0.018963073
CDR20291_0322	1643	1643	5135	3985	1.633640621	2.56E-05
CDR20291_0322; CDR20291_0323	0	0	0	1	1.443698351	0.810176602
CDR20291_0323	3251	3251	22297	24209	2.947524547	2.41E-39
CDR20291_0324	3607	3607	8497	10884	1.508413927	3.81E-19
CDR20291_0325	3514	3514	10621	16812	2.014138677	2.83E-82
CDR20291_0325; CDR20291_0326	365	365	2324	3988	3.149243672	7.38E-66
CDR20291_0326	207	207	824	1183	2.341665352	3.93E-19
CDR20291_0327	12980	12980	12501	14895	0.171892608	0.415005455
CDR20291_0328	15848	15848	18764	22441	0.472202291	0.014287288
CDR20291_0329	940	940	1272	2347	0.971184339	8.25E-06
CDR20291_0329; CDR20291_0330	0	0	36	2	7.066812902	0.050109634
CDR20291_0330	855	855	740	811	-0.034685763	0.926407556
CDR20291_0331	1959	1959	1952	3195	0.438048584	0.00536965
CDR20291_0332	1185	1185	954	1392	0.046992202	0.838050486
CDR20291_0333	1781	1781	3736	3936	1.220364024	7.58E-06
CDR20291_0334	8348	8348	44107	61246	2.72766696	5.44E-114
CDR20291_0335	401	401	1198	1606	1.880772622	2.55E-15
CDR20291_0336	292	292	689	804	1.450651859	1.69E-05
CDR20291_0337	522	522	408	398	-0.249569515	0.595955839
CDR20291_0338	80	80	31	125	-0.111751535	0.913644049

CDR20291_0339	1760	1760	345	844	-1.57955396	2.44E-06
CDR20291_0340	674	674	36	115	-3.198534509	9.75E-10
CDR20291_0341	1532	1532	1319	1778	0.089381202	0.699147991
CDR20291_0342	3358	3358	2287	3623	-0.135079515	0.358100754
CDR20291_0343	3495	3495	527	1051	-2.131140291	2.55E-22
CDR20291_0344	7460	7460	2514	3994	-1.148003101	5.31E-23
CDR20291_0345	9154	9154	4089	6719	-0.716587387	6.69E-10
CDR20291_0346	1727	1727	3355	4420	1.248519731	4.35E-12
CDR20291_0347	177	177	2	15	-4.468039191	9.84E-06
CDR20291_0348	4381	4381	1323	1577	-1.502209957	5.10E-12
CDR20291_0348;CDR20291_0349	11	11	0	0	-5.814998962	0.14004098
CDR20291_0349	16347	16347	17879	19430	0.299387124	0.217310909
CDR20291_0350	6761	6761	10555	17314	1.087255954	1.23E-23
CDR20291_0351	49	49	16	50	-0.612069551	0.58963981
CDR20291_0352	5926	5926	12143	14986	1.283331372	7.01E-13
CDR20291_0353	5718	5718	27985	46116	2.739037411	2.93E-159
CDR20291_0354	1463	1463	6	90	-5.096451892	2.79E-08
CDR20291_0355	6815	6815	5301	9106	0.116882198	0.420584299
CDR20291_0356	5948	5948	10891	15948	1.235369859	2.79E-28
CDR20291_0357	1539	1539	361	485	-1.790213261	6.82E-15
CDR20291_0358	1486	1486	87	184	-3.44173875	8.65E-31
CDR20291_0359	1303	1303	781	1066	-0.424963927	0.059230364
CDR20291_0360	1913	1913	259	568	-2.206711525	1.66E-14
CDR20291_0361	437	437	101	103	-1.986519077	1.91E-05
CDR20291_0362	1482	1482	276	787	-1.514345722	0.000214341
CDR20291_0363	2618	2618	2023	3808	0.178461113	0.395102794
CDR20291_0364	5987	5987	20243	32387	2.183716059	4.90E-112
CDR20291_0365	886	886	704	1252	0.174718486	0.497782296
CDR20291_0366	361	361	135	197	-1.059629674	0.005397093
CDR20291_0367	229	229	33	67	-2.178024614	7.43E-05

CDR20291_0368	108	108	93	134	0.135032633	0.834327686
CDR20291_0369	197	197	19	160	-1.281610924	0.239201498
CDR20291_0370	95	95	86	139	0.290411137	0.655933315
CDR20291_0371	242	242	17	84	-2.351803408	0.005073882
CDR20291_0372	149	149	18	123	-1.205561558	0.259807119
CDR20291_0373	1758	1758	3285	5812	1.403884546	3.72E-18
CDR20291_0374	62	62	18	112	-0.050730275	0.969790264
CDR20291_0375	2215	2215	2732	3582	0.589852443	0.001717308
CDR20291_0376	3783	3783	3555	5056	0.25253269	0.089779416
CDR20291_0376; CDR20291_0377	4470	4470	9155	13407	1.397035447	9.30E-34
CDR20291_0378	4934	4934	3837	5365	-0.03226205	0.847914538
CDR20291_0379	3266	3266	9305	14185	1.901686505	1.87E-69
CDR20291_0380	202	202	638	912	2.004791827	2.33E-12
CDR20291_0381	2725	2725	1167	1130	-1.120687947	0.000513534
CDR20291_0382	1270	1270	1770	2815	0.900854365	3.01E-08
CDR20291_0382; CDR20291_0383	1	1	0	2	-0.198097594	0.973415385
CDR20291_0383	304	304	36	125	-1.971539178	0.003003423
CDR20291_0384	3418	3418	691	1189	-1.824756266	7.26E-28
CDR20291_0385	1600	1600	335	481	-1.908167112	2.87E-19
CDR20291_0386	375	375	1620	2026	2.367347034	1.17E-21
CDR20291_0386; CDR20291_0387	0	0	0	1	1.443698351	0.810176602
CDR20291_0387	1008	1008	620	1262	-0.087140657	0.7896363
CDR20291_0388	193	193	7	71	-2.456227165	0.029768442
CDR20291_0388; CDR20291_0389	0	0	0	3	2.81909081	0.625953386
CDR20291_0389	1680	1680	3049	4579	1.240322497	1.50E-18
CDR20291_0390	2527	2527	4588	6107	1.157837325	2.79E-12
CDR20291_0390; CDR20291_0391	0	0	0	3	2.81909081	0.625953386
CDR20291_0391	887	887	671	503	-0.430908163	0.408234935
CDR20291_0392	536	536	511	1109	0.598249175	0.082548412
CDR20291_0393	332	332	278	386	0.068971511	0.862668189

CDR20291_0394	2355	2355	6431	11127	1.934047744	3.65E-45
CDR20291_0395	5761	5761	1216	1890	-1.839047692	1.05E-46
CDR20291_0396	2990	2990	3620	5090	0.610214233	4.65E-05
CDR20291_0397	748	748	1067	2469	1.233624345	8.73E-05
CDR20291_0398	2962	2962	2962	3646	0.246262021	0.265027875
CDR20291_0399	710	710	1199	1236	0.894317678	0.008428358
CDR20291_0400	1516	1516	63	228	-3.440974918	3.98E-12
CDR20291_0401	6091	6091	1199	3878	-1.316128864	0.000874691
CDR20291_0402	4631	4631	4375	7600	0.405837838	0.005073882
CDR20291_0403	3078	3078	1821	2883	-0.338632333	0.019970717
CDR20291_0404	818	818	1627	2498	1.388308231	1.86E-15
CDR20291_0405	2671	2671	6100	9492	1.597411483	1.15E-43
CDR20291_0406	488	488	327	498	-0.187280444	0.564000757
CDR20291_0407	2973	2973	8245	12516	1.859772453	5.51E-63
CDR20291_0408	2499	2499	2349	5209	0.595152733	0.023232872
CDR20291_0409	966	966	72	147	-3.123210573	1.37E-21
CDR20291_0410	1467	1467	977	1718	-0.088750686	0.699147991
CDR20291_0411	1096	1096	514	639	-0.841125999	0.002084975
CDR20291_0412	7156	7156	7677	11141	0.457762775	0.000143377
CDR20291_0413	2675	2675	5212	9340	1.473968946	5.90E-22
CDR20291_0414	1363	1363	2689	3872	1.331085204	3.00E-17
CDR20291_0415	6980	6980	8182	7837	0.327142569	0.289365438
CDR20291_0416	9342	9342	5155	7497	-0.499983041	3.25E-05
CDR20291_0417	1941	1941	519	962	-1.363565922	3.76E-10
CDR20291_0418	1427	1427	164	573	-2.013699626	4.36E-05
CDR20291_0419	4851	4851	9752	12611	1.285913314	2.16E-15
CDR20291_0420	497	497	19	69	-3.548365551	5.05E-09
CDR20291_0421	199	199	74	363	0.035649079	0.969802091
CDR20291_0422	234	234	254	366	0.469254001	0.229393224
CDR20291_0423	2046	2046	1912	2849	0.277060817	0.08521922

CDR20291_0424	334	334	89	335	-0.7248713	0.293032194
CDR20291_0425	4316	4316	4490	7734	0.538449417	0.000123655
CDR20291_0426	216	216	84	217	-0.54112106	0.371185735
CDR20291_0427	1291	1291	513	677	-1.041105741	1.51E-05
CDR20291_0428	2952	2952	1042	1521	-1.142411676	7.62E-13
CDR20291_0429	1454	1454	412	961	-1.089985438	0.000842995
CDR20291_0430	1933	1933	5404	7735	1.829948724	7.95E-41
CDR20291_0431	216	216	17	33	-3.084981934	2.29E-07
CDR20291_0432	1322	1322	810	1715	-0.060419685	0.850084905
CDR20291_0433	451	451	35	126	-2.543679026	4.07E-05
CDR20291_0434	435	435	54	93	-2.526088707	2.30E-10
CDR20291_0435	1461	1461	610	1109	-0.736190053	0.001064896
CDR20291_0436	1669	1669	248	642	-1.928127873	1.01E-07
CDR20291_0437	1175	1175	812	1216	-0.154864605	0.481013675
CDR20291_0438	1948	1948	778	1011	-1.04376222	1.63E-06
CDR20291_0438; CDR20291_0439	0	0	0	1	1.443698351	0.810176602
CDR20291_0439	3795	3795	1790	2418	-0.777366194	5.32E-06
CDR20291_0440	4097	4097	2697	2791	-0.462226911	0.106385481
CDR20291_0441	5319	5319	7835	10419	0.855655575	2.65E-08
CDR20291_0442	16863	16863	30106	44272	1.201937028	4.88E-33
CDR20291_0443	11951	11951	33207	46833	1.811120231	7.75E-56
CDR20291_0444	6520	6520	15223	22730	1.599762312	1.13E-54
CDR20291_0445	1365	1365	1896	3213	0.943287528	2.40E-08
CDR20291_0446	11471	11471	30274	47672	1.814687078	9.59E-89
CDR20291_0447	1306	1306	4069	6771	2.094916381	1.54E-50
CDR20291_0448	15275	15275	18092	23935	0.53776595	0.000266664
CDR20291_0449	12137	12137	9375	12102	-0.095205974	0.603087335
CDR20291_0450	5245	5245	2673	4197	-0.55993126	5.84E-06
CDR20291_0451	6258	6258	3780	6230	-0.279006957	0.028519589
CDR20291_0452	397	397	52	581	-0.492761711	0.660593263

CDR20291_0453	4812	4812	20786	26842	2.388588607	7.05E-54
CDR20291_0454	3610	3610	14828	29239	2.625208553	1.80E-50
CDR20291_0455	3178	3178	9320	17443	2.097636888	3.50E-39
CDR20291_0456	1463	1463	56	100	-4.191676763	1.64E-53
CDR20291_0457	3062	3062	937	1530	-1.266653939	3.69E-16
CDR20291_0458	635	635	636	541	0.035823749	0.945948041
CDR20291_0459	3698	3698	1695	2791	-0.677678148	2.42E-06
CDR20291_0459; CDR20291_0460	0	0	1	0	1.76780945	0.770414782
CDR20291_0460	3902	3902	4725	8466	0.787690619	2.96E-07
CDR20291_0461	5134	5134	7920	10458	0.917616909	4.60E-09
CDR20291_0462	4617	4617	5592	8166	0.637102933	3.19E-07
CDR20291_0463	5800	5800	13089	17487	1.474300042	2.11E-24
CDR20291_0464	7927	7927	12993	15841	0.953496575	2.12E-07
CDR20291_0465	3262	3262	4596	7462	0.931723249	4.80E-14
CDR20291_0466	6439	6439	5430	9017	0.20796242	0.101743262
CDR20291_0467	2465	2465	2200	2587	0.05326096	0.845007042
CDR20291_0468	1534	1534	487	715	-1.291467748	1.96E-10
CDR20291_0469	3132	3132	4858	7063	0.990882503	3.33E-14
CDR20291_0470	3122	3122	24724	26892	3.156066212	1.75E-45
CDR20291_0471	8059	8059	21997	33028	1.829052558	4.84E-78
CDR20291_0472	56	56	7	23	-1.941273851	0.083654346
CDR20291_0473	10848	10848	39888	60649	2.267908436	1.94E-136
CDR20291_0474	424	424	168	347	-0.708228146	0.076447537
CDR20291_0475	480	480	6	141	-2.899991059	0.017086335
CDR20291_0476	673	673	186	449	-1.094933039	0.007007677
CDR20291_0477	2212	2212	2144	2991	0.283775307	0.106061668
CDR20291_0478	1283	1283	688	1455	-0.253535648	0.40590555
CDR20291_0479	3968	3968	32	93	-6.001873318	2.93E-71
CDR20291_0480	4550	4550	53	39	-6.490647204	3.91E-67
CDR20291_0481	98	98	112	151	0.497613726	0.407973662

CDR20291_0482	15187	15187	10314	9395	-0.487444555	0.120017974
CDR20291_0483	1657	1657	8522	4591	2.197644001	1.48E-05
CDR20291_0484	608	608	1129	476	0.644189007	0.389164421
CDR20291_0485	641	641	154	140	-1.993304022	1.36E-05
CDR20291_0486	7104	7104	16662	13474	1.239709811	0.000356571
CDR20291_0487	1473	1473	8858	10612	2.817728046	9.69E-46
CDR20291_0488	2541	2541	1663	1476	-0.555306044	0.1337079
CDR20291_0489	14346	14346	3326	4292	-1.832115807	1.71E-30
CDR20291_0490	441	441	395	548	0.165661003	0.625865671
CDR20291_0491	1627	1627	5533	8965	2.201410412	1.80E-69
CDR20291_0492	4857	4857	13230	22932	1.931680744	1.18E-53
CDR20291_0493	5771	5771	7405	10652	0.709918907	9.26E-09
CDR20291_0494	5997	5997	17455	26155	1.920293047	1.14E-80
CDR20291_0495	1677	1677	915	1514	-0.422528255	0.024036703
CDR20291_0496	2032	2032	190	276	-3.063771199	7.79E-49
CDR20291_0497	3288	3288	5305	7086	0.98989028	6.17E-10
CDR20291_0498	104	104	1225	1608	3.846051085	5.22E-44
CDR20291_0499	8278	8278	11017	17177	0.819787318	2.35E-16
CDR20291_0499; CDR20291_0500	4662	4662	9900	14017	1.42581264	6.55E-30
CDR20291_0501	5839	5839	1569	2353	-1.516658871	3.17E-32
CDR20291_0502	1268	1268	1743	2142	0.704033899	0.002934518
CDR20291_0503	21351	21351	1050	1190	-4.152557134	5.04E-90
CDR20291_0504	675	675	1071	1435	0.967348087	3.67E-05
CDR20291_0505	4040	4040	907	946	-2.010889585	3.01E-13
CDR20291_0506	6543	6543	7028	5503	0.097135355	0.819035323
CDR20291_0507	4856	4856	390	265	-3.713401381	7.89E-18
CDR20291_0508	767	767	3736	2989	2.288475439	3.70E-09
CDR20291_0509	1439	1439	1217	758	-0.350876634	0.540822945
CDR20291_0510	340	340	67	23	-2.660372956	0.003615231
CDR20291_0511	275	275	19	16	-3.850147351	2.45E-09

CDR20291_0512	420	420	92	23	-2.577562453	0.009310158
CDR20291_0513	9649	9649	11301	13945	0.476233316	0.009514136
CDR20291_0513; CDR20291_0514	5117	5117	9719	12442	1.197411231	6.08E-13
CDR20291_0515	6487	6487	2162	3043	-1.250426119	5.24E-19
CDR20291_0516	1426	1426	702	720	-0.887792023	0.007892624
CDR20291_0517	167	167	341	449	1.319397451	0.000542993
CDR20291_0518	634	634	293	177	-1.237506755	0.047795173
CDR20291_0519	8012	8012	36032	50698	2.504204369	2.71E-103
CDR20291_0520	2949	2949	9551	13734	2.045462604	1.49E-62
CDR20291_0521	166	166	0	15	-4.655225291	0.002773659
CDR20291_0522	86	86	4	24	-2.71582379	0.01959821
CDR20291_0523	130	130	291	494	1.633213953	1.85E-05
CDR20291_0524	204	204	11	113	-1.872659703	0.098816044
CDR20291_0525	689	689	2288	3193	2.060695335	1.34E-29
CDR20291_0526	410	410	723	1025	1.158161035	5.94E-06
CDR20291_0527	245	245	600	766	1.561460591	9.45E-07
CDR20291_0528	169	169	148	137	-0.115525945	0.865530418
CDR20291_0529	4260	4260	7152	10717	1.126417768	3.24E-23
CDR20291_0529; CDR20291_0530	4850	4850	12400	16573	1.65460851	5.22E-30
CDR20291_0531	2463	2463	810	1024	-1.342125379	6.21E-10
CDR20291_0532	1614	1614	1261	1313	-0.212025392	0.534041572
CDR20291_0533	1952	1952	2804	3982	0.86370248	3.45E-08
CDR20291_0534	897	897	1063	1977	0.786100508	0.000650972
CDR20291_0535	7890	7890	3172	4089	-1.03861719	9.23E-10
CDR20291_0535; CDR20291_0536	0	0	0	2	2.244508613	0.701490268
CDR20291_0536	435	435	77	277	-1.359883653	0.029114161
CDR20291_0537	1258	1258	3030	3768	1.521045791	3.94E-13
CDR20291_0538	1999	1999	4149	7065	1.526202883	6.12E-27
CDR20291_0539	2065	2065	961	1736	-0.584903344	0.00351463
CDR20291_0540	1483	1483	1648	2358	0.498444943	0.005347319

CDR20291_0541	192	192	169	487	0.736028371	0.207510883
CDR20291_0542	44	44	4	13	-2.406424773	0.056121497
CDR20291_0543	14	14	4	25	-0.062258518	0.974397584
CDR20291_0544	206	206	127	51	-0.965621319	0.315274838
CDR20291_0545	904	904	8	66	-4.736220112	2.50E-09
CDR20291_0546	22703	22703	3124	3224	-2.722039866	7.05E-29
CDR20291_0547	1334	1334	278	374	-1.960284962	8.78E-16
CDR20291_0548	924	924	10	26	-5.667766674	2.09E-38
CDR20291_0549	474	474	1	14	-6.073215366	3.43E-12
CDR20291_0549; CDR20291_0550	1	1	0	1	-0.998913566	0.866218367
CDR20291_0550	277	277	10	82	-2.725031772	0.005936225
CDR20291_0551	12852	12852	24644	36020	1.300718219	4.63E-36
CDR20291_0552	3822	3822	2614	4533	-0.061359077	0.726254791
CDR20291_0553	884	884	731	839	-0.072542788	0.836018125
CDR20291_0554	1639	1639	2329	3056	0.794569481	4.43E-05
CDR20291_0555	4317	4317	1232	1304	-1.655732715	5.84E-10
CDR20291_0556	1082	1082	142	396	-2.03807412	1.55E-06
CDR20291_0557	863	863	757	921	0.049002666	0.880327966
CDR20291_0558	5419	5419	1380	1672	-1.737868201	2.22E-17
CDR20291_0559	1175	1175	664	912	-0.505744515	0.028760605
CDR20291_0560	878	878	768	924	0.037891636	0.906896742
CDR20291_0561	2737	2737	3137	5128	0.638986132	2.83E-06
CDR20291_0562	1853	1853	5090	5644	1.639706655	1.09E-11
CDR20291_0563	3108	3108	7088	8905	1.449065292	8.84E-16
CDR20291_0564	42	42	1	10	-3.051678259	0.055560303
CDR20291_0565	2266	2266	1049	1650	-0.697255088	1.87E-05
CDR20291_0566	2453	2453	1849	2357	-0.139276359	0.54054824
CDR20291_0567	1825	1825	1076	1442	-0.460972323	0.027020032
CDR20291_0567; CDR20291_0568	77	77	61	103	0.1309272	0.862831376
CDR20291_0568	6039	6039	5086	6405	0.01330881	0.950665463

CDR20291_0569	2055	2055	4838	7275	1.616666261	1.15E-37
CDR20291_0570	3923	3923	15066	24261	2.372230337	1.38E-118
CDR20291_0571	2199	2199	1361	2535	-0.149852863	0.498914666
CDR20291_0572	1312	1312	1408	1565	0.284572977	0.348677502
CDR20291_0573	965	965	442	924	-0.490131249	0.116978914
CDR20291_0574	256	256	351	546	0.861066264	0.008735205
CDR20291_0574;CDR20291_0575	0	0	0	3	2.81909081	0.625953386
CDR20291_0575	3348	3348	661	617	-2.258936553	5.52E-12
CDR20291_0576	3953	3953	181	423	-3.713998444	5.33E-41
CDR20291_0577	5342	5342	2553	4456	-0.573485448	0.000118947
CDR20291_0578	1692	1692	1015	2028	-0.138681743	0.6100677
CDR20291_0579	361	361	20	138	-2.317681445	0.00951377
CDR20291_0580	2782	2782	4716	6527	1.085078901	3.38E-13
CDR20291_0581	0	0	4	20	5.926033128	0.142193199
CDR20291_0582	10273	10273	6918	10650	-0.172203814	0.116877443
CDR20291_0583	517	517	1082	1115	1.203605593	0.00055053
CDR20291_0584	13746	13746	4819	9112	-0.958496239	4.06E-09
CDR20291_0585	1024	1024	242	626	-1.259712511	0.00146479
CDR20291_0586	703	703	128	151	-2.242578922	2.40E-10
CDR20291_0587	282	282	327	275	0.240599294	0.689675839
CDR20291_0588	933	933	52	230	-2.81044174	4.91E-06
CDR20291_0589	2225	2225	8176	12605	2.276878622	1.23E-92
CDR20291_0590	604	604	12	92	-3.666024443	1.34E-05
CDR20291_0591	829	829	871	1081	0.322219455	0.256521307
CDR20291_0592	2824	2824	775	1386	-1.354322313	2.07E-13
CDR20291_0593	246	246	594	851	1.618913041	1.43E-08
CDR20291_0594	1250	1250	3297	6227	1.952063443	3.32E-25
CDR20291_0595	2955	2955	13193	19724	2.535891578	1.20E-123
CDR20291_0596	5492	5492	2970	5419	-0.361008247	0.031771513
CDR20291_0597	1058	1058	622	944	-0.378533389	0.086290842

CDR20291_0598	1426	1426	19	241	-3.624183572	7.41E-05
CDR20291_0599	1045	1045	235	356	-1.766527506	5.18E-13
CDR20291_0599; CDR20291_0600	0	0	0	1	1.443698351	0.810176602
CDR20291_0600	3699	3699	1367	1557	-1.238897729	3.10E-07
CDR20291_0601	882	882	168	347	-1.763941344	5.09E-08
CDR20291_0602	809	809	281	379	-1.22095821	1.41E-05
CDR20291_0603	1078	1078	229	572	-1.444563422	0.000131221
CDR20291_0604	2442	2442	202	479	-2.849457245	1.15E-20
CDR20291_0605	864	864	256	448	-1.260058077	2.63E-06
CDR20291_0606	1438	1438	873	1325	-0.332136151	0.087052973
CDR20291_0607	3222	3222	1248	1581	-1.104263964	5.39E-08
CDR20291_0608	1933	1933	3056	4676	1.054619608	1.30E-14
CDR20291_0609	2710	2710	3534	4773	0.690045633	3.43E-05
CDR20291_0610	667	667	320	707	-0.376695996	0.315537766
CDR20291_0611	8	8	6	36	1.2791428	0.483034688
CDR20291_0612	10	10	6	18	0.226859124	0.903805926
CDR20291_0613	1	1	4	23	3.644873607	0.13559772
CDR20291_0614	1205	1205	5784	7243	2.520568851	2.76E-40
CDR20291_0615	5133	5133	3108	3746	-0.490911984	0.020023111
CDR20291_0616	1355	1355	304	576	-1.598708332	2.63E-10
CDR20291_0617	683	683	438	512	-0.428570512	0.213829476
CDR20291_0618	4469	4469	4560	7532	0.478966794	0.00015714
CDR20291_0619	703	703	678	940	0.272031261	0.30111148
CDR20291_0620	1679	1679	1924	2334	0.433323344	0.070222872
CDR20291_0621	11803	11803	2485	3108	-1.991639754	6.36E-30
CDR20291_0622	20	20	29	129	1.894250567	0.09255272
CDR20291_0623	443	443	257	388	-0.401552424	0.22596698
CDR20291_0624	2674	2674	3004	4651	0.570221049	1.99E-05
CDR20291_0625	73	73	27	147	0.145570587	0.901306425
CDR20291_0626	157	157	93	211	-0.048908804	0.939804453

CDR20291_0627	54	54	33	53	-0.281121092	0.768585418
CDR20291_0628	1708	1708	1045	1541	-0.341538302	0.064983474
CDR20291_0629	13800	13800	19508	23087	0.721376051	0.000200817
CDR20291_0630	561	561	2291	4445	2.604243284	3.93E-33
CDR20291_0631	5351	5351	10393	11143	1.119820165	3.31E-06
CDR20291_0632	3774	3774	12218	17264	2.032814907	5.70E-60
CDR20291_0633	16838	16838	54362	79075	2.049031304	9.61E-91
CDR20291_0634	1947	1947	5647	8898	1.951328254	1.14E-59
CDR20291_0635	1691	1691	371	664	-1.676017324	1.94E-14
CDR20291_0636	4522	4522	13016	19584	1.907127922	5.18E-75
CDR20291_0637	32	32	62	176	1.86099123	0.024036703
CDR20291_0638	4325	4325	3547	4697	0.007737527	0.969790264
CDR20291_0639	10348	10348	4545	6335	-0.858621016	1.14E-10
CDR20291_0640	6374	6374	1316	2269	-1.793232015	5.77E-36
CDR20291_0641	49	49	97	55	0.835111413	0.420965143
CDR20291_0642	1963	1963	1477	2376	0.020009319	0.913644049
CDR20291_0643	7480	7480	6089	8799	0.056535324	0.689929967
CDR20291_0644	2101	2101	92	163	-4.004910899	1.63E-67
CDR20291_0645	37	37	76	192	1.838505681	0.013855787
CDR20291_0646	184	184	60	43	-1.672995082	0.025542235
CDR20291_0647	104	104	140	182	0.709489054	0.200829511
CDR20291_0648	1489	1489	79	163	-3.603773534	4.87E-35
CDR20291_0649	938	938	356	728	-0.779198389	0.010556748
CDR20291_0650	1068	1068	812	1067	-0.107293374	0.693616578
CDR20291_0651	691	691	675	968	0.313858848	0.212998886
CDR20291_0652	412	412	314	521	0.061755604	0.862062186
CDR20291_0653	1073	1073	323	623	-1.160695225	2.27E-05
CDR20291_0654	317	317	56	163	-1.567417612	0.007445439
CDR20291_0655	3215	3215	1248	2859	-0.652581618	0.020028796
CDR20291_0656	516	516	1106	1319	1.325807687	2.85E-06

CDR20291_0657	1749	1749	1921	3061	0.558672315	0.000318645
CDR20291_0658	1222	1222	512	462	-1.191505463	0.002803095
CDR20291_0658; CDR20291_0659	24	24	0	0	-6.940559268	0.017458029
CDR20291_0659	2828	2828	80	159	-4.539603206	3.43E-80
CDR20291_0660	1336	1336	396	757	-1.190315066	2.55E-06
CDR20291_0661	55	55	63	81	0.468986792	0.564767162
CDR20291_0662	422	422	453	376	0.123043903	0.828211052
CDR20291_0663	3371	3371	7365	8893	1.361905151	3.77E-12
CDR20291_0664	5932	5932	9691	13380	1.03025521	2.22E-14
CDR20291_0665	2424	2424	810	1105	-1.268513869	2.31E-11
CDR20291_0666	570	570	323	408	-0.557995144	0.094030798
CDR20291_0666; CDR20291_0667	47	47	0	4	-4.683208894	0.011067137
CDR20291_0667	702	702	307	772	-0.397849023	0.352519267
CDR20291_0668	1180	1180	1189	1681	0.348823435	0.088221115
CDR20291_0669	2446	2446	1624	1863	-0.38901276	0.137201004
CDR20291_0670	426	426	78	131	-1.985513056	2.02E-07
CDR20291_0671	4986	4986	4198	4872	-0.03867201	0.880724185
CDR20291_0672	5458	5458	16704	21760	1.897136932	1.93E-35
CDR20291_0673	7644	7644	15104	14029	1.063826291	0.000311305
CDR20291_0674	555	555	1601	1591	1.646188372	1.28E-06
CDR20291_0675	4660	4660	9883	11139	1.276516931	6.61E-09
CDR20291_0676	13148	13148	27631	38701	1.403472242	2.99E-32
CDR20291_0677	8193	8193	6465	9662	0.035284788	0.789904359
CDR20291_0678	1399	1399	544	436	-1.359542851	0.001920593
CDR20291_0679	1757	1757	1416	1345	-0.218789817	0.56548391
CDR20291_0680	1012	1012	658	891	-0.312997204	0.213669165
CDR20291_0681	2268	2268	2470	3358	0.434431847	0.014376083
CDR20291_0682	3621	3621	1679	2291	-0.79525508	2.43E-06
CDR20291_0683	2943	2943	14249	23454	2.722660398	6.41E-137
CDR20291_0684	835	835	360	229	-1.316108097	0.02214317

CDR20291_0685	10940	10940	27728	44583	1.771557151	1.40E-78
CDR20291_0686	4852	4852	4740	7606	0.394755447	0.000988491
CDR20291_0687	8404	8404	20665	32860	1.719754438	3.60E-73
CDR20291_0688	989	989	476	567	-0.83097571	0.005402174
CDR20291_0689	10139	10139	18574	29856	1.302999444	5.17E-41
CDR20291_0690	2509	2509	3087	3738	0.534976988	0.014731405
CDR20291_0691	424	424	22	87	-3.024614083	5.09E-06
CDR20291_0692	576	576	243	775	-0.228602473	0.692443564
CDR20291_0693	644	644	89	144	-2.419748846	7.88E-14
CDR20291_0694	951	951	357	794	-0.724939942	0.032078362
CDR20291_0695	1233	1233	49	150	-3.666578013	2.35E-16
CDR20291_0696	358	358	52	112	-2.11755129	6.23E-06
CDR20291_0697	4295	4295	10769	14703	1.640739358	2.85E-32
CDR20291_0698	7995	7995	5140	8613	-0.17669361	0.174146368
CDR20291_0699	313	313	6	18	-4.711776739	3.98E-13
CDR20291_0700	104	104	8	41	-2.176074332	0.037949471
CDR20291_0701	2573	2573	51	64	-5.412960718	1.43E-99
CDR20291_0702	334	334	9	31	-4.094381747	4.10E-10
CDR20291_0703	1270	1270	113	153	-3.185941451	5.81E-33
CDR20291_0704	2878	2878	27	35	-6.473851917	1.49E-120
CDR20291_0705	8640	8640	25364	31391	1.803912293	3.09E-26
CDR20291_0706	789	789	936	801	0.283544197	0.543602441
CDR20291_0707	664	664	108	136	-2.363557317	7.43E-12
CDR20291_0707;CDR20291_0708	0	0	4	0	3.836678779	0.492233192
CDR20291_0708	646	646	467	374	-0.465221165	0.370295359
CDR20291_0709	1528	1528	2236	1244	0.39593767	0.505797305
CDR20291_0710	330	330	2613	1100	2.736505308	2.79E-05
CDR20291_0711	188	188	762	311	1.760245912	0.024222891
CDR20291_0712	1363	1363	624	385	-1.241102968	0.023224135
CDR20291_0713	1531	1531	53	97	-4.316129288	4.60E-56

CDR20291_0714	2369	2369	27	106	-5.212544141	7.42E-28
CDR20291_0715	5294	5294	1771	1920	-1.412018842	1.90E-08
CDR20291_0716	4112	4112	17581	25277	2.446097026	1.44E-101
CDR20291_0717	4443	4443	15691	25102	2.246473128	7.18E-111
CDR20291_0718	896	896	750	839	-0.070573576	0.845007042
CDR20291_0719	11022	11022	22016	30475	1.322144152	3.72E-26
CDR20291_0720	1255	1255	3344	4656	1.7415639	7.09E-27
CDR20291_0721	1512	1512	5284	9232	2.297357871	5.89E-55
CDR20291_0722	954	954	521	720	-0.550936717	0.026565095
CDR20291_0723	292	292	9	32	-3.870736113	2.03E-08
CDR20291_0724	84	84	8	23	-2.460789435	0.009647973
CDR20291_0725	27	27	20	65	0.605510803	0.621933287
CDR20291_0726	3090	3090	2255	4246	0.096152305	0.655007224
CDR20291_0727	3254	3254	36	207	-4.851111229	6.62E-16
CDR20291_0728	839	839	870	829	0.146225003	0.735944633
CDR20291_0729	350	350	239	251	-0.403091881	0.398469108
CDR20291_0730	523	523	138	157	-1.729023719	1.30E-05
CDR20291_0731	439	439	188	237	-0.963957359	0.010061377
CDR20291_0732	200	200	71	159	-0.797746061	0.159568219
CDR20291_0733	547	547	323	352	-0.590703118	0.13577249
CDR20291_0734	793	793	1579	2208	1.32407083	1.40E-11
CDR20291_0735	425	425	683	1288	1.236612009	7.36E-06
CDR20291_0736	697	697	582	714	-0.016959215	0.962144632
CDR20291_0737	1862	1862	317	515	-2.116026367	1.16E-26
CDR20291_0738	4567	4567	10168	11420	1.344493873	1.17E-09
CDR20291_0739	1090	1090	2501	4599	1.730074805	3.18E-20
CDR20291_0740	1855	1855	225	364	-2.608121345	7.72E-37
CDR20291_0741	4917	4917	13517	17298	1.730654521	1.57E-26
CDR20291_0742	8661	8661	14574	21290	1.111848356	1.42E-24
CDR20291_0743	258	258	252	117	-0.254069905	0.782702187

CDR20291_0744	1907	1907	8455	9654	2.348263109	5.14E-27
CDR20291_0745	3017	3017	3328	4251	0.411692362	0.033971886
CDR20291_0746	9083	9083	1038	1313	-2.866905725	1.46E-59
CDR20291_0747	3183	3183	1302	2211	-0.818578109	2.56E-07
CDR20291_0748	1060	1060	677	1045	-0.246740288	0.2670901
CDR20291_0749	5877	5877	5958	7885	0.313362366	0.057341176
CDR20291_0750	1478	1478	3195	4358	1.425862694	3.98E-17
CDR20291_0751	283	283	83	151	-1.244046163	0.005418623
CDR20291_0752	216	216	52	198	-0.85811368	0.261918448
CDR20291_0752; CDR20291_0753	0	0	1	3	3.403501445	0.547265835
CDR20291_0753	229	229	46	86	-1.76748682	0.000646734
CDR20291_0754	303	303	398	330	0.413623738	0.465303092
CDR20291_0755	749	749	175	237	-1.790872121	2.49E-09
CDR20291_0756	65	65	11	24	-1.884797553	0.050506731
CDR20291_0757	2404	2404	3174	3668	0.607676946	0.011003964
CDR20291_0758	5909	5909	6309	7461	0.315802901	0.144187495
CDR20291_0759	2336	2336	1998	1665	-0.201362541	0.639383834
CDR20291_0760	1987	1987	6040	7913	1.890908932	1.61E-29
CDR20291_0761	1023	1023	350	541	-1.146310209	9.22E-07
CDR20291_0762	4208	4208	375	460	-3.247659262	3.01E-53
CDR20291_0763	2599	2599	140	242	-3.726626596	4.71E-74
CDR20291_0764	1727	1727	97	137	-3.820669055	1.14E-56
CDR20291_0765	1464	1464	1421	1884	0.251303052	0.255565696
CDR20291_0766	7986	7986	9843	13760	0.632222123	1.15E-06
CDR20291_0767	1489	1489	4875	6799	2.039951945	4.08E-42
CDR20291_0768	2135	2135	3292	4771	0.980050843	1.16E-11
CDR20291_0769	5566	5566	9259	14773	1.158436368	3.39E-28
CDR20291_0770	9855	9855	7057	11853	-0.019466594	0.889394335
CDR20291_0771	7764	7764	27411	46081	2.282740002	1.50E-99
CDR20291_0772	7570	7570	6576	8496	0.074702959	0.696082902

CDR20291_0773	6059	6059	3524	4479	-0.514975791	0.00499046
CDR20291_0774	3551	3551	13998	26330	2.528248234	4.86E-58
CDR20291_0775	222	222	46	84	-1.741586071	0.000826492
CDR20291_0776	3361	3361	907	1336	-1.523463718	6.70E-23
CDR20291_0777	745	745	129	90	-2.596911358	2.18E-06
CDR20291_0778	1960	1960	211	517	-2.441227584	1.52E-13
CDR20291_0779	1179	1179	272	476	-1.620862359	2.38E-11
CDR20291_0780	479	479	1582	1734	1.898181895	2.42E-10
CDR20291_0781	1809	1809	411	518	-1.878667195	4.69E-15
CDR20291_0782	1496	1496	3595	4648	1.543010423	1.64E-16
CDR20291_0783	5663	5663	11606	22301	1.601485506	1.01E-21
CDR20291_0783; CDR20291_0784	88	88	89	142	0.440686593	0.488833293
CDR20291_0784	5183	5183	8643	15388	1.244308753	6.93E-19
CDR20291_0785	8515	8515	14183	21039	1.107908501	2.54E-26
CDR20291_0786	1821	1821	2424	5096	1.052384961	9.35E-06
CDR20291_0786; CDR20291_0787	0	0	0	2	2.244508613	0.701490268
CDR20291_0787	4531	4531	9832	11209	1.316502919	9.61E-10
CDR20291_0788	9906	9906	5953	7784	-0.44905735	0.005678229
CDR20291_0789	406	406	7	43	-4.118155511	3.29E-07
CDR20291_0790	1176	1176	6	25	-6.265914497	2.40E-35
CDR20291_0791	937	937	624	918	-0.22096351	0.357676931
CDR20291_0792	25	25	7	31	-0.476182261	0.762803676
CDR20291_0793	1690	1690	1783	1809	0.206749837	0.547265835
CDR20291_0794	962	962	3991	5180	2.333357652	5.01E-36
CDR20291_0795	3586	3586	3869	5311	0.42758455	0.006775521
CDR20291_0796	3334	3334	5164	8190	1.051085989	4.14E-19
CDR20291_0797	8342	8342	21940	28576	1.678403746	5.10E-29
CDR20291_0798	832	832	3531	3671	2.229288607	3.15E-15
CDR20291_0799	3091	3091	18008	18729	2.686933754	3.41E-28
CDR20291_0800	8622	8622	33462	51682	2.35703648	1.03E-148

CDR20291_0801	3611	3611	10555	11905	1.739806512	1.69E-15
CDR20291_0802	1160	1160	359	536	-1.316238516	5.87E-09
CDR20291_0803	1709	1709	413	491	-1.826901189	5.23E-12
CDR20291_0804	2302	2302	492	1160	-1.48762057	1.06E-06
CDR20291_0805	483	483	376	736	0.221188596	0.532353971
CDR20291_0806	1265	1265	268	425	-1.818775059	7.57E-16
CDR20291_0807	1764	1764	761	1637	-0.553209244	0.050016015
CDR20291_0808	3834	3834	2132	3661	-0.367325532	0.017597437
CDR20291_0809	6237	6237	13327	18446	1.419296654	9.50E-28
CDR20291_0810	700	700	535	1387	0.434091915	0.296080328
CDR20291_0811	7025	7025	6874	9385	0.283128219	0.057215124
CDR20291_0812	1998	1998	629	948	-1.284734328	8.39E-13
CDR20291_0813	3694	3694	1207	1617	-1.312877642	1.07E-13
CDR20291_0814	1904	1904	214	512	-2.39998832	1.03E-13
CDR20291_0815	6896	6896	2821	4439	-0.875412067	5.24E-14
CDR20291_0816	2817	2817	2192	2933	-0.061340879	0.770414782
CDR20291_0817	4805	4805	29082	45671	3.010149271	9.61E-230
CDR20291_0818	6899	6899	4254	7118	-0.237982502	0.068124153
CDR20291_0819	858	858	1016	1678	0.693833179	0.000623544
CDR20291_0820	1495	1495	875	1683	-0.204742553	0.420584299
CDR20291_0821	6252	6252	5797	8616	0.264098146	0.028447555
CDR20291_0822	4158	4158	5211	8255	0.744678682	1.34E-10
CDR20291_0823	6990	6990	34450	50837	2.669341978	2.01E-157
CDR20291_0824	5733	5733	5411	8186	0.302303503	0.010197166
CDR20291_0825	4697	4697	4759	7439	0.428196375	0.000269172
CDR20291_0825; CDR20291_0826	4835	4835	9836	13888	1.361990273	4.87E-27
CDR20291_0827	1185	1185	1658	2272	0.801166971	3.89E-05
CDR20291_0828	131	131	28	129	-0.827919008	0.384115123
CDR20291_0829	2907	2907	3755	4421	0.587665821	0.009130781
CDR20291_0830	501	501	312	437	-0.352294533	0.276422746

CDR20291_0830; CDR20291_0831	0	0	0	1	1.443698351	0.810176602
CDR20291_0831	1548	1548	780	1228	-0.574307797	0.002233618
CDR20291_0832	473	473	41	138	-2.45191567	3.02E-05
CDR20291_0833	1377	1377	405	638	-1.350484694	9.98E-11
CDR20291_0834	6424	6424	6435	10459	0.440340955	0.000123075
CDR20291_0835	6029	6029	6495	9739	0.486793468	2.02E-05
CDR20291_0836	1750	1750	690	1192	-0.858316059	1.38E-05
CDR20291_0837	2515	2515	6918	9943	1.809453756	7.08E-45
CDR20291_0838	4171	4171	6259	9249	0.954582849	1.22E-15
CDR20291_0839	1629	1629	383	259	-2.165076976	1.20E-05
CDR20291_0840	8	8	7	53	1.772719085	0.304948753
CDR20291_0841	4179	4179	5738	6853	0.684834302	0.000952382
CDR20291_0842	897	897	1079	1362	0.528489273	0.038337579
CDR20291_0843	919	919	638	712	-0.342140979	0.312591617
CDR20291_0844	414	414	473	470	0.308810429	0.499308486
CDR20291_0845	1465	1465	3144	4068	1.380282969	4.68E-13
CDR20291_0846	535	535	685	1320	0.92601201	0.000860657
CDR20291_0847	2487	2487	4191	4995	0.978940673	5.48E-06
CDR20291_0848	2208	2208	9366	8800	2.172135281	1.73E-13
CDR20291_0849	12717	12717	39513	59015	2.012264114	7.77E-100
CDR20291_0850	6348	6348	3586	5050	-0.488552535	0.00047759
CDR20291_0851	11672	11672	27412	34533	1.493386148	4.01E-20
CDR20291_0852	1371	1371	13504	24634	3.825388369	1.30E-145
CDR20291_0852; CDR20291_0853	29	29	53	117	1.552503895	0.064656865
CDR20291_0853	708	708	274	728	-0.524500517	0.242369899
CDR20291_0854	413	413	145	176	-1.275574177	0.00149241
CDR20291_0855	757	757	120	144	-2.432043093	1.26E-12
CDR20291_0856	1205	1205	363	738	-1.117102704	8.15E-05
CDR20291_0857	3179	3179	2033	3847	-0.090354357	0.681987813
CDR20291_0858	2950	2950	1611	2621	-0.433954492	0.004026505

CDR20291_0859	141	141	6	20	-3.470234131	4.62E-05
CDR20291_0860	2211	2211	6178	6216	1.607745195	6.33E-09
CDR20291_0861	6631	6631	1886	3447	-1.286422917	1.89E-15
CDR20291_0862	1479	1479	669	1083	-0.709331928	0.000274944
CDR20291_0862; CDR20291_0863	0	0	1	0	1.76780945	0.770414782
CDR20291_0863	8572	8572	4166	7734	-0.501684239	0.002263096
CDR20291_0864	7105	7105	16414	20959	1.47833851	4.28E-20
CDR20291_0865	2873	2873	2027	3517	-0.016012386	0.933462774
CDR20291_0866	540	540	13	111	-3.261684702	0.00028098
CDR20291_0867	1731	1731	9	54	-5.867027251	7.07E-22
CDR20291_0868	33	33	6	24	-1.203569824	0.387650445
CDR20291_0869	1925	1925	608	947	-1.256034314	3.19E-12
CDR20291_0870	1835	1835	1524	1929	-0.004072023	0.987017557
CDR20291_0871	105442	105442	126117	175286	0.585139602	8.75E-07
CDR20291_0872	11334	11334	22242	34628	1.37898898	2.30E-50
CDR20291_0873	2637	2637	1563	3730	-0.006795941	0.984524379
CDR20291_0874	1742	1742	546	931	-1.199201165	1.43E-09
CDR20291_0875	413	413	260	298	-0.467906051	0.259768896
CDR20291_0876	766	766	655	1300	0.367475333	0.209872872
CDR20291_0877	1337	1337	535	938	-0.825573039	0.000186509
CDR20291_0878	3619	3619	8125	9635	1.389869368	5.77E-12
CDR20291_0879	1559	1559	288	210	-2.48025663	1.12E-07
CDR20291_0880	5355	5355	137	236	-4.802190057	9.35E-170
CDR20291_0881	2166	2166	103	161	-3.984900253	2.12E-75
CDR20291_0882	1430	1430	120	98	-3.57016007	6.16E-17
CDR20291_0882; CDR20291_0883	0	0	0	1	1.443698351	0.810176602
CDR20291_0883	2342	2342	32	105	-5.130989042	3.70E-35
CDR20291_0884	1266	1266	306	685	-1.354062854	2.31E-05
CDR20291_0885	6911	6911	4750	6177	-0.25901352	0.140083012
CDR20291_0886	6035	6035	2579	2397	-1.14549616	0.000239023

CDR20291_0887	3586	3586	4724	3945	0.423244198	0.264022906
CDR20291_0888	1069	1069	763	814	-0.328771662	0.344191563
CDR20291_0889	3073	3073	4284	2577	0.356745424	0.501914486
CDR20291_0890	2171	2171	8786	3211	1.727442269	0.007325399
CDR20291_0891	6119	6119	46791	26681	2.791554128	8.28E-10
CDR20291_0892	4920	4920	17487	11139	1.730754428	6.32E-05
CDR20291_0893	6083	6083	3358	4262	-0.591230605	0.001246408
CDR20291_0894	8685	8685	3164	3709	-1.241258714	2.18E-09
CDR20291_0895	1238	1238	258	184	-2.316665427	2.68E-06
CDR20291_0896	252	252	33	246	-0.989039113	0.324064896
CDR20291_0897	642	642	121	307	-1.601828442	0.00022882
CDR20291_0898	4150	4150	739	1587	-1.83085995	3.75E-14
CDR20291_0898; CDR20291_0899	0	0	0	15	5.122084481	0.344191563
CDR20291_0899	24924	24924	6274	7744	-1.741847543	4.72E-24
CDR20291_0900	8543	8543	33708	51450	2.372404242	7.34E-147
CDR20291_0901	624	624	118	397	-1.332245784	0.01581927
CDR20291_0902	8289	8289	8762	9763	0.265008948	0.272005407
CDR20291_0903	3211	3211	6218	8781	1.290904865	1.38E-21
CDR20291_0904	1676	1676	6563	9272	2.307115647	1.44E-62
CDR20291_0905	12	12	18	66	1.742875523	0.183714575
CDR20291_0906	4521	4521	4662	6449	0.367575297	0.014319135
CDR20291_0906; CDR20291_0907	0	0	0	2	2.244508613	0.701490268
CDR20291_0907	4644	4644	2980	2988	-0.517028315	0.079477165
CDR20291_0908	1930	1930	1927	1801	0.081705735	0.834752083
CDR20291_0909	1307	1307	1219	2107	0.383821403	0.052397805
CDR20291_0910	799	799	633	1320	0.297809101	0.347547392
CDR20291_0911	382	382	333	316	-0.10755104	0.839616777
CDR20291_0912	289	289	34	177	-1.555796519	0.060921975
CDR20291_0913	1667	1667	4905	5844	1.782907032	4.84E-17
CDR20291_0914	1061	1061	345	818	-0.877095886	0.013774698

CDR20291_0915	673	673	178	355	-1.319659126	8.25E-05
CDR20291_0916	3631	3631	4881	8347	0.90274	3.09E-11
CDR20291_0917	1874	1874	997	1966	-0.322485241	0.189433531
CDR20291_0918	2844	2844	1	7	-9.43729185	9.79E-62
CDR20291_0919	299	299	62	183	-1.323767751	0.02697826
CDR20291_0920	598	598	2	18	-5.981317059	8.77E-15
CDR20291_0921	91	91	1	110	-0.933757036	0.646272629
CDR20291_0922	117	117	3	21	-3.387812075	0.002425758
CDR20291_0923	9426	9426	51	94	-6.981314825	7.39E-293
CDR20291_0924	269	269	13	18	-4.053429637	2.85E-12
CDR20291_0925	3055	3055	5000	7299	1.071204508	1.02E-16
CDR20291_0926	1159	1159	113	358	-2.345489749	5.83E-07
CDR20291_0927	2491	2491	293	883	-2.125158106	1.08E-07
CDR20291_0928	3896	3896	4687	8738	0.809196255	1.87E-06
CDR20291_0929	19037	19037	27512	35826	0.814445228	5.53E-08
CDR20291_0930	503	503	58	63	-2.956388663	1.50E-11
CDR20291_0931	4702	4702	26226	41357	2.895294495	5.92E-208
CDR20291_0932	1907	1907	4472	7726	1.71327956	4.17E-32
CDR20291_0933	158	158	8	34	-2.976740248	0.000720193
CDR20291_0934	283	283	769	840	1.614250125	6.09E-06
CDR20291_0935	410	410	34	64	-3.035659972	4.67E-12
CDR20291_0936	454	454	62	109	-2.372471241	9.75E-10
CDR20291_0936; CDR20291_0937	1	1	1	3	0.967439201	0.807338008
CDR20291_0937	1680	1680	1310	1794	-0.042886591	0.848706381
CDR20291_0938	696	696	14	119	-3.526407402	4.31E-05
CDR20291_0939	1571	1571	2855	3672	1.136427786	6.50E-09
CDR20291_0940	5697	5697	4679	5793	-0.033874295	0.879608003
CDR20291_0941	2302	2302	1647	2842	1.86E-05	0.99990813
CDR20291_0942	1713	1713	5394	6434	1.881484927	2.83E-19
CDR20291_0943	15954	15954	23345	35193	0.932465183	1.37E-22

CDR20291_0944	3028	3028	1924	3305	-0.174657819	0.304063676
CDR20291_0945	1366	1366	514	928	-0.89151215	9.76E-05
CDR20291_0946	449	449	461	636	0.35888229	0.244606633
CDR20291_0947	1112	1112	450	619	-0.986793338	3.94E-05
CDR20291_0948	2786	2786	1082	857	-1.366138163	0.000700525
CDR20291_0948; CDR20291_0949	36	36	0	0	-7.525533574	0.002927995
CDR20291_0949	10277	10277	4880	6755	-0.750780302	3.45E-08
CDR20291_0950	149	149	11	39	-2.623786305	0.001603178
CDR20291_0951	2242	2242	561	921	-1.552799443	2.58E-18
CDR20291_0952	1458	1458	847	1273	-0.402745091	0.037548949
CDR20291_0953	6753	6753	11657	18749	1.21769616	2.44E-32
CDR20291_0954	7785	7785	9490	13053	0.605266223	1.04E-05
CDR20291_0955	21047	21047	27364	34160	0.634433002	0.000180129
CDR20291_0956	3199	3199	5552	8335	1.175619082	8.67E-23
CDR20291_0957	3291	3291	12642	15158	2.171715967	5.00E-30
CDR20291_0958	1744	1744	433	648	-1.632490293	6.81E-17
CDR20291_0959	5409	5409	23159	32478	2.431011711	1.85E-90
CDR20291_0960	1942	1942	2912	4071	0.914855854	1.27E-08
CDR20291_0961	762	762	1674	2489	1.508736431	3.00E-17
CDR20291_0962	1266	1266	711	601	-0.802080818	0.05989365
CDR20291_0963	1093	1093	6885	4883	2.602943358	2.63E-10
CDR20291_0964	7818	7818	1128	543	-2.999228847	2.69E-08
CDR20291_0965	48	48	28	29	-0.641099699	0.541459208
CDR20291_0965; CDR20291_0966	0	0	0	2	2.244508613	0.701490268
CDR20291_0966	353	353	54	53	-2.607272633	6.13E-07
CDR20291_0966; CDR20291_0967	0	0	0	1	1.443698351	0.810176602
CDR20291_0967	8380	8380	33394	38974	2.207955359	1.71E-30
CDR20291_0968	5327	5327	29528	37404	2.735882239	1.11E-65
CDR20291_0969	2860	2860	1070	1598	-1.042181892	2.30E-11
CDR20291_0970	1202	1202	3239	5714	1.929794792	8.19E-32

CDR20291_0971	3152	3152	11463	15025	2.15004153	1.47E-43
CDR20291_0972	3711	3711	390	327	-3.226374934	8.94E-19
CDR20291_0973	362	362	66	197	-1.498744447	0.009028094
CDR20291_0974	273	273	70	102	-1.605403021	0.000432576
CDR20291_0975	141	141	55	82	-0.983419397	0.099849752
CDR20291_0976	230	230	35	55	-2.302871876	1.15E-05
CDR20291_0977	150	150	44	50	-1.578087221	0.014476484
CDR20291_0978	798	798	2705	2388	1.815075358	5.25E-07
CDR20291_0979	267	267	1063	869	2.007498244	1.21E-05
CDR20291_0980	8	8	32	56	2.494018632	0.031672619
CDR20291_0981	6	6	43	66	3.23734065	0.003601333
CDR20291_0982	29	29	43	119	1.451989283	0.115790595
CDR20291_0983	125	125	30	73	-1.28816933	0.075121067
CDR20291_0984	5	5	13	45	2.478585483	0.108535223
CDR20291_0985	142	142	89	300	0.397833824	0.603859697
CDR20291_0986	12	12	20	68	1.818907344	0.150865188
CDR20291_0987	100	100	50	72	-0.649945128	0.351689876
CDR20291_0988	3	3	8	25	2.415335476	0.202502844
CDR20291_0989	13	13	28	110	2.334427243	0.042698886
CDR20291_0990	1444	1444	3574	5520	1.70804303	9.58E-37
CDR20291_0991	1281	1281	6282	6750	2.457222602	1.04E-22
CDR20291_0992	797	797	426	395	-0.825797624	0.051331257
CDR20291_0993	7206	7206	20075	26175	1.762131768	1.08E-31
CDR20291_0994	2303	2303	1779	3316	0.170299351	0.421127736
CDR20291_0995	10603	10603	22303	29596	1.368396812	6.63E-22
CDR20291_0996	3179	3179	3018	4276	0.264574407	0.089234356
CDR20291_0997	3551	3551	1327	1707	-1.145976557	3.00E-09
CDR20291_0998	4	4	11	41	2.634344363	0.110104805
CDR20291_0999	45	45	13	29	-1.096244897	0.312821141
CDR20291_1000	8	8	13	35	1.559909426	0.302011599

CDR20291_1001	23	23	81	151	2.359601037	0.001397236
CDR20291_1002	413	413	312	228	-0.445862028	0.470690417
CDR20291_1003	2966	2966	1498	1569	-0.837969665	0.00351463
CDR20291_1004	251	251	59	166	-1.187807214	0.051242167
CDR20291_1005	1259	1259	410	452	-1.442601413	4.34E-06
CDR20291_1006	2807	2807	3981	4314	0.672209056	0.009742816
CDR20291_1007	1378	1378	739	1177	-0.475839511	0.015680017
CDR20291_1008	511	511	200	330	-0.90364541	0.004579444
CDR20291_1009	1629	1629	467	368	-1.808033481	3.15E-05
CDR20291_1010	3384	3384	1319	2449	-0.819330248	1.35E-05
CDR20291_1011	3168	3168	400	575	-2.637315204	3.31E-52
CDR20291_1012	249	249	28	172	-1.433927061	0.119289304
CDR20291_1013	90	90	31	41	-1.247098923	0.104536067
CDR20291_1014	89	89	4	12	-3.492834316	0.000459331
CDR20291_1015	12	12	9	44	1.048700623	0.515361117
CDR20291_1016	50	50	27	102	0.299720913	0.790862351
CDR20291_1017	57	57	30	112	0.250432159	0.814861457
CDR20291_1018	11	11	56	107	2.910831181	0.001467736
CDR20291_1019	30	30	22	96	0.891450882	0.458268558
CDR20291_1020	10	10	14	76	2.063122659	0.14961595
CDR20291_1021	4	4	0	26	1.47551289	0.672344755
CDR20291_1022	301	301	425	742	0.989871232	0.001283481
CDR20291_1023	9303	9303	12131	18358	0.768902957	3.24E-14
CDR20291_1024	10963	10963	10426	16870	0.362071351	0.000622968
CDR20291_1025	6	6	3	26	1.132609118	0.604412586
CDR20291_1026	289	289	516	853	1.286978149	5.57E-06
CDR20291_1027	1030	1030	1434	2020	0.812834927	2.90E-05
CDR20291_1028	356	356	8	107	-2.797930192	0.01125717
CDR20291_1029	488	488	69	165	-2.066829617	4.77E-06
CDR20291_1030	919	919	17	72	-4.432716806	2.32E-14

CDR20291_1030; CDR20291_1031	0	0	0	1	1.443698351	0.810176602
CDR20291_1031	559	559	33	43	-3.807194499	6.17E-21
CDR20291_1032	46	46	1	17	-2.513122093	0.13756368
CDR20291_1033	224	224	4	27	-3.951387931	2.70E-05
CDR20291_1034	1341	1341	19	85	-4.760181849	3.05E-17
CDR20291_1035	449	449	66	42	-2.877536544	8.17E-06
CDR20291_1036	104	104	21	69	-1.255864754	0.152830468
CDR20291_1037	287	287	75	47	-2.050860335	0.004324262
CDR20291_1038	1	1	8	24	3.960210424	0.071804011
CDR20291_1039	2801	2801	8337	13651	2.016897323	1.71E-68
CDR20291_1039; CDR20291_1040	47	47	398	759	3.64301398	1.54E-19
CDR20291_1040	6306	6306	5919	9210	0.314582261	0.005180735
CDR20291_1041	4578	4578	6809	10852	0.996154472	2.50E-19
CDR20291_1042	56	56	5	8	-3.058075805	0.005769761
CDR20291_1043	436	436	12	80	-3.360549393	6.45E-05
CDR20291_1044	3	3	10	37	2.904403272	0.096079746
CDR20291_1045	564	564	54	173	-2.358046108	1.57E-05
CDR20291_1046	655	655	228	568	-0.734849472	0.08175281
CDR20291_1047	11330	11330	21751	28612	1.230767236	3.80E-17
CDR20291_1048	6771	6771	12554	15803	1.151744328	1.26E-11
CDR20291_1049	6209	6209	15499	20573	1.615524235	1.19E-28
CDR20291_1050	699	699	650	1312	0.502142646	0.090473461
CDR20291_1051	1022	1022	110	118	-3.061610435	4.38E-18
CDR20291_1052	1410	1410	21	84	-4.805487691	2.51E-20
CDR20291_1053	18	18	49	104	2.093999272	0.020499992
CDR20291_1054	125	125	102	69	-0.371641862	0.674434966
CDR20291_1055	99	99	50	60	-0.758361934	0.300182694
CDR20291_1056	16	16	6	61	0.911652669	0.605895606
CDR20291_1057	45	45	12	72	-0.213334994	0.879159642
CDR20291_1058	306	306	296	344	0.160807865	0.725149982

CDR20291_1059	3236	3236	4067	5839	0.678547854	1.03E-06
CDR20291_1060	2793	2793	1869	3179	-0.107432972	0.541332688
CDR20291_1061	7307	7307	8049	11741	0.499498695	2.19E-05
CDR20291_1062	2999	2999	3459	6149	0.711467529	7.60E-06
CDR20291_1063	2389	2389	628	1216	-1.353611346	1.10E-09
CDR20291_1064	6590	6590	21100	28116	1.977276485	1.42E-44
CDR20291_1065	3230	3230	1212	1593	-1.125942709	2.33E-09
CDR20291_1065; CDR20291_1066	29	29	0	1	-5.826095615	0.010931861
CDR20291_1066	4357	4357	1634	2340	-1.068263033	3.20E-13
CDR20291_1067	3426	3426	282	480	-3.128188658	8.76E-71
CDR20291_1068	3446	3446	143	506	-3.469388347	3.98E-15
CDR20291_1069	2109	2109	3579	4514	1.024979563	1.59E-07
CDR20291_1070	1779	1779	558	1044	-1.126080831	5.35E-07
CDR20291_1071	191	191	12	54	-2.610251064	0.002198506
CDR20291_1071; CDR20291_1072	0	0	1	0	1.76780945	0.770414782
CDR20291_1072	1246	1246	1891	3136	1.054815281	1.83E-10
CDR20291_1073	299	299	25	7	-3.962499029	5.72E-05
CDR20291_1074	1076	1076	391	456	-1.250066373	3.62E-05
CDR20291_1075	321	321	37	30	-3.121944241	3.30E-07
CDR20291_1076	822	822	1267	1401	0.803783963	0.008101254
CDR20291_1077	1015	1015	1874	1694	0.950774411	0.010296785
CDR20291_1078	2902	2902	4680	5854	0.94619504	7.40E-07
CDR20291_1079	1447	1447	6676	8790	2.496197418	1.81E-51
CDR20291_1080	81	81	3	9	-3.767983089	0.000372278
CDR20291_1081	934	934	176	336	-1.843627479	3.08E-10
CDR20291_1081; CDR20291_1082	2	2	1	0	-1.690525614	0.748134343
CDR20291_1082	926	926	425	642	-0.739171193	0.00185599
CDR20291_1083	1468	1468	1668	2303	0.505973898	0.007898067
CDR20291_1083; CDR20291_1084	34	34	1	0	-5.927758512	0.008219453
CDR20291_1084	941	941	355	567	-0.981116111	4.31E-05

CDR20291_1085	11	11	13	46	1.363859138	0.347817002
CDR20291_1086	1717	1717	11958	17178	3.149387973	1.59E-145
CDR20291_1087	85	85	44	57	-0.672705509	0.381650329
CDR20291_1088	1599	1599	628	1089	-0.861032598	2.62E-05
CDR20291_1089	1142	1142	210	218	-2.3047432	4.79E-11
CDR20291_1090	81	81	104	114	0.533140024	0.447598273
CDR20291_1091	4	4	10	45	2.694258651	0.107887177
CDR20291_1092	34	34	27	161	1.35006737	0.250361073
CDR20291_1093	35	35	4	56	-0.392542252	0.825820103
CDR20291_1094	46	46	80	142	1.303431624	0.057653453
CDR20291_1095	8	8	5	50	1.628158547	0.381406776
CDR20291_1096	58	58	9	60	-0.870408356	0.514634626
CDR20291_1097	11	11	12	23	0.691993058	0.663316027
CDR20291_1098	51	51	13	84	-0.193490942	0.888334466
CDR20291_1099	599	599	23	117	-3.191338842	6.82E-06
CDR20291_1100	5108	5108	18983	26612	2.226486026	4.58E-74
CDR20291_1101	9777	9777	10656	13037	0.366977775	0.053879393
CDR20291_1102	3442	3442	2157	2843	-0.383720341	0.038987193
CDR20291_1103	3224	3224	11491	14628	2.101863328	3.30E-36
CDR20291_1104	168	168	174	285	0.494521536	0.274176243
CDR20291_1105	375	375	471	766	0.767360083	0.006673852
CDR20291_1106	2413	2413	603	1070	-1.495301766	5.56E-15
CDR20291_1107	2022	2022	1126	1696	-0.462187159	0.00667758
CDR20291_1108	2117	2117	1072	1535	-0.635191323	0.000366103
CDR20291_1109	1498	1498	1382	3551	0.696924445	0.042254927
CDR20291_1109;CDR20291_1110	0	0	0	3	2.81909081	0.625953386
CDR20291_1110	8681	8681	9886	16173	0.630177162	5.94E-09
CDR20291_1111	241	241	97	164	-0.844721511	0.064728143
CDR20291_1112	2587	2587	2046	3686	0.177623769	0.35086448
CDR20291_1113	4587	4587	12805	19067	1.855580481	5.61E-68

CDR20291_1114	496	496	51	209	-2.008154335	0.002263096
CDR20291_1115	12	12	7	77	1.646745371	0.329813895
CDR20291_1116	5108	5108	1465	2919	-1.205627795	3.32E-09
CDR20291_1117	1089	1089	2703	2999	1.493595384	1.40E-08
CDR20291_1118	91	91	48	41	-0.892460313	0.300182694
CDR20291_1119	60	60	16	123	0.075174044	0.957351931
CDR20291_1120	49	49	14	51	-0.652414111	0.582826773
CDR20291_1121	13	13	15	70	1.617717623	0.242561542
CDR20291_1122	157	157	95	239	0.072219791	0.913251963
CDR20291_1123	22	22	4	19	-1.019126732	0.540249318
CDR20291_1124	565	565	129	276	-1.473117305	0.000122071
CDR20291_1125	126	126	8	34	-2.652287106	0.004673717
CDR20291_1126	365	365	1483	2773	2.567680526	3.99E-29
CDR20291_1127	359	359	4	46	-3.989896327	9.36E-05
CDR20291_1128	5073	5073	4268	8712	0.366002945	0.088043273
CDR20291_1129	1274	1274	33560	63273	5.270393562	8.67E-254
CDR20291_1130	35	35	0	19	-2.095775653	0.392628341
CDR20291_1131	627	627	428	363	-0.519477607	0.293620745
CDR20291_1132	99	99	5	32	-2.526620163	0.026574733
CDR20291_1133	344	344	16	66	-3.135700355	1.00E-05
CDR20291_1134	2343	2343	1782	3887	0.275814756	0.315537766
CDR20291_1135	816	816	11	121	-3.783794964	3.91E-05
CDR20291_1136	934	934	511	574	-0.682136253	0.037256598
CDR20291_1137	1068	1068	899	1428	0.172552001	0.420195977
CDR20291_1138	159	159	3	27	-3.529943129	0.001479547
CDR20291_1139	3047	3047	9001	10142	1.754404667	2.48E-15
CDR20291_1140	6523	6523	8667	11022	0.677566167	8.15E-05
CDR20291_1141	4479	4479	574	674	-2.749787824	2.44E-34
CDR20291_1142	117	117	1	4	-5.55289858	6.47E-07
CDR20291_1143	303	303	506	1411	1.628156094	0.000232825

CDR20291_1144	10338	10338	3062	4861	-1.334780628	1.69E-34
CDR20291_1145	11878	11878	30177	42937	1.687983488	3.63E-51
CDR20291_1146	163	163	129	413	0.683294356	0.303045739
CDR20291_1147	47	47	5	34	-1.386829369	0.325009494
CDR20291_1148	19	19	55	133	2.2946674	0.008484938
CDR20291_1149	38	38	11	24	-1.112220635	0.340717464
CDR20291_1150	3	3	5	23	2.135065947	0.305812016
CDR20291_1151	118	118	52	226	0.150990014	0.875218512
CDR20291_1152	109	109	11	19	-2.821794177	0.000372278
CDR20291_1152; CDR20291_1153	0	0	42	1	7.260958686	0.050228187
CDR20291_1153	18	18	15	81	1.309041027	0.338931561
CDR20291_1154	7743	7743	6536	8873	0.066150571	0.693198298
CDR20291_1155	17	17	19	75	1.394122903	0.271064515
CDR20291_1155; CDR20291_1156	0	0	1	0	1.76780945	0.770414782
CDR20291_1156	0	0	1	5	3.929287872	0.48064237
CDR20291_1157	2	2	3	11	1.746783329	0.499082712
CDR20291_1158	3560	3560	7535	12152	1.513840739	2.15E-41
CDR20291_1159	296	296	303	728	0.788516942	0.071750087
CDR20291_1160	278	278	16	76	-2.680662158	0.000787002
CDR20291_1161	1951	1951	50	132	-4.434170766	8.25E-36
CDR20291_1162	93	93	1	26	-2.96286213	0.055616445
CDR20291_1163	101	101	68	118	-0.08278159	0.90479845
CDR20291_1164	2275	2275	8269	9936	2.093207572	2.26E-26
CDR20291_1165	1058	1058	126	241	-2.502873052	6.42E-18
CDR20291_1166	442	442	10	86	-3.34004469	0.000302487
CDR20291_1166; CDR20291_1167	0	0	0	1	1.443698351	0.810176602
CDR20291_1167	247	247	20	90	-2.249045665	0.004986063
CDR20291_1167; CDR20291_1168	44	44	0	2	-5.530910515	0.003422409
CDR20291_1168	6963	6963	190	205	-5.039434565	5.83E-97
CDR20291_1169	210	210	649	744	1.829026021	3.08E-07

CDR20291_1170	117	117	36	153	-0.389519038	0.688639144
CDR20291_1171	69	69	19	100	-0.316250952	0.796301982
CDR20291_1172	8612	8612	30802	34781	2.031769851	7.34E-23
CDR20291_1173	1343	1343	635	925	-0.722180103	0.000487635
CDR20291_1174	5386	5386	8762	10941	0.957825914	8.49E-08
CDR20291_1175	2794	2794	2305	4417	0.286963653	0.166306558
CDR20291_1176	2461	2461	10867	17562	2.576246613	1.14E-122
CDR20291_1177	3320	3320	2338	3328	-0.163232238	0.317762398
CDR20291_1178	3443	3443	1990	1488	-0.819391229	0.052509691
CDR20291_1179	3738	3738	1545	2442	-0.857220538	5.76E-10
CDR20291_1180	8596	8596	20452	32174	1.664398234	3.75E-70
CDR20291_1181	2701	2701	1512	2983	-0.248931723	0.281768194
CDR20291_1182	4313	4313	11962	20920	1.964510541	1.31E-51
CDR20291_1183	2602	2602	551	1345	-1.470793924	2.67E-06
CDR20291_1184	865	865	751	923	0.040623016	0.899267072
CDR20291_1185	9446	9446	1784	3781	-1.757812441	3.23E-16
CDR20291_1186	1918	1918	1670	2473	0.170596888	0.326152719
CDR20291_1187	11956	11956	23193	34431	1.328353912	1.10E-40
CDR20291_1187; CDR20291_1188	0	0	0	2	2.244508613	0.701490268
CDR20291_1188	1992	1992	2374	3428	0.605797967	0.000117445
CDR20291_1188; CDR20291_1189	208	208	0	1	-8.641978088	5.42E-08
CDR20291_1189	9274	9274	2296	4105	-1.503760545	8.78E-25
CDR20291_1190	3829	3829	10542	13243	1.720794581	3.57E-23
CDR20291_1191	975	975	173	185	-2.339445352	3.67E-11
CDR20291_1192	270	270	23	80	-2.441559164	0.000395311
CDR20291_1193	273	273	332	509	0.677467743	0.042881736
CDR20291_1194	3204	3204	1801	3055	-0.360987524	0.022251268
CDR20291_1195	517	517	117	514	-0.800257983	0.249282886
CDR20291_1196	1214	1214	714	569	-0.764805609	0.092922721
CDR20291_1197	4	4	1	6	-0.292787132	0.919376934

CDR20291_1198	4449	4449	10663	22135	1.889945699	2.85E-21
CDR20291_1199	2823	2823	11611	18867	2.477819398	1.02E-114
CDR20291_1200	745	745	1308	2519	1.380699649	3.89E-09
CDR20291_1201	1056	1056	113	413	-2.070560519	0.000105131
CDR20291_1202	0	0	32	30	7.527818343	0.004023237
CDR20291_1203	3	3	0	8	0.200297243	0.963001311
CDR20291_1204	245	245	165	167	-0.444891929	0.420957985
CDR20291_1205	303	303	94	260	-0.804755686	0.157625993
CDR20291_1206	2060	2060	13543	13033	2.817430495	5.01E-24
CDR20291_1207	127	127	38	31	-1.736683586	0.028928925
CDR20291_1208	600	600	256	440	-0.748132744	0.012229269
CDR20291_1209	2	2	2	14	1.877051529	0.479713053
CDR20291_1209; CDR20291_1210	1	1	0	0	-2.355605325	0.688257277
CDR20291_1210	1434	1434	1159	1893	0.134540348	0.497178872
CDR20291_1211	187	187	197	227	0.278411568	0.59996923
CDR20291_1212	792	792	102	333	-1.91496508	0.000203241
CDR20291_1213	9	9	5	30	0.847423454	0.659785902
CDR20291_1214	509	509	3064	4656	2.978560673	2.32E-81
CDR20291_1214; CDR20291_1215	0	0	1	1	2.55848677	0.661045216
CDR20291_1215	1101	1101	1835	2780	1.123628192	9.53E-12
CDR20291_1216	621	621	555	843	0.226338106	0.393279228
CDR20291_1217	864	864	419	735	-0.547882287	0.033891247
CDR20291_1218	7038	7038	12536	19193	1.227139712	1.12E-34
CDR20291_1219	414	414	82	130	-1.916035389	5.07E-07
CDR20291_1220	997	997	1490	2208	0.950533544	1.27E-07
CDR20291_1221	10	10	5	26	0.534504692	0.78387038
CDR20291_1222	277	277	189	262	-0.227704924	0.602839886
CDR20291_1223	3	3	3	14	1.416126183	0.559935942
CDR20291_1224	221	221	22	106	-1.87903603	0.026544893
CDR20291_1225	766	766	599	891	0.018634466	0.946027713

CDR20291_1226	3499	3499	2059	2857	-0.439942241	0.007360618
CDR20291_1227	3575	3575	7608	11280	1.460996472	2.04E-36
CDR20291_1228	1983	1983	489	835	-1.543949989	1.57E-15
CDR20291_1229	2030	2030	6067	11087	2.106312526	5.03E-40
CDR20291_1230	3049	3049	408	457	-2.717077679	1.04E-25
CDR20291_1231	1811	1811	347	673	-1.807638039	7.82E-14
CDR20291_1232	3853	3853	973	1258	-1.708462473	2.77E-19
CDR20291_1233	2068	2068	301	471	-2.370272189	3.36E-35
CDR20291_1234	1005	1005	510	920	-0.460832942	0.067290718
CDR20291_1235	351	351	40	161	-1.877650042	0.007237371
CDR20291_1236	695	695	40	209	-2.582587293	0.000263188
CDR20291_1237	1902	1902	833	1296	-0.785268258	7.21E-06
CDR20291_1238	51	51	6	34	-1.452102301	0.270704049
CDR20291_1239	2719	2719	548	840	-1.915923216	1.01E-30
CDR20291_1240	11141	11141	51266	72204	2.537977585	3.94E-110
CDR20291_1241	670	670	1733	1817	1.519465745	1.01E-06
CDR20291_1242	6365	6365	14698	18703	1.475443637	1.94E-19
CDR20291_1243	614	614	699	756	0.352950918	0.337368759
CDR20291_1244	602	602	794	1260	0.819717921	0.000250634
CDR20291_1245	2341	2341	778	1055	-1.280497408	3.86E-11
CDR20291_1246	1585	1585	3343	4860	1.434174574	1.03E-22
CDR20291_1247	4491	4491	15974	23398	2.193567928	2.58E-90
CDR20291_1248	545	545	415	659	0.027731156	0.929461055
CDR20291_1249	7165	7165	1950	3389	-1.388870225	7.79E-23
CDR20291_1250	24045	24045	115864	195405	2.73383291	1.24E-154
CDR20291_1250; CDR20291_1251	0	0	0	1	1.443698351	0.810176602
CDR20291_1251	2030	2030	6598	9645	2.062008935	3.10E-60
CDR20291_1252	6152	6152	13672	22959	1.614184606	3.01E-46
CDR20291_1253	6662	6662	22485	40809	2.276236889	8.86E-61
CDR20291_1254	292	292	579	1668	1.906107183	1.77E-05

CDR20291_1255	46	46	56	74	0.575142911	0.498331438
CDR20291_1256	5629	5629	4205	6470	-0.022944404	0.866218367
CDR20291_1257	5554	5554	5319	6846	0.212880106	0.24882328
CDR20291_1258	1681	1681	8491	11297	2.633858712	7.51E-64
CDR20291_1259	7232	7232	10189	13896	0.808381887	6.36E-09
CDR20291_1260	770	770	35	81	-3.725149924	1.00E-20
CDR20291_1261	1965	1965	3970	6507	1.458738427	7.37E-28
CDR20291_1262	10879	10879	48683	56888	2.376046954	5.84E-36
CDR20291_1263	351	351	11	20	-4.463389657	1.17E-16
CDR20291_1264	1699	1699	4961	6349	1.817506257	2.03E-23
CDR20291_1265	1290	1290	660	1199	-0.443664104	0.057412068
CDR20291_1266	8266	8266	5319	7632	-0.287629378	0.025965876
CDR20291_1267	3341	3341	4971	6335	0.842050879	3.53E-06
CDR20291_1268	6124	6124	11979	18732	1.377505977	3.25E-43
CDR20291_1269	1826	1826	1202	1191	-0.487530594	0.151759814
CDR20291_1270	662	662	430	246	-0.766946434	0.241066042
CDR20291_1271	404	404	1	70	-3.717932566	0.009779229
CDR20291_1272	2873	2873	4195	5830	0.87253505	6.22E-09
CDR20291_1273	1462	1462	3343	4405	1.483804618	3.17E-16
CDR20291_1274	2429	2429	585	539	-1.979327306	1.29E-08
CDR20291_1275	163	163	2	5	-5.519752244	2.05E-09
CDR20291_1276	267	267	43	70	-2.194377247	5.95E-06
CDR20291_1277	612	612	744	741	0.400124331	0.318464946
CDR20291_1278	1017	1017	2236	2115	1.227208037	0.000318484
CDR20291_1279	1973	1973	1557	1724	-0.161215195	0.598514363
CDR20291_1280	7149	7149	4953	6526	-0.238826357	0.15977087
CDR20291_1281	618	618	52	39	-3.613929411	2.27E-11
CDR20291_1282	1086	1086	507	733	-0.745879567	0.001042435
CDR20291_1283	484	484	168	290	-1.042321192	0.001944946
CDR20291_1284	6011	6011	7294	10661	0.640463843	6.61E-08

CDR20291_1285	6798	6798	11673	14352	1.025931109	1.51E-08
CDR20291_1286	2288	2288	3508	5365	1.010033203	1.23E-14
CDR20291_1287	6230	6230	28158	35068	2.430493868	5.28E-48
CDR20291_1288	1578	1578	8722	12679	2.824159079	2.27E-114
CDR20291_1289	26102	26102	61818	90840	1.609133479	2.48E-61
CDR20291_1290	3345	3345	768	1664	-1.45692446	8.53E-09
CDR20291_1291	4529	4529	5385	7102	0.541048822	0.001090564
CDR20291_1292	3614	3614	5621	7396	0.9270049	1.89E-08
CDR20291_1293	1868	1868	1920	3142	0.482676622	0.002263096
CDR20291_1294	7757	7757	6822	8779	0.089904148	0.638520703
CDR20291_1295	13118	13118	17728	27326	0.833639116	1.08E-18
CDR20291_1295; CDR20291_1296	0	0	0	1	1.443698351	0.810176602
CDR20291_1296	2379	2379	2778	3100	0.409152432	0.120114468
CDR20291_1297	680	680	5	41	-4.999582744	5.15E-10
CDR20291_1298	117	117	10	51	-2.031660578	0.044907297
CDR20291_1299	66	66	12	79	-0.658229038	0.613173301
CDR20291_1300	5	5	4	32	1.711643599	0.400716862
CDR20291_1300; CDR20291_1301	0	0	1	0	1.76780945	0.770414782
CDR20291_1301	7	7	19	70	2.602779226	0.05238081
CDR20291_1301; CDR20291_1302	206	206	1106	3103	3.318084567	5.22E-17
CDR20291_1302	1029	1029	3198	5278	2.085204966	4.97E-45
CDR20291_1303	30	30	23	130	1.238972566	0.307163765
CDR20291_1304	62	62	40	133	0.427502081	0.658247195
CDR20291_1305	173	173	479	386	1.475705223	0.006913672
CDR20291_1306	2068	2068	3357	5442	1.134922143	5.02E-17
CDR20291_1307	2980	2980	3176	5395	0.562857494	0.000112518
CDR20291_1308	3045	3045	5875	8921	1.336515216	3.04E-30
CDR20291_1309	1625	1625	2894	3327	1.036212283	2.12E-05
CDR20291_1310	5294	5294	9282	15268	1.256778378	2.25E-29
CDR20291_1311	795	795	770	1019	0.246741926	0.358241284

CDR20291_1312	374	374	56	348	-1.010140945	0.246493909
CDR20291_1313	3159	3159	1045	1424	-1.283693679	4.11E-13
CDR20291_1313;CDR20291_1314	0	0	0	21	5.606025753	0.298159364
CDR20291_1314	2606	2606	944	1163	-1.219116462	5.21E-08
CDR20291_1315	2842	2842	5646	9967	1.490422969	1.38E-24
CDR20291_1316	4990	4990	1474	2614	-1.25506244	2.12E-15
CDR20291_1317	8188	8188	17673	28428	1.540119507	2.03E-55
CDR20291_1318	9506	9506	4750	6609	-0.673722329	6.66E-07
CDR20291_1319	580	580	3	42	-4.838551051	7.43E-07
CDR20291_1320	8337	8337	3572	5425	-0.834359326	1.28E-13
CDR20291_1321	2609	2609	1605	1873	-0.488551498	0.049487553
CDR20291_1322	7274	7274	3592	4446	-0.768142849	4.84E-05
CDR20291_1323	1383	1383	3787	6846	1.97175571	5.66E-32
CDR20291_1324	994	994	5197	5708	2.562582533	3.70E-25
CDR20291_1325	2518	2518	16234	28601	3.187077321	7.65E-130
CDR20291_1326	2222	2222	936	834	-1.189571327	0.001186449
CDR20291_1327	509	509	686	788	0.632804226	0.059292135
CDR20291_1328	3098	3098	387	916	-2.258322539	1.34E-14
CDR20291_1329	163	163	460	570	1.746651465	2.10E-06
CDR20291_1330	1177	1177	2903	4281	1.66996236	1.64E-28
CDR20291_1331	909	909	644	1604	0.288743244	0.462029127
CDR20291_1332	612	612	63	319	-1.781011212	0.012740779
CDR20291_1333	1174	1174	2445	5456	1.748128536	2.64E-11
CDR20291_1334	308	308	260	403	0.158705479	0.68237689
CDR20291_1335	692	692	214	244	-1.497751943	2.75E-05
CDR20291_1336	293	293	16	64	-2.936986526	5.26E-05
CDR20291_1337	3441	3441	7709	11126	1.516269043	1.61E-34
CDR20291_1338	4900	4900	12633	18545	1.730815999	1.57E-55
CDR20291_1339	8078	8078	24164	32892	1.893437917	3.89E-47
CDR20291_1340	3319	3319	8830	13968	1.829604077	1.15E-64

CDR20291_1341	4428	4428	10225	16042	1.619312136	3.70E-55
CDR20291_1342	779	779	282	683	-0.703496736	0.073398184
CDR20291_1343	810	810	212	432	-1.317361289	4.34E-05
CDR20291_1344	2845	2845	52453	91532	4.695552005	0
CDR20291_1345	8239	8239	39321	76297	2.828700576	4.91E-68
CDR20291_1346	4804	4804	17068	27438	2.258691279	1.10E-112
CDR20291_1347	498	498	734	828	0.750902636	0.026121375
CDR20291_1348	7409	7409	15205	16643	1.21158586	9.10E-08
CDR20291_1349	1916	1916	751	1747	-0.625003091	0.044629574
CDR20291_1350	1020	1020	980	915	0.025174513	0.954856866
CDR20291_1351	765	765	4506	7218	2.985463452	7.06E-106
CDR20291_1352	357	357	6	30	-4.378368392	6.49E-09
CDR20291_1353	6742	6742	4558	8979	0.021636062	0.921213291
CDR20291_1354	4051	4051	46309	73516	3.935438331	0
CDR20291_1355	552	552	760	652	0.499504075	0.287746458
CDR20291_1355; CDR20291_1356	0	0	0	1	1.443698351	0.810176602
CDR20291_1356	52	52	122	107	1.278144588	0.096478786
CDR20291_1357	1937	1937	272	830	-1.857658657	9.52E-06
CDR20291_1358	879	879	771	1238	0.239931088	0.288089461
CDR20291_1359	1111	1111	1190	1794	0.482198093	0.010547829
CDR20291_1360	742	742	155	391	-1.459241009	0.000449232
CDR20291_1361	1144	1144	236	404	-1.799079083	1.68E-13
CDR20291_1362	401	401	95	263	-1.192571341	0.023497348
CDR20291_1362; CDR20291_1363	0	0	1	2	3.043488554	0.596898831
CDR20291_1363	975	975	1914	2728	1.316757901	1.43E-13
CDR20291_1364	21891	21891	38074	55211	1.154447897	1.03E-28
CDR20291_1365	2150	2150	2297	2125	0.173969732	0.649505448
CDR20291_1366	3178	3178	1808	3766	-0.181440393	0.478394117
CDR20291_1367	33	33	3	34	-0.989280725	0.570796119
CDR20291_1368	119	119	1	27	-3.266038239	0.027141927

CDR20291_1369	42464	42464	23835	33292	-0.503034993	3.08E-05
CDR20291_1370	38	38	20	109	0.656090006	0.605194687
CDR20291_1371	3465	3465	14523	20831	2.41574753	8.64E-94
CDR20291_1372	6269	6269	38886	65882	3.101618178	8.07E-178
CDR20291_1373	1629	1629	20	52	-5.493901196	2.34E-52
CDR20291_1374	1409	1409	1709	2244	0.566474344	0.006765083
CDR20291_1375	2882	2882	6073	10295	1.544618548	1.76E-32
CDR20291_1376	5755	5755	20852	37498	2.371464476	1.20E-68
CDR20291_1377	1580	1580	3675	5839	1.638998976	9.90E-35
CDR20291_1378	657	657	76	184	-2.34526483	2.37E-08
CDR20291_1379	4547	4547	2216	2333	-0.886171738	0.001008447
CDR20291_1380	1389	1389	745	1186	-0.475991245	0.015270103
CDR20291_1381	740	740	636	666	-0.071732486	0.86157718
CDR20291_1381; CDR20291_1382	0	0	0	1	1.443698351	0.810176602
CDR20291_1382	4499	4499	6495	8453	0.812322219	1.08E-06
CDR20291_1383	2536	2536	1627	2908	-0.13026325	0.510104747
CDR20291_1384	1191	1191	892	1135	-0.150116897	0.583940732
CDR20291_1385	204	204	20	82	-2.071749402	0.009818697
CDR20291_1386	525	525	61	149	-2.330444106	2.55E-07
CDR20291_1387	6796	6796	8655	11129	0.623602775	0.000196207
CDR20291_1388	506	506	650	987	0.749560088	0.002329741
CDR20291_1389	1200	1200	2134	2461	1.035903841	4.98E-05
CDR20291_1390	3526	3526	16766	30600	2.775109124	7.31E-83
CDR20291_1391	711	711	2722	4091	2.317745559	1.72E-49
CDR20291_1392	907	907	1682	2065	1.135412994	2.47E-06
CDR20291_1393	4	4	2	7	0.118901288	0.965256836
CDR20291_1394	3677	3677	9402	11859	1.616722736	1.24E-20
CDR20291_1395	1569	1569	156	954	-1.621108543	0.020074261
CDR20291_1396	477	477	342	361	-0.329323403	0.449921065
CDR20291_1397	1194	1194	558	552	-0.983633227	0.006558606

CDR20291_1398	1166	1166	471	765	-0.8700257	6.53E-05
CDR20291_1399	653	653	43	99	-3.197868892	9.30E-15
CDR20291_1400	303	303	92	255	-0.83378446	0.143078279
CDR20291_1401	1136	1136	222	330	-1.98293212	2.27E-16
CDR20291_1401;CDR20291_1402	0	0	1	2	3.043488554	0.596898831
CDR20291_1402	318	318	72	79	-1.973492468	6.40E-05
CDR20291_1403	1083	1083	1236	1903	0.588918539	0.001369695
CDR20291_1404	4320	4320	18780	36230	2.689467396	6.14E-60
CDR20291_1405	21692	21692	116658	162961	2.757319553	5.73E-128
CDR20291_1406	11831	11831	33230	33085	1.609536492	3.78E-10
CDR20291_1407	2408	2408	4212	7126	1.274509146	3.00E-20
CDR20291_1408	1186	1186	5537	7719	2.551635537	1.08E-65
CDR20291_1409	5059	5059	19491	24642	2.209784988	1.66E-41
CDR20291_1410	6432	6432	24782	37998	2.341327003	5.45E-137
CDR20291_1411	2839	2839	11969	17342	2.431180774	1.87E-95
CDR20291_1412	148	148	3	7	-4.867532965	2.72E-08
CDR20291_1413	879	879	2414	2839	1.675055763	6.86E-12
CDR20291_1414	730	730	213	224	-1.630268279	2.12E-05
CDR20291_1415	1433	1433	122	213	-3.059109433	3.75E-35
CDR20291_1416	125	125	97	320	0.684545937	0.344702751
CDR20291_1417	5385	5385	17722	25133	2.059052106	8.50E-68
CDR20291_1418	1038	1038	2959	4597	1.91611811	7.89E-40
CDR20291_1419	412	412	2064	3501	2.794576216	5.57E-52
CDR20291_1420	213	213	128	188	-0.370478222	0.438671769
CDR20291_1421	662	662	1076	1907	1.20430851	4.07E-08
CDR20291_1422	474	474	5	27	-4.955979428	5.79E-12
CDR20291_1423	379	379	32	64	-2.9596601	1.61E-10
CDR20291_1424	1023	1023	44	168	-3.335260826	1.13E-09
CDR20291_1425	2053	2053	92	374	-3.21578018	6.74E-10
CDR20291_1426	1196	1196	1476	2868	0.87924869	0.000109738

CDR20291_1427	796	796	125	58	-2.895946705	3.08E-05
CDR20291_1428	414	414	166	120	-1.366793966	0.02330022
CDR20291_1429	3364	3364	880	1233	-1.603476223	1.05E-21
CDR20291_1430	587	587	359	679	-0.154253891	0.65245441
CDR20291_1431	555	555	3450	4461	2.914260122	2.65E-49
CDR20291_1432	1549	1549	356	430	-1.889603601	1.23E-12
CDR20291_1433	443	443	25	117	-2.728068019	0.000152879
CDR20291_1433; CDR20291_1434	30	30	0	2	-4.998932376	0.018309159
CDR20291_1434	1031	1031	693	1166	-0.109008145	0.656025775
CDR20291_1435	147	147	10	45	-2.494670735	0.006333214
CDR20291_1436	399	399	686	597	0.827319464	0.075658342
CDR20291_1437	455	455	9	40	-4.277154579	3.36E-10
CDR20291_1438	222	222	4	28	-3.896816482	4.49E-05
CDR20291_1439	2801	2801	10330	14624	2.22208578	1.93E-68
CDR20291_1440	766	766	431	1272	0.111992143	0.826427198
CDR20291_1441	619	619	27	184	-2.678303726	0.001008601
CDR20291_1442	176	176	6	38	-3.104281716	0.001632909
CDR20291_1443	2077	2077	1179	2052	-0.327160999	0.082370672
CDR20291_1444	335	335	5	48	-3.796071139	0.000116064
CDR20291_1445	316	316	511	1130	1.376249021	0.000116866
CDR20291_1446	2327	2327	2758	4162	0.629019469	7.33E-06
CDR20291_1447	1254	1254	4826	7407	2.340341044	3.33E-74
CDR20291_1448	1545	1545	2582	3451	1.040851187	1.45E-08
CDR20291_1449	1321	1321	4131	5052	1.887167404	8.57E-20
CDR20291_1450	347	347	48	119	-2.06562811	6.60E-05
CDR20291_1451	2430	2430	9008	13118	2.249085034	9.83E-78
CDR20291_1452	84	84	2	47	-1.964043575	0.218476768
CDR20291_1453	110	110	8	29	-2.621067795	0.004709483
CDR20291_1454	858	858	1375	2323	1.147342844	1.48E-09
CDR20291_1455	339	339	470	988	1.11185085	0.001282709

CDR20291_1456	193	193	17	89	-1.962945593	0.02996801
CDR20291_1457	1268	1268	2032	3146	1.082660465	4.52E-12
CDR20291_1458	388	388	109	280	-1.015316043	0.042254927
CDR20291_1458; CDR20291_1459	1	1	0	0	-2.355605325	0.688257277
CDR20291_1459	55	55	2	10	-3.262581102	0.012410557
CDR20291_1460	418	418	643	905	0.956050221	0.000334779
CDR20291_1461	29	29	218	287	3.199768934	3.21E-09
CDR20291_1462	4840	4840	8886	11880	1.176994388	3.53E-15
CDR20291_1463	521	521	92	152	-2.050354987	3.79E-09
CDR20291_1464	8416	8416	3269	5426	-0.910643283	5.22E-14
CDR20291_1465	107	107	13	46	-1.911291883	0.035490935
CDR20291_1466	2489	2489	1379	1748	-0.587308191	0.006021747
CDR20291_1467	1296	1296	3272	3853	1.554580567	1.39E-11
CDR20291_1468	10670	10670	14223	23389	0.861128076	2.54E-16
CDR20291_1468; CDR20291_1469	4156	4156	8694	11593	1.36355013	2.02E-19
CDR20291_1470	2781	2781	1474	2233	-0.52931436	0.000476855
CDR20291_1471	801	801	1051	1227	0.60440291	0.038398245
CDR20291_1472	536	536	750	925	0.73155671	0.013337873
CDR20291_1473	1405	1405	976	1311	-0.222816517	0.333784175
CDR20291_1474	3809	3809	1169	2164	-1.166395931	1.99E-10
CDR20291_1475	924	924	166	222	-2.17902633	2.41E-14
CDR20291_1476	11730	11730	14257	21502	0.66502332	2.88E-11
CDR20291_1477	514	514	483	641	0.204807355	0.525844317
CDR20291_1478	199	199	16	44	-2.747945654	5.47E-05
CDR20291_1479	1166	1166	577	1248	-0.350481434	0.269446202
CDR20291_1480	300	300	62	129	-1.639106722	0.000628211
CDR20291_1481	648	648	1129	2699	1.550371534	1.87E-06
CDR20291_1482	5771	5771	19969	29809	2.167161806	1.78E-102
CDR20291_1483	927	927	483	830	-0.460233508	0.060921975
CDR20291_1484	1389	1389	751	733	-0.780393508	0.029114161

CDR20291_1485	1057	1057	1036	1812	0.464511605	0.028453711
CDR20291_1486	772	772	273	395	-1.146294271	2.30E-05
CDR20291_1487	1068	1068	16	163	-3.730251137	1.93E-05
CDR20291_1488	983	983	800	1267	0.121711166	0.598382943
CDR20291_1489	459	459	2132	3154	2.585409959	2.97E-48
CDR20291_1490	680	680	1045	1151	0.797005432	0.012399305
CDR20291_1491	280	280	9	84	-2.734448279	0.00801484
CDR20291_1492	647	647	50	111	-2.999607957	6.52E-14
CDR20291_1493	794	794	508	578	-0.448444475	0.187763313
CDR20291_1494	1626	1626	2631	4945	1.24336382	7.08E-11
CDR20291_1495	1331	1331	1813	2405	0.740679519	0.000246685
CDR20291_1496	852	852	117	161	-2.54757936	1.04E-17
CDR20291_1497	286	286	12	59	-3.095135714	0.000116866
CDR20291_1498	778	778	183	608	-1.030845359	0.050228187
CDR20291_1499	370	370	175	210	-0.852367053	0.039815648
CDR20291_1500	2887	2887	16167	20993	2.766688553	9.98E-71
CDR20291_1501	470	470	7	165	-2.644215297	0.031256664
CDR20291_1501;CDR20291_1502	0	0	1	1	2.55848677	0.661045216
CDR20291_1502	1660	1660	629	908	-1.048072962	9.52E-08
CDR20291_1503	89	89	6	33	-2.28514589	0.041477747
CDR20291_1504	1000	1000	3669	4462	2.114121879	7.55E-23
CDR20291_1505	468	468	954	901	1.11672232	0.004995756
CDR20291_1505;CDR20291_1506	29	29	1	0	-5.689576412	0.014834237
CDR20291_1506	917	917	598	1041	-0.126687009	0.631768308
CDR20291_1507	2086	2086	1023	1448	-0.689474938	0.000159062
CDR20291_1508	1136	1136	1595	2756	0.973609245	1.20E-07
CDR20291_1509	2270	2270	359	450	-2.405485901	2.22E-25
CDR20291_1510	1201	1201	439	701	-1.026862714	2.07E-06
CDR20291_1511	903	903	2799	5889	2.272408723	8.33E-22
CDR20291_1512	3325	3325	1072	1662	-1.22975857	5.51E-17

CDR20291_1513	8572	8572	2947	4588	-1.134044995	2.66E-24
CDR20291_1514	2102	2102	1957	3798	0.471589955	0.027895916
CDR20291_1515	1970	1970	979	1951	-0.412279702	0.091845745
CDR20291_1516	947	947	589	1333	0.017591278	0.963908292
CDR20291_1516;CDR20291_1517	148	148	0	0	-9.565083894	5.33E-08
CDR20291_1517	4623	4623	2559	2480	-0.74934658	0.014100778
CDR20291_1518	7622	7622	7842	10735	0.357346157	0.013115973
CDR20291_1519	7608	7608	19464	30380	1.763413944	9.51E-78
CDR20291_1520	536	536	449	764	0.217123542	0.462547007
CDR20291_1521	5610	5610	5459	8214	0.342470159	0.003756806
CDR20291_1522	3788	3788	5679	9939	1.077691356	2.14E-14
CDR20291_1523	2930	2930	6816	11358	1.674414376	2.76E-42
CDR20291_1524	217	217	23	104	-1.857219815	0.024604451
CDR20291_1525	337	337	198	176	-0.712996944	0.193284282
CDR20291_1526	1505	1505	2530	3984	1.164027847	1.21E-15
CDR20291_1527	2277	2277	6808	11311	2.034262419	8.94E-61
CDR20291_1528	2257	2257	4857	6404	1.396778423	1.34E-16
CDR20291_1529	336	336	8	52	-3.593162272	3.32E-05
CDR20291_1530	4980	4980	3371	4471	-0.268115152	0.123387433
CDR20291_1531	4692	4692	19452	27565	2.39164637	6.12E-91
CDR20291_1532	2103	2103	14110	21594	3.140210267	2.40E-199
CDR20291_1533	2307	2307	12406	17683	2.770924669	5.98E-112
CDR20291_1534	2263	2263	17556	29769	3.425008764	3.41E-187
CDR20291_1534;CDR20291_1535	0	0	168	187	10.01867491	5.40E-09
CDR20291_1535	7094	7094	100657	154600	4.223314805	0
CDR20291_1536	3809	3809	21378	27781	2.770459665	4.91E-74
CDR20291_1537	2463	2463	14503	17692	2.79885323	4.71E-53
CDR20291_1538	12548	12548	35467	58065	1.942137566	1.27E-88
CDR20291_1539	8686	8686	13620	15786	0.857977259	2.96E-05
CDR20291_1540	2864	2864	4091	6577	0.944262181	5.92E-14

CDR20291_1541	6010	6010	7194	11386	0.677761038	3.48E-10
CDR20291_1542	2890	2890	9227	16046	2.163335172	5.15E-60
CDR20291_1543	549	549	217	522	-0.582373234	0.175246698
CDR20291_1544	1069	1069	580	949	-0.43897073	0.048363581
CDR20291_1545	742	742	60	67	-3.453028873	1.65E-19
CDR20291_1545; CDR20291_1546	0	0	0	2	2.244508613	0.701490268
CDR20291_1546	605	605	886	1675	1.104467723	1.21E-05
CDR20291_1547	470	470	292	471	-0.254170799	0.435296688
CDR20291_1548	769	769	259	210	-1.562788113	0.001224149
CDR20291_1549	4461	4461	2355	3503	-0.548115141	4.28E-05
CDR20291_1550	3208	3208	9018	9466	1.64081017	6.17E-11
CDR20291_1551	960	960	592	787	-0.401853527	0.122624016
CDR20291_1552	577	577	105	113	-2.300371144	2.13E-08
CDR20291_1553	6617	6617	20739	13006	1.542818549	0.000418698
CDR20291_1554	315	315	332	90	-0.288423787	0.794211242
CDR20291_1555	6928	6928	5988	2983	-0.403609583	0.488833293
CDR20291_1556	1758	1758	806	974	-0.89152703	0.000394052
CDR20291_1557	5092	5092	5275	7447	0.388150998	0.005160053
CDR20291_1558	165	165	49	97	-1.157888051	0.0488947
CDR20291_1559	1271	1271	3383	4546	1.716012546	9.88E-23
CDR20291_1560	1472	1472	1171	1426	-0.091137217	0.749286491
CDR20291_1561	1701	1701	4470	7704	1.875726227	4.32E-38
CDR20291_1562	358	358	19	228	-1.702522104	0.11914015
CDR20291_1563	2222	2222	441	784	-1.825901669	6.95E-20
CDR20291_1564	654	654	1265	2499	1.540863095	4.46E-10
CDR20291_1565	1372	1372	90	197	-3.249266985	6.86E-25
CDR20291_1566	798	798	615	960	0.03247737	0.901816038
CDR20291_1567	962	962	772	1156	0.060763779	0.807338008
CDR20291_1568	1557	1557	1550	2356	0.382504078	0.023653559
CDR20291_1569	2962	2962	598	1046	-1.814021495	3.02E-24

CDR20291_1570	1731	1731	3233	4796	1.27298916	2.09E-19
CDR20291_1571	156	156	72	127	-0.614606607	0.277811321
CDR20291_1572	4988	4988	25549	42006	2.803014314	7.78E-166
CDR20291_1573	3191	3191	3081	4793	0.355182644	0.007349035
CDR20291_1574	560	560	583	1165	0.65691752	0.029790087
CDR20291_1575	156	156	44	54	-1.585587946	0.010395287
CDR20291_1576	170	170	1	11	-4.920073684	6.70E-06
CDR20291_1577	2245	2245	3397	4653	0.914066832	1.94E-08
CDR20291_1578	673	673	248	347	-1.110386665	0.000147035
CDR20291_1578; CDR20291_1579	143	143	1	13	-4.470979144	0.000180972
CDR20291_1579	6694	6694	20560	32628	2.0391594	3.49E-101
CDR20291_1580	2239	2239	948	1629	-0.759731167	2.39E-05
CDR20291_1581	1117	1117	558	878	-0.587145305	0.006528197
CDR20291_1582	1627	1627	356	646	-1.669085729	1.43E-13
CDR20291_1583	2674	2674	11216	14209	2.333630739	7.47E-43
CDR20291_1584	3608	3608	68281	79755	4.456138438	4.08E-123
CDR20291_1585	4977	4977	22593	34965	2.584577841	6.95E-164
CDR20291_1586	2482	2482	105	121	-4.368900221	1.37E-61
CDR20291_1586; CDR20291_1587	91	91	0	1	-7.458759451	2.92E-05
CDR20291_1587	4526	4526	2382	3616	-0.537986654	3.52E-05
CDR20291_1588	123	123	75	225	0.245723925	0.752551437
CDR20291_1589	4995	4995	14048	22858	1.93043138	2.80E-76
CDR20291_1590	3400	3400	2182	2916	-0.340171839	0.060471808
CDR20291_1591	717	717	283	543	-0.774151244	0.011796884
CDR20291_1592	1882	1882	5928	9393	2.074443064	1.17E-67
CDR20291_1593	8491	8491	16262	25343	1.344574629	6.67E-45
CDR20291_1594	4105	4105	15547	22567	2.277797483	1.76E-91
CDR20291_1595	164	164	176	146	0.121016396	0.866218367
CDR20291_1596	231	231	199	184	-0.139440268	0.821466941
CDR20291_1597	1149	1149	1169	1291	0.203584916	0.533048779

CDR20291_1598	538	538	218	346	-0.882692008	0.004126692
CDR20291_1599	3072	3072	1476	1608	-0.886902049	0.000954698
CDR20291_1600	474	474	111	219	-1.503436996	8.38E-05
CDR20291_1601	474	474	515	742	0.470596954	0.092733884
CDR20291_1602	448	448	1866	1279	1.99046866	4.66E-05
CDR20291_1603	272	272	306	291	0.261658424	0.632206655
CDR20291_1604	721	721	374	541	-0.593507849	0.027211339
CDR20291_1605	997	997	155	424	-1.811833489	1.83E-05
CDR20291_1606	539	539	126	134	-1.945007165	3.50E-06
CDR20291_1607	8931	8931	32697	42769	2.158415732	1.19E-49
CDR20291_1608	7606	7606	11114	20001	1.0619813	4.87E-14
CDR20291_1609	692	692	485	673	-0.188112797	0.517256248
CDR20291_1610	738	738	2600	4807	2.35292321	2.26E-34
CDR20291_1611	6494	6494	5369	6331	-0.055006948	0.819035323
CDR20291_1612	1755	1755	3714	5070	1.39577456	1.32E-17
CDR20291_1613	976	976	1494	2001	0.915414661	1.38E-05
CDR20291_1614	324	324	1332	1311	2.151834316	2.43E-09
CDR20291_1615	903	903	129	403	-1.808731015	0.000193691
CDR20291_1616	712	712	380	500	-0.617458671	0.035498769
CDR20291_1617	3064	3064	3720	5342	0.628817229	8.97E-06
CDR20291_1618	2846	2846	4719	6363	1.035570771	7.95E-11
CDR20291_1619	2647	2647	13040	17717	2.611846608	1.28E-77
CDR20291_1620	2796	2796	5126	9160	1.383966698	9.16E-20
CDR20291_1621	183	183	82	134	-0.715748553	0.167272288
CDR20291_1622	1206	1206	226	398	-1.915617629	8.27E-15
CDR20291_1623	11652	11652	3441	6108	-1.255120445	1.93E-19
CDR20291_1624	1077	1077	1246	1935	0.614815037	0.000786594
CDR20291_1625	398	398	1346	2205	2.201644753	8.35E-28
CDR20291_1626	4108	4108	3517	6069	0.258779757	0.085246575
CDR20291_1627	3759	3759	5278	7585	0.839161236	1.81E-10

CDR20291_1628	4417	4417	2911	3630	-0.347040718	0.087074953
CDR20291_1629	9461	9461	27701	29839	1.714836989	3.69E-14
CDR20291_1630	2519	2519	3487	5670	0.90737996	8.43E-12
CDR20291_1630; CDR20291_1631	38	38	0	0	-7.603537467	0.0022015
CDR20291_1631	4146	4146	5810	5259	0.554125319	0.094112284
CDR20291_1632	873	873	54	71	-3.732855433	1.12E-29
CDR20291_1633	1463	1463	1566	1916	0.340268598	0.171622962
CDR20291_1634	2971	2971	1313	2192	-0.719896435	4.54E-06
CDR20291_1635	5232	5232	2530	3868	-0.655039729	1.43E-07
CDR20291_1636	5049	5049	2826	4121	-0.477692922	0.00039028
CDR20291_1637	1032	1032	674	1339	-0.020448425	0.947829519
CDR20291_1638	518	518	803	1594	1.225664459	1.03E-05
CDR20291_1639	163	163	904	1657	3.001025677	1.62E-28
CDR20291_1640	1178	1178	1051	1279	0.073855472	0.807606127
CDR20291_1641	1583	1583	503	701	-1.326780339	3.74E-10
CDR20291_1642	2030	2030	3067	4909	1.021951299	6.87E-14
CDR20291_1643	1940	1940	2071	3224	0.500563726	0.000877763
CDR20291_1644	1857	1857	1610	2374	0.161410372	0.363619096
CDR20291_1645	5052	5052	11959	17632	1.610687413	5.67E-49
CDR20291_1646	955	955	2293	4714	1.884945114	7.69E-16
CDR20291_1647	394	394	8	57	-3.715893011	1.94E-05
CDR20291_1647; CDR20291_1648	0	0	0	1	1.443698351	0.810176602
CDR20291_1648	1056	1056	24	293	-2.904158677	0.002059956
CDR20291_1649	979	979	66	108	-3.445999927	7.83E-32
CDR20291_1650	163	163	795	1280	2.717054703	2.94E-25
CDR20291_1650; CDR20291_1651	0	0	0	3	2.81909081	0.625953386
CDR20291_1651	178	178	48	71	-1.521891568	0.006296097
CDR20291_1652	883	883	394	369	-1.081138213	0.008278974
CDR20291_1653	4831	4831	2692	3880	-0.492287216	0.000418644
CDR20291_1654	993	993	716	1112	-0.067262991	0.783643758

CDR20291_1655	265	265	121	398	-0.08344912	0.904592038
CDR20291_1656	82	82	161	539	2.037204029	0.001732227
CDR20291_1657	585	585	3199	2692	2.480482556	3.80E-11
CDR20291_1658	4623	4623	20480	33039	2.579595534	1.15E-148
CDR20291_1659	3027	3027	2357	3445	0.000219481	0.999014669
CDR20291_1660	2462	2462	3706	4009	0.757083244	0.003928893
CDR20291_1661	543	543	126	345	-1.233208015	0.01063187
CDR20291_1662	810	810	13	99	-3.981816181	6.74E-07
CDR20291_1663	766	766	876	2046	0.92294482	0.005130551
CDR20291_1664	17639	17639	17937	21514	0.25451087	0.200917553
CDR20291_1665	517	517	311	196	-0.839516236	0.188170139
CDR20291_1666	873	873	1808	3397	1.599255131	2.31E-14
CDR20291_1667	1019	1019	4868	9646	2.847247484	1.02E-46
CDR20291_1668	4745	4745	7995	12510	1.162697764	1.10E-27
CDR20291_1669	645	645	205	146	-1.708544034	0.002073602
CDR20291_1670	1274	1274	708	1240	-0.352779204	0.114048028
CDR20291_1671	478	478	44	76	-2.954629198	8.24E-14
CDR20291_1672	3809	3809	8243	9641	1.328282957	1.53E-10
CDR20291_1673	2618	2618	1796	1971	-0.368524362	0.188317645
CDR20291_1674	170	170	14	62	-2.239460429	0.010145726
CDR20291_1675	107	107	11	97	-1.131159446	0.362878068
CDR20291_1676	56	56	10	89	-0.323939561	0.825025284
CDR20291_1677	10	10	54	49	2.498570396	0.024603674
CDR20291_1678	68	68	9	76	-0.818830348	0.551248746
CDR20291_1679	6910	6910	15254	18827	1.390856795	2.77E-15
CDR20291_1680	2447	2447	208	421	-2.943640119	3.63E-33
CDR20291_1681	371	371	128	224	-1.040397216	0.006542485
CDR20291_1682	854	854	1554	2302	1.234324048	8.42E-12
CDR20291_1683	75	75	3	16	-3.060030224	0.00970571
CDR20291_1684	372	372	26	103	-2.595563588	0.000147553

CDR20291_1685	2745	2745	2953	5235	0.608888747	0.000184643
CDR20291_1686	537	537	558	852	0.447572676	0.084836753
CDR20291_1687	2579	2579	1789	2488	-0.201071214	0.269011203
CDR20291_1688	282	282	6	57	-3.302092114	0.001246408
CDR20291_1689	203	203	2	11	-5.012733769	2.43E-08
CDR20291_1690	230	230	0	13	-5.314449334	0.000102597
CDR20291_1691	289	289	193	269	-0.254936768	0.547265835
CDR20291_1692	3082	3082	4788	5875	0.879998734	9.79E-06
CDR20291_1693	1417	1417	5810	9869	2.506487208	3.17E-75
CDR20291_1694	1898	1898	4919	6755	1.692247704	3.24E-28
CDR20291_1695	2917	2917	7785	11456	1.782345429	6.04E-51
CDR20291_1696	9447	9447	37445	47979	2.259488339	4.47E-49
CDR20291_1697	709	709	128	380	-1.51977918	0.001823567
CDR20291_1698	1412	1412	3339	6773	1.851867294	6.59E-18
CDR20291_1699	3676	3676	12066	17362	2.065261118	2.95E-68
CDR20291_1700	3383	3383	2901	3440	0.00093821	0.997254177
CDR20291_1701	1356	1356	190	313	-2.386224482	9.39E-25
CDR20291_1702	158	158	93	134	-0.414013384	0.457621302
CDR20291_1703	2694	2694	2994	4508	0.534590589	9.34E-05
CDR20291_1704	2317	2317	1150	1962	-0.536016755	0.002162873
CDR20291_1705	2048	2048	6460	9566	2.027854197	4.21E-61
CDR20291_1706	3580	3580	1576	1685	-1.024161948	0.000150286
CDR20291_1707	433	433	114	245	-1.263901787	0.002514698
CDR20291_1708	1191	1191	560	696	-0.83749561	0.001687488
CDR20291_1709	36	36	12	37	-0.594665803	0.63929647
CDR20291_1710	441	441	25	101	-2.876280457	1.57E-05
CDR20291_1711	37	37	14	53	-0.208882097	0.872693935
CDR20291_1712	53	53	5	39	-1.397854961	0.321249802
CDR20291_1713	67	67	10	65	-0.95630427	0.453048203
CDR20291_1714	1830	1830	1865	2985	0.453954216	0.003806697

CDR20291_1715	1246	1246	288	440	-1.720703709	2.17E-14
CDR20291_1716	989	989	574	662	-0.58068657	0.062661401
CDR20291_1717	32957	32957	3693	4815	-2.874271065	1.66E-84
CDR20291_1718	10230	10230	59297	86535	2.895582762	1.34E-182
CDR20291_1719	1854	1854	2184	3196	0.598362997	0.000145785
CDR20291_1720	1645	1645	1505	2123	0.208028006	0.282700383
CDR20291_1721	2353	2353	16213	15795	2.891983153	1.47E-26
CDR20291_1722	3640	3640	16871	25351	2.593492241	2.26E-141
CDR20291_1723	7856	7856	11497	16023	0.877920588	9.02E-12
CDR20291_1724	1142	1142	2744	4480	1.705973228	5.37E-30
CDR20291_1725	2020	2020	1120	1235	-0.673268786	0.017458029
CDR20291_1726	282	282	428	682	1.025299364	0.000670694
CDR20291_1727	3035	3035	1719	2288	-0.523241628	0.004788445
CDR20291_1728	1198	1198	434	787	-0.942729256	9.32E-05
CDR20291_1729	2646	2646	165	287	-3.510935474	4.36E-68
CDR20291_1729; CDR20291_1730	2	2	0	2	-1.188053375	0.812227145
CDR20291_1730	1323	1323	297	227	-2.176756445	2.37E-06
CDR20291_1731	1820	1820	359	631	-1.843473343	2.07E-18
CDR20291_1732	2266	2266	192	493	-2.744579387	8.50E-16
CDR20291_1733	275	275	36	75	-2.294748499	9.32E-06
CDR20291_1734	2452	2452	2715	2971	0.32072487	0.248478786
CDR20291_1735	4709	4709	3899	5843	0.10659685	0.433598012
CDR20291_1736	18618	18618	19393	27433	0.397622556	0.000882267
CDR20291_1737	1286	1286	874	1308	-0.179401001	0.392504009
CDR20291_1737; CDR20291_1738	716	716	585	728	-0.039191316	0.906023262
CDR20291_1738	205	205	717	516	1.759615528	0.001407033
CDR20291_1739	27914	27914	106545	80092	1.907211104	9.36E-08
CDR20291_1739; CDR20291_1740	134	134	37	29	-1.873017854	0.018817366
CDR20291_1739; CDR20291_1741	66	66	237	154	1.751408838	0.021823151
CDR20291_1739; CDR20291_1742	178	178	101	98	-0.716927743	0.257123675

CDR20291_1739; CDR20291_1743	1559	1559	13833	3932	2.797880915	0.008219453
CDR20291_1739; CDR20291_1743; CDR20291_1744	52	52	1018	367	3.997201904	6.66E-07
CDR20291_1739; CDR20291_1743; CDR20291_1745	11	11	190	60	3.780697582	0.001223865
CDR20291_1739; CDR20291_1743; CDR20291_1746	45	45	184	65	1.730188859	0.110164851
CDR20291_1739; CDR20291_1743; CDR20291_1747	7	7	203	73	4.561782487	6.51E-05
CDR20291_1739; CDR20291_1743; CDR20291_1748	581	581	7460	2614	3.381793199	2.39E-07
CDR20291_1739; CDR20291_1743; CDR20291_1749	655	655	5143	1502	2.627397924	0.00034607
CDR20291_1739; CDR20291_1743; CDR20291_1750	70	70	455	167	2.410691149	0.007237371
CDR20291_1739; CDR20291_1743; CDR20291_1750; CDR20291_1751	0	0	2	0	2.824825408	0.625953386
CDR20291_1739; CDR20291_1743; CDR20291_1751	98	98	328	127	1.467602708	0.113284231
CDR20291_1739; CDR20291_1743; CDR20291_1752	528	528	1604	596	1.317689945	0.076249702
CDR20291_1739; CDR20291_1743; CDR20291_1753	117	117	236	91	0.735161372	0.465303092
CDR20291_1739; CDR20291_1743; CDR20291_1754	88	88	432	170	2.02531923	0.02067355
CDR20291_1739; CDR20291_1743; CDR20291_1755	14	14	249	84	3.839831924	0.00036081
CDR20291_1739; CDR20291_1743; CDR20291_1755; CDR20291_1756	0	0	12	5	5.772995693	0.171622962

CDR20291_1739; CDR20291_1743; CDR20291_1756	16	16	318	103	3.990134899	0.000123842
CDR20291_1739; CDR20291_1743; CDR20291_1757	11	11	182	66	3.754188284	0.000873974
CDR20291_1739; CDR20291_1743; CDR20291_1758	36	36	1082	316	4.56333072	1.88E-07
CDR20291_1739; CDR20291_1743; CDR20291_1759	34	34	917	299	4.433244774	2.45E-07
CDR20291_1739; CDR20291_1743; CDR20291_1759; CDR20291_1760	0	0	3	1	3.705128031	0.508653573
CDR20291_1739; CDR20291_1743; CDR20291_1760	21	21	258	78	3.279207548	0.002694965
CDR20291_1739; CDR20291_1743; CDR20291_1761	28	28	1550	367	5.400927109	2.84E-09
CDR20291_1739; CDR20291_1743; CDR20291_1762	29	29	467	134	3.65837774	0.000251347
CDR20291_1739; CDR20291_1743; CDR20291_1763	89	89	494	136	2.112582517	0.033109844
CDR20291_1739; CDR20291_1743; CDR20291_1764	193	193	1727	454	2.792682079	0.00101877
CDR20291_1739; CDR20291_1765	134	134	1237	335	2.843723473	0.001153487
CDR20291_1739; CDR20291_1766	162	162	561	142	1.414499183	0.161164403
CDR20291_1739; CDR20291_1767	14	14	384	102	4.409758295	4.57E-05
CDR20291_1739; CDR20291_1768	91	91	786	211	2.745595987	0.003286729
CDR20291_1739; CDR20291_1769	16	16	396	128	4.306370193	1.76E-05
CDR20291_1739; CDR20291_1769; CDR20291_1770	0	0	27	6	6.793339618	0.047468661
CDR20291_1739; CDR20291_1770	87	87	929	299	3.093278471	0.000271332
CDR20291_1739; CDR20291_1771	535	535	21423	5901	4.965044192	2.07E-06
CDR20291_1739; CDR20291_1772	1130	1130	53421	13859	5.191930957	1.16E-06

CDR20291_1739; CDR20291_1773	13	13	254	78	3.952256465	0.000370253
CDR20291_1739; CDR20291_1774	3386	3386	62337	18167	3.856546111	0.000189982
CDR20291_1739; CDR20291_1775	1342	1342	12594	4086	2.909877826	0.003585447
CDR20291_1739; CDR20291_1776	210	210	101	29	-1.411771714	0.189933227
CDR20291_1739; CDR20291_1777	240	240	3721	1006	3.591852909	3.71E-06
CDR20291_1739; CDR20291_1778	8	8	201	69	4.342481986	0.000157793
CDR20291_1739; CDR20291_1778; CDR20291_1779	0	0	4	1	4.056158247	0.465303092
CDR20291_1739; CDR20291_1779	931	931	19772	5341	4.045904264	0.00013875
CDR20291_1739; CDR20291_1780	105	105	791	156	2.490958763	0.016183055
CDR20291_1739; CDR20291_1781	9	9	222	54	4.238122274	0.00062685
CDR20291_1739; CDR20291_1781; CDR20291_1782	0	0	2	2	3.561461365	0.526951262
CDR20291_1739; CDR20291_1782	9	9	195	54	4.077525501	0.000854993
CDR20291_1739; CDR20291_1783	2	2	95	36	5.287077672	0.000425055
CDR20291_1739; CDR20291_1784	52	52	763	259	3.565084213	3.37E-05
CDR20291_1739; CDR20291_1785	62	62	408	134	2.399152919	0.01228192
CDR20291_1739; CDR20291_1785; CDR20291_1786	0	0	16	3	6.009407392	0.147562256
CDR20291_1739; CDR20291_1786	39	39	878	266	4.154780317	2.80E-06
CDR20291_1739; CDR20291_1787	30	30	133	53	1.88001813	0.092403106
CDR20291_1739; CDR20291_1788	242	242	23189	5704	6.200470913	9.19E-09
CDR20291_1739; CDR20291_1789	178	178	586	296	1.529371711	0.035384932
CDR20291_1739; CDR20291_1790	1813	1813	4030	2508	1.043648913	0.032835348
CDR20291_1739; CDR20291_1791	293	293	256	241	-0.108956426	0.848706381
CDR20291_1739; CDR20291_1792	304	304	2366	2025	2.998172422	9.28E-15
CDR20291_1739; CDR20291_1793	139	139	272	386	1.308930493	0.001077965
CDR20291_1739; CDR20291_1794	726	726	9292	9154	3.791486335	3.50E-42
CDR20291_1739; CDR20291_1795	2377	2377	2585	3896	0.503977687	0.000418629
CDR20291_1739; CDR20291_1796	643	643	1120	1251	0.986193055	0.001368486

CDR20291_1739; CDR20291_1797	25007	25007	49714	70673	1.333567215	8.57E-34
CDR20291_1739; CDR20291_1798	9395	9395	35632	57757	2.358973889	7.89E-136
CDR20291_1739; CDR20291_1799	2891	2891	11349	17824	2.385617717	2.04E-115
CDR20291_1739; CDR20291_1800	708	708	1167	1665	1.065234033	3.18E-07
CDR20291_1739; CDR20291_1801	1226	1226	23	108	-4.308047002	4.81E-13
CDR20291_1739; CDR20291_1802	688	688	273	365	-1.034726863	0.000532355
CDR20291_1739; CDR20291_1803	446	446	216	297	-0.728022479	0.035207883
CDR20291_1739; CDR20291_1804	828	828	265	567	-0.987194365	0.003246892
CDR20291_1739; CDR20291_1805	645	645	329	497	-0.586803178	0.034468463
CDR20291_1739; CDR20291_1806	11970	11970	11065	13880	0.145335759	0.443158122
CDR20291_1739; CDR20291_1807	2511	2511	1018	1277	-1.044963231	1.62E-06
CDR20291_1739; CDR20291_1808	326	326	5	208	-1.823728443	0.211728355
CDR20291_1739; CDR20291_1809	8966	8966	34816	47271	2.26817803	4.99E-68
CDR20291_1810	208	208	3	20	-4.264825662	6.57E-06
CDR20291_1811	746	746	61	241	-2.376803883	6.65E-05
CDR20291_1812	2518	2518	3689	4277	0.759823056	0.001040509
CDR20291_1813	804	804	653	1676	0.512595721	0.191585671
CDR20291_1814	3304	3304	2571	3962	0.03705179	0.810331169
CDR20291_1815	424	424	614	1301	1.181088542	0.000251513
CDR20291_1816	1538	1538	3680	4685	1.526715702	2.25E-15
CDR20291_1817	2798	2798	3279	4165	0.49536941	0.01154229
CDR20291_1818	1071	1071	1370	1510	0.532875709	0.077012212
CDR20291_1819	548	548	412	509	-0.164125075	0.652475289
CDR20291_1820	176	176	18	107	-1.605998707	0.098729975
CDR20291_1821	111	111	135	147	0.451077229	0.477477045
CDR20291_1822	290	290	152	325	-0.276036197	0.571556493
CDR20291_1823	511	511	2333	4119	2.691131713	1.77E-47
CDR20291_1824	453	453	9	50	-4.030876411	1.16E-07
CDR20291_1825	3230	3230	3739	4742	0.47667797	0.013459007
CDR20291_1825; CDR20291_1826	511	511	324	892	0.219816559	0.663913758

CDR20291_1825; CDR20291_1827	399	399	85	450	-0.683927574	0.398469108
CDR20291_1825; CDR20291_1828	706	706	477	663	-0.239880557	0.397952876
CDR20291_1825; CDR20291_1829	377	377	112	234	-1.113430259	0.009198289
CDR20291_1825; CDR20291_1830	457	457	1284	2366	2.024070473	7.37E-19
CDR20291_1825; CDR20291_1831	1288	1288	4200	4655	1.886830997	2.90E-14
CDR20291_1825; CDR20291_1831; CDR20291_1832	0	0	1	1	2.55848677	0.661045216
CDR20291_1825; CDR20291_1832	11144	11144	18418	29472	1.151172383	5.57E-33
CDR20291_1825; CDR20291_1833	973	973	389	696	-0.811014446	0.001428253
CDR20291_1825; CDR20291_1834	379	379	55	252	-1.394087857	0.059562155
CDR20291_1825; CDR20291_1835	756	756	1057	1775	0.945971958	4.13E-06
CDR20291_1825; CDR20291_1836	59	59	19	103	-0.057744889	0.964246959
CDR20291_1825; CDR20291_1837	367	367	303	151	-0.472228376	0.557847713
CDR20291_1825; CDR20291_1838	752	752	3285	6317	2.694202018	1.07E-41
CDR20291_1825; CDR20291_1839	49	49	5	25	-1.794104646	0.167804574
CDR20291_1825; CDR20291_1840	1177	1177	1117	1887	0.391527166	0.048244522
CDR20291_1825; CDR20291_1841	285	285	580	429	0.990671323	0.076447537
CDR20291_1825; CDR20291_1842	100	100	16	89	-1.035916079	0.341468268
CDR20291_1825; CDR20291_1843	78	78	4	44	-1.852379003	0.183921384
CDR20291_1825; CDR20291_1843; CDR20291_1844	0	0	1	0	1.76780945	0.770414782
CDR20291_1825; CDR20291_1844	271	271	13	54	-3.082328888	4.35E-05
CDR20291_1825; CDR20291_1844; CDR20291_1845	0	0	1	0	1.76780945	0.770414782
CDR20291_1825; CDR20291_1845	397	397	310	590	0.203166138	0.588702354
CDR20291_1825; CDR20291_1846	311	311	294	356	0.153426069	0.727087077
CDR20291_1825; CDR20291_1847	5018	5018	5378	6632	0.347603487	0.080316443
CDR20291_1825; CDR20291_1848	346	346	713	979	1.360970211	4.68E-07
CDR20291_1825; CDR20291_1849	679	679	915	1693	0.967478257	6.12E-05
CDR20291_1825; CDR20291_1850	905	905	217	438	-1.451443594	2.69E-06

CDR20291_1851	2122	2122	61	171	-4.216201016	1.36E-29
CDR20291_1852	156	156	65	50	-1.284964782	0.088315855
CDR20291_1853	2158	2158	1912	3274	0.302539412	0.075797686
CDR20291_1854	109	109	12	65	-1.602251677	0.127788559
CDR20291_1855	4190	4190	4988	6753	0.560253372	0.000332607
CDR20291_1856	2591	2591	4008	6122	1.021948743	5.87E-16
CDR20291_1857	1197	1197	2645	3699	1.474474516	2.53E-18
CDR20291_1858	474	474	1096	1843	1.672713522	4.76E-15
CDR20291_1859	14	14	14	67	1.438892863	0.305522003
CDR20291_1860	8	8	42	71	2.859836012	0.007167447
CDR20291_1861	41	41	12	103	0.343282111	0.816174693
CDR20291_1862	6	6	7	51	2.141708712	0.222883514
CDR20291_1863	460	460	276	530	-0.16958905	0.654995182
CDR20291_1864	633	633	11	65	-4.157351731	1.78E-08
CDR20291_1865	1470	1470	733	1241	-0.535034936	0.008137509
CDR20291_1866	315	315	61	96	-1.954061109	7.71E-06
CDR20291_1867	220	220	176	166	-0.235694089	0.701490268
CDR20291_1868	684	684	50	111	-3.079582708	5.24E-15
CDR20291_1869	1035	1035	498	839	-0.590157095	0.010684229
CDR20291_1870	42	42	28	150	0.976823671	0.393017152
CDR20291_1871	2088	2088	2231	4023	0.612320051	0.000646887
CDR20291_1872	1228	1228	364	289	-1.756694402	9.95E-05
CDR20291_1873	2001	2001	5826	9778	2.00354536	2.53E-53
CDR20291_1874	349	349	405	674	0.670471672	0.02664674
CDR20291_1875	2361	2361	1094	2067	-0.55599741	0.008445997
CDR20291_1876	30208	30208	54003	80941	1.217300902	6.79E-40
CDR20291_1877	4531	4531	1321	2349	-1.271812583	4.83E-15
CDR20291_1878	493	493	49	61	-3.084305673	6.45E-14
CDR20291_1879	2080	2080	2793	2012	0.379768096	0.417506703
CDR20291_1880	424	424	57	207	-1.745914229	0.005668873

CDR20291_1881	2352	2352	2865	3668	0.556245124	0.004752431
CDR20291_1882	1805	1805	1176	1733	-0.251298758	0.171005887
CDR20291_1883	1899	1899	371	713	-1.787033348	3.14E-14
CDR20291_1884	232	232	129	203	-0.432516343	0.34118867
CDR20291_1885	2016	2016	851	937	-1.067922059	0.000161094
CDR20291_1886	2244	2244	1305	1135	-0.736488663	0.052879388
CDR20291_1887	534	534	840	1208	1.003276236	1.82E-05
CDR20291_1888	704	704	97	133	-2.545355461	3.53E-15
CDR20291_1889	638	638	32	93	-3.377779684	9.02E-12
CDR20291_1890	436	436	167	318	-0.823214462	0.026286322
CDR20291_1891	4051	4051	1127	1117	-1.730204418	5.28E-09
CDR20291_1892	9795	9795	40797	49688	2.29841639	6.42E-40
CDR20291_1893	7248	7248	12078	15761	1.021201296	4.90E-11
CDR20291_1894	1015	1015	229	381	-1.691813386	1.31E-11
CDR20291_1895	10712	10712	28509	40499	1.753912513	3.78E-54
CDR20291_1896	286	286	123	128	-1.076965995	0.035249264
CDR20291_1897	1711	1711	583	1307	-0.858421929	0.004193281
CDR20291_1898	552	552	483	603	0.061683768	0.863004255
CDR20291_1899	8305	8305	1665	3274	-1.732910286	1.98E-20
CDR20291_1900	14192	14192	10731	16253	-0.016732616	0.888334466
CDR20291_1901	5230	5230	21391	31769	2.404810276	3.29E-123
CDR20291_1902	3967	3967	12112	17065	1.946311274	2.71E-54
CDR20291_1903	4708	4708	18720	35948	2.557089284	1.31E-55
CDR20291_1903;CDR20291_1904	0	0	0	1	1.443698351	0.810176602
CDR20291_1904	453	453	1937	2363	2.336739768	2.02E-21
CDR20291_1905	610	610	3248	4230	2.695576417	3.47E-43
CDR20291_1906	3835	3835	7757	10490	1.32437263	2.78E-19
CDR20291_1907	761	761	73	189	-2.555083461	2.75E-09
CDR20291_1908	1905	1905	2771	5567	1.143049582	1.01E-07
CDR20291_1909	1487	1487	4514	6619	1.965586049	3.89E-47

CDR20291_1910	7794	7794	1667	2395	-1.876298556	3.03E-46
CDR20291_1911	1031	1031	90	79	-3.478074246	3.73E-16
CDR20291_1912	463	463	0	58	-4.21786499	0.010694511
CDR20291_1913	265	265	2	5	-6.214437787	2.99E-14
CDR20291_1914	2212	2212	1422	1449	-0.505732956	0.110100889
CDR20291_1915	227	227	497	749	1.51341616	3.58E-07
CDR20291_1916	2553	2553	1911	3441	0.097860896	0.62785188
CDR20291_1917	307	307	71	468	-0.315553423	0.747030404
CDR20291_1918	573	573	2319	3051	2.306412898	2.53E-29
CDR20291_1919	1719	1719	1318	2423	0.14881538	0.506535623
CDR20291_1919; CDR20291_1920	17	17	0	0	-6.443047651	0.052557526
CDR20291_1920	309	309	109	109	-1.386509246	0.007420555
CDR20291_1921	1614	1614	202	324	-2.569422815	2.07E-32
CDR20291_1922	4161	4161	1698	2446	-0.942293858	1.09E-10
CDR20291_1923	341	341	134	165	-1.103647311	0.009501183
CDR20291_1924	341	341	262	403	0.017334113	0.965145917
CDR20291_1925	238	238	300	133	0.09933009	0.913644049
CDR20291_1926	618	618	212	340	-1.115170424	0.000150358
CDR20291_1927	679	679	359	395	-0.744363477	0.042347412
CDR20291_1928	1018	1018	2164	2797	1.3657243	4.77E-11
CDR20291_1929	595	595	43	16	-4.095279569	2.31E-07
CDR20291_1930	6	6	5	16	0.76282791	0.712619412
CDR20291_1931	1695	1695	788	1506	-0.541928172	0.020462676
CDR20291_1932	2051	2051	3796	5524	1.246366777	4.71E-19
CDR20291_1933	6872	6872	4166	7596	-0.196863257	0.242369899
CDR20291_1934	1801	1801	142	201	-3.328881611	1.18E-48
CDR20291_1935	1326	1326	1410	1825	0.367038715	0.107265687
CDR20291_1936	697	697	277	873	-0.326387474	0.546736555
CDR20291_1936; CDR20291_1937	0	0	0	1	1.443698351	0.810176602
CDR20291_1937	2400	2400	3983	6245	1.142315641	1.27E-19

CDR20291_1938	263082	263082	203098	265218	-0.088220235	0.592383213
CDR20291_1939	1081	1081	1565	2201	0.868148423	4.82E-06
CDR20291_1940	775	775	229	348	-1.370248668	4.08E-07
CDR20291_1941	2777	2777	1568	1758	-0.636735749	0.01490681
CDR20291_1942	748	748	1881	2995	1.753155873	3.30E-25
CDR20291_1943	325	325	251	615	0.399557313	0.401121117
CDR20291_1944	385	385	433	563	0.450475898	0.180649458
CDR20291_1945	350	350	34	99	-2.426059368	2.75E-05
CDR20291_1946	203	203	87	238	-0.349004811	0.595892771
CDR20291_1947	265	265	124	69	-1.254167858	0.107158519
CDR20291_1948	418	418	741	1145	1.226861664	2.98E-07
CDR20291_1949	1898	1898	41	231	-3.910787867	7.38E-10
CDR20291_1950	939	939	1691	2690	1.270782153	7.04E-14
CDR20291_1951	245	245	8	100	-2.346170108	0.042254927
CDR20291_1952	2790	2790	7666	11773	1.854704768	2.56E-62
CDR20291_1953	366	366	100	118	-1.656190639	0.000161195
CDR20291_1954	1283	1283	1439	2271	0.581832618	0.000740737
CDR20291_1955	475	475	64	203	-1.876310739	0.000844454
CDR20291_1956	2411	2411	3839	3867	0.796881985	0.006454622
CDR20291_1957	5815	5815	3825	5683	-0.23152983	0.070110901
CDR20291_1958	2032	2032	1069	1407	-0.637478078	0.002252176
CDR20291_1959	4084	4084	11960	13081	1.72405953	5.33E-14
CDR20291_1960	7921	7921	6873	10124	0.162054255	0.18655129
CDR20291_1961	5394	5394	6888	10049	0.712788398	3.14E-09
CDR20291_1962	1429	1429	3447	4567	1.564585628	2.16E-18
CDR20291_1963	16542	16542	35093	64650	1.617954374	3.56E-30
CDR20291_1964	1546	1546	9046	17147	3.104213697	4.22E-76
CDR20291_1965	5624	5624	10682	12266	1.128771651	9.24E-08
CDR20291_1966	24	24	29	128	1.623035989	0.146200216
CDR20291_1967	2670	2670	8006	9660	1.818205652	1.36E-20

CDR20291_1968	1651	1651	3617	5372	1.504028512	1.46E-27
CDR20291_1969	8068	8068	16671	22653	1.358494858	7.60E-24
CDR20291_1970	2423	2423	11450	18339	2.667498465	1.36E-136
CDR20291_1971	880	880	284	364	-1.361251729	2.47E-06
CDR20291_1972	890	890	5265	7231	2.883033581	2.58E-74
CDR20291_1973	6805	6805	3165	5479	-0.619021968	9.43E-06
CDR20291_1974	861	861	917	1318	0.440194659	0.045358961
CDR20291_1975	3708	3708	776	879	-2.063520471	4.21E-17
CDR20291_1976	6239	6239	20955	34157	2.187816095	8.55E-105
CDR20291_1977	7260	7260	23099	33789	2.031824239	1.42E-83
CDR20291_1978	4957	4957	10794	17662	1.565477437	5.03E-47
CDR20291_1979	11144	11144	43950	67395	2.375050615	5.85E-155
CDR20291_1980	1645	1645	597	1351	-0.759491347	0.013151
CDR20291_1981	338	338	467	704	0.849443768	0.003372607
CDR20291_1982	916	916	490	1356	-0.021034702	0.965256836
CDR20291_1983	4135	4135	15400	21444	2.224957408	1.87E-68
CDR20291_1984	657	657	1616	2124	1.587184476	4.84E-13
CDR20291_1985	1096	1096	1039	1352	0.204722383	0.418578257
CDR20291_1986	1500	1500	1789	3263	0.779874772	5.70E-05
CDR20291_1986;CDR20291_1987	39	39	1	1	-5.203013462	0.00252366
CDR20291_1987	920	920	2534	3617	1.80643961	3.71E-27
CDR20291_1988	161	161	5	48	-2.74384837	0.016502556
CDR20291_1989	696	696	280	588	-0.673041319	0.050604117
CDR20291_1990	1885	1885	1383	2521	0.078626993	0.727200981
CDR20291_1991	1336	1336	1942	2512	0.817813166	9.30E-05
CDR20291_1992	402	402	1033	1228	1.585460485	6.28E-08
CDR20291_1993	285	285	105	159	-1.054523637	0.012888224
CDR20291_1994	608	608	876	1107	0.789510187	0.003717441
CDR20291_1995	147	147	102	230	0.173788733	0.784968867
CDR20291_1996	978	978	764	1152	0.026918422	0.910838426

CDR20291_1997	305	305	195	220	-0.455540086	0.330948855
CDR20291_1998	674	674	555	1054	0.277771397	0.346198713
CDR20291_1999	6897	6897	17676	26979	1.749847257	9.21E-73
CDR20291_2000	5042	5042	2854	4972	-0.330801773	0.029182493
CDR20291_2000; CDR20291_2001	56	56	1	4	-4.507452498	0.000999675
CDR20291_2001	4992	4992	2260	2888	-0.873146925	2.19E-06
CDR20291_2002	1455	1455	298	416	-1.959813758	6.23E-18
CDR20291_2003	1412	1412	2579	4024	1.27702468	1.76E-18
CDR20291_2004	520	520	62	227	-1.910927707	0.0016628
CDR20291_2005	934	934	4863	6791	2.710137014	1.49E-69
CDR20291_2006	9902	9902	23505	36613	1.653903978	9.69E-72
CDR20291_2007	1418	1418	5325	7636	2.256970758	2.99E-59
CDR20291_2008	1813	1813	4029	8310	1.77582986	1.73E-16
CDR20291_2009	5722	5722	28577	36348	2.588109156	4.35E-60
CDR20291_2010	10209	10209	47679	89846	2.774175616	1.13E-76
CDR20291_2011	5227	5227	1466	2632	-1.320335978	3.02E-16
CDR20291_2012	644	644	234	302	-1.185604471	0.00020502
CDR20291_2013	5227	5227	3548	4264	-0.327818385	0.128757381
CDR20291_2014	5094	5094	7508	11891	0.978452007	1.28E-19
CDR20291_2015	4456	4456	10017	11229	1.357252743	9.75E-10
CDR20291_2016	1598	1598	1363	2311	0.240270911	0.202502844
CDR20291_2017	7911	7911	26986	30146	1.956932706	2.48E-20
CDR20291_2018	4931	4931	4968	6148	0.260650301	0.198138419
CDR20291_2019	397	397	1	13	-5.913402629	3.83E-11
CDR20291_2020	103	103	746	1455	3.435378284	1.05E-27
CDR20291_2020; CDR20291_2021	0	0	0	2	2.244508613	0.701490268
CDR20291_2021	1544	1544	147	232	-2.976135563	6.17E-39
CDR20291_2022	8369	8369	7473	11348	0.225034726	0.042743145
CDR20291_2023	2787	2787	820	1458	-1.25842293	5.28E-12
CDR20291_2024	4365	4365	4761	5737	0.358250135	0.091119141

CDR20291_2025	12609	12609	14214	22169	0.580511456	1.77E-09
CDR20291_2026	8937	8937	11222	17880	0.751657983	1.01E-13
CDR20291_2027	1556	1556	22	156	-4.253240403	3.37E-09
CDR20291_2028	753	753	1948	2490	1.641754291	8.49E-14
CDR20291_2029	22	22	57	59	1.512257124	0.118662217
CDR20291_2030	9310	9310	14366	19948	0.951862499	8.53E-14
CDR20291_2031	2263	2263	3543	5711	1.078522328	3.14E-16
CDR20291_2032	1833	1833	4293	5080	1.449374619	3.13E-11
CDR20291_2033	1192	1192	143	229	-2.631664873	3.34E-26
CDR20291_2034	1844	1844	4804	7122	1.752718462	2.20E-41
CDR20291_2035	173	173	25	80	-1.763563271	0.017599863
CDR20291_2036	1686	1686	3998	4218	1.398084716	2.17E-07
CDR20291_2037	53	53	12	98	-0.087013368	0.952616587
CDR20291_2038	2202	2202	3638	4791	1.014567449	9.34E-09
CDR20291_2039	2484	2484	2953	4423	0.62804271	6.00E-06
CDR20291_2040	2111	2111	4063	6795	1.403784316	1.10E-24
CDR20291_2041	27	27	7	54	0.042041081	0.979858976
CDR20291_2042	16	16	10	49	0.788131246	0.613107436
CDR20291_2043	103	103	0	20	-3.571038729	0.055927965
CDR20291_2044	22	22	12	63	0.667419294	0.650063104
CDR20291_2045	10	10	18	79	2.192655268	0.099137087
CDR20291_2046	60	60	70	95	0.531796406	0.480939459
CDR20291_2047	15	15	15	71	1.426770054	0.299478088
CDR20291_2048	713	713	23	130	-3.325574824	4.62E-06
CDR20291_2049	532	532	90	225	-1.769947426	9.31E-05
CDR20291_2050	1166	1166	4270	4894	2.074565205	8.13E-19
CDR20291_2051	391	391	125	115	-1.574675582	0.00219403
CDR20291_2052	9985	9985	32770	42959	2.002143849	1.60E-43
CDR20291_2053	3049	3049	9220	14172	1.993563486	1.54E-76
CDR20291_2054	3087	3087	5509	8917	1.270404407	2.38E-26

CDR20291_2055	8329	8329	45075	65219	2.790564817	1.52E-156
CDR20291_2056	769	769	320	508	-0.84417891	0.00114743
CDR20291_2057	2427	2427	1521	2066	-0.363671937	0.0540691
CDR20291_2058	3883	3883	1502	2491	-0.917080768	2.29E-10
CDR20291_2059	2262	2262	6699	8230	1.811681087	3.26E-21
CDR20291_2060	3753	3753	10286	13339	1.734917819	3.54E-27
CDR20291_2061	5979	5979	5524	8785	0.307670978	0.007624189
CDR20291_2062	15039	15039	52694	84236	2.23450168	1.94E-136
CDR20291_2063	1317	1317	17352	29215	4.183794481	1.01E-275
CDR20291_2064	9966	9966	2248	3456	-1.751203934	7.15E-56
CDR20291_2065	513	513	799	1009	0.901420373	0.001368543
CDR20291_2066	1129	1129	604	1340	-0.216645957	0.525280951
CDR20291_2067	1169	1169	4083	4698	2.008629737	8.67E-18
CDR20291_2068	3495	3495	7669	13112	1.609432822	3.57E-36
CDR20291_2069	10342	10342	14813	16463	0.701851102	0.001712194
CDR20291_2070	691	691	407	636	-0.35458534	0.185475544
CDR20291_2071	3569	3569	8969	11353	1.593992188	2.95E-20
CDR20291_2072	1163	1163	534	618	-0.91679105	0.00204965
CDR20291_2073	1417	1417	3872	7703	2.044594865	8.84E-24
CDR20291_2074	2094	2094	3635	5258	1.14969781	6.94E-16
CDR20291_2075	795	795	774	1429	0.496918949	0.047793651
CDR20291_2076	4128	4128	1673	2506	-0.924573942	1.67E-11
CDR20291_2077	2231	2231	1119	1423	-0.728920246	0.000800937
CDR20291_2078	2205	2205	1240	1598	-0.555085629	0.00914946
CDR20291_2079	1549	1549	1480	1695	0.135112879	0.653305022
CDR20291_2080	3464	3464	556	1281	-1.92069151	4.36E-12
CDR20291_2081	1207	1207	512	787	-0.840200193	7.43E-05
CDR20291_2082	1694	1694	1431	1848	0.033491308	0.893543486
CDR20291_2083	731	731	626	774	0.02452567	0.942032408
CDR20291_2084	1151	1151	65	147	-3.435742478	1.49E-23

CDR20291_2085	5298	5298	3217	5789	-0.204654716	0.223644
CDR20291_2086	19236	19236	35431	57405	1.316633921	1.66E-44
CDR20291_2087	1125	1125	4076	5049	2.107697264	3.52E-25
CDR20291_2088	3458	3458	477	204	-3.104048466	3.92E-07
CDR20291_2089	612	612	158	231	-1.593048513	2.91E-07
CDR20291_2090	798	798	20	119	-3.629938446	6.00E-07
CDR20291_2091	633	633	255	208	-1.301323641	0.009312974
CDR20291_2092	6971	6971	2536	3491	-1.139157702	6.59E-15
CDR20291_2093	7807	7807	5747	10227	0.064329675	0.697883165
CDR20291_2094	11871	11871	11966	16007	0.312395439	0.036655483
CDR20291_2095	1797	1797	3960	5603	1.478630753	2.47E-23
CDR20291_2096	6433	6433	3819	3474	-0.682533223	0.035249264
CDR20291_2097	4471	4471	2615	4309	-0.325569984	0.017432083
CDR20291_2098	3998	3998	22018	34990	2.882596285	4.62E-195
CDR20291_2099	9940	9940	30303	42772	1.945456985	9.03E-64
CDR20291_2100	2904	2904	387	516	-2.611632969	6.95E-40
CDR20291_2101	138	138	1189	1765	3.4791934	1.01E-47
CDR20291_2102	1320	1320	846	1314	-0.237181774	0.242023219
CDR20291_2103	94	94	22	189	0.020054703	0.987255011
CDR20291_2104	152	152	23	105	-1.334442846	0.140406417
CDR20291_2105	432	432	483	835	0.645653151	0.02275056
CDR20291_2106	3	3	9	25	2.473237644	0.181976199
CDR20291_2107	688	688	123	335	-1.613883606	0.000397933
CDR20291_2108	501	501	32	147	-2.571262312	0.000232169
CDR20291_2109	1638	1638	6733	12190	2.558858022	2.43E-61
CDR20291_2110	3941	3941	8217	13236	1.491272225	9.42E-42
CDR20291_2111	447	447	537	831	0.666599226	0.011979513
CDR20291_2112	8207	8207	22207	35674	1.865263949	1.15E-83
CDR20291_2113	785	785	437	935	-0.189499676	0.598514363
CDR20291_2114	1392	1392	3128	6527	1.801508392	2.55E-15

CDR20291_2115	1412	1412	3163	4239	1.465408698	1.21E-16
CDR20291_2116	7823	7823	41284	56112	2.711472048	5.95E-98
CDR20291_2117	5804	5804	17922	30530	2.099439015	2.13E-73
CDR20291_2118	15438	15438	57873	99606	2.386942942	1.02E-99
CDR20291_2119	1015	1015	1595	1629	0.785294708	0.015771754
CDR20291_2120	1350	1350	2707	2647	1.112721353	0.000453997
CDR20291_2121	1116	1116	339	476	-1.386704389	8.64E-09
CDR20291_2122	1071	1071	2137	2911	1.309314915	2.68E-12
CDR20291_2123	3992	3992	1945	2360	-0.800508983	0.000172675
CDR20291_2124	282	282	47	47	-2.47282621	9.23E-06
CDR20291_2125	1670	1670	6637	11336	2.465610793	4.29E-75
CDR20291_2126	5483	5483	15407	16874	1.66529174	1.46E-13
CDR20291_2127	10439	10439	37404	49261	2.131871987	7.32E-51
CDR20291_2128	5055	5055	1759	2566	-1.163330962	1.91E-17
CDR20291_2129	361	361	506	1174	1.211089423	0.001165335
CDR20291_2130	1243	1243	184	483	-1.920404591	7.57E-07
CDR20291_2131	894	894	7	82	-4.482073388	8.19E-07
CDR20291_2132	1166	1166	1562	1826	0.635395097	0.016582203
CDR20291_2133	1694	1694	4612	7117	1.844910474	1.71E-48
CDR20291_2134	1512	1512	761	1128	-0.619636281	0.001378633
CDR20291_2135	3460	3460	4965	5244	0.674133621	0.011003964
CDR20291_2136	936	936	153	274	-2.099238087	6.77E-14
CDR20291_2137	335	335	674	945	1.340730086	6.74E-07
CDR20291_2138	1151	1151	26	159	-3.750641649	9.07E-08
CDR20291_2139	280	280	15	52	-3.108338316	5.85E-06
CDR20291_2140	1966	1966	2123	3824	0.626745731	0.000540993
CDR20291_2141	1456	1456	2253	2705	0.860244222	0.000246942
CDR20291_2142	8349	8349	10120	14546	0.627268777	1.30E-07
CDR20291_2143	4120	4120	3532	5358	0.165464595	0.215589699
CDR20291_2144	63	63	33	138	0.360539292	0.736935037

CDR20291_2145	92	92	587	725	2.92166821	8.82E-16
CDR20291_2146	2167	2167	2629	3528	0.581453925	0.001225171
CDR20291_2147	2351	2351	4705	6306	1.3029185	1.19E-15
CDR20291_2148	852	852	1032	1258	0.51608846	0.059579731
CDR20291_2149	693	693	52	173	-2.672139574	6.38E-07
CDR20291_2150	7252	7252	7820	11414	0.469185596	7.06E-05
CDR20291_2151	2469	2469	3277	5414	0.858531839	5.01E-10
CDR20291_2152	5731	5731	13759	19989	1.620724068	2.05E-47
CDR20291_2153	14656	14656	69722	113718	2.690447268	1.43E-181
CDR20291_2154	207	207	7	78	-2.439912407	0.033470409
CDR20291_2155	13228	13228	47952	64099	2.158543968	1.15E-57
CDR20291_2156	547	547	36	120	-2.857007078	4.26E-07
CDR20291_2157	4413	4413	28734	43931	3.096243066	4.17E-236
CDR20291_2158	755	755	5529	6094	3.050808762	2.10E-35
CDR20291_2159	6026	6026	13850	20358	1.566004921	1.70E-47
CDR20291_2160	12830	12830	39704	59160	2.004785498	6.38E-98
CDR20291_2161	6764	6764	6290	8761	0.223194629	0.119852499
CDR20291_2162	3169	3169	8788	9878	1.661742267	9.19E-14
CDR20291_2163	1441	1441	2661	3118	1.100196468	4.10E-06
CDR20291_2164	7810	7810	2664	3151	-1.330749277	9.73E-11
CDR20291_2165	4095	4095	4703	4769	0.329348609	0.264865859
CDR20291_2166	5469	5469	5677	6578	0.262494734	0.256521307
CDR20291_2167	483	483	483	612	0.264002854	0.434490218
CDR20291_2168	2075	2075	3723	5260	1.181050811	2.68E-15
CDR20291_2169	2596	2596	1802	2241	-0.274161753	0.226152255
CDR20291_2170	3411	3411	3442	4227	0.257895676	0.233773582
CDR20291_2171	4432	4432	2156	3242	-0.65835005	6.74E-07
CDR20291_2172	6542	6542	22273	27962	2.02687244	1.51E-34
CDR20291_2173	10282	10282	10210	11615	0.187401734	0.4242871
CDR20291_2174	2172	2172	2137	2838	0.272142719	0.167795312

CDR20291_2175	362	362	31	62	-2.939281488	4.50E-10
CDR20291_2176	189	189	28	88	-1.745594671	0.01477027
CDR20291_2177	645	645	469	645	-0.141165292	0.646272629
CDR20291_2178	1175	1175	170	283	-2.33197425	3.98E-21
CDR20291_2179	210	210	3	15	-4.597486659	1.03E-07
CDR20291_2180	264	264	62	98	-1.672559747	0.000316306
CDR20291_2181	1982	1982	2721	4085	0.837363139	4.67E-09
CDR20291_2182	1936	1936	386	342	-2.273629342	1.52E-09
CDR20291_2183	4870	4870	2774	3899	-0.477978071	0.001226479
CDR20291_2184	3533	3533	724	1023	-1.950092343	4.62E-32
CDR20291_2185	670	670	355	556	-0.505603688	0.061757266
CDR20291_2186	542	542	1	9	-6.78564974	3.39E-20
CDR20291_2187	9171	9171	19690	28373	1.453871454	1.80E-39
CDR20291_2188	2471	2471	3891	6208	1.079284946	2.48E-17
CDR20291_2189	1255	1255	3912	2688	1.573703599	0.000430424
CDR20291_2190	447	447	291	612	0.022218893	0.959179338
CDR20291_2191	2961	2961	1831	2858	-0.285214016	0.052879388
CDR20291_2192	404	404	1541	1465	2.024647588	2.71E-08
CDR20291_2193	70	70	0	7	-4.480579435	0.00951377
CDR20291_2194	1259	1259	1089	1701	0.199473854	0.308305449
CDR20291_2195	1211	1211	2275	2743	1.142759648	9.67E-07
CDR20291_2196	1216	1216	1882	2852	1.016984458	3.60E-10
CDR20291_2197	162	162	13	56	-2.305415127	0.008274761
CDR20291_2199	0	0	77	185	9.463486536	2.49E-07
CDR20291_2200	430	430	631	861	0.866793466	0.001706363
CDR20291_2201	420	420	588	1268	1.147049224	0.000556244
CDR20291_2202	4	4	55	113	4.403044923	3.49E-05
CDR20291_2202; CDR20291_2203	22	22	1	0	-5.275341646	0.036075725
CDR20291_2203	67	67	58	271	1.201851569	0.194239521
CDR20291_2204	331	331	68	178	-1.44829207	0.006906921

CDR20291_2205	320	320	82	90	-1.794127368	0.000238234
CDR20291_2205; CDR20291_2206	0	0	0	1	1.443698351	0.810176602
CDR20291_2206	4601	4601	9139	12641	1.31345375	3.28E-22
CDR20291_2207	5098	5098	12190	21208	1.746537924	8.19E-43
CDR20291_2208	3317	3317	11244	16029	2.105264272	6.64E-66
CDR20291_2209	5244	5244	12116	13304	1.384421796	1.20E-09
CDR20291_2210	1928	1928	4092	7807	1.646496941	3.62E-19
CDR20291_2211	593	593	2148	3623	2.322498186	4.14E-40
CDR20291_2212	1343	1343	2058	2706	0.904791758	6.12E-06
CDR20291_2213	238	238	20	85	-2.255992071	0.004126692
CDR20291_2214	1836	1836	7088	11391	2.378334279	4.23E-91
CDR20291_2215	315	315	175	508	0.079178088	0.897212744
CDR20291_2216	3015	3015	2410	2826	-0.10748491	0.684652934
CDR20291_2217	11882	11882	11373	15690	0.258450782	0.060185785
CDR20291_2218	3067	3067	13443	23884	2.636844355	6.45E-84
CDR20291_2219	7213	7213	35486	43499	2.542728256	1.79E-49
CDR20291_2220	1646	1646	93	352	-2.955083856	6.94E-09
CDR20291_2221	4255	4255	2774	3065	-0.437731975	0.087738667
CDR20291_2222	1952	1952	1250	2085	-0.185555814	0.312454841
CDR20291_2223	963	963	130	311	-2.134760395	1.09E-08
CDR20291_2224	117	117	255	926	2.268336395	0.000202715
CDR20291_2225	7430	7430	25441	32495	2.046275923	9.27E-39
CDR20291_2226	2171	2171	11703	18285	2.839380302	2.59E-159
CDR20291_2227	658	658	374	552	-0.447288455	0.105337506
CDR20291_2228	5469	5469	433	945	-2.9854091	1.56E-35
CDR20291_2229	72	72	5	33	-2.034191809	0.102914191
CDR20291_2230	1007	1007	583	846	-0.43270605	0.061408154
CDR20291_2231	565	565	776	948	0.698642179	0.018401579
CDR20291_2232	1162	1162	4367	5767	2.202186256	3.57E-36
CDR20291_2233	423	423	739	1350	1.332043043	3.33E-07

CDR20291_2234	1190	1190	91	292	-2.682475161	1.30E-08
CDR20291_2235	174	174	155	191	0.078566508	0.888334466
CDR20291_2236	668	668	118	188	-2.077429829	1.59E-11
CDR20291_2237	333	333	72	120	-1.751684176	3.09E-05
CDR20291_2238	711	711	129	169	-2.178973423	1.42E-11
CDR20291_2239	1094	1094	196	113	-2.625416387	7.35E-06
CDR20291_2240	367	367	73	52	-2.389893592	0.000149595
CDR20291_2241	1693	1693	128	133	-3.590665216	1.20E-28
CDR20291_2242	81	81	10	23	-2.292299012	0.011525298
CDR20291_2243	676	676	88	80	-2.881335575	2.86E-10
CDR20291_2244	60	60	20	33	-1.135038205	0.217829509
CDR20291_2245	2289	2289	1512	2087	-0.2768807	0.140132993
CDR20291_2246	3581	3581	997	1429	-1.497699366	1.90E-21
CDR20291_2247	557	557	180	345	-1.063031904	0.001874841
CDR20291_2248	938	938	261	592	-1.13960806	0.001072471
CDR20291_2249	1760	1760	192	529	-2.316444037	1.61E-09
CDR20291_2250	4735	4735	2008	2523	-0.978483531	3.91E-07
CDR20291_2251	702	702	208	310	-1.380405727	1.24E-06
CDR20291_2252	2755	2755	1448	2810	-0.353103195	0.105845846
CDR20291_2253	2080	2080	971	1410	-0.74273307	2.64E-05
CDR20291_2254	5679	5679	2010	2954	-1.133539647	5.02E-18
CDR20291_2255	251	251	21	140	-1.764263564	0.062009166
CDR20291_2256	1512	1512	659	1049	-0.775402736	5.60E-05
CDR20291_2257	1176	1176	2150	2153	0.992659866	0.001784199
CDR20291_2257; CDR20291_2258	0	0	1	3	3.403501445	0.547265835
CDR20291_2258	1123	1123	1409	1894	0.630878717	0.002773123
CDR20291_2259	1096	1096	55	121	-3.628499151	2.04E-26
CDR20291_2260	486	486	1012	1647	1.497149113	2.47E-12
CDR20291_2261	388	388	531	621	0.665845624	0.060331919
CDR20291_2262	441	441	95	197	-1.582611624	0.00011324

CDR20291_2263	1885	1885	2528	2861	0.617369227	0.01623449
CDR20291_2264	2769	2769	4535	7016	1.11352419	5.52E-20
CDR20291_2265	10380	10380	26058	30974	1.552659405	1.01E-16
CDR20291_2266	1326	1326	654	1302	-0.42371891	0.114260712
CDR20291_2267	295	295	125	383	-0.259782745	0.688257277
CDR20291_2268	1709	1709	931	1258	-0.569604097	0.006526667
CDR20291_2269	1035	1035	326	524	-1.236648048	1.46E-07
CDR20291_2270	14334	14334	19010	29998	0.823457561	1.77E-18
CDR20291_2271	12277	12277	15284	19617	0.589725661	0.000267011
CDR20291_2272	8610	8610	16372	20350	1.180091553	7.91E-12
CDR20291_2273	480	480	391	300	-0.313879096	0.594671429
CDR20291_2274	875	875	446	1016	-0.26362816	0.477477045
CDR20291_2275	2445	2445	4596	6690	1.268975974	1.85E-21
CDR20291_2276	3292	3292	4432	5550	0.686423313	0.000361992
CDR20291_2277	2484	2484	13311	22665	2.894393138	5.23E-126
CDR20291_2278	1811	1811	8621	14168	2.697098802	7.50E-115
CDR20291_2279	5543	5543	10875	16626	1.365540037	2.39E-40
CDR20291_2279;CDR20291_2280	1795	1795	3045	4856	1.186370809	7.26E-18
CDR20291_2280	2319	2319	37680	48014	4.291275491	9.13E-164
CDR20291_2281	1758	1758	205	203	-2.989860378	1.03E-18
CDR20291_2282	418	418	46	56	-2.951890583	2.38E-11
CDR20291_2283	3893	3893	16835	22933	2.425630453	5.44E-72
CDR20291_2284	12267	12267	34010	52847	1.876140324	4.84E-97
CDR20291_2285	812	812	429	649	-0.535033161	0.031659948
CDR20291_2286	5363	5363	25812	32638	2.530947726	2.18E-55
CDR20291_2287	9915	9915	22428	32178	1.526167656	6.16E-43
CDR20291_2288	3394	3394	5168	7651	0.976952753	3.01E-15
CDR20291_2289	80	80	2	15	-3.337465547	0.00801484
CDR20291_2290	66	66	8	32	-1.787451768	0.106886476
CDR20291_2291	296	296	429	380	0.589553131	0.253541632

CDR20291_2292	2651	2651	1466	2622	-0.343985474	0.063668639
CDR20291_2293	28	28	7	22	-0.988725546	0.482160572
CDR20291_2294	8338	8338	20394	27948	1.607548138	3.09E-35
CDR20291_2295	516	516	1987	3315	2.402546348	3.43E-41
CDR20291_2296	13743	13743	70063	97589	2.678239053	6.75E-116
CDR20291_2297	10647	10647	31252	46204	1.923011828	6.66E-84
CDR20291_2298	3915	3915	9111	12397	1.530858728	6.78E-27
CDR20291_2299	2436	2436	786	950	-1.398444283	2.92E-09
CDR20291_2300	47	47	6	18	-1.998825885	0.090822426
CDR20291_2301	5815	5815	187	570	-3.983108778	9.15E-28
CDR20291_2302	473	473	13	70	-3.60434279	1.68E-06
CDR20291_2303	1672	1672	92	104	-4.001156077	2.54E-41
CDR20291_2304	977	977	1550	1690	0.837146288	0.004889124
CDR20291_2305	621	621	1097	1878	1.297895473	7.68E-10
CDR20291_2306	336	336	28	71	-2.772652885	3.33E-07
CDR20291_2307	730	730	325	475	-0.806768645	0.002703542
CDR20291_2308	869	869	182	278	-1.863146698	3.44E-12
CDR20291_2309	20	20	27	41	0.821185342	0.479713053
CDR20291_2310	1651	1651	713	1067	-0.833711956	9.44E-06
CDR20291_2311	1632	1632	373	469	-1.871723002	4.10E-14
CDR20291_2312	566	566	1495	2369	1.820521392	1.06E-22
CDR20291_2313	748	748	1848	1549	1.331952192	0.000976759
CDR20291_2314	1621	1621	548	1139	-0.933095848	0.000571576
CDR20291_2315	1298	1298	2294	3286	1.168707334	1.55E-12
CDR20291_2316	249	249	48	107	-1.680711462	0.001790753
CDR20291_2317	429	429	352	456	-0.007095296	0.985569033
CDR20291_2318	1406	1406	970	1212	-0.280361511	0.277811321
CDR20291_2319	690	690	265	524	-0.789257306	0.014334402
CDR20291_2320	309	309	196	452	0.063076477	0.901634878
CDR20291_2321	48	48	4	9	-2.874673506	0.015853049

CDR20291_2322	1299	1299	2854	3951	1.459301058	5.60E-18
CDR20291_2323	928	928	759	1457	0.276426028	0.307109166
CDR20291_2324	34	34	26	157	1.310110607	0.269294548
CDR20291_2325	12	12	9	74	1.648705662	0.302133626
CDR20291_2326	3123	3123	13335	19660	2.461716599	2.74E-110
CDR20291_2326; CDR20291_2327	0	0	71	178	9.384084531	4.49E-07
CDR20291_2327	241	241	42	46	-2.354145881	2.89E-05
CDR20291_2328	16514	16514	112594	168618	3.147982646	5.16E-264
CDR20291_2329	833	833	2187	4111	1.94177022	1.17E-21
CDR20291_2330	404	404	264	294	-0.431621968	0.315309791
CDR20291_2331	785	785	1768	4163	1.907321809	1.40E-10
CDR20291_2332	8	8	332	378	5.572182579	1.44E-18
CDR20291_2333	3364	3364	13814	17163	2.29052984	3.65E-39
CDR20291_2334	23518	23518	1958	3194	-3.145351871	3.25E-197
CDR20291_2335	108	108	3	10	-4.074507723	3.09E-05
CDR20291_2336	3507	3507	15426	18726	2.374952521	1.98E-38
CDR20291_2337	351	351	438	375	0.355982017	0.510104747
CDR20291_2338	404	404	12	88	-3.139915813	0.000403793
CDR20291_2339	2	2	7	19	2.674398897	0.201652368
CDR20291_2340	611	611	1093	1568	1.187118198	2.88E-08
CDR20291_2341	2025	2025	15	122	-5.018073825	5.92E-12
CDR20291_2342	1547	1547	45	95	-4.446475311	1.34E-48
CDR20291_2343	2034	2034	439	752	-1.733645464	6.07E-19
CDR20291_2344	5404	5404	3505	3991	-0.426862946	0.071052823
CDR20291_2345	1231	1231	259	443	-1.771353189	6.49E-14
CDR20291_2346	973	973	12	99	-4.264765926	1.10E-07
CDR20291_2347	3177	3177	3218	4430	0.338378447	0.038513306
CDR20291_2348	2050	2050	639	1025	-1.253280253	1.48E-12
CDR20291_2349	5284	5284	17915	30366	2.230529458	9.27E-85
CDR20291_2350	3871	3871	1885	2218	-0.820582814	0.000305925

CDR20291_2351	6135	6135	9640	16506	1.128734949	6.95E-20
CDR20291_2352	1670	1670	1011	1051	-0.581202266	0.070202249
CDR20291_2353	568	568	654	661	0.32993193	0.421072847
CDR20291_2354	237	237	119	267	-0.296949674	0.586462188
CDR20291_2355	39	39	21	46	-0.215359603	0.847246131
CDR20291_2356	1756	1756	21	105	-4.887004241	4.96E-17
CDR20291_2357	3943	3943	1097	1454	-1.552130307	4.91E-18
CDR20291_2358	1477	1477	1658	3824	0.88491782	0.002257846
CDR20291_2359	1841	1841	176	188	-3.233790868	5.34E-26
CDR20291_2360	2917	2917	2239	2968	-0.087288403	0.674434966
CDR20291_2361	202	202	28	33	-2.639706667	1.15E-05
CDR20291_2362	552	552	29	79	-3.370472938	7.43E-12
CDR20291_2363	424	424	67	111	-2.208373434	1.38E-08
CDR20291_2364	567	567	1060	1662	1.314156751	1.62E-10
CDR20291_2365	1400	1400	5092	7419	2.221929891	2.24E-60
CDR20291_2366	5	5	7	18	1.303896128	0.499961091
CDR20291_2367	438	438	201	329	-0.680161671	0.043307579
CDR20291_2368	4169	4169	6287	9842	1.003017054	2.41E-19
CDR20291_2369	11147	11147	4394	5196	-1.121947238	1.97E-08
CDR20291_2370	2154	2154	1563	1546	-0.347726676	0.304063676
CDR20291_2371	1722	1722	3119	3621	1.066642767	6.56E-06
CDR20291_2372	3300	3300	10755	9469	1.757360053	3.37E-08
CDR20291_2373	3788	3788	10983	11250	1.671373119	8.46E-11
CDR20291_2374	2708	2708	6125	7051	1.382162844	3.58E-10
CDR20291_2375	61	61	12	30	-1.548684724	0.120017974
CDR20291_2376	312	312	24	63	-2.855776805	5.39E-07
CDR20291_2377	1611	1611	922	1043	-0.612273714	0.031903647
CDR20291_2378	2020	2020	1539	1452	-0.303484615	0.407567643
CDR20291_2379	2084	2084	1705	4163	0.478168082	0.131909505
CDR20291_2380	362	362	187	233	-0.700828836	0.08294431

CDR20291_2381	2718	2718	781	1074	-1.480909892	5.56E-16
CDR20291_2382	1038	1038	1024	1688	0.4289901	0.032088433
CDR20291_2383	1931	1931	1534	2010	-0.045562075	0.846459287
CDR20291_2384	740	740	3953	6549	2.869440184	1.14E-85
CDR20291_2385	62	62	91	150	1.002211432	0.115662096
CDR20291_2386	3015	3015	49	130	-5.084193058	2.82E-54
CDR20291_2387	1248	1248	23	130	-4.131324793	4.34E-10
CDR20291_2388	942	942	64	80	-3.631660752	9.05E-29
CDR20291_2389	428	428	31	57	-3.249500861	7.75E-14
CDR20291_2390	3312	3312	21616	29873	3.029207941	4.26E-124
CDR20291_2391	373	373	239	300	-0.384896691	0.333925751
CDR20291_2392	2455	2455	611	1443	-1.266816012	2.79E-05
CDR20291_2393	3584	3584	6581	7517	1.076653902	1.28E-06
CDR20291_2394	1926	1926	1616	2138	0.039746468	0.862862241
CDR20291_2395	3146	3146	1941	3266	-0.232757563	0.142193199
CDR20291_2396	674	674	110	403	-1.459551784	0.011656239
CDR20291_2397	5607	5607	15961	20807	1.793102411	8.26E-32
CDR20291_2398	3352	3352	2523	4509	0.09993765	0.593535791
CDR20291_2399	1688	1688	2397	4075	0.97751442	7.31E-10
CDR20291_2400	8117	8117	10067	12207	0.547733137	0.004354667
CDR20291_2401	406	406	389	584	0.318331005	0.307163765
CDR20291_2402	4381	4381	1029	2281	-1.405182202	2.76E-08
CDR20291_2403	752	752	398	885	-0.229866338	0.541689438
CDR20291_2404	219	219	13	60	-2.665443076	0.001370975
CDR20291_2405	215	215	6	23	-3.932658287	4.91E-07
CDR20291_2406	2947	2947	7777	9668	1.652879989	1.83E-19
CDR20291_2407	3855	3855	5870	10973	1.151213199	4.21E-12
CDR20291_2408	2039	2039	4599	9028	1.757006751	6.97E-20
CDR20291_2409	1510	1510	7131	8192	2.443007392	1.00E-28
CDR20291_2410	126	126	55	230	0.096526116	0.916180388

CDR20291_2411	547	547	1986	3424	2.342464452	1.03E-36
CDR20291_2412	775	775	80	402	-1.78611833	0.009288558
CDR20291_2413	54	54	6	47	-1.158660532	0.410793541
CDR20291_2414	2008	2008	1923	1510	-0.067602327	0.88714137
CDR20291_2415	5035	5035	10682	15930	1.460675356	9.27E-42
CDR20291_2416	120	120	116	160	0.271551323	0.647979373
CDR20291_2417	1495	1495	910	1502	-0.266576999	0.17691478
CDR20291_2418	81	81	6	53	-1.597225217	0.223814185
CDR20291_2419	960	960	677	806	-0.279659115	0.365226298
CDR20291_2420	3045	3045	1228	3050	-0.527040445	0.100137209
CDR20291_2421	719	719	248	280	-1.345905663	0.000147553
CDR20291_2422	3698	3698	2124	3355	-0.3830226	0.00516449
CDR20291_2423	752	752	69	221	-2.420613013	2.42E-06
CDR20291_2424	3461	3461	1234	1470	-1.263012833	2.24E-08
CDR20291_2425	1225	1225	255	609	-1.513456569	1.51E-05
CDR20291_2426	290	290	7	75	-2.974048182	0.00521617
CDR20291_2427	7473	7473	579	707	-3.451550609	3.04E-70
CDR20291_2428	3201	3201	319	551	-2.841258605	3.96E-56
CDR20291_2429	4438	4438	1077	2426	-1.344488954	2.14E-07
CDR20291_2430	7341	7341	4787	5956	-0.363575381	0.05716543
CDR20291_2431	2240	2240	1238	2013	-0.417077253	0.011674301
CDR20291_2431;CDR20291_2432	1	1	1	1	0.110713382	0.979858976
CDR20291_2432	3780	3780	4108	5642	0.438416851	0.004924892
CDR20291_2433	1138	1138	765	1083	-0.234375343	0.307163765
CDR20291_2434	34302	34302	39812	58538	0.580585022	5.94E-09
CDR20291_2435	6213	6213	6187	7748	0.251492954	0.191358679
CDR20291_2436	15175	15175	18589	28224	0.681097723	1.24E-12
CDR20291_2437	4873	4873	9066	16819	1.434177099	4.03E-20
CDR20291_2438	851	851	117	182	-2.456935743	5.85E-18
CDR20291_2439	658	658	39	169	-2.74196266	2.02E-05

CDR20291_2440	170	170	305	205	0.764972274	0.272850248
CDR20291_2441	1386	1386	494	874	-0.985434756	9.53E-06
CDR20291_2442	3434	3434	6675	8842	1.253145866	3.01E-15
CDR20291_2443	274	274	455	734	1.164163168	8.46E-05
CDR20291_2444	54	54	10	40	-1.179380711	0.31387364
CDR20291_2445	6283	6283	5501	8273	0.189711389	0.115749478
CDR20291_2446	4684	4684	1251	1757	-1.571692789	8.25E-25
CDR20291_2447	829	829	253	281	-1.532596526	1.07E-05
CDR20291_2448	26	26	2	10	-2.192278729	0.180736546
CDR20291_2449	323	323	173	465	-0.044738801	0.938946184
CDR20291_2450	1273	1273	380	1207	-0.732040404	0.119744299
CDR20291_2451	3474	3474	2493	3972	-0.055450325	0.718735189
CDR20291_2452	424	424	22	127	-2.617343331	0.001135909
CDR20291_2453	459	459	1230	1621	1.712523017	8.36E-13
CDR20291_2454	899	899	464	1440	0.035222036	0.947276975
CDR20291_2455	1540	1540	1214	1394	-0.140880424	0.644321642
CDR20291_2456	1712	1712	71	327	-3.194756122	3.32E-08
CDR20291_2456;CDR20291_2457	0	0	0	2	2.244508613	0.701490268
CDR20291_2457	422	422	130	84	-1.797822481	0.005422857
CDR20291_2458	1318	1318	2631	4193	1.420689966	3.17E-22
CDR20291_2459	1259	1259	648	1161	-0.44582648	0.053168442
CDR20291_2460	34	34	12	44	-0.341165885	0.802626034
CDR20291_2461	107	107	13	64	-1.566107103	0.125241165
CDR20291_2462	22	22	41	83	1.508318541	0.109613503
CDR20291_2463	13	13	69	70	2.535763173	0.008556188
CDR20291_2464	2079	2079	1063	1583	-0.593524009	0.000507985
CDR20291_2465	2154	2154	2512	3124	0.474587117	0.027722787
CDR20291_2466	10260	10260	7893	10359	-0.090231911	0.611560276
CDR20291_2467	4070	4070	290	424	-3.451185358	5.99E-97
CDR20291_2468	2617	2617	1040	1551	-0.956114544	2.35E-09

CDR20291_2469	3709	3709	859	1205	-1.778425814	2.06E-27
CDR20291_2470	143	143	15	71	-1.820839476	0.051231921
CDR20291_2471	47	47	11	39	-0.966004531	0.415005455
CDR20291_2472	166	166	46	177	-0.644305274	0.436468867
CDR20291_2473	20	20	21	107	1.576903076	0.20549159
CDR20291_2473; CDR20291_2474	1	1	1	1	0.110713382	0.979858976
CDR20291_2474	1	1	5	14	3.217980376	0.20039228
CDR20291_2475	88	88	23	43	-1.387979905	0.078048816
CDR20291_2476	19	19	9	78	1.050101464	0.508663109
CDR20291_2477	56	56	21	64	-0.437479282	0.683758476
CDR20291_2478	4356	4356	6988	8129	0.893011728	2.94E-05
CDR20291_2479	1712	1712	185	212	-3.014004991	4.21E-26
CDR20291_2480	8184	8184	7788	9582	0.174733707	0.385546716
CDR20291_2481	3495	3495	12507	22749	2.362424663	1.78E-59
CDR20291_2482	802	802	1007	1758	0.820386013	0.000144665
CDR20291_2483	2289	2289	64	141	-4.468892847	3.70E-56
CDR20291_2484	2763	2763	327	249	-3.102506482	7.82E-14
CDR20291_2485	2771	2771	1249	2767	-0.465591545	0.090281806
CDR20291_2486	244	244	292	730	1.048897176	0.022025709
CDR20291_2487	2589	2589	4836	8607	1.407820707	2.18E-20
CDR20291_2488	3303	3303	1962	2948	-0.370749125	0.010221151
CDR20291_2489	3264	3264	720	1631	-1.476935234	5.96E-08
CDR20291_2490	4036	4036	23397	33647	2.88550574	1.66E-146
CDR20291_2491	5041	5041	2345	3347	-0.759625119	7.82E-08
CDR20291_2492	18839	18839	8213	12102	-0.83069461	3.67E-15
CDR20291_2493	765	765	12	98	-3.930867288	2.24E-06
CDR20291_2494	469	469	15	151	-2.652043697	0.006824673
CDR20291_2495	5373	5373	17701	26464	2.097404101	1.74E-94
CDR20291_2496	2306	2306	9535	16114	2.514731404	1.77E-92
CDR20291_2497	3401	3401	3755	5694	0.530200994	3.09E-05

CDR20291_2498	6134	6134	14357	16576	1.433501925	2.46E-12
CDR20291_2499	4833	4833	27223	50372	3.030187578	2.14E-96
CDR20291_2500	1492	1492	321	631	-1.629656387	3.04E-10
CDR20291_2501	3371	3371	8462	12380	1.68988056	2.28E-46
CDR20291_2502	33	33	174	319	2.928533583	6.60E-08
CDR20291_2503	391	391	642	671	0.861290407	0.025817745
CDR20291_2504	1739	1739	1265	1990	-0.045170942	0.814962949
CDR20291_2505	1418	1418	701	1356	-0.443588606	0.077308118
CDR20291_2506	5	5	7	39	2.094160153	0.244854994
CDR20291_2507	13	13	16	52	1.337724749	0.3211110185
CDR20291_2508	1157	1157	47	146	-3.620808939	2.61E-15
CDR20291_2509	1276	1276	1771	3011	0.944648732	5.23E-08
CDR20291_2510	2996	2996	10026	13536	2.049678039	3.57E-45
CDR20291_2511	348	348	828	756	1.321475532	0.001955903
CDR20291_2512	9281	9281	6122	8284	-0.291851365	0.053252389
CDR20291_2513	2272	2272	80	148	-4.283558435	2.49E-73
CDR20291_2514	1219	1219	901	2695	0.517595163	0.231828531
CDR20291_2515	6657	6657	3664	3218	-0.810176436	0.015731559
CDR20291_2516	5420	5420	390	1083	-2.910948499	3.75E-18
CDR20291_2517	2729	2729	11441	13292	2.278224141	1.37E-28
CDR20291_2518	169	169	710	969	2.384626667	4.34E-16
CDR20291_2519	58	58	11	58	-0.8490359	0.496429445
CDR20291_2520	149	149	47	109	-0.937361567	0.150280552
CDR20291_2521	97	97	98	152	0.418402074	0.493362548
CDR20291_2522	17	17	6	12	-0.899376896	0.585381286
CDR20291_2523	789	789	367	468	-0.836685567	0.004561836
CDR20291_2524	1653	1653	592	1416	-0.73079472	0.027002908
CDR20291_2525	13243	13243	10852	15971	0.078958674	0.514918648
CDR20291_2526	44	44	49	46	0.237780195	0.817641513
CDR20291_2527	2118	2118	3536	4620	1.024422882	1.51E-08

CDR20291_2528	2915	2915	2071	2444	-0.273671856	0.265996113
CDR20291_2529	1296	1296	716	982	-0.539342071	0.015900367
CDR20291_2530	345	345	20	66	-3.045439191	1.34E-06
CDR20291_2531	329	329	26	45	-3.172620885	4.50E-11
CDR20291_2532	688	688	21	56	-4.166979479	1.37E-19
CDR20291_2533	2977	2977	4877	3256	0.633096011	0.172776206
CDR20291_2534	594	594	2888	1759	2.163880841	2.12E-05
CDR20291_2535	5228	5228	627	308	-3.259973687	2.26E-09
CDR20291_2536	2283	2283	15259	12419	2.753676429	6.79E-16
CDR20291_2537	5630	5630	27058	22737	2.293907447	1.08E-12
CDR20291_2538	1503	1503	268	237	-2.436888735	5.88E-10
CDR20291_2539	107	107	66	125	-0.14027929	0.840194084
CDR20291_2540	564	564	54	139	-2.561917371	3.26E-08
CDR20291_2541	19	19	19	128	1.824342938	0.16330634
CDR20291_2542	10	10	18	103	2.484252472	0.064656865
CDR20291_2543	20	20	14	106	1.4487987	0.305522003
CDR20291_2544	18887	18887	127	333	-6.375638428	4.18E-119
CDR20291_2545	1441	1441	4	25	-6.686265402	2.04E-31
CDR20291_2546	3899	3899	1224	1648	-1.367263908	2.77E-15
CDR20291_2547	995	995	50	119	-3.55820085	2.93E-21
CDR20291_2548	2137	2137	750	1209	-1.078531397	4.11E-10
CDR20291_2549	3346	3346	661	1236	-1.793396023	4.04E-20
CDR20291_2550	1627	1627	201	660	-1.971095473	1.79E-05
CDR20291_2551	13171	13171	34113	47261	1.697558637	4.18E-44
CDR20291_2552	193	193	702	1348	2.429315967	3.63E-16
CDR20291_2553	221	221	712	1470	2.313067993	2.43E-13
CDR20291_2554	454	454	39	63	-3.106544947	2.22E-14
CDR20291_2555	453	453	20	177	-2.347493414	0.013143216
CDR20291_2556	958	958	70	266	-2.579288296	3.53E-06
CDR20291_2557	330	330	107	112	-1.481878046	0.002572265

CDR20291_2558	1038	1038	39	133	-3.641593626	3.93E-13
CDR20291_2559	564	564	66	120	-2.568287643	1.36E-12
CDR20291_2560	6582	6582	1765	2518	-1.554883085	6.24E-30
CDR20291_2561	10650	10650	3195	5486	-1.25776148	9.55E-23
CDR20291_2562	2077	2077	542	1049	-1.364398327	2.82E-09
CDR20291_2563	2727	2727	1542	2296	-0.448323093	0.003818798
CDR20291_2564	60	60	299	476	2.739770263	3.82E-11
CDR20291_2565	271	271	124	156	-0.869898953	0.057023125
CDR20291_2566	126	126	648	676	2.507598983	9.05E-10
CDR20291_2567	318	318	578	1508	1.689455772	3.36E-05
CDR20291_2568	1026	1026	1265	1445	0.501316708	0.083929578
CDR20291_2569	136	136	39	109	-0.906694916	0.221213613
CDR20291_2570	1238	1238	146	415	-2.174581456	2.41E-07
CDR20291_2571	9	9	81	151	3.71306132	8.36E-06
CDR20291_2572	3433	3433	3441	6517	0.558417	0.002484772
CDR20291_2573	6182	6182	33	141	-6.220296388	5.62E-42
CDR20291_2574	397	397	24	36	-3.670085376	1.25E-15
CDR20291_2575	1117	1117	632	950	-0.440745122	0.04177347
CDR20291_2576	239	239	57	144	-1.264966327	0.028760605
CDR20291_2577	18231	18231	95056	122478	2.658702641	2.31E-72
CDR20291_2578	13108	13108	42357	42707	1.818906443	3.42E-13
CDR20291_2579	13492	13492	13247	20345	0.370103028	0.00018146
CDR20291_2580	16566	16566	14572	21772	0.191874865	0.069729191
CDR20291_2581	2456	2456	1214	2431	-0.416243709	0.077471847
CDR20291_2582	1087	1087	4260	4384	2.108563454	4.54E-14
CDR20291_2583	5402	5402	17268	20751	1.908070259	9.69E-25
CDR20291_2584	1198	1198	68	449	-2.339154502	0.001568966
CDR20291_2585	867	867	437	539	-0.74227508	0.01228192
CDR20291_2586	202	202	42	72	-1.78629555	0.000917653
CDR20291_2587	381	381	47	82	-2.524930372	2.93E-09

CDR20291_2588	9658	9658	13480	20529	0.871522165	1.31E-18
CDR20291_2589	3471	3471	5102	7188	0.891521004	1.72E-10
CDR20291_2590	2602	2602	854	1481	-1.120008821	2.48E-10
CDR20291_2591	1895	1895	2037	2501	0.348720598	0.1348148
CDR20291_2592	11160	11160	40945	67900	2.327995382	3.81E-118
CDR20291_2593	1935	1935	1801	3987	0.579600592	0.03283818
CDR20291_2594	1913	1913	815	850	-1.086575887	0.000434619
CDR20291_2595	446	446	97	251	-1.377366753	0.00460905
CDR20291_2596	326	326	145	196	-0.862695297	0.033174861
CDR20291_2597	776	776	319	462	-0.928314482	0.000468273
CDR20291_2598	255	255	141	144	-0.724689065	0.177830882
CDR20291_2599	942	942	456	599	-0.759362642	0.004401768
CDR20291_2600	3155	3155	3768	4907	0.539007083	0.002805245
CDR20291_2601	8807	8807	32371	41139	2.14528755	3.54E-42
CDR20291_2602	24	24	25	104	1.346725324	0.244854994
CDR20291_2603	103	103	15	89	-1.098277649	0.320332945
CDR20291_2604	1982	1982	2538	2922	0.561136232	0.024579348
CDR20291_2604;CDR20291_2605	41	41	0	0	-7.713163822	0.001444066
CDR20291_2605	9257	9257	11962	11952	0.491341699	0.075121067
CDR20291_2606	5054	5054	3148	2647	-0.65410912	0.072521573
CDR20291_2607	1978	1978	3611	1776	0.670526911	0.264022906
CDR20291_2608	3958	3958	62764	24144	3.712187101	4.36E-05
CDR20291_2609	6257	6257	31321	28402	2.392118872	2.56E-16
CDR20291_2610	49752	49752	621	506	-6.313770694	2.55E-86
CDR20291_2610;CDR20291_2611	0	0	0	1	1.443698351	0.810176602
CDR20291_2611	3882	3882	19	57	-6.676963812	2.48E-89
CDR20291_2612	6568	6568	6911	9732	0.408970745	0.002246985
CDR20291_2613	2322	2322	15	66	-5.900050973	1.87E-32
CDR20291_2613;CDR20291_2614	118	118	0	0	-9.238271803	4.42E-07
CDR20291_2614	9404	9404	1350	1541	-2.602016016	2.74E-33

CDR20291_2615	1887	1887	7794	12076	2.449146909	1.65E-103
CDR20291_2616	1127	1127	2435	3130	1.385635478	1.19E-11
CDR20291_2616; CDR20291_2617	0	0	0	2	2.244508613	0.701490268
CDR20291_2617	588	588	559	649	0.135593749	0.715856429
CDR20291_2618	441	441	14	47	-3.889517053	7.24E-11
CDR20291_2619	512	512	44	48	-3.380319261	2.24E-14
CDR20291_2620	797	797	41	110	-3.416621536	8.86E-15
CDR20291_2621	2046	2046	1054	1349	-0.686203925	0.00175676
CDR20291_2622	822	822	752	1339	0.378931738	0.119289304
CDR20291_2623	2695	2695	5326	8695	1.423927155	5.41E-31
CDR20291_2624	3957	3957	2824	4310	-0.09471151	0.509943487
CDR20291_2625	4503	4503	10637	19428	1.766434741	8.00E-33
CDR20291_2626	2594	2594	3780	6141	0.980788936	5.10E-14
CDR20291_2627	1113	1113	1608	2776	1.014149131	3.32E-08
CDR20291_2628	311	311	1105	1775	2.258321751	4.07E-25
CDR20291_2629	22	22	13	122	1.465345422	0.312454841
CDR20291_2629; CDR20291_2630	0	0	1	0	1.76780945	0.770414782
CDR20291_2630	87	87	48	132	0.020799186	0.980844365
CDR20291_2631	78	78	14	51	-1.321355361	0.190046513
CDR20291_2632	5	5	7	34	1.941892065	0.284390474
CDR20291_2633	132	132	48	245	0.04793217	0.963521152
CDR20291_2634	253	253	7	43	-3.440215739	0.000126416
CDR20291_2635	13935	13935	10997	18817	0.134650839	0.301594026
CDR20291_2636	12224	12224	17769	21999	0.79006407	6.26E-06
CDR20291_2637	605	605	2542	3685	2.426474678	1.16E-46
CDR20291_2638	414	414	15	111	-2.845154558	0.001422098
CDR20291_2639	89	89	3	58	-1.726834226	0.260113407
CDR20291_2640	4725	4725	878	1386	-2.011426997	3.90E-48
CDR20291_2641	4992	4992	8211	10251	0.973582721	6.27E-08
CDR20291_2642	590	590	3	73	-4.142815274	0.000328946

CDR20291_2643	833	833	166	542	-1.286750338	0.011793284
CDR20291_2644	34	34	4	11	-2.197231357	0.1032314
CDR20291_2645	7258	7258	2058	2614	-1.552251067	2.65E-18
CDR20291_2646	7231	7231	1218	1779	-2.209469238	5.46E-64
CDR20291_2647	2104	2104	975	1478	-0.722691736	1.87E-05
CDR20291_2648	5557	5557	2224	3252	-0.959779245	3.57E-13
CDR20291_2649	4835	4835	8605	11885	1.154020576	3.37E-17
CDR20291_2650	727	727	244	594	-0.807892022	0.044115915
CDR20291_2651	1615	1615	1340	2258	0.195787038	0.302133626
CDR20291_2652	66687	66687	125780	132610	1.06787132	4.33E-06
CDR20291_2653	3050	3050	6692	12621	1.685169175	1.20E-23
CDR20291_2654	151	151	15	125	-1.250692354	0.272064327
CDR20291_2655	8007	8007	51638	76124	3.056606482	3.60E-213
CDR20291_2656	1855	1855	3593	4457	1.205079151	2.95E-09
CDR20291_2657	101	101	37	175	-0.023971879	0.981808074
CDR20291_2658	26	26	19	86	0.925808652	0.463168012
CDR20291_2659	20	20	19	105	1.523253167	0.236897256
CDR20291_2659;CDR20291_2660	1	1	0	4	0.789033122	0.883442606
CDR20291_2660	9	9	10	60	1.844054919	0.242369899
CDR20291_2661	15	15	49	64	1.991747688	0.043112122
CDR20291_2662	9	9	51	57	2.687342365	0.012271824
CDR20291_2663	79	79	9	81	-0.95728204	0.476950009
CDR20291_2664	94	94	8	48	-1.854845435	0.100779444
CDR20291_2665	18	18	7	55	0.648185772	0.701490268
CDR20291_2666	32	32	7	44	-0.442872113	0.778823666
CDR20291_2667	126	126	9	66	-1.875328223	0.094679228
CDR20291_2668	154	154	51	152	-0.639620676	0.385113268
CDR20291_2669	42	42	20	148	0.864995331	0.504930049
CDR20291_2670	34	34	75	81	1.305242594	0.117857578
CDR20291_2671	59	59	14	53	-0.880640939	0.429876057

CDR20291_2672	1704	1704	13557	18332	3.300185657	1.31E-117
CDR20291_2673	3242	3242	7065	12305	1.613556524	2.44E-32
CDR20291_2674	8323	8323	26482	53338	2.273904811	7.75E-37
CDR20291_2675	5299	5299	3717	5213	-0.179003069	0.240627349
CDR20291_2676	1536	1536	1014	2088	0.024026269	0.936367934
CDR20291_2677	3725	3725	1463	2584	-0.84725204	3.00E-07
CDR20291_2678	18859	18859	84209	108510	2.435085652	8.73E-61
CDR20291_2679	4438	4438	8401	13751	1.363708745	9.06E-34
CDR20291_2680	112749	112749	842053	1386238	3.347981803	7.99E-284
CDR20291_2681	170	170	69	223	-0.269325549	0.726999519
CDR20291_2682	91	91	136	230	1.047612694	0.045258954
CDR20291_2683	14709	14709	52183	75816	2.184211629	1.44E-101
CDR20291_2684	19262	19262	60865	85887	1.997022635	7.33E-71
CDR20291_2685	14559	14559	10775	13096	-0.195625285	0.326059546
CDR20291_2686	45672	45672	27916	39523	-0.370821502	0.001391742
CDR20291_2687	4069	4069	11637	16714	1.865217612	1.96E-55
CDR20291_2688	4089	4089	2152	2489	-0.719038212	0.002061947
CDR20291_2689	679	679	2	79	-4.267247199	0.000579106
CDR20291_2690	1647	1647	4523	4869	1.621701885	2.97E-10
CDR20291_2691	806	806	162	360	-1.625168112	5.87E-06
CDR20291_2692	2238	2238	1233	2359	-0.296413725	0.185681401
CDR20291_2693	1128	1128	113	258	-2.604467621	3.70E-14
CDR20291_2694	71	71	22	89	-0.429545322	0.693616578
CDR20291_2695	170	170	19	50	-2.315982653	0.00088166
CDR20291_2695; CDR20291_2696	0	0	0	1	1.443698351	0.810176602
CDR20291_2696	33	33	12	50	-0.166341912	0.903805926
CDR20291_2697	1805	1805	1238	877	-0.597648219	0.218243146
CDR20291_2698	827	827	1093	1758	0.832597813	2.17E-05
CDR20291_2699	4248	4248	5098	8089	0.683334838	4.47E-09
CDR20291_2700	2430	2430	3615	4889	0.880997763	1.03E-07

CDR20291_2701	961	961	296	722	-0.930248328	0.01339866
CDR20291_2702	129	129	11	67	-1.837128929	0.080334199
CDR20291_2703	2035	2035	748	790	-1.292388625	1.70E-05
CDR20291_2704	1007	1007	678	1668	0.204323807	0.603087335
CDR20291_2705	996	996	244	401	-1.582404378	1.88E-10
CDR20291_2706	10735	10735	7778	10874	-0.134258873	0.340751859
CDR20291_2707	6521	6521	6144	9873	0.343565408	0.002563317
CDR20291_2708	1598	1598	733	828	-0.932732623	0.001087973
CDR20291_2709	2279	2279	757	994	-1.302872054	2.86E-10
CDR20291_2710	227	227	721	1580	2.342207172	2.52E-12
CDR20291_2711	318	318	14	56	-3.245130642	5.18E-06
CDR20291_2712	1122	1122	33	133	-3.8248341	5.59E-12
CDR20291_2713	6361	6361	2324	3877	-0.995123154	1.70E-14
CDR20291_2714	711	711	47	240	-2.409046848	0.000556978
CDR20291_2715	4064	4064	7144	11547	1.247582215	2.00E-28
CDR20291_2715; CDR20291_2716	4183	4183	9685	14260	1.577763418	4.66E-44
CDR20291_2717	1053	1053	516	536	-0.88749079	0.011307166
CDR20291_2718	979	979	1191	2277	0.845710288	0.000289575
CDR20291_2719	1419	1419	2022	3798	1.059591483	1.22E-07
CDR20291_2720	1804	1804	337	618	-1.888724803	3.37E-17
CDR20291_2721	1321	1321	3244	4971	1.691032389	8.57E-34
CDR20291_2722	5651	5651	14202	15757	1.511989429	8.04E-12
CDR20291_2723	6035	6035	1486	2330	-1.610352576	4.71E-38
CDR20291_2724	4126	4126	2268	3300	-0.505381296	0.000376265
CDR20291_2725	735	735	2015	2582	1.727069719	2.31E-15
CDR20291_2726	1589	1589	737	1361	-0.572400237	0.01071156
CDR20291_2727	716	716	771	982	0.374397179	0.183272623
CDR20291_2728	526	526	596	878	0.546847112	0.034095894
CDR20291_2729	707	707	95	141	-2.52478192	7.90E-16
CDR20291_2730	1128	1128	581	1133	-0.377779199	0.167033211

CDR20291_2731	4000	4000	5908	10407	1.061111947	9.67E-14
CDR20291_2732	1184	1184	1407	1797	0.518675351	0.025572626
CDR20291_2733	2768	2768	7938	10322	1.802013173	5.41E-28
CDR20291_2734	4925	4925	12267	21157	1.798812799	1.40E-47
CDR20291_2735	1250	1250	5398	7926	2.475061642	4.92E-77
CDR20291_2736	2137	2137	242	611	-2.342094657	3.95E-12
CDR20291_2737	4018	4018	2215	2646	-0.632057896	0.004172495
CDR20291_2738	768	768	877	822	0.276394132	0.516840151
CDR20291_2739	3784	3784	13946	16749	2.113001924	4.48E-29
CDR20291_2740	6260	6260	17158	24899	1.811088714	8.85E-61
CDR20291_2741	30145	30145	39623	56604	0.740029544	1.56E-11
CDR20291_2742	360	360	448	687	0.710857056	0.014334402
CDR20291_2743	3358	3358	3176	6454	0.531323693	0.014213399
CDR20291_2744	5126	5126	3625	6283	-0.013624042	0.936151727
CDR20291_2745	1632	1632	1852	2349	0.447771322	0.042530217
CDR20291_2746	13052	13052	31833	48775	1.681126625	2.90E-76
CDR20291_2747	6345	6345	17440	28572	1.90237697	1.21E-75
CDR20291_2748	3882	3882	14778	20732	2.261655739	3.78E-73
CDR20291_2749	13281	13281	13173	20421	0.391481929	6.60E-05
CDR20291_2750	1497	1497	422	915	-1.159647035	8.07E-05
CDR20291_2751	1628	1628	1907	2651	0.554603932	0.002137082
CDR20291_2752	232	232	9	65	-2.771223949	0.004621418
CDR20291_2753	1072	1072	22	194	-3.456267932	3.33E-05
CDR20291_2754	5439	5439	3236	3988	-0.502116849	0.011853547
CDR20291_2755	1028	1028	242	757	-1.088639432	0.022146775
CDR20291_2756	622	622	800	996	0.616034007	0.030778083
CDR20291_2757	3669	3669	1805	2203	-0.782891548	0.000246548
CDR20291_2758	119	119	37	79	-1.028670951	0.138629853
CDR20291_2759	1197	1197	912	1161	-0.12504872	0.650212519
CDR20291_2760	1565	1565	282	504	-1.960753532	8.21E-18

CDR20291_2760;CDR20291_2761	0	0	0	2	2.244508613	0.701490268
CDR20291_2761	2329	2329	627	886	-1.556310717	3.41E-17
CDR20291_2762	5482	5482	2956	3805	-0.615998675	0.000598782
CDR20291_2763	5036	5036	2887	4859	-0.338641553	0.014918077
CDR20291_2764	1240	1240	2477	2966	1.227043713	1.36E-07
CDR20291_2765	4627	4627	1277	2124	-1.401820036	4.47E-23
CDR20291_2766	291	291	603	949	1.465388447	4.13E-08
CDR20291_2767	312	312	110	139	-1.243529223	0.004613427
CDR20291_2768	768	768	544	1663	0.477283641	0.317546444
CDR20291_2769	3683	3683	2598	3852	-0.132208015	0.373239653
CDR20291_2770	1073	1073	90	313	-2.470470663	1.42E-06
CDR20291_2771	323	323	11	73	-3.058734188	0.000573378
CDR20291_2772	1012	1012	1226	1725	0.611331509	0.002700611
CDR20291_2773	1451	1451	435	659	-1.351578056	4.32E-11
CDR20291_2774	1272	1272	1020	1226	-0.087972991	0.770833795
CDR20291_2775	2581	2581	1811	2106	-0.300834293	0.242023219
CDR20291_2776	400	400	523	998	0.948538852	0.001655317
CDR20291_2777	1204	1204	1440	2504	0.747129315	8.26E-05
CDR20291_2778	955	955	1094	1777	0.633605785	0.001116296
CDR20291_2779	2158	2158	4595	6543	1.433509009	3.32E-24
CDR20291_2780	37	37	276	469	3.370405818	1.06E-13
CDR20291_2781	7586	7586	16358	21452	1.396363488	1.21E-20
CDR20291_2782	3803	3803	3588	5347	0.290983087	0.028793681
CDR20291_2783	6983	6983	17513	27509	1.739307417	1.21E-73
CDR20291_2784	15316	15316	17732	28999	0.65367684	1.19E-10
CDR20291_2785	484	484	1277	1711	1.701145284	1.50E-13
CDR20291_2786	939	939	3111	4168	2.029842596	5.35E-29
CDR20291_2787	490	490	203	328	-0.837407253	0.009182296
CDR20291_2788	1061	1061	1242	1648	0.522073369	0.019839611
CDR20291_2789	1959	1959	1267	1862	-0.263816892	0.138697746

CDR20291_2790	374	374	145	406	-0.472877186	0.390087986
CDR20291_2790; CDR20291_2791	23	23	3	2	-3.053951184	0.075965593
CDR20291_2791	390	390	57	248	-1.43903597	0.044233012
CDR20291_2792	556	556	209	586	-0.516759188	0.300182694
CDR20291_2793	101	101	51	66	-0.709212519	0.316664212
CDR20291_2794	7352	7352	19962	32519	1.880518455	3.10E-78
CDR20291_2795	88	88	139	414	1.610696135	0.011175565
CDR20291_2796	127	127	6	17	-3.477994265	4.25E-05
CDR20291_2797	6938	6938	34921	54729	2.74265517	2.88E-200
CDR20291_2798	2037	2037	1315	2330	-0.127938424	0.535558334
CDR20291_2799	6909	6909	3140	4296	-0.822102381	2.99E-08
CDR20291_2800	2081	2081	198	615	-2.401316763	1.21E-08
CDR20291_2801	490	490	273	303	-0.663842221	0.097993783
CDR20291_2802	1001	1001	112	383	-2.072572886	5.19E-05
CDR20291_2803	907	907	346	476	-1.07201978	4.04E-05
CDR20291_2804	2732	2732	1614	2716	-0.295245143	0.071153545
CDR20291_2805	1623	1623	1331	2627	0.302293624	0.215353634
CDR20291_2806	4368	4368	2575	3852	-0.38482207	0.004033351
CDR20291_2807	6146	6146	16529	22469	1.738985439	6.88E-38
CDR20291_2808	1586	1586	1243	1862	0.02694392	0.894870619
CDR20291_2809	3917	3917	2344	1842	-0.745525186	0.061408154
CDR20291_2810	326	326	54	78	-2.242506828	4.15E-07
CDR20291_2810; CDR20291_2811	0	0	1	0	1.76780945	0.770414782
CDR20291_2811	4524	4524	942	1389	-1.896869852	1.09E-39
CDR20291_2812	1144	1144	365	492	-1.343863466	6.08E-08
CDR20291_2813	4957	4957	2668	3568	-0.593462089	0.000359719
CDR20291_2814	2850	2850	186	248	-3.643858725	4.87E-69
CDR20291_2815	1257	1257	568	646	-0.950508755	0.00146479
CDR20291_2816	2649	2649	238	322	-3.171618936	1.35E-54
CDR20291_2817	761	761	50	59	-3.718948452	8.55E-24

CDR20291_2818	1205	1205	224	469	-1.788228945	2.59E-09
CDR20291_2819	1991	1991	2265	3883	0.663993237	4.09E-05
CDR20291_2820	720	720	128	153	-2.268737384	6.57E-11
CDR20291_2821	445	445	53	90	-2.596803122	4.96E-11
CDR20291_2822	1800	1800	1018	1485	-0.462684039	0.011607022
CDR20291_2823	861	861	11	39	-5.13471913	2.28E-23
CDR20291_2824	1475	1475	1405	2101	0.30714698	0.085431259
CDR20291_2825	3416	3416	885	1287	-1.591423171	3.84E-24
CDR20291_2826	1500	1500	45	232	-3.536657709	1.51E-08
CDR20291_2827	1136	1136	287	306	-1.829630108	6.03E-08
CDR20291_2828	1156	1156	686	1361	-0.159758789	0.586462188
CDR20291_2829	1535	1535	2018	2430	0.626879784	0.008632615
CDR20291_2830	8164	8164	7307	10897	0.215524805	0.062326403
CDR20291_2831	1528	1528	302	884	-1.40425335	0.000781922
CDR20291_2832	10829	10829	26588	31698	1.522472729	2.40E-16
CDR20291_2833	11577	11577	19364	28383	1.105557227	4.42E-26
CDR20291_2833; CDR20291_2834	5715	5715	13283	21011	1.634646727	2.15E-60
CDR20291_2835	2565	2565	8108	9600	1.882520819	1.97E-20
CDR20291_2836	1916	1916	608	752	-1.408079866	4.25E-09
CDR20291_2837	1263	1263	1188	971	-0.074248177	0.878954643
CDR20291_2838	1629	1629	241	184	-2.780079059	4.50E-10
CDR20291_2839	509	509	20	8	-4.975243934	9.28E-11
CDR20291_2840	531	531	183	93	-1.727826748	0.015097793
CDR20291_2841	9814	9814	5608	3795	-0.880494536	0.040356275
CDR20291_2842	279	279	347	319	0.388229497	0.467630529
CDR20291_2843	889	889	703	1184	0.126160288	0.613388751
CDR20291_2844	1059	1059	78	134	-3.280319714	5.29E-31
CDR20291_2845	5412	5412	4438	7376	0.168265974	0.210109136
CDR20291_2846	5191	5191	8680	14425	1.196028174	4.16E-25
CDR20291_2847	715	715	643	554	-0.113044817	0.821466941

CDR20291_2848	5153	5153	522	773	-2.93377458	1.11E-89
CDR20291_2849	2943	2943	1805	3522	-0.126161319	0.589929982
CDR20291_2850	4098	4098	9282	13907	1.558373972	8.14E-46
CDR20291_2851	1435	1435	2530	4536	1.330308068	3.57E-14
CDR20291_2852	3482	3482	8155	14698	1.743788147	1.57E-32
CDR20291_2853	2631	2631	1369	2066	-0.558700612	0.000314698
CDR20291_2854	879	879	2666	3581	1.90407992	1.96E-24
CDR20291_2855	2451	2451	8655	14630	2.287230385	1.89E-75
CDR20291_2856	2652	2652	174	340	-3.344901167	9.12E-48
CDR20291_2857	3325	3325	951	912	-1.708753157	7.27E-08
CDR20291_2858	2654	2654	1543	2179	-0.445395962	0.008777088
CDR20291_2859	1108	1108	251	507	-1.532919375	1.47E-07
CDR20291_2860	470	470	453	635	0.278613079	0.364201308
CDR20291_2861	1702	1702	2813	3343	0.948981085	3.70E-05
CDR20291_2862	592	592	41	65	-3.431638803	1.59E-20
CDR20291_2863	409	409	9	87	-3.236697295	0.000889668
CDR20291_2864	498	498	247	224	-0.946569324	0.05022068
CDR20291_2865	1110	1110	95	326	-2.45483391	1.13E-06
CDR20291_2866	1131	1131	5268	7985	2.606751408	2.16E-91
CDR20291_2867	915	915	553	790	-0.381690202	0.118407487
CDR20291_2868	775	775	418	598	-0.544980794	0.037495317
CDR20291_2869	5634	5634	8036	8564	0.670802104	0.007506558
CDR20291_2869; CDR20291_2870	0	0	0	2	2.244508613	0.701490268
CDR20291_2870	2159	2159	1474	2268	-0.152822892	0.367800707
CDR20291_2871	7663	7663	19971	31428	1.796066272	1.88E-80
CDR20291_2872	1924	1924	6547	7767	1.990036577	7.83E-22
CDR20291_2873	3593	3593	1012	1197	-1.607870798	1.77E-12
CDR20291_2874	1094	1094	70	171	-3.189399689	1.55E-17
CDR20291_2875	3096	3096	1170	1421	-1.166906306	1.47E-07
CDR20291_2876	6829	6829	25577	41741	2.345886698	2.59E-123

CDR20291_2877	4620	4620	823	1173	-2.146137609	6.49E-45
CDR20291_2878	1729	1729	3534	4819	1.344882867	4.05E-16
CDR20291_2879	8998	8998	10595	12805	0.470756631	0.015097793
CDR20291_2880	1633	1633	1301	1721	-0.035178684	0.884849997
CDR20291_2881	1241	1241	555	809	-0.802065275	0.000186671
CDR20291_2882	2163	2163	229	695	-2.269751875	3.16E-08
CDR20291_2883	565	565	66	274	-1.811762086	0.005162516
CDR20291_2884	674	674	482	422	-0.435803408	0.359130037
CDR20291_2885	1429	1429	301	253	-2.222090034	1.01E-07
CDR20291_2886	2127	2127	2721	4707	0.840095559	1.02E-07
CDR20291_2887	4072	4072	2080	2881	-0.645333263	4.75E-05
CDR20291_2887; CDR20291_2888	0	0	0	1	1.443698351	0.810176602
CDR20291_2888	2157	2157	4204	5487	1.247108238	1.67E-12
CDR20291_2889	10586	10586	7033	12740	-0.069959293	0.681124185
CDR20291_2890	1012	1012	27	115	-3.906063969	2.07E-11
CDR20291_2891	3123	3123	1815	1886	-0.639870955	0.027492285
CDR20291_2892	268	268	9	79	-2.746130156	0.007004053
CDR20291_2893	1127	1127	1044	2315	0.574467022	0.054964246
CDR20291_2894	378	378	431	658	0.58143728	0.048244522
CDR20291_2895	751	751	118	498	-1.368794327	0.028516621
CDR20291_2896	3596	3596	9001	12229	1.634945177	5.13E-30
CDR20291_2897	1207	1207	416	416	-1.417515074	7.15E-05
CDR20291_2898	1930	1930	864	1114	-0.884134903	5.93E-05
CDR20291_2899	1413	1413	1517	1860	0.345910311	0.165876144
CDR20291_2900	3298	3298	3921	8104	0.875142582	5.18E-05
CDR20291_2901	777	777	838	1191	0.450485347	0.051331257
CDR20291_2902	727	727	988	1074	0.611764716	0.063470675
CDR20291_2903	2186	2186	1163	2720	-0.179988162	0.586901712
CDR20291_2903; CDR20291_2904	0	0	1	0	1.76780945	0.770414782
CDR20291_2904	1359	1359	220	623	-1.722394936	2.96E-05

CDR20291_2905	3428	3428	1755	2370	-0.659318986	0.000157982
CDR20291_2906	2356	2356	917	774	-1.331617695	0.000556978
CDR20291_2907	2378	2378	772	1355	-1.126481658	1.28E-09
CDR20291_2908	8047	8047	3138	4706	-0.979237952	3.36E-17
CDR20291_2909	9185	9185	4747	7419	-0.54310565	5.15E-07
CDR20291_2910	1153	1153	1118	2011	0.470591829	0.028719368
CDR20291_2911	5890	5890	3764	6659	-0.144103782	0.370807522
CDR20291_2912	4144	4144	2205	3306	-0.531075761	8.49E-05
CDR20291_2913	241	241	286	482	0.712299187	0.046399579
CDR20291_2914	1983	1983	795	1121	-0.982997142	2.03E-07
CDR20291_2915	1555	1555	377	665	-1.543307364	2.10E-12
CDR20291_2916	1059	1059	118	299	-2.360235677	1.22E-09
CDR20291_2917	1531	1531	2101	3368	0.88435968	7.93E-09
CDR20291_2918	1286	1286	254	421	-1.886556411	1.81E-16
CDR20291_2919	204	204	103	314	-0.011570992	0.986915252
CDR20291_2920	1340	1340	2752	2694	1.147861508	0.000283241
CDR20291_2921	165	165	80	138	-0.560835026	0.305291947
CDR20291_2922	1415	1415	753	952	-0.647560794	0.008712007
CDR20291_2923	1294	1294	996	1136	-0.179612356	0.569157339
CDR20291_2924	2577	2577	1292	1662	-0.721928078	0.000450438
CDR20291_2925	1370	1370	611	1636	-0.313784169	0.442007832
CDR20291_2926	3357	3357	2637	3946	0.0295517	0.852525197
CDR20291_2927	3493	3493	5503	6768	0.901711242	3.57E-06
CDR20291_2927;CDR20291_2928	31	31	42	232	2.032960469	0.052401773
CDR20291_2928	4148	4148	25985	41681	3.075269835	1.09E-221
CDR20291_2929	5019	5019	58033	89430	3.930392273	0
CDR20291_2930	535	535	34	153	-2.600839366	0.000137731
CDR20291_2931	6597	6597	12004	20939	1.354470031	3.37E-26
CDR20291_2932	1175	1175	299	797	-1.126308151	0.004666203
CDR20291_2933	3423	3423	1512	1547	-1.044800888	0.000321178

CDR20291_2934	1249	1249	3069	4826	1.710619382	9.84E-34
CDR20291_2935	1683	1683	886	2730	0.056366626	0.905630946
CDR20291_2936	482	482	608	698	0.536844657	0.123387433
CDR20291_2937	5328	5328	10030	16167	1.344350087	7.34E-37
CDR20291_2938	14062	14062	43616	61799	1.973017296	1.56E-69
CDR20291_2939	823	823	52	242	-2.575433202	6.89E-05
CDR20291_2940	2982	2982	1158	842	-1.406618861	0.001186449
CDR20291_2941	3758	3758	15991	19497	2.32989419	6.01E-38
CDR20291_2942	2502	2502	3629	4056	0.72302327	0.003645771
CDR20291_2943	888	888	797	1126	0.181286392	0.459926874
CDR20291_2944	1237	1237	586	709	-0.843818909	0.002103757
CDR20291_2945	8837	8837	4297	6730	-0.629518369	7.97E-09
CDR20291_2946	935	935	527	1016	-0.256943998	0.373239653
CDR20291_2947	454	454	201	307	-0.78314073	0.017922366
CDR20291_2948	1284	1284	583	624	-0.97993377	0.002398754
CDR20291_2949	7087	7087	15142	24701	1.535813374	3.62E-50
CDR20291_2949; CDR20291_2950	5730	5730	14658	22522	1.751945164	1.55E-70
CDR20291_2951	431	431	550	1146	0.984835914	0.002425939
CDR20291_2952	1260	1260	582	1028	-0.612892068	0.006740898
CDR20291_2953	311	311	369	650	0.745808438	0.021034453
CDR20291_2954	3899	3899	2242	4491	-0.198120946	0.384115123
CDR20291_2955	6390	6390	6991	9593	0.447573567	0.001886181
CDR20291_2956	1403	1403	2235	3483	1.078824727	8.78E-13
CDR20291_2957	1149	1149	391	428	-1.383443887	1.91E-05
CDR20291_2958	923	923	2125	2104	1.318909928	4.59E-05
CDR20291_2959	867	867	751	386	-0.390672282	0.576294384
CDR20291_2960	611	611	2988	1109	2.004535012	0.003695611
CDR20291_2961	3935	3935	37202	12298	2.925271519	0.003135052
CDR20291_2962	1375	1375	326	327	-1.956351737	1.90E-08
CDR20291_2962; CDR20291_2963	0	0	1	1	2.55848677	0.661045216

CDR20291_2963	2314	2314	2080	1679	-0.145497036	0.748132579
CDR20291_2964	925	925	344	504	-1.064682992	1.61E-05
CDR20291_2965	1339	1339	248	398	-2.003708122	3.98E-19
CDR20291_2966	242	242	9	98	-2.33373632	0.036003239
CDR20291_2967	4547	4547	135	561	-3.787930236	7.09E-15
CDR20291_2968	2184	2184	842	1048	-1.122736748	8.75E-07
CDR20291_2969	15045	15045	9573	15149	-0.234023903	0.022428718
CDR20291_2970	1228	1228	495	549	-1.13077679	0.000285288
CDR20291_2971	1229	1229	849	1771	0.100258645	0.749592523
CDR20291_2972	1202	1202	3371	3657	1.65646392	3.74E-10
CDR20291_2973	3622	3622	704	1476	-1.724443697	3.31E-13
CDR20291_2974	1989	1989	1998	2029	0.136567268	0.692621362
CDR20291_2975	1768	1768	447	876	-1.399793268	1.01E-08
CDR20291_2976	573	573	98	195	-1.949108304	1.05E-07
CDR20291_2977	5346	5346	5401	6962	0.291007865	0.105444612
CDR20291_2978	1647	1647	686	1471	-0.60643247	0.032763458
CDR20291_2979	270	270	945	1872	2.398724549	8.21E-18
CDR20291_2980	7023	7023	3462	5569	-0.590163717	5.02E-07
CDR20291_2981	7915	7915	3055	6283	-0.751825421	0.000308935
CDR20291_2982	2432	2432	778	1196	-1.247219652	3.73E-14
CDR20291_2983	4159	4159	15551	28202	2.423423851	1.19E-65
CDR20291_2984	2036	2036	5340	9584	1.903940456	7.67E-35
CDR20291_2985	2224	2224	270	714	-2.200490335	5.02E-10
CDR20291_2986	15363	15363	5076	6107	-1.36574216	3.56E-13
CDR20291_2987	671	671	1185	1559	1.109716886	2.39E-06
CDR20291_2988	2515	2515	439	840	-1.953142786	3.83E-19
CDR20291_2989	5218	5218	3253	4406	-0.37286395	0.020872098
CDR20291_2990	10812	10812	50994	66902	2.525842087	1.96E-70
CDR20291_2991	48199	48199	85497	116270	1.138958346	2.53E-19
CDR20291_2992	729	729	666	1620	0.634598266	0.082992454

CDR20291_2993	696	696	36	98	-3.39476035	1.87E-13
CDR20291_2994	9788	9788	3059	5282	-1.194481234	1.12E-19
CDR20291_2995	2019	2019	293	425	-2.430075812	5.02E-34
CDR20291_2996	3498	3498	988	1941	-1.238790669	4.00E-09
CDR20291_2997	3421	3421	2843	3892	0.049040132	0.797719161
CDR20291_2997; CDR20291_2998	2	2	0	0	-3.355572187	0.553241012
CDR20291_2998	2325	2325	2018	2451	0.03326574	0.899106612
CDR20291_2999	910	910	37	150	-3.353668772	7.60E-09
CDR20291_3000	1371	1371	555	1009	-0.780725609	0.000683269
CDR20291_3001	850	850	9	45	-5.046702684	9.50E-16
CDR20291_3002	311	311	19	23	-3.808971175	1.70E-12
CDR20291_3003	68	68	6	13	-2.826260549	0.005226391
CDR20291_3004	298	298	9	61	-3.204970335	0.000403773
CDR20291_3005	35	35	6	26	-1.20415574	0.385713511
CDR20291_3006	11	11	15	60	1.695124981	0.223639006
CDR20291_3006; CDR20291_3007	29	29	0	0	-7.213583588	0.008211421
CDR20291_3007	3388	3388	2421	2688	-0.302523782	0.258720154
CDR20291_3008	4888	4888	6474	6794	0.554864014	0.03530478
CDR20291_3009	1838	1838	1066	822	-0.800405556	0.069729191
CDR20291_3010	7198	7198	29646	17793	1.919013238	1.69E-05
CDR20291_3011	53	53	46	28	-0.329490369	0.783643758
CDR20291_3012	1152	1152	5016	2888	1.982568492	8.09E-05
CDR20291_3013	923	923	208	178	-2.116504587	2.04E-06
CDR20291_3014	770	770	475	336	-0.752445008	0.16905395
CDR20291_3015	3687	3687	7562	5912	1.029574542	0.0063804
CDR20291_3016	266	266	315	573	0.768033662	0.029114161
CDR20291_3017	518	518	99	108	-2.22143938	1.22E-07
CDR20291_3018	8197	8197	2996	5016	-0.991915973	1.53E-15
CDR20291_3019	749	749	318	299	-1.151127293	0.006549603
CDR20291_3020	149	149	40	102	-1.085510117	0.113163892

CDR20291_3021	1690	1690	5246	8406	2.061572183	7.11E-62
CDR20291_3022	203	203	22	57	-2.374853131	0.000251428
CDR20291_3023	1296	1296	13	66	-5.115311362	1.48E-17
CDR20291_3024	7	7	4	17	0.508958401	0.810176602
CDR20291_3025	1847	1847	4837	6453	1.68785678	1.96E-24
CDR20291_3026	139	139	108	393	0.783666967	0.285143769
CDR20291_3027	45	45	40	165	1.108251708	0.265414958
CDR20291_3028	13	13	20	100	2.107068037	0.100015752
CDR20291_3029	57	57	20	144	0.392211078	0.768559894
CDR20291_3030	21	21	18	122	1.609268263	0.223688814
CDR20291_3031	261	261	12	112	-2.221210132	0.034664038
CDR20291_3032	284	284	25	98	-2.274263729	0.001673561
CDR20291_3033	2824	2824	864	2009	-0.982863048	0.000697512
CDR20291_3034	1528	1528	262	427	-2.103302684	1.27E-22
CDR20291_3035	681	681	332	306	-0.962239669	0.029077662
CDR20291_3036	977	977	236	296	-1.79397354	7.35E-10
CDR20291_3037	3406	3406	1322	2297	-0.876823529	7.96E-08
CDR20291_3038	4276	4276	2859	4572	-0.154772575	0.259158593
CDR20291_3039	3452	3452	1954	2351	-0.589462939	0.008191557
CDR20291_3040	987	987	313	1172	-0.481327103	0.400716862
CDR20291_3041	2810	2810	2228	3955	0.169829286	0.348693314
CDR20291_3042	10799	10799	10139	14863	0.27247487	0.017103684
CDR20291_3043	700	700	732	674	0.139631413	0.767875314
CDR20291_3044	3819	3819	8734	10987	1.45399015	1.30E-16
CDR20291_3045	1010	1010	109	238	-2.535150803	5.98E-14
CDR20291_3045; CDR20291_3046	39	39	0	0	-7.64101282	0.00191366
CDR20291_3046	289	289	24	45	-3.036582669	3.61E-09
CDR20291_3047	1267	1267	434	642	-1.176422978	5.46E-08
CDR20291_3048	9039	9039	20929	28641	1.527500968	7.66E-32
CDR20291_3049	868	868	910	1168	0.340896908	0.196816121

CDR20291_3050	2843	2843	6761	8525	1.511821965	4.16E-17
CDR20291_3051	1408	1408	54	109	-4.087643302	4.36E-43
CDR20291_3051;CDR20291_3052	1	1	0	4	0.789033122	0.883442606
CDR20291_3052	1367	1367	1424	2798	0.643706545	0.005769761
CDR20291_3053	1190	1190	334	383	-1.633601951	7.69E-08
CDR20291_3054	3921	3921	6219	9080	1.026052961	7.81E-17
CDR20291_3055	2844	2844	973	2080	-0.893097191	0.000436788
CDR20291_3056	637	637	80	230	-2.071502792	2.20E-05
CDR20291_3057	517	517	417	742	0.196890956	0.532353971
CDR20291_3058	2056	2056	1205	2495	-0.143219926	0.605895606
CDR20291_3059	1229	1229	244	417	-1.855642433	5.92E-15
CDR20291_3060	1464	1464	1064	1685	-0.041565693	0.84101527
CDR20291_3061	869	869	148	458	-1.564740579	0.001247655
CDR20291_3062	1873	1873	523	1608	-0.859982119	0.045258954
CDR20291_3062;CDR20291_3063	0	0	0	1	1.443698351	0.810176602
CDR20291_3063	5577	5577	5111	5248	0.010914016	0.972668498
CDR20291_3064	8336	8336	41368	65843	2.733481174	4.08E-198
CDR20291_3065	1511	1511	355	1289	-0.945265248	0.063887454
CDR20291_3066	4558	4558	4835	7942	0.530856579	1.79E-05
CDR20291_3066;CDR20291_3067	0	0	0	1	1.443698351	0.810176602
CDR20291_3067	2802	2802	2568	3601	0.206583184	0.219975331
CDR20291_3068	8337	8337	7847	13291	0.381232143	0.002089088
CDR20291_3069	655	655	83	245	-2.03404415	4.01E-05
CDR20291_3070	1606	1606	349	741	-1.552161154	4.06E-08
CDR20291_3071	3774	3774	2174	2581	-0.572504905	0.011207307
CDR20291_3072	2754	2754	1449	2548	-0.428864721	0.014961288
CDR20291_3073	855	855	161	359	-1.716235664	1.31E-06
CDR20291_3074	535	535	112	98	-2.213541598	8.29E-06
CDR20291_3075	3639	3639	1596	2047	-0.916754543	2.05E-06
CDR20291_3076	2256	2256	1027	1477	-0.785793131	6.70E-06

CDR20291_3077	2650	2650	2591	3029	0.18132687	0.479713053
CDR20291_3078	1834	1834	111	171	-3.648056974	4.47E-59
CDR20291_3079	1210	1210	36	176	-3.605109367	6.68E-09
CDR20291_3079; CDR20291_3080	25	25	7	9	-1.566257304	0.271723895
CDR20291_3080	48	48	36	8	-0.826780395	0.603859697
CDR20291_3081	16	16	105	81	2.698125717	0.003800244
CDR20291_3082	3387	3387	2339	4199	-0.020786198	0.914259632
CDR20291_3083	2250	2250	228	407	-2.791201156	2.61E-40
CDR20291_3084	17	17	28	83	1.668366703	0.131794722
CDR20291_3085	52	52	24	83	-0.01528778	0.9887392
CDR20291_3086	117	117	30	62	-1.333526749	0.058095339
CDR20291_3087	113	113	41	71	-0.975766339	0.146270434
CDR20291_3088	6294	6294	16869	11277	1.344093265	0.001324761
CDR20291_3089	667	667	1661	995	1.191652132	0.031295737
CDR20291_3090	308	308	1042	351	1.446528805	0.077826673
CDR20291_3091	3770	3770	50089	21263	3.486230775	5.02E-05
CDR20291_3092	1362	1362	384	228	-1.95713592	0.00045326
CDR20291_3093	6298	6298	5173	6087	-0.065771412	0.789710931
CDR20291_3094	1303	1303	4734	5536	2.075518736	1.06E-20
CDR20291_3095	557	557	35	78	-3.292693399	1.46E-14
CDR20291_3096	7783	7783	10110	16010	0.79610757	5.88E-15
CDR20291_3097	719	719	35	129	-3.191192138	2.13E-08
CDR20291_3098	797	797	202	452	-1.285401268	0.000345633
CDR20291_3099	372	372	124	209	-1.1189846	0.003143955
CDR20291_3100	2711	2711	951	1164	-1.2696163	1.65E-08
CDR20291_3101	343	343	45	80	-2.421332104	5.42E-08
CDR20291_3102	158	158	22	22	-2.735305326	0.00011324
CDR20291_3103	650	650	210	219	-1.488036351	0.000184636
CDR20291_3104	3898	3898	109	172	-4.743461507	3.00E-144
CDR20291_3105	937	937	96	301	-2.283449286	2.35E-06

CDR20291_3106	5812	5812	15278	22804	1.770551403	5.27E-66
CDR20291_3107	51	51	2	8	-3.393545165	0.009205054
CDR20291_3108	269	269	6	47	-3.466069182	0.000331749
CDR20291_3109	4622	4622	1818	3470	-0.784584184	3.30E-05
CDR20291_3110	610	610	2626	3940	2.485773182	6.28E-54
CDR20291_3111	144	144	39	91	-1.151398001	0.084338086
CDR20291_3112	18839	18839	6172	7950	-1.334151422	2.28E-17
CDR20291_3113	90565	90565	10717	16314	-2.688893414	3.43E-202
CDR20291_3114	124	124	51	266	0.249246309	0.809620061
CDR20291_3115	2739	2739	538	814	-1.962591527	8.34E-32
CDR20291_3116	1197	1197	184	225	-2.46367602	1.28E-17
CDR20291_3117	5691	5691	1223	1645	-1.914830594	5.77E-32
CDR20291_3118	607	607	154	162	-1.83273563	6.60E-06
CDR20291_3119	936	936	571	933	-0.270895592	0.255154154
CDR20291_3120	1077	1077	1456	1866	0.706998697	0.00199027
CDR20291_3121	199	199	27	179	-1.075173582	0.282602863
CDR20291_3122	653	653	814	950	0.53008756	0.090281806
CDR20291_3123	157	157	10	78	-1.967816306	0.071590186
CDR20291_3124	820	820	342	572	-0.801778397	0.001788107
CDR20291_3124;CDR20291_3125	1	1	0	0	-2.355605325	0.688257277
CDR20291_3125	771	771	282	406	-1.101121115	4.70E-05
CDR20291_3126	1518	1518	895	1767	-0.173225431	0.518540431
CDR20291_3127	6287	6287	2332	3765	-0.99771782	3.99E-16
CDR20291_3128	3676	3676	858	1697	-1.508306915	1.14E-12
CDR20291_3129	9589	9589	30612	40349	1.965836178	4.56E-43
CDR20291_3130	16064	16064	31498	54352	1.453955145	4.33E-36
CDR20291_3131	3142	3142	5218	7160	1.049644585	2.31E-12
CDR20291_3132	252	252	1	8	-5.851611988	1.25E-10
CDR20291_3133	474	474	67	27	-3.096432219	0.000120646
CDR20291_3134	1330	1330	175	105	-3.055982571	3.15E-08

CDR20291_3135	6129	6129	1702	2893	-1.376638003	1.95E-23
CDR20291_3136	2990	2990	1077	1652	-1.077626566	9.90E-13
CDR20291_3137	903	903	2455	4442	1.962219657	2.28E-26
CDR20291_3138	277	277	19	86	-2.481190178	0.001501963
CDR20291_3139	446	446	74	207	-1.695542585	0.001100349
CDR20291_3140	129	129	7	51	-2.276280167	0.040711365
CDR20291_3141	3450	3450	2527	3749	-0.077470207	0.623279156
CDR20291_3142	909	909	123	378	-1.902498708	6.90E-05
CDR20291_3143	4148	4148	1904	2860	-0.742919142	4.28E-08
CDR20291_3144	776	776	236	385	-1.276076433	2.27E-06
CDR20291_3145	2634	2634	2759	2627	0.161162941	0.655007224
CDR20291_3146	63	63	23	115	0.032956682	0.978470474
CDR20291_3147	9532	9532	25875	47071	1.963805477	7.63E-46
CDR20291_3148	6434	6434	4644	8008	0.0119188	0.941179619
CDR20291_3148; CDR20291_3149	406	406	207	428	-0.344025519	0.403640955
CDR20291_3149	1782	1782	9276	19995	3.040202031	2.17E-44
CDR20291_3150	1816	1816	7915	8412	2.280715965	5.18E-20
CDR20291_3151	13420	13420	30200	44675	1.540086619	7.27E-55
CDR20291_3152	898	898	6	49	-5.145799037	3.01E-11
CDR20291_3153	513	513	34	68	-3.307915792	2.05E-15
CDR20291_3154	1096	1096	110	93	-3.294393079	3.97E-14
CDR20291_3155	868	868	40	45	-4.264598622	4.25E-30
CDR20291_3156	1436	1436	161	156	-3.059761642	2.49E-17
CDR20291_3157	2088	2088	405	546	-2.062170594	8.27E-23
CDR20291_3158	1727	1727	936	864	-0.807145929	0.028386573
CDR20291_3159	1125	1125	72	204	-3.055463763	8.52E-13
CDR20291_3160	2054	2054	30	145	-4.640190751	2.84E-16
CDR20291_3161	15	15	27	45	1.304960648	0.263253052
CDR20291_3162	67	67	86	186	1.025380617	0.119852499
CDR20291_3163	685	685	4	21	-5.820683977	4.79E-20

CDR20291_3163;CDR20291_3164	48	48	1	1	-5.5050529	0.000811271
CDR20291_3164	663	663	5	49	-4.750501184	5.09E-08
CDR20291_3165	112	112	22	112	-0.840185707	0.415005455
CDR20291_3166	24	24	12	50	0.292329471	0.839866516
CDR20291_3167	357	357	131	140	-1.290514663	0.005806269
CDR20291_3168	2202	2202	7855	11853	2.218708757	4.01E-83
CDR20291_3169	1103	1103	127	267	-2.473993615	4.42E-15
CDR20291_3170	160	160	49	187	-0.50877133	0.545556822
CDR20291_3171	5378	5378	9755	14228	1.21899603	2.93E-26
CDR20291_3172	3273	3273	774	1045	-1.77456779	1.64E-22
CDR20291_3173	4349	4349	1214	1205	-1.72441646	4.12E-09
CDR20291_3174	4582	4582	6060	8041	0.698703965	1.25E-05
CDR20291_3175	5685	5685	3740	5147	-0.284443012	0.064849394
CDR20291_3176	582	582	276	390	-0.739419687	0.014330638
CDR20291_3177	1128	1128	318	509	-1.399738262	1.04E-09
CDR20291_3178	2213	2213	2599	4588	0.732245534	1.04E-05
CDR20291_3179	4547	4547	2643	3764	-0.439711157	0.002518975
CDR20291_3180	7049	7049	27174	43870	2.379544793	6.63E-135
CDR20291_3181	1402	1402	246	396	-2.079395637	5.92E-21
CDR20291_3182	753	753	193	465	-1.205346557	0.00222424
CDR20291_3183	1077	1077	220	499	-1.584933387	2.99E-06
CDR20291_3184	22579	22579	6328	10171	-1.405490013	2.62E-46
CDR20291_3185	3740	3740	534	339	-2.91110007	5.81E-10
CDR20291_3186	3527	3527	3704	5284	0.414982071	0.004041875
CDR20291_3187	1541	1541	112	161	-3.435424047	1.12E-45
CDR20291_3187A	2	2	3	10	1.651117852	0.528982665
CDR20291_3188	9897	9897	13984	13937	0.618813373	0.023071767
CDR20291_3188;CDR20291_3189	10	10	0	0	-5.677491287	0.166200639
CDR20291_3189	14182	14182	38013	28386	1.394094781	0.000152487
CDR20291_3190	1094	1094	2508	1201	0.989809532	0.109613503

CDR20291_3191	3456	3456	40559	20602	3.366685445	8.41E-12
CDR20291_3192	2604	2604	4421	1821	0.508497832	0.448475362
CDR20291_3193	555	555	2523	804	1.859333416	0.013911744
CDR20291_3194	668	668	596	324	-0.327781469	0.643344173
CDR20291_3195	4739	4739	2964	2200	-0.708734379	0.088630621
CDR20291_3195; CDR20291_3196	0	0	1	0	1.76780945	0.770414782
CDR20291_3196	2611	2611	5034	3260	0.8550359	0.067545306
CDR20291_3197	3052	3052	552	471	-2.432943276	3.57E-11
CDR20291_3198	835	835	386	558	-0.76021753	0.00280044
CDR20291_3199	1359	1359	1595	2331	0.592071706	0.000731159
CDR20291_3200	6632	6632	29074	32296	2.315483746	1.79E-27
CDR20291_3201	4188	4188	11699	14897	1.750519254	6.82E-26
CDR20291_3202	1537	1537	3143	5703	1.553474507	2.67E-19
CDR20291_3203	3301	3301	1033	1845	-1.166147546	3.12E-11
CDR20291_3204	5624	5624	8305	12996	0.972443489	2.47E-20
CDR20291_3205	5348	5348	865	1617	-2.082303852	2.14E-31
CDR20291_3206	5140	5140	1004	1227	-2.115480964	2.72E-25
CDR20291_3207	4195	4195	1158	2094	-1.337555026	6.33E-15
CDR20291_3207; CDR20291_3208	34	34	0	23	-1.781846567	0.481606068
CDR20291_3208	3190	3190	228	327	-3.460841708	8.35E-80
CDR20291_3209	13062	13062	42719	64303	2.091724146	5.75E-113
CDR20291_3210	3566	3566	1535	1796	-1.002186754	1.60E-05
CDR20291_3211	5890	5890	5168	6500	0.071612657	0.734425942
CDR20291_3212	1307	1307	75	311	-2.837913299	4.42E-07
CDR20291_3212; CDR20291_3213	0	0	0	1	1.443698351	0.810176602
CDR20291_3213	262	262	97	249	-0.617919458	0.274176243
CDR20291_3214	2964	2964	511	697	-2.224134104	9.92E-33
CDR20291_3215	9503	9503	14269	20446	0.934055947	6.05E-16
CDR20291_3216	1002	1002	75	426	-2.113050426	0.002702075
CDR20291_3217	12	12	20	84	2.034909889	0.110174964

CDR20291_3218	394	394	496	1244	1.124371076	0.00519837
CDR20291_3219	43	43	40	75	0.444220662	0.630279108
CDR20291_3220	1057	1057	1603	2166	0.907923756	7.63E-06
CDR20291_3221	78014	78014	266122	364877	2.087897868	1.03E-66
CDR20291_3221;CDR20291_3222	1	1	0	0	-2.355605325	0.688257277
CDR20291_3222	37464	37464	57452	79887	0.943965812	1.99E-15
CDR20291_3223	111	111	293	689	2.136151487	3.04E-06
CDR20291_3224	14	14	18	96	1.919947868	0.145043983
CDR20291_3225	2936	2936	16504	30813	3.034319806	4.80E-87
CDR20291_3226	14219	14219	41069	63868	1.935784525	7.99E-106
CDR20291_3227	2819	2819	18836	31445	3.197888585	4.31E-183
CDR20291_3228	4298	4298	15659	24666	2.280097746	9.58E-118
CDR20291_3229	4622	4622	10256	16392	1.575357857	6.36E-51
CDR20291_3230	12725	12725	23349	31979	1.192491772	2.27E-20
CDR20291_3231	835	835	508	776	-0.32443899	0.187317348
CDR20291_3232	8284	8284	10455	13328	0.604967377	0.000337692
CDR20291_3233	10246	10246	8171	14005	0.15109619	0.25974751
CDR20291_3234	8353	8353	6185	8403	-0.122383015	0.443397926
CDR20291_3235	2893	2893	1600	1768	-0.675356649	0.011099392
CDR20291_3236	1286	1286	2447	3393	1.252889451	5.26E-13
CDR20291_3237	334	334	157	105	-1.172047847	0.078186934
CDR20291_3238	1773	1773	7846	4259	1.983594342	9.40E-05
CDR20291_3238;CDR20291_3239	1	1	0	1	-0.998913566	0.866218367
CDR20291_3239	3358	3358	14511	7939	1.952325794	6.58E-05
CDR20291_3240	6486	6486	6848	3432	-0.112750176	0.853414881
CDR20291_3241	4738	4738	27944	16155	2.422202708	1.13E-07
CDR20291_3242	14742	14742	66312	57549	2.214920447	3.42E-13
CDR20291_3242;CDR20291_3243	1	1	1	3	0.967439201	0.807338008
CDR20291_3243	1904	1904	5551	5422	1.652358677	1.52E-08
CDR20291_3244	9394	9394	22717	31875	1.607191968	3.06E-41

CDR20291_3245	5872	5872	15196	20518	1.678931588	1.05E-33
CDR20291_3245; CDR20291_3246	0	0	0	1	1.443698351	0.810176602
CDR20291_3246	8319	8319	19476	30572	1.639529385	1.18E-67
CDR20291_3246; CDR20291_3247	1	1	0	0	-2.355605325	0.688257277
CDR20291_3247	7585	7585	17028	23241	1.481115392	8.30E-29
CDR20291_3247; CDR20291_3248	237	237	309	130	0.131726714	0.889570721
CDR20291_3248	2929	2929	6834	11638	1.695020813	3.79E-39
CDR20291_3248; CDR20291_3249	0	0	0	2	2.244508613	0.701490268
CDR20291_3249	3083	3083	8128	15664	1.967217621	1.06E-29
CDR20291_3250	3506	3506	9587	12069	1.712295015	8.27E-23
CDR20291_3251	9506	9506	19464	27635	1.375218743	2.22E-32
CDR20291_3252	9089	9089	19807	23351	1.343408859	3.21E-12
CDR20291_3252; CDR20291_3253	16	16	0	0	-6.355582532	0.061601417
CDR20291_3253	7961	7961	13772	24462	1.295402976	2.77E-22
CDR20291_3254	4111	4111	8900	15688	1.613196473	3.35E-32
CDR20291_3255	3887	3887	9970	20633	1.985303645	2.23E-23
CDR20291_3256	13041	13041	25724	39750	1.381015392	1.45E-51
CDR20291_3257	6964	6964	852	984	-2.826254079	2.64E-38
CDR20291_3258	1763	1763	397	616	-1.74695698	2.59E-19
CDR20291_3259	4325	4325	2445	3788	-0.42006371	0.001245414
CDR20291_3260	3169	3169	3341	5097	0.467938832	0.000337692
CDR20291_3260; CDR20291_3261	1	1	0	0	-2.355605325	0.688257277
CDR20291_3261	5745	5745	3777	6422	-0.133396492	0.359486479
CDR20291_3262	12790	12790	11917	16548	0.224055051	0.097380492
CDR20291_3263	3696	3696	1329	1930	-1.119248236	7.83E-14
CDR20291_3264	1330	1330	634	910	-0.720822103	0.000630271
CDR20291_3265	2727	2727	578	1289	-1.547570653	1.57E-08
CDR20291_3266	1981	1981	212	485	-2.509325171	1.21E-16
CDR20291_3267	209	209	1	24	-4.228819816	0.00089346
CDR20291_3268	2151	2151	277	405	-2.596850711	5.24E-40

CDR20291_3269	4370	4370	1509	2369	-1.121571876	4.38E-17
CDR20291_3270	1708	1708	690	1075	-0.900768047	9.88E-07
CDR20291_3271	965	965	101	203	-2.648159573	5.74E-17
CDR20291_3272	6883	6883	15529	25154	1.609144839	8.02E-57
CDR20291_3273	5327	5327	1972	2429	-1.187325763	1.96E-09
CDR20291_3274	1681	1681	152	226	-3.095184255	1.51E-43
CDR20291_3275	4457	4457	5006	6885	0.486956606	0.001148407
CDR20291_3276	895	895	823	1379	0.339889568	0.125321666
CDR20291_3277	635	635	98	100	-2.570204648	9.41E-10
CDR20291_3278	909	909	13	88	-4.285108264	8.82E-09
CDR20291_3279	8255	8255	4815	7366	-0.384056253	0.000593084
CDR20291_3280	1346	1346	138	181	-3.002863575	5.98E-30
CDR20291_3281	8142	8142	35624	28866	2.140302662	1.45E-10
CDR20291_3282	789	789	59	197	-2.674176507	3.39E-07
CDR20291_3283	486	486	10	58	-3.934325947	3.02E-07
CDR20291_3284	1427	1427	314	402	-1.91490133	3.11E-14
CDR20291_3285	298	298	64	404	-0.472266768	0.618864644
CDR20291_3286	1822	1822	456	464	-1.869395317	7.34E-09
CDR20291_3287	890	890	52	229	-2.747074962	8.87E-06
CDR20291_3288	603	603	489	788	0.12941745	0.652475289
CDR20291_3289	1282	1282	1471	2741	0.740913148	0.000453972
CDR20291_3290	1090	1090	845	1301	0.030949202	0.894137367
CDR20291_3291	5448	5448	11033	14432	1.304071011	5.09E-17
CDR20291_3292	1578	1578	384	458	-1.81494766	1.48E-11
CDR20291_3293	65	65	8	23	-2.09274667	0.042887512
CDR20291_3294	3549	3549	9289	13889	1.765517325	4.62E-57
CDR20291_3295	607	607	69	225	-2.09468016	0.000116248
CDR20291_3296	1103	1103	83	110	-3.443396953	3.06E-32
CDR20291_3297	522	522	327	612	-0.127965243	0.717664922
CDR20291_3297;CDR20291_3298	0	0	0	1	1.443698351	0.810176602

CDR20291_3298	681	681	418	1002	0.048534481	0.908922826
CDR20291_3299	3495	3495	3184	3747	0.083556793	0.746355312
CDR20291_3300	7510	7510	3766	3170	-0.966290165	0.00550655
CDR20291_3301	1991	1991	1054	1453	-0.597293043	0.001981494
CDR20291_3302	2	2	3	19	2.342776221	0.328612541
CDR20291_3303	7	7	4	22	0.790298002	0.701921334
CDR20291_3304	49	49	41	189	1.138928846	0.259696172
CDR20291_3305	72	72	94	85	0.447842717	0.589919588
CDR20291_3306	52	52	50	192	1.146981669	0.212356842
CDR20291_3307	12	12	5	37	0.67747919	0.717696636
CDR20291_3308	12	12	14	40	1.1373433	0.424686038
CDR20291_3309	9	9	5	17	0.238591983	0.903805926
CDR20291_3310	16	16	12	106	1.735013494	0.242626479
CDR20291_3311	2	2	13	38	3.635583403	0.036680575
CDR20291_3312	0	0	0	14	5.022916804	0.354398252
CDR20291_3313	37	37	12	35	-0.687129423	0.580157873
CDR20291_3314	5435	5435	3631	5085	-0.25034005	0.092922721
CDR20291_3315	2505	2505	13954	31936	3.188741935	6.62E-42
CDR20291_3316	900	900	5200	7231	2.857429655	5.88E-77
CDR20291_3317	5499	5499	6355	9671	0.598655308	8.76E-08
CDR20291_3318	40	40	15	99	0.386924804	0.783643758
CDR20291_3319	2535	2535	7998	13594	2.12887224	6.75E-63
CDR20291_3320	79	79	604	537	2.991403103	1.61E-09
CDR20291_3321	362	362	23	70	-2.992570037	4.53E-07
CDR20291_3322	1984	1984	1074	2347	-0.212843207	0.474942835
CDR20291_3323	8	8	4	12	-0.034708156	0.986915252
CDR20291_3324	170	170	28	171	-0.890590182	0.374815143
CDR20291_3325	6576	6576	14219	19435	1.427913005	2.07E-26
CDR20291_3326	3878	3878	1584	3175	-0.690786903	0.001353698
CDR20291_3327	7811	7811	50	209	-5.986967695	4.91E-40

CDR20291_3328	4193	4193	1338	2398	-1.135474727	1.18E-11
CDR20291_3329	653	653	39	68	-3.570202309	8.17E-23
CDR20291_3330	2233	2233	1950	2546	0.088751551	0.691986272
CDR20291_3331	177	177	27	57	-2.063194258	0.000867493
CDR20291_3332	3738	3738	6322	8630	1.072482475	3.27E-13
CDR20291_3333	281	281	132	259	-0.504710279	0.265027875
CDR20291_3334	3919	3919	3267	5808	0.243153033	0.14029044
CDR20291_3335	460	460	35	270	-1.731152347	0.055943245
CDR20291_3336	873	873	11	64	-4.636091592	1.68E-11
CDR20291_3337	5415	5415	14162	21721	1.782570351	7.02E-72
CDR20291_3338	4610	4610	1894	4262	-0.586267499	0.025145594
CDR20291_3339	102	102	10	31	-2.348096359	0.008822269
CDR20291_3340	2861	2861	2479	3305	0.091447747	0.65245441
CDR20291_3341	4200	4200	3160	4348	-0.090953173	0.605194687
CDR20291_3341; CDR20291_3342	26	26	71	100	1.784457981	0.024708064
CDR20291_3342	4642	4642	3201	6214	0.038534337	0.862575629
CDR20291_3343	6963	6963	4725	7888	-0.101551535	0.457813895
CDR20291_3344	1415	1415	862	1052	-0.475055219	0.070110901
CDR20291_3345	2497	2497	1175	807	-1.155118028	0.013337873
CDR20291_3346	6556	6556	3718	4679	-0.557785162	0.002626679
CDR20291_3347	8137	8137	6261	10245	0.064768869	0.618556064
CDR20291_3348	4701	4701	2621	4730	-0.325476959	0.053168442
CDR20291_3349	15981	15981	20718	31028	0.753124434	1.41E-14
CDR20291_3350	5305	5305	16390	22362	1.941568549	1.52E-47
CDR20291_3351	265	265	6	80	-2.788831684	0.015259011
CDR20291_3352	245	245	35	132	-1.618357	0.027141927
CDR20291_3353	320	320	3	16	-5.125172635	4.82E-11
CDR20291_3354	6649	6649	834	2015	-2.235683514	5.03E-16
CDR20291_3355	202	202	829	2021	2.803671443	1.41E-14
CDR20291_3356	3054	3054	128	268	-3.932711481	9.60E-57

CDR20291_3357	4812	4812	4897	5413	0.205246025	0.431969124
CDR20291_3358	5342	5342	10016	14515	1.262291893	2.97E-27
CDR20291_3359	2543	2543	1309	1528	-0.745713284	0.002549986
CDR20291_3360	4427	4427	6954	10435	1.031436272	1.01E-19
CDR20291_3361	5197	5197	5016	6676	0.246182691	0.143181288
CDR20291_3362	1417	1417	1015	2081	0.138204644	0.633170458
CDR20291_3363	780	780	83	532	-1.467882974	0.05961005
CDR20291_3363; CDR20291_3364	0	0	0	3	2.81909081	0.625953386
CDR20291_3364	2419	2419	250	460	-2.739041299	7.67E-38
CDR20291_3365	698	698	74	175	-2.491267457	8.16E-10
CDR20291_3366	1489	1489	95	297	-2.96866348	2.25E-11
CDR20291_3367	1557	1557	515	509	-1.483140259	1.66E-05
CDR20291_3368	1284	1284	50	172	-3.583419738	2.08E-13
CDR20291_3369	1048	1048	97	169	-2.940196448	5.19E-26
CDR20291_3369; CDR20291_3370	1	1	0	0	-2.355605325	0.688257277
CDR20291_3370	1659	1659	1124	1954	-0.07281133	0.739700813
CDR20291_3371	1374	1374	130	282	-2.730641103	1.06E-18
CDR20291_3372	590	590	103	138	-2.219464611	1.26E-10
CDR20291_3373	653	653	11	23	-5.234373183	9.38E-31
CDR20291_3374	3339	3339	7005	8784	1.327413124	2.22E-13
CDR20291_3375	2458	2458	2552	3510	0.373345536	0.02996801
CDR20291_3376	1389	1389	1713	2726	0.724863235	8.63E-06
CDR20291_3377	506	506	260	286	-0.786119704	0.049981958
CDR20291_3378	68	68	103	140	0.909640214	0.150426243
CDR20291_3379	1158	1158	954	1074	-0.089512915	0.794127079
CDR20291_3380	11141	11141	21206	24307	1.130852939	3.24E-08
CDR20291_3381	3073	3073	1456	1720	-0.857813476	0.000244721
CDR20291_3382	2430	2430	1386	1717	-0.560181239	0.012636272
CDR20291_3383	93	93	56	87	-0.327005926	0.652685646
CDR20291_3383; CDR20291_3384	0	0	0	1	1.443698351	0.810176602

CDR20291_3384	66	66	30	75	-0.344346387	0.713247402
CDR20291_3385	66	66	70	60	0.119262966	0.899451378
CDR20291_3386	925	925	151	110	-2.661767162	1.77E-07
CDR20291_3387	296	296	91	95	-1.560655611	0.002368165
CDR20291_3388	524	524	22	14	-4.709206849	2.24E-14
CDR20291_3389	27	27	192	130	2.754819591	0.000761114
CDR20291_3390	16	16	35	40	1.327187591	0.247937005
CDR20291_3391	938	938	1706	1338	0.857159653	0.051391959
CDR20291_3392	58	58	62	78	0.354923655	0.668922521
CDR20291_3393	40	40	24	68	0.170400931	0.879792655
CDR20291_3394	7798	7798	10256	12705	0.646001387	0.000367149
CDR20291_3394; CDR20291_3395	1455	1455	2231	2299	0.755191818	0.012968752
CDR20291_3395	980	980	930	1206	0.203902697	0.439217136
CDR20291_3396	1375	1375	475	865	-1.008008913	1.44E-05
CDR20291_3397	140	140	145	97	-0.031412259	0.971564298
CDR20291_3398	4892	4892	11713	15800	1.566099429	3.41E-28
CDR20291_3399	28	28	86	312	2.763407925	0.000679854
CDR20291_3400	664	664	133	114	-2.287445913	1.80E-06
CDR20291_3401	1918	1918	12	57	-5.860855102	2.58E-28
CDR20291_3402	4260	4260	1003	1691	-1.620677921	3.01E-27
CDR20291_3402; CDR20291_3403	117	117	2	1	-6.17073141	7.08E-07
CDR20291_3403	45	45	21	59	-0.199342074	0.859189464
CDR20291_3404	8165	8165	28	130	-6.767847153	7.70E-47
CDR20291_3405	460	460	1	88	-3.584117413	0.014955534
CDR20291_3406	4960	4960	4133	5630	0.049662193	0.783643758
CDR20291_3407	4604	4604	7503	14199	1.258806074	4.48E-14
CDR20291_3408	525	525	1712	3008	2.201994307	7.21E-29
CDR20291_3409	1115	1115	4787	5790	2.337451829	4.80E-29
CDR20291_3410	1271	1271	631	621	-0.89911605	0.012371272
CDR20291_3411	916	916	117	195	-2.510651643	3.00E-19

CDR20291_3412	1267	1267	2	13	-7.405699546	4.46E-41
CDR20291_3413	3516	3516	1413	2074	-0.951227148	1.40E-10
CDR20291_3414	4756	4756	766	1247	-2.194692524	1.39E-53
CDR20291_3415	3506	3506	2458	3365	-0.196355038	0.262405076
CDR20291_3416	3954	3954	21278	33253	2.837079454	2.24E-192
CDR20291_3417	224	224	828	1632	2.47348007	1.52E-17
CDR20291_3418	10732	10732	5576	7861	-0.608377594	2.26E-06
CDR20291_3419	4766	4766	4355	5815	0.169324978	0.330128783
CDR20291_3420	3283	3283	4321	5207	0.629317025	0.002793352
CDR20291_3421	14093	14093	44524	53481	1.890941643	5.24E-26
CDR20291_3422	2366	2366	1957	1813	-0.194617247	0.608413448
CDR20291_3423	582	582	175	131	-1.76613618	0.001225171
CDR20291_3424	851	851	358	228	-1.351057686	0.018270713
CDR20291_3424; CDR20291_3425	0	0	0	2	2.244508613	0.701490268
CDR20291_3425	244	244	294	186	0.164601806	0.828642447
CDR20291_3426	33199	33199	110874	149871	2.04773946	1.09E-57
CDR20291_3427	13013	13013	46073	62926	2.138926841	2.30E-64
CDR20291_3428	22436	22436	54564	80708	1.652000685	1.20E-66
CDR20291_3429	11249	11249	24437	30015	1.364660655	4.46E-15
CDR20291_3430	4821	4821	17998	24549	2.21443104	9.61E-62
CDR20291_3431	5451	5451	16971	22987	1.94777093	3.83E-46
CDR20291_3432	672	672	21	116	-3.396155934	2.63E-06
CDR20291_3433	3109	3109	2054	3527	-0.118721872	0.492653777
CDR20291_3434	19531	19531	30313	54431	1.147166761	4.25E-18
CDR20291_3434; CDR20291_3435	20	20	3	1	-3.105625863	0.112905743
CDR20291_3435	4607	4607	7735	13558	1.242175978	6.66E-20
CDR20291_3435; CDR20291_3436	96	96	0	1	-7.535209278	2.03E-05
CDR20291_3436	5301	5301	10739	15753	1.382461076	5.82E-35
CDR20291_3437	643	643	228	309	-1.18795653	0.000107783
CDR20291_3438	17312	17312	40992	44130	1.408215076	4.08E-10

CDR20291_3439	3379	3379	4562	6198	0.74415787	2.04E-06
CDR20291_3440	9893	9893	11661	15492	0.533523893	0.000370253
CDR20291_3441	9998	9998	31991	53815	2.141284339	2.01E-89
CDR20291_3442	8677	8677	25956	42214	2.019044679	1.27E-94
CDR20291_3443	11567	11567	20426	27252	1.119604108	1.85E-15
CDR20291_3444	610	610	634	494	0.045781428	0.936151727
CDR20291_3445	9660	9660	9390	11992	0.22942543	0.19544282
CDR20291_3446	2972	2972	7962	10970	1.742390253	3.30E-35
CDR20291_3447	3531	3531	10052	14944	1.882693627	2.32E-64
CDR20291_3448	4632	4632	13287	14325	1.685704301	5.35E-13
CDR20291_3449	434	434	128	331	-0.939522227	0.053347769
CDR20291_3450	5715	5715	4003	4533	-0.319211293	0.187018747
CDR20291_3451	1055	1055	142	244	-2.411575556	9.06E-20
CDR20291_3452	3904	3904	2386	2021	-0.677923786	0.066211365
CDR20291_3453	1123	1123	5559	2558	2.08730725	0.000318484
CDR20291_3454	26	26	87	45	1.558274587	0.166426372
CDR20291_3455	1146	1146	15066	6377	3.470000522	1.08E-09
CDR20291_3456	1423	1423	20288	9171	3.607829094	2.48E-11
CDR20291_3457	3550	3550	58485	21311	3.7521136	5.91E-05
CDR20291_3458	300	300	668	262	0.884158854	0.284390474
CDR20291_3459	246	246	660	210	1.097301602	0.22596698
CDR20291_3460	107	107	3250	794	4.541292397	2.81E-08
CDR20291_3461	4932	4932	115545	35922	4.219358524	2.59E-05
CDR20291_3462	15	15	222	106	3.677451829	0.000134601
CDR20291_3463	236	236	1996	610	2.744852069	0.000478802
CDR20291_3464	259	259	1261	501	2.017153598	0.006163657
CDR20291_3465	1236	1236	19579	6575	3.673868251	0.000159215
CDR20291_3465; CDR20291_3466	1	1	0	0	-2.355605325	0.688257277
CDR20291_3466	433	433	2758	909	2.354341237	0.001366804
CDR20291_3467	100	100	794	395	2.794495261	6.88E-05

CDR20291_3468	5637	5637	33108	14814	2.325148938	0.006026237
CDR20291_3469	1795	1795	2853	1496	0.493284665	0.408234935
CDR20291_3470	312	312	511	248	0.5079322	0.519044792
CDR20291_3470; CDR20291_3471	0	0	0	2	2.244508613	0.701490268
CDR20291_3471	471	471	98	104	-2.115156477	1.67E-06
CDR20291_3471; CDR20291_3472	0	0	1	0	1.76780945	0.770414782
CDR20291_3472	187	187	567	486	1.637937872	0.001026226
CDR20291_3473	467	467	181	150	-1.349990947	0.010845319
CDR20291_3474	245	245	585	416	1.203238531	0.036804812
CDR20291_3475	403	403	112	271	-1.084023832	0.021261038
CDR20291_3476	3285	3285	7484	8142	1.35855549	1.49E-08
CDR20291_3477	9976	9976	24698	32002	1.587778708	9.74E-26
CDR20291_3477; CDR20291_3478	5183	5183	12619	17161	1.595689101	6.37E-31
CDR20291_3479	2401	2401	383	722	-2.094724088	3.94E-22
CDR20291_3480	1252	1252	3022	4469	1.640783624	1.48E-28
CDR20291_3481	2891	2891	643	889	-1.847016421	1.83E-24
CDR20291_3482	1149	1149	2283	3870	1.459954535	6.54E-19
CDR20291_3483	5216	5216	12618	19302	1.668154304	3.88E-61
CDR20291_3484	1308	1308	7033	10043	2.771959891	1.52E-93
CDR20291_3485	777	777	232	206	-1.690670216	0.000147069
CDR20291_3486	6728	6728	8002	12369	0.651350906	6.51E-10
CDR20291_3487	498	498	374	570	-0.022246821	0.946308686
CDR20291_3488	533	533	904	2118	1.494181597	6.65E-06
CDR20291_3489	959	959	1062	1644	0.549388937	0.004895871
CDR20291_3490	1255	1255	403	1024	-0.834367094	0.025592173
CDR20291_3491	105	105	10	35	-2.270644908	0.013626336
CDR20291_3492	5120	5120	1720	1821	-1.419926791	5.97E-08
CDR20291_3493	2087	2087	3275	3240	0.765635908	0.012358555
CDR20291_3494	481	481	9	54	-4.031234702	2.24E-07
CDR20291_3494; CDR20291_3495	0	0	0	1	1.443698351	0.810176602

CDR20291_3495	175	175	3	26	-3.71233075	0.000542982
CDR20291_3496	2104	2104	1218	1664	-0.474348586	0.014025838
CDR20291_3497	1255	1255	58	164	-3.524762658	2.64E-17
CDR20291_3498	2631	2631	1075	1412	-1.003561101	3.67E-07
CDR20291_3499	1765	1765	983	1058	-0.681322898	0.023717015
CDR20291_3500	1766	1766	1165	1966	-0.133889415	0.498026761
CDR20291_3501	1916	1916	897	1301	-0.739462482	4.87E-05
CDR20291_3502	3037	3037	1084	1917	-0.98408859	1.82E-08
CDR20291_3503	905	905	687	1138	0.054706023	0.828461745
CDR20291_3504	711	711	937	1871	0.996151315	0.000179235
CDR20291_3505	6502	6502	4606	5410	-0.280420065	0.210467701
CDR20291_3506	2069	2069	2569	3169	0.559853998	0.010101255
CDR20291_3507	1485	1485	1243	1576	0.008204573	0.975650277
CDR20291_3508	3796	3796	1743	2679	-0.725896989	1.09E-07
CDR20291_3509	14197	14197	39145	44806	1.664688534	8.29E-17
CDR20291_3510	7546	7546	11216	14913	0.868626548	4.97E-09
CDR20291_3511	1484	1484	904	923	-0.582683922	0.082994504
CDR20291_3512	28	28	61	58	1.21391596	0.207979148
CDR20291_3513	38	38	109	61	1.36565716	0.17870697
CDR20291_3514	12517	12517	103271	57572	2.892528469	2.54E-10
CDR20291_3515	2121	2121	12729	9818	2.572166874	1.71E-12
CDR20291_3516	48	48	196	115	1.894714089	0.026307466
CDR20291_3517	48	48	20	31	-0.859940549	0.392628341
CDR20291_3518	104	104	51	144	-0.124697858	0.881093555
CDR20291_3519	48	48	17	78	-0.103128505	0.936013239
CDR20291_3520	30	30	3	9	-2.346610395	0.105620954
CDR20291_3521	46	46	3	22	-1.996853279	0.168986673
CDR20291_3522	19	19	12	41	0.426064364	0.773182498
CDR20291_3523	32	32	6	33	-0.815482808	0.591393714
CDR20291_3524	487	487	283	597	-0.139009234	0.736251805

CDR20291_3525	4	4	45	12	3.120371753	0.073398184
CDR20291_3526	4	4	5	18	1.464107156	0.48562014
CDR20291_3527	268	268	7	42	-3.549338964	5.22E-05
CDR20291_3528	6399	6399	396	567	-3.66952281	6.82E-134
CDR20291_3529	4375	4375	7395	13770	1.298738229	6.08E-16
CDR20291_3530	4406	4406	8	136	-6.118943888	1.71E-05
CDR20291_3531	11047	11047	10494	12679	0.160759518	0.438026048
CDR20291_3532	14816	14816	12779	19985	0.196236914	0.051807896
CDR20291_3533	3618	3618	3136	4601	0.157613592	0.281768194
CDR20291_3534	2402	2402	1995	2550	0.00249181	0.99155658
CDR20291_3534; CDR20291_3535	1	1	0	2	-0.198097594	0.973415385
CDR20291_3535	163	163	54	240	-0.236702593	0.800645575
CDR20291_3536	186	186	30	108	-1.489997405	0.052401571
CDR20291_3537	195	195	6	36	-3.312494792	0.000445068
CDR20291_3538	87	87	12	61	-1.348109709	0.218269747
CDR20291_3539	147	147	17	11	-3.229483491	0.000193692
CDR20291_3540	7	7	1	25	0.703634227	0.785322421
CDR20291_3541	8	8	5	11	0.004473056	0.998409366
CDR20291_3551	2280	2280	293	168	-3.105787548	5.28E-09
CDR20291_3552	1112	1112	116	52	-3.498682315	1.83E-07

Table S2: Genes essential for growth of R20291 *in vitro*

Genes	InputR20291_1	InputR20291_2	PresporeR20291_1	PresporeR20291_2	log2FoldChange	padj
CDR20291_0268; CDR20291_0269	110	110	0	0	-9.681235979	1.47E-07
CDR20291_0029; CDR20291_0030	76	76	0	0	-9.147800671	3.88E-06
CDR20291_2000; CDR20291_2001	56	56	0	0	-8.70722432	4.88E-05
CDR20291_3045; CDR20291_3046	39	39	0	0	-8.185265	0.000603432
CDR20291_0226; CDR20291_0227	38	38	0	0	-8.147790247	0.000709301
CDR20291_0948; CDR20291_0949	36	36	0	0	-8.069786622	0.000978553
CDR20291_1065; CDR20291_1066	29	29	0	0	-7.757837696	0.003275944
CDR20291_1505; CDR20291_1506	29	29	0	0	-7.757837696	0.003275944
CDR20291_2202; CDR20291_2203	22	22	0	0	-7.359280952	0.01250482
CDR20291_3434; CDR20291_3435	20	20	0	0	-7.221775	0.01819086
CDR20291_1986; CDR20291_1987	39	39	0	2	-5.74956936	0.003501406
CDR20291_1167; CDR20291_1168	44	44	0	3	-5.340276533	0.004844671
CDR20291_1130	35	35	2	1	-4.999091482	0.002422092
CDR20291_0472	56	56	1	4	-4.947621854	0.000413431
CDR20291_3107	51	51	3	2	-4.806138	0.000280937
CDR20291_2300	47	47	2	3	-4.691451791	0.000525447
CDR20291_2448	26	26	1	2	-4.575336899	0.011607079
CDR20291_0700	104	104	8	5	-4.455124902	7.68E-07
CDR20291_0194	78	78	1	9	-4.429503629	0.001659759
CDR20291_1825; CDR20291_1839	49	49	4	3	-4.263276086	0.000691912
CDR20291_1675	107	107	6	11	-4.114081966	2.93E-06
CDR20291_1263	351	351	57	1	-4.041036434	0.009808479
CDR20291_2461	107	107	10	9	-3.950214797	1.16E-06
CDR20291_2293	28	28	3	2	-3.940752312	0.014464552
CDR20291_1149	38	38	6	1	-3.890040201	0.019570756
CDR20291_0999	45	45	4	5	-3.780191018	0.002291511
CDR20291_2475	88	88	6	12	-3.75020581	9.41E-05
CDR20291_0723	292	292	9	51	-3.749408764	0.000138806
CDR20291_2470	143	143	10	20	-3.713824302	1.99E-06
CDR20291_1147	47	47	7	3	-3.685654885	0.004587752

CDR20291_1713	67	67	8	8	-3.523265611	0.000374349
CDR20291_1739; CDR20291_1741	66	66	12	4	-3.495862837	0.003250261
CDR20291_3313	37	37	6	3	-3.493205	0.01273931
CDR20291_3523	32	32	2	6	-3.462557	0.02693562
CDR20291_1096	58	58	7	8	-3.408963282	0.001236088
CDR20291_1385	204	204	38	16	-3.369684447	7.74E-06
CDR20291_2526	44	44	4	8	-3.335260117	0.009091857
CDR20291_0148	75	75	13	9	-3.2245518	0.000623812
CDR20291_1711	37	37	4	8	-3.085380865	0.023405629
CDR20291_3324	170	170	32	26	-3.007395	6.37E-07
CDR20291_0542	44	44	11	4	-3.004232001	0.025775335
CDR20291_1125	126	126	34	9	-3.000646787	0.004322566
CDR20291_0068	58	58	12	8	-2.990955585	0.004651238
CDR20291_1299	66	66	13	10	-2.976528504	0.002131555
CDR20291_1386	525	525	114	71	-2.958994791	1.85E-11
CDR20291_2672	1704	1704	282	324	-2.949523399	3.02E-54
CDR20291_0053	38	38	8	6	-2.896136315	0.022799429
CDR20291_1576	170	170	5	59	-2.878264012	0.036384173
CDR20291_3031	261	261	30	73	-2.804045	6.69E-05
CDR20291_1255	46	46	6	13	-2.737176106	0.026877762
CDR20291_3539	147	147	7	54	-2.736674	0.03150071
CDR20291_0041	137	137	31	26	-2.721276415	3.39E-05
CDR20291_3352	245	245	58	48	-2.664753	6.26E-08
CDR20291_0627	54	54	15	9	-2.624113112	0.016985942
CDR20291_0983	125	125	32	24	-2.613879642	0.000195789
CDR20291_0198	135	135	20	41	-2.607583699	0.000964509
CDR20291_2668	154	154	29	41	-2.59674067	4.90E-05
CDR20291_2598	255	255	72	44	-2.590467621	5.05E-06
CDR20291_1896	286	286	121	10	-2.571627983	0.049623331
CDR20291_1192	270	270	78	48	-2.553658431	3.96E-06
CDR20291_0351	49	49	9	14	-2.550890433	0.022849735
CDR20291_2477	56	56	13	14	-2.510066234	0.012885392

CDR20291_1676	56	56	11	17	-2.45973853	0.018927695
CDR20291_1689	203	203	33	69	-2.454674737	0.000419404
CDR20291_0646	184	184	57	36	-2.438713799	0.000110762
CDR20291_1575	156	156	68	15	-2.358773002	0.030472087
CDR20291_0077	41	41	11	11	-2.355280827	0.043680224
CDR20291_3435; CDR20291_3436	96	96	40	12	-2.334551	0.03342765
CDR20291_0095	57	57	22	9	-2.330551561	0.047440474
CDR20291_0897	642	642	217	156	-2.238403507	4.06E-10
CDR20291_2046	60	60	21	14	-2.232303447	0.026280389
CDR20291_2282	418	418	75	184	-2.153521845	0.000707349
CDR20291_0289	545	545	96	242	-2.152411582	0.00044024
CDR20291_2603	103	103	35	29	-2.142499193	0.003422265
CDR20291_0293	163	163	46	56	-2.134680396	0.000226631
CDR20291_3086	117	117	23	51	-2.123027	0.01386808
CDR20291_2144	63	63	19	21	-2.113123434	0.022850916
CDR20291_2638	414	414	150	113	-2.109905076	1.50E-07
CDR20291_1548	769	769	222	268	-2.108556303	1.15E-14
CDR20291_1131	627	627	272	126	-2.10774281	0.000116549
CDR20291_1423	379	379	134	111	-2.085381258	7.82E-08
CDR20291_0789	406	406	103	162	-2.075587347	4.32E-06
CDR20291_1127	359	359	109	126	-2.069388624	5.34E-08
CDR20291_2520	149	149	66	32	-2.057021245	0.008670473
CDR20291_0790	1176	1176	548	227	-2.052890542	0.00010957
CDR20291_2237	333	333	145	75	-2.050857706	0.000473928
CDR20291_1595	164	164	52	60	-2.008248386	0.000380228
CDR20291_1505	468	468	105	217	-2.001389464	0.00026304
CDR20291_2663	79	79	37	17	-2.001227408	0.04554382

Table S3: Genes ambiguous for growth of R20291 *in vitro*

Genes	InputR20291_1	InputR20291_2	PresporeR20291_1	PresporeR20291_2	log2FoldChange	padj
CDR20291_2327	241	241	54	114	-1.982550945	0.002823626
CDR20291_0431	216	216	84	66	-1.981695859	0.000129017
CDR20291_1825; CDR20291_1836	59	59	22	19	-1.981340182	0.038747382
CDR20291_2186	542	542	173	210	-1.959342427	8.45E-10
CDR20291_0625	73	73	27	26	-1.918825601	0.024156233
CDR20291_2919	204	204	79	70	-1.90965	0.000155238
CDR20291_1647	394	394	207	81	-1.903173886	0.005446832
CDR20291_3004	298	298	86	134	-1.897845	0.000152093
CDR20291_0347	177	177	60	72	-1.881519491	0.000545264
CDR20291_2108	501	501	267	105	-1.880546293	0.00367516
CDR20291_0696	358	358	133	137	-1.864344447	3.24E-07
CDR20291_2547	995	995	336	418	-1.858715387	1.47E-13
CDR20291_2385	62	62	26	21	-1.855426334	0.048184697
CDR20291_1680	2447	2447	1159	774	-1.794513375	1.09E-10
CDR20291_0207	294	294	89	149	-1.765389833	0.000881194
CDR20291_3001	850	850	435	259	-1.746148	1.83E-05
CDR20291_3537	195	195	76	84	-1.743194	0.000535485
CDR20291_0122	85	85	35	35	-1.737263406	0.025431034
CDR20291_1851	2122	2122	708	1060	-1.723240437	1.55E-10
CDR20291_1825; CDR20291_1827	399	399	180	153	-1.716969541	2.66E-06
CDR20291_1878	493	493	221	199	-1.687676642	1.08E-07
CDR20291_1669	645	645	183	369	-1.686495271	0.000744856
CDR20291_2228	5469	5469	2338	2401	-1.664020888	4.87E-80
CDR20291_1055	99	99	37	49	-1.662038935	0.02536477
CDR20291_1114	496	496	150	282	-1.66068809	0.000917977
CDR20291_0420	497	497	220	214	-1.652528808	5.73E-08
CDR20291_0704	2878	2878	1487	1048	-1.637784292	3.30E-11
CDR20291_0521	166	166	50	100	-1.607877824	0.027112177
CDR20291_2341	2025	2025	981	860	-1.593701358	1.48E-19
CDR20291_2726	1589	1589	786	706	-1.547312223	5.97E-17
CDR20291_3471	471	471	280	162	-1.545141	0.00158766
CDR20291_2308	869	869	505	314	-1.539388971	7.29E-05

CDR20291_1824	453	453	162	269	-1.532375833	0.000845342
CDR20291_2773	1451	1451	737	656	-1.515230727	7.54E-15
CDR20291_0545	904	904	359	515	-1.50828662	1.73E-06
CDR20291_1191	975	975	396	559	-1.489391752	7.83E-07
CDR20291_1275	163	163	81	79	-1.483792748	0.006403833
CDR20291_2523	789	789	391	385	-1.481022617	3.10E-10
CDR20291_1998	674	674	387	275	-1.480753323	3.14E-05
CDR20291_1487	1068	1068	534	521	-1.474662514	2.52E-13
CDR20291_1997	305	305	134	168	-1.472891658	0.000429267
CDR20291_2884	674	674	494	174	-1.463222	0.02914624
CDR20291_1825; CDR20291_1844	271	271	139	132	-1.456819011	0.000468359
CDR20291_1334	308	308	172	138	-1.44636547	0.000675162
CDR20291_0511	275	275	137	141	-1.441686944	0.000429267
CDR20291_1281	618	618	284	343	-1.437537812	8.75E-07
CDR20291_0358	1486	1486	813	693	-1.436785709	4.70E-12
CDR20291_1810	208	208	72	140	-1.434053528	0.031276332
CDR20291_0635	1691	1691	844	879	-1.430372085	6.01E-20
CDR20291_0604	2442	2442	949	1557	-1.42327304	2.36E-06
CDR20291_1084	941	941	460	507	-1.418467918	1.03E-10
CDR20291_2574	397	397	285	122	-1.415629077	0.030583502
CDR20291_0616	1355	1355	557	846	-1.40980651	4.20E-06
CDR20291_2176	189	189	125	71	-1.400942757	0.034114686
CDR20291_1545	742	742	433	340	-1.396471769	4.02E-06
CDR20291_3437	643	643	268	407	-1.389913	0.000227373
CDR20291_2667	126	126	73	59	-1.388652734	0.031873808
CDR20291_3296	1103	1103	497	664	-1.385182	2.23E-07
CDR20291_2439	658	658	400	292	-1.382332411	6.88E-05
CDR20291_1124	565	565	369	226	-1.379173333	0.001789974
CDR20291_2689	679	679	345	377	-1.369145281	9.32E-08
CDR20291_0935	410	410	159	282	-1.355853605	0.00736173
CDR20291_1054	125	125	77	57	-1.354881076	0.044222651
CDR20291_0366	361	361	135	254	-1.353618087	0.014290237
CDR20291_2223	963	963	484	562	-1.338866291	4.73E-09
CDR20291_1825; CDR20291_1834	379	379	188	224	-1.337856697	0.000226823

CDR20291_1811	746	746	491	319	-1.335447087	0.000515092
CDR20291_1438	222	222	130	112	-1.331729033	0.005055266
CDR20291_0843	919	919	526	479	-1.327474087	6.87E-09
CDR20291_1073	299	299	120	208	-1.327279125	0.015219277
CDR20291_1051	1022	1022	459	664	-1.323714024	1.81E-05
CDR20291_1715	1246	1246	737	630	-1.322383206	1.93E-09
CDR20291_1562	358	358	254	138	-1.322146916	0.018926723
CDR20291_0992	797	797	545	341	-1.30119892	0.000978553
CDR20291_1898	552	552	316	300	-1.298550088	4.91E-06
CDR20291_2695	170	170	118	72	-1.293413153	0.049358967
CDR20291_0966	353	353	165	233	-1.286354747	0.002701706
CDR20291_2597	776	776	315	563	-1.282955526	0.002836526
CDR20291_3411	916	916	567	466	-1.282404	1.06E-06
CDR20291_2307	730	730	308	522	-1.275540767	0.00196111
CDR20291_2627	1113	1113	521	755	-1.262522905	3.03E-05
CDR20291_2595	446	446	233	282	-1.250886174	0.000222782
CDR20291_2177	645	645	224	524	-1.249110039	0.030472087
CDR20291_0424	334	334	198	188	-1.248060063	0.000709301
CDR20291_0729	350	350	202	204	-1.243092357	0.000470529
CDR20291_2107	688	688	465	336	-1.235537876	0.000368928
CDR20291_2197	162	162	101	88	-1.233856088	0.025831636
CDR20291_2545	1441	1441	1089	606	-1.218870415	0.002120957
CDR20291_0027	1838	1838	1133	1037	-1.216997928	2.26E-13
CDR20291_1863	460	460	233	312	-1.214485397	0.000944194
CDR20291_1654	993	993	530	651	-1.208391349	6.66E-07
CDR20291_1319	580	580	358	333	-1.204041352	1.67E-05
CDR20291_0294	6590	6590	3822	4067	-1.198001407	2.20E-48
CDR20291_0555	4317	4317	2738	2438	-1.194538312	4.58E-20
CDR20291_1641	1583	1583	946	958	-1.190863119	5.78E-14
CDR20291_1475	924	924	497	618	-1.187540245	3.04E-06
CDR20291_1403	1083	1083	497	813	-1.186011484	0.000978553
CDR20291_0391	887	887	509	563	-1.184519314	1.17E-07
CDR20291_0688	989	989	514	693	-1.171806466	3.14E-05
CDR20291_2622	822	822	612	389	-1.169791008	0.002407598

CDR20291_1818	1071	1071	667	646	-1.163032258	4.62E-09
CDR20291_3167	357	357	210	228	-1.162686	0.000986681
CDR20291_2230	1007	1007	451	791	-1.1584173	0.003639473
CDR20291_0946	449	449	351	200	-1.157983712	0.023222644
CDR20291_1648	1056	1056	376	929	-1.157784129	0.036004737
CDR20291_2130	1243	1243	932	599	-1.153425958	0.000819836
CDR20291_0586	703	703	600	266	-1.150814904	0.044404137
CDR20291_1082	926	926	641	503	-1.150488682	4.24E-05
CDR20291_1196	1214	1214	933	565	-1.150395275	0.002053883
CDR20291_3121	199	199	143	105	-1.137522	0.03750087
CDR20291_3396	1375	1375	867	849	-1.137395	4.81E-11
CDR20291_2129	361	361	266	184	-1.136730768	0.012479821
CDR20291_2213	238	238	165	132	-1.136166215	0.017565832
CDR20291_3160	2054	2054	1216	1362	-1.130094	1.55E-13
CDR20291_0399	710	710	508	387	-1.121223915	0.00047043
CDR20291_1437	455	455	303	274	-1.113779082	0.000515092
CDR20291_2132	1166	1166	893	594	-1.103477041	0.000970287
CDR20291_1889	638	638	537	278	-1.099407402	0.031669774
CDR20291_0703	1270	1270	747	896	-1.086876122	2.95E-07
CDR20291_2175	362	362	191	278	-1.08608252	0.01351871
CDR20291_2493	765	765	512	479	-1.083283219	6.74E-06
CDR20291_0920	598	598	422	353	-1.081897028	0.000378447
CDR20291_2750	1497	1497	901	1044	-1.080446562	7.02E-09
CDR20291_0422	234	234	165	139	-1.078449696	0.020784548
CDR20291_1985	1096	1096	816	620	-1.065443998	0.000142556
CDR20291_1342	779	779	447	578	-1.062964899	0.00022308
CDR20291_2102	1320	1320	843	894	-1.061480655	1.44E-09
CDR20291_1168	6963	6963	4639	4549	-1.056976324	4.23E-41
CDR20291_2753	1072	1072	633	784	-1.056066976	9.77E-06
CDR20291_1043	436	436	224	354	-1.053518505	0.018906252
CDR20291_1947	265	265	170	181	-1.052086465	0.010754638
CDR20291_1739; CDR20291_1801	1226	1226	502	1131	-1.049105713	0.036004737
CDR20291_0038	179	179	107	131	-1.047487994	0.047855483
CDR20291_2310	1651	1651	735	1466	-1.047088548	0.013017931

CDR20291_2791	390	390	294	225	-1.043082976	0.009229835
CDR20291_1989	696	696	486	446	-1.035335211	5.45E-05
CDR20291_2154	207	207	142	137	-1.026280173	0.029146237
CDR20291_3154	1096	1096	683	799	-1.022908	2.11E-06
CDR20291_2281	1758	1758	1004	1377	-1.021709789	3.16E-05
CDR20291_2882	2163	2163	1586	1339	-1.020574	4.05E-08
CDR20291_2712	1122	1122	803	716	-1.019326458	1.69E-06
CDR20291_3059	1229	1229	689	990	-1.00954	0.000545264
CDR20291_3118	607	607	423	406	-1.007203	0.000150699
CDR20291_3265	2727	2727	1882	1843	-1.007085	1.18E-16
CDR20291_2426	290	290	234	162	-1.005215804	0.041328491
CDR20291_0667	702	702	395	569	-1.002086675	0.003676099
CDR20291_1975	3708	3708	2583	2504	-1.000767609	9.04E-21
CDR20291_3023	1296	1296	1153	623	-0.9983174	0.0191819
CDR20291_0548	924	924	790	480	-0.994830054	0.013056259
CDR20291_2584	1198	1198	924	733	-0.987604656	0.000101352
CDR20291_1662	810	810	522	602	-0.985457211	4.88E-05
CDR20291_1328	3098	3098	2170	2134	-0.982697974	4.07E-18
CDR20291_0434	435	435	332	272	-0.982273417	0.005887902
CDR20291_3371	1374	1374	959	955	-0.9789146	7.62E-09
CDR20291_1005	1259	1259	845	911	-0.977636941	7.12E-08
CDR20291_2468	2617	2617	2148	1513	-0.970351485	0.000156799
CDR20291_2767	312	312	174	265	-0.967318542	0.046498073
CDR20291_0354	1463	1463	1226	826	-0.966284216	0.001993659
CDR20291_1490	680	680	487	469	-0.965424686	0.000109779
CDR20291_0730	523	523	401	334	-0.964982104	0.00277101
CDR20291_2455	1540	1540	1086	1081	-0.964351621	1.51E-09
CDR20291_1231	1811	1811	1430	1120	-0.961732841	2.90E-05
CDR20291_2064	9966	9966	7106	6972	-0.958663678	3.74E-46
CDR20291_3108	269	269	188	193	-0.95514	0.01874019
CDR20291_0873	2637	2637	2010	1726	-0.953494009	1.35E-08
CDR20291_1336	293	293	221	195	-0.950633106	0.019062238
CDR20291_1028	356	356	269	237	-0.949044121	0.010078937
CDR20291_3366	1489	1489	1009	1114	-0.9460529	3.67E-08

CDR20291_2862	592	592	531	313	-0.941865343	0.042262743
CDR20291_1395	1569	1569	1341	899	-0.940692698	0.002428461
CDR20291_0130	1244	1244	887	897	-0.937096423	1.24E-07
CDR20291_2305	621	621	329	565	-0.935178629	0.035199808
CDR20291_1427	796	796	519	625	-0.935157874	0.000295501
CDR20291_0883	2342	2342	1837	1535	-0.930034316	5.58E-07
CDR20291_1888	704	704	540	474	-0.929860343	0.000496554
CDR20291_2752	232	232	151	184	-0.928431006	0.045234275
CDR20291_1567	962	962	606	788	-0.92382528	0.000595971
CDR20291_2596	326	326	228	244	-0.923686041	0.012044915
CDR20291_1166	442	442	298	345	-0.917356155	0.004747697
CDR20291_0951	2242	2242	1347	1921	-0.916011127	0.000243613
CDR20291_1825; CDR20291_1840	1177	1177	775	943	-0.912869886	4.64E-05
CDR20291_0456	1463	1463	1062	1072	-0.912582867	2.01E-08
CDR20291_1033	224	224	163	164	-0.911399422	0.041761467
CDR20291_2048	713	713	410	633	-0.911373302	0.016253304
CDR20291_0572	1312	1312	983	937	-0.907490556	4.35E-07
CDR20291_2311	1632	1632	1384	1009	-0.902755066	0.000819836
CDR20291_2544	18887	18887	13470	14294	-0.901732485	3.53E-65
CDR20291_1874	349	349	266	247	-0.900924874	0.012529371
CDR20291_2513	2272	2272	1797	1546	-0.898925609	2.88E-07
CDR20291_3164	663	663	614	362	-0.8956299	0.04746521
CDR20291_1432	1549	1549	1320	974	-0.888493091	0.000915615
CDR20291_3051	1408	1408	1170	916	-0.8883546	0.000343328
CDR20291_2467	4070	4070	3430	2607	-0.886397767	1.17E-05
CDR20291_0952	1458	1458	812	1359	-0.88636453	0.012371383
CDR20291_1825; CDR20291_1828	706	706	593	455	-0.885430448	0.005652448
CDR20291_2691	806	806	708	489	-0.884012208	0.012894248
CDR20291_2859	1108	1108	845	804	-0.883183494	6.16E-06
CDR20291_1081	934	934	533	861	-0.882731974	0.018471778
CDR20291_0213	964	964	851	583	-0.881577607	0.01006916
CDR20291_1141	4479	4479	3425	3256	-0.87991613	1.96E-17
CDR20291_1825; CDR20291_1849	679	679	431	585	-0.877821407	0.006880688
CDR20291_2149	693	693	498	538	-0.877568797	0.000366877

CDR20291_0296	1475	1475	1067	1140	-0.876220768	1.11E-07
CDR20291_3055	2844	2844	1909	2352	-0.8753265	3.08E-07
CDR20291_3278	909	909	734	627	-0.8737604	0.000440426
CDR20291_1159	296	296	214	230	-0.872667447	0.024110737
CDR20291_0842	897	897	574	777	-0.868382823	0.003067665
CDR20291_1615	903	903	634	725	-0.868304402	0.000138054
CDR20291_1045	564	564	336	516	-0.864933586	0.032016653
CDR20291_3163	685	685	399	636	-0.8649053	0.03016597
CDR20291_2849	2943	2943	2034	2417	-0.861497376	2.23E-08
CDR20291_1637	1032	1032	617	947	-0.86032188	0.011776289
CDR20291_2693	1128	1128	945	760	-0.859639066	0.000693494
CDR20291_2812	1144	1144	772	962	-0.858637903	0.000280767
CDR20291_1399	653	653	395	597	-0.856732239	0.023990851
CDR20291_2285	812	812	758	472	-0.854754679	0.034517673
CDR20291_2618	441	441	334	337	-0.85167601	0.005837661
CDR20291_3268	2151	2151	1617	1663	-0.8486494	1.36E-10
CDR20291_0125	361	361	293	258	-0.84624309	0.020740705
CDR20291_1277	612	612	476	461	-0.842419315	0.001267257
CDR20291_2939	823	823	512	751	-0.8419023	0.01351953
CDR20291_1466	2489	2489	1887	1944	-0.835194341	8.82E-12
CDR20291_1582	1627	1627	846	1667	-0.834639434	0.04903436
CDR20291_1504	1000	1000	671	874	-0.831357736	0.001820472
CDR20291_0385	1600	1600	1377	1093	-0.829098727	0.000378447
CDR20291_2727	716	716	508	601	-0.82705649	0.001704996
CDR20291_3156	1436	1436	1262	958	-0.8267194	0.001535244
CDR20291_2730	1128	1128	750	1003	-0.823096598	0.002109863
CDR20291_0590	604	604	390	550	-0.82139242	0.021481528
CDR20291_0670	426	426	274	389	-0.821380618	0.043515668
CDR20291_2314	1621	1621	1197	1326	-0.819583321	6.94E-07
CDR20291_1426	1196	1196	988	892	-0.803939444	7.51E-05
CDR20291_1425	2053	2053	1789	1440	-0.80227526	0.000146364
CDR20291_1565	1372	1372	912	1252	-0.801929105	0.002432982
CDR20291_1282	1086	1086	908	804	-0.799661978	0.000251534
CDR20291_1260	770	770	701	512	-0.799324534	0.017235652

CDR20291_2356	1756	1756	1703	1071	-0.79421572	0.018859144
CDR20291_0209	673	673	494	576	-0.789252433	0.003043354
CDR20291_2485	2771	2771	2152	2259	-0.786776162	1.93E-11
CDR20291_0930	503	503	378	423	-0.786659388	0.008195509
CDR20291_1739; CDR20291_1795	2377	2377	2059	1730	-0.783256901	1.97E-05
CDR20291_3231	835	835	638	695	-0.7828946	0.00047604
CDR20291_0882	1430	1430	1209	1075	-0.780797622	5.45E-05
CDR20291_2774	1272	1272	768	1275	-0.777086149	0.032209319
CDR20291_1665	517	517	342	488	-0.776635368	0.042459045
CDR20291_1034	1341	1341	1035	1118	-0.774628423	9.10E-06
CDR20291_0588	933	933	778	720	-0.773538091	0.00042358
CDR20291_1561	1701	1701	1398	1335	-0.772736094	8.71E-07
CDR20291_2483	2289	2289	1676	2012	-0.770288251	7.20E-06
CDR20291_0362	1482	1482	1128	1267	-0.765455153	1.41E-05
CDR20291_2524	1653	1653	1504	1166	-0.763613	0.00161402
CDR20291_3074	535	535	471	396	-0.7594774	0.01727038
CDR20291_1335	692	692	523	603	-0.75574612	0.003601753
CDR20291_3173	4349	4349	3202	3883	-0.7544119	2.38E-07
CDR20291_2011	5227	5227	4486	4033	-0.751700761	3.02E-10
CDR20291_1212	792	792	640	652	-0.751240608	0.000793356
CDR20291_0457	3062	3062	2599	2416	-0.744871879	7.08E-09
CDR20291_2952	1260	1260	1057	1007	-0.7448038	4.64E-05
CDR20291_0034	1212	1212	1042	946	-0.742563538	0.000204206
CDR20291_2867	915	915	606	899	-0.741962226	0.028134282
CDR20291_1313	3159	3159	2567	2622	-0.741303445	5.00E-12
CDR20291_0874	1742	1742	1493	1372	-0.738781782	9.35E-06
CDR20291_0877	1337	1337	1098	1104	-0.737371561	1.34E-05
CDR20291_2819	1991	1991	1632	1649	-0.73657708	7.56E-08
CDR20291_1495	1331	1331	827	1372	-0.736338637	0.041283244
CDR20291_1226	3499	3499	2532	3245	-0.735511342	4.57E-05
CDR20291_1484	1389	1389	1400	891	-0.732049302	0.036709203
CDR20291_3368	1284	1284	1258	861	-0.7317524	0.02292887
CDR20291_1563	2222	2222	1636	2042	-0.731625569	0.000130375
CDR20291_2856	2652	2652	2652	1728	-0.730270291	0.014049219

CDR20291_1514	2102	2102	1904	1573	-0.729732242	0.000241839
CDR20291_2379	2084	2084	1394	2074	-0.725187153	0.009091857
CDR20291_0427	1291	1291	1214	930	-0.723471818	0.006752847
CDR20291_2818	1205	1205	1132	873	-0.720768477	0.007518771
CDR20291_1569	2962	2962	2557	2383	-0.718725597	2.88E-08
CDR20291_2381	2718	2718	1622	2930	-0.717325566	0.042454681
CDR20291_1640	1178	1178	1144	823	-0.715187522	0.019062238
CDR20291_0181	1249	1249	1068	1021	-0.7148071	9.22E-05
CDR20291_1883	1899	1899	1319	1865	-0.713973062	0.005837661
CDR20291_2548	2137	2137	1696	1885	-0.713090562	1.13E-06
CDR20291_1601	474	474	431	363	-0.711730862	0.033688006
CDR20291_0409	966	966	854	765	-0.711392275	0.001598124
CDR20291_2915	1555	1555	1121	1499	-0.7065183	0.003947915
CDR20291_1314	2606	2606	1856	2536	-0.70629948	0.001625257
CDR20291_2806	4368	4368	4276	3066	-0.705579088	0.00196111
CDR20291_0844	414	414	342	356	-0.703822003	0.027606547
CDR20291_1216	621	621	572	476	-0.700919963	0.020991815
CDR20291_3037	3406	3406	2649	3122	-0.6975445	1.26E-06
CDR20291_0881	2166	2166	1598	2076	-0.696656517	0.000959517
CDR20291_0546	22703	22703	18846	19702	-0.693678514	3.86E-54
CDR20291_0507	4856	4856	4258	3985	-0.693288262	5.68E-11
CDR20291_2736	2137	2137	1661	1981	-0.689219731	7.39E-05
CDR20291_1986	1500	1500	1177	1380	-0.688747069	0.000305302
CDR20291_3098	797	797	589	772	-0.6869925	0.01990299
CDR20291_2377	1611	1611	1407	1343	-0.685359166	2.18E-05
CDR20291_2760	1565	1565	1515	1154	-0.685102476	0.007570285
CDR20291_0591	829	829	723	693	-0.684487201	0.002201358
CDR20291_3073	855	855	830	629	-0.6842406	0.02685627
CDR20291_3152	898	898	859	674	-0.6838981	0.01798031
CDR20291_0573	965	965	947	700	-0.68380348	0.027112177
CDR20291_0339	1760	1760	1323	1700	-0.678485745	0.00191124
CDR20291_0208	519	519	461	430	-0.676990013	0.020685442
CDR20291_1739; CDR20291_1804	828	828	673	750	-0.676646498	0.003168938
CDR20291_1697	709	709	693	526	-0.673400996	0.040426313

CDR20291_3475	403	403	343	352	-0.6710901	0.03828309
CDR20291_2484	2763	2763	2310	2475	-0.665331871	3.62E-08
CDR20291_3058	2056	2056	1779	1782	-0.6647188	8.05E-07
CDR20291_2019	397	397	353	336	-0.661453174	0.046650483
CDR20291_0880	5355	5355	4413	4890	-0.661044601	5.24E-11
CDR20291_0030	1185	1185	1001	1059	-0.659770655	0.000302159
CDR20291_1357	1937	1937	1426	1957	-0.654884983	0.007543875
CDR20291_2181	1982	1982	2049	1401	-0.654825307	0.025775335
CDR20291_1210	1434	1434	1200	1305	-0.652949604	0.000127223
CDR20291_1424	1023	1023	1036	753	-0.648572977	0.038507229
CDR20291_1825; CDR20291_1833	973	973	815	890	-0.648482324	0.001752963
CDR20291_3187	1541	1541	1236	1471	-0.6455158	0.000916041
CDR20291_1112	2587	2587	2059	2487	-0.645141652	0.000134931
CDR20291_3497	1255	1255	1118	1087	-0.6438686	0.000320579
CDR20291_2899	1413	1413	1135	1357	-0.6398322	0.001625257
CDR20291_3283	486	486	403	454	-0.6396127	0.03549556
CDR20291_1137	1068	1068	803	1088	-0.63501655	0.025092859
CDR20291_2348	2050	2050	1986	1637	-0.634233068	0.001691543
CDR20291_2932	1175	1175	895	1188	-0.6331098	0.01731205
CDR20291_0728	839	839	702	785	-0.632241866	0.005915808
CDR20291_3362	1417	1417	1203	1310	-0.6311536	0.000236085
CDR20291_1570	1731	1731	1621	1452	-0.628348109	0.000394229
CDR20291_0255	1260	1260	1073	1166	-0.628279145	0.0005245
CDR20291_3203	3301	3301	2557	3320	-0.6268072	0.00097541
CDR20291_2257	1176	1176	877	1218	-0.626370815	0.029152332
CDR20291_2232	1162	1162	1147	918	-0.626067194	0.015008319
CDR20291_3036	977	977	862	882	-0.621334	0.001824538
CDR20291_0575	3348	3348	2903	3078	-0.620457415	8.63E-09
CDR20291_1502	1660	1660	1423	1544	-0.619878884	8.82E-05
CDR20291_1591	717	717	573	710	-0.619137262	0.02886754
CDR20291_3412	1267	1267	1173	1094	-0.6173071	0.000987172
CDR20291_1996	978	978	957	792	-0.617216894	0.016766324
CDR20291_2623	2695	2695	2358	2469	-0.616617618	1.66E-07
CDR20291_1737	1286	1286	1321	982	-0.614445995	0.030689386

CDR20291_3359	2543	2543	1967	2607	-0.6122	0.004019934
CDR20291_1457	1268	1268	1044	1237	-0.611198499	0.003323357
CDR20291_3157	2088	2088	2163	1586	-0.6105718	0.01824965
CDR20291_2146	2167	2167	2044	1852	-0.610173126	0.000115787
CDR20291_1717	32957	32957	29129	30201	-0.609218283	1.16E-60
CDR20291_0468	1534	1534	1440	1323	-0.607632048	0.00058182
CDR20291_1030	919	919	888	771	-0.604002574	0.013267108
CDR20291_3284	1427	1427	1257	1322	-0.6036622	0.00024904
CDR20291_2514	1219	1219	1238	962	-0.603580959	0.02422959
CDR20291_0028	4850	4850	4692	4082	-0.600913239	1.20E-05
CDR20291_0280	1079	1079	818	1141	-0.599039181	0.044222651
CDR20291_2924	2577	2577	2166	2516	-0.596749	9.35E-05
CDR20291_1316	4990	4990	4014	5056	-0.596712956	0.000190034
CDR20291_3060	1464	1464	1305	1355	-0.5958916	0.000222833
CDR20291_1230	3049	3049	2779	2760	-0.595813353	7.64E-08
CDR20291_2814	2850	2850	2857	2327	-0.592595063	0.001840713
CDR20291_1701	1356	1356	1342	1125	-0.592522904	0.008249042
CDR20291_2245	2289	2289	1958	2225	-0.58820395	9.57E-05
CDR20291_0410	1467	1467	1097	1589	-0.587149339	0.04452909
CDR20291_0535	7890	7890	7713	6735	-0.583408808	1.21E-06
CDR20291_3363	780	780	650	785	-0.5789322	0.02842311
CDR20291_0566	2453	2453	2286	2241	-0.573006206	5.20E-06
CDR20291_0747	3183	3183	3265	2606	-0.572330961	0.00329838
CDR20291_3053	1190	1190	1160	1037	-0.5718065	0.006029644
CDR20291_3112	18839	18839	16261	18604	-0.5700427	8.13E-12
CDR20291_2940	2982	2982	2891	2624	-0.5693943	4.82E-05
CDR20291_1634	2971	2971	2783	2714	-0.569282264	8.45E-07
CDR20291_1907	761	761	734	675	-0.567876851	0.020741809
CDR20291_0515	6487	6487	6000	6021	-0.567238764	3.38E-14
CDR20291_0304	1993	1993	1559	2142	-0.566402645	0.02152591
CDR20291_2764	1240	1240	1214	1084	-0.566332192	0.005767025
CDR20291_2136	936	936	807	931	-0.56527329	0.013283346
CDR20291_0559	1175	1175	1069	1114	-0.56377545	0.001867743
CDR20291_2359	1841	1841	1814	1608	-0.561963535	0.001558201

CDR20291_3035	681	681	613	654	-0.5618952	0.02284974
CDR20291_2352	1670	1670	1370	1741	-0.561284333	0.010956657
CDR20291_1434	1031	1031	915	1007	-0.559232911	0.006136937
CDR20291_2550	1627	1627	1594	1442	-0.556501403	0.001781073
CDR20291_0733	547	547	516	506	-0.555235034	0.045234275
CDR20291_2759	1197	1197	969	1272	-0.554317027	0.033290989
CDR20291_0669	2446	2446	2476	2104	-0.551082844	0.00208151
CDR20291_0599	1045	1045	1030	928	-0.550557483	0.011682561
CDR20291_2688	4089	4089	3988	3694	-0.546881497	2.97E-06
CDR20291_0428	2952	2952	2786	2762	-0.546815258	1.23E-06
CDR20291_0621	11803	11803	11880	10288	-0.546790042	1.72E-06
CDR20291_2967	4547	4547	4447	4097	-0.546579	2.00E-06
CDR20291_3413	3516	3516	3057	3562	-0.5455313	8.88E-05
CDR20291_2933	3423	3423	3413	3028	-0.5442858	0.000148722
CDR20291_2238	711	711	616	724	-0.543936081	0.040682102
CDR20291_3270	1708	1708	1693	1528	-0.5412409	0.00204295
CDR20291_2174	2172	2172	2229	1868	-0.540364956	0.005083092
CDR20291_0958	1744	1744	1737	1555	-0.539819505	0.002328855
CDR20291_1067	3426	3426	3168	3304	-0.539746414	1.92E-07
CDR20291_3504	711	711	679	665	-0.538397	0.02543103
CDR20291_2323	928	928	863	892	-0.538097417	0.009244609
CDR20291_0540	1483	1483	1397	1414	-0.534665859	0.000806686
CDR20291_3145	2634	2634	2533	2467	-0.5322964	1.53E-05
CDR20291_1509	2270	2270	2282	2036	-0.528684742	0.001113038
CDR20291_0607	3222	3222	3284	2859	-0.525187107	0.000691912
CDR20291_2685	14559	14559	13160	14665	-0.523436275	8.97E-12
CDR20291_2222	1952	1952	1723	2010	-0.522826843	0.002266964
CDR20291_3489	959	959	924	909	-0.5224346	0.01095666
CDR20291_1496	852	852	770	865	-0.517572277	0.024921977
CDR20291_1894	1015	1015	907	1043	-0.516106141	0.018926723
CDR20291_3136	2990	2990	3024	2715	-0.5157422	0.000377002
CDR20291_1877	4531	4531	4171	4546	-0.513735584	4.11E-07
CDR20291_2973	3622	3622	3279	3692	-0.5133868	3.26E-05
CDR20291_2900	3298	3298	3146	3199	-0.513233	8.52E-07

CDR20291_2926	3357	3357	2651	3822	-0.5124715	0.03496914
CDR20291_1322	7274	7274	6341	7680	-0.511732595	9.20E-05
CDR20291_3269	4370	4370	4382	4037	-0.5105597	1.27E-05
CDR20291_3401	1918	1918	1643	2066	-0.5073167	0.01452612
CDR20291_0516	1426	1426	1357	1400	-0.50623413	0.001891162
CDR20291_1990	1885	1885	1633	2021	-0.503718068	0.012454343
CDR20291_2772	1012	1012	1020	939	-0.503676117	0.019033901
CDR20291_0342	3358	3358	3187	3320	-0.503034901	1.49E-06
CDR20291_3078	1834	1834	1621	1936	-0.5027084	0.007056507
CDR20291_0547	1334	1334	1225	1362	-0.502347836	0.006122917
CDR20291_0592	2824	2824	2605	2884	-0.499041326	0.000120556
CDR20291_1584	3608	3608	3299	3718	-0.498317757	6.11E-05
CDR20291_1279	1973	1973	2008	1826	-0.498032714	0.002290324
CDR20291_3116	1197	1197	1282	1047	-0.4954499	0.04649807
CDR20291_0748	1060	1060	1013	1053	-0.494634181	0.010431427
CDR20291_1237	1902	1902	1833	1880	-0.492251776	0.000433513
CDR20291_2406	2947	2947	2521	3241	-0.491590947	0.011648729
CDR20291_0997	3551	3551	3574	3366	-0.490023407	3.08E-05
CDR20291_0389	1680	1680	1565	1723	-0.489053627	0.002398854
CDR20291_0734	793	793	754	799	-0.487874978	0.031669774
CDR20291_0059	1682	1682	1714	1578	-0.487793734	0.004116779
CDR20291_2088	3458	3458	3344	3449	-0.4832468	2.18E-06
CDR20291_0360	1913	1913	2066	1689	-0.482756297	0.024386317
CDR20291_2822	1800	1800	1809	1729	-0.481903077	0.001656035
CDR20291_2815	1257	1257	1219	1256	-0.479906837	0.006154758
CDR20291_2788	1061	1061	1029	1062	-0.478593507	0.01295316
CDR20291_2115	1412	1412	1279	1506	-0.478334132	0.017075619
CDR20291_3047	1267	1267	1329	1183	-0.4689264	0.02320398
CDR20291_2621	2046	2046	1789	2277	-0.468029512	0.026014389
CDR20291_0690	2509	2509	2379	2608	-0.466715736	0.000466646
CDR20291_0225	2847	2847	3160	2495	-0.46538774	0.026167715
CDR20291_0598	1426	1426	1518	1316	-0.465291669	0.02536477
CDR20291_2074	2094	2094	2278	1884	-0.464797188	0.022616907
CDR20291_3062	1873	1873	1847	1881	-0.4642211	0.000978553

CDR20291_1027	1030	1030	1036	1014	-0.464024031	0.01959661
CDR20291_2214	1836	1836	1863	1793	-0.463187674	0.002003391
CDR20291_0238	3174	3174	3275	3046	-0.462795031	0.000304369
CDR20291_1931	1695	1695	1659	1719	-0.462504764	0.00191124
CDR20291_2299	2436	2436	2289	2579	-0.459152288	0.001520475
CDR20291_1513	8572	8572	8687	8453	-0.457294701	4.31E-10
CDR20291_1239	2719	2719	2485	2970	-0.453886106	0.005807612
CDR20291_1408	1186	1186	1102	1283	-0.450304868	0.032475418
CDR20291_2395	3146	3146	3149	3182	-0.448304527	3.04E-05
CDR20291_2131	894	894	851	949	-0.448238431	0.046108304
CDR20291_0665	2424	2424	2520	2361	-0.446912295	0.001427527
CDR20291_0884	1266	1266	1292	1260	-0.445627747	0.012920781
CDR20291_2368	4169	4169	4055	4359	-0.444551192	1.05E-05
CDR20291_2073	1417	1417	1476	1386	-0.442534551	0.013164819
CDR20291_0861	6631	6631	7069	6372	-0.437069744	0.000107505
CDR20291_0746	9083	9083	8645	9789	-0.436889936	4.02E-06
CDR20291_0668	1180	1180	1139	1257	-0.43597731	0.024287566
CDR20291_0191	1857	1857	1812	1972	-0.430785743	0.004410183
CDR20291_2162	3169	3169	3150	3309	-0.430199235	8.55E-05
CDR20291_2220	1646	1646	1732	1623	-0.429354487	0.01038764
CDR20291_1585	4977	4977	4369	5804	-0.427764232	0.024186722
CDR20291_2422	3698	3698	3821	3727	-0.427628493	4.57E-05
CDR20291_0450	5245	5245	5318	5398	-0.426497871	2.13E-07
CDR20291_1937	2400	2400	2463	2442	-0.425871687	0.000716214
CDR20291_2724	4126	4126	3748	4704	-0.424200496	0.012548489
CDR20291_2549	3346	3346	3478	3374	-0.422852527	0.000147705
CDR20291_3264	1330	1330	1355	1373	-0.4208206	0.01373832
CDR20291_2184	3533	3533	3497	3763	-0.418572529	0.000131612
CDR20291_0161	3846	3846	3729	4180	-0.417799862	0.000501501
CDR20291_3266	1981	1981	1882	2197	-0.4162302	0.0166965
CDR20291_2515	6657	6657	7126	6566	-0.416180948	5.40E-05
CDR20291_0425	4316	4316	4220	4677	-0.414232808	0.000180198
CDR20291_1871	2088	2088	2329	1977	-0.411771655	0.03266499
CDR20291_1280	7149	7149	7513	7244	-0.41130788	5.46E-07

CDR20291_0440	4097	4097	4265	4206	-0.409088607	2.65E-05
CDR20291_0808	3834	3834	4150	3789	-0.406403807	0.001442478
CDR20291_0295	1200	1200	1191	1302	-0.402905272	0.033750114
CDR20291_1716	989	989	1034	1021	-0.401967012	0.047736442
CDR20291_0400	1516	1516	1656	1493	-0.40180843	0.03266499
CDR20291_2789	1959	1959	2016	2056	-0.401661426	0.003587156
CDR20291_0678	1399	1399	1368	1542	-0.401343352	0.030554564
CDR20291_2757	3669	3669	3827	3835	-0.394828395	8.28E-05
CDR20291_2848	5153	5153	5508	5260	-0.393562059	5.33E-05
CDR20291_0438	1948	1948	1879	2199	-0.392366771	0.026025114
CDR20291_0343	3495	3495	3921	3387	-0.391929298	0.013240127
CDR20291_2164	7810	7810	8137	8277	-0.385731646	1.01E-08
CDR20291_1980	1645	1645	1658	1801	-0.385443688	0.017128103
CDR20291_0582	10273	10273	10372	11234	-0.385125912	1.47E-07
CDR20291_1011	3168	3168	3625	3032	-0.384583014	0.031127332
CDR20291_2429	4438	4438	4072	5275	-0.384385492	0.036004737
CDR20291_2001	4992	4992	4836	5692	-0.381748991	0.003773269
CDR20291_3364	2419	2419	2765	2334	-0.3801507	0.0436508
CDR20291_1825	3230	3230	3545	3286	-0.37605758	0.003684328
CDR20291_3212	1307	1307	1412	1356	-0.3742879	0.03817823
CDR20291_2096	6433	6433	7173	6462	-0.372656033	0.001183556
CDR20291_1366	3178	3178	3226	3530	-0.369714967	0.002131555
CDR20291_2402	4381	4381	4864	4448	-0.368689138	0.002443514
CDR20291_1899	8305	8305	8711	8955	-0.368412564	1.96E-08
CDR20291_1374	1409	1409	1528	1479	-0.363273168	0.034954668
CDR20291_1653	4831	4831	4967	5358	-0.361919384	0.00017754
CDR20291_2171	4432	4432	4223	5263	-0.360859329	0.029043904
CDR20291_1949	1898	1898	1990	2075	-0.35865654	0.012190136
CDR20291_2825	3416	3416	3763	3551	-0.358393467	0.002810348
CDR20291_3327	7811	7811	8150	8597	-0.3571894	7.30E-07
CDR20291_2441	1386	1386	1460	1513	-0.356397753	0.034237433
CDR20291_3185	3740	3740	3733	4295	-0.3561209	0.007961167
CDR20291_2655	8007	8007	8800	8396	-0.354078464	2.15E-05
CDR20291_2754	5439	5439	5458	6260	-0.350792679	0.002788311

CDR20291_3184	22579	22579	25026	23683	-0.3475439	9.44E-08
CDR20291_1586	2482	2482	2519	2847	-0.34564754	0.019393946
CDR20291_0869	1925	1925	2084	2102	-0.336492854	0.017447553
CDR20291_2392	2455	2455	2570	2797	-0.329333661	0.014682921
CDR20291_0659	2828	2828	3184	2997	-0.328671036	0.01295395
CDR20291_3070	1606	1606	1700	1818	-0.3263208	0.04272585
CDR20291_2347	3177	3177	3228	3764	-0.32017744	0.031537081
CDR20291_0147	4172	4172	4861	4310	-0.319957548	0.022498949
CDR20291_0885	6911	6911	7393	7820	-0.319193709	3.75E-05
CDR20291_2816	2649	2649	2746	3092	-0.317939798	0.026280389
CDR20291_0682	3621	3621	4035	3965	-0.313416198	0.00283185
CDR20291_1910	7794	7794	9311	7901	-0.312991549	0.02546246
CDR20291_0894	8685	8685	8995	10228	-0.311813797	0.001794257
CDR20291_0378	4934	4934	5140	5821	-0.30646419	0.008755531
CDR20291_1003	2966	2966	3369	3250	-0.298805897	0.014140159
CDR20291_1631	4146	4146	4309	4968	-0.296202272	0.02536477
CDR20291_1116	5108	5108	5502	5950	-0.292916805	0.002264466
CDR20291_2737	4018	4018	4416	4592	-0.292684583	0.002428461
CDR20291_2191	2961	2961	3206	3441	-0.291012205	0.015774809
CDR20291_1659	3027	3027	3185	3614	-0.290588707	0.038040213
CDR20291_2427	7473	7473	8643	8175	-0.286508817	0.001464687
CDR20291_3414	4756	4756	5357	5381	-0.2822736	0.001427289
CDR20291_2709	2279	2279	2594	2558	-0.280321006	0.035227558
CDR20291_1629	9461	9461	9846	11586	-0.278597152	0.016054496
CDR20291_2686	45672	45672	48776	54850	-0.275979333	4.73E-05
CDR20291_2216	3015	3015	3485	3371	-0.271709945	0.024458064
CDR20291_1900	14192	14192	16183	16095	-0.271635251	6.55E-07
CDR20291_0401	6091	6091	6824	7046	-0.270149104	0.000515521
CDR20291_0887	3586	3586	4036	4161	-0.264634898	0.010078937
CDR20291_1154	7743	7743	8759	8999	-0.259827418	0.000156799
CDR20291_1006	2807	2807	3119	3352	-0.252680689	0.043511582
CDR20291_3038	4276	4276	4848	5011	-0.2521935	0.007348197
CDR20291_2123	3992	3992	4367	4868	-0.247899326	0.039612731
CDR20291_1623	11652	11652	13949	13275	-0.232494176	0.002398854

CDR20291_1608	7606	7606	9174	8642	-0.228761947	0.01413079
CDR20291_0698	7995	7995	9778	9057	-0.220357424	0.027279987
CDR20291_2430	7341	7341	8482	8890	-0.214753706	0.003894144
CDR20291_2328	16514	16514	19696	19659	-0.204275574	6.75E-05
CDR20291_1922	4161	4161	4990	4962	-0.19905274	0.044287931
CDR20291_1189	9274	9274	11463	10849	-0.190201032	0.028123305
CDR20291_0584	13746	13746	15751	17453	-0.185523109	0.021881742
CDR20291_2579	13492	13492	16409	16578	-0.167423726	0.001928537
CDR20291_0355	6815	6815	8393	8387	-0.157184946	0.043907782
CDR20291_0923	9426	9426	11720	11519	-0.155195606	0.030180404
CDR20291_2889	10586	10586	13043	13139	-0.1507794	0.01484285
CDR20291_1250	24045	24045	30498	29216	-0.144505179	0.02197624
CDR20291_2986	15363	15363	18479	19764	-0.1418788	0.02577533

Table S4: Genes essential for sporulation of R20291 *in vitro*

Genes	InputR20291_1	InputR20291_2	SporeR20291_1	SporeR20291_2	log2FoldChange	padj
CDR20291_1516; CDR20291_1517	148	148	0	0	-9.565083894	5.33E-08
CDR20291_0918	2844	2844	1	7	-9.43729185	9.79E-62
CDR20291_2613; CDR20291_2614	118	118	0	0	-9.238271803	4.42E-07
CDR20291_1188; CDR20291_1189	208	208	0	1	-8.641978088	5.42E-08
CDR20291_0268; CDR20291_0269	110	110	0	1	-7.729840203	7.85E-06
CDR20291_2604; CDR20291_2605	41	41	0	0	-7.713163822	0.001444066
CDR20291_3045; CDR20291_3046	39	39	0	0	-7.64101282	0.00191366
CDR20291_1630; CDR20291_1631	38	38	0	0	-7.603537467	0.0022015
CDR20291_3435; CDR20291_3436	96	96	0	1	-7.535209278	2.03E-05
CDR20291_0948; CDR20291_0949	36	36	0	0	-7.525533574	0.002927995
CDR20291_1586; CDR20291_1587	91	91	0	1	-7.458759451	2.92E-05
CDR20291_3412	1267	1267	2	13	-7.405699546	4.46E-41
CDR20291_3006; CDR20291_3007	29	29	0	0	-7.213583588	0.008211421
CDR20291_0923	9426	9426	51	94	-6.981314825	7.39E-293
CDR20291_0658; CDR20291_0659	24	24	0	0	-6.940559268	0.017458029
CDR20291_2186	542	542	1	9	-6.78564974	3.39E-20
CDR20291_3404	8165	8165	28	130	-6.767847153	7.70E-47
CDR20291_2545	1441	1441	4	25	-6.686265402	2.04E-31
CDR20291_2611	3882	3882	19	57	-6.676963812	2.48E-89
CDR20291_0480	4550	4550	53	39	-6.490647204	3.91E-67
CDR20291_0704	2878	2878	27	35	-6.473851917	1.49E-120
CDR20291_2544	18887	18887	127	333	-6.375638428	4.18E-119
CDR20291_2610	49752	49752	621	506	-6.313770694	2.55E-86
CDR20291_0029; CDR20291_0030	76	76	0	2	-6.289770741	0.000104655
CDR20291_0790	1176	1176	6	25	-6.265914497	2.40E-35
CDR20291_2573	6182	6182	33	141	-6.220296388	5.62E-42
CDR20291_1913	265	265	2	5	-6.214437787	2.99E-14
CDR20291_3402; CDR20291_3403	117	117	2	1	-6.17073141	7.08E-07
CDR20291_3530	4406	4406	8	136	-6.118943888	1.71E-05
CDR20291_0549	474	474	1	14	-6.073215366	3.43E-12
CDR20291_0479	3968	3968	32	93	-6.001873318	2.93E-71
CDR20291_3327	7811	7811	50	209	-5.986967695	4.91E-40

CDR20291_0920	598	598	2	18	-5.981317059	8.77E-15
CDR20291_1083; CDR20291_1084	34	34	1	0	-5.927758512	0.008219453
CDR20291_2019	397	397	1	13	-5.913402629	3.83E-11
CDR20291_2613	2322	2322	15	66	-5.900050973	1.87E-32
CDR20291_0867	1731	1731	9	54	-5.867027251	7.07E-22
CDR20291_3401	1918	1918	12	57	-5.860855102	2.58E-28
CDR20291_3132	252	252	1	8	-5.851611988	1.25E-10
CDR20291_1065; CDR20291_1066	29	29	0	1	-5.826095615	0.010931861
CDR20291_3163	685	685	4	21	-5.820683977	4.79E-20
CDR20291_0050	1816	1816	14	56	-5.741997696	7.02E-33
CDR20291_1505; CDR20291_1506	29	29	1	0	-5.689576412	0.014834237
CDR20291_0548	924	924	10	26	-5.667766674	2.09E-38
CDR20291_1142	117	117	1	4	-5.55289858	6.47E-07
CDR20291_1167; CDR20291_1168	44	44	0	2	-5.530910515	0.003422409
CDR20291_1275	163	163	2	5	-5.519752244	2.05E-09
CDR20291_3163; CDR20291_3164	48	48	1	1	-5.5050529	0.000811271
CDR20291_1373	1629	1629	20	52	-5.493901196	2.34E-52
CDR20291_0701	2573	2573	51	64	-5.412960718	1.43E-99
CDR20291_0213	964	964	2	50	-5.38898064	2.37E-07
CDR20291_1690	230	230	0	13	-5.314449334	0.000102597
CDR20291_2202; CDR20291_2203	22	22	1	0	-5.275341646	0.036075725
CDR20291_3373	653	653	11	23	-5.234373183	9.38E-31
CDR20291_0714	2369	2369	27	106	-5.212544141	7.42E-28
CDR20291_1986; CDR20291_1987	39	39	1	1	-5.203013462	0.00252366
CDR20291_3152	898	898	6	49	-5.145799037	3.01E-11
CDR20291_2823	861	861	11	39	-5.13471913	2.28E-23
CDR20291_0883	2342	2342	32	105	-5.130989042	3.70E-35
CDR20291_3353	320	320	3	16	-5.125172635	4.82E-11
CDR20291_3023	1296	1296	13	66	-5.115311362	1.48E-17
CDR20291_0354	1463	1463	6	90	-5.096451892	2.79E-08
CDR20291_2386	3015	3015	49	130	-5.084193058	2.82E-54
CDR20291_3001	850	850	9	45	-5.046702684	9.50E-16
CDR20291_1168	6963	6963	190	205	-5.039434565	5.83E-97
CDR20291_2341	2025	2025	15	122	-5.018073825	5.92E-12

CDR20291_1689	203	203	2	11	-5.012733769	2.43E-08
CDR20291_1297	680	680	5	41	-4.999582744	5.15E-10
CDR20291_1433; CDR20291_1434	30	30	0	2	-4.998932376	0.018309159
CDR20291_2839	509	509	20	8	-4.975243934	9.28E-11
CDR20291_1422	474	474	5	27	-4.955979428	5.79E-12
CDR20291_1576	170	170	1	11	-4.920073684	6.70E-06
CDR20291_2356	1756	1756	21	105	-4.887004241	4.96E-17
CDR20291_1412	148	148	3	7	-4.867532965	2.72E-08
CDR20291_0727	3254	3254	36	207	-4.851111229	6.62E-16
CDR20291_1319	580	580	3	42	-4.838551051	7.43E-07
CDR20291_0289	545	545	6	35	-4.814694712	4.34E-11
CDR20291_1052	1410	1410	21	84	-4.805487691	2.51E-20
CDR20291_0880	5355	5355	137	236	-4.802190057	9.35E-170
CDR20291_1034	1341	1341	19	85	-4.760181849	3.05E-17
CDR20291_3164	663	663	5	49	-4.750501184	5.09E-08
CDR20291_3104	3898	3898	109	172	-4.743461507	3.00E-144
CDR20291_0545	904	904	8	66	-4.736220112	2.50E-09
CDR20291_0699	313	313	6	18	-4.711776739	3.98E-13
CDR20291_3388	524	524	22	14	-4.709206849	2.24E-14
CDR20291_0666; CDR20291_0667	47	47	0	4	-4.683208894	0.011067137
CDR20291_0521	166	166	0	15	-4.655225291	0.002773659
CDR20291_3160	2054	2054	30	145	-4.640190751	2.84E-16
CDR20291_3336	873	873	11	64	-4.636091592	1.68E-11
CDR20291_0226; CDR20291_0227	38	38	1	2	-4.630544127	0.003717441
CDR20291_2179	210	210	3	15	-4.597486659	1.03E-07
CDR20291_0659	2828	2828	80	159	-4.539603206	3.43E-80
CDR20291_2000; CDR20291_2001	56	56	1	4	-4.507452498	0.000999675
CDR20291_2131	894	894	7	82	-4.482073388	8.19E-07
CDR20291_2193	70	70	0	7	-4.480579435	0.00951377
CDR20291_1578; CDR20291_1579	143	143	1	13	-4.470979144	0.000180972
CDR20291_2483	2289	2289	64	141	-4.468892847	3.70E-56
CDR20291_0347	177	177	2	15	-4.468039191	9.84E-06
CDR20291_1263	351	351	11	20	-4.463389657	1.17E-16
CDR20291_2342	1547	1547	45	95	-4.446475311	1.34E-48

CDR20291_1161	1951	1951	50	132	-4.434170766	8.25E-36
CDR20291_1030	919	919	17	72	-4.432716806	2.32E-14
CDR20291_0124	2110	2110	69	122	-4.426629939	7.62E-77
CDR20291_1352	357	357	6	30	-4.378368392	6.49E-09
CDR20291_1586	2482	2482	105	121	-4.368900221	1.37E-61
CDR20291_0713	1531	1531	53	97	-4.316129288	4.60E-56
CDR20291_1739; CDR20291_1801	1226	1226	23	108	-4.308047002	4.81E-13
CDR20291_3278	909	909	13	88	-4.285108264	8.82E-09
CDR20291_2513	2272	2272	80	148	-4.283558435	2.49E-73
CDR20291_1437	455	455	9	40	-4.277154579	3.36E-10
CDR20291_2689	679	679	2	79	-4.267247199	0.000579106
CDR20291_1810	208	208	3	20	-4.264825662	6.57E-06
CDR20291_2346	973	973	12	99	-4.264765926	1.10E-07
CDR20291_3155	868	868	40	45	-4.264598622	4.25E-30
CDR20291_2027	1556	1556	22	156	-4.253240403	3.37E-09
CDR20291_3267	209	209	1	24	-4.228819816	0.00089346
CDR20291_1912	463	463	0	58	-4.21786499	0.010694511
CDR20291_1851	2122	2122	61	171	-4.216201016	1.36E-29
CDR20291_0456	1463	1463	56	100	-4.191676763	1.64E-53
CDR20291_2532	688	688	21	56	-4.166979479	1.37E-19
CDR20291_1864	633	633	11	65	-4.157351731	1.78E-08
CDR20291_0503	21351	21351	1050	1190	-4.152557134	5.04E-90
CDR20291_2642	590	590	3	73	-4.142815274	0.000328946
CDR20291_2387	1248	1248	23	130	-4.131324793	4.34E-10
CDR20291_0789	406	406	7	43	-4.118155511	3.29E-07
CDR20291_1929	595	595	43	16	-4.095279569	2.31E-07
CDR20291_0702	334	334	9	31	-4.094381747	4.10E-10
CDR20291_3051	1408	1408	54	109	-4.087643302	4.36E-43
CDR20291_2335	108	108	3	10	-4.074507723	3.09E-05
CDR20291_0924	269	269	13	18	-4.053429637	2.85E-12
CDR20291_3494	481	481	9	54	-4.031234702	2.24E-07
CDR20291_1824	453	453	9	50	-4.030876411	1.16E-07
CDR20291_0171	520	520	14	53	-4.006441397	5.88E-11
CDR20291_0644	2101	2101	92	163	-4.004910899	1.63E-67

CDR20291_2303	1672	1672	92	104	-4.001156077	2.54E-41
CDR20291_1127	359	359	4	46	-3.989896327	9.36E-05
CDR20291_0881	2166	2166	103	161	-3.984900253	2.12E-75
CDR20291_2301	5815	5815	187	570	-3.983108778	9.15E-28
CDR20291_1662	810	810	13	99	-3.981816181	6.74E-07
CDR20291_1073	299	299	25	7	-3.962499029	5.72E-05
CDR20291_1033	224	224	4	27	-3.951387931	2.70E-05
CDR20291_0209	673	673	30	55	-3.950335419	1.01E-25
CDR20291_3283	486	486	10	58	-3.934325947	3.02E-07
CDR20291_3356	3054	3054	128	268	-3.932711481	9.60E-57
CDR20291_2405	215	215	6	23	-3.932658287	4.91E-07
CDR20291_2493	765	765	12	98	-3.930867288	2.24E-06
CDR20291_0317	1128	1128	43	106	-3.923532051	1.86E-25
CDR20291_1949	1898	1898	41	231	-3.910787867	7.38E-10
CDR20291_2890	1012	1012	27	115	-3.906063969	2.07E-11
CDR20291_0130	1244	1244	53	111	-3.905450795	6.31E-35
CDR20291_1438	222	222	4	28	-3.896816482	4.49E-05
CDR20291_2618	441	441	14	47	-3.889517053	7.24E-11
CDR20291_0723	292	292	9	32	-3.870736113	2.03E-08
CDR20291_0511	275	275	19	16	-3.850147351	2.45E-09
CDR20291_2712	1122	1122	33	133	-3.8248341	5.59E-12
CDR20291_0250	958	958	21	125	-3.822711597	6.48E-08
CDR20291_0764	1727	1727	97	137	-3.820669055	1.14E-56
CDR20291_3002	311	311	19	23	-3.808971175	1.70E-12
CDR20291_1031	559	559	33	43	-3.807194499	6.17E-21
CDR20291_1444	335	335	5	48	-3.796071139	0.000116064
CDR20291_2967	4547	4547	135	561	-3.787930236	7.09E-15
CDR20291_1135	816	816	11	121	-3.783794964	3.91E-05
CDR20291_1080	81	81	3	9	-3.767983089	0.000372278
CDR20291_2138	1151	1151	26	159	-3.750641649	9.07E-08
CDR20291_0235	693	693	5	113	-3.742899671	0.000980943
CDR20291_1632	873	873	54	71	-3.732855433	1.12E-29
CDR20291_1487	1068	1068	16	163	-3.730251137	1.93E-05
CDR20291_0763	2599	2599	140	242	-3.726626596	4.71E-74

CDR20291_1260	770	770	35	81	-3.725149924	1.00E-20
CDR20291_2817	761	761	50	59	-3.718948452	8.55E-24
CDR20291_1271	404	404	1	70	-3.717932566	0.009779229
CDR20291_1647	394	394	8	57	-3.715893011	1.94E-05
CDR20291_0576	3953	3953	181	423	-3.713998444	5.33E-41
CDR20291_0507	4856	4856	390	265	-3.713401381	7.89E-18
CDR20291_3495	175	175	3	26	-3.71233075	0.000542982
CDR20291_2574	397	397	24	36	-3.670085376	1.25E-15
CDR20291_3528	6399	6399	396	567	-3.66952281	6.82E-134
CDR20291_0695	1233	1233	49	150	-3.666578013	2.35E-16
CDR20291_0590	604	604	12	92	-3.666024443	1.34E-05
CDR20291_0163	414	414	40	16	-3.654803263	8.55E-06
CDR20291_3078	1834	1834	111	171	-3.648056974	4.47E-59
CDR20291_2814	2850	2850	186	248	-3.643858725	4.87E-69
CDR20291_0294	6590	6590	469	512	-3.643672506	2.27E-51
CDR20291_2558	1038	1038	39	133	-3.641593626	3.93E-13
CDR20291_2388	942	942	64	80	-3.631660752	9.05E-29
CDR20291_2090	798	798	20	119	-3.629938446	6.00E-07
CDR20291_2259	1096	1096	55	121	-3.628499151	2.04E-26
CDR20291_0598	1426	1426	19	241	-3.624183572	7.41E-05
CDR20291_2508	1157	1157	47	146	-3.620808939	2.61E-15
CDR20291_1281	618	618	52	39	-3.613929411	2.27E-11
CDR20291_3079	1210	1210	36	176	-3.605109367	6.68E-09
CDR20291_2302	473	473	13	70	-3.60434279	1.68E-06
CDR20291_0648	1489	1489	79	163	-3.603773534	4.87E-35
CDR20291_1529	336	336	8	52	-3.593162272	3.32E-05
CDR20291_2241	1693	1693	128	133	-3.590665216	1.20E-28
CDR20291_3405	460	460	1	88	-3.584117413	0.014955534
CDR20291_3368	1284	1284	50	172	-3.583419738	2.08E-13
CDR20291_3329	653	653	39	68	-3.570202309	8.17E-23
CDR20291_0882	1430	1430	120	98	-3.57016007	6.16E-17
CDR20291_2547	995	995	50	119	-3.55820085	2.93E-21
CDR20291_3527	268	268	7	42	-3.549338964	5.22E-05
CDR20291_0420	497	497	19	69	-3.548365551	5.05E-09

CDR20291_2826	1500	1500	45	232	-3.536657709	1.51E-08
CDR20291_0275	1028	1028	55	121	-3.536408279	2.25E-24
CDR20291_1138	159	159	3	27	-3.529943129	0.001479547
CDR20291_0938	696	696	14	119	-3.526407402	4.31E-05
CDR20291_3497	1255	1255	58	164	-3.524762658	2.64E-17
CDR20291_1729	2646	2646	165	287	-3.510935474	4.36E-68
CDR20291_3552	1112	1112	116	52	-3.498682315	1.83E-07
CDR20291_1014	89	89	4	12	-3.492834316	0.000459331
CDR20291_1911	1031	1031	90	79	-3.478074246	3.73E-16
CDR20291_2796	127	127	6	17	-3.477994265	4.25E-05
CDR20291_0859	141	141	6	20	-3.470234131	4.62E-05
CDR20291_1068	3446	3446	143	506	-3.469388347	3.98E-15
CDR20291_3108	269	269	6	47	-3.466069182	0.000331749
CDR20291_3208	3190	3190	228	327	-3.460841708	8.35E-80
CDR20291_2753	1072	1072	22	194	-3.456267932	3.33E-05
CDR20291_0207	294	294	9	48	-3.455854849	2.71E-05
CDR20291_1545	742	742	60	67	-3.453028873	1.65E-19
CDR20291_2427	7473	7473	579	707	-3.451550609	3.04E-70
CDR20291_2467	4070	4070	290	424	-3.451185358	5.99E-97
CDR20291_1649	979	979	66	108	-3.445999927	7.83E-32
CDR20291_3296	1103	1103	83	110	-3.443396953	3.06E-32
CDR20291_0358	1486	1486	87	184	-3.44173875	8.65E-31
CDR20291_0400	1516	1516	63	228	-3.440974918	3.98E-12
CDR20291_2634	253	253	7	43	-3.440215739	0.000126416
CDR20291_2084	1151	1151	65	147	-3.435742478	1.49E-23
CDR20291_3187	1541	1541	112	161	-3.435424047	1.12E-45
CDR20291_2862	592	592	41	65	-3.431638803	1.59E-20
CDR20291_2620	797	797	41	110	-3.416621536	8.86E-15
CDR20291_3432	672	672	21	116	-3.396155934	2.63E-06
CDR20291_2993	696	696	36	98	-3.39476035	1.87E-13
CDR20291_3107	51	51	2	8	-3.393545165	0.009205054
CDR20291_0922	117	117	3	21	-3.387812075	0.002425758
CDR20291_2619	512	512	44	48	-3.380319261	2.24E-14
CDR20291_1889	638	638	32	93	-3.377779684	9.02E-12

CDR20291_2362	552	552	29	79	-3.370472938	7.43E-12
CDR20291_1043	436	436	12	80	-3.360549393	6.45E-05
CDR20291_2999	910	910	37	150	-3.353668772	7.60E-09
CDR20291_2856	2652	2652	174	340	-3.344901167	9.12E-48
CDR20291_1166	442	442	10	86	-3.34004469	0.000302487
CDR20291_2289	80	80	2	15	-3.337465547	0.00801484
CDR20291_1424	1023	1023	44	168	-3.335260826	1.13E-09
CDR20291_1934	1801	1801	142	201	-3.328881611	1.18E-48
CDR20291_2048	713	713	23	130	-3.325574824	4.62E-06
CDR20291_3537	195	195	6	36	-3.312494792	0.000445068
CDR20291_3153	513	513	34	68	-3.307915792	2.05E-15
CDR20291_1688	282	282	6	57	-3.302092114	0.001246408
CDR20291_3154	1096	1096	110	93	-3.294393079	3.97E-14
CDR20291_3095	557	557	35	78	-3.292693399	1.46E-14
CDR20291_2844	1059	1059	78	134	-3.280319714	5.29E-31
CDR20291_0225	2847	2847	216	356	-3.270459192	2.99E-70
CDR20291_1368	119	119	1	27	-3.266038239	0.027141927
CDR20291_1459	55	55	2	10	-3.262581102	0.012410557
CDR20291_0866	540	540	13	111	-3.261684702	0.00028098
CDR20291_2535	5228	5228	627	308	-3.259973687	2.26E-09
CDR20291_0281	839	839	97	57	-3.254662519	5.74E-08
CDR20291_2389	428	428	31	57	-3.249500861	7.75E-14
CDR20291_1565	1372	1372	90	197	-3.249266985	6.86E-25
CDR20291_0762	4208	4208	375	460	-3.247659262	3.01E-53
CDR20291_2711	318	318	14	56	-3.245130642	5.18E-06
CDR20291_2863	409	409	9	87	-3.236697295	0.000889668
CDR20291_2359	1841	1841	176	188	-3.233790868	5.34E-26
CDR20291_3539	147	147	17	11	-3.229483491	0.000193692
CDR20291_0972	3711	3711	390	327	-3.226374934	8.94E-19
CDR20291_1425	2053	2053	92	374	-3.21578018	6.74E-10
CDR20291_3004	298	298	9	61	-3.204970335	0.000403773
CDR20291_0340	674	674	36	115	-3.198534509	9.75E-10
CDR20291_1399	653	653	43	99	-3.197868892	9.30E-15
CDR20291_2456	1712	1712	71	327	-3.194756122	3.32E-08

CDR20291_1099	599	599	23	117	-3.191338842	6.82E-06
CDR20291_3097	719	719	35	129	-3.191192138	2.13E-08
CDR20291_2874	1094	1094	70	171	-3.189399689	1.55E-17
CDR20291_0703	1270	1270	113	153	-3.185941451	5.81E-33
CDR20291_2531	329	329	26	45	-3.172620885	4.50E-11
CDR20291_2816	2649	2649	238	322	-3.171618936	1.35E-54
CDR20291_2334	23518	23518	1958	3194	-3.145351871	3.25E-197
CDR20291_2338	404	404	12	88	-3.139915813	0.000403793
CDR20291_1133	344	344	16	66	-3.135700355	1.00E-05
CDR20291_1067	3426	3426	282	480	-3.128188658	8.76E-71
CDR20291_0409	966	966	72	147	-3.123210573	1.37E-21
CDR20291_1075	321	321	37	30	-3.121944241	3.30E-07
CDR20291_2139	280	280	15	52	-3.108338316	5.85E-06
CDR20291_2554	454	454	39	63	-3.106544947	2.22E-14
CDR20291_3551	2280	2280	293	168	-3.105787548	5.28E-09
CDR20291_1442	176	176	6	38	-3.104281716	0.001632909
CDR20291_2088	3458	3458	477	204	-3.104048466	3.92E-07
CDR20291_2484	2763	2763	327	249	-3.102506482	7.82E-14
CDR20291_3133	474	474	67	27	-3.096432219	0.000120646
CDR20291_3274	1681	1681	152	226	-3.095184255	1.51E-43
CDR20291_1497	286	286	12	59	-3.095135714	0.000116866
CDR20291_0431	216	216	17	33	-3.084981934	2.29E-07
CDR20291_1878	493	493	49	61	-3.084305673	6.45E-14
CDR20291_1825; CDR20291_1844	271	271	13	54	-3.082328888	4.35E-05
CDR20291_1868	684	684	50	111	-3.079582708	5.24E-15
CDR20291_0496	2032	2032	190	276	-3.063771199	7.79E-49
CDR20291_1051	1022	1022	110	118	-3.061610435	4.38E-18
CDR20291_1683	75	75	3	16	-3.060030224	0.00970571
CDR20291_3156	1436	1436	161	156	-3.059761642	2.49E-17
CDR20291_1415	1433	1433	122	213	-3.059109433	3.75E-35
CDR20291_2771	323	323	11	73	-3.058734188	0.000573378
CDR20291_1042	56	56	5	8	-3.058075805	0.005769761
CDR20291_3134	1330	1330	175	105	-3.055982571	3.15E-08
CDR20291_3159	1125	1125	72	204	-3.055463763	8.52E-13

CDR20291_2530	345	345	20	66	-3.045439191	1.34E-06
CDR20291_3046	289	289	24	45	-3.036582669	3.61E-09
CDR20291_0935	410	410	34	64	-3.035659972	4.67E-12
CDR20291_0691	424	424	22	87	-3.024614083	5.09E-06
CDR20291_2479	1712	1712	185	212	-3.014004991	4.21E-26
CDR20291_0293	163	163	5	39	-3.011543064	0.004976084
CDR20291_0180	634	634	20	153	-3.00723183	0.000383852
CDR20291_3280	1346	1346	138	181	-3.002863575	5.98E-30
CDR20291_1492	647	647	50	111	-2.999607957	6.52E-14
CDR20291_0964	7818	7818	1128	543	-2.999228847	2.69E-08
CDR20291_3321	362	362	23	70	-2.992570037	4.53E-07
CDR20291_0318	2447	2447	310	242	-2.992551218	3.88E-13
CDR20291_2281	1758	1758	205	203	-2.989860378	1.03E-18
CDR20291_2228	5469	5469	433	945	-2.9854091	1.56E-35
CDR20291_0933	158	158	8	34	-2.976740248	0.000720193
CDR20291_2021	1544	1544	147	232	-2.976135563	6.17E-39
CDR20291_2426	290	290	7	75	-2.974048182	0.00521617
CDR20291_3366	1489	1489	95	297	-2.96866348	2.25E-11
CDR20291_0128	651	651	41	131	-2.962129015	2.00E-08
CDR20291_1423	379	379	32	64	-2.9596601	1.61E-10
CDR20291_0930	503	503	58	63	-2.956388663	1.50E-11
CDR20291_2220	1646	1646	93	352	-2.955083856	6.94E-09
CDR20291_1671	478	478	44	76	-2.954629198	8.24E-14
CDR20291_2282	418	418	46	56	-2.951890583	2.38E-11
CDR20291_0110	66	66	3	15	-2.948210775	0.014939162
CDR20291_1680	2447	2447	208	421	-2.943640119	3.63E-33
CDR20291_3369	1048	1048	97	169	-2.940196448	5.19E-26
CDR20291_2175	362	362	31	62	-2.939281488	4.50E-10
CDR20291_1336	293	293	16	64	-2.936986526	5.26E-05
CDR20291_2848	5153	5153	522	773	-2.93377458	1.11E-89
CDR20291_3185	3740	3740	534	339	-2.91110007	5.81E-10
CDR20291_2516	5420	5420	390	1083	-2.910948499	3.75E-18
CDR20291_1648	1056	1056	24	293	-2.904158677	0.002059956
CDR20291_0475	480	480	6	141	-2.899991059	0.017086335

CDR20291_1427	796	796	125	58	-2.895946705	3.08E-05
CDR20291_0203	2410	2410	230	405	-2.888342978	5.80E-46
CDR20291_2243	676	676	88	80	-2.881335575	2.86E-10
CDR20291_1035	449	449	66	42	-2.877536544	8.17E-06
CDR20291_1710	441	441	25	101	-2.876280457	1.57E-05
CDR20291_2321	48	48	4	9	-2.874673506	0.015853049
CDR20291_1717	32957	32957	3693	4815	-2.874271065	1.66E-84
CDR20291_0746	9083	9083	1038	1313	-2.866905725	1.46E-59
CDR20291_2156	547	547	36	120	-2.857007078	4.26E-07
CDR20291_2376	312	312	24	63	-2.855776805	5.39E-07
CDR20291_0604	2442	2442	202	479	-2.849457245	1.15E-20
CDR20291_2638	414	414	15	111	-2.845154558	0.001422098
CDR20291_2428	3201	3201	319	551	-2.841258605	3.96E-56
CDR20291_3212	1307	1307	75	311	-2.837913299	4.42E-07
CDR20291_0125	361	361	21	85	-2.835982963	4.61E-05
CDR20291_3003	68	68	6	13	-2.826260549	0.005226391
CDR20291_3257	6964	6964	852	984	-2.826254079	2.64E-38
CDR20291_0210	662	662	40	156	-2.82371789	2.75E-06
CDR20291_1152	109	109	11	19	-2.821794177	0.000372278
CDR20291_0588	933	933	52	230	-2.81044174	4.91E-06
CDR20291_1028	356	356	8	107	-2.797930192	0.01125717
CDR20291_3083	2250	2250	228	407	-2.791201156	2.61E-40
CDR20291_3351	265	265	6	80	-2.788831684	0.015259011
CDR20291_0288	370	370	44	58	-2.785971729	4.44E-10
CDR20291_2838	1629	1629	241	184	-2.780079059	4.50E-10
CDR20291_2306	336	336	28	71	-2.772652885	3.33E-07
CDR20291_2752	232	232	9	65	-2.771223949	0.004621418
CDR20291_1141	4479	4479	574	674	-2.749787824	2.44E-34
CDR20291_1478	199	199	16	44	-2.747945654	5.47E-05
CDR20291_3287	890	890	52	229	-2.747074962	8.87E-06
CDR20291_2892	268	268	9	79	-2.746130156	0.007004053
CDR20291_1732	2266	2266	192	493	-2.744579387	8.50E-16
CDR20291_1988	161	161	5	48	-2.74384837	0.016502556
CDR20291_2439	658	658	39	169	-2.74196266	2.02E-05

CDR20291_3364	2419	2419	250	460	-2.739041299	7.67E-38
CDR20291_3102	158	158	22	22	-2.735305326	0.00011324
CDR20291_1491	280	280	9	84	-2.734448279	0.00801484
CDR20291_3371	1374	1374	130	282	-2.730641103	1.06E-18
CDR20291_1433	443	443	25	117	-2.728068019	0.000152879
CDR20291_0550	277	277	10	82	-2.725031772	0.005936225
CDR20291_0546	22703	22703	3124	3224	-2.722039866	7.05E-29
CDR20291_1230	3049	3049	408	457	-2.717077679	1.04E-25
CDR20291_0522	86	86	4	24	-2.71582379	0.01959821
CDR20291_0140	828	828	34	242	-2.715534796	0.000658052
CDR20291_3113	90565	90565	10717	16314	-2.688893414	3.43E-202
CDR20291_2234	1190	1190	91	292	-2.682475161	1.30E-08
CDR20291_1160	278	278	16	76	-2.680662158	0.000787002
CDR20291_1441	619	619	27	184	-2.678303726	0.001008601
CDR20291_3282	789	789	59	197	-2.674176507	3.39E-07
CDR20291_0194	78	78	6	19	-2.673100732	0.008400863
CDR20291_2149	693	693	52	173	-2.672139574	6.38E-07
CDR20291_2404	219	219	13	60	-2.665443076	0.001370975
CDR20291_3386	925	925	151	110	-2.661767162	1.77E-07
CDR20291_0510	340	340	67	23	-2.660372956	0.003615231
CDR20291_1125	126	126	8	34	-2.652287106	0.004673717
CDR20291_2494	469	469	15	151	-2.652043697	0.006824673
CDR20291_3271	965	965	101	203	-2.648159573	5.74E-17
CDR20291_1501	470	470	7	165	-2.644215297	0.031256664
CDR20291_2361	202	202	28	33	-2.639706667	1.15E-05
CDR20291_1011	3168	3168	400	575	-2.637315204	3.31E-52
CDR20291_2033	1192	1192	143	229	-2.631664873	3.34E-26
CDR20291_2239	1094	1094	196	113	-2.625416387	7.35E-06
CDR20291_0950	149	149	11	39	-2.623786305	0.001603178
CDR20291_1453	110	110	8	29	-2.621067795	0.004709483
CDR20291_2452	424	424	22	127	-2.617343331	0.001135909
CDR20291_2100	2904	2904	387	516	-2.611632969	6.95E-40
CDR20291_1071	191	191	12	54	-2.610251064	0.002198506
CDR20291_0740	1855	1855	225	364	-2.608121345	7.72E-37

CDR20291_0966	353	353	54	53	-2.607272633	6.13E-07
CDR20291_2693	1128	1128	113	258	-2.604467621	3.70E-14
CDR20291_2614	9404	9404	1350	1541	-2.602016016	2.74E-33
CDR20291_2930	535	535	34	153	-2.600839366	0.000137731
CDR20291_0777	745	745	129	90	-2.596911358	2.18E-06
CDR20291_3268	2151	2151	277	405	-2.596850711	5.24E-40
CDR20291_2821	445	445	53	90	-2.596803122	4.96E-11
CDR20291_1684	372	372	26	103	-2.595563588	0.000147553
CDR20291_1236	695	695	40	209	-2.582587293	0.000263188
CDR20291_2556	958	958	70	266	-2.579288296	3.53E-06
CDR20291_0512	420	420	92	23	-2.577562453	0.009310158
CDR20291_2939	823	823	52	242	-2.575433202	6.89E-05
CDR20291_2108	501	501	32	147	-2.571262312	0.000232169
CDR20291_3277	635	635	98	100	-2.570204648	9.41E-10
CDR20291_1921	1614	1614	202	324	-2.569422815	2.07E-32
CDR20291_2559	564	564	66	120	-2.568287643	1.36E-12
CDR20291_0228	2332	2332	308	447	-2.565641554	3.33E-41
CDR20291_2540	564	564	54	139	-2.561917371	3.26E-08
CDR20291_0039	2387	2387	207	627	-2.559090099	2.27E-10
CDR20291_1907	761	761	73	189	-2.555083461	2.75E-09
CDR20291_1496	852	852	117	161	-2.54757936	1.04E-17
CDR20291_1888	704	704	97	133	-2.545355461	3.53E-15
CDR20291_0433	451	451	35	126	-2.543679026	4.07E-05
CDR20291_3045	1010	1010	109	238	-2.535150803	5.98E-14
CDR20291_1132	99	99	5	32	-2.526620163	0.026574733
CDR20291_0434	435	435	54	93	-2.526088707	2.30E-10
CDR20291_2587	381	381	47	82	-2.524930372	2.93E-09
CDR20291_2729	707	707	95	141	-2.52478192	7.90E-16
CDR20291_3411	916	916	117	195	-2.510651643	3.00E-19
CDR20291_3266	1981	1981	212	485	-2.509325171	1.21E-16
CDR20291_1165	1058	1058	126	241	-2.502873052	6.42E-18
CDR20291_0020	1897	1897	227	434	-2.497143684	1.74E-25
CDR20291_1435	147	147	10	45	-2.494670735	0.006333214
CDR20291_3365	698	698	74	175	-2.491267457	8.16E-10

CDR20291_3138	277	277	19	86	-2.481190178	0.001501963
CDR20291_0879	1559	1559	288	210	-2.48025663	1.12E-07
CDR20291_3169	1103	1103	127	267	-2.473993615	4.42E-15
CDR20291_2124	282	282	47	47	-2.47282621	9.23E-06
CDR20291_2770	1073	1073	90	313	-2.470470663	1.42E-06
CDR20291_3116	1197	1197	184	225	-2.46367602	1.28E-17
CDR20291_0724	84	84	8	23	-2.460789435	0.009647973
CDR20291_0238	3174	3174	537	522	-2.459980332	4.59E-15
CDR20291_2438	851	851	117	182	-2.456935743	5.85E-18
CDR20291_0388	193	193	7	71	-2.456227165	0.029768442
CDR20291_2865	1110	1110	95	326	-2.45483391	1.13E-06
CDR20291_0832	473	473	41	138	-2.45191567	3.02E-05
CDR20291_1192	270	270	23	80	-2.441559164	0.000395311
CDR20291_0778	1960	1960	211	517	-2.441227584	1.52E-13
CDR20291_2154	207	207	7	78	-2.439912407	0.033470409
CDR20291_2538	1503	1503	268	237	-2.436888735	5.88E-10
CDR20291_0296	1475	1475	157	394	-2.435618034	1.10E-11
CDR20291_3197	3052	3052	552	471	-2.432943276	3.57E-11
CDR20291_0855	757	757	120	144	-2.432043093	1.26E-12
CDR20291_2995	2019	2019	293	425	-2.430075812	5.02E-34
CDR20291_1945	350	350	34	99	-2.426059368	2.75E-05
CDR20291_0123	11644	11644	1536	2705	-2.42330808	6.20E-69
CDR20291_3101	343	343	45	80	-2.421332104	5.42E-08
CDR20291_2423	752	752	69	221	-2.420613013	2.42E-06
CDR20291_0693	644	644	89	144	-2.419748846	7.88E-14
CDR20291_3451	1055	1055	142	244	-2.411575556	9.06E-20
CDR20291_2714	711	711	47	240	-2.409046848	0.000556978
CDR20291_1509	2270	2270	359	450	-2.405485901	2.22E-25
CDR20291_2800	2081	2081	198	615	-2.401316763	1.21E-08
CDR20291_0814	1904	1904	214	512	-2.39998832	1.03E-13
CDR20291_2240	367	367	73	52	-2.389893592	0.000149595
CDR20291_1701	1356	1356	190	313	-2.386224482	9.39E-25
CDR20291_1811	746	746	61	241	-2.376803883	6.65E-05
CDR20291_0160	1510	1510	194	380	-2.374974295	1.94E-19

CDR20291_3022	203	203	22	57	-2.374853131	0.000251428
CDR20291_0936	454	454	62	109	-2.372471241	9.75E-10
CDR20291_1233	2068	2068	301	471	-2.370272189	3.36E-35
CDR20291_0707	664	664	108	136	-2.363557317	7.43E-12
CDR20291_2916	1059	1059	118	299	-2.360235677	1.22E-09
CDR20291_1045	564	564	54	173	-2.358046108	1.57E-05
CDR20291_2327	241	241	42	46	-2.354145881	2.89E-05
CDR20291_0371	242	242	17	84	-2.351803408	0.005073882
CDR20291_3339	102	102	10	31	-2.348096359	0.008822269
CDR20291_2555	453	453	20	177	-2.347493414	0.013143216
CDR20291_1951	245	245	8	100	-2.346170108	0.042254927
CDR20291_0926	1159	1159	113	358	-2.345489749	5.83E-07
CDR20291_1378	657	657	76	184	-2.34526483	2.37E-08
CDR20291_2736	2137	2137	242	611	-2.342094657	3.95E-12
CDR20291_1191	975	975	173	185	-2.339445352	3.67E-11
CDR20291_2584	1198	1198	68	449	-2.339154502	0.001568966
CDR20291_2966	242	242	9	98	-2.33373632	0.036003239
CDR20291_2178	1175	1175	170	283	-2.33197425	3.98E-21
CDR20291_1386	525	525	61	149	-2.330444106	2.55E-07
CDR20291_0162	62	62	5	21	-2.318466957	0.046779459
CDR20291_0579	361	361	20	138	-2.317681445	0.00951377
CDR20291_0895	1238	1238	258	184	-2.316665427	2.68E-06
CDR20291_2249	1760	1760	192	529	-2.316444037	1.61E-09
CDR20291_2695	170	170	19	50	-2.315982653	0.00088166
CDR20291_2197	162	162	13	56	-2.305415127	0.008274761
CDR20291_1089	1142	1142	210	218	-2.3047432	4.79E-11
CDR20291_0976	230	230	35	55	-2.302871876	1.15E-05
CDR20291_1552	577	577	105	113	-2.300371144	2.13E-08
CDR20291_1733	275	275	36	75	-2.294748499	9.32E-06
CDR20291_2242	81	81	10	23	-2.292299012	0.011525298
CDR20291_3400	664	664	133	114	-2.287445913	1.80E-06
CDR20291_1503	89	89	6	33	-2.28514589	0.041477747
CDR20291_3105	937	937	96	301	-2.283449286	2.35E-06
CDR20291_3140	129	129	7	51	-2.276280167	0.040711365

CDR20291_3032	284	284	25	98	-2.274263729	0.001673561
CDR20291_2182	1936	1936	386	342	-2.273629342	1.52E-09
CDR20291_0304	1993	1993	356	418	-2.271343848	4.88E-18
CDR20291_3491	105	105	10	35	-2.270644908	0.013626336
CDR20291_2882	2163	2163	229	695	-2.269751875	3.16E-08
CDR20291_0255	1260	1260	226	264	-2.269441514	2.36E-14
CDR20291_2820	720	720	128	153	-2.268737384	6.57E-11
CDR20291_0575	3348	3348	661	617	-2.258936553	5.52E-12
CDR20291_1328	3098	3098	387	916	-2.258322539	1.34E-14
CDR20291_2213	238	238	20	85	-2.255992071	0.004126692
CDR20291_1167	247	247	20	90	-2.249045665	0.004986063
CDR20291_0586	703	703	128	151	-2.242578922	2.40E-10
CDR20291_2810	326	326	54	78	-2.242506828	4.15E-07
CDR20291_1674	170	170	14	62	-2.239460429	0.010145726
CDR20291_3354	6649	6649	834	2015	-2.235683514	5.03E-16
CDR20291_3214	2964	2964	511	697	-2.224134104	9.92E-33
CDR20291_2885	1429	1429	301	253	-2.222090034	1.01E-07
CDR20291_3017	518	518	99	108	-2.22143938	1.22E-07
CDR20291_3031	261	261	12	112	-2.221210132	0.034664038
CDR20291_3372	590	590	103	138	-2.219464611	1.26E-10
CDR20291_3074	535	535	112	98	-2.213541598	8.29E-06
CDR20291_2646	7231	7231	1218	1779	-2.209469238	5.46E-64
CDR20291_2363	424	424	67	111	-2.208373434	1.38E-08
CDR20291_0360	1913	1913	259	568	-2.206711525	1.66E-14
CDR20291_2985	2224	2224	270	714	-2.200490335	5.02E-10
CDR20291_3414	4756	4756	766	1247	-2.194692524	1.39E-53
CDR20291_1276	267	267	43	70	-2.194377247	5.95E-06
CDR20291_0051	1807	1807	352	383	-2.192637363	1.76E-13
CDR20291_1475	924	924	166	222	-2.17902633	2.41E-14
CDR20291_2238	711	711	129	169	-2.178973423	1.42E-11
CDR20291_0367	229	229	33	67	-2.178024614	7.43E-05
CDR20291_1730	1323	1323	297	227	-2.176756445	2.37E-06
CDR20291_0700	104	104	8	41	-2.176074332	0.037949471
CDR20291_2570	1238	1238	146	415	-2.174581456	2.41E-07

CDR20291_0839	1629	1629	383	259	-2.165076976	1.20E-05
CDR20291_2877	4620	4620	823	1173	-2.146137609	6.49E-45
CDR20291_2223	963	963	130	311	-2.134760395	1.09E-08
CDR20291_0343	3495	3495	527	1051	-2.131140291	2.55E-22
CDR20291_0927	2491	2491	293	883	-2.125158106	1.08E-07
CDR20291_0065	1705	1705	350	379	-2.119835641	2.67E-12
CDR20291_0696	358	358	52	112	-2.11755129	6.23E-06
CDR20291_3013	923	923	208	178	-2.116504587	2.04E-06
CDR20291_0737	1862	1862	317	515	-2.116026367	1.16E-26
CDR20291_3206	5140	5140	1004	1227	-2.115480964	2.72E-25
CDR20291_3471	471	471	98	104	-2.115156477	1.67E-06
CDR20291_3216	1002	1002	75	426	-2.113050426	0.002702075
CDR20291_3034	1528	1528	262	427	-2.103302684	1.27E-22
CDR20291_2136	936	936	153	274	-2.099238087	6.77E-14
CDR20291_0027	1838	1838	388	408	-2.096511792	1.35E-11
CDR20291_3479	2401	2401	383	722	-2.094724088	3.94E-22
CDR20291_3295	607	607	69	225	-2.09468016	0.000116248
CDR20291_3293	65	65	8	23	-2.09274667	0.042887512
CDR20291_0139	2925	2925	599	682	-2.092104121	1.50E-16
CDR20291_3205	5348	5348	865	1617	-2.082303852	2.14E-31
CDR20291_3181	1402	1402	246	396	-2.079395637	5.92E-21
CDR20291_2236	668	668	118	188	-2.077429829	1.59E-11
CDR20291_0167	8470	8470	1519	2365	-2.072851768	2.60E-70
CDR20291_2802	1001	1001	112	383	-2.072572886	5.19E-05
CDR20291_1385	204	204	20	82	-2.071749402	0.009818697
CDR20291_3056	637	637	80	230	-2.071502792	2.20E-05
CDR20291_1201	1056	1056	113	413	-2.070560519	0.000105131
CDR20291_1029	488	488	69	165	-2.066829617	4.77E-06
CDR20291_1450	347	347	48	119	-2.06562811	6.60E-05
CDR20291_1975	3708	3708	776	879	-2.063520471	4.21E-17
CDR20291_3331	177	177	27	57	-2.063194258	0.000867493
CDR20291_3157	2088	2088	405	546	-2.062170594	8.27E-23
CDR20291_0028	4850	4850	886	1363	-2.055038173	9.36E-51
CDR20291_1037	287	287	75	47	-2.050860335	0.004324262

CDR20291_1463	521	521	92	152	-2.050354987	3.79E-09
CDR20291_0556	1082	1082	142	396	-2.03807412	1.55E-06
CDR20291_3069	655	655	83	245	-2.03404415	4.01E-05
CDR20291_1298	117	117	10	51	-2.031660578	0.044907297
CDR20291_0418	1427	1427	164	573	-2.013699626	4.36E-05
CDR20291_2640	4725	4725	878	1386	-2.011426997	3.90E-48
CDR20291_0505	4040	4040	907	946	-2.010889585	3.01E-13
CDR20291_1114	496	496	51	209	-2.008154335	0.002263096
CDR20291_2965	1339	1339	248	398	-2.003708122	3.98E-19

Table S5: Genes ambiguous for sporulation of R20291 *in vitro*

Genes	InputR20291_1	InputR20291_2	SporeR20291_1	SporeR20291_2	log2FoldChange	padj
CDR20291_0485	641	641	154	140	-1.993304022	1.36E-05
CDR20291_0621	11803	11803	2485	3108	-1.991639754	6.36E-30
CDR20291_0361	437	437	101	103	-1.986519077	1.91E-05
CDR20291_0670	426	426	78	131	-1.985513056	2.02E-07
CDR20291_1401	1136	1136	222	330	-1.98293212	2.27E-16
CDR20291_1274	2429	2429	585	539	-1.979327306	1.29E-08
CDR20291_1402	318	318	72	79	-1.973492468	6.40E-05
CDR20291_0280	1079	1079	160	395	-1.972354821	1.44E-07
CDR20291_0383	304	304	36	125	-1.971539178	0.003003423
CDR20291_2550	1627	1627	201	660	-1.971095473	1.79E-05
CDR20291_1456	193	193	17	89	-1.962945593	0.02996801
CDR20291_3115	2739	2739	538	814	-1.962591527	8.34E-32
CDR20291_2760	1565	1565	282	504	-1.960753532	8.21E-18
CDR20291_0547	1334	1334	278	374	-1.960284962	8.78E-16
CDR20291_2002	1455	1455	298	416	-1.959813758	6.23E-18
CDR20291_3092	1362	1362	384	228	-1.95713592	0.00045326
CDR20291_2962	1375	1375	326	327	-1.956351737	1.90E-08
CDR20291_1866	315	315	61	96	-1.954061109	7.71E-06
CDR20291_2988	2515	2515	439	840	-1.953142786	3.83E-19
CDR20291_2184	3533	3533	724	1023	-1.950092343	4.62E-32
CDR20291_2976	573	573	98	195	-1.949108304	1.05E-07
CDR20291_0034	1212	1212	180	456	-1.947505931	2.21E-07
CDR20291_1606	539	539	126	134	-1.945007165	3.50E-06
CDR20291_0436	1669	1669	248	642	-1.928127873	1.01E-07
CDR20291_2080	3464	3464	556	1281	-1.92069151	4.36E-12
CDR20291_2130	1243	1243	184	483	-1.920404591	7.57E-07
CDR20291_0236	512	512	65	216	-1.916881912	0.000790228
CDR20291_1219	414	414	82	130	-1.916035389	5.07E-07
CDR20291_1239	2719	2719	548	840	-1.915923216	1.01E-30
CDR20291_1622	1206	1206	226	398	-1.915617629	8.27E-15
CDR20291_1212	792	792	102	333	-1.91496508	0.000203241
CDR20291_3284	1427	1427	314	402	-1.91490133	3.11E-14

CDR20291_3117	5691	5691	1223	1645	-1.914830594	5.77E-32
CDR20291_1465	107	107	13	46	-1.911291883	0.035490935
CDR20291_2004	520	520	62	227	-1.910927707	0.0016628
CDR20291_0385	1600	1600	335	481	-1.908167112	2.87E-19
CDR20291_3142	909	909	123	378	-1.902498708	6.90E-05
CDR20291_2811	4524	4524	942	1389	-1.896869852	1.09E-39
CDR20291_1432	1549	1549	356	430	-1.889603601	1.23E-12
CDR20291_2720	1804	1804	337	618	-1.888724803	3.37E-17
CDR20291_2918	1286	1286	254	421	-1.886556411	1.81E-16
CDR20291_1224	221	221	22	106	-1.87903603	0.026544893
CDR20291_0781	1809	1809	411	518	-1.878667195	4.69E-15
CDR20291_1235	351	351	40	161	-1.877650042	0.007237371
CDR20291_1955	475	475	64	203	-1.876310739	0.000844454
CDR20291_1910	7794	7794	1667	2395	-1.876298556	3.03E-46
CDR20291_1739; CDR20291_1740	134	134	37	29	-1.873017854	0.018817366
CDR20291_2311	1632	1632	373	469	-1.871723002	4.10E-14
CDR20291_3286	1822	1822	456	464	-1.869395317	7.34E-09
CDR20291_2308	869	869	182	278	-1.863146698	3.44E-12
CDR20291_1357	1937	1937	272	830	-1.857658657	9.52E-06
CDR20291_1524	217	217	23	104	-1.857219815	0.024604451
CDR20291_3059	1229	1229	244	417	-1.855642433	5.92E-15
CDR20291_3481	2891	2891	643	889	-1.847016421	1.83E-24
CDR20291_1081	934	934	176	336	-1.843627479	3.08E-10
CDR20291_1731	1820	1820	359	631	-1.843473343	2.07E-18
CDR20291_0212	865	865	135	356	-1.839281669	1.25E-05
CDR20291_0395	5761	5761	1216	1890	-1.839047692	1.05E-46
CDR20291_3118	607	607	154	162	-1.83273563	6.60E-06
CDR20291_0489	14346	14346	3326	4292	-1.832115807	1.71E-30
CDR20291_0898	4150	4150	739	1587	-1.83085995	3.75E-14
CDR20291_2827	1136	1136	287	306	-1.829630108	6.03E-08
CDR20291_0803	1709	1709	413	491	-1.826901189	5.23E-12
CDR20291_1563	2222	2222	441	784	-1.825901669	6.95E-20
CDR20291_0384	3418	3418	691	1189	-1.824756266	7.26E-28
CDR20291_0806	1265	1265	268	425	-1.818775059	7.57E-16

CDR20291_3292	1578	1578	384	458	-1.81494766	1.48E-11
CDR20291_1569	2962	2962	598	1046	-1.814021495	3.02E-24
CDR20291_1605	997	997	155	424	-1.811833489	1.83E-05
CDR20291_2883	565	565	66	274	-1.811762086	0.005162516
CDR20291_1615	903	903	129	403	-1.808731015	0.000193691
CDR20291_1009	1629	1629	467	368	-1.808033481	3.15E-05
CDR20291_1231	1811	1811	347	673	-1.807638039	7.82E-14
CDR20291_1361	1144	1144	236	404	-1.799079083	1.68E-13
CDR20291_2457	422	422	130	84	-1.797822481	0.005422857
CDR20291_2205	320	320	82	90	-1.794127368	0.000238234
CDR20291_3036	977	977	236	296	-1.79397354	7.35E-10
CDR20291_2549	3346	3346	661	1236	-1.793396023	4.04E-20
CDR20291_0640	6374	6374	1316	2269	-1.793232015	5.77E-36
CDR20291_0755	749	749	175	237	-1.790872121	2.49E-09
CDR20291_0357	1539	1539	361	485	-1.790213261	6.82E-15
CDR20291_2818	1205	1205	224	469	-1.788228945	2.59E-09
CDR20291_1883	1899	1899	371	713	-1.787033348	3.14E-14
CDR20291_2586	202	202	42	72	-1.78629555	0.000917653
CDR20291_2412	775	775	80	402	-1.78611833	0.009288558
CDR20291_0138	1576	1576	296	614	-1.781508052	1.14E-10
CDR20291_1332	612	612	63	319	-1.781011212	0.012740779
CDR20291_2469	3709	3709	859	1205	-1.778425814	2.06E-27
CDR20291_3172	3273	3273	774	1045	-1.77456779	1.64E-22
CDR20291_2345	1231	1231	259	443	-1.771353189	6.49E-14
CDR20291_2049	532	532	90	225	-1.769947426	9.31E-05
CDR20291_0753	229	229	46	86	-1.76748682	0.000646734
CDR20291_0599	1045	1045	235	356	-1.766527506	5.18E-13
CDR20291_3423	582	582	175	131	-1.76613618	0.001225171
CDR20291_0601	882	882	168	347	-1.763941344	5.09E-08
CDR20291_2035	173	173	25	80	-1.763563271	0.017599863
CDR20291_1185	9446	9446	1784	3781	-1.757812441	3.23E-16
CDR20291_1872	1228	1228	364	289	-1.756694402	9.95E-05
CDR20291_2237	333	333	72	120	-1.751684176	3.09E-05
CDR20291_2064	9966	9966	2248	3456	-1.751203934	7.15E-56

CDR20291_3258	1763	1763	397	616	-1.74695698	2.59E-19
CDR20291_1880	424	424	57	207	-1.745914229	0.005668873
CDR20291_2176	189	189	28	88	-1.745594671	0.01477027
CDR20291_0899	24924	24924	6274	7744	-1.741847543	4.72E-24
CDR20291_0775	222	222	46	84	-1.741586071	0.000826492
CDR20291_0558	5419	5419	1380	1672	-1.737868201	2.22E-17
CDR20291_1207	127	127	38	31	-1.736683586	0.028928925
CDR20291_2343	2034	2034	439	752	-1.733645464	6.07E-19
CDR20291_1899	8305	8305	1665	3274	-1.732910286	1.98E-20
CDR20291_1891	4051	4051	1127	1117	-1.730204418	5.28E-09
CDR20291_0261	4360	4360	1101	1379	-1.729057798	2.76E-18
CDR20291_0730	523	523	138	157	-1.729023719	1.30E-05
CDR20291_2840	531	531	183	93	-1.727826748	0.015097793
CDR20291_2973	3622	3622	704	1476	-1.724443697	3.31E-13
CDR20291_3173	4349	4349	1214	1205	-1.72441646	4.12E-09
CDR20291_2904	1359	1359	220	623	-1.722394936	2.96E-05
CDR20291_1715	1246	1246	288	440	-1.720703709	2.17E-14
CDR20291_3073	855	855	161	359	-1.716235664	1.31E-06
CDR20291_2857	3325	3325	951	912	-1.708753157	7.27E-08
CDR20291_1669	645	645	205	146	-1.708544034	0.002073602
CDR20291_1232	3853	3853	973	1258	-1.708462473	2.77E-19
CDR20291_3139	446	446	74	207	-1.695542585	0.001100349
CDR20291_0273	5624	5624	1427	1865	-1.69415779	1.43E-22
CDR20291_1894	1015	1015	229	381	-1.691813386	1.31E-11
CDR20291_3485	777	777	232	206	-1.690670216	0.000147069
CDR20291_2316	249	249	48	107	-1.680711462	0.001790753
CDR20291_0635	1691	1691	371	664	-1.676017324	1.94E-14
CDR20291_0646	184	184	60	43	-1.672995082	0.025542235
CDR20291_2180	264	264	62	98	-1.672559747	0.000316306
CDR20291_1582	1627	1627	356	646	-1.669085729	1.43E-13
CDR20291_1953	366	366	100	118	-1.656190639	0.000161195
CDR20291_0555	4317	4317	1232	1304	-1.655732715	5.84E-10
CDR20291_1480	300	300	62	129	-1.639106722	0.000628211
CDR20291_3053	1190	1190	334	383	-1.633601951	7.69E-08

CDR20291_0958	1744	1744	433	648	-1.632490293	6.81E-17
CDR20291_1414	730	730	213	224	-1.630268279	2.12E-05
CDR20291_2500	1492	1492	321	631	-1.629656387	3.04E-10
CDR20291_2691	806	806	162	360	-1.625168112	5.87E-06
CDR20291_1395	1569	1569	156	954	-1.621108543	0.020074261
CDR20291_0779	1179	1179	272	476	-1.620862359	2.38E-11
CDR20291_3402	4260	4260	1003	1691	-1.620677921	3.01E-27
CDR20291_3352	245	245	35	132	-1.618357	0.027141927
CDR20291_0302	1251	1251	226	604	-1.617421763	4.14E-05
CDR20291_2107	688	688	123	335	-1.613883606	0.000397933
CDR20291_2723	6035	6035	1486	2330	-1.610352576	4.71E-38
CDR20291_2873	3593	3593	1012	1197	-1.607870798	1.77E-12
CDR20291_0974	273	273	70	102	-1.605403021	0.000432576
CDR20291_1429	3364	3364	880	1233	-1.603476223	1.05E-21
CDR20291_0897	642	642	121	307	-1.601828442	0.00022882
CDR20291_0616	1355	1355	304	576	-1.598708332	2.63E-10
CDR20291_0006	125	125	35	43	-1.595577282	0.019839611
CDR20291_2089	612	612	158	231	-1.593048513	2.91E-07
CDR20291_2825	3416	3416	885	1287	-1.591423171	3.84E-24
CDR20291_1575	156	156	44	54	-1.585587946	0.010395287
CDR20291_3183	1077	1077	220	499	-1.584933387	2.99E-06
CDR20291_2262	441	441	95	197	-1.582611624	0.00011324
CDR20291_2705	996	996	244	401	-1.582404378	1.88E-10
CDR20291_0339	1760	1760	345	844	-1.57955396	2.44E-06
CDR20291_0977	150	150	44	50	-1.578087221	0.014476484
CDR20291_2051	391	391	125	115	-1.574675582	0.00219403
CDR20291_2446	4684	4684	1251	1757	-1.571692789	8.25E-25
CDR20291_0654	317	317	56	163	-1.567417612	0.007445439
CDR20291_3061	869	869	148	458	-1.564740579	0.001247655
CDR20291_1548	769	769	259	210	-1.562788113	0.001224149
CDR20291_3387	296	296	91	95	-1.560655611	0.002368165
CDR20291_2761	2329	2329	627	886	-1.556310717	3.41E-17
CDR20291_2560	6582	6582	1765	2518	-1.554883085	6.24E-30
CDR20291_0951	2242	2242	561	921	-1.552799443	2.58E-18

CDR20291_2645	7258	7258	2058	2614	-1.552251067	2.65E-18
CDR20291_3070	1606	1606	349	741	-1.552161154	4.06E-08
CDR20291_2357	3943	3943	1097	1454	-1.552130307	4.91E-18
CDR20291_3265	2727	2727	578	1289	-1.547570653	1.57E-08
CDR20291_1228	1983	1983	489	835	-1.543949989	1.57E-15
CDR20291_2915	1555	1555	377	665	-1.543307364	2.10E-12
CDR20291_2859	1108	1108	251	507	-1.532919375	1.47E-07
CDR20291_2447	829	829	253	281	-1.532596526	1.07E-05
CDR20291_0776	3361	3361	907	1336	-1.523463718	6.70E-23
CDR20291_1651	178	178	48	71	-1.521891568	0.006296097
CDR20291_1697	709	709	128	380	-1.51977918	0.001823567
CDR20291_0501	5839	5839	1569	2353	-1.516658871	3.17E-32
CDR20291_0362	1482	1482	276	787	-1.514345722	0.000214341
CDR20291_2425	1225	1225	255	609	-1.513456569	1.51E-05
CDR20291_3128	3676	3676	858	1697	-1.508306915	1.14E-12
CDR20291_1189	9274	9274	2296	4105	-1.503760545	8.78E-25
CDR20291_1600	474	474	111	219	-1.503436996	8.38E-05
CDR20291_0348	4381	4381	1323	1577	-1.502209957	5.10E-12
CDR20291_0973	362	362	66	197	-1.498744447	0.009028094
CDR20291_1335	692	692	214	244	-1.497751943	2.75E-05
CDR20291_2246	3581	3581	997	1429	-1.497699366	1.90E-21
CDR20291_1106	2413	2413	603	1070	-1.495301766	5.56E-15
CDR20291_3103	650	650	210	219	-1.488036351	0.000184636
CDR20291_0804	2302	2302	492	1160	-1.48762057	1.06E-06
CDR20291_3367	1557	1557	515	509	-1.483140259	1.66E-05
CDR20291_0237	581	581	133	280	-1.482893482	7.43E-05
CDR20291_2557	330	330	107	112	-1.481878046	0.002572265
CDR20291_2381	2718	2718	781	1074	-1.480909892	5.56E-16
CDR20291_2489	3264	3264	720	1631	-1.476935234	5.96E-08
CDR20291_1124	565	565	129	276	-1.473117305	0.000122071
CDR20291_0164	365	365	117	128	-1.471982521	0.001350158
CDR20291_1183	2602	2602	551	1345	-1.470793924	2.67E-06
CDR20291_2396	674	674	110	403	-1.459551784	0.011656239
CDR20291_1360	742	742	155	391	-1.459241009	0.000449232

CDR20291_1290	3345	3345	768	1664	-1.45692446	8.53E-09
CDR20291_1825; CDR20291_1850	905	905	217	438	-1.451443594	2.69E-06
CDR20291_2204	331	331	68	178	-1.44829207	0.006906921
CDR20291_0603	1078	1078	229	572	-1.444563422	0.000131221
CDR20291_1005	1259	1259	410	452	-1.442601413	4.34E-06
CDR20291_2791	390	390	57	248	-1.43903597	0.044233012
CDR20291_3492	5120	5120	1720	1821	-1.419926791	5.97E-08
CDR20291_2897	1207	1207	416	416	-1.417515074	7.15E-05
CDR20291_0715	5294	5294	1771	1920	-1.412018842	1.90E-08
CDR20291_0165	1038	1038	329	406	-1.411871415	8.12E-07
CDR20291_2836	1916	1916	608	752	-1.408079866	4.25E-09
CDR20291_2940	2982	2982	1158	842	-1.406618861	0.001186449
CDR20291_3184	22579	22579	6328	10171	-1.405490013	2.62E-46
CDR20291_2402	4381	4381	1029	2281	-1.405182202	2.76E-08
CDR20291_2831	1528	1528	302	884	-1.40425335	0.000781922
CDR20291_2765	4627	4627	1277	2124	-1.401820036	4.47E-23
CDR20291_2975	1768	1768	447	876	-1.399793268	1.01E-08
CDR20291_3177	1128	1128	318	509	-1.399738262	1.04E-09
CDR20291_2299	2436	2436	786	950	-1.398444283	2.92E-09
CDR20291_1249	7165	7165	1950	3389	-1.388870225	7.79E-23
CDR20291_2121	1116	1116	339	476	-1.386704389	8.64E-09
CDR20291_1920	309	309	109	109	-1.386509246	0.007420555
CDR20291_2957	1149	1149	391	428	-1.383443887	1.91E-05
CDR20291_2251	702	702	208	310	-1.380405727	1.24E-06
CDR20291_0308	1482	1482	481	592	-1.378947999	9.24E-08
CDR20291_2595	446	446	97	251	-1.377366753	0.00460905
CDR20291_0306	2164	2164	573	1063	-1.377064419	7.61E-11
CDR20291_3135	6129	6129	1702	2893	-1.376638003	1.95E-23
CDR20291_1940	775	775	229	348	-1.370248668	4.08E-07
CDR20291_2895	751	751	118	498	-1.368794327	0.028516621
CDR20291_2546	3899	3899	1224	1648	-1.367263908	2.77E-15
CDR20291_1428	414	414	166	120	-1.366793966	0.02330022
CDR20291_0948	2786	2786	1082	857	-1.366138163	0.000700525
CDR20291_2986	15363	15363	5076	6107	-1.36574216	3.56E-13

CDR20291_2562	2077	2077	542	1049	-1.364398327	2.82E-09
CDR20291_0417	1941	1941	519	962	-1.363565922	3.76E-10
CDR20291_1971	880	880	284	364	-1.361251729	2.47E-06
CDR20291_0536	435	435	77	277	-1.359883653	0.029114161
CDR20291_0678	1399	1399	544	436	-1.359542851	0.001920593
CDR20291_0592	2824	2824	775	1386	-1.354322313	2.07E-13
CDR20291_0884	1266	1266	306	685	-1.354062854	2.31E-05
CDR20291_1063	2389	2389	628	1216	-1.353611346	1.10E-09
CDR20291_2773	1451	1451	435	659	-1.351578056	4.32E-11
CDR20291_3424	851	851	358	228	-1.351057686	0.018270713
CDR20291_0833	1377	1377	405	638	-1.350484694	9.98E-11
CDR20291_3473	467	467	181	150	-1.349990947	0.010845319
CDR20291_2421	719	719	248	280	-1.345905663	0.000147553
CDR20291_2429	4438	4438	1077	2426	-1.344488954	2.14E-07
CDR20291_2812	1144	1144	365	492	-1.343863466	6.08E-08
CDR20291_0531	2463	2463	810	1024	-1.342125379	6.21E-10
CDR20291_3207	4195	4195	1158	2094	-1.337555026	6.33E-15
CDR20291_1144	10338	10338	3062	4861	-1.334780628	1.69E-34
CDR20291_3112	18839	18839	6172	7950	-1.334151422	2.28E-17
CDR20291_0901	624	624	118	397	-1.332245784	0.01581927
CDR20291_2906	2356	2356	917	774	-1.331617695	0.000556978
CDR20291_2164	7810	7810	2664	3151	-1.330749277	9.73E-11
CDR20291_1641	1583	1583	503	701	-1.326780339	3.74E-10
CDR20291_0919	299	299	62	183	-1.323767751	0.02697826
CDR20291_2011	5227	5227	1466	2632	-1.320335978	3.02E-16
CDR20291_0915	673	673	178	355	-1.319659126	8.25E-05
CDR20291_1343	810	810	212	432	-1.317361289	4.34E-05
CDR20291_0802	1160	1160	359	536	-1.316238516	5.87E-09
CDR20291_0401	6091	6091	1199	3878	-1.316128864	0.000874691
CDR20291_0684	835	835	360	229	-1.316108097	0.02214317
CDR20291_0813	3694	3694	1207	1617	-1.312877642	1.07E-13
CDR20291_2709	2279	2279	757	994	-1.302872054	2.86E-10
CDR20291_2091	633	633	255	208	-1.301323641	0.009312974
CDR20291_2703	2035	2035	748	790	-1.292388625	1.70E-05

CDR20291_0468	1534	1534	487	715	-1.291467748	1.96E-10
CDR20291_3167	357	357	131	140	-1.290514663	0.005806269
CDR20291_2643	833	833	166	542	-1.286750338	0.011793284
CDR20291_0861	6631	6631	1886	3447	-1.286422917	1.89E-15
CDR20291_3098	797	797	202	452	-1.285401268	0.000345633
CDR20291_0812	1998	1998	629	948	-1.284734328	8.39E-13
CDR20291_1313	3159	3159	1045	1424	-1.283693679	4.11E-13
CDR20291_1245	2341	2341	778	1055	-1.280497408	3.86E-11
CDR20291_3144	776	776	236	385	-1.276076433	2.27E-06
CDR20291_0854	413	413	145	176	-1.275574177	0.00149241
CDR20291_1877	4531	4531	1321	2349	-1.271812583	4.83E-15
CDR20291_3100	2711	2711	951	1164	-1.2696163	1.65E-08
CDR20291_0665	2424	2424	810	1105	-1.268513869	2.31E-11
CDR20291_2392	2455	2455	611	1443	-1.266816012	2.79E-05
CDR20291_0457	3062	3062	937	1530	-1.266653939	3.69E-16
CDR20291_2576	239	239	57	144	-1.264966327	0.028760605
CDR20291_1707	433	433	114	245	-1.263901787	0.002514698
CDR20291_2424	3461	3461	1234	1470	-1.263012833	2.24E-08
CDR20291_0605	864	864	256	448	-1.260058077	2.63E-06
CDR20291_0585	1024	1024	242	626	-1.259712511	0.00146479
CDR20291_2023	2787	2787	820	1458	-1.25842293	5.28E-12
CDR20291_2561	10650	10650	3195	5486	-1.25776148	9.55E-23
CDR20291_0869	1925	1925	608	947	-1.256034314	3.19E-12
CDR20291_1623	11652	11652	3441	6108	-1.255120445	1.93E-19
CDR20291_1316	4990	4990	1474	2614	-1.25506244	2.12E-15
CDR20291_2348	2050	2050	639	1025	-1.253280253	1.48E-12
CDR20291_0515	6487	6487	2162	3043	-1.250426119	5.24E-19
CDR20291_1074	1076	1076	391	456	-1.250066373	3.62E-05
CDR20291_2982	2432	2432	778	1196	-1.247219652	3.73E-14
CDR20291_0751	283	283	83	151	-1.244046163	0.005418623
CDR20291_2767	312	312	110	139	-1.243529223	0.004613427
CDR20291_0894	8685	8685	3164	3709	-1.241258714	2.18E-09
CDR20291_0712	1363	1363	624	385	-1.241102968	0.023224135
CDR20291_0600	3699	3699	1367	1557	-1.238897729	3.10E-07

CDR20291_2996	3498	3498	988	1941	-1.238790669	4.00E-09
CDR20291_0518	634	634	293	177	-1.237506755	0.047795173
CDR20291_2269	1035	1035	326	524	-1.236648048	1.46E-07
CDR20291_1661	543	543	126	345	-1.233208015	0.01063187
CDR20291_0030	1185	1185	436	509	-1.231340027	2.87E-05
CDR20291_1512	3325	3325	1072	1662	-1.22975857	5.51E-17
CDR20291_0260	2346	2346	530	1525	-1.22827352	0.00147994
CDR20291_0234	1224	1224	326	719	-1.226821696	0.000101602
CDR20291_0602	809	809	281	379	-1.22095821	1.41E-05
CDR20291_1314	2606	2606	944	1163	-1.219116462	5.21E-08
CDR20291_1116	5108	5108	1465	2919	-1.205627795	3.32E-09
CDR20291_3182	753	753	193	465	-1.205346557	0.00222424
CDR20291_0874	1742	1742	546	931	-1.199201165	1.43E-09
CDR20291_2994	9788	9788	3059	5282	-1.194481234	1.12E-19
CDR20291_1362	401	401	95	263	-1.192571341	0.023497348
CDR20291_0658	1222	1222	512	462	-1.191505463	0.002803095
CDR20291_0660	1336	1336	396	757	-1.190315066	2.55E-06
CDR20291_1326	2222	2222	936	834	-1.189571327	0.001186449
CDR20291_0232	1629	1629	452	973	-1.188599442	3.22E-05
CDR20291_3437	643	643	228	309	-1.18795653	0.000107783
CDR20291_3273	5327	5327	1972	2429	-1.187325763	1.96E-09
CDR20291_2012	644	644	234	302	-1.185604471	0.00020502
CDR20291_3047	1267	1267	434	642	-1.176422978	5.46E-08
CDR20291_2875	3096	3096	1170	1421	-1.166906306	1.47E-07
CDR20291_1474	3809	3809	1169	2164	-1.166395931	1.99E-10
CDR20291_3203	3301	3301	1033	1845	-1.166147546	3.12E-11
CDR20291_2128	5055	5055	1759	2566	-1.163330962	1.91E-17
CDR20291_0653	1073	1073	323	623	-1.160695225	2.27E-05
CDR20291_2750	1497	1497	422	915	-1.159647035	8.07E-05
CDR20291_1558	165	165	49	97	-1.157888051	0.0488947
CDR20291_0226	3856	3856	1264	2091	-1.157724881	2.27E-15
CDR20291_3345	2497	2497	1175	807	-1.155118028	0.013337873
CDR20291_3019	749	749	318	299	-1.151127293	0.006549603
CDR20291_0344	7460	7460	2514	3994	-1.148003101	5.31E-23

CDR20291_0761	1023	1023	350	541	-1.146310209	9.22E-07
CDR20291_1486	772	772	273	395	-1.146294271	2.30E-05
CDR20291_0997	3551	3551	1327	1707	-1.145976557	3.00E-09
CDR20291_0886	6035	6035	2579	2397	-1.14549616	0.000239023
CDR20291_0428	2952	2952	1042	1521	-1.142411676	7.62E-13
CDR20291_2248	938	938	261	592	-1.13960806	0.001072471
CDR20291_2092	6971	6971	2536	3491	-1.139157702	6.59E-15
CDR20291_3328	4193	4193	1338	2398	-1.135474727	1.18E-11
CDR20291_1513	8572	8572	2947	4588	-1.134044995	2.66E-24
CDR20291_2254	5679	5679	2010	2954	-1.133539647	5.02E-18
CDR20291_2970	1228	1228	495	549	-1.13077679	0.000285288
CDR20291_2907	2378	2378	772	1355	-1.126481658	1.28E-09
CDR20291_2932	1175	1175	299	797	-1.126308151	0.004666203
CDR20291_1070	1779	1779	558	1044	-1.126080831	5.35E-07
CDR20291_1065	3230	3230	1212	1593	-1.125942709	2.33E-09
CDR20291_2968	2184	2184	842	1048	-1.122736748	8.75E-07
CDR20291_2369	11147	11147	4394	5196	-1.121947238	1.97E-08
CDR20291_3269	4370	4370	1509	2369	-1.121571876	4.38E-17
CDR20291_0381	2725	2725	1167	1130	-1.120687947	0.000513534
CDR20291_2590	2602	2602	854	1481	-1.120008821	2.48E-10
CDR20291_3263	3696	3696	1329	1930	-1.119248236	7.83E-14
CDR20291_3099	372	372	124	209	-1.1189846	0.003143955
CDR20291_0856	1205	1205	363	738	-1.117102704	8.15E-05
CDR20291_1926	618	618	212	340	-1.115170424	0.000150358
CDR20291_1825; CDR20291_1829	377	377	112	234	-1.113430259	0.009198289
CDR20291_1578	673	673	248	347	-1.110386665	0.000147035
CDR20291_0157	5381	5381	2081	2636	-1.106230031	2.68E-09
CDR20291_0607	3222	3222	1248	1581	-1.104263964	5.39E-08
CDR20291_1923	341	341	134	165	-1.103647311	0.009501183
CDR20291_3125	771	771	282	406	-1.101121115	4.70E-05
CDR20291_0476	673	673	186	449	-1.094933039	0.007007677
CDR20291_0429	1454	1454	412	961	-1.089985438	0.000842995
CDR20291_2755	1028	1028	242	757	-1.088639432	0.022146775
CDR20291_2594	1913	1913	815	850	-1.086575887	0.000434619

CDR20291_3475	403	403	112	271	-1.084023832	0.021261038
CDR20291_1652	883	883	394	369	-1.081138213	0.008278974
CDR20291_2548	2137	2137	750	1209	-1.078531397	4.11E-10
CDR20291_3136	2990	2990	1077	1652	-1.077626566	9.90E-13
CDR20291_1896	286	286	123	128	-1.076965995	0.035249264
CDR20291_0316	1358	1358	456	806	-1.072136725	1.88E-06
CDR20291_2803	907	907	346	476	-1.07201978	4.04E-05
CDR20291_1066	4357	4357	1634	2340	-1.068263033	3.20E-13
CDR20291_1885	2016	2016	851	937	-1.067922059	0.000161094
CDR20291_0240	3338	3338	1049	2111	-1.065441768	1.60E-06
CDR20291_2964	925	925	344	504	-1.064682992	1.61E-05
CDR20291_2247	557	557	180	345	-1.063031904	0.001874841
CDR20291_0366	361	361	135	197	-1.059629674	0.005397093
CDR20291_1993	285	285	105	159	-1.054523637	0.012888224
CDR20291_1502	1660	1660	629	908	-1.048072962	9.52E-08
CDR20291_1739; CDR20291_1807	2511	2511	1018	1277	-1.044963231	1.62E-06
CDR20291_2933	3423	3423	1512	1547	-1.044800888	0.000321178
CDR20291_0438	1948	1948	778	1011	-1.04376222	1.63E-06
CDR20291_1283	484	484	168	290	-1.042321192	0.001944946
CDR20291_0969	2860	2860	1070	1598	-1.042181892	2.30E-11
CDR20291_0427	1291	1291	513	677	-1.041105741	1.51E-05
CDR20291_1681	371	371	128	224	-1.040397216	0.006542485
CDR20291_0535	7890	7890	3172	4089	-1.03861719	9.23E-10
CDR20291_0029	5343	5343	2208	2693	-1.034749237	2.99E-07
CDR20291_1739; CDR20291_1802	688	688	273	365	-1.034726863	0.000532355
CDR20291_0263	989	989	276	706	-1.030257906	0.008950952
CDR20291_1510	1201	1201	439	701	-1.026862714	2.07E-06
CDR20291_1706	3580	3580	1576	1685	-1.024161948	0.000150286
CDR20291_0301	2516	2516	748	1748	-1.019779872	0.000594721
CDR20291_1458	388	388	109	280	-1.015316043	0.042254927
CDR20291_3396	1375	1375	475	865	-1.008008913	1.44E-05
CDR20291_3498	2631	2631	1075	1412	-1.003561101	3.67E-07
CDR20291_3210	3566	3566	1535	1796	-1.002186754	1.60E-05
CDR20291_0166	1163	1163	337	841	-0.998312414	0.00712591

CDR20291_3127	6287	6287	2332	3765	-0.99771782	3.99E-16
CDR20291_0181	1249	1249	476	731	-0.995403609	2.55E-06
CDR20291_2713	6361	6361	2324	3877	-0.995123154	1.70E-14
CDR20291_3018	8197	8197	2996	5016	-0.991915973	1.53E-15
CDR20291_1739; CDR20291_1804	828	828	265	567	-0.987194365	0.003246892
CDR20291_0947	1112	1112	450	619	-0.986793338	3.94E-05
CDR20291_2441	1386	1386	494	874	-0.985434756	9.53E-06
CDR20291_3502	3037	3037	1084	1917	-0.98408859	1.82E-08
CDR20291_0048	1492	1492	562	897	-0.983881685	5.64E-07
CDR20291_1397	1194	1194	558	552	-0.983633227	0.006558606
CDR20291_2914	1983	1983	795	1121	-0.982997142	2.03E-07
CDR20291_3033	2824	2824	864	2009	-0.982863048	0.000697512
CDR20291_1084	941	941	355	567	-0.981116111	4.31E-05
CDR20291_2948	1284	1284	583	624	-0.97993377	0.002398754
CDR20291_2908	8047	8047	3138	4706	-0.979237952	3.36E-17
CDR20291_2250	4735	4735	2008	2523	-0.978483531	3.91E-07
CDR20291_3300	7510	7510	3766	3170	-0.966290165	0.00550655
CDR20291_0731	439	439	188	237	-0.963957359	0.010061377
CDR20291_3035	681	681	332	306	-0.962239669	0.029077662
CDR20291_2648	5557	5557	2224	3252	-0.959779245	3.57E-13
CDR20291_0584	13746	13746	4819	9112	-0.958496239	4.06E-09
CDR20291_2468	2617	2617	1040	1551	-0.956114544	2.35E-09
CDR20291_3413	3516	3516	1413	2074	-0.951227148	1.40E-10
CDR20291_2815	1257	1257	568	646	-0.950508755	0.00146479
CDR20291_0115	1119	1119	425	703	-0.945186952	2.76E-05
CDR20291_1728	1198	1198	434	787	-0.942729256	9.32E-05
CDR20291_1922	4161	4161	1698	2446	-0.942293858	1.09E-10
CDR20291_2314	1621	1621	548	1139	-0.933095848	0.000571576
CDR20291_2708	1598	1598	733	828	-0.932732623	0.001087973
CDR20291_2701	961	961	296	722	-0.930248328	0.01339866
CDR20291_0231	806	806	370	420	-0.929391964	0.005837588
CDR20291_2597	776	776	319	462	-0.928314482	0.000468273
CDR20291_2076	4128	4128	1673	2506	-0.924573942	1.67E-11
CDR20291_2058	3883	3883	1502	2491	-0.917080768	2.29E-10

CDR20291_2072	1163	1163	534	618	-0.91679105	0.00204965
CDR20291_3075	3639	3639	1596	2047	-0.916754543	2.05E-06
CDR20291_1464	8416	8416	3269	5426	-0.910643283	5.22E-14
CDR20291_1008	511	511	200	330	-0.90364541	0.004579444
CDR20291_3270	1708	1708	690	1075	-0.900768047	9.88E-07
CDR20291_3410	1271	1271	631	621	-0.89911605	0.012371272
CDR20291_0241	8613	8613	3501	5407	-0.898226375	4.56E-16
CDR20291_3055	2844	2844	973	2080	-0.893097191	0.000436788
CDR20291_1556	1758	1758	806	974	-0.89152703	0.000394052
CDR20291_0945	1366	1366	514	928	-0.89151215	9.76E-05
CDR20291_0516	1426	1426	702	720	-0.887792023	0.007892624
CDR20291_2717	1053	1053	516	536	-0.88749079	0.011307166
CDR20291_1599	3072	3072	1476	1608	-0.886902049	0.000954698
CDR20291_1379	4547	4547	2216	2333	-0.886171738	0.001008447
CDR20291_2898	1930	1930	864	1114	-0.884134903	5.93E-05
CDR20291_1598	538	538	218	346	-0.882692008	0.004126692
CDR20291_2841	9814	9814	5608	3795	-0.880494536	0.040356275
CDR20291_0174	7517	7517	2743	5329	-0.878917583	1.86E-06
CDR20291_0914	1061	1061	345	818	-0.877095886	0.013774698
CDR20291_3037	3406	3406	1322	2297	-0.876823529	7.96E-08
CDR20291_0815	6896	6896	2821	4439	-0.875412067	5.24E-14
CDR20291_2001	4992	4992	2260	2888	-0.873146925	2.19E-06
CDR20291_1398	1166	1166	471	765	-0.8700257	6.53E-05
CDR20291_2596	326	326	145	196	-0.862695297	0.033174861
CDR20291_1088	1599	1599	628	1089	-0.861032598	2.62E-05
CDR20291_3062	1873	1873	523	1608	-0.859982119	0.045258954
CDR20291_0639	10348	10348	4545	6335	-0.858621016	1.14E-10
CDR20291_1897	1711	1711	583	1307	-0.858421929	0.004193281
CDR20291_0836	1750	1750	690	1192	-0.858316059	1.38E-05
CDR20291_3381	3073	3073	1456	1720	-0.857813476	0.000244721
CDR20291_1179	3738	3738	1545	2442	-0.857220538	5.76E-10
CDR20291_1499	370	370	175	210	-0.852367053	0.039815648
CDR20291_2677	3725	3725	1463	2584	-0.84725204	3.00E-07
CDR20291_0271	688	688	251	508	-0.844331377	0.010931861

CDR20291_2056	769	769	320	508	-0.84417891	0.00114743
CDR20291_2944	1237	1237	586	709	-0.843818909	0.002103757
CDR20291_0411	1096	1096	514	639	-0.841125999	0.002084975
CDR20291_2081	1207	1207	512	787	-0.840200193	7.43E-05
CDR20291_1003	2966	2966	1498	1569	-0.837969665	0.00351463
CDR20291_1708	1191	1191	560	696	-0.83749561	0.001687488
CDR20291_2787	490	490	203	328	-0.837407253	0.009182296
CDR20291_2523	789	789	367	468	-0.836685567	0.004561836
CDR20291_3490	1255	1255	403	1024	-0.834367094	0.025592173
CDR20291_1320	8337	8337	3572	5425	-0.834359326	1.28E-13
CDR20291_2310	1651	1651	713	1067	-0.833711956	9.44E-06
CDR20291_0688	989	989	476	567	-0.83097571	0.005402174
CDR20291_2492	18839	18839	8213	12102	-0.83069461	3.67E-15
CDR20291_0877	1337	1337	535	938	-0.825573039	0.000186509
CDR20291_1890	436	436	167	318	-0.823214462	0.026286322
CDR20291_2799	6909	6909	3140	4296	-0.822102381	2.99E-08
CDR20291_2350	3871	3871	1885	2218	-0.820582814	0.000305925
CDR20291_1010	3384	3384	1319	2449	-0.819330248	1.35E-05
CDR20291_0747	3183	3183	1302	2211	-0.818578109	2.56E-07
CDR20291_1825; CDR20291_1833	973	973	389	696	-0.811014446	0.001428253
CDR20291_2515	6657	6657	3664	3218	-0.810176436	0.015731559
CDR20291_2650	727	727	244	594	-0.807892022	0.044115915
CDR20291_3158	1727	1727	936	864	-0.807145929	0.028386573
CDR20291_2307	730	730	325	475	-0.806768645	0.002703542
CDR20291_2881	1241	1241	555	809	-0.802065275	0.000186671
CDR20291_3124	820	820	342	572	-0.801778397	0.001788107
CDR20291_2123	3992	3992	1945	2360	-0.800508983	0.000172675
CDR20291_0682	3621	3621	1679	2291	-0.79525508	2.43E-06
CDR20291_2319	690	690	265	524	-0.789257306	0.014334402
CDR20291_3377	506	506	260	286	-0.786119704	0.049981958
CDR20291_3076	2256	2256	1027	1477	-0.785793131	6.70E-06
CDR20291_1237	1902	1902	833	1296	-0.785268258	7.21E-06
CDR20291_3109	4622	4622	1818	3470	-0.784584184	3.30E-05
CDR20291_2947	454	454	201	307	-0.78314073	0.017922366

CDR20291_2757	3669	3669	1805	2203	-0.782891548	0.000246548
CDR20291_3000	1371	1371	555	1009	-0.780725609	0.000683269
CDR20291_1484	1389	1389	751	733	-0.780393508	0.029114161
CDR20291_0649	938	938	356	728	-0.779198389	0.010556748
CDR20291_0439	3795	3795	1790	2418	-0.777366194	5.32E-06
CDR20291_2256	1512	1512	659	1049	-0.775402736	5.60E-05
CDR20291_1591	717	717	283	543	-0.774151244	0.011796884
CDR20291_1322	7274	7274	3592	4446	-0.768142849	4.84E-05
CDR20291_3198	835	835	386	558	-0.76021753	0.00280044
CDR20291_1580	2239	2239	948	1629	-0.759731167	2.39E-05
CDR20291_2491	5041	5041	2345	3347	-0.759625119	7.82E-08
CDR20291_1980	1645	1645	597	1351	-0.759491347	0.013151
CDR20291_2599	942	942	456	599	-0.759362642	0.004401768
CDR20291_2981	7915	7915	3055	6283	-0.751825421	0.000308935
CDR20291_0252	2548	2548	995	2003	-0.751816033	0.00127808
CDR20291_0949	10277	10277	4880	6755	-0.750780302	3.45E-08
CDR20291_1517	4623	4623	2559	2480	-0.74934658	0.014100778
CDR20291_1208	600	600	256	440	-0.748132744	0.012229269
CDR20291_0251	4212	4212	1850	3010	-0.748132214	4.08E-08
CDR20291_1282	1086	1086	507	733	-0.745879567	0.001042435
CDR20291_3359	2543	2543	1309	1528	-0.745713284	0.002549986
CDR20291_1927	679	679	359	395	-0.744363477	0.042347412
CDR20291_3143	4148	4148	1904	2860	-0.742919142	4.28E-08
CDR20291_2253	2080	2080	971	1410	-0.74273307	2.64E-05
CDR20291_2585	867	867	437	539	-0.74227508	0.01228192
CDR20291_3501	1916	1916	897	1301	-0.739462482	4.87E-05
CDR20291_3176	582	582	276	390	-0.739419687	0.014330638
CDR20291_1082	926	926	425	642	-0.739171193	0.00185599
CDR20291_0435	1461	1461	610	1109	-0.736190053	0.001064896
CDR20291_0021	703	703	279	556	-0.735653175	0.022730112
CDR20291_2524	1653	1653	592	1416	-0.73079472	0.027002908
CDR20291_2077	2231	2231	1119	1423	-0.728920246	0.000800937
CDR20291_1739; CDR20291_1803	446	446	216	297	-0.728022479	0.035207883
CDR20291_3508	3796	3796	1743	2679	-0.725896989	1.09E-07

CDR20291_0694	951	951	357	794	-0.724939942	0.032078362
CDR20291_2647	2104	2104	975	1478	-0.722691736	1.87E-05
CDR20291_1173	1343	1343	635	925	-0.722180103	0.000487635
CDR20291_2924	2577	2577	1292	1662	-0.721928078	0.000450438
CDR20291_3264	1330	1330	634	910	-0.720822103	0.000630271
CDR20291_1634	2971	2971	1313	2192	-0.719896435	4.54E-06
CDR20291_2688	4089	4089	2152	2489	-0.719038212	0.002061947
CDR20291_0345	9154	9154	4089	6719	-0.716587387	6.69E-10
CDR20291_0268	3522	3522	1636	2507	-0.711391104	3.79E-07
CDR20291_0862	1479	1479	669	1083	-0.709331928	0.000274944
CDR20291_0224	3462	3462	1551	2588	-0.70065141	2.90E-06
CDR20291_0565	2266	2266	1049	1650	-0.697255088	1.87E-05
CDR20291_3326	3878	3878	1584	3175	-0.690786903	0.001353698
CDR20291_1507	2086	2086	1023	1448	-0.689474938	0.000159062
CDR20291_2621	2046	2046	1054	1349	-0.686203925	0.00175676
CDR20291_2096	6433	6433	3819	3474	-0.682533223	0.035249264
CDR20291_1136	934	934	511	574	-0.682136253	0.037256598
CDR20291_3499	1765	1765	983	1058	-0.681322898	0.023717015
CDR20291_2367	438	438	201	329	-0.680161671	0.043307579
CDR20291_0459	3698	3698	1695	2791	-0.677678148	2.42E-06
CDR20291_3235	2893	2893	1600	1768	-0.675356649	0.011099392
CDR20291_0242	8026	8026	4435	4912	-0.674642473	0.004249675
CDR20291_1318	9506	9506	4750	6609	-0.673722329	6.66E-07
CDR20291_1725	2020	2020	1120	1235	-0.673268786	0.017458029
CDR20291_2905	3428	3428	1755	2370	-0.659318986	0.000157982
CDR20291_2171	4432	4432	2156	3242	-0.65835005	6.74E-07
CDR20291_1635	5232	5232	2530	3868	-0.655039729	1.43E-07
CDR20291_0655	3215	3215	1248	2859	-0.652581618	0.020028796
CDR20291_2922	1415	1415	753	952	-0.647560794	0.008712007
CDR20291_2887	4072	4072	2080	2881	-0.645333263	4.75E-05
CDR20291_2891	3123	3123	1815	1886	-0.639870955	0.027492285
CDR20291_1958	2032	2032	1069	1407	-0.637478078	0.002252176
CDR20291_1941	2777	2777	1568	1758	-0.636735749	0.01490681
CDR20291_1108	2117	2117	1072	1535	-0.635191323	0.000366103

CDR20291_2737	4018	4018	2215	2646	-0.632057896	0.004172495
CDR20291_2945	8837	8837	4297	6730	-0.629518369	7.97E-09
CDR20291_1349	1916	1916	751	1747	-0.625003091	0.044629574
CDR20291_0315	7643	7643	3657	5967	-0.622628854	1.39E-07
CDR20291_2134	1512	1512	761	1128	-0.619636281	0.001378633
CDR20291_1973	6805	6805	3165	5479	-0.619021968	9.43E-06
CDR20291_1616	712	712	380	500	-0.617458671	0.035498769
CDR20291_2762	5482	5482	2956	3805	-0.615998675	0.000598782
CDR20291_2952	1260	1260	582	1028	-0.612892068	0.006740898
CDR20291_2377	1611	1611	922	1043	-0.612273714	0.031903647
CDR20291_3418	10732	10732	5576	7861	-0.608377594	2.26E-06
CDR20291_2978	1647	1647	686	1471	-0.60643247	0.032763458
CDR20291_3301	1991	1991	1054	1453	-0.597293043	0.001981494
CDR20291_2464	2079	2079	1063	1583	-0.593524009	0.000507985
CDR20291_1604	721	721	374	541	-0.593507849	0.027211339
CDR20291_2813	4957	4957	2668	3568	-0.593462089	0.000359719
CDR20291_0893	6083	6083	3358	4262	-0.591230605	0.001246408
CDR20291_0113	1168	1168	637	832	-0.590883609	0.017458029
CDR20291_2980	7023	7023	3462	5569	-0.590163717	5.02E-07
CDR20291_1869	1035	1035	498	839	-0.590157095	0.010684229
CDR20291_3039	3452	3452	1954	2351	-0.589462939	0.008191557
CDR20291_1466	2489	2489	1379	1748	-0.587308191	0.006021747
CDR20291_1581	1117	1117	558	878	-0.587145305	0.006528197
CDR20291_1739; CDR20291_1805	645	645	329	497	-0.586803178	0.034468463
CDR20291_3338	4610	4610	1894	4262	-0.586267499	0.025145594
CDR20291_0539	2065	2065	961	1736	-0.584903344	0.00351463
CDR20291_0831	1548	1548	780	1228	-0.574307797	0.002233618
CDR20291_0577	5342	5342	2553	4456	-0.573485448	0.000118947
CDR20291_3071	3774	3774	2174	2581	-0.572504905	0.011207307
CDR20291_2726	1589	1589	737	1361	-0.572400237	0.01071156
CDR20291_2268	1709	1709	931	1258	-0.569604097	0.006526667
CDR20291_0227	3146	3146	1899	2040	-0.56576341	0.040831024
CDR20291_3382	2430	2430	1386	1717	-0.560181239	0.012636272
CDR20291_0450	5245	5245	2673	4197	-0.55993126	5.84E-06

CDR20291_2853	2631	2631	1369	2066	-0.558700612	0.000314698
CDR20291_3346	6556	6556	3718	4679	-0.557785162	0.002626679
CDR20291_1875	2361	2361	1094	2067	-0.55599741	0.008445997
CDR20291_2078	2205	2205	1240	1598	-0.555085629	0.00914946
CDR20291_0722	954	954	521	720	-0.550936717	0.026565095
CDR20291_1549	4461	4461	2355	3503	-0.548115141	4.28E-05
CDR20291_1217	864	864	419	735	-0.547882287	0.033891247
CDR20291_0245	2580	2580	1117	2408	-0.546564452	0.03858663
CDR20291_2868	775	775	418	598	-0.544980794	0.037495317
CDR20291_2909	9185	9185	4747	7419	-0.54310565	5.15E-07
CDR20291_1931	1695	1695	788	1506	-0.541928172	0.020462676
CDR20291_0229	1121	1121	559	939	-0.540875247	0.015115025
CDR20291_2529	1296	1296	716	982	-0.539342071	0.015900367
CDR20291_1587	4526	4526	2382	3616	-0.537986654	3.52E-05
CDR20291_1704	2317	2317	1150	1962	-0.536016755	0.002162873
CDR20291_1865	1470	1470	733	1241	-0.535034936	0.008137509
CDR20291_2285	812	812	429	649	-0.535033161	0.031659948
CDR20291_2912	4144	4144	2205	3306	-0.531075761	8.49E-05
CDR20291_1470	2781	2781	1474	2233	-0.52931436	0.000476855
CDR20291_1727	3035	3035	1719	2288	-0.523241628	0.004788445
CDR20291_0773	6059	6059	3524	4479	-0.514975791	0.00499046
CDR20291_0559	1175	1175	664	912	-0.505744515	0.028760605
CDR20291_2724	4126	4126	2268	3300	-0.505381296	0.000376265
CDR20291_1369	42464	42464	23835	33292	-0.503034993	3.08E-05
CDR20291_2754	5439	5439	3236	3988	-0.502116849	0.011853547
CDR20291_0863	8572	8572	4166	7734	-0.501684239	0.002263096
CDR20291_0416	9342	9342	5155	7497	-0.499983041	3.25E-05
CDR20291_0270	2395	2395	1335	1912	-0.496429686	0.003677296
CDR20291_1653	4831	4831	2692	3880	-0.492287216	0.000418644
CDR20291_0615	5133	5133	3108	3746	-0.490911984	0.020023111
CDR20291_0850	6348	6348	3586	5050	-0.488552535	0.00047759
CDR20291_1321	2609	2609	1605	1873	-0.488551498	0.049487553
CDR20291_2183	4870	4870	2774	3899	-0.477978071	0.001226479
CDR20291_1636	5049	5049	2826	4121	-0.477692922	0.00039028

CDR20291_1380	1389	1389	745	1186	-0.475991245	0.015270103
CDR20291_1007	1378	1378	739	1177	-0.475839511	0.015680017
CDR20291_3496	2104	2104	1218	1664	-0.474348586	0.014025838
CDR20291_2822	1800	1800	1018	1485	-0.462684039	0.011607022
CDR20291_1107	2022	2022	1126	1696	-0.462187159	0.00667758
CDR20291_0567	1825	1825	1076	1442	-0.460972323	0.027020032
CDR20291_0788	9906	9906	5953	7784	-0.44905735	0.005678229
CDR20291_2563	2727	2727	1542	2296	-0.448323093	0.003818798
CDR20291_2858	2654	2654	1543	2179	-0.445395962	0.008777088
CDR20291_2575	1117	1117	632	950	-0.440745122	0.04177347
CDR20291_1226	3499	3499	2059	2857	-0.439942241	0.007360618
CDR20291_3179	4547	4547	2643	3764	-0.439711157	0.002518975
CDR20291_1544	1069	1069	580	949	-0.43897073	0.048363581
CDR20291_0858	2950	2950	1611	2621	-0.433954492	0.004026505
CDR20291_0159	5234	5234	3055	4380	-0.429025324	0.002031637
CDR20291_3072	2754	2754	1449	2548	-0.428864721	0.014961288
CDR20291_0495	1677	1677	915	1514	-0.422528255	0.024036703
CDR20291_3259	4325	4325	2445	3788	-0.42006371	0.001245414
CDR20291_2431	2240	2240	1238	2013	-0.417077253	0.011674301
CDR20291_0952	1458	1458	847	1273	-0.402745091	0.037548949
CDR20291_2806	4368	4368	2575	3852	-0.38482207	0.004033351
CDR20291_3279	8255	8255	4815	7366	-0.384056253	0.000593084
CDR20291_1102	3442	3442	2157	2843	-0.383720341	0.038987193
CDR20291_2422	3698	3698	2124	3355	-0.3830226	0.00516449
CDR20291_2989	5218	5218	3253	4406	-0.37286395	0.020872098
CDR20291_2686	45672	45672	27916	39523	-0.370821502	0.001391742
CDR20291_2488	3303	3303	1962	2948	-0.370749125	0.010221151
CDR20291_0808	3834	3834	2132	3661	-0.367325532	0.017597437
CDR20291_0596	5492	5492	2970	5419	-0.361008247	0.031771513
CDR20291_1194	3204	3204	1801	3055	-0.360987524	0.022251268
CDR20291_0279	4180	4180	2498	3782	-0.356556736	0.007613048
CDR20291_2763	5036	5036	2887	4859	-0.338641553	0.014918077
CDR20291_0403	3078	3078	1821	2883	-0.338632333	0.019970717
CDR20291_2000	5042	5042	2854	4972	-0.330801773	0.029182493

CDR20291_2097	4471	4471	2615	4309	-0.325569984	0.017432083
CDR20291_1266	8266	8266	5319	7632	-0.287629378	0.025965876
CDR20291_0451	6258	6258	3780	6230	-0.279006957	0.028519589
CDR20291_2969	15045	15045	9573	15149	-0.234023903	0.022428718

Table S6a: Gene log₂ fold change data and p-values for R20291 *in vivo* samples (Reference versus day 1 samples)

Genes	ref	d1a	d1b	d1c	d1d	d1e	d1f	d1g	d1h	d1i	d1j	log2FoldChange	padj
CDR20291_0001	450	717	755	684	621	820	619	792	559	705	761	-0.052492963	0.971144882
CDR20291_0002	8624	15541	13535	14227	16286	15004	15585	15445	15767	13840	14616	0.096824392	0.679518386
CDR20291_0003	11	1	1	3	2	1	5	4	7	6	5 NA	NA	NA
CDR20291_0004	4	0	2	0	2	2	1	0	3	7	1 NA	NA	NA
CDR20291_0005	8	4	6	3	2	3	7	2	8	2	6 NA	NA	NA
CDR20291_0006	7	1	0	0	3	0	0	0	0	1	3 NA	NA	NA
CDR20291_0007	2	1	2	4	0	4	2	0	1	3	3 NA	NA	NA
CDR20291_0008	1	2	4	2	2	4	7	1	7	3	3 NA	NA	NA
CDR20291_0009	2293	4146	2265	2771	3342	3800	3325	3491	2718	2648	2969	-0.246223616	0.62159573
CDR20291_0010	6042	27	35	88	43	21	142	119	219	118	60	-6.815054526	1.41E-08
CDR20291_0011	1032	2046	1732	1705	1614	1702	1925	1635	1699	1636	1620	0.046113478	0.950690448
CDR20291_0012	1347	2159	2117	2267	2193	2214	1975	2079	2109	1986	2113	-0.042791004	0.950690448
CDR20291_0013	2421	3744	3317	3265	4031	3878	4776	4446	4165	3986	4267	0.018669051	0.991038605
CDR20291_0014	6539	9493	9133	8785	9611	9495	10861	10248	10282	10802	10208	-0.101797735	0.755658441
CDR20291_0015	9030	13401	14838	13208	14355	14062	17106	16576	15043	15144	15570	0.026030637	0.97352847
CDR20291_0016	9369	14534	13939	14167	17152	14265	15207	17153	15984	13919	14916	-0.008841001	0.993056754
CDR20291_0017	8629	13416	11655	13867	14583	13251	15491	15229	15725	12701	13668	-0.0066154	0.993056754
CDR20291_0018	9	3	1	1	6	4	6	5	9	4	3 NA	NA	NA
CDR20291_0019	7044	12323	11554	11514	13103	13671	13283	13067	13449	11253	12952	0.140500137	0.549679025
CDR20291_0020	31	143	151	57	85	75	103	81	65	85	54	0.833393836	0.549679025
CDR20291_0021	134	113	133	77	213	94	134	164	141	201	134	-0.630346949	0.568939124
CDR20291_0022	319	333	131	291	202	194	335	257	204	222	287	-1.079904947	0.051477332
CDR20291_0023	1111	1975	1695	1642	2044	1697	1848	2161	1787	2063	1981	0.067442807	0.934056304
CDR20291_0024	5314	8672	8025	7869	9672	8629	10015	8658	8865	8273	7904	0.003078029	0.99687942
CDR20291_0025	217	418	341	341	421	359	600	412	475	524	494	0.313588316	0.668359115
CDR20291_0026	834	1631	1521	1240	1270	1389	1342	1321	1539	1386	1232	0.034723013	0.97352847
CDR20291_0027	65	95	96	114	98	66	72	73	98	75	100	-0.24777106	0.904358972

CDR20291_0028	219	349	357	231	433	389	434	312	276	372	374	-0.014432958	0.993056754
CDR20291_0029	390	966	595	640	794	708	759	772	700	737	727	0.222437377	0.681968239
CDR20291_0029;													
CDR20291_0030	0	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_0030	50	116	143	88	64	113	115	91	111	98	117	0.379650594	0.795074713
CDR20291_0031	1	6	8	0	5	13	33	17	21	18	2	2.905492581	0.544638283
CDR20291_0032	424	979	822	668	620	732	589	797	526	777	659	0.060606134	0.971144882
CDR20291_0033	63	123	141	109	95	145	86	235	112	138	57	0.282395818	0.912272704
CDR20291_0034	75	117	130	67	133	96	87	53	128	156	29	-0.287978661	0.926026718
CDR20291_0035	552	968	1064	1133	1069	1164	1244	880	892	1002	940	0.208257431	0.670716819
CDR20291_0036	2	0	1	2	3	1	4	0	1	3	3	NA	NA
CDR20291_0037	0	1	1	1	1	1	0	0	1	0	1	NA	NA
CDR20291_0038	7	9	6	3	5	2	7	1	8	3	7	NA	NA
CDR20291_0039	61	93	136	116	82	77	43	106	180	57	62	-0.053125999	0.993056754
CDR20291_0040	812	1012	1275	1201	1260	1299	1246	1191	1382	1141	1216	-0.108424088	0.859194195
CDR20291_0041	2	0	2	6	2	3	5	2	4	5	2	NA	NA
CDR20291_0042	2490	3739	2965	3297	3929	3267	4610	3866	3794	3636	3275	-0.155241088	0.698463705
CDR20291_0043	3	3	5	0	1	8	3	2	3	5	5	NA	NA
CDR20291_0044	3440	3147	5138	4432	5540	3859	5963	5186	5657	4704	3671	-0.240815599	0.79914247
CDR20291_0045	3596	6136	5407	5765	7055	5714	6528	6151	6577	5814	6001	0.065594195	0.884595325
CDR20291_0046	194	323	362	315	382	377	370	432	315	256	204	0.080078029	0.968670851
CDR20291_0047	281	435	209	480	356	217	454	396	269	362	370	-0.363335647	0.703623902
CDR20291_0048	84	215	222	198	199	127	187	264	175	226	193	0.559413139	0.501722528
CDR20291_0049	7292	10830	8806	10162	11379	9961	12558	10431	10694	9654	11264	-0.165265532	0.553292169
CDR20291_0050	3	2	4	0	1	3	3	1	5	3	2	NA	NA
CDR20291_0051	46	85	77	64	87	59	72	114	64	54	50	-0.043598951	0.993056754
CDR20291_0052	1	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_0053	1	1	0	1	1	0	2	0	1	1	0	NA	NA
CDR20291_0054	2	2	2	4	4	0	4	0	1	1	0	NA	NA
CDR20291_0055	2	0	0	0	0	0	4	2	1	2	0	NA	NA

CDR20291_0056	2	1	1	2	0	3	2	0	1	1	1	NA	NA
CDR20291_0057	0	3	2	0	0	1	2	0	2	0	1	NA	NA
CDR20291_0058	1	1	1	2	0	0	1	0	7	0	8	NA	NA
CDR20291_0059	269	337	379	400	458	385	416	329	260	387	234	-0.284576963	0.739343088
CDR20291_0060	12	5	8	3	8	3	11	2	11	5	19	NA	NA
CDR20291_0061	54	53	18	33	20	18	99	63	63	49	48	-0.928846384	0.648159735
CDR20291_0062	1	0	0	3	4	1	2	0	2	0	0	NA	NA
CDR20291_0063	3	0	0	0	1	0	2	0	2	1	1	NA	NA
CDR20291_0064	12	9	9	1	4	1	5	2	5	12	4	NA	NA
CDR20291_0065	36	74	70	54	83	66	78	90	53	61	73	0.261906537	0.912272704
CDR20291_0066	2	1	0	0	0	2	0	0	2	3	0	NA	NA
CDR20291_0067	1	1	2	2	2	1	8	0	7	1	1	NA	NA
CDR20291_0067;													
CDR20291_0068	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_0068	4	4	0	1	1	1	6	0	2	5	5	NA	NA
CDR20291_0069	1	0	0	1	0	0	1	0	1	1	0	NA	NA
CDR20291_0070	4	2	1	4	2	4	5	0	3	0	4	NA	NA
CDR20291_0071	0	0	1	0	2	1	2	0	0	0	0	NA	NA
CDR20291_0072	2	0	0	0	1	0	0	0	1	0	2	NA	NA
CDR20291_0073	3	1	3	3	1	2	3	1	2	3	4	NA	NA
CDR20291_0074	2	0	1	1	0	0	4	0	0	5	1	NA	NA
CDR20291_0075	1	1	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_0076	4	0	1	0	1	1	0	0	1	2	2	NA	NA
CDR20291_0077	3	3	0	0	2	1	2	0	0	2	1	NA	NA
CDR20291_0078	0	0	0	0	1	0	1	0	1	1	1	NA	NA
CDR20291_0079	1	2	0	0	3	0	0	0	3	2	2	NA	NA
CDR20291_0080	2	1	0	0	2	0	0	0	1	0	0	NA	NA
CDR20291_0081	3	0	3	0	2	1	0	0	4	0	1	NA	NA
CDR20291_0082	3	1	0	1	0	3	3	0	2	1	3	NA	NA
CDR20291_0083	5	2	1	1	0	1	2	0	1	0	2	NA	NA

CDR20291_0084	0	1	0	0	1	0	2	0	1	1	0	NA	NA
CDR20291_0085	0	0	2	0	0	0	1	0	0	0	1	NA	NA
CDR20291_0086	3	1	1	0	0	1	3	0	2	2	1	NA	NA
CDR20291_0087	5	3	3	1	4	6	8	3	9	1	8	NA	NA
CDR20291_0088	4	2	1	1	0	2	4	1	3	1	4	NA	NA
CDR20291_0089	4	1	2	1	1	2	7	0	5	0	1	NA	NA
CDR20291_0090	2	1	0	0	1	0	1	0	2	1	0	NA	NA
CDR20291_0091	3	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_0092	1	0	0	0	0	0	0	0	1	0	1	NA	NA
CDR20291_0093	5	0	1	1	0	1	0	0	1	2	5	NA	NA
CDR20291_0094	0	0	0	0	0	0	2	0	0	0	0	NA	NA
CDR20291_0095	1	0	2	1	4	2	2	1	6	4	2	NA	NA
CDR20291_0096	3	0	3	6	1	2	3	2	3	2	3	NA	NA
CDR20291_0097	1	0	0	0	0	2	0	0	2	0	3	NA	NA
CDR20291_0098	7	1	0	4	0	4	4	1	4	1	3	NA	NA
CDR20291_0099	4	1	6	4	2	0	7	0	5	1	0	NA	NA
CDR20291_0100	43	23	28	47	56	19	46	27	22	11	61	-1.040879627	0.610360948
CDR20291_0101	228	601	524	533	739	417	607	511	517	444	712	0.596555653	0.204819688
CDR20291_0102	0	0	0	0	0	0	2	2	5	0	1	NA	NA
CDR20291_0103	0	0	0	1	1	0	0	0	2	0	0	NA	NA
CDR20291_0104	8	2	0	1	1	8	0	0	6	0	2	NA	NA
CDR20291_0105	36	37	14	7	24	28	30	55	47	24	57	-0.861154324	0.71061568
CDR20291_0106	8	2	4	1	8	2	2	0	10	5	3	NA	NA
CDR20291_0107	1478	2124	2029	1969	2420	1998	2658	2701	2499	2170	2362	-0.067366255	0.933755431
CDR20291_0108	116	541	568	633	631	1026	218	158	409	51	413	1.302229257	0.629238645
CDR20291_0109	2090	2551	2689	2459	2663	2839	2263	1703	2217	1338	2246	-0.565308918	0.370612
CDR20291_0109;													
CDR20291_0110	0	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_0110	1	0	0	0	0	0	2	0	0	0	0	NA	NA
CDR20291_0111	110	159	170	222	220	132	225	186	121	174	251	0.05977475	0.986784307

CDR20291_0112	111	64	46	62	57	50	57	64	144	59	66	-1.430440804	0.110075421
CDR20291_0113	105	73	91	145	146	76	98	85	138	74	97	-0.735503002	0.49177308
CDR20291_0114	8	6	0	0	3	2	1	0	5	6	1 NA	NA	
CDR20291_0115	83	81	45	106	67	51	55	57	47	114	70	-0.950151165	0.444983553
CDR20291_0116	154	156	80	211	196	139	126	173	198	105	107	-0.746490881	0.44440221
CDR20291_0117	78	71	50	93	77	59	139	92	117	109	125	-0.4435786	0.785975323
CDR20291_0118	5	2	2	0	1	3	7	0	2	1	2 NA	NA	
CDR20291_0119	9	7	10	2	3	3	12	3	2	4	5 NA	NA	
CDR20291_0120	2217	4560	4794	4055	4960	4423	4781	4444	4376	4107	3374	0.284139944	0.287556982
CDR20291_0121	1133	1942	2009	1982	2421	1882	2348	1988	2088	1836	1737	0.135575565	0.749223837
CDR20291_0122	6	4	1	4	0	0	7	1	6	5	2 NA	NA	
CDR20291_0123	479	696	588	654	838	925	806	986	920	852	925	0.074567672	0.954714319
CDR20291_0124	29	2	2	2	36	8	50	24	11	0	4	-1.797621164	0.660688328
CDR20291_0125	0	3	8	3	2	2	15	5	11	0	8 NA	NA	
CDR20291_0126	1	5	5	2	0	0	3	1	6	1	5 NA	NA	
CDR20291_0127	2	1	3	1	0	2	1	1	4	1	0 NA	NA	
CDR20291_0128	18	3	32	15	16	12	63	10	68	4	1	-0.405164658	0.960001773
CDR20291_0129	12	6	1	1	3	3	7	1	9	2	4 NA	NA	
CDR20291_0130	3	5	1	1	5	4	1	2	6	6	2 NA	NA	
CDR20291_0131	1510	2123	2185	1985	2034	2118	2288	1788	1928	2123	2316	-0.230658612	0.4516707
CDR20291_0132	346	865	625	549	836	677	748	681	723	791	563	0.327216804	0.54190415
CDR20291_0133	5943	9665	9442	8884	9317	8885	8906	8308	9525	8297	8813	-0.099730807	0.702648248
CDR20291_0134	26	35	69	29	33	22	9	42	7	22	65	-0.332247664	0.950690448
CDR20291_0135	111	213	132	95	303	130	149	115	154	95	133	-0.255008801	0.912272704
CDR20291_0136	167	140	221	177	85	107	109	132	328	115	144	-0.795537599	0.501722528
CDR20291_0137	161	154	195	76	159	148	135	134	107	171	89	-0.934060327	0.23829621
CDR20291_0138	31	61	117	115	79	83	106	57	60	50	138	0.784814602	0.59459692
CDR20291_0139	115	131	122	187	152	169	153	79	181	75	78	-0.495836434	0.702648248
CDR20291_0140	35	58	47	30	10	13	18	20	16	16	11	-1.249507838	0.600194319
CDR20291_0141	1780	3275	2747	3050	3376	2999	3680	3720	3181	2871	3003	0.140469091	0.696825029

CDR20291_0142	15	3	8	11	6	4	18	4	16	10	11	-1.422298281	0.658276033
CDR20291_0143	54	128	64	34	49	48	132	71	15	18	50	-0.54608308	0.859194195
CDR20291_0144	7832	13157	13257	12140	14252	12789	13105	11570	12009	11154	11206	-0.029882375	0.963999943
CDR20291_0145	1774	2820	2999	2502	2662	2748	2809	2503	2712	2197	2185	-0.141613789	0.711525217
CDR20291_0146	349	489	475	436	439	440	635	660	525	389	423	-0.210241865	0.795074713
CDR20291_0147	648	897	885	894	907	1288	1041	1205	1288	963	1040	-0.01610805	0.993056754
CDR20291_0148	6	0	1	1	1	0	3	1	2	2	1 NA	NA	
CDR20291_0149	3	1	2	2	3	5	3	1	0	5	2 NA	NA	
CDR20291_0150	5	1	1	2	1	3	0	0	2	0	1 NA	NA	
CDR20291_0151	589	1138	788	708	879	823	862	958	972	938	1064	-0.067565223	0.952353002
CDR20291_0152	573	676	768	797	1041	673	772	887	993	835	700	-0.191363531	0.791009827
CDR20291_0153	192	405	167	319	221	452	297	382	394	217	304	0.015171331	0.995043151
CDR20291_0153;													
CDR20291_0154	1	0	0	1	0	0	0	0	1	0	0 NA	NA	
CDR20291_0154	246	361	328	274	500	269	447	265	416	271	240	-0.251258235	0.830783835
CDR20291_0155	2302	4713	4227	4282	4308	3998	4389	4287	4530	3727	4619	0.204385313	0.377455714
CDR20291_0156	191	561	674	530	537	626	609	628	606	488	644	0.928384821	0.00086644
CDR20291_0157	356	612	641	593	544	583	547	569	401	706	486	-0.021123296	0.993056754
CDR20291_0158	1144	2276	370	2490	1839	2370	1935	2383	2291	1897	2010	0.09580512	0.987180179
CDR20291_0159	590	1048	181	1113	671	1059	980	1132	1010	782	921	-0.108805511	0.985433376
CDR20291_0160	26	29	7	24	24	62	39	27	75	18	17	-0.400944301	0.933755431
CDR20291_0161	450	478	111	515	281	351	414	382	372	247	382	-1.051248486	0.1357314
CDR20291_0162	0	0	1	0	0	1	1	0	0	0	3 NA	NA	
CDR20291_0163	1	0	0	3	0	0	1	0	1	1	1 NA	NA	
CDR20291_0164	25	15	3	50	16	25	20	32	35	11	96	-0.413970493	0.950560876
CDR20291_0165	66	78	118	85	64	115	112	77	48	133	129	-0.155165845	0.960001773
CDR20291_0166	95	147	90	72	119	142	101	109	124	140	165	-0.35135539	0.806385533
CDR20291_0167	371	665	829	509	715	696	759	552	656	499	726	0.130355959	0.902836447
CDR20291_0168	164	539	534	608	489	531	494	439	520	558	558	0.987885296	0.001157847
CDR20291_0169	7476	13326	11803	11909	13469	12402	14127	12615	13709	12111	13209	0.082969966	0.739343088

CDR20291_0170	1927	3122	2283	3346	2965	3122	3435	2807	3070	3080	2991	-0.050300722	0.951578777
CDR20291_0171	2	2	0	0	0	3	1	0	3	1	1	NA	NA
CDR20291_0172	1259	2105	2210	2142	1999	1998	2308	2350	2078	2079	1624	0.031570826	0.974298666
CDR20291_0173	2	0	0	0	0	0	0	1	0	1	0	NA	NA
CDR20291_0174	572	1305	1357	993	1242	1035	989	1047	1116	968	995	0.250173426	0.605816386
CDR20291_0175	1678	4823	4582	4300	5016	4525	4876	4327	4592	4669	4566	0.764083057	5.42E-11
CDR20291_0176	538	1801	1549	1392	1693	1707	1384	1303	1275	1398	1265	0.756891311	0.002373422
CDR20291_0177	1332	3402	3288	2989	3239	3250	3774	3123	3112	3151	2562	0.558616829	0.001536517
CDR20291_0178	3457	5194	5220	5066	6164	5588	6600	5687	6217	4775	5550	-0.004300318	0.995043151
CDR20291_0179	539	818	910	1001	904	896	772	882	884	986	921	0.040265224	0.97352847
CDR20291_0180	11	3	6	6	1	17	15	6	6	1	5	NA	NA
CDR20291_0181	142	117	183	145	77	191	263	164	142	75	197	-0.57517818	0.654461852
CDR20291_0182	1716	2765	3057	2514	2685	2883	2911	2368	2592	2874	2099	-0.05858101	0.950690448
CDR20291_0183	98	197	233	202	166	158	148	155	150	259	118	0.17335697	0.935667015
CDR20291_0184	2676	4421	4399	3932	4801	4078	4185	4504	4475	3973	3700	-0.033392596	0.962607555
CDR20291_0185	3701	10	5	16	2	4	14	61	21	48	38	-8.084262662	7.77E-07
CDR20291_0186	3805	3	5	23	2	2	4	28	14	14	16	-9.102184755	1.93E-10
CDR20291_0187	2460	198	8	120	43	114	78	247	118	166	197	-4.949488728	0.000403523
CDR20291_0188	4430	5	0	30	2	2	3	20	13	19	41	-9.032839607	1.73E-05
CDR20291_0189	474	1129	985	679	972	1105	1007	1112	1155	745	716	0.315138932	0.59459692
CDR20291_0190	3736	6527	4986	6029	6372	6090	7006	6456	6274	6346	7002	0.055940268	0.932983482
CDR20291_0191	274	313	232	346	380	294	368	265	403	211	350	-0.49611566	0.457306418
CDR20291_0192	1376	2306	1867	1768	2404	2355	2344	1958	2164	2137	2128	-0.061989503	0.933755431
CDR20291_0193	4393	7403	6159	6653	7177	7213	7219	7242	7764	6788	6355	-0.028451481	0.966634509
CDR20291_0194	2	1	0	1	1	2	3	0	0	1	1	NA	NA
CDR20291_0195	54	301	130	213	268	263	271	458	301	169	177	1.534462977	0.020861846
CDR20291_0196	125	304	333	322	332	399	335	313	295	198	332	0.638143395	0.23829621
CDR20291_0197	1772	3017	3344	2674	3292	2601	2667	2953	2463	2514	2634	-0.03067539	0.976271093
CDR20291_0198	8	2	5	1	0	2	6	4	3	7	6	NA	NA
CDR20291_0199	14927	25874	22961	23027	26474	23557	26393	25845	25701	23439	24754	0.032360401	0.948369562

CDR20291_0200	512	1271	1049	1145	1114	1034	1079	943	917	1111	1058	0.367859315	0.27073814
CDR20291_0201	138	235	194	265	168	211	249	216	217	214	210	-0.03955064	0.990004075
CDR20291_0202	95	175	155	145	136	156	114	87	95	107	203	-0.166330377	0.950690448
CDR20291_0203	71	127	112	108	68	66	66	34	47	87	64	-0.560832363	0.739343088
CDR20291_0204	1117	1818	1303	1665	1777	1732	1995	1905	1815	1879	1782	-0.038365405	0.971144882
CDR20291_0205	8836	12913	18306	9373	13812	12988	14971	13508	13522	13990	11123	-0.093665825	0.948078774
CDR20291_0206	405	806	688	580	776	861	732	750	767	711	680	0.159262285	0.79292851
CDR20291_0207	2	0	1	1	1	1	2	0	1	0	2	NA	NA
CDR20291_0208	84	105	153	94	242	43	75	50	151	105	88	-0.301525718	0.922364345
CDR20291_0209	7	9	3	6	1	2	6	13	3	0	3	NA	NA
CDR20291_0210	9	14	4	4	4	2	5	8	4	4	22	NA	NA
CDR20291_0211	365	689	698	496	701	713	517	575	447	645	826	0.091832619	0.950690448
CDR20291_0212	28	67	84	88	148	34	152	29	122	39	151	0.999197235	0.592746166
CDR20291_0213	18	14	1	16	23	3	4	9	1	5	13	-1.714165331	0.649602625
CDR20291_0214	101	192	324	229	141	174	264	305	144	154	284	0.4323728	0.711525217
CDR20291_0215	188	47	2	60	35	25	29	29	16	12	60	-3.276518064	0.006453096
CDR20291_0216	199	258	68	269	256	123	178	153	126	143	238	-0.835186376	0.444618261
CDR20291_0217	1578	484	13	467	326	213	244	293	301	125	608	-3.060866734	0.085010719
CDR20291_0218	431	221	10	147	110	62	122	104	93	37	220	-2.643032106	0.126243624
CDR20291_0218;													
CDR20291_0219	28	2	0	10	2	0	3	10	1	1	7	NA	NA
CDR20291_0219	376	155	11	97	69	26	93	86	39	21	145	-3.049255614	0.065130479
CDR20291_0220	1614	779	239	894	441	497	527	552	434	346	848	-2.236630374	0.004446603
CDR20291_0221	505	147	13	140	60	32	57	102	62	72	174	-3.249992807	0.020550304
CDR20291_0222	5107	1325	129	1147	615	473	784	1202	495	309	2410	-3.222183913	0.053765124
CDR20291_0223	438	947	607	567	640	786	664	702	683	635	721	-0.034829294	0.986784307
CDR20291_0224	401	713	975	540	683	890	625	633	601	894	984	0.21561999	0.833660627
CDR20291_0225	15	48	140	43	58	70	69	34	41	50	25	1.247606251	0.477185803
CDR20291_0226	305	629	784	495	927	663	600	597	833	807	741	0.516475338	0.317534391

CDR20291_0226;													
CDR20291_0227	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0227	317	546	644	449	663	529	556	599	527	278	651	0.076986608	0.968670851
CDR20291_0228	66	143	92	109	115	103	132	120	38	132	131	0.05742547	0.993056754
CDR20291_0229	105	235	501	304	313	229	219	177	337	376	559	0.940132391	0.282684786
CDR20291_0230	40	59	30	63	39	31	82	32	57	50	28	-0.468655323	0.850045789
CDR20291_0231	83	71	252	161	125	97	176	124	137	103	121	0.023083167	0.993056754
CDR20291_0232	83	295	147	138	209	117	112	157	235	126	112	0.28612531	0.879372027
CDR20291_0233	475	971	963	758	911	850	763	836	1077	1091	687	0.209937662	0.750540968
CDR20291_0234	93	126	186	163	183	216	131	206	110	164	163	0.129932218	0.952353002
CDR20291_0235	1	10	17	0	12	4	14	3	14	0	1	NA	NA
CDR20291_0236	14	41	38	19	38	61	51	57	27	17	89	0.940438832	0.660688328
CDR20291_0237	46	78	20	55	31	27	54	81	72	34	3	-0.722468342	0.817035003
CDR20291_0238	29	40	53	61	40	38	38	41	40	45	46	-0.08571637	0.988165038
CDR20291_0239	52	72	35	105	51	43	112	57	69	41	36	-0.449530635	0.854183124
CDR20291_0240	206	506	391	384	333	347	410	415	395	488	436	0.29710094	0.658276033
CDR20291_0241	700	1298	945	776	1007	975	1183	1107	922	958	1350	-0.114109541	0.912272704
CDR20291_0242	742	1452	1299	1217	1472	1344	1502	1220	1282	1232	1289	0.141838487	0.702648248
CDR20291_0242;													
CDR20291_0243	0	1	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0243	1080	2129	2596	1657	2301	1899	2365	2133	2327	1962	1971	0.281708284	0.44440221
CDR20291_0244	1625	3674	3962	3551	2959	3080	3718	3398	3441	3345	3933	0.411378964	0.073165556
CDR20291_0245	246	650	672	769	806	755	538	581	658	581	636	0.73664767	0.032241364
CDR20291_0246	5540	12437	13332	11198	12329	11655	12880	10911	12337	11650	11827	0.422356235	0.001438042
CDR20291_0247	1175	3115	3094	2453	2890	2546	2497	2617	2440	2440	3564	0.536536972	0.045027973
CDR20291_0248	420	740	1032	734	862	620	913	833	763	666	1354	0.321404958	0.66174979
CDR20291_0249	117	68	204	130	252	103	182	191	171	63	121	-0.359778424	0.859872453
CDR20291_0250	5	30	22	36	0	40	26	0	8	4	5	1.07014565	0.868034697
CDR20291_0251	552	1030	1162	891	1020	983	1343	1058	945	994	986	0.214112103	0.646322042
CDR20291_0252	438	733	748	682	502	862	671	676	688	622	945	0.005046689	0.997856314

CDR20291_0252;													
CDR20291_0253	119	95	241	105	94	111	157	214	135	102	15	-0.607486877	0.766867053
CDR20291_0253	1786	2873	3689	2725	3529	3041	3306	2953	3543	2559	3209	0.114894233	0.839139708
CDR20291_0254	1276	2641	3412	2196	2514	2389	2231	2422	2730	2668	2674	0.323393033	0.403563831
CDR20291_0255	61	85	151	116	50	133	48	69	20	87	43	-0.294025998	0.943731346
CDR20291_0256	983	1499	1996	1444	1939	1398	1529	1492	1631	1634	1682	0.027085095	0.987180179
CDR20291_0257	763	1558	1970	1440	1721	1405	1564	1570	1785	1843	1528	0.405508067	0.207389313
CDR20291_0258	726	1165	1666	1222	1132	1150	1168	1039	1193	1439	1391	0.096611341	0.931537513
CDR20291_0259	551	908	952	783	1069	870	1027	977	1068	1144	912	0.118690078	0.872147155
CDR20291_0259;													
CDR20291_0260	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_0260	245	645	789	480	711	544	451	673	689	561	1191	0.762656192	0.212619481
CDR20291_0260;													
CDR20291_0261	0	0	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_0261	360	734	680	539	467	750	520	425	730	794	469	0.066432401	0.97352847
CDR20291_0262	457	1045	827	786	1039	787	983	874	843	841	1095	0.295967329	0.501722528
CDR20291_0263	104	213	208	257	235	219	129	305	165	280	184	0.385735534	0.728556335
CDR20291_0264	359	589	790	483	567	452	580	799	515	626	391	-0.007791967	0.997856314
CDR20291_0265	159	333	494	265	383	486	423	356	333	343	271	0.51235673	0.455508288
CDR20291_0266	3364	5311	6125	4478	5670	4651	4753	4959	6275	4979	5245	-0.057877948	0.950560876
CDR20291_0267	2277	3947	4215	3305	3559	3521	3497	3254	3608	3425	3883	-0.029104518	0.97352847
CDR20291_0267;													
CDR20291_0268	42	170	92	93	171	86	113	117	130	37	114	0.710789617	0.622721546
CDR20291_0268	499	723	874	716	995	921	878	869	865	745	605	0.01421657	0.993056754
CDR20291_0269	1063	2040	2523	1618	2085	1753	1908	1933	2033	2257	2398	0.253930528	0.593667279
CDR20291_0270	436	374	396	354	500	261	521	352	455	597	266	-0.795849688	0.169525049
CDR20291_0271	56	110	145	131	137	138	136	76	68	55	198	0.391815898	0.847322651
CDR20291_0272	486	598	1000	650	845	743	644	912	750	967	870	0.021219168	0.993056754
CDR20291_0273	452	633	824	608	550	685	378	707	674	670	405	-0.253514928	0.799007831
CDR20291_0274	802	1503	1636	1264	1687	1494	1578	1647	1462	1451	1532	0.227713663	0.494072929

CDR20291_0275	29	82	105	60	31	14	4	38	29	116	14	0.08796704	0.993056754
CDR20291_0276	1188	1854	2266	1604	2267	1870	1989	1564	2069	1866	1741	-0.015450967	0.993056754
CDR20291_0277	9997	17407	17408	16819	19215	17841	18762	18365	18906	17336	18490	0.153460711	0.377455714
CDR20291_0278	933	2325	2227	1507	1719	1609	1802	1680	1657	1649	1565	0.226695867	0.649602625
CDR20291_0279	424	1013	965	926	1304	1079	868	866	1060	910	881	0.519820133	0.114648478
CDR20291_0280	58	108	102	46	167	70	237	58	120	117	154	0.312751071	0.913212471
CDR20291_0281	4	4	8	3	3	2	2	4	5	4	13	NA	NA
CDR20291_0282	2839	4634	4294	4743	4647	4332	5056	5571	5132	4396	4285	0.030333612	0.971144882
CDR20291_0283	26	123	130	98	75	61	86	49	97	109	61	1.07755246	0.35699895
CDR20291_0284	51	146	75	63	122	104	238	200	119	147	119	0.677400099	0.624175269
CDR20291_0285	4493	7556	6772	6125	7164	6952	7663	6912	7936	6573	7175	-0.044222272	0.933755431
CDR20291_0286	1244	2550	3083	2089	2582	2494	2123	2053	2028	2133	1792	0.183327529	0.749719855
CDR20291_0287	36	212	119	69	116	81	110	94	108	72	104	0.884998397	0.449152848
CDR20291_0288	2	7	22	10	1	17	12	8	2	3	0	NA	NA
CDR20291_0289	3	3	2	0	0	0	0	0	1	0	3	NA	NA
CDR20291_0290	11	8	3	5	9	17	47	19	10	3	1	-0.583964809	0.943731346
CDR20291_0291	87	119	131	92	50	106	123	121	64	135	130	-0.396267127	0.811976885
CDR20291_0292	507	961	658	703	875	962	723	766	762	644	712	-0.086388937	0.940758808
CDR20291_0293	4	2	2	1	2	1	2	1	0	2	2	NA	NA
CDR20291_0294	49	61	131	58	123	138	94	90	176	76	155	0.469138817	0.793264885
CDR20291_0295	424	675	437	473	392	373	513	459	490	421	416	-0.568659758	0.203659008
CDR20291_0296	53	104	43	86	116	51	54	60	69	112	149	-0.022563098	0.995043151
CDR20291_0297	404	664	450	654	757	735	531	635	508	639	545	-0.099520599	0.943731346
CDR20291_0298	3913	11690	11541	9152	9605	9057	9220	8743	8939	8134	9042	0.581908229	0.002869517
CDR20291_0299	18	99	138	63	65	77	111	92	62	53	54	1.473145104	0.157595477
CDR20291_0300	446	765	770	926	802	937	771	838	738	759	949	0.191132883	0.722757579
CDR20291_0301	298	383	537	559	483	516	518	398	520	602	305	-0.00172636	0.997856314
CDR20291_0302	53	186	143	114	148	177	233	131	117	91	188	0.820092909	0.359333355
CDR20291_0303	164	330	361	403	400	321	288	284	274	321	275	0.293467002	0.702648248
CDR20291_0304	27	19	61	27	20	39	36	44	27	44	23	-0.360966163	0.922364345

CDR20291_0305	579	944	1191	791	1201	1267	1016	880	861	892	896	0.079164934	0.950690448
CDR20291_0306	170	278	389	292	312	413	430	339	388	308	414	0.367033237	0.59459692
CDR20291_0307	232	357	302	230	405	454	313	238	257	465	296	-0.182170204	0.912716668
CDR20291_0308	50	110	118	166	117	124	82	177	101	79	139	0.583454277	0.639700364
CDR20291_0309	5	4	8	0	5	7	4	2	7	2	10	NA	NA
CDR20291_0310	4075	6814	6267	5704	7299	6306	6581	7020	7040	6415	7009	0.005902455	0.993056754
CDR20291_0311	17268	30550	30410	28619	32827	30428	33539	29171	31334	27704	29259	0.114734432	0.55667658
CDR20291_0311;													
CDR20291_0312	11	27	13	0	30	16	53	44	68	42	48	0.924322972	0.811230391
CDR20291_0312	982	1840	1824	1866	1979	1922	1819	1653	2073	2176	2075	0.272428585	0.425139084
CDR20291_0313	4304	6871	6572	6496	7498	7004	8447	6759	7116	7185	7169	0.024042874	0.973156858
CDR20291_0314	1675	2746	2853	2433	2713	2398	2938	2365	2623	2586	2243	-0.0713573	0.912272704
CDR20291_0315	764	1587	1750	1631	1729	1403	1626	1580	1434	1489	1290	0.323623964	0.302538122
CDR20291_0316	10	5	31	13	5	26	22	4	18	9	26	-0.029102675	0.997856314
CDR20291_0317	0	6	4	8	6	2	5	11	25	21	2	NA	NA
CDR20291_0318	13	24	4	2	34	11	11	1	15	8	10	-0.830835889	0.878985434
CDR20291_0319	152	190	312	158	238	161	167	229	250	192	94	-0.308735132	0.848365004
CDR20291_0320	225	214	238	202	201	185	232	130	195	232	218	-0.834350433	0.098884322
CDR20291_0321	476	617	835	632	800	739	810	753	574	638	516	-0.161874651	0.852273016
CDR20291_0322	499	745	899	766	670	793	719	613	607	712	735	-0.156342285	0.839139708
CDR20291_0323	4928	7278	6359	5608	7273	6605	6608	6156	6349	5718	5902	-0.327361856	0.056671615
CDR20291_0324	1855	2899	2725	2364	2946	2637	2546	2360	2387	2216	2691	-0.225867485	0.455508288
CDR20291_0325	2813	4852	4131	4153	4853	4422	4689	3980	4445	4702	4647	-0.025589031	0.97352847
CDR20291_0325;													
CDR20291_0326	812	1705	1533	1440	1618	1614	1687	1521	1675	1383	1360	0.234940769	0.420415645
CDR20291_0326	216	674	355	463	490	508	536	413	405	339	466	0.401692851	0.548079437
CDR20291_0327	2026	3254	3913	2947	3157	3256	3276	3119	2944	2926	3177	-0.04080008	0.960001773
CDR20291_0328	2561	5713	6235	4783	5333	4946	5129	4044	4522	4714	4420	0.261327187	0.461523232
CDR20291_0329	441	416	375	358	376	459	427	499	343	522	411	-0.772638758	0.034166708
CDR20291_0330	91	155	100	141	119	72	221	200	81	140	113	-0.143185297	0.96010839

CDR20291_0331	520	421	583	466	451	570	676	473	407	438	553	-0.746503925	0.039205584
CDR20291_0332	315	234	221	332	271	227	237	160	170	316	267	-1.064840312	0.042623173
CDR20291_0333	659	721	1169	1039	922	663	933	704	1041	919	780	-0.263842603	0.700659075
CDR20291_0334	12262	19313	18231	17965	19143	18065	21680	17945	18430	17187	18126	-0.098991654	0.652488413
CDR20291_0335	379	497	388	438	645	429	437	424	515	597	162	-0.440996984	0.65915918
CDR20291_0336	207	314	345	345	301	334	341	366	467	294	246	-0.003763889	0.997856314
CDR20291_0337	48	79	80	84	83	50	64	54	108	65	19	-0.184117909	0.960001773
CDR20291_0338	5	9	2	1	4	4	3	0	8	3	4	NA	NA
CDR20291_0339	115	83	91	81	130	85	126	91	107	78	40	-1.039432413	0.23829621
CDR20291_0340	3	14	19	1	17	18	31	15	9	14	10	1.589995556	0.658276033
CDR20291_0341	331	612	390	484	545	668	491	661	539	667	571	0.067897717	0.968670851
CDR20291_0342	680	983	905	813	847	971	1190	1102	1186	863	964	-0.171409293	0.75470509
CDR20291_0343	144	297	324	230	348	315	277	325	281	125	313	0.273763308	0.833660627
CDR20291_0344	527	734	812	683	800	842	759	731	849	561	726	-0.192379105	0.70940224
CDR20291_0345	941	1992	1706	1655	1692	1847	1634	1544	1851	1739	1821	0.194854952	0.591250185
CDR20291_0346	670	1346	1543	1152	1256	1399	859	1062	1099	1195	1265	0.1660541	0.839484518
CDR20291_0347	2	1	0	0	1	0	0	0	2	0	1	NA	NA
CDR20291_0348	224	367	385	403	302	271	322	302	363	369	331	-0.087454505	0.952353002
CDR20291_0349	3328	5375	5632	4978	5459	5166	5428	4709	5176	5008	4958	-0.058445886	0.898154755
CDR20291_0350	3333	4016	3511	3902	3929	3711	5156	4756	4544	3909	3628	-0.400678432	0.085380121
CDR20291_0351	3	1	2	1	7	1	2	0	0	2	3	NA	NA
CDR20291_0352	3176	5368	4899	5403	4959	4988	6321	4653	5340	4397	4941	-0.010493502	0.993056754
CDR20291_0353	9051	16368	15089	14163	15853	15514	17613	14970	15352	14913	14145	0.065818434	0.83190838
CDR20291_0354	1	1	2	2	1	1	3	3	6	3	3	NA	NA
CDR20291_0355	1887	2780	2559	2889	2691	2941	3221	2759	3004	2181	2890	-0.136275588	0.711525217
CDR20291_0356	3250	5652	4731	5024	5848	5513	6125	5278	5665	4859	4797	0.017208848	0.986784307
CDR20291_0357	52	154	127	69	86	122	127	83	124	113	50	0.316900421	0.876031447
CDR20291_0358	25	12	81	32	6	24	31	95	51	36	17	-0.068278781	0.993056754
CDR20291_0359	139	221	237	268	317	215	204	337	296	297	247	0.22933944	0.850045789
CDR20291_0360	97	121	101	68	146	158	121	182	59	135	63	-0.451032273	0.791009827

CDR20291_0361	11	22	42	29	22	33	9	38	18	25	47	0.684214934	0.833660627
CDR20291_0362	56	146	146	101	112	158	91	66	170	172	162	0.546702546	0.672073212
CDR20291_0363	366	879	960	755	878	828	693	842	923	627	973	0.492405507	0.203659008
CDR20291_0364	4407	7489	9120	6775	7349	8125	7181	6707	6381	6277	6053	-0.001941413	0.997856314
CDR20291_0365	112	218	137	255	238	373	291	271	201	182	249	0.405996027	0.696825029
CDR20291_0366	12	34	11	16	16	8	11	8	6	12	8	-0.587845524	0.912716668
CDR20291_0367	3	3	5	3	5	0	4	2	2	5	1	NA	NA
CDR20291_0368	8	2	4	1	4	3	4	1	1	6	6	NA	NA
CDR20291_0369	4	5	3	1	2	3	4	13	3	7	4	NA	NA
CDR20291_0370	4	5	3	0	1	2	1	1	1	3	3	NA	NA
CDR20291_0371	3	1	2	3	3	2	3	1	7	2	4	NA	NA
CDR20291_0372	6	3	10	0	18	9	4	11	8	5	9	NA	NA
CDR20291_0373	251	1046	519	727	800	786	667	584	641	613	707	0.796424196	0.041487261
CDR20291_0374	0	6	0	0	2	2	4	3	1	1	3	NA	NA
CDR20291_0375	407	746	878	706	890	604	991	777	754	800	794	0.263734182	0.622721546
CDR20291_0376	702	1279	1329	1224	1363	1248	1267	1161	1111	1116	1066	0.093525823	0.87886113
CDR20291_0376;													
CDR20291_0377	2371	3942	3820	3745	4106	3981	4171	3996	4001	3751	3891	0.033214254	0.950690448
CDR20291_0378	704	1032	1136	1138	1245	1220	1073	1006	1128	1220	1281	0.008470631	0.993056754
CDR20291_0379	2182	4458	4342	4218	4119	4323	4443	3753	4209	3519	4108	0.227065058	0.305939313
CDR20291_0380	80	154	130	134	107	98	127	98	115	113	168	-0.061362187	0.986784307
CDR20291_0381	82	252	358	233	266	283	281	194	216	189	208	0.895950782	0.11430829
CDR20291_0382	430	809	823	828	805	855	797	790	713	794	761	0.193025116	0.658276033
CDR20291_0383	2	19	18	21	17	22	1	15	5	9	0	1.974427404	0.65915918
CDR20291_0384	121	276	266	289	259	271	232	209	202	227	181	0.297112002	0.739098579
CDR20291_0385	60	7	14	9	14	24	16	21	27	38	9	-2.437156802	0.085171712
CDR20291_0386	184	0	0	3	1	1	4	1	0	0	6	-7.547463334	2.46E-08
CDR20291_0386;													
CDR20291_0387	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0387	334	393	348	402	572	365	327	498	520	453	347	-0.358524104	0.630797931

CDR20291_0388	9	0	25	4	0	18	2	0	14	27	0	NA	NA
CDR20291_0389	879	1324	994	1166	1097	1181	1067	1113	1231	999	1208	-0.3269001	0.293317847
CDR20291_0390	1080	1576	1478	1315	1506	1673	1420	1358	1591	1399	1710	-0.222758906	0.538240756
CDR20291_0390;													
CDR20291_0391	0	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_0391	61	81	43	90	120	99	58	79	49	40	35	-0.516511175	0.79744334
CDR20291_0392	187	444	253	231	431	333	464	399	333	211	516	0.243674246	0.859194195
CDR20291_0393	2	8	1	2	5	5	0	5	1	1	0	NA	NA
CDR20291_0394	1994	3693	3392	3444	3859	3658	3747	3424	3284	3277	2646	0.087297384	0.8728919
CDR20291_0395	242	340	394	377	384	286	582	373	324	348	262	-0.102465965	0.950690448
CDR20291_0396	1112	1495	1605	1541	1643	1504	1575	1684	1579	1590	1565	-0.193109345	0.519208591
CDR20291_0397	319	470	435	559	650	864	720	595	545	743	810	0.304203216	0.700659075
CDR20291_0398	779	1038	1112	1265	1626	1456	1355	1224	1155	1135	1168	-0.01389521	0.993056754
CDR20291_0399	48	107	84	28	209	110	46	55	65	61	11	-0.014415705	0.997856314
CDR20291_0400	4	23	48	39	55	34	92	27	34	58	23	2.731747414	0.079664677
CDR20291_0401	624	904	824	1052	1167	1162	1254	930	956	1099	1291	0.070396444	0.950690448
CDR20291_0402	776	1779	1923	1709	1585	1571	1624	1502	1597	1378	1907	0.396420919	0.171302061
CDR20291_0403	271	869	717	623	908	507	565	714	595	641	769	0.651143659	0.132984876
CDR20291_0404	420	509	867	896	975	736	800	948	789	883	1023	0.30950995	0.651259928
CDR20291_0405	1732	2775	2573	2611	2843	2823	2911	2747	2800	2589	2715	-0.038797379	0.9450288
CDR20291_0406	125	306	175	233	254	229	119	188	220	300	191	0.131165737	0.952519992
CDR20291_0407	2097	3941	3630	3440	4043	3409	4000	3843	3752	3316	3572	0.116405805	0.681968239
CDR20291_0408	716	1667	1458	1433	1754	1279	1707	1372	1598	1483	1607	0.400481818	0.120181452
CDR20291_0409	12	25	1	13	4	10	28	6	7	7	20	-0.703198266	0.912272704
CDR20291_0410	85	295	229	250	237	313	240	194	231	160	199	0.763798092	0.211283011
CDR20291_0411	89	165	145	220	210	151	114	128	129	198	221	0.225111856	0.912272704
CDR20291_0412	1603	2956	3089	2558	2682	2471	2683	2254	2805	2500	2463	0.023955002	0.986339119
CDR20291_0413	926	1533	1370	1336	1615	1245	1596	1580	1336	1045	1308	-0.10977972	0.868034697
CDR20291_0414	804	1154	1163	1095	1316	1275	1447	1374	1168	1426	1633	0.000283765	0.999561187
CDR20291_0415	1079	1872	1594	1763	1933	1716	2070	1898	1897	1770	1784	0.061462286	0.918573372

CDR20291_0416	864	1493	1994	1643	1704	1654	1643	1374	2049	1763	1254	0.242041271	0.649602625
CDR20291_0417	113	166	219	183	146	152	184	120	191	134	156	-0.152025163	0.935667015
CDR20291_0418	77	245	303	212	259	294	191	343	234	274	278	1.077849864	0.031690504
CDR20291_0419	1875	3933	3514	3209	3821	3305	3858	3058	3174	3244	3095	0.166581262	0.613726455
CDR20291_0420	0	1	1	2	4	1	3	1	2	5	2 NA	NA	
CDR20291_0421	60	40	67	47	37	15	70	107	77	119	7	-0.726267653	0.800644535
CDR20291_0422	39	77	56	84	75	117	157	71	45	21	24	0.183423319	0.971144882
CDR20291_0423	264	546	648	335	512	465	461	584	441	430	583	0.223226679	0.805090627
CDR20291_0424	4	33	17	32	32	45	53	8	94	14	106	2.734002958	0.178695218
CDR20291_0425	1623	1641	1815	1440	2044	1660	1639	1801	1897	1415	2022	-0.601682166	0.012228898
CDR20291_0426	37	16	10	20	10	6	10	11	25	17	60	-1.689947145	0.46729289
CDR20291_0427	37	12	26	23	53	26	28	71	13	59	0	-0.943432299	0.798544553
CDR20291_0428	311	416	380	437	381	324	469	497	525	455	204	-0.305066315	0.74849418
CDR20291_0429	116	125	200	172	120	174	208	108	152	162	185	-0.228459472	0.882953381
CDR20291_0430	1449	658	1624	704	1432	1571	843	988	548	776	985	-1.214509147	0.240989987
CDR20291_0431	1	7	3	13	11	4	11	4	0	7	0 NA	NA	
CDR20291_0432	161	536	304	432	651	616	765	544	626	447	387	1.013932266	0.033163847
CDR20291_0433	3	5	4	1	2	2	5	0	1	3	5 NA	NA	
CDR20291_0434	13	1	17	14	1	2	1	3	2	0	14 NA	NA	
CDR20291_0435	166	297	256	263	377	416	347	446	276	308	277	0.273717185	0.765243306
CDR20291_0436	186	272	365	219	274	348	357	186	300	186	165	-0.182100003	0.918573372
CDR20291_0437	187	325	294	405	415	298	327	337	343	312	145	0.076358347	0.97352847
CDR20291_0438	152	199	293	332	250	198	252	368	311	221	320	0.156403155	0.930814375
CDR20291_0438;													
CDR20291_0439	0	0	0	0	0	0	1	0	0	0	0 NA	NA	
CDR20291_0439	337	545	624	588	645	636	565	528	416	497	652	0.05895344	0.971144882
CDR20291_0440	447	669	709	693	814	536	903	627	729	569	684	-0.068997496	0.955498491
CDR20291_0441	1595	2936	3098	3050	2794	2512	3089	2597	2807	3103	3128	0.170799833	0.649602625
CDR20291_0442	6312	12964	12268	11215	12050	10646	12686	11177	12084	11142	11629	0.201006138	0.26594656
CDR20291_0443	7972	14401	14170	13051	14690	13554	14112	12782	13055	13809	12417	0.071948241	0.839484518

CDR20291_0444	4275	7449	6996	6754	7282	6776	7544	6675	6881	6658	6342	-0.001865954	0.997856314
CDR20291_0445	664	812	962	610	856	821	1001	950	730	989	997	-0.304629816	0.574322368
CDR20291_0446	9882	15523	14785	14797	17306	15270	17660	15857	17604	15590	15327	-0.007578777	0.993056754
CDR20291_0447	1156	2036	1998	1829	2216	2043	2296	2524	2225	2277	2210	0.20623119	0.557010133
CDR20291_0448	2664	13972	10644	11712	11662	11998	12787	14049	13443	11811	10533	1.50199065	1.95E-26
CDR20291_0449	1249	8443	4868	6575	7729	7078	6824	7975	7587	6545	7615	1.811048212	4.52E-22
CDR20291_0450	681	797	1107	796	872	599	920	861	942	845	802	-0.371492264	0.444983553
CDR20291_0451	971	1121	1163	1076	898	1009	1042	909	926	992	796	-0.665703291	0.010450305
CDR20291_0452	33	60	104	68	78	62	39	104	33	54	78	0.349511865	0.901336035
CDR20291_0453	5488	7512	6216	6907	8025	7525	8391	8257	7393	6967	6719	-0.271669444	0.181867963
CDR20291_0454	5474	9602	8686	9398	10265	9479	11107	9822	10645	9884	8756	0.134707896	0.629238645
CDR20291_0455	2297	5661	5109	5051	5383	5375	5997	5419	5954	5644	4596	0.538233959	0.000327788
CDR20291_0456	7	17	0	6	0	11	30	11	5	13	38	0.194461151	0.993056754
CDR20291_0457	280	395	637	493	412	380	396	378	358	111	349	-0.219190103	0.948369562
CDR20291_0458	62	76	129	102	136	91	106	47	106	80	111	-0.032469324	0.993056754
CDR20291_0459	254	523	466	425	607	549	468	432	549	565	708	0.361018323	0.56444917
CDR20291_0460	997	1860	1609	1599	2181	1849	2148	1852	2059	1940	1725	0.215621983	0.557010133
CDR20291_0461	1506	2837	2104	2609	2907	2743	3215	2894	2914	2335	2611	0.14890438	0.702648248
CDR20291_0462	1285	1859	1506	1700	2254	1980	2157	1763	1833	1985	1843	-0.145609456	0.750540968
CDR20291_0463	2394	3856	2677	3492	4032	4553	4636	4119	4414	4118	3693	0.024234217	0.988538891
CDR20291_0464	2413	4380	2883	3663	4244	4185	4354	3944	3866	3935	4323	0.02024765	0.988538891
CDR20291_0465	1167	1714	1364	1488	2159	2016	2096	1976	2010	1660	1986	-0.039963265	0.97352847
CDR20291_0466	942	1817	1175	1693	2035	1869	1971	1895	1703	1316	1643	0.15844568	0.810535967
CDR20291_0467	390	854	912	852	943	855	757	749	932	912	712	0.422973934	0.240989987
CDR20291_0468	165	143	194	117	258	256	86	144	184	272	122	-0.586708149	0.647751451
CDR20291_0469	1128	1358	1147	1306	1333	1455	1197	1274	1326	1193	1191	-0.518927435	0.01206409
CDR20291_0470	6140	15614	9719	19049	11318	11689	13498	16135	18550	12571	17990	0.55383953	0.464030615
CDR20291_0471	6885	12399	10937	11126	12630	11614	13300	11566	11796	11482	11513	0.081183016	0.739098579
CDR20291_0472	5	1	0	0	0	1	0	0	5	0	1	NA	NA
CDR20291_0473	13413	21968	18910	19541	21724	20113	23175	22963	22130	20818	20282	-0.042412005	0.930912836

CDR20291_0474	35	20	44	10	39	24	10	13	9	34	35	-1.24688714	0.59459692
CDR20291_0475	5	1	13	22	7	9	6	7	12	7	1 NA		NA
CDR20291_0476	3	4	1	4	5	1	5	0	4	2	3 NA		NA
CDR20291_0477	271	179	226	200	294	282	250	354	379	194	209	-0.779842532	0.225808135
CDR20291_0478	190	404	293	302	350	363	295	342	554	334	327	0.207412115	0.856362603
CDR20291_0479	3	16	3	2	1	3	2	47	11	7	2 NA		NA
CDR20291_0480	5	3	0	1	4	1	2	1	1	5	2 NA		NA
CDR20291_0481	3	22	26	14	16	29	69	6	68	1	22	2.463492891	0.418840979
CDR20291_0482	1648	2740	2536	2560	2458	2134	2375	2440	2094	2142	2278	-0.171214323	0.649602625
CDR20291_0483	834	1325	1622	1262	1366	1463	1756	1419	1290	1377	1266	0.061784597	0.950690448
CDR20291_0484	55	6	43	15	23	28	38	22	18	55	7	-1.801163784	0.333488759
CDR20291_0485	10	2	9	5	2	6	3	6	15	3	1 NA		NA
CDR20291_0486	1880	3888	4050	3515	3807	3882	4217	3508	3707	3993	3834	0.331300198	0.052859362
CDR20291_0487	2033	3381	2995	3151	3777	3375	3412	3682	3778	2977	2827	0.013554198	0.993056754
CDR20291_0488	261	290	329	453	452	453	338	476	260	380	360	-0.157321071	0.9143943
CDR20291_0489	318	908	976	762	823	893	923	730	889	1032	640	0.732907634	0.022900237
CDR20291_0490	68	125	105	129	116	93	119	60	59	106	60	-0.183743937	0.950690448
CDR20291_0491	2310	3470	2993	3245	3598	3240	4006	3437	3137	3420	3975	-0.120487048	0.7612632
CDR20291_0492	5761	7984	7015	7405	8113	8094	9201	8221	8331	7733	8330	-0.219237999	0.225971408
CDR20291_0493	1638	2885	3738	2547	2821	2312	2919	2389	2160	2564	2558	0.016731609	0.993056754
CDR20291_0494	4815	8527	9655	7659	8716	8785	8652	7967	8222	7374	8716	0.107962746	0.739098579
CDR20291_0495	269	413	453	393	482	517	586	694	679	543	443	0.251249339	0.756489891
CDR20291_0496	47	33	55	37	30	48	23	12	14	16	47	-1.272710722	0.494072929
CDR20291_0497	1524	3029	2654	2718	3194	2796	3015	2761	2862	2658	2743	0.199241401	0.374616764
CDR20291_0498	259	508	465	409	645	537	535	506	466	682	658	0.365314992	0.567431925
CDR20291_0499	2586	4439	4630	4351	4944	5037	4483	4608	4627	4218	4487	0.126283657	0.651259928
CDR20291_0499;													
CDR20291_0500	2427	4234	4042	3971	4607	4351	4701	4087	4314	3918	3950	0.096581934	0.722757579
CDR20291_0501	321	577	565	515	467	512	541	395	402	495	445	-0.084622085	0.950690448
CDR20291_0502	510	783	749	742	916	885	837	949	815	612	781	-0.039475558	0.97407819

CDR20291_0503	150	207	81	200	153	194	197	203	193	148	245	-0.421247631	0.700659075
CDR20291_0504	241	267	291	333	235	334	382	380	299	316	352	-0.294431976	0.693826307
CDR20291_0505	122	202	172	261	182	218	152	96	160	173	156	-0.157011104	0.948369562
CDR20291_0506	998	1452	1065	1224	1643	1601	1895	1367	1668	1751	1407	-0.106779156	0.913212471
CDR20291_0507	19	28	17	43	20	14	27	16	16	23	24	-0.43239006	0.913212471
CDR20291_0508	568	1024	889	881	1068	1133	1302	1247	1097	1130	904	0.208828747	0.681968239
CDR20291_0509	29	105	69	59	78	48	90	77	81	64	66	0.641506429	0.638048331
CDR20291_0510	0	0	0	5	26	0	2	3	3	0	1 NA		NA
CDR20291_0511	4	0	0	0	0	0	1	0	2	2	1 NA		NA
CDR20291_0512	3	7	2	5	7	10	1	3	0	0	3 NA		NA
CDR20291_0513	1914	3161	3159	3000	3107	3413	3303	3453	3482	2986	3496	0.067218606	0.885147643
CDR20291_0513;													
CDR20291_0514	2112	3871	3387	3425	3663	3681	3831	3617	3458	3467	3520	0.066284267	0.854779166
CDR20291_0515	392	622	769	643	835	683	861	698	791	849	865	0.259647639	0.638048331
CDR20291_0516	95	137	159	152	199	96	124	179	218	172	89	-0.01413325	0.996393886
CDR20291_0517	87	123	92	90	174	81	105	161	112	62	120	-0.339472132	0.849377879
CDR20291_0518	21	89	36	37	28	14	17	43	41	7	6	-0.108850827	0.993056754
CDR20291_0519	2912	12699	13365	9712	11639	10367	10115	8572	8616	9221	8969	1.12675676	7.76E-08
CDR20291_0520	790	3137	3092	2360	3035	2401	2314	1821	2187	2055	2265	0.942518853	0.000582145
CDR20291_0521	1	0	0	1	2	0	0	0	1	0	1 NA		NA
CDR20291_0522	3	2	0	0	0	0	10	0	0	0	0 NA		NA
CDR20291_0523	66	151	165	125	128	152	141	128	145	148	105	0.373654771	0.702648248
CDR20291_0524	1	2	0	0	3	0	2	0	3	0	4 NA		NA
CDR20291_0525	697	1009	835	1076	1428	1085	1176	1433	1302	1097	1330	0.056211092	0.969028946
CDR20291_0526	227	491	355	370	319	517	460	401	461	558	726	0.34000084	0.700659075
CDR20291_0527	105	117	181	138	169	171	173	127	208	138	90	-0.174687348	0.933755431
CDR20291_0528	22	13	19	14	21	17	35	26	11	13	15	-0.965359495	0.679594548
CDR20291_0529	1791	2993	2926	2786	3223	3252	3129	3033	3006	3088	3342	0.082234303	0.849314402
CDR20291_0529;													
CDR20291_0530	2947	5216	5064	4739	5359	5159	5509	4826	5252	5015	4617	0.08438894	0.777520068

CDR20291_0531	140	239	314	260	356	294	229	312	290	309	444	0.426654081	0.605913795
CDR20291_0532	179	299	331	344	357	234	301	303	310	212	200	-0.008610407	0.997564945
CDR20291_0533	703	916	749	821	850	1057	860	1028	771	747	919	-0.38956972	0.287556982
CDR20291_0534	391	732	600	736	813	506	616	728	756	581	688	0.089975247	0.9450288
CDR20291_0535	923	1166	1341	1237	1469	1218	1248	1219	1423	1384	922	-0.245949649	0.613726455
CDR20291_0536	3	0	3	2	1	0	4	0	5	1	5	NA	NA
CDR20291_0537	798	1513	1317	1173	1689	1175	1730	1453	1365	1407	1195	0.11041551	0.876785392
CDR20291_0538	1577	2813	2212	2447	2566	2411	2672	2423	2409	2445	2319	-0.051789802	0.933755431
CDR20291_0539	194	265	335	234	268	206	142	240	215	163	251	-0.438962143	0.648159735
CDR20291_0540	264	348	596	348	436	367	403	331	418	338	501	-0.067804502	0.971144882
CDR20291_0541	74	66	67	65	110	211	69	45	134	82	39	-0.438709546	0.859985289
CDR20291_0542	0	1	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_0543	7	0	13	2	0	0	0	0	3	1	1	NA	NA
CDR20291_0544	14	44	23	35	19	45	3	12	43	19	14	0.180590103	0.984159655
CDR20291_0545	7	2	19	17	2	12	5	7	3	5	0	NA	NA
CDR20291_0546	352	694	824	654	774	747	731	724	599	702	550	0.29258896	0.56444917
CDR20291_0547	67	87	85	94	83	96	60	110	101	128	85	-0.221295163	0.919659779
CDR20291_0548	3	0	0	0	0	1	1	1	0	2	0	NA	NA
CDR20291_0549	1	0	0	0	0	6	0	4	0	0	0	NA	NA
CDR20291_0550	6	2	6	1	0	0	6	0	7	12	3	NA	NA
CDR20291_0551	4076	9963	10172	8607	8828	8877	9558	8107	8444	8373	7962	0.425174842	0.010450305
CDR20291_0552	504	1143	987	871	1028	1023	838	942	1071	877	914	0.244132448	0.577435607
CDR20291_0553	112	222	175	127	169	229	143	191	289	219	123	0.053363558	0.991007161
CDR20291_0554	577	1148	928	813	929	949	919	925	765	690	808	-0.080949821	0.942272893
CDR20291_0555	230	445	469	347	291	364	393	371	383	458	318	0.041712551	0.986858508
CDR20291_0556	20	63	70	37	27	38	24	34	26	27	20	0.174238543	0.97352847
CDR20291_0557	105	314	336	277	314	315	131	199	157	282	293	0.625206369	0.533050378
CDR20291_0558	263	400	403	395	348	392	419	357	341	500	394	-0.110017353	0.931537513
CDR20291_0559	92	207	315	320	166	264	189	146	201	149	319	0.612826556	0.56444917
CDR20291_0560	120	187	248	228	178	198	281	189	164	165	209	0.069938744	0.973993588

CDR20291_0561	1069	1539	1266	1675	1864	1502	1628	1413	1322	1496	1328	-0.207607416	0.649602625
CDR20291_0562	928	1495	965	1734	1345	1352	1569	1446	1262	1577	2233	-0.006070296	0.997856314
CDR20291_0563	1864	3006	2983	2576	2983	3234	3279	3197	2775	2688	2680	-0.043428981	0.950690448
CDR20291_0564	0	0	0	0	1	0	0	0	4	0	2	NA	NA
CDR20291_0565	133	321	261	240	198	231	291	323	189	129	173	0.120312301	0.955979246
CDR20291_0566	200	528	569	596	452	578	529	445	456	554	513	0.687473522	0.053765124
CDR20291_0567	202	357	287	375	384	271	435	322	354	284	419	0.086556528	0.955498491
CDR20291_0567;													
CDR20291_0568	31	17	21	15	21	20	24	9	36	6	47	-1.224942262	0.603584886
CDR20291_0568	912	1535	1479	1395	1428	1253	1326	1445	1252	1300	1404	-0.099050848	0.859194195
CDR20291_0569	1031	2208	2261	1620	2101	2006	1939	2090	1932	2349	2166	0.305851367	0.363152287
CDR20291_0570	5132	8066	7081	8119	8590	8736	10001	9371	8991	8151	8676	0.040449653	0.950690448
CDR20291_0571	302	768	595	637	539	628	753	503	537	590	519	0.305634838	0.592746166
CDR20291_0572	168	426	377	349	379	297	351	381	343	252	375	0.370335148	0.56444917
CDR20291_0573	91	119	101	73	79	118	78	83	84	66	75	-0.756322656	0.425139084
CDR20291_0574	125	88	94	117	87	200	137	131	172	111	116	-0.696772254	0.484861931
CDR20291_0574;													
CDR20291_0575	0	1	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0575	169	25	154	79	92	77	75	62	90	61	67	-1.806498765	0.035107687
CDR20291_0576	51	59	67	42	48	44	40	22	46	28	31	-0.957401634	0.513980224
CDR20291_0577	394	878	881	704	666	904	735	723	936	662	698	0.282987113	0.59459692
CDR20291_0578	204	281	285	267	313	254	223	281	243	218	179	-0.380591674	0.613726455
CDR20291_0579	2	4	2	11	1	1	2	1	4	4	6	NA	NA
CDR20291_0580	792	1963	2074	1845	2124	2057	1773	1793	2216	1604	1850	0.5854757	0.006021656
CDR20291_0581	0	0	1	4	1	0	1	0	4	1	0	NA	NA
CDR20291_0582	1962	3076	3147	2702	3308	2911	3349	2758	3571	2634	3429	-0.046261734	0.952353002
CDR20291_0583	375	406	501	458	322	490	507	449	434	583	609	-0.351419895	0.622721546
CDR20291_0584	1479	2292	2180	2206	2143	2045	2334	2367	2148	2178	2033	-0.131002843	0.678001125
CDR20291_0585	94	104	108	111	134	201	117	130	116	80	125	-0.318099225	0.834753191
CDR20291_0586	16	38	28	34	53	20	21	50	16	42	13	0.281705677	0.952353002

CDR20291_0587	68	83	39	43	59	64	126	45	77	31	75	-0.796966174	0.603605466
CDR20291_0588	25	74	69	84	108	85	123	136	110	48	70	1.153119149	0.277470174
CDR20291_0589	2499	4592	3729	4371	5111	3868	4860	4393	4709	4527	4918	0.151389477	0.678001125
CDR20291_0590	7	1	1	5	4	2	6	0	5	0	4 NA	NA	
CDR20291_0591	284	292	246	311	196	338	323	327	327	170	165	-0.778644725	0.231782951
CDR20291_0592	191	354	292	344	247	333	378	345	249	360	400	0.091835256	0.954834482
CDR20291_0593	102	12	2	7	1	15	13	33	5	14	14	-3.836093413	0.011690368
CDR20291_0594	869	1905	1880	1616	1451	1632	1656	1945	1572	1851	1667	0.285475188	0.437675307
CDR20291_0595	3708	6356	5843	6260	6488	6576	7546	6800	6928	5641	6092	0.098029323	0.755658441
CDR20291_0596	763	1160	1202	901	1350	976	1044	922	733	1139	1213	-0.218534409	0.739343088
CDR20291_0597	156	356	315	384	428	232	372	348	408	241	459	0.482780387	0.513982365
CDR20291_0598	10	22	67	13	15	18	6	12	14	21	9	0.290432826	0.971144882
CDR20291_0599	46	48	72	46	69	29	72	11	38	70	87	-0.460275565	0.874531741
CDR20291_0599;													
CDR20291_0600	0	0	0	1	0	0	0	0	0	0	0 NA	NA	
CDR20291_0600	194	379	490	349	296	372	404	353	281	265	443	0.205239156	0.85754216
CDR20291_0601	39	37	73	58	49	101	49	80	48	59	31	-0.110774491	0.983498093
CDR20291_0602	73	38	87	32	39	29	80	29	46	23	23	-1.484431061	0.273554672
CDR20291_0603	100	114	110	159	154	139	288	126	106	91	222	-0.113438801	0.971144882
CDR20291_0604	21	41	43	9	44	54	26	28	85	68	105	0.565629206	0.862004224
CDR20291_0605	47	74	72	81	55	64	86	80	57	44	38	-0.232344806	0.933755431
CDR20291_0606	228	285	473	393	362	555	500	279	444	450	488	0.193571491	0.876031447
CDR20291_0607	251	329	282	383	394	461	483	332	430	368	538	-0.028166391	0.993056754
CDR20291_0608	959	1934	1341	1663	1732	1969	1770	1745	1828	1671	1583	0.14536225	0.749146495
CDR20291_0609	847	1306	937	1490	1306	1359	1409	1326	1296	1347	1732	-0.024663971	0.993056754
CDR20291_0610	210	97	104	116	84	55	147	143	88	103	106	-1.709413712	0.003170984
CDR20291_0611	4	1	0	3	1	3	1	0	2	2	0 NA	NA	
CDR20291_0612	0	2	0	0	0	1	0	1	1	0	0 NA	NA	
CDR20291_0613	0	0	0	0	0	0	0	0	0	0	2 NA	NA	
CDR20291_0614	1412	2476	2228	2242	2399	2371	2829	2704	2893	2420	2263	0.113282332	0.798727741

CDR20291_0615	532	993	1107	852	891	1027	964	1056	1052	968	1102	0.21386175	0.638048331
CDR20291_0616	46	99	122	72	57	78	116	76	109	65	55	0.180609867	0.950690448
CDR20291_0617	128	151	113	116	207	254	207	145	202	142	267	-0.208437589	0.918573372
CDR20291_0618	1066	1757	2050	1524	1729	1485	1384	1465	1462	1695	1646	-0.092906269	0.917651362
CDR20291_0619	126	190	284	126	223	187	148	210	227	240	166	-0.028773605	0.993056754
CDR20291_0620	244	418	437	458	574	493	337	433	559	491	503	0.250628169	0.739326014
CDR20291_0621	403	817	685	658	732	877	664	652	751	566	577	0.091120345	0.935667015
CDR20291_0622	6	5	3	0	6	4	2	1	3	7	7 NA		NA
CDR20291_0623	9	4	18	25	2	21	4	13	28	18	2	-0.097992151	0.993056754
CDR20291_0624	688	1142	963	925	1352	1303	1290	1251	974	1085	913	0.000612766	0.998698514
CDR20291_0625	1	0	1	0	4	2	2	3	2	4	6 NA		NA
CDR20291_0626	6	3	7	1	5	6	4	2	10	7	12 NA		NA
CDR20291_0627	3	2	0	1	1	2	0	1	1	2	4 NA		NA
CDR20291_0628	317	501	395	523	374	439	325	357	458	471	422	-0.266894835	0.711525217
CDR20291_0629	2838	5745	5398	5100	4765	4824	4981	4591	4712	4835	5307	0.126132195	0.702648248
CDR20291_0630	734	1282	1271	1223	1481	1077	1507	1534	1641	1405	1458	0.219459945	0.646322042
CDR20291_0631	2047	3452	2897	3282	3498	3523	4029	3574	3805	3718	2761	0.054257306	0.950690448
CDR20291_0632	1800	4259	4379	3885	3780	3837	4287	4080	3674	3653	4177	0.45310494	0.004344931
CDR20291_0633	12707	23412	21743	21949	25187	24595	25780	24644	24223	22070	23580	0.200000694	0.159422749
CDR20291_0634	2307	2147	2953	1566	2397	2533	2082	1950	1785	2143	1679	-0.818699712	0.006793731
CDR20291_0635	65	70	53	92	81	48	51	46	75	115	84	-0.55282053	0.717114511
CDR20291_0636	2865	4771	5030	4305	5046	4867	4821	4370	4706	4714	4030	0.004385648	0.995043151
CDR20291_0637	5	6	2	2	10	3	6	2	3	4	1 NA		NA
CDR20291_0638	509	968	1001	1078	1080	1222	1096	1137	1037	1113	1061	0.38629024	0.161521726
CDR20291_0639	819	1243	1373	1285	1041	1036	1259	1437	1119	1374	1178	-0.10445953	0.906511793
CDR20291_0640	356	536	733	533	412	562	503	712	584	598	575	-0.004380899	0.997856314
CDR20291_0641	9	13	19	12	20	5	1	31	26	0	1	-0.192596001	0.993056754
CDR20291_0642	348	509	417	331	423	231	220	296	345	371	288	-0.717171121	0.27837557
CDR20291_0643	1398	2062	2824	2242	2048	1501	2154	1976	2197	1604	1866	-0.148200181	0.854700031
CDR20291_0644	17	13	0	27	14	4	29	24	2	7	15	-1.039003592	0.839139708

CDR20291_0645	5	3	0	7	3	1	3	0	4	8	1 NA	NA	
CDR20291_0646	4	2	2	0	1	5	2	0	1	1	5 NA	NA	
CDR20291_0647	15	37	18	55	13	2	6	44	57	1	13	0.018515059	0.997856314
CDR20291_0648	21	36	41	50	3	23	26	38	9	28	49	-0.160312106	0.986784307
CDR20291_0649	94	117	241	168	134	113	113	114	126	119	151	-0.122715993	0.962607555
CDR20291_0650	168	185	310	126	205	201	256	185	218	170	142	-0.452636427	0.649602625
CDR20291_0651	77	264	285	188	229	194	231	171	260	137	103	0.717236973	0.44440221
CDR20291_0652	82	79	114	105	59	55	103	74	112	65	131	-0.568093126	0.670547545
CDR20291_0653	32	75	162	135	91	66	101	105	73	114	121	1.013000329	0.344901408
CDR20291_0654	20	22	15	22	27	14	17	20	15	10	49	-0.621381404	0.857874956
CDR20291_0655	204	500	730	582	499	473	579	471	608	542	496	0.728494744	0.05548273
CDR20291_0656	254	415	383	326	257	467	453	527	553	398	417	0.023691816	0.993056754
CDR20291_0657	237	278	258	287	261	189	138	355	291	224	250	-0.600038245	0.455508288
CDR20291_0658	166	154	110	134	127	145	193	135	134	102	232	-0.882250171	0.209540809
CDR20291_0659	11	8	17	6	17	3	29	22	28	3	33	-0.116505098	0.993056754
CDR20291_0660	139	155	197	240	160	221	268	115	243	224	215	-0.145897637	0.949343678
CDR20291_0661	11	29	19	25	27	56	39	15	47	18	2	0.62285415	0.884428067
CDR20291_0662	64	116	77	73	57	52	144	108	114	83	55	-0.248817232	0.927516569
CDR20291_0663	1398	826	1223	941	1074	1054	1198	1310	1116	1101	1516	-0.997183909	0.000424752
CDR20291_0664	1563	2971	2929	2741	3124	2730	2996	2600	2626	2625	2593	0.137902025	0.658276033
CDR20291_0665	171	308	173	260	362	237	366	246	319	167	248	-0.055585486	0.986784307
CDR20291_0666	71	49	74	36	49	70	75	67	104	117	81	-0.671053378	0.654461852
CDR20291_0667	70	143	167	77	129	91	87	119	94	165	90	0.036142756	0.993056754
CDR20291_0668	314	481	570	615	470	618	716	411	652	708	959	0.285335376	0.754018984
CDR20291_0669	282	506	575	500	487	397	317	451	386	374	582	0.002699696	0.997856314
CDR20291_0670	7	3	1	0	1	4	4	0	5	0	4 NA	NA	
CDR20291_0671	360	952	979	819	1277	797	896	948	760	1087	799	0.673345015	0.058687772
CDR20291_0672	3859	6402	5721	5879	6793	6001	7217	6476	7029	5881	6319	0.022465679	0.97352847
CDR20291_0673	1491	4065	3689	3462	4183	3766	4854	4125	4029	3793	3633	0.707325553	1.62E-06
CDR20291_0674	144	435	306	426	386	437	322	349	514	225	319	0.667412192	0.285352552

CDR20291_0675	1617	3081	3680	2999	3052	3430	3794	2977	3236	3398	3430	0.333550111	0.144337699
CDR20291_0676	5591	11641	11141	10367	12169	11615	13207	10662	11929	10899	10893	0.333488457	0.010574833
CDR20291_0677	1205	2185	2613	2306	2067	2466	2664	2339	2135	2254	2162	0.24556687	0.436429974
CDR20291_0678	79	94	139	169	114	97	229	150	162	222	150	0.253465777	0.906150503
CDR20291_0679	278	402	558	362	307	439	499	306	338	308	316	-0.237205964	0.822411857
CDR20291_0680	69	273	228	235	115	216	297	247	297	244	229	1.086782581	0.069977424
CDR20291_0681	358	647	679	545	888	578	583	667	704	685	484	0.152459826	0.873157907
CDR20291_0682	299	633	379	537	643	434	559	456	520	495	501	0.085182851	0.950690448
CDR20291_0683	5683	8153	7878	8380	8754	7584	8300	8771	8807	7677	9255	-0.142528604	0.617617546
CDR20291_0684	17	31	47	24	14	35	24	15	28	13	3	-0.240519789	0.971144882
CDR20291_0685	3161	12739	12707	11065	12342	11235	12713	11827	11463	9937	11903	1.198891992	1.44E-25
CDR20291_0686	1233	1352	1029	1209	1228	1347	1242	1203	1128	1154	1196	-0.728413944	6.63E-05
CDR20291_0687	1488	9498	7183	8127	9451	9535	8794	10623	8593	7121	8383	1.85134377	7.87E-31
CDR20291_0688	134	366	87	236	200	223	231	209	271	120	205	-0.025939245	0.993056754
CDR20291_0689	7498	9683	8536	8199	8857	8208	10134	11125	10224	8849	8077	-0.407291626	0.039205584
CDR20291_0690	707	948	911	1201	1242	1040	1564	1075	1379	1292	1140	0.037680863	0.983551317
CDR20291_0691	12	7	20	0	2	0	9	6	7	29	5	NA	NA
CDR20291_0692	183	203	253	171	203	225	250	155	136	243	217	-0.530543352	0.501671327
CDR20291_0693	15	5	12	23	12	2	3	19	6	0	92	-0.469399396	0.960001773
CDR20291_0694	57	70	170	141	131	84	158	181	136	45	71	0.355736392	0.876031447
CDR20291_0695	3	5	2	1	1	5	2	5	0	8	7	NA	NA
CDR20291_0696	12	19	17	44	10	1	6	33	61	14	1	0.089235371	0.993056754
CDR20291_0697	3065	4962	4514	4580	5096	4936	5426	4963	4735	4704	4470	-0.041671246	0.933755431
CDR20291_0698	1065	2294	2219	2161	2127	2143	2192	2082	2189	2139	1750	0.300767568	0.217212424
CDR20291_0699	0	0	0	0	0	0	1	0	1	3	2	NA	NA
CDR20291_0700	3	4	0	1	1	0	1	0	2	1	3	NA	NA
CDR20291_0701	4	0	2	1	2	4	5	0	1	0	4	NA	NA
CDR20291_0702	2	2	1	2	1	0	0	0	4	2	3	NA	NA
CDR20291_0703	6	1	0	1	3	1	4	2	5	3	3	NA	NA
CDR20291_0704	1	0	1	0	1	0	1	0	2	1	0	NA	NA

CDR20291_0705	5549	9550	9108	8672	10373	8494	10289	9918	9983	8682	8482	0.052824703	0.917651362
CDR20291_0706	85	198	139	132	113	113	69	180	88	158	124	-0.065512803	0.988538891
CDR20291_0707	10	10	22	0	17	23	1	1	22	30	2	-0.331299652	0.975942734
CDR20291_0708	61	72	51	99	73	80	126	73	63	83	17	-0.430625478	0.859194195
CDR20291_0709	172	307	213	256	302	292	196	291	398	231	329	0.011702574	0.995043151
CDR20291_0710	65	208	239	178	131	135	156	205	254	173	284	0.89853267	0.248288275
CDR20291_0711	8	16	36	54	29	30	52	46	103	28	9	1.631279356	0.456140979
CDR20291_0712	23	9	8	6	8	11	8	23	9	6	7	-1.977621252	0.377418691
CDR20291_0713	22	34	2	4	3	28	3	13	20	14	0	-1.569455413	0.701777743
CDR20291_0714	2	1	3	2	2	1	2	0	4	2	5 NA	NA	
CDR20291_0715	261	276	315	278	351	342	349	351	356	287	184	-0.458254647	0.494423089
CDR20291_0716	5224	8860	8131	7981	9218	7964	9901	8357	9473	8617	8394	0.033616421	0.952353002
CDR20291_0717	5808	9565	8781	8765	9643	9332	10097	9608	9379	9263	8594	-0.020270032	0.971144882
CDR20291_0718	83	35	108	86	33	40	44	32	69	88	60	-1.165110826	0.420415645
CDR20291_0719	5219	8050	8048	8208	8395	9077	9515	8423	8260	7998	8989	0.003346693	0.995429323
CDR20291_0720	818	1495	1115	1384	1232	1392	1568	1327	1828	1288	1239	0.060390611	0.952891242
CDR20291_0721	1527	2767	2314	2513	3102	2806	3093	3162	3082	2232	3310	0.19246348	0.651259928
CDR20291_0722	85	190	128	218	135	235	215	173	198	203	348	0.568097646	0.592746166
CDR20291_0723	1	0	1	0	1	0	3	0	3	3	1 NA	NA	
CDR20291_0724	0	1	0	0	0	2	3	0	1	3	2 NA	NA	
CDR20291_0725	2	8	1	3	7	0	9	0	10	6	5 NA	NA	
CDR20291_0726	819	1004	813	988	1101	931	1092	1352	1069	1176	1180	-0.311819002	0.501722528
CDR20291_0727	13	19	11	15	11	5	15	11	25	2	27	-0.587483114	0.916014489
CDR20291_0728	144	176	181	178	123	128	142	154	138	219	162	-0.540373159	0.535905966
CDR20291_0729	3	55	15	44	29	44	30	39	60	52	6	2.941530236	0.123846614
CDR20291_0730	4	8	3	0	4	5	11	0	2	3	5 NA	NA	
CDR20291_0731	25	35	26	9	7	63	32	62	21	19	11	-0.51823459	0.913212471
CDR20291_0732	3	1	3	1	1	5	2	5	1	8	3 NA	NA	
CDR20291_0733	87	14	31	89	68	82	56	88	40	108	63	-1.133171768	0.480957146
CDR20291_0734	381	638	450	511	469	476	582	463	417	627	676	-0.219394792	0.791009827

CDR20291_0735	255	321	428	298	378	340	239	250	343	309	211	-0.407304344	0.624175269
CDR20291_0736	116	201	157	178	141	199	243	112	215	147	211	-0.065850277	0.983498093
CDR20291_0737	15	51	41	30	68	73	28	105	42	71	36	1.164972334	0.501671327
CDR20291_0738	2149	3814	3990	3393	3806	4457	4592	3866	3970	3796	3344	0.159861586	0.639700364
CDR20291_0739	688	1414	1316	1395	1269	1440	1606	1610	1549	1642	1579	0.408862172	0.132447997
CDR20291_0740	30	16	36	44	59	45	45	60	20	52	33	-0.244783302	0.950964598
CDR20291_0741	2780	5371	5102	4745	5372	4902	5787	4710	4751	4356	5186	0.15382708	0.564444917
CDR20291_0742	3510	6844	6821	6888	7424	6996	7859	8013	7697	6030	7037	0.328014223	0.052859362
CDR20291_0743	18	67	36	81	94	74	93	30	85	37	8	1.039812756	0.638048331
CDR20291_0744	1865	3375	2931	3111	2800	2786	3883	3283	3315	3568	3676	0.112179938	0.847322651
CDR20291_0745	768	1169	1172	1277	1513	1334	1454	1199	1347	1554	1211	0.086285561	0.918573372
CDR20291_0746	192	320	269	389	462	463	401	203	247	283	354	0.119361118	0.950690448
CDR20291_0747	311	501	373	367	608	461	527	456	440	445	355	-0.159436391	0.868034697
CDR20291_0748	179	230	391	293	329	253	271	290	280	294	302	0.016571378	0.993056754
CDR20291_0749	1234	2059	2065	1725	2057	2048	1900	1798	2003	1775	1601	-0.075008441	0.912272704
CDR20291_0750	703	1282	1328	1170	1061	1014	1144	994	1277	1172	1101	0.017498341	0.993056754
CDR20291_0751	2	3	13	3	2	20	9	1	5	4	3	NA	NA
CDR20291_0752	8	1	42	27	6	34	8	19	8	4	56	0.672720028	0.919523006
CDR20291_0753	6	1	2	1	1	5	10	0	4	5	1	NA	NA
CDR20291_0754	49	63	41	63	37	95	64	35	60	65	73	-0.415791875	0.849377879
CDR20291_0755	5	46	63	11	21	38	26	21	22	16	13	1.765947978	0.459176231
CDR20291_0756	2	5	0	1	0	1	2	0	1	1	1	NA	NA
CDR20291_0757	943	1748	1164	1342	1158	1599	1420	1680	1523	1514	1568	-0.057097908	0.960001773
CDR20291_0758	751	1844	1617	1541	1587	1499	1731	1748	1570	1663	1530	0.42117765	0.03865033
CDR20291_0759	256	583	387	450	282	567	387	548	463	431	530	0.156132287	0.913212471
CDR20291_0760	1250	1928	1619	1807	1805	1625	1741	1727	1697	1654	1844	-0.217873785	0.444440221
CDR20291_0761	70	109	79	67	61	130	71	63	61	34	99	-0.558384215	0.714907445
CDR20291_0762	50	83	40	53	121	49	84	137	40	93	143	0.053944061	0.993056754
CDR20291_0763	5	4	1	10	5	11	9	1	7	8	1	NA	NA
CDR20291_0764	11	7	6	0	28	5	9	8	5	3	4	NA	NA

CDR20291_0765	191	366	210	279	320	294	416	357	350	211	349	0.017094622	0.993056754
CDR20291_0766	1448	4159	4204	3394	3884	3783	3404	2912	3186	3038	3841	0.606734083	0.0081372
CDR20291_0767	1088	2045	2084	1742	1805	1645	2224	1937	1862	2014	1789	0.115813119	0.820492757
CDR20291_0768	1094	2050	2100	2049	2655	1934	2364	2004	1857	1916	2720	0.28490955	0.480253063
CDR20291_0769	2656	4562	4411	4136	4973	5020	5676	4767	4798	4783	4592	0.144355592	0.62667197
CDR20291_0770	1192	2671	2929	2487	2541	2537	2381	1924	2103	1935	2289	0.298068239	0.446115557
CDR20291_0771	8936	13930	13369	12818	13886	13340	14244	13393	13794	13489	13953	-0.090978419	0.654495491
CDR20291_0772	1062	2144	2033	1790	1973	1691	2377	2101	2020	1803	1685	0.183641298	0.638048331
CDR20291_0773	570	1170	1080	931	1254	1035	1032	992	879	880	1030	0.150585237	0.795074713
CDR20291_0774	5732	9841	7990	8366	9754	9219	9580	9872	9498	9033	9885	-0.001199067	0.997856314
CDR20291_0775	10	1	5	7	2	1	1	3	3	10	2	NA	NA
CDR20291_0776	148	241	278	241	139	233	213	191	176	282	274	-0.077840042	0.97352847
CDR20291_0777	19	31	26	11	17	29	12	36	20	8	19	-0.565643989	0.876031447
CDR20291_0778	44	172	36	90	108	101	46	73	56	96	83	0.269110514	0.935667015
CDR20291_0779	64	68	100	58	88	42	53	58	85	69	71	-0.583828781	0.670547545
CDR20291_0780	151	238	163	359	211	373	261	243	334	196	122	0.027373042	0.993056754
CDR20291_0781	66	89	118	53	126	108	130	84	74	44	28	-0.338309027	0.906511793
CDR20291_0782	613	1146	1009	1133	1101	983	1438	1324	1247	1078	1306	0.23969319	0.594977765
CDR20291_0783	3127	3299	5977	3708	3598	3117	4380	4501	3450	3438	3729	-0.371765217	0.629238645
CDR20291_0783;													
CDR20291_0784	27	6	50	36	32	59	93	30	11	53	36	-0.114061586	0.993056754
CDR20291_0784	1863	2264	5067	2631	2617	2007	2793	2974	2625	2776	2450	-0.096720167	0.971144882
CDR20291_0785	2621	2783	5215	3777	3427	3127	4015	3837	3801	3459	4036	-0.180621925	0.765243306
CDR20291_0786	465	710	1628	801	607	672	791	728	716	633	963	0.13214647	0.96010839
CDR20291_0787	952	1574	2875	1941	1783	1432	2057	1671	1773	1708	1567	0.252128746	0.69945073
CDR20291_0788	835	1759	1703	1502	1779	1274	1618	1255	1397	1302	1282	0.131929132	0.852273016
CDR20291_0789	12	3	1	0	7	3	5	0	3	1	1	NA	NA
CDR20291_0790	2	0	0	0	4	1	0	0	5	2	1	NA	NA
CDR20291_0791	160	207	170	182	209	174	263	141	165	256	220	-0.387007047	0.666610447
CDR20291_0792	0	0	3	1	0	1	0	2	3	8	1	NA	NA

CDR20291_0793	291	406	387	346	407	416	275	373	332	371	414	-0.339779142	0.592746166
CDR20291_0794	1164	1648	1524	1505	2066	1630	1906	1824	1627	1534	1976	-0.134250259	0.795074713
CDR20291_0795	867	1428	1598	1424	1611	1678	1568	1827	1727	1434	1610	0.176176991	0.654461852
CDR20291_0796	942	2002	1872	1678	2076	1830	1701	1662	1301	1800	1503	0.188538362	0.703623902
CDR20291_0797	4346	8526	8490	7820	8347	8290	9247	8127	8644	8247	9074	0.265063341	0.057624709
CDR20291_0798	607	1056	902	1023	1140	1237	1455	1227	1199	960	1284	0.21715535	0.65915918
CDR20291_0799	3651	5264	5380	4825	5792	5416	6126	5480	5687	5498	4501	-0.136539336	0.65915918
CDR20291_0800	10082	16013	14517	15218	16311	15912	17509	17294	16929	15002	15540	-0.031770524	0.950690448
CDR20291_0801	1928	3278	2713	2717	2741	2971	3742	3179	2975	2364	3084	-0.076541121	0.912272704
CDR20291_0802	43	119	71	60	164	126	22	129	81	89	21	0.336948733	0.932479087
CDR20291_0803	16	33	108	46	66	70	54	46	22	38	53	1.047314908	0.56444917
CDR20291_0804	175	261	267	202	198	277	239	169	239	211	108	-0.390066756	0.700659075
CDR20291_0805	92	242	190	123	138	212	87	192	126	124	134	0.070175209	0.986784307
CDR20291_0806	12	31	84	28	34	56	30	26	28	23	40	0.966476809	0.65569321
CDR20291_0807	280	462	418	384	347	438	388	442	551	455	306	-0.11665527	0.933755431
CDR20291_0808	597	1146	995	881	1029	1230	1033	936	1105	1243	1195	0.156135553	0.803988907
CDR20291_0809	3069	5303	4993	4801	5333	5319	5577	5144	5261	4867	4799	0.043664096	0.917651362
CDR20291_0810	109	271	308	266	205	325	296	254	272	189	105	0.490314063	0.646322042
CDR20291_0811	1511	2608	2533	2715	3248	3029	3007	2867	2802	2741	2585	0.197073322	0.501722528
CDR20291_0812	186	294	246	222	197	254	316	238	221	204	223	-0.326140755	0.65915918
CDR20291_0813	236	352	391	391	304	361	266	367	432	312	410	-0.092258374	0.951578777
CDR20291_0814	56	45	89	87	184	104	58	73	59	33	120	-0.094021471	0.988332645
CDR20291_0815	567	949	1220	1062	1198	988	1318	914	934	998	1115	0.215830565	0.666610447
CDR20291_0816	376	638	810	551	645	554	768	548	772	500	773	0.101435858	0.940000696
CDR20291_0817	9258	10745	6815	12548	10695	11015	11262	13112	11758	9701	11964	-0.45566119	0.323126125
CDR20291_0818	494	1089	1228	1000	910	872	899	892	990	1149	921	0.314441944	0.511272234
CDR20291_0819	192	355	336	265	361	284	351	317	319	321	371	0.07240071	0.960001773
CDR20291_0820	98	207	265	114	183	159	196	170	236	188	222	0.28529516	0.833634599
CDR20291_0821	783	1838	1593	1389	1850	1611	2084	1396	1488	1486	1657	0.362983642	0.239373872
CDR20291_0822	1075	2021	1416	2073	2037	2410	2477	2754	2219	2019	1942	0.289866027	0.549679025

CDR20291_0823	10663	16229	15196	14792	17114	15013	17158	15996	17902	15578	16835	-0.098145522	0.702648248
CDR20291_0824	748	1846	2101	1477	1631	1437	1420	1460	1395	1542	1385	0.371397512	0.353493983
CDR20291_0825	1283	2196	2035	2190	2406	2539	2294	2098	2202	2121	2285	0.102400031	0.806385533
CDR20291_0825;													
CDR20291_0826	2112	3510	3336	3288	3605	3605	3810	3422	3739	3390	3426	0.034175707	0.950690448
CDR20291_0827	324	578	458	469	343	543	532	459	467	648	339	-0.119889269	0.940000696
CDR20291_0828	9	2	5	1	3	7	4	0	2	3	5	NA	NA
CDR20291_0829	729	1192	1200	1136	1461	1505	1163	1479	1078	1017	979	0.043707527	0.97352847
CDR20291_0830	62	51	132	97	77	78	168	72	67	86	127	-0.077367761	0.988538891
CDR20291_0831	174	195	231	155	172	273	261	87	215	192	130	-0.567640456	0.59459692
CDR20291_0832	6	6	8	1	0	6	4	9	6	7	11	NA	NA
CDR20291_0833	61	70	94	86	89	136	83	76	163	171	149	0.180623895	0.950690448
CDR20291_0834	1748	2394	2415	2250	2983	2332	2603	2567	1992	2212	2376	-0.235452662	0.487466552
CDR20291_0835	1621	2552	2362	2311	2468	2504	2162	2227	2281	2002	1932	-0.207389069	0.536041589
CDR20291_0836	187	207	253	202	189	267	341	246	209	259	179	-0.370551705	0.65915918
CDR20291_0837	1798	2595	2560	2644	2724	2551	2470	2788	2862	2245	2190	-0.18791191	0.577435607
CDR20291_0838	1369	2740	2716	2662	2768	2801	2394	2566	2433	2354	2534	0.22522089	0.422690722
CDR20291_0839	22	71	3	36	59	16	19	17	46	27	59	-0.020763042	0.997856314
CDR20291_0840	2	6	1	2	2	0	0	0	2	4	1	NA	NA
CDR20291_0841	1037	1330	1694	1639	1747	1865	2060	1926	1838	1553	1421	0.018704942	0.993056754
CDR20291_0842	205	374	275	260	509	313	316	320	358	279	269	-0.02800269	0.993056754
CDR20291_0843	84	122	208	184	359	218	115	198	153	162	254	0.536218948	0.65915918
CDR20291_0844	70	165	175	158	123	150	235	120	180	214	112	0.521391599	0.627649286
CDR20291_0845	726	1254	1123	1025	1319	969	1226	1122	1347	840	823	-0.097346554	0.927516569
CDR20291_0846	166	276	252	256	220	315	346	307	253	233	350	0.057175153	0.976270831
CDR20291_0847	647	1379	1115	1364	1440	1499	1580	1656	1347	1342	1772	0.463753382	0.126243624
CDR20291_0848	1629	2443	2419	1855	2183	2326	1766	2074	2037	1938	2085	-0.323504803	0.300702326
CDR20291_0849	10633	15785	14573	12769	14351	13204	11275	13177	12822	12619	12064	-0.379348125	0.067285669
CDR20291_0850	528	1304	1301	1023	1409	1247	1142	1068	1349	1371	1136	0.52742457	0.058265763
CDR20291_0851	4101	7606	6006	6743	6555	6784	7319	6905	7178	6711	7751	0.062667095	0.904172976

CDR20291_0852	3132	6865	5853	6191	7188	7134	7688	7182	7255	6891	7835	0.461775883	0.004665025
CDR20291_0852;													
CDR20291_0853	8	12	12	14	6	10	43	8	2	21	1	-0.022616589	0.997856314
CDR20291_0853	94	91	147	101	192	132	110	224	135	133	181	-0.075768758	0.985433376
CDR20291_0853;													
CDR20291_0854	0	0	0	0	0	0	0	0	2	0	0	NA	NA
CDR20291_0854	15	13	4	12	30	12	49	13	20	48	8	-0.226494105	0.975942734
CDR20291_0855	4	48	20	19	6	16	4	5	11	6	8	1.135469422	0.810535967
CDR20291_0856	80	247	199	96	125	129	98	105	141	79	117	0.036908148	0.993056754
CDR20291_0857	459	848	765	896	914	881	1112	1004	847	958	866	0.285948382	0.484861931
CDR20291_0858	325	743	539	594	755	666	587	649	687	540	709	0.292548726	0.56444917
CDR20291_0859	1	0	2	0	0	1	2	0	8	0	0	NA	NA
CDR20291_0860	1452	1662	2038	1960	2250	1922	2529	1946	2018	1863	1445	-0.266004688	0.543877103
CDR20291_0861	556	948	756	928	938	864	977	914	806	973	799	-0.019827058	0.993056754
CDR20291_0862	89	174	166	145	103	178	180	121	143	209	202	0.168399558	0.935667015
CDR20291_0863	761	1498	1728	1340	1481	1762	1593	1549	1321	1329	2010	0.337502225	0.410854247
CDR20291_0864	2928	5171	4907	4909	5530	4946	5396	4783	5260	4913	5212	0.101790815	0.693282439
CDR20291_0865	467	517	578	767	657	655	715	747	689	830	457	-0.194473908	0.836500108
CDR20291_0866	4	0	8	2	1	6	6	0	2	4	13	NA	NA
CDR20291_0867	7	4	0	1	1	5	3	1	2	3	0	NA	NA
CDR20291_0868	4	2	0	3	4	1	3	0	4	2	0	NA	NA
CDR20291_0869	86	160	180	176	234	202	196	146	121	136	269	0.381685858	0.737651389
CDR20291_0870	291	560	595	419	342	504	493	484	587	546	610	0.123275157	0.927516569
CDR20291_0871	17436	40692	45421	34774	38387	33852	35404	29102	32691	33569	28821	0.317527673	0.311082618
CDR20291_0872	5661	9955	10878	9434	10763	9901	11029	10000	9892	9428	10199	0.142347572	0.501722528
CDR20291_0873	630	890	800	749	861	929	955	979	716	953	833	-0.239575828	0.603584886
CDR20291_0874	83	117	128	151	165	180	157	248	131	213	187	0.319377204	0.822411857
CDR20291_0875	10	66	30	74	22	43	64	68	9	36	53	1.517406873	0.442923144
CDR20291_0876	347	377	401	335	457	361	474	377	446	395	479	-0.459152117	0.294624837
CDR20291_0877	244	278	264	295	351	189	357	328	288	240	204	-0.506829737	0.462982333

CDR20291_0878	1144	2757	2895	2705	2966	3017	3041	2720	3214	2598	2709	0.623042215	2.03E-05
CDR20291_0879	25	19	46	2	29	22	24	12	12	18	9	-1.077040895	0.70463696
CDR20291_0880	38	22	65	47	21	52	79	16	57	61	114	-0.204441678	0.971144882
CDR20291_0881	18	36	31	23	44	26	15	5	24	7	11	-0.402534526	0.946579027
CDR20291_0882	4	1	17	4	1	15	5	19	23	49	1	1.081061584	0.868119758
CDR20291_0883	4	4	4	2	0	3	1	6	3	5	7 NA	NA	
CDR20291_0884	54	128	80	122	95	114	94	43	90	75	137	0.157689534	0.959591583
CDR20291_0885	1226	1902	2031	1690	1928	1926	2088	1993	2055	1671	2047	-0.043454147	0.950690448
CDR20291_0886	350	512	460	502	523	650	590	690	492	526	785	0.012206975	0.993056754
CDR20291_0887	795	1147	1020	1028	1044	1213	1245	1304	1526	929	1314	-0.135197722	0.857194704
CDR20291_0888	90	170	208	118	127	142	153	119	173	128	143	0.018498161	0.993056754
CDR20291_0889	329	530	432	563	687	541	398	544	481	531	335	-0.081568244	0.96010839
CDR20291_0890	442	917	1041	869	1025	795	913	984	803	778	788	0.312348619	0.457306418
CDR20291_0891	4018	7712	6963	6860	7863	7208	8092	7086	7519	6936	7628	0.178071923	0.298899181
CDR20291_0892	1646	3446	3316	3179	3645	3059	3745	3319	4019	3188	3280	0.354394552	0.063192981
CDR20291_0893	653	955	656	880	883	1008	928	1010	902	1049	1249	-0.153928932	0.85754216
CDR20291_0893;													
CDR20291_0894	0	0	0	0	0	0	1	0	0	0	0 NA	NA	
CDR20291_0894	604	872	843	718	702	687	864	961	801	646	826	-0.309764492	0.480253063
CDR20291_0895	32	31	31	18	13	66	74	35	50	32	13	-0.529744358	0.873350273
CDR20291_0896	16	6	9	6	7	10	7	4	18	15	6	-1.556572282	0.596978014
CDR20291_0897	29	7	2	8	8	10	16	5	9	6	14	-2.478052823	0.2176429
CDR20291_0898	141	139	200	160	164	179	190	190	193	247	168	-0.319464647	0.739343088
CDR20291_0898;													
CDR20291_0899	0	7	4	0	9	4	0	5	1	0	3 NA	NA	
CDR20291_0899	846	1212	1420	1115	1116	1249	1278	1349	1047	1346	1329	-0.138687737	0.818793552
CDR20291_0900	10117	8031	5626	7232	6593	7639	7878	8228	7534	6008	7199	-1.192733744	6.90E-14
CDR20291_0901	62	37	108	72	111	75	78	72	55	12	51	-0.589409386	0.798544553
CDR20291_0902	1526	2768	2832	2759	2821	2867	3173	2522	2944	2718	3006	0.197094225	0.442317688
CDR20291_0903	1275	2324	2377	2203	2345	2277	1931	2235	2332	2152	2380	0.125541114	0.758749065

CDR20291_0904	1670	2451	1866	2327	2124	2275	2335	2437	2396	2267	2560	-0.23469965	0.455508288
CDR20291_0905	4	0	1	0	1	1	3	7	1	3	2	NA	NA
CDR20291_0906	797	1600	1587	1729	1607	1752	1692	1710	1550	1884	1198	0.335516192	0.366413735
CDR20291_0906;													
CDR20291_0907	2	0	0	0	1	1	0	0	0	0	0	NA	NA
CDR20291_0907	306	1000	724	576	716	630	509	685	586	611	717	0.442899913	0.438402101
CDR20291_0908	151	511	464	428	464	381	413	324	349	284	418	0.717395557	0.123233201
CDR20291_0909	200	647	456	360	470	380	444	381	284	394	406	0.376050181	0.629238645
CDR20291_0910	321	416	331	389	481	592	372	455	399	272	335	-0.369562738	0.629238645
CDR20291_0911	15	53	20	71	75	97	50	21	36	66	31	1.095707419	0.59134876
CDR20291_0912	4	9	2	4	0	12	8	13	8	10	3	NA	NA
CDR20291_0913	933	1540	1883	1070	1601	1405	1719	1503	1607	2046	1167	0.03767445	0.986784307
CDR20291_0914	33	113	78	116	131	149	146	143	124	98	131	1.194466232	0.085809611
CDR20291_0915	29	30	42	52	58	33	41	55	52	16	46	-0.149312669	0.97352847
CDR20291_0916	999	1884	2224	1793	1732	1458	1651	1632	1723	1558	1670	0.096507423	0.907503312
CDR20291_0917	284	271	345	333	366	338	405	357	505	445	262	-0.345256328	0.65915918
CDR20291_0918	1	0	0	2	0	0	0	0	0	0	0	NA	NA
CDR20291_0919	13	12	18	20	18	13	26	11	31	49	65	0.32832894	0.952891242
CDR20291_0920	4	0	1	0	0	0	3	0	0	1	0	NA	NA
CDR20291_0921	2	0	1	0	0	0	1	0	1	1	0	NA	NA
CDR20291_0922	3	0	0	1	0	1	2	0	3	2	2	NA	NA
CDR20291_0923	13	13	15	4	2	1	1	0	2	10	0	NA	NA
CDR20291_0924	0	1	2	0	0	1	4	2	6	1	0	NA	NA
CDR20291_0925	7	5	1	0	2	1	3	3	3	2	3	NA	NA
CDR20291_0926	17	27	56	42	34	10	48	18	17	21	13	0.049952528	0.993056754
CDR20291_0927	115	58	18	65	22	10	55	54	76	30	33	-2.15238895	0.070633273
CDR20291_0928	1052	2198	2088	1743	2021	2017	2091	1652	1755	1784	1768	0.161073104	0.679594548
CDR20291_0929	5854	8802	8138	8278	8823	8645	8778	8540	8534	8176	7542	-0.174203406	0.317376398
CDR20291_0930	1	8	6	5	2	6	11	2	3	17	4	NA	NA
CDR20291_0931	8627	12992	10652	12460	12533	13556	14249	14064	13454	12668	13728	-0.104394933	0.749146495

CDR20291_0932	1382	2007	1860	2020	1959	2242	2732	2456	2228	2399	2192	-0.023030497	0.988332645
CDR20291_0933	0	1	1	0	0	1	2	1	4	2	8	NA	NA
CDR20291_0934	223	271	189	236	176	305	259	269	263	345	140	-0.56007013	0.513982365
CDR20291_0935	2	6	5	22	2	23	10	6	2	1	1	NA	NA
CDR20291_0936	6	4	27	3	7	2	4	0	4	1	2	NA	NA
CDR20291_0937	336	526	395	382	350	520	437	498	386	333	533	-0.325152235	0.637353001
CDR20291_0938	4	33	13	10	8	5	20	0	11	1	3	0.656851332	0.948369562
CDR20291_0939	368	679	982	955	823	500	908	702	881	847	870	0.450419983	0.438402101
CDR20291_0940	663	1168	1834	1384	1487	1305	1343	1250	1271	1200	1327	0.335861099	0.443053865
CDR20291_0941	255	619	713	595	588	585	714	457	528	487	723	0.536381325	0.222836892
CDR20291_0942	1006	2279	2202	1825	2120	1903	2307	1999	2081	1663	1924	0.311255693	0.222060146
CDR20291_0943	4904	9739	9548	8565	9337	9439	9669	8857	9435	9100	9643	0.229132048	0.10268426
CDR20291_0944	261	653	544	451	438	416	552	441	624	518	439	0.25907284	0.702648248
CDR20291_0945	50	121	141	88	89	127	127	52	80	121	71	0.324636705	0.868659844
CDR20291_0946	116	221	98	154	193	276	297	127	224	198	280	0.128894359	0.960001773
CDR20291_0947	132	331	114	157	254	296	506	251	238	177	259	0.254242909	0.904172976
CDR20291_0948	61	143	137	120	101	108	149	121	98	169	47	0.269514854	0.912272704
CDR20291_0949	672	1272	1325	1249	1376	1367	1648	1235	1233	1329	1434	0.302697758	0.309031575
CDR20291_0950	2	2	2	8	0	4	2	3	3	0	2	NA	NA
CDR20291_0951	96	310	172	303	261	237	300	193	154	159	294	0.609010343	0.499860744
CDR20291_0952	136	265	348	325	382	284	297	263	359	308	249	0.481554051	0.450045644
CDR20291_0953	3775	6525	5658	6406	6834	6062	7092	6381	7081	6293	6921	0.089794766	0.803296875
CDR20291_0954	1501	3754	4222	3508	3880	3652	3542	3215	3339	3245	3488	0.557059623	0.002058108
CDR20291_0955	8310	8638	7605	7922	8489	6927	8693	8028	8376	7481	7328	-0.764395769	4.09E-10
CDR20291_0956	288	579	559	680	613	741	590	613	653	558	472	0.374065447	0.44440221
CDR20291_0957	3145	4362	3943	4175	4785	4373	4719	4772	5462	4309	4212	-0.17971895	0.56444917
CDR20291_0958	57	120	149	88	75	111	103	57	76	102	48	0.006018305	0.997856314
CDR20291_0959	5506	9016	8168	8531	9054	9229	10316	9530	9148	9177	9104	0.029222517	0.958032231
CDR20291_0960	362	825	887	719	766	829	660	705	811	868	614	0.38900892	0.391530804
CDR20291_0961	515	841	676	739	748	590	796	711	763	703	872	-0.169075261	0.776905478

CDR20291_0962	81	125	48	94	144	148	102	103	136	70	70	-0.345122749	0.859194195
CDR20291_0963	870	1234	1430	1432	1468	1333	1626	1566	1796	1587	1479	0.082857296	0.919659779
CDR20291_0964	42	18	23	34	39	15	18	35	24	23	30	-1.391935528	0.345282651
CDR20291_0965	0	10	2	0	0	3	3	0	0	0	2 NA	NA	
CDR20291_0966	16	0	8	11	7	12	1	1	1	10	5 NA	NA	
CDR20291_0967	7561	12608	11504	11142	13233	12486	12749	11766	11701	11359	12398	-0.022393862	0.969028946
CDR20291_0968	9027	12256	10986	12091	14111	13224	14243	13477	13568	12479	14499	-0.163506197	0.555969774
CDR20291_0969	85	149	303	221	223	268	109	221	134	177	230	0.567538068	0.62667197
CDR20291_0970	1213	2106	1411	1877	1959	1720	2044	2155	1754	1683	2028	-0.07349915	0.933755431
CDR20291_0971	2760	3996	3667	4272	3735	4178	4665	4307	4372	3728	4266	-0.1223767	0.702648248
CDR20291_0972	36	90	70	42	30	80	106	91	103	53	100	0.381595508	0.873157907
CDR20291_0973	5	0	3	2	1	1	5	2	4	0	6 NA	NA	
CDR20291_0974	2	1	0	2	3	5	4	0	3	4	3 NA	NA	
CDR20291_0975	1	3	2	1	2	2	2	3	3	0	2 NA	NA	
CDR20291_0976	2	0	0	0	1	1	0	0	1	1	1 NA	NA	
CDR20291_0977	1	3	0	3	0	0	3	0	1	5	0 NA	NA	
CDR20291_0978	365	559	476	620	650	483	726	686	592	522	560	-0.01481203	0.993056754
CDR20291_0979	139	276	159	162	190	245	319	108	126	272	148	-0.175598581	0.948369562
CDR20291_0980	3	1	3	0	0	3	2	4	2	0	0 NA	NA	
CDR20291_0981	1	1	2	0	2	1	2	0	0	1	3 NA	NA	
CDR20291_0982	4	1	1	1	1	3	2	0	3	0	5 NA	NA	
CDR20291_0983	7	3	3	0	5	3	4	2	2	2	3 NA	NA	
CDR20291_0984	1	0	0	0	2	0	0	0	0	1	0 NA	NA	
CDR20291_0985	12	3	9	10	8	4	17	1	10	8	14 NA	NA	
CDR20291_0986	2	2	0	0	2	2	1	0	3	2	3 NA	NA	
CDR20291_0987	3	0	1	0	0	0	1	0	1	3	2 NA	NA	
CDR20291_0988	0	4	0	0	0	1	0	1	3	0	2 NA	NA	
CDR20291_0989	1	4	3	3	1	1	6	1	3	2	3 NA	NA	
CDR20291_0990	950	1958	1528	1528	1688	1646	1922	1603	1739	1719	1506	0.124608825	0.772119864
CDR20291_0991	1480	2422	2168	2525	2550	2313	2547	2185	2265	2067	3091	0.006160981	0.995043151

CDR20291_0992	78	71	104	106	95	85	121	111	106	98	178	-0.234248691	0.913212471
CDR20291_0993	4311	7798	7273	7122	7817	7254	7681	8062	7933	7313	7848	0.120670412	0.600248436
CDR20291_0994	623	444	658	713	895	753	869	766	901	525	339	-0.563363636	0.442317688
CDR20291_0995	3710	6075	5091	5916	6163	6010	6749	6519	5992	5358	5554	-0.021244665	0.978822561
CDR20291_0996	273	602	436	554	516	595	577	576	504	607	509	0.305367924	0.554392502
CDR20291_0997	114	340	282	184	325	314	312	297	260	324	284	0.65673121	0.231346531
CDR20291_0998	2	1	1	0	1	1	1	1	3	2	3	NA	NA
CDR20291_0999	0	0	1	0	1	2	2	1	0	0	4	NA	NA
CDR20291_1000	3	4	0	0	0	0	1	0	2	1	1	NA	NA
CDR20291_1001	8	1	2	0	2	4	3	1	5	4	3	NA	NA
CDR20291_1002	36	55	29	101	74	39	94	81	50	2	32	-0.079460034	0.993056754
CDR20291_1003	104	197	307	196	151	235	184	168	257	222	303	0.399249194	0.702600141
CDR20291_1004	7	0	20	13	21	1	7	6	14	9	0	NA	NA
CDR20291_1005	12	41	43	81	158	101	75	61	63	69	20	1.866917592	0.178150256
CDR20291_1006	348	941	675	729	726	846	850	647	731	588	646	0.381506087	0.385020939
CDR20291_1007	178	488	310	318	282	266	398	354	325	294	373	0.234769453	0.806385533
CDR20291_1008	32	30	35	51	111	53	58	24	24	56	21	-0.168263187	0.97352847
CDR20291_1009	63	40	109	34	97	72	82	33	72	47	49	-0.692206554	0.681968239
CDR20291_1010	303	656	568	389	412	374	499	435	522	562	402	-0.029932379	0.993056754
CDR20291_1011	53	21	79	35	66	34	50	19	34	54	52	-0.950300858	0.59459692
CDR20291_1012	2	1	4	1	3	2	3	3	3	3	0	NA	NA
CDR20291_1013	0	1	0	1	0	0	0	0	1	0	1	NA	NA
CDR20291_1014	1	0	0	2	0	0	1	0	1	0	1	NA	NA
CDR20291_1015	4	3	1	0	0	3	0	0	3	0	0	NA	NA
CDR20291_1016	6	0	1	0	1	1	3	0	3	2	2	NA	NA
CDR20291_1017	6	1	4	0	4	2	2	0	13	2	3	NA	NA
CDR20291_1018	2	4	1	1	2	1	3	0	3	1	1	NA	NA
CDR20291_1019	0	3	6	2	1	1	2	2	4	2	3	NA	NA
CDR20291_1020	4	1	1	1	0	1	2	1	1	2	1	NA	NA
CDR20291_1021	1	0	0	1	0	0	0	0	0	1	0	NA	NA

CDR20291_1022	83	102	93	103	108	139	240	119	61	65	156	-0.194923088	0.950690448
CDR20291_1023	2467	4556	4352	4206	4324	4280	4169	3663	4049	3885	3584	0.035965025	0.960001773
CDR20291_1024	1611	3499	4062	3403	3460	3542	3769	3361	3150	3232	3350	0.413210842	0.024425032
CDR20291_1025	2	1	0	1	0	0	2	0	0	0	2	NA	NA
CDR20291_1026	117	302	142	180	225	149	454	163	257	240	335	0.356099466	0.821101918
CDR20291_1027	317	187	417	229	217	149	102	238	282	143	223	-1.228167046	0.102698828
CDR20291_1028	2	1	0	23	32	1	37	9	11	2	42	2.271484265	0.650507478
CDR20291_1029	11	7	5	2	5	5	5	0	7	6	3	NA	NA
CDR20291_1030	7	1	3	2	2	0	5	1	1	2	2	NA	NA
CDR20291_1031	0	0	4	0	2	1	2	1	4	1	0	NA	NA
CDR20291_1032	1	0	0	0	0	0	0	1	1	0	1	NA	NA
CDR20291_1033	0	0	0	1	0	0	0	0	0	1	0	NA	NA
CDR20291_1034	6	5	3	2	10	6	1	0	6	4	6	NA	NA
CDR20291_1035	6	0	0	0	1	1	4	1	3	1	4	NA	NA
CDR20291_1036	0	2	1	3	1	1	7	0	3	2	2	NA	NA
CDR20291_1037	1	0	2	1	3	2	2	0	0	2	1	NA	NA
CDR20291_1038	3	2	0	0	0	2	3	0	1	3	0	NA	NA
CDR20291_1039	2641	3214	3211	3238	3114	2885	3557	3435	3549	2925	3696	-0.385770374	0.045411527
CDR20291_1039;													
CDR20291_1040	230	372	279	278	208	301	359	131	251	326	129	-0.505800578	0.651259928
CDR20291_1040	1308	2203	2286	1976	2458	2085	2129	1788	1869	1979	2278	-0.012612293	0.993056754
CDR20291_1041	1568	2372	2232	2238	2664	2203	2357	2241	2105	1910	2307	-0.171065321	0.605816386
CDR20291_1042	2	1	2	0	1	1	3	0	0	0	1	NA	NA
CDR20291_1043	4	3	1	1	4	1	5	3	8	4	3	NA	NA
CDR20291_1044	1	0	0	0	0	1	1	0	3	0	0	NA	NA
CDR20291_1045	4	3	4	11	5	4	3	1	6	1	5	NA	NA
CDR20291_1046	92	155	90	131	104	120	138	99	103	49	46	-0.537137995	0.702850636
CDR20291_1047	4894	7711	5992	6762	7802	7001	7656	7568	7048	6644	7077	-0.158628381	0.536041589
CDR20291_1048	2512	4408	4546	4041	4039	3874	3866	3789	3900	3725	3956	-0.022036264	0.983498093
CDR20291_1049	3262	6074	5570	4953	6740	5668	6364	5468	5729	5423	5551	0.117595411	0.700659075

CDR20291_1050	181	354	305	216	480	400	473	307	327	318	341	0.254495992	0.804734781
CDR20291_1051	8	13	7	18	6	5	22	22	8	10	18	-0.012454762	0.997856314
CDR20291_1052	2	3	0	0	0	1	1	0	3	3	0	NA	NA
CDR20291_1053	6	1	3	1	0	7	1	3	7	2	2	NA	NA
CDR20291_1054	4	4	4	2	0	2	5	3	3	6	2	NA	NA
CDR20291_1055	4	4	0	0	4	0	4	2	3	1	0	NA	NA
CDR20291_1056	3	0	0	0	1	0	5	0	2	1	1	NA	NA
CDR20291_1057	2	4	1	3	0	7	12	4	1	2	5	NA	NA
CDR20291_1058	45	88	35	53	34	22	82	40	109	84	27	-0.351866669	0.925037296
CDR20291_1059	1310	1525	1380	1365	1464	1286	1206	1409	1601	1468	931	-0.640331421	0.029301932
CDR20291_1060	525	916	657	685	633	788	755	857	921	993	643	-0.118004038	0.917651362
CDR20291_1061	2484	3594	3118	3199	3956	3467	4069	3843	3782	3642	4082	-0.135136879	0.700659075
CDR20291_1062	1191	1843	1816	1608	1839	1845	1782	1992	1689	1930	2044	-0.071478716	0.917772715
CDR20291_1063	188	312	281	292	238	251	270	249	196	338	357	-0.128876837	0.942593203
CDR20291_1064	4933	8206	8187	8244	9116	9555	10106	8762	9253	9634	10304	0.190252211	0.501722528
CDR20291_1065	288	289	284	373	343	319	302	381	210	347	305	-0.565255619	0.321891386
CDR20291_1065;													
CDR20291_1066	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_1066	379	356	441	343	327	241	266	389	298	354	275	-0.899254655	0.042623173
CDR20291_1067	102	112	83	77	80	94	181	63	96	37	51	-0.937249696	0.455508288
CDR20291_1068	7	1	1	4	2	6	5	0	2	3	1	NA	NA
CDR20291_1069	306	1184	1151	923	937	1158	1055	771	1060	826	1192	1.044540134	0.000146057
CDR20291_1070	143	241	300	206	358	203	273	196	178	205	358	0.116036924	0.955558813
CDR20291_1071	3	1	0	3	3	1	1	0	2	0	1	NA	NA
CDR20291_1072	431	846	950	910	790	856	818	769	756	838	794	0.253023547	0.570158817
CDR20291_1073	2	1	1	0	0	0	0	0	1	0	0	NA	NA
CDR20291_1074	32	78	82	72	75	103	41	35	61	47	46	0.301995313	0.918573372
CDR20291_1075	4	2	1	1	2	0	0	1	2	4	3	NA	NA
CDR20291_1076	130	344	371	284	284	353	311	254	272	240	251	0.488525498	0.44440221
CDR20291_1077	203	379	467	292	251	477	383	397	370	427	400	0.223312315	0.837346508

CDR20291_1078	785	1222	1142	1238	1449	1235	1308	1203	1343	1056	1349	-0.023931559	0.986784307
CDR20291_1079	1271	2231	1940	2019	1976	2266	2275	1791	2194	2375	1627	0.004133896	0.997856314
CDR20291_1080	1	0	0	0	0	0	0	0	3	2	0 NA	NA	
CDR20291_1081	9	87	82	58	85	89	43	98	55	51	57	2.270275418	0.024036328
CDR20291_1081;													
CDR20291_1082	4	0	0	0	1	0	0	0	0	0	0 NA	NA	
CDR20291_1082	50	166	119	132	117	98	94	118	117	94	135	0.5523711	0.603584886
CDR20291_1082;													
CDR20291_1083	0	0	0	0	0	0	0	0	0	0	2 NA	NA	
CDR20291_1083	349	568	564	588	810	802	704	729	703	653	534	0.230668189	0.702648248
CDR20291_1083;													
CDR20291_1084	0	0	0	0	1	0	0	0	0	0	0 NA	NA	
CDR20291_1084	95	191	224	114	152	151	164	119	149	166	128	0.01401756	0.995043151
CDR20291_1085	2	0	1	0	2	1	3	0	3	3	4 NA	NA	
CDR20291_1086	3496	1821	1220	1585	1874	3368	3057	2992	1941	2373	2356	-1.333389745	0.037931044
CDR20291_1087	6	2	2	0	2	1	1	3	7	4	2 NA	NA	
CDR20291_1088	64	93	91	65	56	120	49	50	89	33	75	-0.528934809	0.760256481
CDR20291_1089	20	10	13	11	12	6	18	4	20	4	10	-1.596811271	0.548079437
CDR20291_1090	4	1	4	3	1	5	6	3	6	6	2 NA	NA	
CDR20291_1091	1	0	0	1	0	1	0	0	2	2	2 NA	NA	
CDR20291_1092	4	2	6	3	2	2	5	0	5	2	3 NA	NA	
CDR20291_1093	5	2	0	9	3	5	0	3	3	0	2 NA	NA	
CDR20291_1094	18	9	34	48	53	0	3	5	46	25	6	-0.336964591	0.971144882
CDR20291_1095	5	2	4	1	1	0	0	1	1	6	0 NA	NA	
CDR20291_1096	6	1	2	1	1	0	0	1	3	2	2 NA	NA	
CDR20291_1097	0	0	0	0	1	2	0	6	4	0	1 NA	NA	
CDR20291_1098	1	1	1	1	1	2	4	1	2	1	4 NA	NA	
CDR20291_1099	3	4	2	0	4	3	3	1	2	3	6 NA	NA	
CDR20291_1100	2300	955	567	1884	621	844	2011	1824	1742	1006	1659	-1.511500242	0.187669658
CDR20291_1101	1119	1768	2314	2198	2148	1945	2331	1770	2085	1760	1443	0.120758958	0.868034697

CDR20291_1102	239	612	513	382	359	429	392	457	406	356	352	0.132601635	0.921901672
CDR20291_1103	2438	3967	3802	3849	4349	3661	4590	4030	4360	3655	3915	0.019944809	0.983498093
CDR20291_1104	27	78	153	126	73	123	37	43	80	132	2	0.964328592	0.820492757
CDR20291_1105	147	97	61	104	97	146	101	139	76	76	112	-1.2435285	0.07049151
CDR20291_1106	61	41	128	119	93	142	127	86	118	69	99	0.04560038	0.993056754
CDR20291_1107	365	550	551	516	508	509	648	524	531	257	530	-0.214864164	0.82566701
CDR20291_1108	100	148	183	169	174	162	112	71	147	197	126	-0.118730517	0.968478832
CDR20291_1109	45	81	60	77	54	84	25	46	69	57	31	-0.318720374	0.917651362
CDR20291_1109;													
CDR20291_1110	763	1184	1057	1024	1069	1423	1374	1212	1471	1063	1200	-0.03919779	0.97352847
CDR20291_1110	2410	3917	3556	3360	4103	3246	4129	3491	3615	3574	3532	-0.100840692	0.783434066
CDR20291_1111	17	9	0	6	14	0	9	5	8	5	19 NA		NA
CDR20291_1112	488	751	774	785	819	788	845	887	1023	837	977	0.099843446	0.912716668
CDR20291_1113	2622	5229	3784	3965	5616	4924	5626	5633	4120	4462	4765	0.173462282	0.694032059
CDR20291_1114	10	5	9	1	2	0	8	1	6	2	9 NA		NA
CDR20291_1115	3	1	0	2	3	3	2	3	9	1	6 NA		NA
CDR20291_1116	254	468	401	390	335	437	319	356	356	402	431	-0.079975715	0.955498491
CDR20291_1117	494	1041	754	740	861	929	1017	921	955	755	776	0.121524072	0.860579883
CDR20291_1118	3	1	0	2	0	1	0	1	1	4	4 NA		NA
CDR20291_1119	7	5	2	3	0	5	2	1	6	4	4 NA		NA
CDR20291_1120	2	4	2	1	0	1	3	0	3	0	1 NA		NA
CDR20291_1121	1	2	2	1	1	1	4	3	4	0	3 NA		NA
CDR20291_1122	12	1	8	3	5	3	13	0	10	9	6 NA		NA
CDR20291_1123	2	0	1	0	1	0	0	0	0	0	3 NA		NA
CDR20291_1124	9	17	19	38	3	5	6	9	34	9	10	0.04989908	0.995043151
CDR20291_1125	4	1	1	1	0	0	3	0	0	1	2 NA		NA
CDR20291_1126	480	695	505	700	851	789	729	732	782	600	735	-0.132624177	0.873157907
CDR20291_1127	2	1	0	2	3	2	2	0	3	1	1 NA		NA
CDR20291_1128	1320	2074	2101	1838	1925	1886	1994	2136	2008	1540	1919	-0.143317211	0.702648248
CDR20291_1129	6859	5928	5014	7049	6281	5703	7525	7460	8504	6591	7158	-0.728519214	0.001646243

CDR20291_1130	3	0	2	1	2	1	1	0	1	0	0	NA	NA
CDR20291_1131	28	35	66	28	22	23	65	37	55	64	55	-0.012663694	0.997856314
CDR20291_1132	1	1	3	2	0	1	3	0	2	0	1	NA	NA
CDR20291_1133	0	3	4	0	2	4	3	1	10	5	4	NA	NA
CDR20291_1134	641	1053	647	769	910	909	770	864	797	912	912	-0.28474585	0.56444917
CDR20291_1135	8	4	2	3	2	7	2	12	5	0	16	NA	NA
CDR20291_1136	105	121	183	126	174	123	171	140	199	198	164	-0.090449955	0.971144882
CDR20291_1137	33	250	198	216	285	189	234	178	172	178	159	1.939324111	0.000108301
CDR20291_1138	4	1	0	0	1	0	0	0	2	0	0	NA	NA
CDR20291_1139	1222	3075	2734	2783	2719	3077	3310	2814	3164	2541	2890	0.55105373	0.000312326
CDR20291_1140	1463	2785	2774	2751	3010	2959	2581	2619	2621	2465	2590	0.193450856	0.499860744
CDR20291_1141	121	110	96	81	101	153	54	137	102	149	28	-0.953601006	0.47588428
CDR20291_1142	0	0	0	0	0	2	2	0	0	0	0	NA	NA
CDR20291_1143	226	382	260	298	284	383	437	371	237	313	558	-0.06073585	0.983498093
CDR20291_1144	415	1020	1117	870	757	816	804	753	721	869	823	0.345851341	0.498172812
CDR20291_1145	7906	12457	11752	11465	11726	12692	13397	13793	13343	11260	13982	-0.029096363	0.968670851
CDR20291_1146	19	4	6	5	7	4	15	0	32	4	14	-1.771996516	0.647751451
CDR20291_1147	1	0	1	1	3	0	3	0	0	1	1	NA	NA
CDR20291_1148	5	4	1	5	3	3	6	0	3	1	3	NA	NA
CDR20291_1149	0	0	0	1	1	0	3	0	0	0	0	NA	NA
CDR20291_1150	1	0	0	1	0	1	0	1	1	3	3	NA	NA
CDR20291_1151	10	1	5	4	1	6	11	2	5	5	5	NA	NA
CDR20291_1152	4	0	0	0	1	1	2	1	1	1	1	NA	NA
CDR20291_1152;													
CDR20291_1153	0	0	0	0	2	0	0	0	0	1	0	NA	NA
CDR20291_1153	1	1	3	2	6	0	1	3	2	2	4	NA	NA
CDR20291_1154	1428	1815	1576	1831	2010	2057	2160	2066	1893	2029	1706	-0.277011603	0.353493983
CDR20291_1155	5	3	3	0	0	2	6	1	1	1	2	NA	NA
CDR20291_1156	2	0	1	1	0	0	0	0	0	0	0	NA	NA
CDR20291_1157	2	0	0	0	1	1	1	0	0	0	1	NA	NA

CDR20291_1158	2379	3473	3282	3626	3653	3915	4357	3766	4153	2845	3734	-0.072407066	0.913212471
CDR20291_1159	77	128	78	134	41	59	161	81	135	152	121	-0.196416457	0.950690448
CDR20291_1160	14	1	0	4	2	1	4	1	7	1	5 NA		NA
CDR20291_1161	6	5	7	8	3	2	3	3	7	5	2 NA		NA
CDR20291_1162	0	0	0	0	0	1	0	0	0	0	1 NA		NA
CDR20291_1163	6	3	0	2	1	1	4	4	3	5	3 NA		NA
CDR20291_1164	1380	2234	2007	2488	2213	2432	3279	2772	2608	2523	2767	0.175229414	0.70463696
CDR20291_1165	9	2	3	3	7	2	11	6	11	6	9 NA		NA
CDR20291_1166	7	5	1	2	1	0	4	0	3	1	4 NA		NA
CDR20291_1167	8	3	5	0	4	1	8	1	4	1	7 NA		NA
CDR20291_1167;													
CDR20291_1168	0	0	0	0	0	0	0	0	0	0	1 NA		NA
CDR20291_1168	2	0	0	1	2	1	1	2	1	2	2 NA		NA
CDR20291_1169	130	217	239	251	108	107	249	237	156	171	224	-0.106031202	0.971144882
CDR20291_1170	6	3	1	2	8	1	6	0	13	5	7 NA		NA
CDR20291_1171	8	5	3	3	8	2	6	0	6	4	6 NA		NA
CDR20291_1172	6352	11190	9880	10558	10809	10842	13172	11379	12438	10969	11357	0.125234314	0.654495491
CDR20291_1173	127	297	54	181	174	104	156	150	139	252	236	-0.240639906	0.931537513
CDR20291_1174	1271	2887	2809	2700	2351	2568	2869	2579	2350	2107	2379	0.309748117	0.246891492
CDR20291_1175	388	2	11	1	4	3	2	1	6	1	3	-7.532819203	1.31E-18
CDR20291_1176	4721	5387	5353	5096	5371	5981	5991	5838	5831	5009	5451	-0.471827765	0.00015937
CDR20291_1177	457	849	693	817	833	899	701	748	648	688	627	0.016139343	0.993056754
CDR20291_1178	120	227	200	215	184	236	342	196	212	241	249	0.237885486	0.839139708
CDR20291_1179	296	345	310	302	284	438	332	330	320	366	358	-0.504666593	0.297141229
CDR20291_1180	5759	9321	7645	8926	8884	9142	10985	10654	9514	8691	9440	-0.006435358	0.993056754
CDR20291_1181	335	673	814	597	623	620	719	727	631	528	753	0.296843944	0.567334882
CDR20291_1182	3626	6428	6295	6401	6534	6905	6861	6891	6017	6363	7086	0.160516461	0.501671327
CDR20291_1183	250	283	242	261	348	324	329	228	252	229	322	-0.529330653	0.330567737
CDR20291_1184	113	134	201	134	130	259	154	115	129	125	151	-0.259987706	0.873157907
CDR20291_1185	497	504	543	819	621	382	1261	844	884	569	792	-0.165844464	0.950690448

CDR20291_1186	213	172	129	148	213	183	145	202	210	130	129	-1.060456179	0.039627805
CDR20291_1187	5392	9728	8020	9123	9794	9762	11208	10525	10543	9554	10356	0.170384126	0.540987826
CDR20291_1188	550	1084	939	874	997	932	999	789	773	966	776	0.031131661	0.986677932
CDR20291_1189	487	841	812	812	920	752	951	881	1053	1007	750	0.151259407	0.824881675
CDR20291_1190	2775	5631	5158	4701	5657	4492	6216	5214	5779	5700	5717	0.267404908	0.293476635
CDR20291_1191	16	58	49	52	39	49	21	35	18	31	21	0.525486989	0.859985289
CDR20291_1192	4	6	1	4	4	3	3	1	3	2	1 NA	NA	
CDR20291_1193	34	94	99	65	65	51	110	68	50	63	35	0.337261002	0.895090806
CDR20291_1194	403	646	588	612	655	510	657	568	533	513	692	-0.132081807	0.861977338
CDR20291_1195	17	71	96	73	56	99	51	31	59	39	35	1.144697656	0.460960171
CDR20291_1196	39	105	136	115	96	113	140	112	76	54	126	0.757881603	0.501722528
CDR20291_1197	1	0	0	0	0	1	0	0	0	1	1 NA	NA	
CDR20291_1198	3580	5060	4124	5033	5620	5488	6444	6288	5442	5894	6046	-0.068967205	0.932691097
CDR20291_1199	3318	6142	5408	5863	5228	6227	6487	6898	6351	5710	6321	0.170317997	0.572365001
CDR20291_1200	204	403	415	391	274	439	432	314	464	347	444	0.244061702	0.766215044
CDR20291_1201	32	32	81	34	66	51	42	41	30	49	60	-0.092637535	0.988422349
CDR20291_1202	1	1	3	1	0	1	0	0	1	0	0 NA	NA	
CDR20291_1203	0	0	0	0	0	0	0	2	0	0	1 NA	NA	
CDR20291_1204	21	108	43	9	86	50	19	68	43	34	16	0.471710144	0.915100709
CDR20291_1205	21	40	30	30	30	54	50	52	22	12	85	0.24299452	0.960001773
CDR20291_1206	2833	3488	2642	2982	3276	3471	3982	3676	3601	3324	3780	-0.428589679	0.051230588
CDR20291_1207	1	1	1	2	0	1	1	2	3	1	3 NA	NA	
CDR20291_1208	64	82	70	81	81	69	86	74	93	71	62	-0.43571911	0.703614887
CDR20291_1209	0	0	0	0	0	0	0	0	0	0	1 NA	NA	
CDR20291_1209;													
CDR20291_1210	0	0	0	0	2	0	0	0	1	0	0 NA	NA	
CDR20291_1210	251	331	306	407	241	489	371	325	394	314	371	-0.198688132	0.859194195
CDR20291_1211	16	54	29	36	70	31	97	88	11	33	49	0.926444974	0.681968239
CDR20291_1212	29	70	36	42	70	76	81	56	47	61	36	0.281666137	0.925037296
CDR20291_1213	0	1	0	1	0	1	1	1	2	0	2 NA	NA	

CDR20291_1214	851	1395	1276	1185	1280	1165	1625	1468	1397	1380	1655	-1.78E-05	0.999921486
CDR20291_1215	438	871	664	654	716	716	934	715	696	681	850	0.073145069	0.950690448
CDR20291_1216	121	145	242	148	149	175	165	206	137	148	133	-0.252110833	0.85754216
CDR20291_1217	107	108	101	125	78	172	167	154	101	153	100	-0.464433297	0.697461757
CDR20291_1218	3575	5270	4091	4673	4944	5203	5248	5476	5029	4666	5115	-0.224568085	0.33044515
CDR20291_1219	34	42	21	31	22	46	46	24	25	11	20	-0.949467315	0.642590838
CDR20291_1220	239	329	503	347	382	438	536	343	235	349	467	0.016643277	0.993056754
CDR20291_1221	2	0	2	0	1	2	0	1	1	1	1	NA	NA
CDR20291_1222	38	57	81	76	91	5	25	55	48	17	42	-0.308566151	0.950690448
CDR20291_1223	1	0	0	0	0	0	1	0	0	1	2	NA	NA
CDR20291_1224	13	19	66	19	28	29	37	50	16	16	36	0.581791502	0.861977338
CDR20291_1225	70	147	225	222	140	121	122	149	143	154	203	0.524135833	0.638048331
CDR20291_1226	379	660	661	845	793	732	725	813	540	579	485	0.151148827	0.881203154
CDR20291_1227	2126	3488	3030	3177	3512	4091	4056	3863	4005	3457	4094	0.089913571	0.868034697
CDR20291_1228	39	113	88	84	75	123	45	63	69	78	39	0.297402731	0.916532076
CDR20291_1229	1634	2652	2781	2006	2236	2531	2569	2523	1914	2789	2390	-0.120253278	0.854987503
CDR20291_1230	25	121	85	69	196	137	51	93	63	46	51	1.162331578	0.437675307
CDR20291_1231	107	82	158	141	78	149	145	158	93	50	221	-0.445663283	0.806385533
CDR20291_1232	88	133	113	169	88	168	175	172	166	144	130	0.029365104	0.993056754
CDR20291_1233	36	103	74	92	85	112	73	48	115	69	76	0.534217254	0.702648248
CDR20291_1234	73	269	176	118	139	169	111	127	128	97	155	0.325949706	0.849060986
CDR20291_1235	6	0	4	2	0	1	9	2	13	8	1	NA	NA
CDR20291_1236	9	9	6	7	7	20	13	1	5	14	2	NA	NA
CDR20291_1237	144	452	205	216	242	266	186	225	301	211	339	0.174726543	0.930052659
CDR20291_1238	0	0	1	0	0	2	1	0	3	1	2	NA	NA
CDR20291_1239	113	104	83	107	208	125	140	139	136	133	86	-0.543823811	0.629238645
CDR20291_1240	15249	23303	21650	21083	25304	22412	26029	24252	24267	21432	22522	-0.09396621	0.700659075
CDR20291_1241	270	472	556	430	411	464	582	492	412	448	379	0.082499603	0.950690448
CDR20291_1242	3150	5185	4337	4417	4401	4951	4599	4584	4467	4252	3934	-0.181343166	0.49098979
CDR20291_1243	183	169	250	234	228	229	198	260	207	202	271	-0.399268966	0.603605466

CDR20291_1244	108	440	235	215	201	307	348	350	237	262	336	0.736668692	0.282025923
CDR20291_1245	103	116	141	156	144	123	164	155	176	177	144	-0.15845075	0.930912836
CDR20291_1246	907	1318	1070	1380	1749	1482	1497	1414	1546	1407	1241	-0.063374828	0.950690448
CDR20291_1247	4933	7720	6721	7242	7790	7746	8174	8185	8030	7227	7508	-0.070084332	0.839484518
CDR20291_1248	103	139	86	70	97	87	174	62	111	85	38	-0.829346449	0.513980224
CDR20291_1249	400	1025	757	871	710	701	779	734	751	734	788	0.273671506	0.58937303
CDR20291_1250	11625	13499	25079	8517	18499	17061	12444	11547	9991	14379	7646	-0.44398322	0.798727741
CDR20291_1251	1325	1356	1787	994	1572	1537	1462	1213	1252	1400	1178	-0.646419494	0.035006651
CDR20291_1252	3690	5276	4570	4722	5446	5386	5285	4306	4400	4424	4896	-0.299987269	0.138864598
CDR20291_1253	6895	11253	10010	10732	10486	10428	12030	10463	9958	9329	10810	-0.086897996	0.758749065
CDR20291_1254	241	280	367	258	247	200	234	171	202	256	117	-0.744344666	0.356271845
CDR20291_1255	7	4	1	2	2	1	7	2	7	3	1	NA	NA
CDR20291_1256	851	1324	1289	1283	1403	1302	1329	1274	1580	1197	1496	-0.03609049	0.971144882
CDR20291_1257	1203	1883	1678	1572	1628	1613	1947	1598	1662	1345	1794	-0.226782792	0.484861931
CDR20291_1258	1885	3361	2770	3368	3166	3237	3750	3384	3108	2768	3515	0.081873434	0.873157907
CDR20291_1259	1502	3554	2944	3016	3379	3101	2911	2770	3099	2900	3139	0.33736074	0.098393129
CDR20291_1260	5	4	7	5	4	11	5	0	2	7	6	NA	NA
CDR20291_1261	1002	1514	1415	1442	1321	1435	1424	1432	1395	1167	1109	-0.253637379	0.464030615
CDR20291_1262	12216	19901	17277	18899	19089	19541	20357	20076	19850	18602	19629	-0.038036426	0.930814375
CDR20291_1263	1	0	0	0	1	1	0	0	0	2	1	NA	NA
CDR20291_1264	1054	348	836	563	291	295	509	533	568	385	431	-1.841959097	0.006496943
CDR20291_1265	78	297	158	181	276	151	268	174	227	339	111	0.783341575	0.437675307
CDR20291_1266	594	1367	1302	997	1235	1344	1373	1182	871	945	1062	0.272680753	0.59459692
CDR20291_1267	739	1714	1437	1222	1288	1179	1606	1080	1293	1035	1303	0.129138128	0.860579883
CDR20291_1268	2233	3893	3960	3438	3619	3706	3894	3458	3644	3734	4131	0.048283597	0.940051994
CDR20291_1269	148	243	299	220	346	285	259	244	238	249	139	0.068567284	0.976270831
CDR20291_1270	26	28	72	54	84	31	19	56	64	70	27	0.268621793	0.950690448
CDR20291_1271	4	2	14	25	11	10	6	19	2	5	7	0.650489722	0.933755431
CDR20291_1272	893	1489	1351	1600	1433	1488	1485	1458	1691	1538	1460	0.049602946	0.950690448
CDR20291_1273	721	1178	950	1073	1250	937	1284	1370	1071	1179	1173	-0.030792039	0.985483215

CDR20291_1274	35	78	65	67	56	35	37	33	26	45	67	-0.154865485	0.971144882
CDR20291_1275	0	1	3	0	0	0	0	0	2	0	1 NA		NA
CDR20291_1276	6	7	4	14	4	12	9	1	1	6	4 NA		NA
CDR20291_1277	70	152	79	119	283	152	57	98	217	132	90	0.278215321	0.925037296
CDR20291_1278	450	637	706	566	599	633	566	533	607	573	466	-0.311327264	0.520906145
CDR20291_1279	49	0	0	2	0	0	4	4	9	2	2 NA		NA
CDR20291_1280	1043	974	1007	1007	1208	1368	1308	1201	1194	994	1167	-0.569365664	0.022900237
CDR20291_1281	7	2	0	0	2	0	0	2	1	3	3 NA		NA
CDR20291_1282	21	20	46	11	22	10	33	12	26	14	83	-0.299396316	0.960001773
CDR20291_1283	62	45	2	17	39	83	12	18	37	0	60	-1.694498574	0.580117989
CDR20291_1284	1631	3002	2708	2662	2713	2956	2697	3054	2925	2336	2652	0.064381333	0.913212471
CDR20291_1285	3150	3316	2556	3269	3303	3339	3671	3510	3622	3197	3345	-0.627590066	0.000214622
CDR20291_1286	1209	1220	954	1207	1076	1123	1346	1043	1102	951	1355	-0.788569851	0.000483742
CDR20291_1287	5967	9132	8316	7956	8951	8209	9492	8491	9266	8511	8745	-0.15496741	0.420415645
CDR20291_1288	1932	2875	2483	2578	2437	2526	3084	2809	2610	2653	2973	-0.21547173	0.44440221
CDR20291_1289	16874	22017	19210	19621	20656	19189	21883	21740	21449	18736	20512	-0.419334006	0.000119528
CDR20291_1290	217	337	268	217	230	380	377	362	347	294	296	-0.184522334	0.873157907
CDR20291_1291	1116	1750	1674	1436	1459	1600	1649	1273	1631	1595	1224	-0.245352663	0.548079437
CDR20291_1292	1004	1973	1650	1628	1568	1704	1964	1612	1755	1623	1425	0.050321067	0.950690448
CDR20291_1293	533	935	792	896	915	785	922	946	685	711	655	-0.071970067	0.950690448
CDR20291_1294	1026	2007	1918	1544	1807	1517	1975	1932	1870	1464	1841	0.099413029	0.868034697
CDR20291_1295	3338	6080	6658	6180	6474	6292	6442	5811	5303	5719	6153	0.173703713	0.514944774
CDR20291_1296	362	694	822	811	724	758	685	637	624	731	773	0.307571675	0.516608254
CDR20291_1297	3	4	2	0	0	1	2	0	1	2	3 NA		NA
CDR20291_1298	0	2	0	1	0	0	3	1	2	3	0 NA		NA
CDR20291_1299	5	0	1	0	1	0	3	1	0	1	1 NA		NA
CDR20291_1300	1	0	0	0	0	0	0	0	1	1	1 NA		NA
CDR20291_1300;													
CDR20291_1301	0	1	0	0	0	0	0	0	0	0	0 NA		NA
CDR20291_1301	2	31	6	7	6	9	2	3	43	36	17	2.309055162	0.566682029

CDR20291_1301;													
CDR20291_1302	531	695	724	833	856	1049	793	986	1030	647	903	-0.01815123	0.993056754
CDR20291_1302	667	1423	1135	1277	1414	1369	1491	1276	1179	1216	1394	0.281142998	0.353493983
CDR20291_1303	6	4	3	3	5	1	7	1	9	13	4 NA	NA	
CDR20291_1304	5	6	8	1	2	3	2	0	9	5	4 NA	NA	
CDR20291_1305	61	142	83	147	56	130	110	103	63	110	103	0.082630497	0.986784307
CDR20291_1306	692	1080	1028	881	1168	1111	934	831	865	890	1057	-0.191034163	0.702648248
CDR20291_1307	562	1110	1066	1214	1392	1149	1066	1161	1037	1048	1202	0.327801756	0.343160513
CDR20291_1308	1568	3130	2564	2586	2935	2596	2846	3170	3219	2812	2450	0.15225155	0.688284658
CDR20291_1309	531	629	680	748	791	805	721	897	869	729	881	-0.152359617	0.836500108
CDR20291_1310	2166	4566	4186	4239	4637	4053	4883	5015	4207	4066	4943	0.34830317	0.062852616
CDR20291_1311	95	272	235	283	257	225	240	203	209	239	287	0.669257728	0.223667245
CDR20291_1312	65	109	96	109	130	99	108	99	80	53	29	-0.216017388	0.949343678
CDR20291_1313	228	307	298	489	210	370	508	464	305	277	285	-0.076880103	0.97352847
CDR20291_1313;													
CDR20291_1314	9	13	0	8	0	1	0	0	3	0	9 NA	NA	
CDR20291_1314	126	363	244	281	252	211	292	295	285	282	329	0.470031001	0.480253063
CDR20291_1315	1954	1815	2247	1823	1741	1672	2130	1699	1898	1938	1718	-0.763351578	0.000108301
CDR20291_1316	261	405	277	324	373	373	455	334	315	378	357	-0.241465472	0.719868228
CDR20291_1317	3651	6845	6628	6044	6106	6244	6529	5546	6148	5786	6505	0.073392182	0.856362603
CDR20291_1318	547	1419	1383	1189	1097	1093	1307	1042	1221	1491	865	0.448394496	0.294422057
CDR20291_1319	4	0	7	6	0	0	2	0	2	4	1 NA	NA	
CDR20291_1320	974	1313	1395	1326	915	1316	1354	1611	1439	1255	1327	-0.253883004	0.613726455
CDR20291_1321	208	313	269	264	257	282	293	409	367	389	242	-0.128739199	0.938592403
CDR20291_1322	578	1292	992	986	1104	949	1064	1010	942	1047	970	0.141406667	0.796594216
CDR20291_1323	1150	1376	1456	1513	1724	1710	2027	1637	1585	1788	1809	-0.167868681	0.708242856
CDR20291_1324	1305	2071	1469	1986	2167	1878	2378	2188	2018	1701	1974	-0.098545271	0.881904062
CDR20291_1325	5299	8306	6523	8638	8320	8582	9626	9084	9168	7924	9385	-0.009084548	0.993056754
CDR20291_1326	59	199	215	178	218	149	176	140	189	159	185	0.916398027	0.11430829
CDR20291_1327	49	92	131	90	121	144	137	89	69	101	110	0.444740385	0.724228607

CDR20291_1328	92	163	125	138	169	167	150	227	131	196	186	0.147157033	0.946579027
CDR20291_1329	139	31	0	32	0	18	13	15	34	33	39	-3.381862844	0.294422057
CDR20291_1330	573	999	955	997	1120	759	1069	854	786	928	670	-0.0268102	0.993056754
CDR20291_1331	183	92	177	66	96	47	68	35	38	70	41	-2.021975088	0.035107687
CDR20291_1332	5	23	34	21	34	72	8	17	19	2	32	1.689106975	0.577435607
CDR20291_1333	909	1388	1193	1383	1602	1450	1546	1399	1179	1672	1145	-0.080011307	0.935667015
CDR20291_1334	14	97	142	149	41	87	97	115	93	41	41	1.991748609	0.078582823
CDR20291_1335	10	35	26	19	58	13	33	41	37	39	61	1.156141507	0.592746166
CDR20291_1336	7	2	2	1	0	3	1	3	2	2	4	NA	NA
CDR20291_1337	1453	2483	2351	2196	2134	2167	2564	2464	2134	2249	2105	-0.046812942	0.950690448
CDR20291_1338	3609	6007	5548	5821	6050	5787	6657	6182	6051	5708	5359	0.013098287	0.988538891
CDR20291_1339	5095	6995	2473	7999	4886	6108	9047	7415	8229	6180	8775	-0.283013733	0.892541128
CDR20291_1340	2010	3107	1099	3385	2026	2660	3485	3376	3209	2746	3431	-0.195569114	0.935800108
CDR20291_1341	2159	4438	3913	4104	3925	4302	5237	4723	4754	3899	4405	0.315902014	0.127380122
CDR20291_1342	29	52	13	43	20	49	23	16	24	33	10	-0.73381806	0.798544553
CDR20291_1343	34	79	51	58	115	73	141	100	51	54	102	0.567917765	0.726328732
CDR20291_1344	2179	5218	4772	4739	5491	4572	6795	6329	5421	4857	4563	0.573173553	0.006694309
CDR20291_1345	15817	21901	18516	21222	22065	22675	24748	23142	22960	21823	21249	-0.222200571	0.222836892
CDR20291_1346	4641	6783	5847	6188	7014	6345	7511	7015	6379	6242	6718	-0.191749029	0.349477223
CDR20291_1347	194	416	225	292	244	214	255	162	225	197	245	-0.350427895	0.725765759
CDR20291_1348	3160	4357	5250	4329	4612	4379	4477	5195	4671	4714	3822	-0.16217162	0.65915918
CDR20291_1349	105	278	285	207	230	201	204	216	191	134	263	0.372451028	0.700659075
CDR20291_1350	90	174	137	167	138	138	110	101	122	138	88	-0.152080203	0.950690448
CDR20291_1351	1073	2023	1497	1914	2228	2080	1928	2137	2123	1701	2370	0.198318097	0.660688328
CDR20291_1352	4	1	0	1	1	2	1	1	6	2	5	NA	NA
CDR20291_1353	1086	1132	1150	1343	1310	1413	1421	1494	1263	1170	1295	-0.440957157	0.072794241
CDR20291_1354	13407	19161	17718	18524	21411	21732	23046	21940	20383	19449	20875	-0.093262389	0.771278119
CDR20291_1355	68	117	176	124	166	173	196	72	105	139	113	0.320480412	0.854700031
CDR20291_1356	7	23	34	25	9	24	19	9	47	15	0	0.850759091	0.860579883
CDR20291_1357	63	157	100	121	124	157	112	104	70	118	114	0.202229191	0.927516569

CDR20291_1358	132	168	238	232	268	262	332	235	209	151	202	0.095377743	0.963999943
CDR20291_1359	239	314	389	352	401	426	490	566	346	481	414	0.107729515	0.949163075
CDR20291_1360	15	20	37	86	59	46	76	50	39	88	84	1.272248732	0.444440221
CDR20291_1361	36	63	58	55	24	77	60	57	64	61	77	0.029867315	0.993056754
CDR20291_1362	57	46	51	72	32	32	51	93	35	24	33	-0.979778146	0.549679025
CDR20291_1363	490	714	550	787	746	818	726	635	751	698	729	-0.152920434	0.824873147
CDR20291_1364	7121	13847	12880	12882	12701	13753	13902	12639	13102	12391	12876	0.179562646	0.209540809
CDR20291_1365	377	525	595	544	494	795	661	577	688	722	588	0.017316077	0.993056754
CDR20291_1366	500	383	607	622	780	409	665	603	537	739	513	-0.467576396	0.482796118
CDR20291_1367	0	1	0	0	0	6	1	0	0	3	0	NA	NA
CDR20291_1368	3	2	0	0	0	2	1	0	0	0	4	NA	NA
CDR20291_1369	3030	6216	5554	4545	4872	5419	4778	4754	4148	4832	4577	0.014484134	0.993056754
CDR20291_1370	8	1	16	6	12	5	9	4	5	10	5	NA	NA
CDR20291_1371	3400	6382	5229	5442	5862	5818	6801	6642	6413	6619	6299	0.155510293	0.629238645
CDR20291_1372	11124	18514	17087	17306	19195	18344	20581	19904	19692	18957	19824	0.068160285	0.847322651
CDR20291_1373	7	3	7	4	11	16	12	10	8	8	5	NA	NA
CDR20291_1374	424	618	613	411	454	591	641	586	608	517	597	-0.290734572	0.600248436
CDR20291_1375	590	120	99	132	125	63	71	96	90	92	122	-3.241738578	2.95E-14
CDR20291_1376	6319	10425	8811	9943	9476	10462	11577	11350	11023	9311	10416	0.001350981	0.997856314
CDR20291_1377	1183	2093	1593	1597	1821	1818	1924	1855	1640	1731	1912	-0.096335101	0.854779166
CDR20291_1378	13	0	3	2	1	2	6	0	2	4	10	NA	NA
CDR20291_1379	388	432	420	472	467	487	361	465	387	342	398	-0.5733261	0.139259399
CDR20291_1380	178	291	179	181	314	252	244	196	186	235	161	-0.371945593	0.686541309
CDR20291_1381	202	186	145	245	292	242	179	231	262	258	347	-0.454491284	0.638048331
CDR20291_1381;													
CDR20291_1382	0	0	1	0	0	0	2	0	0	0	0	NA	NA
CDR20291_1382	1393	1859	1952	2516	1907	2037	2604	2414	2592	1864	2480	-0.025368008	0.988538891
CDR20291_1383	182	437	450	398	451	504	412	336	466	396	250	0.471595172	0.462982333
CDR20291_1384	90	169	140	180	128	226	164	132	166	179	184	0.192816094	0.912272704
CDR20291_1385	5	2	1	2	2	1	4	0	3	1	3	NA	NA

CDR20291_1386	4	0	2	1	5	3	6	0	3	5	5 NA	NA	
CDR20291_1387	1566	2893	2632	2500	2569	2635	2609	2228	2548	2629	2438	0.014695325	0.993056754
CDR20291_1388	133	409	294	324	406	293	380	377	253	248	382	0.637108719	0.246891492
CDR20291_1389	399	595	468	600	552	657	667	527	539	578	615	-0.160643475	0.813710838
CDR20291_1390	4801	9157	7485	8700	9258	8082	10851	9671	9597	8219	8648	0.199626868	0.46466458
CDR20291_1391	775	1307	342	1087	882	1215	1178	721	1152	767	1412	-0.326884413	0.876031447
CDR20291_1392	428	570	345	532	554	567	410	672	411	335	593	-0.478916461	0.480253063
CDR20291_1393	0	0	0	0	1	0	0	0	0	0	0 NA	NA	
CDR20291_1394	2359	4415	3450	3581	3874	3730	4305	4458	4088	4217	4853	0.097024415	0.859194195
CDR20291_1395	58	210	193	187	168	214	185	154	153	87	143	0.843359971	0.285671901
CDR20291_1396	82	186	170	117	119	136	226	76	68	99	94	-0.052848357	0.993056754
CDR20291_1397	90	173	133	185	163	169	176	116	147	125	121	0.043516447	0.993056754
CDR20291_1398	66	197	50	98	112	146	105	132	141	109	122	0.173349259	0.950690448
CDR20291_1399	10	28	0	0	16	15	19	6	12	20	2	-0.476819813	0.960001773
CDR20291_1400	53	82	36	52	69	34	44	21	38	74	64	-0.741011847	0.672058271
CDR20291_1401	26	81	137	75	53	48	66	38	64	44	47	0.631003066	0.738807105
CDR20291_1402	8	5	5	3	1	15	11	2	3	7	1 NA	NA	
CDR20291_1403	263	434	294	450	404	467	331	468	226	358	429	-0.143417232	0.930912836
CDR20291_1404	8163	10175	9146	9955	10188	11435	11863	11694	11704	10224	10739	-0.308125214	0.085809611
CDR20291_1405	28397	49835	46248	46378	52794	47329	53749	50484	50493	46345	47763	0.09092848	0.655134316
CDR20291_1406	4731	7705	7695	7029	7045	7851	8003	7769	7073	6934	7282	-0.046789596	0.917672981
CDR20291_1407	981	2292	1889	2100	2490	2057	2213	2176	2362	2267	2403	0.482346691	0.016642553
CDR20291_1408	1439	2662	2443	2087	2542	2592	2449	2254	2634	2035	2505	0.049146021	0.950690448
CDR20291_1409	4183	6785	6450	5924	5918	6850	6766	6522	7400	6278	6251	-0.060582489	0.900008427
CDR20291_1410	6510	9876	9624	8574	8233	10767	9176	9854	10729	9301	10037	-0.135703998	0.691531118
CDR20291_1411	2699	4750	4250	4579	4320	4869	4626	4558	4764	4775	4725	0.077695029	0.849060986
CDR20291_1412	1	4	0	0	2	0	3	2	0	1	0 NA	NA	
CDR20291_1413	476	653	601	610	506	712	590	568	610	434	682	-0.374182267	0.44440221
CDR20291_1414	27	17	13	48	43	26	30	12	78	40	7	-0.478840824	0.918573372
CDR20291_1415	20	22	16	8	12	30	43	4	6	4	6	-1.129626092	0.749146495

CDR20291_1416	65	60	100	78	101	87	85	72	77	131	60	-0.305439317	0.873836967
CDR20291_1417	4708	7708	6592	7263	7494	7823	8445	8011	8027	7125	8207	0.003733942	0.995043151
CDR20291_1418	790	1282	1183	1034	1412	1324	1429	1586	1130	1134	1215	-0.013503181	0.993056754
CDR20291_1419	593	874	825	1045	1135	1123	856	962	798	1055	1046	0.016512786	0.993056754
CDR20291_1420	10	16	10	26	48	49	53	1	44	36	4	0.812211697	0.860579883
CDR20291_1421	206	371	505	530	572	437	308	556	419	377	563	0.476160115	0.501671327
CDR20291_1422	6	2	5	1	0	0	0	0	6	1	2	NA	NA
CDR20291_1423	7	2	0	8	3	0	6	5	7	13	3	NA	NA
CDR20291_1424	9	4	4	2	3	3	4	3	5	1	5	NA	NA
CDR20291_1425	10	59	12	19	42	40	22	16	17	22	11	0.669639299	0.859194195
CDR20291_1426	578	600	849	572	827	828	739	806	855	715	673	-0.330483447	0.501722528
CDR20291_1427	3	9	3	1	0	0	10	0	1	2	6	NA	NA
CDR20291_1428	14	9	27	9	36	41	39	32	21	4	13	0.009209204	0.997856314
CDR20291_1429	209	528	489	518	517	546	665	744	499	640	523	0.740432928	0.041487261
CDR20291_1430	149	238	209	213	274	216	346	255	172	212	249	-0.02549848	0.993056754
CDR20291_1431	1030	1498	995	1383	1196	1354	1730	1402	1630	1240	1861	-0.229252864	0.697570331
CDR20291_1431;													
CDR20291_1432	0	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1432	33	35	51	47	71	32	42	96	67	31	131	0.172625611	0.971144882
CDR20291_1433	15	4	7	1	2	1	9	0	3	4	6	NA	NA
CDR20291_1434	209	417	370	227	273	361	307	316	311	310	401	-0.043991926	0.987180179
CDR20291_1435	2	0	4	2	1	0	3	0	1	2	0	NA	NA
CDR20291_1436	69	149	139	147	116	112	138	103	195	261	178	0.464492087	0.711525217
CDR20291_1437	8	1	0	0	1	1	2	1	3	0	4	NA	NA
CDR20291_1437;													
CDR20291_1438	4	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1438	0	0	1	0	2	1	6	1	1	1	1	NA	NA
CDR20291_1439	2761	4355	3708	3664	4387	4172	5234	4782	4479	3763	4704	-0.054875573	0.943731346
CDR20291_1440	183	249	277	223	317	335	224	232	272	241	152	-0.237018017	0.849890843
CDR20291_1441	13	6	7	1	5	1	6	20	8	7	6	NA	NA

CDR20291_1442	2	0	2	11	0	2	1	0	5	3	2 NA	NA
CDR20291_1443	283	568	487	467	427	494	379	510	431	517	422	0.035807401 0.987180179
CDR20291_1444	1	0	1	0	1	0	9	0	1	0	2 NA	NA
CDR20291_1445	120	331	329	258	179	256	315	263	397	265	219	0.528071902 0.501722528
CDR20291_1446	343	925	984	825	866	897	814	665	730	653	681	0.528958626 0.154911805
CDR20291_1447	1101	2470	1980	1825	1917	1963	2070	2306	2166	2012	2381	0.238113536 0.489896598
CDR20291_1448	305	799	854	754	717	810	782	746	709	709	636	0.602081566 0.026220345
CDR20291_1449	891	1691	1086	1172	1343	1260	1355	1336	1113	1143	1227	-0.187591445 0.697570331
CDR20291_1450	17	62	29	27	15	24	32	16	12	33	67	0.200219308 0.97352847
CDR20291_1451	2211	3296	2651	3049	3297	3280	3217	3545	3104	2996	3180	-0.183830603 0.514780329
CDR20291_1452	0	2	0	1	0	1	2	0	0	0	1 NA	NA
CDR20291_1453	0	2	2	1	1	1	5	1	0	1	2 NA	NA
CDR20291_1454	520	738	635	663	577	690	874	673	800	598	734	-0.276765203 0.562428345
CDR20291_1455	136	301	124	178	224	215	265	244	177	84	291	-0.079323579 0.983551317
CDR20291_1456	2	2	2	1	0	3	7	0	0	2	0 NA	NA
CDR20291_1457	769	992	893	710	982	916	1004	1067	805	879	1061	-0.425138129 0.195506255
CDR20291_1458	45	66	92	39	70	46	128	135	49	75	96	0.118753462 0.977706637
CDR20291_1459	1	0	0	0	0	0	0	0	3	0	2 NA	NA
CDR20291_1460	157	180	342	282	207	250	315	315	341	191	251	0.06895975 0.976270831
CDR20291_1461	23	58	64	110	104	69	57	107	94	226	104	1.426725892 0.244249346
CDR20291_1462	1637	3136	2780	2835	3164	3447	3152	2610	2632	2236	3097	0.127969067 0.798727741
CDR20291_1463	8	27	7	41	18	23	12	9	39	31	16	0.788170785 0.839139708
CDR20291_1464	610	1091	962	1070	1070	1599	1364	1079	934	1203	1170	0.21992719 0.702648248
CDR20291_1465	1	2	3	0	0	3	1	0	2	2	2 NA	NA
CDR20291_1466	260	438	276	380	417	452	483	427	431	350	474	-0.035397243 0.988538891
CDR20291_1467	714	1044	1003	1060	1224	1269	1252	1079	1198	1087	1267	-0.014439171 0.993056754
CDR20291_1468	3454	5779	5736	5366	5885	5906	6329	5522	5996	5749	5708	0.047520404 0.912272704
CDR20291_1468;												
CDR20291_1469	1838	3223	2947	2804	3169	3052	3152	2902	2983	2792	2724	-0.005606412 0.993056754
CDR20291_1470	221	443	509	350	282	426	357	347	245	346	343	0.025301162 0.993056754

CDR20291_1471	140	324	295	208	290	370	236	220	224	203	143	0.141600568	0.950690448
CDR20291_1472	138	261	148	258	202	243	318	250	179	256	194	0.041288143	0.993056754
CDR20291_1473	108	179	280	159	194	186	122	170	213	82	149	-0.016301886	0.995043151
CDR20291_1474	143	191	284	194	172	182	73	71	113	101	133	-0.611131298	0.672058271
CDR20291_1475	8	23	3	39	16	5	29	9	8	19	4	0.254527667	0.97636803
CDR20291_1476	2905	2004	2199	2426	1635	1918	1833	2360	2389	1489	2278	-1.198104309	1.05E-06
CDR20291_1477	62	141	68	74	108	91	109	98	83	59	171	-0.01205053	0.997856314
CDR20291_1478	4	1	1	0	0	1	0	0	1	0	6 NA		NA
CDR20291_1479	153	184	187	231	242	321	196	174	256	118	206	-0.234129012	0.876031447
CDR20291_1480	3	16	20	0	5	8	2	2	3	2	22 NA		NA
CDR20291_1481	436	813	584	787	524	629	883	691	700	682	935	0.029537584	0.993056754
CDR20291_1482	5667	9527	7937	8890	9598	9550	10269	9792	9125	8709	11071	0.03714868	0.958032231
CDR20291_1483	188	207	219	178	169	291	195	232	244	194	269	-0.473098456	0.531435856
CDR20291_1484	116	172	145	187	140	145	214	185	156	77	58	-0.355445031	0.844011217
CDR20291_1485	286	459	392	490	493	336	383	438	373	302	458	-0.171030389	0.863239689
CDR20291_1486	38	113	120	56	83	71	52	52	77	66	33	0.228245993	0.950690448
CDR20291_1487	12	8	23	12	28	5	8	0	21	13	2	-0.695888866	0.920570983
CDR20291_1488	189	321	296	379	236	222	343	305	230	220	349	-0.080686789	0.971144882
CDR20291_1489	557	288	553	357	377	399	429	503	466	314	340	-1.16751346	0.002247102
CDR20291_1490	139	281	197	227	276	99	283	267	255	379	319	0.197549821	0.927516569
CDR20291_1491	4	5	2	2	2	3	0	0	2	1	0 NA		NA
CDR20291_1492	3	0	5	0	3	1	6	0	4	0	2 NA		NA
CDR20291_1493	75	145	155	197	157	157	149	206	183	197	171	0.500054323	0.560277281
CDR20291_1494	561	839	996	933	957	1091	1325	919	777	883	869	0.071699703	0.950690448
CDR20291_1495	250	151	59	135	179	229	203	200	158	159	219	-1.266027758	0.059513643
CDR20291_1496	39	37	32	23	22	7	49	29	1	1	0	-1.675487012	0.658267402
CDR20291_1497	3	2	0	0	0	1	7	0	7	0	2 NA		NA
CDR20291_1498	55	90	174	64	66	64	101	82	120	59	99	0.04047971	0.993056754
CDR20291_1499	4	31	31	7	34	27	0	36	20	20	21	1.808098905	0.579448982
CDR20291_1500	3064	5755	5818	5450	6159	6539	6470	5926	6296	5420	6635	0.280666009	0.113434424

CDR20291_1501	8	40	14	12	20	25	57	5	26	19	10	0.790930345	0.849060986
CDR20291_1501;													
CDR20291_1502	0	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1502	29	144	62	59	105	69	50	49	100	53	76	0.698934099	0.659479267
CDR20291_1503	0	0	1	1	1	4	1	0	1	1	1	NA	NA
CDR20291_1504	1060	1475	1197	1537	1585	1189	1910	1332	1407	1378	1215	-0.277590738	0.527147028
CDR20291_1505	167	163	270	239	129	255	196	252	210	132	163	-0.43091636	0.681968239
CDR20291_1505;													
CDR20291_1506	0	2	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1506	173	204	284	321	190	292	448	428	188	303	326	0.087232919	0.97352847
CDR20291_1507	160	268	213	209	109	227	174	299	194	198	273	-0.261106601	0.859931648
CDR20291_1508	392	773	648	822	763	661	936	644	928	733	808	0.276481338	0.599381791
CDR20291_1509	101	65	60	53	76	86	109	93	72	44	72	-1.175255653	0.14096462
CDR20291_1510	62	46	53	148	109	156	127	154	70	99	161	0.160680837	0.96454661
CDR20291_1511	507	1290	1259	1336	1317	1129	1286	1170	1076	1073	1409	0.585036151	0.016418748
CDR20291_1512	165	227	213	185	217	210	223	147	186	139	166	-0.489408749	0.501671327
CDR20291_1513	429	898	773	726	905	902	1080	995	909	859	855	0.351203549	0.311082618
CDR20291_1514	512	771	764	869	842	838	852	965	748	834	739	-0.014900603	0.993056754
CDR20291_1515	118	307	232	242	222	260	353	319	259	219	311	0.5040152	0.44440221
CDR20291_1516	203	381	291	306	327	343	244	261	246	381	400	-0.047921823	0.986784307
CDR20291_1517	211	336	395	367	253	420	314	271	204	260	252	-0.155896254	0.927516569
CDR20291_1518	1331	2409	2546	2086	2207	2487	2482	2464	2468	2259	2475	0.144064554	0.654654066
CDR20291_1519	3435	7578	8089	7528	8214	8438	9791	8230	8023	7405	7673	0.536038885	5.36E-05
CDR20291_1520	167	245	222	333	464	235	380	327	198	293	306	0.145974824	0.943731346
CDR20291_1521	891	1769	1626	1724	1702	1685	1502	2010	2003	1965	1351	0.263440492	0.56444917
CDR20291_1522	1388	2508	2465	2395	2739	2484	2794	2326	2567	2085	2542	0.142428951	0.655237905
CDR20291_1523	1743	3059	2979	2730	2883	2478	3483	2662	2844	2289	2686	-0.013496524	0.993056754
CDR20291_1524	6	0	2	1	1	1	3	0	4	2	3	NA	NA
CDR20291_1525	7	6	17	4	14	13	9	12	7	10	13	-0.112734134	0.993056754
CDR20291_1526	512	883	887	999	823	941	1085	812	963	772	1124	0.159599623	0.803829682

CDR20291_1527	1680	3417	2742	2945	2836	3418	2706	2762	2959	2906	2745	0.11041743	0.819738218
CDR20291_1528	1263	1611	1547	1473	1405	1623	1813	1440	1422	1300	1472	-0.442939265	0.032804253
CDR20291_1529	2	0	2	3	2	1	0	0	4	4	5 NA		NA
CDR20291_1530	506	668	897	869	923	701	800	779	618	709	743	-0.090505751	0.938592403
CDR20291_1531	3999	8265	6958	7229	7509	7685	8095	8180	7903	8199	8440	0.273463904	0.128003083
CDR20291_1532	4576	7911	7119	7577	7942	8341	7991	8779	7585	7913	7750	0.087199943	0.79685205
CDR20291_1533	3418	5556	5069	5443	5849	6154	6674	6173	6032	5382	6055	0.071815674	0.863239689
CDR20291_1534	5402	9043	8087	9307	10453	9805	10712	9855	9739	9431	9717	0.131797401	0.646322042
CDR20291_1534;													
CDR20291_1535	38	5	13	36	36	10	10	10	24	20	15	-1.774715929	0.402197346
CDR20291_1535	24687	41610	37384	40616	41896	38142	43870	43715	46617	37683	45058	0.055103661	0.913212471
CDR20291_1536	5206	7685	7115	7579	7938	8207	8524	8717	8316	7623	8482	-0.076376098	0.839139708
CDR20291_1537	3308	6108	5074	5425	5841	5591	6416	6573	6654	6121	6361	0.163267113	0.603555798
CDR20291_1538	7675	14666	13328	13452	14054	13321	14329	13320	13283	12491	13774	0.125802627	0.494072929
CDR20291_1538;													
CDR20291_1539	3	0	0	0	0	0	0	0	1	0	0 NA		NA
CDR20291_1539	1921	3541	3362	3320	3242	3177	3207	3046	2881	2846	3459	0.040989291	0.952891242
CDR20291_1540	768	1165	1309	1055	1072	1293	1301	1089	1069	940	1063	-0.136611392	0.806385533
CDR20291_1541	1192	2193	2187	2114	2161	1984	1998	1990	1812	1777	2100	0.070423201	0.9143943
CDR20291_1542	3272	5435	4113	5828	6370	5416	5980	5756	6684	5657	5738	0.1005803	0.863239689
CDR20291_1543	69	123	29	48	38	75	68	78	98	57	35	-0.795534438	0.638048331
CDR20291_1544	66	126	151	189	111	175	196	137	124	130	225	0.546659862	0.604921733
CDR20291_1545	2	4	2	2	1	2	4	0	4	0	2 NA		NA
CDR20291_1545;													
CDR20291_1546	1	0	1	0	0	0	0	0	0	0	0 NA		NA
CDR20291_1546	129	142	157	133	78	78	100	172	122	155	131	-0.717951037	0.471686815
CDR20291_1547	49	61	92	84	69	82	96	77	68	49	52	-0.126265349	0.971144882
CDR20291_1548	27	60	39	27	26	9	15	38	8	16	4	-0.859571172	0.808212267
CDR20291_1549	254	678	547	600	666	612	707	564	622	589	502	0.559651568	0.067374492
CDR20291_1550	1083	2844	2348	2455	2254	2504	2699	2583	2600	2318	1902	0.477482457	0.032049002

CDR20291_1551	64	92	72	111	76	83	121	103	175	99	48	-0.086543002	0.986784307
CDR20291_1552	10	9	6	0	1	4	7	33	4	0	2	NA	NA
CDR20291_1553	897	3135	2726	2905	3011	2820	2862	2667	2838	2828	2452	0.955616317	7.12E-11
CDR20291_1554	1	6	0	2	0	6	3	4	0	9	5	NA	NA
CDR20291_1555	319	484	302	350	398	421	417	365	306	284	358	-0.495151487	0.329335741
CDR20291_1556	91	145	168	136	116	180	166	160	91	108	65	-0.148929466	0.952891242
CDR20291_1557	883	1602	1367	1073	1291	1181	1411	1049	988	956	1031	-0.266771952	0.617278026
CDR20291_1558	4	1	7	6	0	1	12	15	21	18	14	NA	NA
CDR20291_1559	849	1143	718	1203	1110	1328	1450	1324	1418	1301	1323	-0.163368438	0.849865647
CDR20291_1560	204	367	331	271	426	324	289	355	342	330	318	0.017407807	0.993056754
CDR20291_1561	948	1789	1607	1612	1574	1725	1755	1602	1651	1516	1476	0.082432569	0.860579883
CDR20291_1562	22	23	19	31	10	14	8	20	13	20	24	-0.961856678	0.700659075
CDR20291_1563	61	137	171	94	60	98	103	71	129	127	108	0.151977378	0.959591583
CDR20291_1564	316	577	535	601	664	654	666	651	635	546	651	0.267509999	0.548079437
CDR20291_1565	21	59	44	3	9	55	50	20	28	9	65	-0.008651041	0.997856314
CDR20291_1566	157	455	254	340	232	328	184	424	347	238	333	0.299783229	0.813710838
CDR20291_1567	112	291	134	224	156	207	240	231	287	147	316	0.292848554	0.847322651
CDR20291_1568	269	498	462	574	432	754	584	773	738	438	631	0.429130179	0.533050378
CDR20291_1569	161	214	189	122	234	260	131	245	168	143	270	-0.404436017	0.711154714
CDR20291_1570	867	1070	1178	1253	991	1159	1444	1201	1385	1405	1344	-0.177877826	0.745339348
CDR20291_1571	8	24	19	10	9	1	15	5	8	12	7	-0.243536546	0.981577674
CDR20291_1572	8294	15783	12894	13193	14376	14236	16275	15427	14541	13716	14499	0.104375432	0.678983045
CDR20291_1573	557	790	1059	849	888	974	1133	853	728	1004	846	0.013181685	0.993056754
CDR20291_1574	166	161	221	176	110	138	247	128	147	169	85	-0.770199611	0.40914286
CDR20291_1575	3	5	1	1	1	0	3	1	4	0	2	NA	NA
CDR20291_1576	0	1	0	0	0	0	1	0	2	1	0	NA	NA
CDR20291_1577	879	1349	1193	1079	1182	1243	1329	1382	1436	1397	1125	-0.166852269	0.702648248
CDR20291_1578	38	94	79	77	127	165	99	143	144	64	92	0.808284824	0.494343351
CDR20291_1578;													
CDR20291_1579	1	0	0	0	0	2	0	0	0	0	0	NA	NA

CDR20291_1579	6353	9260	8329	9001	9079	9423	10936	9905	9946	9514	9339	-0.123671197	0.649381363
CDR20291_1580	217	192	310	257	286	131	167	250	241	228	303	-0.569177587	0.5257824
CDR20291_1581	166	156	167	137	216	157	174	130	154	124	120	-0.815408814	0.159422749
CDR20291_1582	81	114	162	114	65	86	101	93	159	125	172	-0.137779162	0.96068197
CDR20291_1583	1655	3592	3639	3637	3732	3186	3516	3323	2946	2812	2793	0.30351717	0.294422057
CDR20291_1584	6950	16740	16140	16396	16637	17572	18537	15965	17691	16966	19363	0.608338629	8.34E-07
CDR20291_1585	3266	9525	7806	8739	10152	10149	10563	9605	10248	10085	10916	0.882377091	3.81E-09
CDR20291_1586	16	17	7	11	5	1	16	18	19	8	4	-1.301470451	0.702648248
CDR20291_1586;													
CDR20291_1587	0	0	0	0	0	0	0	0	0	2	0	NA	NA
CDR20291_1587	443	741	692	634	628	703	851	916	677	730	723	0.019380608	0.993056754
CDR20291_1588	23	76	45	98	60	34	65	39	52	45	84	0.68092129	0.700659075
CDR20291_1589	3927	5905	5859	5595	6662	5881	6811	6078	6373	5476	6359	-0.065282707	0.864355684
CDR20291_1590	299	645	475	717	571	663	681	614	623	623	423	0.313712434	0.612068605
CDR20291_1591	143	191	28	64	43	73	68	53	65	55	70	-1.718144823	0.098545724
CDR20291_1592	1740	2973	2907	2830	3165	3021	3477	3210	3174	3054	3124	0.130197985	0.644226129
CDR20291_1593	4079	6126	5344	5408	5614	5506	5914	5573	5697	5139	5539	-0.246501611	0.063192981
CDR20291_1594	3269	3959	5447	4879	5075	4574	5681	4887	6059	3504	4192	-0.139440765	0.826227592
CDR20291_1595	31	42	68	14	12	2	24	63	68	23	71	-0.376742041	0.950690448
CDR20291_1596	17	27	11	31	11	5	20	17	36	6	57	-0.320154564	0.960001773
CDR20291_1597	250	320	263	298	57	33	436	359	287	306	241	-0.643889153	0.859194195
CDR20291_1598	52	51	85	66	19	5	86	120	86	41	47	-0.479641432	0.905101984
CDR20291_1599	305	415	244	297	382	266	460	269	237	305	287	-0.652835959	0.258665695
CDR20291_1600	11	18	14	11	4	28	7	7	12	15	11	-0.48807422	0.935667015
CDR20291_1601	71	238	242	190	156	290	236	241	128	165	137	0.809007144	0.320343498
CDR20291_1602	43	406	381	270	318	350	329	378	319	232	377	2.264475626	1.09E-08
CDR20291_1603	48	86	45	91	43	49	37	67	127	32	61	-0.288067523	0.933755431
CDR20291_1604	72	147	177	91	217	152	159	63	83	133	81	0.152579593	0.96010839
CDR20291_1605	59	77	68	81	119	110	213	73	74	91	94	0.051417671	0.993056754
CDR20291_1606	563	808	740	765	828	826	885	815	842	845	1137	-0.105830881	0.912272704

CDR20291_1607	6616	11154	8781	9535	9954	10606	12317	11036	10621	10189	8485	-0.067557645	0.912272704
CDR20291_1608	2661	5237	4669	4552	3808	4706	5056	4881	4964	4198	4890	0.119558067	0.749719855
CDR20291_1609	172	256	211	237	149	120	196	218	119	171	244	-0.537634197	0.592746166
CDR20291_1610	788	1545	1396	1284	1387	1443	1657	1605	1674	1241	1397	0.190832514	0.622721546
CDR20291_1611	552	1587	1492	1193	1409	1380	1261	1155	1222	1139	1422	0.564481076	0.029301932
CDR20291_1612	342	1021	861	654	643	827	762	721	842	824	794	0.517474697	0.159422749
CDR20291_1613	146	333	415	365	280	301	365	277	336	300	260	0.447947335	0.487466552
CDR20291_1614	147	394	191	335	299	342	259	229	346	256	203	0.256280488	0.839484518
CDR20291_1615	34	21	12	64	54	85	40	104	48	43	33	-0.129311104	0.986784307
CDR20291_1616	53	117	194	146	266	205	120	187	129	186	196	1.024824649	0.188859464
CDR20291_1617	723	959	975	988	1112	1086	1108	1178	1185	1084	1105	-0.122634569	0.821172043
CDR20291_1618	426	869	883	902	832	892	934	899	873	857	988	0.369194872	0.186793071
CDR20291_1619	2803	4858	3747	4582	5012	5536	5464	5156	4802	5122	5018	0.11450117	0.803988907
CDR20291_1620	1677	2426	2354	2360	2417	2797	2794	2593	2447	2133	2528	-0.133404515	0.687784799
CDR20291_1621	3	8	16	18	4	13	18	8	22	21	24	1.649162199	0.622721546
CDR20291_1622	17	53	70	48	34	47	41	34	36	43	22	0.635245913	0.760256481
CDR20291_1623	55	291	379	205	246	200	270	309	169	242	194	1.488088478	0.006496943
CDR20291_1624	140	429	437	268	347	331	310	195	348	309	224	0.491254109	0.56444917
CDR20291_1625	387	441	443	705	541	615	682	524	655	604	556	-0.122737693	0.918573372
CDR20291_1626	359	1556	1255	1178	1287	1185	1103	1179	1361	835	1042	1.037022786	0.000120013
CDR20291_1627	1282	2199	2278	1875	2383	2441	2473	2313	2304	2108	2405	0.128802215	0.708242856
CDR20291_1628	417	747	843	721	615	947	811	687	620	616	668	0.102944796	0.927516569
CDR20291_1629	6670	9356	7486	8648	8270	8918	8429	8913	8804	7220	8434	-0.359133248	0.025547108
CDR20291_1630	571	1343	1081	1289	1142	1259	1288	1196	1261	1076	1576	0.432280811	0.156731416
CDR20291_1631	652	1482	1301	1120	1349	1289	1237	1234	1215	1187	1281	0.261403912	0.410548268
CDR20291_1632	4	7	3	14	0	4	5	2	3	14	2 NA	NA	NA
CDR20291_1633	239	398	493	430	595	597	459	419	391	474	437	0.275017734	0.693243021
CDR20291_1634	294	549	399	472	410	535	478	526	511	443	597	0.043487379	0.980253983
CDR20291_1635	492	901	823	681	882	914	721	695	930	866	799	0.040360158	0.975090828
CDR20291_1636	442	973	636	669	1021	918	776	717	772	792	637	0.138103515	0.879372027

CDR20291_1637	144	418	328	285	259	393	325	410	271	325	320	0.511495337	0.417304447
CDR20291_1638	382	563	298	447	341	653	679	498	523	558	683	-0.244770611	0.830240574
CDR20291_1639	346	431	357	457	442	476	423	379	403	422	363	-0.435411669	0.304327398
CDR20291_1640	137	249	286	350	382	345	472	528	311	406	307	0.708544906	0.247774766
CDR20291_1641	40	105	83	137	111	146	99	64	146	113	173	0.860890985	0.437675307
CDR20291_1642	829	1401	890	830	1132	1207	1289	1206	1146	1264	996	-0.247470268	0.646322042
CDR20291_1643	262	549	625	634	730	817	602	432	404	523	579	0.47107572	0.456042921
CDR20291_1644	143	376	391	353	375	481	369	200	194	338	226	0.508253039	0.600248436
CDR20291_1645	1216	3728	3298	3076	3338	3755	3268	3054	3195	2925	3846	0.761557308	8.37E-06
CDR20291_1646	743	1463	1067	1269	1100	1523	1569	1339	1488	1297	1633	0.1871475	0.722469857
CDR20291_1647	1	3	0	0	4	1	3	0	3	0	0	NA	NA
CDR20291_1648	45	59	52	47	67	61	76	63	39	21	6	-0.584778954	0.839484518
CDR20291_1649	11	4	13	4	5	5	6	1	4	14	2	NA	NA
CDR20291_1650	205	278	340	355	347	368	399	332	379	269	405	0.060046896	0.971144882
CDR20291_1651	10	3	2	12	8	14	11	11	28	15	16	-0.432622442	0.950690448
CDR20291_1652	61	98	126	40	62	84	80	76	139	43	31	-0.352961046	0.906511793
CDR20291_1653	577	1037	850	1096	992	1129	1052	690	860	942	758	0.005466584	0.997856314
CDR20291_1654	191	318	297	392	191	346	302	330	297	248	488	0.052264782	0.987180179
CDR20291_1655	30	56	80	34	84	69	72	38	43	127	51	0.429836657	0.864355684
CDR20291_1656	60	76	100	114	150	183	100	130	141	74	144	0.314574188	0.860579883
CDR20291_1657	532	854	814	761	1068	908	817	960	859	699	1093	0.03141919	0.987159166
CDR20291_1658	5786	10104	8752	9449	9654	9483	10899	10754	10055	9438	9294	0.058257324	0.882458564
CDR20291_1659	201	605	754	574	602	690	500	441	682	419	603	0.847268745	0.036715877
CDR20291_1660	280	943	684	701	605	678	748	482	438	456	836	0.528756881	0.425139084
CDR20291_1661	85	145	111	107	81	89	179	102	99	103	111	-0.297313354	0.854779166
CDR20291_1662	4	1	0	1	3	2	6	0	3	3	1	NA	NA
CDR20291_1663	162	391	308	311	230	230	293	286	268	290	320	0.155160511	0.912272704
CDR20291_1664	3122	5536	3975	4517	4892	4650	5682	4847	4962	4480	5207	-0.058847988	0.927516569
CDR20291_1665	4	35	1	31	30	21	20	11	7	0	25	1.468787166	0.729532204
CDR20291_1666	413	921	633	604	759	657	576	615	657	597	493	-0.044054167	0.9815929

CDR20291_1667	1487	2725	2581	2517	2893	2771	2978	2840	2667	2710	2948	0.194190386	0.419466279
CDR20291_1668	1246	2267	2141	2303	2340	2530	2484	2304	2450	1905	2110	0.173152232	0.592746166
CDR20291_1669	6	21	12	7	6	5	14	14	4	10	20	0.210644731	0.986063667
CDR20291_1670	139	307	283	286	272	226	341	202	274	226	264	0.246050945	0.793264885
CDR20291_1671	3	23	7	5	2	7	3	11	9	14	2 NA		NA
CDR20291_1672	1357	2634	2671	2902	2584	2906	2817	2765	2524	2267	3236	0.310038995	0.26594656
CDR20291_1673	263	385	335	362	384	570	372	444	345	322	271	-0.173683465	0.882953381
CDR20291_1674	8	3	0	3	5	1	4	1	1	15	3 NA		NA
CDR20291_1675	7	5	2	5	2	2	4	1	4	0	7 NA		NA
CDR20291_1676	5	2	0	1	0	2	3	0	4	3	3 NA		NA
CDR20291_1677	3	0	2	3	2	2	2	0	2	0	1 NA		NA
CDR20291_1678	10	3	1	4	4	4	2	0	6	4	4 NA		NA
CDR20291_1679	3255	5624	4507	5103	5210	5678	5721	5479	5393	4537	5381	-0.00766171	0.993056754
CDR20291_1680	38	83	42	31	36	60	52	76	61	56	15	-0.274054991	0.948078774
CDR20291_1681	22	74	28	22	34	23	69	23	42	49	17	0.081671943	0.993056754
CDR20291_1682	298	458	608	364	461	409	503	550	409	447	483	-0.044307427	0.983498093
CDR20291_1683	0	2	2	0	0	0	0	2	1	2	2 NA		NA
CDR20291_1684	3	1	1	0	2	1	2	1	4	1	1 NA		NA
CDR20291_1685	519	1151	928	875	855	1152	915	678	916	1027	773	0.137813384	0.877099841
CDR20291_1686	111	134	136	172	182	113	165	217	169	197	140	-0.146751009	0.948078774
CDR20291_1687	277	570	461	386	455	529	560	512	331	533	374	0.065198765	0.971144882
CDR20291_1688	2	2	4	0	8	3	6	0	2	0	1 NA		NA
CDR20291_1689	0	1	1	0	0	3	0	0	0	0	1 NA		NA
CDR20291_1690	3	0	0	0	1	1	1	0	1	1	0 NA		NA
CDR20291_1691	11	15	66	49	20	34	61	25	55	35	2	1.019664299	0.728556335
CDR20291_1692	529	1463	1398	1353	1215	1473	1288	1247	1096	1250	1406	0.619864441	0.00946131
CDR20291_1693	1832	2902	3082	3176	3222	3486	3667	3562	3691	3733	4038	0.217814068	0.55667658
CDR20291_1694	1130	1800	1751	1811	1841	1860	1942	1930	1705	1637	2173	0.008068154	0.993056754
CDR20291_1695	1709	3158	2836	2707	2488	2799	2972	2731	2876	2883	2593	0.01532576	0.993013205
CDR20291_1696	9147	15480	12888	13786	13916	14802	16865	15766	15080	14973	14998	-0.000583897	0.997856314

CDR20291_1697	43	61	52	30	31	49	16	96	103	55	39	-0.388996614	0.913212471
CDR20291_1698	1205	2015	1837	1806	1709	1625	2462	1928	2196	1685	1978	-0.026864467	0.986677932
CDR20291_1699	3258	5332	4564	4922	5095	5184	5417	5174	4926	4666	4820	-0.079383681	0.789332522
CDR20291_1700	393	767	615	706	714	751	930	699	753	632	889	0.221937565	0.67665523
CDR20291_1701	25	26	34	35	107	52	61	18	147	59	37	0.499742529	0.882953381
CDR20291_1702	25	6	17	10	28	34	15	21	17	62	23	-0.786618258	0.818250988
CDR20291_1703	633	920	1080	921	1109	988	856	911	939	994	954	-0.085557595	0.918573372
CDR20291_1704	143	470	251	310	188	271	316	235	228	302	163	0.233858879	0.882461138
CDR20291_1705	1433	2431	2311	2491	2660	2551	2719	2355	2685	2169	2528	0.096771014	0.806385533
CDR20291_1706	256	380	439	369	353	340	350	522	413	409	364	-0.075142226	0.960001773
CDR20291_1707	73	76	99	76	97	57	63	70	120	26	99	-0.600110684	0.700759781
CDR20291_1708	73	97	81	228	84	200	191	145	165	108	40	0.174738614	0.96010839
CDR20291_1709	7	3	2	0	1	0	3	4	3	1	4 NA		NA
CDR20291_1710	3	2	2	2	14	1	6	13	13	0	5 NA		NA
CDR20291_1711	4	0	0	1	0	2	3	0	0	1	4 NA		NA
CDR20291_1712	1	3	1	0	2	0	2	3	0	1	0 NA		NA
CDR20291_1713	6	2	5	1	1	6	2	0	1	3	2 NA		NA
CDR20291_1714	300	359	472	318	390	401	286	275	335	363	311	-0.470145216	0.446455844
CDR20291_1715	61	44	57	72	62	44	108	65	22	60	50	-0.76507554	0.638048331
CDR20291_1716	62	243	161	251	153	136	158	122	199	166	276	0.892978342	0.290893661
CDR20291_1717	436	898	949	756	960	807	962	913	826	899	1048	0.349233636	0.32799991
CDR20291_1718	17304	28531	23353	25962	27505	27344	30732	29028	29089	26124	28647	-0.025362539	0.969028946
CDR20291_1719	235	461	498	330	342	541	321	278	307	324	355	-0.021893018	0.993056754
CDR20291_1720	102	351	374	366	313	277	331	295	309	348	280	0.972083853	0.013406635
CDR20291_1721	2949	4721	3889	5421	4957	5021	4937	4676	5980	4928	4980	0.049162507	0.952353002
CDR20291_1722	5061	7413	6604	7330	7959	7884	8396	8156	7988	7666	8084	-0.085228751	0.810981115
CDR20291_1723	1490	3117	2718	2554	3026	2852	2950	2518	2487	2206	2549	0.154702475	0.667441757
CDR20291_1724	606	972	1028	740	793	1007	905	857	866	954	995	-0.109176226	0.889550128
CDR20291_1725	157	298	262	183	225	250	276	198	201	203	234	-0.132947802	0.931537513
CDR20291_1726	93	169	166	155	188	186	169	117	153	124	291	0.18589127	0.930814375

CDR20291_1727	194	338	318	244	356	342	391	298	239	197	272	-0.078724388	0.968670851
CDR20291_1728	26	51	47	68	41	39	20	29	62	63	73	0.234718656	0.951578777
CDR20291_1729	22	2	22	8	26	14	21	14	15	5	8	-1.411803771	0.629238645
CDR20291_1730	10	19	4	13	13	6	28	5	13	12	2	-0.513257085	0.943731346
CDR20291_1731	53	42	67	36	45	71	84	35	53	90	35	-0.624724576	0.711032731
CDR20291_1732	33	63	65	38	37	109	72	77	24	96	53	0.244874041	0.950690448
CDR20291_1733	7	1	6	2	1	2	20	3	1	1	5	NA	NA
CDR20291_1734	243	530	668	404	520	358	466	395	364	389	354	0.172368723	0.892219944
CDR20291_1735	613	1281	1257	1027	976	1172	1172	1218	1069	923	1128	0.172143746	0.711525217
CDR20291_1736	2486	4712	3837	3930	3855	4123	3563	3684	3812	3400	3198	-0.083203726	0.891366587
CDR20291_1737	144	336	147	247	316	260	180	212	276	365	236	0.142383485	0.950690448
CDR20291_1737;													
CDR20291_1738	90	180	143	105	198	158	125	112	118	129	149	-0.046320566	0.993056754
CDR20291_1738	34	73	118	114	68	129	54	120	83	59	111	0.756434388	0.59118171
CDR20291_1739	12692	20993	17987	19756	21183	19953	22868	21400	20926	19890	19874	-0.009778844	0.993056754
CDR20291_1739;													
CDR20291_1740	5	0	1	0	0	0	0	0	3	1	0	NA	NA
CDR20291_1739;													
CDR20291_1741	0	0	0	0	0	0	0	2	0	1	1	NA	NA
CDR20291_1739;													
CDR20291_1742	6	2	4	3	0	1	3	3	4	1	2	NA	NA
CDR20291_1739;													
CDR20291_1743	484	1043	662	609	768	759	713	970	624	1038	814	0.027187095	0.993056754
CDR20291_1739;													
CDR20291_1743;													
CDR20291_1744	3	0	0	0	5	2	3	0	8	8	3	NA	NA
CDR20291_1739;													
CDR20291_1743;													
CDR20291_1745	1	1	1	0	0	0	1	0	0	1	1	NA	NA

CDR20291_1739; CDR20291_1743; CDR20291_1746	1	0	0	0	4	0	2	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1747	0	0	1	0	1	0	2	0	2	0	1	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1748	438	559	141	386	367	536	451	503	505	366	528	-0.715915979	0.366413735
CDR20291_1739; CDR20291_1743; CDR20291_1749	162	376	186	178	196	283	246	228	247	253	241	-0.11498158	0.950690448
CDR20291_1739; CDR20291_1743; CDR20291_1750	3	2	2	0	1	1	3	0	3	0	3	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1751	2	1	0	0	1	1	3	0	2	5	2	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1752	30	68	54	79	76	42	74	90	49	91	59	0.488653898	0.782077256
CDR20291_1739; CDR20291_1743; CDR20291_1753	0	1	0	1	0	2	0	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1754	18	21	14	6	40	27	17	31	10	8	7	-0.70255075	0.860579883
CDR20291_1739; CDR20291_1743; CDR20291_1755	0	0	0	0	2	1	0	0	1	1	0	NA	NA

CDR20291_1739; CDR20291_1743; CDR20291_1756	0	0	0	1	0	1	1	0	0	1	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1757	2	1	0	0	0	2	0	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1758	4	0	0	2	0	1	2	0	4	2	4	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1759	28	12	2	12	24	29	10	20	7	59	15	-1.242393184	0.688640316
CDR20291_1739; CDR20291_1743; CDR20291_1760	0	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1761	56	43	29	24	29	25	35	51	42	25	81	-1.244825314	0.403563831
CDR20291_1739; CDR20291_1743; CDR20291_1762	3	0	0	2	0	0	0	0	1	0	2	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1763	7	0	1	0	2	1	1	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1764	48	48	65	91	58	54	96	99	80	48	92	-0.092945644	0.984159655
CDR20291_1739; CDR20291_1765	35	37	67	63	43	99	61	91	51	60	147	0.344509007	0.912272704

CDR20291_1739; CDR20291_1766	1	1	0	1	5	2	0	1	1	2	1	NA	NA
CDR20291_1739; CDR20291_1767	2	0	1	1	0	0	0	0	2	1	0	NA	NA
CDR20291_1739; CDR20291_1768	1	3	2	1	2	2	5	2	4	7	2	NA	NA
CDR20291_1739; CDR20291_1769	1	1	0	0	0	0	1	1	2	2	0	NA	NA
CDR20291_1739; CDR20291_1769; CDR20291_1770	0	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1770	2	0	1	0	1	0	1	0	3	1	2	NA	NA
CDR20291_1739; CDR20291_1771	766	1583	1031	1486	1499	1403	1492	1349	1466	1325	1656	0.199589219	0.675989538
CDR20291_1739; CDR20291_1772	2240	3376	3173	3310	3429	3596	3473	3885	3651	3140	4168	-0.046907265	0.950690448
CDR20291_1739; CDR20291_1773	0	0	0	1	1	3	1	0	0	3	1	NA	NA
CDR20291_1739; CDR20291_1774	3360	5082	4363	5261	5732	5091	5948	5741	5593	4839	5308	-0.04417705	0.950690448
CDR20291_1739; CDR20291_1775	620	867	851	807	1015	887	1176	843	1055	884	1080	-0.091242373	0.918573372
CDR20291_1739; CDR20291_1776	0	0	2	0	1	1	0	0	3	0	3	NA	NA
CDR20291_1739; CDR20291_1777	93	179	246	260	214	268	219	304	304	293	227	0.739810111	0.23113979
CDR20291_1739; CDR20291_1778	1	3	0	1	0	0	1	0	2	0	0	NA	NA

CDR20291_1739; CDR20291_1779	899	1480	1159	1381	1474	1319	1995	1490	1743	1409	1440	0.025145435	0.988538891
CDR20291_1739; CDR20291_1780	8	6	1	10	11	7	9	22	2	3	4	NA	NA
CDR20291_1739; CDR20291_1781	0	1	0	1	0	0	2	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1782	0	0	1	2	1	0	0	0	3	0	1	NA	NA
CDR20291_1739; CDR20291_1783	2	0	0	0	1	2	0	0	0	0	1	NA	NA
CDR20291_1739; CDR20291_1784	6	3	0	1	6	1	4	0	6	3	1	NA	NA
CDR20291_1739; CDR20291_1785	2	1	0	2	3	0	3	4	0	1	0	NA	NA
CDR20291_1739; CDR20291_1786	3	2	0	3	0	3	5	0	2	2	8	NA	NA
CDR20291_1739; CDR20291_1787	2	0	3	0	1	1	5	1	3	0	1	NA	NA
CDR20291_1739; CDR20291_1788	752	1010	887	1044	1157	1341	1393	1441	1249	1341	1192	-0.018873991	0.993056754
CDR20291_1739; CDR20291_1789	55	52	38	15	48	16	7	40	57	1	28	-1.571250541	0.524350619
CDR20291_1739; CDR20291_1790	358	422	342	455	352	521	381	466	323	479	471	-0.461288654	0.437675307
CDR20291_1739; CDR20291_1791	10	3	4	5	1	1	6	1	0	3	6	NA	NA
CDR20291_1739; CDR20291_1792	315	481	378	323	416	377	497	439	440	349	714	-0.215040875	0.849865647
CDR20291_1739; CDR20291_1793	7	4	13	16	16	12	30	11	15	9	27	0.423521776	0.950690448

CDR20291_1739; CDR20291_1794	1495	2240	2451	2121	2381	2122	2377	2313	2158	2243	2182	-0.103487291	0.782912433
CDR20291_1739; CDR20291_1795	523	461	310	486	334	554	589	545	483	565	695	-0.756791879	0.1357314
CDR20291_1739; CDR20291_1796	155	244	191	210	203	171	209	185	133	192	220	-0.361863528	0.666849388
CDR20291_1739; CDR20291_1797	9361	20067	17466	17610	18359	18649	18938	17721	18415	16844	18208	0.261451715	0.022611183
CDR20291_1739; CDR20291_1798	9296	17860	14888	16155	17228	17135	17745	17018	17401	15867	15675	0.144680731	0.446131864
CDR20291_1739; CDR20291_1799	3140	5560	4309	5837	5388	5646	5849	5926	5486	4861	5573	0.09384763	0.847322651
CDR20291_1739; CDR20291_1800	236	551	375	447	248	492	538	390	478	419	343	0.157525752	0.913212471
CDR20291_1739; CDR20291_1801	3	1	4	2	6	6	6	5	3	0	4	NA	NA
CDR20291_1739; CDR20291_1802	30	81	61	74	65	44	133	59	65	76	55	0.543494378	0.739343088
CDR20291_1739; CDR20291_1803	22	117	65	101	91	52	119	71	92	8	62	1.111143877	0.548079437
CDR20291_1739; CDR20291_1804	101	195	161	94	101	93	163	230	213	115	96	-0.171688162	0.950690448
CDR20291_1739; CDR20291_1805	67	65	44	64	40	105	132	69	62	118	61	-0.519539313	0.777520068
CDR20291_1739; CDR20291_1806	1959	3445	3810	3389	3627	3823	4237	3977	3467	3576	3319	0.20451395	0.442923144
CDR20291_1739; CDR20291_1807	118	300	313	237	231	347	201	226	260	271	184	0.425758728	0.630159951
CDR20291_1739; CDR20291_1808	4	17	13	22	36	34	13	11	32	4	45	1.803230178	0.524767362

CDR20291_1739;														
CDR20291_1809	9494	14995	13110	14678	14520	15598	17296	17321	16175	14924	16238	0.00585951	0.993056754	
CDR20291_1810	3	0	0	1	0	0	1	0	2	0	1	NA	NA	
CDR20291_1811	6	20	24	37	23	46	45	20	46	35	37	1.773204934	0.309031575	
CDR20291_1812	429	876	808	780	764	797	858	701	712	809	580	0.141463059	0.849377879	
CDR20291_1813	246	398	367	330	408	460	239	382	300	507	385	-0.075486861	0.971144882	
CDR20291_1814	435	922	999	727	727	873	970	697	811	718	716	0.206229827	0.71061568	
CDR20291_1815	197	398	320	248	312	306	223	362	320	278	342	-0.040511187	0.988538891	
CDR20291_1816	641	1144	1013	1078	1217	1081	1079	1306	1191	942	1609	0.164093653	0.821172043	
CDR20291_1817	745	1246	931	1013	1046	1060	1120	1213	1048	1214	1073	-0.141492249	0.793264885	
CDR20291_1818	226	367	268	349	451	459	607	382	331	308	517	0.132330869	0.940000696	
CDR20291_1819	53	86	43	70	56	155	188	46	73	167	99	0.18831947	0.960904204	
CDR20291_1820	26	65	28	36	39	21	38	15	16	1	19	-0.616488679	0.883307156	
CDR20291_1821	15	5	13	11	21	28	7	30	7	43	4	-0.51194762	0.935667015	
CDR20291_1822	34	94	85	58	73	79	128	74	108	92	83	0.658205694	0.592746166	
CDR20291_1823	771	1060	1006	977	893	1015	1323	1083	1159	781	1021	-0.282459314	0.504882415	
CDR20291_1824	3	3	0	2	4	0	0	0	3	0	4	NA	NA	
CDR20291_1825	600	801	1195	949	1017	1006	1089	980	1145	875	1107	0.061589416	0.954834482	
CDR20291_1825;														
CDR20291_1826	93	190	205	267	172	267	305	231	234	295	396	0.765891788	0.302538122	
CDR20291_1825;														
CDR20291_1827	41	151	147	111	118	135	104	87	66	68	217	0.855067835	0.49659029	
CDR20291_1825;														
CDR20291_1828	74	157	120	158	161	87	140	96	179	163	96	0.176658929	0.943731346	
CDR20291_1825;														
CDR20291_1829	62	49	60	42	43	66	38	26	63	41	36	-1.116841896	0.340795105	
CDR20291_1825;														
CDR20291_1830	210	471	613	482	548	416	580	492	551	489	525	0.599747783	0.098545724	
CDR20291_1825;														
CDR20291_1831	812	938	1207	1107	1140	922	1556	1093	1251	1207	1494	-0.146248718	0.859194195	

CDR20291_1825; CDR20291_1832	4271	6028	6767	6648	5643	6519	6697	6032	6168	6272	6275	-0.135886792	0.654495491
CDR20291_1825; CDR20291_1833	71	91	122	44	79	64	104	65	69	108	59	-0.51885871	0.717581755
CDR20291_1825; CDR20291_1834	30	2	2	7	2	35	25	25	20	25	4	-1.731363118	0.610360948
CDR20291_1825; CDR20291_1835	348	302	302	265	256	284	402	317	336	359	575	-0.732828374	0.225875112
CDR20291_1825; CDR20291_1836	2	0	1	0	0	4	4	0	1	1	2	NA	NA
CDR20291_1825; CDR20291_1837	33	43	83	64	81	121	82	58	64	73	115	0.550752069	0.728174838
CDR20291_1825; CDR20291_1838	1158	1062	822	1230	943	1204	1174	1519	1265	1256	1414	-0.659151415	0.059513643
CDR20291_1825; CDR20291_1839	0	3	1	1	0	0	3	0	1	1	0	NA	NA
CDR20291_1825; CDR20291_1840	320	379	190	390	270	359	296	417	446	338	390	-0.578863786	0.410854247
CDR20291_1825; CDR20291_1841	99	168	145	140	140	165	237	232	184	143	200	0.121879629	0.950690448
CDR20291_1825; CDR20291_1842	12	4	2	11	3	2	2	6	11	2	33	NA	NA
CDR20291_1825; CDR20291_1843	0	0	0	3	1	0	1	0	5	0	1	NA	NA
CDR20291_1825; CDR20291_1844	1	0	6	0	2	0	3	1	1	0	2	NA	NA
CDR20291_1825; CDR20291_1845	292	237	323	400	351	369	439	374	447	441	305	-0.361203033	0.638886752
CDR20291_1825; CDR20291_1846	66	1	9	2	0	8	1	5	6	1	4	-4.850542642	0.010477512

CDR20291_1825; CDR20291_1847	1097	1317	1425	1386	1263	1344	1507	1291	1348	1102	1377	-0.415623996	0.059491365
CDR20291_1825; CDR20291_1848	130	235	182	201	218	251	197	234	263	188	277	0.089268787	0.960001773
CDR20291_1825; CDR20291_1849	132	261	239	255	387	330	307	297	307	313	271	0.46844153	0.454992546
CDR20291_1825; CDR20291_1850	40	224	169	75	71	272	194	173	134	174	155	1.333243285	0.141459274
CDR20291_1851	29	14	47	9	32	34	12	9	5	18	5	-1.344530768	0.646322042
CDR20291_1852	1	1	0	2	1	1	0	1	5	1	1 NA	NA	NA
CDR20291_1853	469	605	632	663	597	570	628	627	642	645	536	-0.307895016	0.446131864
CDR20291_1854	0	2	0	1	1	0	0	1	4	3	2 NA	NA	NA
CDR20291_1855	783	1157	1038	1189	1066	1177	1200	1130	1276	1143	1071	-0.151036224	0.702648248
CDR20291_1856	774	1252	1232	1096	1246	1417	1270	1410	1298	973	1266	-0.014048842	0.993056754
CDR20291_1857	516	763	698	762	749	833	722	864	629	617	619	-0.207869874	0.700659075
CDR20291_1858	309	601	570	608	559	531	549	723	555	532	582	0.212782138	0.702648248
CDR20291_1859	7	2	4	0	4	3	0	0	1	0	2 NA	NA	NA
CDR20291_1860	3	0	3	1	2	3	4	0	2	3	4 NA	NA	NA
CDR20291_1861	1	5	0	0	4	3	2	0	4	3	5 NA	NA	NA
CDR20291_1862	1	1	1	3	0	2	0	0	1	1	1 NA	NA	NA
CDR20291_1863	77	119	85	100	102	127	136	131	126	86	33	-0.264641602	0.916014489
CDR20291_1864	4	2	1	2	2	2	7	1	2	8	2 NA	NA	NA
CDR20291_1865	145	251	250	236	187	209	165	203	144	185	167	-0.234756089	0.858549682
CDR20291_1866	0	2	0	1	0	0	1	0	2	1	0 NA	NA	NA
CDR20291_1867	10	41	44	9	42	17	79	49	18	47	36	1.224515629	0.600194319
CDR20291_1868	1	0	9	21	4	7	2	4	6	4	5 NA	NA	NA
CDR20291_1869	104	124	148	181	149	281	207	138	187	156	280	0.132950443	0.955558813
CDR20291_1870	41	10	53	16	10	8	13	16	18	15	53	-1.638988232	0.472855974
CDR20291_1871	522	735	785	765	832	1023	1008	813	755	851	855	-0.009936176	0.993056754
CDR20291_1872	22	76	24	58	43	85	62	21	52	29	58	0.501366224	0.857913252

CDR20291_1873	2039	2693	2303	2567	2775	2394	3259	2868	3024	2509	2639	-0.294680135	0.244662252
CDR20291_1874	163	169	115	205	261	177	239	232	303	237	109	-0.372459441	0.778166089
CDR20291_1875	191	353	378	294	233	341	448	379	303	387	342	0.156675955	0.908942605
CDR20291_1876	17526	26449	20126	25186	24777	25483	28109	27867	26795	25149	27296	-0.146324986	0.638048331
CDR20291_1877	303	461	491	577	389	603	353	557	468	444	460	-0.030358207	0.993056754
CDR20291_1878	0	1	0	1	1	2	0	2	2	2	2	NA	NA
CDR20291_1879	161	266	284	212	239	351	258	221	155	308	254	-0.035070613	0.993056754
CDR20291_1880	14	30	47	34	24	67	28	21	35	50	36	0.717081204	0.750540968
CDR20291_1881	238	807	963	858	826	889	888	927	744	904	935	1.17962354	2.79E-07
CDR20291_1882	125	335	369	274	283	352	233	246	282	354	360	0.609654596	0.323126125
CDR20291_1882;													
CDR20291_1883	0	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_1883	53	139	93	98	181	89	128	84	67	105	105	0.335951162	0.854987503
CDR20291_1884	36	46	28	33	18	47	27	27	51	12	29	-0.882717767	0.658276033
CDR20291_1885	74	150	163	183	103	189	175	184	150	132	179	0.421390494	0.672058271
CDR20291_1886	108	188	152	205	142	154	188	160	105	124	197	-0.11892181	0.955558813
CDR20291_1887	185	351	147	291	318	354	327	342	358	421	257	0.075899522	0.97352847
CDR20291_1888	6	2	3	2	6	9	3	4	4	11	25	NA	NA
CDR20291_1889	3	2	3	1	2	7	3	2	4	2	0	NA	NA
CDR20291_1890	35	39	34	54	27	60	20	82	58	47	52	-0.257788461	0.950690448
CDR20291_1891	82	224	202	146	231	101	165	170	146	136	97	0.278186791	0.868034697
CDR20291_1892	7259	14429	12900	13535	14260	13782	13805	13048	12938	12689	13579	0.195394661	0.195052274
CDR20291_1893	2095	4463	3790	3943	3955	4422	4087	3655	3533	3313	3792	0.194282212	0.509494269
CDR20291_1894	49	51	106	92	75	69	64	54	104	44	25	-0.216596606	0.950690448
CDR20291_1895	7571	10319	9605	9795	10432	10825	11555	10731	10118	9565	10120	-0.255416821	0.046219268
CDR20291_1896	12	3	3	0	9	3	2	1	6	3	6	NA	NA
CDR20291_1897	172	221	117	141	156	211	190	240	142	196	219	-0.608640565	0.455508288
CDR20291_1898	95	145	112	187	156	189	180	125	207	143	144	0.040964515	0.993056754
CDR20291_1899	331	657	352	487	517	567	630	434	642	394	593	-0.032533857	0.993056754
CDR20291_1900	2774	3795	3385	3351	3403	3287	3793	3663	3409	3515	3538	-0.358343153	0.014502255

CDR20291_1901	6007	7953	7035	7911	8547	8370	8961	8908	8977	7627	8577	-0.236071331	0.23829621
CDR20291_1901;													
CDR20291_1902	1	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_1902	3062	4870	3936	4961	5345	5057	5263	5169	5211	4439	4779	-0.021247397	0.984159655
CDR20291_1903	7161	10112	9748	10618	10381	10044	11618	11526	11633	9949	10677	-0.129565015	0.62942813
CDR20291_1903;													
CDR20291_1904	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1904	447	487	416	563	651	503	703	804	591	707	340	-0.332713293	0.693188565
CDR20291_1905	516	1085	989	669	1030	858	907	891	818	795	769	0.070149288	0.950690448
CDR20291_1906	1751	3050	2956	3000	3114	3201	3206	2961	3160	3032	2829	0.101860808	0.717114511
CDR20291_1907	10	12	23	56	17	77	8	26	81	21	82	1.321120796	0.638048331
CDR20291_1908	709	1348	1243	1336	1290	1295	1271	1196	1180	1383	1163	0.143780304	0.739343088
CDR20291_1909	1217	1751	1674	1870	2227	2199	2023	2235	1967	2316	1987	0.036702084	0.97352847
CDR20291_1910	351	421	520	516	439	398	480	516	533	528	433	-0.249615951	0.685076673
CDR20291_1911	3	2	6	1	4	3	5	5	5	4	5	NA	NA
CDR20291_1912	7	10	7	1	7	7	5	3	2	9	2	NA	NA
CDR20291_1913	2	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_1914	131	340	295	321	302	385	431	253	264	246	321	0.566268117	0.333458958
CDR20291_1915	100	153	116	148	173	187	243	200	159	134	83	-0.031691429	0.993056754
CDR20291_1916	186	420	316	245	469	316	319	264	302	218	285	0.057315451	0.983498093
CDR20291_1917	21	124	135	62	128	41	77	68	66	73	17	1.21076902	0.467492794
CDR20291_1918	473	627	665	789	744	978	738	897	888	692	697	0.007153728	0.996393886
CDR20291_1919	203	487	397	428	353	449	367	410	327	394	414	0.290081783	0.654495491
CDR20291_1920	11	6	30	14	7	75	18	1	30	29	28	0.420029865	0.952183546
CDR20291_1921	55	4	53	42	66	54	9	36	69	106	51	-0.847217577	0.7612632
CDR20291_1922	137	334	283	259	340	345	242	216	228	266	252	0.313758645	0.702648248
CDR20291_1923	14	11	33	6	10	16	4	5	26	19	12	-0.669114805	0.894515096
CDR20291_1924	18	57	21	39	8	24	66	13	52	38	34	0.260807561	0.96010839
CDR20291_1925	8	11	32	20	13	62	20	17	16	35	92	1.302005346	0.649602625
CDR20291_1926	37	33	40	37	52	17	72	51	38	31	50	-0.519092647	0.82566701

CDR20291_1927	17	37	34	38	51	80	48	49	58	36	47	0.789343241	0.648688397
CDR20291_1928	532	874	575	888	785	798	697	769	852	807	789	-0.139352177	0.859194195
CDR20291_1929	1	1	2	0	1	0	1	0	1	0	0	NA	NA
CDR20291_1930	3	0	4	1	0	0	0	0	2	0	1	NA	NA
CDR20291_1931	178	220	291	471	309	415	295	332	241	284	398	0.177218141	0.916749193
CDR20291_1932	934	958	1113	824	1271	1314	1214	1215	1083	915	1116	-0.46276854	0.161521726
CDR20291_1933	1097	1655	1402	1545	1477	1478	1444	1568	1551	1599	1630	-0.213179182	0.509494269
CDR20291_1934	25	33	55	9	77	63	40	33	25	51	24	0.011890603	0.997856314
CDR20291_1935	362	489	471	382	363	450	352	449	396	348	289	-0.559284347	0.244662252
CDR20291_1936	47	146	162	113	93	118	117	194	171	140	111	0.840636742	0.343160513
CDR20291_1937	990	1487	1456	1579	1465	1697	1878	1758	1393	1486	1450	-0.039629468	0.969028946
CDR20291_1938	33083	60041	56522	55650	58480	59368	57814	52690	53105	51814	51905	0.052981466	0.881904062
CDR20291_1939	293	389	487	343	342	474	401	514	294	488	441	-0.185980788	0.863239689
CDR20291_1940	48	33	29	72	46	42	34	29	48	29	22	-1.01788367	0.51469243
CDR20291_1941	309	459	389	290	355	272	503	335	389	410	333	-0.429004376	0.501452289
CDR20291_1942	576	958	647	635	665	679	757	739	834	717	776	-0.338040919	0.437675307
CDR20291_1943	45	55	37	72	78	50	118	60	64	81	55	-0.129330215	0.973156858
CDR20291_1944	129	181	66	127	138	95	125	105	199	113	148	-0.694560543	0.501912474
CDR20291_1945	1	7	2	1	3	9	6	2	0	1	0	NA	NA
CDR20291_1946	15	2	13	28	26	33	11	10	9	19	9	-0.59663592	0.913212471
CDR20291_1947	4	2	1	0	3	3	5	2	7	1	4	NA	NA
CDR20291_1948	149	360	409	380	386	266	354	267	372	345	360	0.533982925	0.333488759
CDR20291_1949	31	19	34	46	45	27	40	24	19	56	9	-0.650978419	0.821754305
CDR20291_1950	387	656	486	675	696	555	702	803	751	611	715	0.081089242	0.950690448
CDR20291_1951	6	5	1	8	5	2	2	0	3	1	6	NA	NA
CDR20291_1952	1957	3180	2734	2850	2961	3203	3438	3149	3312	2942	3735	-0.013194548	0.993056754
CDR20291_1953	14	32	15	0	1	23	19	20	3	10	5	-0.843777176	0.900008427
CDR20291_1954	183	629	436	576	543	590	736	670	566	540	780	1.027671143	0.002135512
CDR20291_1955	16	19	4	19	4	10	23	14	6	22	14	-0.943508882	0.796883193
CDR20291_1956	544	1024	837	977	777	871	877	909	831	797	1084	0.025445677	0.990004075

CDR20291_1957	665	917	856	809	812	785	993	803	909	914	808	-0.327735284	0.294422057
CDR20291_1958	171	344	301	277	500	420	362	282	385	357	425	0.394343743	0.593054017
CDR20291_1959	2050	3523	2705	3443	3588	3278	3944	3819	3496	3253	4179	0.080841477	0.912272704
CDR20291_1960	677	2062	2070	1804	2137	2020	1651	1568	2223	1696	1772	0.790002782	0.000478761
CDR20291_1961	737	1915	2145	1850	1558	1826	2001	1690	1939	1496	2118	0.631316923	0.008420006
CDR20291_1962	403	1225	1052	1049	1111	1207	1166	1013	976	1154	1173	0.765969592	0.000262636
CDR20291_1963	13289	23704	21332	22382	23565	23135	25225	24908	24063	23218	23078	0.120435301	0.547207844
CDR20291_1964	1742	4589	4742	4450	4944	4838	4716	5061	4706	4566	5520	0.767797354	5.25E-08
CDR20291_1965	1866	2742	2625	2916	2618	2889	2770	2673	2281	2445	2945	-0.170545082	0.637353001
CDR20291_1966	11	2	6	2	1	1	5	1	5	4	4	NA	NA
CDR20291_1967	1370	2700	2404	2652	2600	2684	2832	2739	2769	2331	2603	0.241523135	0.235401111
CDR20291_1968	681	1493	1520	1541	1399	1484	1527	1497	1393	1282	1535	0.408283475	0.053269029
CDR20291_1969	3758	6712	5320	5738	6153	6702	7929	6461	6445	6251	6035	0.060431695	0.918573372
CDR20291_1970	4164	5777	5072	5351	5855	5747	6521	5676	5632	5028	6661	-0.239766042	0.298822723
CDR20291_1971	22	139	125	90	126	100	88	108	108	60	140	1.599451817	0.036944857
CDR20291_1972	1006	2533	2459	2386	2462	2390	2278	2350	2458	2483	2399	0.568407477	0.000242276
CDR20291_1973	545	1279	1318	1062	1223	1442	1431	1232	987	1043	1163	0.45862282	0.124946294
CDR20291_1974	150	402	317	305	317	319	261	316	454	449	422	0.552321487	0.417279414
CDR20291_1975	112	191	126	177	207	175	139	267	166	188	88	-0.076157916	0.983498093
CDR20291_1976	5667	9567	7754	8685	8021	9727	9491	10260	10075	9162	9514	0.003757051	0.99687942
CDR20291_1977	5007	7764	8121	6986	6442	8158	7987	7752	8411	7191	7994	-0.081907364	0.858875369
CDR20291_1978	3254	4797	3904	4371	4505	5053	5020	4659	4461	4372	4183	-0.222435277	0.311082618
CDR20291_1979	13361	18769	16288	17937	17896	18700	19682	19017	20535	19782	19793	-0.202995219	0.344901408
CDR20291_1980	91	216	226	156	281	254	278	292	239	216	175	0.655093473	0.32799991
CDR20291_1980;													
CDR20291_1981	0	0	0	0	0	0	0	0	2	0	1	NA	NA
CDR20291_1981	127	145	120	155	148	262	48	109	183	120	146	-0.517734393	0.71741461
CDR20291_1982	157	256	227	272	326	250	248	344	260	352	185	0.096290942	0.960001773
CDR20291_1983	3939	6732	5859	5934	6428	6808	7534	6366	6670	5956	6881	0.025187035	0.971144882
CDR20291_1984	412	633	605	519	624	659	633	533	775	564	718	-0.096063942	0.928262887

CDR20291_1985	209	199	289	287	308	288	352	281	240	215	219	-0.343585702	0.65915918
CDR20291_1986	485	714	825	698	1038	795	891	756	843	730	804	0.038099009	0.976270831
CDR20291_1987	488	790	863	872	886	1060	929	977	1022	771	996	0.2099479	0.660688328
CDR20291_1988	1	1	1	0	0	0	0	1	0	2	1	NA	NA
CDR20291_1989	123	31	158	163	114	47	182	107	172	120	89	-0.752983805	0.645820262
CDR20291_1989;													
CDR20291_1990	2	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1990	353	634	500	417	532	673	537	610	479	418	830	-0.027630951	0.993056754
CDR20291_1991	451	613	673	600	798	936	769	784	895	541	738	0.002047669	0.997856314
CDR20291_1992	231	305	285	344	305	314	274	314	356	324	285	-0.269772936	0.681968239
CDR20291_1993	15	30	40	40	41	84	65	60	31	24	73	0.998376472	0.59459692
CDR20291_1994	80	216	184	251	229	344	261	413	230	237	171	0.964615906	0.147600701
CDR20291_1995	20	42	27	40	32	27	40	19	31	37	10	-0.091886304	0.993056754
CDR20291_1996	230	267	133	218	191	201	285	291	228	290	255	-0.663279388	0.333740297
CDR20291_1997	7	9	26	10	42	24	29	13	18	28	27	0.99037448	0.726328732
CDR20291_1998	151	238	192	183	291	262	295	296	326	226	364	0.121690833	0.950690448
CDR20291_1999	3614	7524	6619	6930	6881	7114	7571	6703	7441	6668	7342	0.270234441	0.052544176
CDR20291_2000	654	985	946	827	655	732	817	765	854	767	604	-0.417017802	0.334239182
CDR20291_2001	271	588	721	596	701	656	843	555	633	667	641	0.583899592	0.073376562
CDR20291_2002	27	81	109	89	74	76	98	44	62	77	26	0.747129367	0.652488413
CDR20291_2003	739	1077	1001	1134	1179	1167	1340	1163	1364	1050	1251	-0.034525692	0.97352847
CDR20291_2004	22	42	14	24	21	28	20	38	27	94	41	-0.019405479	0.997856314
CDR20291_2005	1491	3033	2982	2720	3066	2455	3194	3250	4313	2647	4007	0.386656262	0.33099826
CDR20291_2006	5220	8844	7603	8054	6773	9713	8504	9004	9670	8216	8195	-0.002981145	0.997856314
CDR20291_2007	1059	1689	1905	1559	1443	1919	1979	1956	2230	1874	1934	0.104974733	0.882461138
CDR20291_2008	1085	2212	1796	1768	1648	2173	1796	1767	2254	1683	1594	0.084337373	0.918573372
CDR20291_2009	6513	11273	8745	10601	11205	11362	12239	11608	10765	11105	12611	0.076033758	0.879372027
CDR20291_2010	15144	24020	23089	22274	24819	23897	26302	25031	24917	23009	23542	-0.030392854	0.943731346
CDR20291_2011	348	595	672	538	543	589	579	643	516	602	553	0.046492046	0.971144882
CDR20291_2012	36	47	107	56	37	109	41	90	67	113	146	0.487691645	0.847675009

CDR20291_2013	543	916	877	897	898	954	775	1041	958	924	1001	0.070056296	0.948078774
CDR20291_2014	2243	2271	2543	2696	3007	1901	3240	3134	2730	3148	2647	-0.413835446	0.255418038
CDR20291_2015	1480	3164	2758	2990	3142	2992	3167	3043	3119	2515	2705	0.298974654	0.120106732
CDR20291_2016	281	599	586	644	578	631	489	633	472	297	708	0.304986228	0.702648248
CDR20291_2017	4873	9937	8270	9712	9373	10560	10903	9835	10145	9883	10088	0.318670605	0.053269029
CDR20291_2018	653	1471	1129	1110	1395	1503	1140	1229	1172	1254	1037	0.229958302	0.637353001
CDR20291_2019	1	0	0	1	1	1	0	0	0	0	1	NA	NA
CDR20291_2020	8	1	3	4	3	0	8	1	8	3	7	NA	NA
CDR20291_2020;													
CDR20291_2021	0	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_2021	31	94	21	36	89	4	14	35	74	20	40	-0.244768235	0.971144882
CDR20291_2022	1761	2908	2912	3140	3296	3301	3424	3804	3652	3335	3268	0.209072223	0.504882415
CDR20291_2023	185	281	213	262	330	355	407	268	377	350	511	0.157802492	0.928049919
CDR20291_2024	1121	1674	1630	1558	2088	1703	1761	1659	1711	1716	1663	-0.085081097	0.877099841
CDR20291_2025	1781	4864	4784	3977	4370	4947	4477	3851	3917	3666	3738	0.557135264	0.004586636
CDR20291_2026	1412	4082	3988	3093	3767	3922	3728	3283	3127	3149	2983	0.613632922	0.002373422
CDR20291_2027	3	35	2	5	14	14	9	25	48	7	2	1.709894159	0.67865128
CDR20291_2028	387	646	644	631	604	567	945	636	663	546	617	0.044599007	0.975090828
CDR20291_2029	0	1	2	1	3	2	4	1	0	2	6	NA	NA
CDR20291_2030	2682	4303	4470	4189	4595	3901	3884	4001	3931	4106	3928	-0.074700606	0.877700467
CDR20291_2031	470	1049	1138	920	1066	1052	761	926	958	962	924	0.356633825	0.391530804
CDR20291_2032	737	894	753	814	816	797	695	793	782	727	808	-0.602041353	0.009818442
CDR20291_2033	17	17	29	10	28	18	11	4	19	30	36	-0.442514919	0.933755431
CDR20291_2034	437	1610	1690	1343	1305	1491	1318	1099	1300	1021	1485	0.944745521	0.000459602
CDR20291_2035	3	0	1	0	1	1	7	0	6	2	2	NA	NA
CDR20291_2036	583	608	576	621	583	487	610	540	831	372	466	-0.736091243	0.076393109
CDR20291_2037	11	3	4	0	3	1	4	2	5	1	4	NA	NA
CDR20291_2038	891	570	547	634	602	507	505	636	765	412	586	-1.327551564	3.20E-06
CDR20291_2039	278	733	619	612	655	574	531	454	451	571	451	0.324785798	0.622721546
CDR20291_2040	1350	1997	1776	2104	2223	2047	2317	2498	2426	1637	2623	-0.019527418	0.993056754

CDR20291_2041	10	2	11	17	20	22	10	22	2	4	10	-0.434624945	0.952353002
CDR20291_2042	2	1	1	0	2	2	0	0	2	1	1 NA		NA
CDR20291_2043	1	0	0	0	1	0	1	1	0	0	1 NA		NA
CDR20291_2044	1	0	0	0	0	0	4	0	2	1	3 NA		NA
CDR20291_2045	9	1	1	2	2	3	5	0	4	2	4 NA		NA
CDR20291_2046	2	2	0	0	1	2	2	1	4	0	0 NA		NA
CDR20291_2047	5	4	2	1	1	0	0	2	2	2	1 NA		NA
CDR20291_2048	5	5	4	3	1	0	6	4	8	9	3 NA		NA
CDR20291_2049	23	10	27	31	20	15	17	16	38	7	21	-0.883736729	0.738972675
CDR20291_2050	1016	1419	1459	1270	1480	1436	1633	1446	1533	1639	1266	-0.178153609	0.654461852
CDR20291_2051	7	16	14	1	1	6	9	1	6	1	7 NA		NA
CDR20291_2052	8573	13379	11985	12777	13279	13888	16090	14329	14904	13899	13724	-0.010910015	0.993056754
CDR20291_2053	1713	3959	2959	2946	2890	3186	3902	3598	3665	3219	3575	0.283298265	0.326415764
CDR20291_2054	1281	1402	1012	1137	847	1795	1164	1094	1090	770	1391	-0.832124056	0.035115749
CDR20291_2055	13153	17124	14511	16447	17264	18501	19849	18538	18699	17159	18270	-0.277194791	0.127380122
CDR20291_2056	40	71	77	63	65	84	91	16	56	101	69	0.095193445	0.987180179
CDR20291_2057	155	375	379	232	346	326	239	264	330	367	283	0.321677965	0.701777743
CDR20291_2058	258	508	490	406	469	468	589	462	454	387	391	0.138830061	0.86994969
CDR20291_2059	1486	2731	3279	2703	2737	2401	3243	2762	3291	2871	2624	0.247543543	0.462982333
CDR20291_2060	2772	5041	5256	5035	4803	4810	4544	4873	5468	4999	4967	0.147871563	0.638048331
CDR20291_2061	1923	3809	3399	3524	3713	3421	3703	3553	3707	3580	3552	0.203926013	0.282025923
CDR20291_2062	14878	25625	22407	24015	25248	24917	28165	26230	26594	25297	25638	0.072497102	0.809016933
CDR20291_2063	4607	7891	6772	6621	7709	8713	8543	8568	7987	7775	8937	0.087178642	0.858549682
CDR20291_2064	601	905	1011	766	902	936	858	708	779	889	868	-0.177732131	0.739343088
CDR20291_2065	167	435	202	330	305	380	455	366	452	344	191	0.346192747	0.739098579
CDR20291_2066	163	323	408	430	180	402	358	514	335	530	355	0.542414367	0.549679025
CDR20291_2067	517	930	937	1084	1015	981	1079	935	933	761	1123	0.219604386	0.646587248
CDR20291_2068	2068	3405	2660	2871	2455	3279	3031	3246	2908	2865	3454	-0.154063334	0.70782435
CDR20291_2069	2071	3722	3702	3492	3711	3385	3580	3443	3456	3357	3388	0.067719887	0.860579883
CDR20291_2070	23	100	98	76	58	52	107	90	98	56	64	1.09295689	0.317534391

CDR20291_2071	1954	2965	2932	2800	2848	2800	3019	2965	2916	2926	3404	-0.100431224	0.79914247
CDR20291_2072	55	114	133	118	119	86	91	102	150	70	136	0.326092689	0.847322651
CDR20291_2073	1478	2038	2132	2366	2159	1806	2497	2121	2363	2025	2274	-0.139695864	0.739326014
CDR20291_2074	883	1060	877	1008	865	1075	884	873	824	1187	1036	-0.561809306	0.078582823
CDR20291_2075	209	221	200	242	199	289	237	178	230	231	255	-0.571363485	0.317534391
CDR20291_2076	365	578	487	408	538	533	454	543	511	518	707	-0.166686643	0.854987503
CDR20291_2077	125	178	306	210	241	235	281	173	97	231	207	0.090242014	0.97352847
CDR20291_2078	282	316	328	312	263	420	362	360	260	398	351	-0.440143046	0.480670144
CDR20291_2079	412	352	352	321	362	288	285	487	296	274	222	-1.04631474	0.015473453
CDR20291_2080	50	127	172	60	131	148	141	74	58	119	95	0.467866456	0.785481644
CDR20291_2081	44	154	130	105	109	180	159	122	152	110	119	0.903409849	0.225265975
CDR20291_2082	234	675	377	495	330	558	394	344	513	228	529	0.222643908	0.876031447
CDR20291_2083	105	122	191	164	195	199	200	111	137	123	159	-0.092289594	0.971144882
CDR20291_2084	2	9	27	7	10	8	14	7	7	22	2	1.80656889	0.65915918
CDR20291_2085	819	1374	1284	1118	1472	1167	1403	1495	1305	1218	1395	-0.008543097	0.993056754
CDR20291_2086	9897	16499	14473	14223	16348	15761	16685	15602	15837	15077	16498	-0.034364944	0.943731346
CDR20291_2087	1012	1317	1323	1553	1599	1439	2005	1759	1658	1548	1590	-0.058676878	0.950690448
CDR20291_2088	23	20	46	37	33	8	11	19	14	9	22	-0.761847728	0.822411857
CDR20291_2089	27	30	38	29	29	45	31	19	24	32	19	-0.565771068	0.817035003
CDR20291_2090	23	11	5	13	19	10	4	10	24	33	34	-1.181994492	0.695231436
CDR20291_2091	34	99	45	124	48	21	117	57	59	64	33	0.269724922	0.950690448
CDR20291_2092	276	609	548	553	551	487	485	423	467	387	354	0.11708021	0.930814375
CDR20291_2093	1423	2502	2419	2094	2085	2071	2207	2065	2002	2088	2171	-0.089917009	0.859194195
CDR20291_2094	1913	3342	3131	2951	2980	3199	2990	2902	2873	2597	2950	-0.054650564	0.927516569
CDR20291_2095	767	1206	929	848	914	1102	989	835	962	682	708	-0.444809062	0.28490971
CDR20291_2096	321	801	748	617	588	759	592	596	679	563	713	0.352959258	0.464030615
CDR20291_2097	575	940	836	863	1031	761	1180	898	984	956	1017	0.018174197	0.993056754
CDR20291_2098	5134	10263	9309	9536	10226	10067	11565	10353	10404	10097	11301	0.306255277	0.037935748
CDR20291_2099	6781	12662	12636	10368	12384	11638	13357	12854	13016	11968	11765	0.154646224	0.500521907
CDR20291_2100	72	116	107	124	64	146	133	123	127	113	92	-0.030001177	0.993056754

CDR20291_2101	273	596	533	543	655	531	670	542	632	623	635	0.426547162	0.239614774
CDR20291_2102	153	148	55	83	96	146	142	121	95	112	186	-1.072929347	0.203659008
CDR20291_2103	21	9	7	25	8	39	14	32	13	39	12	-0.771896283	0.839484518
CDR20291_2104	4	1	1	0	2	1	2	3	9	1	0	NA	NA
CDR20291_2105	102	105	91	92	129	207	175	85	114	90	98	-0.489112152	0.700659075
CDR20291_2106	0	1	0	0	0	0	0	0	3	0	1	NA	NA
CDR20291_2107	36	67	32	83	92	66	74	59	112	39	80	0.264241271	0.933755431
CDR20291_2108	5	0	4	2	2	2	6	1	2	9	3	NA	NA
CDR20291_2109	1740	2760	2926	2935	3143	2937	3207	2937	2783	2773	3336	0.074158805	0.877609829
CDR20291_2110	2043	3518	3467	3686	3392	3829	3923	3751	3343	3634	4009	0.140864472	0.658276033
CDR20291_2111	133	250	96	262	248	225	223	256	262	104	187	-0.036605691	0.993056754
CDR20291_2112	5730	8363	6731	7998	8024	8148	9578	9330	8023	6548	9665	-0.177318906	0.646322042
CDR20291_2113	87	119	194	163	116	161	151	190	145	110	179	0.115264253	0.960001773
CDR20291_2114	849	1515	1256	1240	1452	1471	1419	1285	1383	1299	1046	-0.046175392	0.96010839
CDR20291_2115	669	1164	1186	1279	1407	1263	1538	1325	1415	1075	1321	0.254198512	0.480253063
CDR20291_2116	11792	19131	15857	17213	18332	18182	20394	19567	19011	17916	18743	-0.055719982	0.885147643
CDR20291_2117	4640	9240	7286	8701	7923	8531	9055	9319	8499	8705	8823	0.192580635	0.444890081
CDR20291_2118	15348	31483	24886	29047	29432	31439	33452	31941	31468	30876	30838	0.290198419	0.084081668
CDR20291_2119	187	510	401	418	415	496	466	349	417	471	640	0.594758728	0.235401111
CDR20291_2120	300	946	740	731	618	646	665	754	580	719	703	0.545151212	0.156118399
CDR20291_2121	47	49	56	33	48	54	50	59	19	66	24	-0.734935216	0.678001125
CDR20291_2122	453	630	507	705	756	781	635	690	629	478	415	-0.242570098	0.749146495
CDR20291_2123	264	193	114	131	209	292	272	245	147	215	216	-1.080064283	0.079664677
CDR20291_2124	1	2	0	0	4	2	2	1	6	1	2	NA	NA
CDR20291_2125	1604	3308	3092	2833	3064	3148	3131	3066	3050	3458	2981	0.258381743	0.248288275
CDR20291_2126	3806	5683	5358	5895	5326	5171	6403	6053	5630	5756	6161	-0.105053204	0.7612632
CDR20291_2127	10884	17262	14788	16487	15969	16572	18826	17762	17645	16445	17001	-0.067184818	0.854700031
CDR20291_2128	452	597	529	674	728	672	881	765	831	525	666	-0.099524474	0.933755431
CDR20291_2129	121	223	291	243	111	179	234	192	193	261	43	0.007649763	0.997856314
CDR20291_2130	64	78	52	78	74	88	82	116	137	134	80	-0.173999887	0.950690448

CDR20291_2131	9	0	0	2	0	2	2	1	4	1	4	NA	NA
CDR20291_2132	255	298	259	260	236	308	443	382	264	261	434	-0.400186434	0.634464101
CDR20291_2133	1016	1948	1787	1840	1627	1894	1853	1690	1423	1423	1884	0.073852995	0.931537513
CDR20291_2134	192	18	49	94	169	10	171	72	123	48	47	-1.97268564	0.410548268
CDR20291_2135	795	1100	1114	972	1040	1072	1185	904	870	947	745	-0.377373297	0.311082618
CDR20291_2136	25	45	16	38	50	40	77	28	30	39	13	-0.122053669	0.986858508
CDR20291_2137	98	258	254	244	230	277	189	199	226	191	330	0.593704121	0.412645008
CDR20291_2138	4	2	15	3	4	9	8	6	7	9	4	NA	NA
CDR20291_2139	2	1	3	0	2	3	6	2	11	1	5	NA	NA
CDR20291_2140	328	213	327	258	322	259	385	443	345	302	300	-0.756660865	0.134866567
CDR20291_2141	472	750	555	627	638	885	515	530	539	605	526	-0.312195471	0.638048331
CDR20291_2142	1562	2998	3375	2568	2917	2757	2653	2334	2381	2697	2974	0.126154096	0.824359011
CDR20291_2143	557	1121	849	866	1007	923	941	784	860	756	847	-0.016719361	0.993056754
CDR20291_2144	7	2	4	2	2	2	2	0	5	4	5	NA	NA
CDR20291_2145	159	196	271	337	103	265	197	244	264	165	137	-0.240165232	0.912272704
CDR20291_2146	4	3	4	0	2	4	5	8	4	4	4	NA	NA
CDR20291_2147	14	4	4	3	12	5	9	8	14	7	7	NA	NA
CDR20291_2148	228	314	327	222	223	217	337	333	332	265	335	-0.351222229	0.654461852
CDR20291_2149	6	12	38	46	34	29	24	39	7	24	4	1.407144679	0.638048331
CDR20291_2150	1321	2035	2219	2076	2089	2181	2250	2195	2081	2151	2106	-0.003648506	0.996393886
CDR20291_2151	655	1361	999	991	1285	1476	1563	1592	1323	1371	1326	0.318526583	0.480253063
CDR20291_2152	3506	5264	4266	4730	5065	5497	5716	5511	5296	4480	5846	-0.141533024	0.681968239
CDR20291_2153	23943	35554	29625	33006	33383	35703	38531	37031	36133	33187	35711	-0.161371616	0.454992546
CDR20291_2154	6	0	12	1	1	1	3	0	0	1	0	NA	NA
CDR20291_2155	8177	18374	17420	16594	18263	17677	18614	16627	17524	16727	17623	0.401623633	1.72E-05
CDR20291_2156	1	2	1	4	2	6	2	2	7	10	5	NA	NA
CDR20291_2157	6573	10086	8834	10745	10300	9986	10824	10797	10923	8889	11203	-0.057413356	0.918349485
CDR20291_2158	1122	1540	1036	1327	1269	1493	1357	1519	1338	1172	1708	-0.405751055	0.24833539
CDR20291_2159	2812	5891	5149	4809	5619	5234	5734	5592	5815	5235	5916	0.267545467	0.121413441
CDR20291_2160	11454	16703	13411	15077	17070	16426	17876	16790	17120	15744	17502	-0.185079736	0.429538364

CDR20291_2161	1097	1993	2092	2113	2215	1932	2375	1774	1916	1916	1766	0.173006512	0.649602625
CDR20291_2162	763	2390	1816	2453	2027	2096	2584	2784	2756	2363	2142	0.9179245	5.27E-05
CDR20291_2163	356	713	584	639	684	604	546	581	688	610	570	0.106289284	0.912272704
CDR20291_2164	369	489	460	413	522	560	454	486	410	429	477	-0.350738219	0.44440221
CDR20291_2165	731	967	809	964	1040	852	1131	1142	1033	1102	1322	-0.195237834	0.741270179
CDR20291_2166	633	1301	1233	942	1078	872	1096	983	1041	719	898	-0.019336165	0.993056754
CDR20291_2167	60	144	83	145	126	144	146	145	115	28	41	0.187974595	0.960001773
CDR20291_2168	254	1627	1302	1718	1346	1491	1550	1373	1512	1190	1263	1.800302758	9.02E-18
CDR20291_2169	105	700	705	704	729	745	774	495	567	686	1099	2.08041492	2.29E-09
CDR20291_2170	218	1108	1131	957	1225	1133	1087	1064	952	967	978	1.581825531	3.16E-15
CDR20291_2171	300	545	569	368	397	565	499	423	320	504	317	-0.112447733	0.950690448
CDR20291_2172	4089	7578	6626	6516	6564	7091	6718	6524	6763	5910	7295	0.025229616	0.971144882
CDR20291_2173	1638	2577	2572	2466	2649	2436	2818	2213	2799	2387	2404	-0.071718132	0.885147643
CDR20291_2174	439	897	815	818	684	810	919	788	841	1003	749	0.225164469	0.660688328
CDR20291_2175	2	0	0	1	2	0	2	2	2	13	3	NA	NA
CDR20291_2176	7	6	7	19	6	0	3	4	4	10	2	NA	NA
CDR20291_2177	93	165	130	151	159	173	229	180	245	135	294	0.298182562	0.841713176
CDR20291_2178	26	33	8	13	6	18	21	22	36	6	3	-1.360802552	0.644205087
CDR20291_2179	1	1	2	0	0	1	0	1	1	1	3	NA	NA
CDR20291_2180	4	6	5	3	1	10	3	3	4	2	3	NA	NA
CDR20291_2181	560	924	1000	947	1028	972	1244	1066	1158	926	1304	0.215903419	0.65915918
CDR20291_2182	14	38	23	47	26	46	9	33	12	27	40	0.413754136	0.92860678
CDR20291_2183	438	906	601	817	605	709	810	770	779	720	717	0.063411559	0.958032231
CDR20291_2184	41	144	85	133	117	79	52	110	132	122	108	0.706116381	0.579251237
CDR20291_2185	108	53	54	49	147	70	93	75	51	87	104	-1.165468014	0.256876838
CDR20291_2186	3	0	0	0	2	0	1	0	0	2	1	NA	NA
CDR20291_2187	5143	8081	7733	6599	7229	7681	7409	7775	7628	6359	7036	-0.184624654	0.420415645
CDR20291_2188	877	1732	1800	1355	1262	1518	1647	1318	1248	1238	1126	-0.001353424	0.997856314
CDR20291_2189	596	860	792	795	834	746	780	992	725	841	768	-0.249603049	0.580786874
CDR20291_2190	41	46	28	52	41	36	24	16	27	21	16	-1.116110874	0.532254323

CDR20291_2191	244	392	430	286	470	376	362	412	273	346	355	-0.098601458	0.950690448
CDR20291_2192	274	561	319	346	327	419	287	307	430	303	374	-0.2779026	0.750540968
CDR20291_2193	0	2	0	0	0	0	0	0	1	0	1	NA	NA
CDR20291_2194	318	409	368	423	389	536	459	541	396	397	617	-0.186700624	0.854987503
CDR20291_2195	495	544	526	607	572	716	779	644	665	560	679	-0.35492578	0.429142366
CDR20291_2196	353	687	746	726	642	820	716	687	635	651	632	0.277144866	0.541401284
CDR20291_2197	2	1	0	1	1	1	2	0	2	2	4	NA	NA
CDR20291_2199	27	59	57	44	15	50	97	105	32	45	40	0.304866582	0.943731346
CDR20291_2200	176	234	212	172	122	134	199	158	279	138	154	-0.667849103	0.437675307
CDR20291_2201	154	197	143	228	214	298	307	243	240	200	214	-0.134244031	0.943731346
CDR20291_2202	4	3	16	16	0	1	12	0	14	2	1	NA	NA
CDR20291_2203	33	55	89	24	19	38	39	59	51	81	44	-0.095223914	0.991007161
CDR20291_2204	11	7	17	8	14	13	29	24	18	8	1	-0.374511073	0.958032231
CDR20291_2205	12	0	0	2	35	3	22	2	11	19	8	-0.945020953	0.912272704
CDR20291_2205;													
CDR20291_2206	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_2206	1831	2789	2924	2985	3139	2569	3106	3126	3239	2613	3425	0.009152941	0.993056754
CDR20291_2207	1849	2984	3708	3504	3690	3661	3870	3613	4022	3072	3038	0.227397823	0.483318108
CDR20291_2208	1851	2895	2817	3245	3033	3334	3312	2866	3221	2366	3102	0.005406327	0.995043151
CDR20291_2209	2136	2866	2492	3062	2797	3288	2762	2714	2922	2531	3105	-0.280664544	0.298822723
CDR20291_2210	1203	1020	861	876	1002	1029	1058	994	992	810	1114	-1.003447721	6.07E-08
CDR20291_2211	486	19	4	6	10	30	4	17	15	5	14	-5.996370759	5.31E-14
CDR20291_2212	285	2	4	4	0	25	10	1	6	6	17	-5.94844543	2.62E-06
CDR20291_2213	6	2	4	1	1	1	3	1	4	0	6	NA	NA
CDR20291_2214	2045	5932	2702	3719	4484	5526	5284	6843	3868	3843	4803	0.496373949	0.574707922
CDR20291_2215	46	213	155	89	125	251	131	181	78	95	139	0.959400881	0.380029683
CDR20291_2216	222	265	75	136	218	242	253	286	163	187	146	-0.878610856	0.323126125
CDR20291_2217	2415	9368	4108	4851	5798	8829	7459	8588	5492	4894	8203	0.779525097	0.311082618
CDR20291_2218	4851	8808	5983	6941	8088	8591	9194	8594	7874	7659	8820	0.029908755	0.973993588
CDR20291_2219	6571	13459	11160	13323	14740	12472	16401	15088	14614	12686	14523	0.374131083	0.053938908

CDR20291_2220	14	23	33	56	47	33	76	28	36	24	49	0.827898682	0.692114464
CDR20291_2221	330	1418	312	1131	965	987	1742	1510	1470	976	1550	1.16362239	0.329335741
CDR20291_2222	296	510	372	417	337	480	493	602	448	563	413	-0.051407423	0.979969056
CDR20291_2223	38	21	42	52	16	14	39	49	30	11	31	-1.01442464	0.643651431
CDR20291_2224	97	105	91	164	120	166	235	171	132	182	144	-0.061880228	0.988332645
CDR20291_2225	4696	7941	6690	7710	8250	7987	9202	8471	8235	8147	7899	0.077938525	0.852273016
CDR20291_2226	4000	8594	5434	6383	7482	8722	8926	9653	6911	6135	7735	0.221858837	0.646322042
CDR20291_2227	35	81	121	52	55	40	39	89	71	112	31	0.291029692	0.935800108
CDR20291_2228	136	95	68	62	99	98	125	113	56	72	132	-1.268306527	0.085380121
CDR20291_2229	1	0	0	1	0	0	0	0	1	1	0	NA	NA
CDR20291_2230	145	235	201	205	200	314	187	151	188	206	150	-0.20860883	0.885815951
CDR20291_2231	84	198	158	221	329	95	209	201	217	236	180	0.584399244	0.59134876
CDR20291_2232	862	1315	1366	1496	1755	1363	1557	1534	1728	1630	1258	0.100915527	0.894325934
CDR20291_2233	254	344	297	256	234	210	415	259	305	401	230	-0.483866807	0.544269073
CDR20291_2234	19	65	21	36	13	15	36	31	19	64	46	0.170933917	0.977706637
CDR20291_2235	15	27	75	39	42	46	60	42	11	27	47	0.771566729	0.739343088
CDR20291_2236	14	31	20	4	15	36	56	3	20	7	40	0.008459808	0.997856314
CDR20291_2237	7	5	2	2	1	3	2	0	2	1	2	NA	NA
CDR20291_2238	6	0	0	2	5	6	2	0	10	5	12	NA	NA
CDR20291_2239	7	1	2	5	1	3	4	1	2	1	2	NA	NA
CDR20291_2240	0	0	5	1	0	0	1	0	6	1	1	NA	NA
CDR20291_2241	6	5	1	1	2	1	2	2	2	0	0	NA	NA
CDR20291_2242	6	0	0	0	0	0	0	2	0	1	2	NA	NA
CDR20291_2243	6	3	1	4	3	1	3	0	18	1	2	NA	NA
CDR20291_2244	1	0	0	0	0	2	3	2	1	0	2	NA	NA
CDR20291_2245	322	374	273	433	403	382	433	340	569	390	345	-0.408230822	0.546093188
CDR20291_2246	145	227	228	154	164	245	258	179	242	256	132	-0.176825383	0.918573372
CDR20291_2247	13	20	46	24	5	23	21	15	27	23	38	0.204803504	0.97352847
CDR20291_2248	39	22	113	76	65	103	58	60	69	65	27	0.061317718	0.993056754
CDR20291_2249	49	71	126	85	86	134	68	35	96	66	84	0.099487382	0.983813195

CDR20291_2250	207	333	540	303	437	389	458	298	273	349	299	0.129180123	0.943731346
CDR20291_2251	22	25	77	9	44	56	23	18	19	32	43	-0.042492443	0.993056754
CDR20291_2252	239	480	572	546	501	551	448	430	526	531	568	0.412545639	0.39619451
CDR20291_2253	164	211	232	218	299	339	161	242	208	302	408	-0.017642428	0.993163287
CDR20291_2254	129	383	479	321	464	436	344	169	190	299	141	0.621702175	0.596978014
CDR20291_2255	9	32	15	12	13	16	39	3	3	11	13	0.085392384	0.993056754
CDR20291_2256	68	179	324	152	208	218	121	110	90	165	124	0.619451379	0.648287231
CDR20291_2257	435	504	406	547	637	734	588	629	551	506	704	-0.283419137	0.65915918
CDR20291_2258	346	336	393	327	306	303	233	282	309	275	270	-0.886007953	0.024517303
CDR20291_2259	4	2	15	0	3	9	3	5	11	5	8	NA	NA
CDR20291_2260	257	453	288	461	407	408	310	595	498	456	511	0.075585455	0.971144882
CDR20291_2261	133	43	138	135	159	86	130	87	306	79	96	-0.779595866	0.622721546
CDR20291_2262	19	50	38	26	13	14	6	34	56	34	24	-0.058330306	0.993056754
CDR20291_2263	289	731	831	718	690	684	797	558	708	884	555	0.610732323	0.119787083
CDR20291_2264	666	1766	1607	1657	1778	1837	1639	1718	1451	1609	1553	0.619928876	0.000964945
CDR20291_2265	3102	8408	7579	7419	8213	8103	7703	7277	7033	7425	6814	0.592841221	8.11E-06
CDR20291_2266	148	158	229	178	136	128	144	83	178	131	134	-0.678176198	0.462134707
CDR20291_2267	25	48	43	14	29	39	88	34	23	82	53	0.154797663	0.977706637
CDR20291_2268	140	272	330	206	194	218	240	307	302	241	260	0.178061224	0.90099062
CDR20291_2269	37	119	162	122	161	127	83	94	71	109	129	0.974194637	0.311082618
CDR20291_2270	3562	7940	7623	6575	7264	7380	6595	6631	6138	6578	6527	0.260213301	0.270187526
CDR20291_2271	2269	4829	4706	4037	4696	4287	3981	3420	3707	3670	3805	0.158855589	0.702648248
CDR20291_2272	3279	5170	4741	4417	4556	4496	4963	4281	4235	4213	4722	-0.218110773	0.294422057
CDR20291_2273	19	10	29	25	17	18	10	12	32	23	26	-0.600300239	0.860579883
CDR20291_2274	148	140	77	200	102	102	228	136	111	142	119	-0.826643982	0.396164067
CDR20291_2275	790	1961	1865	1691	1822	1694	2052	1670	2061	1628	1859	0.511319417	0.006803646
CDR20291_2276	1086	2095	1655	1910	2142	1865	1811	1839	1807	1755	2452	0.133091071	0.821160902
CDR20291_2277	3455	7623	7042	7762	6591	8290	8605	7519	7678	7520	9438	0.477220205	0.015435854
CDR20291_2278	2573	3877	3845	4178	4264	4262	5039	4381	4416	4009	5160	0.055395487	0.943731346
CDR20291_2279	5058	7912	8278	8296	8632	8652	9087	9415	9478	9020	9444	0.104183026	0.750540968

CDR20291_2279;													
CDR20291_2280	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_2280	8198	17830	16420	18259	16985	18394	21055	18186	19179	17421	20657	0.469659232	0.001182143
CDR20291_2281	14	69	62	25	25	34	122	25	60	84	28	1.223008547	0.549679025
CDR20291_2282	7	0	1	1	3	3	3	1	3	2	1	NA	NA
CDR20291_2283	4463	7758	6387	6732	7830	8484	8842	8919	8430	7791	7967	0.125498797	0.732886603
CDR20291_2284	7018	13799	11954	12507	12840	12868	13772	13273	13328	11585	13103	0.178280859	0.249817942
CDR20291_2285	113	249	85	107	220	177	224	220	246	245	227	0.1204307	0.966634509
CDR20291_2286	6044	10025	9216	9556	10280	9057	10870	10614	9210	9235	9202	-0.013706303	0.988538891
CDR20291_2287	5526	7360	7631	6822	7923	7776	8319	7291	7150	6948	6474	-0.285236044	0.076393109
CDR20291_2288	1141	1683	1628	1466	1480	1516	1722	1392	1429	1569	1500	-0.268247498	0.31470434
CDR20291_2289	2	0	2	0	0	1	1	0	2	1	1	NA	NA
CDR20291_2290	0	0	2	1	1	2	1	0	1	1	0	NA	NA
CDR20291_2291	69	146	104	181	150	212	178	129	164	181	98	0.46199943	0.680677222
CDR20291_2292	194	279	359	396	490	303	341	240	334	415	353	0.159762818	0.916749193
CDR20291_2293	0	0	0	1	1	1	1	1	4	1	3	NA	NA
CDR20291_2294	5006	7340	6765	6419	7140	7362	7115	6903	6761	7062	7171	-0.214613569	0.180937164
CDR20291_2295	481	520	476	482	598	697	630	737	519	423	520	-0.482608994	0.305939313
CDR20291_2296	20790	33478	27822	29033	31861	30003	35363	33420	33179	31863	31700	-0.088456927	0.750540968
CDR20291_2297	9557	14054	12670	12456	12962	14137	15999	14781	14761	13522	13294	-0.164059666	0.464030615
CDR20291_2298	1928	3365	2910	2961	3046	2868	3376	3313	3304	2738	3261	-0.008791362	0.993056754
CDR20291_2299	136	243	313	194	248	238	196	325	261	280	274	0.223297671	0.854987503
CDR20291_2300	1	0	1	0	0	0	1	0	0	1	0	NA	NA
CDR20291_2301	50	68	50	79	73	68	90	45	67	87	119	-0.120401696	0.97352847
CDR20291_2302	8	0	2	2	2	3	0	0	4	1	1	NA	NA
CDR20291_2303	5	4	5	2	1	2	4	2	8	0	13	NA	NA
CDR20291_2304	398	428	481	535	412	498	524	337	352	440	331	-0.574136808	0.247296234
CDR20291_2305	282	378	506	474	513	446	389	490	374	486	471	-0.012391386	0.993056754
CDR20291_2306	14	28	42	41	5	0	53	11	36	1	36	0.147112596	0.993056754
CDR20291_2307	30	58	50	57	34	78	46	92	59	86	84	0.409167498	0.859194195

CDR20291_2308	54	29	26	79	44	71	31	57	80	20	3	-0.993751901	0.688640316
CDR20291_2309	12	2	3	0	2	1	2	0	4	1	1 NA		NA
CDR20291_2310	81	172	181	189	181	230	156	174	235	112	16	0.320753288	0.917651362
CDR20291_2311	87	156	117	127	108	140	152	222	112	206	67	-0.003743202	0.997856314
CDR20291_2312	528	688	572	612	513	791	821	717	592	439	810	-0.390907019	0.501722528
CDR20291_2313	254	419	266	402	441	395	406	371	412	284	369	-0.134370772	0.913212471
CDR20291_2314	141	287	189	299	213	264	160	214	201	269	201	0.009740246	0.997564945
CDR20291_2315	544	66	414	93	46	130	70	127	139	121	60	-2.790256663	0.054103491
CDR20291_2316	1	2	8	2	8	6	7	7	11	14	3 NA		NA
CDR20291_2317	83	62	87	71	102	134	125	123	89	101	146	-0.374658162	0.811230391
CDR20291_2318	245	295	341	359	380	470	440	324	255	445	144	-0.203912948	0.912716668
CDR20291_2319	44	88	215	70	65	104	79	91	50	23	82	0.279541306	0.9450288
CDR20291_2320	41	67	44	80	53	136	120	126	54	102	107	0.41673361	0.854700031
CDR20291_2321	0	0	0	0	1	1	3	1	1	0	2 NA		NA
CDR20291_2322	814	1091	822	1080	952	847	1118	981	1062	859	954	-0.437924442	0.127380122
CDR20291_2323	66	56	164	82	62	138	118	132	158	91	120	0.066416369	0.992729893
CDR20291_2324	8	2	6	1	2	7	8	5	7	6	9 NA		NA
CDR20291_2325	3	6	1	0	2	3	5	0	4	1	1 NA		NA
CDR20291_2326	1005	1296	1381	1141	1452	1355	1590	1479	1612	1596	1612	-0.168881873	0.717114511
CDR20291_2326;													
CDR20291_2327	9	21	30	51	33	34	5	1	7	62	78	1.163646644	0.75470509
CDR20291_2327	3	7	0	1	0	1	5	1	2	2	1 NA		NA
CDR20291_2328	39811	52925	44430	48834	48075	52496	48972	49942	52019	39820	48896	-0.411413152	0.004263995
CDR20291_2329	751	1183	1195	1090	1210	1154	1089	1314	1254	803	1191	-0.087910135	0.922474994
CDR20291_2330	41	59	48	67	54	38	91	74	75	21	36	-0.250643519	0.948369562
CDR20291_2331	276	850	780	614	914	1002	708	765	746	540	700	0.762650663	0.032116245
CDR20291_2332	20	25	128	70	49	66	90	37	70	54	115	1.120314877	0.501671327
CDR20291_2333	2429	4597	4126	3912	4294	4416	3922	3612	3558	3526	3495	-5.41E-05	0.999921486
CDR20291_2334	207	349	377	230	492	298	336	404	410	330	273	0.05574679	0.983498093
CDR20291_2335	0	0	0	0	0	1	3	0	1	0	2 NA		NA

CDR20291_2336	3432	5648	5443	5152	5949	5800	6006	6160	5994	5912	6418	0.069940194	0.868034697
CDR20291_2337	15	17	60	44	53	0	25	58	42	25	30	0.545817576	0.917651362
CDR20291_2338	10	1	1	0	0	5	0	0	10	13	0 NA	NA	
CDR20291_2339	0	0	0	0	0	1	1	0	0	2	0 NA	NA	
CDR20291_2340	381	245	356	392	419	597	475	301	484	328	560	-0.574244521	0.444274094
CDR20291_2341	7	2	3	4	4	5	3	6	7	1	14 NA	NA	
CDR20291_2342	10	4	1	1	2	4	2	10	4	6	0 NA	NA	
CDR20291_2343	31	138	48	73	94	122	91	108	81	44	117	0.856754663	0.526002377
CDR20291_2344	514	698	840	709	817	715	874	699	581	637	799	-0.18049393	0.765243306
CDR20291_2345	26	129	52	61	162	66	69	71	49	54	41	0.828495072	0.638048331
CDR20291_2346	2	7	1	27	8	1	1	4	2	18	4 NA	NA	
CDR20291_2347	594	1285	1098	964	1186	1076	1107	1145	1069	850	1153	0.178702933	0.700659075
CDR20291_2348	69	179	297	175	147	223	217	270	124	97	169	0.758713517	0.460230714
CDR20291_2349	5734	8865	6194	7631	7570	7553	9270	9823	8273	8375	8988	-0.174670282	0.65915918
CDR20291_2350	170	308	210	311	317	341	296	277	215	261	235	0.004633311	0.997856314
CDR20291_2351	2106	3408	3412	2816	2959	2934	3273	2922	2893	2833	3117	-0.16230856	0.592746166
CDR20291_2352	43	185	188	189	165	190	160	106	178	153	141	1.246072637	0.033569627
CDR20291_2353	209	211	200	186	265	215	199	157	199	258	283	-0.640777877	0.311082618
CDR20291_2354	9	23	27	5	8	6	10	29	21	46	4	0.304913008	0.971144882
CDR20291_2355	3	2	1	0	1	1	3	0	1	1	6 NA	NA	
CDR20291_2356	3	4	4	1	4	3	3	0	4	1	2 NA	NA	
CDR20291_2357	168	207	314	172	227	220	340	123	146	212	290	-0.279791933	0.859194195
CDR20291_2358	478	694	801	531	644	800	862	686	755	625	670	-0.137776968	0.859194195
CDR20291_2359	12	20	26	9	22	18	44	5	22	10	8	-0.100103656	0.993056754
CDR20291_2360	569	945	955	941	623	1260	896	954	1026	790	1225	0.05881261	0.971144882
CDR20291_2361	0	0	14	2	0	13	1	13	22	0	3 NA	NA	
CDR20291_2362	11	11	1	4	1	3	4	0	7	2	2 NA	NA	
CDR20291_2363	2	1	2	0	7	1	3	2	7	5	1 NA	NA	
CDR20291_2364	221	199	294	358	481	425	295	400	329	271	339	-0.080420349	0.971144882
CDR20291_2365	1556	2330	2294	2488	2588	2892	2980	2648	2722	2344	2602	0.033892106	0.969028946

CDR20291_2366	2	0	1	0	0	0	0	0	1	0	1 NA	NA	
CDR20291_2367	16	71	56	24	57	127	41	38	63	35	41	1.084048678	0.55667658
CDR20291_2368	1709	2180	2186	2275	2361	2457	2223	2311	2182	2113	2282	-0.297363352	0.123883232
CDR20291_2369	690	906	1180	1143	1315	1076	1588	1370	1336	1411	1376	0.181309671	0.787925587
CDR20291_2370	259	307	87	202	178	258	376	475	221	288	317	-0.639055837	0.592746166
CDR20291_2371	642	805	973	999	1027	1175	1256	1175	1034	1039	1581	0.086676592	0.950690448
CDR20291_2372	1345	2237	1677	2049	2256	2217	2633	2162	2162	2133	2456	0.007560302	0.993056754
CDR20291_2373	1083	2940	2712	2742	3039	3103	3173	3155	3137	2992	2957	0.767913317	5.06E-09
CDR20291_2374	896	2211	1824	1599	1975	1644	2115	1867	1927	1954	1804	0.377503197	0.119579161
CDR20291_2375	0	0	0	1	0	0	7	2	0	2	1 NA	NA	
CDR20291_2376	1	2	1	0	2	2	2	0	6	3	4 NA	NA	
CDR20291_2377	151	267	197	251	186	257	210	193	289	150	167	-0.180113012	0.913212471
CDR20291_2378	279	316	367	328	348	246	423	340	398	299	419	-0.379925433	0.560277281
CDR20291_2379	725	1010	1033	1285	972	965	1276	1159	1381	1037	1356	-0.036052943	0.983498093
CDR20291_2380	47	50	25	37	33	60	91	62	106	30	33	-0.54672385	0.82566701
CDR20291_2381	124	56	50	53	90	98	85	82	57	89	98	-1.4095412	0.053269029
CDR20291_2382	352	490	388	425	453	402	341	436	488	404	322	-0.461420759	0.346340824
CDR20291_2383	283	418	272	438	422	562	304	452	533	417	410	-0.118245426	0.948369562
CDR20291_2384	1272	1687	1595	1710	2019	1746	1996	1770	1941	1529	1646	-0.229538116	0.454623276
CDR20291_2385	9	1	6	8	4	5	8	9	15	7	7 NA	NA	
CDR20291_2386	14	2	3	5	3	7	5	0	8	4	4 NA	NA	
CDR20291_2387	9	5	5	4	2	6	5	0	3	4	11 NA	NA	
CDR20291_2388	4	1	2	0	0	1	4	3	2	0	1 NA	NA	
CDR20291_2389	4	1	5	2	1	2	2	1	3	0	6 NA	NA	
CDR20291_2390	5488	7777	7552	7985	8540	8228	9615	9611	8590	9107	8307	-0.062702449	0.913212471
CDR20291_2391	18	5	5	7	1	2	8	12	9	2	8 NA	NA	
CDR20291_2392	97	230	198	121	308	295	273	193	191	197	223	0.495214689	0.605485894
CDR20291_2393	1442	2174	2453	2163	2628	2218	2297	2449	2136	2103	2415	-0.023066979	0.984159655
CDR20291_2394	272	285	446	380	376	435	368	426	410	434	476	-0.126072477	0.922364345
CDR20291_2395	524	301	307	258	317	341	239	258	265	113	363	-1.625660802	0.000465221

CDR20291_2396	63	128	120	66	83	66	87	81	69	84	100	-0.211190484	0.931537513
CDR20291_2397	3423	5105	4483	5251	5085	5500	5633	4997	5433	5343	5113	-0.097418936	0.776775878
CDR20291_2398	464	779	947	869	1084	931	1045	685	743	650	653	0.151645373	0.868631499
CDR20291_2399	428	982	692	773	669	658	671	595	688	606	824	0.042493523	0.981325934
CDR20291_2400	1915	3198	2660	2909	2957	2767	2884	2648	2879	2417	2690	-0.151712499	0.624175269
CDR20291_2401	60	77	92	57	105	57	52	96	109	85	86	-0.253249501	0.917651362
CDR20291_2402	495	433	418	482	560	645	638	576	589	567	450	-0.586331615	0.133058865
CDR20291_2403	229	157	129	99	110	185	217	159	182	104	200	-1.276376923	0.025670267
CDR20291_2404	1	4	0	1	0	3	1	2	0	1	2	NA	NA
CDR20291_2405	1	0	0	0	2	0	5	1	1	0	1	NA	NA
CDR20291_2406	1185	2481	2274	2589	2613	2563	2816	2759	2836	2517	3023	0.460356391	0.018522194
CDR20291_2407	1214	2535	1862	2278	1777	2286	2631	2271	1962	2291	2325	0.172140152	0.702648248
CDR20291_2408	1194	2198	1829	2404	2481	2611	2959	2619	2364	2349	3121	0.362134113	0.309031575
CDR20291_2409	2003	3052	2545	2825	3076	2764	3144	3008	3150	2966	2753	-0.151922242	0.605816386
CDR20291_2410	13	3	5	3	5	9	8	3	9	6	7	NA	NA
CDR20291_2411	708	746	701	869	978	886	852	1009	705	895	749	-0.453193077	0.225808135
CDR20291_2412	46	95	102	91	88	34	88	81	48	77	70	0.052719339	0.993056754
CDR20291_2413	10	2	4	2	1	0	4	0	1	2	3	NA	NA
CDR20291_2414	228	490	317	376	436	274	250	415	334	450	393	0.016578998	0.993056754
CDR20291_2415	2672	3845	4317	3583	4024	3812	4483	4353	4513	4504	3493	-0.083793205	0.881904062
CDR20291_2416	8	53	12	40	7	39	12	24	21	20	22	0.94689855	0.7612632
CDR20291_2417	218	473	353	286	456	328	356	362	388	457	333	0.099121981	0.950690448
CDR20291_2418	1	1	0	0	2	1	0	0	3	0	0	NA	NA
CDR20291_2419	72	149	98	128	167	207	283	298	105	132	159	0.553844562	0.672058271
CDR20291_2420	465	637	609	649	567	813	800	661	621	537	618	-0.215683127	0.700659075
CDR20291_2421	33	44	60	38	93	68	81	56	30	18	6	-0.130333119	0.987180179
CDR20291_2422	447	447	671	581	511	605	611	729	538	633	622	-0.284084818	0.646322042
CDR20291_2423	12	94	53	41	20	52	36	33	44	30	28	1.141395765	0.559648126
CDR20291_2424	195	273	217	228	301	169	241	328	277	168	112	-0.456485471	0.660146006
CDR20291_2425	35	70	177	66	80	92	147	150	97	149	83	0.969280615	0.429538364

CDR20291_2426	3	2	0	3	1	3	1	0	4	2	4 NA	NA	
CDR20291_2427	49	94	63	106	120	100	158	95	168	123	122	0.527218094	0.67665523
CDR20291_2428	14	107	116	101	58	83	39	54	84	95	42	1.784827305	0.111349813
CDR20291_2429	501	814	614	582	881	659	636	714	745	476	783	-0.239701197	0.702648248
CDR20291_2430	807	1528	1649	1561	1405	1752	1575	1742	1596	1163	1500	0.238963841	0.562218556
CDR20291_2431	184	429	351	342	351	377	333	373	303	326	268	0.208357292	0.806385533
CDR20291_2431;													
CDR20291_2432	0	0	0	0	0	1	0	0	0	0	0 NA	NA	
CDR20291_2432	853	1427	1337	1213	1278	1292	1361	1435	1440	1412	1277	-0.039546436	0.961066636
CDR20291_2433	142	184	151	162	163	217	137	254	180	233	175	-0.30916493	0.790290181
CDR20291_2434	5573	10552	11845	9126	10965	14181	10201	7460	7699	8600	9133	0.139868491	0.917651362
CDR20291_2435	756	1367	1288	1315	1324	1800	1572	1302	1223	986	1243	0.125568483	0.867839408
CDR20291_2436	2598	4741	4642	4212	4646	5793	5397	4509	4371	4232	4380	0.151670825	0.65915918
CDR20291_2437	3206	4316	3232	3645	3919	4408	4828	4532	4448	3590	3901	-0.354004525	0.131242269
CDR20291_2438	6	28	19	11	61	13	4	3	26	13	43	1.180244694	0.750540968
CDR20291_2439	6	7	7	2	7	2	3	3	3	5	1 NA	NA	
CDR20291_2440	53	79	44	83	28	48	22	69	92	101	111	-0.333712676	0.925037296
CDR20291_2441	106	155	140	124	142	117	139	149	155	106	228	-0.242890316	0.873157907
CDR20291_2442	1906	1629	2632	1626	1247	1823	1771	1776	1669	1426	972	-0.900367018	0.181867963
CDR20291_2443	138	69	106	9	8	58	43	29	58	37	69	-2.205506895	0.108111237
CDR20291_2444	3	0	1	2	1	2	0	0	8	1	1 NA	NA	
CDR20291_2445	1331	2143	1732	2140	1862	1790	1861	1933	1863	1468	1528	-0.239193831	0.552455518
CDR20291_2446	70	71	37	78	97	87	132	152	84	35	91	-0.405091978	0.859194195
CDR20291_2447	56	34	53	67	56	36	68	118	80	19	61	-0.622001209	0.760139695
CDR20291_2448	1	1	1	0	4	0	1	0	2	0	0 NA	NA	
CDR20291_2449	120	133	116	125	165	126	161	121	110	182	184	-0.451848102	0.649602625
CDR20291_2450	128	88	157	136	105	136	103	164	146	127	116	-0.69681012	0.416061783
CDR20291_2451	646	948	974	1034	1024	1085	1107	1198	913	1058	1074	-0.009259887	0.993056754
CDR20291_2452	10	7	45	19	47	7	16	2	6	2	34	0.190429612	0.988538891
CDR20291_2453	518	480	386	530	463	515	423	423	514	426	333	-0.903961125	0.005571424

CDR20291_2454	231	328	264	267	308	306	250	328	241	360	273	-0.35624414	0.611991193
CDR20291_2455	244	380	382	429	290	476	282	449	396	383	473	-0.003349166	0.997856314
CDR20291_2456	17	15	21	10	48	11	53	24	15	18	5	-0.3446142	0.952861869
CDR20291_2456;													
CDR20291_2457	0	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_2457	4	0	4	8	9	4	4	1	5	2	4	NA	NA
CDR20291_2458	760	937	1119	932	949	962	953	1080	1071	1021	796	-0.32808748	0.377455714
CDR20291_2459	97	158	200	199	197	148	100	170	173	140	107	0.019733764	0.993056754
CDR20291_2460	1	3	1	0	1	0	3	0	2	4	3	NA	NA
CDR20291_2461	2	0	2	1	0	2	5	0	0	2	5	NA	NA
CDR20291_2462	6	1	5	0	1	1	4	0	3	1	3	NA	NA
CDR20291_2463	2	1	1	2	1	2	0	2	3	3	4	NA	NA
CDR20291_2464	192	159	105	162	108	97	156	222	184	123	157	-1.082174379	0.094476094
CDR20291_2465	194	434	427	293	309	533	596	413	344	330	370	0.356331412	0.658276033
CDR20291_2466	1153	1825	1786	1609	1757	2001	2011	1844	1704	1606	1802	-0.062529078	0.918573372
CDR20291_2467	6	47	42	32	53	19	52	23	35	23	68	2.010854795	0.214260059
CDR20291_2468	277	385	477	471	411	544	390	432	641	454	362	0.024404696	0.993056754
CDR20291_2469	222	239	321	368	554	316	284	387	373	197	434	-0.053699843	0.988034605
CDR20291_2470	3	5	4	0	3	4	0	0	4	2	2	NA	NA
CDR20291_2471	3	1	1	0	0	5	1	0	5	1	2	NA	NA
CDR20291_2472	11	4	3	0	6	1	9	1	13	13	10	NA	NA
CDR20291_2473	6	1	2	0	2	3	3	0	6	1	2	NA	NA
CDR20291_2473;													
CDR20291_2474	0	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_2474	1	0	0	0	0	0	0	0	0	0	2	NA	NA
CDR20291_2475	1	3	2	4	0	2	5	0	1	0	2	NA	NA
CDR20291_2476	3	1	3	8	1	2	3	1	2	0	3	NA	NA
CDR20291_2477	4	1	3	4	1	3	4	0	5	3	9	NA	NA
CDR20291_2478	959	1810	2031	1858	1944	2105	1968	1619	1986	1758	1741	0.273461619	0.334239182
CDR20291_2479	18	17	13	11	27	38	15	4	9	19	7	-0.872137243	0.810538184

CDR20291_2480	1064	1287	1052	1077	1220	1050	1423	1091	1190	1158	1045	-0.577819376	0.006589535
CDR20291_2481	4304	7297	6093	6249	6582	7565	7034	7342	7274	6070	6652	-0.03741759	0.950690448
CDR20291_2482	438	586	459	599	717	584	820	670	390	616	648	-0.226282306	0.791141037
CDR20291_2483	7	6	5	18	9	14	13	5	5	6	2 NA	NA	
CDR20291_2484	18	4	51	37	22	13	20	20	37	14	39	-0.175934936	0.983551317
CDR20291_2485	432	760	543	463	394	605	629	696	558	497	582	-0.29526921	0.658276033
CDR20291_2486	60	182	224	170	272	176	216	319	270	300	154	1.230603027	0.045027973
CDR20291_2487	1357	1975	2138	2102	2143	2154	2169	2055	2231	1906	1956	-0.081018116	0.85754216
CDR20291_2488	265	884	788	647	740	684	719	610	675	722	592	0.714092786	0.018374571
CDR20291_2489	144	413	356	303	192	372	315	243	290	253	250	0.35212925	0.700659075
CDR20291_2490	7246	10982	10468	12094	11580	12603	14229	13572	13199	12361	12825	0.074560825	0.882458564
CDR20291_2491	339	1034	753	743	599	849	742	713	670	815	691	0.467596521	0.288799515
CDR20291_2492	1141	2640	3095	2140	2669	2233	2823	2451	2403	2280	2787	0.461228116	0.056215109
CDR20291_2493	4	3	2	11	1	5	12	4	5	1	2 NA	NA	
CDR20291_2494	4	4	3	7	2	2	11	2	7	3	10 NA	NA	
CDR20291_2495	4071	4916	4969	5312	4637	6238	5998	6388	6168	5874	5738	-0.232182871	0.501671327
CDR20291_2496	3232	4902	4021	4393	5101	4658	4903	5391	5259	4552	5221	-0.117335497	0.749146495
CDR20291_2497	1279	1649	1654	1424	1399	1366	1512	1220	1356	1587	1397	-0.510627728	0.035107687
CDR20291_2498	3577	4417	4775	4374	4691	4492	4772	4657	5417	4913	4684	-0.298474359	0.123846614
CDR20291_2499	9490	16144	14390	15465	16578	15979	18950	17809	17843	14650	16585	0.091518355	0.782446132
CDR20291_2500	110	146	103	114	246	156	112	133	113	87	106	-0.444998151	0.719868228
CDR20291_2501	2204	3584	3547	3501	3664	3779	3872	3508	3563	3516	3597	0.013791221	0.987180179
CDR20291_2502	14	1	3	5	5	4	9	4	18	6	9 NA	NA	
CDR20291_2503	99	136	69	75	71	112	108	83	89	44	54	-0.943730348	0.366307212
CDR20291_2504	322	224	193	194	170	379	221	307	174	179	199	-1.224405946	0.02218166
CDR20291_2505	317	151	207	158	138	123	147	170	128	60	312	-1.690305614	0.014922133
CDR20291_2506	1	1	0	0	1	1	2	1	0	0	3 NA	NA	
CDR20291_2507	2	3	1	1	1	0	0	0	4	9	1 NA	NA	
CDR20291_2508	36	28	32	51	42	55	29	10	43	15	27	-0.816261177	0.702648248
CDR20291_2509	341	628	727	532	483	710	618	623	573	505	611	0.118037774	0.912272704

CDR20291_2510	2067	3856	3508	3469	3887	4142	4504	3731	3981	3518	3643	0.186039103	0.444983553
CDR20291_2511	90	210	361	232	159	201	221	308	110	285	273	0.698520883	0.498172812
CDR20291_2512	683	1883	1808	1561	1604	1863	1600	1422	1655	1410	1412	0.547579288	0.023053101
CDR20291_2513	9	13	4	1	4	4	9	1	4	4	5 NA	NA	
CDR20291_2514	545	750	818	796	1161	917	800	992	862	764	1054	0.010876731	0.993056754
CDR20291_2515	579	1107	748	1179	969	894	1250	881	961	851	830	0.038126619	0.983498093
CDR20291_2516	219	51	205	98	126	105	123	190	112	90	168	-1.484591612	0.053351206
CDR20291_2517	2274	3944	3457	3739	4441	4126	3576	4177	3548	3684	3881	0.063558454	0.918573372
CDR20291_2518	143	257	234	240	289	306	402	364	317	275	259	0.338025998	0.65915918
CDR20291_2519	5	1	0	0	0	1	5	0	4	0	4 NA	NA	
CDR20291_2520	5	0	2	0	3	2	3	0	6	3	2 NA	NA	
CDR20291_2521	28	5	13	9	3	20	7	4	13	13	15	-2.147744546	0.334239182
CDR20291_2522	0	0	0	1	0	0	3	1	1	0	0 NA	NA	
CDR20291_2523	7	2	3	3	1	1	8	2	2	0	1 NA	NA	
CDR20291_2524	4	0	1	1	1	12	3	0	4	23	1 NA	NA	
CDR20291_2525	2614	2140	2096	2417	2011	1953	2465	2437	2365	2404	2095	-0.921753204	1.36E-07
CDR20291_2526	3	1	2	2	3	0	3	0	0	4	1 NA	NA	
CDR20291_2527	669	1173	1159	1157	1382	1302	1291	1397	1229	1330	1386	0.238227704	0.504882415
CDR20291_2528	238	594	476	440	340	465	540	409	432	576	374	0.266083774	0.728556335
CDR20291_2529	125	236	225	165	176	297	215	290	188	174	259	0.131257909	0.950690448
CDR20291_2530	5	0	1	4	3	3	0	1	4	1	2 NA	NA	
CDR20291_2531	3	6	2	0	4	0	4	0	1	4	2 NA	NA	
CDR20291_2532	1	1	2	1	8	0	5	1	3	0	3 NA	NA	
CDR20291_2533	357	798	671	736	1031	829	921	563	712	613	875	0.415386614	0.429538364
CDR20291_2534	282	723	392	425	572	338	489	616	570	479	656	0.198087781	0.860579883
CDR20291_2535	52	42	22	55	22	50	105	50	60	50	61	-0.714475199	0.700659075
CDR20291_2536	213	3012	2392	2219	2849	2785	2602	2453	2694	2233	3131	2.92896909	4.42E-53
CDR20291_2537	361	5545	4618	4728	5516	5155	5369	5571	4872	4645	5502	3.134669484	1.00E-112
CDR20291_2538	10	28	11	35	7	19	22	15	11	78	2	0.510196986	0.943731346
CDR20291_2539	4	0	4	1	4	4	5	0	6	2	8 NA	NA	

CDR20291_2540	2	1	3	1	4	0	3	1	4	2	7	NA	NA
CDR20291_2541	5	4	3	2	2	3	6	2	12	3	3	NA	NA
CDR20291_2542	1	3	2	2	3	3	2	0	4	2	3	NA	NA
CDR20291_2543	12	2	2	1	0	4	4	2	4	3	4	NA	NA
CDR20291_2544	13	12	15	33	8	19	17	35	73	44	23	0.412501297	0.943731346
CDR20291_2545	5	1	2	1	0	0	0	0	5	6	1	NA	NA
CDR20291_2546	86	145	181	253	192	187	333	287	187	206	287	0.692602609	0.417304447
CDR20291_2547	3	3	1	8	17	3	26	10	6	9	0	NA	NA
CDR20291_2548	76	67	72	102	88	77	99	72	75	127	56	-0.559267841	0.65915918
CDR20291_2549	131	28	71	20	25	43	16	24	25	53	17	-2.712853611	0.008480644
CDR20291_2550	22	22	9	20	16	30	10	20	13	15	21	-1.019198847	0.660688328
CDR20291_2551	7099	15543	16055	15460	15347	14678	16276	14784	15652	15798	16190	0.43561825	0.000262636
CDR20291_2552	193	387	273	432	528	347	354	536	521	375	354	0.390211152	0.629238645
CDR20291_2553	300	413	488	467	594	567	517	642	445	484	475	0.064242527	0.965576209
CDR20291_2554	7	1	1	1	2	2	1	0	4	1	0	NA	NA
CDR20291_2555	3	1	5	4	3	1	4	0	7	4	8	NA	NA
CDR20291_2556	33	24	43	8	45	22	14	10	29	25	49	-0.991416251	0.681968239
CDR20291_2557	7	4	2	4	18	5	2	2	2	0	3	NA	NA
CDR20291_2558	1	11	0	1	3	1	40	8	4	6	2	NA	NA
CDR20291_2559	5	0	3	16	13	29	8	10	13	9	4	0.374507752	0.971144882
CDR20291_2560	166	292	533	233	348	565	387	217	223	304	158	0.272467021	0.882458564
CDR20291_2561	415	681	846	564	664	1062	682	454	550	500	668	-0.01605353	0.993056754
CDR20291_2562	29	109	135	53	78	153	66	57	41	67	50	0.77973125	0.654461852
CDR20291_2563	203	386	555	449	538	439	413	445	418	528	450	0.491231707	0.326415764
CDR20291_2564	40	48	89	56	70	93	50	35	61	48	46	-0.122572057	0.97407819
CDR20291_2565	18	6	5	0	1	2	6	1	10	5	0	NA	NA
CDR20291_2566	140	138	182	174	271	243	266	148	135	152	306	-0.176712957	0.938477836
CDR20291_2567	214	240	289	221	342	228	216	335	282	261	318	-0.345090655	0.661549343
CDR20291_2568	279	439	268	425	255	431	300	305	350	224	438	-0.399223769	0.649602625
CDR20291_2569	1	4	2	0	2	0	1	0	3	0	4	NA	NA

CDR20291_2570	11	5	11	4	6	6	9	0	14	13	10	NA	NA
CDR20291_2571	51	9	24	33	54	16	16	35	43	27	29	-1.52857551	0.349477223
CDR20291_2572	998	1631	1473	1315	1479	1426	1609	1502	1670	1401	1130	-0.148704899	0.749146495
CDR20291_2573	8	0	5	1	3	4	5	5	7	5	11	NA	NA
CDR20291_2574	1	1	21	7	2	0	3	10	4	16	1	NA	NA
CDR20291_2575	152	316	209	257	267	312	228	366	317	285	382	0.253407206	0.815904679
CDR20291_2576	19	15	5	7	3	23	24	6	30	0	6	-1.39628077	0.71741461
CDR20291_2577	24477	40903	38867	35066	40650	40173	40602	40400	39406	38236	40638	-0.009384187	0.993056754
CDR20291_2578	7318	12464	11437	11176	11926	11743	12897	12170	11361	11716	11500	-0.005720336	0.993056754
CDR20291_2579	5346	5720	5396	5490	5790	5964	6486	6501	7196	6375	5564	-0.52132754	0.00253861
CDR20291_2580	2663	4360	4462	4312	4507	4009	4048	3882	4326	4148	3863	-0.043638876	0.950690448
CDR20291_2581	272	785	625	618	607	699	641	661	749	768	556	0.603987226	0.066604943
CDR20291_2582	815	1461	1294	1354	1123	1128	1543	1306	1585	1220	1337	0.011727403	0.993056754
CDR20291_2583	2639	2874	2078	4770	1458	2375	3868	3461	2939	3336	3169	-0.494705066	0.688640316
CDR20291_2584	37	42	69	84	43	38	53	28	47	10	86	-0.262426774	0.950690448
CDR20291_2585	79	183	127	168	120	162	261	217	132	98	145	0.323153321	0.836765806
CDR20291_2586	3	0	0	0	0	2	3	0	0	1	3	NA	NA
CDR20291_2587	3	4	6	0	2	1	8	0	0	2	3	NA	NA
CDR20291_2588	2324	4567	5290	4580	4951	4438	4853	3663	4037	4530	4737	0.275652903	0.35699895
CDR20291_2589	880	1186	1155	1274	1182	1247	1325	1309	1169	1176	1237	-0.220534377	0.470330213
CDR20291_2590	156	318	264	248	218	214	281	259	266	248	165	-0.031324473	0.993056754
CDR20291_2591	273	440	520	347	547	525	462	424	462	338	372	-0.00147023	0.997856314
CDR20291_2592	11669	18865	13866	17399	18036	19248	18943	20987	21450	16878	20170	-0.028910722	0.97545346
CDR20291_2593	531	893	808	838	787	914	1004	1047	930	873	928	0.064902745	0.94982648
CDR20291_2594	109	206	140	168	132	111	160	156	169	197	53	-0.245551513	0.913212471
CDR20291_2595	28	75	68	55	29	29	37	32	29	31	59	-0.031746625	0.993227457
CDR20291_2596	37	29	14	29	61	36	34	33	43	33	31	-0.811889484	0.65915918
CDR20291_2597	55	73	21	44	33	59	45	52	69	60	119	-0.633537789	0.74849418
CDR20291_2598	11	5	3	1	4	8	2	5	22	4	1	NA	NA
CDR20291_2599	82	159	138	102	95	139	138	135	175	119	77	-0.063043938	0.987180179

CDR20291_2600	703	1195	1426	1135	1116	1336	1326	1098	1344	1099	793	0.055167576	0.968670851
CDR20291_2601	9005	13005	10976	11666	11750	12776	14108	14185	12720	13361	12375	-0.204521525	0.39619451
CDR20291_2602	3	1	5	0	4	1	1	0	5	1	1 NA		NA
CDR20291_2603	6	2	3	1	3	2	2	2	5	3	2 NA		NA
CDR20291_2604	376	487	547	630	544	534	663	659	541	613	755	-0.029474847	0.991366128
CDR20291_2605	1161	1428	1193	1150	1098	1241	1360	1358	1319	1046	1314	-0.593713643	0.004314868
CDR20291_2606	136	49	46	36	34	44	65	65	60	46	49	-2.163425366	0.000645103
CDR20291_2607	251	427	436	354	460	388	385	394	318	355	517	-0.014418909	0.993056754
CDR20291_2608	4580	7933	7619	6885	7683	7321	7493	7070	7641	7479	6821	-0.008048852	0.993056754
CDR20291_2609	4854	7534	7681	6533	7393	7548	7347	6885	6457	6020	6663	-0.170916352	0.504882415
CDR20291_2610	71	49	117	62	45	91	60	54	55	157	146	-0.449375982	0.857194704
CDR20291_2611	1	4	0	1	5	2	0	1	1	0	1 NA		NA
CDR20291_2612	1695	2636	2451	2332	2314	2532	2737	2684	2226	2619	2482	-0.137697067	0.685076673
CDR20291_2613	7	0	5	0	1	1	2	0	6	1	4 NA		NA
CDR20291_2614	356	526	516	550	646	578	560	427	496	484	317	-0.181909655	0.854987503
CDR20291_2615	2198	2502	2673	2426	2492	2683	2669	2454	2406	2545	2479	-0.494103066	0.000569512
CDR20291_2616	457	725	909	783	925	756	910	783	925	667	841	0.14730242	0.822411857
CDR20291_2617	71	144	160	144	125	241	204	191	171	191	169	0.593906812	0.487466552
CDR20291_2618	2	2	1	2	0	0	0	3	1	3	0 NA		NA
CDR20291_2619	4	10	0	0	0	5	3	0	6	0	2 NA		NA
CDR20291_2620	1	19	7	20	9	3	38	8	6	14	1	2.929704527	0.506969664
CDR20291_2621	156	282	385	338	400	346	313	255	309	298	166	0.288326152	0.795074713
CDR20291_2622	166	312	301	464	256	310	428	577	344	242	294	0.387628341	0.696825029
CDR20291_2623	1948	3121	2305	2502	3106	2864	2897	2976	2690	3136	2870	-0.152137475	0.699846157
CDR20291_2624	479	994	969	776	843	806	586	731	857	824	904	0.094997294	0.940051994
CDR20291_2625	2593	4015	3149	3235	3888	3856	3930	3825	3383	3700	2963	-0.229698653	0.446972051
CDR20291_2626	697	1523	1363	1563	1399	1644	1371	1391	1594	1508	1482	0.392487974	0.120181452
CDR20291_2627	322	510	386	601	473	693	570	687	586	705	574	0.148746711	0.905849931
CDR20291_2628	294	396	340	366	447	435	442	508	659	517	382	-0.087621099	0.958032231
CDR20291_2629	4	5	1	0	2	3	1	2	2	2	8 NA		NA

CDR20291_2630	9	1	4	1	0	1	16	0	6	3	4	NA	NA
CDR20291_2631	1	0	0	0	1	1	3	0	2	1	3	NA	NA
CDR20291_2632	1	0	1	0	1	2	6	0	1	0	2	NA	NA
CDR20291_2633	10	2	4	3	7	5	9	3	6	6	6	NA	NA
CDR20291_2634	3	0	1	2	1	2	4	0	7	0	0	NA	NA
CDR20291_2635	2580	3956	3780	3994	4265	3565	4344	3921	3808	3630	3285	-0.120882165	0.711525217
CDR20291_2636	1935	5107	5389	4515	4736	4257	4715	4204	4336	4207	4721	0.556149265	0.001196371
CDR20291_2637	861	1231	926	1514	1285	1214	1207	1439	981	1065	1106	-0.223312349	0.698463705
CDR20291_2638	7	5	5	3	4	3	4	3	7	4	8	NA	NA
CDR20291_2639	6	9	25	11	4	26	3	26	1	1	0	0.126198861	0.993056754
CDR20291_2640	82	250	399	382	281	350	308	267	262	294	136	1.140568261	0.063192981
CDR20291_2641	1589	3263	3559	2865	3330	2912	3429	2794	3112	3050	3732	0.312828023	0.23148189
CDR20291_2642	3	11	41	0	10	3	24	5	0	10	39	1.553400646	0.791865484
CDR20291_2643	65	80	60	41	79	117	128	82	76	115	52	-0.351781245	0.868034697
CDR20291_2644	2	1	0	0	1	0	1	3	5	2	0	NA	NA
CDR20291_2645	623	639	790	584	809	541	561	623	593	475	457	-0.736954543	0.054630943
CDR20291_2646	235	512	449	441	533	442	434	486	352	533	361	0.253152167	0.714907445
CDR20291_2647	173	319	305	419	360	502	490	366	289	315	345	0.399293146	0.592746166
CDR20291_2648	356	1047	1012	1031	952	841	912	1017	913	1024	661	0.704848776	0.024425032
CDR20291_2649	2410	1457	1504	1134	1128	1745	1518	1553	1628	1609	1509	-1.403683495	7.40E-11
CDR20291_2650	48	125	152	83	121	133	85	130	56	52	64	0.358360617	0.868034697
CDR20291_2651	186	769	700	623	688	603	538	475	477	596	398	0.958735102	0.019485075
CDR20291_2652	22839	23110	27159	24814	26396	20365	21366	23732	26978	18363	29657	-0.614851892	0.008480644
CDR20291_2653	2175	3680	2863	3079	3553	3456	3593	3665	3406	3159	3793	-0.045557839	0.950690448
CDR20291_2654	8	2	7	19	50	8	22	0	4	21	4	0.075032806	0.993056754
CDR20291_2655	11611	14975	15319	13878	15163	16116	17960	16813	15694	16474	15948	-0.252036502	0.150372334
CDR20291_2656	731	1074	1116	1211	1088	974	981	1113	1090	1051	1246	-0.114306714	0.860579883
CDR20291_2657	8	10	1	5	1	3	10	4	8	1	8	NA	NA
CDR20291_2658	2	2	5	0	1	0	3	0	9	6	8	NA	NA
CDR20291_2659	4	3	1	4	4	2	3	0	7	6	5	NA	NA

CDR20291_2660	2	3	3	2	0	5	2	0	7	2	5	NA	NA
CDR20291_2661	1	2	4	2	4	2	3	0	3	4	4	NA	NA
CDR20291_2662	4	1	2	1	2	4	3	0	0	1	3	NA	NA
CDR20291_2663	2	7	1	4	9	0	4	2	5	1	1	NA	NA
CDR20291_2664	7	6	2	1	2	0	3	2	2	3	1	NA	NA
CDR20291_2665	5	3	2	3	2	4	8	2	5	2	3	NA	NA
CDR20291_2666	10	0	2	0	5	2	1	0	4	0	1	NA	NA
CDR20291_2667	6	7	7	2	3	2	2	0	7	2	3	NA	NA
CDR20291_2668	6	1	4	3	1	1	6	6	8	4	8	NA	NA
CDR20291_2669	3	2	5	2	5	1	3	0	12	3	1	NA	NA
CDR20291_2670	8	3	1	3	1	2	2	2	8	5	0	NA	NA
CDR20291_2671	0	5	1	2	2	1	3	0	5	2	1	NA	NA
CDR20291_2672	812	3270	3310	3545	4162	4721	4063	3702	3651	3347	3926	1.514641758	3.73E-18
CDR20291_2673	1772	2827	3203	2583	3383	2429	2508	2142	2360	2528	2570	-0.115952043	0.867839408
CDR20291_2674	8892	16861	16537	14119	16630	15051	15239	13787	14964	13733	16159	0.084050123	0.828249108
CDR20291_2675	805	1433	1285	1271	1292	1214	1150	1163	1052	994	965	-0.145794094	0.816258833
CDR20291_2676	118	552	576	495	535	397	447	436	523	800	673	1.510521545	0.000214622
CDR20291_2677	221	524	561	334	467	363	379	378	351	380	371	0.19484658	0.854987503
CDR20291_2678	23340	32258	29210	30256	33871	34084	36923	33755	33643	33434	32115	-0.202389565	0.225875112
CDR20291_2679	2612	4434	4185	3689	4378	3923	4470	4634	4007	4236	4329	-0.004611605	0.995043151
CDR20291_2680	267258	421441	365277	378672	412572	405047	468245	433904	418137	421321	412872	-0.069645393	0.832000848
CDR20291_2681	9	3	9	3	9	7	3	0	11	5	4	NA	NA
CDR20291_2682	7	4	7	4	12	6	7	2	11	4	10	NA	NA
CDR20291_2683	10178	22715	23651	18946	20839	20303	20720	20895	20789	19563	20767	0.340225366	0.022362378
CDR20291_2684	13739	28844	26388	25523	25885	25633	28892	26436	30065	25856	26743	0.276236249	0.036177079
CDR20291_2685	1457	3479	2446	2656	3224	3114	2949	2888	3138	2855	2873	0.322930375	0.170985533
CDR20291_2686	4446	9467	8763	8400	8933	8800	9389	9004	9347	9550	9627	0.339102886	0.014083333
CDR20291_2687	1770	5129	4656	4726	4355	4087	4620	5006	4951	4071	4541	0.683025201	8.11E-06
CDR20291_2688	448	749	519	663	712	638	916	722	606	874	604	-0.055971519	0.971144882
CDR20291_2689	6	6	0	7	0	31	18	3	6	0	15	NA	NA

CDR20291_2690	899	1504	1232	1176	1319	1278	1433	1320	1502	1343	1424	-0.110352107	0.828249108
CDR20291_2691	15	22	19	27	14	25	35	24	19	29	10	-0.121610796	0.988538891
CDR20291_2692	227	404	291	335	516	415	420	390	433	313	359	0.068743889	0.968670851
CDR20291_2693	11	10	12	12	6	11	19	47	22	34	15	0.080627922	0.993056754
CDR20291_2694	4	4	4	2	1	1	4	0	4	1	1	NA	NA
CDR20291_2695	4	2	2	0	1	2	2	0	3	0	2	NA	NA
CDR20291_2696	0	0	2	1	0	0	1	3	4	1	1	NA	NA
CDR20291_2697	159	167	143	134	97	169	138	148	117	116	183	-0.870381656	0.165936456
CDR20291_2698	422	484	315	384	552	327	445	522	410	394	329	-0.721980262	0.101052239
CDR20291_2699	1057	1924	2213	2286	2174	1861	2085	1982	2059	2204	1810	0.265624043	0.431084556
CDR20291_2700	1016	1326	991	1119	1179	1144	1320	1526	1046	1200	1194	-0.454675187	0.123846614
CDR20291_2701	71	145	191	156	112	139	160	165	163	104	116	0.331314784	0.793264885
CDR20291_2702	4	2	1	0	3	3	0	1	2	2	4	NA	NA
CDR20291_2703	62	143	142	171	140	88	136	108	95	171	129	0.39908487	0.751153165
CDR20291_2704	119	351	374	272	280	256	250	202	271	207	323	0.528143466	0.480670144
CDR20291_2705	42	36	84	50	73	54	68	82	86	90	42	-0.032947762	0.993056754
CDR20291_2706	1156	2053	2203	1727	2445	1773	1825	1912	1654	1565	1792	0.012802793	0.993056754
CDR20291_2707	1559	2331	2239	2217	2662	2501	2549	2158	2457	2138	2257	-0.107974738	0.765096923
CDR20291_2708	36	220	183	167	144	114	135	176	137	169	133	1.434915841	0.01944394
CDR20291_2709	159	274	278	212	289	252	213	343	304	279	242	0.058459581	0.976271093
CDR20291_2710	288	475	494	521	667	616	564	494	464	406	583	0.174812413	0.839139708
CDR20291_2711	3	7	2	0	2	1	7	2	3	2	1	NA	NA
CDR20291_2712	10	6	9	4	7	3	13	3	9	2	1	NA	NA
CDR20291_2713	522	951	931	913	1065	906	1055	1076	789	983	1004	0.190782895	0.681968239
CDR20291_2714	20	21	19	29	44	18	15	16	27	12	37	-0.44743757	0.913212471
CDR20291_2715	1877	3229	3269	3126	3608	3528	3455	3313	3336	3268	3419	0.138745185	0.593054017
CDR20291_2715;													
CDR20291_2716	2455	4064	4106	4111	4482	4091	4510	4192	4164	4113	4122	0.073890362	0.822638881
CDR20291_2717	32	103	164	104	49	102	90	107	41	80	115	0.882916343	0.536759161
CDR20291_2718	320	816	810	566	700	712	665	448	530	565	349	0.243454568	0.818793552

CDR20291_2719	471	1169	932	1039	1123	1242	1019	967	1107	1233	1076	0.513491238	0.065130479
CDR20291_2720	53	80	101	63	34	45	40	76	46	88	106	-0.332119596	0.912272704
CDR20291_2721	831	1556	1456	1381	1558	1585	1521	1613	1744	1558	1768	0.222704038	0.506578629
CDR20291_2722	3207	5281	4647	4447	5007	4743	5000	4539	4947	4264	5071	-0.120217127	0.651259928
CDR20291_2723	225	592	529	372	424	448	431	352	530	369	410	0.284815038	0.694032059
CDR20291_2724	501	842	962	888	753	968	932	820	932	701	600	0.044966618	0.97407819
CDR20291_2725	436	694	874	609	685	801	652	736	534	715	540	-0.048024486	0.975942734
CDR20291_2726	127	278	265	245	130	241	195	206	304	219	377	0.25805954	0.863239689
CDR20291_2727	133	386	232	244	383	312	350	268	258	276	244	0.44669179	0.539387923
CDR20291_2728	111	102	161	168	125	105	195	68	113	80	122	-0.543161851	0.65915918
CDR20291_2729	6	26	22	9	32	39	29	25	13	26	10	1.239319184	0.646322042
CDR20291_2730	133	234	190	183	168	381	176	334	188	245	133	0.04879848	0.993056754
CDR20291_2731	1666	2401	1953	2106	2096	2320	2523	2387	2293	1865	2120	-0.296357895	0.202040861
CDR20291_2732	304	509	604	518	458	593	603	647	519	521	619	0.180424648	0.798544553
CDR20291_2733	1708	3138	3228	2999	3451	3388	4054	3216	3223	2881	3472	0.250787465	0.297034447
CDR20291_2734	3399	6146	5586	5613	6028	5389	5468	5153	5085	4689	5914	-0.003373462	0.997564945
CDR20291_2735	1604	2906	2237	2361	3144	2621	2992	2377	2902	2563	2350	0.019842739	0.989700092
CDR20291_2736	179	326	287	244	293	370	243	253	264	443	375	0.097008575	0.960001773
CDR20291_2737	407	577	548	736	730	633	731	802	803	647	647	0.052792073	0.971144882
CDR20291_2738	139	170	64	184	168	93	268	212	236	127	233	-0.369189331	0.839484518
CDR20291_2739	4346	6204	6248	6032	6885	6571	7779	7191	7285	6899	7627	-0.038678269	0.955498491
CDR20291_2740	3602	5055	5877	4457	5127	5112	4791	4324	4401	4489	4529	-0.279786315	0.294422057
CDR20291_2741	10161	13409	13586	11176	12789	12428	12689	10262	10384	11661	11044	-0.466512191	0.010215375
CDR20291_2742	87	219	259	281	218	248	202	223	252	186	149	0.664947624	0.332710111
CDR20291_2743	840	2367	1827	1859	2036	1936	2227	2008	2246	2049	1669	0.566639869	0.006021656
CDR20291_2744	741	1906	1562	1681	1848	1729	1977	1916	1819	2024	1659	0.590743698	0.002596398
CDR20291_2745	355	821	470	585	570	620	799	540	600	760	718	0.168019744	0.859194195
CDR20291_2746	7305	11354	11290	9916	10187	9709	10013	9551	9569	9297	9583	-0.239232711	0.23829621
CDR20291_2747	4992	7480	7514	7405	8105	8303	8846	7871	7596	7191	8239	-0.046215847	0.921901672
CDR20291_2748	4068	6787	6026	6363	6836	6072	6483	6909	6658	5498	6146	-0.051374561	0.918573372

CDR20291_2749	2458	4960	5026	4328	4609	4175	4830	4034	4356	3582	3513	0.119441168	0.811230391
CDR20291_2750	124	163	251	212	156	159	282	231	230	135	65	-0.099943524	0.97407819
CDR20291_2751	327	846	725	612	732	567	642	594	657	606	362	0.254831292	0.749146495
CDR20291_2752	2	2	3	1	4	1	2	0	2	2	1	NA	NA
CDR20291_2753	8	49	8	14	28	5	21	18	10	23	14	0.540440408	0.922364345
CDR20291_2754	554	1107	1062	927	884	989	1004	936	788	971	1009	0.106060186	0.882461138
CDR20291_2755	100	146	158	169	170	106	95	140	88	104	173	-0.263364787	0.878985434
CDR20291_2756	136	196	201	121	106	117	108	179	161	221	59	-0.58286443	0.65915918
CDR20291_2757	261	605	405	439	425	514	415	444	649	407	317	0.122544269	0.935667015
CDR20291_2758	1	2	0	1	2	4	3	0	3	4	1	NA	NA
CDR20291_2759	206	254	374	340	334	329	665	336	391	364	338	0.150386197	0.930814375
CDR20291_2760	44	122	104	81	123	50	72	90	72	63	85	0.26949817	0.913212471
CDR20291_2761	84	171	255	137	165	250	196	192	154	174	125	0.414864247	0.697653378
CDR20291_2762	408	887	641	628	707	815	589	617	551	497	446	-0.057372802	0.97352847
CDR20291_2763	635	759	645	753	760	786	752	679	790	799	993	-0.416672434	0.274141958
CDR20291_2764	671	930	824	931	922	1029	1113	1012	968	950	824	-0.198333569	0.646322042
CDR20291_2765	287	323	326	266	321	327	227	266	225	282	348	-0.676499212	0.162535926
CDR20291_2766	210	253	306	212	196	335	320	184	263	263	234	-0.411371148	0.613726455
CDR20291_2767	12	49	28	16	9	23	21	26	6	19	48	0.329614773	0.952891242
CDR20291_2768	270	275	281	344	386	354	258	532	313	413	497	-0.257770902	0.836500108
CDR20291_2769	402	806	791	794	922	721	903	676	606	653	723	0.216837492	0.700659075
CDR20291_2770	27	118	97	77	46	48	14	30	67	94	10	0.465369054	0.913212471
CDR20291_2771	3	1	2	2	0	1	2	0	0	2	2	NA	NA
CDR20291_2772	279	503	379	415	375	366	274	318	336	329	290	-0.336169845	0.654495491
CDR20291_2773	130	163	179	86	89	102	177	216	170	167	122	-0.52233125	0.658276033
CDR20291_2774	127	400	297	307	349	420	519	625	466	423	489	1.055975829	0.023458218
CDR20291_2775	318	523	599	502	419	469	584	510	481	597	674	0.055816028	0.973156858
CDR20291_2776	57	247	273	115	124	132	408	356	210	112	302	1.289750626	0.176929867
CDR20291_2777	344	994	1195	898	1940	1468	1736	2665	1398	954	1181	1.363093094	0.077417671
CDR20291_2778	121	306	923	559	733	546	996	1079	530	458	820	1.820325115	0.023377414

CDR20291_2779	1043	4101	5596	6054	6777	4081	8492	11086	6056	5840	5715	1.911895037	0.001812678
CDR20291_2780	8	107	73	52	72	171	234	230	164	39	216	3.372815353	0.002217202
CDR20291_2781	4151	6648	5637	6282	6212	6361	6832	6116	6562	6443	6681	-0.079733311	0.817035003
CDR20291_2782	825	1429	1669	1216	1441	1420	1313	1502	1251	1166	1503	0.054609376	0.955498491
CDR20291_2783	4867	8728	7730	8204	9270	8710	9541	9123	8765	9183	8516	0.151174696	0.520906145
CDR20291_2784	7141	6575	5673	5937	6492	5860	7046	6056	6309	5712	5684	-0.920241252	1.22E-17
CDR20291_2785	161	452	294	298	367	543	413	289	339	383	303	0.490706425	0.482796118
CDR20291_2786	815	1250	1224	1007	1150	1392	1465	1130	1357	1125	1051	-0.12588962	0.839139708
CDR20291_2787	89	105	44	96	49	82	144	99	182	125	168	-0.402753574	0.854987503
CDR20291_2788	279	423	574	435	472	359	392	299	360	502	428	-0.089768531	0.958032231
CDR20291_2789	243	494	464	526	372	549	629	469	471	427	627	0.348740035	0.577435607
CDR20291_2790	74	172	131	203	99	114	145	173	144	109	79	0.188781529	0.940229277
CDR20291_2791	13	54	24	36	51	25	22	26	9	12	3	0.304733337	0.96068197
CDR20291_2792	72	44	35	51	54	59	21	73	52	48	22	-1.344744301	0.273554672
CDR20291_2793	0	1	1	1	11	8	19	0	4	4	10	NA	NA
CDR20291_2794	6517	10087	9306	9722	10535	9725	10822	10284	10247	9940	10661	-0.062604391	0.85262892
CDR20291_2795	93	111	108	107	63	117	77	147	120	142	131	-0.420927558	0.749719855
CDR20291_2796	0	0	3	0	0	0	1	0	4	0	4	NA	NA
CDR20291_2797	11316	14979	12294	13107	15551	15646	15604	16180	15222	15003	15315	-0.30398424	0.089528834
CDR20291_2798	260	365	412	304	533	385	481	389	407	343	277	-0.119935787	0.933920271
CDR20291_2799	657	1001	1378	1178	1266	1152	1184	1399	1345	992	1369	0.202102275	0.699843789
CDR20291_2800	49	61	74	117	64	71	82	59	110	84	93	0.039497489	0.993056754
CDR20291_2801	20	66	116	73	59	57	46	102	31	59	75	1.081296271	0.462134707
CDR20291_2802	39	68	164	65	66	52	59	116	55	115	100	0.451456183	0.844011217
CDR20291_2803	34	115	93	84	61	95	44	73	104	48	123	0.607325072	0.700659075
CDR20291_2804	543	595	460	501	508	585	688	682	671	502	496	-0.635618201	0.055507085
CDR20291_2805	400	484	620	296	322	528	415	470	510	468	382	-0.530184789	0.410548268
CDR20291_2806	657	312	125	376	217	198	363	489	437	383	621	-1.596114825	0.140771295
CDR20291_2807	4337	6902	6437	6803	7105	6915	8121	7592	7899	6377	6280	-0.0015325	0.997856314
CDR20291_2808	286	601	529	555	740	620	495	516	532	473	425	0.239554152	0.717581755

CDR20291_2809	133	327	285	289	358	332	224	172	239	274	295	0.373747105	0.676962635
CDR20291_2810	14	12	23	0	5	8	25	4	28	30	1	-0.743044847	0.918573372
CDR20291_2811	169	240	390	248	258	242	319	234	331	234	145	-0.056474763	0.986784307
CDR20291_2812	101	97	152	122	134	151	83	199	45	126	102	-0.431785641	0.806385533
CDR20291_2813	652	1228	1155	1155	1141	1271	1293	1156	1301	1457	1205	0.225127687	0.576485822
CDR20291_2814	33	55	35	35	60	44	38	103	26	25	44	-0.208363168	0.960001773
CDR20291_2815	62	102	115	172	176	116	108	126	173	119	91	0.369190625	0.797422668
CDR20291_2816	18	52	48	37	75	32	20	21	45	46	9	0.399401451	0.927516569
CDR20291_2817	11	9	5	5	0	2	6	2	9	6	5 NA		NA
CDR20291_2818	52	65	69	56	100	31	77	138	38	63	51	-0.297298624	0.927516569
CDR20291_2819	643	1102	1171	1023	987	1311	937	1325	1321	1076	1057	0.117024019	0.882953381
CDR20291_2820	13	39	7	4	11	18	22	10	11	0	4	-0.772147598	0.907503312
CDR20291_2821	2	9	3	0	8	0	15	11	8	12	1 NA		NA
CDR20291_2822	260	398	458	397	390	432	446	403	492	566	656	0.139597599	0.918349485
CDR20291_2823	8	2	3	1	4	11	3	2	5	2	0 NA		NA
CDR20291_2824	181	517	456	452	409	523	397	449	471	595	355	0.657196088	0.147320476
CDR20291_2825	65	229	251	292	289	277	386	321	245	154	257	1.350689633	0.006808034
CDR20291_2826	12	24	74	17	31	23	25	13	33	7	29	0.501590048	0.916749193
CDR20291_2827	31	68	27	40	35	12	32	44	63	31	56	-0.3047324	0.943731346
CDR20291_2828	128	208	200	159	241	110	338	156	159	199	174	-0.102855254	0.971144882
CDR20291_2829	280	360	406	402	468	387	384	427	362	589	402	-0.113918563	0.938592403
CDR20291_2830	1235	2058	2427	2143	2692	2216	2358	2283	2175	2171	2145	0.17706673	0.613866753
CDR20291_2831	77	160	142	115	39	196	89	62	152	105	127	-0.072927334	0.992474926
CDR20291_2832	6021	10813	9830	9480	11045	9670	11743	11075	10967	9726	9717	0.088419786	0.760223367
CDR20291_2833	4656	7679	7368	7791	8624	7540	8692	7979	8618	7757	8311	0.087809999	0.776905478
CDR20291_2833;													
CDR20291_2834	3943	6181	6123	6205	6551	6271	7340	6356	7153	6534	6148	0.018321506	0.983498093
CDR20291_2835	1538	2687	2475	2509	2810	2470	3253	2643	2817	2754	3019	0.134761779	0.702648248
CDR20291_2836	51	15	3	18	38	2	9	14	24	10	16	-2.47685549	0.202040861
CDR20291_2837	65	13	12	34	14	4	66	42	9	11	69	-1.953138686	0.380146331

CDR20291_2838	2	13	0	4	6	5	17	8	7	5	17	NA	NA
CDR20291_2839	21	93	72	105	104	96	84	128	112	70	142	1.561419372	0.048578525
CDR20291_2840	3	2	3	0	0	2	3	0	6	8	1	NA	NA
CDR20291_2841	1438	1060	1282	1583	1285	1414	1651	1651	1641	1283	1220	-0.73056857	0.007877749
CDR20291_2842	36	30	29	22	48	83	24	17	21	16	4	-0.998244171	0.702648248
CDR20291_2843	228	382	365	373	267	253	326	352	249	248	340	-0.229913632	0.821754305
CDR20291_2844	15	15	19	18	19	0	10	12	26	24	16	-0.60633746	0.913212471
CDR20291_2845	688	1511	1798	1511	1670	1289	1371	1107	1171	1470	1404	0.358900074	0.436429974
CDR20291_2846	1524	3012	3166	2677	3105	2703	2445	2344	2641	2805	2192	0.132094354	0.822411857
CDR20291_2847	68	88	92	78	262	149	100	125	153	101	106	0.179962619	0.950690448
CDR20291_2848	64	44	109	66	110	136	80	87	71	83	54	-0.305832731	0.900008427
CDR20291_2849	1041	1106	1093	974	1128	1272	1170	1087	1248	1143	1434	-0.536023437	0.035074867
CDR20291_2850	2505	2716	3441	2793	2513	2267	2405	2997	3219	2425	3244	-0.53495705	0.065130479
CDR20291_2851	869	789	930	815	854	851	761	995	885	759	876	-0.727206417	0.001835856
CDR20291_2852	4256	5071	4411	4552	4513	4924	5420	5231	5407	4596	4469	-0.509357887	0.000402225
CDR20291_2853	323	432	841	501	747	667	573	788	593	657	451	0.255360606	0.785481644
CDR20291_2854	832	847	950	977	1190	1155	951	788	707	865	1041	-0.511579087	0.187669658
CDR20291_2855	3683	5386	5259	4348	5282	5086	5469	4665	4625	5364	4819	-0.249791489	0.258190587
CDR20291_2856	46	36	58	38	49	50	120	21	44	31	76	-0.52561533	0.839484518
CDR20291_2857	124	167	192	153	157	100	72	149	121	97	102	-0.616541445	0.592746166
CDR20291_2858	319	614	487	457	533	504	562	590	421	580	756	0.088272528	0.950690448
CDR20291_2859	75	178	92	194	220	173	227	104	117	202	200	0.486190689	0.692114464
CDR20291_2860	90	171	110	177	170	240	183	123	68	90	249	0.110755332	0.97352847
CDR20291_2861	519	1133	924	1024	952	942	1192	1050	1247	960	792	0.275677578	0.549679025
CDR20291_2862	0	6	1	7	2	1	5	0	8	1	1	NA	NA
CDR20291_2863	3	1	1	4	2	1	1	0	4	8	8	NA	NA
CDR20291_2864	48	105	25	76	71	96	124	83	71	29	108	0.004638713	0.997856314
CDR20291_2864;													
CDR20291_2865	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_2865	12	36	19	15	32	8	12	12	9	12	14	-0.209974363	0.975942734

CDR20291_2866	1482	2311	2387	2711	2745	2873	3183	2703	2846	2505	2913	0.174821127	0.633849707
CDR20291_2867	143	178	177	169	138	163	215	102	252	224	117	-0.420116777	0.702648248
CDR20291_2868	77	140	139	185	158	148	104	68	115	88	101	-0.003034675	0.997856314
CDR20291_2869	1624	2496	2505	2737	2799	2405	3229	2802	2891	2362	2936	0.041478068	0.960001773
CDR20291_2869;													
CDR20291_2870	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_2870	241	567	478	532	713	425	554	455	565	431	623	0.447731966	0.410548268
CDR20291_2871	5884	10982	8833	8959	11056	9946	11099	10719	9817	9800	9820	0.07894597	0.834753191
CDR20291_2872	1606	2204	2330	1790	2672	2191	2480	2245	2301	1970	2527	-0.201405414	0.59459692
CDR20291_2873	180	199	304	195	173	190	490	465	354	268	154	-0.072250882	0.986784307
CDR20291_2874	10	5	8	23	34	21	61	8	41	2	5	0.332812729	0.971144882
CDR20291_2875	338	204	294	351	287	260	385	365	335	186	179	-0.950154034	0.091540282
CDR20291_2876	9256	13520	12516	12350	14193	13905	15658	13648	14569	13269	13381	-0.134931815	0.533050378
CDR20291_2877	201	271	367	261	377	390	391	303	301	273	184	-0.069265506	0.97352847
CDR20291_2878	935	1429	1326	1492	1376	1264	1563	1585	1565	1077	1632	-0.086592093	0.918573372
CDR20291_2879	1683	3681	3961	3525	3888	4037	3902	3356	3467	3350	3186	0.411172451	0.024239401
CDR20291_2880	135	363	153	195	289	327	233	191	239	131	239	0.099161021	0.971144882
CDR20291_2881	174	170	201	209	206	249	245	173	204	170	259	-0.43838503	0.557010133
CDR20291_2882	128	135	342	288	247	149	266	254	267	153	205	0.151591792	0.950690448
CDR20291_2883	23	52	36	37	11	25	50	52	57	63	3	0.048490385	0.993056754
CDR20291_2884	26	172	49	115	117	91	127	171	48	155	196	1.556846086	0.141212552
CDR20291_2885	10	39	60	23	45	107	28	44	64	28	18	1.486887294	0.444440221
CDR20291_2886	680	1067	1274	1107	1162	1103	1200	1241	1222	1247	1343	0.117916517	0.847322651
CDR20291_2887	364	512	557	669	641	714	635	604	586	630	475	0.028521548	0.991007161
CDR20291_2888	930	1624	1368	1304	1422	1473	1524	1359	1140	1288	1518	-0.108222888	0.854987503
CDR20291_2889	2345	3695	3569	3361	4415	3689	4597	4080	3906	3879	4376	0.054040378	0.943731346
CDR20291_2890	5	2	8	14	1	38	4	3	11	9	21	0.461884971	0.960001773
CDR20291_2891	253	620	506	594	431	481	570	536	465	495	892	0.446181488	0.507568872
CDR20291_2892	29	5	0	1	7	3	1	0	6	0	14	NA	NA
CDR20291_2893	412	795	732	550	500	699	486	666	720	663	695	-0.03783126	0.986895396

CDR20291_2894	52	174	104	93	93	33	84	85	70	80	85	0.091956564	0.986784307
CDR20291_2895	20	32	41	30	27	33	26	15	18	13	43	-0.223916609	0.963999943
CDR20291_2896	2426	4071	3974	3940	3563	3771	5158	4415	3732	3855	3853	0.032478253	0.971144882
CDR20291_2897	43	91	87	168	135	95	100	72	53	99	131	0.567578448	0.700659075
CDR20291_2898	220	455	341	461	325	334	295	320	483	409	352	0.083281264	0.96068197
CDR20291_2899	205	450	627	342	462	596	548	453	402	526	354	0.51560018	0.410548268
CDR20291_2900	1011	1205	805	1054	893	931	1115	1025	1128	1234	983	-0.661452402	0.020220247
CDR20291_2901	201	208	252	172	255	287	153	197	250	159	255	-0.576440199	0.452348385
CDR20291_2902	144	203	198	299	145	318	326	324	304	200	245	0.130640217	0.950690448
CDR20291_2903	355	478	613	465	451	660	686	499	604	603	558	-0.037552066	0.986784307
CDR20291_2904	75	152	139	136	119	137	81	123	112	82	247	0.128302894	0.968670851
CDR20291_2905	382	574	604	581	529	442	599	808	588	509	451	-0.125714167	0.918013465
CDR20291_2906	59	93	167	116	114	60	77	70	75	73	27	-0.132086698	0.973993588
CDR20291_2907	259	352	367	319	477	382	340	226	381	358	310	-0.260140252	0.7612632
CDR20291_2908	550	1062	1081	954	988	896	1068	959	897	761	987	0.110854787	0.866285469
CDR20291_2909	858	1477	1737	1292	1552	1781	1340	1301	1595	1588	1437	0.117915076	0.861977338
CDR20291_2910	245	340	546	414	410	383	322	299	313	298	311	-0.126921504	0.940758808
CDR20291_2911	960	1720	1680	1593	1686	1626	1663	1578	1358	1574	1520	0.037846448	0.965576209
CDR20291_2912	598	979	981	775	1150	954	760	823	908	827	881	-0.10332881	0.913212471
CDR20291_2913	112	195	116	196	189	199	130	203	141	127	162	-0.13310707	0.950690448
CDR20291_2914	133	252	155	176	199	238	256	203	247	250	192	0.003423982	0.997856314
CDR20291_2915	81	125	130	167	168	213	223	207	217	205	243	0.529649619	0.576667205
CDR20291_2916	27	24	31	35	30	33	20	37	37	71	46	-0.255384771	0.950690448
CDR20291_2917	674	1165	963	1036	1004	933	1064	1027	1006	792	1103	-0.118105349	0.853814342
CDR20291_2918	38	34	55	95	58	53	30	103	77	46	48	-0.034909122	0.993056754
CDR20291_2919	39	79	36	83	60	84	105	113	26	64	56	0.152833439	0.971144882
CDR20291_2920	490	631	799	799	709	846	662	736	996	669	834	-0.048523022	0.97352847
CDR20291_2921	8	33	6	15	9	10	8	12	25	2	16	0.058103988	0.993056754
CDR20291_2922	126	176	195	177	205	215	216	271	144	138	273	-0.026719001	0.993056754
CDR20291_2923	174	319	214	330	305	364	269	339	387	304	257	0.128874319	0.933755431

CDR20291_2924	258	405	334	252	426	334	508	390	417	402	487	-0.086560369	0.958032231
CDR20291_2925	300	352	550	428	522	574	783	450	639	450	407	0.07700238	0.968670851
CDR20291_2926	439	613	613	702	660	483	537	457	468	687	502	-0.312857713	0.64472415
CDR20291_2927	1172	2152	2203	1920	2212	2599	2268	2445	1908	1879	2257	0.197975052	0.605816386
CDR20291_2927;													
CDR20291_2928	49	121	52	91	110	21	91	63	145	84	43	0.041148176	0.993056754
CDR20291_2928	3450	11981	12679	11964	13824	14009	14255	10829	11558	10892	11526	1.139127199	2.44E-16
CDR20291_2929	20262	14005	10098	13131	12639	11161	11192	10535	12247	11243	12033	-1.4752805	2.22E-23
CDR20291_2930	6	11	15	5	10	3	13	4	17	1	9	NA	NA
CDR20291_2931	3494	2915	3730	2892	2951	3503	2702	2251	2149	2579	2322	-1.017600953	0.000119533
CDR20291_2932	107	241	249	193	173	158	156	172	200	246	249	0.234579462	0.864355684
CDR20291_2933	273	367	338	231	455	352	660	403	381	282	237	-0.269608783	0.835933294
CDR20291_2934	958	1747	1251	1310	1344	1450	2016	1401	1796	1136	1575	-0.055565382	0.963627396
CDR20291_2935	314	527	515	346	374	501	508	499	525	453	502	-0.103413041	0.933755431
CDR20291_2936	202	271	261	233	171	226	177	227	247	125	254	-0.581343841	0.455508288
CDR20291_2937	2330	4823	4021	4552	4962	4961	5030	4627	5003	4669	4087	0.304029005	0.113038927
CDR20291_2938	7207	22334	16585	20267	22714	19924	20581	18831	22117	21644	19375	0.804462868	5.37E-08
CDR20291_2939	9	27	5	9	3	32	19	18	22	15	27	0.270610603	0.971144882
CDR20291_2940	134	226	212	192	243	176	209	208	112	116	218	-0.189211073	0.918573372
CDR20291_2941	4644	6188	6557	5937	5943	5750	7363	6087	6046	5434	6203	-0.295270768	0.090814135
CDR20291_2942	1080	1552	1450	1476	1443	1388	1523	1200	1671	1317	1340	-0.288814735	0.343160513
CDR20291_2943	101	280	74	232	135	232	238	261	291	124	180	0.313724464	0.867938654
CDR20291_2944	81	189	132	194	199	151	101	118	175	141	140	0.230087526	0.897926551
CDR20291_2945	869	1608	1655	1279	1485	1449	1507	1382	1465	1454	1192	0.036513091	0.971144882
CDR20291_2946	171	178	263	255	325	288	131	154	255	186	195	-0.312416368	0.824715763
CDR20291_2947	13	25	50	29	27	4	50	29	38	28	60	0.687734659	0.839484518
CDR20291_2948	156	197	132	155	210	226	201	171	182	180	197	-0.454737067	0.544269073
CDR20291_2949	3660	7464	7672	7165	8014	7091	7749	7057	7412	7032	6970	0.308986011	0.022593925
CDR20291_2949;													
CDR20291_2950	4186	7218	6750	6752	7301	7261	8254	6875	6916	6930	6881	0.064613592	0.850045789

CDR20291_2951	196	277	170	264	282	277	207	271	278	256	334	-0.28114142	0.7612632
CDR20291_2952	119	243	250	210	92	209	172	207	233	203	326	0.155134202	0.950690448
CDR20291_2953	49	123	181	141	164	175	127	145	64	130	289	0.956361487	0.382681824
CDR20291_2954	829	1261	1115	1220	1355	1167	1285	1316	943	939	1058	-0.20906622	0.65915918
CDR20291_2955	1638	2794	2426	2678	2495	2393	2661	2802	2558	2670	2797	-0.016529998	0.991007161
CDR20291_2955;													
CDR20291_2956	0	0	0	0	0	0	0	0	0	1	1	NA	NA
CDR20291_2956	489	1233	852	858	1305	1088	1193	787	1079	1074	917	0.384178842	0.410673071
CDR20291_2957	39	129	162	148	54	117	109	105	157	146	147	1.014883217	0.300515548
CDR20291_2958	248	543	515	426	401	296	801	444	565	547	361	0.278252429	0.795074713
CDR20291_2959	6	26	15	31	25	0	27	9	28	59	49	1.477615337	0.658276033
CDR20291_2960	187	361	330	236	313	225	284	279	174	229	262	-0.174934816	0.910986116
CDR20291_2961	2470	4265	4008	4237	4128	4506	5090	4955	4803	4226	4799	0.165923339	0.587327438
CDR20291_2962	9	14	11	12	14	15	22	4	10	4	7	-0.383889436	0.952891242
CDR20291_2962;													
CDR20291_2963	1	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_2963	356	548	544	527	632	731	669	545	508	516	456	-0.028588207	0.991110934
CDR20291_2964	70	113	64	78	121	91	60	70	141	49	73	-0.406493903	0.830142868
CDR20291_2965	73	170	82	118	91	102	79	70	206	127	110	-0.036119174	0.993056754
CDR20291_2966	3	0	5	2	2	0	5	0	14	1	13	NA	NA
CDR20291_2967	63	70	93	62	21	61	61	40	36	57	124	-0.705334456	0.702600141
CDR20291_2968	124	114	190	158	256	150	345	228	310	250	177	0.10947927	0.971144882
CDR20291_2969	3092	4534	3300	4138	4165	4744	4566	4972	4707	3962	4808	-0.194856085	0.600248436
CDR20291_2970	36	139	80	106	204	161	74	88	131	64	32	0.878740546	0.591250185
CDR20291_2971	256	358	447	387	312	343	429	302	337	428	264	-0.202776144	0.849314402
CDR20291_2972	649	1407	1115	1158	1285	1076	1454	1300	1304	906	1210	0.209244887	0.654495491
CDR20291_2973	215	312	347	450	317	314	304	344	375	341	331	-0.019171041	0.993056754
CDR20291_2974	211	513	527	596	802	508	529	520	681	484	543	0.735032304	0.0579047
CDR20291_2975	104	352	203	237	191	262	219	301	287	214	287	0.5954042	0.410548268
CDR20291_2976	41	15	105	39	68	107	66	63	106	171	33	0.226809875	0.960545256

CDR20291_2977	1273	2206	1973	1862	1949	2207	2080	2226	2017	1993	1720	-0.03133635	0.971144882
CDR20291_2978	193	330	327	289	351	209	416	296	458	381	321	0.107161119	0.950690448
CDR20291_2979	270	469	303	445	397	460	286	338	367	294	525	-0.173305121	0.900008427
CDR20291_2980	379	817	1103	806	1037	1079	759	732	753	881	799	0.512644293	0.231346531
CDR20291_2981	773	1201	1364	1154	1643	1471	1369	1276	1221	1275	1135	0.06208864	0.950690448
CDR20291_2982	65	205	176	96	198	138	131	105	131	226	89	0.503766996	0.700759781
CDR20291_2983	6062	9663	9576	9469	10451	10157	11380	10777	10239	10066	11293	0.066233581	0.863239689
CDR20291_2984	2259	3121	2798	2929	2620	3025	3156	2897	2661	2226	3470	-0.344895088	0.214260059
CDR20291_2985	40	92	58	61	79	53	74	54	57	30	59	-0.080899013	0.988165038
CDR20291_2986	878	1842	1519	1798	1896	1736	1803	2052	1642	1725	1595	0.304610493	0.287556982
CDR20291_2987	304	421	370	396	482	474	422	312	508	416	417	-0.227292148	0.743351433
CDR20291_2988	119	165	115	142	222	176	223	174	177	107	113	-0.267442173	0.859002235
CDR20291_2989	633	1234	1375	948	1382	1031	1350	1200	1154	1126	1170	0.218220542	0.638048331
CDR20291_2990	9238	21601	20823	18793	20583	18778	21080	19253	19494	19092	18667	0.401318802	0.000387499
CDR20291_2991	12983	36235	35571	31661	36143	33428	35769	32011	32389	31156	31870	0.672766661	3.84E-11
CDR20291_2992	251	422	267	382	286	279	405	321	267	339	427	-0.26376005	0.764981625
CDR20291_2993	2	13	29	4	28	13	15	10	5	4	1	1.89958717	0.65915918
CDR20291_2994	539	1022	1270	1202	1274	1098	1457	1009	1122	979	651	0.33836656	0.577435607
CDR20291_2995	29	53	92	82	74	58	53	34	55	72	92	0.505300086	0.795074713
CDR20291_2996	235	514	711	598	612	438	492	396	348	432	439	0.386463204	0.623919929
CDR20291_2997	330	777	1158	672	924	982	983	655	648	694	791	0.626865057	0.155345319
CDR20291_2997;													
CDR20291_2998	0	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_2998	231	816	589	703	549	863	712	562	636	551	518	0.790940688	0.034166708
CDR20291_2999	16	41	70	5	26	34	40	44	16	8	22	0.226841591	0.97352847
CDR20291_3000	153	312	236	158	172	227	258	267	198	241	134	-0.176441923	0.922364345
CDR20291_3001	2	3	1	2	0	0	1	2	1	1	3	NA	NA
CDR20291_3002	3	0	1	0	1	2	1	0	2	1	1	NA	NA
CDR20291_3003	2	0	1	0	1	3	1	1	1	0	0	NA	NA
CDR20291_3004	5	5	1	2	5	2	1	1	9	4	1	NA	NA

CDR20291_3005	4	2	2	4	2	2	1	3	3	2	1 NA	NA	
CDR20291_3006	5	2	1	0	4	0	2	0	9	1	1 NA	NA	
CDR20291_3007	229	544	562	439	460	460	376	457	467	527	732	0.438307359	0.501722528
CDR20291_3008	1258	2137	2035	1978	2429	2265	2181	2214	1975	2092	2254	0.077912853	0.876031447
CDR20291_3009	92	190	291	156	162	158	318	190	199	138	225	0.435288766	0.688640316
CDR20291_3010	2138	4596	5419	3811	4732	3984	4012	3151	3740	4012	3027	0.222206748	0.673568052
CDR20291_3011	1	0	0	1	0	0	1	0	0	2	1 NA	NA	
CDR20291_3012	485	698	965	617	702	644	735	613	545	696	629	-0.201248357	0.788881974
CDR20291_3013	26	47	30	60	21	20	47	41	26	55	76	0.009826342	0.997856314
CDR20291_3014	40	46	108	62	120	174	136	50	126	50	29	0.462810196	0.862159048
CDR20291_3015	1406	1668	1977	1883	2198	2368	2198	2181	2181	1932	2332	-0.126047641	0.813710838
CDR20291_3016	474	652	579	892	741	680	941	632	580	560	803	-0.126048986	0.913212471
CDR20291_3017	7	17	0	6	30	22	7	8	11	6	8	0.005286796	0.998634553
CDR20291_3018	785	1495	1289	1195	1353	1120	1209	1443	1196	1357	1317	0.026570956	0.986784307
CDR20291_3019	27	93	70	93	152	111	102	85	79	142	152	1.30209635	0.141212552
CDR20291_3020	2	0	19	9	6	41	4	3	3	5	1 NA	NA	
CDR20291_3021	1159	3017	2748	2442	3034	2543	2680	2353	2204	2482	2462	0.463708466	0.03470187
CDR20291_3022	7	19	0	7	18	7	4	0	5	2	5 NA	NA	
CDR20291_3023	6	2	1	2	1	2	2	2	3	2	4 NA	NA	
CDR20291_3024	0	0	0	0	0	0	0	0	1	0	0 NA	NA	
CDR20291_3025	1289	1717	1937	1820	2107	1700	1790	1731	1486	1505	1589	-0.26791927	0.454992546
CDR20291_3026	35	32	43	39	29	35	34	24	56	10	30	-0.778432457	0.700659075
CDR20291_3027	2	11	2	2	0	3	5	1	11	5	4 NA	NA	
CDR20291_3028	1	1	3	0	3	0	3	1	1	2	0 NA	NA	
CDR20291_3029	7	3	2	4	2	3	2	3	4	5	1 NA	NA	
CDR20291_3030	2	2	8	1	2	5	7	1	4	1	1 NA	NA	
CDR20291_3031	6	0	3	1	0	3	2	1	4	2	7 NA	NA	
CDR20291_3032	1	4	8	3	2	1	6	0	6	3	6 NA	NA	
CDR20291_3033	253	451	455	377	507	345	373	430	589	563	400	0.131029313	0.927516569
CDR20291_3034	71	95	90	112	86	46	62	84	135	81	11	-0.520864749	0.839139708

CDR20291_3035	48	26	31	15	60	32	75	31	51	40	83	-0.819221331	0.680677222
CDR20291_3036	35	75	30	118	27	79	50	61	92	79	51	0.227349568	0.952183546
CDR20291_3037	439	657	568	586	411	691	638	508	590	421	648	-0.319721535	0.610360948
CDR20291_3038	622	883	1171	1065	1316	983	1064	1357	971	1023	986	0.100567594	0.918573372
CDR20291_3039	431	672	642	611	788	896	731	802	863	524	659	0.035691175	0.986784307
CDR20291_3040	145	270	286	350	243	340	328	261	301	297	221	0.300437107	0.702648248
CDR20291_3041	374	976	904	882	1050	912	772	732	783	869	758	0.509420714	0.131390632
CDR20291_3042	1947	4175	4492	3773	4238	3864	4548	3550	3798	3674	3810	0.335610815	0.084568121
CDR20291_3043	85	278	242	140	140	185	145	173	163	199	71	0.331239522	0.854987503
CDR20291_3044	1637	3100	2960	2712	2877	2095	2136	2320	2673	2836	2158	-0.036429004	0.980253983
CDR20291_3045	25	0	0	3	1	3	1	3	1	0	4	NA	NA
CDR20291_3046	3	4	2	0	4	4	1	1	4	0	1	NA	NA
CDR20291_3047	93	154	185	116	142	86	164	83	156	134	218	-0.070466513	0.986784307
CDR20291_3048	3052	8472	8523	7686	7882	7702	8388	7361	7912	7440	7200	0.664572441	2.07E-08
CDR20291_3049	203	288	307	301	254	337	389	332	294	303	265	-0.103597211	0.943731346
CDR20291_3050	1777	2464	2793	2474	2922	2791	2801	3122	2837	2917	2699	-0.051603285	0.948369562
CDR20291_3051	6	0	5	3	2	2	3	1	2	5	10	NA	NA
CDR20291_3051;													
CDR20291_3052	0	1	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_3052	611	2301	1820	1948	1823	1731	2373	2441	2580	1498	2189	1.058059878	2.16E-05
CDR20291_3053	50	89	139	28	20	16	45	36	23	101	73	-0.499232647	0.900008427
CDR20291_3054	1810	2764	2254	2696	3061	2559	2923	3238	2788	2925	2991	-0.059339931	0.943731346
CDR20291_3055	270	385	356	431	409	461	357	324	342	302	315	-0.251751857	0.717114511
CDR20291_3056	11	8	3	11	1	2	7	2	4	2	5	NA	NA
CDR20291_3057	120	247	203	205	257	237	334	313	210	200	335	0.379207985	0.65915918
CDR20291_3058	379	508	524	422	749	535	559	571	497	484	428	-0.22414446	0.749146495
CDR20291_3059	48	142	184	51	104	157	148	69	82	119	75	0.533026355	0.741362354
CDR20291_3060	181	430	407	423	405	555	462	414	403	411	589	0.614803378	0.158256531
CDR20291_3061	94	107	60	117	125	108	59	97	39	97	143	-0.675936832	0.641581317
CDR20291_3062	261	440	417	376	443	395	373	558	357	528	310	-0.011326211	0.995043151

CDR20291_3063	801	1261	1279	1127	1227	1332	1187	1018	1039	978	1000	-0.185034382	0.695231436
CDR20291_3064	14964	23410	21978	22102	25039	23551	26407	23756	25263	22715	24879	-0.024089646	0.962607555
CDR20291_3065	88	314	390	139	242	255	216	223	132	136	155	0.620090835	0.600248436
CDR20291_3066	882	2021	1844	1851	1754	1598	1848	1463	1768	1529	2078	0.309935234	0.366307212
CDR20291_3067	638	1091	943	943	1014	921	1041	890	918	1113	1075	-0.057362554	0.950690448
CDR20291_3068	1912	2785	2694	2358	2661	2680	2736	2813	2771	2638	2533	-0.219457582	0.294422057
CDR20291_3069	10	45	44	27	21	5	58	27	22	53	25	1.009024283	0.700659075
CDR20291_3070	42	233	155	163	138	132	132	82	89	94	131	0.982115291	0.311082618
CDR20291_3071	306	590	625	687	582	586	728	457	531	582	451	0.227755514	0.739098579
CDR20291_3072	282	600	720	529	633	454	529	424	466	511	497	0.229052129	0.765243306
CDR20291_3073	20	128	63	113	38	53	64	84	44	49	5	0.980287018	0.672073212
CDR20291_3074	3	2	6	3	4	11	3	6	8	4	7	NA	NA
CDR20291_3075	387	1385	773	805	1123	1121	942	1238	993	704	1067	0.687521388	0.079655952
CDR20291_3076	184	356	230	291	467	275	482	443	429	342	237	0.243746647	0.852292682
CDR20291_3077	440	807	684	634	689	605	652	631	598	408	789	-0.139323561	0.892541128
CDR20291_3078	6	26	3	13	17	2	16	12	8	6	4	0.121181728	0.993056754
CDR20291_3079	7	11	12	9	41	20	21	8	22	38	11	0.765211354	0.85754216
CDR20291_3079;													
CDR20291_3080	0	0	0	0	0	1	0	0	1	2	0	NA	NA
CDR20291_3080	1	0	0	0	1	0	0	0	2	0	0	NA	NA
CDR20291_3081	7	1	1	2	1	1	5	0	2	3	2	NA	NA
CDR20291_3082	348	1148	779	1136	1096	1035	1205	995	948	1084	967	0.878411426	0.000438615
CDR20291_3083	5	17	15	7	16	21	7	24	8	21	9	0.840692654	0.849377879
CDR20291_3084	2	0	3	2	4	2	6	2	5	1	6	NA	NA
CDR20291_3085	1	1	3	0	0	3	1	0	4	0	2	NA	NA
CDR20291_3086	1	2	0	1	2	2	2	4	4	1	4	NA	NA
CDR20291_3087	6	3	2	3	0	1	0	2	2	3	4	NA	NA
CDR20291_3088	1761	3107	3189	2634	3186	3077	3230	2658	3006	2869	2544	0.043913922	0.950690448
CDR20291_3089	99	177	294	164	155	231	176	252	114	106	176	0.198888016	0.931537513
CDR20291_3090	7	3	2	3	5	9	10	2	11	6	4	NA	NA

CDR20291_3091	4550	5670	5699	6374	6836	6385	6664	7399	7053	6122	5536	-0.213032223	0.480253063
CDR20291_3092	6	25	42	53	25	12	23	14	26	44	4	1.473386674	0.600248436
CDR20291_3093	649	1370	1343	1000	1093	1147	927	991	1148	832	1052	0.048623259	0.971144882
CDR20291_3094	508	1235	1034	1031	882	1305	1178	1294	1064	954	1287	0.448596203	0.201743175
CDR20291_3095	1	2	1	4	0	0	3	0	8	3	3 NA	NA	NA
CDR20291_3096	3775	2325	1220	1406	2243	2931	2179	2099	2057	1450	2269	-1.60900018	0.000312326
CDR20291_3097	4	3	2	2	3	3	7	0	4	0	3 NA	NA	NA
CDR20291_3098	22	1	1	3	2	2	8	4	11	0	5 NA	NA	NA
CDR20291_3099	3	2	1	1	1	5	5	1	0	1	2 NA	NA	NA
CDR20291_3100	66	1	3	7	11	14	5	7	13	2	16	-3.762323575	0.022900237
CDR20291_3101	5	0	3	0	1	1	1	0	4	5	1 NA	NA	NA
CDR20291_3102	4	1	1	0	2	0	1	0	3	0	1 NA	NA	NA
CDR20291_3103	7	2	1	6	2	3	7	0	3	11	4 NA	NA	NA
CDR20291_3104	11	8	8	2	5	5	10	2	11	7	1 NA	NA	NA
CDR20291_3105	15	8	14	12	11	9	3	10	14	6	7	-1.367851541	0.647751451
CDR20291_3106	5001	8320	8053	7716	9211	8080	8715	8991	8568	8185	8412	0.052961924	0.900184726
CDR20291_3107	1	0	1	0	0	0	1	0	2	0	2 NA	NA	NA
CDR20291_3108	1	1	0	0	1	1	4	0	2	0	0 NA	NA	NA
CDR20291_3109	565	392	583	630	887	467	871	647	841	588	458	-0.53065028	0.444618261
CDR20291_3110	899	1477	1569	2087	2175	1674	1915	1787	2292	1582	1859	0.335606038	0.429481186
CDR20291_3111	4	2	5	7	4	4	3	4	7	3	3 NA	NA	NA
CDR20291_3112	1685	3292	3759	3845	3017	2847	3489	3489	3773	3461	3381	0.330911347	0.246891492
CDR20291_3113	1890	3013	1134	2063	1686	2981	2677	3173	2664	2530	2933	-0.306463735	0.848365004
CDR20291_3114	7	7	8	3	7	6	4	5	9	10	16 NA	NA	NA
CDR20291_3115	76	87	37	116	97	204	100	117	63	75	57	-0.375363134	0.876031447
CDR20291_3116	19	14	22	15	13	6	16	22	25	4	8	-1.093352771	0.700659075
CDR20291_3117	242	278	319	307	280	250	340	290	244	336	444	-0.344820163	0.65915918
CDR20291_3118	8	2	19	33	9	20	11	0	17	1	0	-0.205289784	0.993056754
CDR20291_3119	109	311	196	243	231	231	341	158	267	195	164	0.394644786	0.688640316
CDR20291_3120	477	733	564	482	527	806	584	612	683	645	577	-0.318703469	0.572365001

CDR20291_3121	1	4	3	3	3	16	1	3	2	3	2 NA	NA	
CDR20291_3122	175	322	193	237	287	235	272	229	184	261	385	-0.125761993	0.950690448
CDR20291_3123	2	1	4	0	7	1	3	0	3	0	2 NA	NA	
CDR20291_3124	47	45	62	80	51	67	54	59	92	76	85	-0.179446741	0.950964598
CDR20291_3125	24	71	90	63	69	38	25	37	39	47	42	0.42480736	0.877099841
CDR20291_3126	119	211	290	236	240	320	241	260	243	273	277	0.425923762	0.548079437
CDR20291_3127	287	764	850	647	788	743	674	514	731	454	647	0.545665698	0.244662252
CDR20291_3128	143	464	595	300	314	475	353	410	323	325	244	0.71153066	0.298899181
CDR20291_3129	9553	12899	10152	12677	13548	12942	12827	11297	12841	12711	13065	-0.311640086	0.10745045
CDR20291_3130	10488	15377	14227	13750	15066	14732	15464	14724	15072	13446	14646	-0.217902929	0.048578525
CDR20291_3131	1185	2222	2095	1681	2209	2017	1957	1614	1742	1727	1767	-0.017275985	0.993056754
CDR20291_3132	2	0	0	0	1	1	0	0	0	0	1 NA	NA	
CDR20291_3133	0	0	2	0	2	1	1	0	0	0	1 NA	NA	
CDR20291_3134	12	15	52	40	37	21	117	44	54	37	63	1.291525791	0.517019647
CDR20291_3135	507	881	601	686	919	876	1022	798	997	863	963	0.061194946	0.96068197
CDR20291_3136	214	355	287	402	393	264	326	276	380	338	408	-0.017273998	0.993056754
CDR20291_3137	1207	2197	2062	1897	1978	2086	2286	2242	2420	2040	1934	0.108445488	0.79685205
CDR20291_3138	0	0	1	0	0	0	5	0	5	8	2 NA	NA	
CDR20291_3139	50	46	67	30	57	72	60	13	49	45	29	-0.798828801	0.660688328
CDR20291_3140	3	0	0	4	3	3	1	0	1	0	0 NA	NA	
CDR20291_3141	674	1145	1182	1186	1114	1170	1245	1029	1191	722	1079	0.013277027	0.993056754
CDR20291_3142	39	51	86	42	108	69	68	33	34	128	86	0.161544059	0.971144882
CDR20291_3143	423	961	837	733	720	810	1045	796	757	833	711	0.253885788	0.603605466
CDR20291_3144	17	55	160	111	90	85	50	81	29	64	131	1.643141498	0.202040861
CDR20291_3145	393	861	706	509	994	769	687	585	587	615	748	0.143085692	0.900184726
CDR20291_3146	2	7	2	3	3	8	3	0	7	4	3 NA	NA	
CDR20291_3147	9259	14499	11707	12585	14021	13167	14223	14290	13453	13345	15667	-0.134820335	0.649602625
CDR20291_3148	1486	1947	2057	2004	2056	1999	2304	2040	2345	2070	1960	-0.215492949	0.429243984
CDR20291_3148;													
CDR20291_3149	163	202	144	194	114	203	159	158	228	108	31	-0.783675052	0.56444917

CDR20291_3149	4563	7028	5354	5618	7305	6828	7856	6952	6788	6092	6686	-0.159003184	0.638048331
CDR20291_3150	1707	3010	2667	2772	2991	2582	3063	2952	3162	2982	3844	0.116112069	0.839484518
CDR20291_3151	7169	15425	13839	15221	16915	15148	17144	16607	16433	15237	16681	0.446229931	0.000478761
CDR20291_3152	9	2	10	1	1	3	1	6	10	8	5 NA	NA	NA
CDR20291_3153	0	1	9	13	2	4	20	4	2	2	7 NA	NA	NA
CDR20291_3154	11	7	4	3	18	9	13	6	4	8	11 NA	NA	NA
CDR20291_3155	0	4	3	1	1	0	1	0	2	8	0 NA	NA	NA
CDR20291_3156	3	20	26	14	17	4	52	3	20	12	19	1.924492625	0.563635336
CDR20291_3157	69	169	124	126	86	111	160	110	151	38	101	0.061676588	0.993056754
CDR20291_3157;													
CDR20291_3158	0	0	0	0	0	0	0	0	1	0	0 NA	NA	NA
CDR20291_3158	36	83	96	156	71	162	50	115	89	35	109	0.72972563	0.65915918
CDR20291_3159	20	45	23	15	29	44	27	6	13	5	82	-0.17463813	0.986784307
CDR20291_3160	8	13	3	9	10	1	7	4	5	1	4 NA	NA	NA
CDR20291_3161	2	2	0	4	1	0	2	0	5	0	1 NA	NA	NA
CDR20291_3162	13	4	4	4	4	7	9	1	13	2	6 NA	NA	NA
CDR20291_3163	2	0	2	0	1	2	2	0	8	0	0 NA	NA	NA
CDR20291_3163;													
CDR20291_3164	0	0	0	0	0	0	0	0	0	0	1 NA	NA	NA
CDR20291_3164	2	2	1	0	2	1	7	0	1	0	1 NA	NA	NA
CDR20291_3165	2	4	3	1	1	3	7	2	12	3	1 NA	NA	NA
CDR20291_3166	0	0	0	0	2	1	4	0	0	2	1 NA	NA	NA
CDR20291_3167	13	5	5	4	4	6	6	1	8	2	5 NA	NA	NA
CDR20291_3168	1728	3117	2302	2753	3155	3579	3529	3044	3218	2903	2989	0.122178717	0.80725448
CDR20291_3168;													
CDR20291_3169	0	0	0	0	0	0	0	0	0	0	1 NA	NA	NA
CDR20291_3169	3	4	2	3	4	2	3	0	7	5	2 NA	NA	NA
CDR20291_3170	11	13	3	8	1	7	3	3	12	9	9 NA	NA	NA
CDR20291_3171	2253	4282	4223	3651	4177	3889	3987	3577	4145	3612	3356	0.087830672	0.849377879
CDR20291_3172	166	280	299	198	314	215	176	148	152	166	175	-0.345100952	0.782077256

CDR20291_3173	336	259	237	271	301	291	373	368	325	273	202	-0.914779928	0.028824164
CDR20291_3174	1577	3162	2622	2724	2701	2851	2879	2990	2797	2886	2334	0.126053363	0.737651389
CDR20291_3175	973	1936	1812	1329	1711	1585	1831	1766	1667	1467	1800	0.095413421	0.876031447
CDR20291_3176	45	57	133	68	53	72	98	51	125	56	99	0.152037544	0.968670851
CDR20291_3177	48	58	106	57	66	80	27	61	45	64	51	-0.334407977	0.906511793
CDR20291_3178	1068	1521	2422	1476	2140	1759	2074	2049	1966	1661	1849	0.124803177	0.867938654
CDR20291_3179	519	1213	1088	970	1067	926	1147	1075	938	1082	947	0.310323831	0.366307212
CDR20291_3180	8223	15613	14738	13628	15317	14316	16100	14960	15617	13803	14065	0.148939737	0.370612
CDR20291_3181	48	86	82	32	107	58	8	81	80	68	66	-0.218947494	0.96010839
CDR20291_3182	26	84	48	65	86	83	70	90	100	57	88	0.866135817	0.459176231
CDR20291_3183	65	131	119	99	114	71	104	86	67	72	77	-0.16936817	0.950690448
CDR20291_3184	1247	2407	2496	2117	2529	2510	2277	2219	2277	2335	2306	0.213778802	0.437675307
CDR20291_3185	86	49	36	102	96	122	35	83	53	60	45	-1.031046115	0.464030615
CDR20291_3186	722	1491	1450	1367	1439	1362	1505	1455	1596	1326	1245	0.279469709	0.297141229
CDR20291_3187	36	111	102	20	85	32	105	34	49	37	26	0.024903751	0.996393886
CDR20291_3187A	3	0	0	0	0	0	0	0	0	2	0	NA	NA
CDR20291_3188	1248	3165	3247	3080	3196	2782	3119	2769	2681	2743	2659	0.539007771	0.00243821
CDR20291_3189	3128	7713	8224	7173	7024	6783	7991	6851	7619	5907	6363	0.495025616	0.004808031
CDR20291_3190	204	249	421	267	512	432	295	494	441	292	515	0.243062426	0.857874956
CDR20291_3191	4322	6612	6959	6531	7230	6160	7538	6541	7115	6821	7287	-0.02856072	0.967141033
CDR20291_3192	323	663	689	376	603	505	669	694	346	458	373	0.031161087	0.993056754
CDR20291_3193	65	80	84	77	76	111	91	113	47	52	127	-0.299970284	0.892219944
CDR20291_3194	18	51	47	47	44	38	72	30	61	32	46	0.673274544	0.702648248
CDR20291_3195	208	363	596	288	454	325	375	265	339	275	221	0.050274377	0.988538891
CDR20291_3196	536	889	764	943	964	956	934	698	1078	707	824	0.007255039	0.995043151
CDR20291_3197	34	62	114	53	49	79	81	36	54	54	84	0.270844693	0.930912836
CDR20291_3198	114	131	155	114	147	96	137	52	90	136	42	-0.751124733	0.577435607
CDR20291_3199	256	553	392	523	432	482	401	344	444	321	422	0.052965568	0.976270831
CDR20291_3200	7429	12397	12166	11433	12027	10078	12226	12382	12543	11245	11410	-0.032828943	0.955558813
CDR20291_3201	2757	4736	4805	4302	4359	4187	4794	4461	4280	3971	4333	-0.017978227	0.984159655

CDR20291_3202	1108	1754	1939	1914	2124	1545	1751	1923	1778	1527	2242	0.041143362	0.971144882
CDR20291_3203	278	261	365	297	516	405	499	280	491	345	305	-0.266216678	0.802706323
CDR20291_3204	1601	3367	3443	3275	3596	2801	3092	3065	3285	3204	2684	0.292324146	0.290893661
CDR20291_3205	109	191	230	185	212	158	121	157	156	154	208	0.005370008	0.997856314
CDR20291_3206	123	191	212	193	184	166	171	166	88	104	139	-0.308117581	0.837346508
CDR20291_3207	208	460	335	360	292	273	272	330	214	317	316	-0.089808565	0.96068197
CDR20291_3207;													
CDR20291_3208	0	0	0	1	0	3	0	0	0	2	0	NA	NA
CDR20291_3208	28	35	82	34	36	23	42	24	23	25	15	-0.422900981	0.913212471
CDR20291_3209	11599	22280	21716	21212	23157	21181	23251	22129	21765	20592	22334	0.221452957	0.052859362
CDR20291_3210	219	510	574	438	499	330	350	357	351	415	295	0.214337716	0.85754216
CDR20291_3211	757	1645	1860	1546	1757	1470	1411	1114	1352	1144	1443	0.262244845	0.634464101
CDR20291_3212	10	13	26	15	5	12	15	6	17	10	19	-0.231285907	0.973993588
CDR20291_3213	43	65	21	66	47	46	48	65	81	55	53	-0.351585047	0.892541128
CDR20291_3214	53	138	213	156	243	142	178	182	299	239	114	1.14767794	0.126243624
CDR20291_3215	3853	6023	5500	5143	5499	5556	5821	5354	5805	5371	5753	-0.16474985	0.385020939
CDR20291_3216	62	58	27	62	84	46	56	9	47	35	64	-1.048315009	0.55667658
CDR20291_3217	4	3	0	0	0	3	2	1	5	3	5	NA	NA
CDR20291_3218	157	139	255	159	192	149	270	183	268	279	250	-0.247657132	0.868034697
CDR20291_3219	5	1	1	3	8	3	4	0	11	3	2	NA	NA
CDR20291_3220	360	26	73	39	22	34	40	22	45	34	46	-3.934802084	4.11E-10
CDR20291_3221	90264	1473	1497	1953	1944	724	1811	1516	1460	436	1373	-6.695759901	1.28E-24
CDR20291_3222	25255	4384	3930	4576	6278	5134	7165	6441	5377	3830	5745	-2.961004136	1.73E-22
CDR20291_3223	159	100	73	77	102	53	171	94	59	90	163	-1.400265317	0.091627093
CDR20291_3224	4	3	2	3	4	4	4	0	2	0	4	NA	NA
CDR20291_3225	7118	11149	11954	11252	11957	10818	12749	12594	12668	11266	12280	0.038404808	0.949163075
CDR20291_3226	12924	19500	17824	18023	20148	19149	19800	20572	20951	17746	18935	-0.124062463	0.56444917
CDR20291_3227	7169	11852	10579	10616	12892	10933	12470	12637	12280	10956	10565	-0.009102183	0.993056754
CDR20291_3228	4705	8958	7860	7814	9002	8434	9302	8323	7639	7795	8101	0.122136739	0.614788941
CDR20291_3229	3251	5245	4698	4640	5635	5444	6207	5569	5159	4828	5635	0.005291017	0.993056754

CDR20291_3230	5798	9516	9600	9600	10337	9496	10376	9560	10023	9028	8737	0.031842644	0.950690448
CDR20291_3231	104	235	235	165	207	118	237	173	150	177	147	0.124260435	0.952353002
CDR20291_3232	2270	3332	3155	3818	4049	3888	4154	4093	3561	3651	3701	0.021014743	0.986784307
CDR20291_3233	2109	3497	3839	3378	3345	2991	3752	3591	3757	2856	2999	-0.011146103	0.993056754
CDR20291_3234	1299	2304	2274	2180	2617	2244	2849	2665	2451	2328	2258	0.194937677	0.525234857
CDR20291_3235	373	402	576	460	555	478	619	517	792	400	376	-0.229971682	0.819738218
CDR20291_3236	304	210	367	231	195	306	156	324	211	269	282	-0.945289984	0.121291048
CDR20291_3237	2	2	13	11	17	46	29	22	31	5	2	2.441494265	0.502462124
CDR20291_3238	702	1506	1027	1191	1389	1133	1355	1136	1224	1045	1068	0.079981231	0.930814375
CDR20291_3238;													
CDR20291_3239	0	0	0	0	0	0	1	0	1	0	0	NA	NA
CDR20291_3239	2403	3410	3600	2774	3782	3118	3150	3072	3554	3211	3355	-0.240442284	0.410673071
CDR20291_3240	287	236	516	357	239	175	215	289	335	250	260	-0.691082621	0.432412938
CDR20291_3241	3078	1276	2522	1915	1037	1272	1720	1769	1518	2039	1810	-1.558637498	0.004314868
CDR20291_3242	9215	3494	7941	5469	2995	3359	4466	4650	4104	4070	4225	-1.734381611	0.00281936
CDR20291_3243	953	374	670	428	329	337	447	382	386	486	397	-1.864423776	6.94E-08
CDR20291_3244	4859	2330	5013	3311	2004	1927	2327	2793	3055	2528	2572	-1.49478812	0.018374571
CDR20291_3245	3076	1242	2836	1937	1055	1009	1409	1461	1810	1499	1778	-1.63139518	0.016151585
CDR20291_3246	5042	1997	4412	2970	1823	1685	2087	2307	2844	2034	2525	-1.723218798	0.004665025
CDR20291_3247	3863	1755	3496	2437	1413	1326	1900	1852	2395	2011	2016	-1.599845932	0.007077469
CDR20291_3247;													
CDR20291_3248	47	10	16	24	18	23	15	11	42	9	17	-2.044267015	0.179118883
CDR20291_3248	1930	764	2022	1130	669	699	959	870	929	929	1064	-1.63559731	0.024517303
CDR20291_3249	2656	1035	1956	1620	908	749	1090	1212	1427	1022	1165	-1.817488016	0.00131362
CDR20291_3250	2219	709	1919	1384	844	689	961	1216	1354	991	1271	-1.660356192	0.022712046
CDR20291_3251	4326	2062	4233	3142	1675	1708	2209	2613	2634	2464	2620	-1.462131919	0.02807797
CDR20291_3252	4290	1744	3553	2522	1537	1473	2080	2194	2050	1984	2345	-1.691120279	0.001243641
CDR20291_3253	4191	2012	3802	2879	1405	1565	2079	2469	2684	2124	2228	-1.543092307	0.017420478
CDR20291_3254	2353	1089	1500	1348	913	823	1166	1111	1179	1111	942	-1.769267219	1.65E-11
CDR20291_3255	3816	1491	2578	2172	1221	1291	1576	1821	1849	1675	1755	-1.823617514	6.63E-05

CDR20291_3256	7531	2738	5060	4173	2362	2565	2927	3337	3372	3036	3214	-1.892679389	9.52E-05
CDR20291_3257	72	27	83	32	16	18	32	18	23	53	34	-1.78665581	0.217212424
CDR20291_3258	59	24	26	72	22	13	36	48	17	2	39	-1.676418637	0.434340635
CDR20291_3259	466	205	543	354	227	197	280	267	254	205	297	-1.413841563	0.01206409
CDR20291_3260	641	188	475	395	218	192	273	236	299	254	262	-1.891205344	8.86E-05
CDR20291_3261	663	210	419	320	155	187	239	284	290	270	217	-2.04805836	6.48E-06
CDR20291_3262	2243	3499	3600	3057	3844	3261	3363	3165	2891	3016	3236	-0.145647178	0.672073212
CDR20291_3263	380	561	505	442	458	544	746	473	415	492	609	-0.237823853	0.729532204
CDR20291_3264	100	240	234	173	192	182	179	203	185	122	196	0.229370589	0.859194195
CDR20291_3265	190	248	185	162	291	320	221	237	251	210	261	-0.373268251	0.658267402
CDR20291_3266	74	55	66	103	78	114	107	103	92	41	21	-0.628387772	0.717114511
CDR20291_3267	2	0	0	0	1	2	0	0	0	2	0	NA	NA
CDR20291_3268	29	72	206	108	48	68	130	50	97	76	14	0.885531942	0.670571698
CDR20291_3269	425	810	609	565	736	645	655	673	555	786	654	-0.04474984	0.973993588
CDR20291_3270	169	247	239	356	252	396	458	311	276	265	330	0.187297905	0.891329669
CDR20291_3271	17	23	34	31	11	13	24	45	21	31	7	-0.195382316	0.97407819
CDR20291_3272	5109	8916	8596	7802	9496	8059	9028	8408	8586	7560	8569	0.034267833	0.950690448
CDR20291_3273	279	455	565	516	650	424	543	397	438	578	516	0.167908821	0.862159048
CDR20291_3274	33	8	18	31	12	15	8	19	26	8	42	-1.508462917	0.501722528
CDR20291_3275	958	2259	2273	1940	2138	2331	1596	1545	2096	2187	2377	0.41833025	0.277470174
CDR20291_3276	132	335	387	367	337	235	276	288	345	278	212	0.515649365	0.476182747
CDR20291_3277	2	12	44	12	68	60	26	13	18	3	27	3.115310437	0.244249346
CDR20291_3278	10	5	3	2	1	2	5	1	12	2	4	NA	NA
CDR20291_3279	1058	1972	2119	1932	2011	2091	2020	1849	1968	1794	2026	0.203776772	0.452348385
CDR20291_3280	26	39	54	37	82	53	23	18	3	57	53	-0.003503536	0.998634553
CDR20291_3281	7122	10922	9253	9627	10903	10549	11880	10631	11353	9675	10578	-0.13606557	0.562218556
CDR20291_3282	25	100	33	59	36	61	46	58	12	4	26	0.089613633	0.993056754
CDR20291_3283	1	20	5	1	1	4	3	0	1	3	5	NA	NA
CDR20291_3284	17	88	55	43	38	18	66	97	64	78	56	1.127115232	0.501671327
CDR20291_3285	34	165	50	53	71	36	102	45	40	116	91	0.474174325	0.859194195

CDR20291_3286	98	191	80	108	101	94	73	74	91	106	157	-0.564762659	0.661549343
CDR20291_3287	27	77	62	32	75	52	46	65	81	46	32	0.369195263	0.884595325
CDR20291_3288	141	104	202	207	103	48	50	174	206	180	230	-0.591203814	0.738933259
CDR20291_3289	304	560	547	534	723	944	784	652	615	596	537	0.392053002	0.501722528
CDR20291_3290	136	296	356	384	274	258	268	240	359	230	223	0.38927727	0.651259928
CDR20291_3291	2577	3557	4358	4421	4545	3951	4794	3784	4137	3463	3577	-0.044802518	0.958237814
CDR20291_3292	43	60	114	43	68	43	58	45	70	46	66	-0.187284773	0.955498491
CDR20291_3293	2	1	1	0	1	1	0	0	0	1	1	NA	NA
CDR20291_3294	1075	4105	3782	3434	4335	3748	4356	3886	4109	4334	3921	1.196331682	5.90E-18
CDR20291_3295	12	14	3	0	14	10	7	3	25	26	6	-0.849346605	0.8922220611
CDR20291_3296	7	14	9	1	9	4	1	2	14	1	3	NA	NA
CDR20291_3297	51	59	155	46	127	121	97	174	129	120	92	0.437024062	0.822130315
CDR20291_3298	116	260	299	220	317	316	322	356	262	204	214	0.552683316	0.417304447
CDR20291_3299	382	1349	1455	1257	1268	1140	1626	1367	1119	1345	1361	1.09869963	2.60E-07
CDR20291_3300	6	4	3	1	2	0	2	0	9	1	1	NA	NA
CDR20291_3301	103	184	467	339	320	345	242	272	363	228	322	0.886381991	0.181867963
CDR20291_3302	5	2	2	0	2	0	4	0	3	1	0	NA	NA
CDR20291_3303	0	1	1	0	0	0	1	0	1	1	2	NA	NA
CDR20291_3304	5	7	6	1	3	4	1	0	6	3	1	NA	NA
CDR20291_3305	3	0	0	0	6	0	4	2	5	2	2	NA	NA
CDR20291_3306	3	9	2	5	7	4	7	1	7	4	4	NA	NA
CDR20291_3307	1	0	0	2	1	1	4	1	0	1	2	NA	NA
CDR20291_3308	2	1	4	0	0	1	4	0	4	2	2	NA	NA
CDR20291_3309	1	0	0	0	1	0	2	5	1	0	0	NA	NA
CDR20291_3310	3	1	3	8	3	2	3	4	1	0	3	NA	NA
CDR20291_3311	1	0	3	2	6	0	3	0	0	0	1	NA	NA
CDR20291_3312	4	0	0	1	0	0	1	0	0	2	0	NA	NA
CDR20291_3313	4	1	4	0	1	0	0	0	1	0	2	NA	NA
CDR20291_3314	1026	1227	1269	1114	1086	1499	1215	1057	1179	1302	956	-0.484025433	0.115338714
CDR20291_3315	5863	10479	9109	8508	10604	10649	10065	11242	11373	8963	10061	0.084579546	0.851841431

CDR20291_3316	1337	1795	1914	1733	2441	2145	1909	2366	2426	2032	2472	-0.031299861	0.984159655
CDR20291_3317	1490	2317	2203	2622	2340	2275	2463	2873	2613	2156	2310	-0.00081405	0.997856314
CDR20291_3318	8	0	1	1	0	2	5	1	5	5	4 NA	NA	NA
CDR20291_3319	2398	4214	1990	3653	2893	3332	3994	3850	3866	3203	3713	-0.168193781	0.884595325
CDR20291_3320	66	138	45	42	127	196	83	98	144	61	101	-0.059082408	0.993056754
CDR20291_3321	8	3	3	4	1	1	1	0	4	3	3 NA	NA	NA
CDR20291_3322	200	420	439	439	432	327	466	299	526	375	500	0.378897275	0.580117989
CDR20291_3323	2	0	0	1	0	1	1	0	1	0	0 NA	NA	NA
CDR20291_3324	10	5	6	0	1	3	5	4	11	6	4 NA	NA	NA
CDR20291_3325	4077	6481	5612	5820	6372	6020	6417	6031	6080	5779	6011	-0.127606417	0.521917581
CDR20291_3326	381	688	730	749	796	765	889	555	901	707	769	0.286159163	0.584158437
CDR20291_3327	10	4	10	7	8	4	4	1	14	6	4 NA	NA	NA
CDR20291_3328	200	407	450	246	364	330	276	240	311	377	284	0.018243433	0.993056754
CDR20291_3329	8	25	1	13	6	0	6	4	1	0	7 NA	NA	NA
CDR20291_3330	719	490	470	602	526	368	538	327	464	368	386	-1.363637322	4.42E-05
CDR20291_3331	0	0	0	5	1	1	1	0	1	0	1 NA	NA	NA
CDR20291_3332	1836	2728	2603	2217	2563	2573	2512	2865	2854	2080	2192	-0.244886868	0.44440221
CDR20291_3333	14	0	2	2	0	3	1	3	2	4	2 NA	NA	NA
CDR20291_3334	1257	881	1148	960	1087	886	977	1113	1185	1155	768	-1.004076746	0.000134606
CDR20291_3335	11	17	3	19	10	29	19	8	38	11	0	-0.222138096	0.986784307
CDR20291_3336	5	42	1	2	2	3	18	13	7	7	10	0.346694225	0.97352847
CDR20291_3337	4848	7589	7397	7066	8502	7325	8355	7608	7716	7620	7942	-0.02999939	0.955558813
CDR20291_3338	259	151	50	180	110	198	483	513	220	229	156	-0.887225466	0.711525217
CDR20291_3339	3	0	1	3	0	0	3	0	0	2	1 NA	NA	NA
CDR20291_3340	426	853	696	544	604	642	803	698	745	770	666	0.020035394	0.993056754
CDR20291_3341	428	917	850	780	749	832	916	741	785	824	680	0.215686399	0.646322042
CDR20291_3341;													
CDR20291_3342	17	35	15	56	0	24	91	13	24	62	23	0.310665022	0.968670851
CDR20291_3342	565	1466	1612	1269	1434	1185	1049	1186	1262	1070	1510	0.509317107	0.147976136
CDR20291_3343	907	2309	2001	1748	2129	1814	1728	1542	1649	1869	1905	0.344562742	0.311082618

CDR20291_3344	104	156	156	192	210	292	223	249	245	124	215	0.284917166	0.839139708
CDR20291_3345	116	271	204	89	169	219	265	248	151	183	133	0.029231996	0.993056754
CDR20291_3346	473	1190	1109	867	994	1208	1237	893	967	1153	874	0.448661717	0.209540809
CDR20291_3347	1245	2397	2334	2106	2451	1979	2157	2008	2314	1915	2399	0.125750893	0.773718912
CDR20291_3348	492	999	1088	921	1372	1002	1094	847	970	846	700	0.297973984	0.604957577
CDR20291_3349	4014	9700	9908	8807	9640	9012	10011	8588	8621	8839	8220	0.486539595	0.000262636
CDR20291_3350	2031	6927	6884	5750	6150	6109	5807	6171	5820	6074	6550	0.917523368	6.89E-11
CDR20291_3351	0	3	3	2	3	2	7	1	0	2	5 NA		NA
CDR20291_3352	1	1	5	2	0	6	6	0	6	5	2 NA		NA
CDR20291_3353	4	0	2	0	0	1	0	0	3	1	0 NA		NA
CDR20291_3354	310	232	283	278	246	227	360	266	260	216	168	-0.991833897	0.024239401
CDR20291_3355	502	632	478	578	704	466	600	654	580	634	700	-0.4351678	0.324547396
CDR20291_3356	39	12	32	15	13	5	3	23	28	21	5	-1.999817946	0.370821232
CDR20291_3357	769	1640	1712	1296	1686	1803	1449	1460	1459	1300	1509	0.293659252	0.416061783
CDR20291_3358	1353	2930	2733	2509	2777	2997	3379	2920	2806	2727	2810	0.378160156	0.024036328
CDR20291_3359	8	2	3	1	6	3	7	0	12	2	1 NA		NA
CDR20291_3360	2169	3659	3439	3232	3670	3621	4057	3778	3507	3536	3594	0.034409701	0.950690448
CDR20291_3361	1199	1658	1421	1444	1430	1357	1613	1847	1406	1247	1403	-0.394538949	0.144680317
CDR20291_3362	267	486	310	396	535	649	632	476	504	359	356	0.110410153	0.950690448
CDR20291_3363	87	65	24	124	81	94	104	84	128	58	207	-0.543252551	0.799007831
CDR20291_3364	64	82	76	51	77	56	57	66	39	15	7	-0.991034169	0.638048331
CDR20291_3365	3	0	1	3	2	2	3	1	3	6	3 NA		NA
CDR20291_3366	31	103	40	69	41	50	72	39	76	45	17	0.126155034	0.983498093
CDR20291_3367	86	164	140	164	139	115	126	38	106	145	114	-0.155713216	0.959892584
CDR20291_3368	14	53	59	72	92	80	29	10	109	10	40	1.282599871	0.59134876
CDR20291_3369	4	8	14	7	5	6	6	1	12	3	0 NA		NA
CDR20291_3370	492	462	606	680	807	531	695	535	661	643	800	-0.313594323	0.637676692
CDR20291_3371	39	61	48	23	27	8	80	58	44	59	6	-0.621324617	0.859194195
CDR20291_3372	11	19	60	23	35	27	15	23	31	45	24	0.768491273	0.778589121
CDR20291_3373	2	0	1	1	0	0	1	0	1	2	2 NA		NA

CDR20291_3374	1697	2704	2262	2794	2758	2407	2921	2633	2906	2696	2493	-0.052388803	0.946126126
CDR20291_3375	680	700	948	823	917	707	1150	956	802	951	1057	-0.292792727	0.600248436
CDR20291_3376	395	730	444	459	518	633	625	586	700	592	529	-0.143851522	0.876031447
CDR20291_3377	30	63	59	27	56	47	11	6	39	31	42	-0.352719424	0.946579027
CDR20291_3378	2	6	4	6	4	1	6	1	1	4	6 NA		NA
CDR20291_3379	246	181	181	85	219	208	208	133	194	115	131	-1.27901669	0.02807797
CDR20291_3380	4882	8283	8234	7775	9148	7983	9035	7948	8396	8045	9358	0.086875173	0.796883193
CDR20291_3381	255	203	318	330	461	283	300	418	400	332	366	-0.277122692	0.791009827
CDR20291_3382	211	305	310	318	295	435	245	326	346	337	310	-0.083273832	0.960001773
CDR20291_3383	6	2	0	1	3	0	2	0	3	2	3 NA		NA
CDR20291_3383;													
CDR20291_3384	0	0	0	0	0	0	1	0	0	0	0 NA		NA
CDR20291_3384	6	1	1	2	3	1	2	2	5	4	2 NA		NA
CDR20291_3385	2	1	3	2	1	1	3	2	2	5	7 NA		NA
CDR20291_3386	2	0	3	3	3	5	8	1	4	3	6 NA		NA
CDR20291_3387	13	2	24	4	10	22	12	15	6	2	41	-0.611082793	0.930912836
CDR20291_3388	0	3	0	1	1	1	0	2	1	0	2 NA		NA
CDR20291_3389	4	7	5	1	1	4	2	1	4	10	5 NA		NA
CDR20291_3390	0	2	0	0	2	2	1	0	2	0	1 NA		NA
CDR20291_3391	209	331	262	321	325	371	509	378	363	353	229	0.016021052	0.993056754
CDR20291_3392	2	2	2	1	1	0	4	0	2	5	1 NA		NA
CDR20291_3393	4	2	2	3	0	2	2	0	2	3	2 NA		NA
CDR20291_3394	1776	3046	3349	3160	3136	2943	3562	2809	2847	2435	2471	0.043581016	0.96010839
CDR20291_3394;													
CDR20291_3395	268	287	441	401	270	328	373	390	401	363	452	-0.227822083	0.813710838
CDR20291_3395	130	219	258	261	141	186	163	221	196	148	131	-0.130596943	0.951578777
CDR20291_3396	87	129	163	68	150	92	213	188	133	142	162	0.022873697	0.993056754
CDR20291_3397	10	3	4	4	5	6	5	4	5	3	4 NA		NA
CDR20291_3398	2804	4233	3854	3930	4823	4727	4882	4375	4473	3614	4354	-0.076055568	0.873157907
CDR20291_3399	39	151	50	69	144	84	72	52	87	75	6	0.310791412	0.948483523

CDR20291_3400	16	37	27	13	54	19	10	9	11	30	41	-0.047144422	0.993056754
CDR20291_3401	3	4	2	0	1	0	0	0	3	2	5	NA	NA
CDR20291_3402	283	564	413	455	352	348	438	396	539	418	258	-0.137205941	0.930814375
CDR20291_3402;													
CDR20291_3403	1	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_3403	8	0	1	2	3	0	5	1	4	1	3	NA	NA
CDR20291_3404	3	2	2	6	4	0	6	0	2	4	4	NA	NA
CDR20291_3405	2	12	28	1	10	13	14	12	4	11	2	1.716965906	0.702648248
CDR20291_3406	645	1746	1590	1729	1400	1493	1510	1306	1423	1733	1462	0.558216727	0.034166708
CDR20291_3407	1843	3854	3602	3392	3818	3350	3805	3646	3823	3344	3315	0.263687542	0.132447997
CDR20291_3408	690	829	771	1036	837	1170	1166	867	981	1109	1040	-0.191147627	0.76887443
CDR20291_3409	1290	2171	1736	2136	2248	2116	2217	2329	2091	1734	2349	0.011227327	0.993056754
CDR20291_3410	174	171	294	153	183	284	256	211	214	152	105	-0.485604823	0.654461852
CDR20291_3411	13	28	6	69	27	36	33	23	12	24	10	0.348670321	0.950690448
CDR20291_3412	2	0	2	0	0	0	1	2	0	0	1	NA	NA
CDR20291_3413	339	455	499	536	467	546	566	592	456	549	489	-0.093136491	0.933755431
CDR20291_3414	138	200	306	297	259	294	197	285	167	211	199	0.112242049	0.955558813
CDR20291_3415	396	1205	818	870	1109	957	1013	981	1014	990	1169	0.65402798	0.01521517
CDR20291_3416	8323	14770	12796	12975	14065	12741	15002	14230	14734	12171	14137	0.024737961	0.968670851
CDR20291_3417	112	253	194	157	186	360	307	307	280	284	228	0.488209528	0.600194319
CDR20291_3418	987	2083	2421	1996	2245	1686	2065	1930	1991	1675	1576	0.294872261	0.454992546
CDR20291_3419	1245	1954	1790	1685	1829	1655	1840	1867	1796	1726	1456	-0.200577415	0.541132724
CDR20291_3420	986	1331	1091	1461	1355	1115	1151	1258	1449	1272	1245	-0.329053597	0.353633304
CDR20291_3421	12139	17713	17423	17657	17987	17237	19811	17815	19392	16813	18955	-0.124906209	0.554392502
CDR20291_3422	211	387	432	403	572	475	310	346	583	427	322	0.314965805	0.707108503
CDR20291_3423	4	44	31	8	11	1	10	11	7	15	5	1.135507443	0.823268041
CDR20291_3424	12	21	61	35	33	39	43	49	41	60	44	1.135136817	0.501722528
CDR20291_3424;													
CDR20291_3425	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_3425	7	9	37	10	11	3	9	14	0	15	31	0.304354834	0.973993588

CDR20291_3426	32149	6400	19390	6779	5196	6776	5707	10354	11860	6791	8743	-2.561822005	0.001920307
CDR20291_3427	14111	870	10190	1322	1100	965	700	2367	3157	2023	1266	-3.87722839	1.54E-05
CDR20291_3428	15768	13980	4255	10629	8456	13166	13466	17422	16082	9510	17513	-1.044213102	0.346552421
CDR20291_3429	5131	7988	2380	6018	6061	7027	7725	8915	8375	6397	7820	-0.281923677	0.881203154
CDR20291_3430	3988	11	1	43	2	3	22	33	31	8	38	-8.391767176	1.98E-06
CDR20291_3431	4474	8031	8310	7286	7829	7654	9608	8833	8244	8289	9024	0.193626152	0.446131864
CDR20291_3432	5	1	5	0	2	3	0	0	11	5	4	NA	NA
CDR20291_3433	628	1176	888	1112	980	1119	1123	1003	1058	963	1266	0.067599112	0.948483523
CDR20291_3434	6217	16960	16003	14504	16614	14095	16886	15307	16406	14619	14307	0.624043898	7.55E-08
CDR20291_3434;													
CDR20291_3435	1	0	0	1	2	0	0	0	0	0	0	NA	NA
CDR20291_3435	2331	4280	3978	4122	4462	4263	4555	4730	4769	4470	4066	0.20730314	0.366395433
CDR20291_3435;													
CDR20291_3436	2	0	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_3436	3093	5702	5413	5494	5425	5306	6218	5410	5663	5293	5702	0.147018597	0.479002901
CDR20291_3437	1	4	7	2	3	2	2	1	8	3	8	NA	NA
CDR20291_3438	9788	16027	14070	14972	16426	15564	17039	16118	16782	14634	14456	-0.027251996	0.959591583
CDR20291_3439	762	1399	1152	1146	1629	1292	1332	1157	1181	1393	1262	0.064525701	0.950690448
CDR20291_3440	2512	4361	4102	4022	4418	3541	4434	3816	4184	3917	3630	-0.013550719	0.993056754
CDR20291_3441	10218	17703	17853	17031	18982	17352	19317	18249	18734	18124	16517	0.116400571	0.594977765
CDR20291_3442	8678	13054	11847	12215	13492	12622	15007	13460	13788	13067	15189	-0.075938252	0.854987503
CDR20291_3443	3204	8376	8846	7177	7868	7254	7234	6989	7782	7009	7543	0.548875625	0.000540037
CDR20291_3444	190	190	171	146	116	174	240	137	280	181	153	-0.790340053	0.282025923
CDR20291_3445	1574	4155	4411	3777	4287	3559	4150	4335	4581	3314	4213	0.673324335	0.000108301
CDR20291_3446	1929	3757	3955	3896	3658	3622	4175	4123	4134	3331	3858	0.297711742	0.120106732
CDR20291_3447	2706	5132	4880	4908	6238	5118	5447	5494	5778	5053	5261	0.27835204	0.158256531
CDR20291_3448	2873	4669	4746	4764	4470	4880	5594	5055	4756	4287	5670	0.067124934	0.912272704
CDR20291_3449	26	62	185	14	67	62	57	58	62	42	25	0.585865596	0.854779166
CDR20291_3450	587	1197	1179	1071	970	1124	915	1002	953	944	861	0.101297208	0.912272704
CDR20291_3451	39	13	45	39	3	14	22	18	36	9	1	-1.656680941	0.56444917

CDR20291_3452	253	492	627	392	507	591	695	628	574	461	413	0.385393313	0.529359415
CDR20291_3453	465	798	613	789	636	646	712	779	731	609	762	-0.093665319	0.922364345
CDR20291_3454	0	1	1	1	0	0	3	0	1	0	1	NA	NA
CDR20291_3455	1117	2570	2029	2437	2532	2395	2420	2201	2256	2045	1706	0.31531654	0.323126125
CDR20291_3456	1240	3054	2966	2724	2841	2708	2965	2835	2973	2732	2817	0.507066817	0.000165684
CDR20291_3457	3317	7705	7096	6379	7708	6522	8069	7204	7109	6946	7596	0.42428209	0.002373422
CDR20291_3458	5	2	1	3	3	2	3	1	4	4	4	NA	NA
CDR20291_3459	3	0	1	1	4	2	4	0	5	2	2	NA	NA
CDR20291_3460	138	192	149	96	118	205	237	199	192	169	158	-0.391245522	0.71061568
CDR20291_3461	8036	13912	12966	12487	15158	12507	13977	14217	13790	13275	12962	0.051418933	0.912272704
CDR20291_3462	1	0	0	4	5	1	0	1	4	0	1	NA	NA
CDR20291_3463	101	160	194	112	193	120	211	186	201	117	192	0.035338395	0.993056754
CDR20291_3464	4	8	4	4	11	4	5	1	2	9	8	NA	NA
CDR20291_3465	1025	1966	1858	1695	2041	1908	1832	1798	1786	1682	1380	0.107694509	0.854987503
CDR20291_3466	108	246	173	238	130	192	257	132	195	145	217	0.131860202	0.950690448
CDR20291_3467	10	36	26	22	34	61	109	42	21	35	52	1.416527985	0.462134707
CDR20291_3468	2510	4634	4302	4318	4680	4748	4500	4337	4629	4286	4182	0.130468942	0.591250185
CDR20291_3469	123	303	157	224	188	264	287	275	326	260	285	0.361221515	0.698052963
CDR20291_3470	39	60	62	64	46	22	94	35	52	112	41	-0.10312863	0.987180179
CDR20291_3470;													
CDR20291_3471	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_3471	2	0	2	1	3	2	4	1	0	3	3	NA	NA
CDR20291_3472	48	128	143	94	138	155	18	88	184	90	155	0.619018118	0.743351433
CDR20291_3473	2	0	3	2	1	0	7	0	2	2	4	NA	NA
CDR20291_3474	58	47	88	114	109	85	69	101	72	178	144	0.109806066	0.978822561
CDR20291_3475	9	16	5	15	9	0	1	9	6	11	42	-0.344053318	0.97352847
CDR20291_3476	1477	2681	2940	2552	3036	2821	3084	2683	2842	2616	2887	0.230110241	0.294422057
CDR20291_3477	5768	11560	10874	10436	11448	10564	12131	11181	11312	10534	11088	0.246017705	0.034166708
CDR20291_3477;													
CDR20291_3478	3594	6035	5510	5602	6401	5776	6570	6098	6171	5493	5745	0.024293169	0.968670851

CDR20291_3479	113	266	216	354	265	193	288	241	273	420	223	0.583833142	0.487970041
CDR20291_3480	709	1325	1023	1287	1440	1230	1270	1270	1278	1160	1141	0.109218995	0.854987503
CDR20291_3481	64	173	208	216	132	116	160	118	75	166	109	0.508350401	0.700659075
CDR20291_3482	565	1100	1199	967	1150	1088	993	971	897	1015	1060	0.187470623	0.687784799
CDR20291_3483	3479	5821	6241	4994	5555	5517	6212	5727	6386	5491	5186	0.015491569	0.989367817
CDR20291_3484	2156	4013	3424	2712	3987	3057	3997	3281	3720	3414	3217	-0.010549437	0.993056754
CDR20291_3485	35	50	14	23	128	72	17	50	50	45	48	-0.196839863	0.971144882
CDR20291_3486	2506	3934	3685	3890	4400	4009	3953	4295	3927	3674	3516	-0.050999513	0.932479087
CDR20291_3487	69	141	65	114	157	103	49	103	176	68	104	-0.053967899	0.993056754
CDR20291_3488	371	753	511	606	649	691	678	731	589	786	590	0.128665111	0.885147643
CDR20291_3489	361	823	560	473	733	550	407	633	452	470	536	-0.057606396	0.975961349
CDR20291_3490	183	185	235	253	286	194	188	355	315	180	178	-0.325771941	0.778589121
CDR20291_3491	2	2	1	0	0	0	3	0	4	0	0	NA	NA
CDR20291_3492	261	452	406	368	418	425	426	358	499	312	431	-0.051779936	0.97352847
CDR20291_3493	490	1122	1005	932	953	1372	1322	1412	875	1066	1419	0.527528318	0.202040861
CDR20291_3494	7	3	3	0	3	2	0	2	1	13	2	NA	NA
CDR20291_3495	1	2	0	0	1	1	0	0	2	0	1	NA	NA
CDR20291_3496	294	525	577	565	525	385	701	422	514	503	619	0.159927864	0.8728919
CDR20291_3497	2	2	4	1	2	5	9	0	11	5	3	NA	NA
CDR20291_3498	176	233	297	312	347	306	240	321	361	445	298	0.151496931	0.926026718
CDR20291_3499	150	334	243	237	362	317	370	356	292	286	375	0.377868154	0.592746166
CDR20291_3500	521	867	653	658	686	567	804	745	849	791	687	-0.212152818	0.702648248
CDR20291_3501	182	448	344	499	255	415	491	306	317	307	484	0.387018864	0.652488413
CDR20291_3502	347	661	482	464	557	510	408	469	342	406	351	-0.278208233	0.716414717
CDR20291_3503	209	263	219	208	238	250	228	205	395	203	265	-0.457632673	0.562218556
CDR20291_3504	314	518	650	579	696	369	515	615	504	375	260	-0.005958459	0.997856314
CDR20291_3505	770	1295	776	890	1046	1092	1195	924	948	984	1135	-0.284744652	0.546093188
CDR20291_3506	802	1635	2023	1407	1307	1171	1417	1284	1535	1564	1588	0.200152264	0.742874408
CDR20291_3507	204	441	307	397	493	464	476	331	474	481	441	0.377297629	0.549679025
CDR20291_3508	356	578	463	627	390	381	525	479	556	477	639	-0.174423587	0.862159048

CDR20291_3509	9140	15491	14069	13935	14880	14252	14480	15228	14209	13291	14543	-0.039872137	0.922364345
CDR20291_3510	2678	3473	3499	3611	3424	3245	3425	3742	3563	3336	4134	-0.292987892	0.209210102
CDR20291_3511	11	4	4	3	1	9	1	10	9	1	3	NA	NA
CDR20291_3512	2	5	3	3	3	5	2	3	3	2	4	NA	NA
CDR20291_3513	207	272	190	275	217	355	291	283	263	337	315	-0.262678364	0.795074713
CDR20291_3514	13557	298	11445	852	749	609	417	364	1017	511	205	-5.277557621	3.70E-12
CDR20291_3515	1875	3395	3704	2909	3312	3221	3120	3310	3082	2795	3037	0.066548763	0.913212471
CDR20291_3516	3	2	5	0	2	1	3	1	5	2	3	NA	NA
CDR20291_3517	6	2	2	2	1	1	7	0	3	0	1	NA	NA
CDR20291_3518	20	3	2	6	3	11	9	1	10	6	13	NA	NA
CDR20291_3519	7	2	1	1	4	1	5	5	7	2	5	NA	NA
CDR20291_3520	0	0	3	1	2	0	0	0	3	1	0	NA	NA
CDR20291_3521	2	1	2	0	0	0	1	0	4	1	0	NA	NA
CDR20291_3522	0	1	0	3	2	1	2	0	0	1	2	NA	NA
CDR20291_3523	0	0	1	0	0	2	0	0	3	0	2	NA	NA
CDR20291_3524	70	117	48	110	172	84	223	95	123	140	142	0.134596508	0.971144882
CDR20291_3525	3	0	1	1	0	0	0	0	0	1	1	NA	NA
CDR20291_3526	2	0	0	1	1	0	3	0	0	0	2	NA	NA
CDR20291_3527	3	1	4	2	3	2	4	2	3	6	0	NA	NA
CDR20291_3528	107	6	4	3	4	4	6	5	10	3	15	-4.858409736	3.90E-05
CDR20291_3529	2851	5541	4523	4849	4135	3744	4536	5162	4462	4635	4742	0.002356416	0.997856314
CDR20291_3530	5	8	5	1	4	2	7	0	10	0	4	NA	NA
CDR20291_3531	2301	4601	3778	3850	4364	4363	3770	4207	3669	3299	3683	0.08220679	0.87886113
CDR20291_3532	3177	7972	7241	6280	7739	7109	6515	5938	6545	6012	6659	0.397984226	0.042623173
CDR20291_3533	1066	1256	1218	1134	1572	1683	1244	1259	1495	1120	850	-0.433990501	0.329335741
CDR20291_3534	508	653	535	762	848	701	692	671	708	564	541	-0.306526342	0.570158817
CDR20291_3534;													
CDR20291_3535	0	1	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_3535	8	6	6	3	8	5	11	3	26	4	10	NA	NA
CDR20291_3536	7	6	2	3	5	2	3	0	6	1	7	NA	NA

CDR20291_3537	1	7	2	0	2	1	1	0	5	4	3	NA	NA
CDR20291_3538	3	0	2	2	2	0	2	0	4	2	3	NA	NA
CDR20291_3539	1	0	0	0	0	3	1	0	0	3	2	NA	NA
CDR20291_3540	1	0	0	1	2	0	1	0	1	1	1	NA	NA
CDR20291_3541	0	0	0	0	0	0	1	1	2	0	2	NA	NA
CDR20291_3551	41	6	35	14	19	1	11	46	55	10	0	-1.755458375	0.622721546
CDR20291_3552	3	3	0	1	1	2	6	2	2	2	4	NA	NA

Table S6b: Gene log₂ fold change data and p-values for R20291 *in vivo* samples (Reference versus day 3 samples)

Genes	ref	d3a	d3b	d3c	d3d	d3e	d3f	d3g	d3h	d3i	d3j	log2FoldChange	padj
CDR20291_0001	450	482	1039	567	355	481	348	720	375	283	495	-0.239018588	0.954630457
CDR20291_0002	8624	13504	21810	14563	12411	13902	13440	17203	15715	11568	15472	0.423014948	0.694968449
CDR20291_0003	11	4	3	0	4	3	8	2	2	1	0	NA	NA
CDR20291_0004	4	2	4	0	2	0	3	0	1	2	2	NA	NA
CDR20291_0005	8	5	8	5	5	7	5	7	1	1	2	NA	NA
CDR20291_0006	7	0	2	0	2	0	3	0	0	1	1	NA	NA
CDR20291_0007	2	3	1	0	2	1	4	5	2	0	1	NA	NA
CDR20291_0008	1	4	2	2	4	5	9	0	2	1	1	NA	NA
CDR20291_0009	2293	2444	1627	1216	1887	2926	2355	2088	1052	2125	1641	-0.567075388	0.87464625
CDR20291_0010	6042	22	10	60	15	24	22	33	25	23	10	-8.295031821	7.30E-30
CDR20291_0011	1032	1677	1960	1186	1161	1253	1541	1622	896	665	726	-0.08755002	0.987467975
CDR20291_0012	1347	1031	2630	1380	1318	1024	1019	935	1301	1810	1023	-0.400570804	0.89059378
CDR20291_0013	2421	3035	4833	2799	3006	4080	2761	4085	3655	3398	3978	0.192643463	0.954974392
CDR20291_0014	6539	8243	12691	8217	6327	9075	11963	9610	8283	7931	11298	0.176774523	0.984589191
CDR20291_0015	9030	12970	25531	15263	12335	13500	16954	19959	19449	13786	19863	0.548186121	0.731116365
CDR20291_0016	9369	11885	17897	12806	12780	11566	11723	13204	13021	12218	10073	0.072716334	0.987467975
CDR20291_0017	8629	10900	15864	13307	11163	9222	10420	11053	10895	11053	8759	0.014399019	0.998533765
CDR20291_0018	9	8	4	5	5	2	6	4	2	3	1	NA	NA
CDR20291_0019	7044	11333	18709	13989	10411	15695	13353	16240	12163	10425	10159	0.537662536	0.565398385
CDR20291_0020	31	154	218	44	33	47	40	42	30	72	38	0.695800427	0.925506853
CDR20291_0021	134	70	210	29	135	98	136	205	49	131	25	-0.68512175	0.927225356
CDR20291_0022	319	239	202	108	73	141	153	62	52	158	85	-1.707493935	0.186562535
CDR20291_0023	1111	1884	2676	1488	1502	1687	1754	1996	1458	1394	1031	0.217487689	0.947575252
CDR20291_0024	5314	6911	11625	8157	7578	9935	5560	6928	6440	5908	4898	0.075674466	0.986538587
CDR20291_0025	217	323	609	188	468	303	305	605	154	588	324	0.465936149	0.928980879
CDR20291_0026	834	1923	3813	1332	1291	1458	1198	1530	1553	1467	3372	0.781121522	0.648390922
CDR20291_0027	65	72	70	64	136	59	32	50	39	31	146	-0.239184421	0.987467975

CDR20291_0028	219	239	421	173	203	237	224	191	239	169	270	-0.277023364	0.941079357
CDR20291_0029	390	796	801	569	628	625	234	444	417	296	328	-0.028608841	0.997813116
CDR20291_0029;													
CDR20291_0030	0	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_0030	50	88	251	59	18	73	24	81	104	35	187	0.408303537	0.984589191
CDR20291_0031	1	0	18	0	0	10	3	9	1	37	0	NA	NA
CDR20291_0032	424	1328	1519	639	557	698	687	1084	271	305	336	0.360152783	0.960075735
CDR20291_0033	63	67	187	94	45	87	31	167	157	134	65	0.297083236	0.984589191
CDR20291_0034	75	114	186	89	143	98	4	34	135	44	34	-0.245039055	0.987467975
CDR20291_0035	552	836	1539	988	777	785	962	695	696	1282	695	0.37260296	0.9155071
CDR20291_0036	2	6	5	0	8	4	2	3	0	1	1	NA	NA
CDR20291_0037	0	4	1	1	3	6	2	1	0	0	0	NA	NA
CDR20291_0038	7	8	7	2	2	1	18	8	1	1	2	NA	NA
CDR20291_0039	61	316	1199	374	308	184	317	226	646	174	128	2.168121301	0.060117039
CDR20291_0040	812	1193	2426	3103	1404	1360	2486	45633	2670	2636	2360	1.105254983	0.386998355
CDR20291_0041	2	9	5	0	10	2	9	6	6	3	1	NA	NA
CDR20291_0042	2490	2812	4530	2571	2794	2860	2075	2883	2663	2042	2166	-0.261645514	0.794293046
CDR20291_0043	3	1	1	2	1	3	1	4	5	0	3	NA	NA
CDR20291_0044	3440	2783	7410	4693	3576	3556	2885	3785	4034	3674	3274	-0.202061861	0.935378256
CDR20291_0045	3596	4462	7422	5328	4502	4533	3251	4529	5202	5368	4623	0.070333194	0.987467975
CDR20291_0046	194	226	362	172	179	184	85	413	225	130	129	-0.310138464	0.968488529
CDR20291_0047	281	257	152	464	243	144	321	277	241	161	202	-0.506880718	0.925506853
CDR20291_0048	84	185	204	128	78	136	159	172	111	110	212	0.473452142	0.920684121
CDR20291_0049	7292	7246	9816	7426	6389	7449	4621	6908	6418	7180	5796	-0.458868776	0.366299045
CDR20291_0050	3	5	0	1	2	1	6	1	0	3	4	NA	NA
CDR20291_0051	46	96	121	91	79	91	456	141	138	46	117	1.352870813	0.777989961
CDR20291_0052	1	2	0	0	0	0	2	0	0	0	0	NA	NA
CDR20291_0053	1	1	0	0	1	0	0	1	1	1	1	NA	NA
CDR20291_0054	2	4	3	0	3	1	3	0	4	0	1	NA	NA
CDR20291_0055	2	0	2	0	0	1	2	1	2	0	2	NA	NA

CDR20291_0056	2	3	1	4	2	1	7	0	1	2	2	NA	NA
CDR20291_0057	0	2	2	1	0	4	3	5	1	2	0	NA	NA
CDR20291_0058	1	0	2	1	0	0	3	2	0	0	0	NA	NA
CDR20291_0059	269	312	663	335	285	264	173	126	135	106	141	-0.572212684	0.897972061
CDR20291_0060	12	19	9	12	18	15	19	13	12	7	4	-0.237619917	0.987467975
CDR20291_0061	54	69	38	43	21	12	69	134	24	35	24	-0.529750916	0.973419192
CDR20291_0062	1	1	1	1	1	1	2	2	0	1	0	NA	NA
CDR20291_0063	3	4	2	1	2	3	6	1	0	3	1	NA	NA
CDR20291_0064	12	10	11	7	10	4	19	4	5	1	4	NA	NA
CDR20291_0065	36	100	111	107	78	111	462	141	121	50	133	1.747979807	0.557613262
CDR20291_0066	2	1	0	4	0	4	1	1	2	0	0	NA	NA
CDR20291_0067	1	5	0	2	3	2	4	2	0	2	0	NA	NA
CDR20291_0068	4	1	1	1	4	0	11	4	0	1	1	NA	NA
CDR20291_0069	1	1	0	0	2	2	4	0	1	0	2	NA	NA
CDR20291_0070	4	4	1	6	1	2	7	1	3	0	3	NA	NA
CDR20291_0071	0	1	0	0	0	0	1	1	0	1	0	NA	NA
CDR20291_0072	2	0	0	0	3	0	6	0	1	1	1	NA	NA
CDR20291_0073	3	4	1	0	3	1	10	2	2	0	2	NA	NA
CDR20291_0074	2	1	3	1	3	0	2	4	0	0	1	NA	NA
CDR20291_0075	1	1	1	0	0	1	1	0	0	0	0	NA	NA
CDR20291_0076	4	0	1	1	3	1	6	2	0	0	0	NA	NA
CDR20291_0077	3	1	1	2	0	0	2	0	0	0	2	NA	NA
CDR20291_0078	0	1	1	1	2	3	2	0	1	0	1	NA	NA
CDR20291_0079	1	2	0	1	1	5	1	0	0	0	2	NA	NA
CDR20291_0080	2	0	1	0	1	0	2	0	0	0	0	NA	NA
CDR20291_0081	3	2	0	1	3	0	0	1	0	0	0	NA	NA
CDR20291_0082	3	1	5	1	3	0	2	4	1	0	0	NA	NA
CDR20291_0083	5	2	3	1	0	3	4	1	1	1	2	NA	NA
CDR20291_0084	0	1	1	1	1	7	6	1	1	0	0	NA	NA
CDR20291_0085	0	0	0	1	0	1	2	3	1	0	0	NA	NA

CDR20291_0086	3	2	3	1	2	1	2	1	2	1	0	NA	NA
CDR20291_0087	5	4	7	1	4	8	9	1	5	1	4	NA	NA
CDR20291_0088	4	2	3	0	4	5	3	0	10	0	0	NA	NA
CDR20291_0089	4	4	4	1	2	3	6	1	3	0	0	NA	NA
CDR20291_0090	2	0	2	2	1	4	1	4	1	0	0	NA	NA
CDR20291_0091	3	0	0	1	0	1	0	1	2	0	0	NA	NA
CDR20291_0092	1	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_0093	5	1	1	0	5	3	3	1	1	1	1	NA	NA
CDR20291_0094	0	3	3	1	2	1	0	0	1	0	0	NA	NA
CDR20291_0095	1	4	2	1	0	0	5	3	2	1	1	NA	NA
CDR20291_0096	3	5	3	6	2	3	7	1	1	0	0	NA	NA
CDR20291_0097	1	3	0	3	2	2	2	0	1	0	1	NA	NA
CDR20291_0098	7	0	4	3	5	2	8	4	4	1	0	NA	NA
CDR20291_0099	4	5	1	2	4	3	6	2	0	0	1	NA	NA
CDR20291_0100	43	56	66	28	52	12	73	2	84	4	49	-0.347293062	0.987467975
CDR20291_0101	228	555	913	342	352	256	999	270	316	235	402	0.674960099	0.903905619
CDR20291_0102	0	1	0	1	2	1	1	0	2	0	0	NA	NA
CDR20291_0103	0	2	2	1	4	2	3	3	0	2	1	NA	NA
CDR20291_0104	8	2	1	1	3	4	8	4	1	0	0	NA	NA
CDR20291_0105	36	39	5	14	35	3	18	52	23	11	75	-0.658441228	0.973419192
CDR20291_0106	8	12	9	1	7	8	12	6	5	3	5	NA	NA
CDR20291_0107	1478	1678	3079	3315	1907	2109	1489	2700	1894	2711	1540	0.218537476	0.960075735
CDR20291_0108	116	264	636	285	344	569	349	112	297	1	400	1.077760746	0.927225356
CDR20291_0109	2090	2287	4283	2659	2125	2308	1488	1862	2512	1529	1907	-0.28545305	0.851061538
CDR20291_0110	1	0	0	0	0	0	1	0	0	1	0	NA	NA
CDR20291_0111	110	120	112	91	153	92	136	141	32	107	102	-0.3473996	0.973419192
CDR20291_0112	111	64	88	29	35	10	13	28	30	31	37	-2.064644409	0.173328721
CDR20291_0113	105	20	16	58	59	40	24	9	72	13	14	-2.027009892	0.478727327
CDR20291_0114	8	1	0	1	1	1	0	2	0	2	0	NA	NA
CDR20291_0115	83	52	12	23	50	13	16	36	16	35	15	-1.960235824	0.402597477

CDR20291_0116	154	85	17	50	47	51	71	48	36	69	27	-1.912066066	0.288400828
CDR20291_0117	78	33	25	30	55	47	36	21	39	40	16	-1.514980373	0.469566412
CDR20291_0118	5	5	9	8	6	3	6	4	1	3	0	NA	NA
CDR20291_0119	9	11	8	4	13	4	8	7	0	4	1	NA	NA
CDR20291_0120	2217	3646	6517	3313	3195	2957	2665	4015	3189	3159	2132	0.236269072	0.916535173
CDR20291_0121	1133	1763	2756	1631	2047	1795	1321	1789	1688	1954	2998	0.440516752	0.866542396
CDR20291_0122	6	7	4	1	5	2	4	7	4	2	1	NA	NA
CDR20291_0123	479	668	1081	662	541	659	603	1482	837	457	440	0.243296452	0.973419192
CDR20291_0124	29	7	3	0	21	5	7	2	5	1	0	NA	NA
CDR20291_0125	0	1	25	0	0	0	5	2	0	0	7	NA	NA
CDR20291_0126	1	3	3	4	5	6	3	1	1	1	1	NA	NA
CDR20291_0127	2	2	4	4	4	1	3	1	0	0	1	NA	NA
CDR20291_0128	18	16	45	22	0	15	3237	18	17	1	1	-0.842855876	0.973419192
CDR20291_0129	12	3	5	2	6	4	2	4	2	1	4	NA	NA
CDR20291_0130	3	7	3	4	6	2	11	2	1	2	0	NA	NA
CDR20291_0131	1510	1797	2778	1330	1265	1519	818	1234	3492	1444	1699	-0.191327184	0.984589191
CDR20291_0132	346	723	889	694	551	738	217	729	573	521	806	0.499698229	0.848160036
CDR20291_0133	5943	8482	14037	8779	6647	6958	5244	7970	9788	5912	6262	0.01866659	0.997421856
CDR20291_0134	26	16	14	8	32	24	1	11	2	33	21	-1.0258795	0.930043643
CDR20291_0135	111	233	292	83	155	55	13	58	79	59	38	-0.586490335	0.951662831
CDR20291_0136	167	105	285	117	66	43	42	80	104	23	101	-1.296059057	0.562149318
CDR20291_0137	161	62	132	9	44	69	125	35	35	27	23	-1.903904603	0.477383295
CDR20291_0138	31	105	56	58	40	28	53	43	89	49	197	0.910473676	0.903905619
CDR20291_0139	115	190	205	195	90	124	50	58	205	121	18	-0.309461805	0.984589191
CDR20291_0140	35	42	32	13	11	22	4	17	4	14	7	-1.549893987	0.7504811
CDR20291_0141	1780	2928	4107	2465	2761	2214	2057	2775	1946	2056	1742	0.095404339	0.984589191
CDR20291_0142	15	10	8	9	16	6	18	6	4	6	3	-1.111664235	0.92014325
CDR20291_0143	54	108	113	40	27	15	132	31	57	5	20	-0.350213304	0.986538587
CDR20291_0144	7832	9404	16249	9635	9076	8992	5210	7382	7030	7117	7618	-0.257520839	0.838322352
CDR20291_0145	1774	2036	3955	1754	1688	1707	1628	1542	1331	1350	1062	-0.409699387	0.802293834

CDR20291_0146	349	468	850	277	251	307	169	563	293	152	234	-0.447079424	0.923045844
CDR20291_0147	648	786	1126	993	667	904	632	824	838	683	647	-0.061887027	0.987467975
CDR20291_0148	6	2	1	5	2	0	0	0	1	2	2 NA		NA
CDR20291_0149	3	4	5	1	1	8	2	3	1	0	2 NA		NA
CDR20291_0150	5	2	1	2	1	1	1	3	2	0	0 NA		NA
CDR20291_0151	589	970	1244	813	672	970	609	631	850	1178	613	0.15743174	0.984589191
CDR20291_0152	573	717	1235	1106	764	380	316	573	729	426	550	-0.183475337	0.984589191
CDR20291_0153	192	312	386	350	186	508	119	252	221	211	88	0.023701384	0.998533765
CDR20291_0153;													
CDR20291_0154	1	0	0	0	0	0	0	0	1	0	0 NA		NA
CDR20291_0154	246	431	664	209	388	135	275	220	159	198	398	-0.089111919	0.990655111
CDR20291_0155	2302	3988	5810	4659	3110	3367	2459	2877	3272	2608	3694	0.237480543	0.916535173
CDR20291_0156	191	471	1130	443	338	719	173	405	538	687	490	1.059805529	0.380744325
CDR20291_0157	356	539	736	710	397	594	232	477	405	505	995	0.275453133	0.973419192
CDR20291_0158	1144	369	6	10	52	41	17	13	6	27	17	-6.02202135	7.13E-08
CDR20291_0159	590	210	5	3	1	13	10	20	14	3	4	-6.475154085	7.13E-08
CDR20291_0160	26	17	4	1	1	5	10	2	5	0	2 NA		NA
CDR20291_0161	450	57	9	7	4	7	7	5	5	4	2	-6.727128246	8.73E-20
CDR20291_0162	0	1	0	0	2	1	2	2	1	0	1 NA		NA
CDR20291_0163	1	0	0	1	0	0	1	0	0	0	0 NA		NA
CDR20291_0164	25	2	1	0	0	2	0	0	3	0	0 NA		NA
CDR20291_0165	66	91	133	75	35	108	37	49	44	153	52	-0.170066459	0.987467975
CDR20291_0166	95	67	57	62	66	55	71	37	41	100	49	-0.970929361	0.742999686
CDR20291_0167	371	582	1332	413	460	668	172	312	366	478	378	-0.009081815	0.998533765
CDR20291_0168	164	392	634	509	341	438	292	284	1568	497	635	1.421463009	0.433203178
CDR20291_0169	7476	11405	18239	11471	10944	11498	9348	10232	13202	10000	11406	0.273031954	0.838322352
CDR20291_0170	1927	2109	2883	2344	2087	3121	1615	2098	1599	2504	1831	-0.1716989	0.973419192
CDR20291_0171	2	2	2	0	2	0	3	2	0	1	1 NA		NA
CDR20291_0172	1259	1931	3764	2446	1630	1655	3104	2019	2402	1367	1424	0.41405115	0.9155071
CDR20291_0173	2	0	0	0	0	0	0	0	0	0	0 NA		NA

CDR20291_0174	572	944	1865	992	909	661	492	1097	856	833	615	0.262482571	0.925506853
CDR20291_0175	1678	4123	7778	4512	3676	3739	3844	3265	3340	2732	3369	0.856706179	0.051897896
CDR20291_0176	538	1659	2189	1180	1362	1875	639	1170	1101	1029	1596	0.951787382	0.170798231
CDR20291_0177	1332	2957	4490	2831	2061	2949	1475	2362	1765	1530	1887	0.434567656	0.671807282
CDR20291_0178	3457	4441	8324	4881	4712	5353	17175	7209	8446	4199	4813	0.728152188	0.885492768
CDR20291_0179	539	657	1151	944	495	938	207	688	1053	667	491	0.013673037	0.998533765
CDR20291_0180	11	7	5	2	27	19	11	2	0	0	2	NA	NA
CDR20291_0181	142	59	245	336	47	64	79	68	147	31	106	-0.718264643	0.925506853
CDR20291_0182	1716	2098	3650	2123	1863	1854	12518	1888	1371	1983	1270	-0.227923897	0.922413051
CDR20291_0183	98	151	367	109	164	114	100	149	73	418	46	0.376761212	0.984566316
CDR20291_0184	2676	3481	6035	3711	3607	3289	2870	4222	3260	3491	3234	0.085604203	0.984589191
CDR20291_0185	3701	4	4	1	4	6	2	6	2	2	0	-10.6235174	3.50E-70
CDR20291_0186	3805	6	4	8	2	0	2	3	2	4	2	-10.56955558	4.30E-66
CDR20291_0187	2460	82	6	40	5	32	27	38	6	77	16	-6.535157693	0.00012675
CDR20291_0188	4430	5	2	5	3	2	4	35	1	0	3	-9.878879913	2.54E-06
CDR20291_0189	474	983	1526	948	729	1156	841	1099	1159	746	548	0.642717506	0.479521771
CDR20291_0190	3736	5919	9083	5932	5328	6557	6685	5630	5015	5499	4154	0.30563841	0.897972061
CDR20291_0191	274	168	459	219	223	252	123	143	162	51	78	-1.025103577	0.607523571
CDR20291_0192	1376	1363	1285	1166	1025	1317	1442	1286	767	662	1286	-0.589948443	0.790169327
CDR20291_0193	4393	3884	4708	4228	3119	4282	2168	3991	3149	3780	3514	-0.634666019	0.296008525
CDR20291_0194	2	4	0	2	1	0	0	0	1	1	0	NA	NA
CDR20291_0195	54	190	131	177	133	72	393	329	294	62	172	1.579196831	0.548822404
CDR20291_0196	125	276	314	139	223	227	34	258	217	116	113	0.178573571	0.987467975
CDR20291_0197	1772	2466	4781	2142	1960	2004	1189	2226	2244	1587	1689	-0.114664033	0.984589191
CDR20291_0198	8	7	6	3	6	2	12	2	3	1	3	NA	NA
CDR20291_0199	14927	21864	35916	22563	21332	21644	17167	21739	23716	18921	22556	0.220792466	0.882470322
CDR20291_0200	512	1061	1356	1006	901	759	487	783	647	1182	911	0.442050015	0.838322352
CDR20291_0201	138	147	214	273	88	202	164	311	168	138	103	0.012517582	0.998533765
CDR20291_0202	95	107	270	176	103	56	117	61	59	89	134	-0.121309964	0.987467975
CDR20291_0203	71	69	109	15	30	53	49	18	34	24	28	-1.176228656	0.749515787

CDR20291_0204	1117	1601	2044	1663	1584	2088	1050	1855	1535	1370	971	0.109717882	0.984589191
CDR20291_0205	8836	8168	22412	7520	7785	8735	8132	9456	9411	9546	8680	-0.247165113	0.925506853
CDR20291_0206	405	606	1229	567	612	629	639	754	873	404	603	0.377324624	0.89059378
CDR20291_0207	2	2	1	2	1	1	1	1	0	2	1 NA	NA	
CDR20291_0208	84	73	167	89	155	24	33	101	94	105	35	-0.358122089	0.984589191
CDR20291_0209	7	12	1	1	2	18	10	8	0	0	0 NA	NA	
CDR20291_0210	9	25	3	3	6	5	5	6	1	1	22 NA	NA	
CDR20291_0211	365	503	986	490	462	419	264	911	300	442	526	0.118097826	0.987467975
CDR20291_0212	28	43	85	112	84	18	15	20	31	16	279	0.996037567	0.927225356
CDR20291_0213	18	9	0	3	14	0	0	3	0	1	1 NA	NA	
CDR20291_0214	101	156	484	330	108	136	56	213	475	66	277	0.739411567	0.916093971
CDR20291_0215	188	3	6	1	2	3	0	2	2	0	0	-7.137969542	1.95E-06
CDR20291_0216	199	57	5	89	13	15	70	15	7	21	52	-2.795824433	0.322251698
CDR20291_0217	1578	75	8	43	3	27	10	42	7	4	11	-6.504241217	1.77E-06
CDR20291_0218	431	12	4	10	5	21	10	4	4	0	2	-6.270789355	5.19E-06
CDR20291_0218;													
CDR20291_0219	28	0	0	0	0	0	0	0	2	0	0 NA	NA	
CDR20291_0219	376	4	1	0	3	7	1	24	2	9	3	-6.448811545	0.000455013
CDR20291_0219;													
CDR20291_0220	0	0	0	0	1	0	0	0	1	0	0 NA	NA	
CDR20291_0220	1614	153	41	158	43	172	29	76	30	54	72	-4.671571284	2.08E-06
CDR20291_0221	505	19	13	12	12	15	7	14	5	6	3	-5.98070649	6.47E-14
CDR20291_0222	5107	135	25	89	16	112	30	194	12	14	18	-6.704722846	0.000121555
CDR20291_0223	438	909	1074	596	361	653	3847	596	450	309	359	-0.057617114	0.991777829
CDR20291_0224	401	795	1997	636	554	966	447	760	799	549	677	0.564292377	0.671364494
CDR20291_0225	15	60	190	42	100	69	12	0	45	6	12	1.255010061	0.924401693
CDR20291_0226	305	643	1466	570	897	701	830	461	702	464	497	0.843605633	0.477188831
CDR20291_0226;													
CDR20291_0227	1	0	0	0	0	0	0	0	0	0	0 NA	NA	
CDR20291_0227	317	721	908	449	457	327	305	386	443	433	688	0.28951414	0.947575252

CDR20291_0228	66	138	174	176	47	60	39	89	41	24	89	-0.056008413	0.997499065
CDR20291_0229	105	253	1208	351	360	294	139	422	257	460	1197	1.811252194	0.277072548
CDR20291_0230	40	27	40	25	4	1	19	5	15	59	2	-1.407069354	0.911388826
CDR20291_0231	83	130	366	131	127	95	144	90	211	153	45	0.409623728	0.954630457
CDR20291_0232	83	266	198	205	142	213	53	132	171	37	130	0.475393422	0.947318151
CDR20291_0233	475	910	1885	869	637	1057	241	741	797	1176	545	0.447205837	0.916535173
CDR20291_0234	93	130	232	190	76	175	137	140	75	68	134	0.139970621	0.987467975
CDR20291_0235	1	1	3	2	5	1	3	3	1	1	0	NA	NA
CDR20291_0236	14	10	23	0	5	71	38	21	13	26	55	0.614367107	0.984589191
CDR20291_0237	46	42	17	19	9	17	3	38	5	2	2	-2.034052125	0.724250642
CDR20291_0238	29	16	15	9	18	32	9	18	5	2	29	-1.28732392	0.874336522
CDR20291_0239	52	81	81	44	27	38	24	58	52	64	17	-0.515905472	0.941849122
CDR20291_0240	206	406	376	186	205	154	154	298	205	268	513	0.062601513	0.995736287
CDR20291_0241	700	695	1079	507	428	685	272	656	339	558	758	-0.644194323	0.702363772
CDR20291_0242	742	835	1326	614	902	786	835	567	429	733	666	-0.329138463	0.925506853
CDR20291_0242;													
CDR20291_0243	0	1	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0243	1080	1363	3584	1444	1328	1423	1423	1486	1588	1843	855	0.174142882	0.984076663
CDR20291_0244	1625	3384	5236	4557	2508	2668	3075	2996	3743	2604	2902	0.665512443	0.350981742
CDR20291_0245	246	546	876	505	616	547	414	536	443	369	559	0.744838889	0.19779893
CDR20291_0246	5540	13228	25543	13297	10672	11283	11390	12527	12055	10943	11082	0.843173822	0.011070688
CDR20291_0247	1175	2933	5358	3219	2700	1906	1973	3569	2276	3336	3967	1.020877199	0.157796525
CDR20291_0248	420	1043	3091	1617	861	792	1149	967	920	617	3024	1.340793718	0.386998355
CDR20291_0249	117	103	254	240	174	152	141	228	224	74	75	0.110419666	0.987467975
CDR20291_0250	5	53	5	26	0	55	6	5	2	50	2	1.663239525	0.920684121
CDR20291_0251	552	1500	2906	1410	1257	1226	76135	1473	1264	1230	1200	0.968938169	0.001699988
CDR20291_0252	438	877	1731	1410	625	923	893	1960	1502	845	1342	1.089024197	0.297405678
CDR20291_0252;													
CDR20291_0253	119	125	650	161	132	129	114	151	368	207	40	0.301594764	0.984589191
CDR20291_0253	1786	4361	10934	5023	3930	3604	3908	4940	4614	3164	5794	1.069294067	0.056898184

CDR20291_0254	1276	3660	9584	5001	2925	2745	8302	3624	3151	2533	5681	1.5222286	0.182098263
CDR20291_0255	61	206	324	127	45	190	13	46	73	46	67	0.344223417	0.984589191
CDR20291_0256	983	2152	4720	2610	2055	1403	2344	1710	1633	2047	2081	0.805261431	0.370427646
CDR20291_0257	763	2468	5134	2615	1861	1663	1698	1955	1995	1531	1861	1.135381728	0.009956545
CDR20291_0258	726	1983	4137	1964	1468	1228	842	1258	1844	2890	1929	1.005377296	0.373085742
CDR20291_0259	551	1325	2651	1488	1089	946	1132	1278	1221	1201	1116	0.875727865	0.061887034
CDR20291_0260	245	873	2043	1002	768	751	421	841	891	590	2322	1.696248818	0.116149074
CDR20291_0261	360	1095	1592	1049	477	1315	384	981	686	630	544	0.833848715	0.479487032
CDR20291_0262	457	1801	2086	1445	1217	952	895	959	1367	919	2729	1.283076251	0.211601054
CDR20291_0263	104	287	497	588	214	222	163	527	137	526	280	1.332763698	0.392089775
CDR20291_0264	359	795	2315	937	846	369	376	1128	1081	558	323	0.792749099	0.777989961
CDR20291_0265	159	531	1305	435	463	870	317	593	744	423	477	1.510477878	0.013230276
CDR20291_0266	3364	7868	15665	9737	5843	6456	10964	6113	8667	5788	7980	0.956888469	0.28365686
CDR20291_0267	2277	6104	12031	5946	3926	4609	6138	4673	4794	3664	5576	0.923060951	0.176413021
CDR20291_0267;													
CDR20291_0268	42	178	247	154	208	352	141	117	144	78	84	1.614149756	0.175649825
CDR20291_0268	499	978	2314	1100	929	1146	1477	1017	853	839	771	0.795226052	0.447422432
CDR20291_0269	1063	3158	6813	2932	2231	2352	3819	2587	3214	2839	7455	1.452650927	0.176413021
CDR20291_0270	436	367	739	537	483	201	414	355	255	2316	232	-0.543422741	0.866542396
CDR20291_0271	56	83	207	131	130	99	36	68	66	79	203	0.566050788	0.925506853
CDR20291_0272	486	670	1820	759	822	436	245	634	663	650	674	0.13736246	0.986538587
CDR20291_0273	452	664	1940	537	488	734	212	536	454	1437	262	0.209840872	0.986538587
CDR20291_0274	802	1338	3112	1316	1369	1195	1768	1117	1438	1372	1492	0.56211421	0.716785161
CDR20291_0275	29	94	132	32	66	70	33	28	41	39	1	0.399958406	0.984589191
CDR20291_0276	1188	1601	3128	1695	1756	1348	1277	1057	1375	1212	1706	0.035266886	0.995604279
CDR20291_0277	9997	17720	29202	15248	17177	15796	17834	18629	12619	11288	8690	0.316619191	0.917371647
CDR20291_0278	933	1850	2636	1553	1166	1342	478	1263	1056	1218	1141	0.111576882	0.986538587
CDR20291_0279	424	845	1574	877	776	743	314	926	719	827	769	0.554642849	0.674758056
CDR20291_0280	58	90	102	37	70	117	161	65	36	47	107	0.208634229	0.987467975
CDR20291_0281	4	2	5	4	2	1	6	1	0	0	1	NA	NA

CDR20291_0282	2839	4189	7311	4786	3901	4447	4689	5620	3577	3730	2940	0.283986167	0.916535173
CDR20291_0283	26	47	128	55	38	95	25	26	23	44	19	0.451542011	0.969525073
CDR20291_0284	51	111	143	32	128	101	35	133	95	492	38	1.035830009	0.903905619
CDR20291_0285	4493	6792	10353	6356	5677	6521	3963	5749	5454	5427	5123	0.044168517	0.987467975
CDR20291_0286	1244	2087	3696	1811	1474	1526	642	1748	1507	1243	1345	-0.000954769	0.999561437
CDR20291_0287	36	111	74	10	80	23	38	45	90	100	15	0.343266087	0.986227745
CDR20291_0288	2	3	38	8	4	6	2	19	3	0	1 NA	NA	
CDR20291_0289	3	0	0	2	0	1	3	1	3	0	1 NA	NA	
CDR20291_0290	11	10	0	1	20	5	9	2	1	7	0 NA	NA	
CDR20291_0291	87	98	110	48	51	218	56	255	87	180	45	0.032370718	0.998533765
CDR20291_0292	507	909	1010	970	796	601	518	585	423	480	415	-0.000410266	0.999561437
CDR20291_0293	4	4	2	2	0	1	2	0	2	0	2 NA	NA	
CDR20291_0294	49	39	101	55	97	141	27	132	77	25	328	0.731009099	0.947267846
CDR20291_0295	424	515	573	346	358	224	240	263	353	363	241	-0.686463767	0.578696018
CDR20291_0296	53	44	60	54	67	60	5	34	15	59	152	-0.292200341	0.987467975
CDR20291_0297	404	587	1310	703	620	557	245	551	385	323	282	-0.017237026	0.998533765
CDR20291_0298	3913	11701	17129	8401	8346	8079	8743	7434	6444	6700	6522	0.782730838	0.179539161
CDR20291_0299	18	89	151	53	48	97	10	29	31	6	122	1.342152459	0.829481015
CDR20291_0300	446	704	1111	771	620	799	391	767	760	341	739	0.24328746	0.947575252
CDR20291_0301	298	340	677	442	307	362	286	223	445	552	76	-0.0911349	0.991344254
CDR20291_0302	53	145	259	115	98	306	62	112	68	69	253	1.067377222	0.740127492
CDR20291_0303	164	238	466	489	226	380	211	210	198	188	84	0.28244301	0.973419192
CDR20291_0304	27	27	64	60	24	19	59	10	18	10	5	-0.272945858	0.987467975
CDR20291_0305	579	925	2197	848	830	821	494	788	484	714	938	0.185488756	0.979708105
CDR20291_0306	170	210	529	140	263	230	5833	139	426	139	252	0.141065603	0.987467975
CDR20291_0307	232	189	369	403	272	303	99	214	175	214	105	-0.411416412	0.925506853
CDR20291_0308	50	182	159	200	136	201	54	85	176	154	83	1.124320591	0.502960492
CDR20291_0309	5	2	3	5	5	4	2	1	2	0	3 NA	NA	
CDR20291_0310	4075	6068	9464	4852	5938	6574	4176	8166	6667	5284	5100	0.222431096	0.925506853
CDR20291_0311	17268	28849	49459	30908	26607	30549	22572	28145	26242	24978	24863	0.364356516	0.234262862

CDR20291_0311;													
CDR20291_0312	11	19	16	0	21	12	24	30	31	45	6	0.603435874	0.984589191
CDR20291_0312	982	1692	3023	2215	1684	2262	1559	1704	1864	1751	2069	0.630578723	0.231532113
CDR20291_0313	4304	5771	10165	6734	5361	5472	2659	5568	6050	5485	4782	0.014116453	0.998533765
CDR20291_0314	1675	2030	3892	1986	1993	2039	1566	1675	1631	1577	1534	-0.168090394	0.927225356
CDR20291_0315	764	1371	1728	1560	1033	1228	778	1317	1251	920	1412	0.335541061	0.858378676
CDR20291_0316	10	17	86	0	7	18	3	1	6	16	0	-0.097715325	0.998533765
CDR20291_0317	0	2	8	11	2	2	1	1	2	2	1	NA	NA
CDR20291_0318	13	8	7	3	29	62	17	10	10	3	1	-0.14011358	0.995736287
CDR20291_0319	152	94	293	56	108	42	127	192	146	97	92	-0.700968044	0.897972061
CDR20291_0320	225	127	162	109	108	51	72	60	77	95	58	-1.696459415	0.035026498
CDR20291_0321	476	427	779	330	478	413	177	468	320	270	224	-0.736395215	0.533605496
CDR20291_0322	499	620	1082	506	398	492	231	378	523	620	524	-0.32092832	0.925506853
CDR20291_0323	4928	5465	8477	4632	4701	5826	2768	5039	4160	3699	3711	-0.443667624	0.462226208
CDR20291_0324	1855	2280	3631	2052	1927	2191	1206	1598	1485	1426	1998	-0.325723514	0.823496412
CDR20291_0325	2813	4149	5904	3625	3079	3620	2179	2679	2877	3112	3048	-0.124759373	0.968488529
CDR20291_0325;													
CDR20291_0326	812	1554	2606	1624	1077	1806	874	1492	3952	1143	849	0.660100424	0.842098999
CDR20291_0326	216	559	608	337	426	497	204	1232	219	497	602	0.884804277	0.777989961
CDR20291_0327	2026	2503	4675	3014	1988	2841	1497	1836	1843	2458	1896	-0.148589748	0.973419192
CDR20291_0328	2561	4129	7419	3603	3126	3003	1991	2611	2584	2599	3446	-0.009894887	0.998533765
CDR20291_0329	441	233	414	244	147	297	173	208	161	219	118	-1.416447675	0.015140127
CDR20291_0330	91	49	140	89	34	10	17	176	42	62	34	-0.938902918	0.912054235
CDR20291_0331	520	198	354	205	77	177	146	148	120	93	111	-2.119069191	0.000672231
CDR20291_0331;													
CDR20291_0332	0	0	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_0332	315	71	113	97	89	93	45	86	59	79	71	-2.362599396	3.28E-06
CDR20291_0333	659	793	1879	1093	784	789	405	1709	1101	682	940	0.199770022	0.984589191
CDR20291_0334	12262	17419	28144	18496	15734	17540	12755	16058	17179	13258	12945	0.065377884	0.984589191
CDR20291_0335	379	423	734	419	425	388	274	333	285	424	100	-0.421648488	0.925506853

CDR20291_0336	207	273	422	512	364	244	165	236	279	230	170	0.078808876	0.988631632
CDR20291_0337	48	45	92	65	43	18	32	46	21	4	16	-0.804726831	0.925506853
CDR20291_0338	5	6	4	0	8	0	9	4	3	7	5 NA	NA	
CDR20291_0339	115	82	56	54	96	41	182	21	139	68	7	-0.88316314	0.925506853
CDR20291_0340	3	15	31	3	6	8	7	3	14	2	5 NA	NA	
CDR20291_0341	331	572	539	557	411	369	280	360	488	468	278	0.004607737	0.999125978
CDR20291_0342	680	785	1213	909	616	484	495	572	896	738	441	-0.330982152	0.916535173
CDR20291_0343	144	248	446	157	275	211	294	231	177	153	163	0.31867468	0.947625302
CDR20291_0344	527	624	918	466	571	714	607	401	598	511	376	-0.246291276	0.947575252
CDR20291_0345	941	1734	2960	1568	1447	1813	764	1545	4089	1298	2216	0.655004921	0.829481015
CDR20291_0346	670	1256	2823	1417	1125	1628	1429	890	1055	1129	959	0.617836455	0.582650965
CDR20291_0347	2	1	0	0	1	1	3	1	0	0	0 NA	NA	
CDR20291_0348	224	263	286	291	193	173	64	146	154	197	145	-0.644354116	0.79787774
CDR20291_0349	3328	4342	6947	4213	3828	4160	3298	3615	3076	4253	2845	-0.113283552	0.984566316
CDR20291_0350	3333	2719	3605	2529	2601	2640	2571	2734	2749	2515	2204	-0.674472475	0.193920847
CDR20291_0351	3	3	1	3	2	2	4	3	2	0	1 NA	NA	
CDR20291_0352	3176	4720	7100	5071	4046	4923	2688	4174	4306	3632	3104	0.052926156	0.987467975
CDR20291_0353	9051	14425	26833	13676	12977	16651	11434	14772	13811	14000	9644	0.302589928	0.789092982
CDR20291_0354	1	2	1	3	1	2	6	2	1	2	1 NA	NA	
CDR20291_0355	1887	2620	4602	3146	2122	2520	2162	3496	2233	2287	2236	0.138715093	0.973419192
CDR20291_0356	3250	5117	6877	4615	4666	5330	5305	4141	4362	3706	5419	0.247890909	0.927225356
CDR20291_0357	52	106	328	31	78	98	82	22	28	19	28	0.08509037	0.995736287
CDR20291_0358	25	18	74	38	8	6	9	19	28	34	7	-0.559569664	0.973419192
CDR20291_0359	139	185	295	298	200	270	42	127	169	393	97	0.175830301	0.987467975
CDR20291_0360	97	175	273	75	119	173	33	166	21	43	395	0.191949819	0.987467975
CDR20291_0361	11	21	27	49	10	20	4	20	3	3	23	0.26044731	0.987467975
CDR20291_0362	56	128	182	43	44	96	27	27	64	100	61	0.000999643	0.999561437
CDR20291_0363	366	796	1336	840	720	611	333	511	628	514	567	0.470531436	0.744528292
CDR20291_0364	4407	5371	11606	7121	4990	4948	2878	5775	5987	4554	6155	0.002883248	0.999561437
CDR20291_0365	112	160	149	132	159	228	130	183	96	124	89	0.009114554	0.998533765

CDR20291_0366	12	12	9	4	5	0	2	1	2	6	1	NA	NA
CDR20291_0367	3	2	3	2	3	2	8	2	2	5	2	NA	NA
CDR20291_0368	8	8	2	4	2	5	6	5	2	0	2	NA	NA
CDR20291_0369	4	4	3	3	4	2	10	2	2	3	3	NA	NA
CDR20291_0370	4	3	2	3	6	2	2	4	1	2	2	NA	NA
CDR20291_0371	3	3	4	0	9	2	3	1	1	2	3	NA	NA
CDR20291_0372	6	7	2	0	12	3	7	4	5	30	0	NA	NA
CDR20291_0373	251	406	259	245	368	351	170	358	185	277	108	-0.253109088	0.984589191
CDR20291_0374	0	3	4	2	2	3	3	0	1	2	3	NA	NA
CDR20291_0375	407	667	935	748	658	914	558	594	473	867	588	0.411681497	0.851061538
CDR20291_0375;													
CDR20291_0376	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_0376	702	1156	1778	1048	927	1112	715	1066	819	1381	780	0.221854035	0.940556956
CDR20291_0376;													
CDR20291_0377	2371	3605	5959	3783	3333	4145	7299	3709	3324	3580	3222	0.491265966	0.897972061
CDR20291_0378	704	874	1417	1120	843	1063	1078	873	830	888	968	0.136084469	0.984589191
CDR20291_0379	2182	3756	6398	3935	3023	4425	3640	2976	3712	3148	2253	0.374101198	0.816981594
CDR20291_0380	80	142	185	135	106	46	21	41	109	82	44	-0.271417432	0.984589191
CDR20291_0381	82	218	384	211	197	134	69	89	173	69	90	0.516127754	0.923660563
CDR20291_0382	430	573	1271	886	511	845	1037	616	609	631	483	0.419600317	0.913233679
CDR20291_0383	2	18	50	13	34	8	1	9	30	11	1	2.617750179	0.686450727
CDR20291_0384	121	226	322	186	177	300	89	265	113	115	114	0.220413061	0.984589191
CDR20291_0385	60	10	10	17	11	11	1	11	11	13	5	-2.976315709	0.088938907
CDR20291_0386	184	2	0	2	3	2	0	0	0	2	1	-7.610943169	1.07E-05
CDR20291_0386;													
CDR20291_0387	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0387	334	282	471	323	340	285	152	448	256	700	267	-0.28871798	0.973419192
CDR20291_0388	9	3	21	0	2	5	2	1	1	5	0	NA	NA
CDR20291_0389	879	1197	1578	1272	765	1004	652	954	979	1335	1170	-0.070809777	0.987467975
CDR20291_0390	1080	1597	1875	1248	1158	1349	2045	1092	1615	1034	1186	0.052573104	0.994553213

CDR20291_0390;														
CDR20291_0391	0	0	1	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0391	61	107	28	62	58	36	20	34	33	64	16	-0.777687245	0.92014325	
CDR20291_0392	187	399	503	166	419	137	51	228	453	245	368	0.261692385	0.984589191	
CDR20291_0393	2	5	3	3	22	1	3	0	0	2	1	NA	NA	
CDR20291_0394	1994	3121	5868	3528	3263	3767	2500	3920	2905	2200	1537	0.288594789	0.920684121	
CDR20291_0395	242	272	618	297	229	183	189	320	285	176	181	-0.26069566	0.947813517	
CDR20291_0396	1112	1522	2515	1510	1551	1726	1085	1066	1349	1283	1058	-0.00615933	0.998533765	
CDR20291_0397	319	478	1013	486	655	704	756	751	350	1501	611	0.861230963	0.7504811	
CDR20291_0398	779	705	1962	1046	1069	1786	3132	816	533	919	901	0.413922366	0.968488529	
CDR20291_0399	48	104	123	41	147	193	33	42	57	96	2	0.382244044	0.984589191	
CDR20291_0400	4	7	143	35	32	9	24	2	17	121	1	2.800197506	0.640674823	
CDR20291_0401	624	740	1564	1004	1008	1009	1039	799	526	711	684	0.155417152	0.984589191	
CDR20291_0402	776	1527	2224	1925	1115	1755	791	1133	1417	1768	1256	0.545304378	0.654192072	
CDR20291_0403	271	790	869	524	684	649	387	404	236	455	570	0.640854257	0.7504811	
CDR20291_0404	420	581	1564	846	1118	892	654	1095	1063	928	865	0.808617687	0.331525685	
CDR20291_0405	1732	2511	4118	2676	2344	2967	1835	2953	2298	2547	2535	0.239298268	0.877926426	
CDR20291_0406	125	188	242	193	92	110	66	92	92	145	67	-0.395927243	0.933469392	
CDR20291_0407	2097	3266	5733	3813	2702	2830	2127	3482	3113	3096	3041	0.258148688	0.858378676	
CDR20291_0408	716	1355	2362	1288	1502	1431	857	1532	1496	784	1141	0.529604605	0.561814865	
CDR20291_0409	12	7	10	15	6	2	5	2	19	1	0	NA	NA	
CDR20291_0410	85	169	172	83	156	113	79	149	58	141	51	0.068665136	0.995604279	
CDR20291_0411	89	142	133	202	256	134	138	101	91	149	200	0.470215576	0.927225356	
CDR20291_0412	1603	2289	3968	2670	1992	2421	2004	2022	1791	1454	1814	0.077081544	0.986538587	
CDR20291_0413	926	1462	2153	1438	1275	1301	607	1474	1580	2058	1086	0.249432281	0.954630457	
CDR20291_0414	804	1021	1889	1135	1110	909	549	1197	943	1137	1858	0.162432534	0.984589191	
CDR20291_0415	1079	1105	1712	1338	1072	1294	909	1209	1237	1442	768	-0.216044981	0.945038744	
CDR20291_0416	864	1552	2763	1428	1011	1283	924	1062	1478	1020	2038	0.34393965	0.916535173	
CDR20291_0417	113	259	324	118	91	126	57	39	104	61	127	-0.277460449	0.984589191	
CDR20291_0418	77	177	246	333	124	236	612	324	75	147	249	1.429949392	0.605157409	

CDR20291_0419	1875	3340	5851	3011	2803	2868	2040	3632	3241	2816	2729	0.374670211	0.605157409
CDR20291_0420	0	3	4	1	4	3	3	0	2	0	6	NA	NA
CDR20291_0421	60	23	122	36	56	35	17	50	145	39	8	-0.626342816	0.954630457
CDR20291_0422	39	125	213	69	88	98	29	129	32	74	21	0.677988803	0.925506853
CDR20291_0423	264	353	790	276	291	274	122	293	354	191	284	-0.179611548	0.984589191
CDR20291_0424	4	18	18	7	31	20	27	9	33	9	30	2.034902196	0.640674823
CDR20291_0425	1623	1202	2643	1188	1691	1547	1069	1422	1392	904	1065	-0.613058541	0.402597477
CDR20291_0426	37	31	4	14	6	3	10	3	24	4	25	-1.884112991	0.780140615
CDR20291_0427	37	16	62	9	8	14	10	64	3	3	5	-1.473502643	0.879902805
CDR20291_0428	311	260	668	490	232	380	406	485	523	526	304	0.086173894	0.987467975
CDR20291_0429	116	156	247	152	89	105	51	77	58	59	214	-0.376411035	0.969525073
CDR20291_0430	1449	51	556	28	309	166	50	138	41	533	469	-3.019251241	0.348096078
CDR20291_0431	1	14	1	0	16	0	0	2	0	0	0	NA	NA
CDR20291_0432	161	444	494	374	416	424	333	400	491	315	194	0.895516295	0.323821821
CDR20291_0433	3	3	2	0	3	1	6	3	4	1	2	NA	NA
CDR20291_0434	13	3	11	2	4	4	4	2	0	0	7	NA	NA
CDR20291_0435	166	314	400	318	331	255	44	318	232	114	218	0.181732781	0.987173882
CDR20291_0436	186	340	472	195	175	232	98	176	269	3555	82	-0.19770177	0.984589191
CDR20291_0437	187	268	450	374	320	362	211	224	383	203	16	0.171202521	0.987467975
CDR20291_0438	152	309	353	376	147	220	120	301	320	135	183	0.283178041	0.968488529
CDR20291_0438;													
CDR20291_0439	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_0439	337	526	801	519	528	832	360	421	468	356	756	0.339367624	0.925506853
CDR20291_0440	447	629	974	850	824	615	343	526	1272	1833	910	0.636381728	0.897972061
CDR20291_0441	1595	2813	4749	3632	2075	2131	2351	3062	2607	2349	2164	0.408303888	0.738465301
CDR20291_0442	6312	10773	17975	13323	9188	9592	13938	11928	12739	11893	9699	0.577916016	0.614837993
CDR20291_0443	7972	12861	20931	13586	11247	12754	9661	9415	10292	10144	11499	0.218760785	0.894306579
CDR20291_0444	4275	6676	11262	6674	5450	5908	5154	5656	6157	5324	4937	0.159517282	0.925506853
CDR20291_0445	664	726	1750	837	785	940	1764	945	1019	1008	1232	0.394559766	0.927225356
CDR20291_0446	9882	15499	25663	16032	14744	15971	13322	13785	15523	13569	10239	0.247918608	0.866542396

CDR20291_0447	1156	1840	3584	1799	2101	2120	1936	2677	2427	1064	1452	0.463385431	0.816981594
CDR20291_0448	2664	22222	37914	24011	20172	34786	31818	28843	35405	24651	23940	3.05911644	4.96E-12
CDR20291_0449	1249	15458	22379	19367	16582	23081	9670	18116	25829	17723	19128	3.536401014	2.64E-17
CDR20291_0450	681	566	1335	658	606	525	160	575	697	390	580	-0.617207915	0.79787774
CDR20291_0451	971	927	1317	900	616	638	244	505	782	723	515	-0.872534528	0.389572342
CDR20291_0452	33	49	195	71	31	88	14	17	36	29	76	0.341219987	0.984589191
CDR20291_0453	5488	5829	7007	5479	5380	5749	4618	4416	3876	4437	3757	-0.496297053	0.523472416
CDR20291_0454	5474	8490	14206	8088	8971	7622	6024	8869	7316	7139	5839	0.188887154	0.91856455
CDR20291_0455	2297	4983	8255	5260	4854	5343	6598	4412	4363	4675	3774	0.825142949	0.258950022
CDR20291_0456	7	6	5	22	3	12	10	0	7	8	8	NA	NA
CDR20291_0457	280	329	1146	595	355	263	315	321	199	212	344	0.059328529	0.995604279
CDR20291_0458	62	77	98	65	36	106	69	16	129	89	8	-0.217411679	0.987467975
CDR20291_0459	254	356	660	172	358	333	101	199	287	447	283	-0.095765452	0.988631632
CDR20291_0459;													
CDR20291_0460	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_0460	997	1212	1832	776	1080	1341	882	927	1130	770	728	-0.304205754	0.903083025
CDR20291_0461	1506	1977	2432	1435	1786	1624	1810	2301	1120	973	1431	-0.209094607	0.973419192
CDR20291_0462	1285	1261	1579	1096	1227	1202	608	847	859	1073	610	-0.713269784	0.349514203
CDR20291_0463	2394	2585	3091	1873	2297	2779	8058	2610	2378	1299	2410	-0.42739988	0.806474753
CDR20291_0464	2413	2720	3751	1896	2106	2684	2207	2076	1575	1786	1840	-0.483893457	0.640674823
CDR20291_0465	1167	1278	1482	825	1204	1161	2134	1175	1171	802	872	-0.268698226	0.973419192
CDR20291_0466	942	922	1089	816	1087	942	1259	843	748	620	774	-0.387673728	0.916535173
CDR20291_0467	390	949	1423	1236	854	864	309	984	900	1133	567	0.829063741	0.488931869
CDR20291_0468	165	95	177	157	225	247	41	75	179	171	73	-0.586652114	0.925506853
CDR20291_0469	1128	883	1144	899	694	1066	803	793	760	830	543	-0.797632165	0.182098263
CDR20291_0470	6140	19589	2633	2658	4043	3644	720	4344	4979	2985	10269	-0.495988388	0.984589191
CDR20291_0471	6885	10482	17883	11035	10462	11320	12576	12117	9885	9630	8098	0.345119318	0.848160036
CDR20291_0472	5	4	1	2	4	0	2	2	0	0	0	NA	NA
CDR20291_0473	13413	18971	30065	19260	17430	21055	17138	20916	17192	19727	14016	0.162159862	0.947575252
CDR20291_0474	35	7	18	2	53	9	13	1	10	13	16	-1.621912946	0.866542396

CDR20291_0475	5	4	7	9	0	2	5	5	0	0	0	NA	NA
CDR20291_0476	3	6	5	1	5	5	4	1	4	1	4	NA	NA
CDR20291_0477	271	210	372	224	235	213	75	152	278	96	192	-0.834581653	0.629257044
CDR20291_0478	190	327	318	286	287	383	369	227	294	167	144	0.206762906	0.984589191
CDR20291_0479	3	18	1	2	1	1	5	53	0	14	1	NA	NA
CDR20291_0480	5	5	2	1	2	4	3	3	3	0	0	NA	NA
CDR20291_0481	3	25	104	19	16	5	8	4	10	1	12	2.088213803	0.806474753
CDR20291_0482	1648	1998	3262	2196	1679	1922	1723	1705	1396	1236	2190	-0.165392217	0.973419192
CDR20291_0483	834	860	1703	760	845	879	1268	462	442	871	521	-0.337689602	0.952802675
CDR20291_0484	55	0	11	3	2	6	10	1	1	17	2	-3.705818227	0.346087969
CDR20291_0485	10	5	21	9	3	2	7	3	19	0	3	NA	NA
CDR20291_0486	1880	3523	6412	4728	2977	3714	5351	3323	3089	2873	4959	0.764062301	0.550739202
CDR20291_0487	2033	3093	5016	3296	3038	3315	8144	3982	2715	2432	3114	0.599619534	0.897745447
CDR20291_0488	261	221	277	434	356	283	166	292	229	442	771	0.098086738	0.991777829
CDR20291_0489	318	958	1161	939	631	841	521	973	1039	727	442	0.97527344	0.133101304
CDR20291_0490	68	154	111	177	123	33	57	61	47	126	45	0.073274728	0.995736287
CDR20291_0491	2310	3387	5270	3993	3113	3071	2982	4190	3435	3488	3874	0.300306221	0.874336522
CDR20291_0492	5761	8275	13056	8636	7800	8176	8535	8345	7491	6392	7896	0.177863747	0.947575252
CDR20291_0493	1638	2385	5102	2085	1987	1792	2332	1896	1857	1532	2202	0.081078616	0.987467975
CDR20291_0494	4815	7820	16752	11764	7564	8370	6746	7864	7118	6377	9750	0.493480875	0.585949317
CDR20291_0495	269	318	664	436	388	628	630	905	912	433	380	0.73748335	0.79787774
CDR20291_0496	47	34	86	29	18	91	12	18	15	1	43	-0.939555473	0.926797301
CDR20291_0497	1524	2540	4193	2747	2729	2442	10230	2574	2994	1862	2192	0.380724007	0.650169723
CDR20291_0498	259	544	720	567	579	491	378	383	387	631	684	0.687874895	0.605473525
CDR20291_0499	2586	4270	6821	3944	3561	4699	3799	3342	3686	3298	3064	0.252074214	0.89059378
CDR20291_0499;													
CDR20291_0500	2427	3869	6638	3996	3665	4175	7610	4526	4253	3919	3658	0.597058027	0.806474753
CDR20291_0501	321	407	862	453	276	362	152	240	252	365	202	-0.320747045	0.941849122
CDR20291_0502	510	677	1078	1207	759	1157	350	724	698	394	556	0.157671905	0.984589191
CDR20291_0503	150	30	18	4	13	13	30	14	25	5	17	-3.470616317	0.021924359

CDR20291_0504	241	163	337	347	130	598	56	303	289	149	170	-0.352146012	0.974945773
CDR20291_0505	122	156	160	219	104	133	250	43	62	37	155	-0.218557161	0.987467975
CDR20291_0506	998	1097	1922	1078	1146	1335	3800	1264	1313	1325	787	0.309331129	0.984589191
CDR20291_0507	19	27	14	8	9	5	7	5	3	6	4	-1.535303343	0.82259283
CDR20291_0508	568	899	1160	877	777	967	757	1220	930	772	492	0.262724872	0.930962964
CDR20291_0509	29	91	73	66	12	33	46	86	30	33	42	0.421348301	0.973419192
CDR20291_0510	0	1	2	2	7	1	6	0	1	0	0	NA	NA
CDR20291_0511	4	0	1	2	2	0	2	0	0	0	0	NA	NA
CDR20291_0512	3	10	0	1	3	1	1	0	0	0	0	NA	NA
CDR20291_0513	1914	2661	4678	2955	2181	3494	1604	2542	2140	2210	2333	0.068544838	0.987467975
CDR20291_0513;													
CDR20291_0514	2112	3344	5417	3279	3060	3816	2636	3171	3145	2985	3083	0.29355023	0.671364494
CDR20291_0515	392	520	1409	692	713	635	448	1006	685	643	743	0.525016652	0.718603069
CDR20291_0516	95	147	243	163	254	84	76	185	395	38	54	0.382255995	0.984589191
CDR20291_0517	87	48	152	51	116	78	18	122	84	13	67	-0.663998347	0.927225356
CDR20291_0518	21	34	63	132	28	8	4	120	24	0	4	0.505463656	0.986538587
CDR20291_0519	2912	10827	18661	8404	8542	8303	5936	5699	5910	7021	5688	1.100835008	0.021621782
CDR20291_0520	790	2778	4440	2299	2056	2201	979	1573	1406	1659	1654	0.961325534	0.112559778
CDR20291_0521	1	1	1	0	0	0	0	0	1	1	0	NA	NA
CDR20291_0522	3	1	0	1	1	0	1	0	0	0	0	NA	NA
CDR20291_0523	66	178	212	101	128	205	49	124	72	181	30	0.52691072	0.9374313
CDR20291_0524	1	2	0	1	2	1	3	1	0	0	0	NA	NA
CDR20291_0525	697	901	1526	904	1303	1155	877	1114	1154	673	848	0.205328468	0.954630457
CDR20291_0526	227	396	789	288	286	332	288	229	416	1005	528	0.642436156	0.901000432
CDR20291_0527	105	93	158	93	126	115	92	123	66	68	111	-0.388051742	0.925506853
CDR20291_0528	22	10	61	18	11	7	7	13	2	14	14	-1.039844485	0.917371647
CDR20291_0529	1791	2384	4148	3004	2594	3182	1742	2479	2377	2164	2623	0.180663029	0.926797301
CDR20291_0529;													
CDR20291_0530	2947	4609	7891	4563	4292	4982	7665	4450	4718	4585	4341	0.473885627	0.852512149
CDR20291_0531	140	168	511	192	296	200	94	157	122	69	328	0.159207743	0.987467975

CDR20291_0532	179	227	333	265	215	139	46	129	188	239	191	-0.276102153	0.981872657
CDR20291_0533	703	646	505	638	458	1098	741	818	423	783	952	-0.307030414	0.970908914
CDR20291_0534	391	827	745	642	676	516	1343	601	722	189	416	0.456437561	0.947575252
CDR20291_0535	923	1015	2141	1813	1076	1064	1571	1499	1439	1200	728	0.176670931	0.984589191
CDR20291_0536	3	1	4	0	1	2	7	3	1	0	1	NA	NA
CDR20291_0537	798	1150	1854	1206	1119	705	816	897	761	796	970	-0.039936582	0.994553213
CDR20291_0538	1577	2965	2908	2418	2220	1744	1320	1787	1619	1449	1641	-0.050987164	0.988631632
CDR20291_0539	194	205	300	158	183	176	23	158	125	76	209	-0.709415543	0.888647142
CDR20291_0540	264	253	763	220	345	228	169	154	166	146	298	-0.419186073	0.926797301
CDR20291_0541	74	71	153	39	81	247	42	29	95	118	33	-0.126157547	0.991777829
CDR20291_0542	0	2	1	3	0	0	2	0	2	0	0	NA	NA
CDR20291_0543	7	3	9	2	7	0	0	0	0	2	0	NA	NA
CDR20291_0544	14	50	24	14	23	13	0	4	19	0	1	-0.411133489	0.987467975
CDR20291_0545	7	3	23	8	1	1	3	3	3	1	0	NA	NA
CDR20291_0546	352	672	1373	648	449	388	441	1983	813	546	715	0.781166396	0.811412483
CDR20291_0547	67	73	104	150	82	94	33	36	38	46	99	-0.232461661	0.986227745
CDR20291_0548	3	0	1	0	1	0	1	2	1	0	0	NA	NA
CDR20291_0549	1	0	4	1	0	15	3	1	0	0	0	NA	NA
CDR20291_0550	6	1	2	4	3	4	1	0	1	0	0	NA	NA
CDR20291_0551	4076	8401	14056	8055	6131	7435	24341	7048	5654	7275	7963	0.519931109	0.373085742
CDR20291_0552	504	860	1488	637	850	832	739	915	925	558	768	0.371159557	0.83154207
CDR20291_0553	112	241	223	135	138	239	714	397	173	187	38	0.887063689	0.9155071
CDR20291_0554	577	822	1304	631	621	698	571	667	432	550	376	-0.213915699	0.951662831
CDR20291_0555	230	332	529	312	268	360	202	228	201	755	221	0.19201684	0.986227745
CDR20291_0556	20	35	68	38	13	51	1	32	7	9	11	-0.137729604	0.995604279
CDR20291_0557	105	250	586	329	336	299	85	182	196	163	114	0.795167312	0.749515787
CDR20291_0558	263	268	447	352	275	302	734	299	219	145	261	0.01313089	0.998533765
CDR20291_0559	92	110	166	205	63	130	95	39	64	63	215	-0.055691131	0.997499065
CDR20291_0560	120	106	309	307	90	318	73	107	99	141	168	0.078237661	0.994553213
CDR20291_0561	1069	1256	1727	1743	1315	1575	931	1299	943	1395	1164	-0.057486638	0.987467975

CDR20291_0562	928	1320	1015	1736	1113	1060	770	1081	1203	1366	1998	0.117149878	0.987467975
CDR20291_0563	1864	2527	4161	2372	2518	2498	1956	2723	2138	2181	1560	0.000879109	0.999561437
CDR20291_0564	0	0	1	2	1	0	3	2	1	1	2	NA	NA
CDR20291_0565	133	255	337	207	107	168	516	147	176	75	193	0.390998759	0.973419192
CDR20291_0566	200	374	831	526	272	294	157	415	494	246	457	0.584062106	0.828118202
CDR20291_0567	202	261	432	243	296	212	351	273	175	238	179	0.029237112	0.997813116
CDR20291_0567;													
CDR20291_0568	31	3	41	2	29	16	1	18	0	4	19	-1.723942956	0.897745447
CDR20291_0568	912	1328	1887	1035	805	874	461	768	903	786	916	-0.334870827	0.892389988
CDR20291_0569	1031	2022	3236	2011	1661	1778	977	1565	1255	1381	1160	0.292133185	0.866542396
CDR20291_0570	5132	7175	12215	6957	6912	8471	9925	8918	7426	6372	5998	0.281849415	0.925506853
CDR20291_0571	302	552	825	622	429	529	519	432	324	600	306	0.380197251	0.903905619
CDR20291_0572	168	345	420	332	313	347	143	194	277	119	277	0.30843223	0.947575252
CDR20291_0573	91	131	194	86	100	134	61	68	67	13	97	-0.383965505	0.973419192
CDR20291_0574	125	50	134	56	67	126	27	55	41	153	101	-1.012469265	0.794886428
CDR20291_0575	169	13	64	29	18	37	4	17	43	3	15	-3.303918155	0.039200625
CDR20291_0576	51	49	38	56	44	15	27	585	39	12	15	-1.005331231	0.829481015
CDR20291_0577	394	661	1177	409	391	854	136	555	604	411	411	0.046054527	0.995736287
CDR20291_0578	204	128	114	158	112	109	11	116	45	124	92	-1.415205092	0.54049394
CDR20291_0579	2	9	4	8	3	4	22	2	3	1	6	NA	NA
CDR20291_0580	792	1823	2586	1673	1527	2043	1722	1817	1601	1549	1633	0.809683111	0.05894821
CDR20291_0581	0	3	0	0	2	2	1	2	0	1	0	NA	NA
CDR20291_0582	1962	4394	7432	6731	4715	4472	3528	4702	7260	5175	10297	1.229508106	0.182098263
CDR20291_0583	375	354	593	388	417	295	188	290	419	500	419	-0.33854841	0.925506853
CDR20291_0584	1479	2354	3239	2161	1694	2375	1824	2276	1669	2104	1423	0.124401287	0.984566316
CDR20291_0585	94	70	124	56	164	110	41	32	121	27	61	-0.622164825	0.926797301
CDR20291_0586	16	38	21	10	48	19	24	31	8	0	2	-0.042444016	0.998533765
CDR20291_0587	68	87	62	19	33	59	34	25	45	7	21	-1.215588157	0.789092982
CDR20291_0588	25	61	74	91	73	72	47	70	20	21	75	0.890982468	0.851061538
CDR20291_0589	2499	4528	7519	4789	4546	3572	2418	4258	4301	3931	3120	0.36911067	0.725318306

CDR20291_0590	7	2	2	2	3	2	3	1	3	2	2	NA	NA
CDR20291_0591	284	291	322	229	157	197	95	179	213	299	101	-0.853803827	0.60465665
CDR20291_0592	191	355	367	273	252	196	137	212	92	147	261	-0.146624089	0.987467975
CDR20291_0593	102	2	4	4	0	1	2	3	3	0	3	-5.946762705	0.000613928
CDR20291_0594	869	1538	2710	1799	1078	1751	1264	1610	963	1705	1095	0.431112503	0.79787774
CDR20291_0595	3708	5762	9359	7677	5986	6340	4274	5545	6799	5180	5070	0.349070017	0.671364494
CDR20291_0596	763	914	1683	645	743	705	468	493	548	544	721	-0.475407357	0.777989961
CDR20291_0597	156	329	450	241	292	243	259	240	221	341	260	0.507865017	0.790003744
CDR20291_0598	10	22	46	3	11	6	2	2	1	0	7	-0.656275811	0.984589191
CDR20291_0599	46	22	67	33	10	15	10	17	19	11	34	-1.435572615	0.645510969
CDR20291_0600	194	322	661	294	261	228	77	356	218	252	299	0.15673028	0.986538587
CDR20291_0601	39	10	137	18	23	213	2	31	42	41	27	-0.039539976	0.998533765
CDR20291_0602	73	12	44	21	7	21	7	7	22	4	16	-2.671251476	0.124978528
CDR20291_0603	100	85	184	688	135	173	114	75	83	69	128	0.383639855	0.984589191
CDR20291_0604	21	28	87	25	26	50	9	18	48	45	37	0.380471286	0.984589191
CDR20291_0605	47	19	39	164	25	51	37	30	26	27	118	-0.15099898	0.991777829
CDR20291_0606	228	319	794	651	332	665	798	325	531	277	557	0.850252917	0.716785161
CDR20291_0607	251	213	271	168	273	309	150	185	263	166	410	-0.408325047	0.930043643
CDR20291_0608	959	1856	1744	1204	1485	1716	692	1482	1205	1473	1060	0.151161761	0.984589191
CDR20291_0609	847	907	1090	806	887	1393	790	804	656	781	1265	-0.206680107	0.973419192
CDR20291_0610	210	49	217	100	68	91	37	270	91	31	19	-1.589717519	0.570749837
CDR20291_0611	4	3	4	2	2	2	3	5	2	0	0	NA	NA
CDR20291_0612	0	0	0	0	0	0	2	0	0	0	0	NA	NA
CDR20291_0613	0	0	4	0	1	0	0	0	1	0	1	NA	NA
CDR20291_0614	1412	2232	3495	2254	1942	2033	7741	2383	1900	2249	1521	0.210988752	0.916535173
CDR20291_0615	532	885	1991	888	691	892	512	860	878	566	740	0.293013461	0.899832276
CDR20291_0616	46	25	37	34	25	51	2	6	23	2	2	-1.646212622	0.835191048
CDR20291_0617	128	166	146	91	105	103	77	91	130	23	83	-0.735241046	0.850318392
CDR20291_0618	1066	1444	2299	1145	1256	1040	556	1045	892	1062	1095	-0.27803466	0.919612956
CDR20291_0619	126	167	396	175	167	122	58	152	138	211	111	-0.025533921	0.998533765

CDR20291_0620	244	283	571	341	336	266	216	136	305	298	197	-0.140808457	0.986227745
CDR20291_0621	403	657	888	491	475	525	451	481	410	373	765	0.068511953	0.987467975
CDR20291_0622	6	2	9	3	2	2	4	3	1	1	3	NA	NA
CDR20291_0623	9	4	122	18	7	4	2	5	3	14	3	0.207247333	0.994553213
CDR20291_0624	688	969	1911	912	934	1141	497	1345	682	815	629	0.078562135	0.987467975
CDR20291_0625	1	3	4	2	4	3	7	7	3	0	0	NA	NA
CDR20291_0626	6	11	7	5	11	1	19	5	6	6	2	NA	NA
CDR20291_0627	3	5	2	4	4	5	2	1	1	0	0	NA	NA
CDR20291_0628	317	423	524	365	371	448	243	328	288	356	666	-0.024648015	0.998533765
CDR20291_0629	2838	4970	7322	4708	3311	3732	3070	3671	3517	2932	3697	0.115787305	0.973419192
CDR20291_0630	734	1060	1855	1135	1231	895	771	1767	1318	1074	920	0.322013532	0.9155071
CDR20291_0631	2047	3203	4410	3238	2468	2551	2811	2390	2488	2848	1539	0.063523255	0.987467975
CDR20291_0632	1800	3690	6916	3529	2551	2814	2239	2903	2992	2264	2795	0.424591474	0.605473525
CDR20291_0633	12707	19043	32000	18285	18028	19395	29452	18717	16215	17245	16061	0.33017707	0.925506853
CDR20291_0634	2307	1111	3618	1103	1383	1559	1145	1444	988	917	1269	-1.117195007	0.062853459
CDR20291_0635	65	83	42	45	54	58	21	28	70	124	15	-0.611146038	0.947813517
CDR20291_0636	2865	4457	6998	4083	3495	4829	5397	3250	3684	3181	3920	0.223500783	0.954630457
CDR20291_0637	5	1	10	7	9	5	9	3	7	0	2	NA	NA
CDR20291_0638	509	904	1481	959	913	1019	425	1012	2664	596	604	0.658958516	0.877926426
CDR20291_0639	819	1076	1929	823	615	883	547	1025	633	1051	488	-0.293802252	0.92766953
CDR20291_0640	356	507	1104	326	271	404	238	393	314	368	224	-0.261666502	0.954630457
CDR20291_0641	9	26	8	0	8	0	0	49	3	0	0	-0.371345861	0.994553213
CDR20291_0642	348	143	167	108	86	70	9	84	71	30	176	-2.314723229	0.133101304
CDR20291_0643	1398	644	1962	1123	754	952	688	642	803	844	1479	-0.903091335	0.402597477
CDR20291_0644	17	7	2	10	9	1	9	4	3	1	0	NA	NA
CDR20291_0645	5	3	8	3	7	3	10	4	5	2	3	NA	NA
CDR20291_0646	4	5	0	3	4	3	4	6	3	1	2	NA	NA
CDR20291_0647	15	7	18	16	25	2	22	0	9	0	12	-0.766934968	0.984589191
CDR20291_0648	21	16	9	43	2	2	1	13	60	10	32	-0.497911475	0.986538587
CDR20291_0649	94	38	122	53	31	174	8	4	24	83	226	-0.681728056	0.973419192

CDR20291_0650	168	43	257	27	36	343	58	24	32	8	42	-1.489280118	0.828118202
CDR20291_0651	77	108	165	75	90	49	13	31	56	41	22	-0.748896951	0.916535173
CDR20291_0652	82	8	24	5	8	32	21	15	19	1	82	-2.227319778	0.655684544
CDR20291_0653	32	38	73	18	42	16	9	10	16	7	64	-0.574913474	0.973419192
CDR20291_0654	20	1	20	14	15	2	10	6	0	1	4	NA	NA
CDR20291_0655	204	145	232	164	127	132	31	126	125	100	162	-1.026695841	0.496899223
CDR20291_0656	254	156	153	123	80	158	169	76	142	94	141	-1.318225175	0.2482806
CDR20291_0657	237	74	76	88	62	95	18	34	96	13	50	-2.383373899	0.067244252
CDR20291_0658	166	112	160	174	153	117	192	144	99	31	101	-0.722473521	0.882470322
CDR20291_0659	11	16	13	6	27	0	44	6	7	2	36	0.296425924	0.988631632
CDR20291_0660	139	190	262	389	151	100	89	123	169	97	89	-0.174611792	0.987467975
CDR20291_0661	11	2	17	38	15	19	9	14	61	0	0	0.281245533	0.990655111
CDR20291_0662	64	8	25	34	20	51	57	6	15	0	17	-1.768991782	0.816981594
CDR20291_0663	1398	129	165	102	77	64	134	186	62	16	289	-3.854669621	0.00092094
CDR20291_0664	1563	2550	4185	2279	1824	1742	1191	1837	2508	1880	1611	0.039733949	0.991986013
CDR20291_0665	171	235	274	153	256	359	122	173	182	125	123	-0.173623456	0.984589191
CDR20291_0666	71	23	99	95	13	55	2	32	77	34	31	-1.10254294	0.896145468
CDR20291_0666;													
CDR20291_0667	0	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_0667	70	111	161	56	45	51	22	85	42	52	66	-0.487154208	0.934317854
CDR20291_0668	314	422	677	573	419	588	621	404	826	1045	970	0.750763354	0.812136318
CDR20291_0669	282	429	795	503	327	263	243	258	215	196	353	-0.103141588	0.987467975
CDR20291_0670	7	2	2	2	9	4	7	1	4	2	1	NA	NA
CDR20291_0671	360	801	1378	739	718	1000	303	725	627	526	512	0.584638978	0.630239082
CDR20291_0672	3859	5912	8878	5363	5618	5404	5109	5395	5886	7713	3572	0.234697676	0.947575252
CDR20291_0673	1491	3558	5800	3303	3550	4473	3051	4646	4159	3698	3488	1.03533632	0.006029833
CDR20291_0674	144	357	470	351	238	277	876	320	252	108	167	0.93543943	0.838322352
CDR20291_0675	1617	2911	6390	3208	2484	3100	3485	2682	2838	2331	2851	0.594682169	0.501273734
CDR20291_0676	5591	10449	16484	8960	9836	9469	7180	9537	8991	8195	8373	0.402849336	0.293774487
CDR20291_0677	1205	2049	4069	2492	1532	2471	1348	2195	1603	1677	2072	0.412104731	0.686450727

CDR20291_0678	79	100	246	219	186	154	97	174	137	149	94	0.57678012	0.82259283
CDR20291_0679	278	345	831	486	256	371	1133	514	542	105	299	0.476903832	0.954630457
CDR20291_0680	69	174	492	224	90	266	72	196	327	122	367	1.318417703	0.478727327
CDR20291_0681	358	605	1079	375	572	330	397	543	332	294	215	-0.040209509	0.995736287
CDR20291_0682	299	612	521	599	639	438	603	648	713	338	458	0.560305492	0.828224327
CDR20291_0683	5683	7547	12976	9345	7365	8021	10034	10176	7859	7936	8195	0.293359288	0.916535173
CDR20291_0684	17	21	55	8	8	31	5	28	13	6	0	-0.518751255	0.984589191
CDR20291_0685	3161	11885	20812	11751	10425	11356	16231	12071	12063	10908	11006	1.657875861	0.000315189
CDR20291_0686	1233	946	1076	576	664	587	207	556	566	541	509	-1.413099019	0.02268704
CDR20291_0687	1488	8696	11463	8340	8136	8514	6085	7263	7803	4594	5232	1.95834749	1.83E-09
CDR20291_0688	134	220	156	164	131	626	105	124	168	117	169	0.181587028	0.987467975
CDR20291_0689	7498	6714	12470	11100	6413	9043	7561	9426	11179	8604	9301	-0.074485725	0.987467975
CDR20291_0690	707	728	939	1324	741	725	1512	1476	821	759	804	0.158672536	0.987173882
CDR20291_0691	12	1	30	2	3	3	95	5	1	47	1	-0.725589467	0.984589191
CDR20291_0692	183	186	442	139	237	118	132	141	184	75	88	-0.533506591	0.906686599
CDR20291_0693	15	10	1	5	2	0	10	6	2	0	50	-0.996602456	0.984589191
CDR20291_0694	57	82	214	92	111	133	38	115	135	28	42	0.329244468	0.984566316
CDR20291_0695	3	1	3	0	5	1	4	5	1	0	1	NA	NA
CDR20291_0696	12	17	9	12	10	4	9	56	38	36	5	0.392957008	0.987467975
CDR20291_0697	3065	4494	7408	4551	4255	5204	8679	4256	4307	4089	4154	0.409851886	0.920684121
CDR20291_0698	1065	2079	3001	1848	1534	1918	1068	1509	1977	1465	1395	0.32930837	0.758599055
CDR20291_0699	0	2	1	0	2	1	3	1	3	1	1	NA	NA
CDR20291_0700	3	1	1	2	3	1	2	1	2	2	0	NA	NA
CDR20291_0701	4	2	5	5	1	1	4	4	1	0	0	NA	NA
CDR20291_0702	2	1	0	0	0	1	3	1	0	1	0	NA	NA
CDR20291_0703	6	6	0	2	5	3	4	2	4	1	2	NA	NA
CDR20291_0704	1	0	0	0	1	0	3	0	0	2	0	NA	NA
CDR20291_0705	5549	8184	14146	7181	8858	7370	9381	8559	8324	6572	5425	0.216673961	0.950009051
CDR20291_0706	85	156	160	98	65	69	26	60	51	66	72	-0.498681047	0.925506853
CDR20291_0707	10	7	46	4	2	18	3	0	8	7	1	-0.714999986	0.984589191

CDR20291_0708	61	65	70	66	56	62	26	49	19	125	11	-0.532594354	0.963832723
CDR20291_0709	172	244	241	544	320	244	374	263	764	420	426	0.859347118	0.806474753
CDR20291_0710	65	147	570	170	132	586	150	191	405	131	114	1.537213147	0.373085742
CDR20291_0711	8	24	68	72	31	42	2300	80	38	7	2	1.835993143	0.70876337
CDR20291_0712	23	10	2	6	11	10	20	18	4	4	2	-1.672311493	0.842098999
CDR20291_0713	22	45	1	4	13	26	5	29	49	2	1	-0.686966777	0.984589191
CDR20291_0714	2	6	5	2	3	5	6	0	3	0	3	NA	NA
CDR20291_0715	261	287	416	172	174	362	394	228	312	187	243	-0.26809458	0.973419192
CDR20291_0716	5224	8304	12433	8945	7565	8407	7744	7860	10100	8390	7158	0.363110533	0.770142275
CDR20291_0717	5808	8597	14271	10148	8454	9053	9067	10196	10067	8136	8442	0.357873557	0.753233394
CDR20291_0718	83	20	23	7	4	3	13	0	3	0	5	-3.887361179	0.23944795
CDR20291_0719	5219	7813	14084	10477	7188	8619	5811	8422	7889	6843	8378	0.311984646	0.736506144
CDR20291_0720	818	2029	2496	2202	1284	2036	1163	1542	2390	2228	1645	0.839902055	0.258950022
CDR20291_0721	1527	3862	7781	5352	3472	6247	4044	4135	5244	3347	4039	1.241693427	0.003186397
CDR20291_0722	85	139	123	134	69	150	64	96	155	88	666	0.008874689	0.998533765
CDR20291_0723	1	0	0	0	1	1	2	0	1	1	0	NA	NA
CDR20291_0724	0	2	0	0	1	1	0	1	0	0	0	NA	NA
CDR20291_0725	2	2	4	2	4	4	6	0	4	1	0	NA	NA
CDR20291_0726	819	892	1174	879	843	895	601	855	812	821	712	-0.330015816	0.738465301
CDR20291_0727	13	19	26	8	2	14	4	2	22	1	24	-0.532163093	0.984589191
CDR20291_0728	144	130	249	133	145	60	23	66	115	221	75	-0.671784347	0.92014325
CDR20291_0729	3	43	18	5	43	33	15	9	38	41	1	2.696119595	0.565398385
CDR20291_0730	4	6	6	4	1	2	20	0	2	4	1	NA	NA
CDR20291_0731	25	25	9	20	16	19	5	38	24	26	0	-0.817974125	0.954630457
CDR20291_0732	3	5	1	3	4	4	9	3	3	4	2	NA	NA
CDR20291_0733	87	17	27	54	28	71	15	6	5	68	20	-1.841975591	0.655684544
CDR20291_0734	381	608	650	550	393	508	322	335	346	569	337	-0.109860332	0.986538587
CDR20291_0735	255	315	436	212	244	264	304	154	325	207	46	-0.418090365	0.951662831
CDR20291_0736	116	158	327	143	101	124	142	129	128	53	233	-0.007323805	0.999125978
CDR20291_0737	15	32	65	26	23	32	16	55	29	30	39	0.793470835	0.882470322

CDR20291_0738	2149	2898	7616	4948	3089	5440	4664	4553	3662	4591	2453	0.640319935	0.64509911
CDR20291_0739	688	936	2180	1547	1062	1704	861	1321	2116	1521	1451	0.71330741	0.562149318
CDR20291_0740	30	10	32	28	41	16	62	12	3	39	13	-0.507620043	0.984589191
CDR20291_0741	2780	4869	9294	5206	4672	5500	18380	6997	4297	3872	4749	0.525059238	0.402597477
CDR20291_0742	3510	6734	11446	7565	6001	8174	6190	8476	6949	7174	6868	0.725092239	0.062853459
CDR20291_0743	18	36	32	116	49	43	41	69	93	13	0	1.084055406	0.925506853
CDR20291_0744	1865	3283	4821	2813	2416	2728	2959	2998	2573	5239	2535	0.43378995	0.889300252
CDR20291_0745	768	1029	2022	1234	1272	1350	575	1049	984	1727	704	0.231570344	0.968488529
CDR20291_0746	192	300	409	385	308	465	107	175	340	109	207	0.122401535	0.987467975
CDR20291_0747	311	402	665	336	465	475	203	369	303	456	407	-0.005912112	0.998533765
CDR20291_0748	179	207	534	424	299	185	468	216	163	994	470	0.839641526	0.885313437
CDR20291_0749	1234	1837	3385	2026	1448	2146	1319	1630	1925	1696	2517	0.29620093	0.911388826
CDR20291_0750	703	808	1905	975	875	900	386	1270	680	636	1494	0.07718605	0.988631632
CDR20291_0751	2	4	2	1	2	11	4	1	1	2	3 NA		NA
CDR20291_0752	8	6	56	42	5	14	6	13	0	0	13	0.360589957	0.987467975
CDR20291_0753	6	2	6	1	2	0	3	4	4	0	2 NA		NA
CDR20291_0754	49	63	140	73	26	66	42	17	38	74	72	-0.115591058	0.990555014
CDR20291_0755	5	1	9	2	17	14	6	3	2	0	1 NA		NA
CDR20291_0756	2	0	3	1	1	0	5	0	0	0	0 NA		NA
CDR20291_0757	943	1000	1269	780	720	1105	216	1027	1096	1522	930	-0.346854188	0.954630457
CDR20291_0758	751	1375	1796	1201	1045	1319	505	1137	1081	661	1150	0.169959555	0.973419192
CDR20291_0759	256	473	727	360	328	432	215	373	298	248	471	0.195521982	0.973419192
CDR20291_0760	1250	1558	2097	1449	1249	1492	501	1199	843	983	1119	-0.426796419	0.829481015
CDR20291_0761	70	104	38	67	51	153	14	58	42	132	68	-0.29532732	0.986227745
CDR20291_0762	50	27	59	76	109	67	72	116	145	17	74	0.283591082	0.986227745
CDR20291_0763	5	1	8	16	5	4	10	2	15	5	1 NA		NA
CDR20291_0764	11	4	7	4	21	8	5	0	6	3	2 NA		NA
CDR20291_0765	191	149	164	220	197	94	344	160	134	88	89	-0.522438622	0.940556956
CDR20291_0766	1448	3253	5186	2752	2688	3046	1271	2306	1961	2088	2402	0.461232942	0.671807282
CDR20291_0767	1088	1751	2906	1458	1496	2164	1080	1584	1600	1394	891	0.16566736	0.968488529

CDR20291_0768	1094	1693	3322	1650	2170	1680	1860	1787	2094	1419	2849	0.538813246	0.777948392
CDR20291_0769	2656	4067	7288	4545	3952	5259	2764	4601	3472	4479	3564	0.324518894	0.777948392
CDR20291_0770	1192	1672	3866	2201	1580	2055	1259	1279	1578	1470	2242	0.266330535	0.925506853
CDR20291_0771	8936	11213	20289	11562	10489	11181	10276	11605	11699	10796	8382	-0.000476172	0.999561437
CDR20291_0772	1062	1501	2814	1707	1271	1570	1979	1507	1186	1201	1506	0.232485501	0.951338032
CDR20291_0773	570	970	1474	746	778	572	310	613	579	665	629	-0.073515265	0.987467975
CDR20291_0774	5732	6510	9466	6689	6546	7284	5113	7616	7235	8490	7129	-0.033482183	0.995604279
CDR20291_0775	10	2	3	7	3	3	1	3	0	1	1	NA	NA
CDR20291_0776	148	148	296	93	62	156	47	112	90	103	68	-0.817508743	0.724250642
CDR20291_0777	19	16	10	17	17	2	5	29	7	14	7	-0.979288587	0.925506853
CDR20291_0778	44	57	58	57	36	119	28	26	25	39	29	-0.299648579	0.984589191
CDR20291_0779	64	52	194	68	98	31	43	30	67	56	18	-0.449149534	0.968488529
CDR20291_0780	151	241	327	365	171	467	210	181	119	162	72	0.204354051	0.986227745
CDR20291_0781	66	49	209	85	82	71	28	25	28	27	49	-0.545226756	0.947575252
CDR20291_0782	613	981	1493	915	656	1327	890	1283	1086	1310	849	0.445129414	0.838322352
CDR20291_0783	3127	698	2862	1171	627	596	50157	310	469	600	1211	-2.244671751	0.013845736
CDR20291_0783;													
CDR20291_0784	27	1	22	8	6	0	9	0	1	16	0	NA	NA
CDR20291_0784	1863	546	2148	532	496	446	209	288	306	393	389	-2.263236265	0.006994765
CDR20291_0785	2621	583	2451	1059	559	496	670	273	576	709	981	-2.118247364	0.015228301
CDR20291_0786	465	161	701	162	130	71	45	54	71	232	659	-1.481600047	0.749515787
CDR20291_0786;													
CDR20291_0787	0	0	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_0787	952	477	1488	418	377	285	619	189	356	181	625	-1.379241351	0.392089775
CDR20291_0788	835	1357	2547	1490	1215	1363	898	909	1250	723	821	0.153278775	0.980254488
CDR20291_0789	12	3	1	0	11	3	2	0	0	1	1	NA	NA
CDR20291_0790	2	1	0	1	2	1	1	0	0	0	0	NA	NA
CDR20291_0791	160	131	204	203	102	164	150	60	137	123	174	-0.509534472	0.9155071
CDR20291_0792	0	1	0	0	0	0	1	2	0	0	1	NA	NA
CDR20291_0793	291	383	449	689	301	240	85	296	195	306	546	-0.132545628	0.987467975

CDR20291_0794	1164	1420	2111	1351	1247	1570	1589	1554	1131	1643	1189	-0.015322236	0.998533765
CDR20291_0795	867	1230	2426	1410	1403	1309	788	1458	1380	954	1244	0.236302877	0.9155071
CDR20291_0796	942	1563	2393	1562	1410	1303	1112	1291	1022	1491	971	0.183870897	0.947575252
CDR20291_0797	4346	7288	12063	7861	5963	7861	7499	7478	8881	6471	8647	0.509060437	0.590107013
CDR20291_0798	607	893	1549	886	809	1217	724	1231	1126	802	754	0.324770539	0.866542396
CDR20291_0799	3651	4863	8653	5152	4458	5147	3498	5731	9413	4574	3487	0.195435021	0.973419192
CDR20291_0800	10082	14859	22579	15542	13171	15223	14698	16056	15405	13511	12969	0.237896855	0.901178563
CDR20291_0801	1928	2716	4131	2847	2080	2715	2998	4324	2270	1954	1967	0.159961079	0.984589191
CDR20291_0802	43	80	82	35	98	43	8	80	83	38	13	-0.041293494	0.998533765
CDR20291_0803	16	28	88	19	20	39	10	16	24	17	11	0.231728911	0.987467975
CDR20291_0804	175	239	234	219	170	180	87	152	286	163	68	-0.360036127	0.951338032
CDR20291_0805	92	224	367	97	173	187	48	153	134	139	232	0.491983984	0.925506853
CDR20291_0806	12	16	60	20	15	32	11	19	20	7	17	0.362971068	0.984589191
CDR20291_0807	280	303	625	332	228	306	288	306	387	294	163	-0.206332196	0.973419192
CDR20291_0808	597	936	1693	761	671	884	2788	968	814	1086	999	0.663717493	0.902546121
CDR20291_0809	3069	4471	7612	4664	4106	5003	3204	4383	3941	4089	4300	0.178126056	0.900848337
CDR20291_0810	109	246	398	287	140	269	106	179	115	171	267	0.571851882	0.848160036
CDR20291_0811	1511	2219	3256	2797	2109	2567	1355	2440	2095	1747	1500	0.144902459	0.968488529
CDR20291_0812	186	265	284	174	160	158	140	109	92	149	109	-0.591692873	0.809797455
CDR20291_0813	236	271	393	321	165	439	136	257	102	123	540	-0.17356849	0.987467975
CDR20291_0814	56	20	84	54	80	72	16	48	28	53	244	-0.006131313	0.999561437
CDR20291_0815	567	992	1836	1174	917	971	750	749	862	1003	686	0.398218099	0.724250642
CDR20291_0816	376	584	1324	641	388	492	467	268	523	652	697	0.264350496	0.968488529
CDR20291_0817	9258	8061	7660	8002	7323	8036	10425	11405	7801	6829	5619	-0.518564931	0.829481015
CDR20291_0818	494	811	1477	730	565	608	438	590	704	791	562	0.13283248	0.984589191
CDR20291_0819	192	327	487	228	165	551	235	314	486	84	250	0.295574081	0.984076663
CDR20291_0820	98	125	360	110	145	147	89	87	80	57	318	0.202255425	0.987467975
CDR20291_0821	783	1378	1941	1197	1137	1397	1079	818	1130	1191	985	0.259443914	0.916535173
CDR20291_0822	1075	1173	1621	1093	1290	1218	1035	1755	1339	878	1109	-0.14985862	0.984589191
CDR20291_0823	10663	15434	28912	19597	16132	17327	15507	18115	20868	15260	13724	0.375099606	0.693111203

CDR20291_0824	748	1585	2454	1045	982	1355	771	1088	889	1191	1159	0.318495996	0.882470322
CDR20291_0825	1283	1793	3138	2267	1825	2557	1181	1650	1467	1445	1987	0.184033699	0.951662831
CDR20291_0825;													
CDR20291_0826	2112	3283	5074	3308	2997	3187	7051	2975	3044	2861	3131	0.486100588	0.916093971
CDR20291_0827	324	611	580	453	269	662	361	540	599	474	249	0.186174216	0.984589191
CDR20291_0828	9	1	8	7	4	4	7	3	3	1	2	NA	NA
CDR20291_0829	729	1089	2042	1583	1066	1471	387	1063	815	810	680	0.144765903	0.984589191
CDR20291_0830	62	77	90	44	45	62	27	31	11	12	36	-0.972109075	0.850318392
CDR20291_0830;													
CDR20291_0831	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_0831	174	144	198	64	107	144	55	126	101	101	394	-0.632033175	0.925506853
CDR20291_0832	6	3	5	1	3	2	7	0	3	2	1	NA	NA
CDR20291_0833	61	71	254	74	99	88	35	105	72	45	122	0.189579731	0.986538587
CDR20291_0834	1748	1868	2621	1261	1666	1871	1168	1710	1632	1144	1730	-0.460679749	0.640674823
CDR20291_0835	1621	2000	3162	1796	1583	1825	1085	1255	1656	1611	1114	-0.345207043	0.802293834
CDR20291_0836	187	142	264	148	170	145	69	345	132	140	201	-0.486702144	0.921333173
CDR20291_0837	1798	1904	3895	2179	1944	2229	1160	2344	1997	1285	1517	-0.245051541	0.916535173
CDR20291_0838	1369	2349	3531	2997	1948	2077	1026	2273	1931	1408	1810	0.219266366	0.940556956
CDR20291_0839	22	40	3	4	59	19	12	9	17	3	56	-0.265946093	0.987649916
CDR20291_0840	2	0	1	3	3	3	3	2	1	1	1	NA	NA
CDR20291_0841	1037	978	2271	1503	1282	1696	1041	1922	1611	1155	914	0.073642049	0.987467975
CDR20291_0842	205	414	409	281	409	303	127	274	374	317	680	0.45374064	0.927225356
CDR20291_0843	84	92	359	162	197	217	22	195	115	135	92	0.443363506	0.954630457
CDR20291_0844	70	243	304	235	139	61	113	158	85	482	57	1.041192103	0.829481015
CDR20291_0845	726	783	1496	880	989	819	1615	1138	871	469	1650	0.232857101	0.984589191
CDR20291_0846	166	150	376	190	147	266	573	222	206	96	103	0.163288749	0.987467975
CDR20291_0847	647	1058	1621	887	942	1103	743	1186	1035	1707	1280	0.474622034	0.845603598
CDR20291_0848	1629	1684	2693	1462	1370	1807	917	1400	1051	1101	1172	-0.57693228	0.278241594
CDR20291_0849	10633	11247	16082	9601	8406	9788	3574	7105	7205	7784	7581	-0.698239037	0.346087969
CDR20291_0850	528	1041	1668	710	1006	1346	634	1315	593	1084	484	0.492869909	0.863992349

CDR20291_0851	4101	6585	8886	6442	4782	5823	3410	6062	5654	4890	5029	0.087933638	0.984589191
CDR20291_0852	3132	5944	8763	5380	4824	5903	4407	5989	4922	4864	5773	0.472230733	0.345428745
CDR20291_0852;													
CDR20291_0853	8	10	2	6	2	7	0	0	0	20	0	NA	NA
CDR20291_0853	94	120	422	47	147	122	14	230	52	76	175	0.067900389	0.997499065
CDR20291_0853;													
CDR20291_0854	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_0854	15	7	18	11	21	15	11	23	4	44	3	-0.269855866	0.987467975
CDR20291_0855	4	24	65	6	7	10	3	1	11	0	1	0.969294885	0.973419192
CDR20291_0856	80	125	243	65	45	78	94	131	202	106	111	0.17844979	0.987467975
CDR20291_0857	459	584	851	634	490	786	1201	840	612	825	497	0.354774762	0.947575252
CDR20291_0858	325	439	472	579	400	432	225	541	497	366	918	0.237254345	0.984589191
CDR20291_0859	1	1	1	0	4	0	0	0	0	0	1	NA	NA
CDR20291_0860	1452	1279	2751	1222	1261	1410	903	1083	1153	1140	1510	-0.500048148	0.562149318
CDR20291_0861	556	700	959	662	683	719	725	790	499	637	704	-0.012571547	0.998533765
CDR20291_0862	89	195	207	180	86	57	62	108	76	76	117	-0.042634485	0.997499065
CDR20291_0863	761	1831	3190	1458	2566	3903	1005	1517	1488	1537	2209	1.040525305	0.331525685
CDR20291_0864	2928	4327	7271	4811	3782	4206	2866	4676	4480	3862	4740	0.225617687	0.903754511
CDR20291_0865	467	178	427	331	306	414	1840	528	233	1205	405	0.135898013	0.995604279
CDR20291_0866	4	6	15	1	1	0	2	8	3	1	2	NA	NA
CDR20291_0867	7	3	2	1	3	5	3	2	0	0	2	NA	NA
CDR20291_0868	4	1	5	0	0	0	1	0	0	0	0	NA	NA
CDR20291_0869	86	166	167	170	155	133	65	86	46	91	224	0.221068113	0.986227745
CDR20291_0870	291	467	737	419	372	364	606	621	361	378	225	0.270811976	0.968488529
CDR20291_0871	17436	33262	58850	31619	26163	28659	16009	24838	23807	22813	31588	0.342167975	0.816693145
CDR20291_0872	5661	8788	15922	9527	8823	8697	5770	8117	10072	8223	10544	0.342719242	0.805528332
CDR20291_0873	630	967	1441	824	633	684	330	678	835	679	504	-0.169653394	0.974945773
CDR20291_0874	83	108	177	127	166	170	143	188	120	55	173	0.424016253	0.935276284
CDR20291_0875	10	38	38	41	4	9	17	53	27	18	45	1.154749049	0.894306579
CDR20291_0876	347	312	638	377	339	466	739	349	700	168	259	-0.019393541	0.998533765

CDR20291_0877	244	163	388	386	196	216	206	573	242	178	186	-0.227431358	0.984589191
CDR20291_0878	1144	2814	5101	2402	2371	2395	1285	2274	2511	2096	1431	0.666374348	0.322251698
CDR20291_0879	25	8	47	3	5	8	6	16	8	3	0	-1.884610709	0.818849811
CDR20291_0880	38	33	86	47	15	107	575	25	65	6	30	-0.221076097	0.987467975
CDR20291_0881	18	40	30	171	28	9	7	0	13	3	2	0.276596425	0.990226227
CDR20291_0882	4	2	40	2	6	1	3	4	29	6	0	NA	NA
CDR20291_0883	4	4	6	3	3	5	6	1	1	3	3	NA	NA
CDR20291_0884	54	79	84	91	54	72	31	14	7	63	241	0.112224744	0.995736287
CDR20291_0884;													
CDR20291_0885	0	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_0885	1226	1584	3100	1629	1379	1737	878	2374	1330	1733	1329	0.05869902	0.987467975
CDR20291_0886	350	460	725	336	354	559	179	349	464	530	390	-0.093745468	0.987467975
CDR20291_0887	795	1343	2132	1555	1229	1231	903	2173	1776	1788	1727	0.626021801	0.650169723
CDR20291_0888	90	239	284	223	111	78	92	72	206	80	20	0.185086487	0.987467975
CDR20291_0889	329	401	675	377	436	435	205	297	197	311	98	-0.382987782	0.9374313
CDR20291_0890	442	800	1521	661	699	773	921	923	972	702	489	0.545936733	0.742999686
CDR20291_0891	4018	6400	10274	6542	5772	6988	8180	6420	6074	5743	6400	0.413793037	0.808803667
CDR20291_0892	1646	3346	5745	3632	3176	3695	12190	3116	3475	2946	3567	0.701798919	0.030535452
CDR20291_0893	653	713	931	671	663	1012	916	735	484	454	1220	-0.082202064	0.988631632
CDR20291_0894	604	659	1155	795	515	526	417	433	761	285	839	-0.329804847	0.936953799
CDR20291_0895	32	21	80	13	15	35	20	10	23	17	5	-0.93928107	0.911474775
CDR20291_0896	16	9	7	12	17	5	22	3	10	7	6	-0.984739988	0.927225356
CDR20291_0897	29	4	14	13	18	6	25	11	8	5	3	-1.753879187	0.75426954
CDR20291_0898	141	110	311	202	78	152	69	126	123	84	74	-0.557815172	0.874336522
CDR20291_0898;													
CDR20291_0899	0	4	0	0	7	0	0	2	0	0	0	NA	NA
CDR20291_0899	846	788	1420	1004	831	663	380	777	764	681	1115	-0.409241142	0.882470322
CDR20291_0900	10117	7344	9383	7133	5220	6853	4619	6876	5785	6667	4437	-1.044165081	0.001438017
CDR20291_0901	62	41	115	24	41	31	20	12	16	11	27	-1.405088068	0.655684544
CDR20291_0902	1526	2493	4178	3085	2189	2731	1611	2896	2273	2184	2322	0.363190532	0.614837993

CDR20291_0903	1275	1835	3878	1682	1556	2083	943	1526	1681	1177	1525	0.040171982	0.991986013
CDR20291_0904	1670	1833	2416	1885	1551	1979	1173	1673	4779	2002	1512	-0.045513232	0.995736287
CDR20291_0905	4	5	3	3	1	2	6	0	3	2	1	NA	NA
CDR20291_0906	797	1385	2207	1500	1236	1388	1038	1218	1083	1296	955	0.339868728	0.687772597
CDR20291_0906;													
CDR20291_0907	2	2	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0907	306	699	991	553	445	587	229	461	470	474	538	0.405540569	0.848160036
CDR20291_0908	151	410	617	308	336	374	64	302	190	158	581	0.714436552	0.882470322
CDR20291_0909	200	471	687	274	227	343	288	296	197	240	196	0.249016591	0.960075735
CDR20291_0910	321	413	633	420	481	730	712	409	355	311	175	0.173677539	0.986538587
CDR20291_0911	15	25	70	14	48	39	25	7	13	59	2	0.587409719	0.984076663
CDR20291_0912	4	9	6	6	3	14	7	12	7	3	2	NA	NA
CDR20291_0913	933	977	2193	1047	796	605	657	974	1047	1082	418	-0.370287538	0.920684121
CDR20291_0914	33	109	186	100	61	152	82	96	30	45	37	0.992696098	0.777989961
CDR20291_0915	29	35	78	29	41	156	12	29	8	25	17	0.094225421	0.995736287
CDR20291_0916	999	2202	4291	2904	1833	2113	1558	1940	2263	1813	2411	0.811184039	0.062853459
CDR20291_0917	284	277	921	282	286	298	315	318	345	240	163	-0.18313065	0.984589191
CDR20291_0918	1	0	1	0	1	0	1	0	0	0	0	NA	NA
CDR20291_0919	13	59	28	31	21	11	5	8	16	9	54	0.508411886	0.984589191
CDR20291_0920	4	0	0	1	0	0	0	1	0	0	0	NA	NA
CDR20291_0921	2	0	0	0	3	0	3	0	0	1	1	NA	NA
CDR20291_0922	3	1	0	2	1	0	3	0	0	2	0	NA	NA
CDR20291_0923	13	5	16	6	9	2	5	4	1	0	1	NA	NA
CDR20291_0924	0	0	0	1	0	0	1	0	1	0	1	NA	NA
CDR20291_0925	7	0	2	4	5	0	5	2	1	2	1	NA	NA
CDR20291_0926	17	39	17	21	27	12	22	28	2	2	5	-0.333851601	0.987467975
CDR20291_0927	115	58	48	157	20	2	13	65	73	100	130	-1.122244624	0.916535173
CDR20291_0928	1052	1664	2643	1379	1282	1569	887	1194	1338	1148	1503	0.059962017	0.987467975
CDR20291_0929	5854	6707	10214	7176	5385	6894	3705	6643	5577	5710	4866	-0.305370642	0.709162677
CDR20291_0930	1	26	12	1	27	3	0	1	0	9	18	NA	NA

CDR20291_0931	8627	11051	16535	12078	10261	11526	7700	11297	11385	9319	9390	-0.032785635	0.987467975
CDR20291_0932	1382	1555	2693	1523	1305	1732	1879	1594	1336	2090	1765	-0.022688307	0.997813116
CDR20291_0933	0	4	6	1	0	0	1	1	3	0	2	NA	NA
CDR20291_0934	223	175	322	196	120	194	77	286	226	261	102	-0.598181445	0.866542396
CDR20291_0935	2	9	6	5	7	23	19	1	0	0	0	NA	NA
CDR20291_0936	6	0	7	0	2	2	7	0	6	0	0	NA	NA
CDR20291_0937	336	402	694	330	259	554	442	392	326	211	512	-0.089925524	0.987467975
CDR20291_0938	4	5	28	5	6	6	4	0	8	0	0	NA	NA
CDR20291_0939	368	889	1747	1418	692	706	2925	983	1498	1580	849	1.558941664	0.319458433
CDR20291_0940	663	1112	3032	1019	963	1450	763	1255	796	839	1875	0.542954514	0.829481015
CDR20291_0941	255	507	902	427	403	428	247	379	370	406	422	0.388818416	0.797877774
CDR20291_0942	1006	1845	2970	1545	1673	2077	1634	1657	1689	1312	1023	0.392719996	0.790951931
CDR20291_0943	4904	8309	14895	8105	7636	8886	5339	7277	7985	7624	5730	0.32280002	0.655684544
CDR20291_0944	261	640	950	637	275	594	320	290	419	203	353	0.391546228	0.925506853
CDR20291_0945	50	124	169	99	60	97	17	40	167	59	58	0.380806103	0.979708105
CDR20291_0946	116	110	167	326	217	296	177	160	76	299	102	0.392554425	0.968488529
CDR20291_0947	132	1494	381	104	814	909	337	232	303	150	765	1.69711508	0.541725827
CDR20291_0948	61	96	209	95	68	56	50	78	45	52	51	-0.087032624	0.989572915
CDR20291_0949	672	1049	1849	1382	896	1297	640	940	999	781	806	0.241882992	0.9155071
CDR20291_0950	2	0	8	3	3	4	6	3	3	2	1	NA	NA
CDR20291_0951	96	555	417	1589	728	330	259	208	127	239	4866	1.917604122	0.319458433
CDR20291_0952	136	233	307	233	253	159	70	164	265	292	125	0.232332416	0.984589191
CDR20291_0953	3775	6570	9383	8674	6546	6780	8635	8983	7584	7324	6952	0.691036763	0.447422432
CDR20291_0954	1501	4035	6671	4723	3262	4146	2803	4750	7637	4692	4414	1.273407486	0.039200625
CDR20291_0955	8310	9630	13590	18370	7440	10624	13648	27863	17293	15687	15222	0.515222787	0.911560424
CDR20291_0956	288	428	919	713	560	770	228	627	849	554	550	0.704970368	0.654192072
CDR20291_0957	3145	3244	5299	3252	3373	3691	2019	3123	3432	1180	2839	-0.414312861	0.871784787
CDR20291_0958	57	104	216	48	29	115	36	36	11	95	52	-0.123322425	0.993276739
CDR20291_0959	5506	7234	12685	7603	6940	7638	5416	8225	7449	6442	5429	0.043877978	0.987467975
CDR20291_0960	362	600	1244	736	513	534	225	501	660	445	588	0.297093066	0.927225356

CDR20291_0989	1	5	3	3	8	2	8	4	5	0	2	NA	NA
CDR20291_0990	950	1635	2419	1734	1406	1552	1474	1521	1307	2084	560	0.340334345	0.927225356
CDR20291_0991	1480	2094	3281	2161	1934	2237	77134	2057	1744	1460	1674	0.037158416	0.987467975
CDR20291_0992	78	90	114	119	75	255	58	53	58	55	112	-0.051043279	0.997499065
CDR20291_0993	4311	6829	11258	7007	6201	7109	4317	6722	6421	5940	5469	0.236892485	0.727959455
CDR20291_0994	623	423	997	574	635	601	664	746	591	409	266	-0.465228865	0.89059378
CDR20291_0995	3710	4203	6976	3765	3758	4309	2176	4229	2861	2681	2942	-0.39646581	0.655684544
CDR20291_0996	273	330	464	486	304	339	94	465	206	240	222	-0.218056642	0.984589191
CDR20291_0997	114	215	252	118	241	243	70	398	147	188	137	0.424751444	0.947575252
CDR20291_0998	2	3	0	1	1	0	0	1	0	1	0	NA	NA
CDR20291_0999	0	0	0	1	1	0	2	0	0	1	0	NA	NA
CDR20291_1000	3	0	0	1	0	0	1	1	0	0	0	NA	NA
CDR20291_1001	8	4	3	10	1	3	5	4	3	2	2	NA	NA
CDR20291_1002	36	46	28	117	69	37	33	45	69	0	6	-0.054813988	0.998533765
CDR20291_1003	104	178	293	152	109	161	81	59	123	139	173	0.072989181	0.991986013
CDR20291_1004	7	7	148	21	69	4	2	8	14	4	0	1.281243533	0.947575252
CDR20291_1005	12	22	41	23	69	32	10	38	10	53	4	0.945903734	0.925506853
CDR20291_1006	348	512	640	465	378	687	353	471	238	303	477	-0.01199429	0.998533765
CDR20291_1007	178	323	467	445	249	177	121	316	452	270	329	0.425193486	0.925506853
CDR20291_1008	32	32	84	106	60	23	34	20	35	14	4	-0.090838037	0.995736287
CDR20291_1009	63	28	140	33	36	97	24	83	31	8	38	-0.784941271	0.924401693
CDR20291_1010	303	524	699	278	284	333	149	184	207	333	485	-0.229383064	0.984589191
CDR20291_1011	53	16	72	6	21	11	137	17	2	1	23	-1.057644685	0.951662831
CDR20291_1012	2	5	1	1	3	2	9	1	1	2	1	NA	NA
CDR20291_1013	0	1	0	0	0	0	2	0	0	1	1	NA	NA
CDR20291_1014	1	1	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1015	4	1	4	2	1	0	6	1	2	0	0	NA	NA
CDR20291_1016	6	2	3	2	6	1	8	2	5	3	0	NA	NA
CDR20291_1017	6	3	2	3	0	2	12	3	0	0	0	NA	NA
CDR20291_1018	2	2	1	3	4	2	5	3	2	3	2	NA	NA

CDR20291_1019	0	2	2	2	1	1	6	6	0	2	0	NA	NA
CDR20291_1020	4	0	0	1	4	2	4	0	1	0	1	NA	NA
CDR20291_1021	1	1	0	0	1	0	0	0	2	0	0	NA	NA
CDR20291_1022	83	78	171	84	57	266	84	55	88	6	80	-0.209068258	0.987467975
CDR20291_1023	2467	3578	5826	2978	3025	3257	1453	2640	2474	2105	1827	-0.204037395	0.947575252
CDR20291_1024	1611	2987	5182	2919	2247	2515	2753	2583	2593	2319	2790	0.448263366	0.607610599
CDR20291_1025	2	0	0	2	2	3	0	0	2	0	0	NA	NA
CDR20291_1026	117	215	218	241	117	132	95	145	164	185	450	0.402149018	0.960075735
CDR20291_1027	317	179	551	131	116	202	25	200	275	132	241	-1.11564889	0.686450727
CDR20291_1028	2	0	19	50	27	2	8	33	3	1	27	2.705922751	0.789092982
CDR20291_1029	11	8	4	7	8	12	8	3	5	2	4	NA	NA
CDR20291_1030	7	2	1	3	4	2	6	4	1	1	1	NA	NA
CDR20291_1031	0	3	0	2	2	1	3	3	0	1	1	NA	NA
CDR20291_1032	1	1	1	0	1	1	0	2	0	3	1	NA	NA
CDR20291_1033	0	2	1	3	0	1	2	0	0	0	0	NA	NA
CDR20291_1034	6	3	6	5	1	5	8	4	3	0	3	NA	NA
CDR20291_1035	6	1	0	1	1	2	3	0	1	3	2	NA	NA
CDR20291_1036	0	5	1	1	4	3	3	1	0	1	4	NA	NA
CDR20291_1037	1	4	1	2	5	1	2	0	3	0	1	NA	NA
CDR20291_1038	3	1	1	0	2	1	3	0	0	1	0	NA	NA
CDR20291_1039	2641	3335	6199	4624	2784	3491	2644	3943	3987	2738	4088	0.121745723	0.984589191
CDR20291_1039;													
CDR20291_1040	230	346	471	424	232	378	95	163	247	194	40	-0.292711463	0.984589191
CDR20291_1040	1308	1735	3015	1949	1911	1945	825	1031	1496	1241	1759	-0.048827848	0.991986013
CDR20291_1041	1568	1977	2971	2311	1717	1850	1290	1356	1974	1216	1408	-0.202341482	0.931620234
CDR20291_1042	2	2	0	1	1	4	2	0	0	0	1	NA	NA
CDR20291_1043	4	3	1	0	3	2	7	7	3	0	2	NA	NA
CDR20291_1044	1	3	1	1	2	1	2	2	1	0	2	NA	NA
CDR20291_1045	4	6	16	2	13	8	8	7	3	1	1	NA	NA
CDR20291_1046	92	53	93	101	89	92	100	62	43	15	19	-0.841138824	0.900848337

CDR20291_1047	4894	6195	8195	6267	5415	5193	3615	6962	5303	3680	4099	-0.23389121	0.916535173
CDR20291_1048	2512	3708	6614	3756	3181	3576	13749	3761	3504	2908	3456	0.15408147	0.925506853
CDR20291_1049	3262	5066	8152	5385	5035	4681	3351	4914	3555	3649	3477	0.123778455	0.968488529
CDR20291_1050	181	268	376	203	416	255	172	385	249	971	190	0.617949951	0.925506853
CDR20291_1051	8	11	1	20	4	4	22	8	2	1	9	NA	NA
CDR20291_1052	2	2	4	0	1	1	5	2	1	2	2	NA	NA
CDR20291_1053	6	6	8	3	9	1	6	3	3	0	0	NA	NA
CDR20291_1054	4	0	3	2	3	6	3	3	2	0	0	NA	NA
CDR20291_1055	4	6	3	1	4	2	1	0	1	2	3	NA	NA
CDR20291_1056	3	6	7	3	4	1	2	1	3	0	1	NA	NA
CDR20291_1057	2	3	4	2	3	2	6	3	1	1	1	NA	NA
CDR20291_1058	45	87	39	32	21	10	39	31	61	105	83	-0.120929495	0.994553213
CDR20291_1059	1310	1117	1537	1618	847	1096	590	1171	1540	1384	575	-0.58272461	0.789092982
CDR20291_1060	525	602	805	598	432	537	209	400	560	879	702	-0.252729582	0.973419192
CDR20291_1061	2484	2896	5229	3326	3294	3997	2335	3516	3028	3025	2941	0.043508991	0.987467975
CDR20291_1062	1191	1365	3027	1793	1639	1655	1635	1637	1732	1293	1734	0.168158187	0.960075735
CDR20291_1063	188	301	464	385	231	98	50	234	156	221	216	-0.123430444	0.987467975
CDR20291_1064	4933	7476	11996	7671	7061	8578	6131	7273	6193	8403	6554	0.264280607	0.866542396
CDR20291_1065	288	138	205	241	100	212	66	162	92	78	114	-1.455455395	0.117209079
CDR20291_1066	379	235	409	265	148	291	129	231	137	198	84	-1.276076011	0.133101304
CDR20291_1067	102	112	211	61	93	251	72	33	26	26	38	-0.625032858	0.947575252
CDR20291_1068	7	5	0	4	4	4	15	4	3	0	0	NA	NA
CDR20291_1069	306	952	1628	687	761	690	367	448	839	620	1091	0.978552548	0.350981742
CDR20291_1070	143	223	420	214	217	175	127	226	62	69	170	-0.041360432	0.997499065
CDR20291_1071	3	3	4	0	2	3	4	1	0	2	3	NA	NA
CDR20291_1072	431	733	1378	869	552	843	1117	687	693	585	540	0.51388731	0.829481015
CDR20291_1073	2	1	2	0	0	0	3	2	0	0	2	NA	NA
CDR20291_1074	32	18	50	37	62	38	21	22	24	12	16	-0.503190276	0.960075735
CDR20291_1075	4	0	2	7	4	0	2	2	2	0	0	NA	NA
CDR20291_1076	130	260	521	274	224	294	115	136	282	295	217	0.580801137	0.813560767

CDR20291_1077	203	376	616	348	247	385	222	257	180	202	284	0.186185408	0.974945773
CDR20291_1078	785	805	1185	1088	774	1426	529	888	842	621	828	-0.198209745	0.968488529
CDR20291_1079	1271	1895	2706	2090	1212	1755	1049	1398	1771	1499	1904	0.046223832	0.989572915
CDR20291_1080	1	1	1	1	0	0	4	2	0	0	0	NA	NA
CDR20291_1081	9	59	153	67	46	93	23	141	35	44	50	2.515811717	0.076706025
CDR20291_1081;													
CDR20291_1082	4	1	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_1082	50	143	174	82	121	278	114	120	56	124	88	0.994002937	0.682356358
CDR20291_1082;													
CDR20291_1083	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_1083	349	542	1014	685	532	657	562	612	559	335	338	0.335018359	0.911388826
CDR20291_1084	95	201	360	161	122	196	71	293	156	222	70	0.521546272	0.91856455
CDR20291_1085	2	4	2	4	1	2	5	0	1	1	1	NA	NA
CDR20291_1086	3496	594	856	215	532	644	663	237	159	335	80	-3.418810085	0.000877098
CDR20291_1087	6	5	1	0	4	0	8	0	0	1	0	NA	NA
CDR20291_1088	64	47	68	56	25	76	43	77	48	10	33	-0.80903277	0.89380745
CDR20291_1089	20	11	6	11	13	12	25	20	9	3	1	-1.142494738	0.925506853
CDR20291_1090	4	4	4	2	5	1	8	3	7	3	3	NA	NA
CDR20291_1091	1	1	1	1	5	0	4	2	2	2	0	NA	NA
CDR20291_1092	4	2	4	4	5	3	6	1	7	0	2	NA	NA
CDR20291_1093	5	1	3	0	1	1	1	1	0	0	10	NA	NA
CDR20291_1094	18	1	69	22	44	4	1	4	10	0	0	-0.856686443	0.984589191
CDR20291_1095	5	2	0	3	0	0	2	0	0	0	0	NA	NA
CDR20291_1096	6	2	2	3	1	1	3	3	1	2	0	NA	NA
CDR20291_1097	0	1	0	0	6	1	0	0	1	3	1	NA	NA
CDR20291_1098	1	4	6	0	3	2	4	1	1	0	1	NA	NA
CDR20291_1099	3	11	1	3	1	3	6	2	1	3	0	NA	NA
CDR20291_1100	2300	176	100	117	49	50	217	207	69	171	43	-4.562031432	6.51E-06
CDR20291_1101	1119	1383	3590	2085	1548	1741	856	1659	1751	1052	1485	0.172248697	0.973419192
CDR20291_1102	239	525	927	388	288	231	91	381	378	249	168	0.101240678	0.988631632

CDR20291_1103	2438	3371	5780	3418	3445	3329	2158	4163	3714	6871	3170	0.321722072	0.936953799
CDR20291_1104	27	88	117	67	66	63	45	117	21	32	1	0.739161464	0.947575252
CDR20291_1105	147	57	37	35	48	125	42	71	47	232	181	-1.014980363	0.897972061
CDR20291_1106	61	46	105	95	91	137	39	33	98	17	108	-0.057845354	0.997499065
CDR20291_1107	365	372	948	713	440	711	738	372	604	239	319	0.190946988	0.984589191
CDR20291_1108	100	90	199	107	92	127	49	69	178	189	84	-0.151559837	0.987467975
CDR20291_1109	45	81	43	97	44	49	4	30	38	20	10	-0.554428373	0.973419192
CDR20291_1109;													
CDR20291_1110	763	981	1788	985	1022	1254	1130	958	1219	1000	576	0.13132165	0.984589191
CDR20291_1110	2410	2827	4343	2758	2571	2975	1309	2466	2571	2613	2727	-0.229816642	0.925506853
CDR20291_1111	17	1	0	0	3	6	4	3	1	0	10	NA	NA
CDR20291_1112	488	576	1104	666	658	781	513	723	600	772	730	0.164312291	0.972607437
CDR20291_1113	2622	2865	4704	2272	3362	2924	1979	2138	2287	1359	2404	-0.405719886	0.829481015
CDR20291_1114	10	8	5	6	9	8	12	4	4	2	4	NA	NA
CDR20291_1115	3	6	2	1	6	3	10	1	1	0	0	NA	NA
CDR20291_1116	254	291	529	271	189	385	77	183	210	187	179	-0.48788478	0.897972061
CDR20291_1117	494	844	1240	605	618	653	442	673	541	305	337	-0.099868808	0.987467975
CDR20291_1118	3	4	1	3	7	1	7	1	1	0	1	NA	NA
CDR20291_1119	7	3	2	4	5	6	6	3	2	3	0	NA	NA
CDR20291_1120	2	2	1	3	0	0	5	0	1	1	2	NA	NA
CDR20291_1121	1	2	1	2	3	6	7	3	2	3	1	NA	NA
CDR20291_1122	12	8	9	10	7	4	17	4	4	3	2	NA	NA
CDR20291_1123	2	1	0	1	0	2	3	0	1	2	0	NA	NA
CDR20291_1124	9	8	38	6	8	3	10	5	11	1	1	NA	NA
CDR20291_1125	4	6	1	3	5	0	2	1	1	0	1	NA	NA
CDR20291_1126	480	596	459	537	650	458	768	714	990	690	430	0.087037849	0.98930273
CDR20291_1127	2	1	4	3	1	1	3	2	0	0	1	NA	NA
CDR20291_1128	1320	1847	2667	2234	1415	1911	895	2068	1854	1533	2117	0.096253105	0.986538587
CDR20291_1129	6859	4055	6010	3867	3744	3340	2843	3866	4133	3513	2349	-1.257486765	0.000132325
CDR20291_1130	3	1	0	0	1	1	0	0	1	1	0	NA	NA

CDR20291_1131	28	45	54	47	16	12	30	21	7	25	61	-0.196940681	0.987467975
CDR20291_1132	1	0	1	0	0	0	3	3	0	1	1 NA	NA	
CDR20291_1133	0	1	3	0	4	0	6	0	3	1	1 NA	NA	
CDR20291_1134	641	821	1104	596	625	740	721	649	562	456	478	-0.315108391	0.903905619
CDR20291_1135	8	7	3	1	3	0	7	12	0	0	20 NA	NA	
CDR20291_1136	105	105	271	148	196	147	303	83	246	139	108	0.399296392	0.961700633
CDR20291_1137	33	157	195	96	171	130	112	88	113	135	284	1.821819115	0.116149074
CDR20291_1138	4	0	2	0	4	2	2	0	1	1	0 NA	NA	
CDR20291_1139	1222	3432	5374	3448	2784	5033	2579	3903	3022	2288	3106	1.117539488	0.006994765
CDR20291_1140	1463	2452	4473	2538	2126	2581	1366	2569	2395	2186	2597	0.378173075	0.693111203
CDR20291_1141	121	72	153	82	66	183	8	88	110	37	19	-1.042837149	0.866542396
CDR20291_1142	0	1	2	0	0	0	2	0	0	0	0 NA	NA	
CDR20291_1143	226	383	442	249	319	383	367	263	273	274	237	0.132594444	0.986227745
CDR20291_1144	415	790	1367	703	576	649	531	658	648	743	1398	0.57822859	0.816981594
CDR20291_1145	7906	11126	19307	11133	8716	11020	10835	10127	9470	9667	9015	0.089019279	0.984589191
CDR20291_1146	19	28	12	11	21	10	18	16	11	8	4	-0.799127349	0.934317854
CDR20291_1147	1	1	0	0	1	0	0	0	0	3	0 NA	NA	
CDR20291_1148	5	1	6	2	1	4	5	2	3	0	0 NA	NA	
CDR20291_1149	0	3	0	0	2	2	0	0	1	0	1 NA	NA	
CDR20291_1150	1	2	0	0	0	0	1	3	0	0	0 NA	NA	
CDR20291_1151	10	8	10	2	9	3	12	3	10	1	3 NA	NA	
CDR20291_1152	4	0	0	0	2	1	3	1	0	0	0 NA	NA	
CDR20291_1152;													
CDR20291_1153	0	0	1	0	1	0	0	0	0	0	0 NA	NA	
CDR20291_1153	1	2	3	2	4	4	4	4	1	1	1 NA	NA	
CDR20291_1154	1428	1374	2188	1423	1065	1528	721	1315	992	915	473	-0.689058348	0.548822404
CDR20291_1155	5	1	2	2	1	1	2	0	1	2	2 NA	NA	
CDR20291_1156	2	1	0	0	0	0	0	0	0	0	0 NA	NA	
CDR20291_1157	2	2	0	0	1	0	3	2	0	0	1 NA	NA	
CDR20291_1158	2379	2683	5155	3332	2789	3039	2779	3963	3337	2432	3578	0.095650799	0.986227745

CDR20291_1159	77	85	292	146	50	55	29	88	40	113	77	-0.170048775	0.987467975
CDR20291_1160	14	1	5	1	1	3	5	2	15	2	2 NA	NA	NA
CDR20291_1161	6	5	5	3	1	6	8	19	4	2	2 NA	NA	NA
CDR20291_1162	0	0	0	0	1	0	2	0	0	0	0 NA	NA	NA
CDR20291_1163	6	4	3	0	5	3	5	1	0	1	0 NA	NA	NA
CDR20291_1164	1380	2014	3783	2074	1833	2433	3472	2911	4449	1936	1852	0.605777852	0.823496412
CDR20291_1165	9	10	3	5	9	11	10	4	4	2	7 NA	NA	NA
CDR20291_1166	7	2	4	2	4	5	6	2	1	5	0 NA	NA	NA
CDR20291_1167	8	8	2	2	9	4	8	5	10	0	1 NA	NA	NA
CDR20291_1168	2	2	7	1	0	2	4	1	0	2	3 NA	NA	NA
CDR20291_1169	130	269	516	238	169	96	65	148	150	988	227	0.769014873	0.925506853
CDR20291_1170	6	7	2	4	4	4	11	1	1	0	3 NA	NA	NA
CDR20291_1171	8	10	5	4	8	7	5	3	9	2	5 NA	NA	NA
CDR20291_1172	6352	9661	17008	11364	9642	10264	12034	11374	14755	9902	9066	0.491107757	0.70876337
CDR20291_1173	127	209	95	164	187	165	178	91	155	93	99	-0.146906324	0.987467975
CDR20291_1174	1271	2012	3069	2405	1517	2008	1594	1934	2774	1885	3071	0.442807298	0.849288651
CDR20291_1175	388	7	8	2	4	4	11	3	5	1	2	-6.735381316	3.88E-10
CDR20291_1176	4721	5059	10053	6069	4891	6313	5839	6229	5314	5367	7220	0.025443809	0.995736287
CDR20291_1177	457	568	901	823	489	634	269	614	365	933	618	0.054504521	0.994578118
CDR20291_1178	120	204	212	464	114	146	180	98	55	179	97	0.158842006	0.987467975
CDR20291_1179	296	238	336	127	198	274	207	261	138	115	462	-0.686843057	0.869812015
CDR20291_1180	5759	7855	13610	8110	7198	7856	9920	7966	7328	9056	6442	0.199465444	0.954974392
CDR20291_1181	335	441	1016	368	450	729	171	1238	379	312	806	0.399428127	0.954630457
CDR20291_1182	3626	5831	9513	7131	6268	5490	4177	6096	4867	4379	4678	0.285923918	0.796613227
CDR20291_1183	250	307	459	225	283	262	97	124	211	102	169	-0.612410621	0.838322352
CDR20291_1184	113	74	162	135	64	123	67	169	85	57	144	-0.459721849	0.926797301
CDR20291_1185	497	600	977	1238	558	475	1215	722	655	383	355	0.179912383	0.986538587
CDR20291_1186	213	75	137	66	82	96	23	79	59	45	82	-1.948117092	0.015228301
CDR20291_1187	5392	7374	11010	6802	6893	7419	8011	7285	6009	7489	4579	0.063346104	0.987467975

CDR20291_1187;													
CDR20291_1188	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_1188	550	834	1163	694	822	858	601	477	515	882	612	0.05567088	0.990211143
CDR20291_1189	487	860	1200	696	576	823	289	845	716	753	639	0.190290651	0.973419192
CDR20291_1190	2775	5615	9723	5364	4940	5755	4848	5513	5047	6082	5169	0.677015654	0.09074751
CDR20291_1191	16	36	94	9	41	36	17	30	21	33	48	0.740504242	0.925506853
CDR20291_1192	4	7	6	7	1	0	4	2	2	1	1	NA	NA
CDR20291_1193	34	75	88	45	65	42	18	25	16	20	16	-0.202800668	0.987467975
CDR20291_1194	403	506	777	468	431	400	1634	385	482	196	455	-0.26911673	0.940556956
CDR20291_1195	17	44	220	49	32	90	59	15	40	22	21	1.251007778	0.809797455
CDR20291_1196	39	43	194	59	47	63	117	55	14	4	38	0.242717284	0.987467975
CDR20291_1197	1	1	1	0	3	0	1	1	2	0	1	NA	NA
CDR20291_1198	3580	3877	4734	3467	4244	4009	6284	4262	3276	3538	2875	-0.1456191	0.986227745
CDR20291_1199	3318	5664	8620	6496	3933	5938	3811	7369	5368	6762	4179	0.418755467	0.790169327
CDR20291_1200	204	248	591	269	187	367	223	232	264	214	219	0.034293663	0.995736287
CDR20291_1201	32	30	198	7	53	24	20	22	9	13	51	-0.186730764	0.98930273
CDR20291_1202	1	1	0	2	0	0	2	3	1	0	0	NA	NA
CDR20291_1203	0	0	0	0	1	0	1	0	0	0	0	NA	NA
CDR20291_1204	21	84	88	3	56	26	12	25	9	24	6	0.158523233	0.994553213
CDR20291_1205	21	16	26	27	3	72	34	23	16	32	46	0.164755994	0.991493914
CDR20291_1206	2833	2650	3280	2531	2203	4084	2213	2418	1861	2297	1997	-0.526091062	0.661396858
CDR20291_1207	1	2	2	0	4	0	3	0	0	0	3	NA	NA
CDR20291_1208	64	67	199	88	66	63	21	55	9	68	7	-0.533036871	0.973419192
CDR20291_1209	0	1	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1209;													
CDR20291_1210	0	0	3	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1210	251	174	580	300	160	221	173	165	138	231	77	-0.649261929	0.838322352
CDR20291_1211	16	21	46	95	89	20	120	51	13	15	52	1.426464044	0.82495643
CDR20291_1212	29	74	23	36	32	29	77	35	29	30	39	0.192135619	0.987467975
CDR20291_1213	0	1	1	1	1	1	2	0	0	0	2	NA	NA

CDR20291_1214	851	1249	2079	1663	1276	902	595	1336	1199	1269	1228	0.184682646	0.973419192
CDR20291_1215	438	701	957	486	503	565	406	552	552	425	525	-0.029631431	0.994553213
CDR20291_1216	121	144	242	85	92	127	76	98	45	81	20	-0.732554493	0.885492768
CDR20291_1217	107	59	114	153	74	175	133	157	394	66	218	0.213349747	0.987467975
CDR20291_1218	3575	4303	5647	4324	3722	4455	2166	3841	4004	3518	3452	-0.252833043	0.877926426
CDR20291_1219	34	40	41	21	14	15	26	4	56	3	5	-1.00842986	0.925506853
CDR20291_1220	239	187	390	326	226	239	87	260	115	138	291	-0.503209541	0.908811074
CDR20291_1221	2	0	0	1	3	0	2	0	0	0	2	NA	NA
CDR20291_1222	38	56	95	131	42	23	16	13	21	6	23	-0.340227182	0.986538587
CDR20291_1223	1	0	1	0	0	0	1	0	3	0	0	NA	NA
CDR20291_1224	13	25	74	16	7	33	62	16	1	38	32	0.851678173	0.951662831
CDR20291_1225	70	108	322	316	105	51	48	104	101	71	157	0.510244586	0.947575252
CDR20291_1226	379	475	1068	674	550	755	470	567	780	301	260	0.217228683	0.980254488
CDR20291_1227	2126	3153	5449	2935	2975	2946	3009	3105	2469	2688	2851	0.181588754	0.9374313
CDR20291_1228	39	80	107	46	62	67	11	52	64	38	35	0.076545305	0.995613239
CDR20291_1229	1634	1673	3177	1937	1655	2001	1583	1695	1812	1476	1619	-0.206858107	0.903905619
CDR20291_1230	25	99	73	48	124	57	10	94	57	30	38	0.927998551	0.89059378
CDR20291_1231	107	120	152	105	82	137	195	108	60	12	458	0.125287907	0.994553213
CDR20291_1231;													
CDR20291_1232	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_1232	88	100	128	104	53	164	50	80	70	68	89	-0.363025426	0.947575252
CDR20291_1233	36	72	118	76	99	185	30	30	83	21	45	0.639714968	0.932415627
CDR20291_1234	73	223	203	107	137	124	55	84	90	78	138	0.345253339	0.954630457
CDR20291_1235	6	1	7	3	1	2	5	2	10	6	0	NA	NA
CDR20291_1236	9	8	6	4	4	23	1	0	8	2	5	NA	NA
CDR20291_1237	144	307	310	202	178	191	103	193	124	99	146	-0.063748822	0.991777829
CDR20291_1238	0	2	1	3	2	1	2	0	1	0	0	NA	NA
CDR20291_1239	113	67	99	107	178	57	144	131	64	113	103	-0.393070551	0.968488529
CDR20291_1240	15249	20764	35614	21512	20908	20723	16731	25071	20637	18080	15795	0.103950806	0.973419192
CDR20291_1241	270	294	508	204	235	415	112	376	277	261	133	-0.374608051	0.927225356

CDR20291_1242	3150	3200	4992	3251	2716	3930	2568	3218	3627	2899	2658	-0.317884951	0.757476339
CDR20291_1243	183	243	507	338	282	165	168	172	179	105	258	-0.032272407	0.997813116
CDR20291_1244	108	357	323	166	149	312	105	192	289	133	297	0.707599701	0.806474753
CDR20291_1245	103	113	144	74	95	61	21	113	92	99	264	-0.296156736	0.984589191
CDR20291_1246	907	1209	1779	1235	1318	955	764	1360	909	993	643	-0.102577451	0.986227745
CDR20291_1247	4933	6995	10550	6723	6299	7274	7175	7070	6901	7645	6075	0.193306153	0.946935817
CDR20291_1248	103	73	57	18	30	40	56	27	36	76	25	-1.574806108	0.469566412
CDR20291_1249	400	1085	969	1245	676	858	523	1206	780	832	547	0.741531636	0.502960492
CDR20291_1250	11625	3698	17005	3176	5625	9128	31047	6325	4301	5201	2623	-0.683410512	0.968488529
CDR20291_1251	1325	766	1680	684	819	1294	570	534	697	555	425	-1.166104763	0.098578355
CDR20291_1252	3690	3947	6160	4153	3959	3853	2768	2590	2942	3451	5431	-0.29188241	0.925506853
CDR20291_1253	6895	9601	15397	10225	8236	9226	7341	8617	7125	6105	10385	0.023762986	0.995736287
CDR20291_1254	241	166	347	105	82	122	110	63	38	61	33	-1.608858187	0.350613452
CDR20291_1255	7	4	5	5	2	0	4	3	5	1	1	NA	NA
CDR20291_1256	851	832	1425	841	650	771	349	705	929	514	959	-0.511191117	0.777989961
CDR20291_1257	1203	1619	2071	1344	1172	1629	1320	1126	1356	743	991	-0.239289104	0.93826876
CDR20291_1258	1885	3397	6082	4572	3104	3623	3675	4369	3532	5164	3121	0.736834101	0.335728329
CDR20291_1259	1502	2992	4368	3203	2355	2344	1442	1901	2336	1989	2605	0.353540118	0.816981594
CDR20291_1260	5	3	9	4	10	17	3	3	4	0	1	NA	NA
CDR20291_1261	1002	1283	1819	1287	905	1588	461	1031	1278	666	1016	-0.245467741	0.951662831
CDR20291_1262	12216	18416	30830	19523	16790	18070	18757	21976	19979	17061	23917	0.380257323	0.809797455
CDR20291_1263	1	1	2	1	0	2	3	1	0	1	0	NA	NA
CDR20291_1264	1054	106	389	232	19	53	135	89	96	106	81	-3.497089241	0.001045747
CDR20291_1265	78	185	168	147	195	339	151	72	93	313	30	0.766198927	0.916535173
CDR20291_1266	594	961	1680	878	802	926	844	593	529	570	556	0.06888258	0.987467975
CDR20291_1267	739	1253	1806	870	907	966	637	1025	1089	724	714	0.01612502	0.997813116
CDR20291_1268	2233	3140	5153	3078	2221	2927	1815	2364	2517	3097	3067	-0.008160216	0.998533765
CDR20291_1269	148	129	440	189	230	242	40	73	199	61	109	-0.288028826	0.984589191
CDR20291_1270	26	23	102	72	49	39	1	15	43	14	17	0.001389679	0.999561437
CDR20291_1271	4	1	7	4	6	5	0	2	0	0	0	NA	NA

CDR20291_1272	893	1326	2354	1411	1213	1363	726	960	1491	864	968	0.0798931	0.987467975
CDR20291_1273	721	1086	1418	1322	995	1187	661	1144	787	771	798	0.09979727	0.984589191
CDR20291_1274	35	39	33	30	22	32	6	7	10	9	22	-1.1768664	0.838322352
CDR20291_1275	0	0	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_1276	6	5	3	10	8	3	5	1	1	0	0	NA	NA
CDR20291_1277	70	142	120	173	276	105	19	116	237	143	59	0.619176492	0.936953799
CDR20291_1278	450	436	906	627	363	409	380	372	868	369	266	-0.260538102	0.971357561
CDR20291_1279	49	4	2	3	3	1	5	13	2	0	0	NA	NA
CDR20291_1280	1043	805	1317	812	766	928	662	950	688	553	475	-0.795709636	0.132627213
CDR20291_1281	7	1	2	4	0	2	1	1	1	0	0	NA	NA
CDR20291_1282	21	14	31	12	22	4	75	14	30	10	24	-0.079766499	0.997813116
CDR20291_1283	62	0	0	4	7	1	1	1	1	0	7	NA	NA
CDR20291_1284	1631	2676	4878	3213	2234	3023	4324	2748	2749	3594	3080	0.64706556	0.66623479
CDR20291_1285	3150	2273	3298	2427	2039	3043	2536	2591	2725	2084	1558	-0.726645671	0.33411911
CDR20291_1286	1209	801	1124	1062	803	1080	2286	1035	840	1018	1045	-0.41024126	0.947575252
CDR20291_1287	5967	6802	11152	7557	7001	7253	6936	7124	7053	7044	7032	-0.042413513	0.988631632
CDR20291_1288	1932	1991	2578	2108	1523	1692	3342	2102	1854	2612	1944	-0.146558208	0.986538587
CDR20291_1288;													
CDR20291_1289	0	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1289	16874	16191	23536	22212	13810	17163	29371	19058	18682	15144	19507	-0.121366867	0.987467975
CDR20291_1290	217	378	327	139	184	323	197	276	160	154	108	-0.351889518	0.947625302
CDR20291_1291	1116	655	698	464	552	571	631	429	315	932	268	-1.362016725	0.205227368
CDR20291_1292	1004	1520	2727	1699	1347	1308	991	1196	1425	1055	1696	0.166566533	0.962292778
CDR20291_1293	533	704	1220	1070	648	672	717	798	657	337	583	0.073996938	0.987467975
CDR20291_1294	1026	1643	2892	1719	1458	1415	1256	1618	1741	1343	1536	0.296318222	0.786525192
CDR20291_1295	3338	5308	9775	5849	4575	5633	2993	5513	4314	5114	5467	0.294949424	0.838322352
CDR20291_1296	362	725	1227	763	678	920	345	704	825	304	654	0.555987341	0.777989961
CDR20291_1297	3	5	4	2	5	2	10	6	1	0	0	NA	NA
CDR20291_1298	0	1	1	8	3	0	4	1	0	0	0	NA	NA
CDR20291_1299	5	2	0	0	4	0	5	0	1	2	0	NA	NA

CDR20291_1300	1	1	0	4	3	0	1	1	1	1	0	NA	NA
CDR20291_1301	2	50	30	0	23	0	5	3	23	23	36	2.893941646	0.753233394
CDR20291_1301;													
CDR20291_1302	531	606	1415	1008	802	900	557	919	804	988	887	0.354651888	0.877926426
CDR20291_1302	667	1494	1948	1342	998	1171	845	1364	1272	1563	1907	0.689813645	0.548822404
CDR20291_1303	6	7	8	5	4	3	18	1	1	4	2	NA	NA
CDR20291_1304	5	5	4	6	4	2	8	2	3	2	7	NA	NA
CDR20291_1305	61	76	106	128	38	90	34	53	33	50	122	-0.141871727	0.987467975
CDR20291_1306	692	850	1378	601	701	797	328	1220	566	991	652	-0.186599525	0.984589191
CDR20291_1307	562	941	1470	1305	1016	896	505	953	966	960	1328	0.496154774	0.785358308
CDR20291_1308	1568	2475	3929	2538	2291	2129	2058	3512	10665	2078	1821	0.286400506	0.897972061
CDR20291_1309	531	497	836	532	539	647	232	841	430	480	621	-0.307331162	0.935276284
CDR20291_1310	2166	4886	7058	4368	4023	3790	4004	4778	4075	3819	4146	0.670964631	0.107134422
CDR20291_1311	95	229	465	354	163	134	252	290	172	206	441	1.133121232	0.477188831
CDR20291_1312	65	130	178	112	73	42	55	131	70	19	13	-0.133566512	0.990555014
CDR20291_1313	228	264	538	441	158	339	474	592	116	283	242	0.223510175	0.984589191
CDR20291_1313;													
CDR20291_1314	9	9	0	3	0	5	0	0	2	0	6	NA	NA
CDR20291_1314	126	451	440	224	137	154	159	188	203	97	141	0.351986413	0.954630457
CDR20291_1315	1954	1669	2797	2054	1385	1630	1278	1848	2837	1645	1752	-0.430746039	0.819809986
CDR20291_1316	261	275	306	252	226	150	284	144	173	247	240	-0.52870358	0.882972382
CDR20291_1317	3651	5326	8226	4693	4114	4546	4153	3957	4723	3689	4717	0.005307997	0.998533765
CDR20291_1318	547	1090	1471	1033	700	1117	429	748	971	595	621	0.255196479	0.927225356
CDR20291_1319	4	2	30	0	4	1	4	0	0	0	0	NA	NA
CDR20291_1320	974	803	1616	867	708	1397	506	594	1010	539	1060	-0.513802874	0.823496412
CDR20291_1321	208	206	512	285	210	228	97	394	164	242	149	-0.189386064	0.984589191
CDR20291_1322	578	942	1282	708	859	688	400	666	1044	731	699	0.072877445	0.987467975
CDR20291_1323	1150	1128	1967	1142	1233	1499	1687	1007	1130	1468	704	-0.18652475	0.984589191
CDR20291_1324	1305	1930	2546	1965	2024	1955	1607	2033	1636	1749	1089	0.12781476	0.984589191
CDR20291_1325	5299	7702	11617	8115	6898	7127	20580	11225	7853	6791	6513	0.532760795	0.919612956

CDR20291_1326	59	155	264	334	158	131	26	81	101	12	121	0.750295563	0.925506853
CDR20291_1327	49	58	259	61	92	94	3	56	54	16	37	-0.009460243	0.999561437
CDR20291_1328	92	110	162	71	119	132	54	185	64	105	70	-0.182119689	0.986227745
CDR20291_1329	139	9	0	0	0	6	1	0	2	0	1	-6.577508834	0.042645109
CDR20291_1330	573	821	1048	884	831	589	534	766	630	536	775	-0.010641826	0.998533765
CDR20291_1331	183	41	164	30	38	22	18	45	25	93	83	-2.169355422	0.211400227
CDR20291_1331;													
CDR20291_1332	0	0	0	0	0	0	1	0	0	0	1	NA	NA
CDR20291_1332	5	26	54	7	13	27	1	5	9	0	23	1.166186978	0.947575252
CDR20291_1333	909	1199	2083	1603	1510	1234	925	1311	775	1072	671	0.036422498	0.995736287
CDR20291_1334	14	71	181	133	51	38	33	96	21	5	33	1.716509256	0.65535768
CDR20291_1335	10	16	78	6	34	2	14	26	39	43	40	1.1565797	0.916535173
CDR20291_1336	7	1	4	5	0	3	2	1	0	2	1	NA	NA
CDR20291_1337	1453	1872	3269	2038	1623	1912	2111	1961	1504	1403	1579	0.019920646	0.997813116
CDR20291_1338	3609	5458	8986	5669	5004	5983	5060	5521	6750	4832	4527	0.295322519	0.829481015
CDR20291_1339	5095	6540	3256	8688	4383	6067	5262	7281	8550	5317	7149	-0.022486406	0.998533765
CDR20291_1340	2010	2764	1404	3480	1736	2021	1833	2822	2555	1868	2837	-0.113727556	0.987467975
CDR20291_1341	2159	3737	5864	4146	3386	3845	4524	3915	3700	4023	3698	0.559947261	0.551892943
CDR20291_1342	29	31	7	11	11	37	21	11	6	35	3	-1.057915486	0.925506853
CDR20291_1343	34	109	67	11	69	79	28	59	33	20	75	0.306653314	0.986227745
CDR20291_1344	2179	1778	2992	1361	2122	1944	2653	1805	1402	1251	1191	-0.600966956	0.783860674
CDR20291_1345	15817	19109	28158	20365	18195	20509	16104	21990	19165	20071	14213	-0.055202044	0.987467975
CDR20291_1346	4641	6016	9193	6068	5333	6343	3901	5158	5330	5340	5446	-0.069831901	0.984589191
CDR20291_1347	194	257	208	243	219	168	129	121	184	194	131	-0.435880735	0.903905619
CDR20291_1348	3160	2679	6334	3138	2905	2925	2235	3333	2612	2439	1548	-0.502949779	0.6264965
CDR20291_1349	105	155	169	147	179	151	83	184	66	45	146	-0.054527185	0.995736287
CDR20291_1350	90	134	128	71	67	84	19	52	24	61	13	-0.937497249	0.867235331
CDR20291_1351	1073	1497	1879	1303	1744	1497	1479	1362	1771	1317	1439	0.16001289	0.981041358
CDR20291_1352	4	3	3	1	1	1	1	1	4	2	0	NA	NA
CDR20291_1353	1086	1018	1918	1312	1054	995	610	1026	1209	822	2098	-0.233205737	0.973419192

CDR20291_1354	13407	13971	22375	12524	13853	14241	11902	14942	11191	11361	8870	-0.382972726	0.671807282
CDR20291_1355	68	110	232	99	132	87	135	81	68	47	141	0.338161909	0.973419192
CDR20291_1355;													
CDR20291_1356	0	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_1356	7	22	53	25	2	15	0	5	5	0	0	0.167409854	0.996750742
CDR20291_1357	63	140	227	55	28	282	140	56	26	59	40	0.297910549	0.986538587
CDR20291_1358	132	173	323	192	151	232	103	178	132	40	104	-0.148726316	0.987467975
CDR20291_1359	239	327	506	265	261	353	1679	526	258	550	218	0.17632091	0.984589191
CDR20291_1360	15	16	58	43	23	41	58	58	10	27	30	0.917951506	0.903905619
CDR20291_1361	36	40	130	26	29	13	9	39	43	50	51	-0.230020041	0.987467975
CDR20291_1362	57	32	64	24	37	76	23	46	17	12	20	-1.138247983	0.776227581
CDR20291_1363	490	514	836	718	450	929	244	461	675	555	412	-0.166006955	0.984589191
CDR20291_1364	7121	11498	19819	12091	10367	11908	5793	10822	10928	9732	9839	0.246952831	0.866542396
CDR20291_1365	377	526	1142	671	361	540	358	621	696	574	793	0.332637178	0.925506853
CDR20291_1366	500	293	1020	661	531	339	473	513	307	548	248	-0.432212532	0.92014325
CDR20291_1367	0	1	0	0	2	6	3	0	0	0	0	NA	NA
CDR20291_1368	3	1	0	0	1	2	1	0	1	0	0	NA	NA
CDR20291_1369	3030	4497	7537	4390	2810	4401	1978	3440	3259	3089	3305	-0.083916801	0.986538587
CDR20291_1370	8	4	7	2	10	2	14	2	2	0	2	NA	NA
CDR20291_1371	3400	5267	8510	5531	4734	5378	4409	5865	5266	5451	3965	0.289978361	0.805528332
CDR20291_1372	11124	15965	26194	14846	14853	15881	43857	15431	14894	23545	13410	0.544274215	0.920684121
CDR20291_1373	7	7	7	4	9	11	11	5	8	11	2	NA	NA
CDR20291_1374	424	441	903	356	496	433	200	673	503	298	397	-0.281321951	0.947575252
CDR20291_1375	590	85	142	105	118	64	45	47	248	14	42	-3.106118116	0.017700306
CDR20291_1376	6319	9260	15381	9494	7936	9802	9286	12856	10753	9445	6402	0.289729144	0.911668627
CDR20291_1377	1183	1856	2765	1626	1491	2094	1554	2466	1540	2035	1093	0.261968849	0.927225356
CDR20291_1378	13	10	3	4	9	1	14	5	2	0	0	NA	NA
CDR20291_1379	388	253	419	344	237	363	180	410	405	313	464	-0.561074958	0.823496412
CDR20291_1380	178	232	318	215	267	244	293	166	85	332	95	-0.017070019	0.998533765
CDR20291_1381	202	179	237	212	276	136	134	83	174	123	108	-0.664109716	0.816981594

CDR20291_1382	1393	1680	2918	2138	1902	2280	1480	1546	1719	1577	1201	0.008142849	0.998533765
CDR20291_1383	182	387	649	356	342	540	91	302	276	179	151	0.376997392	0.947575252
CDR20291_1384	90	175	285	150	108	110	62	109	351	134	161	0.462890891	0.940556956
CDR20291_1385	5	4	7	3	7	1	6	5	2	3	2 NA		NA
CDR20291_1386	4	13	8	1	3	3	6	1	2	1	1 NA		NA
CDR20291_1387	1566	2372	3874	4091	1885	2426	1233	1541	1535	2105	1946	0.133156139	0.984662354
CDR20291_1388	133	445	509	347	280	243	270	405	258	103	342	0.867522654	0.605473525
CDR20291_1389	399	612	726	471	509	774	464	352	407	545	622	0.092095707	0.987467975
CDR20291_1390	4801	10472	17264	10731	8886	9015	8104	7833	8503	6150	6016	0.537455124	0.418048929
CDR20291_1391	775	569	374	84	492	382	83	212	83	64	40	-2.15629943	0.322251698
CDR20291_1392	428	355	127	315	276	371	580	643	255	558	779	-0.256769323	0.986227745
CDR20291_1393	0	0	3	0	2	1	2	0	0	0	0 NA		NA
CDR20291_1394	2359	3733	5002	3081	3251	3473	4163	4009	3957	3391	3301	0.310685028	0.91230868
CDR20291_1395	58	115	383	75	127	275	131	123	69	42	137	0.882168508	0.829481015
CDR20291_1396	82	123	231	144	73	164	40	36	10	63	54	-0.310011677	0.984589191
CDR20291_1397	90	179	185	126	94	182	45	152	83	170	35	0.053633451	0.996223079
CDR20291_1398	66	114	61	90	44	214	10	62	119	61	49	-0.07912766	0.995736287
CDR20291_1399	10	24	3	3	10	6	19	3	19	2	1 NA		NA
CDR20291_1400	53	73	62	28	64	31	11	14	16	24	64	-0.860205592	0.916535173
CDR20291_1400;													
CDR20291_1401	0	0	1	0	0	0	0	0	0	0	0 NA		NA
CDR20291_1401	26	54	184	35	25	35	2	40	19	20	63	0.290643162	0.987467975
CDR20291_1402	8	1	5	1	3	1	10	0	3	2	3 NA		NA
CDR20291_1403	263	315	438	273	367	257	96	234	122	200	300	-0.431318066	0.925506853
CDR20291_1404	8163	9062	14635	9788	7567	10041	46917	10093	10484	9398	8066	-0.148504172	0.951338032
CDR20291_1405	28397	47079	80629	51884	44521	47827	57168	52869	54116	57393	41408	0.548705129	0.570749837
CDR20291_1406	4731	6364	11186	6609	4972	5793	3848	7854	5583	5493	6237	0.02565425	0.995736287
CDR20291_1407	981	2019	2455	1931	1689	1764	839	1693	2370	1783	2235	0.55879144	0.713220803
CDR20291_1408	1439	2204	3514	1552	2119	2032	3143	2100	1612	1489	1792	0.222784207	0.973419192
CDR20291_1409	4183	6424	10350	6051	5190	6338	106364	5894	5794	5485	5383	0.150351554	0.9155071

CDR20291_1410	6510	8762	14235	8316	6324	9902	5102	9466	7959	9332	7206	0.009058434	0.998533765
CDR20291_1411	2699	4166	6745	4184	3354	4114	2922	4183	3735	5134	3304	0.241679317	0.916535173
CDR20291_1412	1	1	0	1	0	0	2	3	0	1	1 NA		NA
CDR20291_1413	476	534	794	549	496	644	240	807	321	259	319	-0.367339825	0.925506853
CDR20291_1414	27	19	10	37	88	20	4	7	36	22	2	-0.482296785	0.984589191
CDR20291_1415	20	22	19	4	11	4	19	10	3	1	3	-1.453293067	0.897972061
CDR20291_1416	65	93	255	55	66	52	8	53	63	203	38	-0.0367869	0.998533765
CDR20291_1417	4708	6639	11361	7003	6120	7457	6843	7666	7196	6739	5335	0.238754749	0.911388826
CDR20291_1418	790	1573	2168	1262	1484	1493	997	1034	1032	698	758	0.245550255	0.940556956
CDR20291_1419	593	864	1549	1647	964	1325	766	919	871	863	736	0.425990355	0.809293582
CDR20291_1420	10	22	19	18	27	8	30	0	12	62	0	0.70440946	0.984589191
CDR20291_1421	206	364	722	503	515	385	414	621	423	390	642	0.907327658	0.327373705
CDR20291_1422	6	2	1	1	4	1	5	0	2	0	2 NA		NA
CDR20291_1423	7	4	2	2	5	3	5	4	1	3	0 NA		NA
CDR20291_1424	9	5	4	4	9	7	23	3	4	0	3 NA		NA
CDR20291_1425	10	58	12	16	20	26	13	8	12	9	3	0.43347813	0.984589191
CDR20291_1426	578	537	967	553	658	666	422	485	749	516	388	-0.357069805	0.866542396
CDR20291_1427	3	4	4	1	3	0	0	0	2	2	0 NA		NA
CDR20291_1428	14	7	45	1	47	19	2	8	9	0	11	-0.419809059	0.987467975
CDR20291_1429	209	546	686	620	358	426	294	460	525	240	412	0.723591898	0.465816312
CDR20291_1430	149	182	324	110	190	321	94	238	112	74	129	-0.185912785	0.986227745
CDR20291_1431	1030	1477	2215	1388	1289	1472	2161	1401	1248	1275	1720	0.259661282	0.954630457
CDR20291_1432	33	35	53	40	27	19	6	40	74	47	261	0.58009304	0.984589191
CDR20291_1433	15	3	4	3	7	3	14	2	0	3	2 NA		NA
CDR20291_1434	209	337	580	266	170	263	108	294	143	103	250	-0.207010196	0.984589191
CDR20291_1435	2	2	5	1	3	3	2	3	2	3	0 NA		NA
CDR20291_1436	69	156	220	101	80	115	10	103	143	122	61	0.230450643	0.986538587
CDR20291_1437	8	1	0	3	0	1	7	0	2	0	1 NA		NA
CDR20291_1437;													
CDR20291_1438	4	0	0	0	0	0	1	0	0	0	0 NA		NA

CDR20291_1438	0	6	1	0	3	1	1	2	0	2	0	NA	NA
CDR20291_1439	2761	4120	6262	3920	3612	3722	3259	3959	8734	3447	3204	0.30478031	0.947575252
CDR20291_1440	183	195	353	193	244	234	65	139	149	145	37	-0.520139205	0.925506853
CDR20291_1441	13	5	19	0	5	6	10	29	3	3	4	NA	NA
CDR20291_1442	2	1	1	1	1	2	3	2	1	2	0	NA	NA
CDR20291_1443	283	434	594	441	368	328	86	422	226	384	144	-0.164112897	0.987442144
CDR20291_1444	1	4	0	2	1	1	5	0	1	0	1	NA	NA
CDR20291_1445	120	339	637	465	224	207	100	187	468	199	124	0.829773996	0.786525192
CDR20291_1446	343	716	1386	849	600	684	234	562	480	491	358	0.422661756	0.89698362
CDR20291_1447	1101	2129	3416	1780	1756	1709	8022	2007	1347	1676	1553	0.354097254	0.693111203
CDR20291_1448	305	805	1623	860	635	856	501	486	755	516	361	0.825735889	0.350981742
CDR20291_1449	891	1182	1575	1073	1027	1037	516	1638	792	1822	813	-0.017372593	0.998533765
CDR20291_1450	17	35	36	20	12	21	170	30	7	13	13	-0.190875752	0.987467975
CDR20291_1451	2211	2865	4677	2646	2583	2366	3324	2694	2177	2263	1691	-0.078973993	0.987467975
CDR20291_1452	0	0	0	1	1	0	2	0	0	0	1	NA	NA
CDR20291_1453	0	3	1	3	1	1	5	1	0	2	1	NA	NA
CDR20291_1454	520	581	1029	611	551	708	288	1454	739	666	820	0.130374713	0.987467975
CDR20291_1455	136	259	306	147	203	105	535	196	124	87	162	0.339430655	0.984589191
CDR20291_1456	2	4	2	1	3	4	9	3	4	1	1	NA	NA
CDR20291_1457	769	888	1428	696	660	869	554	781	713	747	539	-0.379121067	0.671364494
CDR20291_1458	45	79	135	18	51	26	4	74	67	3	46	-0.347314879	0.986659195
CDR20291_1459	1	0	2	1	0	0	0	2	2	0	1	NA	NA
CDR20291_1460	157	204	345	246	119	131	117	170	177	135	376	-0.027587761	0.998533765
CDR20291_1461	23	80	146	42	77	85	4	47	100	103	40	1.211316452	0.811529102
CDR20291_1462	1637	2535	3904	3207	2200	3201	1585	2476	2039	1870	2577	0.243349213	0.916535173
CDR20291_1463	8	37	11	59	5	4	9	7	16	1	10	0.579244396	0.984589191
CDR20291_1464	610	1062	1532	895	654	1351	371	994	676	842	2440	0.451276936	0.9374313
CDR20291_1465	1	4	3	0	3	0	2	0	0	0	0	NA	NA
CDR20291_1466	260	328	349	471	325	286	363	279	397	187	623	0.145818221	0.987467975
CDR20291_1467	714	1171	1676	1444	1352	1265	951	1396	1503	862	1062	0.451084855	0.690375957

CDR20291_1468	3454	4904	8313	4928	4442	5287	3346	4669	4766	4729	4769	0.141039919	0.9374313
CDR20291_1468;													
CDR20291_1469	1838	2640	4345	2610	2324	2771	1753	3155	2376	2160	1885	0.094431241	0.984589191
CDR20291_1470	221	282	610	350	178	348	82	260	181	199	238	-0.167578346	0.984662354
CDR20291_1471	140	225	403	125	175	274	162	127	207	90	99	-0.009189655	0.998533765
CDR20291_1472	138	215	252	172	168	237	308	198	94	79	115	0.058185461	0.995736287
CDR20291_1473	108	113	284	85	60	144	72	171	138	115	109	-0.181504052	0.984589191
CDR20291_1474	143	116	200	182	41	257	22	30	57	44	96	-0.93507672	0.894306579
CDR20291_1475	8	9	2	44	24	5	37	1	140	23	1	1.584745828	0.923806867
CDR20291_1476	2905	272	286	341	155	217	169	209	219	162	233	-4.063570846	1.68E-24
CDR20291_1477	62	142	120	25	71	33	42	59	57	46	79	-0.287792827	0.984589191
CDR20291_1478	4	1	7	1	2	1	3	0	2	0	0	NA	NA
CDR20291_1479	153	160	451	286	216	304	76	210	151	102	87	-0.061824208	0.995613239
CDR20291_1480	3	8	33	1	3	8	3	12	6	1	2	NA	NA
CDR20291_1481	436	670	1156	651	490	443	863	633	454	509	531	0.175096887	0.984589191
CDR20291_1482	5667	7638	11090	6601	7111	7089	28293	7124	6972	6485	5945	-0.058100027	0.986538587
CDR20291_1483	188	189	289	175	153	206	87	160	184	66	160	-0.595614803	0.802816336
CDR20291_1484	116	92	172	102	49	54	83	63	103	54	65	-0.888037427	0.634388929
CDR20291_1485	286	277	445	354	483	301	132	362	211	129	299	-0.340529899	0.951338032
CDR20291_1486	38	81	136	79	51	46	97	37	28	0	20	0.159916915	0.994506004
CDR20291_1487	12	4	70	27	2	5	6	1	13	6	0	-0.535199295	0.986659195
CDR20291_1488	189	192	441	229	147	226	63	215	103	136	299	-0.330298951	0.968488529
CDR20291_1489	557	209	813	207	299	234	342	353	293	343	114	-1.230106773	0.345428745
CDR20291_1490	139	203	294	228	156	104	136	198	146	222	294	0.142229708	0.987467975
CDR20291_1491	4	2	1	0	3	0	5	1	0	1	0	NA	NA
CDR20291_1492	3	2	1	0	6	2	1	1	5	0	1	NA	NA
CDR20291_1493	75	132	364	245	81	180	257	157	213	193	163	1.024624155	0.561867495
CDR20291_1494	561	891	1405	866	957	723	904	904	745	475	716	0.228303232	0.951662831
CDR20291_1495	250	96	126	115	73	102	282	98	239	43	55	-1.316188734	0.693111203
CDR20291_1496	39	23	97	34	31	19	2	49	1	0	0	-1.238303944	0.950009051

CDR20291_1497	3	3	4	2	1	1	9	3	1	1	0	NA	NA
CDR20291_1498	55	65	237	43	52	38	18	72	58	52	50	-0.221274222	0.986538587
CDR20291_1499	4	15	12	15	29	102	4	11	4	5	1	1.881204917	0.874336522
CDR20291_1500	3064	4939	9030	4752	5528	6850	15234	4824	6228	4906	4070	0.812696108	0.806474753
CDR20291_1501	8	26	19	9	16	10	14	6	22	2	1	0.242003269	0.988631632
CDR20291_1502	29	113	104	81	48	23	32	49	35	23	42	0.476153239	0.954630457
CDR20291_1503	0	2	0	0	2	0	2	0	3	2	0	NA	NA
CDR20291_1504	1060	1286	1759	1128	1206	1084	1927	1152	875	870	886	-0.147357902	0.986227745
CDR20291_1505	167	95	325	178	155	220	63	137	168	40	45	-0.709120327	0.897972061
CDR20291_1506	173	226	538	228	220	303	184	352	127	205	317	0.223431838	0.981041358
CDR20291_1507	160	207	313	200	132	154	34	208	103	198	406	-0.104857208	0.991986013
CDR20291_1508	392	775	878	625	673	716	1153	438	618	852	630	0.589674039	0.852512149
CDR20291_1509	101	63	152	17	77	70	42	91	43	20	28	-1.213771741	0.703834422
CDR20291_1510	62	70	152	275	80	109	39	124	70	112	203	0.60788924	0.925506853
CDR20291_1511	507	1082	1830	1241	1022	857	424	706	576	918	775	0.460341197	0.829481015
CDR20291_1512	165	161	267	154	103	235	17	67	64	56	60	-0.986333438	0.823349543
CDR20291_1513	429	629	1070	722	677	681	1123	596	556	465	595	0.380416628	0.925506853
CDR20291_1514	512	633	1260	880	609	675	698	817	593	784	534	0.157565966	0.973603977
CDR20291_1515	118	124	151	61	124	90	132	142	157	44	152	-0.348689321	0.973419192
CDR20291_1516	203	350	461	270	256	309	58	152	236	428	247	0.033823565	0.998533765
CDR20291_1517	211	303	749	444	203	260	181	179	285	150	119	-0.046507485	0.995736287
CDR20291_1518	1331	2138	4038	2231	1446	2134	1008	2281	2029	1784	1987	0.234312979	0.925506853
CDR20291_1519	3435	6608	12905	7091	6925	6767	6128	8079	7115	6504	7616	0.751014805	0.051897896
CDR20291_1520	167	200	514	212	325	296	243	287	197	189	349	0.360349556	0.925506853
CDR20291_1521	891	1078	1949	1097	1162	1326	563	916	966	611	1005	-0.164996758	0.973419192
CDR20291_1522	1388	2013	4200	2214	1936	1812	1578	1800	2058	1329	1675	0.145407427	0.968488529
CDR20291_1523	1743	2356	4017	2430	1938	2444	1943	2170	2058	2375	1949	0.046973841	0.987467975
CDR20291_1524	6	3	4	1	2	1	2	0	1	2	0	NA	NA
CDR20291_1525	7	4	32	6	6	4	9	1	6	4	11	NA	NA
CDR20291_1526	512	785	1608	975	637	767	793	769	560	825	771	0.327403454	0.897972061

CDR20291_1527	1680	2151	3117	1925	1576	2269	1157	3178	2096	1965	1705	-0.065076329	0.987467975
CDR20291_1528	1263	1508	2435	1143	1259	1215	935	1475	1185	1134	694	-0.380178252	0.809293582
CDR20291_1529	2	1	0	0	4	2	4	1	2	2	3	NA	NA
CDR20291_1530	506	530	1181	650	654	438	340	366	250	490	370	-0.386267925	0.91856455
CDR20291_1531	3999	6992	10698	7366	6071	6141	6046	6644	17622	6558	6041	0.638438123	0.806474753
CDR20291_1532	4576	7245	13780	7943	6893	9153	8774	7772	6696	8632	5858	0.473430277	0.687772597
CDR20291_1533	3418	4992	9923	5866	5153	5818	6529	5971	4766	5005	3489	0.363966048	0.866542396
CDR20291_1534	5402	8832	15479	10317	8773	8987	9593	8751	8639	10971	7413	0.480191222	0.627416772
CDR20291_1534;													
CDR20291_1535	38	13	36	62	32	24	48	14	26	17	69	-0.467113395	0.984076663
CDR20291_1535	24687	65404	105277	91993	59705	64441	67199	89711	92516	88852	61331	1.307390207	0.006872932
CDR20291_1536	5206	7176	11430	6996	6873	7088	5326	7821	7242	5858	5801	0.065910569	0.984589191
CDR20291_1537	3308	5658	9231	5550	4863	5379	4853	5995	4878	5234	5171	0.393333576	0.54049394
CDR20291_1538	7675	11842	19429	11632	10459	9710	7180	11925	9788	11074	11004	0.170574097	0.930043643
CDR20291_1538;													
CDR20291_1539	3	0	0	1	0	0	1	0	0	0	0	NA	NA
CDR20291_1539	1921	2590	4861	2606	2297	2326	1437	2229	2381	2430	2378	-0.007523273	0.998533765
CDR20291_1540	768	981	1534	807	584	824	358	665	548	679	698	-0.439866821	0.790951931
CDR20291_1541	1192	1587	3003	1609	1404	1656	690	1509	1248	1160	1686	-0.046454791	0.990935096
CDR20291_1542	3272	5920	6992	6880	6156	7155	4314	5449	5993	5433	5492	0.502999661	0.50474961
CDR20291_1543	69	56	20	20	57	128	17	18	62	16	13	-1.13504799	0.89059378
CDR20291_1544	66	124	179	189	71	207	66	195	86	91	211	0.715181899	0.864712546
CDR20291_1545	2	2	1	3	5	4	4	1	1	0	1	NA	NA
CDR20291_1545;													
CDR20291_1546	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1546	129	59	139	61	48	63	226	60	149	104	62	-0.702057969	0.925506853
CDR20291_1547	49	87	91	60	55	52	43	47	72	103	10	-0.048377798	0.997813116
CDR20291_1548	27	56	26	14	15	2	17	57	0	9	2	-0.865071639	0.973419192
CDR20291_1549	254	523	727	464	440	596	338	573	324	271	407	0.472452492	0.777948392
CDR20291_1550	1083	2074	3540	2144	1538	1753	956	1882	4192	1520	1174	0.523288855	0.882470322

CDR20291_1551	64	74	157	128	49	139	24	76	132	188	27	0.222493151	0.987467975
CDR20291_1552	10	11	12	1	1	14	10	9	0	0	4	NA	NA
CDR20291_1553	897	2026	3342	2614	2028	2084	1542	2904	2523	2377	2048	1.007849325	0.020440861
CDR20291_1554	1	7	0	0	0	0	2	1	0	0	4	NA	NA
CDR20291_1555	319	303	351	251	278	228	79	224	153	58	352	-0.898747845	0.776227581
CDR20291_1556	91	100	132	125	87	92	127	207	58	24	46	-0.246298704	0.986227745
CDR20291_1557	883	1127	1661	847	657	602	456	950	546	558	795	-0.544973795	0.715216802
CDR20291_1558	4	5	34	17	0	0	1	14	9	18	1	0.762951283	0.984589191
CDR20291_1559	849	780	1047	692	727	1055	856	524	636	743	562	-0.518991187	0.783860674
CDR20291_1560	204	294	598	255	292	264	80	372	320	342	474	0.280921368	0.973419192
CDR20291_1561	948	1570	2576	1726	1111	1428	1163	1168	973	1031	1174	0.13879078	0.973419192
CDR20291_1562	22	13	40	19	6	10	6	35	27	9	16	-0.733543044	0.944974025
CDR20291_1563	61	48	137	65	65	32	62	112	118	116	29	-0.020819556	0.998533765
CDR20291_1564	316	456	732	489	415	484	241	840	524	636	563	0.388640281	0.920684121
CDR20291_1565	21	16	19	15	8	13	116	33	3	7	15	-0.99017817	0.916535173
CDR20291_1566	157	762	498	796	343	685	244	927	595	1045	456	1.660855919	0.117209079
CDR20291_1567	112	195	214	185	104	96	114	153	136	173	161	0.075531871	0.988631632
CDR20291_1568	269	444	663	516	354	499	450	550	515	438	224	0.410646287	0.89059378
CDR20291_1569	161	95	169	64	141	94	16	70	109	13	217	-1.108159277	0.850318392
CDR20291_1570	867	1071	2145	1429	922	839	516	832	1435	965	964	-0.068216962	0.987467975
CDR20291_1571	8	10	21	0	5	0	12	2	4	2	11	NA	NA
CDR20291_1572	8294	13494	19800	12850	11718	12395	12122	13432	12542	12687	11463	0.301197927	0.806474753
CDR20291_1573	557	658	1376	539	459	668	321	528	440	672	392	-0.331324432	0.916535173
CDR20291_1574	166	124	257	175	59	129	122	80	146	129	40	-0.822114691	0.791114363
CDR20291_1575	3	1	0	1	1	0	5	0	0	0	7	NA	NA
CDR20291_1576	0	1	0	2	0	0	0	0	0	0	1	NA	NA
CDR20291_1577	879	1067	2597	973	1193	1044	1006	1175	1334	1581	1035	0.162406503	0.984566316
CDR20291_1578	38	134	208	60	59	107	187	178	157	38	17	1.204277621	0.802293834
CDR20291_1578;													
CDR20291_1579	1	0	0	0	0	0	1	0	0	0	0	NA	NA

CDR20291_1579	6353	8462	12781	8255	6853	7615	21302	8091	5772	6755	6569	0.234921517	0.984589191
CDR20291_1580	217	90	181	91	82	42	120	157	105	101	110	-1.375279935	0.281984264
CDR20291_1581	166	64	145	82	41	103	67	32	76	82	17	-1.653260541	0.293774487
CDR20291_1582	81	90	104	53	47	42	19	85	44	123	72	-0.643228875	0.920684121
CDR20291_1583	1655	3184	5444	3315	2864	2683	1717	2724	3025	3070	3172	0.50934616	0.479487032
CDR20291_1584	6950	16494	26923	16514	13955	16454	14125	16052	16251	15295	21362	0.943216204	0.03505837
CDR20291_1585	3266	9872	12706	9831	8604	9565	8263	9834	9015	9776	10699	1.227340636	0.000877098
CDR20291_1586	16	10	24	16	14	0	18	1	10	4	0	-1.139112454	0.954630457
CDR20291_1587	443	568	885	379	407	966	346	730	548	1322	293	0.166807151	0.987467975
CDR20291_1588	23	90	40	25	44	62	9	28	36	2	84	0.485579043	0.984589191
CDR20291_1589	3927	4539	10073	5141	5247	5120	3460	5653	4445	3920	3693	-0.039465502	0.988631632
CDR20291_1590	299	373	780	471	341	329	166	334	293	448	157	-0.14357764	0.986538587
CDR20291_1591	143	121	34	37	64	142	67	71	23	32	52	-1.495994164	0.582650965
CDR20291_1592	1740	2690	4509	2805	2819	3036	2247	3468	2590	2349	2126	0.325887289	0.749515787
CDR20291_1593	4079	4739	7221	4759	3771	4262	2464	3867	5182	3313	3787	-0.320597647	0.806474753
CDR20291_1594	3269	3854	14204	7086	6108	5179	6728	6422	6039	3703	4316	0.538065799	0.790169327
CDR20291_1595	31	3	19	22	0	0	3	11	7	0	132	-2.639977589	0.79787774
CDR20291_1596	17	7	3	2	4	2	4	10	34	2	37	-0.949620497	0.972305921
CDR20291_1597	250	73	111	233	2	44	445	112	129	22	56	-1.264782731	0.927225356
CDR20291_1598	52	5	9	37	3	20	16	77	81	18	133	-0.643397198	0.984589191
CDR20291_1599	305	306	270	330	310	201	138	334	146	243	376	-0.558205179	0.882470322
CDR20291_1600	11	17	5	6	4	15	6	7	8	3	10	NA	NA
CDR20291_1601	71	196	403	151	171	289	69	228	74	133	331	1.095699853	0.633960066
CDR20291_1602	43	217	419	258	174	210	61	459	192	204	218	2.059049264	0.029806949
CDR20291_1603	48	49	43	37	57	67	46	82	45	27	23	-0.368211392	0.973419192
CDR20291_1604	72	93	215	116	158	67	45	64	71	144	70	0.109602317	0.988631632
CDR20291_1605	59	82	197	44	87	48	310	66	12	64	47	0.393895835	0.984589191
CDR20291_1606	563	819	952	644	759	625	699	784	636	889	469	0.010402356	0.998533765
CDR20291_1607	6616	10375	14019	9203	8404	12156	8033	10343	9773	10126	7365	0.21399953	0.924401693
CDR20291_1608	2661	5052	8877	5027	3238	5684	5458	4346	5748	4111	3002	0.53057807	0.709162677

CDR20291_1609	172	288	389	193	195	84	53	481	150	106	120	-0.194330379	0.987467975
CDR20291_1610	788	1430	2842	1094	1184	1518	1788	1385	1563	1946	670	0.584148623	0.816981594
CDR20291_1611	552	1445	2212	932	1129	1101	602	894	952	753	856	0.539462874	0.569738539
CDR20291_1612	342	824	1266	649	470	815	194	536	501	494	630	0.449840646	0.896145468
CDR20291_1613	146	312	692	387	190	259	161	345	267	193	107	0.51956504	0.89059378
CDR20291_1614	147	260	171	237	266	336	478	233	228	175	179	0.512197526	0.925506853
CDR20291_1615	34	76	38	40	45	84	6	46	79	13	3	-0.080730897	0.997744536
CDR20291_1616	53	66	268	192	235	191	44	161	92	202	175	1.214943323	0.570749837
CDR20291_1617	723	769	1389	818	744	792	410	1020	560	681	484	-0.340886186	0.885492768
CDR20291_1618	426	740	1415	872	696	942	606	758	874	597	737	0.54724975	0.322251698
CDR20291_1619	2803	2898	4311	2043	3028	2946	1798	2118	1914	2433	2020	-0.536731961	0.50474961
CDR20291_1620	1677	2235	3733	2268	2007	2410	1783	2047	1883	1595	2276	0.010413951	0.998533765
CDR20291_1621	3	11	7	0	4	5	2	5	3	0	13	NA	NA
CDR20291_1622	17	35	84	15	15	34	10	16	19	8	7	-0.048282938	0.998533765
CDR20291_1623	55	239	395	111	131	213	86	156	95	199	290	1.377166793	0.322251698
CDR20291_1624	140	288	715	204	261	137	172	304	293	185	160	0.489241043	0.903083025
CDR20291_1625	387	349	651	608	400	612	306	396	420	277	308	-0.242814899	0.947575252
CDR20291_1626	359	1139	1784	1007	924	1075	519	976	1030	612	559	0.987779645	0.062853459
CDR20291_1627	1282	2047	3673	1890	2077	2029	1373	1868	1673	1463	1688	0.21050903	0.894306579
CDR20291_1628	417	623	1113	563	443	748	699	528	508	378	457	0.139757628	0.984589191
CDR20291_1629	6670	9452	11694	8477	7382	7436	10742	7499	7589	5969	5399	-0.070774552	0.987467975
CDR20291_1630	571	1060	1535	1155	698	1224	329	752	1313	753	989	0.36592147	0.925506853
CDR20291_1631	652	1101	1478	791	905	997	205	1198	968	1006	1085	0.173247085	0.984931833
CDR20291_1632	4	8	1	6	3	5	2	2	5	0	0	NA	NA
CDR20291_1633	239	317	630	410	332	428	147	294	344	359	179	0.094242573	0.987467975
CDR20291_1634	294	320	537	365	242	448	156	421	320	422	425	-0.076217463	0.988631632
CDR20291_1635	492	768	992	525	617	917	306	582	532	458	595	-0.056605046	0.988631632
CDR20291_1636	442	771	929	628	591	631	383	671	541	1373	719	0.353507665	0.946154733
CDR20291_1637	144	477	491	305	285	269	128	260	217	293	142	0.563373153	0.829481015
CDR20291_1638	382	536	522	415	277	549	206	452	408	350	633	-0.189062697	0.984589191

CDR20291_1639	346	357	467	439	357	345	152	374	359	251	196	-0.477245232	0.823349543
CDR20291_1640	137	182	449	320	280	265	216	331	360	402	226	0.772837255	0.586082286
CDR20291_1641	40	62	116	109	97	64	23	36	62	50	50	0.313881832	0.984076663
CDR20291_1642	829	1149	1158	730	928	841	795	770	794	629	558	-0.367146311	0.866542396
CDR20291_1643	262	430	985	630	517	463	224	410	271	358	529	0.44143116	0.885313437
CDR20291_1644	143	393	517	192	310	293	140	185	252	207	217	0.491013776	0.851061538
CDR20291_1645	1216	2921	4949	2862	2329	2595	1175	2000	2412	2920	2311	0.699470613	0.350981742
CDR20291_1646	743	841	1322	894	746	827	582	779	1262	973	965	-0.067658993	0.987467975
CDR20291_1647	1	0	1	3	4	0	10	1	1	0	2	NA	NA
CDR20291_1648	45	32	93	45	58	38	48	98	52	115	2	-0.004633608	0.999561437
CDR20291_1649	11	2	7	7	2	2	2	7	0	1	0	NA	NA
CDR20291_1650	205	177	383	232	198	169	171	161	174	159	370	-0.28367951	0.968488529
CDR20291_1650;													
CDR20291_1651	0	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_1651	10	2	1	5	2	4	0	0	28	2	2	NA	NA
CDR20291_1652	61	77	114	38	62	38	53	74	43	2	17	-0.684656841	0.947575252
CDR20291_1653	577	919	1064	745	698	802	861	747	741	728	627	0.097094356	0.986538587
CDR20291_1654	191	260	391	381	180	166	119	283	205	101	283	-0.107554256	0.987467975
CDR20291_1655	30	34	120	10	40	28	20	10	66	12	27	-0.215295501	0.987467975
CDR20291_1656	60	73	213	125	115	159	68	179	142	187	135	0.834750232	0.707099931
CDR20291_1657	532	716	1256	627	962	660	333	670	678	515	583	-0.021879068	0.997813116
CDR20291_1658	5786	8684	14088	8762	8381	8811	7973	9357	8313	8625	6364	0.242524381	0.89059378
CDR20291_1659	201	384	898	535	367	617	295	303	348	515	421	0.802112404	0.389494444
CDR20291_1660	280	693	1008	586	404	426	196	728	330	321	431	0.4211199	0.9155071
CDR20291_1661	85	168	93	69	72	91	437	96	66	16	24	0.184706893	0.989572915
CDR20291_1662	4	6	4	0	1	4	7	4	2	2	0	NA	NA
CDR20291_1663	162	422	682	281	151	201	436	242	139	264	303	0.544231481	0.916535173
CDR20291_1664	3122	6057	6354	4610	4140	4300	3505	5446	4265	4754	4921	0.259195778	0.9155071
CDR20291_1665	4	23	17	35	30	10	8	8	5	0	7	1.417339146	0.916535173
CDR20291_1666	413	672	615	492	476	684	383	518	574	829	291	0.060164472	0.993276739

CDR20291_1667	1487	2352	3739	2528	2212	2411	3824	2306	1817	1968	2257	0.425342844	0.897972061
CDR20291_1668	1246	1280	2324	1160	1291	1107	795	1591	1176	1113	893	-0.384029689	0.7504811
CDR20291_1669	6	6	31	21	6	4	10	26	3	0	19	0.615957659	0.984589191
CDR20291_1670	139	199	531	209	207	188	100	278	106	164	381	0.329168718	0.968488529
CDR20291_1671	3	21	22	1	4	12	4	2	9	4	0	NA	NA
CDR20291_1672	1357	2056	3761	2397	1919	2724	1834	2121	2086	1724	2926	0.408937309	0.783860674
CDR20291_1673	263	186	291	322	184	246	475	254	114	136	137	-0.492089749	0.9374313
CDR20291_1674	8	4	1	1	3	3	7	1	4	1	0	NA	NA
CDR20291_1675	7	5	3	5	4	3	7	4	1	3	0	NA	NA
CDR20291_1676	5	3	3	2	5	1	4	4	3	0	2	NA	NA
CDR20291_1677	3	4	1	1	1	1	8	5	0	2	0	NA	NA
CDR20291_1678	10	7	5	0	6	8	6	3	2	0	0	NA	NA
CDR20291_1679	3255	4854	6804	4190	4346	4382	3671	4582	4309	3055	5176	0.098936697	0.984589191
CDR20291_1680	38	88	58	9	14	55	20	41	68	12	5	-0.47921342	0.984589191
CDR20291_1681	22	60	57	43	22	17	19	9	95	25	9	0.279064888	0.987467975
CDR20291_1682	298	255	847	278	382	267	437	314	268	647	845	0.25622521	0.984589191
CDR20291_1683	0	3	0	0	0	1	0	0	1	0	0	NA	NA
CDR20291_1684	3	3	2	1	1	3	2	0	0	1	2	NA	NA
CDR20291_1685	519	815	1197	753	618	709	570	521	671	685	1498	0.267076241	0.973419192
CDR20291_1686	111	134	218	146	99	126	121	70	172	86	166	-0.112916929	0.987467975
CDR20291_1687	277	495	857	289	315	324	129	263	254	250	244	-0.178834531	0.984589191
CDR20291_1688	2	3	0	4	8	5	2	1	0	0	0	NA	NA
CDR20291_1689	0	0	1	1	0	0	1	0	0	0	0	NA	NA
CDR20291_1690	3	1	0	0	0	0	6	0	0	1	0	NA	NA
CDR20291_1691	11	6	177	24	12	28	49	49	65	14	2	1.396753975	0.897745447
CDR20291_1692	529	1376	2128	1044	1065	1438	1051	894	616	552	900	0.643548623	0.661396858
CDR20291_1693	1832	2760	5045	4984	2690	3097	3182	2652	2787	4045	2594	0.510185767	0.762473826
CDR20291_1694	1130	1440	2579	1788	1328	1615	2308	1663	1322	1299	1579	0.224827716	0.968488529
CDR20291_1695	1709	2645	4252	3269	2033	2617	1790	1973	2018	2008	1589	0.084549638	0.986227745
CDR20291_1696	9147	12794	20992	13080	12040	13629	11766	13779	13027	12444	9827	0.159099554	0.938550434

CDR20291_1697	43	35	122	41	34	130	8	78	117	35	5	0.017363129	0.998533765
CDR20291_1698	1205	1784	2797	1740	1477	1448	1662	1973	1462	1480	1105	0.100459366	0.984589191
CDR20291_1699	3258	4514	7073	4586	3881	4195	4717	4916	4195	4577	3210	0.11798063	0.984589191
CDR20291_1700	393	727	915	767	619	732	782	774	782	416	630	0.500349602	0.777989961
CDR20291_1701	25	40	71	25	78	25	21	25	71	10	31	0.258662473	0.987467975
CDR20291_1702	25	6	29	7	0	38	3	13	49	10	9	-1.041953731	0.947575252
CDR20291_1703	633	785	1139	660	716	1342	376	646	711	479	752	-0.142942344	0.984589191
CDR20291_1704	143	234	314	269	67	152	72	170	98	173	178	-0.161498748	0.987467975
CDR20291_1705	1433	2204	3330	2573	2279	2299	1494	2171	2289	1723	1839	0.2376908	0.858378676
CDR20291_1706	256	214	538	195	314	355	170	264	178	230	99	-0.440790086	0.916535173
CDR20291_1707	73	54	204	67	128	42	22	47	98	2	66	-0.494604011	0.984566316
CDR20291_1708	73	140	116	238	111	189	170	135	31	88	15	0.391987546	0.984589191
CDR20291_1709	7	1	0	4	2	1	7	4	0	0	0	NA	NA
CDR20291_1710	3	3	5	6	2	4	12	3	4	3	2	NA	NA
CDR20291_1711	4	0	1	1	5	0	1	2	4	0	0	NA	NA
CDR20291_1712	1	2	6	1	4	0	1	1	0	0	0	NA	NA
CDR20291_1713	6	5	2	3	1	1	3	2	3	0	2	NA	NA
CDR20291_1714	300	307	568	431	259	312	131	253	306	186	211	-0.460910455	0.842098999
CDR20291_1715	61	11	81	64	35	28	143	36	63	45	12	-0.531772534	0.979708105
CDR20291_1716	62	189	296	199	99	115	48	114	98	142	134	0.760582755	0.768803655
CDR20291_1717	436	823	1371	892	711	899	1405	655	688	514	729	0.638980216	0.79787774
CDR20291_1718	17304	27379	43236	27322	25864	25865	33777	32746	29573	25792	22678	0.403153519	0.816981594
CDR20291_1719	235	303	431	211	355	408	161	256	134	384	207	-0.114018487	0.987467975
CDR20291_1720	102	279	388	338	230	259	88	190	248	118	194	0.761201197	0.655684544
CDR20291_1721	2949	5160	7796	4792	4718	4721	2782	4047	4781	4331	4730	0.299413106	0.806619018
CDR20291_1722	5061	7179	11965	7805	7354	7604	5888	8985	6486	7894	6978	0.242898306	0.89059378
CDR20291_1723	1490	2439	3631	2366	1973	2429	1418	1839	1592	1316	2244	0.100887942	0.984589191
CDR20291_1724	606	706	1178	566	536	835	247	734	990	981	861	-0.057635708	0.994553213
CDR20291_1725	157	285	323	114	139	171	80	107	151	85	160	-0.401744492	0.927225356
CDR20291_1726	93	148	211	74	116	164	31	121	115	34	116	-0.164769593	0.987467975

CDR20291_1727	194	183	282	282	147	175	105	174	133	45	222	-0.56557727	0.903905619
CDR20291_1728	26	16	27	6	16	11	38	41	32	7	75	-0.228476932	0.987467975
CDR20291_1729	22	10	25	6	7	3	3	12	9	0	15	-1.768009551	0.819809986
CDR20291_1730	10	11	4	25	8	6	8	9	10	2	2	NA	NA
CDR20291_1731	53	20	33	19	16	16	14	14	17	6	21	-2.003396449	0.165972375
CDR20291_1732	33	18	58	57	14	51	36	96	11	41	173	0.433162907	0.984589191
CDR20291_1733	7	2	17	4	3	3	39	3	2	2	5	NA	NA
CDR20291_1734	243	315	493	714	223	218	108	179	249	185	247	-0.170868306	0.987467975
CDR20291_1735	613	1093	1509	943	762	1115	343	884	759	536	923	0.105199006	0.987467975
CDR20291_1736	2486	3333	5214	3172	2299	2966	1240	2061	2534	1790	2624	-0.305841312	0.911388826
CDR20291_1737	144	225	200	236	160	215	69	113	231	280	268	0.116221548	0.987467975
CDR20291_1737;													
CDR20291_1738	90	149	177	103	73	112	11	976	63	46	78	-0.463031824	0.954630457
CDR20291_1738	34	69	94	66	57	85	7	55	70	59	25	0.35080685	0.984589191
CDR20291_1739	12692	17755	28976	18071	16875	18298	48976	19164	18186	17814	13938	0.478665955	0.925506853
CDR20291_1739;													
CDR20291_1740	5	1	1	0	4	0	2	1	0	0	0	NA	NA
CDR20291_1739;													
CDR20291_1741	0	2	0	0	0	0	1	0	0	0	1	NA	NA
CDR20291_1739;													
CDR20291_1742	6	10	5	2	3	4	4	3	1	0	1	NA	NA
CDR20291_1739;													
CDR20291_1743	484	1044	1173	664	610	484	434	680	336	602	825	0.096946072	0.987467975
CDR20291_1739;													
CDR20291_1743;													
CDR20291_1744	3	9	2	2	9	2	3	1	4	0	1	NA	NA
CDR20291_1739;													
CDR20291_1743;													
CDR20291_1745	1	0	1	2	1	1	0	1	0	1	2	NA	NA

CDR20291_1739; CDR20291_1743; CDR20291_1746	1	1	1	0	1	2	0	0	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1747	0	0	1	2	1	0	1	0	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1748	438	323	192	172	130	272	112	140	134	192	176	-1.623890338	0.041583564	
CDR20291_1739; CDR20291_1743; CDR20291_1749	162	336	243	132	185	196	152	415	199	152	179	0.061879586	0.995604279	
CDR20291_1739; CDR20291_1743; CDR20291_1750	3	1	1	3	0	2	1	4	1	0	1	NA	NA	
CDR20291_1739; CDR20291_1743; CDR20291_1751	2	1	1	5	7	2	2	1	0	1	4	NA	NA	
CDR20291_1739; CDR20291_1743; CDR20291_1752	30	99	169	52	77	32	106	40	62	21	29	0.768560252	0.91856455	
CDR20291_1739; CDR20291_1743; CDR20291_1753	0	6	2	1	3	1	6	3	2	1	0	NA	NA	
CDR20291_1739; CDR20291_1743; CDR20291_1754	18	33	8	13	16	164	7	2	2	0	1	-1.386286796	0.925506853	
CDR20291_1739; CDR20291_1743; CDR20291_1755	0	0	2	0	1	0	3	0	0	0	0	NA	NA	

CDR20291_1739; CDR20291_1743; CDR20291_1756	0	0	2	0	1	1	3	1	0	2	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1757	2	2	0	0	0	0	0	1	1	1	2	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1758	4	1	1	2	3	2	10	2	3	3	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1759	28	9	22	11	26	57	0	12	3	23	5	-1.165365902	0.927225356
CDR20291_1739; CDR20291_1743; CDR20291_1760	0	0	0	0	0	0	3	1	0	0	1	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1761	56	18	53	9	9	26	1	53	23	25	4	-1.828306664	0.724250642
CDR20291_1739; CDR20291_1743; CDR20291_1762	3	0	1	2	0	0	4	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1763	7	5	1	0	0	1	0	0	1	1	1	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1764	48	28	99	67	59	23	17	89	30	29	106	-0.215480289	0.987467975
CDR20291_1739; CDR20291_1765	35	53	190	137	83	146	61	116	128	474	571	2.200702578	0.386691245

CDR20291_1739; CDR20291_1766	1	3	3	0	2	0	1	2	4	0	0	NA	NA
CDR20291_1739; CDR20291_1767	2	0	0	1	2	2	2	1	1	0	1	NA	NA
CDR20291_1739; CDR20291_1768	1	2	4	0	3	3	2	0	4	4	0	NA	NA
CDR20291_1739; CDR20291_1769	1	2	1	0	0	0	1	1	0	1	0	NA	NA
CDR20291_1739; CDR20291_1770	2	2	4	3	8	2	4	1	1	4	2	NA	NA
CDR20291_1739; CDR20291_1771	766	1410	1886	1251	1233	1261	575	1074	940	1112	1319	0.253837248	0.925506853
CDR20291_1739; CDR20291_1772	2240	2885	5383	2493	2794	2977	1645	2753	2541	2419	2073	-0.104611617	0.984216288
CDR20291_1739; CDR20291_1773	0	1	2	0	0	0	1	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1774	3360	4633	7536	5510	4976	5399	4095	4665	7203	4606	4688	0.291175748	0.897972061
CDR20291_1739; CDR20291_1775	620	618	1192	728	702	926	1251	602	778	852	683	0.088106119	0.987467975
CDR20291_1739; CDR20291_1776	0	2	1	1	2	2	0	0	4	0	0	NA	NA
CDR20291_1739; CDR20291_1777	93	168	385	221	174	250	235	285	165	120	104	0.773024351	0.686142729
CDR20291_1739; CDR20291_1778	1	0	0	1	0	0	2	1	1	0	0	NA	NA
CDR20291_1739; CDR20291_1779	899	1376	2095	1155	1330	1511	1205	1261	1588	1048	848	0.1900453	0.954630457
CDR20291_1739; CDR20291_1780	8	1	6	1	7	6	0	13	3	0	2	NA	NA

CDR20291_1739; CDR20291_1781	0	0	0	0	0	1	1	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1782	0	0	0	1	1	0	1	1	0	0	0	NA	NA
CDR20291_1739; CDR20291_1783	2	0	0	0	2	1	0	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1784	6	4	9	4	4	1	5	3	5	1	1	NA	NA
CDR20291_1739; CDR20291_1785	2	1	0	0	2	1	2	2	0	3	1	NA	NA
CDR20291_1739; CDR20291_1785; CDR20291_1786	0	0	0	0	0	0	2	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1786	3	8	4	1	2	2	3	3	2	0	1	NA	NA
CDR20291_1739; CDR20291_1787	2	1	7	1	0	0	1	1	3	0	0	NA	NA
CDR20291_1739; CDR20291_1788	752	876	1227	1071	1086	1069	1211	1729	1056	1018	1215	0.285086316	0.947575252
CDR20291_1739; CDR20291_1789	55	64	98	63	43	5	2	8	24	0	27	-1.272848251	0.925506853
CDR20291_1739; CDR20291_1790	358	279	424	459	327	722	205	352	333	376	260	-0.32192194	0.947575252
CDR20291_1739; CDR20291_1791	10	12	6	4	4	1	11	2	2	7	2	NA	NA
CDR20291_1739; CDR20291_1792	315	525	664	331	356	480	197	336	293	495	344	-0.054512737	0.991986013
CDR20291_1739; CDR20291_1793	7	8	21	14	8	60	6	12	4	6	17	0.728186932	0.973419192

CDR20291_1739; CDR20291_1794	1495	1716	3539	1645	1817	1646	762	1420	2437	1132	1472	-0.201296067	0.973419192
CDR20291_1739; CDR20291_1795	523	317	625	277	260	467	273	286	270	261	297	-1.061513731	0.0425736
CDR20291_1739; CDR20291_1796	155	177	251	185	153	86	95	121	98	108	111	-0.579154324	0.791114363
CDR20291_1739; CDR20291_1797	9361	16196	26414	16786	14502	16914	12088	15751	13776	15004	13949	0.390213612	0.270826767
CDR20291_1739; CDR20291_1798	9296	14729	23870	15407	13760	15897	9423	15407	13264	13086	10955	0.244841771	0.776660068
CDR20291_1739; CDR20291_1799	3140	4661	6746	5576	4450	4965	5913	5475	5042	4219	4128	0.348689135	0.877926426
CDR20291_1739; CDR20291_1800	236	407	491	320	210	286	258	430	1427	177	207	-0.026104992	0.997813116
CDR20291_1739; CDR20291_1801	3	3	2	4	4	4	7	2	3	0	0	NA	NA
CDR20291_1739; CDR20291_1802	30	60	97	68	43	14	107	18	30	90	72	0.677026531	0.947575252
CDR20291_1739; CDR20291_1803	22	66	96	63	45	92	137	81	86	67	21	1.44317361	0.562149318
CDR20291_1739; CDR20291_1804	101	168	299	76	86	111	70	160	141	113	79	-0.084688668	0.988631632
CDR20291_1739; CDR20291_1805	67	49	30	81	34	55	36	72	26	118	31	-0.654799344	0.928593851
CDR20291_1739; CDR20291_1806	1959	2866	5988	3080	2765	3033	2027	2867	2967	3141	3119	0.291931141	0.829481015
CDR20291_1739; CDR20291_1807	118	221	307	128	195	315	54	126	90	108	110	0.034988922	0.998533765
CDR20291_1739; CDR20291_1808	4	2	10	9	27	11	6	0	5	2	13	NA	NA

CDR20291_1739;														
CDR20291_1809	9494	13869	21357	14201	12867	13157	13290	14082	11821	12886	9830	0.151781069	0.954630457	
CDR20291_1810	3	0	1	0	1	2	1	0	1	1	1	NA	NA	
CDR20291_1811	6	21	28	31	25	60	21	42	61	10	4	1.955254174	0.634028727	
CDR20291_1812	429	672	1003	629	514	942	274	414	506	367	436	-0.009623558	0.998533765	
CDR20291_1813	246	323	637	314	346	413	172	270	193	479	133	-0.012620861	0.998533765	
CDR20291_1814	435	665	1273	520	631	497	328	674	477	510	712	0.107233822	0.986538587	
CDR20291_1815	197	316	401	218	221	280	79	295	162	113	507	-0.004543437	0.999561437	
CDR20291_1816	641	1103	1411	1223	964	1178	422	1152	882	643	955	0.225014472	0.952802675	
CDR20291_1817	745	887	1626	893	901	1136	858	1086	876	911	501	-0.020755748	0.997813116	
CDR20291_1818	226	298	400	234	316	410	403	320	394	233	205	0.157646864	0.986227745	
CDR20291_1819	53	98	34	22	48	107	59	19	31	99	20	-0.302440339	0.986538587	
CDR20291_1820	26	39	34	16	64	16	19	20	4	0	0	-0.715388842	0.984589191	
CDR20291_1821	15	7	6	2	1	2	5	16	1	1	0	NA	NA	
CDR20291_1822	34	78	174	48	29	51	49	60	61	135	248	1.096557866	0.848160036	
CDR20291_1823	771	939	1676	779	772	860	473	707	983	1152	887	-0.145600076	0.984589191	
CDR20291_1824	3	0	0	0	4	0	6	0	1	1	1	NA	NA	
CDR20291_1824;														
CDR20291_1825	0	0	0	0	0	0	2	0	0	0	0	NA	NA	
CDR20291_1825	600	648	1526	676	770	963	689	706	663	573	579	-0.036436939	0.994553213	
CDR20291_1825;														
CDR20291_1826	93	211	361	523	179	176	67	149	162	248	220	0.881650034	0.773415049	
CDR20291_1825;														
CDR20291_1827	41	119	187	153	399	228	8	94	102	24	343	1.639010318	0.733440886	
CDR20291_1825;														
CDR20291_1828	74	135	186	355	98	147	54	62	58	95	16	0.248456779	0.987467975	
CDR20291_1825;														
CDR20291_1829	62	73	58	121	32	45	19	20	14	38	46	-0.829024347	0.9155071	
CDR20291_1825;														
CDR20291_1830	210	467	1078	670	437	623	332	375	392	276	374	0.808570004	0.351807234	

CDR20291_1825; CDR20291_1831	812	872	1633	744	919	1018	784	855	1117	1298	758	-0.079773885	0.987467975
CDR20291_1825; CDR20291_1832	4271	4837	8772	6569	3729	5220	2810	4784	3985	4218	4879	-0.19534715	0.936953799
CDR20291_1825; CDR20291_1833	71	33	190	37	46	37	51	55	25	102	32	-0.691669931	0.925506853
CDR20291_1825; CDR20291_1834	30	5	3	7	6	12	5	10	15	10	1	-2.348194567	0.545229672
CDR20291_1825; CDR20291_1835	348	236	475	165	139	137	118	353	108	420	258	-0.934604272	0.749515787
CDR20291_1825; CDR20291_1836	2	1	1	1	1	1	3	1	0	1	1	NA	NA
CDR20291_1825; CDR20291_1837	33	45	79	96	36	95	14	45	7	25	42	0.098659639	0.995736287
CDR20291_1825; CDR20291_1838	1158	895	1012	989	591	781	227	1113	742	540	762	-1.00387178	0.350981742
CDR20291_1825; CDR20291_1839	0	0	0	1	0	2	0	4	0	0	0	NA	NA
CDR20291_1825; CDR20291_1840	320	270	181	388	252	286	113	277	363	366	283	-0.54235199	0.903905619
CDR20291_1825; CDR20291_1841	99	160	254	124	99	79	242	271	153	155	185	0.457288586	0.940556956
CDR20291_1825; CDR20291_1842	12	2	3	4	4	3	1	3	7	0	13	NA	NA
CDR20291_1825; CDR20291_1843	0	0	0	0	1	1	1	0	0	0	0	NA	NA
CDR20291_1825; CDR20291_1844	1	0	2	0	0	0	1	5	0	1	0	NA	NA
CDR20291_1825; CDR20291_1845	292	181	597	365	255	166	221	230	465	223	142	-0.460922588	0.923806867

CDR20291_1825;														
CDR20291_1846	66	2	6	0	1	1	1	1	1	0	0	NA	NA	
CDR20291_1825;														
CDR20291_1847	1097	932	1378	1389	876	925	790	1083	958	1181	1409	-0.365431898	0.901178563	
CDR20291_1825;														
CDR20291_1848	130	169	192	130	228	269	39	278	140	32	108	-0.130221772	0.988631632	
CDR20291_1825;														
CDR20291_1849	132	233	530	288	347	256	281	140	196	267	260	0.692040507	0.725318306	
CDR20291_1825;														
CDR20291_1850	40	328	994	85	75	1469	62	483	109	161	364	2.851414902	0.369076262	
CDR20291_1851	29	17	33	2	14	32	3	42	8	17	2	-1.232234883	0.916535173	
CDR20291_1852	1	5	1	2	3	1	0	0	0	1	0	NA	NA	
CDR20291_1853	469	477	840	425	453	422	268	491	549	389	426	-0.393847566	0.777989961	
CDR20291_1854	0	3	3	1	4	0	6	3	2	1	1	NA	NA	
CDR20291_1855	783	846	1455	878	795	1248	595	1279	729	1097	859	-0.068385661	0.987467975	
CDR20291_1856	774	1127	1581	1073	905	1240	700	1008	1628	455	578	0.003346273	0.999561437	
CDR20291_1857	516	604	1119	752	482	706	842	582	474	674	434	-0.007634723	0.998533765	
CDR20291_1858	309	426	824	346	518	307	161	419	302	294	268	-0.124189219	0.986538587	
CDR20291_1859	7	1	3	3	3	1	4	0	3	3	1	NA	NA	
CDR20291_1860	3	3	3	2	3	2	7	0	3	0	0	NA	NA	
CDR20291_1861	1	5	3	3	2	7	9	1	2	1	1	NA	NA	
CDR20291_1862	1	1	0	0	5	0	4	1	0	0	0	NA	NA	
CDR20291_1863	77	120	161	172	50	48	57	66	63	59	158	-0.096495432	0.9928373	
CDR20291_1864	4	3	4	0	0	1	16	3	2	0	0	NA	NA	
CDR20291_1865	145	205	336	117	116	113	52	75	198	211	58	-0.422104163	0.954630457	
CDR20291_1866	0	0	0	2	0	1	2	0	0	1	0	NA	NA	
CDR20291_1867	10	53	159	15	18	16	172	26	76	34	20	2.202082932	0.585607737	
CDR20291_1868	1	1	12	23	4	19	4	1	0	0	2	NA	NA	
CDR20291_1869	104	126	270	107	97	155	43	85	141	109	174	-0.102706176	0.987467975	
CDR20291_1870	41	5	18	4	11	45	9	5	4	7	6	-2.266583221	0.570544637	

CDR20291_1871	522	576	1141	665	609	850	694	725	476	599	514	0.003149237	0.999561437
CDR20291_1872	22	29	15	128	33	51	10	32	18	59	13	0.448297175	0.984589191
CDR20291_1873	2039	2320	3493	2419	2215	2243	2187	2644	3295	1950	1501	-0.126337639	0.984589191
CDR20291_1874	163	209	205	176	245	120	186	182	330	212	68	-0.097210939	0.989572915
CDR20291_1875	191	258	495	282	201	284	138	302	156	280	366	0.124322014	0.987467975
CDR20291_1876	17526	22259	30714	23621	20825	23270	25715	23712	24493	20680	20271	0.071948883	0.987467975
CDR20291_1877	303	480	758	590	377	329	160	402	373	367	182	-0.037649273	0.995736287
CDR20291_1878	0	2	3	1	4	1	5	1	0	1	2	NA	NA
CDR20291_1879	161	140	288	153	100	152	21	221	68	115	164	-0.632356661	0.916535173
CDR20291_1880	14	29	51	17	13	21	50	18	12	32	21	0.558101981	0.968488529
CDR20291_1881	238	584	1139	593	686	1012	532	1631	441	370	535	1.256180917	0.308193897
CDR20291_1882	125	274	495	203	189	298	180	200	303	208	219	0.622473659	0.59881605
CDR20291_1882;													
CDR20291_1883	0	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_1883	53	114	166	87	79	136	45	47	56	99	37	0.268490522	0.984589191
CDR20291_1884	36	30	90	40	8	32	12	26	27	3	10	-0.93106952	0.920684121
CDR20291_1885	74	147	180	80	117	144	49	148	1639	52	124	0.223463194	0.984589191
CDR20291_1886	108	113	177	145	106	111	33	88	60	71	66	-0.599476714	0.866542396
CDR20291_1887	185	318	273	180	363	295	89	227	301	260	291	0.124678981	0.987467975
CDR20291_1888	6	2	2	4	4	8	4	3	3	3	17	NA	NA
CDR20291_1889	3	6	3	2	7	2	9	2	2	2	0	NA	NA
CDR20291_1890	35	8	66	77	5	128	8	32	48	84	4	-0.035244035	0.998533765
CDR20291_1891	82	141	187	58	149	104	81	92	97	74	37	-0.101159798	0.988631632
CDR20291_1892	7259	11609	18668	12316	11756	11671	9107	11224	9617	9856	10145	0.283315777	0.660833846
CDR20291_1893	2095	3989	5716	3334	2838	3448	2220	3450	2311	2912	3302	0.271730794	0.866542396
CDR20291_1894	49	18	72	66	37	22	7	28	28	32	63	-0.815458167	0.916535173
CDR20291_1895	7571	8324	14018	8591	8316	9813	5645	10347	8460	8894	8471	-0.127338949	0.973419192
CDR20291_1896	12	2	3	2	3	1	5	2	1	0	1	NA	NA
CDR20291_1897	172	112	112	75	32	90	11	55	26	90	37	-1.875128252	0.288096786
CDR20291_1898	95	140	181	124	128	328	75	90	113	96	24	0.028445121	0.998533765

CDR20291_1899	331	345	322	211	178	342	235	222	223	158	120	-0.879127726	0.479487032
CDR20291_1900	2774	2512	4437	2414	2268	2434	1875	2170	1904	2084	1962	-0.615166612	0.042762685
CDR20291_1901	6007	6808	11033	6271	6805	6723	5626	6424	6865	4731	6255	-0.221536744	0.901564993
CDR20291_1901;													
CDR20291_1902	1	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_1902	3062	4076	6432	4106	4304	4604	3562	4006	3845	3726	1768	0.005971991	0.998533765
CDR20291_1903	7161	8649	15879	9362	9378	8497	15360	9706	9962	10352	6740	0.189110514	0.984589191
CDR20291_1903;													
CDR20291_1904	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1904	447	380	562	429	477	397	250	556	386	615	158	-0.466145421	0.9155071
CDR20291_1905	516	371	517	91	323	294	443	190	158	171	148	-1.309366757	0.477383295
CDR20291_1906	1751	2949	4440	3097	2836	3221	6811	2992	2750	2732	2567	0.660777056	0.829481015
CDR20291_1907	10	10	23	46	16	29	2	7	35	9	47	0.788033821	0.954974392
CDR20291_1908	709	1026	1633	835	977	1025	508	990	921	646	989	0.019312903	0.997813116
CDR20291_1909	1217	1565	3061	1842	1897	1882	951	1861	1660	2727	1324	0.22985029	0.954630457
CDR20291_1910	351	319	580	367	286	217	547	229	661	216	293	-0.2680888	0.984589191
CDR20291_1911	3	8	4	0	4	4	7	7	3	2	2	NA	NA
CDR20291_1912	7	2	21	0	7	0	2	0	1	18	1	NA	NA
CDR20291_1913	2	0	1	0	0	0	1	2	0	0	0	NA	NA
CDR20291_1914	131	229	393	228	207	248	323	116	221	129	137	0.386883934	0.941849122
CDR20291_1915	100	73	163	91	86	34	153	111	47	77	30	-0.577130794	0.936953799
CDR20291_1916	186	271	409	183	199	260	71	103	165	202	225	-0.267545453	0.973419192
CDR20291_1917	21	94	212	15	94	47	44	29	18	2	9	0.853802752	0.951338032
CDR20291_1918	473	647	1253	817	550	1068	2025	1126	793	1489	599	0.832771774	0.809797455
CDR20291_1919	203	319	394	373	259	603	133	302	200	266	498	0.338449683	0.954630457
CDR20291_1919;													
CDR20291_1920	0	0	0	0	2	0	0	0	0	0	0	NA	NA
CDR20291_1920	11	8	45	29	17	69	30	2	24	8	3	0.665793568	0.981041358
CDR20291_1921	55	18	60	41	41	57	12	8	18	53	13	-1.203738205	0.82203607
CDR20291_1922	137	229	442	108	247	194	103	224	108	76	284	0.118442636	0.987467975

CDR20291_1923	14	16	21	1	6	4	5	6	7	20	2	-1.102037356	0.927225356
CDR20291_1924	18	81	46	19	5	33	37	15	106	75	8	0.8932815	0.940556956
CDR20291_1925	8	2	47	37	14	58	70	6	9	5	145	2.026690299	0.813560767
CDR20291_1926	37	14	28	14	27	6	7	37	13	26	0	-1.509985043	0.852512149
CDR20291_1927	17	40	44	21	41	87	37	7	7	61	12	0.706644179	0.954630457
CDR20291_1928	532	676	627	588	623	513	1990	419	553	540	264	-0.400590918	0.897972061
CDR20291_1929	1	2	1	0	1	1	8	0	0	0	0	NA	NA
CDR20291_1930	3	0	1	0	1	3	3	5	0	0	1	NA	NA
CDR20291_1931	178	245	467	303	312	488	58	207	187	305	281	0.258030101	0.984589191
CDR20291_1932	934	747	1475	755	1096	849	527	997	638	476	731	-0.584775178	0.624334455
CDR20291_1933	1097	1330	1896	1183	994	1096	591	820	1006	886	1423	-0.37186837	0.872092778
CDR20291_1934	25	4	62	9	30	10	1	13	5	24	9	-1.121672325	0.925506853
CDR20291_1935	362	364	719	271	269	467	109	272	194	228	256	-0.672063063	0.7504811
CDR20291_1936	47	82	143	61	84	102	119	60	87	82	16	0.453690442	0.954974392
CDR20291_1937	990	1321	2243	1130	1170	1233	794	2032	1054	1489	762	0.010676593	0.998533765
CDR20291_1938	33083	47371	74208	45690	39022	42485	22811	38395	36027	33405	39833	-0.075752376	0.984589191
CDR20291_1939	293	347	776	337	344	286	142	332	150	253	187	-0.370141092	0.925506853
CDR20291_1940	48	29	33	30	19	12	28	19	34	4	10	-1.525092922	0.655684544
CDR20291_1941	309	353	553	207	266	244	217	251	255	123	444	-0.489431829	0.903905619
CDR20291_1942	576	807	968	732	632	731	360	654	736	529	974	-0.075867724	0.987467975
CDR20291_1943	45	48	37	70	78	20	20	60	41	38	31	-0.383979914	0.980254488
CDR20291_1944	129	223	96	207	191	200	547	128	268	86	49	0.380623253	0.984589191
CDR20291_1945	1	4	1	4	3	5	8	3	4	4	0	NA	NA
CDR20291_1946	15	5	3	16	43	7	9	15	3	52	0	-0.233376753	0.993276739
CDR20291_1947	4	5	10	2	5	0	6	2	3	1	0	NA	NA
CDR20291_1948	149	185	648	248	273	177	186	149	247	458	143	0.438020305	0.935397478
CDR20291_1949	31	12	37	46	11	8	3	30	3	12	1	-1.436187085	0.894226527
CDR20291_1950	387	549	629	715	708	852	495	519	653	351	508	0.264561745	0.951338032
CDR20291_1951	6	8	0	4	1	4	5	1	0	0	0	NA	NA
CDR20291_1952	1957	2023	3467	1589	1965	2275	1733	1987	1830	2122	1718	-0.306781614	0.848160036

CDR20291_1953	14	7	2	3	6	0	4	3	8	1	1	NA	NA
CDR20291_1954	183	542	783	483	502	526	1018	444	483	516	437	1.322063942	0.206777834
CDR20291_1955	16	4	9	4	4	1	7	4	5	3	0	NA	NA
CDR20291_1956	544	789	1101	1012	591	915	440	961	776	378	828	0.117455389	0.986538587
CDR20291_1957	665	670	1042	744	468	801	282	661	826	577	611	-0.401597091	0.866542396
CDR20291_1958	171	274	478	335	422	341	209	178	167	221	499	0.49110374	0.916535173
CDR20291_1959	2050	2730	4583	3156	2779	2515	2425	3238	3041	2622	2967	0.172800285	0.947575252
CDR20291_1960	677	1738	2816	1731	1697	1713	803	1610	1787	1222	1637	0.89560756	0.052471304
CDR20291_1961	737	1531	3273	1789	1169	1599	1736	2214	1993	1566	1916	0.962954925	0.116149074
CDR20291_1962	403	999	1536	863	948	1781	310	989	934	709	1244	0.945730411	0.479487032
CDR20291_1963	13289	24534	39283	26227	23780	22726	21395	25032	21901	21902	17985	0.491962423	0.28365686
CDR20291_1964	1742	5000	9672	5687	5090	5452	7850	5313	5780	4461	5039	1.403648895	0.009786165
CDR20291_1965	1866	2118	4431	3601	2035	2802	1660	2615	1892	1849	2167	0.013910678	0.998533765
CDR20291_1966	11	3	8	6	3	6	7	7	0	3	3	NA	NA
CDR20291_1967	1370	2572	4074	2456	2033	2255	3160	2261	2444	1808	2255	0.516245814	0.727107416
CDR20291_1968	681	1084	2420	1014	1095	988	874	1375	966	910	1072	0.372563122	0.794293046
CDR20291_1969	3758	5624	9347	5835	5109	5783	6089	5907	6136	5333	4139	0.279419035	0.897972061
CDR20291_1970	4164	4578	8153	5065	4387	5176	4961	5290	5057	5148	5122	-0.02609951	0.995736287
CDR20291_1971	22	76	191	63	124	53	22	134	48	92	120	1.642900139	0.387397181
CDR20291_1972	1006	3301	5203	3426	2899	2981	2192	3687	3194	2990	4376	1.385476803	0.000781028
CDR20291_1973	545	981	1799	884	943	1220	565	845	573	629	539	0.27856269	0.925506853
CDR20291_1974	150	230	424	243	278	260	64	187	258	311	244	0.326852577	0.954630457
CDR20291_1975	112	178	238	179	237	151	74	261	132	102	53	0.101527395	0.988631632
CDR20291_1976	5667	9643	16229	9676	6892	9262	10961	8950	8445	7845	9750	0.408266955	0.809293582
CDR20291_1977	5007	6690	13858	6340	4780	6481	10472	8278	9564	4899	5308	0.236758217	0.973419192
CDR20291_1978	3254	3770	5756	3776	3503	3993	2283	3899	3264	2972	2852	-0.254993245	0.776227581
CDR20291_1979	13361	16576	26204	18445	14915	16602	18310	16814	18317	16153	14216	0.032483889	0.994553213
CDR20291_1980	91	146	311	171	237	134	116	169	166	204	84	0.529945751	0.874336522
CDR20291_1981	127	207	232	122	140	411	16	82	276	97	74	-0.055730451	0.997813116
CDR20291_1982	157	305	298	258	255	120	203	184	172	165	139	0.0387058	0.995736287

CDR20291_1983	3939	6377	9656	7269	5351	7050	5225	6420	6342	5904	5395	0.337405591	0.615526956
CDR20291_1984	412	616	745	462	439	375	558	512	512	518	407	-0.043712979	0.994553213
CDR20291_1985	209	238	369	196	254	290	202	221	256	68	68	-0.366821207	0.954974392
CDR20291_1986	485	395	711	287	556	590	446	274	235	332	302	-0.620371445	0.806474753
CDR20291_1986;													
CDR20291_1987	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_1987	488	501	610	493	602	563	503	396	339	397	295	-0.420634243	0.882470322
CDR20291_1988	1	2	2	0	2	0	2	1	1	0	0	NA	NA
CDR20291_1989	123	30	180	194	103	27	51	88	185	98	194	-0.470043389	0.973419192
CDR20291_1989;													
CDR20291_1990	2	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1990	353	401	743	507	414	561	91	320	607	261	650	-0.047240217	0.996223079
CDR20291_1991	451	578	1074	745	678	707	352	575	684	380	492	0.056679835	0.987467975
CDR20291_1992	231	327	535	326	183	675	48	295	322	159	110	-0.10613858	0.991567211
CDR20291_1993	15	14	50	24	21	51	9	45	1	5	62	0.492325718	0.984589191
CDR20291_1994	80	141	233	245	179	234	206	177	146	251	108	0.909018351	0.565398385
CDR20291_1995	20	30	2	16	41	124	0	13	10	7	3	-0.102640805	0.998533765
CDR20291_1996	230	199	135	281	196	240	82	137	176	146	167	-0.750563267	0.75426954
CDR20291_1997	7	9	16	13	24	15	35	4	11	17	4	0.792778783	0.954974392
CDR20291_1998	151	225	295	227	254	314	143	237	182	274	138	0.218424175	0.973419192
CDR20291_1999	3614	6183	10884	7002	5397	6186	3832	6263	5637	6068	5512	0.393221406	0.462226208
CDR20291_2000	654	668	1229	678	361	573	3012	462	533	384	459	-0.620642803	0.479487032
CDR20291_2001	271	513	930	560	497	477	572	355	473	374	724	0.638688161	0.693111203
CDR20291_2002	27	80	107	240	40	66	31	30	14	90	74	1.094863152	0.867235331
CDR20291_2003	739	825	1809	1231	1009	1244	834	1258	1560	799	780	0.222329475	0.951662831
CDR20291_2004	22	21	13	14	12	32	8	23	13	58	18	-0.372396705	0.984662354
CDR20291_2005	1491	5294	8310	10642	5912	6945	16615	10745	19646	9249	14816	2.583174661	0.007751668
CDR20291_2006	5220	7048	11400	8143	5700	7764	15877	11796	9325	7157	7042	0.485368044	0.9155071
CDR20291_2007	1059	1286	3042	1536	1114	1929	1198	1892	1709	1909	1336	0.276392439	0.925506853
CDR20291_2008	1085	1870	2204	1353	1324	1977	1736	1815	1767	1242	1293	0.245519505	0.935397478

CDR20291_2009	6513	9905	14898	10112	8807	9176	7611	8445	9018	9694	7319	0.156903687	0.933279548
CDR20291_2010	15144	21725	35719	23354	19829	22094	22239	25620	26623	24282	20424	0.305455445	0.866542396
CDR20291_2011	348	601	805	520	373	818	368	562	432	360	506	0.217477638	0.954630457
CDR20291_2012	36	65	83	160	10	38	11	24	31	38	67	0.10505191	0.995736287
CDR20291_2013	543	693	1415	902	707	859	445	1097	637	731	1083	0.258680277	0.947575252
CDR20291_2014	2243	1833	4143	2614	2372	1496	1785	2211	1964	2058	1276	-0.454358272	0.782226988
CDR20291_2015	1480	2766	4175	2561	2243	2484	1791	2588	2601	1821	2413	0.381903165	0.533605496
CDR20291_2016	281	479	919	484	374	525	141	563	325	213	422	0.20229258	0.984589191
CDR20291_2017	4873	8564	12987	8337	7652	8600	6464	7699	7607	9313	6535	0.395899505	0.586329251
CDR20291_2018	653	1094	1431	991	1066	1129	1241	730	700	825	903	0.270848249	0.946921519
CDR20291_2019	1	1	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_2020	8	0	4	4	2	3	7	5	3	1	7	NA	NA
CDR20291_2021	31	31	10	31	38	2	2	16	2	11	4	-1.469983862	0.900848337
CDR20291_2022	1761	2547	5038	2976	2684	3043	2811	3510	3502	2648	2386	0.437817622	0.655684544
CDR20291_2023	185	308	443	418	395	474	333	322	325	409	809	0.867147693	0.657089306
CDR20291_2024	1121	1645	2614	1660	1463	1699	1163	1324	1449	1735	1064	0.098419709	0.984589191
CDR20291_2025	1781	4399	6692	3756	2876	4078	1489	3101	2613	2077	2480	0.460857341	0.777989961
CDR20291_2026	1412	4113	6272	2742	2424	3023	2890	2440	2189	1877	2199	0.667359864	0.462226208
CDR20291_2027	3	16	1	4	24	3	60	6	6	8	0	1.959156631	0.911474775
CDR20291_2028	387	547	969	550	442	432	669	587	358	386	581	0.133012366	0.986227745
CDR20291_2029	0	5	1	1	2	4	4	7	1	1	0	NA	NA
CDR20291_2030	2682	3805	6309	4105	3333	3392	5947	3045	3540	3298	5576	0.317993083	0.947575252
CDR20291_2031	470	762	1413	868	805	655	167	502	768	685	575	0.172684685	0.984589191
CDR20291_2032	737	640	715	430	499	590	210	453	357	311	571	-1.030702607	0.186562535
CDR20291_2033	17	17	15	5	25	21	4	10	14	1	12	-0.853090312	0.947575252
CDR20291_2034	437	1234	2282	806	917	1139	954	553	683	496	701	0.714835269	0.654192072
CDR20291_2035	3	6	3	8	4	1	6	5	1	1	1	NA	NA
CDR20291_2036	583	990	1548	1638	470	678	887	1076	1274	748	725	0.389830697	0.925506853
CDR20291_2037	11	4	2	1	8	6	7	3	1	0	0	NA	NA
CDR20291_2038	891	365	623	570	340	428	248	375	439	335	585	-1.432745569	0.011680691

CDR20291_2039	278	552	781	536	362	553	91	359	251	347	267	0.099428667	0.987467975
CDR20291_2040	1350	1530	3300	1746	1874	1606	2623	1782	1668	2435	1471	0.213193093	0.973419192
CDR20291_2041	10	3	2	17	7	4	12	7	21	1	1 NA	NA	
CDR20291_2042	2	2	4	4	6	1	4	0	2	0	1 NA	NA	
CDR20291_2043	1	0	0	0	4	1	1	0	0	0	0 NA	NA	
CDR20291_2044	1	3	0	0	5	0	5	2	3	0	0 NA	NA	
CDR20291_2045	9	4	1	1	5	1	2	1	3	0	0 NA	NA	
CDR20291_2046	2	2	4	4	3	7	3	1	2	1	1 NA	NA	
CDR20291_2047	5	3	1	1	4	2	6	4	2	4	1 NA	NA	
CDR20291_2048	5	6	4	2	1	4	9	3	3	5	1 NA	NA	
CDR20291_2049	23	2	67	16	16	10	14	18	30	0	18	-0.781624039	0.973419192
CDR20291_2050	1016	1108	2193	1118	1254	1239	1156	997	1782	907	1250	-0.028484874	0.995736287
CDR20291_2051	7	7	9	1	1	10	10	0	2	0	0 NA	NA	
CDR20291_2052	8573	11804	20160	12758	11480	13295	12084	13248	12974	11804	7670	0.184751042	0.947640548
CDR20291_2053	1713	3686	5931	3391	2784	3153	2454	3439	3497	2888	5554	0.719682665	0.468884503
CDR20291_2054	1281	296	570	474	271	1207	123	364	263	187	328	-2.08616051	0.068174926
CDR20291_2055	13153	16470	26502	16319	15308	17061	14648	18062	15268	17172	12543	-0.019219905	0.995736287
CDR20291_2056	40	61	94	70	61	45	51	1	93	154	11	0.323728411	0.987467975
CDR20291_2057	155	306	432	219	210	236	223	187	273	183	267	0.318444073	0.920684121
CDR20291_2058	258	396	676	366	299	471	286	287	515	333	922	0.45555412	0.925506853
CDR20291_2059	1486	3486	7312	5537	3706	3747	3250	7727	6693	6386	3726	1.419617877	0.043174634
CDR20291_2060	2772	6914	11480	10078	6509	9147	10341	11493	13356	10797	9328	1.505588081	0.017242669
CDR20291_2061	1923	4888	7506	6826	4611	5828	7460	8180	7496	8271	9084	1.545751062	0.03118136
CDR20291_2062	14878	23639	42393	27505	22059	23698	21990	23344	25232	27238	19355	0.397733037	0.640674823
CDR20291_2063	4607	6014	9746	7270	6620	8242	5314	6678	7922	8509	6392	0.290558505	0.901178563
CDR20291_2064	601	673	1631	574	694	978	2388	466	474	647	450	0.260055973	0.984662354
CDR20291_2065	167	290	309	292	232	195	213	254	273	348	75	0.203821831	0.984589191
CDR20291_2066	163	220	765	353	129	287	226	283	172	199	185	0.311653958	0.954630457
CDR20291_2067	517	582	1444	737	700	767	349	941	662	397	1177	0.170509049	0.984589191
CDR20291_2068	2068	2856	3480	2637	1911	2684	2417	2846	1940	2204	2802	-0.049197418	0.989097623

CDR20291_2069	2071	2786	4458	2740	2575	3263	1524	2478	2819	2037	3311	0.03566647	0.994553213
CDR20291_2070	23	80	144	145	40	21	46	140	140	36	72	1.491894793	0.599187966
CDR20291_2071	1954	2351	4507	2402	2065	3139	1459	3146	2049	2028	3035	0.014344297	0.998533765
CDR20291_2072	55	121	131	65	68	82	31	109	42	25	128	0.127528689	0.988631632
CDR20291_2073	1478	1878	3083	1899	1763	1644	1098	1800	1770	1883	1309	-0.111134722	0.984566316
CDR20291_2074	883	635	1157	587	516	573	275	317	348	558	522	-1.124275968	0.103205097
CDR20291_2075	209	116	270	119	126	139	56	82	81	71	74	-1.350081184	0.096871665
CDR20291_2076	365	472	750	431	389	424	285	458	456	290	571	-0.087188216	0.987467975
CDR20291_2077	125	193	287	202	151	191	87	176	74	160	127	-0.024210376	0.998533765
CDR20291_2078	282	374	450	198	202	403	210	358	330	456	83	-0.270974652	0.984589191
CDR20291_2079	412	252	428	398	314	370	133	387	101	160	60	-1.105188327	0.634028727
CDR20291_2080	50	75	191	88	102	108	39	42	23	56	92	0.249398008	0.984589191
CDR20291_2081	44	100	90	77	97	90	26	84	104	191	77	0.74094143	0.897972061
CDR20291_2082	234	509	617	461	256	551	134	270	487	297	1067	0.616483536	0.916535173
CDR20291_2082;													
CDR20291_2083	0	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_2083	105	109	295	135	174	72	34	48	105	51	60	-0.454602168	0.954630457
CDR20291_2084	2	2	14	4	2	7	5	5	13	35	4	NA	NA
CDR20291_2085	819	1188	1729	1321	1216	835	805	1324	1054	893	651	0.028261706	0.995736287
CDR20291_2086	9897	14204	21726	14828	13776	15351	20089	15092	14664	13143	12832	0.302122594	0.923045844
CDR20291_2087	1012	1382	2188	1613	1520	1217	1580	1486	1313	1492	1380	0.222241282	0.943839096
CDR20291_2088	23	15	44	18	26	7	8	15	28	2	12	-0.862361071	0.927225356
CDR20291_2089	27	27	43	37	16	24	4	3	19	29	48	-0.518294497	0.984589191
CDR20291_2090	23	7	9	1	1	6	5	4	7	10	13	NA	NA
CDR20291_2091	34	83	143	88	10	22	62	38	63	104	240	0.982373989	0.916535173
CDR20291_2092	276	391	637	398	275	265	120	171	291	146	298	-0.340188464	0.947575252
CDR20291_2093	1423	2540	4973	2781	1788	1900	4662	1836	1905	1309	2506	0.515257827	0.9155071
CDR20291_2094	1913	2557	3817	2214	1949	2249	1255	2397	1466	2534	1888	-0.18556856	0.954630457
CDR20291_2094;													
CDR20291_2095	0	0	0	0	0	1	0	0	0	0	0	NA	NA

CDR20291_2095	767	925	1284	788	585	940	468	624	630	435	442	-0.538833154	0.6264965
CDR20291_2096	321	566	782	513	348	512	190	480	395	367	370	0.066807884	0.987467975
CDR20291_2097	575	761	1251	829	717	652	412	714	606	614	538	-0.1133751	0.984076663
CDR20291_2098	5134	9510	15571	9279	8987	10903	9058	8526	23181	9058	8624	0.767422361	0.634028727
CDR20291_2099	6781	11508	21098	11824	11023	10783	11708	11561	10748	10918	8514	0.427057555	0.615526956
CDR20291_2100	72	60	76	77	51	62	33	93	73	16	61	-0.652120168	0.906686599
CDR20291_2101	273	595	1088	313	421	544	811	462	425	421	364	0.610321182	0.829481015
CDR20291_2102	153	66	35	77	36	22	13	14	11	2	23	-2.788952389	0.193920847
CDR20291_2103	21	12	1	8	14	24	5	17	12	50	3	-0.805875073	0.973419192
CDR20291_2104	4	4	1	0	8	5	5	1	2	2	2	NA	NA
CDR20291_2105	102	160	97	65	77	95	678	40	25	34	32	-1.012574328	0.79787774
CDR20291_2106	0	0	2	0	0	1	0	0	0	0	0	NA	NA
CDR20291_2107	36	46	70	68	86	75	61	36	56	19	38	0.254867062	0.984589191
CDR20291_2108	5	2	2	1	5	2	5	0	6	1	1	NA	NA
CDR20291_2109	1740	2543	4063	2964	2505	3118	1516	3274	1927	1876	2537	0.193307715	0.947575252
CDR20291_2110	2043	2970	5016	3142	2833	3442	3792	3099	2580	3169	3214	0.340527262	0.89059378
CDR20291_2111	133	156	194	149	138	144	37	114	218	88	171	-0.313749314	0.973419192
CDR20291_2112	5730	3815	4024	4297	3345	3726	3782	5462	4527	4112	3797	-0.825671727	0.322251698
CDR20291_2113	87	118	228	135	132	202	49	75	69	122	112	0.083380002	0.990782717
CDR20291_2114	849	1414	1687	1059	906	1070	522	884	919	941	981	-0.119532643	0.984589191
CDR20291_2115	669	936	1647	1199	1072	1161	1490	1086	793	999	918	0.400235522	0.89698362
CDR20291_2116	11792	16792	26587	17634	15232	16962	24380	16772	15173	15845	13737	0.247720961	0.947575252
CDR20291_2117	4640	6881	10859	6549	5609	6412	5252	6448	5956	6112	5110	0.094811318	0.973419192
CDR20291_2118	15348	24155	33422	22451	20445	23401	17159	22828	22478	20448	17488	0.160379924	0.920684121
CDR20291_2119	187	365	695	405	285	429	803	306	182	242	273	0.738811599	0.852512149
CDR20291_2120	300	792	875	770	477	525	285	568	388	507	468	0.501111882	0.757154562
CDR20291_2121	47	25	14	24	30	17	8	12	22	16	16	-1.710872719	0.428299006
CDR20291_2122	453	527	697	919	664	673	242	495	690	448	306	-0.077926284	0.988631632
CDR20291_2123	264	45	69	8	68	61	259	15	8	11	19	-3.434767912	0.023454727
CDR20291_2124	1	3	1	4	0	5	4	5	3	0	0	NA	NA

CDR20291_2125	1604	2804	5324	2544	2617	4260	1361	2364	2110	3678	1967	0.433293265	0.866542396
CDR20291_2126	3806	5235	9125	5607	4365	5016	4868	5403	4436	5413	4209	0.104997237	0.984589191
CDR20291_2127	10884	15465	22955	16471	13304	13948	18749	16608	13952	13909	11937	0.168069095	0.973419192
CDR20291_2128	452	502	711	667	504	692	420	488	540	403	283	-0.184862664	0.973419192
CDR20291_2129	121	355	457	283	140	564	166	4770	541	271	51	0.950180554	0.806474753
CDR20291_2130	64	117	95	92	89	81	142	147	126	32	32	0.23295414	0.986538587
CDR20291_2131	9	0	2	0	2	0	4	1	3	3	1	NA	NA
CDR20291_2132	255	212	114	143	158	162	72	127	175	116	246	-1.082203785	0.533605496
CDR20291_2133	1016	1491	2384	1552	1503	1539	1240	1516	1036	1151	1523	0.166774315	0.954630457
CDR20291_2134	192	10	19	53	162	3	104	111	92	142	43	-1.607512115	0.818849811
CDR20291_2135	795	833	1372	1499	816	789	697	1145	822	898	610	-0.138340891	0.984589191
CDR20291_2136	25	56	28	18	53	5	217	42	26	75	8	0.91577232	0.951662831
CDR20291_2137	98	206	320	140	203	188	53	117	233	497	493	0.983352028	0.838322352
CDR20291_2138	4	2	15	3	6	10	1	2	5	4	1	NA	NA
CDR20291_2139	2	1	5	1	1	3	5	1	10	3	0	NA	NA
CDR20291_2140	328	82	245	89	182	93	156	146	126	166	199	-1.493944474	0.186562535
CDR20291_2141	472	569	803	477	434	523	170	495	289	460	259	-0.511244776	0.829481015
CDR20291_2142	1562	2073	4100	1880	1853	1643	932	1408	1473	1453	2387	-0.136901909	0.984589191
CDR20291_2143	557	966	1261	785	763	615	404	529	467	544	606	-0.105654303	0.986227745
CDR20291_2144	7	4	5	3	3	2	5	4	5	3	1	NA	NA
CDR20291_2145	159	199	465	358	47	352	296	505	270	263	48	0.41308697	0.973419192
CDR20291_2146	4	9	5	3	6	2	14	3	1	0	1	NA	NA
CDR20291_2147	14	19	5	10	5	4	16	13	7	5	3	-1.003858242	0.927225356
CDR20291_2148	228	251	502	138	242	245	220	243	198	197	212	-0.30874647	0.927225356
CDR20291_2149	6	4	85	8	15	191	5	24	6	30	2	2.098857419	0.828224327
CDR20291_2150	1321	1805	2885	1711	1452	2133	1048	1775	1218	1413	1423	-0.06145761	0.987467975
CDR20291_2151	655	940	1311	777	921	1069	574	913	721	989	742	0.064989188	0.987467975
CDR20291_2152	3506	4344	6291	3772	3676	3649	4538	3932	3498	3440	3064	-0.176004503	0.961231554
CDR20291_2153	23943	31477	47859	34061	28024	31192	34632	34171	29372	27470	25795	0.065687817	0.987467975
CDR20291_2154	6	2	10	0	7	5	5	5	3	0	0	NA	NA

CDR20291_2155	8177	15945	26560	16065	14481	16699	10252	15471	14659	14724	13098	0.546272461	0.035026498
CDR20291_2156	1	3	5	3	0	7	5	1	2	6	0	NA	NA
CDR20291_2157	6573	8490	11559	10462	7065	9520	7411	10717	10601	8162	9826	0.150407595	0.973419192
CDR20291_2158	1122	1107	1428	1632	840	1345	3069	1464	1317	952	1531	0.100958395	0.988631632
CDR20291_2159	2812	5035	7589	4427	4308	4489	5578	3976	3944	4649	3773	0.394666093	0.829481015
CDR20291_2160	11454	12462	22500	11919	13237	14543	20018	11654	11198	11049	10043	-0.085989026	0.987467975
CDR20291_2161	1097	1775	3127	1568	1496	1452	1071	1831	1303	964	1203	0.094318341	0.984589191
CDR20291_2162	763	3272	4432	7391	2960	4795	7863	20151	9268	9887	3523	2.963170872	0.059420237
CDR20291_2163	356	461	681	368	422	449	234	284	471	422	243	-0.227350916	0.954630457
CDR20291_2164	369	312	504	226	309	291	137	186	197	148	220	-0.980733613	0.212744871
CDR20291_2165	731	708	1201	730	767	731	2792	635	821	711	623	-0.356103155	0.749515787
CDR20291_2166	633	1217	1553	830	828	985	341	631	564	525	621	-0.093162043	0.987467975
CDR20291_2167	60	109	248	196	98	103	70	95	86	114	45	0.504913368	0.916535173
CDR20291_2168	254	1306	1822	1295	1022	1118	653	891	1285	749	1010	1.725249493	2.30E-06
CDR20291_2169	105	879	1385	856	750	1173	748	943	720	1023	1308	2.853253959	1.54E-09
CDR20291_2170	218	846	1457	975	816	651	457	692	662	559	1246	1.537103414	0.013193777
CDR20291_2171	300	543	735	354	270	298	126	225	131	213	279	-0.39548437	0.936953799
CDR20291_2172	4089	5965	10371	6206	4791	5464	2756	4997	5028	4186	4226	-0.03301563	0.991986013
CDR20291_2173	1638	2109	3544	2085	1848	1847	1166	1493	2099	1156	1427	-0.230204688	0.925506853
CDR20291_2174	439	842	1220	843	541	470	481	747	644	1637	651	0.509478279	0.914285708
CDR20291_2175	2	3	1	2	3	4	4	0	2	26	1	NA	NA
CDR20291_2176	7	10	37	16	4	2	6	2	0	0	0	NA	NA
CDR20291_2177	93	115	219	73	218	110	96	170	145	82	114	0.141106154	0.987467975
CDR20291_2178	26	17	9	16	7	13	10	7	15	2	3	-1.773894658	0.693111203
CDR20291_2179	1	0	1	0	0	1	3	2	1	0	1	NA	NA
CDR20291_2180	4	7	1	1	5	2	5	0	0	0	1	NA	NA
CDR20291_2181	560	1057	1691	787	857	1295	963	714	1630	929	1111	0.605113144	0.726631324
CDR20291_2182	14	19	29	31	24	15	1	26	4	3	24	-0.114429412	0.995736287
CDR20291_2183	438	811	792	579	451	669	509	800	467	413	601	0.097556883	0.987467975
CDR20291_2184	41	88	63	65	80	28	13	61	33	71	62	0.082805895	0.995736287

CDR20291_2185	108	26	48	37	21	33	23	18	16	31	54	-2.189969404	0.067244252
CDR20291_2185;													
CDR20291_2186	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_2186	3	4	2	1	1	0	3	0	2	1	0	NA	NA
CDR20291_2187	5143	6234	10295	6099	5240	6637	3892	6247	5200	5043	4939	-0.191875466	0.851061538
CDR20291_2188	877	1249	2340	1219	768	1011	705	1005	799	913	444	-0.203112707	0.973419192
CDR20291_2189	596	527	944	541	534	840	1490	494	434	654	362	-0.118280209	0.987467975
CDR20291_2190	41	42	42	15	40	10	0	1	34	13	6	-1.484235823	0.902429408
CDR20291_2191	244	221	448	214	207	243	80	162	133	91	205	-0.746588129	0.695191058
CDR20291_2192	274	495	561	192	382	407	302	336	377	188	205	-0.07080996	0.990226227
CDR20291_2193	0	2	1	2	0	0	2	0	0	0	0	NA	NA
CDR20291_2194	318	267	474	433	274	277	617	273	221	205	279	-0.272601772	0.984566316
CDR20291_2195	495	245	555	282	242	347	580	225	255	246	135	-1.028742665	0.605473525
CDR20291_2196	353	684	1148	739	465	746	1101	643	483	503	463	0.616066241	0.81257855
CDR20291_2197	2	5	6	2	1	2	0	2	0	3	1	NA	NA
CDR20291_2199	27	23	29	23	27	17	45	19	19	33	9	-0.462816426	0.973419192
CDR20291_2200	176	170	375	105	153	103	46	132	725	72	97	-0.257256037	0.987467975
CDR20291_2201	154	166	183	163	134	175	85	283	107	161	71	-0.400255046	0.9374313
CDR20291_2202	4	17	35	10	8	9	6	5	2	3	0	NA	NA
CDR20291_2203	33	32	77	25	33	12	32	93	63	78	16	0.104737861	0.995613239
CDR20291_2204	11	1	34	10	14	33	13	5	4	3	0	-0.41150146	0.987467975
CDR20291_2205	12	2	3	0	11	0	3	1	12	1	1	NA	NA
CDR20291_2206	1831	3616	7462	4815	4016	3944	3235	4994	4504	7131	3626	0.992054732	0.164682551
CDR20291_2207	1849	2352	4417	3608	2322	3188	1963	4504	2991	2023	2621	0.302395658	0.91856455
CDR20291_2208	1851	2471	4270	3261	2269	2817	1950	3045	2525	2041	2655	0.165996418	0.941849122
CDR20291_2209	2136	2184	3594	2506	1756	2913	1624	2451	2065	1977	2363	-0.259107326	0.894226527
CDR20291_2210	1203	751	924	958	754	727	756	961	782	348	604	-1.037718357	0.186562535
CDR20291_2211	486	6	3	1	6	20	13	10	5	1	14	-6.234002097	8.40E-06
CDR20291_2212	285	0	2	1	3	19	6	7	2	1	2	-6.390801705	0.000541706
CDR20291_2213	6	4	4	0	0	1	7	3	2	1	0	NA	NA

CDR20291_2214	2045	16684	17055	7429	11961	15232	5781	10665	6568	3969	10293	1.946732805	0.00441062
CDR20291_2215	46	643	721	186	364	476	84	287	119	134	238	2.332670958	0.049931646
CDR20291_2216	222	186	112	76	157	103	105	188	108	161	42	-1.18867659	0.557613262
CDR20291_2217	2415	24022	18906	10987	14804	27353	16606	17684	9603	6245	20217	2.420908948	0.000877098
CDR20291_2218	4851	8530	11065	6954	8181	9174	15602	9512	9151	5933	6420	0.576185984	0.850318392
CDR20291_2219	6571	13052	22820	14509	13830	18474	10342	15766	16354	13319	13263	0.818891514	0.022070178
CDR20291_2220	14	16	60	21	30	28	8	12	16	14	32	0.298659717	0.986227745
CDR20291_2221	330	807	173	634	348	965	1433	639	1151	334	552	0.834667552	0.897972061
CDR20291_2222	296	440	436	460	313	344	256	421	482	571	192	0.039617544	0.995736287
CDR20291_2223	38	23	89	28	30	4	4	35	17	4	9	-1.226082882	0.897972061
CDR20291_2224	97	111	169	155	58	177	167	130	62	59	37	-0.17269884	0.987467975
CDR20291_2225	4696	6634	11139	6239	6216	6907	5933	6555	6170	6177	5473	0.133492816	0.951662831
CDR20291_2226	4000	17575	20715	9120	13010	16145	8279	12577	8226	6282	12448	1.223978135	0.047219635
CDR20291_2227	35	56	126	28	31	35	17	130	61	106	37	0.417849566	0.984566316
CDR20291_2228	136	68	64	68	103	69	21	42	94	17	47	-1.585244322	0.396836762
CDR20291_2229	1	3	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_2230	145	252	278	188	97	200	42	156	95	94	105	-0.405838878	0.947575252
CDR20291_2231	84	169	213	225	214	154	210	227	131	193	63	0.744067122	0.808803667
CDR20291_2232	862	2231	3692	3528	2415	2800	1955	3278	3154	4207	2506	1.426705543	0.011680691
CDR20291_2233	254	265	474	211	192	183	306	265	222	110	184	-0.474899935	0.903754511
CDR20291_2234	19	32	49	18	19	11	64	23	14	70	28	0.489577393	0.984589191
CDR20291_2235	15	16	93	100	51	90	80	58	23	26	68	1.639031504	0.562149318
CDR20291_2236	14	24	69	2	14	19	113	3	8	11	120	1.204621062	0.934317854
CDR20291_2237	7	1	5	1	5	3	6	1	4	0	1	NA	NA
CDR20291_2238	6	4	5	6	5	5	5	5	1	3	2	NA	NA
CDR20291_2239	7	2	8	2	3	1	5	0	1	0	2	NA	NA
CDR20291_2240	0	2	6	1	3	0	4	0	2	0	1	NA	NA
CDR20291_2241	6	4	7	1	2	1	4	5	1	1	1	NA	NA
CDR20291_2242	6	1	2	0	3	0	0	0	0	2	2	NA	NA
CDR20291_2243	6	3	2	2	1	3	5	2	2	0	2	NA	NA

CDR20291_2244	1	3	4	0	2	1	1	0	1	0	1	NA	NA
CDR20291_2245	322	347	351	629	360	445	335	244	367	261	149	-0.252496728	0.981041358
CDR20291_2246	145	269	252	194	221	199	306	158	81	71	41	-0.061877741	0.996223079
CDR20291_2247	13	36	72	20	7	32	4	6	17	3	24	0.207025145	0.988631632
CDR20291_2248	39	35	122	42	35	20	47	24	48	27	12	-0.391232894	0.984566316
CDR20291_2249	49	66	170	74	34	116	9	52	46	52	142	0.179759313	0.987467975
CDR20291_2250	207	302	463	194	299	207	171	145	86	210	124	-0.343980811	0.954596985
CDR20291_2251	22	24	64	17	44	23	21	49	14	15	14	-0.067640944	0.996722621
CDR20291_2252	239	469	817	419	395	356	249	334	389	353	415	0.391947132	0.797877774
CDR20291_2253	164	159	682	198	316	227	55	460	216	102	151	0.146060282	0.987467975
CDR20291_2254	129	306	549	250	223	200	79	120	123	99	86	0.143130202	0.987467975
CDR20291_2255	9	19	3	21	11	2	4	33	5	0	11	-0.085542477	0.998533765
CDR20291_2256	68	171	392	239	109	123	45	131	82	82	71	0.56906331	0.919612956
CDR20291_2257	435	553	834	670	566	845	295	500	514	360	468	-0.043680715	0.994553213
CDR20291_2258	346	237	478	325	131	173	231	123	187	95	223	-1.079151537	0.455749369
CDR20291_2259	4	9	9	2	7	0	12	2	59	5	6	1.179364854	0.954974392
CDR20291_2260	257	426	351	571	323	364	472	909	464	645	190	0.547751526	0.920684121
CDR20291_2261	133	54	283	264	212	55	128	67	340	137	69	-0.116514852	0.991986013
CDR20291_2262	19	18	50	77	5	6	6	26	159	16	19	0.607243026	0.984589191
CDR20291_2263	289	603	1134	671	575	621	295	364	534	383	599	0.568454267	0.66623479
CDR20291_2264	666	1505	2598	1449	1126	1829	534	1373	1060	1430	1133	0.642535507	0.562149318
CDR20291_2265	3102	7043	11376	8685	6589	7753	4171	7111	6830	6510	6424	0.823257059	0.007873514
CDR20291_2266	148	61	109	30	51	66	17	39	41	54	77	-1.864490767	0.106387942
CDR20291_2267	25	37	67	21	32	22	60	11	16	27	22	-0.039369132	0.998533765
CDR20291_2268	140	257	487	246	179	124	75	213	346	172	141	0.22414182	0.984589191
CDR20291_2269	37	70	212	85	141	69	26	56	25	13	37	0.467059986	0.973419192
CDR20291_2270	3562	6322	11306	5544	4956	6062	3920	4990	4869	4737	4452	0.25605232	0.794293046
CDR20291_2271	2269	3801	6878	2904	3205	2709	1396	2312	2098	1948	1869	-0.111223039	0.986538587
CDR20291_2272	3279	3984	6953	3822	3313	3732	3143	2635	2328	2809	2609	-0.31155851	0.877926426
CDR20291_2273	19	2	38	1	27	19	1	19	23	11	9	-0.806597228	0.973419192

CDR20291_2274	148	145	119	128	79	110	117	110	147	32	73	-0.849050758	0.777989961
CDR20291_2275	790	1770	2759	1452	1335	1524	881	1542	1345	1209	1813	0.57473983	0.428642712
CDR20291_2276	1086	2605	3603	3041	2384	2571	1657	2978	2499	2279	2436	0.877633045	0.012094021
CDR20291_2277	3455	10937	17693	14766	9522	14738	13671	13699	17601	14788	14338	1.687516115	0.000566327
CDR20291_2278	2573	3881	7228	4934	3900	4373	3340	4666	3431	3309	3326	0.316292516	0.707906356
CDR20291_2279	5058	12148	20028	17743	12754	12906	13981	17871	20743	15623	12975	1.274457438	0.014868605
CDR20291_2279;													
CDR20291_2280	0	0	0	0	0	0	2	0	0	0	0	NA	NA
CDR20291_2280	8198	26321	41524	37087	25764	33483	39462	33672	39392	32451	33961	1.725420225	0.000566327
CDR20291_2281	14	56	65	7	33	6	47	29	32	42	9	0.840362742	0.936953799
CDR20291_2282	7	3	2	1	2	0	7	1	2	1	1	NA	NA
CDR20291_2283	4463	7127	10709	5969	6895	7714	5082	6834	4793	6013	5483	0.183090351	0.926797301
CDR20291_2284	7018	11087	18665	10773	10073	12455	8427	10515	10595	10244	9887	0.288054614	0.634028727
CDR20291_2285	113	216	267	143	128	141	17	117	90	179	169	-0.055979098	0.996223079
CDR20291_2286	6044	9275	15783	10185	8943	8492	6246	10978	10252	10568	8878	0.33019933	0.805566077
CDR20291_2287	5526	5507	10199	5035	4920	5440	4504	4992	4727	5349	4231	-0.414499951	0.479487032
CDR20291_2288	1141	1232	1997	1204	1051	1100	682	830	896	1063	1368	-0.401212873	0.809797455
CDR20291_2289	2	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_2290	0	0	3	0	0	1	1	0	0	0	1	NA	NA
CDR20291_2291	69	115	171	145	152	309	147	297	198	95	172	1.029555629	0.607610599
CDR20291_2292	194	191	440	264	288	211	119	135	321	153	222	-0.144714174	0.986538587
CDR20291_2293	0	2	3	2	0	1	3	0	0	1	1	NA	NA
CDR20291_2294	5006	6412	10450	6160	5147	6802	5344	6357	6596	6536	4514	-0.029300429	0.994553213
CDR20291_2295	481	270	404	265	291	262	191	282	216	235	192	-1.276728011	0.000533849
CDR20291_2296	20790	30362	48387	30725	28512	29536	34936	34060	31114	34195	26204	0.294369975	0.903083025
CDR20291_2297	9557	12658	19666	12582	11324	13471	10346	12254	14269	9864	10308	0.018711418	0.995736287
CDR20291_2298	1928	2958	5043	2894	2426	2302	1663	3045	2513	2480	1951	0.080870315	0.984589191
CDR20291_2299	136	195	381	181	228	149	475	203	242	238	173	0.535492111	0.925506853
CDR20291_2300	1	1	0	1	1	0	1	0	1	4	1	NA	NA
CDR20291_2301	50	30	110	61	56	39	104	24	30	50	133	0.025150059	0.998533765

CDR20291_2302	8	4	2	4	0	0	4	2	2	0	1	NA	NA
CDR20291_2303	5	4	1	3	3	1	2	0	2	0	1	NA	NA
CDR20291_2304	398	352	997	486	267	362	238	181	257	276	132	-0.66444245	0.818849811
CDR20291_2305	282	245	513	301	445	544	404	293	199	185	163	-0.159895157	0.987467975
CDR20291_2306	14	32	96	167	10	0	15	1028	7	2	110	1.314144206	0.927225356
CDR20291_2307	30	49	74	16	26	38	11	39	26	40	36	-0.194163244	0.987467975
CDR20291_2308	54	5	7	65	43	44	3	18	17	2	5	-1.762904012	0.829481015
CDR20291_2309	12	3	0	0	1	0	5	1	0	0	0	NA	NA
CDR20291_2310	81	116	161	184	45	131	42	145	67	134	16	-0.072699963	0.995736287
CDR20291_2311	87	112	374	118	63	89	29	236	59	94	15	-0.098416478	0.995613239
CDR20291_2312	528	685	957	730	481	901	576	643	584	592	728	0.004303753	0.998774265
CDR20291_2313	254	376	401	269	343	258	225	187	230	392	200	-0.190399355	0.984589191
CDR20291_2314	141	265	349	296	83	130	94	264	88	224	99	-0.015296491	0.998533765
CDR20291_2315	544	67	406	58	30	171	28	83	111	122	21	-2.882078356	0.043174634
CDR20291_2316	1	5	21	1	2	2	3	3	4	0	0	NA	NA
CDR20291_2317	83	64	127	53	70	149	32	116	46	74	71	-0.462560487	0.939793739
CDR20291_2318	245	248	618	385	258	342	146	207	187	346	83	-0.25330211	0.984589191
CDR20291_2319	44	17	102	42	63	24	10	69	35	8	14	-0.69570238	0.947575252
CDR20291_2320	41	70	85	62	44	91	66	66	42	73	66	0.334597834	0.960075735
CDR20291_2321	0	0	1	0	2	0	1	0	0	0	0	NA	NA
CDR20291_2322	814	740	681	666	578	664	632	509	654	471	440	-0.788543239	0.331525685
CDR20291_2323	66	42	159	142	58	49	23	128	146	82	164	0.196340594	0.987467975
CDR20291_2324	8	6	3	8	9	5	4	7	5	4	7	NA	NA
CDR20291_2325	3	3	1	2	6	2	5	4	2	1	1	NA	NA
CDR20291_2326	1005	1417	3310	1488	1542	1518	2467	1728	1889	2244	2339	0.638529275	0.753233394
CDR20291_2326;													
CDR20291_2327	9	35	43	18	45	27	0	0	14	57	40	1.249408712	0.930590426
CDR20291_2327	3	3	1	0	1	1	2	2	4	3	0	NA	NA
CDR20291_2328	39811	50674	70596	45896	43844	46780	50207	43730	39428	23301	32625	-0.218127584	0.954630457
CDR20291_2329	751	1480	1631	1095	1271	1168	1220	1175	1239	602	625	0.234179849	0.967675036

CDR20291_2330	41	61	75	78	34	37	22	30	115	2	7	-0.274120633	0.987467975
CDR20291_2331	276	652	1125	453	769	1068	352	603	470	341	442	0.755220793	0.605157409
CDR20291_2332	20	25	112	81	22	42	76	203	38	63	85	1.535024725	0.660515204
CDR20291_2333	2429	3926	6145	3982	3126	4229	2284	3425	3072	2258	2756	0.114838045	0.973419192
CDR20291_2334	207	265	491	717	341	352	144	331	231	173	152	0.191246722	0.986227745
CDR20291_2335	0	0	0	1	1	2	1	1	0	0	0	NA	NA
CDR20291_2336	3432	4493	8463	3779	3749	4822	3000	4671	3553	5852	3392	0.007864295	0.998533765
CDR20291_2337	15	12	33	30	20	0	1	32	22	5	5	-0.382398501	0.987467975
CDR20291_2338	10	0	3	0	4	1	0	1	4	2	0	NA	NA
CDR20291_2339	0	0	1	0	0	1	0	0	0	0	2	NA	NA
CDR20291_2340	381	233	378	375	327	628	193	187	299	226	252	-0.685781148	0.777989961
CDR20291_2341	7	5	7	4	9	7	6	1	4	1	6	NA	NA
CDR20291_2342	10	3	1	2	1	3	6	3	13	2	0	NA	NA
CDR20291_2343	31	74	26	58	33	131	74	93	51	32	63	0.714238361	0.925506853
CDR20291_2344	514	650	1215	852	628	611	371	522	597	762	480	-0.036366327	0.995604279
CDR20291_2345	26	135	42	82	139	15	14	6	51	141	5	0.927687787	0.947575252
CDR20291_2346	2	13	4	17	4	3	5	4	5	5	7	NA	NA
CDR20291_2347	594	1100	1653	979	920	1139	671	1233	1224	744	1390	0.509266905	0.71440588
CDR20291_2348	69	271	766	281	126	141	157	251	263	116	95	1.316828282	0.389494444
CDR20291_2349	5734	5843	7169	4468	4538	4626	4529	7107	4811	5488	3421	-0.513638867	0.666217199
CDR20291_2350	170	216	215	186	137	143	90	217	121	152	125	-0.479350676	0.848160036
CDR20291_2351	2106	3063	4548	2311	2142	1930	1500	2054	2124	1697	2197	-0.261526574	0.897972061
CDR20291_2352	43	131	310	103	113	120	81	100	276	162	87	1.363465	0.342256252
CDR20291_2353	209	223	622	244	265	165	62	119	288	193	398	-0.146040985	0.987467975
CDR20291_2354	9	15	5	7	11	1	7	18	5	4	3	NA	NA
CDR20291_2355	3	2	1	0	0	0	5	3	1	0	0	NA	NA
CDR20291_2356	3	8	2	1	2	3	7	3	1	1	1	NA	NA
CDR20291_2357	168	213	359	156	218	211	51	108	117	51	180	-0.477239047	0.934317854
CDR20291_2358	478	618	937	441	453	697	250	565	467	478	1213	-0.025306502	0.998533765
CDR20291_2359	12	7	15	8	11	12	11	6	5	4	2	NA	NA

CDR20291_2360	569	965	1380	765	496	1154	278	1002	724	402	648	0.014094844	0.998533765
CDR20291_2361	0	0	4	6	19	20	1	6	7	1	1 NA		NA
CDR20291_2362	11	4	4	1	1	1	7	2	2	4	2 NA		NA
CDR20291_2363	2	3	1	0	6	6	4	2	1	3	5 NA		NA
CDR20291_2364	221	156	471	358	299	229	154	256	204	123	243	-0.248665255	0.973419192
CDR20291_2365	1556	2465	3827	2021	2041	2854	2054	2364	2073	1650	1749	0.172280745	0.947575252
CDR20291_2366	2	1	0	0	1	0	4	0	0	0	0 NA		NA
CDR20291_2367	16	54	92	28	55	102	7	23	133	37	17	1.339711415	0.82259283
CDR20291_2368	1709	1788	3280	2251	1795	3131	1457	2015	3083	1598	1758	-0.019297559	0.998533765
CDR20291_2369	690	810	1737	834	1151	792	719	1137	708	701	745	0.028242402	0.995736287
CDR20291_2370	259	155	70	80	58	94	1853	208	134	63	75	-1.686052152	0.214988875
CDR20291_2371	642	686	1518	1249	771	1430	633	1267	884	977	1195	0.338765648	0.92014325
CDR20291_2372	1345	2009	3283	1764	1776	2067	3733	1514	1466	1598	1623	0.289483196	0.968488529
CDR20291_2373	1083	2354	3929	2781	2502	2809	6432	3602	2469	2710	3374	1.306194098	0.294166492
CDR20291_2374	896	1737	2863	2071	1696	1385	1770	1535	1197	1825	1435	0.586691531	0.562149318
CDR20291_2375	0	2	0	1	3	0	0	1	1	1	0 NA		NA
CDR20291_2376	1	5	1	1	6	3	4	3	1	4	1 NA		NA
CDR20291_2377	151	218	258	288	123	160	59	100	158	61	118	-0.413804954	0.947575252
CDR20291_2378	279	232	451	334	359	331	208	404	418	290	378	-0.082409984	0.987467975
CDR20291_2379	725	969	1650	1149	983	1076	1452	1229	1127	769	1134	0.314982453	0.925506853
CDR20291_2380	47	55	44	12	3	19	28	10	46	0	9	-1.484392557	0.894306579
CDR20291_2381	124	25	9	5	22	0	22	6	9	13	5	-3.707672665	0.116149074
CDR20291_2382	352	403	623	348	357	336	182	461	456	277	129	-0.405250354	0.920684121
CDR20291_2383	283	412	464	298	246	490	290	493	610	244	261	0.052443656	0.995604279
CDR20291_2384	1272	1429	2528	1575	1447	1723	961	2370	1813	1115	958	-0.084609027	0.987467975
CDR20291_2385	9	10	4	5	6	14	17	9	8	1	3 NA		NA
CDR20291_2386	14	10	5	8	4	4	10	6	6	2	3 NA		NA
CDR20291_2387	9	3	3	9	5	4	4	1	9	1	3 NA		NA
CDR20291_2388	4	4	0	2	2	3	1	0	0	0	1 NA		NA
CDR20291_2389	4	3	3	3	2	1	8	2	0	0	2 NA		NA

CDR20291_2390	5488	6857	12255	8097	6742	7862	7264	8722	6880	7648	6122	0.134843131	0.973419192
CDR20291_2391	18	0	2	1	4	2	4	1	0	0	0	NA	NA
CDR20291_2392	97	249	192	155	217	201	194	91	295	75	144	0.551744801	0.920684121
CDR20291_2393	1442	1777	3385	2101	1900	2170	3080	1252	1914	1929	1907	0.217930705	0.976469909
CDR20291_2394	272	297	694	352	201	370	118	665	1005	229	210	0.182966062	0.987467975
CDR20291_2395	524	289	369	121	141	173	34	94	139	222	158	-2.041260484	0.05098151
CDR20291_2396	63	89	191	36	54	61	17	137	32	74	91	-0.153662178	0.987467975
CDR20291_2397	3423	4246	6898	4273	3419	4259	3806	3795	2959	4138	2288	-0.170122313	0.969885662
CDR20291_2398	464	613	1594	966	824	721	226	433	643	384	358	0.061031181	0.994553213
CDR20291_2399	428	633	811	633	414	448	179	315	889	389	626	-0.083916699	0.989572915
CDR20291_2400	1915	2419	3802	2862	2189	2697	1460	2246	2322	1522	2211	-0.09772642	0.984589191
CDR20291_2401	60	37	41	50	99	71	13	44	37	128	88	-0.294878213	0.986227745
CDR20291_2402	495	369	612	583	452	492	300	350	476	383	233	-0.613380297	0.607610599
CDR20291_2403	229	78	178	73	74	62	132	90	163	58	69	-1.602967685	0.180640288
CDR20291_2404	1	0	5	2	0	0	4	0	2	0	0	NA	NA
CDR20291_2405	1	0	1	0	1	0	3	0	1	1	0	NA	NA
CDR20291_2406	1185	2010	3390	1411	1805	1996	2965	1604	1409	1787	1404	0.376465152	0.925506853
CDR20291_2407	1214	1752	2470	1789	1256	1718	865	1433	1408	1487	1784	-0.002433022	0.999561437
CDR20291_2408	1194	1844	3367	2688	1984	2020	1771	2180	2223	1844	2539	0.533649359	0.516164761
CDR20291_2409	2003	2637	4085	3184	2408	2442	3768	2888	2794	2501	1845	0.154469249	0.984589191
CDR20291_2410	13	5	5	5	14	9	19	4	6	2	6	NA	NA
CDR20291_2411	708	687	1502	1065	562	800	761	907	664	503	476	-0.254908884	0.947575252
CDR20291_2412	46	75	166	43	26	27	23	55	101	21	45	-0.158771958	0.987467975
CDR20291_2413	10	5	6	4	1	3	3	0	0	1	1	NA	NA
CDR20291_2414	228	306	410	351	350	258	147	302	231	123	265	-0.139527788	0.986227745
CDR20291_2415	2672	3379	5441	3051	2704	3347	6378	4021	3519	2706	2137	0.115506868	0.987467975
CDR20291_2416	8	58	1	22	1	17	1	17	6	20	16	0.62434047	0.984589191
CDR20291_2417	218	402	580	297	295	390	614	192	264	267	162	0.307460237	0.973419192
CDR20291_2418	1	3	1	1	2	2	1	0	0	1	1	NA	NA
CDR20291_2419	72	154	279	116	324	283	143	1314	69	141	73	1.624263519	0.693111203

CDR20291_2420	465	620	715	839	441	783	540	826	1030	648	731	0.275499216	0.951662831
CDR20291_2421	33	46	52	65	85	14	12	29	16	19	13	-0.335659033	0.986227745
CDR20291_2422	447	306	772	460	402	485	275	404	275	272	327	-0.593396627	0.548822404
CDR20291_2422;													
CDR20291_2423	0	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_2423	12	74	67	10	20	17	4	14	23	35	62	1.011518821	0.925506853
CDR20291_2424	195	149	214	139	204	159	97	256	387	107	73	-0.505549448	0.927225356
CDR20291_2425	35	87	168	53	51	167	5	152	32	49	28	0.680311029	0.950009051
CDR20291_2426	3	6	2	1	4	5	2	2	0	2	2	NA	NA
CDR20291_2427	49	65	119	48	111	63	131	59	111	22	44	0.311082863	0.984589191
CDR20291_2428	14	139	144	141	89	87	14	42	149	27	38	2.178432695	0.293774487
CDR20291_2429	501	623	815	517	672	613	322	570	458	1728	368	0.068374122	0.995736287
CDR20291_2430	807	1310	2566	1271	1098	1445	884	1587	1097	1271	851	0.305948511	0.866542396
CDR20291_2431	184	323	540	218	248	299	107	196	164	165	138	-0.086013567	0.987467975
CDR20291_2432	853	1334	2180	1154	991	1133	880	1094	1194	1244	1197	0.140436823	0.968488529
CDR20291_2433	142	149	170	168	89	226	44	206	108	92	189	-0.374061291	0.954630457
CDR20291_2434	5573	9926	16708	8969	8079	9696	21479	7216	6271	5489	8076	0.535197739	0.916535173
CDR20291_2435	756	1292	1396	951	860	1215	493	1790	1401	607	844	0.123097102	0.987467975
CDR20291_2436	2598	3751	4956	3612	2688	3081	1916	4467	3079	2169	3333	-0.052505794	0.988631632
CDR20291_2437	3206	3312	4127	3702	2437	3205	2260	3760	3527	3976	1908	-0.368410029	0.885313437
CDR20291_2438	6	64	51	25	45	25	1	13	10	2	12	1.544235782	0.885313437
CDR20291_2439	6	10	25	2	3	1	4	3	3	4	1	NA	NA
CDR20291_2440	53	96	52	53	17	76	29	74	86	39	87	-0.160595582	0.987467975
CDR20291_2441	106	113	108	120	80	87	70	160	84	87	60	-0.504924589	0.901000432
CDR20291_2442	1906	1196	1754	1360	891	1138	1298	1229	1199	670	1112	-1.060774447	0.068174926
CDR20291_2443	138	6	5	18	2	1	1	0	1	0	29	-4.782313803	0.205227368
CDR20291_2444	3	0	1	0	2	0	1	0	2	1	0	NA	NA
CDR20291_2445	1331	1837	2730	2118	1628	1900	1264	2217	2448	1363	2337	0.197371208	0.960075735
CDR20291_2446	70	82	37	24	69	81	80	185	80	30	161	-0.046779281	0.998533765
CDR20291_2447	56	19	30	76	72	14	73	51	107	1	44	-0.493333343	0.984589191

CDR20291_2448	1	0	2	0	1	0	2	0	0	1	0	NA	NA
CDR20291_2449	120	73	155	312	95	126	34	137	70	57	274	-0.234659571	0.987467975
CDR20291_2450	128	72	201	201	85	143	18	166	111	90	42	-0.638621143	0.925506853
CDR20291_2451	646	853	1978	1052	858	1570	900	933	957	747	873	0.318764541	0.897972061
CDR20291_2452	10	22	52	37	27	41	6	2	2	24	13	0.692240552	0.973419192
CDR20291_2453	518	492	627	329	390	396	120	248	424	163	161	-1.080428948	0.410696994
CDR20291_2454	231	313	572	217	277	448	267	220	256	143	423	0.039938944	0.996223079
CDR20291_2455	244	345	556	326	290	421	239	253	299	268	389	0.07690677	0.987467975
CDR20291_2456	17	10	11	5	18	5	17	14	6	6	2	-1.183695882	0.9155071
CDR20291_2457	4	2	5	4	6	0	5	2	2	0	2	NA	NA
CDR20291_2458	760	651	955	655	577	499	491	877	597	618	982	-0.503582929	0.817395662
CDR20291_2459	97	61	233	154	115	162	67	120	68	60	30	-0.322356969	0.981041358
CDR20291_2460	1	1	2	0	4	1	4	1	0	0	2	NA	NA
CDR20291_2461	2	2	0	1	1	0	8	0	0	0	2	NA	NA
CDR20291_2462	6	7	1	0	2	2	2	1	0	0	3	NA	NA
CDR20291_2463	2	5	1	1	2	2	1	1	2	0	0	NA	NA
CDR20291_2464	192	94	123	68	77	36	29	92	99	672	87	-1.699223277	0.098506261
CDR20291_2465	194	213	410	236	194	237	161	407	339	374	334	0.214426699	0.984589191
CDR20291_2466	1153	1374	1733	1417	1152	1627	1132	1465	1277	1152	1282	-0.130454901	0.973419192
CDR20291_2467	6	47	98	50	31	35	12	16	14	35	29	2.119665602	0.350981742
CDR20291_2468	277	331	807	5925	396	377	281	557	625	373	382	0.327784422	0.920684121
CDR20291_2469	222	261	679	453	377	534	280	600	287	163	354	0.430494706	0.91856455
CDR20291_2470	3	5	3	4	2	3	3	2	2	2	0	NA	NA
CDR20291_2471	3	1	1	2	2	1	1	0	0	1	0	NA	NA
CDR20291_2472	11	9	13	3	9	4	12	1	8	3	4	NA	NA
CDR20291_2473	6	2	3	2	6	3	6	1	1	3	2	NA	NA
CDR20291_2473;													
CDR20291_2474	0	2	0	0	0	0	3	0	0	0	0	NA	NA
CDR20291_2474	1	1	0	0	0	0	1	0	0	0	1	NA	NA
CDR20291_2475	1	6	4	2	4	6	1	1	1	0	0	NA	NA

CDR20291_2476	3	2	3	3	3	0	9	1	3	3	0	NA	NA
CDR20291_2477	4	1	5	4	2	0	5	2	3	0	1	NA	NA
CDR20291_2478	959	1675	2894	1778	1451	1851	663	1688	2482	1159	893	0.355066833	0.925506853
CDR20291_2479	18	21	48	3	11	30	10	8	18	11	4	-0.63864447	0.973419192
CDR20291_2480	1064	1195	1355	1383	613	1097	1387	1235	649	758	564	-0.422515825	0.920684121
CDR20291_2481	4304	6007	10211	7908	5644	7938	6737	7003	5369	5371	5843	0.280638086	0.897972061
CDR20291_2482	438	693	937	687	603	575	1464	562	486	619	315	0.346455956	0.970474179
CDR20291_2483	7	1	4	30	11	15	7	2	0	1	3	NA	NA
CDR20291_2484	18	5	25	84	13	11	4	19	2	15	27	-0.232613504	0.988631632
CDR20291_2485	432	1551	1723	546	349	1156	710	551	538	221	580	0.416818472	0.951338032
CDR20291_2486	60	228	279	190	198	129	100	341	269	231	195	1.471885601	0.125512087
CDR20291_2487	1357	1718	3082	1556	1550	1614	729	1076	1116	930	1142	-0.354571626	0.877926426
CDR20291_2488	265	874	1225	721	558	479	462	629	523	447	671	0.897377156	0.132627213
CDR20291_2489	144	312	437	224	162	318	187	185	130	132	169	0.215287434	0.981041358
CDR20291_2490	7246	13228	24195	16321	13105	15733	21999	14339	15769	10696	14019	0.780268256	0.449168165
CDR20291_2491	339	876	1258	783	362	534	417	481	681	577	652	0.544284792	0.7504811
CDR20291_2492	1141	2515	4855	2295	1917	1879	3863	1921	1996	1669	3017	0.816605985	0.607610599
CDR20291_2493	4	2	10	4	9	6	15	5	2	1	0	NA	NA
CDR20291_2494	4	0	3	0	2	5	6	1	2	2	2	NA	NA
CDR20291_2495	4071	3335	6872	3435	3026	4863	2701	3586	3480	3254	2792	-0.538523035	0.322251698
CDR20291_2496	3232	3747	5391	3498	3577	3263	8341	3650	4058	2592	2419	0.011012937	0.998533765
CDR20291_2497	1279	1067	2218	1534	1052	1243	738	958	868	961	1051	-0.552873862	0.402597477
CDR20291_2498	3577	4083	7076	4723	3350	3355	6442	4302	3536	4067	3450	-0.045532604	0.995613239
CDR20291_2499	9490	13887	23381	13379	13334	15090	11885	14912	14784	11824	10545	0.198439063	0.908811074
CDR20291_2500	110	101	139	129	128	168	51	158	72	230	66	-0.194570448	0.986659195
CDR20291_2501	2204	3165	5396	3290	3006	3815	2671	3324	3149	3131	3425	0.255785608	0.848160036
CDR20291_2502	14	13	11	3	6	5	20	11	3	3	3	NA	NA
CDR20291_2503	99	8	15	1	4	55	6	5	0	0	2	-4.930062168	0.029806949
CDR20291_2504	322	0	93	88	24	126	8	62	100	110	27	-2.74328557	0.365625494
CDR20291_2505	317	28	51	119	15	14	10	79	1	27	19	-3.572904691	0.079960237

CDR20291_2506	1	1	1	0	0	1	1	0	3	0	0	NA	NA
CDR20291_2507	2	3	1	1	0	0	2	1	4	0	1	NA	NA
CDR20291_2508	36	42	37	90	33	26	24	2	27	20	55	-0.386460214	0.984589191
CDR20291_2509	341	474	703	251	293	486	257	321	211	406	159	-0.367516063	0.927225356
CDR20291_2510	2067	3607	6015	3461	3267	3830	4435	3355	4582	2920	2311	0.495068657	0.777989961
CDR20291_2511	90	244	686	188	125	128	131	98	205	157	95	0.66701533	0.882231017
CDR20291_2512	683	1551	2514	1167	1067	1483	1393	1152	873	931	1004	0.535338636	0.66368738
CDR20291_2513	9	5	4	1	3	3	4	7	3	1	3	NA	NA
CDR20291_2514	545	691	1427	605	892	711	246	692	694	544	664	-0.040114586	0.995736287
CDR20291_2515	579	994	1309	1323	881	1637	556	559	914	992	829	0.395194588	0.911388826
CDR20291_2516	219	83	161	95	133	88	38	230	56	74	48	-1.543504443	0.323821821
CDR20291_2517	2274	3538	5904	3501	3566	3930	8201	3638	2857	3443	3132	0.554504509	0.897745447
CDR20291_2518	143	195	498	230	447	430	94	255	192	160	105	0.418045709	0.947575252
CDR20291_2519	5	2	1	2	1	0	1	1	2	1	0	NA	NA
CDR20291_2520	5	4	6	2	4	4	8	3	6	1	0	NA	NA
CDR20291_2521	28	3	8	9	17	11	7	8	28	12	2	-1.745378167	0.777989961
CDR20291_2522	0	1	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_2523	7	0	2	0	4	2	6	2	5	0	3	NA	NA
CDR20291_2524	4	4	1	0	3	67	3	3	0	62	1	1.552836293	0.954630457
CDR20291_2525	2614	923	1313	1190	564	846	1156	1417	965	1129	1231	-1.626614118	0.014770674
CDR20291_2526	3	1	2	1	4	2	5	0	2	0	0	NA	NA
CDR20291_2527	669	1045	1990	1064	957	1055	399	1275	1053	1786	890	0.376679795	0.925506853
CDR20291_2528	238	344	410	249	230	260	354	144	279	285	159	-0.173934718	0.984589191
CDR20291_2529	125	214	249	68	153	152	63	120	146	89	66	-0.359304748	0.954630457
CDR20291_2530	5	3	3	2	3	2	6	3	0	1	1	NA	NA
CDR20291_2531	3	7	4	2	3	1	4	4	0	0	0	NA	NA
CDR20291_2532	1	7	1	2	4	3	3	0	5	3	0	NA	NA
CDR20291_2533	357	805	919	784	774	1110	322	559	571	509	515	0.538856747	0.777989961
CDR20291_2534	282	750	533	792	434	398	1589	502	246	260	427	0.797562936	0.897972061
CDR20291_2535	52	13	5	5	5	1	12	38	7	15	1	-2.659017956	0.562149318

CDR20291_2536	213	2293	2821	1789	1996	1763	1687	2248	1792	1498	2759	2.91213085	4.16E-12
CDR20291_2537	361	4134	6207	3611	4033	3868	2447	4355	4655	3415	3573	3.088090268	3.75E-27
CDR20291_2538	10	30	39	43	4	6	7	39	0	125	2	1.20402495	0.947575252
CDR20291_2539	4	4	3	6	6	3	5	3	0	0	1 NA	NA	
CDR20291_2540	2	7	6	6	7	1	6	0	2	2	3 NA	NA	
CDR20291_2541	5	3	3	2	5	3	12	6	5	1	2 NA	NA	
CDR20291_2542	1	2	1	0	3	4	6	2	2	3	3 NA	NA	
CDR20291_2543	12	6	4	1	6	3	6	1	0	2	1 NA	NA	
CDR20291_2544	13	25	25	15	9	6	6	28	23	11	27	0.038926904	0.998533765
CDR20291_2545	5	4	2	1	0	1	2	0	1	1	0 NA	NA	
CDR20291_2546	86	131	334	248	179	111	102	269	150	78	227	0.672750163	0.848160036
CDR20291_2547	3	2	7	4	14	1	8	7	1	0	0 NA	NA	
CDR20291_2548	76	35	43	37	16	21	37	23	12	63	7	-1.727516567	0.552737606
CDR20291_2549	131	6	34	5	7	15	6	14	5	1	3	-4.315420473	0.006029833
CDR20291_2550	22	12	6	2	3	12	4	6	9	0	0 NA	NA	
CDR20291_2551	7099	20127	32634	23484	16553	16651	21081	19428	22750	18229	18435	1.185580667	0.00403804
CDR20291_2552	193	300	500	514	565	312	148	347	416	189	174	0.433264866	0.925506853
CDR20291_2553	300	319	957	575	481	528	390	398	210	827	345	0.346666664	0.951662831
CDR20291_2554	7	3	1	1	1	5	3	2	0	0	0 NA	NA	
CDR20291_2555	3	9	9	4	9	2	11	2	2	1	3 NA	NA	
CDR20291_2556	33	23	32	15	66	25	8	16	17	0	14	-1.023443612	0.927225356
CDR20291_2557	7	1	7	1	26	3	3	3	5	0	1 NA	NA	
CDR20291_2558	1	6	4	0	5	3	27	12	4	0	2 NA	NA	
CDR20291_2559	5	5	7	12	4	16	9	10	4	6	0 NA	NA	
CDR20291_2560	166	319	657	421	209	326	229	143	189	144	182	0.301042874	0.960075735
CDR20291_2561	415	585	788	574	323	621	192	409	413	301	469	-0.256792284	0.951662831
CDR20291_2562	29	66	109	52	25	56	26	25	17	60	16	0.168622997	0.987467975
CDR20291_2563	203	399	650	474	437	473	195	414	389	234	414	0.595606947	0.640674823
CDR20291_2564	40	63	81	42	78	121	26	41	17	19	49	0.002074278	0.999561437
CDR20291_2565	18	6	2	1	2	2	6	1	5	3	1 NA	NA	

CDR20291_2566	140	67	247	102	156	256	195	99	62	129	145	-0.307327416	0.984589191
CDR20291_2567	214	239	216	308	317	327	43	304	193	134	312	-0.21794046	0.986227745
CDR20291_2568	279	185	236	165	62	106	64	142	2801	44	78	-1.675039297	0.087596068
CDR20291_2569	1	4	0	1	2	2	5	3	2	0	0	NA	NA
CDR20291_2570	11	15	7	7	9	8	22	9	4	2	2	NA	NA
CDR20291_2571	51	8	74	26	40	9	10	12	33	14	14	-1.581334971	0.671364494
CDR20291_2572	998	1261	2098	1707	1302	1347	559	846	1187	883	1037	-0.13076652	0.984589191
CDR20291_2573	8	8	7	7	10	4	8	4	4	4	2	NA	NA
CDR20291_2574	1	2	13	6	2	2	1	1	2	5	1	NA	NA
CDR20291_2575	152	265	376	201	216	188	122	263	189	199	121	0.075226334	0.987467975
CDR20291_2576	19	16	29	3	4	25	5	0	10	7	7	-1.343573577	0.916535173
CDR20291_2577	24477	33659	55535	33644	29986	35485	31309	39364	31737	31909	31584	0.151210515	0.947575252
CDR20291_2578	7318	10231	15500	10873	9103	9389	9011	8789	8245	8114	7862	0.020760207	0.995736287
CDR20291_2579	5346	4915	9185	5789	4459	6720	4825	6576	7272	4870	4386	-0.246178543	0.923806867
CDR20291_2580	2663	3737	5537	4419	3159	3094	2086	3268	2778	2730	3768	-0.024410166	0.995736287
CDR20291_2581	272	766	1176	930	522	520	538	558	500	617	216	0.798701305	0.585684685
CDR20291_2582	815	1195	2087	1177	1067	1493	995	1033	1417	1334	1704	0.3527654	0.894306579
CDR20291_2583	2639	3690	4041	4484	1512	1853	2814	3346	1869	3992	2396	-0.183894485	0.984589191
CDR20291_2584	37	21	47	34	28	61	8	13	9	22	27	-0.891571421	0.907243372
CDR20291_2585	79	95	199	81	67	131	144	102	58	27	43	-0.153896142	0.987467975
CDR20291_2586	3	1	1	0	1	0	3	0	1	0	0	NA	NA
CDR20291_2587	3	3	4	2	4	9	2	1	0	0	1	NA	NA
CDR20291_2588	2324	3749	7704	4004	3510	3775	3886	3445	3259	3321	3456	0.384551783	0.722363593
CDR20291_2589	880	508	1189	895	571	832	812	1326	747	876	438	-0.476429206	0.896145468
CDR20291_2590	156	283	351	187	111	162	65	124	310	110	64	-0.278506785	0.984589191
CDR20291_2591	273	254	511	227	285	285	322	228	253	341	91	-0.353192503	0.947719056
CDR20291_2592	11669	17679	23326	19299	15070	18457	18876	21360	18970	16220	19915	0.34511799	0.866804323
CDR20291_2593	531	904	1154	803	667	648	424	822	700	603	872	0.122264885	0.984589191
CDR20291_2594	109	192	207	144	141	90	72	156	90	69	105	-0.201588469	0.984589191
CDR20291_2595	28	45	50	60	18	26	234	44	8	29	15	-0.238743581	0.987467975

CDR20291_2596	37	9	5	8	46	19	6	11	50	78	12	-0.860047608	0.954630457
CDR20291_2597	55	43	40	40	22	82	35	52	54	57	146	-0.250793353	0.987467975
CDR20291_2598	11	2	13	2	3	5	11	8	16	0	1 NA		NA
CDR20291_2599	82	126	243	24	84	111	64	96	99	59	142	-0.081826872	0.994578118
CDR20291_2600	703	939	1727	1079	643	889	395	899	1016	1063	830	0.01141453	0.998533765
CDR20291_2601	9005	10640	15156	11390	8808	12359	30248	11738	11071	9755	10137	0.25475621	0.984589191
CDR20291_2602	3	6	6	7	1	0	4	1	0	2	1 NA		NA
CDR20291_2603	6	4	4	0	6	1	6	0	5	0	0 NA		NA
CDR20291_2604	376	398	584	463	273	395	302	500	277	724	271	-0.21655607	0.984589191
CDR20291_2605	1161	433	593	499	193	583	609	747	613	375	649	-1.471156129	0.142865286
CDR20291_2606	136	22	12	24	20	43	12	30	39	2	6	-3.068166374	0.10264262
CDR20291_2607	251	363	711	317	301	391	243	337	174	158	329	-0.035023519	0.995736287
CDR20291_2608	4580	7031	12007	6547	6077	6418	6591	7628	8292	6632	4056	0.246740198	0.925506853
CDR20291_2609	4854	6091	10955	5745	4817	6034	4142	5172	3859	4061	4251	-0.244676105	0.885313437
CDR20291_2610	71	45	263	73	34	67	26	100	18	97	88	-0.320093197	0.984589191
CDR20291_2611	1	3	0	3	4	2	1	0	1	0	0 NA		NA
CDR20291_2612	1695	2131	3725	1809	1586	1991	1379	1759	1503	2542	1583	-0.168021546	0.973419192
CDR20291_2613	7	1	1	2	0	2	6	1	2	0	2 NA		NA
CDR20291_2614	356	323	840	383	498	463	390	374	284	453	118	-0.204151577	0.984589191
CDR20291_2615	2198	2230	3112	2076	1617	1752	828	1556	1811	1664	1139	-0.731149102	0.259107498
CDR20291_2616	457	529	1242	692	610	615	382	556	740	471	535	0.056854895	0.987467975
CDR20291_2617	71	142	105	87	48	163	98	123	58	131	143	0.287285413	0.984589191
CDR20291_2618	2	5	1	1	0	2	2	1	1	1	0 NA		NA
CDR20291_2619	4	5	3	0	1	4	3	0	5	0	0 NA		NA
CDR20291_2620	1	19	27	5	17	8	40	24	2	22	1	3.725079524	0.50474961
CDR20291_2621	156	215	570	351	235	292	163	193	364	124	226	0.36831884	0.926797301
CDR20291_2622	166	335	348	280	275	348	220	890	195	278	180	0.638031413	0.897972061
CDR20291_2623	1948	3142	3915	2150	2525	2973	3383	2303	1966	3344	1377	0.115821098	0.987467975
CDR20291_2624	479	759	1252	640	601	875	303	575	590	528	865	0.126346706	0.986227745
CDR20291_2625	2593	2698	3987	2119	2282	1909	1475	2215	1680	2189	1709	-0.63061464	0.205227368

CDR20291_2626	697	1377	1981	1439	919	1919	516	1907	1518	1373	1804	0.691278092	0.693111203
CDR20291_2627	322	327	480	482	366	443	1914	411	220	449	384	-0.104643993	0.987467975
CDR20291_2628	294	329	665	300	396	255	159	431	499	651	205	0.008255309	0.998533765
CDR20291_2629	4	4	2	1	8	1	9	2	4	1	1	NA	NA
CDR20291_2629;													
CDR20291_2630	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_2630	9	2	1	3	9	1	6	5	4	3	5	NA	NA
CDR20291_2631	1	2	0	0	5	0	3	0	0	1	1	NA	NA
CDR20291_2632	1	4	1	1	1	0	0	1	0	0	1	NA	NA
CDR20291_2633	10	5	12	6	4	3	8	5	7	1	5	NA	NA
CDR20291_2634	3	1	1	0	0	1	3	0	1	0	0	NA	NA
CDR20291_2635	2580	2413	4938	3658	2492	2959	2950	3207	2872	2375	2624	-0.144307512	0.973419192
CDR20291_2636	1935	5170	8748	5778	4250	4593	4719	4652	4384	3669	5898	1.03377273	0.017156767
CDR20291_2637	861	1081	1443	1247	1143	1089	2204	1037	1080	1195	938	0.221202638	0.984589191
CDR20291_2638	7	5	2	7	6	3	7	5	4	1	1	NA	NA
CDR20291_2639	6	14	62	7	5	37	0	17	0	0	0	0.545128677	0.987467975
CDR20291_2640	82	237	830	281	348	338	130	257	218	411	250	1.548046877	0.067244252
CDR20291_2641	1589	2709	5075	2667	2214	2559	1382	1883	1924	2186	3013	0.264655172	0.925506853
CDR20291_2642	3	13	70	2	2	1	5	0	2	47	4	1.703805269	0.926797301
CDR20291_2643	65	72	116	123	64	109	32	22	35	15	8	-0.608338995	0.954630457
CDR20291_2644	2	0	0	0	1	4	2	2	2	0	2	NA	NA
CDR20291_2645	623	539	926	827	561	603	667	1291	1385	4806	828	0.721779356	0.954630457
CDR20291_2646	235	535	768	466	602	428	474	547	280	368	414	0.671647473	0.570589954
CDR20291_2647	173	396	607	432	387	685	343	467	233	282	244	0.834915953	0.492072547
CDR20291_2648	356	1235	2068	1962	1032	972	1049	1221	853	1157	1057	1.426469903	0.003172427
CDR20291_2649	2410	463	820	644	286	1084	550	727	567	524	924	-2.232299819	0.001288434
CDR20291_2650	48	133	165	88	68	131	20	147	40	22	30	0.326244651	0.984589191
CDR20291_2651	186	458	960	968	606	482	317	326	424	519	212	1.072979068	0.383786875
CDR20291_2652	22839	16480	31133	17694	12115	11550	16326	16706	17415	16832	13285	-0.823575286	0.181880584
CDR20291_2653	2175	3115	4410	2654	2930	3846	2089	3100	2838	2606	3047	0.110006581	0.984589191

CDR20291_2654	8	4	1	3	14	9	5	15	0	22	0	NA	NA
CDR20291_2655	11611	12094	18915	12910	9306	12889	9149	12968	10050	12191	8920	-0.353871586	0.670377928
CDR20291_2656	731	692	798	707	692	594	528	564	553	893	651	-0.48393286	0.798073211
CDR20291_2657	8	6	1	7	4	3	8	13	3	1	1	NA	NA
CDR20291_2658	2	4	3	1	6	2	9	7	3	4	1	NA	NA
CDR20291_2659	4	6	3	6	3	4	6	5	4	1	0	NA	NA
CDR20291_2659;													
CDR20291_2660	0	1	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_2660	2	2	2	3	4	0	7	1	1	0	1	NA	NA
CDR20291_2661	1	3	3	4	5	0	5	2	1	0	3	NA	NA
CDR20291_2662	4	1	2	1	0	2	3	3	2	1	2	NA	NA
CDR20291_2663	2	4	4	4	4	6	12	2	2	2	4	NA	NA
CDR20291_2664	7	2	4	3	2	5	5	4	2	0	1	NA	NA
CDR20291_2665	5	5	5	1	5	2	7	0	12	2	3	NA	NA
CDR20291_2666	10	1	2	0	3	3	4	0	2	1	2	NA	NA
CDR20291_2667	6	4	2	1	3	3	3	1	3	0	0	NA	NA
CDR20291_2668	6	5	11	1	7	5	17	5	13	3	2	NA	NA
CDR20291_2669	3	7	3	0	3	3	6	7	6	3	1	NA	NA
CDR20291_2670	8	4	4	1	2	0	5	2	0	1	2	NA	NA
CDR20291_2671	0	1	1	1	2	0	1	1	1	2	0	NA	NA
CDR20291_2672	812	3324	6090	3516	3179	3738	4038	3438	3331	3416	3402	1.832265735	4.64E-07
CDR20291_2673	1772	2423	4833	2061	2328	1832	1182	1641	1600	2831	1748	-0.088964452	0.987467975
CDR20291_2674	8892	14451	24495	12877	12639	13991	10006	12192	9820	14104	10486	0.195785189	0.925506853
CDR20291_2675	805	1099	1898	814	953	1055	509	619	448	614	444	-0.391485322	0.916093971
CDR20291_2676	118	422	833	585	381	817	369	514	595	327	666	1.83065666	0.001756353
CDR20291_2677	221	270	664	300	247	306	209	284	351	239	280	0.083119821	0.987467975
CDR20291_2678	23340	25413	40991	28785	25637	30268	27827	30014	32173	28929	18995	-0.061303811	0.987467975
CDR20291_2679	2612	3330	5952	3786	2963	3269	2302	3430	3325	3208	2652	-0.017420331	0.995736287
CDR20291_2680	267258	325147	521407	351943	297778	351069	316885	357847	316602	329921	242417	-0.028797919	0.994553213
CDR20291_2681	9	11	7	9	7	10	17	2	5	2	5	NA	NA

CDR20291_2682	7	14	10	8	9	6	17	8	10	0	6	NA	NA
CDR20291_2683	10178	18557	34731	17911	15826	17041	14613	16960	15759	19163	15948	0.46959177	0.383431025
CDR20291_2684	13739	26627	41302	24099	20978	25494	26036	24533	23778	24162	18071	0.510296315	0.495377207
CDR20291_2685	1457	3035	2941	2563	2551	2710	1502	2308	2059	2075	1913	0.317004133	0.842098999
CDR20291_2686	4446	9654	12636	9177	7176	8391	5519	7552	8405	6357	6219	0.465271337	0.266107496
CDR20291_2687	1770	4257	7314	4272	3391	4011	2148	4347	6420	3155	3314	0.854153778	0.220361022
CDR20291_2688	448	575	963	464	648	606	359	784	590	688	288	0.013225437	0.998533765
CDR20291_2689	6	4	3	0	0	7	1	0	12	0	64	NA	NA
CDR20291_2690	899	1110	1669	614	926	926	618	680	910	680	656	-0.450174115	0.7504811
CDR20291_2691	15	15	3	13	6	3	15	5	8	14	3	NA	NA
CDR20291_2692	227	224	208	172	227	207	126	224	302	153	155	-0.546864591	0.829481015
CDR20291_2693	11	7	16	6	13	6	18	23	6	5	2	-0.467543688	0.984589191
CDR20291_2694	4	3	6	1	3	3	6	6	1	0	1	NA	NA
CDR20291_2695	4	3	1	3	1	1	2	2	0	0	0	NA	NA
CDR20291_2696	0	2	1	0	1	4	1	0	0	0	0	NA	NA
CDR20291_2697	159	118	213	139	100	80	24	221	89	67	53	-0.986389778	0.756822547
CDR20291_2698	422	423	462	385	251	185	194	380	230	163	185	-0.980010381	0.335728329
CDR20291_2699	1057	2952	5200	3330	2423	2680	2867	2695	2425	3223	2371	1.123586064	0.005408979
CDR20291_2700	1016	943	734	895	749	992	1500	1138	724	1204	1149	-0.307334417	0.968488529
CDR20291_2701	71	221	291	147	85	196	83	81	81	40	141	0.48296448	0.936953799
CDR20291_2702	4	3	0	5	5	5	7	4	3	2	0	NA	NA
CDR20291_2703	62	95	68	96	61	74	32	52	54	66	226	0.083874853	0.995736287
CDR20291_2704	119	251	433	245	258	195	171	185	92	225	369	0.634720026	0.850318392
CDR20291_2705	42	36	159	19	29	40	24	33	118	45	49	-0.075861135	0.995736287
CDR20291_2706	1156	1557	2621	1217	1185	1132	530	1333	935	799	827	-0.389221499	0.866542396
CDR20291_2707	1559	1792	2487	1600	1687	2005	2198	1430	1539	1273	2000	-0.14419518	0.984589191
CDR20291_2708	36	223	271	68	63	409	19	556	148	387	133	2.264126131	0.348096078
CDR20291_2709	159	212	397	189	232	141	475	204	246	247	212	0.360705556	0.963832723
CDR20291_2710	288	370	864	487	417	545	226	357	434	234	248	0.088844506	0.987467975
CDR20291_2711	3	3	2	1	1	0	4	3	1	0	2	NA	NA

CDR20291_2712	10	10	3	5	12	33	14	3	3	1	1	NA	NA
CDR20291_2713	522	1103	1650	994	1124	1003	955	1304	815	910	1073	0.688303812	0.270423552
CDR20291_2714	20	20	19	22	31	3	1	19	7	8	27	-0.735839938	0.968488529
CDR20291_2715	1877	2889	5095	3133	2764	3562	2377	2761	2542	2144	3016	0.291032527	0.816981594
CDR20291_2715;													
CDR20291_2716	2455	3711	6387	3978	3503	4073	7222	3880	3568	3416	3785	0.488482976	0.885492768
CDR20291_2717	32	95	141	81	26	52	92	152	34	41	27	0.793892702	0.9155071
CDR20291_2718	320	882	1739	1188	722	702	532	867	747	667	630	1.003304678	0.03012484
CDR20291_2719	471	1059	1528	1048	889	1047	316	889	935	1154	518	0.57542454	0.790169327
CDR20291_2720	53	80	73	38	15	23	14	41	15	31	46	-0.938894984	0.871784787
CDR20291_2721	831	1368	2262	1332	1157	1504	1271	1079	1306	887	936	0.257449197	0.916535173
CDR20291_2722	3207	4603	6767	3803	3923	5046	3255	5178	4020	5201	3660	0.120502851	0.984589191
CDR20291_2723	225	533	709	335	334	330	190	402	250	167	206	0.163911884	0.984589191
CDR20291_2724	501	649	1355	1086	551	774	503	837	581	562	488	0.133765221	0.984589191
CDR20291_2725	436	471	1323	644	518	493	351	560	341	371	390	-0.136606259	0.984589191
CDR20291_2726	127	194	309	292	107	536	1283	178	151	184	194	0.447523032	0.932415627
CDR20291_2727	133	355	370	498	470	213	199	218	453	397	152	0.954162745	0.627202987
CDR20291_2728	111	59	189	110	74	153	64	32	163	44	43	-0.693604179	0.9155071
CDR20291_2729	6	9	50	9	5	18	17	4	5	27	11	0.905262959	0.947575252
CDR20291_2730	133	175	317	130	157	266	49	143	112	106	83	-0.254670733	0.984589191
CDR20291_2731	1666	2535	3460	2509	1880	2632	1526	2631	2992	1843	1806	0.120720507	0.984589191
CDR20291_2732	304	453	888	1622	485	422	285	721	367	513	495	0.623752572	0.885492768
CDR20291_2733	1708	3587	5319	4288	2994	3752	2456	3962	2725	3430	2891	0.657968196	0.113616302
CDR20291_2734	3399	5262	7927	4788	4346	4057	2129	3975	3021	4910	3783	-0.039149878	0.994553213
CDR20291_2735	1604	2390	3425	2562	2328	2382	2285	3487	2422	2613	1551	0.295231962	0.91856455
CDR20291_2736	179	202	375	300	179	150	141	118	141	193	370	-0.111730731	0.987467975
CDR20291_2737	407	511	738	920	477	517	176	695	647	717	458	0.133055622	0.987467975
CDR20291_2738	139	149	97	233	72	109	170	239	140	181	255	-0.057810234	0.995736287
CDR20291_2739	4346	5737	9761	5514	5689	6455	21241	6025	6421	6911	5056	0.125985846	0.973419192
CDR20291_2740	3602	3915	7027	4301	3163	3635	1772	2440	3018	2501	4223	-0.43099021	0.818849811

CDR20291_2741	10161	10185	16306	9371	8220	9538	4181	6543	6918	6076	5557	-0.737638429	0.196907052
CDR20291_2742	87	91	244	307	239	137	887	116	118	109	51	1.176178911	0.877926426
CDR20291_2743	840	2019	2779	1434	1706	1318	2013	1488	1835	1312	746	0.605107101	0.757476339
CDR20291_2744	741	1693	2319	1796	1412	1288	1446	1278	1524	883	978	0.587586079	0.557613262
CDR20291_2745	355	731	686	624	473	575	352	521	369	344	622	0.192260045	0.973419192
CDR20291_2746	7305	8572	14658	8689	6666	7235	5504	6399	7578	5623	6234	-0.341972748	0.634028727
CDR20291_2747	4992	6105	10555	8669	6028	7941	17356	6269	7105	5547	5708	0.392999059	0.947575252
CDR20291_2748	4068	5665	9466	5657	5159	5425	7472	5845	4413	5078	4755	0.166926168	0.981041358
CDR20291_2749	2458	4231	6297	4982	3409	3751	2827	3509	2874	3281	3885	0.269469841	0.866542396
CDR20291_2750	124	126	272	226	119	111	94	165	98	33	20	-0.442785278	0.968488529
CDR20291_2751	327	720	1040	633	589	724	168	863	745	492	209	0.479006175	0.920684121
CDR20291_2752	2	4	1	1	1	1	5	4	1	2	1	NA	NA
CDR20291_2753	8	40	21	9	40	7	17	4	10	25	31	1.023865248	0.925506853
CDR20291_2754	554	701	1238	718	569	860	420	647	551	900	539	-0.040830264	0.994553213
CDR20291_2755	100	143	185	79	149	97	31	557	93	154	77	0.250729973	0.987467975
CDR20291_2756	136	156	373	74	62	136	31	121	167	225	27	-0.477316086	0.968488529
CDR20291_2757	261	514	544	506	337	423	149	487	303	275	165	0.07729189	0.988631632
CDR20291_2758	1	3	3	0	3	3	7	3	2	0	0	NA	NA
CDR20291_2759	206	213	562	270	248	332	274	244	249	317	236	0.116971978	0.986227745
CDR20291_2760	44	69	95	74	84	30	25	25	45	2	8	-0.417767851	0.984589191
CDR20291_2761	84	181	233	108	118	232	173	211	106	111	198	0.62412663	0.846905759
CDR20291_2762	408	518	965	561	357	485	185	370	364	325	209	-0.382349704	0.916535173
CDR20291_2763	635	396	586	322	343	429	302	285	303	272	306	-1.23775753	0.001010763
CDR20291_2764	671	815	1461	830	788	1022	512	575	832	729	556	-0.141656988	0.978901616
CDR20291_2765	287	205	225	141	158	255	71	195	79	133	167	-1.219633548	0.25777614
CDR20291_2766	210	216	434	207	160	285	163	119	273	179	182	-0.340250564	0.925506853
CDR20291_2767	12	41	26	2	11	16	15	59	0	1	11	0.182264734	0.995736287
CDR20291_2768	270	374	531	588	281	258	80	406	292	512	830	0.251950255	0.984589191
CDR20291_2769	402	665	871	669	560	432	474	526	640	819	436	0.227737588	0.954974392
CDR20291_2770	27	47	142	30	60	34	36	36	69	16	11	0.3398348	0.984589191

CDR20291_2771	3	2	4	5	4	4	4	3	2	1	1	NA	NA
CDR20291_2772	279	357	521	183	271	327	126	281	247	224	169	-0.480440182	0.842098999
CDR20291_2773	130	117	95	76	45	31	242	329	92	14	94	-0.486498603	0.984589191
CDR20291_2774	127	324	649	412	356	415	481	461	424	206	380	1.319043721	0.067244252
CDR20291_2775	318	423	583	320	317	424	79	521	335	633	604	0.035312793	0.998533765
CDR20291_2776	57	184	503	107	680	156	1538	562	379	357	5108	2.852044193	0.293874802
CDR20291_2777	344	689	1901	672	7298	2448	5155	4565	1533	2873	3207	2.888903729	0.176413021
CDR20291_2778	121	207	1380	398	2923	1107	3396	2348	407	1271	2401	3.468392061	0.140223024
CDR20291_2779	1043	4705	20910	8964	48550	16388	49318	32106	12040	33278	37953	4.421256048	0.002923242
CDR20291_2780	8	78	147	52	436	653	963	349	135	44	296	5.083565346	0.035026498
CDR20291_2781	4151	5945	7858	6287	5497	6256	4970	5496	5698	5452	4270	0.101284815	0.984589191
CDR20291_2782	825	1017	1864	907	743	674	500	865	831	779	969	-0.277616853	0.91856455
CDR20291_2783	4867	8331	12511	7259	7027	9214	5543	6929	6768	7676	5372	0.254918825	0.858378676
CDR20291_2784	7141	7070	9985	12502	5333	8020	10830	21777	11742	11747	10108	0.28279099	0.973419192
CDR20291_2785	161	429	413	549	301	672	104	340	469	418	446	0.981175593	0.598151296
CDR20291_2786	815	1026	1714	781	911	813	5546	910	982	895	617	-0.210221081	0.927225356
CDR20291_2787	89	139	45	131	68	120	62	107	74	392	154	0.257444328	0.987467975
CDR20291_2788	279	371	710	233	311	209	234	337	157	291	227	-0.295803895	0.950009051
CDR20291_2789	243	447	492	420	365	266	106	291	687	264	302	0.185032689	0.986227745
CDR20291_2790	74	176	113	56	55	41	94	123	38	58	36	-0.291519332	0.984589191
CDR20291_2791	13	41	19	11	41	16	12	8	12	1	2	-0.078240333	0.998533765
CDR20291_2792	72	29	77	29	50	58	3	82	19	3	31	-1.392953497	0.829481015
CDR20291_2793	0	3	1	2	5	1	3	0	0	0	6	NA	NA
CDR20291_2794	6517	8001	10917	7266	7779	7293	9901	6841	6857	6702	5287	-0.118749115	0.986227745
CDR20291_2795	93	68	104	96	24	29	18	74	58	19	28	-1.314142508	0.637236901
CDR20291_2796	0	0	1	0	2	0	4	0	0	2	0	NA	NA
CDR20291_2797	11316	11464	16511	10559	11118	13681	7445	11643	10269	9733	8092	-0.428665688	0.461491317
CDR20291_2798	260	334	460	299	364	378	256	213	348	173	187	-0.182979358	0.984589191
CDR20291_2799	657	939	2161	1127	886	1191	558	1214	835	1063	861	0.290044068	0.903905619
CDR20291_2800	49	48	172	84	63	29	53	10	40	18	80	-0.182828009	0.987467975

CDR20291_2801	20	70	152	56	38	67	7	18	35	25	91	0.984906963	0.897972061
CDR20291_2802	39	56	297	68	36	64	32	297	10	521	29	1.456114265	0.869812015
CDR20291_2803	34	64	201	37	54	44	32	67	47	56	92	0.555535119	0.926797301
CDR20291_2804	543	382	578	265	345	273	174	360	367	348	243	-1.110916978	0.052471304
CDR20291_2805	400	422	651	198	238	427	209	267	207	262	135	-0.857323365	0.547352272
CDR20291_2806	657	260	57	354	147	106	855	603	442	519	488	-0.982286772	0.925506853
CDR20291_2807	4337	6665	12035	8455	6719	9651	4647	6670	8875	7042	6262	0.42995614	0.640674823
CDR20291_2808	286	526	686	409	513	578	850	706	374	492	201	0.5590305	0.903337584
CDR20291_2809	133	222	323	202	239	273	43	128	142	162	249	0.158044974	0.987467975
CDR20291_2810	14	7	7	2	1	17	7	13	19	18	0	-0.954112947	0.968488529
CDR20291_2811	169	217	423	228	188	350	152	117	182	141	103	-0.128397516	0.987467975
CDR20291_2812	101	112	197	57	129	132	108	190	43	54	31	-0.358425562	0.984076663
CDR20291_2813	652	1199	1736	1299	845	1248	1075	1096	1926	1169	1214	0.608011263	0.640674823
CDR20291_2814	33	59	56	11	37	45	19	107	14	18	5	-0.263016527	0.987467975
CDR20291_2815	62	126	159	226	131	78	53	86	128	89	63	0.467690245	0.927225356
CDR20291_2816	18	33	78	42	46	19	14	21	54	57	4	0.59600546	0.968488529
CDR20291_2817	11	6	1	2	4	0	8	6	2	1	0	NA	NA
CDR20291_2818	52	58	105	58	30	26	22	149	60	3	32	-0.394852836	0.984589191
CDR20291_2819	643	1156	2053	1076	861	1175	951	1035	791	1252	387	0.323853711	0.930043643
CDR20291_2820	13	13	5	2	10	22	20	13	2	1	2	-0.837931751	0.973419192
CDR20291_2821	2	10	1	2	27	5	2	3	2	2	4	NA	NA
CDR20291_2822	260	483	1026	481	521	571	375	1018	365	482	649	0.798155857	0.548822404
CDR20291_2823	8	2	0	1	3	1	4	2	0	0	2	NA	NA
CDR20291_2824	181	422	707	428	327	451	383	545	710	355	172	0.919486895	0.50474961
CDR20291_2825	65	251	417	297	261	267	113	225	100	105	243	1.376079665	0.186267221
CDR20291_2826	12	16	111	2	22	39	10	9	5	1	2	0.163068133	0.995736287
CDR20291_2827	31	48	39	25	86	12	8	46	48	100	61	0.292275415	0.987467975
CDR20291_2828	128	128	230	111	103	104	50	111	103	291	88	-0.350130256	0.973419192
CDR20291_2829	280	312	586	314	325	336	80	273	502	381	244	-0.159063401	0.986659195
CDR20291_2830	1235	1507	2898	1729	1632	1448	856	1355	1295	998	1333	-0.142723674	0.973419192

CDR20291_2831	77	125	140	135	22	322	25	109	63	43	190	0.192354108	0.987467975
CDR20291_2832	6021	9037	15580	9734	8440	8688	6347	8928	8095	8248	7733	0.190294416	0.838322352
CDR20291_2833	4656	7498	11476	7756	6817	6688	5798	7740	7485	6652	7643	0.316891458	0.749515787
CDR20291_2833;													
CDR20291_2834	3943	5748	9613	6189	5177	5895	4714	6255	7298	5847	4652	0.250964657	0.894226527
CDR20291_2835	1538	2187	3960	2287	2330	1769	1358	2537	2137	1818	1982	0.13134193	0.973419192
CDR20291_2836	51	9	9	19	17	6	10	2	2	8	4	-2.927099422	0.25265684
CDR20291_2837	65	4	2	67	22	0	112	26	4	16	14	-1.442336944	0.925506853
CDR20291_2838	2	12	7	12	5	3	12	3	4	0	6	NA	NA
CDR20291_2839	21	59	102	65	69	69	4	100	109	41	61	1.273993974	0.773415049
CDR20291_2840	3	4	2	4	4	1	3	2	7	1	2	NA	NA
CDR20291_2841	1438	2898	4584	6045	3272	3196	8228	2236	4586	2346	3120	1.188243428	0.502960492
CDR20291_2842	36	44	31	53	45	47	7	28	17	7	10	-0.746914428	0.936953799
CDR20291_2843	228	360	419	542	234	151	156	447	571	130	621	0.302204312	0.984589191
CDR20291_2844	15	11	9	15	8	4	2	10	129	0	12	-1.325488637	0.916535173
CDR20291_2845	688	1184	2470	1174	1045	1231	559	545	817	756	930	0.179360458	0.984589191
CDR20291_2846	1524	2694	4798	2126	2233	2564	1008	1797	1982	1614	1303	0.078190261	0.987467975
CDR20291_2847	68	95	111	156	186	121	9	172	74	62	47	0.191691991	0.987467975
CDR20291_2848	64	30	110	25	36	87	26	14	50	14	25	-1.10202098	0.816981594
CDR20291_2849	1041	922	1613	797	762	1252	949	695	978	1645	707	-0.381056141	0.925506853
CDR20291_2850	2505	2986	4392	2463	3826	2438	2776	2404	2810	1791	3360	-0.144887676	0.984589191
CDR20291_2851	869	433	787	522	455	440	491	554	300	243	488	-1.270996307	0.051197465
CDR20291_2852	4256	4769	6155	4860	3666	4992	48533	5205	5259	5537	3730	-0.202453057	0.947575252
CDR20291_2853	323	529	1100	496	735	740	250	583	544	389	245	0.352283636	0.927225356
CDR20291_2854	832	723	1448	1015	942	1087	667	616	572	803	1080	-0.281831417	0.930043643
CDR20291_2855	3683	4918	7412	4827	4058	4340	5346	4332	4751	5406	3814	0.05271858	0.988631632
CDR20291_2856	46	30	77	36	26	51	81	4	49	11	55	-0.480460112	0.984589191
CDR20291_2857	124	115	117	97	123	95	15	54	51	55	95	-1.016083787	0.749515787
CDR20291_2858	319	472	739	478	468	344	410	332	596	315	930	0.316379301	0.960075735
CDR20291_2859	75	124	252	145	140	189	27	38	115	35	150	0.235232722	0.986659195

CDR20291_2860	90	218	117	91	105	479	31	63	22	35	206	0.197514242	0.987467975
CDR20291_2861	519	930	1138	931	629	661	1264	789	1190	374	434	0.329950615	0.960075735
CDR20291_2862	0	11	0	10	1	0	10	1	0	0	0	NA	NA
CDR20291_2863	3	1	2	7	4	1	3	0	1	2	3	NA	NA
CDR20291_2864	48	84	39	56	119	103	123	13	128	5	26	0.237847019	0.987467975
CDR20291_2864;													
CDR20291_2865	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_2865	12	17	11	19	23	13	4	6	1	3	8	-0.598744458	0.984589191
CDR20291_2866	1482	2240	3368	3105	2113	1991	3793	2051	2243	1622	2238	0.398940151	0.92014325
CDR20291_2867	143	162	207	186	81	172	23	107	39	105	62	-0.787573112	0.879027757
CDR20291_2868	77	114	108	148	76	110	119	24	68	5	98	-0.190258446	0.987467975
CDR20291_2869	1624	1996	3670	2109	1715	1861	1419	1727	1735	2088	1841	-0.092981403	0.984589191
CDR20291_2870	241	689	950	483	546	205	529	622	979	418	380	0.88429497	0.655684544
CDR20291_2871	5884	9741	16506	10869	8904	10045	11466	10524	9684	11806	7706	0.496367018	0.655684544
CDR20291_2872	1606	2009	3629	1530	2237	1773	1225	2087	2898	1344	2397	-0.001831615	0.999561437
CDR20291_2873	180	162	469	119	143	251	236	395	280	186	164	0.016277155	0.998533765
CDR20291_2874	10	12	5	29	18	6	97	8	10	1	1	0.760143471	0.984589191
CDR20291_2875	338	245	440	253	288	283	210	331	293	111	101	-0.819285147	0.639433786
CDR20291_2876	9256	12581	20120	13057	11800	14155	15539	11259	13573	14173	10640	0.203375144	0.954630457
CDR20291_2877	201	173	518	342	143	453	287	175	284	112	113	-0.057349872	0.995736287
CDR20291_2878	935	1332	2220	1407	1289	1350	1649	1585	1203	1154	1255	0.257973776	0.925506853
CDR20291_2879	1683	3207	5864	3377	2781	3268	1810	3124	2430	2605	2343	0.444696765	0.386998355
CDR20291_2880	135	171	192	197	247	528	171	223	150	98	1378	0.300751958	0.984076663
CDR20291_2881	174	119	191	149	118	103	104	44	68	38	103	-1.15738609	0.516164761
CDR20291_2882	128	146	570	176	167	78	113	126	236	286	93	0.168527989	0.987467975
CDR20291_2883	23	30	8	13	3	32	65	30	14	73	3	0.014749533	0.999561437
CDR20291_2884	26	166	90	81	71	36	59	60	56	19	69	1.050724956	0.803414607
CDR20291_2885	10	50	179	10	48	61	7	60	72	21	20	1.845048484	0.633960066
CDR20291_2886	680	911	1820	1138	980	908	1018	1070	1065	930	915	0.275263688	0.897972061
CDR20291_2887	364	439	654	592	313	812	153	407	405	313	269	-0.171774358	0.984589191

CDR20291_2888	930	1376	2047	1035	995	1075	757	1158	796	730	1055	-0.173727451	0.954630457
CDR20291_2889	2345	3408	5529	2670	3411	3688	3195	3703	3038	3502	2831	0.197845287	0.940556956
CDR20291_2890	5	0	28	5	1	11	9	5	6	0	23	NA	NA
CDR20291_2891	253	457	624	582	299	323	130	622	395	274	668	0.390923599	0.947575252
CDR20291_2892	29	2	1	1	3	2	7	2	0	0	0	NA	NA
CDR20291_2893	412	496	989	441	402	504	279	519	408	563	371	-0.153632732	0.981041358
CDR20291_2894	52	118	128	27	70	16	26	46	52	51	31	-0.334722745	0.984589191
CDR20291_2895	20	13	74	28	10	5	4	9	2	6	20	-0.837772162	0.954630457
CDR20291_2896	2426	3774	6476	4249	3200	3258	3399	4428	3148	3012	5873	0.374103445	0.897972061
CDR20291_2897	43	74	113	222	59	151	75	41	8	141	60	0.750207959	0.927225356
CDR20291_2898	220	327	559	258	280	275	145	333	304	141	288	-0.026762507	0.997813116
CDR20291_2899	205	654	1532	557	487	991	553	2231	753	436	555	1.671544156	0.142129655
CDR20291_2900	1011	632	468	329	537	523	336	569	434	325	411	-1.508496827	0.011090653
CDR20291_2901	201	121	336	112	147	481	145	186	110	119	90	-0.552109275	0.925506853
CDR20291_2902	144	113	209	132	100	127	156	151	195	126	182	-0.302352878	0.954630457
CDR20291_2903	355	325	912	377	297	567	181	328	547	953	508	0.098000862	0.988631632
CDR20291_2904	75	131	172	116	82	74	15	202	63	36	138	0.020857798	0.998533765
CDR20291_2905	382	567	948	1375	490	562	347	519	1166	645	232	0.436751507	0.9374313
CDR20291_2906	59	89	117	90	103	48	22	45	33	29	39	-0.391731779	0.973419192
CDR20291_2907	259	257	454	324	303	327	366	163	198	125	261	-0.275780359	0.973419192
CDR20291_2908	550	774	1099	670	684	511	586	768	1034	578	1052	0.131958167	0.986227745
CDR20291_2909	858	1316	2811	1124	1187	1557	863	1116	1662	1060	2094	0.379527357	0.911388826
CDR20291_2910	245	439	720	330	321	266	101	170	187	164	495	-0.07254085	0.994553213
CDR20291_2911	960	1270	2390	1637	1361	1571	1027	1534	1170	1111	1374	0.189075442	0.925506853
CDR20291_2912	598	828	1396	765	1067	1021	336	846	595	726	1259	0.166781255	0.984589191
CDR20291_2913	112	254	264	269	119	146	239	124	105	126	60	0.219800241	0.984589191
CDR20291_2914	133	242	234	169	139	292	102	220	176	144	79	0.028868849	0.998533765
CDR20291_2915	81	112	164	127	191	147	39	136	123	373	144	0.600883052	0.926797301
CDR20291_2916	27	6	34	27	10	22	7	8	39	8	2	-1.186132358	0.903905619
CDR20291_2917	674	1090	1531	1014	810	942	358	953	475	484	796	-0.111952805	0.987467975

CDR20291_2918	38	24	169	75	47	20	12	22	28	8	32	-0.385797118	0.984589191
CDR20291_2919	39	48	107	35	62	57	27	107	1	28	34	-0.076604907	0.997499065
CDR20291_2920	490	659	1318	683	608	702	960	532	586	588	637	0.1922749	0.981041358
CDR20291_2921	8	11	15	12	5	9	10	9	20	0	0	NA	NA
CDR20291_2922	126	109	335	112	114	118	161	174	60	56	121	-0.324933271	0.973419192
CDR20291_2923	174	282	224	274	228	377	200	271	239	289	143	0.183717491	0.984589191
CDR20291_2924	258	404	421	158	369	259	550	335	293	117	254	-0.040085843	0.997813116
CDR20291_2925	300	261	758	516	444	746	213	1145	580	257	237	0.362571126	0.968488529
CDR20291_2926	439	468	627	578	329	390	202	498	275	487	232	-0.514647015	0.829481015
CDR20291_2927	1172	1929	3500	1968	1943	2228	3570	2644	1871	1054	1918	0.594748911	0.829481015
CDR20291_2927;													
CDR20291_2928	49	51	54	72	86	95	44	43	71	29	83	0.010075731	0.998533765
CDR20291_2928	3450	11641	20403	10393	10374	9972	10457	11044	11021	10972	9113	1.349083482	8.63E-06
CDR20291_2929	20262	3431	2298	3828	2464	3786	10400	3035	2791	3299	3983	-3.012220031	6.49E-09
CDR20291_2930	6	10	8	8	9	5	8	5	1	1	2	NA	NA
CDR20291_2931	3494	1576	2546	1585	1139	1427	503	788	1156	1106	1155	-1.870280073	0.00014049
CDR20291_2932	107	183	317	147	105	55	200	106	85	98	145	0.028165565	0.998533765
CDR20291_2933	273	361	351	123	246	309	317	541	388	144	478	-0.082159064	0.994553213
CDR20291_2934	958	1409	2068	1530	1137	1334	1130	1310	1715	1008	1025	0.1237748	0.984589191
CDR20291_2935	314	484	769	350	295	653	267	388	445	266	361	0.022743825	0.997813116
CDR20291_2936	202	153	294	180	78	99	53	200	3189	34	87	-1.107959351	0.613524198
CDR20291_2937	2330	4148	6442	4961	3991	4493	3121	4324	4305	3224	2311	0.425016079	0.661502923
CDR20291_2938	7207	22054	24507	19689	16804	20326	12074	19370	16961	16657	12440	0.938207772	0.005954327
CDR20291_2939	9	25	3	1	12	20	8	19	10	3	14	0.023189736	0.998533765
CDR20291_2940	134	194	173	141	178	107	42	182	108	108	112	-0.394036456	0.940556956
CDR20291_2941	4644	5568	9875	6097	4661	5679	3785	4953	5694	6690	7246	-0.011583595	0.998533765
CDR20291_2942	1080	1311	1765	1498	1169	1168	743	909	2446	1222	971	-0.090476667	0.987467975
CDR20291_2943	101	255	87	205	129	207	63	185	240	71	96	0.236057071	0.986227745
CDR20291_2944	81	168	247	106	94	94	14	113	185	57	50	-0.003456766	0.999561437
CDR20291_2945	869	1336	2335	914	978	1472	698	824	1006	1063	548	-0.079637866	0.987467975

CDR20291_2946	171	258	418	246	250	223	28	125	240	115	70	-0.274574686	0.984589191
CDR20291_2947	13	49	28	1	15	3	16	21	5	4	11	-0.187393313	0.994553213
CDR20291_2948	156	188	264	69	124	572	167	203	166	110	119	-0.052272565	0.997499065
CDR20291_2949	3660	6702	12401	7169	6288	6957	3922	6407	5570	5521	5690	0.442924323	0.293774487
CDR20291_2949;													
CDR20291_2950	4186	6601	11247	6874	5975	7189	10972	6368	6290	5538	5889	0.448113429	0.877926426
CDR20291_2951	196	179	256	200	166	187	126	307	472	585	194	0.120613065	0.988631632
CDR20291_2952	119	155	335	112	112	132	230	241	168	109	152	0.168527753	0.986538587
CDR20291_2953	49	184	232	135	144	128	180	83	99	84	205	1.224403564	0.402597477
CDR20291_2954	829	982	1599	1310	1091	1040	1699	861	781	565	959	0.041096268	0.995736287
CDR20291_2955	1638	2448	3416	2415	1600	1643	1915	2123	1759	2149	2179	0.021118971	0.997499065
CDR20291_2956	489	1009	1438	995	836	1169	627	512	790	1458	954	0.624431914	0.7504811
CDR20291_2957	39	112	227	144	71	59	47	100	199	77	107	1.120275688	0.596703927
CDR20291_2958	248	433	944	318	294	272	908	316	347	901	175	0.643514161	0.924401693
CDR20291_2959	6	11	15	18	9	4	4	13	15	30	196	0.734959228	0.963832723
CDR20291_2960	187	392	421	424	204	144	58	476	314	227	142	0.151427047	0.987467975
CDR20291_2961	2470	3576	7466	3978	3089	5097	3604	4833	3742	3672	3860	0.399458265	0.72115907
CDR20291_2962	9	9	3	10	19	3	9	1	4	3	4	NA	NA
CDR20291_2962;													
CDR20291_2963	1	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_2963	356	551	1062	682	568	991	319	539	385	390	307	0.261349728	0.954630457
CDR20291_2964	70	58	92	55	75	54	23	25	78	1	37	-0.930609476	0.917371647
CDR20291_2965	73	94	68	77	81	184	69	64	100	32	143	-0.020432983	0.998533765
CDR20291_2966	3	2	0	0	2	0	5	0	1	0	7	NA	NA
CDR20291_2967	63	33	73	68	25	75	54	39	22	5	153	-0.549163339	0.973419192
CDR20291_2968	124	67	275	99	157	98	198	231	343	67	208	0.140861458	0.987467975
CDR20291_2969	3092	3371	4534	2608	3241	3869	1863	3365	2563	2669	3135	-0.375728321	0.777989961
CDR20291_2970	36	148	95	63	120	84	24	63	78	73	24	0.69359485	0.916535173
CDR20291_2971	256	353	768	261	260	419	346	908	230	321	135	0.220965287	0.984589191
CDR20291_2972	649	1211	1744	907	880	932	664	827	696	597	572	0.045763907	0.989903052

CDR20291_2973	215	320	362	372	255	368	98	394	218	234	226	-9.49E-05	0.999845872
CDR20291_2974	211	375	756	470	534	870	428	375	559	416	754	1.025849495	0.34353201
CDR20291_2975	104	197	360	142	143	172	111	218	297	148	163	0.494327819	0.877926426
CDR20291_2976	41	45	404	40	329	394	131	95	161	183	39	1.717979943	0.570749837
CDR20291_2977	1273	1908	2312	2289	1441	1789	1077	2261	2313	1877	1736	0.203104627	0.954630457
CDR20291_2978	193	283	604	235	234	256	172	306	348	504	428	0.417815043	0.925506853
CDR20291_2979	270	141	252	112	154	324	57	109	142	92	141	-1.250834212	0.350981742
CDR20291_2980	379	812	1438	631	656	816	172	571	693	454	880	0.466016685	0.9155071
CDR20291_2981	773	1046	2015	1037	1289	1069	836	866	989	711	1790	0.203760771	0.979708105
CDR20291_2982	65	168	371	136	84	116	34	46	81	68	95	0.348494576	0.976469909
CDR20291_2983	6062	9006	15406	8161	7822	8442	7076	9622	8292	6942	6422	0.119827866	0.960075735
CDR20291_2984	2259	2793	4501	2465	2438	2435	8060	2951	1743	1308	2664	-0.25273984	0.927225356
CDR20291_2985	40	73	40	45	32	25	39	28	239	13	24	0.143940144	0.994553213
CDR20291_2986	878	1553	2417	1617	1389	1206	976	1629	1209	1689	1689	0.422175006	0.777989961
CDR20291_2987	304	417	424	372	348	549	286	298	696	300	1424	0.442404271	0.960075735
CDR20291_2988	119	146	173	172	144	104	244	143	276	68	56	0.025407268	0.998533765
CDR20291_2989	633	1080	1965	1108	1014	1095	780	980	1163	695	803	0.338921015	0.776469123
CDR20291_2990	9238	19935	32627	18435	17413	18716	15119	16818	14906	16379	13593	0.588882705	0.068174926
CDR20291_2991	12983	32331	54923	30321	28709	32334	23483	28432	26088	30479	26073	0.868256211	0.000424654
CDR20291_2992	251	280	569	312	264	184	219	305	114	513	124	-0.207284433	0.986227745
CDR20291_2993	2	11	15	3	8	3	3	3	0	0	0	NA	NA
CDR20291_2994	539	1037	1754	985	869	900	548	765	485	495	321	0.138683728	0.986227745
CDR20291_2995	29	36	127	93	92	38	28	15	18	13	36	0.290998154	0.986538587
CDR20291_2996	235	470	1164	516	389	969	287	394	200	355	261	0.613923613	0.866542396
CDR20291_2997	330	507	1811	535	457	999	400	601	418	485	432	0.522166586	0.851061538
CDR20291_2998	231	611	1022	600	371	812	251	502	480	429	206	0.740873075	0.652926437
CDR20291_2999	16	41	12	6	30	11	13	18	17	1	8	-0.391662847	0.986538587
CDR20291_3000	153	421	413	198	115	325	118	335	138	116	41	0.069641011	0.995736287
CDR20291_3001	2	4	2	0	3	8	6	1	3	3	0	NA	NA
CDR20291_3002	3	1	1	1	3	0	3	1	1	2	0	NA	NA

CDR20291_3003	2	2	3	0	0	0	0	0	0	2	0	NA	NA
CDR20291_3004	5	2	1	3	3	0	4	2	4	1	1	NA	NA
CDR20291_3005	4	3	3	1	0	4	4	0	0	0	3	NA	NA
CDR20291_3006	5	2	2	1	6	0	1	1	1	0	1	NA	NA
CDR20291_3007	229	492	664	533	319	251	1083	389	522	407	405	0.840748034	0.809797455
CDR20291_3008	1258	1989	3404	2181	1806	2078	1363	2074	1867	1953	1455	0.276218069	0.777948392
CDR20291_3009	92	177	373	124	79	173	109	181	123	157	155	0.404450704	0.925506853
CDR20291_3010	2138	3832	6675	3868	3338	3980	1702	2933	3099	2882	2345	0.259500733	0.911388826
CDR20291_3011	1	1	2	0	0	0	2	0	2	1	2	NA	NA
CDR20291_3012	485	498	1126	796	405	350	483	445	351	336	460	-0.315301428	0.930043643
CDR20291_3013	26	78	33	37	6	3	14	12	22	8	76	-0.217678602	0.988631632
CDR20291_3014	40	79	246	57	184	271	596	135	136	69	259	2.092180306	0.386998355
CDR20291_3015	1406	1705	2805	2050	1812	2076	1325	1701	1313	2351	1822	0.052230822	0.988631632
CDR20291_3016	474	558	814	793	623	551	378	320	325	519	297	-0.276440226	0.951662831
CDR20291_3017	7	13	3	0	31	7	5	4	8	0	3	NA	NA
CDR20291_3018	785	1187	1521	1378	928	787	721	1247	1096	1107	986	0.099711509	0.986227745
CDR20291_3019	27	77	110	108	73	63	21	52	27	41	119	0.945069655	0.838322352
CDR20291_3020	2	2	44	0	13	42	3	4	10	0	0	1.952087627	0.925506853
CDR20291_3021	1159	2472	4371	2352	2571	4611	1384	1738	1452	1915	1796	0.660148109	0.66623479
CDR20291_3022	7	30	0	2	6	19	1	1	7	0	2	NA	NA
CDR20291_3023	6	6	8	4	2	4	4	4	1	0	0	NA	NA
CDR20291_3024	0	0	2	0	1	0	1	0	0	0	0	NA	NA
CDR20291_3025	1289	1487	2627	1741	1190	1268	1021	1149	891	1213	980	-0.349852711	0.82259283
CDR20291_3026	35	21	41	26	28	13	17	33	57	1	7	-0.935067855	0.925506853
CDR20291_3027	2	5	3	4	6	6	4	6	4	1	2	NA	NA
CDR20291_3028	1	5	5	0	6	1	3	0	5	2	0	NA	NA
CDR20291_3029	7	8	4	6	3	4	6	2	2	2	4	NA	NA
CDR20291_3030	2	4	3	2	8	1	6	3	0	1	1	NA	NA
CDR20291_3031	6	8	1	1	4	4	6	2	4	0	3	NA	NA
CDR20291_3032	1	4	5	6	7	5	5	7	2	1	1	NA	NA

CDR20291_3033	253	281	648	392	328	314	386	433	451	828	237	0.408972618	0.9374313
CDR20291_3033;													
CDR20291_3034	0	0	0	0	0	0	0	0	0	0	1	NA	NA
CDR20291_3034	71	87	234	295	89	37	41	20	35	2	6	-0.302638928	0.987467975
CDR20291_3035	48	29	41	20	16	170	15	39	39	10	26	-0.664300426	0.960075735
CDR20291_3036	35	91	57	85	25	47	21	50	111	21	95	0.412916573	0.984566316
CDR20291_3037	439	550	738	402	313	497	205	1988	370	194	514	-0.012116245	0.998533765
CDR20291_3038	622	830	1761	861	973	1057	684	991	887	955	625	0.220289834	0.925506853
CDR20291_3039	431	528	969	689	703	641	360	627	690	325	447	0.062934378	0.987467975
CDR20291_3040	145	226	603	229	225	220	110	620	224	119	585	0.709080603	0.902546121
CDR20291_3041	374	752	1338	963	725	889	449	1073	824	825	873	0.823539786	0.167333569
CDR20291_3042	1947	3824	6043	3079	3231	4021	2544	2937	2601	2843	3006	0.402192214	0.554492628
CDR20291_3043	85	206	290	120	112	149	42	155	81	130	52	0.18228366	0.986538587
CDR20291_3044	1637	2609	3929	2177	1965	1716	1602	2198	1654	1909	1702	-0.020707633	0.995736287
CDR20291_3045	25	0	0	2	3	1	4	2	1	0	0	NA	NA
CDR20291_3045;													
CDR20291_3046	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_3046	3	0	2	0	0	2	2	2	0	2	0	NA	NA
CDR20291_3047	93	152	226	126	120	78	71	35	127	86	81	-0.186859168	0.986538587
CDR20291_3048	3052	7777	12602	7388	5803	7125	4750	5933	6817	5243	5411	0.755612835	0.004815241
CDR20291_3049	203	264	460	265	262	304	453	188	336	156	101	0.090680785	0.990782717
CDR20291_3050	1777	2334	4375	2101	2325	2495	3572	3443	2313	2248	2359	0.272317997	0.947575252
CDR20291_3051	6	5	1	2	8	6	13	4	5	1	3	NA	NA
CDR20291_3052	611	3940	7857	4729	4329	5307	4719	6177	7695	3969	4167	2.73891211	2.53E-10
CDR20291_3053	50	15	123	5	3	1	6	2	12	0	9	-2.331617481	0.808803667
CDR20291_3054	1810	2331	3492	2487	2514	1752	1637	2524	2686	2120	2137	0.006262787	0.998533765
CDR20291_3055	270	253	428	346	292	503	218	352	177	144	156	-0.324364904	0.951662831
CDR20291_3056	11	9	4	4	5	3	6	3	3	0	5	NA	NA
CDR20291_3057	120	189	219	174	135	134	205	196	182	73	248	0.201795508	0.984589191
CDR20291_3058	379	439	752	407	438	571	160	497	164	329	271	-0.355204146	0.938550434

CDR20291_3059	48	68	146	46	51	69	38	75	33	25	38	-0.177383367	0.987467975
CDR20291_3060	181	525	778	383	355	650	405	240	275	335	452	0.879003285	0.462226208
CDR20291_3061	94	106	70	105	55	15	50	57	45	53	42	-1.030408273	0.777989961
CDR20291_3062	261	275	654	289	338	423	229	375	261	214	181	-0.122476742	0.986227745
CDR20291_3063	801	869	1574	1177	941	1070	394	592	769	482	751	-0.329601777	0.924401693
CDR20291_3064	14964	21240	36182	21664	21248	23980	24182	22254	22240	20725	19326	0.265885944	0.897972061
CDR20291_3065	88	186	318	112	107	197	63	202	68	122	81	0.261847684	0.984589191
CDR20291_3066	882	1594	2429	1510	1120	1208	807	930	1622	1285	1429	0.253965289	0.927225356
CDR20291_3067	638	923	1235	584	617	1050	399	453	595	603	568	-0.282024963	0.927225356
CDR20291_3068	1912	1596	2728	1682	1457	1672	1122	1400	1328	1179	1216	-0.725805299	0.004022138
CDR20291_3069	10	7	26	17	28	14	27	5	5	48	10	0.592962176	0.984589191
CDR20291_3070	42	142	174	89	107	54	51	61	24	79	85	0.613642413	0.920684121
CDR20291_3071	306	556	964	382	489	689	253	343	439	260	302	0.162434409	0.984589191
CDR20291_3072	282	378	744	429	437	452	162	633	269	217	333	0.086209667	0.987467975
CDR20291_3073	20	67	31	75	54	16	236	53	18	13	2	1.297094746	0.91856455
CDR20291_3074	3	3	11	0	3	7	8	4	4	1	1	NA	NA
CDR20291_3075	387	5035	3112	2355	2357	3325	8867	2188	1651	842	2171	2.765185141	0.132627213
CDR20291_3076	184	272	306	328	381	226	299	320	263	857	1337	1.05805254	0.829481015
CDR20291_3077	440	562	854	456	423	435	155	324	456	221	484	-0.450976084	0.900848337
CDR20291_3078	6	10	4	18	8	4	6	8	4	2	7	NA	NA
CDR20291_3079	7	12	3	19	18	4	5	1	22	1	3	NA	NA
CDR20291_3079;													
CDR20291_3080	0	0	0	0	0	0	1	0	1	0	0	NA	NA
CDR20291_3080	1	1	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_3081	7	8	2	5	4	3	6	0	2	1	1	NA	NA
CDR20291_3082	348	964	1058	831	780	836	668	597	920	633	713	0.827700983	0.133951109
CDR20291_3083	5	1	1	2	9	3	5	6	1	0	0	NA	NA
CDR20291_3084	2	2	4	2	2	6	6	3	2	0	1	NA	NA
CDR20291_3085	1	5	2	0	4	1	6	0	3	1	2	NA	NA
CDR20291_3086	1	4	1	3	4	1	4	4	4	1	0	NA	NA

CDR20291_3087	6	3	5	0	3	1	3	2	1	0	0	NA	NA
CDR20291_3088	1761	2328	4204	2602	2178	2083	1177	2235	2098	2490	2673	0.045022546	0.991567211
CDR20291_3089	99	181	359	149	142	71	35	255	70	10	68	-0.086684257	0.995736287
CDR20291_3090	7	9	8	7	5	13	9	4	5	1	0	NA	NA
CDR20291_3091	4550	5377	9486	6819	5910	6154	5601	9419	5640	5593	5506	0.148444432	0.978504046
CDR20291_3092	6	7	17	28	34	18	15	6	9	18	12	1.103414015	0.9155071
CDR20291_3093	649	487	885	459	406	544	168	616	1150	272	763	-0.573079269	0.9155071
CDR20291_3094	508	1388	2049	922	879	1303	852	949	768	568	849	0.622981392	0.544331914
CDR20291_3095	1	4	8	2	1	3	9	1	2	0	0	NA	NA
CDR20291_3096	3775	1547	1832	1228	1746	2263	1161	1682	1540	1147	1518	-1.635241963	0.000324787
CDR20291_3097	4	6	1	7	3	2	8	7	3	2	1	NA	NA
CDR20291_3098	22	1	0	0	0	3	3	2	0	0	1	NA	NA
CDR20291_3099	3	4	1	3	4	0	3	2	4	0	0	NA	NA
CDR20291_3100	66	4	1	0	5	2	3	1	2	5	1	NA	NA
CDR20291_3101	5	5	2	1	2	1	5	1	2	1	3	NA	NA
CDR20291_3102	4	4	1	1	1	1	2	2	1	0	1	NA	NA
CDR20291_3103	7	11	6	0	9	8	8	4	3	0	5	NA	NA
CDR20291_3104	11	7	7	3	3	5	5	7	3	5	1	NA	NA
CDR20291_3105	15	8	5	1	13	4	10	13	3	0	3	NA	NA
CDR20291_3106	5001	7314	13522	7933	7358	7560	5027	8000	7529	7738	5989	0.235597353	0.851061538
CDR20291_3107	1	3	0	0	2	0	0	0	1	0	0	NA	NA
CDR20291_3108	1	2	5	1	5	2	1	0	4	4	0	NA	NA
CDR20291_3109	565	321	816	727	724	446	835	875	803	652	398	-0.112263304	0.987467975
CDR20291_3110	899	1697	3112	4335	1970	2488	3798	2897	15315	2852	2435	1.874324808	0.561867495
CDR20291_3111	4	5	3	1	6	5	6	8	5	2	0	NA	NA
CDR20291_3112	1685	5125	9313	11722	4824	7582	6030	12561	12373	9107	11749	2.079801944	0.004375341
CDR20291_3113	1890	360	310	132	118	384	157	173	178	239	203	-3.457253726	3.03E-08
CDR20291_3114	7	10	9	10	5	9	17	7	5	2	10	NA	NA
CDR20291_3115	76	55	40	55	116	104	42	93	52	63	27	-0.575129409	0.930043643
CDR20291_3116	19	8	8	4	8	2	16	8	3	1	3	NA	NA

CDR20291_3117	242	263	317	274	183	304	258	195	288	419	450	-0.039769371	0.997499065
CDR20291_3118	8	2	15	17	24	9	3	1	1	0	1 NA	NA	
CDR20291_3119	109	225	453	257	166	223	130	101	140	61	125	0.311195206	0.973419192
CDR20291_3120	477	724	824	452	337	1114	244	457	372	660	360	-0.19853511	0.984589191
CDR20291_3121	1	6	1	1	4	2	2	7	1	0	1 NA	NA	
CDR20291_3122	175	279	447	191	156	365	137	147	254	132	308	0.044507748	0.995736287
CDR20291_3123	2	1	2	0	5	1	8	6	6	0	2 NA	NA	
CDR20291_3124	47	45	88	65	28	44	18	37	67	37	53	-0.386411926	0.960075735
CDR20291_3125	24	37	19	47	40	23	14	17	35	9	22	-0.234486224	0.987467975
CDR20291_3126	119	249	511	337	252	518	272	2035	338	193	427	1.732619775	0.458746041
CDR20291_3127	287	525	1185	637	629	1106	228	596	437	274	476	0.631236471	0.816981594
CDR20291_3128	143	342	778	222	227	404	92	482	230	177	271	0.690937198	0.829481015
CDR20291_3129	9553	10840	14391	13869	10216	12720	9207	11061	19545	10238	10406	-0.003556115	0.999561437
CDR20291_3130	10488	11819	19244	10280	10800	10955	6060	10257	10352	8512	9262	-0.38045725	0.54049394
CDR20291_3131	1185	1852	2424	1613	1486	1772	568	1235	1369	971	1161	-0.142322071	0.984589191
CDR20291_3132	2	0	1	2	2	0	1	1	0	0	0 NA	NA	
CDR20291_3133	0	2	1	0	3	0	0	0	0	1	0 NA	NA	
CDR20291_3134	12	32	22	69	28	14	11	63	30	35	12	1.024692913	0.901564993
CDR20291_3135	507	822	1100	629	864	888	635	673	517	616	985	0.238014999	0.951662831
CDR20291_3136	214	345	343	310	403	198	82	667	116	180	138	-0.031498623	0.998533765
CDR20291_3137	1207	2015	2624	1656	1857	1432	1120	1169	1246	729	1124	-0.106759993	0.986538587
CDR20291_3138	0	2	4	2	2	0	2	1	0	0	0 NA	NA	
CDR20291_3139	50	20	65	20	53	24	9	12	20	3	7	-1.605387202	0.738465301
CDR20291_3140	3	1	2	0	1	4	12	1	2	0	1 NA	NA	
CDR20291_3141	674	989	1511	1004	674	937	592	793	558	546	553	-0.153723655	0.973419192
CDR20291_3142	39	53	60	35	117	108	84	17	11	277	113	0.905865761	0.927225356
CDR20291_3143	423	823	895	530	505	672	699	874	394	357	356	0.144820996	0.986227745
CDR20291_3144	17	69	209	93	51	94	17	32	17	88	69	1.616822326	0.562149318
CDR20291_3145	393	730	951	458	734	655	663	547	881	409	773	0.430782817	0.897972061
CDR20291_3146	2	4	4	4	6	4	11	7	4	3	1 NA	NA	

CDR20291_3147	9259	12069	19238	11698	10690	11789	7652	13287	11195	10559	9790	-0.051067352	0.987467975
CDR20291_3148	1486	1689	3389	2492	1754	1389	890	1423	2354	2139	1386	-0.066596953	0.988631632
CDR20291_3148;													
CDR20291_3149	163	142	104	58	113	180	307	199	241	48	20	-0.495527048	0.973419192
CDR20291_3149	4563	6233	8767	7122	5665	6738	5818	5996	10471	5124	4088	0.160928256	0.984589191
CDR20291_3150	1707	2294	3856	2362	2119	2658	2610	3300	2678	2610	2231	0.279545426	0.916535173
CDR20291_3151	7169	16086	23158	19104	14633	15885	19515	19226	17525	16696	13420	0.933609725	0.09074751
CDR20291_3152	9	2	8	4	0	1	4	7	1	0	2	NA	NA
CDR20291_3153	0	13	4	18	4	10	3	8	2	0	1	NA	NA
CDR20291_3154	11	8	6	4	13	7	4	3	6	0	5	NA	NA
CDR20291_3155	0	3	1	5	1	1	1	0	0	0	0	NA	NA
CDR20291_3156	3	29	16	6	12	2	5	5	4	2	2	NA	NA
CDR20291_3157	69	137	337	134	103	94	46	47	125	56	36	0.164366871	0.987467975
CDR20291_3158	36	74	156	73	62	128	123	36	36	8	146	0.849390565	0.923293229
CDR20291_3159	20	56	16	17	7	74	16	17	23	54	160	0.862119639	0.951338032
CDR20291_3160	8	18	9	3	7	7	8	3	2	1	1	NA	NA
CDR20291_3161	2	2	2	1	1	3	1	0	1	0	1	NA	NA
CDR20291_3162	13	5	8	7	13	12	15	11	7	1	2	NA	NA
CDR20291_3163	2	0	2	0	3	3	1	0	1	1	0	NA	NA
CDR20291_3164	2	6	1	5	1	2	2	4	0	0	1	NA	NA
CDR20291_3165	2	4	5	3	3	2	3	2	5	2	3	NA	NA
CDR20291_3166	0	3	3	2	3	0	7	0	0	0	2	NA	NA
CDR20291_3167	13	12	10	0	3	1	11	2	3	3	3	NA	NA
CDR20291_3168	1728	2929	4960	1872	2955	3214	2762	2343	2685	2005	1381	0.247164322	0.951662831
CDR20291_3169	3	3	3	1	11	3	12	9	3	1	2	NA	NA
CDR20291_3170	11	13	1	10	10	7	16	8	5	0	3	NA	NA
CDR20291_3171	2253	3833	6591	3684	2992	4528	2311	3340	3527	3805	2754	0.31695612	0.79787774
CDR20291_3172	166	270	370	151	246	166	100	93	132	149	135	-0.309643198	0.954630457
CDR20291_3173	336	167	317	241	224	315	385	258	207	341	79	-0.740899003	0.848160036
CDR20291_3174	1577	3040	4398	2928	2404	3069	1661	2622	2555	2525	2154	0.389680152	0.458746041

CDR20291_3175	973	1944	2983	1586	1513	1867	755	1297	1787	1370	1366	0.334127743	0.866542396
CDR20291_3176	45	34	191	98	61	60	90	48	62	21	79	0.288779907	0.984589191
CDR20291_3177	48	24	131	70	66	21	16	62	9	11	33	-0.632781512	0.954630457
CDR20291_3178	1068	2364	6925	2681	2594	2082	2395	3296	2657	1862	3314	1.068686076	0.09608128
CDR20291_3179	519	1110	1510	1058	906	1137	593	752	1033	784	704	0.479687293	0.545229672
CDR20291_3180	8223	13008	20027	12852	10824	14914	11157	12523	13565	14849	9040	0.30962111	0.858378676
CDR20291_3181	48	67	58	35	54	109	9	66	129	8	39	-0.143678547	0.991986013
CDR20291_3182	26	78	109	49	45	94	7	45	26	15	71	0.581837699	0.954630457
CDR20291_3183	65	135	167	94	98	60	12	135	253	67	55	0.304451426	0.984589191
CDR20291_3184	1247	2026	3281	2256	1672	2427	959	1947	1928	2089	1645	0.288107029	0.897972061
CDR20291_3185	86	68	64	179	110	75	10	41	73	62	22	-0.693636236	0.932415627
CDR20291_3186	722	1339	2077	1553	1070	1306	922	1343	1446	960	1125	0.464738669	0.447422432
CDR20291_3187	36	46	21	8	14	1	8	25	31	0	18	-1.462920344	0.903905619
CDR20291_3187A	3	0	0	1	2	0	1	0	0	1	0	NA	NA
CDR20291_3188	1248	2512	4802	2688	1946	2544	2349	1857	1965	2467	2425	0.633717915	0.365625494
CDR20291_3189	3128	6633	11676	6696	5511	7215	5703	7326	7020	5553	6424	0.763164405	0.018248146
CDR20291_3190	204	222	715	247	385	520	240	311	550	221	316	0.45466959	0.916535173
CDR20291_3191	4322	5745	10640	6318	5659	6273	11516	7157	6757	7587	4520	0.401185772	0.925506853
CDR20291_3192	323	653	711	367	501	398	313	378	266	444	206	-0.016849539	0.998533765
CDR20291_3193	65	112	82	59	32	104	271	69	8	19	61	0.068805924	0.998533765
CDR20291_3194	18	49	43	89	32	6	10	29	40	27	654	0.558139134	0.973419192
CDR20291_3195	208	261	621	183	231	175	59	122	130	176	95	-0.542154868	0.92014325
CDR20291_3196	536	813	1211	1229	781	743	790	584	640	583	433	0.14904646	0.984589191
CDR20291_3197	34	62	155	32	15	28	45	13	4	12	110	0.009208687	0.999561437
CDR20291_3198	114	58	195	69	86	87	70	45	99	235	7	-0.656468748	0.947575252
CDR20291_3199	256	400	658	482	285	296	306	224	272	196	236	-0.035535311	0.995736287
CDR20291_3200	7429	11504	21519	12465	9854	9971	12641	15004	13870	13290	14459	0.486799127	0.738465301
CDR20291_3201	2757	4555	6902	4390	3503	4279	3125	3885	3743	3697	3118	0.177105924	0.894226527
CDR20291_3202	1108	1624	2622	1795	1384	1852	1908	1849	1862	1251	1335	0.28313414	0.916535173

CDR20291_3203	278	213	434	283	377	307	160	215	344	191	243	-0.402495875	0.901178563
CDR20291_3204	1601	2967	4616	2803	2517	2493	2583	2792	2441	2308	2808	0.438703079	0.554358032
CDR20291_3205	109	99	177	186	123	93	35	159	89	43	167	-0.308272473	0.984589191
CDR20291_3206	123	84	191	102	58	95	65	103	31	43	82	-0.974644829	0.634028727
CDR20291_3207	208	280	498	248	215	210	114	249	116	201	162	-0.31146515	0.936953799
CDR20291_3207;													
CDR20291_3208	0	0	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_3208	28	17	45	18	9	32	35	2	2	8	7	-1.107821857	0.925506853
CDR20291_3209	11599	19296	32334	19272	17627	19853	14653	21811	18400	16296	16798	0.362411076	0.386998355
CDR20291_3210	219	369	476	314	278	241	217	164	302	230	163	-0.078042581	0.987467975
CDR20291_3211	757	1182	1819	1718	1036	1326	852	854	1161	773	1241	0.263604997	0.925506853
CDR20291_3212	10	5	18	0	6	2	11	7	3	3	5	NA	NA
CDR20291_3213	43	45	53	38	29	8	5	41	92	101	18	-0.36295412	0.986227745
CDR20291_3214	53	147	293	190	147	246	118	191	162	203	22	1.279627505	0.550026738
CDR20291_3215	3853	5017	7678	5538	4082	5273	39896	5776	4121	4872	3899	-0.022225308	0.995736287
CDR20291_3216	62	36	73	42	42	43	61	30	30	15	86	-0.788762727	0.903754511
CDR20291_3217	4	2	2	2	15	2	5	1	2	0	4	NA	NA
CDR20291_3218	157	164	213	516	104	132	140	154	315	384	240	0.246868054	0.984662354
CDR20291_3219	5	8	2	2	3	5	7	1	0	6	0	NA	NA
CDR20291_3220	360	2	14	3	0	11	1	7	4	1	3	-6.803390324	2.57E-07
CDR20291_3221	90264	224	395	458	135	313	1335	453	279	502	259	-8.45743287	2.79E-52
CDR20291_3222	25255	1373	607	2281	921	1990	2815	3975	2917	4859	3149	-3.594760044	0.017178017
CDR20291_3223	159	38	23	49	29	7	127	12	33	4	37	-2.360720747	0.528795586
CDR20291_3224	4	6	5	2	2	2	11	3	2	0	2	NA	NA
CDR20291_3225	7118	11345	21879	13141	10688	11999	9158	12693	11422	13141	7236	0.378642656	0.7504811
CDR20291_3226	12924	16410	25625	15725	14878	15732	12272	15685	14500	15068	11481	-0.110475319	0.960075735
CDR20291_3227	7169	11217	16164	11020	10676	8699	7513	10218	8585	10179	8069	0.12192063	0.973419192
CDR20291_3228	4705	8414	11694	7358	7093	6596	7097	6079	5293	7361	6134	0.255319495	0.916535173
CDR20291_3229	3251	4837	6904	4592	4248	4106	4321	4214	3961	4910	3013	0.094751058	0.986227745
CDR20291_3230	5798	8775	15618	11998	8125	10450	8624	9983	8427	7776	6747	0.339652113	0.776660068

CDR20291_3231	104	206	346	109	193	139	193	94	85	60	28	0.040965851	0.998533765
CDR20291_3232	2270	2975	4444	3345	2899	2841	1523	3443	2355	3217	3017	0.013856563	0.998533765
CDR20291_3233	2109	3288	5654	4015	2622	3923	22118	4422	3076	2347	3046	0.318353179	0.838322352
CDR20291_3234	1299	2231	3951	3402	2182	1963	1849	2582	3035	2572	2033	0.602605478	0.462226208
CDR20291_3235	373	424	1113	583	537	345	326	482	714	507	225	0.062138073	0.993276739
CDR20291_3236	304	177	551	211	118	332	85	245	216	74	474	-0.735716908	0.894306579
CDR20291_3237	2	2	26	24	11	28	14	12	119	3	4	3.239739694	0.562149318
CDR20291_3238	702	1292	1893	1121	1034	1095	675	1114	979	610	598	0.138902528	0.984589191
CDR20291_3239	2403	2858	5213	4267	3197	3238	5407	2886	3085	2709	2155	0.190392117	0.984589191
CDR20291_3240	287	108	180	59	74	88	14	41	57	62	53	-2.447819826	0.011781182
CDR20291_3241	3078	614	1074	958	332	374	1064	480	505	1171	1086	-2.327787495	0.017242669
CDR20291_3242	9215	1131	3337	1679	518	927	994	526	922	877	1123	-3.411147814	7.47E-08
CDR20291_3242;													
CDR20291_3243	0	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_3243	953	113	220	195	55	109	232	23	84	219	51	-3.220448023	0.011485328
CDR20291_3244	4859	780	1918	819	294	368	276	395	561	671	775	-3.310205874	2.02E-06
CDR20291_3245	3076	404	1299	613	185	433	598	217	333	307	397	-3.135744546	2.32E-05
CDR20291_3245;													
CDR20291_3246	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_3246	5042	785	1789	731	335	455	394	283	661	564	1281	-3.232453094	3.17E-05
CDR20291_3247	3863	673	1555	823	272	384	342	192	367	545	586	-3.228745745	9.49E-06
CDR20291_3247;													
CDR20291_3248	47	9	6	11	0	6	1	0	0	49	5	-3.928377981	0.388671441
CDR20291_3248	1930	341	887	365	115	153	120	142	186	190	250	-3.34125001	1.23E-05
CDR20291_3248;													
CDR20291_3249	0	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_3249	2656	393	802	426	124	133	217	140	268	444	407	-3.419899538	3.60E-05
CDR20291_3250	2219	222	660	387	190	220	98	292	257	433	273	-3.31028664	1.85E-07
CDR20291_3251	4326	710	2142	1118	395	466	1922	236	519	886	919	-2.580800361	0.034014308
CDR20291_3252	4290	538	1439	657	250	260	411	256	426	534	670	-3.429500568	8.55E-07

CDR20291_3253	4191	609	1336	648	247	588	591	402	465	880	861	-3.055172408	3.73E-06
CDR20291_3254	2353	429	522	402	158	185	394	171	214	392	226	-3.302472684	2.08E-06
CDR20291_3255	3816	426	964	521	266	300	339	124	245	383	1890	-3.728956933	5.18E-09
CDR20291_3256	7531	757	1936	1324	363	440	559	394	656	911	782	-3.658288918	3.02E-08
CDR20291_3257	72	13	27	9	4	3	13	1	5	9	5	-3.473461672	0.090092689
CDR20291_3258	59	17	16	12	3	10	4	6	5	0	20	-3.09065644	0.281984264
CDR20291_3259	466	89	279	89	52	72	81	36	49	10	57	-3.044986906	0.010851561
CDR20291_3260	641	55	116	91	46	39	37	29	98	34	73	-3.78834408	4.21E-07
CDR20291_3260;													
CDR20291_3261	0	0	0	0	0	0	1	0	2	0	0	NA	NA
CDR20291_3261	663	61	140	59	18	34	19	12	39	108	32	-4.133202832	0.000230561
CDR20291_3262	2243	2876	4737	2868	2464	2703	5168	2152	2603	2191	2262	0.074607956	0.990198893
CDR20291_3263	380	329	710	354	400	453	259	364	366	233	288	-0.43732531	0.7504811
CDR20291_3264	100	195	223	133	111	114	66	156	80	48	73	-0.184857257	0.986227745
CDR20291_3265	190	199	309	152	194	227	55	139	184	158	199	-0.48110381	0.901178563
CDR20291_3266	74	46	33	32	68	69	21	56	4	24	5	-1.438261173	0.805528332
CDR20291_3267	2	1	3	0	0	1	1	0	0	0	1	NA	NA
CDR20291_3268	29	90	156	59	32	114	95	10	36	32	3	0.654999785	0.968488529
CDR20291_3269	425	702	902	434	593	712	207	526	335	471	489	-0.083496736	0.987467975
CDR20291_3270	169	205	412	245	175	388	790	159	358	123	126	0.517478908	0.954630457
CDR20291_3271	17	23	25	22	11	8	5	35	40	17	6	-0.227609149	0.987467975
CDR20291_3272	5109	7798	13050	8684	7225	7862	7082	8953	10452	7239	7185	0.361878302	0.75426954
CDR20291_3273	279	391	657	416	488	266	140	430	177	517	348	0.049586029	0.995736287
CDR20291_3274	33	13	14	2	22	9	6	9	6	5	9	-2.18123888	0.482317966
CDR20291_3275	958	1754	2679	2098	1395	2013	1109	1622	1680	1825	2189	0.554963374	0.552737606
CDR20291_3276	132	199	495	375	261	299	226	242	236	444	164	0.76488031	0.655684544
CDR20291_3277	2	12	70	9	37	25	4	2	17	9	9	2.723382088	0.605157409
CDR20291_3278	10	4	3	6	3	6	8	1	1	1	1	NA	NA
CDR20291_3279	1058	1688	3359	1698	1348	1773	1098	1809	1987	1094	1931	0.332045136	0.877926426
CDR20291_3280	26	38	18	65	16	56	9	9	5	19	19	-0.438197467	0.984589191

CDR20291_3281	7122	8936	15051	8878	8265	10057	8047	8420	9539	7449	6136	-0.044621511	0.987467975
CDR20291_3282	25	108	45	78	31	39	29	23	4	1	23	0.174500269	0.993276739
CDR20291_3283	1	15	38	1	4	4	4	0	2	2	0	NA	NA
CDR20291_3284	17	78	216	31	22	76	21	78	19	77	22	1.365813409	0.770142275
CDR20291_3285	34	50	95	31	34	19	10	29	61	66	163	0.354561825	0.986227745
CDR20291_3286	98	158	92	91	34	114	5	46	58	99	234	-0.436207641	0.984589191
CDR20291_3287	27	87	137	18	33	18	17	331	28	25	36	0.977766279	0.927225356
CDR20291_3288	141	5	162	15	2	1	1	6	3	1	11	-5.099028174	0.004121282
CDR20291_3289	304	436	663	388	471	635	224	376	256	382	266	0.016167363	0.998533765
CDR20291_3290	136	179	399	269	191	385	89	200	214	196	85	0.255596787	0.984076663
CDR20291_3291	2577	3253	6686	4834	3598	3554	2461	3205	3786	2889	2753	0.106526926	0.984589191
CDR20291_3292	43	41	104	29	28	43	8	15	120	14	43	-0.41168973	0.984589191
CDR20291_3293	2	1	1	2	2	0	5	0	1	0	1	NA	NA
CDR20291_3294	1075	3353	5793	3697	3091	3570	3761	4602	3273	3907	3045	1.452564547	0.000269743
CDR20291_3295	12	11	1	1	14	13	9	9	6	1	40	-0.435927616	0.987467975
CDR20291_3296	7	14	2	7	5	9	4	4	11	0	1	NA	NA
CDR20291_3297	51	66	286	50	169	254	70	155	73	35	90	0.829415031	0.894306579
CDR20291_3297;													
CDR20291_3298	0	0	0	0	0	1	0	0	2	0	0	NA	NA
CDR20291_3298	116	354	576	347	320	526	499	805	392	280	205	1.521767182	0.124978528
CDR20291_3299	382	1468	1986	1360	969	1545	1322	1413	1549	1568	1261	1.552595165	0.000238855
CDR20291_3300	6	2	0	1	0	1	3	0	14	0	2	NA	NA
CDR20291_3301	103	141	451	266	131	372	124	200	165	93	199	0.604008657	0.872075842
CDR20291_3302	5	1	4	3	1	0	1	1	1	1	1	NA	NA
CDR20291_3303	0	0	6	1	0	0	3	1	0	0	0	NA	NA
CDR20291_3304	5	1	7	2	4	1	6	4	3	2	3	NA	NA
CDR20291_3305	3	3	0	0	3	1	4	3	5	1	1	NA	NA
CDR20291_3306	3	6	9	6	6	4	9	5	5	0	4	NA	NA
CDR20291_3307	1	2	8	0	1	3	1	3	2	0	2	NA	NA
CDR20291_3308	2	2	3	0	3	2	4	2	4	0	3	NA	NA

CDR20291_3309	1	2	1	1	0	3	0	1	0	1	0	NA	NA
CDR20291_3310	3	1	4	1	3	5	3	0	0	0	1	NA	NA
CDR20291_3311	1	3	0	0	0	2	3	0	0	1	0	NA	NA
CDR20291_3312	4	2	1	0	3	0	1	0	2	0	0	NA	NA
CDR20291_3313	4	4	8	1	3	2	3	3	2	0	0	NA	NA
CDR20291_3314	1026	978	1631	846	692	1494	779	936	938	1199	657	-0.410098972	0.866542396
CDR20291_3315	5863	10657	15485	10952	8314	11284	6972	10587	11423	8009	9830	0.428527594	0.481867723
CDR20291_3316	1337	1584	3356	3339	1816	2691	1891	2461	3442	1687	2134	0.488549335	0.816981594
CDR20291_3317	1490	2460	4622	4057	2401	2419	2788	2905	5170	2077	2402	0.692493331	0.630239082
CDR20291_3318	8	5	3	2	11	3	8	1	5	2	3	NA	NA
CDR20291_3319	2398	4358	3294	4483	2453	3839	2440	3891	3412	3191	3058	0.160081054	0.984589191
CDR20291_3320	66	59	26	23	74	184	39	190	112	9	43	-0.147626239	0.994506004
CDR20291_3321	8	2	1	3	3	0	4	6	3	1	0	NA	NA
CDR20291_3322	200	395	860	288	230	243	116	219	356	211	280	0.188918835	0.984589191
CDR20291_3323	2	2	2	1	1	0	1	0	0	0	0	NA	NA
CDR20291_3324	10	7	6	3	4	0	8	6	1	2	1	NA	NA
CDR20291_3325	4077	5286	7462	5133	4740	4716	4442	4493	4076	4659	4181	-0.108728952	0.981747613
CDR20291_3326	381	598	729	810	562	569	359	755	586	578	960	0.412935669	0.903905619
CDR20291_3327	10	13	5	7	9	8	18	5	11	4	4	NA	NA
CDR20291_3328	200	270	396	169	256	167	65	135	226	294	204	-0.286211911	0.973419192
CDR20291_3329	8	32	2	4	2	0	8	0	1	1	6	NA	NA
CDR20291_3330	719	439	700	773	574	518	343	386	359	819	212	-0.869894037	0.627202987
CDR20291_3331	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_3332	1836	2835	5160	2885	2329	2046	1987	2984	3113	2465	2913	0.243666186	0.920684121
CDR20291_3333	14	2	2	3	0	1	1	4	0	1	1	NA	NA
CDR20291_3334	1257	829	1651	1459	733	657	557	946	1021	649	288	-0.953072752	0.456169899
CDR20291_3335	11	17	13	25	9	18	7	12	1	0	2	-0.5278364	0.986227745
CDR20291_3336	5	35	2	6	1	2	1	26	9	6	12	0.638696967	0.984589191
CDR20291_3337	4848	6911	12848	7339	6659	7132	6076	9725	8168	8080	6011	0.314498302	0.848160036
CDR20291_3338	259	34	46	12	34	25	93	14	20	17	7	-3.393043784	0.046491917

CDR20291_3339	3	1	1	5	2	1	3	1	0	2	0	NA	NA
CDR20291_3340	426	401	848	398	435	502	2002	333	325	555	326	-0.346447322	0.903905619
CDR20291_3341	428	775	1138	759	525	733	467	473	645	580	471	0.205424696	0.934317854
CDR20291_3341;													
CDR20291_3342	17	21	77	71	0	9	5	3	0	29	0	-0.266489016	0.994553213
CDR20291_3342	565	1331	2186	1253	1139	1047	635	1116	799	924	1167	0.614283222	0.37519032
CDR20291_3343	907	1688	2530	1443	1445	1237	795	860	754	797	1213	0.058705199	0.989572915
CDR20291_3344	104	111	194	127	139	160	123	172	116	51	85	-0.095383674	0.987467975
CDR20291_3345	116	162	328	203	103	317	172	72	49	56	127	0.014690692	0.998533765
CDR20291_3346	473	840	1520	631	699	858	814	555	593	530	448	0.24762931	0.951338032
CDR20291_3346;													
CDR20291_3347	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_3347	1245	1908	3572	1726	1761	1604	1300	1390	1705	1674	1500	0.126837104	0.973419192
CDR20291_3348	492	704	1432	978	964	894	382	657	524	713	272	0.172469119	0.984589191
CDR20291_3349	4014	8152	15110	7813	6990	7721	5126	6855	6134	5125	6558	0.48369826	0.319458433
CDR20291_3350	2031	6476	10928	7019	5193	5358	4125	5935	6011	5194	7739	1.257000701	0.000965926
CDR20291_3351	0	5	6	4	2	0	7	2	2	2	0	NA	NA
CDR20291_3352	1	6	9	4	7	3	7	1	5	0	3	NA	NA
CDR20291_3353	4	4	2	0	1	0	4	1	0	0	1	NA	NA
CDR20291_3354	310	167	254	145	205	115	90	118	153	86	112	-1.513470187	0.017534938
CDR20291_3355	502	523	911	738	705	597	230	519	957	469	306	-0.16478836	0.984662354
CDR20291_3356	39	5	17	6	7	1	5	4	6	2	3	NA	NA
CDR20291_3357	769	1294	2449	1196	1072	1479	859	1000	1272	941	1307	0.326148047	0.829481015
CDR20291_3358	1353	2475	4828	2550	1926	2708	1760	2232	2132	2451	1756	0.454044849	0.477188831
CDR20291_3359	8	4	6	0	9	0	8	6	1	1	3	NA	NA
CDR20291_3360	2169	3535	5430	3753	2869	3146	2561	4289	3648	2864	3215	0.312871513	0.800411228
CDR20291_3361	1199	1197	1708	1114	851	1035	2080	1113	679	1023	894	-0.372593918	0.941079357
CDR20291_3362	267	382	229	322	332	302	66	275	196	202	140	-0.52023535	0.91856455
CDR20291_3363	87	57	57	51	52	34	35	28	60	50	24	-1.329840954	0.360985378
CDR20291_3364	64	52	89	41	62	8	16	84	4	19	2	-1.25182794	0.903905619

CDR20291_3365	3	4	1	4	6	2	5	1	3	0	2	NA	NA
CDR20291_3366	31	81	6	17	39	33	41	77	66	42	33	0.196181165	0.987467975
CDR20291_3367	86	156	287	49	85	80	31	86	75	48	156	-0.191685249	0.987467975
CDR20291_3368	14	49	118	79	47	63	87	19	47	26	21	1.578106067	0.562149318
CDR20291_3369	4	9	5	11	5	6	4	3	3	0	0	NA	NA
CDR20291_3369;													
CDR20291_3370	0	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_3370	492	500	715	426	560	528	205	286	667	535	521	-0.377731558	0.925506853
CDR20291_3371	39	79	63	29	34	23	11	65	36	1	3	-0.659794192	0.973419192
CDR20291_3372	11	14	31	12	37	46	5	11	4	13	11	0.306813822	0.987467975
CDR20291_3373	2	0	5	2	0	3	2	0	0	1	0	NA	NA
CDR20291_3374	1697	2605	3569	3339	2228	2308	1812	3014	5000	1491	2030	0.308213307	0.947575252
CDR20291_3375	680	623	1504	1559	788	1463	1087	858	1131	802	830	0.270768898	0.954630457
CDR20291_3376	395	549	710	440	423	505	668	417	354	666	258	-0.014655472	0.998533765
CDR20291_3377	30	26	29	25	33	39	4	18	31	6	19	-0.798196539	0.925506853
CDR20291_3378	2	3	6	1	6	7	11	6	3	1	1	NA	NA
CDR20291_3379	246	125	237	78	124	58	95	74	73	22	77	-1.801106634	0.146902713
CDR20291_3380	4882	6552	13242	8079	6256	8960	5377	6825	6719	6992	7410	0.244536063	0.879902805
CDR20291_3381	255	205	407	319	290	216	181	286	290	380	362	-0.158710406	0.984589191
CDR20291_3382	211	223	566	341	209	356	259	117	262	192	203	-0.053324121	0.995604279
CDR20291_3383	6	2	1	3	12	1	3	1	3	1	2	NA	NA
CDR20291_3384	6	1	6	2	4	5	1	3	0	1	2	NA	NA
CDR20291_3385	2	2	4	0	1	1	11	3	3	1	1	NA	NA
CDR20291_3386	2	6	4	1	9	6	9	6	3	0	5	NA	NA
CDR20291_3387	13	5	40	2	6	19	1	1	1	1	19	-1.043492825	0.968488529
CDR20291_3388	0	0	0	2	1	0	3	0	3	0	0	NA	NA
CDR20291_3389	4	8	11	5	11	5	10	5	4	3	7	NA	NA
CDR20291_3390	0	2	0	0	1	0	2	4	0	0	0	NA	NA
CDR20291_3391	209	216	442	429	191	370	222	294	252	311	200	0.091512219	0.987467975
CDR20291_3392	2	2	0	1	5	3	10	1	4	0	2	NA	NA

CDR20291_3393	4	3	2	1	4	0	4	2	1	0	1	NA	NA
CDR20291_3394	1776	2698	4875	2678	2245	2716	2916	2584	2218	2127	2243	0.22773224	0.925506853
CDR20291_3394;													
CDR20291_3395	268	261	570	252	154	227	92	291	262	252	331	-0.430006488	0.92014325
CDR20291_3395	130	123	315	225	136	96	78	178	136	52	134	-0.27003247	0.981041358
CDR20291_3396	87	70	239	25	77	96	183	125	63	90	75	-0.118693475	0.990782717
CDR20291_3397	10	7	11	2	5	4	13	8	3	5	2	NA	NA
CDR20291_3398	2804	2859	5487	2616	3955	3314	3300	2229	2993	1691	2238	-0.263169036	0.947575252
CDR20291_3399	39	134	73	60	102	52	16	13	45	69	1	0.114883479	0.995736287
CDR20291_3400	16	18	24	2	28	1	2	12	13	12	15	-0.740511523	0.973419192
CDR20291_3401	3	2	2	2	2	7	5	1	2	1	2	NA	NA
CDR20291_3402	283	271	365	206	187	187	259	166	199	329	43	-0.733311241	0.866542396
CDR20291_3402;													
CDR20291_3403	1	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_3403	8	4	5	3	7	2	7	3	1	1	1	NA	NA
CDR20291_3404	3	11	10	9	13	2	9	2	1	5	3	NA	NA
CDR20291_3405	2	16	48	1	9	16	0	9	1	0	0	1.609498289	0.951993912
CDR20291_3406	645	1365	2579	1447	935	970	591	825	1758	955	973	0.502000889	0.819809986
CDR20291_3407	1843	3166	4793	2991	2822	2959	2358	2959	2545	1865	1708	0.203570826	0.927225356
CDR20291_3408	690	587	1167	729	621	1032	348	566	958	277	462	-0.46118435	0.901178563
CDR20291_3409	1290	1871	2671	2172	1931	2801	2806	2534	1824	1984	1760	0.448856828	0.851061538
CDR20291_3410	174	179	329	181	154	211	823	566	170	48	207	0.44778391	0.984566316
CDR20291_3411	13	22	21	69	6	17	5	25	9	203	8	0.147869813	0.994553213
CDR20291_3412	2	0	1	0	0	0	1	0	0	0	1	NA	NA
CDR20291_3413	339	413	939	694	402	355	394	240	210	444	273	-0.066513915	0.993276739
CDR20291_3414	138	160	333	221	152	272	45	117	128	69	120	-0.243213626	0.984589191
CDR20291_3415	396	1118	1141	866	961	1044	443	637	1038	610	741	0.725721773	0.447422432
CDR20291_3416	8323	15402	24105	18567	12990	15196	16634	19916	21934	15048	18305	0.736999534	0.331525685
CDR20291_3417	112	115	186	10	62	75	12	49	29	26	12	-1.524459641	0.738465301
CDR20291_3418	987	2011	3826	2983	1970	2042	2011	2290	2188	2255	1591	0.837954185	0.068300954

CDR20291_3419	1245	1560	2215	1556	1277	1737	989	2307	1153	1396	1126	-0.096035954	0.986538587
CDR20291_3420	986	1111	1609	1228	805	806	860	1143	1305	1039	877	-0.252269635	0.925506853
CDR20291_3421	12139	15604	28323	16589	14230	15766	24667	20031	16854	15732	15432	0.237933845	0.954630457
CDR20291_3422	211	563	670	628	436	319	411	381	913	462	592	0.991804944	0.422840694
CDR20291_3423	4	41	66	9	14	4	9	8	19	22	0	1.719451526	0.877926426
CDR20291_3424	12	42	38	25	35	8	39	22	0	18	8	0.598572597	0.984589191
CDR20291_3424;													
CDR20291_3425	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_3425	7	20	18	0	4	63	2	7	0	70	6	1.08251449	0.973419192
CDR20291_3426	32149	3557	25367	6065	2560	5321	3616	7974	23290	8069	3437	-2.32871542	0.270826767
CDR20291_3427	14111	639	13787	2114	748	1435	1535	3813	6039	2025	2703	-2.574984011	0.302676826
CDR20291_3428	15768	6142	3693	3450	2980	7086	2702	3290	2291	3397	2269	-2.459491825	7.89E-05
CDR20291_3429	5131	4568	2021	3126	2696	5284	1611	2792	1685	3857	1553	-1.175138225	0.386998355
CDR20291_3430	3988	3	2	9	1	2	5	33	1	8	1	-9.592254314	1.22E-06
CDR20291_3431	4474	7573	13111	7483	6796	7597	7797	7061	7214	7535	6671	0.435566836	0.60465665
CDR20291_3432	5	5	0	0	7	2	5	4	2	1	2	NA	NA
CDR20291_3433	628	940	1245	976	628	691	417	673	798	706	1113	-0.008909831	0.998533765
CDR20291_3434	6217	14119	22527	15991	12580	13984	10468	18273	17806	10324	14021	0.881923961	0.045405109
CDR20291_3434;													
CDR20291_3435	1	0	0	1	1	0	0	0	0	0	0	NA	NA
CDR20291_3435	2331	3464	6055	4485	3455	3728	3327	4045	3547	3183	3615	0.354332316	0.66623479
CDR20291_3435;													
CDR20291_3436	2	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_3436	3093	4479	8475	5598	4435	4618	14407	5456	4983	4438	4008	0.675997564	0.882470322
CDR20291_3437	1	4	1	3	2	5	6	1	2	1	2	NA	NA
CDR20291_3438	9788	14058	22085	14401	12698	14950	17961	13266	14022	12455	10457	0.214604462	0.951662831
CDR20291_3439	762	1313	1854	966	1243	1079	624	1183	1100	1410	1063	0.243938892	0.932415627
CDR20291_3440	2512	3458	5330	3943	3172	3134	2134	3902	3084	3109	2353	0.018001368	0.996223079
CDR20291_3441	10218	15079	28698	17130	15083	18229	13472	17356	20092	18176	13432	0.40121754	0.655684544
CDR20291_3442	8678	13049	21609	12860	12122	12140	14925	11705	13839	11887	11737	0.275859545	0.9155071

CDR20291_3443	3204	7455	12340	8201	6094	7340	6399	5945	6467	6123	7090	0.80459061	0.021434475
CDR20291_3444	190	119	218	101	77	246	29	57	103	49	103	-1.249472367	0.569738539
CDR20291_3445	1574	5237	10431	6019	5473	6592	5517	8266	9032	5072	5287	1.704073366	6.06E-05
CDR20291_3446	1929	3438	6356	3792	2947	3459	3007	2962	5020	4155	2806	0.587164749	0.550026738
CDR20291_3447	2706	4582	8633	5613	4556	5151	3291	5055	5066	4696	3826	0.493108786	0.21690784
CDR20291_3448	2873	4795	7932	4462	3981	4564	3571	4233	5270	3183	4203	0.284470111	0.829481015
CDR20291_3449	26	72	131	25	46	36	56	35	63	26	461	0.600309036	0.925506853
CDR20291_3450	587	824	1131	1060	653	866	357	782	749	431	608	-0.070981013	0.987467975
CDR20291_3451	39	9	54	47	14	4	3	10	34	3	1	-1.673934099	0.858378676
CDR20291_3452	253	585	905	582	611	557	1392	591	618	908	847	1.292780485	0.349514203
CDR20291_3453	465	580	843	801	455	368	289	611	523	362	427	-0.235747847	0.952802675
CDR20291_3454	0	1	0	1	2	2	0	0	0	0	0	NA	NA
CDR20291_3455	1117	2173	3550	2692	2122	2213	1573	1710	1665	1580	1056	0.447211152	0.749515787
CDR20291_3456	1240	2687	4478	2671	2576	2662	2723	2063	3031	2502	2471	0.790778978	0.128286416
CDR20291_3457	3317	6697	11129	6548	6491	6353	4813	6799	7124	5740	5328	0.616726652	0.037277411
CDR20291_3458	5	2	2	4	5	1	14	5	2	0	0	NA	NA
CDR20291_3459	3	6	3	2	2	3	4	6	5	3	0	NA	NA
CDR20291_3460	138	175	135	88	110	277	70	176	225	151	92	-0.249101542	0.984589191
CDR20291_3461	8036	11777	20269	13502	12195	16351	10402	12083	12673	11048	11813	0.329764947	0.693111203
CDR20291_3462	1	2	1	1	1	2	2	0	3	0	2	NA	NA
CDR20291_3463	101	125	258	180	153	119	81	623	160	75	139	0.518294769	0.951662831
CDR20291_3464	4	8	6	5	6	5	11	5	4	0	3	NA	NA
CDR20291_3465	1025	1816	2454	1835	1584	1484	815	1405	1016	1355	963	0.104881695	0.984589191
CDR20291_3466	108	206	413	178	111	185	84	102	212	122	89	0.182091432	0.984589191
CDR20291_3467	10	30	33	18	33	51	16	8	15	1	20	0.754857535	0.954630457
CDR20291_3468	2510	3996	6861	4120	3923	3957	2970	3590	4491	3298	3030	0.278819262	0.783860674
CDR20291_3469	123	88	95	66	82	74	102	50	253	35	98	-0.709908385	0.920684121
CDR20291_3470	39	40	71	78	19	13	24	37	10	32	6	-0.704901292	0.947575252
CDR20291_3471	2	1	2	2	2	0	5	2	1	1	0	NA	NA
CDR20291_3472	48	143	169	124	126	337	2	78	346	130	94	1.287103486	0.842098999

CDR20291_3473	2	4	9	4	5	3	6	2	0	0	4	NA	NA
CDR20291_3474	58	31	153	112	89	18	19	66	112	36	144	0.015815064	0.998533765
CDR20291_3475	9	29	6	4	16	0	6	3	13	0	74	0.49092021	0.987467975
CDR20291_3476	1477	2451	4816	2729	2148	2537	1445	2569	2370	1923	2123	0.339115862	0.661396858
CDR20291_3477	5768	9376	16931	10583	9236	9310	6698	9987	9666	8026	8387	0.362642336	0.373085742
CDR20291_3477;													
CDR20291_3478	3594	5726	9002	5121	5418	6216	10120	6371	6294	5933	4405	0.509117038	0.864259932
CDR20291_3479	113	264	305	289	235	152	45	180	230	490	86	0.622790456	0.925506853
CDR20291_3480	709	1129	1654	1213	1187	1216	583	988	967	1160	1202	0.28350671	0.9155071
CDR20291_3481	64	98	213	156	73	30	28	44	39	46	35	-0.26869276	0.986227745
CDR20291_3482	565	762	1660	1233	843	877	388	537	921	415	642	0.103385636	0.987467975
CDR20291_3483	3479	4695	8927	6812	4030	5388	26188	5634	5333	5211	9057	0.390042646	0.897972061
CDR20291_3484	2156	3384	5416	2386	3151	2482	6139	3294	2592	2559	2529	0.315744328	0.954974392
CDR20291_3485	35	52	39	29	62	526	267	77	22	8	41	1.390421144	0.901178563
CDR20291_3486	2506	3495	5876	3718	3430	3153	2339	3070	3068	2545	1694	-0.04962832	0.9879101
CDR20291_3487	69	122	148	51	102	49	7	54	62	19	28	-0.600531274	0.951662831
CDR20291_3488	371	540	844	416	340	444	269	405	634	393	342	-0.098752684	0.987467975
CDR20291_3489	361	590	813	502	518	519	109	429	300	466	158	-0.164413561	0.987467975
CDR20291_3490	183	130	266	171	201	181	173	159	199	93	127	-0.488203448	0.866542396
CDR20291_3491	2	2	0	0	0	1	1	0	1	2	0	NA	NA
CDR20291_3492	261	358	685	272	161	684	201	317	496	139	248	0.003294931	0.999561437
CDR20291_3493	490	1694	2815	1402	2484	3940	1359	1777	1335	1575	2594	1.72023229	0.017156767
CDR20291_3494	7	5	1	2	3	2	2	2	0	0	1	NA	NA
CDR20291_3495	1	3	0	2	0	2	5	0	0	0	0	NA	NA
CDR20291_3496	294	551	1021	561	335	235	404	327	320	412	397	0.20448639	0.984589191
CDR20291_3497	2	2	4	6	2	2	8	3	5	3	2	NA	NA
CDR20291_3498	176	266	618	415	233	294	108	430	356	378	377	0.565582937	0.858717418
CDR20291_3499	150	239	556	257	214	183	180	325	277	413	200	0.516157996	0.867235331
CDR20291_3500	521	694	960	466	503	545	518	527	412	523	368	-0.315728947	0.897972061
CDR20291_3501	182	371	475	368	161	386	226	1673	223	186	519	0.95525518	0.866542396

CDR20291_3502	347	967	1100	417	503	857	263	699	141	272	385	0.228930061	0.984589191
CDR20291_3503	209	177	252	129	129	109	124	117	214	129	155	-0.829811524	0.495377207
CDR20291_3504	314	383	1115	460	468	338	275	512	542	226	200	0.05642089	0.994553213
CDR20291_3505	770	686	766	474	631	772	480	596	1014	1555	599	-0.352591297	0.954630457
CDR20291_3506	802	2021	5172	2719	1470	1505	6106	1588	1604	1313	2402	1.350898209	0.482317966
CDR20291_3507	204	268	445	281	195	207	565	146	266	342	192	0.186956375	0.987467975
CDR20291_3508	356	382	469	711	218	317	303	415	527	429	198	-0.219402307	0.984589191
CDR20291_3509	9140	12169	19588	12959	10777	12686	8364	12536	9644	12037	10176	0.006495596	0.998533765
CDR20291_3510	2678	2757	4346	3458	2234	2650	2265	3040	3038	2572	3539	-0.216922787	0.936953799
CDR20291_3511	11	8	12	2	8	3	4	3	8	1	3	NA	NA
CDR20291_3512	2	6	9	3	8	1	3	2	2	1	2	NA	NA
CDR20291_3513	207	136	268	148	112	243	65	89	91	116	26	-1.142515819	0.605473525
CDR20291_3514	13557	82	8093	585	145	470	645	405	1538	333	150	-5.02838735	0.001262061
CDR20291_3515	1875	2676	5207	3084	2448	2376	4084	2891	2390	2770	2193	0.313344245	0.925506853
CDR20291_3516	3	8	2	5	1	4	10	3	4	1	1	NA	NA
CDR20291_3517	6	2	0	2	1	0	4	2	1	1	1	NA	NA
CDR20291_3518	20	7	13	10	11	6	12	10	5	1	2	NA	NA
CDR20291_3519	7	4	3	2	5	7	6	2	2	0	1	NA	NA
CDR20291_3520	0	3	0	0	1	0	4	2	0	0	1	NA	NA
CDR20291_3521	2	1	0	0	0	1	0	2	1	0	0	NA	NA
CDR20291_3522	0	1	1	1	2	0	1	4	1	0	0	NA	NA
CDR20291_3523	0	0	0	4	1	2	2	0	0	0	1	NA	NA
CDR20291_3524	70	70	69	32	109	62	49	30	23	23	11	-0.941035021	0.894226527
CDR20291_3525	3	0	0	0	2	4	4	3	1	0	2	NA	NA
CDR20291_3526	2	0	1	0	0	2	0	2	0	0	2	NA	NA
CDR20291_3527	3	4	0	0	0	5	5	1	0	1	3	NA	NA
CDR20291_3528	107	3	6	3	9	4	13	3	1	0	0	-4.984127127	0.050824819
CDR20291_3529	2851	2807	4618	3571	3465	3095	8204	3512	4169	2129	3367	0.151791116	0.987467975
CDR20291_3530	5	1	0	2	2	2	8	9	2	3	4	NA	NA
CDR20291_3531	2301	3417	5194	4197	2865	3305	3190	3433	3185	2517	2790	0.181738999	0.936953799

CDR20291_3532	3177	6849	9493	6163	5568	5696	3746	5349	5139	6372	4899	0.502268332	0.338623665
CDR20291_3533	1066	954	1603	726	970	718	832	850	720	577	350	-0.774543592	0.501147488
CDR20291_3534	508	589	612	446	395	413	388	600	393	237	315	-0.599954634	0.66368738
CDR20291_3535	8	7	36	6	14	3	14	5	3	3	4	-0.257259298	0.987740074
CDR20291_3536	7	5	2	7	7	1	10	2	3	1	0	NA	NA
CDR20291_3537	1	3	1	0	2	4	4	0	0	0	0	NA	NA
CDR20291_3538	3	5	0	4	2	1	4	0	1	1	3	NA	NA
CDR20291_3539	1	1	0	0	1	0	1	0	0	0	0	NA	NA
CDR20291_3540	1	3	0	1	2	0	1	2	0	1	0	NA	NA
CDR20291_3541	0	1	0	0	0	0	2	1	1	2	2	NA	NA
CDR20291_3551	41	16	36	4	52	3	4	69	95	3	0	-0.93158757	0.973419192
CDR20291_3552	3	1	1	7	4	2	3	9	3	1	3	NA	NA

Table S6c: Gene log₂ fold change data and p-values for R20291 *in vivo* samples (Reference versus day 5 samples)

Genes	ref	d5a	d5b	d5c	d5d	d5e	d5f	d5g	d5h	d5i	d5j	log2FoldChange	padj
CDR20291_0001	450	355	412	248	240	518	181	543	229	382	406	-0.463998306	0.816898734
CDR20291_0002	8624	11876	11672	10896	13017	14143	13813	13421	15697	12917	18978	0.598522269	0.541513416
CDR20291_0003	11	3	0	4	1	5	3	1	2	0	1	NA	NA
CDR20291_0004	4	0	0	1	1	0	1	0	0	0	0	NA	NA
CDR20291_0005	8	1	2	1	2	3	2	2	4	3	2	NA	NA
CDR20291_0006	7	0	0	0	0	1	3	1	1	0	0	NA	NA
CDR20291_0007	2	1	1	0	2	0	0	0	1	0	0	NA	NA
CDR20291_0008	1	3	0	2	0	3	7	5	11	3	2	NA	NA
CDR20291_0009	2293	1323	461	735	960	2387	1385	1981	523	1105	954	-1.034589084	0.54197995
CDR20291_0010	6042	8	3	5	5	11	21	7	13	7	7	-9.465175328	4.14E-36
CDR20291_0011	1032	1206	889	885	787	888	780	871	719	420	525	-0.458922097	0.784438052
CDR20291_0012	1347	766	860	1136	777	801	367	587	708	1149	615	-0.907716072	0.215967679
CDR20291_0013	2421	2840	2315	3102	2909	2828	2092	3414	3065	3709	4373	0.257798096	0.883480371
CDR20291_0014	6539	6565	6252	8677	7412	7391	8326	8540	6845	8584	13689	0.272937483	0.910666531
CDR20291_0015	9030	12303	14114	20609	16475	14263	14941	19642	19010	16455	28940	0.904237949	0.310373983
CDR20291_0016	9369	12359	9891	10188	11536	9361	12523	12002	10569	14280	10062	0.206283319	0.922087179
CDR20291_0017	8629	11650	9146	9080	9834	8072	9120	10249	9530	11501	7842	0.08007465	0.978951444
CDR20291_0018	9	2	1	3	1	4	3	3	2	2	2	NA	NA
CDR20291_0019	7044	9311	9604	10983	9226	14206	8962	14547	10576	10388	11088	0.545586417	0.481314751
CDR20291_0020	31	155	108	56	52	31	32	24	29	47	32	0.740855577	0.864878754
CDR20291_0021	134	108	98	32	202	49	134	145	43	144	20	-0.513292003	0.930649044
CDR20291_0022	319	140	86	90	75	95	40	26	18	89	37	-2.334470943	0.05381553
CDR20291_0023	1111	1318	1443	1228	1335	1418	2084	1356	1672	1758	912	0.343580088	0.883480371
CDR20291_0024	5314	6433	5934	6710	7134	8680	4254	6192	5905	5787	4761	0.111599127	0.936058228
CDR20291_0025	217	202	315	117	277	273	269	372	132	486	262	0.248583199	0.950748991
CDR20291_0026	834	2019	1842	1592	1114	2148	1019	1490	2050	1243	4280	1.081912837	0.36716881
CDR20291_0027	65	32	44	29	181	38	19	58	39	85	65	-0.262317978	0.976678975

CDR20291_0028	219	186	152	64	235	353	123	394	310	120	178	-0.150156999	0.987396008
CDR20291_0029	390	577	358	475	500	515	298	410	341	533	254	0.021021251	0.9964183
CDR20291_0029;													
CDR20291_0030	0	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_0030	50	60	58	37	37	57	32	40	133	79	131	0.328606754	0.950748991
CDR20291_0031	1	0	1	0	1	5	9	3	11	50	0	NA	NA
CDR20291_0032	424	3046	810	592	598	672	2464	899	239	427	366	1.252499712	0.791887613
CDR20291_0033	63	101	143	119	37	83	35	119	93	120	79	0.453843163	0.89348113
CDR20291_0034	75	128	163	117	102	82	15	17	86	57	46	-0.037048807	0.9964183
CDR20291_0035	552	724	737	1133	720	703	1549	509	577	1377	541	0.613010764	0.816898734
CDR20291_0036	2	2	1	0	1	3	4	2	2	0	2	NA	NA
CDR20291_0037	0	3	0	2	1	1	1	0	1	0	0	NA	NA
CDR20291_0038	7	4	0	1	1	2	2	4	3	2	2	NA	NA
CDR20291_0039	61	778	1224	170	863	216	1321	429	1016	560	159	3.456471176	0.008491327
CDR20291_0040	812	1135	1209	3403	1529	1328	2005	78507	2622	2527	2893	1.296591634	0.229844808
CDR20291_0041	2	3	0	1	3	1	2	1	6	2	3	NA	NA
CDR20291_0042	2490	2281	2262	1999	2101	2543	1505	1666	1608	1468	1565	-0.492422635	0.413848518
CDR20291_0043	3	1	3	0	0	1	6	0	3	0	1	NA	NA
CDR20291_0044	3440	2277	3846	3323	2875	2979	2046	2693	3034	2782	2889	-0.350729567	0.709395504
CDR20291_0045	3596	3850	3849	4620	3776	3982	2418	3532	4619	4990	4141	0.049922297	0.990274717
CDR20291_0046	194	210	151	88	137	104	113	321	138	116	35	-0.536095917	0.884369474
CDR20291_0047	281	212	84	192	203	118	218	154	143	126	92	-0.917229686	0.582968283
CDR20291_0048	84	129	70	71	62	120	119	73	65	109	207	0.228115208	0.964838183
CDR20291_0049	7292	5787	4616	4741	4544	5703	3088	4433	4420	5501	4233	-0.734524258	0.016381315
CDR20291_0050	3	1	2	2	2	1	1	3	0	1	1	NA	NA
CDR20291_0051	46	52	33	66	88	81	200	83	55	25	84	0.766442034	0.869497758
CDR20291_0052	1	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_0053	1	0	0	1	0	2	0	0	0	0	1	NA	NA
CDR20291_0054	2	1	0	2	0	0	5	0	2	0	2	NA	NA
CDR20291_0055	2	0	0	0	0	0	0	1	0	0	0	NA	NA

CDR20291_0056	2	0	1	0	0	1	1	1	5	1	1 NA	NA
CDR20291_0058	1	0	2	0	0	0	0	1	1	0	0 NA	NA
CDR20291_0059	269	218	251	266	293	196	97	130	98	126	122	-0.708425602 0.66387476
CDR20291_0060	12	6	4	2	5	6	14	3	9	6	9 NA	NA
CDR20291_0061	54	46	10	13	1	20	24	106	15	54	13	-0.891660413 0.902325799
CDR20291_0062	1	1	3	0	0	0	1	2	5	0	0 NA	NA
CDR20291_0063	3	1	1	0	0	0	0	1	0	0	0 NA	NA
CDR20291_0064	12	4	2	5	1	2	4	2	4	0	4 NA	NA
CDR20291_0065	36	45	21	67	72	84	198	101	65	37	107	1.177692067 0.729553852
CDR20291_0066	2	1	0	0	1	0	0	1	1	0	0 NA	NA
CDR20291_0067	1	1	0	0	1	4	0	1	2	1	0 NA	NA
CDR20291_0068	4	4	0	0	0	2	0	2	0	0	0 NA	NA
CDR20291_0069	1	1	0	0	1	0	0	0	2	0	0 NA	NA
CDR20291_0070	4	4	1	0	0	1	1	0	3	1	1 NA	NA
CDR20291_0071	0	0	0	0	0	0	1	2	2	0	1 NA	NA
CDR20291_0072	2	0	0	0	0	0	0	0	1	0	0 NA	NA
CDR20291_0073	3	1	0	0	0	3	1	0	5	1	1 NA	NA
CDR20291_0074	2	1	0	0	1	0	0	0	1	1	0 NA	NA
CDR20291_0075	1	0	1	1	0	0	1	1	0	0	0 NA	NA
CDR20291_0076	4	0	0	1	0	0	1	0	0	0	0 NA	NA
CDR20291_0077	3	1	0	2	1	3	1	0	3	2	0 NA	NA
CDR20291_0078	0	0	0	1	0	0	0	0	0	1	4 NA	NA
CDR20291_0079	1	1	0	3	0	0	0	1	1	0	0 NA	NA
CDR20291_0080	2	0	1	0	0	1	1	0	0	0	0 NA	NA
CDR20291_0081	3	1	1	0	0	1	0	0	1	0	1 NA	NA
CDR20291_0082	3	0	0	1	0	0	0	0	1	0	1 NA	NA
CDR20291_0083	5	4	0	0	0	0	3	1	1	2	0 NA	NA
CDR20291_0084	0	1	0	2	0	0	0	1	0	2	2 NA	NA
CDR20291_0085	0	0	1	0	0	1	0	0	1	0	0 NA	NA
CDR20291_0086	3	0	0	1	2	3	0	1	2	1	0 NA	NA

CDR20291_0087	5	3	3	0	0	1	2	6	8	0	1	NA	NA
CDR20291_0088	4	0	1	1	3	4	3	0	1	0	0	NA	NA
CDR20291_0089	4	1	0	0	0	2	0	2	0	1	1	NA	NA
CDR20291_0090	2	0	1	1	1	0	0	0	2	0	0	NA	NA
CDR20291_0091	3	1	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0092	1	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0093	5	2	0	0	0	0	2	2	0	1	0	NA	NA
CDR20291_0094	0	1	0	1	1	0	1	0	1	0	1	NA	NA
CDR20291_0095	1	2	0	1	0	2	3	0	0	0	1	NA	NA
CDR20291_0096	3	1	0	4	0	1	2	1	4	1	1	NA	NA
CDR20291_0097	1	0	0	1	0	0	1	0	0	1	0	NA	NA
CDR20291_0098	7	0	0	1	1	2	1	2	1	0	0	NA	NA
CDR20291_0099	4	2	1	0	5	2	0	0	2	0	2	NA	NA
CDR20291_0100	43	75	23	42	39	28	23	7	50	2	35	-0.515264351	0.941539623
CDR20291_0101	228	384	515	389	391	201	456	142	234	344	296	0.499937391	0.860000045
CDR20291_0102	0	0	1	1	0	0	0	0	1	1	0	NA	NA
CDR20291_0103	0	0	0	0	0	1	0	0	2	0	2	NA	NA
CDR20291_0104	8	4	0	0	0	1	1	0	0	4	1	NA	NA
CDR20291_0105	36	9	1	5	26	14	8	22	15	5	34	-1.452551752	0.769472999
CDR20291_0106	8	3	0	6	4	7	5	1	6	2	2	NA	NA
CDR20291_0107	1478	1366	1715	3042	1918	1741	882	2767	1320	2361	1399	0.221551072	0.938005364
CDR20291_0108	116	259	269	175	271	439	193	48	194	13	271	0.762711742	0.864428698
CDR20291_0109	2090	1656	2094	2360	2244	2040	1023	1293	2359	1281	1985	-0.295117194	0.863112159
CDR20291_0110	1	1	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_0111	110	62	6	72	126	24	19	25	18	23	28	-1.582860657	0.605117498
CDR20291_0112	111	25	5	11	15	9	9	7	9	7	4	-3.563458182	0.01101138
CDR20291_0113	105	17	1	38	61	8	9	18	6	10	3	-2.746259434	0.353580294
CDR20291_0114	8	0	0	1	1	0	0	0	1	0	0	NA	NA
CDR20291_0115	83	18	5	8	16	4	0	4	2	4	0	-3.945188946	0.176074637
CDR20291_0116	154	20	1	46	42	29	9	14	17	7	2	-3.183293588	0.165164304

CDR20291_0117	78	7	19	10	14	17	13	13	29	2	13	-2.582518038	0.172769769
CDR20291_0118	5	3	1	2	3	2	5	0	4	2	2 NA		NA
CDR20291_0119	9	3	2	6	3	2	4	1	2	0	2 NA		NA
CDR20291_0120	2217	2874	3371	2926	3049	2813	2434	3505	2399	2917	2039	0.269116483	0.838256427
CDR20291_0121	1133	1917	1545	1733	2611	1825	971	1557	1562	1883	3261	0.633528165	0.582968283
CDR20291_0122	6	0	2	0	1	1	4	2	1	0	2 NA		NA
CDR20291_0123	479	520	534	463	724	512	692	1089	753	470	438	0.318315135	0.913649554
CDR20291_0124	29	3	0	4	91	7	4	1	3	5	2	-3.229573897	0.32414684
CDR20291_0125	0	2	21	0	2	0	2	1	4	0	5 NA		NA
CDR20291_0126	1	2	1	2	0	4	5	2	1	0	2 NA		NA
CDR20291_0127	2	1	0	0	1	2	0	0	3	0	0 NA		NA
CDR20291_0128	18	31	19	98	30	0	2449	2	45	10	20	0.499247507	0.96699115
CDR20291_0129	12	2	1	0	0	2	2	2	0	0	0 NA		NA
CDR20291_0130	3	3	0	1	1	1	6	2	2	3	2 NA		NA
CDR20291_0131	1510	1284	1345	1090	1030	1432	664	696	5486	1580	1514	0.009878045	0.998270107
CDR20291_0132	346	867	575	723	548	687	250	596	426	598	593	0.640482437	0.484588797
CDR20291_0133	5943	7258	6589	7336	6101	6285	3900	6336	9604	5504	5410	0.018283282	0.9964183
CDR20291_0134	26	10	47	16	11	0	3	17	0	27	1	-1.101677466	0.919350563
CDR20291_0135	111	215	171	124	105	65	23	122	55	54	28	-0.349491945	0.950748991
CDR20291_0136	167	49	87	89	53	33	34	33	66	27	30	-1.834095333	0.144863615
CDR20291_0137	161	2	18	3	23	50	5	12	10	1	9	-3.774802879	0.087281053
CDR20291_0138	31	35	97	74	37	48	20	27	45	85	210	1.036516118	0.789410944
CDR20291_0139	115	214	95	108	98	114	60	44	78	33	13	-0.557154717	0.910666531
CDR20291_0140	35	51	6	16	6	0	5	13	1	1	0	-1.96003076	0.821472806
CDR20291_0141	1780	2015	1795	2025	2183	1712	1279	1629	1458	1879	1480	-0.125404279	0.933474326
CDR20291_0142	15	6	2	9	2	6	7	4	4	3	6 NA		NA
CDR20291_0143	54	66	25	46	46	35	93	9	42	5	31	-0.445222394	0.951893091
CDR20291_0144	7832	7459	7586	6224	8353	8854	3683	5097	5359	7108	7243	-0.342400054	0.691756074
CDR20291_0145	1774	1622	1795	1109	1507	1802	1101	988	847	1100	886	-0.580935378	0.553420009
CDR20291_0146	349	483	452	174	170	274	149	280	182	166	293	-0.523537206	0.823959751

CDR20291_0147	648	490	630	750	604	910	482	765	770	533	637	-0.071684867	0.987679719
CDR20291_0148	6	2	0	0	1	0	2	0	2	2	0	NA	NA
CDR20291_0149	3	0	0	0	1	3	4	1	5	0	0	NA	NA
CDR20291_0150	5	3	0	0	0	1	0	0	1	0	1	NA	NA
CDR20291_0151	589	992	534	437	687	730	627	614	907	822	574	0.152146399	0.958673898
CDR20291_0152	573	496	413	1428	752	276	261	444	459	574	524	-0.130904277	0.987679719
CDR20291_0153	192	311	156	272	167	438	77	164	226	188	106	-0.013803007	0.997049181
CDR20291_0153;													
CDR20291_0154	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0154	246	297	329	178	455	170	245	164	121	319	324	-0.002741755	0.998580161
CDR20291_0155	2302	3844	3141	4449	3155	3802	2034	2841	2617	2783	3571	0.381015555	0.653450716
CDR20291_0156	191	310	384	399	366	580	227	325	422	1015	336	1.084500806	0.370110378
CDR20291_0157	356	512	431	545	356	536	110	291	187	558	825	0.163072826	0.978928083
CDR20291_0158	1144	93	3	9	14	1	0	1	5	5	0	-8.196164604	5.61E-11
CDR20291_0159	590	29	2	3	5	4	4	2	6	6	1	-6.701028697	9.88E-07
CDR20291_0160	26	4	4	2	8	0	4	2	0	0	2	NA	NA
CDR20291_0161	450	7	2	0	3	1	3	0	6	0	0	-7.756570873	7.99E-06
CDR20291_0162	0	0	0	1	0	1	0	0	4	0	1	NA	NA
CDR20291_0163	1	0	0	1	0	1	0	1	0	0	0	NA	NA
CDR20291_0164	25	1	0	1	0	2	2	0	1	0	0	NA	NA
CDR20291_0165	66	66	91	128	60	57	33	38	27	53	27	-0.307054798	0.950748991
CDR20291_0166	95	31	5	19	64	30	18	3	58	66	15	-1.72771894	0.607957826
CDR20291_0167	371	448	493	287	420	551	189	229	237	340	332	-0.201712785	0.937393001
CDR20291_0168	164	331	427	391	421	348	225	151	1316	398	671	1.431251753	0.391568342
CDR20291_0169	7476	9780	9595	9994	9751	11553	7620	7891	11197	8948	12381	0.312520815	0.75332961
CDR20291_0170	1927	1472	1328	1880	1341	1955	899	1268	1110	1738	1322	-0.536932506	0.420423918
CDR20291_0171	2	0	0	0	0	2	2	3	1	0	0	NA	NA
CDR20291_0172	1259	1615	2043	2047	1488	1582	2383	1521	1693	1433	1554	0.416054763	0.816898734
CDR20291_0173	2	1	0	0	0	0	1	0	0	0	1	NA	NA
CDR20291_0174	572	788	796	907	978	669	438	910	799	555	489	0.255640638	0.892547682

CDR20291_0175	1678	3161	3303	2678	3212	3024	2081	2171	2873	2461	3234	0.653844156	0.144863615
CDR20291_0176	538	1250	895	736	1252	1374	643	1628	1108	992	1554	0.989864401	0.188380211
CDR20291_0177	1332	2097	1753	1912	1797	2407	1245	1678	1434	1587	1723	0.300533983	0.662569455
CDR20291_0178	3457	3864	4533	3824	4653	5280	12627	6681	6367	4589	5035	0.74842043	0.751640461
CDR20291_0179	539	672	618	703	634	967	245	740	1350	641	318	0.236229326	0.949260052
CDR20291_0180	11	2	1	1	11	0	6	0	4	1	1	NA	NA
CDR20291_0181	142	36	222	230	71	50	28	45	143	76	48	-0.696626041	0.883480371
CDR20291_0182	1716	1818	1911	1694	1791	1782	8869	1521	1185	2268	1071	-0.186552168	0.918679299
CDR20291_0183	98	158	137	166	138	160	36	125	54	351	47	0.349096948	0.946208554
CDR20291_0184	2676	2509	1764	1751	2477	2452	1174	2106	1841	1672	2846	-0.482859458	0.599970089
CDR20291_0185	3701	1	0	2	1	3	3	0	2	2	0	-11.46052169	7.52E-57
CDR20291_0186	3805	3	0	2	0	0	3	0	2	0	0	-11.88990222	2.07E-05
CDR20291_0187	2460	4	2	6	1	11	5	3	5	13	2	-8.984324651	4.19E-29
CDR20291_0188	4430	2	0	1	0	0	1	1	1	0	0	-12.94476571	1.35E-54
CDR20291_0189	474	871	627	527	716	1229	511	1000	919	800	530	0.601444418	0.591724175
CDR20291_0190	3736	5305	4419	4653	5625	5790	4333	4630	4396	4447	4241	0.269530004	0.762543956
CDR20291_0191	274	131	205	198	228	178	78	77	99	122	57	-1.126110355	0.396262393
CDR20291_0192	1376	893	370	546	515	844	1231	601	708	515	707	-1.014598959	0.486532288
CDR20291_0193	4393	2294	1295	2896	1685	2469	1478	2335	1723	3736	1821	-1.109324437	0.154814465
CDR20291_0194	2	0	1	0	0	0	1	1	0	1	0	NA	NA
CDR20291_0195	54	78	55	106	59	74	141	157	258	48	182	1.079769892	0.70786199
CDR20291_0196	125	243	173	74	247	336	57	72	85	102	114	0.100133161	0.9964183
CDR20291_0197	1772	2027	1897	1602	1728	1617	908	1759	1586	1343	1335	-0.271291743	0.804031614
CDR20291_0198	8	1	2	3	0	4	6	1	1	2	5	NA	NA
CDR20291_0199	14927	21422	20397	19971	20954	22813	14008	18168	21834	20237	22700	0.345214673	0.49764138
CDR20291_0200	512	777	583	805	914	761	460	690	459	1260	842	0.459519117	0.76875229
CDR20291_0201	138	96	89	259	75	100	80	178	101	136	68	-0.309232921	0.938618522
CDR20291_0202	95	114	60	140	137	100	44	128	50	138	122	0.009813823	0.998270107
CDR20291_0203	71	81	24	21	24	48	13	5	17	38	25	-1.411051146	0.624239839
CDR20291_0204	1117	1546	854	1498	1447	1885	665	1575	1306	1150	1015	0.096507329	0.977609616

CDR20291_0205	8836	6576	11307	4175	6494	7427	6550	7649	7758	9012	5765	-0.359966485	0.842127256
CDR20291_0206	405	535	798	302	578	534	325	764	701	387	476	0.320420242	0.892840893
CDR20291_0207	2	1	1	0	1	2	0	0	3	2	0	NA	NA
CDR20291_0208	84	132	104	83	114	31	11	47	149	66	40	-0.241942319	0.977609616
CDR20291_0209	7	1	0	0	0	14	0	1	0	0	0	NA	NA
CDR20291_0210	9	11	2	4	2	4	1	7	6	3	0	NA	NA
CDR20291_0211	365	474	511	389	447	398	196	540	367	479	410	0.099525563	0.977604609
CDR20291_0212	28	49	12	79	73	26	21	12	27	12	158	0.652746888	0.930649044
CDR20291_0213	18	4	0	2	11	0	0	0	0	5	1	NA	NA
CDR20291_0214	101	213	263	204	80	148	75	126	271	105	256	0.685764948	0.788477536
CDR20291_0215	188	2	1	0	1	1	4	0	1	1	0	-7.439730234	5.95E-05
CDR20291_0216	199	5	1	5	1	2	0	0	2	1	1	-6.927926656	3.00E-05
CDR20291_0217	1578	3	0	1	1	3	2	1	1	0	4	-10.04066744	8.17E-33
CDR20291_0217;													
CDR20291_0218	0	0	0	0	2	0	0	0	0	0	0	NA	NA
CDR20291_0218	431	3	3	7	1	2	2	0	5	0	0	-7.646199532	1.83E-07
CDR20291_0218;													
CDR20291_0219	28	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0219	376	3	0	0	0	1	2	1	1	0	2	-8.622448551	2.30E-09
CDR20291_0220	1614	4	0	5	4	23	7	7	3	11	7	-7.939890859	3.50E-15
CDR20291_0221	505	2	4	1	0	5	1	2	4	4	2	-7.767288405	7.85E-14
CDR20291_0222	5107	13	5	9	3	5	8	6	14	10	4	-9.453852916	8.02E-55
CDR20291_0223	438	680	793	421	224	853	3119	362	448	345	277	-0.006339345	0.998270107
CDR20291_0224	401	685	1124	545	427	977	402	739	994	623	596	0.722036244	0.542676056
CDR20291_0225	15	37	65	20	13	39	14	9	48	16	10	0.728753113	0.894869521
CDR20291_0226	305	627	588	443	617	694	1279	398	689	743	428	1.077914474	0.474462087
CDR20291_0226;													
CDR20291_0227	1	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0227	317	521	370	253	348	363	180	319	365	292	460	0.024071495	0.9964183
CDR20291_0228	66	58	46	97	31	73	32	61	18	30	39	-0.555700353	0.883480371

CDR20291_0229	105	209	533	194	277	211	178	597	233	476	1141	1.876147544	0.217489179
CDR20291_0230	40	10	0	5	2	7	7	17	0	12	0 NA	NA	NA
CDR20291_0231	83	95	121	186	74	149	111	91	172	129	21	0.386621763	0.933474326
CDR20291_0232	83	334	111	165	80	173	15	119	166	108	154	0.634986735	0.870110009
CDR20291_0233	475	1192	1355	824	883	1267	481	969	1329	1727	532	1.037343072	0.268483007
CDR20291_0234	93	133	164	232	148	184	195	107	86	114	156	0.64119769	0.754714348
CDR20291_0235	1	1	2	0	8	3	0	1	3	1	0 NA	NA	NA
CDR20291_0236	14	17	18	4	4	31	22	32	0	31	35	0.410596554	0.977604609
CDR20291_0237	46	39	13	13	4	6	4	22	12	11	2	-1.988342729	0.561932453
CDR20291_0238	29	7	15	12	5	20	10	11	16	0	7	-1.583263723	0.737388095
CDR20291_0239	52	74	100	58	24	26	54	30	68	19	14	-0.224044015	0.985065716
CDR20291_0240	206	293	224	218	232	166	106	306	273	343	451	0.250686289	0.940486417
CDR20291_0241	700	551	795	386	361	473	321	529	286	515	665	-0.614522503	0.662791361
CDR20291_0242	742	604	628	366	504	987	638	474	368	707	446	-0.460863016	0.806019044
CDR20291_0243	1080	1082	1684	1202	778	1317	850	925	1358	1491	671	-0.02171065	0.9964183
CDR20291_0244	1625	3026	2615	3272	1752	2571	2486	2782	3076	2507	2358	0.629910145	0.465829533
CDR20291_0245	246	503	289	284	397	449	272	457	332	364	299	0.470665265	0.677980547
CDR20291_0246	5540	12470	13258	9647	9201	13784	10558	12050	11324	12183	9857	0.964011255	0.028150221
CDR20291_0247	1175	2892	2534	2133	1817	2353	1677	4346	2151	3621	3142	1.099056926	0.167867129
CDR20291_0248	420	1191	1616	1496	841	1177	997	1079	1088	844	3325	1.627983404	0.099632638
CDR20291_0249	117	106	121	239	227	129	109	192	366	124	87	0.456769691	0.894067873
CDR20291_0250	5	22	0	14	0	57	3	0	5	33	0	1.20975666	0.938005364
CDR20291_0251	552	1405	1729	1610	1260	1608	74579	1900	2156	1251	1619	1.413131645	0.004080003
CDR20291_0252	438	852	961	1212	516	923	600	1801	1274	778	1199	1.129286162	0.275183733
CDR20291_0252;													
CDR20291_0253	119	120	419	254	125	259	109	140	359	186	17	0.628564286	0.886044813
CDR20291_0253	1786	5468	6703	4758	4428	5555	4594	5747	5987	4159	6222	1.507755964	0.000362274
CDR20291_0254	1276	3913	5326	4934	2685	4545	7883	3581	4305	3226	5927	1.838887989	0.029619055
CDR20291_0255	61	265	65	50	69	144	47	57	59	250	31	0.626168679	0.894067873
CDR20291_0256	983	2370	2344	2291	1832	2310	1968	1537	2111	1665	2245	0.991763818	0.041049706

CDR20291_0257	763	2456	2622	2249	1717	2325	1578	2248	2503	2479	1957	1.445312316	4.91E-05
CDR20291_0258	726	1700	3060	1999	1254	1415	864	1109	2363	2755	1796	1.232843062	0.167867129
CDR20291_0259	551	1483	1733	1511	1350	1457	1385	1391	1755	1860	1022	1.36220456	0.004394586
CDR20291_0260	245	811	1621	1038	682	976	342	905	1131	1133	2372	2.067410517	0.020751274
CDR20291_0261	360	1428	867	924	549	1464	502	1563	714	618	693	1.258084427	0.168437625
CDR20291_0262	457	1974	1397	1183	1059	1286	865	939	1793	1267	3269	1.631165588	0.060049276
CDR20291_0263	104	249	260	630	256	260	228	584	176	747	302	1.745254058	0.144863615
CDR20291_0264	359	723	1338	1040	1134	788	382	1425	1377	709	368	1.26436021	0.254698646
CDR20291_0265	159	507	741	467	387	995	263	581	813	474	484	1.726715468	0.010264334
CDR20291_0266	3364	9187	9892	8603	5941	9607	10843	6859	10386	8303	8111	1.325752518	0.030240387
CDR20291_0267	2277	6989	6983	6411	3979	6434	4488	5065	5691	4935	5632	1.223172223	0.002868979
CDR20291_0267;													
CDR20291_0268	42	307	178	228	367	320	205	139	201	100	94	2.241235039	0.014972932
CDR20291_0268	499	1188	1291	912	1063	1487	1063	1038	976	1112	799	1.044149824	0.030794823
CDR20291_0269	1063	3793	3647	3501	2440	3492	3126	2588	3988	3384	7732	1.756378826	0.014536468
CDR20291_0270	436	431	360	563	456	248	601	291	477	2837	124	0.48911774	0.950748991
CDR20291_0271	56	53	103	66	94	86	49	32	77	29	134	0.271238286	0.958673898
CDR20291_0272	486	505	868	494	487	545	225	523	552	1198	454	0.155909197	0.974860191
CDR20291_0273	452	665	750	366	336	612	178	387	430	1608	197	0.164171334	0.986223558
CDR20291_0274	802	1099	1232	890	1049	1026	1177	964	1474	1455	1065	0.44598641	0.751007662
CDR20291_0275	29	168	69	26	30	138	11	29	50	26	1	0.723553668	0.928061348
CDR20291_0276	1188	1278	1411	957	1105	1354	729	651	1063	1151	950	-0.265267082	0.849436797
CDR20291_0277	9997	15487	15886	12572	16859	15658	11430	14764	12802	10159	9268	0.339036747	0.757308657
CDR20291_0278	933	1440	1345	1342	1284	1394	598	930	918	1327	895	0.179272404	0.913649554
CDR20291_0279	424	611	819	720	829	783	203	958	467	810	679	0.575838175	0.707471332
CDR20291_0280	58	77	54	24	60	91	57	87	9	65	107	0.036459267	0.9964183
CDR20291_0281	4	0	0	1	0	0	4	13	1	0	0	NA	NA
CDR20291_0282	2839	3655	3560	3465	3668	4464	2857	4524	3084	3179	2732	0.218304605	0.870110009
CDR20291_0283	26	58	66	45	32	63	17	28	15	46	20	0.444249403	0.930649044
CDR20291_0284	51	207	56	21	88	104	89	140	77	298	48	1.056324214	0.757308657

CDR20291_0285	4493	6047	5049	5065	5719	6740	3464	4534	4791	4883	4795	0.079786039	0.944718748
CDR20291_0286	1244	1644	1959	1519	1582	1447	731	1745	1173	1461	1253	0.1125902	0.960594534
CDR20291_0287	36	52	12	13	28	22	3	21	58	77	17	-0.370726001	0.966550182
CDR20291_0288	2	8	6	1	2	10	0	4	2	0	0	NA	NA
CDR20291_0289	3	0	0	0	1	4	3	1	1	0	0	NA	NA
CDR20291_0290	11	2	0	0	31	7	15	3	2	0	3	NA	NA
CDR20291_0291	87	128	122	81	28	104	44	253	36	72	46	-0.029513343	0.996617239
CDR20291_0292	507	755	445	603	638	741	445	314	312	540	544	-0.030826157	0.9964183
CDR20291_0293	4	2	0	2	1	2	0	1	0	0	1	NA	NA
CDR20291_0294	49	45	46	76	89	277	42	163	70	102	490	1.412153254	0.658835466
CDR20291_0295	424	377	344	333	363	205	191	226	325	208	184	-0.7207227	0.50184102
CDR20291_0296	53	18	18	20	61	16	19	13	13	51	168	-0.486215321	0.951893091
CDR20291_0297	404	577	648	469	476	580	164	324	355	275	279	-0.099462841	0.987396008
CDR20291_0298	3913	16683	10016	6939	12573	8674	7972	7760	7161	7995	6580	1.140650089	0.085283132
CDR20291_0299	18	103	75	57	54	28	3	26	29	25	113	1.375303078	0.709423863
CDR20291_0300	446	591	414	720	557	677	279	549	731	433	739	0.247406278	0.913649554
CDR20291_0301	298	188	228	423	307	341	141	166	343	351	58	-0.343220293	0.933474326
CDR20291_0302	53	141	59	94	112	240	44	96	70	83	237	1.01958613	0.646940429
CDR20291_0303	164	225	303	323	338	421	127	122	111	173	38	0.263909619	0.961984872
CDR20291_0304	27	36	25	76	12	3	17	1	10	5	9	-0.573156658	0.954404489
CDR20291_0305	579	885	1259	535	791	948	428	673	495	477	954	0.249003614	0.92222337
CDR20291_0306	170	139	177	169	175	174	2309	85	323	93	281	-0.05094078	0.9964183
CDR20291_0307	232	59	147	181	129	174	30	115	82	155	44	-1.194741269	0.492014899
CDR20291_0308	50	220	39	187	67	170	14	76	136	118	132	1.068964736	0.714145776
CDR20291_0309	5	3	0	1	0	2	0	0	3	0	0	NA	NA
CDR20291_0310	4075	4978	4426	4482	5937	6455	3528	6983	5983	5118	6022	0.311377278	0.803378898
CDR20291_0311	17268	26518	27680	26648	28149	31537	21063	24210	23726	27376	28834	0.530811728	0.125676858
CDR20291_0311;													
CDR20291_0312	11	24	16	0	34	12	48	37	26	13	26	1.107376865	0.870110009
CDR20291_0312	982	1292	1410	1454	1446	1915	770	1371	1427	1657	2478	0.529611298	0.647460928

CDR20291_0313	4304	4520	4118	4822	4589	4620	2284	3972	4735	5049	3567	-0.132457882	0.933474326
CDR20291_0314	1675	1723	1882	1654	1592	1479	1047	1162	1319	1673	1188	-0.286548151	0.782167863
CDR20291_0315	764	1476	1009	1228	1003	1074	734	1097	1263	980	1214	0.442322493	0.59172591
CDR20291_0316	10	27	8	0	9	13	22	2	5	43	3	0.348812539	0.988602948
CDR20291_0317	0	0	1	4	7	0	1	0	3	1	0	NA	NA
CDR20291_0318	13	8	2	1	19	58	1	2	16	5	4	-0.393615443	0.986223558
CDR20291_0319	152	90	264	46	90	48	53	176	126	57	94	-0.631487293	0.873404371
CDR20291_0320	225	72	62	78	71	33	40	37	51	148	70	-1.857253517	0.115414408
CDR20291_0321	476	295	254	277	306	272	179	385	196	206	175	-1.000481119	0.168173497
CDR20291_0322	499	378	567	412	403	375	133	261	375	454	432	-0.516000133	0.74023827
CDR20291_0323	4928	4614	3932	3972	4308	5471	2219	3762	3003	3702	3354	-0.478545157	0.345316671
CDR20291_0324	1855	1786	1701	1550	1767	1643	836	1050	1338	1122	1749	-0.46157509	0.582968283
CDR20291_0325	2813	2885	2468	2394	2541	3048	1856	1994	2109	2410	3005	-0.283465708	0.75332961
CDR20291_0325;													
CDR20291_0326	812	1159	1331	1709	1097	1673	810	1372	4059	1106	864	0.813505736	0.667486592
CDR20291_0326	216	493	305	202	496	636	218	1459	172	354	558	1.083140292	0.648014819
CDR20291_0327	2026	2138	1966	1933	2075	2449	1129	1640	1475	2899	1383	-0.19868122	0.913649554
CDR20291_0328	2561	3122	3106	2334	2646	3105	1409	2156	1869	2367	2694	-0.159352242	0.914046271
CDR20291_0329	441	93	143	98	65	121	15	55	104	48	28	-2.667098456	0.014536468
CDR20291_0330	91	1	26	14	0	9	1	15	2	9	4	-3.616492381	0.251203294
CDR20291_0331	520	26	155	32	28	33	3	3	32	28	19	-4.631770331	1.67E-05
CDR20291_0332	315	9	38	22	42	25	5	11	8	28	29	-3.99543288	0.000612548
CDR20291_0333	659	632	1093	930	534	663	731	1307	897	796	809	0.283296703	0.913649554
CDR20291_0334	12262	14931	14670	15335	15741	18102	9736	14512	15208	14040	13685	0.150904083	0.843396956
CDR20291_0335	379	269	388	244	508	327	255	321	291	475	114	-0.344296494	0.906180104
CDR20291_0336	207	249	160	403	326	181	74	220	240	494	136	0.143707727	0.986223558
CDR20291_0337	48	30	15	53	63	42	19	31	14	15	6	-0.864585379	0.844040668
CDR20291_0338	5	3	4	2	0	6	5	0	5	2	0	NA	NA
CDR20291_0339	115	99	9	25	85	36	150	11	47	33	4	-1.174557373	0.837813669
CDR20291_0340	3	5	0	1	22	3	3	0	13	3	9	NA	NA

CDR20291_0341	331	557	311	350	278	287	160	256	499	340	221	-0.131310055	0.977609616
CDR20291_0342	680	693	601	843	562	443	285	463	607	710	349	-0.399229389	0.821472806
CDR20291_0343	144	264	123	106	356	182	199	132	166	46	180	0.20329711	0.976713545
CDR20291_0344	527	526	431	338	429	546	269	259	283	373	293	-0.606182054	0.474462087
CDR20291_0345	941	1496	1301	1194	1219	1729	522	1296	3418	1165	2146	0.617443795	0.782167863
CDR20291_0346	670	1151	2034	1273	1023	1716	617	752	964	1090	924	0.660939445	0.523327979
CDR20291_0347	2	0	0	0	0	0	2	1	0	0	4	NA	NA
CDR20291_0348	224	202	127	242	175	134	45	147	118	81	88	-0.85006004	0.620687742
CDR20291_0349	3328	3842	3110	2863	3417	3635	2125	2568	2096	3813	2424	-0.260571954	0.82771301
CDR20291_0350	3333	1861	1360	1536	1986	1739	1078	1301	1547	1543	1789	-1.181542121	0.000328291
CDR20291_0351	3	1	1	1	0	0	1	1	1	1	2	NA	NA
CDR20291_0352	3176	3592	3509	4104	4104	4823	1999	2873	3716	3551	3032	0.03906424	0.993685705
CDR20291_0353	9051	13835	16312	11778	13554	16597	10757	12643	12704	14350	9301	0.447789741	0.487221915
CDR20291_0354	1	2	1	0	2	2	1	0	1	3	1	NA	NA
CDR20291_0355	1887	2302	2034	2465	2273	2528	1503	2634	2436	1929	2295	0.153556166	0.913649554
CDR20291_0356	3250	4350	3679	4059	4473	5217	3670	3253	3595	3428	5676	0.263737935	0.860653178
CDR20291_0357	52	95	109	16	65	53	59	6	64	52	8	-0.075568746	0.9964183
CDR20291_0358	25	6	29	20	5	11	13	1	16	23	3	-1.05595139	0.87463407
CDR20291_0359	139	168	176	125	158	200	65	88	75	343	78	-0.043290496	0.9964183
CDR20291_0360	97	103	92	43	76	118	36	80	15	98	440	0.089931953	0.9964183
CDR20291_0361	11	8	26	13	2	10	4	8	4	19	20	-0.055038182	0.9964183
CDR20291_0362	56	83	110	35	100	74	28	15	51	149	39	0.1552289	0.990274717
CDR20291_0363	366	620	707	776	558	471	359	504	502	541	591	0.524074135	0.553420009
CDR20291_0364	4407	5728	7394	6247	6059	5877	3545	5419	4748	4675	5540	0.223623957	0.831093685
CDR20291_0365	112	59	18	84	56	130	37	56	77	80	42	-0.928140633	0.69230322
CDR20291_0366	12	7	1	2	6	2	2	3	4	2	2	NA	NA
CDR20291_0367	3	2	0	4	0	3	3	0	2	3	0	NA	NA
CDR20291_0368	8	5	1	1	0	4	1	0	3	1	0	NA	NA
CDR20291_0369	4	6	1	3	0	1	3	1	4	0	2	NA	NA
CDR20291_0370	4	4	0	0	1	1	2	2	1	3	0	NA	NA

CDR20291_0371	3	6	3	0	0	3	2	0	1	1	0	NA	NA
CDR20291_0372	6	4	1	9	3	0	1	3	3	0	1	NA	NA
CDR20291_0373	251	111	17	89	186	194	43	38	76	56	18	-1.760256886	0.415455207
CDR20291_0374	0	2	3	2	0	3	0	0	2	0	3	NA	NA
CDR20291_0375	407	721	531	497	637	962	409	572	425	804	478	0.456327918	0.694246275
CDR20291_0376	702	1031	855	889	1088	860	613	797	673	1386	766	0.252799973	0.883480371
CDR20291_0376;													
CDR20291_0377	2371	3352	3228	3098	3492	3962	4594	2809	3022	3446	3574	0.489384946	0.703774813
CDR20291_0378	704	668	629	818	865	914	772	771	590	757	788	0.028893359	0.9964183
CDR20291_0379	2182	3441	3392	3154	2722	4203	3348	2252	2830	3108	2130	0.406259407	0.75332961
CDR20291_0380	80	105	112	58	104	74	28	77	80	41	47	-0.265514895	0.949832827
CDR20291_0381	82	114	269	275	155	168	144	69	107	112	56	0.745460836	0.786730769
CDR20291_0382	430	565	683	811	512	746	824	532	520	590	495	0.48663877	0.763293493
CDR20291_0383	2	6	1	7	7	1	0	2	11	0	2	NA	NA
CDR20291_0384	121	235	183	132	243	257	98	427	103	99	100	0.520553414	0.87463407
CDR20291_0385	60	4	6	8	2	3	2	11	3	15	0	-3.569115648	0.193701346
CDR20291_0386	184	0	0	1	0	2	1	0	0	1	0	-8.629917277	2.45E-05
CDR20291_0386;													
CDR20291_0387	1	0	0	0	0	0	0	0	2	0	0	NA	NA
CDR20291_0387	334	216	353	164	192	285	69	119	137	214	135	-0.965592526	0.447600652
CDR20291_0388	9	0	47	0	0	1	0	0	1	12	0	NA	NA
CDR20291_0389	879	1235	839	4162	1170	1110	648	707	1146	1100	1481	0.52078894	0.870110009
CDR20291_0390	1080	1245	887	1145	1302	1378	931	964	1300	1269	1419	0.044249924	0.995544519
CDR20291_0391	61	79	13	47	52	60	11	58	31	42	21	-0.699246211	0.865105567
CDR20291_0392	187	367	214	105	394	143	112	205	453	161	410	0.358895127	0.933474326
CDR20291_0393	2	3	1	0	12	3	2	0	2	0	0	NA	NA
CDR20291_0394	1994	2943	2989	2780	3230	3117	1631	3258	2329	2201	1594	0.278686133	0.842813097
CDR20291_0395	242	339	326	300	260	140	107	135	193	179	168	-0.288865653	0.929706803
CDR20291_0396	1112	1292	1312	1234	1519	1252	685	904	979	1075	890	-0.108626745	0.950748991
CDR20291_0397	319	411	296	499	507	800	693	463	464	1406	541	0.866424191	0.646940429

CDR20291_0398	779	676	1070	737	944	1972	3029	711	565	954	1043	0.600538845	0.873772862
CDR20291_0399	48	105	55	51	109	166	44	55	75	260	0	0.802015826	0.903995811
CDR20291_0400	4	1	35	43	12	1	0	1	2	28	3	1.51108949	0.88847222
CDR20291_0401	624	614	634	817	850	965	844	551	458	617	735	0.11020415	0.978728379
CDR20291_0402	776	1281	1176	1358	1109	1692	647	910	1265	2389	963	0.607123058	0.632060576
CDR20291_0403	271	633	452	350	667	558	283	274	271	533	471	0.612076561	0.623308575
CDR20291_0404	420	584	937	824	1162	1263	580	748	1139	1056	1133	1.065870301	0.094684019
CDR20291_0405	1732	2346	2301	2108	2665	2842	1583	2395	2152	2426	2568	0.33491847	0.561729493
CDR20291_0406	125	123	101	53	144	181	60	54	98	102	57	-0.491719732	0.860653178
CDR20291_0407	2097	2932	3000	3006	3025	2753	2133	3231	2707	3711	3177	0.413486187	0.566282645
CDR20291_0408	716	1209	961	1097	1531	1674	688	1331	1260	1028	1157	0.628202039	0.306070752
CDR20291_0409	12	0	4	4	0	5	0	2	3	2	1	NA	NA
CDR20291_0410	85	88	56	62	99	102	33	59	52	59	6	-0.601753415	0.883592896
CDR20291_0411	89	105	28	103	204	181	83	106	97	56	143	0.208035733	0.976678975
CDR20291_0412	1603	2020	1769	2380	1841	2356	2206	1892	1279	1211	1884	0.16266594	0.950748991
CDR20291_0413	926	1074	1081	1375	1400	1327	551	1100	1235	2207	1088	0.31534049	0.87463407
CDR20291_0414	804	1061	840	788	1101	834	484	892	935	1300	1790	0.222663802	0.937393001
CDR20291_0415	1079	655	495	723	687	800	521	655	586	1052	416	-0.804351223	0.326576224
CDR20291_0416	864	1267	1133	1135	1184	1227	644	1044	1270	925	1814	0.33203091	0.82771301
CDR20291_0417	113	212	236	101	81	55	86	22	141	29	94	-0.192461275	0.987679719
CDR20291_0418	77	179	58	322	193	250	124	222	51	122	160	1.021703289	0.642918437
CDR20291_0419	1875	3331	3346	2642	2985	2879	1681	2779	2553	2504	2926	0.456363293	0.36716881
CDR20291_0420	0	1	1	2	0	2	1	0	1	1	3	NA	NA
CDR20291_0421	60	9	46	19	61	30	31	58	76	85	5	-0.588568216	0.933335682
CDR20291_0422	39	91	77	97	70	76	37	148	87	69	45	0.929883041	0.618314804
CDR20291_0423	264	287	471	172	340	419	96	156	213	133	211	-0.224417748	0.952961967
CDR20291_0424	4	12	0	3	41	18	23	1	50	2	47	2.256914913	0.737388095
CDR20291_0425	1623	1185	1185	1049	1568	1316	545	947	1041	916	945	-0.71982798	0.169207639
CDR20291_0426	37	21	0	19	0	4	9	0	3	1	1	NA	NA
CDR20291_0427	37	17	35	5	23	1	0	25	12	24	2	-1.492579718	0.829084886

CDR20291_0428	311	259	346	556	242	314	165	449	600	467	128	0.085147673	0.9964183
CDR20291_0429	116	99	98	99	64	68	74	56	43	34	178	-0.586639455	0.870110009
CDR20291_0430	1449	48	83	39	178	49	13	45	4	100	96	-4.607357817	0.000302135
CDR20291_0431	1	7	0	2	9	0	1	1	1	1	0	NA	NA
CDR20291_0432	161	311	240	282	408	458	372	211	390	502	180	0.980676699	0.418385935
CDR20291_0433	3	3	0	2	2	3	2	3	2	1	1	NA	NA
CDR20291_0434	13	1	8	17	0	1	0	1	2	2	1	NA	NA
CDR20291_0435	166	321	181	175	334	141	120	180	130	171	172	0.104342968	0.987679719
CDR20291_0436	186	332	237	176	144	329	124	222	286	7003	53	0.076998076	0.9964183
CDR20291_0437	187	330	307	433	443	402	138	271	397	339	13	0.587241518	0.892547682
CDR20291_0438	152	317	159	210	182	162	114	238	254	93	106	0.171790359	0.972464309
CDR20291_0439	337	371	584	412	531	644	313	239	582	489	621	0.40428518	0.823959751
CDR20291_0440	447	471	195	689	953	494	272	423	1507	1480	1104	0.674029405	0.842928602
CDR20291_0441	1595	2389	2384	4847	2034	2103	1852	2169	2474	2521	2050	0.550339417	0.668962365
CDR20291_0442	6312	9844	9401	12851	9554	9542	11846	11456	11738	14213	10734	0.756927584	0.336439249
CDR20291_0443	7972	11235	9365	10335	11555	12118	7264	7978	7933	9907	10932	0.207172176	0.830538166
CDR20291_0444	4275	5725	5255	5658	5723	6093	4094	4689	5392	5188	4973	0.211068407	0.75332961
CDR20291_0445	664	687	885	740	894	958	1438	681	1021	971	1443	0.516395482	0.813305952
CDR20291_0446	9882	15028	15309	14284	16271	17084	12429	11830	15522	15184	12600	0.469306791	0.327275414
CDR20291_0447	1156	1703	2142	1639	2370	2166	1218	2064	2586	1770	2097	0.677157575	0.265908515
CDR20291_0448	2664	63951	70365	38601	51152	64943	140175	120625	87903	69609	61543	4.847917398	4.79E-11
CDR20291_0449	1249	54933	50846	39895	49823	47957	51673	96050	70816	59471	56191	5.468722707	3.49E-29
CDR20291_0450	681	394	324	381	363	338	125	441	492	353	483	-0.98768275	0.275685333
CDR20291_0451	971	821	512	566	450	440	434	361	454	547	474	-1.029258194	0.101494983
CDR20291_0452	33	20	86	59	23	64	27	16	42	59	57	0.351086879	0.950748991
CDR20291_0453	5488	3922	2730	3853	3845	5652	2651	3249	2898	3766	3688	-0.702830957	0.167867129
CDR20291_0454	5474	7305	6448	6776	7932	7889	4440	7870	7192	7031	6346	0.239722459	0.763293493
CDR20291_0455	2297	5008	4222	4239	4444	5641	6594	3702	4681	4141	4853	0.997457014	0.187402715
CDR20291_0456	7	7	0	7	0	4	10	2	8	19	7	NA	NA
CDR20291_0457	280	307	516	419	330	246	253	204	176	212	385	0.032719572	0.9964183

CDR20291_0458	62	43	9	18	32	5	54	1	110	55	8	-0.896858614	0.913649554
CDR20291_0459	254	200	245	109	247	292	49	90	180	408	215	-0.45762669	0.894067873
CDR20291_0460	997	818	909	484	890	1011	462	572	761	458	687	-0.610898644	0.511435998
CDR20291_0461	1506	1231	947	1190	1386	1232	1141	1369	860	711	1228	-0.490441493	0.694246275
CDR20291_0462	1285	739	689	917	1101	894	514	674	693	694	631	-0.872760935	0.052106369
CDR20291_0463	2394	1701	1197	1562	1973	2186	4147	2048	1931	1170	2177	-0.253126918	0.950748991
CDR20291_0464	2413	1830	1457	1884	1710	2210	982	1384	1223	1212	1567	-0.754187304	0.100915405
CDR20291_0465	1167	907	918	815	944	845	1482	796	971	519	777	-0.410182118	0.873185993
CDR20291_0466	942	776	566	624	944	691	564	544	546	409	651	-0.667758738	0.428305357
CDR20291_0467	390	857	760	907	744	984	429	875	810	1003	471	0.897634601	0.150109336
CDR20291_0468	165	112	48	96	185	161	17	82	130	64	50	-0.957197861	0.70625024
CDR20291_0469	1128	539	380	437	470	704	292	587	374	430	391	-1.40162499	0.001643908
CDR20291_0470	6140	32987	1285	11064	16436	4933	2878	15158	8293	6033	15514	0.774454768	0.883480371
CDR20291_0471	6885	9938	10430	9238	11702	12364	10805	10652	9241	9996	8986	0.510635122	0.475452056
CDR20291_0472	5	0	0	0	0	1	0	1	2	1	0	NA	NA
CDR20291_0473	13413	16728	16779	15312	16774	20736	13846	16419	15147	19850	14493	0.218503604	0.823959751
CDR20291_0474	35	3	15	1	46	3	22	4	0	23	6	-1.553318339	0.844040668
CDR20291_0475	5	1	0	5	6	4	0	2	0	0	1	NA	NA
CDR20291_0476	3	3	3	0	4	3	1	2	1	4	1	NA	NA
CDR20291_0477	271	215	201	123	275	259	42	103	311	86	188	-0.72539672	0.782813265
CDR20291_0478	190	234	170	251	248	295	102	168	231	150	117	-0.073374306	0.993280419
CDR20291_0479	3	12	0	0	0	0	0	95	0	20	0	-0.004142755	0.999430163
CDR20291_0480	5	1	0	0	2	2	0	0	1	0	0	NA	NA
CDR20291_0481	3	50	13	10	16	13	11	12	10	2	6	2.130556372	0.616674951
CDR20291_0482	1648	1600	1670	1633	1517	1891	1366	1305	1055	1216	1880	-0.21018347	0.900272708
CDR20291_0483	834	582	986	436	462	584	1137	265	337	518	316	-0.590549703	0.853894657
CDR20291_0484	55	3	0	5	1	0	1	1	2	0	2	NA	NA
CDR20291_0485	10	3	0	4	0	4	2	19	12	1	1	NA	NA
CDR20291_0486	1880	3021	3248	3819	3043	3658	4180	3369	2781	2777	5226	0.846885525	0.358458501
CDR20291_0487	2033	2589	2856	2594	2897	3225	6426	2859	2465	2382	3310	0.632129209	0.780569657

CDR20291_0488	261	154	203	427	203	234	120	228	189	428	767	0.091849339	0.9964183
CDR20291_0489	318	830	701	677	842	958	642	699	1105	927	353	1.191236341	0.100915405
CDR20291_0490	68	62	12	92	117	76	46	85	46	181	16	0.004327208	0.998580161
CDR20291_0491	2310	3722	2764	4222	4121	3204	2048	4292	4218	3884	5108	0.610309547	0.502333974
CDR20291_0492	5761	8343	6400	8584	9587	8555	6703	7542	7446	7104	10163	0.397213957	0.65364891
CDR20291_0493	1638	1744	2845	1580	1946	1638	1909	1419	1372	1197	2198	0.052449601	0.9964183
CDR20291_0494	4815	6702	7706	9587	6350	8347	5604	6868	5881	6412	8916	0.498838488	0.504078882
CDR20291_0495	269	318	152	485	345	457	414	851	494	222	309	0.532805135	0.865909514
CDR20291_0496	47	8	13	16	19	74	6	21	19	2	19	-1.423482475	0.747473007
CDR20291_0497	1524	2495	2083	2140	2666	2539	9160	2329	2517	1726	2230	0.450256535	0.464807895
CDR20291_0498	259	484	222	329	455	465	193	211	348	536	626	0.469400478	0.833639061
CDR20291_0499	2586	3526	3281	2781	3517	4591	2674	2649	3363	3183	2891	0.23125549	0.823959751
CDR20291_0499;													
CDR20291_0500	2427	3505	3330	3300	3795	4272	4908	4218	3816	4219	3877	0.639462166	0.511435998
CDR20291_0501	321	389	532	284	361	351	163	230	246	584	260	-0.035385623	0.9964183
CDR20291_0501;													
CDR20291_0502	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_0502	510	620	509	1922	842	996	488	631	725	390	410	0.451893847	0.882935726
CDR20291_0503	150	12	0	6	0	4	10	1	8	3	3	-5.016853573	0.033273579
CDR20291_0504	241	89	136	282	186	662	70	194	109	63	205	-0.437310601	0.933335682
CDR20291_0505	122	193	28	183	66	156	190	30	113	45	70	-0.229759507	0.980729698
CDR20291_0506	998	781	698	720	1049	1233	1295	908	879	1293	653	-0.124826946	0.978728379
CDR20291_0507	19	19	5	4	2	11	13	2	8	2	1	NA	NA
CDR20291_0508	568	568	627	525	510	915	594	751	462	599	472	0.000769999	0.999233824
CDR20291_0509	29	49	27	38	30	40	41	38	52	29	34	0.312798123	0.940486417
CDR20291_0510	0	1	0	6	15	0	3	0	0	0	0	NA	NA
CDR20291_0511	4	0	0	0	1	2	0	1	0	0	0	NA	NA
CDR20291_0512	3	7	0	0	3	8	1	0	2	2	0	NA	NA
CDR20291_0513	1914	2277	2367	2471	2016	3364	1313	1987	1942	2275	2004	0.0887765	0.962496401

CDR20291_0513;														
CDR20291_0514	2112	3225	2757	2839	3122	3852	2274	2748	2831	2950	3190	0.400982132	0.392327335	
CDR20291_0515	392	517	824	539	541	519	354	490	571	951	726	0.527477422	0.698898616	
CDR20291_0516	95	112	116	127	330	44	90	133	420	29	43	0.522142894	0.933474326	
CDR20291_0517	87	81	106	62	152	57	30	84	79	53	53	-0.320281642	0.936058228	
CDR20291_0518	21	41	23	113	26	2	9	203	37	1	11	1.073970564	0.898602063	
CDR20291_0519	2912	9221	10723	6986	8413	8524	4266	4889	5720	6493	5493	1.16218809	0.014155984	
CDR20291_0520	790	2493	2165	1713	2059	2179	684	1119	1234	1362	1862	0.96222873	0.184544904	
CDR20291_0521	1	0	1	2	0	0	0	0	1	0	0	NA	NA	
CDR20291_0522	3	4	0	1	0	1	4	0	2	1	0	NA	NA	
CDR20291_0523	66	163	104	112	85	114	69	76	130	182	7	0.550249365	0.911575941	
CDR20291_0524	1	1	0	0	2	1	0	0	4	0	0	NA	NA	
CDR20291_0525	697	785	973	684	1389	989	588	821	844	707	716	0.181831368	0.930649044	
CDR20291_0526	227	311	417	270	285	347	200	226	312	911	523	0.64836841	0.786730769	
CDR20291_0527	105	70	170	62	116	184	44	107	44	45	145	-0.218646803	0.972520712	
CDR20291_0528	22	1	32	9	9	3	3	11	10	20	2	-1.244666759	0.861886891	
CDR20291_0529	1791	2154	2121	2422	2612	2955	1684	2027	2079	2507	2548	0.270746327	0.747473007	
CDR20291_0529;														
CDR20291_0530	2947	4393	4258	3808	4264	4862	4805	3815	4195	4720	4660	0.503364782	0.557223874	
CDR20291_0531	140	178	230	52	353	189	27	101	112	90	321	0.097686809	0.9964183	
CDR20291_0532	179	204	201	215	173	130	47	132	178	57	196	-0.343239653	0.930649044	
CDR20291_0533	703	285	195	427	439	666	311	292	182	339	517	-1.044307535	0.370315566	
CDR20291_0534	391	716	394	417	732	398	931	525	518	197	360	0.382379875	0.918198181	
CDR20291_0535	923	817	1163	1271	1181	1195	1237	1108	2069	1211	789	0.320033165	0.892547682	
CDR20291_0536	3	1	0	0	1	2	1	2	2	2	2	NA	NA	
CDR20291_0537	798	1077	991	991	778	714	359	468	576	439	764	-0.276524398	0.910666531	
CDR20291_0538	1577	3364	1070	1451	1635	1305	698	853	1572	1145	1753	-0.206965359	0.950748991	
CDR20291_0539	194	128	94	94	133	120	11	80	53	63	121	-1.260943171	0.474462087	
CDR20291_0540	264	160	245	99	435	263	99	118	110	172	267	-0.550927365	0.843396956	
CDR20291_0541	74	37	88	0	35	142	37	44	83	134	49	-0.306912092	0.978951444	

CDR20291_0542	0	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0543	7	3	9	1	0	1	0	0	1	2	0	0	NA	NA
CDR20291_0544	14	54	15	22	19	20	1	16	24	11	0	0.213558999	0.9964183	
CDR20291_0545	7	0	5	18	0	1	0	0	1	7	0	0	NA	NA
CDR20291_0546	352	807	735	601	587	361	481	1980	661	477	794	1.021889715	0.560585648	
CDR20291_0547	67	86	109	312	63	69	21	14	21	47	45	0.085889589	0.9964183	
CDR20291_0548	3	0	0	1	2	2	0	0	0	0	0	0	NA	NA
CDR20291_0549	1	1	0	0	1	5	0	0	1	1	0	0	NA	NA
CDR20291_0549;														
CDR20291_0550	0	0	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_0550	6	1	4	0	2	1	1	1	1	1	1	0	NA	NA
CDR20291_0551	4076	7573	6974	6254	5800	7282	16165	5828	4797	6924	7280	0.878482821	0.621379293	
CDR20291_0552	504	863	477	454	666	725	621	708	843	664	636	0.32498153	0.860437529	
CDR20291_0553	112	220	86	87	130	270	787	226	129	238	59	1.074603703	0.797685336	
CDR20291_0554	577	432	583	311	358	478	244	337	343	422	236	-0.733678938	0.368331083	
CDR20291_0555	230	241	186	190	245	205	192	149	95	1504	180	-0.374078174	0.860653178	
CDR20291_0556	20	23	19	12	3	37	3	9	8	30	11	-0.526981348	0.948164536	
CDR20291_0557	105	170	280	307	254	240	106	117	170	128	77	0.691943984	0.737388095	
CDR20291_0558	263	231	191	237	286	245	579	262	150	291	267	0.058082782	0.9964183	
CDR20291_0559	92	70	37	51	31	85	30	21	13	6	100	-1.167921729	0.757308657	
CDR20291_0560	120	71	198	249	123	275	126	116	71	92	141	0.180130766	0.977604609	
CDR20291_0561	1069	1141	998	1387	1212	1168	881	907	901	1370	988	-0.056584887	0.989131703	
CDR20291_0562	928	1248	487	1278	1011	1229	454	899	821	925	1872	0.031845142	0.9964183	
CDR20291_0563	1864	2169	2008	2000	2183	2145	1127	1910	1576	1441	1492	-0.154801692	0.912350424	
CDR20291_0564	0	0	1	1	2	0	0	0	0	0	3	0	NA	NA
CDR20291_0565	133	198	120	119	78	146	310	134	121	217	114	0.217430144	0.972520712	
CDR20291_0566	200	243	496	403	184	269	179	374	372	203	416	0.562254123	0.788477536	
CDR20291_0567	202	265	102	164	298	213	245	192	140	95	114	-0.2126122	0.96268905	
CDR20291_0567;														
CDR20291_0568	31	3	21	5	56	0	5	22	3	2	30	-1.183348707	0.894679432	

CDR20291_0568	912	987	1100	865	774	710	372	592	609	831	759	-0.3772506	0.782813265
CDR20291_0569	1031	1800	1831	1505	1721	1667	923	1375	1281	1671	930	0.402167399	0.65364891
CDR20291_0570	5132	6142	6043	5379	5989	7852	7453	6113	6112	5525	6341	0.230583683	0.898602063
CDR20291_0571	302	376	420	483	338	468	302	244	317	606	235	0.229154165	0.933474326
CDR20291_0572	168	294	148	205	288	382	165	154	298	103	266	0.34674615	0.906507218
CDR20291_0573	91	155	106	230	154	118	70	59	77	35	101	0.162584379	0.985458574
CDR20291_0574	125	41	50	30	80	68	15	35	27	70	50	-1.557596932	0.245739692
CDR20291_0574;													
CDR20291_0575	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_0575	169	7	39	9	7	18	3	8	29	13	5	-3.740241955	0.022074459
CDR20291_0576	51	32	23	25	22	19	5	561	34	4	9	-1.520883648	0.599970089
CDR20291_0577	394	656	551	412	307	753	196	419	407	264	361	0.003247306	0.998580161
CDR20291_0578	204	85	103	94	81	89	14	88	42	111	50	-1.567461811	0.217489179
CDR20291_0579	2	2	0	1	0	1	3	1	4	1	0	NA	NA
CDR20291_0580	792	2000	1318	1405	1905	2090	1722	1612	1510	1211	1578	0.96724938	0.098280541
CDR20291_0581	0	1	0	0	1	0	0	1	0	1	2	NA	NA
CDR20291_0582	1962	6192	5005	12874	10348	5586	4219	5110	11460	7124	15718	2.004057868	0.01609981
CDR20291_0583	375	327	547	392	410	239	299	207	381	299	487	-0.143436907	0.972784563
CDR20291_0584	1479	2380	2068	2187	1885	2172	1222	1829	1639	2307	1475	0.268348322	0.788477536
CDR20291_0585	94	68	59	40	124	121	85	47	118	31	38	-0.447066159	0.918198181
CDR20291_0586	16	46	49	24	28	8	9	10	6	0	2	0.040249973	0.997049181
CDR20291_0587	68	68	28	54	28	48	41	35	41	22	19	-0.910310524	0.715175594
CDR20291_0588	25	28	36	62	70	61	41	62	24	5	52	0.731327369	0.87533512
CDR20291_0589	2499	4740	4913	4974	5215	4215	2653	4082	4523	4582	3608	0.697199771	0.068310086
CDR20291_0590	7	2	0	1	0	0	0	1	1	1	3	NA	NA
CDR20291_0591	284	220	205	187	83	197	105	225	120	246	123	-0.832155856	0.549755466
CDR20291_0592	191	277	169	278	193	115	85	101	75	141	282	-0.264731626	0.950748991
CDR20291_0593	102	3	1	1	1	0	1	0	2	0	0	-6.915114127	0.004018279
CDR20291_0594	869	1507	1592	1306	1287	1916	1234	1202	874	1551	1119	0.550707749	0.497263986
CDR20291_0595	3708	5709	4867	6078	6010	5833	3563	4251	6198	4849	5361	0.4097416	0.497263986

CDR20291_0596	763	649	630	483	617	483	431	416	453	418	532	-0.667982846	0.295969687
CDR20291_0597	156	395	212	130	313	173	176	156	162	201	257	0.383909661	0.883480371
CDR20291_0598	10	3	28	3	11	2	3	2	3	0	0	NA	NA
CDR20291_0599	46	3	37	25	7	0	1	6	7	0	15	-2.306839238	0.724425528
CDR20291_0599;													
CDR20291_0600	0	0	0	0	0	2	0	0	0	0	0	NA	NA
CDR20291_0600	194	242	241	228	219	242	135	264	111	427	177	0.132682701	0.978951444
CDR20291_0601	39	10	14	24	15	64	1	3	9	4	25	-1.404165016	0.804875042
CDR20291_0602	73	0	21	31	0	2	6	13	6	12	1	-3.06567125	0.512367801
CDR20291_0603	100	162	84	543	109	100	74	60	68	95	103	-0.168115736	0.962793311
CDR20291_0604	21	13	42	34	27	41	7	11	13	31	21	0.050252706	0.9964183
CDR20291_0605	47	28	26	93	41	53	35	57	9	45	97	-0.039857711	0.9964183
CDR20291_0606	228	321	436	549	434	816	655	301	634	195	673	1.077774639	0.474177615
CDR20291_0607	251	134	127	143	193	266	143	221	222	200	467	-0.32478945	0.933335682
CDR20291_0608	959	1580	910	798	1421	1859	517	1352	1034	1060	987	0.137080514	0.96268905
CDR20291_0609	847	815	436	472	889	1501	730	510	502	956	1234	-0.170250546	0.969676999
CDR20291_0610	210	57	154	100	44	35	19	234	46	67	58	-1.462606191	0.560585648
CDR20291_0611	4	0	0	0	1	1	0	3	1	0	2	NA	NA
CDR20291_0612	0	0	1	0	2	0	1	1	0	0	0	NA	NA
CDR20291_0613	0	3	0	0	0	0	1	1	0	1	0	NA	NA
CDR20291_0614	1412	1639	1642	1941	1903	2119	5004	1767	1535	1929	1299	0.57263038	0.849680587
CDR20291_0615	532	779	1059	554	699	889	344	692	615	638	726	0.279183447	0.865105567
CDR20291_0616	46	12	12	1	3	5	4	8	5	0	2	NA	NA
CDR20291_0617	128	130	114	153	103	104	98	68	104	34	88	-0.447509771	0.883480371
CDR20291_0618	1066	1188	1046	902	1220	917	481	945	692	1119	757	-0.315616659	0.811792943
CDR20291_0619	126	124	218	173	274	186	83	210	213	221	168	0.461945621	0.811065537
CDR20291_0620	244	265	173	220	156	201	53	75	224	245	116	-0.62935337	0.789410944
CDR20291_0621	403	617	337	315	470	553	363	304	350	429	612	0.017269137	0.9964183
CDR20291_0622	6	0	0	2	4	3	1	0	3	1	2	NA	NA
CDR20291_0623	9	2	74	23	1	5	1	26	3	31	0	0.754045369	0.957295969

CDR20291_0624	688	951	1088	780	1156	1621	446	1831	800	1128	862	0.514373246	0.759866927
CDR20291_0625	1	2	0	3	0	0	0	1	8	2	0	NA	NA
CDR20291_0626	6	5	4	7	1	2	9	8	4	2	1	NA	NA
CDR20291_0627	3	2	1	1	0	0	0	1	2	4	0	NA	NA
CDR20291_0628	317	420	355	206	441	485	155	233	309	404	688	0.105872311	0.989131703
CDR20291_0629	2838	3955	3692	3370	2993	3621	1833	2948	2981	2548	3081	0.020840732	0.9964183
CDR20291_0630	734	1095	978	809	1060	722	449	1632	1214	1470	993	0.411138723	0.842928602
CDR20291_0631	2047	2302	2297	2617	2110	2262	1997	2233	2005	2626	1407	0.011839555	0.9964183
CDR20291_0632	1800	3336	2939	3804	2501	2656	1747	2274	2513	2350	2451	0.4608411	0.539292037
CDR20291_0633	12707	16290	16545	15256	16583	17196	21145	14782	13822	16979	17123	0.327292074	0.839963117
CDR20291_0634	2307	454	1100	461	762	1281	348	480	318	413	888	-1.956834847	0.016603316
CDR20291_0635	65	92	12	35	117	26	24	18	67	46	23	-0.620377311	0.912350424
CDR20291_0636	2865	5002	3508	3305	3408	4586	4036	2566	2756	2700	3442	0.223530078	0.915687694
CDR20291_0637	5	4	2	4	1	0	1	1	5	1	1	NA	NA
CDR20291_0638	509	786	708	609	902	1010	355	944	2201	877	538	0.709951953	0.737388095
CDR20291_0639	819	1110	735	825	690	837	591	1004	721	1221	558	-0.075636286	0.989131703
CDR20291_0640	356	455	461	276	373	371	208	211	303	291	231	-0.276035451	0.883592896
CDR20291_0641	9	28	3	1	6	0	0	39	0	0	0	NA	NA
CDR20291_0642	348	76	138	165	193	69	32	86	62	62	120	-1.917916364	0.087281053
CDR20291_0643	1398	181	246	387	235	338	199	58	326	359	461	-2.414683301	0.009579446
CDR20291_0644	17	1	2	10	2	5	3	0	4	1	1	NA	NA
CDR20291_0645	5	1	2	4	5	4	5	2	2	0	8	NA	NA
CDR20291_0646	4	1	2	0	1	1	1	0	1	2	0	NA	NA
CDR20291_0647	15	0	0	5	11	1	2	1	5	5	2	NA	NA
CDR20291_0648	21	5	0	23	0	0	6	1	12	4	4	NA	NA
CDR20291_0649	94	14	9	0	21	49	1	1	12	9	59	-2.583174865	0.569130405
CDR20291_0650	168	19	20	12	27	99	5	16	21	28	33	-2.762210135	0.091951942
CDR20291_0651	77	7	39	45	47	22	9	13	13	2	16	-1.986892054	0.493486824
CDR20291_0652	82	1	1	2	0	2	7	2	8	0	33	-3.856611	0.415455207
CDR20291_0653	32	17	11	18	7	3	8	4	0	2	42	-1.583973069	0.819425446

CDR20291_0654	20	2	0	3	2	3	1	5	0	1	2	NA	NA
CDR20291_0655	204	28	35	21	21	49	18	18	48	42	131	-2.396803749	0.150109336
CDR20291_0656	254	31	32	7	45	38	81	29	38	20	77	-2.674983262	0.100677211
CDR20291_0657	237	17	14	49	40	16	7	21	25	23	37	-3.359301316	0.00256158
CDR20291_0658	166	67	75	95	102	98	52	125	46	26	83	-1.209474178	0.425572993
CDR20291_0659	11	6	1	4	30	4	10	6	3	3	13	NA	NA
CDR20291_0660	139	165	196	235	181	127	103	55	177	132	54	-0.069966703	0.9964183
CDR20291_0661	11	0	0	7	2	4	0	0	28	5	5	NA	NA
CDR20291_0662	64	9	4	0	2	5	5	8	0	1	2	NA	NA
CDR20291_0663	1398	51	30	109	65	14	18	71	30	7	103	-4.903349428	4.46E-05
CDR20291_0664	1563	1991	1966	1877	1717	1532	803	1352	1733	1755	1341	-0.071199202	0.982498258
CDR20291_0665	171	221	87	99	274	240	58	170	124	70	143	-0.339932936	0.933335682
CDR20291_0666	71	23	57	111	8	51	12	55	73	57	45	-0.635593581	0.903995811
CDR20291_0667	70	67	34	60	25	26	17	52	9	42	61	-0.936579077	0.786730769
CDR20291_0668	314	399	405	451	375	1026	750	365	981	1408	1104	1.149707758	0.504693537
CDR20291_0669	282	388	293	495	323	236	240	152	150	247	280	-0.10295778	0.989131703
CDR20291_0670	7	6	1	4	2	0	0	1	1	1	1	NA	NA
CDR20291_0671	360	836	765	485	774	1294	294	888	552	507	387	0.776727262	0.532602502
CDR20291_0672	3859	5026	4077	4382	5513	5152	3170	4281	5149	6281	3806	0.181434004	0.898602063
CDR20291_0673	1491	2895	2960	2466	3180	4312	2127	4425	3817	3393	3290	1.046386179	0.042489542
CDR20291_0674	144	287	186	258	215	386	749	218	272	140	194	1.031497121	0.677980547
CDR20291_0675	1617	2357	3396	2344	2411	3468	2590	2590	2366	2290	3281	0.665603667	0.352288392
CDR20291_0676	5591	9110	8573	7042	8976	9272	5605	7725	7029	7341	7743	0.388731052	0.327073254
CDR20291_0677	1205	1815	2189	2438	1332	2269	1011	1693	1233	1510	1907	0.420886998	0.719832992
CDR20291_0678	79	117	100	109	42	151	60	96	144	103	90	0.254530331	0.944172856
CDR20291_0679	278	281	342	214	180	196	497	641	392	131	326	0.191834971	0.978728379
CDR20291_0680	69	144	123	105	34	154	64	138	203	150	352	1.004523762	0.703411481
CDR20291_0681	358	582	520	358	648	383	401	429	234	294	178	0.077309177	0.9964183
CDR20291_0682	299	618	258	559	876	314	681	556	686	378	450	0.796661455	0.660192271
CDR20291_0683	5683	8043	7698	9498	7730	8246	11315	8287	6827	8894	8736	0.5362995	0.66387476

CDR20291_0684	17	2	6	15	2	37	0	17	16	4	0	-0.95728426	0.937393001
CDR20291_0685	3161	11228	9094	9433	9233	11751	12634	10076	10489	10417	11877	1.689825304	0.000340121
CDR20291_0686	1233	657	645	504	597	528	134	394	269	453	485	-1.538597372	0.03308916
CDR20291_0687	1488	7674	5803	6416	7472	7940	4083	5739	6756	4629	5009	1.940642117	3.73E-10
CDR20291_0688	134	168	179	138	131	642	44	73	86	96	140	0.145296668	0.991089357
CDR20291_0689	7498	6327	6937	6200	5049	11085	10100	11092	10876	10286	8657	0.155866378	0.965441065
CDR20291_0690	707	455	489	1108	673	704	1437	1254	781	718	799	0.241036015	0.954404489
CDR20291_0691	12	0	6	0	0	1	9	0	1	1	2	NA	NA
CDR20291_0692	183	201	251	64	205	84	98	32	95	44	34	-0.837829218	0.823959751
CDR20291_0693	15	2	1	1	0	1	0	0	2	0	14	NA	NA
CDR20291_0694	57	108	120	42	63	107	13	59	109	14	31	0.074851148	0.9964183
CDR20291_0695	3	1	0	0	1	0	0	0	1	1	1	NA	NA
CDR20291_0696	12	31	11	52	2	14	4	27	20	1	2	0.327307672	0.988535252
CDR20291_0697	3065	4149	3865	3937	4230	5113	5417	3691	3830	4210	4570	0.429807041	0.749402531
CDR20291_0698	1065	1796	1570	1607	1562	2038	953	1176	1550	1512	1415	0.402131735	0.462208325
CDR20291_0699	0	0	0	0	1	0	0	0	0	0	1	NA	NA
CDR20291_0700	3	0	2	0	1	0	0	2	0	0	0	NA	NA
CDR20291_0701	4	1	3	1	1	5	0	2	0	0	0	NA	NA
CDR20291_0702	2	0	0	4	0	1	0	2	1	2	2	NA	NA
CDR20291_0703	6	1	1	1	0	4	2	1	1	2	2	NA	NA
CDR20291_0704	1	1	0	1	2	0	0	0	2	0	1	NA	NA
CDR20291_0705	5549	6272	6448	5127	7403	6067	5672	6892	7159	5433	5592	0.08441503	0.977604609
CDR20291_0706	85	104	52	47	44	47	15	32	28	18	44	-1.11780966	0.627876954
CDR20291_0707	10	0	25	0	6	31	1	0	5	13	0	NA	NA
CDR20291_0708	61	53	51	85	23	55	30	49	16	27	1	-0.758501774	0.894067873
CDR20291_0709	172	115	56	246	140	151	107	141	397	188	335	0.054763441	0.9964183
CDR20291_0710	65	113	394	95	108	578	100	118	413	112	76	1.554632779	0.474462087
CDR20291_0711	8	7	22	190	52	21	1516	52	49	10	37	2.441721502	0.418385935
CDR20291_0712	23	3	3	3	1	5	7	10	8	0	5	NA	NA
CDR20291_0713	22	37	1	3	10	47	1	21	27	9	0	-0.67825955	0.954404489

CDR20291_0714	2	7	2	0	0	0	2	0	1	0	1	NA	NA
CDR20291_0715	261	284	192	87	174	332	525	122	245	132	158	-0.216244402	0.977609616
CDR20291_0716	5224	7108	5887	6823	7831	9013	5934	6201	9856	8212	8082	0.434689343	0.630907232
CDR20291_0717	5808	7880	7901	8966	8590	9354	7118	8192	9303	7626	9342	0.455150434	0.458279707
CDR20291_0718	83	2	26	0	1	0	2	1	1	4	0	-4.607763583	0.313586628
CDR20291_0719	5219	7758	8127	9756	8196	8953	5815	7527	7650	9326	10188	0.582671608	0.2365532
CDR20291_0720	818	2589	2018	2111	2660	3241	1565	1872	3272	4250	3394	1.622526479	0.004394586
CDR20291_0721	1527	4503	6292	6874	6374	10991	4747	5700	6917	6275	8364	2.034675652	2.59E-06
CDR20291_0722	85	84	22	59	29	91	27	46	119	36	450	0.107600043	0.9964183
CDR20291_0723	1	0	0	1	0	0	1	1	1	0	1	NA	NA
CDR20291_0724	0	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0725	2	2	2	4	2	2	4	5	3	3	2	NA	NA
CDR20291_0726	819	663	470	704	576	668	358	715	676	539	711	-0.526038919	0.541513416
CDR20291_0727	13	4	4	6	2	2	3	0	6	0	22	NA	NA
CDR20291_0728	144	153	124	110	136	43	54	63	61	186	79	-0.62099952	0.830486307
CDR20291_0729	3	46	12	14	26	14	10	2	41	6	0	2.387984707	0.652252836
CDR20291_0730	4	4	2	3	0	4	6	0	2	0	3	NA	NA
CDR20291_0731	25	49	9	14	13	16	6	10	7	0	1	-1.158195186	0.883480371
CDR20291_0732	3	4	1	1	1	1	0	1	2	3	2	NA	NA
CDR20291_0733	87	3	21	45	17	37	4	13	5	56	2	-2.249389599	0.516602179
CDR20291_0734	381	614	435	382	426	382	401	312	222	443	334	-0.032569173	0.9964183
CDR20291_0735	255	308	195	176	174	200	99	108	232	213	65	-0.645368255	0.754360226
CDR20291_0736	116	87	113	67	120	207	112	142	126	63	282	0.107739026	0.995544519
CDR20291_0737	15	36	21	36	19	28	9	34	19	32	16	0.619187865	0.883480371
CDR20291_0738	2149	3038	5446	4494	3361	6601	4852	4519	4234	4945	3126	0.979341796	0.192252888
CDR20291_0739	688	851	1220	1210	913	1754	814	1188	2476	1784	1630	0.92045779	0.422048282
CDR20291_0740	30	16	0	1	45	4	38	1	5	50	3	-0.882197064	0.940486417
CDR20291_0741	2780	4830	5439	4435	4707	5210	15482	5230	3912	3846	5586	0.642158359	0.184544904
CDR20291_0742	3510	6155	6113	6228	6518	7714	4429	7279	6290	6515	7275	0.784724413	0.024536453
CDR20291_0743	18	49	33	46	60	17	35	45	32	31	0	0.870331812	0.884242887

CDR20291_0744	1865	2984	2337	2186	2542	2483	2255	2294	2252	4284	2757	0.41915537	0.75332961
CDR20291_0745	768	928	1121	963	1081	1188	543	808	920	2107	737	0.32667467	0.883480371
CDR20291_0746	192	240	221	272	444	356	163	159	248	214	184	0.264094937	0.913649554
CDR20291_0747	311	320	259	363	336	375	218	249	234	526	505	0.026869831	0.9964183
CDR20291_0748	179	239	282	282	168	187	197	174	117	888	467	0.665970466	0.853071147
CDR20291_0749	1234	1658	1857	1736	1682	2078	693	1258	1793	1456	2079	0.284439621	0.860000045
CDR20291_0750	703	675	863	726	808	633	419	1448	522	552	1378	0.105185642	0.989879733
CDR20291_0751	2	0	1	2	0	1	1	0	4	1	1 NA		NA
CDR20291_0752	8	5	3	16	0	16	7	8	1	2	18 NA		NA
CDR20291_0753	6	1	2	2	2	1	3	1	2	1	0 NA		NA
CDR20291_0754	49	50	34	12	36	97	56	12	36	59	102	-0.066611015	0.9964183
CDR20291_0755	5	0	0	2	0	0	1	0	0	0	0 NA		NA
CDR20291_0756	2	2	1	0	0	0	0	0	1	0	1 NA		NA
CDR20291_0757	943	788	896	640	881	1291	472	1082	725	1331	994	-0.159673986	0.950748991
CDR20291_0758	751	1189	1233	1099	909	1245	702	978	756	1153	770	0.314135257	0.767334973
CDR20291_0759	256	406	291	256	419	294	235	360	203	368	414	0.250616289	0.913649554
CDR20291_0760	1250	993	523	968	787	1001	433	630	595	909	719	-0.839341001	0.180423793
CDR20291_0761	70	78	54	63	33	94	27	26	20	62	31	-0.658125808	0.842813097
CDR20291_0762	50	58	23	29	87	67	34	107	90	35	65	0.161214503	0.988602948
CDR20291_0763	5	3	2	10	1	14	1	2	6	1	5 NA		NA
CDR20291_0764	11	0	0	1	17	1	4	1	2	0	2 NA		NA
CDR20291_0765	191	44	29	73	111	50	57	57	47	58	57	-1.790575269	0.091821201
CDR20291_0766	1448	2603	2228	1998	2453	2629	899	1428	1547	1853	1812	0.297784892	0.823959751
CDR20291_0767	1088	1476	1488	1405	1812	2085	775	1296	1597	1592	957	0.29438429	0.819425446
CDR20291_0768	1094	1560	1642	1401	2416	1572	1175	1638	1688	1193	2806	0.555849174	0.662791361
CDR20291_0769	2656	3633	3510	3616	3712	4479	2155	3249	2968	3660	3266	0.25997516	0.646940429
CDR20291_0770	1192	1466	1913	1837	1636	1830	1003	889	1200	1416	2144	0.259998725	0.887749091
CDR20291_0771	8936	9638	10516	9490	10407	12898	9004	10032	10278	9836	7363	0.067760631	0.978951444
CDR20291_0772	1062	1102	1384	913	1275	1068	1648	1250	914	1766	1428	0.215287757	0.939441971
CDR20291_0773	570	745	732	446	618	640	212	425	441	626	523	-0.202635171	0.933474326

CDR20291_0774	5732	6684	5808	6799	6535	7604	3132	5576	6644	6618	6587	0.002540567	0.998270107
CDR20291_0775	10	0	0	0	0	0	0	1	3	0	1 NA	NA	
CDR20291_0776	148	46	54	93	34	60	28	66	41	30	19	-1.759484718	0.172381891
CDR20291_0777	19	10	18	13	15	4	6	1	4	2	1 NA	NA	
CDR20291_0778	44	32	28	15	30	32	15	13	9	24	14	-1.176340423	0.623308575
CDR20291_0779	64	44	80	49	34	19	16	21	33	32	8	-1.048796803	0.75332961
CDR20291_0780	151	298	75	386	129	530	57	74	91	263	48	0.191700209	0.98803776
CDR20291_0781	66	46	73	72	32	58	10	33	16	54	37	-0.755212598	0.82771301
CDR20291_0782	613	694	630	663	625	945	508	907	806	863	760	0.180314943	0.922938444
CDR20291_0783	3127	151	478	218	83	88	30314	67	327	165	472	-3.865867984	0.00033256
CDR20291_0783;													
CDR20291_0784	27	0	1	0	0	1	0	0	5	0	0 NA	NA	
CDR20291_0784	1863	123	389	129	102	65	56	36	75	111	90	-4.106987271	3.14E-05
CDR20291_0785	2621	121	327	185	107	70	81	23	91	114	229	-4.379105867	8.22E-06
CDR20291_0786	465	21	78	34	17	22	18	0	5	34	243	-4.282181763	0.011683864
CDR20291_0787	952	266	268	114	43	19	80	121	141	61	165	-2.983208776	0.024395312
CDR20291_0788	835	1095	1248	1386	1084	1336	644	765	1177	739	637	0.164333395	0.941539623
CDR20291_0789	12	0	1	0	6	1	2	1	2	2	0 NA	NA	
CDR20291_0790	2	0	0	0	0	0	0	1	1	0	0 NA	NA	
CDR20291_0791	160	62	192	150	152	164	72	97	155	90	142	-0.432387957	0.870110009
CDR20291_0792	0	0	0	0	0	1	2	0	0	0	0 NA	NA	
CDR20291_0793	291	327	239	657	259	339	60	127	221	274	384	-0.14698786	0.987679719
CDR20291_0794	1164	1238	1079	1095	1461	1336	1476	1142	711	1349	948	-0.04217625	0.9964183
CDR20291_0795	867	1141	1164	1207	1496	1353	750	1560	1306	1326	1105	0.418792007	0.604285263
CDR20291_0796	942	1455	1117	1333	1454	1222	928	1235	752	1294	923	0.21821859	0.892547682
CDR20291_0797	4346	6373	6081	6785	6379	7220	5135	5726	6930	6078	8637	0.503584333	0.447600652
CDR20291_0798	607	862	715	608	753	975	526	594	831	748	847	0.198592642	0.889914053
CDR20291_0799	3651	4771	4550	4310	4789	4731	3033	5611	7253	5156	3386	0.291385299	0.864428698
CDR20291_0800	10082	13720	11594	11977	14408	15904	10510	14175	13320	13953	12772	0.303053079	0.66387476
CDR20291_0801	1928	2510	1815	1921	1952	2580	3209	3499	1910	1926	2112	0.236552066	0.936058228

CDR20291_0802	43	63	52	19	65	62	10	103	55	52	9	0.058408477	0.9964183
CDR20291_0803	16	22	72	10	16	29	7	10	19	9	12	0.220436789	0.989879733
CDR20291_0804	175	182	183	140	98	191	59	84	162	158	74	-0.521217495	0.815370637
CDR20291_0805	92	187	267	46	120	241	113	101	83	216	211	0.676994689	0.815370637
CDR20291_0806	12	20	82	20	15	17	4	15	18	9	11	0.672966306	0.930649044
CDR20291_0807	280	271	405	306	158	357	98	206	251	371	148	-0.249990669	0.938618522
CDR20291_0808	597	709	939	505	718	894	1429	713	685	1332	1010	0.551765042	0.815370637
CDR20291_0809	3069	3925	3960	3808	4082	4937	2451	3423	3572	3845	4368	0.218993143	0.786730769
CDR20291_0810	109	275	194	288	200	298	67	180	109	191	281	0.802641233	0.60342062
CDR20291_0811	1511	2165	1960	2203	2577	2416	1059	2254	1663	1633	1266	0.2297248	0.883480371
CDR20291_0812	186	276	156	234	175	267	98	99	87	167	96	-0.301269007	0.930649044
CDR20291_0813	236	234	330	230	231	326	182	180	100	142	342	-0.139761591	0.978728379
CDR20291_0814	56	21	55	80	68	37	18	82	17	17	117	-0.224860055	0.985458574
CDR20291_0815	567	903	1025	1076	838	1010	708	614	732	1084	716	0.52374741	0.510842226
CDR20291_0816	376	473	788	692	466	470	290	290	434	599	718	0.370920244	0.865105567
CDR20291_0817	9258	4114	2472	7558	6199	5319	5224	7235	5068	5523	8190	-0.767124004	0.560860498
CDR20291_0818	494	592	805	588	779	580	240	400	481	651	364	0.024832592	0.9964183
CDR20291_0819	192	298	233	121	240	429	67	281	457	51	217	0.187665253	0.980729698
CDR20291_0820	98	102	309	92	123	111	72	38	53	62	167	0.092157011	0.9964183
CDR20291_0821	783	1232	1403	1063	1002	1176	696	590	921	828	608	0.17253686	0.938618522
CDR20291_0822	1075	660	470	566	766	663	577	886	965	736	1201	-0.5914989	0.694246275
CDR20291_0823	10663	14652	15986	17519	18264	17835	13240	16166	21814	15124	15752	0.557418823	0.34680751
CDR20291_0824	748	1375	1493	976	924	1435	662	1052	880	1013	1090	0.433300263	0.620321403
CDR20291_0825	1283	1579	1722	1703	1983	2576	1049	1254	1405	1467	1713	0.244949357	0.84122192
CDR20291_0825;													
CDR20291_0826	2112	3052	2665	2599	3305	3336	4187	2587	2919	3203	3421	0.515187561	0.695730148
CDR20291_0827	324	509	342	382	291	436	287	471	478	552	178	0.184814529	0.952961967
CDR20291_0828	9	0	1	3	0	3	4	1	2	1	3	NA	NA
CDR20291_0829	729	1094	1034	2526	1131	1319	421	998	646	665	725	0.404593571	0.883480371
CDR20291_0830	62	40	43	30	25	30	14	14	50	20	27	-1.191712387	0.560585648

CDR20291_0831	174	89	133	84	62	66	34	104	58	137	427	-0.625003876	0.894782826
CDR20291_0832	6	1	0	0	1	4	3	7	1	0	1	NA	NA
CDR20291_0833	61	57	124	38	131	119	14	55	62	78	109	0.224203753	0.976678975
CDR20291_0834	1748	1292	1139	1055	1634	2063	773	1328	1361	1236	1449	-0.502302623	0.521601994
CDR20291_0835	1621	2024	1686	1399	1440	1724	802	924	1326	1644	870	-0.346912377	0.811065537
CDR20291_0836	187	92	139	167	111	177	69	332	97	136	121	-0.472432716	0.883480371
CDR20291_0837	1798	1463	1954	1561	1574	1997	836	1740	1393	1483	994	-0.374596538	0.719832992
CDR20291_0838	1369	1810	1775	2554	2273	2283	880	1830	1307	1585	1739	0.279601675	0.849680587
CDR20291_0839	22	16	1	3	31	25	4	1	31	1	7	-1.025765002	0.913649554
CDR20291_0840	2	2	0	4	0	1	2	0	2	0	1	NA	NA
CDR20291_0841	1037	1049	1493	1135	1095	1597	775	2034	1390	1105	913	0.183076811	0.939441971
CDR20291_0842	205	382	249	262	456	274	105	200	225	429	856	0.63822338	0.82771301
CDR20291_0843	84	89	150	67	223	123	30	140	82	78	68	0.186187968	0.977609616
CDR20291_0844	70	118	164	93	178	76	110	85	108	124	65	0.597100177	0.793454345
CDR20291_0845	726	865	837	961	870	920	941	836	746	597	1501	0.256669313	0.918198181
CDR20291_0846	166	106	140	180	105	244	259	132	128	97	150	-0.146758097	0.985458574
CDR20291_0847	647	484	652	506	667	816	454	604	645	1502	1175	0.125203493	0.985285776
CDR20291_0848	1629	1205	1101	1031	1117	1644	591	796	762	985	771	-0.827113422	0.111075207
CDR20291_0849	10633	9408	6911	7270	7437	9449	2770	5181	4849	6089	4891	-0.861272218	0.168437625
CDR20291_0850	528	964	852	617	1012	1005	468	1076	469	1043	418	0.471760859	0.788477536
CDR20291_0851	4101	4633	3812	5121	4437	5193	2649	4211	4702	4560	4426	-0.008686662	0.9964183
CDR20291_0852	3132	4894	5136	5371	4756	5890	3345	4668	3980	5471	6396	0.575578351	0.27283964
CDR20291_0852;													
CDR20291_0853	8	9	0	25	4	0	9	0	1	0	1	NA	NA
CDR20291_0853	94	71	242	46	136	97	22	152	45	54	177	0.026239018	0.996999837
CDR20291_0854	15	3	13	17	5	9	6	24	1	34	4	-0.458157316	0.972259219
CDR20291_0855	4	24	9	4	8	5	0	1	3	1	0	NA	NA
CDR20291_0856	80	107	60	38	39	57	98	100	161	51	88	-0.038729509	0.9964183
CDR20291_0857	459	308	325	278	301	468	540	546	346	529	240	-0.287252173	0.933474326
CDR20291_0858	325	307	172	475	310	292	168	332	269	296	784	-0.020551708	0.996617239

CDR20291_0859	1	0	0	1	0	0	0	0	0	0	1	NA	NA
CDR20291_0860	1452	899	1470	943	1010	723	540	533	775	695	1296	-0.808648792	0.442395276
CDR20291_0861	556	600	408	677	653	587	471	471	295	744	670	-0.083880579	0.989131703
CDR20291_0862	89	167	84	109	55	116	27	65	33	58	49	-0.36921171	0.936058228
CDR20291_0863	761	3214	2874	1333	7048	5732	1339	2238	1874	3111	3333	1.930799077	0.026491412
CDR20291_0864	2928	3722	3693	4009	3832	3806	2436	4251	3918	3979	5320	0.321997833	0.782167863
CDR20291_0865	467	118	159	168	165	226	573	144	91	483	152	-1.010944314	0.75332961
CDR20291_0866	4	4	15	2	1	3	5	3	4	2	1	NA	NA
CDR20291_0867	7	1	1	2	0	0	3	1	1	0	2	NA	NA
CDR20291_0868	4	3	1	0	0	2	0	0	0	0	1	NA	NA
CDR20291_0869	86	154	116	153	111	86	75	36	28	44	136	0.022750899	0.996999837
CDR20291_0870	291	360	409	572	387	394	520	568	292	313	318	0.451239328	0.830486307
CDR20291_0871	17436	29389	27553	24967	25765	26649	14247	20073	19244	22707	30850	0.363630231	0.662791361
CDR20291_0872	5661	7752	8479	7300	8583	8897	4771	7166	7794	9295	9983	0.399460138	0.571291584
CDR20291_0873	630	768	657	786	565	803	430	386	598	681	440	-0.150943308	0.944356511
CDR20291_0874	83	112	121	99	122	152	61	148	102	110	184	0.442308294	0.830538166
CDR20291_0875	10	77	38	37	16	28	17	44	9	87	57	1.929732474	0.442395276
CDR20291_0876	347	271	352	329	343	535	883	321	653	190	269	0.256346415	0.96268905
CDR20291_0877	244	199	250	367	238	271	138	347	231	115	208	-0.145614081	0.976678975
CDR20291_0878	1144	2208	2303	1804	2707	2325	1330	1757	2351	2123	1269	0.712730141	0.217489179
CDR20291_0879	25	12	8	4	0	0	1	0	9	0	1	NA	NA
CDR20291_0880	38	12	22	37	4	37	337	17	30	17	38	-0.786159287	0.873212813
CDR20291_0881	18	31	31	86	36	14	4	1	8	1	1	0.076370065	0.9964183
CDR20291_0882	4	3	21	6	0	9	6	0	9	6	1	NA	NA
CDR20291_0883	4	1	0	3	1	4	1	1	2	1	0	NA	NA
CDR20291_0884	54	53	15	33	28	36	31	48	10	40	109	-0.492632479	0.936058228
CDR20291_0885	1226	1279	1414	1423	1462	1778	790	1844	1120	1763	1235	0.09716957	0.971231457
CDR20291_0886	350	430	333	211	318	634	181	203	294	434	319	-0.188472755	0.950748991
CDR20291_0887	795	1517	1380	1656	1927	1573	1058	1777	1662	1864	2835	1.030141411	0.122983261
CDR20291_0888	90	144	78	287	48	49	39	53	136	68	7	-0.10000865	0.9964183

CDR20291_0889	329	374	332	247	344	468	243	210	130	187	55	-0.463241979	0.892547682
CDR20291_0890	442	619	866	558	754	748	689	898	482	626	380	0.505569782	0.74782911
CDR20291_0891	4018	4645	4927	4088	4745	5677	4600	4426	5259	5425	5385	0.214498332	0.883260297
CDR20291_0892	1646	3063	3527	2828	2838	3842	9332	2532	3574	3080	3171	0.793292831	0.03597422
CDR20291_0893	653	705	510	579	753	920	708	596	533	612	1391	0.089232214	0.989879733
CDR20291_0894	604	603	712	552	632	648	375	528	600	412	733	-0.158330229	0.936058228
CDR20291_0895	32	16	14	4	26	20	13	8	17	33	2	-1.16843807	0.810105143
CDR20291_0895;													
CDR20291_0896	0	0	0	0	0	0	0	0	2	0	0	NA	NA
CDR20291_0896	16	8	4	6	4	6	3	1	7	3	1	NA	NA
CDR20291_0897	29	10	9	5	4	8	7	4	13	2	4	NA	NA
CDR20291_0898	141	64	138	118	68	91	49	121	67	102	43	-0.814538208	0.662791361
CDR20291_0898;													
CDR20291_0899	0	0	0	0	6	0	1	0	0	0	0	NA	NA
CDR20291_0899	846	648	441	821	763	639	304	573	438	508	831	-0.611917824	0.579118177
CDR20291_0900	10117	6691	4873	5550	5415	7281	3568	5299	4972	7481	4911	-0.957702051	0.011654134
CDR20291_0901	62	7	17	18	28	31	4	19	8	0	27	-2.103139272	0.54197995
CDR20291_0902	1526	2267	2440	2424	1904	2411	1148	2848	2069	2160	2496	0.437087979	0.630907232
CDR20291_0903	1275	1731	1917	1128	1362	1889	818	1209	1452	1056	1262	0.003489563	0.998270107
CDR20291_0904	1670	1744	1017	1336	1355	1803	696	1111	3044	1931	1163	-0.241012947	0.938005364
CDR20291_0905	4	0	1	1	0	2	2	0	2	2	4	NA	NA
CDR20291_0906	797	1124	1056	1018	1301	1236	920	1179	785	1262	935	0.350906427	0.72045483
CDR20291_0906;													
CDR20291_0907	2	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0907	306	628	342	356	501	439	174	289	427	257	474	0.225425264	0.934565019
CDR20291_0908	151	301	267	226	346	262	63	285	137	125	283	0.47213584	0.865105567
CDR20291_0909	200	420	317	174	282	277	226	254	178	226	156	0.231226664	0.936058228
CDR20291_0910	321	398	276	426	303	825	568	371	311	232	162	0.199127177	0.969033446
CDR20291_0911	15	42	39	17	60	15	3	20	10	8	1	0.350110064	0.978951444
CDR20291_0912	4	4	8	0	1	3	12	1	3	5	3	NA	NA

CDR20291_0913	933	528	1115	392	464	320	461	645	701	814	240	-0.793729213	0.66873327
CDR20291_0914	33	65	80	64	64	110	117	72	10	72	16	0.968488941	0.809552018
CDR20291_0915	29	3	12	30	5	107	3	40	18	7	12	-0.480569276	0.964838183
CDR20291_0916	999	2473	2920	2903	2539	2451	1792	1974	2128	2573	2422	1.180709534	0.000219096
CDR20291_0917	284	214	384	222	338	288	213	225	298	355	105	-0.199318053	0.951893091
CDR20291_0918	1	0	0	0	1	1	1	0	0	0	0	NA	NA
CDR20291_0919	13	23	15	14	2	0	15	4	1	19	56	0.159396269	0.9964183
CDR20291_0920	4	0	2	0	0	0	0	0	1	2	0	NA	NA
CDR20291_0921	2	1	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0922	3	1	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_0923	13	3	0	3	6	3	4	2	4	1	0	NA	NA
CDR20291_0924	0	1	0	1	0	0	2	1	0	0	0	NA	NA
CDR20291_0925	7	0	3	0	5	0	2	1	1	4	4	NA	NA
CDR20291_0926	17	13	12	4	5	17	11	12	7	16	7	-0.794992358	0.884242887
CDR20291_0927	115	45	52	249	21	12	15	36	77	169	184	-0.509719954	0.949260052
CDR20291_0928	1052	1285	1478	1072	1409	1311	550	1039	1177	1028	1331	0.03725878	0.9964183
CDR20291_0929	5854	5220	4613	4985	5336	5788	2975	5015	4025	4421	3950	-0.44333744	0.268937507
CDR20291_0930	1	31	11	1	3	0	1	8	2	8	31	NA	NA
CDR20291_0931	8627	9522	8593	9837	10412	11057	5716	8999	9632	9422	10173	0.012420796	0.9964183
CDR20291_0932	1382	1080	1160	926	983	1076	823	1250	892	1518	1685	-0.360692111	0.823959751
CDR20291_0933	0	1	2	2	0	0	0	1	1	4	0	NA	NA
CDR20291_0934	223	97	104	80	82	237	116	186	230	166	59	-0.800309342	0.73914492
CDR20291_0935	2	3	11	19	0	6	3	1	0	0	0	NA	NA
CDR20291_0936	6	2	6	0	0	0	1	1	1	1	3	NA	NA
CDR20291_0937	336	390	252	283	247	492	186	199	254	156	628	-0.228842466	0.951893091
CDR20291_0938	4	2	10	0	11	3	2	1	3	0	1	NA	NA
CDR20291_0939	368	579	641	1533	740	421	866	309	904	693	788	0.967658655	0.557223874
CDR20291_0940	663	1149	2423	651	1237	1500	777	1159	943	951	1719	0.811899097	0.513482898
CDR20291_0941	255	586	778	475	382	493	326	336	305	584	304	0.735141322	0.512760455
CDR20291_0942	1006	1607	1428	1099	1549	1873	1355	1559	1465	1134	834	0.380805415	0.790616958

CDR20291_0943	4904	6806	7063	5925	6704	8358	4099	5623	6422	7392	5346	0.271945466	0.695730148
CDR20291_0944	261	504	691	474	338	482	352	213	304	299	455	0.559176747	0.737388095
CDR20291_0945	50	146	91	57	48	51	14	53	89	36	82	0.2888852	0.961984872
CDR20291_0946	116	140	83	487	174	227	107	233	58	315	62	0.589933809	0.88847222
CDR20291_0947	132	4118	315	139	1852	733	652	424	514	398	1032	2.809779118	0.249560289
CDR20291_0948	61	91	122	58	52	72	37	57	35	98	19	-0.048691764	0.9964183
CDR20291_0949	672	1043	874	1355	1069	1044	805	854	657	567	621	0.310256963	0.873404371
CDR20291_0950	2	0	1	2	1	3	4	4	1	0	2	NA	NA
CDR20291_0951	96	992	349	3175	1493	477	286	594	45	443	10687	3.004180456	0.221627129
CDR20291_0952	136	224	219	165	217	225	80	113	135	191	125	0.188912928	0.946208554
CDR20291_0953	3775	6099	4488	7217	6298	6099	6433	6692	6462	7499	7555	0.714432576	0.34680751
CDR20291_0954	1501	4218	3689	3863	3731	4269	2957	3694	6569	5029	3895	1.39580054	0.004334019
CDR20291_0955	8310	11255	8695	18044	9436	10753	13122	24303	14215	15742	17009	0.723934334	0.622950694
CDR20291_0956	288	431	405	568	473	705	281	505	736	417	503	0.70012388	0.448668393
CDR20291_0957	3145	2251	2660	2984	4231	3552	2043	3087	2373	2559	3315	-0.212061721	0.894067873
CDR20291_0958	57	65	59	43	37	68	17	8	9	66	35	-0.633359728	0.898602063
CDR20291_0959	5506	6026	5977	5829	6231	6831	3946	6187	6604	6205	5633	0.014423631	0.9964183
CDR20291_0960	362	487	697	464	559	600	176	353	457	497	471	0.268854162	0.89348113
CDR20291_0961	515	364	283	420	541	556	247	619	403	738	653	-0.191620871	0.951893091
CDR20291_0962	81	82	34	47	56	95	22	38	33	23	14	-1.01775639	0.698949038
CDR20291_0963	870	883	1765	957	1321	1031	853	1346	1062	1019	928	0.271688318	0.883480371
CDR20291_0964	42	4	1	23	5	4	6	4	9	5	2	-2.81065865	0.36716881
CDR20291_0965	0	0	1	0	1	1	0	0	3	0	0	NA	NA
CDR20291_0966	16	1	0	0	2	1	0	0	2	0	1	NA	NA
CDR20291_0967	7561	8101	8571	9126	9668	11378	4260	8647	6663	7462	10497	0.045047739	0.995544519
CDR20291_0968	9027	11186	10535	9261	12719	12305	7189	11606	10048	15951	11582	0.218565157	0.87617474
CDR20291_0969	85	73	195	103	94	101	35	53	111	228	73	0.206719713	0.977604609
CDR20291_0970	1213	2002	1218	1336	1502	1502	5671	1757	955	1304	1088	0.062523136	0.989879733
CDR20291_0971	2760	1581	1507	1368	1515	1909	2542	1482	2252	1687	646	-0.784093334	0.630907232
CDR20291_0972	36	76	121	10	6	49	300	82	55	89	37	1.29592901	0.811645395

CDR20291_0973	5	2	1	3	2	4	2	1	2	1	3	NA	NA
CDR20291_0974	2	1	2	2	0	0	3	2	1	4	0	NA	NA
CDR20291_0975	1	3	0	0	1	0	0	1	1	0	0	NA	NA
CDR20291_0976	2	3	1	1	2	0	1	0	3	0	0	NA	NA
CDR20291_0977	1	1	0	1	1	2	1	0	0	5	2	NA	NA
CDR20291_0978	365	442	296	302	406	239	240	278	294	225	116	-0.458339415	0.82771301
CDR20291_0979	139	102	199	61	177	67	77	41	133	192	115	-0.351487881	0.937393001
CDR20291_0980	3	1	0	1	1	1	1	3	3	2	0	NA	NA
CDR20291_0981	1	1	4	0	0	1	2	1	2	0	0	NA	NA
CDR20291_0982	4	2	1	0	2	1	2	2	0	1	0	NA	NA
CDR20291_0983	7	2	0	1	3	3	1	2	2	1	1	NA	NA
CDR20291_0984	1	3	1	0	1	0	0	1	0	0	0	NA	NA
CDR20291_0985	12	7	3	2	2	8	5	7	9	2	1	NA	NA
CDR20291_0986	2	1	0	1	1	2	0	0	1	0	1	NA	NA
CDR20291_0987	3	0	0	3	0	3	3	1	3	1	1	NA	NA
CDR20291_0988	0	0	1	0	2	0	0	0	1	0	1	NA	NA
CDR20291_0989	1	1	0	2	0	3	0	1	4	3	1	NA	NA
CDR20291_0990	950	1576	1113	1413	1282	1316	1127	1622	1201	1860	451	0.362360859	0.880712381
CDR20291_0991	1480	1881	1688	1826	1753	1989	38436	1515	1887	1618	2295	0.157006044	0.918198181
CDR20291_0992	78	56	71	69	49	207	51	11	30	22	62	-0.459857236	0.938005364
CDR20291_0993	4311	6494	5874	5167	5854	7346	3261	5105	5419	5641	5762	0.266049207	0.68428643
CDR20291_0994	623	272	387	482	562	631	491	465	410	246	217	-0.657275631	0.704120269
CDR20291_0995	3710	2924	3222	3450	3032	3378	1786	2928	2111	2472	2798	-0.505759422	0.327145636
CDR20291_0996	273	272	231	855	233	368	92	334	150	154	189	-0.055309341	0.9964183
CDR20291_0997	114	152	176	112	234	244	40	330	91	89	103	0.328030819	0.940486417
CDR20291_0998	2	0	0	0	0	1	0	1	1	0	0	NA	NA
CDR20291_0999	0	1	0	2	0	0	0	0	1	1	2	NA	NA
CDR20291_1000	3	1	0	0	0	0	1	0	0	1	0	NA	NA
CDR20291_1001	8	0	1	3	1	4	0	1	2	7	2	NA	NA
CDR20291_1002	36	42	14	147	81	20	19	31	34	0	0	-0.016822114	0.998270107

CDR20291_1003	104	101	175	107	110	82	23	37	89	153	183	-0.094026918	0.9964183
CDR20291_1004	7	2	40	11	43	0	14	4	25	2	1	0.937449858	0.937393001
CDR20291_1005	12	24	24	11	56	14	15	9	11	32	4	0.619474721	0.933474326
CDR20291_1006	348	386	188	277	414	455	172	261	217	323	287	-0.34346645	0.856027611
CDR20291_1007	178	315	320	307	155	233	120	296	274	198	336	0.420839631	0.842813097
CDR20291_1008	32	48	36	56	35	1	23	18	16	7	12	-0.43328075	0.96268905
CDR20291_1009	63	20	63	21	33	94	9	77	20	45	21	-0.79024482	0.86479966
CDR20291_1010	303	413	372	210	387	225	272	167	161	305	415	-0.134177034	0.978951444
CDR20291_1011	53	4	8	8	1	12	3	2	4	3	0	NA	NA
CDR20291_1012	2	1	3	1	1	2	3	2	2	6	1	NA	NA
CDR20291_1013	0	0	2	1	1	0	0	0	1	3	0	NA	NA
CDR20291_1014	1	0	0	1	0	0	0	0	1	0	1	NA	NA
CDR20291_1015	4	0	1	2	0	0	0	1	1	3	0	NA	NA
CDR20291_1016	6	4	2	5	0	0	1	1	3	1	0	NA	NA
CDR20291_1017	6	1	1	2	1	1	1	0	2	2	1	NA	NA
CDR20291_1018	2	0	2	2	0	2	3	1	2	0	2	NA	NA
CDR20291_1019	0	4	0	3	0	4	0	2	3	3	0	NA	NA
CDR20291_1020	4	4	1	0	0	0	1	0	4	0	1	NA	NA
CDR20291_1021	1	0	0	0	0	1	0	1	0	0	0	NA	NA
CDR20291_1022	83	53	54	36	42	153	158	55	117	50	37	-0.155623092	0.991089357
CDR20291_1023	2467	2857	3108	2409	2702	3050	1093	1927	1920	2260	1549	-0.235932532	0.883480371
CDR20291_1024	1611	2719	2724	2318	2671	2624	2150	2378	2291	2473	2750	0.555228355	0.217489179
CDR20291_1025	2	1	1	0	0	0	0	0	1	1	1	NA	NA
CDR20291_1026	117	205	137	124	141	239	136	157	133	36	528	0.570766524	0.893246439
CDR20291_1027	317	120	289	82	64	177	43	151	160	106	123	-1.389920018	0.319869493
CDR20291_1028	2	0	8	9	26	0	2	6	2	0	13	NA	NA
CDR20291_1029	11	3	1	2	1	5	3	3	5	3	3	NA	NA
CDR20291_1030	7	1	3	1	0	0	2	1	1	2	2	NA	NA
CDR20291_1030;													
CDR20291_1031	0	0	0	0	0	0	0	0	0	1	0	NA	NA

CDR20291_1031	0	1	1	1	0	0	0	0	2	0	1	NA	NA
CDR20291_1032	1	2	0	1	0	0	0	0	1	0	3	NA	NA
CDR20291_1033	0	1	2	1	1	3	0	0	0	0	0	NA	NA
CDR20291_1034	6	4	1	2	0	0	0	1	2	0	1	NA	NA
CDR20291_1035	6	2	0	1	0	3	1	4	2	1	1	NA	NA
CDR20291_1036	0	1	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1037	1	1	0	0	0	0	1	3	2	0	2	NA	NA
CDR20291_1038	3	2	2	0	1	1	0	0	1	5	3	NA	NA
CDR20291_1039	2641	2500	2834	3684	2531	3027	2294	3283	3334	3069	4050	0.13332056	0.951893091
CDR20291_1039;													
CDR20291_1040	230	242	247	344	321	361	211	169	255	141	100	-0.048486961	0.9964183
CDR20291_1040	1308	1662	1456	1651	1693	2110	515	891	1338	1153	1551	-0.033286712	0.9964183
CDR20291_1041	1568	1601	1156	1836	2112	1878	1140	1148	1645	1543	1366	-0.123628366	0.950748991
CDR20291_1042	2	0	3	0	0	0	1	2	0	1	0	NA	NA
CDR20291_1043	4	1	0	3	0	0	3	0	4	0	3	NA	NA
CDR20291_1044	1	1	0	0	1	0	0	1	0	0	0	NA	NA
CDR20291_1045	4	2	2	2	2	2	5	3	8	3	3	NA	NA
CDR20291_1046	92	60	26	41	49	92	66	49	21	36	13	-1.101758983	0.68801864
CDR20291_1047	4894	5636	4384	4339	5599	5674	3157	6064	4385	5055	3604	-0.132631947	0.937393001
CDR20291_1048	2512	3336	3572	3243	3560	3734	7633	3211	3635	3409	3263	0.611295996	0.774785049
CDR20291_1049	3262	4858	4625	4433	5274	4717	3204	3988	2971	4068	3368	0.247572154	0.815335183
CDR20291_1050	181	282	184	108	377	275	221	224	140	943	203	0.616613945	0.873212813
CDR20291_1051	8	8	1	20	0	1	5	7	9	5	5	NA	NA
CDR20291_1052	2	1	1	2	1	2	3	3	2	5	0	NA	NA
CDR20291_1053	6	1	2	1	5	1	6	1	5	0	0	NA	NA
CDR20291_1054	4	0	3	2	1	1	2	0	3	2	1	NA	NA
CDR20291_1055	4	2	0	1	1	0	2	1	4	1	0	NA	NA
CDR20291_1056	3	0	0	2	0	2	0	2	1	3	1	NA	NA
CDR20291_1057	2	1	4	2	1	2	1	3	2	1	0	NA	NA
CDR20291_1058	45	44	5	8	30	23	25	21	26	156	51	-0.287901977	0.985458574

CDR20291_1059	1310	813	679	1296	825	936	498	794	1245	1041	445	-0.713238526	0.542324205
CDR20291_1060	525	415	317	532	483	552	256	334	434	722	482	-0.318630621	0.872854625
CDR20291_1061	2484	2243	2724	2439	2783	3692	1718	2679	2876	4373	2954	0.096952604	0.976678975
CDR20291_1062	1191	1303	1710	1206	1548	1375	1504	1377	1834	1524	1831	0.286824437	0.870110009
CDR20291_1063	188	185	282	402	157	87	100	139	115	213	172	-0.122546575	0.989879733
CDR20291_1064	4933	6871	5935	6322	6357	8134	4363	5809	5719	7108	5344	0.227167276	0.754360226
CDR20291_1065	288	118	85	147	76	237	46	75	44	44	56	-1.78654394	0.160502089
CDR20291_1066	379	167	110	166	140	147	68	76	95	161	33	-1.82771633	0.057606843
CDR20291_1067	102	78	122	56	66	181	53	55	33	12	28	-0.718710393	0.870110009
CDR20291_1068	7	5	5	2	2	3	5	1	1	0	2	NA	NA
CDR20291_1069	306	933	789	527	675	612	397	454	634	441	975	0.972192096	0.23446921
CDR20291_1070	143	126	169	182	192	188	79	291	64	86	138	-0.024792349	0.9964183
CDR20291_1071	3	0	0	0	0	1	0	1	4	0	0	NA	NA
CDR20291_1072	431	634	719	848	539	724	903	593	554	621	546	0.578230113	0.67344132
CDR20291_1073	2	1	0	0	0	0	1	0	2	2	0	NA	NA
CDR20291_1074	32	19	35	9	45	38	7	7	14	8	6	-0.934078438	0.864878754
CDR20291_1075	4	0	0	0	0	0	0	0	1	1	0	NA	NA
CDR20291_1076	130	242	238	198	181	255	66	132	154	183	228	0.401558373	0.844040668
CDR20291_1077	203	368	221	232	189	415	170	158	153	224	284	0.13486642	0.976678975
CDR20291_1078	785	652	668	818	756	1266	475	660	649	570	719	-0.230531473	0.886044813
CDR20291_1079	1271	1746	1194	2183	1392	1782	742	1367	1379	1763	1359	0.117535485	0.96268905
CDR20291_1080	1	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_1081	9	97	115	54	54	51	15	66	44	30	34	2.502663243	0.09418142
CDR20291_1081;													
CDR20291_1082	4	0	0	0	0	0	0	2	0	1	0	NA	NA
CDR20291_1082	50	88	132	39	44	281	60	64	76	60	127	0.82165863	0.802898509
CDR20291_1083	349	385	391	473	538	764	449	515	482	367	342	0.342078407	0.844040668
CDR20291_1084	95	177	376	135	221	89	45	119	118	209	80	0.592777159	0.865105567
CDR20291_1085	2	1	0	1	1	3	0	3	1	0	3	NA	NA
CDR20291_1086	3496	144	176	71	210	166	208	65	123	130	23	-4.793427218	9.12E-08

CDR20291_1087	6	0	1	0	3	0	3	0	6	2	0	NA	NA
CDR20291_1088	64	25	20	18	29	23	54	20	30	5	8	-1.467319572	0.660192271
CDR20291_1089	20	9	1	10	6	10	11	4	11	4	7	NA	NA
CDR20291_1090	4	2	2	0	2	3	7	2	3	1	3	NA	NA
CDR20291_1091	1	1	0	0	0	0	1	1	0	1	0	NA	NA
CDR20291_1092	4	3	1	5	1	5	3	2	3	0	1	NA	NA
CDR20291_1093	5	0	0	1	3	0	0	3	0	0	8	NA	NA
CDR20291_1094	18	1	13	2	64	1	0	0	2	2	0	-3.065151985	0.694246275
CDR20291_1095	5	1	1	0	0	1	3	0	2	0	0	NA	NA
CDR20291_1096	6	3	0	0	2	0	0	0	3	0	0	NA	NA
CDR20291_1097	0	3	0	2	0	2	0	0	2	0	1	NA	NA
CDR20291_1098	1	0	0	4	2	0	2	1	3	1	1	NA	NA
CDR20291_1099	3	3	1	2	0	1	1	2	2	3	0	NA	NA
CDR20291_1100	2300	8	0	1	5	5	4	1	4	12	1	-9.230648029	1.23E-21
CDR20291_1101	1119	1095	1338	1327	1096	961	573	854	1093	955	1009	-0.224050189	0.883480371
CDR20291_1102	239	503	396	253	287	291	111	279	271	248	105	0.068986549	0.9964183
CDR20291_1103	2438	2968	2869	2840	3219	3207	1782	3378	3277	8038	2870	0.400517207	0.867498849
CDR20291_1104	27	99	63	40	29	93	52	34	37	39	0	0.736819813	0.913649554
CDR20291_1105	147	41	10	65	59	76	20	36	12	194	209	-1.125469448	0.81936773
CDR20291_1106	61	23	38	87	87	113	36	70	63	15	87	-0.088244339	0.9964183
CDR20291_1107	365	343	718	425	407	564	828	379	648	248	331	0.391145454	0.912350424
CDR20291_1108	100	72	60	77	125	120	28	28	154	355	42	-0.037689569	0.9964183
CDR20291_1109	45	33	15	91	53	40	0	2	31	25	8	-0.768187246	0.933474326
CDR20291_1109;													
CDR20291_1110	763	967	1291	728	921	1168	773	991	1132	693	494	0.170913627	0.949832827
CDR20291_1110	2410	2818	2470	2197	2717	2713	1161	2074	2108	2703	2536	-0.150075605	0.92222337
CDR20291_1111	17	4	0	0	11	1	1	0	0	1	3	NA	NA
CDR20291_1112	488	473	733	740	672	774	242	976	552	606	869	0.334564231	0.883480371
CDR20291_1113	2622	3771	4852	2025	3600	5408	3477	5052	3985	3282	4563	0.527363888	0.685687464
CDR20291_1114	10	2	1	3	1	6	5	2	5	2	3	NA	NA

CDR20291_1115	3	3	2	2	1	0	1	0	0	3	3	NA	NA
CDR20291_1116	254	245	258	188	160	339	55	179	162	308	113	-0.482401101	0.856027611
CDR20291_1117	494	730	480	528	503	371	434	530	379	356	283	-0.188239292	0.946208554
CDR20291_1118	3	0	0	1	1	2	0	2	0	0	2	NA	NA
CDR20291_1119	7	3	1	2	2	1	2	0	1	2	1	NA	NA
CDR20291_1120	2	1	2	1	0	0	1	0	3	1	0	NA	NA
CDR20291_1121	1	4	1	1	6	1	0	1	3	3	1	NA	NA
CDR20291_1122	12	2	3	5	4	6	4	6	9	9	1	NA	NA
CDR20291_1123	2	0	0	1	2	0	2	0	0	0	0	NA	NA
CDR20291_1124	9	5	12	8	2	4	3	2	13	9	4	NA	NA
CDR20291_1125	4	0	0	0	1	0	1	1	0	0	1	NA	NA
CDR20291_1126	480	310	222	233	379	405	351	518	816	678	379	-0.225937308	0.957295969
CDR20291_1127	2	2	0	0	0	1	2	0	1	1	0	NA	NA
CDR20291_1128	1320	1771	1630	1983	1637	1776	1055	1956	1565	2225	2172	0.334092105	0.774223573
CDR20291_1129	6859	2341	1927	3315	2897	2181	1431	2186	3851	2003	1737	-1.618994447	0.004018279
CDR20291_1130	3	1	0	0	0	0	0	1	1	0	0	NA	NA
CDR20291_1131	28	22	32	24	20	16	26	22	31	18	42	-0.204957733	0.978951444
CDR20291_1132	1	0	0	0	0	1	1	1	0	1	0	NA	NA
CDR20291_1133	0	1	0	2	1	2	1	0	3	1	2	NA	NA
CDR20291_1134	641	636	493	421	439	650	462	513	486	657	238	-0.449022693	0.788477536
CDR20291_1135	8	7	0	3	3	2	0	6	2	5	13	NA	NA
CDR20291_1136	105	94	88	96	222	182	279	89	234	61	104	0.445081318	0.929916031
CDR20291_1137	33	123	117	126	137	86	33	87	70	104	180	1.571701661	0.173858262
CDR20291_1138	4	1	1	0	7	0	1	0	4	0	0	NA	NA
CDR20291_1139	1222	4613	3974	4019	4663	6187	3310	5171	3973	3997	5126	1.786283494	3.31E-08
CDR20291_1140	1463	2450	2306	2136	2184	2551	1416	2319	2373	2723	2670	0.563476593	0.257529665
CDR20291_1141	121	31	87	38	26	207	13	35	75	78	13	-1.182564214	0.75332961
CDR20291_1142	0	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_1143	226	275	271	302	321	254	129	128	202	275	259	-0.018143388	0.9964183
CDR20291_1144	415	826	703	662	525	690	498	701	449	703	1194	0.658290333	0.583618295

CDR20291_1145	7906	7257	9115	6054	7807	10145	6208	5877	7274	7778	5169	-0.217600223	0.883480371
CDR20291_1146	19	6	5	12	4	6	12	11	10	8	8	-1.248130053	0.782167863
CDR20291_1147	1	0	0	0	1	2	0	2	0	0	0	NA	NA
CDR20291_1148	5	3	0	5	0	0	2	1	6	1	1	NA	NA
CDR20291_1149	0	1	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_1150	1	1	0	1	0	2	1	0	0	0	0	NA	NA
CDR20291_1151	10	1	3	3	5	4	4	1	9	3	3	NA	NA
CDR20291_1152	4	0	0	1	0	1	0	0	1	0	0	NA	NA
CDR20291_1153	1	0	2	0	0	0	4	1	2	1	0	NA	NA
CDR20291_1154	1428	787	906	803	986	1026	313	778	516	760	473	-1.088458681	0.083490359
CDR20291_1155	5	1	5	0	1	2	0	0	1	7	1	NA	NA
CDR20291_1156	2	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1157	2	0	0	0	0	0	0	0	0	1	2	NA	NA
CDR20291_1158	2379	2206	3041	2654	2695	3379	2110	2545	2346	2930	3513	0.11550275	0.951893091
CDR20291_1159	77	65	123	131	33	22	36	111	29	117	57	-0.178669887	0.988963221
CDR20291_1160	14	1	1	2	1	1	2	0	13	1	0	NA	NA
CDR20291_1161	6	5	1	0	1	2	1	15	4	2	2	NA	NA
CDR20291_1162	0	1	0	0	1	0	0	0	1	0	0	NA	NA
CDR20291_1163	6	0	1	1	0	2	1	0	2	3	2	NA	NA
CDR20291_1164	1380	1897	2132	1742	2251	2649	2643	2323	3519	2313	2029	0.708506544	0.495346452
CDR20291_1165	9	0	1	6	5	1	1	2	3	4	1	NA	NA
CDR20291_1166	7	4	1	1	4	1	3	0	2	2	1	NA	NA
CDR20291_1167	8	1	3	2	1	1	5	2	2	1	5	NA	NA
CDR20291_1168	2	1	1	0	3	1	2	0	1	0	0	NA	NA
CDR20291_1169	130	223	53	169	166	76	37	153	174	956	203	0.661073729	0.911099869
CDR20291_1170	6	8	0	1	1	1	5	1	5	3	1	NA	NA
CDR20291_1171	8	6	0	0	0	2	1	4	4	1	0	NA	NA
CDR20291_1172	6352	9219	8984	9067	9626	10116	7616	8709	13037	9769	9364	0.505366018	0.462208325
CDR20291_1173	127	163	67	114	175	199	49	91	275	168	108	0.02893325	0.9964183
CDR20291_1174	1271	1280	1038	1375	1331	1487	692	1108	1565	1507	1637	-0.066781067	0.988535252

CDR20291_1175	388	2	1	6	2	1	3	2	2	2	4	-7.349807091	1.14E-11
CDR20291_1176	4721	4280	5530	5134	4964	5681	3874	4562	5228	4015	6494	-0.010198136	0.996617239
CDR20291_1177	457	647	656	859	564	627	239	452	292	783	540	0.186136668	0.950748991
CDR20291_1178	120	167	105	514	108	112	64	139	69	127	54	0.162976184	0.989879733
CDR20291_1179	296	206	126	107	202	158	79	150	78	80	299	-1.100401486	0.474151117
CDR20291_1180	5759	6391	5220	7427	6852	7003	5343	5456	5564	7441	6596	0.049971888	0.989879733
CDR20291_1181	335	388	657	288	686	653	200	1311	276	435	966	0.7050731	0.802508517
CDR20291_1182	3626	4927	5607	6820	7539	5913	3342	4756	4366	5517	4455	0.446733006	0.535689924
CDR20291_1183	250	213	273	165	198	187	90	186	156	186	129	-0.601458035	0.591724175
CDR20291_1184	113	81	78	82	56	118	87	173	73	49	104	-0.395110907	0.913649554
CDR20291_1185	497	543	404	449	451	276	1241	458	598	837	299	0.178060382	0.980898945
CDR20291_1186	213	26	49	38	87	60	15	57	23	29	14	-2.557635925	0.03597422
CDR20291_1187	5392	4961	4049	4417	4756	5407	3631	3944	4033	4815	3681	-0.396382814	0.45365332
CDR20291_1188	550	760	815	381	710	731	829	390	521	583	640	0.144842796	0.972464309
CDR20291_1188;													
CDR20291_1189	0	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_1189	487	738	605	640	691	993	241	753	614	647	502	0.271700662	0.883480371
CDR20291_1190	2775	4269	4378	3566	4958	5117	2188	3596	4152	5037	6674	0.556865465	0.557223874
CDR20291_1191	16	43	23	45	26	39	8	34	11	54	65	1.001666853	0.791887613
CDR20291_1192	4	1	0	5	0	8	1	0	0	1	0	NA	NA
CDR20291_1193	34	104	76	10	14	6	26	34	11	86	21	0.090566278	0.9964183
CDR20291_1194	403	516	372	414	379	405	1181	252	331	226	284	-0.341098911	0.82771301
CDR20291_1195	17	19	162	56	31	75	13	12	19	18	25	1.179605253	0.806019044
CDR20291_1196	39	57	166	66	44	103	19	21	26	43	20	0.374060906	0.952961967
CDR20291_1197	1	1	1	0	1	0	1	1	1	0	0	NA	NA
CDR20291_1198	3580	2610	1701	2585	3954	2922	3077	2605	1898	2066	2192	-0.552319188	0.68428643
CDR20291_1199	3318	4708	4668	5687	4121	5427	2522	5828	4609	5729	4790	0.432942821	0.616674951
CDR20291_1200	204	223	253	264	234	335	221	160	187	198	272	0.112503553	0.976678975
CDR20291_1201	32	30	142	7	86	18	17	37	4	18	9	0.063673708	0.9964183
CDR20291_1202	1	0	0	0	1	1	0	0	0	0	0	NA	NA

CDR20291_1203	0	0	0	0	1	0	0	0	2	0	0	NA	NA
CDR20291_1204	21	75	37	12	131	73	40	33	32	34	11	1.057793903	0.795850883
CDR20291_1205	21	10	3	25	12	52	4	0	2	0	9	-1.055371806	0.930649044
CDR20291_1206	2833	1826	1438	2015	1837	2619	1698	1506	1398	1872	939	-0.816274461	0.287118309
CDR20291_1207	1	0	0	0	0	0	0	1	1	1	1	NA	NA
CDR20291_1208	64	51	111	40	45	84	24	51	2	93	6	-0.478067396	0.950748991
CDR20291_1209	0	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_1210	251	106	234	184	117	282	105	118	170	241	61	-0.74834747	0.709423863
CDR20291_1211	16	17	120	0	88	38	74	49	26	38	32	1.542830495	0.75332961
CDR20291_1212	29	62	2	3	37	42	19	47	7	20	32	-0.209460531	0.993685705
CDR20291_1213	0	0	1	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1214	851	1037	1001	1468	1196	935	529	990	980	1155	1340	0.218624307	0.912350424
CDR20291_1215	438	561	521	449	479	431	417	371	460	476	427	-0.015017879	0.9964183
CDR20291_1216	121	61	58	42	57	37	16	37	23	43	3	-1.817841672	0.36716881
CDR20291_1217	107	53	153	97	107	286	64	101	416	95	181	0.432568356	0.933474326
CDR20291_1218	3575	4590	2632	4384	3272	4802	3118	3580	5491	4398	4813	0.115662517	0.966709354
CDR20291_1219	34	31	26	36	14	18	28	9	43	8	7	-0.689895873	0.904210056
CDR20291_1220	239	94	149	144	247	214	76	169	45	93	156	-0.906594298	0.620330248
CDR20291_1221	2	2	1	0	1	0	0	0	0	0	0	NA	NA
CDR20291_1222	38	21	62	23	70	19	6	10	29	1	18	-0.701129074	0.930649044
CDR20291_1223	1	2	0	1	0	0	0	0	2	1	0	NA	NA
CDR20291_1224	13	15	21	1	17	32	48	29	0	4	21	0.540735863	0.964838183
CDR20291_1225	70	94	172	360	87	28	42	77	67	59	125	0.55919189	0.913649554
CDR20291_1226	379	487	574	572	741	602	359	542	582	369	229	0.311920761	0.883480371
CDR20291_1227	2126	2652	2640	2247	2874	2858	2023	2161	2190	2381	3300	0.163072825	0.914046271
CDR20291_1228	39	45	49	49	36	67	10	39	39	52	31	-0.039117198	0.9964183
CDR20291_1229	1634	1523	1929	960	938	2089	718	1115	1395	1838	891	-0.405669837	0.819425446
CDR20291_1230	25	56	32	55	81	65	5	83	35	39	7	0.722939345	0.892840893
CDR20291_1231	107	155	65	81	105	156	100	66	42	41	681	0.413358446	0.954580155
CDR20291_1232	88	84	52	103	29	128	51	59	41	32	95	-0.491071671	0.897570963

CDR20291_1233	36	44	42	19	85	213	19	17	59	43	24	0.459905599	0.944356937
CDR20291_1234	73	200	65	81	105	174	77	26	32	42	149	0.259160699	0.972520712
CDR20291_1235	6	0	0	1	3	0	2	0	1	1	0	NA	NA
CDR20291_1236	9	0	0	1	9	4	1	1	11	0	1	NA	NA
CDR20291_1237	144	225	147	82	135	160	112	183	98	201	101	-0.091949865	0.990618568
CDR20291_1238	0	2	2	1	0	1	0	0	0	1	1	NA	NA
CDR20291_1239	113	78	58	63	116	64	65	65	73	119	44	-0.688006557	0.737114605
CDR20291_1240	15249	18935	20210	18774	20596	19962	14150	20755	19627	18834	17008	0.218289881	0.789410944
CDR20291_1241	270	196	113	106	119	455	139	350	233	172	102	-0.551762802	0.866195536
CDR20291_1242	3150	2417	2329	2059	2186	3524	1888	2567	2302	3077	2143	-0.458362699	0.541117254
CDR20291_1243	183	204	406	265	180	201	53	122	133	151	276	-0.008180426	0.998270107
CDR20291_1244	108	352	186	145	206	299	100	204	184	98	307	0.82724397	0.607242065
CDR20291_1245	103	170	75	51	183	63	31	118	83	125	223	0.01332797	0.998270107
CDR20291_1246	907	919	908	718	1063	783	915	968	733	669	495	-0.221609489	0.932300381
CDR20291_1247	4933	6538	6593	5698	6807	7168	5735	5913	6420	7972	6572	0.324655561	0.70020237
CDR20291_1248	103	51	9	7	24	39	33	17	9	55	11	-2.097374189	0.374942802
CDR20291_1249	400	1254	359	1267	613	748	411	998	928	1115	461	0.923354983	0.514786953
CDR20291_1250	11625	668	3189	848	1313	4609	11204	806	1104	1738	1134	-2.934249549	0.00178538
CDR20291_1251	1325	240	482	354	415	730	131	184	281	220	336	-2.120835868	0.005114591
CDR20291_1252	3690	3210	3118	3459	3414	3935	2138	2110	2725	3151	5921	-0.249865789	0.913649554
CDR20291_1253	6895	8302	8834	10063	8789	9261	6299	8055	6580	6752	12654	0.222155308	0.894067873
CDR20291_1254	241	66	135	70	77	96	38	40	65	94	19	-1.909782403	0.102059202
CDR20291_1255	7	1	0	2	0	0	4	1	4	1	1	NA	NA
CDR20291_1256	851	578	498	479	408	525	318	555	844	626	747	-0.696623876	0.522533808
CDR20291_1257	1203	1233	1132	1104	1336	1589	1078	966	980	810	1070	-0.180834829	0.918198181
CDR20291_1258	1885	3642	3319	5147	4254	4158	2485	3607	3226	5053	3832	0.939601055	0.036353776
CDR20291_1259	1502	2745	2437	2926	2198	2242	1512	1701	2029	1843	2283	0.445433928	0.549039574
CDR20291_1260	5	4	2	8	13	13	4	2	0	0	3	NA	NA
CDR20291_1261	1002	1020	1171	998	817	1671	410	941	1030	729	921	-0.172571706	0.940486417
CDR20291_1262	12216	17936	18753	18797	18439	18619	17109	21338	20273	18336	29366	0.632260145	0.439446684

CDR20291_1263	1	0	0	0	1	0	0	0	0	0	2	NA	NA
CDR20291_1264	1054	11	62	56	17	2	3	3	13	9	20	-5.877385734	0.000102018
CDR20291_1265	78	253	44	98	217	309	78	97	63	149	15	0.604918855	0.903995811
CDR20291_1266	594	792	822	611	709	773	814	421	407	412	440	-0.010716882	0.997314906
CDR20291_1267	739	984	752	646	809	921	317	735	957	624	568	-0.134142175	0.958073489
CDR20291_1268	2233	2745	2386	2481	2135	2571	1466	2036	2027	2652	2719	-0.044015911	0.990274717
CDR20291_1269	148	89	176	98	208	178	80	126	137	102	72	-0.338596563	0.906239631
CDR20291_1270	26	31	28	38	57	70	9	19	23	4	7	-0.036003535	0.996804672
CDR20291_1271	4	1	3	5	11	13	2	3	0	0	0	NA	NA
CDR20291_1272	893	1282	1100	1110	1220	1594	644	765	1332	902	992	0.178707056	0.918198181
CDR20291_1273	721	823	681	1578	943	726	550	837	803	600	741	0.104618873	0.980729698
CDR20291_1274	35	31	18	11	29	6	0	9	5	9	25	-1.439985658	0.789410944
CDR20291_1275	0	1	0	1	0	0	0	0	0	0	0	NA	NA
CDR20291_1276	6	1	2	6	7	4	4	1	6	0	2	NA	NA
CDR20291_1277	70	127	65	156	245	118	21	76	128	106	39	0.47892984	0.913649554
CDR20291_1278	450	289	380	494	254	381	204	310	1269	266	276	-0.209673	0.976678975
CDR20291_1279	49	1	2	2	1	1	4	0	10	1	0	NA	NA
CDR20291_1280	1043	672	723	553	703	756	409	825	529	383	429	-0.905160986	0.176606012
CDR20291_1281	7	2	2	1	1	2	2	0	4	0	0	NA	NA
CDR20291_1282	21	19	11	12	15	5	53	7	27	24	4	-0.192906793	0.9964183
CDR20291_1283	62	0	0	1	0	12	0	4	1	0	1	NA	NA
CDR20291_1284	1631	2452	2432	2216	2355	3277	3529	2551	2602	4699	2700	0.764692785	0.493486824
CDR20291_1285	3150	1513	1155	1171	1222	2517	1291	1347	1660	1413	415	-1.298400963	0.166456166
CDR20291_1286	1209	472	480	647	620	812	648	535	448	567	561	-1.136605238	0.057722823
CDR20291_1287	5967	5167	4944	5666	5879	6050	4210	5158	4713	5429	6845	-0.230229614	0.837813669
CDR20291_1288	1932	1516	1142	1495	1577	1599	1598	1522	1179	2183	1609	-0.394944709	0.788477536
CDR20291_1289	16874	12389	12155	21141	13759	15645	22281	16289	14529	14760	19096	-0.099079417	0.987396008
CDR20291_1290	217	332	116	114	171	265	108	277	150	112	50	-0.474523192	0.892840893
CDR20291_1291	1116	343	105	105	137	269	405	276	151	487	29	-2.305090988	0.159899713
CDR20291_1292	1004	1379	1488	1400	1472	1602	935	1101	1476	1189	1829	0.370114942	0.68428643

CDR20291_1293	533	664	587	840	900	730	318	724	673	434	557	0.157193766	0.949341418
CDR20291_1294	1026	1599	1740	1745	1711	1457	1252	1582	1580	1191	1351	0.481620851	0.474462087
CDR20291_1295	3338	5533	5046	5130	5716	6089	2962	5225	3800	5772	5647	0.502679483	0.340209011
CDR20291_1296	362	878	733	653	774	947	385	516	624	571	595	0.764676613	0.12496329
CDR20291_1297	3	1	1	2	0	0	0	0	2	1	4	NA	NA
CDR20291_1298	0	0	0	1	1	0	0	1	1	0	0	NA	NA
CDR20291_1299	5	0	0	2	1	3	1	1	1	1	3	NA	NA
CDR20291_1300	1	1	0	0	0	0	2	0	1	0	0	NA	NA
CDR20291_1301	2	37	5	0	2	5	3	1	7	27	33	2.475553747	0.737388095
CDR20291_1301;													
CDR20291_1302	531	545	686	706	630	698	390	639	692	719	864	0.212425372	0.898602063
CDR20291_1302	667	1032	1178	1030	922	1091	529	829	979	1185	1744	0.556727837	0.642918437
CDR20291_1303	6	2	0	4	0	3	0	3	1	2	0	NA	NA
CDR20291_1304	5	2	0	1	3	2	7	1	4	2	3	NA	NA
CDR20291_1305	61	29	76	113	53	74	66	43	23	22	83	-0.141023814	0.992748415
CDR20291_1306	692	699	714	422	709	723	358	666	577	1162	569	-0.174395089	0.950748991
CDR20291_1307	562	822	520	1403	1059	909	561	919	863	1259	1334	0.686836208	0.582968283
CDR20291_1308	1568	1897	1379	1907	1529	1458	1196	2453	11565	1732	2009	0.053584522	0.995544519
CDR20291_1309	531	397	325	462	525	368	129	597	415	345	504	-0.494155276	0.800678024
CDR20291_1310	2166	5143	4323	4718	5153	3911	2800	3897	3981	3557	4626	0.86125233	0.022888849
CDR20291_1311	95	127	85	252	280	61	69	160	132	126	461	0.79766404	0.819425446
CDR20291_1312	65	84	138	76	121	30	23	110	53	28	2	-0.0931472	0.9964183
CDR20291_1313	228	215	240	348	203	266	218	637	195	193	286	0.226623841	0.954404489
CDR20291_1313;													
CDR20291_1314	9	1	0	0	0	1	0	0	4	0	4	NA	NA
CDR20291_1314	126	497	324	154	186	141	108	130	107	158	147	0.506760248	0.87463407
CDR20291_1315	1954	1244	1387	1360	1030	1162	675	1029	1254	1211	1385	-0.834405275	0.078089318
CDR20291_1316	261	224	183	212	194	203	138	135	153	196	199	-0.604056116	0.444309792
CDR20291_1317	3651	4806	4397	4001	4105	4403	3451	3208	4664	3522	4631	0.088048952	0.965441065
CDR20291_1318	547	845	764	622	756	907	402	752	775	625	396	0.211190719	0.913649554

CDR20291_1319	4	0	4	3	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1320	974	677	684	816	619	1012	451	964	599	707	559	-0.561886751	0.49764138	
CDR20291_1321	208	176	214	235	232	192	53	336	121	274	109	-0.219856638	0.961984872	
CDR20291_1322	578	910	751	476	712	714	524	612	1026	858	469	0.19525686	0.937393001	
CDR20291_1323	1150	842	677	790	821	1010	996	532	889	963	497	-0.587701076	0.66387476	
CDR20291_1324	1305	1701	1451	1214	2513	1767	1063	1867	1550	1808	1030	0.187492927	0.933474326	
CDR20291_1325	5299	6928	6384	6387	7426	7889	16213	8500	6982	8194	7229	0.62694476	0.76875229	
CDR20291_1326	59	111	93	287	60	105	55	91	89	55	90	0.704563266	0.819425446	
CDR20291_1327	49	63	102	32	75	119	27	58	29	49	31	0.110701592	0.995544519	
CDR20291_1328	92	71	70	34	174	60	33	148	100	212	52	-0.052606035	0.9964183	
CDR20291_1329	139	1	0	0	0	0	0	1	0	18	0	-6.218416855	0.620903595	
CDR20291_1330	573	575	331	716	747	472	245	700	565	650	572	-0.144182119	0.964838183	
CDR20291_1331	183	58	23	46	54	15	15	20	13	15	66	-2.602584203	0.085615973	
CDR20291_1332	5	18	19	2	10	45	5	0	5	2	32	1.296417983	0.883480371	
CDR20291_1333	909	855	828	1744	1381	1251	532	748	590	634	569	-0.116712378	0.980899864	
CDR20291_1334	14	40	117	124	91	48	24	84	31	16	17	1.955211819	0.403504819	
CDR20291_1335	10	19	4	8	28	3	11	13	15	92	32	1.091411245	0.876823816	
CDR20291_1336	7	0	2	3	0	3	0	0	1	10	0	NA	NA	
CDR20291_1337	1453	1453	1645	1350	1686	1925	1618	1729	1230	1605	1581	0.04717376	0.995544519	
CDR20291_1338	3609	5117	4838	4860	5032	5778	3738	4464	6920	5293	4551	0.396959879	0.616674951	
CDR20291_1339	5095	5722	1982	7046	4785	5938	4853	6559	6538	5239	6994	0.056064519	0.9964183	
CDR20291_1340	2010	2392	486	2302	1872	1844	1599	2391	2120	1862	2393	-0.136126765	0.97923907	
CDR20291_1341	2159	3355	3243	3748	3349	3424	4813	3076	3217	4428	3677	0.701967164	0.487705072	
CDR20291_1342	29	12	1	4	11	47	6	2	8	18	0	-1.599025503	0.825951225	
CDR20291_1343	34	31	33	22	64	48	51	42	35	8	74	0.205478295	0.986223558	
CDR20291_1344	2179	504	762	759	1022	996	974	471	729	505	561	-1.646239889	0.022459539	
CDR20291_1345	15817	17529	17303	17485	20775	21406	13478	17453	18567	21880	15005	0.098924819	0.946208554	
CDR20291_1346	4641	5430	5365	4944	5496	6037	3082	4547	5047	5989	5504	0.044720675	0.987679719	
CDR20291_1347	194	103	143	189	247	227	126	136	65	142	48	-0.553780531	0.850829752	
CDR20291_1348	3160	1935	3187	1777	2194	2402	1313	1806	2195	1717	1074	-0.796302597	0.294015107	

CDR20291_1349	105	125	80	135	121	88	47	167	44	45	83	-0.276023622	0.950748991
CDR20291_1350	90	123	170	20	67	52	22	67	33	128	5	-0.528229537	0.938005364
CDR20291_1351	1073	1188	819	960	1264	1393	579	840	1144	891	1222	-0.169237217	0.932300381
CDR20291_1352	4	1	0	1	1	1	1	2	4	1	3	NA	NA
CDR20291_1353	1086	927	1062	1361	1581	1122	729	838	1176	1051	2581	0.104938985	0.987679719
CDR20291_1354	13407	8783	8908	8481	9327	9746	5954	7684	8933	7583	6888	-0.802422799	0.002514346
CDR20291_1355	68	72	112	86	181	127	64	83	41	36	128	0.339786464	0.937393001
CDR20291_1356	7	19	10	2	2	9	17	28	8	2	0	0.448697924	0.979687611
CDR20291_1357	63	103	80	76	52	436	30	49	42	71	25	0.402298502	0.951893091
CDR20291_1358	132	151	140	111	164	227	102	105	107	112	172	-0.032328437	0.9964183
CDR20291_1359	239	387	201	180	291	326	782	502	270	428	180	0.578266217	0.87463407
CDR20291_1360	15	24	26	25	25	16	22	68	11	6	25	0.6625104	0.913649554
CDR20291_1361	36	51	76	35	39	27	4	59	15	40	41	-0.026507221	0.996999837
CDR20291_1362	57	31	30	20	17	75	13	58	5	9	2	-1.282296414	0.800678024
CDR20291_1363	490	533	454	541	637	725	277	394	525	607	418	-0.055921563	0.990274717
CDR20291_1364	7121	10860	10362	12045	10384	11910	6014	9848	9487	9772	9397	0.385430495	0.36716881
CDR20291_1365	377	404	736	392	430	751	255	438	726	466	819	0.417289235	0.844040668
CDR20291_1366	500	372	460	478	660	342	215	453	408	723	231	-0.311550169	0.910666531
CDR20291_1367	0	1	0	1	0	11	0	0	2	0	0	NA	NA
CDR20291_1368	3	1	0	0	0	1	0	0	1	1	0	NA	NA
CDR20291_1369	3030	3711	3665	3829	3009	3901	1537	3185	2311	3592	2771	-0.060658609	0.988535252
CDR20291_1370	8	2	6	3	7	2	4	2	0	2	0	NA	NA
CDR20291_1371	3400	3897	3991	4789	4601	4823	3393	3974	4373	5102	3763	0.239888591	0.811065537
CDR20291_1372	11124	13655	13485	13019	15107	12971	22958	12182	14224	29207	14633	0.498674737	0.817651077
CDR20291_1373	7	4	5	6	3	2	10	3	5	3	1	NA	NA
CDR20291_1374	424	326	674	280	546	365	186	810	405	313	399	-0.079386568	0.9964183
CDR20291_1375	590	68	65	104	106	59	60	23	178	30	50	-3.071802907	0.005322026
CDR20291_1376	6319	7807	8334	8520	8502	9024	6012	9930	9466	8043	6975	0.297139638	0.745572935
CDR20291_1377	1183	1469	1477	1572	1546	2181	1223	1681	1300	2064	1221	0.315294247	0.786730769
CDR20291_1378	13	2	0	1	1	2	0	2	1	1	3	NA	NA

CDR20291_1379	388	250	240	291	359	268	120	285	272	214	298	-0.687334724	0.444409293
CDR20291_1380	178	126	212	114	245	222	179	105	128	263	62	-0.192308909	0.97244828
CDR20291_1381	202	139	103	158	275	155	66	118	269	151	76	-0.534510875	0.844040668
CDR20291_1382	1393	1520	1750	1965	2078	2287	1303	1308	1177	1421	1397	0.115420413	0.952961967
CDR20291_1383	182	344	333	279	318	518	133	281	187	188	149	0.446245331	0.830538166
CDR20291_1384	90	151	168	96	93	175	50	101	306	163	149	0.581690468	0.838262937
CDR20291_1385	5	1	0	3	1	1	0	3	2	0	0	NA	NA
CDR20291_1386	4	3	1	2	0	3	2	0	3	0	1	NA	NA
CDR20291_1387	1566	1946	1742	4174	2113	2322	1122	1181	1307	2180	2015	0.246448633	0.933474326
CDR20291_1388	133	571	238	390	392	252	624	615	335	190	604	1.636031092	0.182097849
CDR20291_1389	399	488	441	285	465	744	323	233	246	293	677	-0.036914356	0.9964183
CDR20291_1390	4801	14063	15169	9902	9287	11900	17057	7888	10143	7984	7323	1.157452234	0.217489179
CDR20291_1391	775	598	296	43	738	838	173	73	63	195	12	-1.546332497	0.788477536
CDR20291_1392	428	87	22	220	230	106	176	140	94	175	361	-1.456702951	0.50184102
CDR20291_1393	0	0	0	0	0	0	1	1	0	0	0	NA	NA
CDR20291_1394	2359	3230	2376	2116	2627	2795	2186	3028	2702	2571	2718	0.076058712	0.977609616
CDR20291_1395	58	182	143	60	151	224	50	87	36	57	134	0.806127809	0.782051274
CDR20291_1396	82	98	74	59	83	162	52	24	15	37	61	-0.44312134	0.933474326
CDR20291_1397	90	158	91	153	103	108	62	66	122	212	10	0.155516804	0.989879733
CDR20291_1398	66	91	132	45	58	162	46	56	115	61	28	0.137644184	0.989879733
CDR20291_1399	10	9	0	0	5	0	7	0	16	0	1	NA	NA
CDR20291_1400	53	64	33	19	79	28	29	13	37	9	53	-0.64374617	0.896666488
CDR20291_1401	26	47	85	48	27	10	24	41	24	13	60	0.458262669	0.939441971
CDR20291_1402	8	1	0	0	0	2	5	7	2	2	2	NA	NA
CDR20291_1403	263	307	143	179	302	350	77	259	98	241	253	-0.386419477	0.894067873
CDR20291_1404	8163	8224	8608	7784	7004	9332	21920	7421	9700	8844	9683	0.282765893	0.941539623
CDR20291_1405	28397	42494	42546	48594	48748	48515	41456	38711	47959	58608	56513	0.661365371	0.261912549
CDR20291_1406	4731	4883	5836	5551	5194	5413	3227	5938	4640	5458	7330	0.082768186	0.977609616
CDR20291_1407	981	1747	1290	2010	1577	1846	681	1344	1757	1985	3001	0.707243443	0.560585648
CDR20291_1408	1439	1887	2307	1443	2113	2303	2549	2054	1534	1817	2074	0.42186634	0.789410944

CDR20291_1409	4183	6012	6327	6017	5841	7007	70985	4875	6235	6087	7047	0.411410291	0.462208325
CDR20291_1410	6510	8164	7711	7386	6244	9831	4017	7616	7206	9408	7264	0.092560713	0.96268905
CDR20291_1411	2699	3418	4212	3713	3603	4067	2595	3704	3905	4151	3507	0.357346549	0.542676056
CDR20291_1412	1	0	0	0	0	0	1	0	1	0	0	NA	NA
CDR20291_1413	476	487	370	501	590	683	199	445	284	267	356	-0.317247522	0.883480371
CDR20291_1414	27	19	1	11	41	33	11	1	23	15	1	-0.933695641	0.913649554
CDR20291_1415	20	38	19	3	6	7	9	4	5	1	0	-1.243656988	0.887164687
CDR20291_1416	65	37	120	22	95	42	41	43	22	141	11	-0.284677184	0.977604609
CDR20291_1417	4708	5942	5568	5751	6884	6808	4845	5766	5927	5746	5905	0.240647905	0.756242451
CDR20291_1418	790	2706	1276	1006	1879	1449	936	973	1145	924	1122	0.649981315	0.604958825
CDR20291_1419	593	836	686	1810	1002	1494	462	1004	620	820	810	0.563738421	0.729553852
CDR20291_1420	10	25	0	15	53	1	6	18	6	16	0	0.353954692	0.989879733
CDR20291_1421	206	286	229	468	483	397	276	478	345	277	660	0.838776628	0.521601994
CDR20291_1422	6	1	0	2	1	1	0	1	1	0	0	NA	NA
CDR20291_1423	7	6	0	1	7	2	1	1	0	4	1	NA	NA
CDR20291_1424	9	1	1	4	3	4	6	5	3	2	2	NA	NA
CDR20291_1425	10	18	5	18	26	22	7	7	11	8	2	0.168145155	0.9964183
CDR20291_1426	578	430	725	473	805	862	312	481	761	546	382	-0.11807246	0.976713545
CDR20291_1427	3	5	2	0	0	2	4	0	0	0	1	NA	NA
CDR20291_1428	14	6	26	1	11	7	7	4	7	3	9	NA	NA
CDR20291_1429	209	393	315	570	449	351	269	347	474	173	388	0.744567216	0.557223874
CDR20291_1430	149	126	121	147	240	188	90	146	78	58	143	-0.26869684	0.938005364
CDR20291_1431	1030	1419	1191	1386	1675	1684	1825	1094	1387	1074	2359	0.493307113	0.781611062
CDR20291_1432	33	20	21	19	54	34	6	25	69	49	236	0.611937244	0.937393001
CDR20291_1433	15	2	5	1	3	0	1	2	1	3	3	NA	NA
CDR20291_1434	209	291	261	151	238	271	98	163	116	184	261	-0.162488847	0.96268905
CDR20291_1435	2	0	0	1	0	2	0	1	0	0	1	NA	NA
CDR20291_1436	69	197	75	95	46	54	29	48	85	255	40	0.299773399	0.964838183
CDR20291_1437	8	1	0	0	0	1	0	0	1	2	0	NA	NA

CDR20291_1437;														
CDR20291_1438	4	0	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1438	0	1	2	0	1	4	0	0	1	0	0	0	NA	NA
CDR20291_1439	2761	3528	3441	2773	4167	3619	2013	3094	10378	3546	3303	0.440584865	0.873991116	
CDR20291_1440	183	111	237	137	241	169	78	90	80	112	42	-0.626544675	0.821472806	
CDR20291_1441	13	2	11	2	1	1	5	30	2	4	2	NA	NA	
CDR20291_1442	2	1	0	1	0	0	1	1	2	2	0	NA	NA	
CDR20291_1443	283	461	299	368	283	316	69	256	147	252	130	-0.278614513	0.938005364	
CDR20291_1444	1	0	0	1	1	1	0	0	0	5	1	NA	NA	
CDR20291_1445	120	340	312	486	87	325	121	133	290	226	123	0.903609585	0.664644486	
CDR20291_1446	343	562	590	650	611	495	298	431	414	324	201	0.303346685	0.896666488	
CDR20291_1447	1101	1902	1891	1446	1884	1707	6050	1606	1477	1507	1475	0.438767859	0.358458501	
CDR20291_1448	305	724	753	770	656	803	329	504	538	648	269	0.85251724	0.32456317	
CDR20291_1449	891	999	722	818	904	1057	441	1057	637	1592	611	-0.123384618	0.977604609	
CDR20291_1450	17	37	30	4	14	4	102	9	18	21	15	0.69110141	0.938005364	
CDR20291_1451	2211	2996	3450	2350	2929	3132	1853	2479	2005	2345	1914	0.098355085	0.960594534	
CDR20291_1452	0	0	0	0	2	1	0	2	0	0	0	NA	NA	
CDR20291_1453	0	1	0	1	0	1	6	0	2	0	0	NA	NA	
CDR20291_1454	520	607	537	446	597	576	280	1167	680	443	923	0.17639946	0.964365633	
CDR20291_1455	136	165	123	124	158	111	352	154	118	45	131	0.138189454	0.991396378	
CDR20291_1456	2	2	2	0	0	4	2	0	3	2	2	NA	NA	
CDR20291_1457	769	765	728	607	769	853	463	514	662	618	543	-0.343079187	0.652252836	
CDR20291_1458	45	49	61	12	62	21	6	65	68	29	54	-0.186002682	0.989879733	
CDR20291_1459	1	1	0	0	0	0	1	0	1	0	0	NA	NA	
CDR20291_1460	157	142	233	179	98	74	86	146	158	153	400	0.01186564	0.998270107	
CDR20291_1461	23	106	66	73	37	17	8	30	44	264	44	1.461424011	0.70625024	
CDR20291_1462	1637	2215	1718	2034	2484	2835	1552	1952	1737	1868	2064	0.221495689	0.832702445	
CDR20291_1463	8	19	10	25	4	10	8	0	17	11	19	0.527686323	0.960594534	
CDR20291_1464	610	1053	697	686	592	1278	355	818	725	1060	3157	0.674375846	0.821472806	
CDR20291_1465	1	4	0	0	3	2	1	0	1	0	2	NA	NA	

CDR20291_1466	260	318	171	345	332	334	259	194	324	286	704	0.25304572	0.945589703
CDR20291_1467	714	996	852	1981	1766	1330	588	1370	1488	966	1176	0.701377976	0.541513416
CDR20291_1468	3454	4301	4043	4246	4568	5007	2613	3707	3972	4381	4643	0.162005094	0.869758807
CDR20291_1468;													
CDR20291_1469	1838	2132	2299	2142	2167	2622	1515	3030	2100	2382	1576	0.161787302	0.933335682
CDR20291_1470	221	277	216	198	177	344	145	222	69	166	185	-0.259778656	0.937393001
CDR20291_1471	140	149	167	82	161	251	114	153	241	71	50	-0.064155922	0.9964183
CDR20291_1472	138	162	139	77	205	280	374	93	88	102	92	0.206707305	0.978951444
CDR20291_1473	108	99	116	83	64	148	10	89	79	34	27	-0.68841257	0.865282606
CDR20291_1474	143	88	40	150	16	158	2	21	40	10	26	-1.572443133	0.709395504
CDR20291_1475	8	23	0	33	6	5	35	3	130	5	1	1.596008226	0.867082411
CDR20291_1476	2905	41	41	101	41	57	30	29	84	91	6	-5.905223737	1.03E-10
CDR20291_1477	62	108	38	76	26	8	25	49	57	60	36	-0.454319196	0.937393001
CDR20291_1478	4	0	1	0	0	1	1	1	0	1	1	NA	NA
CDR20291_1479	153	112	264	188	123	368	119	137	93	97	55	-0.104433812	0.995544519
CDR20291_1480	3	4	7	3	0	14	1	8	3	0	0	NA	NA
CDR20291_1481	436	556	682	615	385	622	571	475	460	457	664	0.25938205	0.899822609
CDR20291_1482	5667	5527	4681	5049	6235	5167	24137	4749	5678	5239	5981	-0.213955309	0.845075583
CDR20291_1483	188	169	138	90	107	216	59	99	122	91	166	-0.70411743	0.646940429
CDR20291_1483;													
CDR20291_1484	0	0	0	0	0	0	0	0	0	1	0	NA	NA
CDR20291_1484	116	119	81	73	56	55	73	33	61	41	20	-1.004217841	0.664644486
CDR20291_1485	286	305	174	238	468	289	123	274	144	137	265	-0.363978307	0.894067873
CDR20291_1486	38	89	81	101	45	36	6	56	45	21	22	0.259511173	0.978728379
CDR20291_1487	12	2	29	4	0	4	9	3	8	2	0	NA	NA
CDR20291_1488	189	142	315	147	200	168	97	106	88	128	311	-0.255829325	0.950748991
CDR20291_1489	557	195	586	167	332	213	232	298	280	312	132	-1.105079518	0.415455207
CDR20291_1490	139	170	147	169	178	187	91	154	72	209	319	0.185773548	0.965441065
CDR20291_1491	4	1	0	0	5	0	3	0	2	1	0	NA	NA
CDR20291_1492	3	2	2	3	0	0	3	0	4	0	0	NA	NA

CDR20291_1493	75	164	180	225	146	174	66	171	256	214	175	1.133321139	0.240047903
CDR20291_1494	561	940	671	735	1828	746	766	822	735	379	809	0.498186015	0.821472806
CDR20291_1495	250	64	126	67	92	98	124	56	165	32	46	-1.572435519	0.327145636
CDR20291_1496	39	9	37	5	15	27	1	22	2	2	0	-1.879485559	0.774785049
CDR20291_1497	3	1	1	5	1	7	2	1	1	3	0	NA	NA
CDR20291_1498	55	75	145	32	28	24	22	25	78	35	37	-0.244972659	0.978728379
CDR20291_1499	4	15	14	2	9	91	1	3	2	8	1	1.593219484	0.864566407
CDR20291_1500	3064	4577	4867	4392	5551	6289	6040	3576	6204	4991	4154	0.658827132	0.485382092
CDR20291_1501	8	7	10	1	25	5	45	0	37	3	12	0.927640352	0.936058228
CDR20291_1502	29	103	48	29	28	25	28	28	19	31	29	0.236147758	0.977609616
CDR20291_1503	0	1	0	1	0	0	1	0	1	1	0	NA	NA
CDR20291_1504	1060	919	661	1019	953	809	1194	649	616	756	842	-0.382760355	0.860188391
CDR20291_1505	167	168	164	150	170	171	120	140	125	103	52	-0.391982685	0.87463407
CDR20291_1506	173	240	215	243	222	262	137	333	179	141	352	0.33122362	0.892840893
CDR20291_1507	160	192	109	201	93	148	90	221	116	300	259	0.02294797	0.9964183
CDR20291_1508	392	760	513	585	716	879	603	398	573	851	633	0.641537597	0.492106428
CDR20291_1509	101	38	113	41	23	57	40	70	14	7	24	-1.334649356	0.677980547
CDR20291_1510	62	47	41	236	92	153	21	50	39	72	222	0.521606245	0.933335682
CDR20291_1511	507	1067	1206	1081	986	1085	563	623	748	782	756	0.698647477	0.233308485
CDR20291_1512	165	136	90	81	75	245	18	26	26	51	30	-1.284923126	0.660554313
CDR20291_1513	429	725	464	792	717	674	645	504	535	368	557	0.402045543	0.815370637
CDR20291_1514	512	438	741	682	536	615	488	556	480	709	455	0.06936453	0.989131703
CDR20291_1515	118	47	22	42	32	32	47	49	72	13	118	-1.358811431	0.60703931
CDR20291_1516	203	283	258	327	300	240	28	155	158	409	206	0.076294341	0.9964183
CDR20291_1517	211	254	398	376	224	266	123	142	253	223	85	0.030317931	0.9964183
CDR20291_1518	1331	2008	1858	2064	1597	1963	1233	1833	1605	1647	1753	0.304059018	0.662791361
CDR20291_1519	3435	6132	6653	5885	6851	6678	4524	6400	6383	6176	6962	0.776064065	0.013665389
CDR20291_1520	167	186	311	197	306	345	177	294	149	160	456	0.533095701	0.813305952
CDR20291_1521	891	1103	1285	1058	1308	1472	1100	1126	823	774	861	0.205677794	0.916188101
CDR20291_1522	1388	1644	1878	1626	2131	1882	1398	1487	1589	1299	1552	0.157403899	0.913649554

CDR20291_1523	1743	1922	1702	1622	1963	2556	1460	1751	1612	1986	1869	-0.014220786	0.9964183
CDR20291_1524	6	1	1	1	3	1	2	0	3	0	3	NA	NA
CDR20291_1525	7	2	5	10	0	4	8	1	0	9	13	NA	NA
CDR20291_1526	512	746	785	660	675	780	517	631	542	649	839	0.321299094	0.749402531
CDR20291_1527	1680	1397	1153	985	1198	1636	700	2033	1230	1411	1282	-0.468562563	0.70020237
CDR20291_1528	1263	1658	1229	940	1270	1227	512	1094	866	937	538	-0.423239763	0.788477536
CDR20291_1529	2	5	1	1	0	0	1	0	0	1	1	NA	NA
CDR20291_1530	506	412	652	491	565	462	207	229	248	386	354	-0.461513049	0.798399285
CDR20291_1531	3999	6690	6609	7273	6189	6076	4196	5864	20317	7268	6496	0.863366795	0.589888636
CDR20291_1532	4576	5866	6713	5693	6090	8093	4396	5338	5650	7071	5607	0.303715159	0.64594133
CDR20291_1533	3418	4220	5259	3941	5101	5498	3157	4402	4234	4070	3250	0.235086782	0.815370637
CDR20291_1534	5402	8562	8525	8576	8132	9121	6859	7342	7898	11324	8677	0.567536662	0.275433519
CDR20291_1534;													
CDR20291_1535	38	9	12	99	93	50	19	22	24	45	165	0.40181854	0.96268905
CDR20291_1535	24687	76800	75587	115943	100159	80378	53775	84843	104177	97102	101511	1.757925897	8.94E-06
CDR20291_1536	5206	6354	6301	5994	7084	7327	3910	5959	6187	6045	6431	0.140810851	0.87463407
CDR20291_1537	3308	5176	5266	4421	4958	5256	4089	4667	4630	5597	5858	0.509242013	0.34680751
CDR20291_1538	7675	10781	10478	10281	10926	9797	5355	9932	8747	11114	10519	0.247294522	0.795850883
CDR20291_1538;													
CDR20291_1539	3	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1539	1921	2197	2588	2365	2239	2240	1126	1742	1834	2193	1955	-0.017557615	0.9964183
CDR20291_1540	768	745	706	597	568	618	276	560	354	532	536	-0.600195266	0.472082726
CDR20291_1541	1192	1287	1377	1349	1360	1408	538	1251	860	1268	1203	-0.119566526	0.952961967
CDR20291_1542	3272	7134	3675	7004	8060	7604	3810	5997	6765	5649	7073	0.836634482	0.167020226
CDR20291_1543	69	21	0	1	26	18	9	3	23	12	12	-2.574972442	0.475452056
CDR20291_1544	66	87	83	225	136	215	53	119	63	83	224	0.843793509	0.730243854
CDR20291_1545	2	0	0	3	0	1	0	0	2	0	1	NA	NA
CDR20291_1545;													
CDR20291_1546	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1546	129	52	70	21	42	10	22	23	92	55	46	-1.659641697	0.442395276

CDR20291_1547	49	106	42	59	58	56	31	42	21	140	3	0.063082996	0.9964183
CDR20291_1548	27	24	12	6	14	2	3	58	6	5	4	-1.101013401	0.883480371
CDR20291_1549	254	536	400	433	593	579	802	704	404	379	397	1.00011437	0.411720141
CDR20291_1550	1083	1793	1822	1687	1580	1836	993	1405	4819	1459	1043	0.675481199	0.750729351
CDR20291_1551	64	134	75	102	64	180	29	55	154	88	32	0.369417533	0.937393001
CDR20291_1552	10	0	5	1	1	12	2	0	3	2	0	NA	NA
CDR20291_1553	897	1792	1894	2147	2501	2296	1304	2618	2350	2350	1831	1.136839427	0.00649531
CDR20291_1554	1	4	0	0	0	0	0	3	0	0	4	NA	NA
CDR20291_1555	319	257	192	138	281	224	125	119	166	100	261	-0.883992572	0.474151117
CDR20291_1556	91	71	62	58	151	25	28	104	64	37	39	-0.617674232	0.87463407
CDR20291_1557	883	907	821	615	517	599	402	733	355	706	671	-0.581692214	0.607957826
CDR20291_1558	4	1	4	27	1	2	6	0	13	6	6	NA	NA
CDR20291_1559	849	481	645	564	552	1035	346	365	624	598	665	-0.646588318	0.497263986
CDR20291_1560	204	241	292	159	342	344	110	247	403	130	328	0.235053604	0.949260052
CDR20291_1561	948	1192	1083	1382	1502	1386	971	1009	754	963	1035	0.154996957	0.937393001
CDR20291_1562	22	19	48	12	3	5	0	11	18	5	6	-0.931527265	0.915712039
CDR20291_1563	61	40	68	36	38	42	48	85	85	133	28	-0.083852796	0.9964183
CDR20291_1564	316	404	347	471	476	526	334	1040	457	834	472	0.680597556	0.695730148
CDR20291_1565	21	25	9	23	3	0	33	19	2	0	12	-0.69914537	0.959240256
CDR20291_1566	157	1296	384	1169	786	1061	234	1098	596	1707	583	2.376438985	0.009133976
CDR20291_1567	112	128	57	127	89	39	71	85	117	141	134	-0.254575377	0.952961967
CDR20291_1568	269	317	445	395	445	585	317	509	597	290	253	0.533619115	0.729553852
CDR20291_1569	161	60	66	119	158	77	14	49	72	7	198	-1.097862928	0.788477536
CDR20291_1570	867	955	937	977	1005	1123	458	709	1118	1145	976	0.00645759	0.997751692
CDR20291_1571	8	7	25	1	1	0	1	4	6	4	1	NA	NA
CDR20291_1572	8294	12284	12298	11175	12734	13496	9388	11111	11817	13321	12055	0.439000201	0.268483007
CDR20291_1573	557	519	925	334	545	690	254	382	417	697	311	-0.259346419	0.932856277
CDR20291_1574	166	102	169	178	34	97	148	66	92	72	4	-0.8382883	0.865345468
CDR20291_1575	3	0	0	0	0	1	2	2	5	4	1	NA	NA
CDR20291_1576	0	1	0	0	0	0	3	0	3	0	0	NA	NA

CDR20291_1577	879	1071	1456	720	1324	1085	855	897	1095	1502	1263	0.269085836	0.883480371
CDR20291_1578	38	109	167	76	104	157	40	174	163	20	13	1.303667234	0.665951696
CDR20291_1578;													
CDR20291_1579	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1579	6353	6850	6258	6166	5736	7200	19057	5821	5350	5376	6151	-0.203550754	0.786416315
CDR20291_1580	217	16	22	15	38	29	37	42	31	16	37	-2.986710981	0.005630989
CDR20291_1581	166	26	8	8	22	27	16	11	23	30	7	-3.320697627	0.007262721
CDR20291_1582	81	14	48	58	12	13	24	18	23	14	29	-1.747081433	0.442395276
CDR20291_1583	1655	2802	2877	3270	2845	2449	1322	1859	2428	2294	3412	0.520552461	0.563217641
CDR20291_1584	6950	14989	13210	18215	15695	17277	11645	10992	12566	14309	22275	1.031474926	0.048291726
CDR20291_1585	3266	7646	6317	9784	8891	8683	5729	8006	7407	8740	13532	1.287839025	0.015302879
CDR20291_1586	16	8	2	2	7	1	2	0	13	16	1	NA	NA
CDR20291_1587	443	500	399	282	433	818	235	694	382	816	325	0.023020336	0.9964183
CDR20291_1588	23	134	22	33	51	49	9	50	11	20	66	0.804610112	0.881968138
CDR20291_1589	3927	4201	5399	4286	5790	5685	3184	4579	3828	4989	3644	0.112102202	0.940486417
CDR20291_1590	299	212	277	230	154	220	113	132	170	348	77	-0.741837569	0.677980547
CDR20291_1591	143	89	20	52	60	137	20	14	20	10	57	-1.75020628	0.488284409
CDR20291_1592	1740	2517	2574	2280	2702	2798	1538	2695	1928	2609	2327	0.360251085	0.542676056
CDR20291_1593	4079	4059	4101	3966	3873	4207	2082	2881	5259	3000	3563	-0.246037617	0.870326297
CDR20291_1594	3269	5166	11897	5767	6892	5961	8876	7638	6948	6366	4440	1.043667885	0.275685333
CDR20291_1595	31	2	10	0	0	0	0	4	1	1	14	NA	NA
CDR20291_1596	17	1	0	2	2	0	3	2	0	2	2	NA	NA
CDR20291_1597	250	0	29	24	1	5	2	34	5	4	9	-4.560129604	0.063330739
CDR20291_1598	52	1	0	2	1	1	1	12	2	2	30	-3.356487751	0.521601994
CDR20291_1599	305	267	76	302	219	114	72	222	140	231	302	-0.751560951	0.754360226
CDR20291_1600	11	10	3	3	7	36	1	4	2	8	16	-0.480509759	0.972520712
CDR20291_1601	71	275	389	259	293	385	152	298	63	264	513	1.914614359	0.074137382
CDR20291_1602	43	228	126	99	118	126	33	315	135	211	211	1.790634141	0.192252888
CDR20291_1603	48	42	14	46	33	61	4	48	12	7	40	-0.795392088	0.883480371
CDR20291_1604	72	92	202	151	138	50	37	121	16	111	82	0.354823364	0.950748991

CDR20291_1605	59	85	115	63	145	84	266	99	32	52	61	0.785203545	0.859598672
CDR20291_1606	563	761	614	422	877	475	318	442	721	1029	439	0.007899804	0.998270107
CDR20291_1607	6616	16009	13107	10050	14066	15911	15400	22317	14346	16757	9831	1.092200862	0.131731454
CDR20291_1608	2661	4968	6372	4529	3951	6719	6864	4715	5671	4797	3077	0.898548628	0.342307035
CDR20291_1609	172	210	279	155	224	80	112	331	123	147	163	-0.002839711	0.998580161
CDR20291_1610	788	1344	1743	861	1240	1477	974	1416	1915	1677	663	0.664533822	0.596597946
CDR20291_1611	552	1488	1652	835	1300	1395	829	1034	949	1094	401	0.881808839	0.403504819
CDR20291_1612	342	873	668	612	390	945	341	568	515	737	204	0.651953462	0.698949038
CDR20291_1613	146	436	421	294	176	302	283	226	324	311	85	0.883214839	0.607957826
CDR20291_1614	147	308	131	157	254	369	589	205	252	171	121	0.794209407	0.797685336
CDR20291_1615	34	25	3	23	29	74	3	24	53	22	5	-0.546180594	0.949341418
CDR20291_1616	53	69	105	114	247	185	38	114	37	165	156	1.077966192	0.628603112
CDR20291_1617	723	575	633	659	683	508	380	724	428	528	462	-0.469229054	0.628983437
CDR20291_1618	426	766	774	735	714	1007	618	693	839	645	662	0.715029964	0.12496329
CDR20291_1619	2803	1945	1372	1416	2224	2124	899	1048	1366	1587	1687	-0.956653062	0.060049276
CDR20291_1620	1677	2341	2296	1870	2086	2657	1381	1823	1668	1794	2747	0.199406918	0.88847222
CDR20291_1621	3	6	1	4	4	2	3	11	8	1	6	NA	NA
CDR20291_1622	17	37	58	12	15	14	9	7	8	0	4	-0.19523329	0.9964183
CDR20291_1623	55	193	179	90	136	139	98	141	65	255	260	1.406930598	0.273765346
CDR20291_1624	140	270	429	190	206	150	90	169	256	163	166	0.463673393	0.860437529
CDR20291_1625	387	355	348	498	473	443	283	346	401	267	327	-0.145315215	0.948164536
CDR20291_1626	359	829	815	759	626	1113	385	933	663	514	618	0.899700164	0.168173497
CDR20291_1627	1282	1632	2013	1593	2049	2233	1001	1319	1619	1592	1814	0.285266578	0.763293493
CDR20291_1628	417	302	432	348	445	638	804	389	383	426	323	0.075462509	0.9964183
CDR20291_1629	6670	8375	5561	7221	8840	7887	8611	6382	7054	7249	5061	0.047436182	0.9964183
CDR20291_1630	571	856	776	807	820	1044	417	629	1447	736	717	0.423663344	0.793591637
CDR20291_1630;													
CDR20291_1631	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_1631	652	735	665	577	962	936	319	1036	636	741	766	0.063588014	0.993280419
CDR20291_1632	4	5	2	2	0	3	1	0	0	12	0	NA	NA

CDR20291_1633	239	240	282	289	441	307	195	190	251	517	103	0.12906502	0.985458574
CDR20291_1634	294	185	325	354	293	418	127	305	312	240	414	-0.094632927	0.988535252
CDR20291_1635	492	621	457	498	524	976	352	448	482	562	572	0.043952299	0.9964183
CDR20291_1636	442	509	385	623	680	719	562	530	458	1301	667	0.460967821	0.830486307
CDR20291_1637	144	430	256	234	269	359	95	166	196	361	151	0.666689936	0.695730148
CDR20291_1638	382	634	265	314	230	513	193	429	515	495	825	0.108974274	0.989879733
CDR20291_1639	346	351	197	222	154	269	71	280	217	312	212	-0.719085636	0.644838091
CDR20291_1640	137	138	292	237	334	248	129	263	265	323	213	0.731824489	0.544646125
CDR20291_1641	40	61	54	135	95	20	4	38	22	13	33	0.099071595	0.9964183
CDR20291_1642	829	972	661	530	931	739	507	589	585	805	533	-0.377408422	0.754360226
CDR20291_1643	262	415	494	544	420	451	146	385	278	344	341	0.418833866	0.795850883
CDR20291_1644	143	332	183	157	333	256	90	48	213	128	103	0.224308509	0.964838183
CDR20291_1645	1216	2495	2664	2201	2250	2936	1249	1937	2440	2829	1984	0.807112091	0.053737524
CDR20291_1646	743	599	511	541	535	549	271	426	1171	854	953	-0.30600416	0.92222337
CDR20291_1647	1	3	0	2	2	0	0	1	1	0	2	NA	NA
CDR20291_1648	45	44	56	20	78	30	65	80	19	185	4	0.308220822	0.978728379
CDR20291_1649	11	4	1	2	3	1	0	2	1	1	1	NA	NA
CDR20291_1650	205	100	137	199	139	168	79	101	95	119	299	-0.611500583	0.798399285
CDR20291_1650;													
CDR20291_1651	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_1651	10	1	0	1	0	10	2	2	14	4	1	NA	NA
CDR20291_1652	61	88	90	25	40	35	12	58	38	31	5	-0.668564507	0.899822609
CDR20291_1653	577	725	578	645	600	705	715	534	643	700	403	0.043930795	0.9964183
CDR20291_1654	191	302	267	390	110	220	142	321	228	181	319	0.285356154	0.933474326
CDR20291_1655	30	13	39	10	56	44	7	33	49	19	11	-0.229070192	0.987243517
CDR20291_1656	60	58	124	49	95	80	65	109	150	45	103	0.472826291	0.892547682
CDR20291_1657	532	607	631	574	1050	731	270	385	549	566	617	0.043692777	0.9964183
CDR20291_1658	5786	7780	8287	8151	9014	8207	5383	8401	7345	8112	6583	0.320993634	0.560860498
CDR20291_1659	201	419	482	395	398	498	103	277	323	692	387	0.851591294	0.533606729
CDR20291_1660	280	676	558	405	430	309	201	800	258	354	288	0.505050743	0.831650269

CDR20291_1661	85	107	57	30	75	151	168	56	76	24	16	-0.190888311	0.989879733
CDR20291_1662	4	1	1	1	0	2	1	2	3	3	0	NA	NA
CDR20291_1663	162	341	330	355	181	262	244	246	138	312	301	0.658870759	0.652252836
CDR20291_1664	3122	4860	2767	5198	5449	3736	2318	4236	3809	4132	5067	0.312357093	0.838931141
CDR20291_1665	4	12	0	48	15	1	1	2	5	0	8	NA	NA
CDR20291_1666	413	378	453	327	583	680	295	449	387	711	264	0.021815872	0.9964183
CDR20291_1667	1487	2234	1905	2072	2446	2437	2204	2067	1433	2046	2192	0.424033713	0.683842118
CDR20291_1668	1246	826	711	773	1243	817	450	827	762	812	668	-0.767089383	0.173916016
CDR20291_1669	6	23	8	5	6	4	5	2	2	25	26	0.724236561	0.940486417
CDR20291_1670	139	290	310	113	155	153	156	269	117	182	341	0.50464699	0.860437529
CDR20291_1671	3	13	4	0	2	4	0	2	4	0	0	NA	NA
CDR20291_1672	1357	1706	2150	1805	1956	2255	1132	1830	2194	1666	2530	0.404098977	0.66387476
CDR20291_1673	263	181	147	151	68	170	175	142	124	136	33	-1.052072673	0.579118177
CDR20291_1674	8	1	5	0	0	0	2	1	0	8	0	NA	NA
CDR20291_1675	7	1	1	1	3	1	4	3	4	8	1	NA	NA
CDR20291_1676	5	7	2	1	0	0	2	4	3	2	0	NA	NA
CDR20291_1677	3	1	2	0	1	1	0	0	1	1	2	NA	NA
CDR20291_1678	10	0	1	2	5	1	2	1	5	2	1	NA	NA
CDR20291_1679	3255	4559	4071	3878	4284	4831	3249	4566	3866	3147	5726	0.286388035	0.823959751
CDR20291_1680	38	57	11	0	24	77	23	25	39	23	6	-0.546243488	0.951678216
CDR20291_1681	22	47	28	17	27	2	13	2	80	12	4	-0.012870705	0.998473145
CDR20291_1682	298	114	409	204	437	283	254	329	318	701	716	0.264022375	0.954404489
CDR20291_1683	0	1	0	1	0	0	2	0	0	0	0	NA	NA
CDR20291_1684	3	2	1	0	1	0	1	0	0	0	1	NA	NA
CDR20291_1685	519	701	476	519	630	589	447	442	577	808	1084	0.18857177	0.949832827
CDR20291_1686	111	93	61	119	116	75	85	76	111	56	147	-0.312975356	0.933466522
CDR20291_1687	277	380	348	242	279	239	66	190	220	346	261	-0.237512052	0.940486417
CDR20291_1688	2	7	0	4	2	5	0	1	0	0	1	NA	NA
CDR20291_1689	0	1	0	0	0	0	0	0	0	2	0	NA	NA
CDR20291_1690	3	1	0	1	0	2	3	0	0	1	0	NA	NA

CDR20291_1691	11	0	55	29	0	3	16	41	20	3	0	0.556109128	0.978951444
CDR20291_1692	529	1217	1268	867	923	1472	603	904	539	620	1004	0.714938885	0.447600652
CDR20291_1693	1832	2435	2519	4145	2896	2959	2785	2363	2531	3050	2901	0.566315057	0.514786953
CDR20291_1694	1130	1209	1194	1411	1488	1643	2050	1440	1244	1065	1645	0.303678748	0.894782826
CDR20291_1695	1709	2351	2489	2090	2146	2627	1839	1743	1704	1699	1513	0.147718022	0.933474326
CDR20291_1696	9147	12384	12181	10592	12539	13478	9339	12162	12153	12033	10008	0.263418404	0.70625024
CDR20291_1697	43	16	24	14	48	208	7	75	99	24	2	0.0838501	0.9964183
CDR20291_1698	1205	1611	1519	1564	1276	1562	1109	2073	1247	1542	1131	0.191746816	0.913649554
CDR20291_1699	3258	3977	3838	4034	3921	4099	4052	3466	3835	4173	2949	0.161929888	0.933335682
CDR20291_1700	393	886	574	550	577	731	768	567	786	569	722	0.711053976	0.474151117
CDR20291_1701	25	17	19	29	61	14	13	53	67	7	64	0.382181012	0.96268905
CDR20291_1702	25	6	19	29	1	23	3	11	32	32	4	-0.763498209	0.930649044
CDR20291_1703	633	661	647	513	780	953	409	551	731	462	806	-0.06552545	0.989879733
CDR20291_1704	143	250	123	162	131	180	73	136	100	228	96	-0.072351121	0.9964183
CDR20291_1705	1433	1880	2059	2404	2659	2347	1380	2040	1964	1561	1959	0.399011475	0.582968283
CDR20291_1706	256	234	215	157	207	211	56	161	107	190	54	-0.825660063	0.647460928
CDR20291_1707	73	41	92	33	148	109	25	12	113	14	79	-0.269937862	0.978728379
CDR20291_1708	73	141	48	240	92	139	80	37	40	65	4	0.159353729	0.995544519
CDR20291_1709	7	2	2	4	0	2	1	0	0	0	0	NA	NA
CDR20291_1710	3	3	0	2	5	1	3	2	3	3	2	NA	NA
CDR20291_1711	4	0	0	0	0	0	3	1	3	1	1	NA	NA
CDR20291_1712	1	1	1	0	0	1	1	0	1	0	0	NA	NA
CDR20291_1713	6	2	0	0	1	0	2	0	3	0	0	NA	NA
CDR20291_1714	300	276	242	386	265	376	150	173	361	167	176	-0.336578068	0.884369474
CDR20291_1715	61	11	56	77	28	35	70	29	41	21	18	-0.684340604	0.892547682
CDR20291_1716	62	121	186	157	106	118	43	70	95	83	149	0.743451834	0.695730148
CDR20291_1717	436	702	544	607	616	790	685	646	665	752	538	0.511848619	0.59172591
CDR20291_1718	17304	23879	22427	22997	26869	27040	24697	27239	27911	26574	26253	0.492495068	0.50184102
CDR20291_1719	235	247	142	186	269	281	126	148	142	316	174	-0.324853592	0.885651822
CDR20291_1720	102	215	163	267	179	272	89	197	166	159	94	0.697244654	0.620330248

CDR20291_1721	2949	4635	4940	4175	4874	4143	2748	3329	4817	4475	5532	0.470160647	0.522533808
CDR20291_1722	5061	7115	6966	6276	8285	7387	4470	6961	6302	7565	7805	0.352040696	0.562067737
CDR20291_1723	1490	2122	1418	1868	1734	2238	992	1417	1299	998	1424	-0.056531848	0.990618568
CDR20291_1724	606	513	481	316	655	800	270	606	865	780	855	-0.084630481	0.991089357
CDR20291_1725	157	216	155	84	215	130	133	111	115	79	98	-0.324011066	0.918198181
CDR20291_1726	93	63	88	64	116	114	42	82	99	90	91	-0.241392769	0.937393001
CDR20291_1727	194	151	156	167	98	189	85	97	86	78	119	-0.774205207	0.529739255
CDR20291_1728	26	18	17	6	3	20	15	25	24	1	44	-0.643386181	0.938005364
CDR20291_1729	22	2	14	5	4	4	0	6	4	0	10	NA	NA
CDR20291_1729;													
CDR20291_1730	0	0	0	0	0	1	0	2	0	0	0	NA	NA
CDR20291_1730	10	0	0	5	2	7	11	1	2	0	1	NA	NA
CDR20291_1731	53	5	6	11	9	7	10	14	6	2	11	-2.763766376	0.167867129
CDR20291_1732	33	15	20	16	15	65	10	47	16	38	141	0.119367343	0.9964183
CDR20291_1733	7	1	5	0	1	3	14	0	3	0	1	NA	NA
CDR20291_1734	243	329	380	500	275	155	73	121	312	152	165	-0.108280654	0.993685705
CDR20291_1735	613	1155	740	1019	1052	1066	808	1774	890	544	975	0.628496477	0.661063212
CDR20291_1736	2486	2755	2171	2848	2251	3029	867	1611	1968	1507	2359	-0.346554303	0.82771301
CDR20291_1737	144	286	90	326	195	268	54	148	155	295	180	0.336749887	0.933335682
CDR20291_1737;													
CDR20291_1738	90	102	62	64	111	112	49	1798	36	34	93	-0.397828754	0.912350424
CDR20291_1738	34	90	46	48	82	86	12	64	66	39	62	0.669225091	0.82771301
CDR20291_1739	12692	16028	15352	15355	17585	18272	29676	14716	16559	18959	14050	0.446533453	0.830486307
CDR20291_1739;													
CDR20291_1740	5	0	0	1	0	1	0	0	1	0	0	NA	NA
CDR20291_1739;													
CDR20291_1741	0	0	0	0	0	0	2	2	1	0	1	NA	NA
CDR20291_1739;													
CDR20291_1742	6	1	0	2	0	0	2	2	2	2	0	NA	NA

CDR20291_1739; CDR20291_1743	484	751	554	471	628	513	283	622	360	591	771	0.090858926	0.985458574
CDR20291_1739; CDR20291_1743; CDR20291_1744	3	2	1	2	0	4	4	1	3	2	2	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1745	1	1	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1746	1	0	0	0	1	0	0	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1747	0	0	1	0	1	2	1	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1748	438	74	67	39	19	127	37	85	84	200	191	-2.341679697	0.11848376
CDR20291_1739; CDR20291_1743; CDR20291_1749	162	252	167	79	134	187	226	373	169	155	112	0.142236371	0.987679719
CDR20291_1739; CDR20291_1743; CDR20291_1750	3	1	3	0	1	0	2	2	5	2	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1751	2	1	1	1	0	3	1	0	2	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1752	30	48	98	38	78	37	42	24	112	19	30	0.722574325	0.870110009

CDR20291_1739; CDR20291_1743; CDR20291_1753	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1754	18	6	1	23	25	411	0	20	0	12	0	-1.008922737	0.938572127
CDR20291_1739; CDR20291_1743; CDR20291_1755	0	1	0	1	0	1	0	0	2	1	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1756	0	1	0	0	0	3	0	1	0	1	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1757	2	0	0	0	0	0	0	0	1	1	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1758	4	2	2	3	0	0	1	0	6	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1759	28	12	7	12	21	65	3	9	0	29	8	-0.957345349	0.910666531
CDR20291_1739; CDR20291_1743; CDR20291_1760	0	1	0	1	0	1	0	0	0	2	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1761	56	10	27	19	27	17	0	27	4	3	14	-2.068446248	0.585356014
CDR20291_1739; CDR20291_1743; CDR20291_1762	3	0	0	0	0	1	2	0	3	0	0	NA	NA

CDR20291_1739; CDR20291_1743; CDR20291_1763	7	0	1	1	1	0	1	1	1	0	0	NA	NA
CDR20291_1739; CDR20291_1743; CDR20291_1764	48	47	34	44	60	43	21	33	47	67	115	-0.006532886	0.998473145
CDR20291_1739; CDR20291_1765	35	75	163	150	83	175	54	169	86	729	839	2.767399349	0.167638748
CDR20291_1739; CDR20291_1766	1	0	1	1	0	1	1	0	3	1	0	NA	NA
CDR20291_1739; CDR20291_1767	2	0	0	0	2	1	2	1	2	0	0	NA	NA
CDR20291_1739; CDR20291_1768	1	2	0	0	0	0	1	0	3	0	1	NA	NA
CDR20291_1739; CDR20291_1769	1	0	1	1	0	0	0	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1770	2	1	2	0	0	0	2	0	2	1	1	NA	NA
CDR20291_1739; CDR20291_1771	766	1365	1011	1096	1357	1297	636	787	908	1108	1313	0.395574299	0.665951696
CDR20291_1739; CDR20291_1772	2240	2223	2555	1918	2438	3003	1414	1876	2201	2149	2182	-0.135374888	0.913649554
CDR20291_1739; CDR20291_1773	0	0	0	1	0	1	0	0	1	0	1	NA	NA
CDR20291_1739; CDR20291_1774	3360	3817	3463	4022	4375	4917	2703	3769	6122	4091	5199	0.246248195	0.883480371
CDR20291_1739; CDR20291_1775	620	601	798	734	896	961	1124	478	666	815	752	0.283002643	0.913649554
CDR20291_1739; CDR20291_1776	0	3	0	0	3	0	1	1	0	0	0	NA	NA

CDR20291_1739; CDR20291_1777	93	160	231	188	129	212	162	246	133	164	137	0.840605928	0.45365332
CDR20291_1739; CDR20291_1778	1	0	0	1	0	0	1	0	0	1	0	NA	NA
CDR20291_1739; CDR20291_1779	899	919	998	730	1023	1302	969	999	1379	1124	918	0.12709809	0.961984872
CDR20291_1739; CDR20291_1780	8	6	3	4	10	1	8	1	3	6	1	NA	NA
CDR20291_1739; CDR20291_1781	0	0	1	3	0	0	0	0	0	1	0	NA	NA
CDR20291_1739; CDR20291_1782	0	0	0	0	0	1	0	0	1	0	0	NA	NA
CDR20291_1739; CDR20291_1783	2	0	2	0	1	0	0	0	0	0	0	NA	NA
CDR20291_1739; CDR20291_1784	6	1	2	0	2	3	2	0	3	0	0	NA	NA
CDR20291_1739; CDR20291_1785	2	0	0	0	1	0	3	1	1	0	0	NA	NA
CDR20291_1739; CDR20291_1786	3	0	0	0	1	2	3	0	3	0	1	NA	NA
CDR20291_1739; CDR20291_1787	2	0	3	0	1	1	3	0	0	1	0	NA	NA
CDR20291_1739; CDR20291_1788	752	762	650	1060	1048	1319	546	988	722	804	1439	0.209883682	0.933474326
CDR20291_1739; CDR20291_1789	55	43	47	39	30	5	0	7	41	0	17	-1.40855882	0.856027611
CDR20291_1739; CDR20291_1790	358	156	253	324	269	684	147	357	323	239	218	-0.396826391	0.883480371
CDR20291_1739; CDR20291_1791	10	0	1	3	5	4	1	1	5	1	4	NA	NA

CDR20291_1739; CDR20291_1792	315	447	347	391	480	558	219	246	332	485	489	0.227135716	0.913649554
CDR20291_1739; CDR20291_1793	7	3	15	4	5	56	5	10	4	4	8	0.512926227	0.964838183
CDR20291_1739; CDR20291_1794	1495	1458	1878	1354	1984	1669	912	1205	3182	1279	1358	0.024255742	0.9964183
CDR20291_1739; CDR20291_1795	523	204	383	187	181	315	493	322	185	288	388	-0.851720278	0.662791361
CDR20291_1739; CDR20291_1796	155	128	110	109	158	85	38	74	49	105	68	-0.875048832	0.578412407
CDR20291_1739; CDR20291_1797	9361	14710	14415	13716	15367	16376	10325	12716	12288	14783	13975	0.470869744	0.114835642
CDR20291_1739; CDR20291_1798	9296	13235	12927	12699	15172	15359	8477	12346	11800	13529	11098	0.343294261	0.374942802
CDR20291_1739; CDR20291_1799	3140	4281	3910	4501	4464	5426	4537	4785	5071	4463	4259	0.467814485	0.557223874
CDR20291_1739; CDR20291_1800	236	371	190	247	196	215	191	354	902	175	192	0.291458167	0.951893091
CDR20291_1739; CDR20291_1801	3	3	3	3	2	0	6	2	4	2	1	NA	NA
CDR20291_1739; CDR20291_1802	30	71	62	22	43	40	72	53	20	118	52	0.829258837	0.823612764
CDR20291_1739; CDR20291_1803	22	96	118	50	94	99	31	55	69	13	14	1.396568742	0.604958825
CDR20291_1739; CDR20291_1804	101	151	204	33	65	191	101	219	206	147	105	0.406443497	0.930649044
CDR20291_1739; CDR20291_1805	67	52	14	94	17	39	27	43	30	54	29	-0.841187834	0.816898734
CDR20291_1739; CDR20291_1806	1959	2433	3105	2841	2926	3282	1592	2345	2354	3053	3637	0.389444237	0.66387476

CDR20291_1739;														
CDR20291_1807	118	221	122	158	197	312	58	106	46	146	63	0.115168995	0.993611175	
CDR20291_1739;														
CDR20291_1808	4	10	8	6	0	7	7	0	8	2	28	NA	NA	
CDR20291_1739;														
CDR20291_1809	9494	11632	11322	11315	12224	11515	10677	10057	10608	11631	8991	0.132841498	0.936058228	
CDR20291_1810	3	0	0	1	0	0	0	1	0	0	0	NA	NA	
CDR20291_1811	6	8	32	42	11	41	19	28	36	25	4	1.940684155	0.529739255	
CDR20291_1812	429	504	605	345	518	879	223	311	475	364	358	-0.040071578	0.9964183	
CDR20291_1813	246	341	326	314	312	471	124	193	97	399	83	-0.032802756	0.9964183	
CDR20291_1814	435	435	670	405	795	553	286	613	445	357	504	0.111485234	0.977604609	
CDR20291_1815	197	245	289	132	199	248	72	250	127	148	365	-0.041366109	0.9964183	
CDR20291_1816	641	1132	991	1160	962	1312	284	890	605	591	1060	0.353097017	0.873404371	
CDR20291_1817	745	812	1033	708	738	1005	653	663	779	1385	423	0.042311608	0.9964183	
CDR20291_1818	226	281	171	177	256	301	381	202	329	363	94	0.129391016	0.988602948	
CDR20291_1819	53	85	13	27	50	115	40	8	56	150	39	0.016548227	0.998270107	
CDR20291_1820	26	28	16	2	35	5	24	6	0	0	0	-1.217003431	0.92222337	
CDR20291_1821	15	2	1	0	0	15	0	4	0	22	1	NA	NA	
CDR20291_1822	34	74	121	21	59	57	52	76	28	45	188	1.00798622	0.773621296	
CDR20291_1823	771	783	909	695	798	837	456	528	880	927	700	-0.141105618	0.939441971	
CDR20291_1824	3	2	1	0	2	0	2	0	1	3	0	NA	NA	
CDR20291_1825	600	571	797	487	884	1028	367	578	568	559	505	-0.040606199	0.9964183	
CDR20291_1825;														
CDR20291_1826	93	61	135	530	150	174	55	160	126	310	314	1.007775231	0.730496702	
CDR20291_1825;														
CDR20291_1827	41	171	118	134	4088	212	31	125	152	118	416	1.873366444	0.185072376	
CDR20291_1825;														
CDR20291_1828	74	53	89	309	100	172	26	32	78	139	39	0.337464225	0.960594534	
CDR20291_1825;														
CDR20291_1829	62	56	17	71	34	25	3	29	18	1	58	-1.124942557	0.842813097	

CDR20291_1825; CDR20291_1830	210	466	829	451	377	538	358	279	431	314	397	0.981464788	0.270228796
CDR20291_1825; CDR20291_1831	812	657	751	582	755	1034	601	825	927	1285	684	-0.093232506	0.982083905
CDR20291_1825; CDR20291_1832	4271	3925	4056	4794	3906	4533	2470	3364	3209	3958	3211	-0.295077927	0.664944984
CDR20291_1825; CDR20291_1833	71	6	135	9	36	71	27	25	39	65	39	-0.766173794	0.892547682
CDR20291_1825; CDR20291_1834	30	0	3	5	1	0	2	4	8	20	1	NA	NA
CDR20291_1825; CDR20291_1835	348	214	231	139	181	166	137	159	123	141	249	-1.089222216	0.162099198
CDR20291_1825; CDR20291_1836	2	1	1	1	1	2	0	0	0	0	0	NA	NA
CDR20291_1825; CDR20291_1837	33	31	47	41	67	48	13	31	31	32	59	0.154024764	0.987679719
CDR20291_1825; CDR20291_1838	1158	541	400	761	635	654	282	625	555	625	658	-1.119036276	0.046953192
CDR20291_1825; CDR20291_1839	0	0	0	1	0	1	0	0	1	0	1	NA	NA
CDR20291_1825; CDR20291_1840	320	290	99	187	208	247	110	217	175	215	207	-0.818967439	0.44450027
CDR20291_1825; CDR20291_1841	99	197	107	146	132	156	73	210	161	105	186	0.4734075	0.823959751
CDR20291_1825; CDR20291_1842	12	3	1	0	0	1	2	1	4	0	11	NA	NA
CDR20291_1825; CDR20291_1843	0	1	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_1825; CDR20291_1844	1	0	0	1	0	1	0	0	2	0	0	NA	NA

CDR20291_1825;														
CDR20291_1845	292	139	239	240	289	129	161	100	358	152	111	-0.687225054	0.76875229	
CDR20291_1825;														
CDR20291_1846	66	2	0	0	0	0	2	0	0	0	0	NA	NA	
CDR20291_1825;														
CDR20291_1847	1097	542	409	989	834	691	301	697	623	596	1057	-0.805895183	0.495346452	
CDR20291_1825;														
CDR20291_1848	130	147	125	106	174	275	56	184	137	65	132	-0.024414877	0.9964183	
CDR20291_1825;														
CDR20291_1849	132	160	430	228	382	342	106	137	229	252	292	0.828017815	0.583589085	
CDR20291_1825;														
CDR20291_1850	40	311	711	115	42	3188	252	1188	121	380	527	3.910867052	0.142971717	
CDR20291_1851	29	3	4	3	5	49	4	15	7	7	0	-1.76808415	0.790616958	
CDR20291_1852	1	2	0	0	0	0	3	0	0	0	0	NA	NA	
CDR20291_1853	469	420	337	354	490	449	313	299	264	367	404	-0.43795871	0.662805834	
CDR20291_1854	0	1	0	0	2	1	2	1	0	2	0	NA	NA	
CDR20291_1855	783	889	908	659	831	1075	462	1146	629	1561	725	0.075381621	0.991089357	
CDR20291_1856	774	971	951	697	1076	1079	688	957	1358	474	502	0.084072407	0.989879733	
CDR20291_1857	516	435	715	527	479	795	617	568	465	712	444	0.08175717	0.988602948	
CDR20291_1858	309	266	363	250	441	342	95	391	345	264	236	-0.16777452	0.96268905	
CDR20291_1859	7	0	1	0	1	2	3	0	4	3	1	NA	NA	
CDR20291_1860	3	4	1	2	0	0	0	2	1	0	0	NA	NA	
CDR20291_1861	1	0	1	1	0	1	3	0	3	2	0	NA	NA	
CDR20291_1862	1	1	0	0	1	2	4	0	1	0	0	NA	NA	
CDR20291_1863	77	79	107	162	92	45	41	66	38	82	117	0.004329669	0.998580161	
CDR20291_1864	4	2	1	0	3	0	22	1	2	0	0	NA	NA	
CDR20291_1865	145	171	144	80	71	184	55	96	169	199	62	-0.357330607	0.92222337	
CDR20291_1866	0	1	0	0	0	0	0	0	2	1	1	NA	NA	
CDR20291_1867	10	37	43	8	40	32	195	42	94	12	9	2.466107622	0.474151117	
CDR20291_1868	1	0	11	10	1	3	2	1	1	1	0	NA	NA	

CDR20291_1869	104	180	108	97	94	101	58	76	107	86	79	-0.18803626	0.952961967
CDR20291_1870	41	1	0	9	15	23	8	2	5	31	1	-2.229936307	0.70020237
CDR20291_1871	522	510	471	577	567	830	620	508	346	547	430	-0.028865354	0.9964183
CDR20291_1872	22	18	17	101	19	39	13	15	22	2	9	0.084788233	0.9964183
CDR20291_1873	2039	1938	1790	1825	2064	1764	1698	2202	3637	1878	1478	-0.080994851	0.989879733
CDR20291_1874	163	198	173	177	335	232	101	191	437	287	53	0.311998067	0.942304613
CDR20291_1875	191	149	211	184	247	273	136	190	149	170	272	-0.047399171	0.9964183
CDR20291_1876	17526	18467	14268	17895	19861	21378	17761	17525	20940	18081	21493	0.023550434	0.9964183
CDR20291_1877	303	334	312	415	352	378	157	321	330	377	222	-0.035261897	0.9964183
CDR20291_1878	0	3	0	4	0	2	2	1	2	2	0	NA	NA
CDR20291_1879	161	107	117	176	88	173	34	173	65	97	56	-0.699950928	0.786730769
CDR20291_1880	14	48	30	31	4	3	54	17	9	40	6	0.792175259	0.92222337
CDR20291_1881	238	506	434	323	1123	980	722	6511	343	341	438	1.18455747	0.36716881
CDR20291_1882	125	146	214	169	162	280	151	90	222	138	87	0.308716293	0.922087179
CDR20291_1883	53	89	112	22	116	92	29	28	35	31	23	-0.030019911	0.996617239
CDR20291_1884	36	22	24	38	13	39	24	34	26	8	1	-0.739517397	0.909787307
CDR20291_1885	74	71	163	96	109	137	48	135	1641	25	125	0.335300407	0.938005364
CDR20291_1886	108	107	55	122	101	94	60	69	50	83	56	-0.543723815	0.800678024
CDR20291_1887	185	280	155	267	288	420	84	261	239	297	255	0.330550526	0.89348113
CDR20291_1888	6	1	4	2	2	9	1	0	1	13	10	NA	NA
CDR20291_1889	3	2	3	2	0	3	2	3	2	2	1	NA	NA
CDR20291_1890	35	12	147	7	28	54	1	46	93	140	0	0.460066841	0.977604609
CDR20291_1891	82	146	75	77	139	111	95	105	62	93	34	0.099394057	0.994836491
CDR20291_1892	7259	10368	10181	10070	13027	12171	7791	9438	8701	11102	10671	0.415893501	0.374942802
CDR20291_1893	2095	3526	3075	2825	3183	3405	2163	2849	2010	2925	3431	0.391180125	0.599970089
CDR20291_1894	49	12	21	18	28	13	6	14	27	2	52	-1.438672368	0.715175594
CDR20291_1895	7571	7101	7314	6686	8261	9854	4917	8124	6905	7854	8789	-0.09783311	0.950748991
CDR20291_1896	12	1	0	2	4	2	1	0	0	2	2	NA	NA
CDR20291_1897	172	42	30	10	37	171	33	45	5	250	90	-1.398947835	0.758338407
CDR20291_1898	95	111	92	64	77	404	32	54	89	50	24	-0.128670725	0.9964183

CDR20291_1899	331	145	78	123	127	175	62	101	63	92	63	-1.811343106	0.011822021
CDR20291_1900	2774	1863	2137	1980	1798	2209	994	1620	1347	2064	1612	-0.766315077	0.06281583
CDR20291_1901	6007	5650	6574	5210	6784	7663	4583	4724	6608	4881	6615	-0.113260918	0.949832827
CDR20291_1901;													
CDR20291_1902	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1902	3062	3300	3616	2971	4398	4492	2382	3192	3207	3653	1672	-0.004057241	0.998270107
CDR20291_1903	7161	7934	9593	8688	9567	8434	12291	7803	9032	10661	6831	0.293535245	0.887164687
CDR20291_1903;													
CDR20291_1904	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1904	447	344	283	411	564	624	232	429	369	648	163	-0.253820026	0.937393001
CDR20291_1905	516	182	137	68	193	120	211	57	100	87	72	-2.120370896	0.059164138
CDR20291_1906	1751	2640	2418	2636	2762	3032	4106	2484	2564	2889	2699	0.645126799	0.588448247
CDR20291_1907	10	1	32	21	1	46	0	3	46	1	27	0.683597443	0.96268905
CDR20291_1908	709	734	694	701	753	928	423	604	851	666	685	-0.116206416	0.942304613
CDR20291_1909	1217	1638	1546	1687	2171	1879	1043	1342	1663	2618	1217	0.360113693	0.789410944
CDR20291_1910	351	238	255	305	178	129	316	80	438	196	233	-0.606618218	0.842928602
CDR20291_1911	3	1	2	1	0	2	3	2	2	2	2	NA	NA
CDR20291_1912	7	2	2	0	14	1	0	3	2	0	0	NA	NA
CDR20291_1913	2	1	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_1914	131	192	212	140	256	207	250	91	190	203	82	0.410624686	0.894067873
CDR20291_1915	100	57	27	44	79	12	84	96	36	46	14	-1.033052512	0.793454345
CDR20291_1916	186	205	265	120	166	245	122	84	105	124	138	-0.355941541	0.89348113
CDR20291_1917	21	62	13	16	63	60	15	14	21	8	5	0.233757356	0.989131703
CDR20291_1918	473	703	609	759	651	1242	1381	860	701	1406	554	0.864637703	0.58579779
CDR20291_1919	203	276	194	310	251	544	111	234	129	244	377	0.261375615	0.938005364
CDR20291_1920	11	5	16	29	6	49	8	1	29	0	0	0.222079966	0.9964183
CDR20291_1921	55	8	35	24	40	42	11	14	8	13	2	-1.631770292	0.632215541
CDR20291_1922	137	242	214	122	246	211	46	165	103	116	216	0.158498058	0.977609616
CDR20291_1923	14	33	4	0	7	0	3	1	15	21	0	NA	NA
CDR20291_1924	18	109	9	10	6	20	65	8	51	137	5	1.183984462	0.870110009

CDR20291_1925	8	0	45	13	6	28	37	10	2	10	108	1.67745816	0.821472806
CDR20291_1926	37	0	7	20	62	1	4	12	3	1	3	-1.853778382	0.817651077
CDR20291_1927	17	36	12	10	35	98	20	9	12	9	3	0.344874323	0.978728379
CDR20291_1928	532	535	265	539	447	345	827	260	325	299	207	-0.409281079	0.913649554
CDR20291_1929	1	0	0	0	0	0	0	2	0	0	0	NA	NA
CDR20291_1930	3	1	0	4	0	0	0	0	1	0	0	NA	NA
CDR20291_1931	178	246	163	316	195	444	100	146	190	221	192	0.178760073	0.961984872
CDR20291_1932	934	564	948	566	1047	959	386	838	615	437	588	-0.542167163	0.672950334
CDR20291_1933	1097	1180	912	1047	943	996	554	661	887	1035	1400	-0.292032851	0.860256514
CDR20291_1934	25	8	39	15	4	2	5	0	0	7	8	-1.623594176	0.850829752
CDR20291_1935	362	402	418	354	320	429	146	353	178	488	292	-0.221193057	0.936058228
CDR20291_1936	47	50	78	36	31	45	30	51	42	14	0	-0.421552255	0.96268905
CDR20291_1937	990	1267	1351	840	1082	1029	682	1592	943	1265	739	0.027420801	0.9964183
CDR20291_1938	33083	37772	36468	33896	38689	38845	19503	32718	28618	31028	33596	-0.106644066	0.930649044
CDR20291_1939	293	250	356	230	325	275	102	285	90	396	153	-0.376505515	0.903995811
CDR20291_1940	48	16	35	31	45	5	9	4	38	5	4	-1.437435749	0.770907852
CDR20291_1941	309	337	362	156	286	155	193	251	217	119	371	-0.418595905	0.883480371
CDR20291_1942	576	591	504	587	640	597	397	473	685	475	992	-0.043358409	0.9964183
CDR20291_1943	45	25	6	34	31	18	19	28	15	22	8	-1.212972038	0.69230322
CDR20291_1944	129	315	68	195	178	274	428	130	286	85	56	0.627093343	0.88847222
CDR20291_1945	1	1	3	1	0	2	1	0	0	4	0	NA	NA
CDR20291_1946	15	4	0	17	21	31	1	3	8	53	4	-0.243169917	0.9964183
CDR20291_1947	4	0	1	0	0	2	5	0	4	2	1	NA	NA
CDR20291_1948	149	164	364	208	199	172	167	176	160	257	112	0.320416572	0.913589862
CDR20291_1949	31	6	4	41	16	10	2	6	1	34	0	-1.510608539	0.847257444
CDR20291_1950	387	462	409	631	709	795	301	428	677	361	545	0.34642798	0.845842734
CDR20291_1951	6	1	1	5	0	0	1	0	2	0	0	NA	NA
CDR20291_1952	1957	1395	1496	1105	1257	1408	851	1279	1323	1371	1337	-0.706578944	0.055815375
CDR20291_1953	14	1	0	0	0	0	1	10	0	0	0	NA	NA
CDR20291_1954	183	561	425	457	424	527	960	435	444	315	362	1.40739321	0.217489179

CDR20291_1955	16	0	0	1	1	0	0	3	1	2	2	NA	NA
CDR20291_1956	544	756	538	792	622	757	286	621	520	501	706	0.050278537	0.995544519
CDR20291_1957	665	515	426	415	358	581	188	531	508	495	524	-0.660867491	0.481314751
CDR20291_1958	171	227	210	316	398	425	244	132	272	321	420	0.699428157	0.653450716
CDR20291_1959	2050	2534	2197	2654	2644	2700	1795	2428	2912	2972	2635	0.222658372	0.84166226
CDR20291_1960	677	1538	1574	1253	1747	1354	762	123	1404	1254	1575	0.78141804	0.75332961
CDR20291_1961	737	1405	1760	1837	1395	1676	1158	1635	1478	1764	1854	1.026994903	0.011148786
CDR20291_1962	403	942	872	789	903	2041	373	803	754	926	1434	1.153134046	0.192252888
CDR20291_1963	13289	23395	23430	21633	26076	25832	18299	20437	21694	21907	19196	0.648022601	0.033273579
CDR20291_1964	1742	5386	6220	5626	7132	5998	5987	4518	5974	4890	6022	1.655547381	4.44E-05
CDR20291_1965	1866	2186	2431	2979	2287	3016	1099	2309	1764	2248	2616	0.183156077	0.915687694
CDR20291_1966	11	1	1	9	3	2	2	0	4	2	1	NA	NA
CDR20291_1967	1370	2082	2814	1932	2098	2504	2430	1936	2377	1696	2515	0.640005442	0.462719317
CDR20291_1968	681	1018	1242	593	1295	981	582	1151	881	1001	967	0.410197812	0.75332961
CDR20291_1969	3758	5110	4736	4310	5190	5911	4721	4102	5850	5286	4252	0.316180876	0.773621296
CDR20291_1970	4164	4722	4574	4214	4419	5470	3951	4598	4700	4710	5328	0.081658158	0.964838183
CDR20291_1971	22	54	116	55	53	152	57	126	36	55	118	1.800597765	0.216315196
CDR20291_1972	1006	4564	4388	5130	4833	3915	3009	4975	3894	4806	6297	2.098786725	4.95E-08
CDR20291_1973	545	896	876	711	919	1114	371	689	429	571	513	0.24914039	0.903995811
CDR20291_1974	150	232	231	185	279	212	71	144	189	279	222	0.323882436	0.892547682
CDR20291_1975	112	135	128	95	187	157	19	157	100	140	64	-0.06568863	0.9964183
CDR20291_1976	5667	10620	11842	8875	6966	11416	11471	9150	9434	10789	11144	0.779630237	0.301236469
CDR20291_1977	5007	7003	11156	7053	5793	7735	9383	7722	9219	6241	5688	0.563811858	0.676254048
CDR20291_1978	3254	2819	3058	2955	3116	3323	1736	2921	2762	3027	3110	-0.276418463	0.664644486
CDR20291_1979	13361	14792	15625	15723	15912	17702	13123	14321	17243	15281	15605	0.132978183	0.918198181
CDR20291_1980	91	116	95	127	237	138	56	255	138	179	118	0.574092437	0.821472806
CDR20291_1981	127	131	161	109	110	376	25	19	174	106	68	-0.169565145	0.989879733
CDR20291_1982	157	263	87	262	234	168	195	113	157	157	157	0.113625093	0.988602948
CDR20291_1983	3939	5448	5760	5986	6091	7225	3977	5571	5504	5543	5937	0.436112112	0.218710077
CDR20291_1984	412	559	441	414	433	496	303	418	354	378	489	-0.042077228	0.995544519

CDR20291_1985	209	112	190	242	302	328	167	146	207	151	66	-0.235525336	0.952961967
CDR20291_1986	485	140	491	156	306	301	253	126	130	185	197	-1.172761947	0.415455207
CDR20291_1987	488	299	131	373	440	540	287	213	207	223	162	-0.867979036	0.583618295
CDR20291_1988	1	0	1	0	0	1	1	2	0	3	0	NA	NA
CDR20291_1989	123	42	137	234	152	3	36	40	210	125	275	-0.055786766	0.9964183
CDR20291_1989;													
CDR20291_1990	2	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_1990	353	402	299	259	313	495	96	216	359	229	543	-0.264200045	0.937393001
CDR20291_1991	451	548	469	418	606	661	202	371	762	293	487	-0.024444923	0.9964183
CDR20291_1992	231	169	343	192	163	376	101	244	211	130	161	-0.267803484	0.933474326
CDR20291_1993	15	35	12	7	32	28	30	35	6	5	18	0.406699656	0.96268905
CDR20291_1994	80	118	206	184	165	297	96	103	142	130	119	0.84002318	0.495346452
CDR20291_1995	20	29	3	6	8	78	6	1	2	8	2	-1.571727448	0.798399285
CDR20291_1996	230	181	133	341	239	198	180	112	141	143	141	-0.433455181	0.865105567
CDR20291_1997	7	8	14	1	12	24	5	18	1	19	3	0.447407235	0.976678975
CDR20291_1998	151	213	118	196	219	288	96	135	164	339	134	0.211282942	0.950748991
CDR20291_1999	3614	6263	6617	5701	6686	6535	4071	5281	5046	7007	5817	0.608441854	0.074206653
CDR20291_2000	654	499	617	595	560	579	2432	334	502	345	446	-0.538807091	0.529739255
CDR20291_2001	271	480	526	468	474	532	517	291	482	461	705	0.794467676	0.415455207
CDR20291_2002	27	75	34	173	51	20	53	24	10	152	92	1.261783988	0.757308657
CDR20291_2003	739	741	910	880	908	1325	598	978	1310	665	642	0.176882709	0.939441971
CDR20291_2004	22	11	0	4	18	12	1	8	7	31	5	-1.322445941	0.864566407
CDR20291_2005	1491	8043	6628	18961	13122	9240	17828	11107	25162	12145	24191	3.264987373	6.03E-05
CDR20291_2006	5220	6784	6172	6952	5627	7692	11145	8444	8408	7495	7360	0.508942139	0.76875229
CDR20291_2007	1059	1188	1462	1254	1218	1687	729	1203	1587	1996	1618	0.294089454	0.860188391
CDR20291_2008	1085	1457	1004	1159	1353	1666	840	1338	1462	1291	1370	0.15481321	0.92222337
CDR20291_2009	6513	8126	8130	8616	9352	9546	5050	6385	7201	8192	7837	0.162816357	0.860437529
CDR20291_2010	15144	21459	21500	23804	23074	24093	18013	21756	23302	25511	22153	0.483362876	0.285509425
CDR20291_2011	348	576	522	471	485	945	313	346	398	364	441	0.357867235	0.82771301
CDR20291_2012	36	24	19	143	34	34	20	21	28	21	13	-0.125124823	0.9964183

CDR20291_2013	543	678	744	756	898	843	300	905	632	834	1253	0.422504095	0.815370637
CDR20291_2014	2243	1547	1968	1999	2254	1217	1207	1848	1848	1694	1345	-0.49444295	0.620321403
CDR20291_2015	1480	2369	2217	1980	2512	2382	1547	2248	2325	1613	2179	0.43582757	0.484588797
CDR20291_2016	281	442	456	363	306	480	101	406	343	222	510	0.244287611	0.938005364
CDR20291_2017	4873	7448	7051	7018	7625	7782	4885	5540	6559	8439	6460	0.399349878	0.423061559
CDR20291_2018	653	881	1010	899	1146	976	860	629	542	814	867	0.315580754	0.843396956
CDR20291_2019	1	0	0	0	0	1	1	0	0	0	2 NA		NA
CDR20291_2020	8	2	0	1	2	4	0	0	2	0	2 NA		NA
CDR20291_2021	31	13	0	3	5	3	2	11	3	12	0 NA		NA
CDR20291_2022	1761	2225	2339	2247	2642	2795	1885	2529	3001	2665	1989	0.377244825	0.647460928
CDR20291_2023	185	416	219	498	549	673	541	381	363	479	1586	1.563218676	0.26541466
CDR20291_2024	1121	1387	1498	1627	1658	1255	850	1231	1470	1911	935	0.201226341	0.913649554
CDR20291_2025	1781	3487	3227	3278	6604	3808	1480	2145	2315	2223	2224	0.655662734	0.620330248
CDR20291_2026	1412	5126	2673	2012	2371	3253	4379	2006	1886	2051	1762	0.909549882	0.53511671
CDR20291_2027	3	11	2	2	5	12	26	0	14	4	3 NA		NA
CDR20291_2028	387	370	343	256	560	378	374	336	352	317	463	-0.121653877	0.976678975
CDR20291_2029	0	0	1	2	2	1	2	3	2	0	1 NA		NA
CDR20291_2030	2682	3060	2926	3705	3780	2861	4133	2546	2790	2723	6035	0.314400688	0.902095394
CDR20291_2031	470	733	1033	574	645	636	217	337	556	428	434	0.119045397	0.978951444
CDR20291_2032	737	453	366	332	397	377	176	367	313	240	390	-1.221634132	0.014407772
CDR20291_2033	17	31	12	10	4	5	1	2	7	1	0 NA		NA
CDR20291_2034	437	1087	1148	579	883	1136	591	502	594	532	549	0.683844645	0.539292037
CDR20291_2035	3	2	3	0	2	2	5	3	2	3	1 NA		NA
CDR20291_2036	583	1933	1462	3244	1120	1077	1288	1485	2064	1253	1237	1.391646349	0.100913375
CDR20291_2037	11	1	3	2	0	1	1	0	1	1	0 NA		NA
CDR20291_2038	891	273	133	337	253	348	181	241	350	161	208	-1.9390245	0.00256158
CDR20291_2039	278	482	267	346	402	435	124	313	241	316	204	0.037589316	0.9964183
CDR20291_2040	1350	1258	1627	1270	1805	1460	1390	1169	1304	2237	1308	0.055783557	0.995544519
CDR20291_2041	10	1	2	15	0	0	4	3	8	13	0 NA		NA
CDR20291_2042	2	1	2	0	0	1	1	3	6	1	0 NA		NA

CDR20291_2043	1	0	0	0	0	0	1	0	1	0	0	NA	NA
CDR20291_2044	1	0	0	0	0	0	1	1	2	1	2	NA	NA
CDR20291_2045	9	0	1	0	2	4	1	2	1	2	1	NA	NA
CDR20291_2046	2	1	0	0	1	1	0	0	2	0	1	NA	NA
CDR20291_2047	5	0	1	3	1	2	1	0	1	1	1	NA	NA
CDR20291_2048	5	4	1	1	0	1	2	3	2	2	1	NA	NA
CDR20291_2049	23	2	10	5	1	9	18	0	5	1	11	NA	NA
CDR20291_2050	1016	832	1089	832	1276	1523	1020	783	1742	882	1211	0.058559657	0.9964183
CDR20291_2051	7	3	0	1	1	3	0	0	2	0	0	NA	NA
CDR20291_2052	8573	10217	11227	10112	11183	12912	8760	10755	11655	10915	8065	0.214175838	0.842813097
CDR20291_2053	1713	5444	5554	3634	3905	4364	3459	7816	4596	4802	8249	1.519223796	0.022618998
CDR20291_2054	1281	105	133	124	129	596	49	40	87	60	122	-3.833601591	3.99E-10
CDR20291_2055	13153	13790	13694	13852	14232	16130	11426	14121	14229	16450	14181	0.024993699	0.9964183
CDR20291_2056	40	49	30	100	50	92	19	0	53	150	2	0.301638964	0.988535252
CDR20291_2057	155	193	237	225	230	177	144	104	185	180	255	0.223772736	0.936058228
CDR20291_2058	258	321	364	249	223	530	245	301	477	235	868	0.478733563	0.873991116
CDR20291_2059	1486	4630	4728	5517	5765	4814	3294	9514	6788	8833	4654	1.891862905	0.001974762
CDR20291_2060	2772	8826	7194	9992	9330	11546	9091	12687	15590	14457	10779	1.909757403	0.000306332
CDR20291_2061	1923	6354	5057	6967	6634	8143	10923	9351	8540	10294	12243	2.097661487	0.002256577
CDR20291_2062	14878	20341	22841	24260	23475	23801	16463	18146	22908	29811	22295	0.501159957	0.402367886
CDR20291_2063	4607	5490	4887	7223	6886	7675	4017	5131	7542	9000	6901	0.393235393	0.737388095
CDR20291_2064	601	499	921	381	662	823	1674	399	420	582	487	0.196741575	0.978728379
CDR20291_2065	167	258	180	212	255	206	120	284	310	250	87	0.271352941	0.933474326
CDR20291_2066	163	171	436	211	175	271	119	177	144	239	206	0.285517497	0.92222337
CDR20291_2067	517	616	668	660	791	659	322	687	505	521	960	0.201474866	0.933335682
CDR20291_2068	2068	3753	2815	2550	2417	3053	6299	5120	3290	3474	3406	0.794321054	0.646940429
CDR20291_2069	2071	2438	2047	2340	2706	2825	1175	2194	2510	2342	3043	0.08207929	0.977604609
CDR20291_2070	23	65	53	115	34	10	58	96	74	10	61	1.278813061	0.729087531
CDR20291_2071	1954	2101	2258	2014	2367	3635	1149	2416	1803	1921	3035	0.100873637	0.976678975
CDR20291_2072	55	75	35	66	98	87	47	83	39	28	94	0.146003246	0.987679719

CDR20291_2073	1478	1546	1979	1734	1722	1395	835	1283	1739	1874	1240	-0.050594175	0.993685705
CDR20291_2074	883	425	496	476	276	330	115	222	183	356	338	-1.583965191	0.043161382
CDR20291_2075	209	91	51	50	43	106	11	63	56	47	47	-2.032966497	0.062746235
CDR20291_2076	365	444	416	475	513	423	296	392	383	329	692	0.166322285	0.949260052
CDR20291_2077	125	208	116	176	149	152	70	67	51	173	118	-0.090220453	0.995544519
CDR20291_2078	282	278	304	150	344	238	190	424	252	506	145	-0.084751569	0.995544519
CDR20291_2079	412	217	262	244	228	344	91	554	116	192	50	-0.963487041	0.695730148
CDR20291_2080	50	76	88	53	105	109	23	15	37	43	37	0.070454838	0.9964183
CDR20291_2081	44	101	12	67	86	120	52	35	63	93	17	0.434435611	0.938005364
CDR20291_2082	234	382	355	399	261	600	175	271	422	252	1021	0.718554856	0.762543956
CDR20291_2083	105	69	190	128	170	94	42	21	54	82	51	-0.357995584	0.94438814
CDR20291_2084	2	0	14	2	5	1	3	3	6	5	0	NA	NA
CDR20291_2085	819	986	833	940	1540	669	614	1012	847	890	592	0.026326385	0.9964183
CDR20291_2086	9897	12603	10705	12263	15372	15070	24008	12355	12940	12739	13339	0.486624234	0.811792943
CDR20291_2087	1012	1094	1326	1487	1642	1295	1247	1384	1096	1011	1263	0.267232711	0.866156912
CDR20291_2088	23	4	14	19	22	4	1	14	14	1	8	-1.308167767	0.833234896
CDR20291_2089	27	3	13	11	31	9	16	6	17	45	61	-0.406673056	0.969033446
CDR20291_2090	23	11	0	0	8	5	2	1	5	8	12	NA	NA
CDR20291_2091	34	47	118	29	21	37	16	46	43	104	233	0.942595095	0.849557514
CDR20291_2092	276	216	281	309	238	242	100	141	200	180	167	-0.531818314	0.698649848
CDR20291_2093	1423	2485	2907	2643	1886	2331	4810	1674	2162	1699	2021	0.776773698	0.664644486
CDR20291_2094	1913	2001	1654	1658	1886	2271	1096	1873	1260	2166	1245	-0.269902911	0.830380266
CDR20291_2095	767	810	712	879	723	1215	359	506	477	519	337	-0.36643924	0.861770552
CDR20291_2096	321	470	445	392	275	472	174	348	277	250	297	-0.036613661	0.9964183
CDR20291_2097	575	715	771	458	596	607	448	610	505	621	516	-0.069684325	0.985458574
CDR20291_2098	5134	8592	8231	8524	9061	10273	6538	6838	20696	8746	9621	0.835638689	0.461057329
CDR20291_2099	6781	9680	11082	9613	11011	9804	8136	10249	9175	10454	8988	0.448747019	0.37463105
CDR20291_2100	72	35	27	29	44	74	29	55	40	2	19	-1.132075724	0.763293493
CDR20291_2101	273	509	580	141	400	495	421	332	343	585	357	0.526649827	0.815370637
CDR20291_2102	153	31	2	88	8	21	11	1	13	4	14	-3.109369876	0.290251274

CDR20291_2103	21	5	2	14	16	11	0	1	0	22	4	NA	NA
CDR20291_2104	4	4	0	0	0	0	0	2	6	2	0	NA	NA
CDR20291_2105	102	45	25	47	37	124	218	26	14	74	12	-0.660461372	0.933335682
CDR20291_2106	0	0	0	2	0	0	0	0	0	0	0	NA	NA
CDR20291_2107	36	41	61	43	55	49	38	65	43	27	49	0.30147147	0.937393001
CDR20291_2108	5	5	6	1	3	2	2	1	9	6	0	NA	NA
CDR20291_2109	1740	2181	2425	2491	2212	2902	1365	2614	1610	1906	2501	0.247684669	0.846506197
CDR20291_2110	2043	2207	2209	2547	2596	4160	4028	2568	2169	2924	2599	0.402687196	0.842813097
CDR20291_2111	133	167	212	107	159	159	19	94	77	99	158	-0.235438546	0.96268905
CDR20291_2112	5730	1084	423	2172	2852	1626	775	1278	1567	1490	1695	-2.045790496	0.015998085
CDR20291_2113	87	74	116	169	145	180	49	45	37	62	78	-0.007828199	0.998270107
CDR20291_2114	849	1106	801	866	1006	804	434	625	766	994	936	-0.135691194	0.949832827
CDR20291_2115	669	792	810	1186	944	952	697	710	555	887	850	0.23367814	0.88847222
CDR20291_2116	11792	15219	14445	14485	15014	16056	16462	13918	14216	14751	14028	0.265833702	0.842928602
CDR20291_2117	4640	5494	6503	4592	5113	5984	3332	5556	5084	5443	5010	0.067401604	0.972784563
CDR20291_2118	15348	19598	18220	16689	18425	20692	12007	15475	19319	18462	17403	0.101294641	0.933335682
CDR20291_2119	187	289	225	311	239	560	445	203	130	159	215	0.506207561	0.873772862
CDR20291_2120	300	577	440	613	636	639	262	378	406	562	367	0.582079403	0.491116731
CDR20291_2121	47	16	7	3	15	20	11	6	13	24	11	-1.998217025	0.39957452
CDR20291_2122	453	511	411	845	765	732	210	396	620	381	256	0.046904002	0.9964183
CDR20291_2123	264	12	22	0	19	15	25	1	10	10	16	-4.381492926	0.018246131
CDR20291_2124	1	1	0	1	1	0	3	3	2	0	2	NA	NA
CDR20291_2125	1604	2826	2332	1934	2808	3991	1066	2085	1779	4234	2044	0.516039972	0.729087531
CDR20291_2126	3806	4883	5228	4660	4439	4753	3559	4206	4324	4960	4445	0.16659574	0.870110009
CDR20291_2127	10884	14380	12797	14012	12957	14003	11666	12768	13062	12774	12851	0.188591444	0.864878754
CDR20291_2128	452	558	394	427	501	506	322	322	354	478	318	-0.215478821	0.891543076
CDR20291_2129	121	467	441	598	285	530	244	3802	620	330	55	1.596959424	0.235015491
CDR20291_2130	64	95	27	71	58	43	27	43	149	103	19	-0.111588753	0.9964183
CDR20291_2131	9	1	0	1	2	2	0	1	0	1	2	NA	NA
CDR20291_2132	255	74	37	91	96	111	35	63	107	59	107	-1.820013619	0.049354566

CDR20291_2133	1016	1210	1291	1128	1190	1488	820	1193	653	1213	1406	0.090138996	0.977604609
CDR20291_2134	192	1	4	17	53	3	9	29	16	34	44	-3.270061677	0.175434915
CDR20291_2135	795	774	562	1788	824	786	790	1074	827	785	554	0.064096838	0.9964183
CDR20291_2136	25	24	26	12	44	18	124	49	46	19	2	0.625998111	0.939441971
CDR20291_2137	98	183	145	126	236	162	78	110	105	514	528	1.060311282	0.694246275
CDR20291_2138	4	8	3	2	2	4	4	0	2	1	0	NA	NA
CDR20291_2139	2	1	0	3	1	2	4	1	5	1	1	NA	NA
CDR20291_2140	328	57	21	38	93	82	33	99	88	233	132	-1.997632344	0.23446921
CDR20291_2141	472	494	431	466	444	516	70	610	238	336	249	-0.433370173	0.883480371
CDR20291_2142	1562	1667	1872	1693	1605	1544	812	1004	1202	1326	2233	-0.169308438	0.940486417
CDR20291_2143	557	725	438	504	638	463	201	399	448	371	528	-0.359764508	0.830538166
CDR20291_2144	7	2	0	2	4	1	4	0	3	0	1	NA	NA
CDR20291_2145	159	160	339	329	65	306	631	349	242	203	40	0.760074148	0.870110009
CDR20291_2146	4	5	2	1	0	3	7	1	1	1	2	NA	NA
CDR20291_2147	14	4	4	12	6	7	8	4	7	4	3	NA	NA
CDR20291_2148	228	202	209	110	206	173	205	166	176	196	126	-0.435172487	0.82771301
CDR20291_2149	6	17	38	1	8	211	0	6	1	2	0	0.212411885	0.9964183
CDR20291_2150	1321	1725	1482	1684	1526	1852	1164	1434	1085	1860	1404	0.106834489	0.950748991
CDR20291_2151	655	756	882	451	646	951	419	741	753	826	539	-0.018840029	0.9964183
CDR20291_2152	3506	3258	2739	2704	3207	3213	3054	2500	2881	2638	2636	-0.356869937	0.729553852
CDR20291_2153	23943	28181	26822	29436	28878	31003	26094	27219	26907	27528	29793	0.156589717	0.910666531
CDR20291_2154	6	0	7	0	0	0	1	1	3	0	1	NA	NA
CDR20291_2155	8177	13671	12392	12746	13377	17102	8271	11144	12803	13477	13464	0.547303835	0.097529059
CDR20291_2156	1	1	0	1	0	2	2	3	0	3	0	NA	NA
CDR20291_2157	6573	5668	4208	7489	6799	8069	6691	8132	9220	7235	8909	0.07217562	0.990274717
CDR20291_2158	1122	822	477	1066	926	1084	1455	1160	1149	926	1252	-0.156895731	0.974556307
CDR20291_2159	2812	4527	4456	3808	4575	4483	4361	3028	3235	5101	3718	0.477048615	0.620903595
CDR20291_2160	11454	10405	10513	9450	10870	13647	9959	8005	9024	8677	9620	-0.278180326	0.811792943
CDR20291_2161	1097	1350	1533	1087	1642	1328	625	1111	1109	1059	952	-0.011002788	0.9964183
CDR20291_2162	763	4293	3399	13874	7788	5595	8971	15489	9063	12034	5337	3.44496909	3.21E-05

CDR20291_2163	356	283	386	323	496	330	190	187	382	514	242	-0.203613935	0.944864733
CDR20291_2164	369	232	194	166	226	244	129	208	125	157	151	-1.117278991	0.046143984
CDR20291_2165	731	625	453	510	843	638	1367	440	603	802	423	-0.135521881	0.987679719
CDR20291_2166	633	857	1073	614	983	885	312	519	606	458	480	-0.031106779	0.9964183
CDR20291_2167	60	122	83	253	160	94	59	160	117	73	36	0.838439933	0.757308657
CDR20291_2168	254	1007	699	1001	963	1130	453	576	893	1215	680	1.645793931	0.000800608
CDR20291_2169	105	1599	1399	972	1532	2317	1253	4417	1020	2378	3253	4.18344192	9.23E-08
CDR20291_2170	218	700	818	779	1009	877	329	634	483	485	1208	1.632482357	0.015842389
CDR20291_2171	300	570	371	218	274	251	112	140	108	258	169	-0.418643375	0.894679432
CDR20291_2172	4089	5289	5391	4778	4865	5439	2667	3908	3921	3828	3739	-0.011565923	0.9964183
CDR20291_2173	1638	1823	1700	1576	1730	1967	881	1066	1900	1141	1326	-0.229150026	0.883480371
CDR20291_2174	439	769	471	607	535	503	335	624	569	2074	773	0.630523752	0.815370637
CDR20291_2175	2	1	0	4	0	1	2	0	1	20	2	NA	NA
CDR20291_2176	7	2	10	8	0	0	0	2	0	2	1	NA	NA
CDR20291_2177	93	102	134	51	113	94	86	151	60	114	139	0.087811952	0.995544519
CDR20291_2178	26	21	1	8	1	11	5	3	2	0	4	NA	NA
CDR20291_2179	1	1	2	1	1	0	0	0	0	1	0	NA	NA
CDR20291_2180	4	1	0	2	3	3	3	3	1	1	2	NA	NA
CDR20291_2181	560	887	926	625	892	1553	590	708	1750	929	1135	0.733667508	0.557223874
CDR20291_2182	14	23	16	22	23	6	4	19	2	3	14	-0.210540691	0.993685705
CDR20291_2183	438	723	335	477	395	540	358	651	366	266	516	-0.01178857	0.997049181
CDR20291_2184	41	34	35	54	37	35	12	35	20	21	52	-0.405915342	0.933335682
CDR20291_2185	108	14	6	27	29	0	8	9	10	11	31	-2.981180212	0.219687144
CDR20291_2186	3	0	0	0	1	0	0	1	3	0	1	NA	NA
CDR20291_2187	5143	5832	5249	4892	5351	6233	2908	4822	4484	5153	5042	-0.150357503	0.873772862
CDR20291_2188	877	954	1400	1077	744	939	391	876	524	1031	359	-0.203292197	0.950748991
CDR20291_2189	596	358	497	427	653	572	702	326	366	630	403	-0.327555236	0.903995811
CDR20291_2190	41	27	41	22	22	9	3	0	52	1	7	-1.28625673	0.872854625
CDR20291_2191	244	185	282	126	204	266	36	138	127	98	140	-0.757784505	0.713367635
CDR20291_2192	274	442	159	238	532	397	180	253	250	217	233	-0.038508224	0.9964183

CDR20291_2193	0	0	0	2	0	0	0	0	0	0	0	0 NA	NA
CDR20291_2194	318	130	138	383	181	333	204	233	194	232	305	-0.527416931	0.816898734
CDR20291_2195	495	141	101	74	134	113	171	94	147	146	93	-2.077249885	0.008503749
CDR20291_2196	353	588	564	603	457	666	791	420	402	496	513	0.586479686	0.698898616
CDR20291_2197	2	4	0	0	0	0	0	3	0	0	0 NA	NA	
CDR20291_2199	27	24	15	0	30	9	6	15	17	9	3	-1.200246417	0.856027611
CDR20291_2200	176	102	186	70	102	96	51	91	481	50	99	-1.007520292	0.470603141
CDR20291_2201	154	107	53	90	66	178	67	122	109	106	78	-0.761672651	0.653821216
CDR20291_2202	4	6	21	9	1	1	0	0	1	1	0 NA	NA	
CDR20291_2202;													
CDR20291_2203	0	0	0	0	0	0	0	0	2	0	0 NA	NA	
CDR20291_2203	33	26	47	17	11	18	34	67	40	54	35	0.035112902	0.9964183
CDR20291_2204	11	5	2	1	11	23	6	1	2	1	1 NA	NA	
CDR20291_2205	12	3	2	5	11	1	0	1	18	3	0 NA	NA	
CDR20291_2206	1831	4263	4964	5475	6430	4724	2436	4722	4610	7604	5195	1.355530949	0.006554507
CDR20291_2207	1849	1736	1914	2571	2139	2348	1476	2765	2099	1522	2228	0.081102018	0.980729698
CDR20291_2208	1851	1973	1765	2478	2142	2350	1313	2074	1873	1737	2447	0.025537593	0.9964183
CDR20291_2209	2136	1642	1349	1933	1759	2493	1322	1620	1681	1789	1884	-0.385665794	0.638839083
CDR20291_2210	1203	567	404	619	577	557	292	469	443	356	472	-1.444979203	0.000302135
CDR20291_2211	486	2	1	2	3	3	4	1	1	2	0	-8.079350667	4.94E-14
CDR20291_2212	285	1	1	2	1	0	2	0	4	2	0	-7.835007314	3.10E-07
CDR20291_2213	6	2	0	0	1	4	0	0	4	2	0 NA	NA	
CDR20291_2214	2045	41943	16502	10717	27866	30281	16156	20813	14244	11341	20661	3.251195522	1.58E-07
CDR20291_2215	46	1598	433	184	2666	581	82	504	244	320	376	3.742391664	0.066978221
CDR20291_2216	222	93	9	17	108	24	115	50	54	70	23	-1.990566583	0.421417928
CDR20291_2217	2415	57770	16734	17488	36568	49005	69507	46132	19560	18396	37060	3.905584324	8.12E-06
CDR20291_2218	4851	7965	5064	5819	9464	9345	13001	8337	8968	6123	8202	0.728137916	0.625090009
CDR20291_2219	6571	15504	14976	15935	18301	19766	12146	15893	19378	17464	19045	1.266954965	6.03E-05
CDR20291_2220	14	22	7	22	24	7	7	3	37	11	20	0.095603351	0.9964183
CDR20291_2221	330	175	99	106	177	309	267	151	359	117	219	-0.788195601	0.749402531

CDR20291_2222	296	376	240	268	286	300	133	469	313	443	165	-0.090505092	0.990274717
CDR20291_2223	38	8	79	11	37	4	4	9	15	5	2	-1.271793067	0.856027611
CDR20291_2224	97	61	110	128	62	151	90	83	40	46	18	-0.392563918	0.937393001
CDR20291_2225	4696	5737	6372	4903	6743	7109	5997	5772	5574	6647	5601	0.286437626	0.806019044
CDR20291_2226	4000	38978	18214	11959	24749	26566	15207	20654	14965	12580	22359	2.258360325	8.22E-05
CDR20291_2227	35	29	42	9	29	27	5	86	32	47	14	-0.237797479	0.987243517
CDR20291_2228	136	56	25	40	62	49	53	38	49	22	31	-1.74962325	0.144863615
CDR20291_2229	1	0	0	2	1	2	0	1	0	0	0	NA	NA
CDR20291_2230	145	182	157	127	70	234	46	114	64	140	103	-0.370220495	0.913649554
CDR20291_2231	84	134	86	162	235	116	94	157	128	257	49	0.656656995	0.811024138
CDR20291_2232	862	2439	2780	4280	3845	3320	1560	3077	3260	4708	3968	1.84356163	0.000273748
CDR20291_2233	254	275	318	164	183	163	184	184	165	132	167	-0.475720391	0.806019044
CDR20291_2234	19	19	1	15	2	14	23	2	13	17	25	-0.558046006	0.954404489
CDR20291_2235	15	55	54	71	80	56	92	44	16	32	65	1.866945575	0.28762974
CDR20291_2236	14	12	12	1	2	11	43	0	8	1	41	-0.012745679	0.998580161
CDR20291_2237	7	6	1	0	0	1	1	0	1	1	4	NA	NA
CDR20291_2238	6	1	0	4	0	1	4	3	3	1	0	NA	NA
CDR20291_2239	7	0	0	0	1	0	1	0	1	0	1	NA	NA
CDR20291_2240	0	3	0	3	3	0	1	0	0	0	4	NA	NA
CDR20291_2241	6	1	3	4	2	0	1	0	3	1	3	NA	NA
CDR20291_2242	6	0	0	0	0	1	1	1	3	0	0	NA	NA
CDR20291_2243	6	1	2	2	1	3	5	1	0	0	3	NA	NA
CDR20291_2244	1	1	0	2	0	0	1	0	0	1	0	NA	NA
CDR20291_2245	322	246	169	569	177	429	308	130	385	214	113	-0.312525113	0.941972291
CDR20291_2246	145	121	147	111	112	209	225	133	80	74	23	-0.276828517	0.96268905
CDR20291_2247	13	52	18	20	3	37	12	3	15	2	9	0.249176402	0.990618568
CDR20291_2248	39	24	79	27	18	48	55	17	28	13	9	-0.347882663	0.964838183
CDR20291_2248;													
CDR20291_2249	0	0	0	0	0	0	0	0	0	2	0	NA	NA
CDR20291_2249	49	75	36	50	39	51	17	18	31	149	82	0.044873362	0.9964183

CDR20291_2250	207	383	257	172	300	242	197	102	93	288	71	-0.085196447	0.9964183
CDR20291_2251	22	16	19	2	52	24	4	47	4	2	1	-0.512529862	0.969033446
CDR20291_2252	239	444	347	288	355	257	277	293	349	351	528	0.46668774	0.76875229
CDR20291_2253	164	129	295	169	255	179	74	726	262	140	114	0.422853331	0.933474326
CDR20291_2254	129	330	223	241	229	184	73	66	104	111	59	0.182512155	0.978951444
CDR20291_2255	9	26	2	22	6	4	5	7	0	0	0	NA	NA
CDR20291_2256	68	219	154	143	151	135	69	89	58	60	36	0.580073045	0.865105567
CDR20291_2257	435	373	524	541	544	882	198	269	423	295	443	-0.09100181	0.989879733
CDR20291_2257;													
CDR20291_2258	0	0	0	0	0	1	0	0	0	0	0	NA	NA
CDR20291_2258	346	261	167	226	65	209	103	78	112	77	213	-1.304420296	0.354886255
CDR20291_2259	4	2	0	2	0	2	0	1	64	1	2	NA	NA
CDR20291_2260	257	447	195	336	366	312	135	611	380	627	167	0.370391176	0.915679359
CDR20291_2261	133	64	218	135	300	62	169	98	365	116	143	0.272892897	0.96268905
CDR20291_2262	19	28	18	22	13	0	0	33	85	14	6	0.115658694	0.9964183
CDR20291_2263	289	401	557	489	593	626	292	377	509	355	511	0.597773309	0.445775074
CDR20291_2264	666	1282	1303	1203	1484	2113	646	1054	971	1564	956	0.790193959	0.217489179
CDR20291_2265	3102	7338	6191	7987	7066	8493	4014	6256	6310	7697	6846	1.02987833	0.000407788
CDR20291_2266	148	29	55	50	69	51	11	16	6	41	79	-1.99787628	0.319084016
CDR20291_2267	25	52	16	3	23	25	18	5	11	8	20	-0.577682723	0.938005364
CDR20291_2268	140	277	275	267	191	133	47	101	205	213	93	0.231490132	0.961984872
CDR20291_2269	37	92	113	47	100	89	18	144	24	5	43	0.728606632	0.894067873
CDR20291_2270	3562	5324	5279	4378	4867	5710	2550	3972	3658	4322	4030	0.193737693	0.842813097
CDR20291_2271	2269	3238	3311	2162	3052	2900	1035	1837	1597	1898	1735	-0.127502757	0.963464928
CDR20291_2272	3279	3355	3801	3196	2983	3808	2451	1973	2159	2841	2329	-0.282626905	0.830380266
CDR20291_2273	19	25	3	1	5	6	3	16	9	6	4	NA	NA
CDR20291_2274	148	186	33	102	107	45	76	59	182	20	57	-0.850654318	0.823959751
CDR20291_2275	790	1486	1565	1359	1352	1485	1522	1368	1080	1108	1612	0.749723568	0.28762974
CDR20291_2276	1086	2934	3299	3212	3205	3195	1645	3363	2691	2975	3444	1.361792675	3.70E-05
CDR20291_2277	3455	16883	13380	19448	15467	20176	17255	15061	18811	22694	19587	2.298321947	1.71E-08

CDR20291_2278	2573	3444	3913	4941	3579	4201	2345	3169	3030	3172	3201	0.34087762	0.665951696
CDR20291_2279	5058	17605	16093	23854	21341	18543	16444	19080	24555	23469	20631	1.916652673	7.13E-07
CDR20291_2279;													
CDR20291_2280	0	0	0	0	1	0	0	0	1	2	0	NA	NA
CDR20291_2280	8198	39904	31822	55023	44160	43755	48684	39364	44632	53468	52486	2.404567553	1.36E-07
CDR20291_2281	14	49	75	7	22	9	63	0	16	34	9	1.006741661	0.903995811
CDR20291_2282	7	0	0	2	0	2	1	1	2	1	0	NA	NA
CDR20291_2283	4463	5674	6156	3753	4781	8212	4633	5852	3700	6502	431	0.053788336	0.9964183
CDR20291_2284	7018	9895	9932	8737	9709	11416	6034	8404	9398	9338	8702	0.281229574	0.514786953
CDR20291_2285	113	210	195	88	142	140	39	105	111	94	172	0.068754026	0.9964183
CDR20291_2286	6044	9700	9623	9748	9750	9729	5349	9347	10299	11550	10655	0.564183496	0.268937507
CDR20291_2287	5526	4689	5578	4032	4694	4719	2830	3829	3815	4511	3603	-0.488799269	0.267094267
CDR20291_2288	1141	1027	991	1182	1046	888	743	609	828	1017	1282	-0.336183871	0.817092124
CDR20291_2289	2	0	0	0	0	2	0	0	0	0	0	NA	NA
CDR20291_2290	0	0	0	1	0	2	0	0	0	1	0	NA	NA
CDR20291_2291	69	259	85	106	150	232	221	346	537	101	179	1.631932616	0.3392043
CDR20291_2292	194	180	230	167	241	215	96	122	264	119	209	-0.183342982	0.952961967
CDR20291_2293	0	1	0	0	0	3	1	0	1	0	1	NA	NA
CDR20291_2294	5006	5338	6186	5536	5644	6685	4040	5319	5557	6869	4492	0.056783818	0.980729698
CDR20291_2295	481	76	164	110	209	123	30	51	131	61	95	-2.332462177	0.017512439
CDR20291_2296	20790	29069	26995	26962	30769	30605	29985	30140	28989	41423	30313	0.482951148	0.591724175
CDR20291_2297	9557	11723	11119	10184	11878	13374	8166	10005	12711	10487	11697	0.126449421	0.915687694
CDR20291_2298	1928	2421	2420	2671	2368	2134	1259	2466	2462	2674	1930	0.14101236	0.936058228
CDR20291_2299	136	138	184	138	194	181	314	169	233	283	217	0.562342058	0.821472806
CDR20291_2300	1	0	0	0	0	1	1	4	1	0	0	NA	NA
CDR20291_2301	50	33	35	31	71	18	38	8	36	48	58	-0.481989942	0.933335682
CDR20291_2302	8	1	0	2	0	2	3	0	2	0	0	NA	NA
CDR20291_2303	5	2	0	2	0	1	0	0	2	2	1	NA	NA
CDR20291_2304	398	222	361	338	240	412	246	137	306	335	107	-0.655637332	0.737114605
CDR20291_2305	282	90	292	311	323	463	220	204	144	186	86	-0.390274465	0.916188101

CDR20291_2306	14	42	65	91	10	1	39	1045	14	1	160	1.676492101	0.788477536
CDR20291_2307	30	20	66	9	5	31	10	11	30	4	26	-0.619176038	0.936058228
CDR20291_2308	54	4	6	25	20	42	2	9	5	8	1	-2.340069153	0.519854373
CDR20291_2309	12	1	0	0	0	1	0	1	3	0	0	NA	NA
CDR20291_2310	81	135	100	116	67	133	37	113	76	104	14	0.012286844	0.998270107
CDR20291_2311	87	133	229	58	52	118	59	117	22	79	47	-0.047484681	0.9964183
CDR20291_2312	528	642	340	669	503	1302	885	578	596	721	830	0.352160477	0.898602063
CDR20291_2313	254	342	137	198	251	327	191	139	150	508	301	-0.097264984	0.993611175
CDR20291_2314	141	167	151	144	119	113	74	183	89	91	101	-0.295754988	0.913649554
CDR20291_2315	544	47	198	9	17	86	26	68	75	78	10	-3.270828849	0.055367977
CDR20291_2316	1	0	5	0	2	2	1	4	4	0	1	NA	NA
CDR20291_2317	83	48	18	65	96	123	63	91	46	39	62	-0.442404505	0.918679299
CDR20291_2318	245	222	274	315	251	300	141	179	149	263	67	-0.299664935	0.930649044
CDR20291_2319	44	32	59	2	22	36	14	40	22	0	1	-1.072870599	0.896666488
CDR20291_2320	41	26	58	60	52	67	25	41	32	64	29	0.031126265	0.9964183
CDR20291_2321	0	1	0	0	0	0	0	2	0	0	0	NA	NA
CDR20291_2322	814	484	161	396	438	384	290	260	331	288	207	-1.424457369	0.056846533
CDR20291_2323	66	54	58	61	61	65	34	136	104	50	163	0.174248878	0.985458574
CDR20291_2324	8	4	3	4	3	1	4	1	3	2	0	NA	NA
CDR20291_2325	3	1	0	2	2	2	1	0	2	0	1	NA	NA
CDR20291_2326	1005	1590	2325	1916	2078	1667	2363	1340	1838	2072	3512	0.988724971	0.322835976
CDR20291_2326;													
CDR20291_2327	9	9	16	5	38	74	17	0	5	25	57	1.315004298	0.860653178
CDR20291_2327	3	0	1	0	4	0	0	0	0	0	0	NA	NA
CDR20291_2328	39811	45572	31881	41461	49281	47593	40995	33722	34224	32235	30864	-0.118827356	0.959823679
CDR20291_2329	751	1295	750	1329	1179	1175	1041	943	825	1045	594	0.354403611	0.838262937
CDR20291_2330	41	51	19	32	20	39	30	35	55	2	17	-0.529331763	0.937393001
CDR20291_2331	276	694	504	574	876	1161	287	520	403	603	537	1.020628687	0.187402715
CDR20291_2332	20	11	25	104	56	51	34	269	24	168	96	1.999712447	0.50184102
CDR20291_2333	2429	3603	3110	3257	2956	3469	1845	2694	2510	2191	2309	0.094536412	0.953740159

CDR20291_2334	207	235	243	684	414	342	121	197	221	123	143	0.264066598	0.951893091
CDR20291_2335	0	1	0	0	1	0	1	0	0	0	0	NA	NA
CDR20291_2336	3432	3036	3449	2229	3052	3828	1690	2681	2798	4236	2876	-0.308589577	0.806019044
CDR20291_2337	15	12	14	29	24	0	2	21	26	27	1	-0.052153736	0.996804672
CDR20291_2338	10	0	1	0	0	0	0	0	0	3	0	NA	NA
CDR20291_2339	0	0	0	0	0	0	1	0	1	0	0	NA	NA
CDR20291_2340	381	140	184	196	180	432	98	114	174	100	176	-1.222143355	0.258742916
CDR20291_2341	7	2	3	2	2	2	6	1	8	0	2	NA	NA
CDR20291_2342	10	3	0	2	0	1	1	2	6	1	0	NA	NA
CDR20291_2343	31	54	37	25	35	152	26	132	49	66	97	1.001365196	0.763293493
CDR20291_2344	514	475	812	734	733	601	344	369	709	766	412	0.105289713	0.978951444
CDR20291_2345	26	101	17	24	75	4	3	10	21	110	1	0.337404933	0.987679719
CDR20291_2346	2	9	0	4	3	3	1	3	6	3	1	NA	NA
CDR20291_2347	594	953	862	687	959	1047	591	968	1114	579	1405	0.534625972	0.677980547
CDR20291_2348	69	328	566	283	93	189	336	197	207	102	121	1.75505858	0.249347464
CDR20291_2349	5734	3155	3012	2114	3152	2876	2424	4092	3348	3563	2728	-0.992409425	0.074648688
CDR20291_2350	170	149	55	73	171	143	58	148	44	80	50	-0.93150272	0.661063212
CDR20291_2351	2106	2631	2454	2033	2168	1927	1616	1733	1548	1748	2103	-0.169495132	0.913649554
CDR20291_2352	43	199	177	116	158	162	258	176	497	185	51	2.162643086	0.119716977
CDR20291_2353	209	304	247	285	590	200	127	67	291	226	321	0.227470614	0.96268905
CDR20291_2354	9	4	14	3	0	3	7	4	10	6	0	NA	NA
CDR20291_2355	3	1	0	0	0	1	2	0	1	3	0	NA	NA
CDR20291_2356	3	2	0	1	0	1	2	1	4	0	0	NA	NA
CDR20291_2357	168	144	101	156	131	203	42	93	73	101	160	-0.615034694	0.761529037
CDR20291_2358	478	471	423	264	462	671	302	387	386	504	1300	0.021760425	0.996617239
CDR20291_2359	12	3	5	7	17	8	5	7	5	7	1	NA	NA
CDR20291_2360	569	719	565	641	540	1010	294	774	521	499	615	-0.000925536	0.999233824
CDR20291_2361	0	0	1	1	2	25	1	11	3	0	0	NA	NA
CDR20291_2362	11	0	1	6	2	4	2	1	5	0	0	NA	NA
CDR20291_2363	2	1	1	1	0	1	2	4	1	2	1	NA	NA

CDR20291_2364	221	100	181	279	360	273	101	200	129	139	235	-0.263662431	0.939441971
CDR20291_2365	1556	1924	1970	1222	2063	2335	1084	1657	1539	1621	1857	0.042493952	0.995544519
CDR20291_2366	2	2	0	0	1	0	0	0	1	2	0	NA	NA
CDR20291_2367	16	65	35	17	12	143	17	27	94	43	17	1.400674824	0.703616147
CDR20291_2368	1709	1565	1785	1770	1660	2988	852	1390	3031	1413	1586	-0.03853927	0.9964183
CDR20291_2369	690	669	786	631	1123	847	519	862	597	696	601	-0.013242977	0.9964183
CDR20291_2370	259	117	13	53	90	56	863	125	50	120	54	-1.893917444	0.215967679
CDR20291_2371	642	655	950	943	816	1754	470	1067	888	840	1400	0.493611808	0.762543956
CDR20291_2372	1345	1835	1617	1445	1426	2119	2504	1141	1018	1093	1397	0.165274331	0.964838183
CDR20291_2373	1083	2168	2305	2990	3432	3011	5320	2510	2221	3050	4534	1.519905775	0.106350328
CDR20291_2374	896	1450	1586	2003	1661	1507	1605	1420	1082	1950	1333	0.72536409	0.34738398
CDR20291_2375	0	1	0	1	0	0	1	0	0	1	0	NA	NA
CDR20291_2376	1	4	1	0	5	3	4	1	2	1	0	NA	NA
CDR20291_2377	151	214	111	250	135	208	15	45	169	105	89	-0.33015892	0.950748991
CDR20291_2378	279	173	237	259	301	376	211	388	337	122	440	-0.053847491	0.9964183
CDR20291_2379	725	794	905	825	830	1095	1215	1256	1322	674	1166	0.42675279	0.830538166
CDR20291_2380	47	51	29	2	19	40	27	0	65	1	18	-0.986874237	0.913649554
CDR20291_2381	124	1	3	7	1	1	7	13	10	1	4	-4.695592005	0.031693359
CDR20291_2382	352	421	312	379	344	327	73	427	406	412	99	-0.265722914	0.950748991
CDR20291_2383	283	385	210	220	247	382	119	323	483	261	192	-0.117494046	0.985458574
CDR20291_2384	1272	1244	1517	1391	1538	1868	767	2244	1549	1070	964	0.048174369	0.9964183
CDR20291_2385	9	5	3	2	2	4	7	5	9	0	4	NA	NA
CDR20291_2386	14	4	3	1	1	1	7	4	6	2	3	NA	NA
CDR20291_2387	9	0	1	1	1	2	5	1	2	2	5	NA	NA
CDR20291_2388	4	3	0	0	1	2	6	0	0	0	1	NA	NA
CDR20291_2389	4	2	1	0	2	1	0	2	3	0	0	NA	NA
CDR20291_2390	5488	5781	6318	6562	6075	7149	5429	7342	6403	7307	7231	0.176980507	0.901982767
CDR20291_2391	18	2	2	2	0	0	2	1	0	1	2	NA	NA
CDR20291_2392	97	83	52	15	155	118	115	79	240	87	84	0.02545438	0.996999837
CDR20291_2393	1442	1571	1938	2098	1618	2004	3914	1272	1656	1856	1893	0.448627016	0.873991116

CDR20291_2394	272	186	242	216	263	325	115	388	1052	142	183	-0.365751936	0.883162929
CDR20291_2395	524	270	146	115	122	145	70	44	143	87	131	-2.16337455	0.013403472
CDR20291_2396	63	75	86	45	46	91	18	73	12	42	70	-0.310761587	0.954404489
CDR20291_2397	3423	3180	3005	2796	3186	3829	2172	2382	2537	3058	1944	-0.388360535	0.579118177
CDR20291_2398	464	505	1036	602	711	689	383	411	524	398	302	0.148586138	0.965441065
CDR20291_2399	428	544	448	429	433	381	129	283	536	317	429	-0.243777694	0.933335682
CDR20291_2400	1915	2205	2259	2336	2990	2517	1246	2121	1837	1672	2237	0.05216984	0.989879733
CDR20291_2401	60	50	53	37	75	70	5	43	20	131	76	-0.239404997	0.97923907
CDR20291_2402	495	224	174	427	362	382	128	251	347	397	208	-0.887305679	0.447600652
CDR20291_2403	229	85	91	98	49	99	59	48	116	51	110	-1.596587911	0.099632638
CDR20291_2404	1	0	0	1	0	0	3	0	0	1	1	NA	NA
CDR20291_2405	1	0	0	0	0	0	1	0	0	4	0	NA	NA
CDR20291_2406	1185	1315	1474	1048	1348	1587	1348	972	1191	1362	1175	0.034914851	0.9964183
CDR20291_2407	1214	1426	1445	1380	1023	1699	588	1238	1023	1204	1414	-0.080770103	0.978951444
CDR20291_2408	1194	1765	1668	1788	1888	2233	1497	1687	1772	1666	2599	0.551180628	0.447600652
CDR20291_2409	2003	2406	2040	2373	2598	2501	3096	2097	2476	2641	1687	0.198887975	0.936058228
CDR20291_2410	13	3	3	2	5	2	4	3	6	6	3	NA	NA
CDR20291_2411	708	449	678	721	424	679	432	474	318	645	433	-0.525476533	0.671258964
CDR20291_2412	46	19	56	26	36	10	43	18	72	90	47	-0.186498363	0.989879733
CDR20291_2413	10	1	1	4	2	0	0	1	2	1	0	NA	NA
CDR20291_2414	228	179	177	247	289	264	236	335	125	305	283	0.025320281	0.9964183
CDR20291_2415	2672	2913	3109	2351	2583	3105	7275	2889	2432	2822	1836	0.239008895	0.958673898
CDR20291_2416	8	15	0	54	3	17	0	14	10	5	6	0.483673555	0.978951444
CDR20291_2417	218	364	310	167	411	259	649	211	278	180	132	0.433964355	0.918198181
CDR20291_2418	1	0	1	1	2	0	0	1	0	1	1	NA	NA
CDR20291_2419	72	157	119	86	789	479	297	6303	61	100	106	1.616199993	0.511989774
CDR20291_2420	465	382	482	890	510	642	258	717	951	571	652	0.283427854	0.921977827
CDR20291_2421	33	26	27	26	88	9	20	49	20	19	0	-0.318258421	0.983578086
CDR20291_2422	447	233	410	247	328	401	183	210	177	336	217	-0.818775149	0.356586627
CDR20291_2423	12	21	41	5	1	28	4	8	17	22	56	0.641550423	0.942304613

CDR20291_2424	195	147	72	125	199	86	71	199	396	94	47	-0.525771515	0.910666531
CDR20291_2425	35	108	108	51	99	81	32	110	51	16	33	0.850826142	0.800678024
CDR20291_2426	3	5	0	2	1	1	2	3	2	1	0	NA	NA
CDR20291_2427	49	46	25	88	127	40	56	28	79	36	70	0.202426579	0.980729698
CDR20291_2428	14	65	82	145	50	59	13	28	125	27	27	2.020522224	0.351370052
CDR20291_2429	501	605	295	453	624	668	378	453	410	1582	352	0.114742249	0.989879733
CDR20291_2430	807	1124	1327	1111	1076	1314	1078	1280	836	816	756	0.327679167	0.830538166
CDR20291_2431	184	258	283	78	194	320	90	179	145	150	82	-0.185467364	0.972464309
CDR20291_2432	853	1031	942	1013	1090	1204	805	926	921	1378	1234	0.215776889	0.883260297
CDR20291_2433	142	96	51	73	57	134	25	131	65	48	146	-0.897898824	0.709423863
CDR20291_2434	5573	10002	9026	8049	8988	10706	45501	5658	6074	5812	6070	0.322622768	0.76875229
CDR20291_2435	756	770	502	691	797	951	478	1046	958	373	595	-0.17401251	0.953740159
CDR20291_2436	2598	2607	1965	2536	2557	2578	1466	3543	2158	1591	1959	-0.275600198	0.87463407
CDR20291_2437	3206	2200	1610	2454	2093	2394	1494	3313	2457	3588	1278	-0.577363465	0.680019084
CDR20291_2438	6	41	37	66	55	27	1	7	2	0	10	1.846884425	0.793454345
CDR20291_2439	6	2	6	3	1	1	2	0	7	0	3	NA	NA
CDR20291_2440	53	177	8	73	17	74	10	92	65	70	134	0.320294639	0.976678975
CDR20291_2441	106	81	137	67	64	18	55	91	133	93	62	-0.476302704	0.913649554
CDR20291_2442	1906	1100	989	789	909	1316	804	754	655	696	556	-1.252670601	0.01669482
CDR20291_2443	138	1	0	0	0	2	3	0	1	1	2	-7.134036221	0.001198606
CDR20291_2444	3	4	0	4	0	0	2	0	0	0	0	NA	NA
CDR20291_2445	1331	2018	1420	2056	2143	2153	1876	2533	2777	3020	2373	0.676219157	0.474462087
CDR20291_2446	70	107	15	11	89	42	61	176	103	140	173	0.332713711	0.968921096
CDR20291_2447	56	6	17	48	157	14	17	31	53	6	50	-0.600101722	0.938005364
CDR20291_2448	1	0	0	0	0	2	0	1	0	0	0	NA	NA
CDR20291_2449	120	108	108	205	105	98	68	105	104	40	418	0.099957476	0.9964183
CDR20291_2450	128	81	39	177	28	88	37	128	58	113	33	-0.814811054	0.816898734
CDR20291_2451	646	758	866	922	1084	1418	729	822	785	965	1038	0.440727404	0.611136431
CDR20291_2452	10	3	33	14	31	30	8	1	0	12	11	0.360114731	0.987396008
CDR20291_2453	518	286	253	453	371	391	143	250	289	237	124	-1.012657225	0.306070752

CDR20291_2454	231	261	230	181	93	386	161	194	166	189	394	-0.13325016	0.985458574
CDR20291_2455	244	334	340	440	266	466	131	152	193	350	306	0.156643969	0.966550182
CDR20291_2456	17	0	2	1	1	2	8	2	8	1	2	NA	NA
CDR20291_2456;													
CDR20291_2457	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_2457	4	1	0	2	0	1	2	0	3	0	0	NA	NA
CDR20291_2458	760	412	441	332	453	475	387	496	411	553	700	-0.781949649	0.371295203
CDR20291_2459	97	77	83	165	109	166	63	136	54	25	31	-0.212214335	0.978728379
CDR20291_2460	1	3	0	0	2	0	0	1	0	0	2	NA	NA
CDR20291_2461	2	4	1	2	1	0	1	0	2	0	2	NA	NA
CDR20291_2462	6	0	0	1	3	0	3	0	0	1	4	NA	NA
CDR20291_2463	2	2	1	0	1	0	0	0	2	3	0	NA	NA
CDR20291_2464	192	52	100	47	66	18	3	131	68	122	73	-1.603020088	0.560860498
CDR20291_2465	194	73	67	83	60	91	67	125	166	186	126	-0.966206676	0.606875033
CDR20291_2466	1153	805	502	669	1253	1237	586	751	721	698	898	-0.611285884	0.554722055
CDR20291_2467	6	20	28	55	44	35	50	4	23	13	25	2.256320723	0.39957452
CDR20291_2468	277	329	638	8868	444	329	194	468	604	576	358	0.56437656	0.731210273
CDR20291_2469	222	236	231	386	319	444	111	431	251	94	270	0.199605457	0.964365633
CDR20291_2470	3	2	2	3	1	1	1	2	0	2	0	NA	NA
CDR20291_2471	3	0	0	0	0	0	0	1	1	3	0	NA	NA
CDR20291_2472	11	1	2	8	0	2	5	1	4	4	4	NA	NA
CDR20291_2473	6	0	2	3	2	0	3	2	4	3	2	NA	NA
CDR20291_2474	1	1	0	0	0	0	0	0	0	2	0	NA	NA
CDR20291_2475	1	0	1	0	0	2	3	0	1	1	0	NA	NA
CDR20291_2476	3	1	1	3	0	2	0	1	0	0	2	NA	NA
CDR20291_2477	4	0	2	3	0	0	0	2	1	2	1	NA	NA
CDR20291_2478	959	1559	1422	1644	1282	1850	625	1344	1687	1393	855	0.391679599	0.76875229
CDR20291_2479	18	21	12	2	27	18	6	13	6	0	0	-0.930901267	0.933474326
CDR20291_2480	1064	796	478	1043	465	811	556	607	519	594	605	-0.806308926	0.351089789
CDR20291_2481	4304	5661	5076	8282	5835	7843	5827	6992	5182	5659	6526	0.467089794	0.620903595

CDR20291_2482	438	580	422	504	432	555	1221	421	425	482	285	0.286168222	0.949832827
CDR20291_2483	7	2	0	17	1	1	4	0	1	2	0	NA	NA
CDR20291_2484	18	4	3	71	17	4	0	0	0	10	2	-2.177522397	0.806019044
CDR20291_2485	432	4397	2742	479	525	2108	9377	1207	1148	595	1329	2.567096594	0.474151117
CDR20291_2486	60	225	169	85	209	66	14	214	169	159	229	1.241642934	0.607957826
CDR20291_2487	1357	1264	1488	1118	1409	1420	665	692	986	875	1178	-0.405679512	0.709423863
CDR20291_2488	265	802	791	582	882	777	305	673	469	495	1248	1.294041249	0.108910419
CDR20291_2489	144	404	339	185	236	383	155	139	141	226	169	0.594833726	0.751886272
CDR20291_2490	7246	15487	19275	61627	29567	22261	21088	14709	20625	14158	22604	1.650337256	0.083627731
CDR20291_2491	339	746	1094	1446	672	604	365	542	600	622	694	1.012620982	0.305841662
CDR20291_2492	1141	2217	2575	1584	1927	2039	4469	1617	1931	1815	3741	1.058671791	0.481314751
CDR20291_2493	4	3	3	7	1	6	5	0	1	0	1	NA	NA
CDR20291_2494	4	2	3	0	1	2	0	1	3	0	0	NA	NA
CDR20291_2495	4071	2628	2717	2338	2387	4103	1613	2390	2276	2107	2088	-0.836887654	0.047349278
CDR20291_2496	3232	2566	2100	2251	3053	3056	4545	2473	2743	2245	2075	-0.28624482	0.920630352
CDR20291_2497	1279	896	909	1169	971	1022	540	706	545	783	689	-0.746352592	0.196544128
CDR20291_2498	3577	3698	3408	4066	3667	3218	4155	3681	3433	4462	3420	-0.004743284	0.998270107
CDR20291_2499	9490	11885	11830	11496	12818	13738	7841	9800	12587	10037	10871	0.150922199	0.87463407
CDR20291_2500	110	72	70	51	119	61	24	153	40	166	34	-0.590882826	0.88847222
CDR20291_2501	2204	2952	2836	2670	2996	3873	2072	2779	2897	3084	3500	0.331513446	0.641330036
CDR20291_2502	14	6	1	7	8	3	7	4	9	3	1	NA	NA
CDR20291_2503	99	1	1	3	0	23	1	0	3	2	1	-5.049152508	0.122693075
CDR20291_2504	322	1	1	2	1	21	4	3	19	3	4	-5.883616409	0.00127459
CDR20291_2505	317	0	0	1	0	0	0	1	0	0	0	-10.26086944	8.75E-09
CDR20291_2506	1	0	0	1	0	1	0	0	1	0	0	NA	NA
CDR20291_2507	2	1	1	0	0	1	0	2	0	0	0	NA	NA
CDR20291_2508	36	21	1	102	43	27	13	4	40	8	28	-0.442720585	0.968036744
CDR20291_2509	341	170	316	132	212	224	88	203	88	111	66	-1.209444799	0.36716881
CDR20291_2510	2067	3069	3222	2595	3181	3888	2644	2512	3971	2820	2525	0.470221704	0.553420009
CDR20291_2511	90	162	493	109	137	138	96	180	175	198	98	0.88176964	0.694246275

CDR20291_2512	683	1478	1256	1268	1127	1459	891	1205	789	1461	1008	0.706190601	0.195065069
CDR20291_2513	9	3	0	0	1	4	3	1	3	2	1	NA	NA
CDR20291_2514	545	710	684	648	1093	648	226	444	607	597	550	0.058603087	0.9964183
CDR20291_2515	579	793	652	1057	756	1588	510	425	661	767	729	0.331119791	0.87463407
CDR20291_2516	219	45	52	124	128	62	52	223	68	69	33	-1.437823752	0.474462087
CDR20291_2517	2274	2811	3034	2698	2721	3451	4057	2791	2548	3248	3306	0.379126106	0.821472806
CDR20291_2518	143	169	250	301	246	277	120	236	167	126	43	0.318347807	0.937393001
CDR20291_2519	5	0	1	2	0	0	1	1	0	0	0	NA	NA
CDR20291_2520	5	2	0	1	2	0	4	2	2	1	2	NA	NA
CDR20291_2521	28	2	1	2	1	13	3	4	15	12	7	NA	NA
CDR20291_2522	0	0	0	0	2	0	0	0	0	0	0	NA	NA
CDR20291_2523	7	1	0	5	1	1	0	0	2	0	3	NA	NA
CDR20291_2524	4	0	2	0	2	90	3	2	0	146	0	1.027585774	0.96268905
CDR20291_2525	2614	336	270	531	421	303	276	372	392	306	331	-2.969355367	1.16E-11
CDR20291_2526	3	1	0	0	1	1	1	2	3	1	0	NA	NA
CDR20291_2527	669	910	1062	788	1022	963	370	766	750	2291	887	0.437064861	0.864878754
CDR20291_2528	238	145	110	242	198	239	197	90	171	188	140	-0.545628629	0.797685336
CDR20291_2529	125	84	122	55	148	110	38	79	103	81	78	-0.598579745	0.76875229
CDR20291_2530	5	0	2	0	0	2	2	1	1	1	0	NA	NA
CDR20291_2531	3	2	0	1	1	1	3	1	2	0	3	NA	NA
CDR20291_2532	1	0	0	0	2	2	1	0	0	1	0	NA	NA
CDR20291_2533	357	709	602	699	657	827	360	303	499	536	440	0.538511813	0.611136431
CDR20291_2534	282	466	259	993	353	429	1435	384	230	312	338	0.399089501	0.892840893
CDR20291_2535	52	1	1	0	0	0	1	1	0	1	0	NA	NA
CDR20291_2536	213	1693	1138	1505	1450	1531	1000	1783	1198	1513	2689	2.776469637	5.82E-08
CDR20291_2537	361	3539	2572	2939	3070	3523	1867	3059	3607	3066	2736	2.953350192	2.54E-24
CDR20291_2538	10	28	26	22	1	8	12	7	3	158	1	1.313180651	0.883480371
CDR20291_2539	4	0	1	3	2	1	2	0	4	2	0	NA	NA
CDR20291_2540	2	1	0	0	1	4	1	0	2	0	0	NA	NA
CDR20291_2541	5	0	4	3	0	4	0	0	3	0	1	NA	NA

CDR20291_2542	1	1	0	2	1	2	1	0	1	2	1	NA	NA
CDR20291_2543	12	4	2	2	0	3	4	2	5	3	3	NA	NA
CDR20291_2544	13	17	1	12	2	12	9	28	19	5	5	-0.306442365	0.987679719
CDR20291_2545	5	2	1	1	0	1	2	0	1	0	1	NA	NA
CDR20291_2546	86	124	80	189	165	129	145	233	159	111	160	0.734780897	0.687969403
CDR20291_2547	3	3	1	0	9	1	1	2	2	1	1	NA	NA
CDR20291_2548	76	21	10	15	7	16	10	1	5	12	2	-3.056153926	0.157853078
CDR20291_2549	131	9	16	7	12	0	5	5	0	7	6	-4.387900193	0.044486809
CDR20291_2550	22	6	2	2	2	3	2	1	6	1	0	NA	NA
CDR20291_2551	7099	18329	18679	17760	17397	17798	24043	18374	25454	21726	20365	1.443033662	0.011095975
CDR20291_2552	193	284	271	447	537	325	146	263	510	134	193	0.573388856	0.816898734
CDR20291_2553	300	308	493	433	444	367	282	258	134	464	335	0.131650687	0.978728379
CDR20291_2554	7	0	1	1	0	1	4	0	0	2	0	NA	NA
CDR20291_2555	3	2	1	2	2	8	5	2	6	4	1	NA	NA
CDR20291_2556	33	11	37	3	25	39	7	14	37	16	0	-0.945696417	0.898602063
CDR20291_2557	7	1	10	2	10	1	0	1	4	0	2	NA	NA
CDR20291_2558	1	4	3	1	0	1	29	3	2	1	0	NA	NA
CDR20291_2559	5	1	1	9	0	12	3	5	3	6	0	NA	NA
CDR20291_2560	166	300	239	207	328	286	225	110	155	102	82	0.193333987	0.972259219
CDR20291_2561	415	485	437	329	416	442	155	309	285	202	379	-0.395378009	0.819425446
CDR20291_2562	29	62	43	40	27	51	10	26	2	23	12	-0.130792431	0.9964183
CDR20291_2563	203	314	395	431	577	515	149	249	399	211	414	0.721101965	0.591724175
CDR20291_2564	40	42	30	52	106	44	26	21	7	34	38	-0.125901997	0.9964183
CDR20291_2565	18	1	2	1	1	2	1	1	0	0	0	NA	NA
CDR20291_2566	140	84	85	69	164	222	55	79	89	96	187	-0.433703922	0.892840893
CDR20291_2567	214	209	191	154	766	327	52	240	180	201	225	0.097671611	0.9964183
CDR20291_2568	279	55	38	15	37	40	6	44	880	16	43	-3.213459593	0.003059131
CDR20291_2569	1	1	0	2	0	1	0	0	2	3	2	NA	NA
CDR20291_2570	11	5	6	1	2	5	7	4	17	4	8	NA	NA
CDR20291_2571	51	9	103	4	20	22	22	10	16	22	10	-1.197855195	0.821472806

CDR20291_2572	998	1171	1040	1408	1192	1391	543	818	1091	1018	1053	-0.012144513	0.9964183
CDR20291_2573	8	3	3	2	2	3	2	3	1	3	1	NA	NA
CDR20291_2574	1	1	0	3	1	1	3	1	1	2	1	NA	NA
CDR20291_2575	152	210	161	197	302	167	100	299	130	168	126	0.184525962	0.961480359
CDR20291_2576	19	15	24	2	5	12	10	0	13	1	6	-1.204042908	0.883480371
CDR20291_2577	24477	33899	34493	30245	31783	39120	27067	40229	33010	35533	33924	0.385544878	0.557223874
CDR20291_2578	7318	9320	8284	8779	8489	10127	7924	7560	6559	7968	8364	0.104199306	0.950748991
CDR20291_2579	5346	3908	4556	4495	4276	6076	3583	4526	6238	5011	4318	-0.274861083	0.82771301
CDR20291_2580	2663	3345	3154	3951	3198	3024	1611	3307	2145	2677	3060	0.03942352	0.9964183
CDR20291_2581	272	659	845	1214	589	711	216	364	577	767	195	1.039423452	0.501147971
CDR20291_2582	815	1349	1248	955	1005	1371	1045	887	1353	2258	1913	0.634837399	0.646940429
CDR20291_2583	2639	4308	2766	4751	2721	710	2768	2202	1517	4769	1795	0.029265776	0.9964183
CDR20291_2584	37	31	12	44	12	52	12	9	3	36	13	-0.870100243	0.876823816
CDR20291_2585	79	91	114	52	79	187	153	69	26	44	99	0.150253542	0.989879733
CDR20291_2586	3	0	0	0	0	1	1	0	2	2	1	NA	NA
CDR20291_2587	3	2	0	0	2	2	1	2	2	2	2	NA	NA
CDR20291_2588	2324	3179	3845	3153	3889	3394	3252	2501	2959	3496	3047	0.414311295	0.646940429
CDR20291_2589	880	168	270	313	256	560	171	450	284	304	116	-1.71922414	0.056093695
CDR20291_2590	156	274	188	119	108	155	90	98	186	108	49	-0.295847122	0.938147015
CDR20291_2591	273	246	235	215	304	233	127	115	180	200	41	-0.64745708	0.792774211
CDR20291_2592	11669	16757	14650	17072	15971	18636	21214	19252	17557	18694	23937	0.600148099	0.560860498
CDR20291_2593	531	1009	623	529	652	906	435	891	621	739	663	0.307831873	0.834552815
CDR20291_2594	109	148	134	121	105	81	74	119	63	106	52	-0.218974621	0.951618259
CDR20291_2595	28	52	35	7	11	17	127	11	8	29	8	0.230572457	0.993685705
CDR20291_2596	37	0	6	4	39	14	6	0	39	41	3	-1.393049655	0.883480371
CDR20291_2597	55	25	13	32	25	184	13	61	43	62	158	0.026371552	0.997049181
CDR20291_2598	11	0	0	4	2	2	3	4	2	3	0	NA	NA
CDR20291_2599	82	191	96	18	30	130	35	54	63	39	147	-0.158532797	0.991396378
CDR20291_2600	703	874	1036	813	828	970	459	819	1004	1233	847	0.232843378	0.883592896
CDR20291_2601	9005	8467	7614	7405	8108	10190	18562	8915	8973	8245	8966	0.074671527	0.9964183

CDR20291_2602	3	1	1	0	0	2	1	3	0	4	2	NA	NA
CDR20291_2603	6	2	0	1	0	1	1	0	0	1	1	NA	NA
CDR20291_2604	376	156	221	224	143	256	184	233	138	280	101	-1.041215748	0.327145636
CDR20291_2604;													
CDR20291_2605	0	0	0	0	0	0	1	0	0	0	0	NA	NA
CDR20291_2605	1161	65	43	40	44	151	54	107	102	63	30	-4.15492692	3.92E-07
CDR20291_2606	136	3	3	9	7	10	9	6	17	2	3	-4.360554039	0.005950105
CDR20291_2607	251	336	293	204	362	397	162	185	130	123	364	-0.093911246	0.991089357
CDR20291_2608	4580	6278	6354	6316	5693	6239	9491	6674	7782	6010	3461	0.449078629	0.825951225
CDR20291_2609	4854	5699	5541	5052	4642	5938	3694	4914	3351	4147	4263	-0.137463721	0.933335682
CDR20291_2610	71	12	108	63	16	113	11	64	21	63	49	-0.593095112	0.919350563
CDR20291_2611	1	2	1	1	0	3	2	0	3	0	0	NA	NA
CDR20291_2612	1695	1579	1567	1304	1469	1670	1329	1299	1121	1996	1376	-0.289712116	0.821472806
CDR20291_2613	7	0	3	1	0	3	0	0	0	5	1	NA	NA
CDR20291_2613;													
CDR20291_2614	0	0	0	1	1	0	0	0	0	0	0	NA	NA
CDR20291_2614	356	202	381	183	481	377	277	233	232	351	105	-0.4298194	0.883480371
CDR20291_2615	2198	1957	1736	1595	1536	2088	763	1317	1433	1453	935	-0.692387703	0.266601373
CDR20291_2616	457	371	539	507	631	626	317	500	559	473	633	0.075382812	0.985458574
CDR20291_2617	71	151	105	86	75	144	129	63	52	67	185	0.504284162	0.883480371
CDR20291_2618	2	0	1	1	1	2	2	0	0	0	0	NA	NA
CDR20291_2619	4	2	0	1	1	6	1	0	0	0	0	NA	NA
CDR20291_2620	1	4	0	8	11	3	10	13	0	0	0	NA	NA
CDR20291_2621	156	150	226	311	242	316	158	163	280	141	239	0.414034261	0.839963117
CDR20291_2622	166	397	178	163	297	243	153	1103	251	356	119	0.890998187	0.786730769
CDR20291_2623	1948	2308	1803	1594	2264	2396	1704	1759	1546	2282	1338	-0.129177084	0.950748991
CDR20291_2624	479	594	652	503	514	734	237	435	461	391	879	0.057044171	0.9964183
CDR20291_2625	2593	1758	1954	1597	1746	1844	1067	1526	1115	1729	1319	-0.83278725	0.029328268
CDR20291_2626	697	1124	1023	1213	1128	1796	420	1739	1694	1279	1591	0.787637512	0.491975516
CDR20291_2627	322	259	143	292	168	298	2656	244	230	273	321	-0.502555189	0.757308657

CDR20291_2628	294	302	472	305	515	243	159	222	460	710	176	0.167940768	0.977604609
CDR20291_2629	4	1	3	2	2	5	1	3	2	0	1	NA	NA
CDR20291_2630	9	1	2	4	1	3	3	5	1	1	3	NA	NA
CDR20291_2631	1	0	1	1	0	4	1	1	0	0	0	NA	NA
CDR20291_2632	1	1	1	2	0	1	1	0	2	0	0	NA	NA
CDR20291_2633	10	4	3	0	4	10	8	1	1	7	1	NA	NA
CDR20291_2634	3	1	1	1	0	2	0	0	0	2	2	NA	NA
CDR20291_2635	2580	1407	1745	2314	1936	2014	1347	1632	2097	2035	1907	-0.57406297	0.373908522
CDR20291_2636	1935	5194	4961	8720	7527	5138	5049	4428	3739	4597	8820	1.50722009	0.020271881
CDR20291_2637	861	892	918	1111	1021	1384	1489	1007	922	823	886	0.227733178	0.933474326
CDR20291_2638	7	2	2	3	0	5	4	0	2	5	1	NA	NA
CDR20291_2639	6	19	8	2	10	19	2	52	1	0	0	0.786709277	0.960594534
CDR20291_2640	82	378	537	397	443	425	190	327	345	414	253	2.061114866	1.73E-05
CDR20291_2641	1589	2377	2633	2431	2117	2472	1224	1676	1688	2531	2982	0.371514271	0.75332961
CDR20291_2642	3	26	30	2	18	0	6	3	0	16	2	1.647212799	0.87463407
CDR20291_2643	65	25	30	48	42	37	11	16	74	21	2	-1.209056752	0.76875229
CDR20291_2644	2	0	0	1	1	0	0	0	1	0	0	NA	NA
CDR20291_2645	623	366	387	526	413	374	406	891	902	3326	865	0.369463873	0.950748991
CDR20291_2646	235	526	412	409	783	574	501	722	381	664	302	1.083599999	0.221404329
CDR20291_2647	173	429	301	470	474	934	410	456	288	404	270	1.251691181	0.154814465
CDR20291_2648	356	1530	1170	2537	1314	1509	1112	1335	927	1428	1100	1.877624781	0.000415162
CDR20291_2649	2410	189	241	240	274	826	98	203	174	253	28	-3.43004339	0.001854564
CDR20291_2650	48	57	84	47	100	83	15	92	15	16	53	0.085047191	0.9964183
CDR20291_2651	186	447	545	929	525	484	200	200	408	536	273	1.163989328	0.31964962
CDR20291_2652	22839	8188	16737	12573	11281	6645	5310	8194	8680	9110	10947	-1.326495125	0.036251412
CDR20291_2653	2175	2320	2009	1976	2782	3337	1719	1991	2081	1896	3124	-0.003360845	0.998270107
CDR20291_2654	8	3	0	2	3	18	3	1	0	1	3	NA	NA
CDR20291_2655	11611	7442	7580	7601	7063	9940	4915	6425	6811	8188	6880	-0.776155254	0.006153738
CDR20291_2656	731	260	170	447	337	477	170	233	275	425	536	-1.241773175	0.199926751
CDR20291_2657	8	2	2	0	0	1	3	5	2	1	0	NA	NA

CDR20291_2658	2	2	0	3	1	1	0	2	2	1	0	NA	NA
CDR20291_2659	4	3	1	1	1	5	2	1	4	7	1	NA	NA
CDR20291_2660	2	0	2	2	1	2	1	2	2	0	1	NA	NA
CDR20291_2661	1	2	5	1	0	5	0	0	2	2	1	NA	NA
CDR20291_2662	4	1	2	1	0	2	4	0	2	4	0	NA	NA
CDR20291_2663	2	2	3	2	4	0	6	1	2	4	2	NA	NA
CDR20291_2664	7	3	1	1	2	4	1	0	1	0	0	NA	NA
CDR20291_2665	5	0	0	3	2	6	1	1	2	0	3	NA	NA
CDR20291_2666	10	0	0	0	1	1	5	1	3	0	0	NA	NA
CDR20291_2667	6	1	1	4	0	0	0	2	1	3	1	NA	NA
CDR20291_2668	6	1	1	2	4	8	1	1	3	2	4	NA	NA
CDR20291_2669	3	3	1	0	3	4	3	1	4	3	1	NA	NA
CDR20291_2670	8	1	1	1	1	0	8	1	2	2	1	NA	NA
CDR20291_2671	0	3	1	0	0	1	1	2	2	0	0	NA	NA
CDR20291_2672	812	2678	3180	3011	3325	4337	2670	2561	3216	3085	4291	1.906625453	6.63E-07
CDR20291_2673	1772	2172	2474	1891	2158	1632	987	1158	1559	2507	1252	-0.107422637	0.977604609
CDR20291_2674	8892	12701	12942	9891	11878	13012	7194	8730	8684	16513	10027	0.221428102	0.883480371
CDR20291_2675	805	826	712	676	792	1060	332	376	364	352	293	-0.618753466	0.720261539
CDR20291_2676	118	307	257	438	453	768	267	453	474	608	590	1.863254886	0.006237601
CDR20291_2677	221	177	216	359	199	319	87	156	274	456	224	0.040605857	0.9964183
CDR20291_2678	23340	19683	20243	20927	22641	24996	16258	19775	22850	23850	17077	-0.255785276	0.766482893
CDR20291_2679	2612	2481	2463	2600	2639	2658	1446	2135	2658	2143	2535	-0.238321738	0.786730769
CDR20291_2680	267258	238688	236570	232795	250886	296104	189379	234125	237730	249915	206138	-0.2640787	0.66387476
CDR20291_2681	9	11	2	2	0	0	5	6	2	4	5	NA	NA
CDR20291_2682	7	3	1	5	2	6	9	3	2	5	5	NA	NA
CDR20291_2683	10178	15799	18078	14432	16122	16474	11532	14083	12962	22733	17071	0.553738533	0.39512169
CDR20291_2684	13739	24345	21259	19979	21514	23918	19519	20144	21524	23586	20866	0.574968165	0.188380211
CDR20291_2685	1457	2423	1203	1919	2142	2303	1105	1888	1803	1898	1413	0.203862506	0.903995811
CDR20291_2686	4446	7810	5104	5896	6448	7527	4217	6105	7120	6390	5002	0.370788226	0.611136431
CDR20291_2687	1770	3970	4123	3374	4532	3787	1892	3730	5957	2880	4548	1.030835054	0.111309448

CDR20291_2688	448	718	474	514	498	469	457	712	950	609	226	0.251079819	0.938005364
CDR20291_2689	6	0	0	3	2	8	1	0	4	0	30	NA	NA
CDR20291_2690	899	889	619	405	619	704	338	380	756	634	664	-0.690764164	0.474151117
CDR20291_2691	15	8	1	2	4	1	2	2	14	2	1	NA	NA
CDR20291_2692	227	104	22	137	80	193	56	95	110	136	93	-1.261157961	0.445775074
CDR20291_2693	11	2	13	1	1	1	0	2	6	1	1	NA	NA
CDR20291_2694	4	1	2	2	0	0	4	2	2	3	4	NA	NA
CDR20291_2695	4	1	1	1	2	0	2	0	0	0	0	NA	NA
CDR20291_2696	0	0	0	1	1	2	0	0	0	0	0	NA	NA
CDR20291_2697	159	113	73	99	117	74	39	142	116	106	22	-0.927651984	0.673967399
CDR20291_2698	422	394	296	200	330	149	187	387	136	173	98	-0.937731579	0.589888636
CDR20291_2699	1057	3618	3134	7472	6486	3332	3325	3036	3086	4317	3537	1.876128483	0.002369944
CDR20291_2700	1016	698	382	612	642	689	737	428	459	610	701	-0.833794306	0.406932491
CDR20291_2701	71	152	215	143	167	164	64	53	64	45	136	0.628887419	0.832702445
CDR20291_2702	4	0	1	1	2	4	1	0	2	0	2	NA	NA
CDR20291_2703	62	20	26	67	45	49	23	4	17	36	101	-0.775445296	0.883480371
CDR20291_2704	119	246	285	195	293	128	145	185	85	206	352	0.741566566	0.70625024
CDR20291_2705	42	47	124	4	35	38	20	27	81	35	49	0.02440915	0.997049181
CDR20291_2706	1156	1180	1099	1012	1098	845	485	742	657	972	653	-0.517529911	0.559366388
CDR20291_2707	1559	1399	1160	1395	1394	1607	1504	902	1073	975	1429	-0.35149143	0.829084886
CDR20291_2708	36	157	143	59	90	430	18	533	101	229	127	2.251170628	0.259891266
CDR20291_2709	159	172	206	124	209	163	326	174	218	303	207	0.372338759	0.913589862
CDR20291_2710	288	276	441	275	402	607	156	271	464	323	271	0.14933904	0.964473894
CDR20291_2711	3	0	1	4	0	3	6	0	0	0	0	NA	NA
CDR20291_2712	10	3	1	2	0	25	2	1	1	0	1	NA	NA
CDR20291_2713	522	1073	1015	1075	1251	1093	700	1069	695	815	1272	0.84920647	0.115459118
CDR20291_2714	20	6	13	5	21	4	0	13	3	2	24	-1.256779898	0.873772862
CDR20291_2715	1877	2285	2612	2642	2838	3584	1780	2165	2224	2086	2999	0.323920366	0.724425528
CDR20291_2715;													
CDR20291_2716	2455	3520	3317	3278	3701	3923	4411	3096	3145	3572	4065	0.4940241	0.661063212

CDR20291_2717	32	49	107	53	23	30	20	113	32	32	21	0.485757729	0.936058228
CDR20291_2718	320	1003	1175	985	912	919	647	887	925	1409	808	1.499992049	0.000376784
CDR20291_2719	471	693	626	696	861	917	398	631	784	924	456	0.4575372	0.66387476
CDR20291_2720	53	88	16	57	19	26	42	25	11	37	34	-0.653075152	0.894067873
CDR20291_2721	831	932	1009	859	1042	1107	704	593	1073	867	887	0.030941359	0.9964183
CDR20291_2722	3207	3815	3358	3023	3816	4911	2684	3956	3323	4471	3280	0.094680657	0.958673898
CDR20291_2723	225	426	449	198	280	381	129	365	152	109	171	0.111001865	0.989879733
CDR20291_2724	501	569	675	801	571	681	284	703	377	358	443	0.010003287	0.997049181
CDR20291_2725	436	368	735	594	557	559	174	392	270	389	371	-0.113509147	0.980729698
CDR20291_2726	127	196	259	189	99	615	1037	176	141	180	201	0.644195859	0.804546775
CDR20291_2727	133	439	277	563	401	265	293	150	461	535	105	1.301189024	0.36716881
CDR20291_2728	111	63	263	68	56	129	36	8	112	70	50	-0.513409356	0.933474326
CDR20291_2729	6	4	21	12	4	24	1	3	7	6	25	0.688328215	0.942304613
CDR20291_2730	133	120	143	79	114	285	40	91	68	155	55	-0.368347984	0.932856277
CDR20291_2731	1666	2911	1746	1814	1741	2239	862	2482	2892	1327	1728	0.134867944	0.968921096
CDR20291_2732	304	289	492	1444	405	367	194	423	362	395	554	0.588397883	0.842928602
CDR20291_2733	1708	3635	2647	3962	3232	3651	2636	4078	2267	3241	3314	0.847748586	0.114418845
CDR20291_2734	3399	4427	4083	3441	3987	3592	1415	3185	2208	6864	3720	0.000350665	0.999430163
CDR20291_2735	1604	2091	1651	2026	2343	1931	1289	2408	1859	2000	1377	0.146288529	0.937393001
CDR20291_2736	179	122	224	234	160	173	43	96	91	206	273	-0.264892955	0.950748991
CDR20291_2737	407	444	308	798	399	339	231	276	405	480	284	-0.141874759	0.976678975
CDR20291_2738	139	107	88	315	59	68	77	116	93	232	336	0.025901423	0.996999837
CDR20291_2739	4346	4465	4798	3708	5429	5054	10637	4313	4739	5886	5331	0.315020715	0.930222288
CDR20291_2740	3602	3171	3466	3201	2760	3231	1516	2216	2401	2699	4383	-0.41731402	0.729553852
CDR20291_2741	10161	8375	8472	7408	7543	10042	3332	5523	5779	5857	4861	-0.724923455	0.213209007
CDR20291_2742	87	146	46	118	173	71	742	45	73	55	53	-0.172176304	0.980898945
CDR20291_2743	840	1616	1285	878	1482	1323	1608	1279	1555	1253	670	0.561866749	0.722572343
CDR20291_2743;													
CDR20291_2744	0	0	0	0	0	0	0	1	0	0	0	NA	NA
CDR20291_2744	741	1052	986	1111	1397	1393	897	921	1198	1061	1071	0.488437714	0.422048282

CDR20291_2745	355	423	392	318	388	576	240	297	268	317	450	-0.063998748	0.989879733
CDR20291_2746	7305	6995	6654	6611	6166	6725	3720	4369	5676	4751	5053	-0.472066384	0.364945414
CDR20291_2747	4992	5688	5247	10836	5995	7622	11154	4953	6303	5088	5712	0.42305466	0.870110009
CDR20291_2748	4068	5411	4659	5368	5355	5144	5524	4455	3779	4615	4936	0.206249679	0.910666531
CDR20291_2749	2458	3841	3543	6044	3359	3463	1880	3308	2639	3024	3759	0.397168686	0.775382179
CDR20291_2750	124	129	140	168	75	67	48	170	91	72	8	-0.463281712	0.933474326
CDR20291_2751	327	612	477	609	554	729	186	708	641	508	100	0.519696773	0.864428698
CDR20291_2752	2	1	0	0	2	2	1	0	1	0	1	NA	NA
CDR20291_2753	8	36	2	1	49	2	18	4	4	14	8	0.698918328	0.950748991
CDR20291_2754	554	705	499	444	712	780	335	601	550	900	368	-0.02376114	0.9964183
CDR20291_2755	100	168	91	130	104	47	15	627	11	187	59	0.432759156	0.96268905
CDR20291_2756	136	95	195	97	73	114	28	79	137	207	54	-0.458271316	0.910666531
CDR20291_2757	261	443	388	372	332	390	161	673	180	206	250	0.267900415	0.938005364
CDR20291_2758	1	2	1	3	0	4	2	2	3	0	1	NA	NA
CDR20291_2759	206	110	420	190	235	338	225	155	167	226	326	0.130002684	0.985642008
CDR20291_2760	44	115	36	61	58	13	11	27	22	21	7	-0.394066186	0.962496401
CDR20291_2761	84	146	84	57	134	176	124	110	46	140	153	0.394294159	0.913649554
CDR20291_2762	408	387	410	535	449	441	228	335	267	309	173	-0.321656808	0.880395782
CDR20291_2763	635	281	334	382	274	359	152	219	199	216	156	-1.423069861	0.016046734
CDR20291_2764	671	633	495	644	753	839	371	469	724	849	512	-0.202754401	0.915687694
CDR20291_2765	287	133	135	109	135	172	31	127	45	134	95	-1.503342698	0.156772681
CDR20291_2766	210	144	176	192	147	302	95	131	163	204	132	-0.435884353	0.799846456
CDR20291_2767	12	8	13	0	0	20	12	26	0	4	7	-0.476195344	0.985642008
CDR20291_2768	270	341	389	637	282	363	126	350	240	569	702	0.458388399	0.87463407
CDR20291_2769	402	516	472	811	530	382	252	454	427	727	381	0.19591627	0.943128431
CDR20291_2770	27	31	77	11	41	23	7	33	43	15	13	-0.005611733	0.998580161
CDR20291_2771	3	0	0	3	0	0	3	0	1	0	3	NA	NA
CDR20291_2772	279	265	234	177	219	398	139	301	193	160	98	-0.472370629	0.82771301
CDR20291_2773	130	103	64	50	16	51	77	123	54	23	90	-1.043047309	0.737388095
CDR20291_2774	127	395	220	280	297	513	335	410	307	129	407	1.295570714	0.212835795

CDR20291_2775	318	295	262	212	326	354	187	463	232	479	499	-0.034022972	0.9964183
CDR20291_2776	57	83	130	68	1077	165	2784	625	295	825	15837	3.652547766	0.275233046
CDR20291_2777	344	654	828	401	15971	2743	9425	4967	879	5731	10170	3.900701169	0.172381891
CDR20291_2778	121	165	447	157	6346	1224	6550	2234	234	2577	7810	4.557399522	0.154814465
CDR20291_2779	1043	7301	17408	12283	191365	37300	221523	66658	13768	94599	257576	6.505715928	0.003547533
CDR20291_2780	8	90	47	85	958	1363	4049	775	174	61	1439	6.963183837	0.01794669
CDR20291_2781	4151	4652	3455	5525	5695	5674	3062	3893	4693	5105	4518	0.054740215	0.988535252
CDR20291_2782	825	923	1040	651	865	865	730	713	557	1068	646	-0.122366416	0.96268905
CDR20291_2783	4867	6575	6722	5592	6642	8346	3792	5460	5677	7142	5212	0.219726518	0.806019044
CDR20291_2784	7141	7794	5859	11741	5968	7400	9857	18684	9312	10642	11098	0.413980928	0.87463407
CDR20291_2785	161	345	189	540	268	535	132	270	428	289	327	0.923304888	0.473906943
CDR20291_2786	815	822	783	379	751	763	1844	531	677	763	542	-0.044045584	0.9964183
CDR20291_2787	89	96	7	181	56	155	42	34	63	266	156	0.131173207	0.9964183
CDR20291_2788	279	215	266	170	203	232	133	219	80	228	236	-0.595387397	0.705753818
CDR20291_2789	243	371	284	233	293	183	103	184	573	174	297	0.046683188	0.9964183
CDR20291_2790	74	126	2	48	81	63	61	26	39	11	29	-0.698835619	0.913649554
CDR20291_2791	13	31	11	18	17	42	2	1	6	2	1	-0.20769973	0.9964183
CDR20291_2792	72	21	6	8	46	26	0	58	7	3	12	-2.090508171	0.647460928
CDR20291_2793	0	0	0	0	0	3	1	0	0	1	0	NA	NA
CDR20291_2794	6517	6096	4745	5929	7246	5709	5151	4169	4447	4378	4885	-0.389520344	0.70625024
CDR20291_2795	93	62	58	61	38	65	4	42	28	7	51	-1.313169296	0.664644486
CDR20291_2796	0	1	1	2	0	0	0	4	2	1	0	NA	NA
CDR20291_2797	11316	7892	6245	7228	8703	10274	4976	7077	8399	7238	5203	-0.733267217	0.107761314
CDR20291_2798	260	269	235	145	272	250	145	201	290	184	183	-0.359320557	0.830486307
CDR20291_2799	657	954	1125	766	921	1317	507	1028	647	1121	778	0.365367508	0.76875229
CDR20291_2800	49	30	73	120	3	22	31	23	30	38	111	-0.099684593	0.9964183
CDR20291_2801	20	25	75	63	29	65	35	17	36	72	46	1.111109601	0.662805834
CDR20291_2802	39	58	139	96	44	115	28	130	29	494	19	1.444170136	0.709395504
CDR20291_2803	34	63	52	17	68	73	8	17	28	13	88	0.177545341	0.991089357
CDR20291_2804	543	227	74	198	270	238	124	133	272	237	86	-1.65327378	0.09418142

CDR20291_2805	400	218	117	78	149	311	133	166	164	213	60	-1.422901029	0.220458172
CDR20291_2806	657	109	0	145	136	64	506	68	290	363	11	-1.885534656	0.815335183
CDR20291_2807	4337	10201	10317	9409	10353	15632	10534	12347	14489	11834	12428	1.359978865	0.002310182
CDR20291_2808	286	399	427	302	418	442	341	1206	169	425	180	0.514171719	0.884369474
CDR20291_2809	133	167	87	138	181	234	36	131	116	135	187	-0.050156044	0.9964183
CDR20291_2810	14	0	1	0	7	16	0	19	12	24	0	NA	NA
CDR20291_2811	169	140	172	171	179	109	128	84	126	138	111	-0.399827986	0.846639312
CDR20291_2812	101	68	68	45	115	55	68	108	31	39	85	-0.639351223	0.832702445
CDR20291_2813	652	941	934	1089	926	1173	685	913	1411	1028	1380	0.595325164	0.484588797
CDR20291_2814	33	52	13	20	14	46	11	46	8	12	55	-0.369730994	0.96268905
CDR20291_2815	62	64	111	178	96	33	45	138	135	52	36	0.430026028	0.933474326
CDR20291_2816	18	22	33	37	33	27	7	8	16	19	1	0.023336029	0.998196035
CDR20291_2817	11	8	0	0	0	0	3	2	2	0	1	NA	NA
CDR20291_2818	52	59	49	34	43	10	8	93	49	17	29	-0.513312115	0.936058228
CDR20291_2819	643	981	1185	823	900	1076	569	965	811	965	469	0.336233969	0.81936773
CDR20291_2820	13	5	0	7	7	28	1	1	1	0	0	NA	NA
CDR20291_2821	2	8	1	4	10	1	4	4	6	7	6	NA	NA
CDR20291_2822	260	498	649	539	720	592	456	1188	408	597	876	1.247581671	0.158531154
CDR20291_2823	8	0	0	0	2	1	4	1	0	0	1	NA	NA
CDR20291_2824	181	478	340	326	296	413	417	307	690	237	124	0.936767888	0.59172591
CDR20291_2825	65	141	357	188	323	178	64	164	71	51	151	1.240690895	0.530683014
CDR20291_2825;													
CDR20291_2826	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_2826	12	6	57	0	21	25	0	12	2	10	0	-0.045007892	0.997751692
CDR20291_2827	31	32	22	22	159	0	13	29	61	154	75	0.764344804	0.933335682
CDR20291_2828	128	95	119	65	151	102	73	200	94	409	78	0.0232975	0.996999837
CDR20291_2829	280	325	291	240	244	247	49	155	417	312	213	-0.294502351	0.937393001
CDR20291_2830	1235	1178	1739	1838	1557	1562	500	1100	980	995	1104	-0.103642262	0.978728379
CDR20291_2831	77	96	57	109	24	233	8	117	44	77	176	0.139032797	0.9964183
CDR20291_2832	6021	8006	8019	7677	8317	8874	4933	6909	7352	7631	7877	0.227141803	0.662805834

CDR20291_2833	4656	6739	5534	6771	6685	6936	4484	6502	5976	7695	7527	0.38576268	0.567737996
CDR20291_2833;													
CDR20291_2834	3943	5209	5127	5119	5372	5905	3789	5945	7421	6555	4945	0.401153334	0.661750212
CDR20291_2835	1538	1689	1835	1800	2021	1635	1682	2156	1607	2017	1923	0.182261408	0.915687694
CDR20291_2836	51	8	2	18	9	1	7	2	1	2	2	-3.367283591	0.28649909
CDR20291_2837	65	24	4	77	17	0	29	30	13	30	10	-1.515196062	0.789410944
CDR20291_2838	2	6	2	5	0	1	2	1	2	1	1	NA	NA
CDR20291_2839	21	54	26	87	75	58	4	168	125	25	54	1.579847311	0.628983437
CDR20291_2840	3	3	0	1	0	0	0	0	7	1	0	NA	NA
CDR20291_2841	1438	10444	8230	9091	7599	11212	22857	10495	14845	9325	3819	2.909412518	0.001515095
CDR20291_2842	36	55	14	14	43	76	1	21	2	26	2	-0.719527577	0.937393001
CDR20291_2843	228	356	293	514	176	234	85	401	526	247	751	0.558728793	0.873772862
CDR20291_2844	15	21	1	9	4	0	2	1	32	13	2	NA	NA
CDR20291_2845	688	1164	1284	932	909	1129	550	435	636	586	626	0.141383325	0.964838183
CDR20291_2846	1524	2431	2147	1992	1607	2313	1088	1401	1338	1523	1110	0.036486015	0.9964183
CDR20291_2847	68	75	54	109	168	76	34	114	43	57	53	0.082396244	0.9964183
CDR20291_2848	64	24	76	24	37	99	28	22	24	10	22	-0.944428309	0.809552018
CDR20291_2849	1041	801	721	636	738	937	540	593	851	1738	733	-0.425269391	0.830486307
CDR20291_2850	2505	1823	1645	1230	2538	1185	1208	1123	1187	766	1429	-0.919322462	0.317468737
CDR20291_2851	869	249	159	195	213	173	142	222	172	195	285	-2.202435459	6.49E-06
CDR20291_2852	4256	4431	3549	4150	3631	4429	21177	4580	5331	5089	4384	-0.084151194	0.977604609
CDR20291_2853	323	491	609	328	554	437	208	549	300	553	215	0.277262623	0.918198181
CDR20291_2854	832	651	572	711	734	981	639	375	299	691	1102	-0.388926481	0.876823816
CDR20291_2855	3683	3972	3085	3606	3788	4123	4207	3560	4350	4557	4070	0.028728985	0.9964183
CDR20291_2856	46	0	15	18	66	31	30	0	63	13	27	-0.872967511	0.933466522
CDR20291_2857	124	128	50	81	94	69	15	43	45	113	35	-1.026783719	0.662805834
CDR20291_2858	319	402	394	577	519	215	324	321	560	234	993	0.439642204	0.892840893
CDR20291_2859	75	109	126	159	93	271	28	56	98	101	118	0.471383492	0.894067873
CDR20291_2860	90	117	52	75	57	433	33	37	29	38	332	0.251547191	0.986223558
CDR20291_2861	519	806	362	655	475	454	677	397	861	274	359	-0.019278616	0.996617239

CDR20291_2862	0	0	0	4	0	1	1	0	0	0	0	NA	NA
CDR20291_2863	3	1	3	3	0	2	0	0	1	0	1	NA	NA
CDR20291_2864	48	66	23	33	46	96	40	49	127	9	12	-0.037382323	0.996617239
CDR20291_2864;													
CDR20291_2865	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_2865	12	25	20	8	1	5	0	1	3	4	8	NA	NA
CDR20291_2866	1482	1957	1510	4411	2391	1824	1917	1417	1668	1595	2179	0.412672218	0.856027611
CDR20291_2867	143	221	128	75	101	91	32	49	54	77	45	-0.85898535	0.737388095
CDR20291_2868	77	136	52	147	42	124	104	29	95	24	47	-0.022658337	0.997049181
CDR20291_2869	1624	1315	1580	1337	1193	1441	1094	1106	1301	1414	1528	-0.372718697	0.652252836
CDR20291_2870	241	488	417	382	490	285	421	505	835	358	464	0.884634833	0.474462087
CDR20291_2871	5884	8624	8779	8837	8328	9672	7152	7491	8142	10541	7579	0.445653636	0.422048282
CDR20291_2872	1606	1970	1566	1412	2006	1819	1164	1574	2252	1523	2275	0.036812021	0.9964183
CDR20291_2873	180	108	232	79	150	269	165	503	142	163	123	0.030606333	0.9964183
CDR20291_2874	10	1	0	9	21	3	54	1	8	5	0	0.204387024	0.9964183
CDR20291_2875	338	213	177	174	250	197	308	274	258	154	71	-0.746039547	0.74023827
CDR20291_2876	9256	10679	11160	10225	11504	12180	11343	9239	11402	13630	11142	0.208096391	0.892547682
CDR20291_2877	201	165	235	284	190	458	327	141	288	101	102	0.118806305	0.991089357
CDR20291_2878	935	1105	1347	1009	1120	1319	1267	1075	982	803	1466	0.229595467	0.913649554
CDR20291_2879	1683	2762	2426	2159	2706	3096	1338	2242	2060	2109	2012	0.331283332	0.601692812
CDR20291_2880	135	143	85	111	184	732	66	108	83	195	1034	0.255159669	0.972520712
CDR20291_2881	174	103	54	41	77	76	37	7	52	51	52	-1.7853571	0.244723396
CDR20291_2882	128	197	303	162	236	71	117	162	315	252	89	0.483781014	0.883480371
CDR20291_2883	23	30	6	33	1	21	14	20	9	76	0	-0.227850612	0.9964183
CDR20291_2884	26	119	5	76	66	10	55	59	24	28	50	0.854414178	0.883162929
CDR20291_2885	10	88	210	15	38	67	43	74	129	36	37	2.780077773	0.125676858
CDR20291_2886	680	853	1020	923	985	769	843	968	836	896	773	0.307905328	0.812761023
CDR20291_2887	364	402	306	450	241	688	172	358	390	256	193	-0.203714153	0.950748991
CDR20291_2888	930	1257	1035	689	882	939	674	1014	634	609	789	-0.22168452	0.913589862
CDR20291_2889	2345	2568	2690	1969	2967	3310	2215	3045	2707	3279	3457	0.181345371	0.918679299

CDR20291_2890	5	2	5	5	1	22	2	4	1	0	17	NA	NA
CDR20291_2891	253	361	340	351	254	404	208	361	328	426	477	0.376726107	0.806019044
CDR20291_2892	29	0	2	0	1	1	1	0	1	0	0	NA	NA
CDR20291_2893	412	442	550	301	387	508	215	347	455	462	283	-0.173543123	0.938005364
CDR20291_2894	52	73	77	35	142	5	8	45	37	82	42	-0.064471469	0.9964183
CDR20291_2895	20	7	14	20	13	7	6	10	8	10	11	-1.013558241	0.809552018
CDR20291_2896	2426	3177	3378	3575	2997	3141	3001	3907	2735	3462	6128	0.479120044	0.750112457
CDR20291_2897	43	82	65	104	36	122	65	12	8	114	22	0.43883169	0.950748991
CDR20291_2898	220	294	169	239	193	138	102	276	244	181	254	-0.168108961	0.96268905
CDR20291_2899	205	589	895	578	378	1405	334	2068	862	555	531	1.893007461	0.101494983
CDR20291_2900	1011	183	65	155	183	154	86	117	184	125	216	-2.881424261	5.47E-06
CDR20291_2901	201	129	144	48	128	262	130	140	108	48	58	-0.849301385	0.738019545
CDR20291_2902	144	29	146	170	117	150	132	93	120	133	181	-0.245786805	0.961480359
CDR20291_2903	355	259	487	328	272	588	148	352	365	1043	613	0.215730102	0.964473894
CDR20291_2904	75	71	45	83	62	65	4	119	43	33	125	-0.325535248	0.96268905
CDR20291_2905	382	583	517	1498	432	628	325	688	1033	454	167	0.624529625	0.832702445
CDR20291_2906	59	54	107	49	56	49	7	28	4	21	36	-0.681832857	0.910666531
CDR20291_2907	259	269	276	234	326	266	290	66	133	217	179	-0.27737829	0.941972291
CDR20291_2908	550	754	516	611	622	618	571	586	721	745	763	0.165508332	0.937393001
CDR20291_2909	858	1161	1393	1129	1040	1551	654	744	1488	1347	1546	0.384492865	0.791887613
CDR20291_2910	245	386	377	262	331	266	141	291	96	183	395	0.041928399	0.9964183
CDR20291_2911	960	1059	1004	1164	1188	1407	640	972	804	1084	906	-0.018829259	0.9964183
CDR20291_2912	598	696	477	531	1110	1047	294	665	513	554	959	0.070581292	0.995544519
CDR20291_2913	112	406	242	288	248	133	119	161	179	139	88	0.722957477	0.737114605
CDR20291_2914	133	163	148	140	150	239	89	161	128	135	79	-0.010298424	0.997049181
CDR20291_2915	81	48	39	84	70	51	14	60	73	239	61	-0.243024901	0.978728379
CDR20291_2916	27	22	9	22	5	14	0	7	16	20	0	-1.385165109	0.856027611
CDR20291_2917	674	894	730	911	823	889	410	658	568	528	714	-0.033109479	0.9964183
CDR20291_2918	38	19	35	60	27	14	23	26	30	30	21	-0.493098116	0.913649554
CDR20291_2919	39	25	81	18	60	50	36	61	13	40	33	0.00310046	0.998844778

CDR20291_2920	490	615	670	518	498	675	483	384	394	435	604	0.01628246	0.9964183
CDR20291_2921	8	0	0	6	11	13	1	1	25	2	0	NA	NA
CDR20291_2922	126	108	201	82	114	173	127	60	33	52	154	-0.277741263	0.958673898
CDR20291_2923	174	215	142	196	252	340	236	270	159	186	139	0.2133775	0.948646149
CDR20291_2924	258	331	245	67	320	258	115	263	151	165	223	-0.388186226	0.898602063
CDR20291_2925	300	323	613	534	341	805	351	1181	506	491	333	0.777610108	0.664644486
CDR20291_2926	439	341	333	526	317	269	147	553	316	416	216	-0.45691269	0.8357875
CDR20291_2927	1172	1618	1614	1656	1840	2210	2171	2021	1521	1197	2041	0.549538224	0.662791361
CDR20291_2927;													
CDR20291_2928	49	19	38	75	68	151	15	19	80	32	80	0.086292041	0.9964183
CDR20291_2928	3450	9518	11330	8598	10947	11145	8943	8497	8594	11479	8085	1.408148239	4.91E-05
CDR20291_2929	20262	326	90	732	685	621	733	361	463	554	553	-5.354051486	2.46E-11
CDR20291_2930	6	5	7	3	6	3	0	3	4	2	1	NA	NA
CDR20291_2931	3494	1141	1308	970	938	1206	329	648	863	787	790	-2.092294314	1.42E-05
CDR20291_2932	107	194	158	74	141	40	399	44	116	69	150	0.420680513	0.949832827
CDR20291_2933	273	381	146	68	240	204	176	505	245	220	340	-0.187941444	0.978412117
CDR20291_2934	958	1354	833	1000	1123	1251	1199	925	1677	857	899	0.145413206	0.96268905
CDR20291_2935	314	395	343	250	230	563	178	372	311	216	321	-0.098462392	0.985458574
CDR20291_2936	202	55	34	14	14	45	6	46	1019	31	59	-2.685706742	0.053425954
CDR20291_2937	2330	3412	2935	3125	3464	3912	2676	3044	3253	3224	2291	0.336600408	0.66387476
CDR20291_2938	7207	16333	14682	16140	17264	19491	8688	16677	13975	14390	11874	0.942414123	0.002767661
CDR20291_2939	9	9	1	2	17	15	7	19	1	2	8	NA	NA
CDR20291_2940	134	160	105	78	136	100	63	97	93	152	81	-0.439069898	0.830538166
CDR20291_2941	4644	5361	4915	5345	5654	5159	3264	4692	4781	7191	8894	0.15823546	0.949832827
CDR20291_2942	1080	1198	1117	1307	1167	1149	682	753	1499	1055	1017	-0.081287504	0.978951444
CDR20291_2943	101	175	60	179	107	230	73	135	218	102	46	0.274248668	0.951893091
CDR20291_2944	81	137	95	89	96	57	13	76	149	67	40	-0.11240532	0.9964183
CDR20291_2945	869	1028	892	635	783	1123	467	684	705	818	494	-0.305145407	0.823959751
CDR20291_2946	171	267	366	134	292	295	20	83	246	155	49	-0.012210919	0.998270107
CDR20291_2947	13	55	20	9	2	1	14	24	2	0	20	0.100405064	0.9964183

CDR20291_2948	156	191	99	69	161	397	72	114	137	134	145	-0.184674644	0.976678975
CDR20291_2949	3660	6077	6389	6187	6283	6568	3529	5463	4510	6285	6130	0.545385882	0.165164304
CDR20291_2949;													
CDR20291_2950	4186	6060	6014	5841	6489	6612	7097	5155	5427	5638	5703	0.454862218	0.653760702
CDR20291_2951	196	112	109	200	63	121	41	213	332	272	112	-0.408138842	0.933474326
CDR20291_2952	119	114	242	104	73	143	70	214	155	106	117	0.07264672	0.9964183
CDR20291_2953	49	84	125	109	131	224	35	13	68	74	180	0.941472814	0.784660185
CDR20291_2954	829	713	690	1257	1118	1036	1020	695	708	881	769	0.028981392	0.9964183
CDR20291_2955	1638	1420	1554	1480	1377	1099	988	1169	1142	1626	1872	-0.341094825	0.803755334
CDR20291_2956	489	822	512	821	915	977	414	412	753	1352	970	0.590487276	0.705666263
CDR20291_2957	39	48	72	55	46	41	43	87	178	114	100	0.941513638	0.750112457
CDR20291_2958	248	429	222	254	443	242	476	244	222	702	162	0.401678057	0.913649554
CDR20291_2959	6	5	5	6	7	2	6	0	10	36	224	0.397319075	0.985642008
CDR20291_2960	187	316	189	261	135	253	68	354	401	360	141	0.295730449	0.940486417
CDR20291_2961	2470	3279	4222	3330	3427	4848	2849	3948	3365	4193	4610	0.533766687	0.410407188
CDR20291_2962	9	9	1	4	6	7	6	1	7	11	3	NA	NA
CDR20291_2962;													
CDR20291_2963	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_2963	356	444	595	512	618	1074	220	334	372	330	303	0.283188701	0.92222337
CDR20291_2964	70	55	45	30	33	43	16	42	29	24	2	-1.262336569	0.676254048
CDR20291_2965	73	34	26	78	22	257	26	66	43	56	127	-0.141798527	0.9964183
CDR20291_2966	3	1	0	4	3	0	1	0	3	0	1	NA	NA
CDR20291_2967	63	27	59	42	14	49	57	27	6	11	129	-0.620324957	0.933466522
CDR20291_2968	124	55	61	70	110	126	191	129	220	85	157	-0.058582903	0.9964183
CDR20291_2969	3092	2427	1536	1817	2603	3416	1281	2236	2078	2378	3131	-0.541797051	0.59172591
CDR20291_2970	36	113	67	71	142	72	65	41	49	62	10	0.833388143	0.816067059
CDR20291_2971	256	350	375	322	212	337	304	479	191	336	81	0.1443893	0.985458574
CDR20291_2972	649	1023	616	630	871	532	606	650	544	543	543	-0.070210484	0.989879733
CDR20291_2973	215	178	145	327	221	321	50	473	235	205	167	-0.009122573	0.998270107
CDR20291_2974	211	320	433	253	466	1056	476	272	545	446	607	1.113754798	0.368331083

CDR20291_2975	104	153	179	90	120	121	85	194	167	156	151	0.35640567	0.883480371
CDR20291_2976	41	35	9	11	199	321	846	474	1383	1599	120	3.623540629	0.426964238
CDR20291_2977	1273	1945	1048	1911	1124	1620	910	1881	1935	1774	1724	0.224940859	0.918679299
CDR20291_2978	193	215	420	120	204	305	116	183	176	150	333	0.08985201	0.993685705
CDR20291_2979	270	153	145	34	195	277	41	75	100	112	140	-1.240411709	0.484588797
CDR20291_2980	379	786	750	446	692	702	215	453	561	438	714	0.4775316	0.757308657
CDR20291_2981	773	892	983	760	1100	1032	593	616	776	664	2079	0.203638729	0.951893091
CDR20291_2982	65	112	141	233	81	73	29	26	44	75	61	0.292225247	0.96268905
CDR20291_2983	6062	7012	7005	6640	6566	7607	4911	6238	7227	5841	6001	0.008463133	0.9964183
CDR20291_2984	2259	2872	1913	2459	2775	2348	6996	2146	1490	1752	2127	-0.179143536	0.913649554
CDR20291_2985	40	50	18	45	30	26	41	29	313	26	6	-0.463625914	0.936058228
CDR20291_2986	878	1771	1345	1537	1979	1149	1032	1553	1284	2061	1987	0.748272171	0.327145636
CDR20291_2987	304	352	241	323	266	669	247	188	649	304	2287	0.787767809	0.860256514
CDR20291_2988	119	116	71	91	136	118	88	166	178	88	57	-0.184044121	0.972259219
CDR20291_2989	633	1109	1174	820	1622	1130	807	1051	1214	761	845	0.638739719	0.442395276
CDR20291_2990	9238	17526	17579	15927	17043	17880	11431	13704	13534	15624	13700	0.637883669	0.014524831
CDR20291_2991	12983	29911	29313	25770	28529	31003	17409	23642	24181	30773	26121	0.935733476	0.00010174
CDR20291_2992	251	266	238	225	240	116	162	240	91	296	136	-0.407987477	0.883480371
CDR20291_2993	2	12	0	3	9	0	6	14	1	1	1	NA	NA
CDR20291_2994	539	959	863	710	883	922	423	562	447	414	227	0.123400104	0.980899864
CDR20291_2995	29	32	49	63	92	44	13	13	11	12	33	0.16927017	0.993611175
CDR20291_2996	235	301	360	429	367	775	195	352	275	341	190	0.475664784	0.811065537
CDR20291_2997	330	501	579	349	575	773	349	474	471	607	333	0.493408028	0.660192271
CDR20291_2998	231	681	505	571	408	762	284	297	463	529	132	0.876610693	0.549769063
CDR20291_2999	16	33	18	3	36	14	10	5	11	0	3	-0.405665591	0.978951444
CDR20291_3000	153	215	243	114	164	286	78	222	139	139	48	-0.025707885	0.9964183
CDR20291_3001	2	1	0	2	1	0	2	0	0	2	0	NA	NA
CDR20291_3002	3	0	0	0	1	1	0	2	1	0	0	NA	NA
CDR20291_3003	2	1	0	1	0	1	2	0	1	0	0	NA	NA
CDR20291_3004	5	1	0	4	0	0	2	0	3	0	3	NA	NA

CDR20291_3005	4	2	0	0	0	0	0	2	2	0	0	NA	NA
CDR20291_3006	5	0	2	0	0	3	0	0	1	0	0	NA	NA
CDR20291_3007	229	419	325	406	263	291	2548	240	512	380	354	0.489763282	0.754360226
CDR20291_3008	1258	1843	1786	1885	1823	1563	946	1897	1805	2165	1485	0.350618049	0.729553852
CDR20291_3009	92	150	199	100	126	145	89	134	82	126	113	0.355590025	0.873212813
CDR20291_3010	2138	3056	3004	2684	2890	2797	1197	2221	1886	2431	1337	0.01387748	0.9964183
CDR20291_3011	1	1	0	0	0	0	2	4	2	1	1	NA	NA
CDR20291_3012	485	447	482	549	492	359	235	340	212	318	307	-0.484753682	0.737388095
CDR20291_3013	26	27	34	22	2	13	8	8	6	9	35	-0.77064944	0.913649554
CDR20291_3014	40	101	211	106	277	544	2337	303	168	141	459	2.52013739	0.024395312
CDR20291_3015	1406	1407	1313	1609	2083	1799	1249	1198	1179	2956	1925	0.15776363	0.957295969
CDR20291_3016	474	531	375	580	655	527	307	287	311	468	284	-0.24473926	0.913649554
CDR20291_3017	7	3	1	1	11	5	0	2	1	0	1	NA	NA
CDR20291_3018	785	882	504	1032	629	783	439	871	729	987	756	-0.141962598	0.957295969
CDR20291_3019	27	46	30	119	81	38	40	56	13	52	116	1.045175189	0.757308657
CDR20291_3020	2	0	34	1	3	5	0	15	3	0	0	NA	NA
CDR20291_3021	1159	2161	1955	1616	2281	4564	1255	1719	1345	1678	1778	0.67970734	0.522533808
CDR20291_3022	7	18	0	0	1	21	0	1	0	0	0	NA	NA
CDR20291_3023	6	4	0	2	0	2	1	0	0	2	1	NA	NA
CDR20291_3024	0	0	0	0	0	0	1	0	0	1	1	NA	NA
CDR20291_3025	1289	1073	1192	1148	1342	1155	685	773	615	1135	982	-0.45933172	0.620903595
CDR20291_3026	35	13	34	22	21	10	16	20	24	8	4	-1.103520282	0.787253609
CDR20291_3027	2	1	1	2	1	2	3	0	6	1	0	NA	NA
CDR20291_3028	1	1	0	0	1	2	0	3	0	1	0	NA	NA
CDR20291_3029	7	1	0	2	3	6	0	1	2	2	2	NA	NA
CDR20291_3030	2	3	1	0	0	3	0	0	3	1	6	NA	NA
CDR20291_3031	6	0	1	2	1	1	4	0	2	1	1	NA	NA
CDR20291_3032	1	3	2	3	1	3	4	3	1	2	3	NA	NA
CDR20291_3033	253	251	413	246	331	385	275	347	381	799	208	0.436488003	0.873404371
CDR20291_3034	71	64	136	204	43	53	30	78	38	21	2	-0.209234637	0.990274717

CDR20291_3035	48	30	6	4	23	141	22	10	35	19	42	-0.691675246	0.930649044
CDR20291_3036	35	47	33	61	16	78	15	23	69	18	59	0.136978349	0.995544519
CDR20291_3037	439	493	394	325	334	594	227	1628	221	187	424	0.046674456	0.9964183
CDR20291_3038	622	685	869	557	1143	889	579	994	1061	868	509	0.297340808	0.883480371
CDR20291_3039	431	533	368	440	573	618	199	334	732	280	502	-0.029481158	0.9964183
CDR20291_3040	145	225	326	207	143	189	89	520	235	173	582	0.806745952	0.770907852
CDR20291_3041	374	788	647	713	730	658	349	1302	707	1349	843	1.016762543	0.327145636
CDR20291_3042	1947	3491	3132	2509	3345	3941	2202	3110	2220	3487	2875	0.537434688	0.308971408
CDR20291_3043	85	199	162	98	94	138	33	155	45	61	39	0.125486925	0.993685705
CDR20291_3044	1637	2385	2128	1654	1744	1653	1507	1749	1568	1972	1545	0.042188823	0.995544519
CDR20291_3045	25	3	0	2	2	0	1	1	1	0	5	NA	NA
CDR20291_3046	3	2	1	3	0	0	2	0	0	3	1	NA	NA
CDR20291_3047	93	99	83	47	85	40	55	30	162	113	33	-0.399732495	0.937393001
CDR20291_3048	3052	6790	6242	6012	6122	6194	3527	4479	6064	4796	5143	0.754590199	0.027805454
CDR20291_3049	203	210	245	259	203	271	205	211	286	115	68	-0.054624712	0.9964183
CDR20291_3050	1777	1825	2433	1599	1779	2818	2872	2974	2451	2761	2330	0.370582446	0.856389792
CDR20291_3051	6	4	1	3	0	4	2	3	2	1	2	NA	NA
CDR20291_3051;													
CDR20291_3052	0	0	0	0	2	0	0	0	0	0	0	NA	NA
CDR20291_3052	611	11075	16583	8180	11460	9805	19162	27217	20784	13242	12870	4.591059985	2.73E-11
CDR20291_3053	50	6	20	3	0	0	3	2	5	1	0	NA	NA
CDR20291_3054	1810	2273	1933	2034	2299	1331	1383	2376	1822	2065	2171	0.036370974	0.9964183
CDR20291_3055	270	230	174	184	209	327	117	324	214	107	172	-0.501282862	0.804031614
CDR20291_3056	11	8	0	5	0	3	2	2	0	0	5	NA	NA
CDR20291_3057	120	122	87	91	120	168	42	124	80	66	198	-0.246170541	0.950748991
CDR20291_3058	379	325	358	308	427	382	169	386	184	344	241	-0.393679627	0.804546775
CDR20291_3059	48	63	124	57	78	56	58	72	18	46	28	0.229372823	0.976678975
CDR20291_3060	181	417	305	252	341	475	231	171	194	204	646	0.735167609	0.695730148
CDR20291_3061	94	64	61	13	38	50	34	33	15	53	61	-1.253001661	0.561055642
CDR20291_3062	261	242	370	104	287	205	216	226	130	361	131	-0.285663201	0.938005364

CDR20291_3063	801	788	809	929	742	1143	288	483	573	451	588	-0.373717117	0.834552815
CDR20291_3064	14964	18213	19498	16999	20085	22917	20381	18171	19774	21042	21021	0.332897626	0.763293493
CDR20291_3065	88	175	119	49	102	139	43	131	16	73	53	-0.105159436	0.9964183
CDR20291_3066	882	1271	1029	1143	1205	1133	565	658	1303	992	1197	0.142951568	0.949832827
CDR20291_3067	638	630	479	455	515	815	240	230	514	545	525	-0.494004941	0.751886272
CDR20291_3068	1912	857	739	982	773	940	556	602	803	610	827	-1.412301249	8.51E-05
CDR20291_3069	10	17	4	6	11	13	33	12	3	53	6	0.651998904	0.943128431
CDR20291_3070	42	78	87	88	104	74	33	41	26	116	54	0.613304633	0.842928602
CDR20291_3071	306	514	437	340	337	623	263	235	580	208	335	0.229026254	0.938005364
CDR20291_3072	282	277	418	270	407	412	190	490	137	172	239	-0.015239812	0.996999837
CDR20291_3073	20	45	13	89	9	25	56	73	4	14	4	0.704216793	0.936058228
CDR20291_3074	3	2	1	7	0	6	2	1	6	1	0	NA	NA
CDR20291_3075	387	14132	2347	4426	4942	6769	12390	4066	3151	2253	4064	3.896151708	0.000147576
CDR20291_3076	184	125	163	244	353	140	293	179	235	1087	1684	1.245345467	0.81936773
CDR20291_3077	440	541	416	359	449	499	148	252	347	314	487	-0.334174825	0.870110009
CDR20291_3078	6	4	0	11	4	3	4	3	4	1	17	NA	NA
CDR20291_3079	7	8	2	20	9	15	1	3	2	0	0	NA	NA
CDR20291_3079;													
CDR20291_3080	0	0	0	0	0	0	1	2	0	0	0	NA	NA
CDR20291_3080	1	0	2	1	0	0	0	0	0	0	0	NA	NA
CDR20291_3081	7	0	0	0	1	1	5	0	2	2	3	NA	NA
CDR20291_3082	348	744	564	780	732	895	464	444	749	797	600	0.855754976	0.115459118
CDR20291_3083	5	3	4	0	3	1	1	2	3	2	1	NA	NA
CDR20291_3084	2	0	2	2	1	0	4	1	1	1	1	NA	NA
CDR20291_3085	1	2	0	1	1	2	1	2	5	2	0	NA	NA
CDR20291_3086	1	1	0	0	3	0	0	0	3	4	1	NA	NA
CDR20291_3087	6	1	0	2	1	0	0	0	2	0	3	NA	NA
CDR20291_3088	1761	1810	2382	2037	2118	1833	1116	2354	1685	2882	2421	0.131858238	0.954580155
CDR20291_3089	99	141	86	68	159	114	79	181	63	34	62	-0.101908434	0.9964183
CDR20291_3090	7	2	3	6	14	3	4	2	6	2	5	NA	NA

CDR20291_3091	4550	5412	5135	5240	6900	6801	4577	11181	5716	6648	6403	0.409960835	0.793591637
CDR20291_3092	6	2	1	6	2	5	15	0	4	4	1 NA		NA
CDR20291_3093	649	323	367	264	316	385	162	433	632	260	450	-0.948949439	0.403821608
CDR20291_3094	508	1142	938	604	955	1731	838	878	719	641	928	0.781308841	0.410407188
CDR20291_3095	1	1	0	0	2	3	1	2	0	0	1 NA		NA
CDR20291_3096	3775	1054	553	882	1609	1534	754	1475	1085	1248	1558	-1.7793963	0.004388787
CDR20291_3097	4	2	0	2	0	1	3	0	4	0	0 NA		NA
CDR20291_3098	22	1	0	1	0	0	1	0	0	0	0 NA		NA
CDR20291_3099	3	2	1	1	1	2	1	0	1	1	0 NA		NA
CDR20291_3100	66	1	0	1	1	0	1	3	1	0	0 NA		NA
CDR20291_3101	5	2	0	1	1	0	1	3	2	0	2 NA		NA
CDR20291_3102	4	1	0	0	0	1	2	0	0	0	0 NA		NA
CDR20291_3103	7	4	3	2	1	6	3	1	6	0	2 NA		NA
CDR20291_3104	11	4	1	6	1	5	0	1	1	1	1 NA		NA
CDR20291_3105	15	4	1	3	11	5	2	5	6	3	0 NA		NA
CDR20291_3106	5001	6210	7575	6548	7605	7802	3778	5949	6361	6196	6225	0.254017768	0.714184322
CDR20291_3107	1	2	0	0	0	2	0	0	0	0	0 NA		NA
CDR20291_3108	1	0	2	2	1	0	1	1	1	0	0 NA		NA
CDR20291_3109	565	357	538	500	844	356	653	712	883	545	338	-0.031889792	0.9964183
CDR20291_3110	899	2318	2570	4301	2338	2786	3162	2386	10812	2107	2796	1.931316056	0.099478888
CDR20291_3111	4	0	0	5	0	2	2	3	0	1	2 NA		NA
CDR20291_3112	1685	8485	7984	13140	8281	11874	7324	19105	14703	14722	16966	2.785679705	3.13E-06
CDR20291_3113	1890	38	28	18	20	55	18	49	21	24	20	-6.133500194	2.04E-23
CDR20291_3114	7	1	2	4	3	6	5	4	7	2	2 NA		NA
CDR20291_3115	76	72	51	120	114	123	18	59	59	71	18	-0.261931514	0.964838183
CDR20291_3116	19	2	1	5	3	5	3	0	7	2	3 NA		NA
CDR20291_3117	242	281	78	184	140	189	117	122	307	468	370	-0.18871161	0.978738146
CDR20291_3118	8	2	13	10	5	25	0	1	3	4	4 NA		NA
CDR20291_3119	109	293	142	260	262	162	100	77	97	191	104	0.506598244	0.860653178
CDR20291_3120	477	638	408	331	358	988	159	339	415	430	195	-0.316677355	0.92222337

CDR20291_3121	1	0	3	0	1	1	2	1	3	1	0	NA	NA
CDR20291_3122	175	204	158	178	110	261	74	101	155	111	223	-0.273269013	0.933474326
CDR20291_3123	2	1	1	2	1	0	0	2	1	1	2	NA	NA
CDR20291_3124	47	51	45	38	53	14	10	37	130	63	28	-0.101316182	0.9964183
CDR20291_3125	24	19	7	66	8	11	8	14	23	19	14	-0.444464643	0.954404489
CDR20291_3126	119	213	270	313	302	723	115	2028	262	359	382	1.297558967	0.194079428
CDR20291_3127	287	369	542	456	518	1114	314	424	327	239	404	0.583955031	0.756242451
CDR20291_3128	143	383	419	197	261	452	92	392	190	342	273	0.936824801	0.474151117
CDR20291_3129	9553	9440	8081	11971	10655	11733	6388	10196	15375	10414	10266	0.035485949	0.9964183
CDR20291_3130	10488	9471	8872	7651	9882	10200	4581	7473	8481	7250	8516	-0.459286041	0.3392043
CDR20291_3131	1185	1610	1146	1207	1430	1570	563	994	767	962	920	-0.21298723	0.910666531
CDR20291_3132	2	0	0	0	1	0	0	0	1	0	0	NA	NA
CDR20291_3133	0	0	0	0	2	1	1	0	0	1	0	NA	NA
CDR20291_3134	12	33	11	13	31	11	50	7	20	11	1	0.65702198	0.938618522
CDR20291_3135	507	699	517	418	715	894	473	495	406	551	1039	0.194845217	0.946208554
CDR20291_3136	214	406	151	207	327	130	119	409	144	163	185	-0.03527986	0.9964183
CDR20291_3137	1207	1390	1195	1084	1178	1208	526	679	823	658	1192	-0.399786548	0.774785049
CDR20291_3138	0	1	0	1	1	1	1	0	1	0	0	NA	NA
CDR20291_3139	50	17	48	22	25	41	10	5	14	7	0	-1.563077246	0.75332961
CDR20291_3140	3	2	0	1	2	1	3	0	2	0	0	NA	NA
CDR20291_3141	674	854	674	778	705	687	430	478	421	347	515	-0.30288081	0.873185993
CDR20291_3142	39	40	9	2	61	56	15	5	5	151	69	-0.041964692	0.996999837
CDR20291_3143	423	631	357	402	442	418	560	521	268	395	257	-0.053542514	0.9964183
CDR20291_3144	17	52	103	93	98	84	20	36	34	27	48	1.662653638	0.34680751
CDR20291_3145	393	538	374	356	616	497	415	441	607	438	1022	0.356918556	0.886044813
CDR20291_3146	2	1	1	4	2	5	2	2	1	3	0	NA	NA
CDR20291_3147	9259	11156	10893	9075	11406	11253	7836	11665	10040	12239	12160	0.129006665	0.933474326
CDR20291_3148	1486	1575	1498	1684	1706	1570	748	1317	1788	1996	1361	-0.071214454	0.985458574
CDR20291_3148;													
CDR20291_3149	163	92	87	88	134	148	136	145	95	61	28	-0.750912376	0.786730769

CDR20291_3149	4563	5274	3711	5925	5674	6201	4106	4498	7698	4877	4736	0.120071978	0.961984872
CDR20291_3150	1707	2169	1661	2182	2083	2491	2344	2264	2547	2471	2488	0.3447671	0.809552018
CDR20291_3151	7169	14665	12573	15170	16091	15952	15926	14697	17146	16032	14714	1.025180954	0.0304071
CDR20291_3152	9	1	1	1	4	2	0	0	1	6	1 NA	NA	NA
CDR20291_3153	0	1	1	4	4	9	3	12	3	1	0 NA	NA	NA
CDR20291_3154	11	10	5	1	12	15	4	1	0	0	1 NA	NA	NA
CDR20291_3155	0	2	0	0	1	0	2	0	1	0	0 NA	NA	NA
CDR20291_3156	3	17	3	2	20	2	12	4	5	2	2 NA	NA	NA
CDR20291_3157	69	81	172	177	83	129	76	42	130	34	20	0.344440809	0.951893091
CDR20291_3158	36	50	49	82	44	80	67	36	10	8	52	0.335346256	0.963464928
CDR20291_3159	20	44	1	10	16	101	5	8	34	25	168	0.913379528	0.915687694
CDR20291_3160	8	3	1	0	5	0	3	2	1	0	1 NA	NA	NA
CDR20291_3161	2	1	0	0	0	1	1	0	0	1	0 NA	NA	NA
CDR20291_3162	13	5	4	8	3	6	3	3	8	4	2 NA	NA	NA
CDR20291_3163	2	0	0	0	2	1	1	1	0	0	0 NA	NA	NA
CDR20291_3164	2	0	1	1	0	0	0	0	4	0	0 NA	NA	NA
CDR20291_3165	2	1	1	1	1	4	0	1	4	1	2 NA	NA	NA
CDR20291_3166	0	2	0	1	0	2	3	0	0	0	2 NA	NA	NA
CDR20291_3167	13	4	0	3	1	4	11	3	4	4	0 NA	NA	NA
CDR20291_3168	1728	2098	2257	2227	3252	2988	4460	3271	4312	4539	2899	0.86667342	0.511435998
CDR20291_3169	3	3	0	2	2	1	1	0	3	2	2 NA	NA	NA
CDR20291_3170	11	4	2	3	4	7	4	10	2	2	3 NA	NA	NA
CDR20291_3171	2253	3701	3012	3148	3407	4041	1722	2398	3172	3107	2784	0.322763691	0.652252836
CDR20291_3172	166	218	147	148	218	124	55	64	84	61	122	-0.553870284	0.842813097
CDR20291_3173	336	112	56	185	159	204	311	190	102	273	103	-1.008011819	0.665951696
CDR20291_3174	1577	3485	2570	2705	2922	3716	2022	2179	2637	2311	2327	0.665030498	0.111075207
CDR20291_3175	973	2108	2342	1303	1600	2051	1469	1318	2168	1947	1316	0.765584079	0.268483007
CDR20291_3176	45	23	97	27	49	72	78	52	67	24	96	0.331976001	0.954404489
CDR20291_3177	48	21	71	24	82	24	25	53	7	36	27	-0.478377067	0.937393001
CDR20291_3178	1068	3341	5190	2608	2926	3339	3023	4159	3410	2444	3342	1.584035054	0.002494253

CDR20291_3179	519	1015	913	834	881	979	500	666	948	949	528	0.552879285	0.46526677
CDR20291_3180	8223	10038	9545	8134	8243	11752	7015	8843	10120	12959	7418	0.09971447	0.96268905
CDR20291_3181	48	19	49	25	47	61	3	39	49	36	22	-0.600609604	0.906239631
CDR20291_3182	26	20	80	42	53	64	8	28	22	33	32	0.405111397	0.940486417
CDR20291_3183	65	92	79	64	82	79	31	99	145	37	33	0.080207256	0.9964183
CDR20291_3184	1247	1708	1711	1520	1465	1944	729	1183	1199	2226	1417	0.158248907	0.938035439
CDR20291_3185	86	49	35	215	71	88	11	43	47	50	29	-0.578561217	0.913649554
CDR20291_3186	722	1199	1326	1262	1212	1316	987	1333	1166	1025	1004	0.625286839	0.184544904
CDR20291_3187	36	4	19	14	2	8	6	3	8	0	5	-2.477717811	0.529739255
CDR20291_3187A	3	0	0	0	0	1	0	0	1	0	0	NA	NA
CDR20291_3188	1248	2435	2137	1977	1995	2245	2023	1406	1702	2502	2030	0.631846537	0.373908522
CDR20291_3189	3128	5999	6177	5753	5617	6666	5087	7338	6129	6750	6066	0.895745258	0.022388296
CDR20291_3190	204	226	546	237	294	551	121	227	507	489	271	0.64038533	0.76875229
CDR20291_3191	4322	4904	5784	4820	5212	5700	7691	5956	5668	7520	4677	0.374955657	0.84122192
CDR20291_3192	323	506	276	284	379	414	197	336	176	256	151	-0.238553747	0.936058228
CDR20291_3193	65	72	81	41	15	82	362	22	25	26	55	-0.638351007	0.880712381
CDR20291_3194	18	59	28	64	26	22	9	21	35	48	566	0.80950679	0.831650269
CDR20291_3195	208	206	345	204	203	197	118	116	108	205	85	-0.335833256	0.913649554
CDR20291_3196	536	738	736	1126	782	718	527	473	515	593	438	0.209302284	0.933474326
CDR20291_3197	34	65	85	17	8	14	11	4	10	13	129	-0.035906772	0.997049181
CDR20291_3198	114	24	218	48	41	69	130	15	72	184	10	-0.53241927	0.941150594
CDR20291_3199	256	381	245	308	259	348	201	146	195	261	177	-0.130913092	0.970985941
CDR20291_3200	7429	10919	12216	10805	10659	9853	14217	12711	12918	16868	15422	0.717101035	0.475452056
CDR20291_3201	2757	4024	3881	3952	3281	4382	2409	3169	3494	3510	2971	0.245071467	0.729553852
CDR20291_3202	1108	1489	1634	1399	1447	1590	1667	1335	1521	1164	1651	0.36135495	0.791887613
CDR20291_3203	278	83	352	193	277	250	129	133	299	166	201	-0.51847628	0.837813669
CDR20291_3204	1601	2393	2316	2248	2994	2542	3355	2447	1512	2115	2538	0.558587308	0.69230322
CDR20291_3205	109	53	83	76	99	80	35	120	52	41	91	-0.682029156	0.76875229
CDR20291_3206	123	70	45	62	44	44	19	63	20	49	61	-1.478709604	0.256858297

CDR20291_3207	208	234	245	174	97	202	126	158	99	168	129	-0.451468127	0.82771301
CDR20291_3207;													
CDR20291_3208	0	0	0	0	0	0	0	0	1	0	0	NA	NA
CDR20291_3208	28	12	6	16	9	41	6	10	6	12	3	-1.372515534	0.75332961
CDR20291_3209	11599	18873	16867	16208	18077	19487	12691	18488	15762	16905	16813	0.459895872	0.188380211
CDR20291_3210	219	249	186	192	237	263	196	101	172	151	78	-0.358160096	0.898602063
CDR20291_3211	757	984	735	1631	962	1300	881	764	777	923	877	0.286503342	0.883480371
CDR20291_3212	10	1	10	2	1	1	4	0	2	0	0	NA	NA
CDR20291_3213	43	14	8	32	62	43	11	23	73	126	1	-0.246399433	0.989879733
CDR20291_3214	53	104	87	59	156	153	61	178	134	186	23	0.996892355	0.694246275
CDR20291_3215	3853	3771	3802	4041	3423	4502	19829	4057	3126	4017	3396	-0.165973562	0.880712381
CDR20291_3216	62	21	20	25	24	23	28	17	72	17	49	-1.119209672	0.716882185
CDR20291_3217	4	0	3	1	1	0	1	0	0	0	1	NA	NA
CDR20291_3218	157	98	119	386	115	213	105	117	372	265	286	0.315830947	0.945589703
CDR20291_3219	5	5	0	2	1	2	3	0	3	4	0	NA	NA
CDR20291_3220	360	0	0	2	0	0	1	0	1	0	0	-9.867312146	2.30E-09
CDR20291_3221	90264	71	55	39	43	125	62	62	128	66	71	-10.3748	7.27E-81
CDR20291_3222	25255	87	6	438	164	182	237	344	223	398	657	-6.570707157	8.66E-05
CDR20291_3223	159	9	0	5	10	2	19	3	9	12	12	-4.279565134	0.03801259
CDR20291_3224	4	2	2	2	1	1	1	1	2	1	0	NA	NA
CDR20291_3225	7118	12160	15351	10793	11706	13241	9107	11233	10632	12632	8262	0.598881526	0.236522871
CDR20291_3226	12924	13965	14088	11938	14520	14594	9458	13198	11643	13450	11477	-0.106320169	0.920630352
CDR20291_3227	7169	8924	7722	8359	10120	7160	4555	7302	6063	7638	7327	-0.036551678	0.9964183
CDR20291_3228	4705	6341	5209	5083	6504	4903	4104	5055	3958	5781	5163	0.055679872	0.987679719
CDR20291_3229	3251	3668	2893	2959	3965	3571	2646	3230	3172	3453	2346	-0.118394071	0.941972291
CDR20291_3230	5798	8297	9037	10561	8442	10551	6829	9778	7767	8607	6931	0.490092809	0.368331083
CDR20291_3231	104	152	199	41	137	155	263	41	110	47	48	0.175893314	0.989879733
CDR20291_3232	2270	2233	2266	2444	2714	2766	1322	2698	1955	2773	2695	-0.03159616	0.9964183
CDR20291_3233	2109	3388	2920	3711	2615	3539	47592	3679	2970	2308	3640	0.459275928	0.591724175
CDR20291_3234	1299	1790	1817	2887	2079	1579	1291	2518	2711	2975	2331	0.673758289	0.513876159

CDR20291_3235	373	428	522	358	629	341	380	534	652	373	244	0.179096816	0.956518021
CDR20291_3236	304	148	274	96	51	242	58	191	177	63	202	-1.132961908	0.566282645
CDR20291_3237	2	1	5	32	6	24	6	8	57	2	1	2.731966415	0.647460928
CDR20291_3238	702	904	820	1013	941	728	686	680	826	657	417	0.039968044	0.9964183
CDR20291_3239	2403	2952	2410	4347	3613	3007	5135	2236	2867	2679	2060	0.345068504	0.898602063
CDR20291_3240	287	34	110	13	0	5	1	12	16	20	11	-4.610435046	0.010027629
CDR20291_3241	3078	179	412	332	88	89	408	45	304	424	403	-3.537928499	0.003781501
CDR20291_3242	9215	134	1400	315	115	153	41	26	179	110	116	-6.220860166	1.08E-14
CDR20291_3243	953	44	83	19	7	5	2	2	27	7	10	-5.679094465	0.00061106
CDR20291_3244	4859	165	1149	112	52	61	31	24	122	161	148	-5.718367248	8.30E-12
CDR20291_3245	3076	69	668	134	39	43	25	17	105	49	48	-5.787782879	1.43E-12
CDR20291_3246	5042	185	896	139	37	58	26	30	117	250	256	-5.438234378	2.68E-07
CDR20291_3247	3863	174	715	111	51	41	33	19	76	98	75	-5.764923016	1.00E-12
CDR20291_3247;													
CDR20291_3248	47	2	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_3248	1930	54	501	53	32	37	5	5	70	68	26	-5.729510414	2.07E-08
CDR20291_3249	2656	80	447	67	27	8	36	11	53	95	46	-5.856751957	3.06E-09
CDR20291_3250	2219	71	377	66	28	36	7	28	82	77	24	-5.670409676	4.42E-11
CDR20291_3251	4326	170	878	178	53	40	182	7	208	325	101	-4.934805743	0.003676302
CDR20291_3252	4290	90	882	158	19	45	44	13	97	112	60	-5.971685766	2.76E-10
CDR20291_3253	4191	119	136	105	31	47	27	25	74	388	123	-5.8663477	1.00E-12
CDR20291_3254	2353	72	35	58	22	19	13	12	40	61	36	-6.11248373	5.59E-14
CDR20291_3255	3816	44	112	109	44	43	36	24	55	68	484	-6.09466021	9.63E-20
CDR20291_3256	7531	102	191	241	48	87	42	38	174	235	118	-5.991153216	4.90E-12
CDR20291_3257	72	16	7	7	3	4	3	2	3	9	3	-3.780680029	0.043161382
CDR20291_3258	59	2	0	4	0	8	0	0	4	0	2	NA	NA
CDR20291_3259	466	30	26	11	2	10	19	1	3	6	19	-5.261536282	0.000769362
CDR20291_3260	641	6	12	7	10	6	12	2	27	10	22	-5.862200975	1.34E-07
CDR20291_3261	663	14	12	10	3	16	4	5	7	29	5	-6.104799209	2.36E-09
CDR20291_3262	2243	2111	2591	2203	2330	2267	3820	1475	2213	1874	2129	0.004040202	0.998473145

CDR20291_3263	380	224	388	261	233	535	81	268	220	227	224	-0.656917667	0.698949038
CDR20291_3264	100	143	163	117	141	136	97	134	69	60	47	0.045013868	0.9964183
CDR20291_3265	190	212	125	93	191	139	52	102	177	132	127	-0.614321256	0.737114605
CDR20291_3266	74	37	27	28	114	67	41	8	4	27	0	-1.196521868	0.860653178
CDR20291_3267	2	1	2	1	0	1	0	0	0	1	0	NA	NA
CDR20291_3268	29	77	120	58	27	96	60	29	42	33	6	0.813348026	0.866082843
CDR20291_3269	425	495	401	282	513	593	150	320	295	633	385	-0.195343977	0.949832827
CDR20291_3270	169	135	201	301	176	298	788	268	254	114	144	0.716063233	0.866017993
CDR20291_3271	17	2	3	28	24	0	3	38	36	20	3	-0.192252715	0.9964183
CDR20291_3272	5109	6319	6994	7933	7843	8070	5626	8253	9553	6971	7555	0.471366362	0.511989774
CDR20291_3273	279	316	301	275	327	300	133	317	156	654	327	0.044216884	0.9964183
CDR20291_3274	33	5	2	0	1	1	1	2	4	6	0	NA	NA
CDR20291_3275	958	1477	1417	1707	1298	1553	746	1398	1345	1870	1857	0.511972134	0.557223874
CDR20291_3276	132	241	248	229	282	293	145	238	121	542	195	0.831855846	0.592540043
CDR20291_3277	2	2	13	7	27	13	9	4	1	10	12	NA	NA
CDR20291_3278	10	4	1	0	4	1	1	1	3	1	4	NA	NA
CDR20291_3279	1058	1477	1538	1466	1215	1739	1041	1477	1632	1090	2040	0.386845381	0.750694207
CDR20291_3280	26	6	20	15	3	24	30	9	4	10	12	-0.98571706	0.873772862
CDR20291_3281	7122	7085	6665	6764	7078	9216	5120	6284	7111	6502	5742	-0.174298111	0.851887925
CDR20291_3282	25	63	43	61	45	78	4	24	2	0	26	0.2779296	0.989879733
CDR20291_3283	1	3	9	0	0	3	2	1	1	0	2	NA	NA
CDR20291_3284	17	47	45	21	40	18	32	33	16	53	27	0.886338042	0.789410944
CDR20291_3285	34	130	22	16	38	4	22	6	81	65	168	0.61762172	0.940486417
CDR20291_3286	98	86	21	63	47	106	27	52	72	27	180	-0.631131888	0.88847222
CDR20291_3287	27	66	96	9	74	41	17	361	46	43	30	1.452300443	0.750112457
CDR20291_3288	141	1	162	4	4	1	1	0	10	1	0	-5.910884043	0.00895427
CDR20291_3289	304	386	265	320	600	743	199	405	205	646	250	0.269484787	0.937393001
CDR20291_3290	136	185	189	218	154	321	90	178	119	157	90	0.19273136	0.952961967
CDR20291_3291	2577	3189	3218	3884	3768	3628	1904	2617	3200	2815	2762	0.159104409	0.894067873
CDR20291_3292	43	6	16	4	9	19	1	3	91	16	28	-1.243751222	0.869497758

CDR20291_3293	2	0	1	0	1	1	1	0	2	1	1	NA	NA
CDR20291_3294	1075	2377	1951	2590	2759	2144	2207	2737	1901	2387	2215	1.038968076	0.032434867
CDR20291_3295	12	2	4	2	29	2	1	3	10	1	13	NA	NA
CDR20291_3296	7	4	2	0	0	14	3	0	0	3	0	NA	NA
CDR20291_3297	51	95	191	47	202	133	120	158	47	52	87	1.06498801	0.653263186
CDR20291_3298	116	317	365	340	296	836	555	573	378	237	245	1.769066725	0.077471746
CDR20291_3299	382	1364	988	1062	1269	1391	866	1148	1959	1193	1185	1.611613285	0.000688397
CDR20291_3300	6	0	0	1	0	2	1	1	2	2	0	NA	NA
CDR20291_3301	103	120	168	302	160	222	51	136	116	72	87	0.341207592	0.933474326
CDR20291_3302	5	1	2	0	0	0	1	0	0	0	2	NA	NA
CDR20291_3303	0	0	1	0	1	0	0	1	0	0	0	NA	NA
CDR20291_3304	5	3	1	1	3	2	1	2	1	1	3	NA	NA
CDR20291_3305	3	0	0	1	1	1	1	1	2	1	1	NA	NA
CDR20291_3306	3	3	1	6	0	3	2	3	5	4	2	NA	NA
CDR20291_3307	1	1	3	1	1	0	0	2	3	0	1	NA	NA
CDR20291_3308	2	3	0	0	0	2	1	0	0	0	1	NA	NA
CDR20291_3309	1	0	1	0	0	2	0	0	1	1	0	NA	NA
CDR20291_3310	3	1	1	0	0	0	0	1	0	1	0	NA	NA
CDR20291_3311	1	0	0	1	0	2	1	3	0	1	0	NA	NA
CDR20291_3312	4	0	0	0	0	1	1	0	1	1	0	NA	NA
CDR20291_3313	4	4	0	0	0	2	2	0	1	0	0	NA	NA
CDR20291_3314	1026	768	1017	632	796	1249	1031	688	610	728	610	-0.408349415	0.823959751
CDR20291_3315	5863	8217	7144	7756	8500	10742	4677	8409	9510	8131	10268	0.405121624	0.623101066
CDR20291_3316	1337	1236	1526	2965	2063	2388	1065	2084	3379	1963	2031	0.533988304	0.747473007
CDR20291_3317	1490	2443	2152	1467	1915	2796	2000	2421	4478	1774	1340	0.535431297	0.782813265
CDR20291_3318	8	2	0	4	1	1	2	1	1	0	0	NA	NA
CDR20291_3319	2398	4455	1823	3286	2499	3848	2604	3520	3098	3170	2845	0.289808895	0.873185993
CDR20291_3320	66	46	25	26	112	205	103	186	108	27	48	0.35005455	0.96268905
CDR20291_3321	8	6	1	4	4	1	0	4	3	2	1	NA	NA
CDR20291_3322	200	362	468	229	210	201	291	256	413	266	237	0.484453493	0.823959751

CDR20291_3323	2	0	1	0	0	0	1	1	1	0	0	NA	NA
CDR20291_3324	10	3	2	6	1	1	2	0	6	5	4	NA	NA
CDR20291_3325	4077	4016	3673	3814	4138	4071	2956	3570	3284	4028	4017	-0.208091843	0.809746805
CDR20291_3326	381	595	395	767	496	389	283	420	461	436	552	0.23323111	0.915721121
CDR20291_3327	10	5	2	4	4	7	7	2	6	3	2	NA	NA
CDR20291_3328	200	201	158	94	252	227	49	71	121	220	106	-0.562250919	0.831650269
CDR20291_3329	8	15	2	0	8	2	0	0	1	0	4	NA	NA
CDR20291_3330	719	599	349	521	328	469	272	313	284	734	247	-0.912235216	0.41451844
CDR20291_3331	0	2	1	0	0	0	0	0	1	0	0	NA	NA
CDR20291_3332	1836	2826	2972	2686	2598	2339	1852	2324	2590	2193	3279	0.394273558	0.647460928
CDR20291_3333	14	0	0	2	0	1	2	0	1	0	1	NA	NA
CDR20291_3334	1257	497	336	990	659	485	227	416	466	373	224	-1.546814136	0.082046241
CDR20291_3335	11	10	4	3	11	12	1	13	8	1	2	NA	NA
CDR20291_3336	5	33	5	11	2	2	2	30	0	28	8	1.165908053	0.913649554
CDR20291_3337	4848	6034	6155	6343	7328	6409	4506	8665	7695	7961	7196	0.407720692	0.665951696
CDR20291_3338	259	17	45	6	56	70	313	48	45	96	12	-2.686421757	0.102495579
CDR20291_3339	3	2	1	0	0	0	3	0	1	1	0	NA	NA
CDR20291_3340	426	449	471	454	383	396	1493	390	328	625	377	-0.12948455	0.957295969
CDR20291_3341	428	695	664	704	388	654	330	490	543	688	363	0.258807325	0.892840893
CDR20291_3341;													
CDR20291_3342	17	32	51	99	0	13	12	0	0	43	0	0.426792186	0.989879733
CDR20291_3342	565	1199	1380	1407	1251	1213	589	1273	767	1247	1180	0.91639824	0.085615973
CDR20291_3343	907	1906	1416	1208	1213	1443	733	810	756	878	1122	0.223250465	0.913649554
CDR20291_3344	104	62	50	147	135	160	132	169	161	55	51	0.046822032	0.9964183
CDR20291_3345	116	112	138	132	119	251	106	39	66	60	65	-0.212984585	0.972464309
CDR20291_3346	473	672	754	400	556	793	780	399	532	535	527	0.264677174	0.918198181
CDR20291_3347	1245	1918	2213	1540	1726	1630	972	1367	1549	1713	1445	0.262891321	0.807032007
CDR20291_3348	492	782	703	782	725	687	408	527	660	674	193	0.209762516	0.94438814
CDR20291_3349	4014	7038	8241	6777	6384	8283	4706	6065	4964	6065	6194	0.587478423	0.154814465
CDR20291_3350	2031	6313	5786	6104	4993	5234	3520	4621	5981	5066	7967	1.360210893	0.001820828

CDR20291_3351	0	1	1	0	1	3	2	0	3	0	2	NA	NA
CDR20291_3352	1	4	1	2	2	7	3	0	5	0	1	NA	NA
CDR20291_3353	4	0	0	0	1	1	1	0	1	0	0	NA	NA
CDR20291_3354	310	58	96	92	76	155	32	55	63	44	68	-2.20559957	0.006627486
CDR20291_3355	502	447	393	537	471	443	285	578	936	394	202	-0.188926589	0.96268905
CDR20291_3356	39	1	2	3	13	0	4	8	27	3	2	-2.679202135	0.600682721
CDR20291_3357	769	1229	1321	746	965	1394	541	755	848	1039	1167	0.263472276	0.873772862
CDR20291_3358	1353	1982	2340	1691	1972	2313	958	1472	1485	2462	1742	0.329158865	0.781217191
CDR20291_3359	8	3	2	0	2	3	4	1	1	3	1	NA	NA
CDR20291_3360	2169	2947	2504	3019	3421	3176	1946	3537	3107	3280	3111	0.376492603	0.622216955
CDR20291_3361	1199	895	658	726	734	786	2333	803	429	757	690	-0.87707877	0.095844809
CDR20291_3362	267	314	89	148	267	281	103	180	229	386	61	-0.498649694	0.883480371
CDR20291_3363	87	52	28	44	22	34	30	34	31	29	10	-1.559042164	0.319869493
CDR20291_3364	64	81	30	28	27	18	7	65	8	4	3	-1.376986683	0.789875788
CDR20291_3365	3	2	2	2	1	1	2	2	5	3	0	NA	NA
CDR20291_3366	31	92	12	7	29	21	16	94	43	27	19	0.120635632	0.9964183
CDR20291_3367	86	137	131	36	89	72	30	94	34	68	171	-0.110821962	0.9964183
CDR20291_3368	14	30	50	37	29	122	10	29	39	3	44	1.32259283	0.749626483
CDR20291_3369	4	5	5	9	4	13	2	2	0	3	4	NA	NA
CDR20291_3370	492	321	391	314	344	437	232	282	597	581	444	-0.412724575	0.82771301
CDR20291_3371	39	38	52	15	20	3	30	94	26	7	1	-0.490663461	0.96268905
CDR20291_3372	11	16	21	8	16	15	0	20	1	15	5	-0.069157848	0.9964183
CDR20291_3373	2	0	0	0	0	0	1	1	1	0	2	NA	NA
CDR20291_3374	1697	2177	1909	2825	2104	2265	1620	2141	3567	2192	2185	0.352653225	0.809746805
CDR20291_3375	680	492	897	1343	727	2031	1584	701	830	1026	1148	0.608903313	0.799846456
CDR20291_3376	395	449	406	342	415	312	319	328	254	513	245	-0.227872144	0.92222337
CDR20291_3377	30	59	14	40	48	35	5	22	34	13	33	-0.128978654	0.9964183
CDR20291_3378	2	1	0	1	1	2	1	2	3	0	3	NA	NA
CDR20291_3379	246	128	133	52	135	31	74	54	105	40	95	-1.619911508	0.265221194
CDR20291_3380	4882	5601	7221	6286	6504	8258	4754	5762	5349	7311	6940	0.294410827	0.724427212

CDR20291_3381	255	155	234	331	258	188	175	232	285	359	363	-0.061565266	0.9964183
CDR20291_3382	211	173	221	305	198	400	115	178	236	150	117	-0.137109485	0.977609616
CDR20291_3383	6	4	2	3	2	0	1	3	6	1	0	NA	NA
CDR20291_3384	6	2	0	3	3	2	1	3	3	1	0	NA	NA
CDR20291_3385	2	1	0	0	1	0	2	3	1	1	1	NA	NA
CDR20291_3386	2	1	2	5	2	2	2	2	6	2	2	NA	NA
CDR20291_3387	13	0	5	2	12	39	2	0	0	0	19	NA	NA
CDR20291_3388	0	1	0	0	0	2	1	0	0	0	0	NA	NA
CDR20291_3389	4	0	0	0	0	3	6	1	4	3	1	NA	NA
CDR20291_3390	0	1	0	0	0	0	0	1	1	0	1	NA	NA
CDR20291_3391	209	185	230	326	328	428	257	196	135	240	165	0.156427983	0.972259219
CDR20291_3392	2	2	1	0	0	0	0	1	3	1	4	NA	NA
CDR20291_3393	4	5	0	1	0	1	3	0	3	0	0	NA	NA
CDR20291_3394	1776	2215	2475	2476	2294	2692	2937	2558	1834	1949	2298	0.357847191	0.821472806
CDR20291_3394;													
CDR20291_3395	268	201	185	251	140	235	73	263	220	177	251	-0.532902475	0.769772702
CDR20291_3395	130	126	154	233	153	111	38	134	100	89	95	-0.200472231	0.96268905
CDR20291_3396	87	52	48	13	21	83	55	34	40	44	100	-0.896803678	0.797685336
CDR20291_3397	10	1	0	2	0	2	2	2	2	2	0	NA	NA
CDR20291_3398	2804	2344	2184	1492	2354	2810	1840	1197	2091	1441	1502	-0.637356157	0.495445279
CDR20291_3399	39	139	47	73	111	75	27	36	42	56	1	0.486056215	0.944864733
CDR20291_3400	16	8	12	0	21	10	2	31	5	31	1	-0.521573974	0.972464309
CDR20291_3401	3	2	1	0	2	1	3	1	0	2	0	NA	NA
CDR20291_3402	283	157	82	106	56	63	59	83	60	82	16	-1.99076817	0.106532593
CDR20291_3402;													
CDR20291_3403	1	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_3403	8	2	1	1	2	1	0	1	0	3	3	NA	NA
CDR20291_3404	3	1	2	0	0	3	2	2	0	0	2	NA	NA
CDR20291_3405	2	3	4	0	1	17	1	1	0	7	0	NA	NA
CDR20291_3406	645	1183	1655	1554	959	924	599	664	1418	970	847	0.634878624	0.607957826

CDR20291_3407	1843	2765	2628	2216	2755	2539	1650	2692	1893	1881	1615	0.196047086	0.894067873	
CDR20291_3408	690	701	390	701	502	760	332	464	930	282	482	-0.420492481	0.847183316	
CDR20291_3409	1290	1753	979	1820	2004	2969	1980	2028	1507	1648	1639	0.427132835	0.804875042	
CDR20291_3410	174	95	137	83	85	97	324	605	114	52	179	0.047243755	0.9964183	
CDR20291_3411	13	19	0	21	0	9	11	16	6	496	3	-0.501656764	0.977604609	
CDR20291_3412	2	0	0	0	0	1	0	0	0	0	0	NA	NA	
CDR20291_3413	339	358	440	519	337	396	308	294	253	544	228	0.024317797	0.9964183	
CDR20291_3414	138	93	219	131	185	304	61	92	87	130	125	-0.096320552	0.993685705	
CDR20291_3415	396	949	608	554	779	795	626	623	1309	649	519	0.821022564	0.435482203	
CDR20291_3416	8323	16351	14893	15338	14749	16121	11954	17078	20950	15084	20232	0.885664248	0.0803463	
CDR20291_3417	112	47	64	15	51	32	13	18	14	43	19	-1.962367706	0.226374337	
CDR20291_3418	987	1606	1860	2598	2044	2005	2837	1790	1513	2051	1329	0.944308431	0.339845584	
CDR20291_3419	1245	1183	857	1304	813	1107	579	1420	689	1221	653	-0.444659396	0.774785049	
CDR20291_3420	986	663	506	1194	815	608	584	638	881	783	667	-0.507520119	0.710310881	
CDR20291_3421	12139	13021	15602	14029	14049	15433	19803	17088	14502	14630	15293	0.288848052	0.883480371	
CDR20291_3422	211	524	326	548	707	395	642	240	916	554	706	1.345057877	0.2365532	
CDR20291_3423	4	21	50	1	14	0	3	20	8	11	3	1.585301109	0.853894657	
CDR20291_3424	12	35	25	4	6	23	29	3	12	20	0	0.330206563	0.987679719	
CDR20291_3425	7	2	30	2	1	67	0	2	2	25	2	0.68566868	0.966550182	
CDR20291_3426	32149	1780	10519	3034	1828	3041	2196	4890	15482	6218	1113	-2.761704714	0.188380211	
CDR20291_3427	14111	184	5257	965	497	981	743	2414	3900	1398	417	-3.158393802	0.190330418	
CDR20291_3428	15768	885	1022	465	500	1541	1082	1805	1100	1979	899	-3.872443508	1.53E-07	
CDR20291_3429	5131	1134	300	503	516	1727	889	1988	859	3042	1049	-2.175887942	0.09644556	
CDR20291_3430	3988	4	1	0	1	3	2	0	3	2	1	-11.29647582	4.40E-61	
CDR20291_3431	4474	6346	6919	6493	6943	7747	5398	6001	5936	7962	6575	0.478534141	0.306070752	
CDR20291_3432	5	0	0	3	2	0	1	0	2	0	3	NA	NA	
CDR20291_3433	628	1061	684	874	613	759	389	623	625	563	910	0.070003378	0.989879733	
CDR20291_3434	6217	11948	11467	14377	13613	14004	9071	17736	14734	11487	14135	1.005116434	0.02806593	
CDR20291_3434;														
CDR20291_3435	1	0	0	0	0	0	0	0	0	0	0	1	NA	NA

CDR20291_3435	2331	2903	3001	3632	3362	4005	2901	3566	2784	3538	3434	0.42392868	0.560585648
CDR20291_3435;													
CDR20291_3436	2	0	0	0	0	0	0	0	0	0	0	NA	NA
CDR20291_3436	3093	3886	4755	3872	4896	4297	7559	5462	4566	4884	4837	0.634097046	0.664644486
CDR20291_3437	1	1	2	1	2	0	3	2	4	3	3	NA	NA
CDR20291_3438	9788	12419	11891	11383	13653	14304	14136	11717	11813	11761	9971	0.261428352	0.866082843
CDR20291_3439	762	993	1075	749	965	923	553	1077	897	1269	961	0.214595503	0.894067873
CDR20291_3440	2512	2937	2949	2889	2783	2827	1606	2627	2265	2664	2422	-0.055667667	0.977604609
CDR20291_3441	10218	13297	12772	13996	14474	16841	9667	14303	16818	16543	13211	0.379768586	0.566282645
CDR20291_3442	8678	13343	14276	11984	12649	14105	14503	11572	13681	13699	14567	0.56388183	0.460140779
CDR20291_3443	3204	6500	6563	7428	6257	7193	5224	5614	5615	6012	6808	0.892003888	0.005470304
CDR20291_3444	190	88	76	122	85	242	86	49	94	64	105	-1.024755233	0.523327979
CDR20291_3445	1574	11965	17246	8419	11824	11360	18726	27900	20736	13636	12811	3.259011544	2.55E-06
CDR20291_3446	1929	2967	3401	3271	2766	3655	2710	2236	4985	4017	2480	0.668947244	0.474151117
CDR20291_3447	2706	3860	4686	4922	5201	4857	3001	4683	4379	4335	3973	0.601576072	0.115459118
CDR20291_3448	2873	3904	4251	3507	3954	4027	2639	3473	4869	2961	4000	0.295470865	0.786730769
CDR20291_3449	26	44	40	15	43	55	8	45	36	59	391	0.424299485	0.934565019
CDR20291_3450	587	729	531	749	570	756	274	578	509	393	377	-0.224254805	0.913649554
CDR20291_3451	39	14	13	35	0	4	2	1	7	3	0	-2.442716229	0.709423863
CDR20291_3452	253	590	474	545	753	808	1443	840	723	1332	690	1.679619154	0.113365266
CDR20291_3453	465	602	428	666	407	422	354	531	456	381	393	-0.091771221	0.978951444
CDR20291_3454	0	0	0	0	1	1	2	1	2	1	1	NA	NA
CDR20291_3455	1117	1722	1553	2214	2102	1959	1692	1562	1441	1278	1096	0.48975975	0.662791361
CDR20291_3456	1240	2130	2063	2148	2652	2590	2198	1958	2732	2393	2407	0.831168603	0.100606274
CDR20291_3457	3317	5920	5589	6499	6486	6112	4012	5265	6374	6065	5257	0.70033281	0.02639145
CDR20291_3458	5	3	3	2	1	5	1	2	6	2	1	NA	NA
CDR20291_3459	3	1	0	1	0	0	2	1	3	1	1	NA	NA
CDR20291_3460	138	110	27	93	123	174	79	161	251	121	45	-0.31189729	0.952961967
CDR20291_3461	8036	10641	10009	11555	11792	15163	8043	10498	10790	11247	12664	0.386889072	0.492014899
CDR20291_3462	1	0	0	2	0	2	2	0	1	1	0	NA	NA

CDR20291_3463	101	158	111	131	166	134	130	570	175	210	68	0.810131365	0.804031614
CDR20291_3464	4	6	1	2	1	1	4	4	3	7	0	NA	NA
CDR20291_3465	1025	1290	1339	1667	1576	1261	708	1040	762	1134	1015	0.090463042	0.977609616
CDR20291_3466	108	121	189	179	73	142	101	32	166	43	82	-0.030957478	0.9964183
CDR20291_3467	10	24	9	16	19	59	15	3	7	28	30	0.934234464	0.87463407
CDR20291_3468	2510	3551	3403	3341	4083	3681	2412	3290	3456	3574	3409	0.351015932	0.447600652
CDR20291_3469	123	53	10	28	44	41	12	27	88	73	21	-1.743773167	0.422048282
CDR20291_3470	39	27	26	35	16	15	13	14	8	21	0	-1.267690987	0.798399285
CDR20291_3471	2	0	3	0	1	0	0	0	1	0	0	NA	NA
CDR20291_3472	48	94	136	83	80	390	12	18	181	113	66	1.101429202	0.786730769
CDR20291_3473	2	2	2	0	0	0	3	0	2	1	1	NA	NA
CDR20291_3474	58	26	99	62	71	35	33	100	40	65	120	0.085144085	0.9964183
CDR20291_3475	9	18	2	1	2	3	2	4	6	0	109	-1.257979871	0.90374591
CDR20291_3476	1477	1990	2483	2618	2212	3161	1399	2146	2264	2253	2407	0.529653615	0.289223328
CDR20291_3477	5768	8454	8986	7839	9068	9501	5890	8310	8648	8140	8339	0.433033547	0.211400479
CDR20291_3477;													
CDR20291_3478	3594	4952	4431	4231	4983	6187	6865	5228	5417	5902	5009	0.51252462	0.68428643
CDR20291_3479	113	199	109	288	244	187	99	97	242	543	84	0.778276567	0.793591637
CDR20291_3480	709	1048	802	991	1006	1129	487	808	918	829	1483	0.31682958	0.844040668
CDR20291_3481	64	167	64	118	67	72	12	16	15	58	24	-0.233994089	0.985642008
CDR20291_3482	565	632	953	1176	797	782	471	419	882	569	541	0.249577901	0.918198181
CDR20291_3483	3479	3990	5061	7903	4183	5387	20367	5769	5137	6023	9570	1.131825657	0.620321403
CDR20291_3484	2156	3087	3212	1830	3292	2355	6747	2395	2382	2843	2383	0.506616098	0.870110009
CDR20291_3485	35	36	18	9	97	328	179	42	9	9	22	1.030733764	0.88847222
CDR20291_3486	2506	3769	4012	3036	3386	3639	1945	3049	2610	2713	1786	0.146033007	0.938005364
CDR20291_3487	69	57	148	42	72	32	7	34	39	35	2	-0.714789338	0.913649554
CDR20291_3488	371	396	204	240	340	503	173	405	394	359	305	-0.271286338	0.910677003
CDR20291_3489	361	624	309	398	561	424	143	297	232	253	149	-0.232347881	0.949832827
CDR20291_3490	183	64	173	112	184	87	145	143	142	129	85	-0.592608993	0.811065537
CDR20291_3491	2	1	4	0	0	0	1	0	0	0	0	NA	NA

CDR20291_3492	261	378	261	181	200	618	112	251	500	82	256	-0.012476031	0.998270107
CDR20291_3493	490	3233	2524	1483	7024	5935	1521	2954	1993	3171	4141	2.657578292	0.000302426
CDR20291_3494	7	1	0	1	3	1	2	0	4	6	1 NA	NA	
CDR20291_3495	1	0	0	1	0	2	0	0	0	0	1 NA	NA	
CDR20291_3496	294	480	683	436	376	215	406	213	294	371	419	0.332976678	0.913649554
CDR20291_3497	2	3	2	0	1	4	2	3	2	3	1 NA	NA	
CDR20291_3498	176	275	208	384	284	115	123	277	212	361	293	0.430623049	0.873404371
CDR20291_3499	150	219	325	126	307	208	115	207	147	250	138	0.33101263	0.897570963
CDR20291_3500	521	488	376	333	464	484	259	437	301	363	314	-0.553805056	0.428305357
CDR20291_3501	182	295	265	282	185	404	210	1573	150	122	487	1.059105809	0.757308657
CDR20291_3502	347	1303	714	635	537	1890	316	956	132	372	499	0.923885469	0.713327838
CDR20291_3503	209	149	160	84	103	169	29	72	126	48	123	-1.114595369	0.484588797
CDR20291_3504	314	347	488	354	490	322	237	578	471	301	175	0.166609015	0.964365633
CDR20291_3505	770	198	92	379	427	340	124	239	322	546	249	-1.512885398	0.192252888
CDR20291_3506	802	2037	2927	2677	1285	2254	6283	1539	2007	1559	2043	1.644909029	0.243530493
CDR20291_3507	204	291	182	228	204	179	374	125	192	371	195	0.162800985	0.978728379
CDR20291_3508	356	304	175	544	308	319	199	316	420	286	224	-0.296382059	0.913649554
CDR20291_3509	9140	10979	10270	10692	9865	12129	7457	10743	8283	11487	9773	0.05830398	0.977604609
CDR20291_3510	2678	2191	2254	2481	2144	2234	1767	2498	2088	3857	3322	-0.190918628	0.936058228
CDR20291_3511	11	2	1	0	6	1	6	2	3	2	2 NA	NA	
CDR20291_3512	2	0	3	1	3	1	4	1	2	3	2 NA	NA	
CDR20291_3513	207	63	77	78	85	151	36	42	46	38	11	-1.873489566	0.212324531
CDR20291_3514	13557	3	704	61	10	86	29	14	209	53	4	-8.063380119	5.54E-05
CDR20291_3515	1875	2219	2957	2296	2395	2293	3155	2511	1652	2700	2179	0.323205644	0.873404371
CDR20291_3516	3	4	2	3	0	5	4	1	7	1	0 NA	NA	
CDR20291_3517	6	2	0	0	3	0	1	1	5	0	0 NA	NA	
CDR20291_3518	20	5	0	5	1	2	5	5	10	3	5 NA	NA	
CDR20291_3519	7	2	1	1	1	3	1	0	2	2	1 NA	NA	
CDR20291_3520	0	0	0	0	1	1	0	0	2	2	0 NA	NA	
CDR20291_3521	2	0	0	0	0	1	1	0	0	0	0 NA	NA	

CDR20291_3522	0	0	0	0	2	1	2	0	3	0	0 NA	NA
CDR20291_3523	0	0	0	0	2	0	2	0	1	1	0 NA	NA
CDR20291_3524	70	61	3	22	121	28	17	25	7	44	3	-1.22893061 0.830486307
CDR20291_3525	3	0	0	0	0	0	0	1	0	2	0 NA	NA
CDR20291_3526	2	1	0	0	0	0	0	0	3	1	0 NA	NA
CDR20291_3527	3	0	3	5	1	0	2	2	2	4	0 NA	NA
CDR20291_3528	107	4	0	2	2	3	2	3	4	3	2	-5.508592549 0.000521423
CDR20291_3529	2851	3655	3638	3390	3434	4536	12763	4149	3318	2567	3803	0.194010585 0.884242887
CDR20291_3530	5	7	1	4	0	0	6	2	3	2	2 NA	NA
CDR20291_3531	2301	2855	2477	4556	3024	3194	3076	2936	2482	2662	2492	0.296422057 0.864878754
CDR20291_3532	3177	5856	5119	5070	5506	6056	3327	4750	4275	6044	5083	0.582204221 0.087466028
CDR20291_3533	1066	732	613	425	830	597	388	536	411	644	259	-1.081019835 0.157927679
CDR20291_3534	508	276	238	283	312	442	304	251	336	226	194	-0.910911687 0.270228796
CDR20291_3535	8	3	12	0	3	2	7	2	4	4	3 NA	NA
CDR20291_3536	7	6	0	1	1	0	3	3	4	2	2 NA	NA
CDR20291_3537	1	1	1	0	0	0	4	1	0	0	1 NA	NA
CDR20291_3538	3	1	0	0	0	0	5	2	1	1	0 NA	NA
CDR20291_3539	1	1	0	0	0	5	0	2	0	0	0 NA	NA
CDR20291_3540	1	0	0	2	0	0	3	0	2	0	0 NA	NA
CDR20291_3541	0	0	0	1	1	0	0	1	0	0	0 NA	NA
CDR20291_3551	41	18	23	10	20	2	3	25	125	0	0	-0.932347893 0.938005364
CDR20291_3552	3	0	1	0	0	1	4	0	0	1	0 NA	NA

Table S7a: Genes essential for colonisation and survival of R20291 *in vivo* (Reference versus day 1 samples)

Genes	ref	d1a	d1b	d1c	d1d	d1e	d1f	d1g	d1h	d1i	d1j	log2FoldChange	padj
CDR20291_0010	6042	27	35	88	43	21	142	119	219	118	60	-6.815054526	1.41E-08
CDR20291_0185	3701	10	5	16	2	4	14	61	21	48	38	-8.084262662	7.77E-07
CDR20291_0186	3805	3	5	23	2	2	4	28	14	14	16	-9.102184755	1.93E-10
CDR20291_0187	2460	198	8	120	43	114	78	247	118	166	197	-4.949488728	0.000403523
CDR20291_0188	4430	5	0	30	2	2	3	20	13	19	41	-9.032839607	1.73E-05
CDR20291_0215	188	47	2	60	35	25	29	29	16	12	60	-3.276518064	0.006453096
CDR20291_0220	1614	779	239	894	441	497	527	552	434	346	848	-2.236630374	0.004446603
CDR20291_0221	505	147	13	140	60	32	57	102	62	72	174	-3.249992807	0.020550304
CDR20291_0386	184	0	0	3	1	1	4	1	0	0	6	-7.547463334	2.46E-08
CDR20291_0593	102	12	2	7	1	15	13	33	5	14	14	-3.836093413	0.011690368
CDR20291_1175	388	2	11	1	4	3	2	1	6	1	3	-7.532819203	1.31E-18
CDR20291_1331	183	92	177	66	96	47	68	35	38	70	41	-2.021975088	0.035107687
CDR20291_1375	590	120	99	132	125	63	71	96	90	92	122	-3.241738578	2.95E-14
CDR20291_1825; CDR20291_1846	66	1	9	2	0	8	1	5	6	1	4	-4.850542642	0.010477512
CDR20291_2211	486	19	4	6	10	30	4	17	15	5	14	-5.996370759	5.31E-14
CDR20291_2212	285	2	4	4	0	25	10	1	6	6	17	-5.94844543	2.62E-06
CDR20291_2549	131	28	71	20	25	43	16	24	25	53	17	-2.712853611	0.008480644
CDR20291_2606	136	49	46	36	34	44	65	65	60	46	49	-2.163425366	0.000645103
CDR20291_3100	66	1	3	7	11	14	5	7	13	2	16	-3.762323575	0.022900237
CDR20291_3220	360	26	73	39	22	34	40	22	45	34	46	-3.934802084	4.11E-10
CDR20291_3221	90264	1473	1497	1953	1944	724	1811	1516	1460	436	1373	-6.695759901	1.28E-24
CDR20291_3222	25255	4384	3930	4576	6278	5134	7165	6441	5377	3830	5745	-2.961004136	1.73E-22
CDR20291_3261	663	210	419	320	155	187	239	284	290	270	217	-2.04805836	6.48E-06
CDR20291_3426	32149	6400	19390	6779	5196	6776	5707	10354	11860	6791	8743	-2.561822005	0.001920307
CDR20291_3427	14111	870	10190	1322	1100	965	700	2367	3157	2023	1266	-3.87722839	1.54E-05
CDR20291_3430	3988	11	1	43	2	3	22	33	31	8	38	-8.391767176	1.98E-06
CDR20291_3514	13557	298	11445	852	749	609	417	364	1017	511	205	-5.277557621	3.70E-12
CDR20291_3528	107	6	4	3	4	4	6	5	10	3	15	-4.858409736	3.90E-05

Table S7b: Genes essential for colonisation and survival of R20291 *in vivo* (Reference versus day 3 samples)

Genes	ref	d3a	d3b	d3c	d3d	d3e	d3f	d3g	d3h	d3i	d3j	log2FoldChange	padj
CDR20291_0010	6042	22	10	60	15	24	22	33	25	23	10	-8.295031821	7.30E-30
CDR20291_0158	1144	369	6	10	52	41	17	13	6	27	17	-6.02202135	7.13E-08
CDR20291_0159	590	210	5	3	1	13	10	20	14	3	4	-6.475154085	7.13E-08
CDR20291_0161	450	57	9	7	4	7	7	5	5	4	2	-6.727128246	8.73E-20
CDR20291_0185	3701	4	4	1	4	6	2	6	2	2	0	-10.6235174	3.50E-70
CDR20291_0186	3805	6	4	8	2	0	2	3	2	4	2	-10.56955558	4.30E-66
CDR20291_0187	2460	82	6	40	5	32	27	38	6	77	16	-6.535157693	0.00012675
CDR20291_0188	4430	5	2	5	3	2	4	35	1	0	3	-9.878879913	2.54E-06
CDR20291_0215	188	3	6	1	2	3	0	2	2	2	0	-7.137969542	1.95E-06
CDR20291_0217	1578	75	8	43	3	27	10	42	7	4	11	-6.504241217	1.77E-06
CDR20291_0218	431	12	4	10	5	21	10	4	4	0	2	-6.270789355	5.19E-06
CDR20291_0219	376	4	1	0	3	7	1	24	2	9	3	-6.448811545	0.000455013
CDR20291_0220	1614	153	41	158	43	172	29	76	30	54	72	-4.671571284	2.08E-06
CDR20291_0221	505	19	13	12	12	15	7	14	5	6	3	-5.98070649	6.47E-14
CDR20291_0222	5107	135	25	89	16	112	30	194	12	14	18	-6.704722846	0.000121555
CDR20291_0331	520	198	354	205	77	177	146	148	120	93	111	-2.119069191	0.000672231
CDR20291_0332	315	71	113	97	89	93	45	86	59	79	71	-2.362599396	3.28E-06
CDR20291_0386	184	2	0	2	3	2	0	0	0	2	1	-7.610943169	1.07E-05
CDR20291_0503	150	30	18	4	13	13	30	14	25	5	17	-3.470616317	0.021924359
CDR20291_0575	169	13	64	29	18	37	4	17	43	3	15	-3.303918155	0.039200625
CDR20291_0593	102	2	4	4	0	1	2	3	3	0	3	-5.946762705	0.000613928
CDR20291_0663	1398	129	165	102	77	64	134	186	62	16	289	-3.854669621	0.00092094
CDR20291_0783	3127	698	2862	1171	627	596	50157	310	469	600	1211	-2.244671751	0.013845736
CDR20291_0784	1863	546	2148	532	496	446	209	288	306	393	389	-2.263236265	0.006994765
CDR20291_0785	2621	583	2451	1059	559	496	670	273	576	709	981	-2.118247364	0.015228301
CDR20291_1086	3496	594	856	215	532	644	663	237	159	335	80	-3.418810085	0.000877098
CDR20291_1100	2300	176	100	117	49	50	217	207	69	171	43	-4.562031432	6.51E-06
CDR20291_1175	388	7	8	2	4	4	11	3	5	1	2	-6.735381316	3.88E-10
CDR20291_1264	1054	106	389	232	19	53	135	89	96	106	81	-3.497089241	0.001045747
CDR20291_1329	139	9	0	0	0	6	1	0	2	0	1	-6.577508834	0.042645109

CDR20291_1375	590	85	142	105	118	64	45	47	248	14	42	-3.106118116	0.017700306
CDR20291_1476	2905	272	286	341	155	217	169	209	219	162	233	-4.063570846	1.68E-24
CDR20291_2123	264	45	69	8	68	61	259	15	8	11	19	-3.434767912	0.023454727
CDR20291_2211	486	6	3	1	6	20	13	10	5	1	14	-6.234002097	8.40E-06
CDR20291_2212	285	0	2	1	3	19	6	7	2	1	2	-6.390801705	0.000541706
CDR20291_2315	544	67	406	58	30	171	28	83	111	122	21	-2.882078356	0.043174634
CDR20291_2503	99	8	15	1	4	55	6	5	0	0	2	-4.930062168	0.029806949
CDR20291_2549	131	6	34	5	7	15	6	14	5	1	3	-4.315420473	0.006029833
CDR20291_2649	2410	463	820	644	286	1084	550	727	567	524	924	-2.232299819	0.001288434
CDR20291_2929	20262	3431	2298	3828	2464	3786	10400	3035	2791	3299	3983	-3.012220031	6.49E-09
CDR20291_3113	1890	360	310	132	118	384	157	173	178	239	203	-3.457253726	3.03E-08
CDR20291_3220	360	2	14	3	0	11	1	7	4	1	3	-6.803390324	2.57E-07
CDR20291_3221	90264	224	395	458	135	313	1335	453	279	502	259	-8.45743287	2.79E-52
CDR20291_3222	25255	1373	607	2281	921	1990	2815	3975	2917	4859	3149	-3.594760044	0.017178017
CDR20291_3240	287	108	180	59	74	88	14	41	57	62	53	-2.447819826	0.011781182
CDR20291_3241	3078	614	1074	958	332	374	1064	480	505	1171	1086	-2.327787495	0.017242669
CDR20291_3242	9215	1131	3337	1679	518	927	994	526	922	877	1123	-3.411147814	7.47E-08
CDR20291_3243	953	113	220	195	55	109	232	23	84	219	51	-3.220448023	0.011485328
CDR20291_3244	4859	780	1918	819	294	368	276	395	561	671	775	-3.310205874	2.02E-06
CDR20291_3245	3076	404	1299	613	185	433	598	217	333	307	397	-3.135744546	2.32E-05
CDR20291_3246	5042	785	1789	731	335	455	394	283	661	564	1281	-3.232453094	3.17E-05
CDR20291_3247	3863	673	1555	823	272	384	342	192	367	545	586	-3.228745745	9.49E-06
CDR20291_3248	1930	341	887	365	115	153	120	142	186	190	250	-3.34125001	1.23E-05
CDR20291_3249	2656	393	802	426	124	133	217	140	268	444	407	-3.419899538	3.60E-05
CDR20291_3250	2219	222	660	387	190	220	98	292	257	433	273	-3.31028664	1.85E-07
CDR20291_3251	4326	710	2142	1118	395	466	1922	236	519	886	919	-2.580800361	0.034014308
CDR20291_3252	4290	538	1439	657	250	260	411	256	426	534	670	-3.429500568	8.55E-07
CDR20291_3253	4191	609	1336	648	247	588	591	402	465	880	861	-3.055172408	3.73E-06
CDR20291_3254	2353	429	522	402	158	185	394	171	214	392	226	-3.302472684	2.08E-06
CDR20291_3255	3816	426	964	521	266	300	339	124	245	383	1890	-3.728956933	5.18E-09
CDR20291_3256	7531	757	1936	1324	363	440	559	394	656	911	782	-3.658288918	3.02E-08
CDR20291_3259	466	89	279	89	52	72	81	36	49	10	57	-3.044986906	0.010851561

CDR20291_3260	641	55	116	91	46	39	37	29	98	34	73	-3.78834408	4.21E-07
CDR20291_3261	663	61	140	59	18	34	19	12	39	108	32	-4.133202832	0.000230561
CDR20291_3288	141	5	162	15	2	1	1	6	3	1	11	-5.099028174	0.004121282
CDR20291_3338	259	34	46	12	34	25	93	14	20	17	7	-3.393043784	0.046491917
CDR20291_3428	15768	6142	3693	3450	2980	7086	2702	3290	2291	3397	2269	-2.459491825	7.89E-05
CDR20291_3430	3988	3	2	9	1	2	5	33	1	8	1	-9.592254314	1.22E-06
CDR20291_3514	13557	82	8093	585	145	470	645	405	1538	333	150	-5.02838735	0.001262061

Table S7c: Genes essential for colonisation and survival of R20291 *in vivo* (Reference versus day 5 samples)

Genes	ref	d5a	d5b	d5c	d5d	d5e	d5f	d5g	d5h	d5i	d5j	log2FoldChange	padj
CDR20291_0010	6042	8	3	5	5	11	21	7	13	7	7	-9.465175328	4.14E-36
CDR20291_0112	111	25	5	11	15	9	9	7	9	7	4	-3.563458182	0.01101138
CDR20291_0158	1144	93	3	9	14	1	0	1	5	5	0	-8.196164604	5.61E-11
CDR20291_0159	590	29	2	3	5	4	4	2	6	6	1	-6.701028697	9.88E-07
CDR20291_0161	450	7	2	0	3	1	3	0	6	0	0	-7.756570873	7.99E-06
CDR20291_0185	3701	1	0	2	1	3	3	0	2	2	0	-11.46052169	7.52E-57
CDR20291_0186	3805	3	0	2	0	0	3	0	2	0	0	-11.88990222	2.07E-05
CDR20291_0187	2460	4	2	6	1	11	5	3	5	13	2	-8.984324651	4.19E-29
CDR20291_0188	4430	2	0	1	0	0	1	1	1	0	0	-12.94476571	1.35E-54
CDR20291_0215	188	2	1	0	1	1	4	0	1	1	0	-7.439730234	5.95E-05
CDR20291_0216	199	5	1	5	1	2	0	0	2	1	1	-6.927926656	3.00E-05
CDR20291_0217	1578	3	0	1	1	3	2	1	1	0	4	-10.04066744	8.17E-33
CDR20291_0218	431	3	3	7	1	2	2	0	5	0	0	-7.646199532	1.83E-07
CDR20291_0219	376	3	0	0	0	1	2	1	1	0	2	-8.622448551	2.30E-09
CDR20291_0220	1614	4	0	5	4	23	7	7	3	11	7	-7.939890859	3.50E-15
CDR20291_0221	505	2	4	1	0	5	1	2	4	4	2	-7.767288405	7.85E-14
CDR20291_0222	5107	13	5	9	3	5	8	6	14	10	4	-9.453852916	8.02E-55
CDR20291_0329	441	93	143	98	65	121	15	55	104	48	28	-2.667098456	0.014536468
CDR20291_0331	520	26	155	32	28	33	3	3	32	28	19	-4.631770331	1.67E-05
CDR20291_0332	315	9	38	22	42	25	5	11	8	28	29	-3.99543288	0.000612548
CDR20291_0386	184	0	0	1	0	2	1	0	0	1	0	-8.629917277	2.45E-05
CDR20291_0430	1449	48	83	39	178	49	13	45	4	100	96	-4.607357817	0.000302135
CDR20291_0503	150	12	0	6	0	4	10	1	8	3	3	-5.016853573	0.033273579
CDR20291_0575	169	7	39	9	7	18	3	8	29	13	5	-3.740241955	0.022074459
CDR20291_0593	102	3	1	1	1	0	1	0	2	0	0	-6.915114127	0.004018279
CDR20291_0643	1398	181	246	387	235	338	199	58	326	359	461	-2.414683301	0.009579446
CDR20291_0657	237	17	14	49	40	16	7	21	25	23	37	-3.359301316	0.00256158
CDR20291_0663	1398	51	30	109	65	14	18	71	30	7	103	-4.903349428	4.46E-05
CDR20291_0783	3127	151	478	218	83	88	30314	67	327	165	472	-3.865867984	0.00033256
CDR20291_0784	1863	123	389	129	102	65	56	36	75	111	90	-4.106987271	3.14E-05

CDR20291_0785	2621	121	327	185	107	70	81	23	91	114	229	-4.379105867	8.22E-06
CDR20291_0786	465	21	78	34	17	22	18	0	5	34	243	-4.282181763	0.011683864
CDR20291_0787	952	266	268	114	43	19	80	121	141	61	165	-2.983208776	0.024395312
CDR20291_1086	3496	144	176	71	210	166	208	65	123	130	23	-4.793427218	9.12E-08
CDR20291_1100	2300	8	0	1	5	5	4	1	4	12	1	-9.230648029	1.23E-21
CDR20291_1175	388	2	1	6	2	1	3	2	2	2	4	-7.349807091	1.14E-11
CDR20291_1186	213	26	49	38	87	60	15	57	23	29	14	-2.557635925	0.03597422
CDR20291_1250	11625	668	3189	848	1313	4609	11204	806	1104	1738	1134	-2.934249549	0.00178538
CDR20291_1251	1325	240	482	354	415	730	131	184	281	220	336	-2.120835868	0.005114591
CDR20291_1264	1054	11	62	56	17	2	3	3	13	9	20	-5.877385734	0.000102018
CDR20291_1375	590	68	65	104	106	59	60	23	178	30	50	-3.071802907	0.005322026
CDR20291_1476	2905	41	41	101	41	57	30	29	84	91	6	-5.905223737	1.03E-10
CDR20291_1580	217	16	22	15	38	29	37	42	31	16	37	-2.986710981	0.005630989
CDR20291_1581	166	26	8	8	22	27	16	11	23	30	7	-3.320697627	0.007262721
CDR20291_2054	1281	105	133	124	129	596	49	40	87	60	122	-3.833601591	3.99E-10
CDR20291_2112	5730	1084	423	2172	2852	1626	775	1278	1567	1490	1695	-2.045790496	0.015998085
CDR20291_2123	264	12	22	0	19	15	25	1	10	10	16	-4.381492926	0.018246131
CDR20291_2195	495	141	101	74	134	113	171	94	147	146	93	-2.077249885	0.008503749
CDR20291_2211	486	2	1	2	3	3	4	1	1	2	0	-8.079350667	4.94E-14
CDR20291_2212	285	1	1	2	1	0	2	0	4	2	0	-7.835007314	3.10E-07
CDR20291_2295	481	76	164	110	209	123	30	51	131	61	95	-2.332462177	0.017512439
CDR20291_2381	124	1	3	7	1	1	7	13	10	1	4	-4.695592005	0.031693359
CDR20291_2395	524	270	146	115	122	145	70	44	143	87	131	-2.16337455	0.013403472
CDR20291_2443	138	1	0	0	0	2	3	0	1	1	2	-7.134036221	0.001198606
CDR20291_2504	322	1	1	2	1	21	4	3	19	3	4	-5.883616409	0.00127459
CDR20291_2505	317	0	0	1	0	0	0	1	0	0	0	-10.26086944	8.75E-09
CDR20291_2525	2614	336	270	531	421	303	276	372	392	306	331	-2.969355367	1.16E-11
CDR20291_2549	131	9	16	7	12	0	5	5	0	7	6	-4.387900193	0.044486809
CDR20291_2568	279	55	38	15	37	40	6	44	880	16	43	-3.213459593	0.003059131
CDR20291_2605	1161	65	43	40	44	151	54	107	102	63	30	-4.15492692	3.92E-07
CDR20291_2606	136	3	3	9	7	10	9	6	17	2	3	-4.360554039	0.005950105
CDR20291_2649	2410	189	241	240	274	826	98	203	174	253	28	-3.43004339	0.001854564

CDR20291_2851	869	249	159	195	213	173	142	222	172	195	285	-2.202435459	6.49E-06
CDR20291_2900	1011	183	65	155	183	154	86	117	184	125	216	-2.881424261	5.47E-06
CDR20291_2929	20262	326	90	732	685	621	733	361	463	554	553	-5.354051486	2.46E-11
CDR20291_2931	3494	1141	1308	970	938	1206	329	648	863	787	790	-2.092294314	1.42E-05
CDR20291_3113	1890	38	28	18	20	55	18	49	21	24	20	-6.133500194	2.04E-23
CDR20291_3220	360	0	0	2	0	0	1	0	1	0	0	-9.867312146	2.30E-09
CDR20291_3221	90264	71	55	39	43	125	62	62	128	66	71	-10.3748	7.27E-81
CDR20291_3222	25255	87	6	438	164	182	237	344	223	398	657	-6.570707157	8.66E-05
CDR20291_3223	159	9	0	5	10	2	19	3	9	12	12	-4.279565134	0.03801259
CDR20291_3240	287	34	110	13	0	5	1	12	16	20	11	-4.610435046	0.010027629
CDR20291_3241	3078	179	412	332	88	89	408	45	304	424	403	-3.537928499	0.003781501
CDR20291_3242	9215	134	1400	315	115	153	41	26	179	110	116	-6.220860166	1.08E-14
CDR20291_3243	953	44	83	19	7	5	2	2	27	7	10	-5.679094465	0.00061106
CDR20291_3244	4859	165	1149	112	52	61	31	24	122	161	148	-5.718367248	8.30E-12
CDR20291_3245	3076	69	668	134	39	43	25	17	105	49	48	-5.787782879	1.43E-12
CDR20291_3246	5042	185	896	139	37	58	26	30	117	250	256	-5.438234378	2.68E-07
CDR20291_3247	3863	174	715	111	51	41	33	19	76	98	75	-5.764923016	1.00E-12
CDR20291_3248	1930	54	501	53	32	37	5	5	70	68	26	-5.729510414	2.07E-08
CDR20291_3249	2656	80	447	67	27	8	36	11	53	95	46	-5.856751957	3.06E-09
CDR20291_3250	2219	71	377	66	28	36	7	28	82	77	24	-5.670409676	4.42E-11
CDR20291_3251	4326	170	878	178	53	40	182	7	208	325	101	-4.934805743	0.003676302
CDR20291_3252	4290	90	882	158	19	45	44	13	97	112	60	-5.971685766	2.76E-10
CDR20291_3253	4191	119	136	105	31	47	27	25	74	388	123	-5.8663477	1.00E-12
CDR20291_3254	2353	72	35	58	22	19	13	12	40	61	36	-6.11248373	5.59E-14
CDR20291_3255	3816	44	112	109	44	43	36	24	55	68	484	-6.09466021	9.63E-20
CDR20291_3256	7531	102	191	241	48	87	42	38	174	235	118	-5.991153216	4.90E-12
CDR20291_3257	72	16	7	7	3	4	3	2	3	9	3	-3.780680029	0.043161382
CDR20291_3259	466	30	26	11	2	10	19	1	3	6	19	-5.261536282	0.000769362
CDR20291_3260	641	6	12	7	10	6	12	2	27	10	22	-5.862200975	1.34E-07
CDR20291_3261	663	14	12	10	3	16	4	5	7	29	5	-6.104799209	2.36E-09
CDR20291_3288	141	1	162	4	4	1	1	0	10	1	0	-5.910884043	0.00895427
CDR20291_3354	310	58	96	92	76	155	32	55	63	44	68	-2.20559957	0.006627486

CDR20291_3428	15768	885	1022	465	500	1541	1082	1805	1100	1979	899	-3.872443508	1.53E-07
CDR20291_3430	3988	4	1	0	1	3	2	0	3	2	1	-11.29647582	4.40E-61
CDR20291_3514	13557	3	704	61	10	86	29	14	209	53	4	-8.063380119	5.54E-05
CDR20291_3528	107	4	0	2	2	3	2	3	4	3	2	-5.508592549	0.000521423