Annual Groundwater Monitoring and Corrective Action Report

CPS Energy

TABLE OF CONTENTS

1. CURRENT STATUS SUMMARY 1
2. INTRODUCTION 1
3. PROGRAM STATUS 2
3.1 GROUNDWATER OBSERVATION899 Tm AMM 2

1. CURRENT STATUS SUMMARY

Regulatory Requirement Cross-Reference

included field sampling forms, chain-of-custody documentation, holding times, lab methods, cooler temperatures, laboratory method blanks, laboratory control sample recoveries, field duplicate samples, matrix spikes / matrix spike duplicates, quantitation limits, and equipment blanks following data quality review guidance fr om the Environmental Protection Agency and the Texas Commission on Environmental Quality.

A total of two well-analyte combinations were found to have either increasing or decreasing trends. For these well-analyte pairs, a bootstrapped UPL calculated around a Theil Sen trend was used to derive a more accurate UPL.

The remaining five well-analyte combinations were found to have no significant trend. Sanitas was used to calculate static UPLs using an annuaro (no re)]TJ 2956317 0 TD .0201 Tc .0205 Tw [e-widereal(es

Tables

TOC Elevation	498.63	TOC Elevation	496.92	TOC Elevation	493.15	TOC Elevation	494.74	TOC Elevation	496.40

12/6/16 to
12/8/16

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
SRH Pond

12/7/16 2/22/1523/289.5 (2605/1525/39.5 (2605/1526/209.5 (2/22/1527/259.5 0.6 (E 3)] Tf 04Tc 550.003 -48/299.5 (205-5.4 109.09.5 (2/22/.4 4/4/18 (2/22/.4 .0930/18 (2/34.4 (4/99.9 (2/22/.4 .09329.9 (205-5.4 4/28920 (205-5.4 10921920 (2058)8.24/13/21 (205-5.4 109.9/21 (205-5.4 4/13/22 (205-5.4 10925/ 0.6 (E 3

TABLE 3

TABLE 3

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
SRH Pond

Constituents	Unit
Appendix III - Detection Monitoring	
Boron	mg/L
Calcium	mg/L
Chloride	mg/L
Fd4u(uori(Fd4u(d)-)-5.7(m)-40)-614(m7r)6	g/L

DESIGN:

DATE:

Laboratory Data Packages
Appendix A

(Data Packages Available Upon Request)

Statistical Analysis Tables and Figures

Appendix B

Appendix B r Table 1
KruskalrWallis Test Comparisons of Upgradient Wells
Calaveras Power Station
SRH Pond

Analyte	N	N Detect	Percent Detect	DF	statistic	prvalue	Conclusion	UPLType
Boron	19	19	100.00%	1	2.7	0.1	No Significant Difference	Interwell
Calcium	19	19	100.00%	1	2.7	0.1	No Significant Difference	Interwell
Chloride	19	19	100.00%	1	2.7	0.1	No Significant Difference	Interwell
Fluoride	19	16	84.21%	1	0.534	0.465	No Significant Difference	Interwell
pH	19	19	100.00%	1	2.7	0.1	No Significant Difference	Interwell
Sulfate	19	19	100.00%	1	2.7	0.1	No Significant Difference	Interwell
Total dissolved solids	19	19	100.00%	1	2.71	0.0998	No Significant Difference	Interwell

r

Appendix B r Table 2e
Descriptive Statistics for Upgradient Wells
Calaveras Power Station
SRH Pond

Appendix B r Table 2
Potential Outliers in Upgradient Wells
Calaveras Power Station
SRH Pond

Well	Sample	Date	Analyte	Units	Detect	Concentration	UPL type	Distribution	Statistical Outlier	Visual Outlier	Normal Outlier	Log Statistical Outlier	Log Visual Outlier	Lognormal Outlier	Statistical and Visual Outlier	Final Outlier

Type
Calaverasble

Appendix B r Table4Mannble

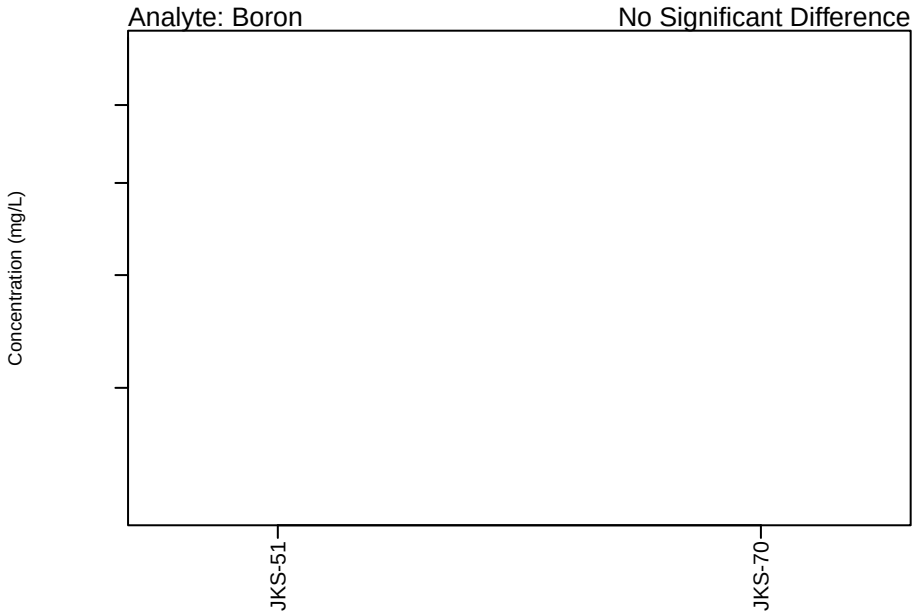
Appendix B r Table 5
Calculated UPLs for Upgraded Datasets
Calaveras Power Station
SRH Pond

Analyte	UPL Type	Trend	Well	N	Num Detects	Percent Detects	LPL	UPL	Units	ND adjustment	Transformation	Alpha	Method	Final LPL	Final UPL	Notes
Boron	Interwell	Stable, No Trend	JKS r51, JKS r70	19	19	100.00%		0.726	mg/L				95% UPL (t)		X	
Calcium	Interwell	Stable, No Trend	JKS r51, JKS r70	19	19	100.00%		404	mg/L				95% UPL (t)		X	
Chloride	Interwell	Stable, No Trend	JKS r51, JKS r70	19	19	100.00%		658	mg/L				95% UPL (t)		X	
Fluoride	Interwell	Stable, No Trend	JKS r51, JKS r70	19	16	84.21%		0.547	mg/L				95% KM UPL (t)		X	
pH	Interwell	Stable, No Trend	JKS r51, JKS r70	19	19	100.00%	5.48	7.16	SU				95% UPL	X	X	
Sulfate	Interwell	Increasing Trend	JKS r51, JKS r70	19	19	100.00%		616	mg/L	None						

Appendix B r Table
Comparisonsof Downgradient Wells to UPLs
Calaveras Power Station
SRH Pond

Analyte	Well	LPL	UPL	Units	Recent Date	Observation	Qualifier	Obs

Appendix B - Figure 1
Unit: SRH Pond
Boxplots of Upgradient Wells



Appendix B - Figure 1
Unit: SRH Pond
Boxplots of Upgradient Wells

Appendix B - Figure 1
Unit: SRH Pond
Boxplots of Upgradient Wells