DOCKETED	
Docket Number:	00-AFC-01C
Project Title:	Contra Costa Power Plant Project Compliance
TN #:	232518
Document Title:	ACR RY 2019 for GGS_3of4 parts
Description:	N/A
Filer:	Angel B. Espiritu
Organization:	PG&E Gateway Generating Station
Submitter Role:	Applicant Representative
Submission Date:	3/24/2020 11:54:37 AM
Docketed Date:	3/24/2020

1811249 Pg 1 of 1

McCAMPBELL ANALYTICAL, INC.

RUSH

CHAIN OF CUSTODY RECORD

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

TURN AROUND TIME ☒ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Angel Espiritu **Bill To:** PG&E Gateway
Company: PG&E Gateway Generating Station

E-Mail: abe4@pge.com, A1HE@pge.com, J5Ld@pge.com, tlWY@pge.com, DJH2@pge.com
Tel: (925) 522-7838, (510) 861-1597 (Cell) **Fax:** ( )
Project Name: Resample 2 (11/7/18)
Project Location: Tiger Pit, Source Water
Sampler Signature: Muskan Environmental Sampling LL

SAMPLE ID	LOCATION / Field Point Name	Sample Type Composite /Grab	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	Matrix: Waste Water	Matrix: Sewer Water	METHOD PRESERVED: None	ICE	H_2SO_4	NaOH	HCL	HNO_3	Other	Cyanide (TOTAL) (Pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625- Semi Volatile Organic Compounds)	TTO (USEPA 608 – Organochlorine Pesticides and PCBs)	126 Priority Pollutants (see Appendix B analyze only listed compounds)	Remarks
Tiger Pit		G	11/7/18	08:06	1	250 ml poly Amb	X			X		X				X					
Tiger Pit		G	11/7/18	08:06	1	250 ml poly	X			X						X					
~~Source Water~~		~~G~~	~~11/7/18~~		~~1~~	~~250 ml poly~~	~~X~~			~~X~~		~~X~~				~~X~~					
~~Source Water~~		~~G~~	~~11/7/18~~		~~1~~	~~250 ml poly~~	~~X~~			~~X~~						~~x~~					

Relinquished By:	Date:	Time:	Received By:
[signature]	11/7/18	09:45	[signature]
Relinquished By:	Date:	Time:	Received By:

ICE/t° 5.0 WET
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____

COMMENTS:
TTO (EPA 608), TTO (EPA 624), TTO (EPA 625) see ATTACHED Appendix A and analyze only listed compounds

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**PG&E Gateway Generating Station**	Date and Time Received	**11/7/2018 09:45**
Project:	**Resample 2 (11/7/18)**	Date Logged:	**11/7/2018**
		Received by:	Jena Alfaro
WorkOrder №:	**1811249** Matrix: Water	Logged by:	Agustina Venegas
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
	(Ice Type: WET ICE)				
Sample/Temp Blank temperature		Temp: 5.6°C			NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
UCMR Samples:					
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA ☑

Comments:

Caltest ANALYTICAL LABORATORY

ENVIRONMENTAL ANALYSES

Friday, November 09, 2018

Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Ave
Antioch, CA 94509

Re Lab Order: T110273 Collected By: MUSKAN ENV.
Project ID: RESAMPLE 2 (11/7/18) PO/Contract #:

Dear Angel Espiritu:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, November 07, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

CC: Daryl Sattelberg, PG&E Gateway Generating Station

David Hammond, PG&E Gateway Generating Station

Tim Wisdom, PG&E Gateway Generating Station

Enclosures

Project Manager: Eli N. Greenwald

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

SAMPLE SUMMARY

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T110273001	**TIGER PIT (NAOH PRESERVED)**	Water	11/07/2018 08:06	11/07/2018 09:58
T110273002	**TIGER PIT (UNPRESERVED)**	Water	11/07/2018 08:06	11/07/2018 09:58

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NARRATIVE

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Qualifiers and Compound Notes

1	Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.
2	The sample was received unpreserved. At the time of the analysis, the measured pH of the sample was 10.

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ANALYTICAL RESULTS

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	**T110273001**	Date Collected	11/7/2018 08:06	Matrix	Water
Sample ID	**TIGER PIT (NAOH PRESERVED)**	Date Received	11/7/2018 09:58		

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11					**Analyzed by:**	BCP	
Cyanide	J2.5	ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1

Lab ID	**T110273002**	Date Collected	11/7/2018 08:06	Matrix	Water
Sample ID	**TIGER PIT (UNPRESERVED)**	Date Received	11/7/2018 09:58		

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11					**Analyzed by:**	BCP	
Cyanide	J1.1	ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1,2

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QUALITY CONTROL DATA

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Analysis Description:	Cyanide, Total Analysis	**QC Batch:**	WCO/14067
Analysis Method:	SM 4500-CN C/E-99/11	**QC Batch Method:**	SM 4500-CN C/E-99/11

METHOD BLANK: 851944

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Cyanide	ND	3	0.9	ug/L	

LABORATORY CONTROL SAMPLE: 851945

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Cyanide	ug/L	20	20.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851946 851947

Parameter	Units	T110110002 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Cyanide	ug/L	1.6	40	40.9	42.9	98	103	80-120	4.8	20	1

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QUALITY CONTROL DATA QUALIFIERS

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

1 Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
T110273001	**TIGER PIT (NAOH**	SM 4500-CN C/E-99/11	WCO/14067		
T110273002	**TIGER PIT (UNPRESERVED)**	SM 4500-CN C/E-99/11	WCO/14067		

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(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

Caltest ANALYTICAL LABORATORY

885 N. KELLY ROAD NAPA, CA 94558 (707) 258-4000 FAX (707) 226-1001

SAMPLE CHAIN OF CUSTODY

PAGE 1 OF 1

PROJECT NAME / PROJECT NUMBER: Resample 2 (11/7/18)

P.O. NUMBER:

LAB ORDER # T11027.3

CLIENT: PG&E Gateway Generation Station

REPORT ATTN: Angel Espiritu / email: abey@pge.com

MAILING ADDRESS: 3225 Wiber Ave.

STATE: CA

ZIP: 94509

BILLING ADDRESS: (Same)

ATTN:

PHONE NUMBER: (925) 522-7838

FAX PHONE NUMBER:

SAMPLER (PRINT & SIGN NAME): Muskan Environmental Sampling

TURN-AROUND TIME: [ ] STANDARD [X] RUSH

DUE DATE:

CALTEST LAB #	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFICATION / SITE	CLIENT LAB #	COMP. or GRAB	ANALYSES REQUESTED: cyanide(total), pretreated with sodium hydrosulfite before performing SM 4500 CN- AGDE	REMARKS
-1	11/7/18	08:06	AQ waste water	500 ml poly	NaOH	Tiger Pit		Grab	X	samples sent on ICE
-2	11/7/18	08:06	AQ waste water	500 ml poly	None preserved	Tiger Pit		Grab	X	

RUSH

RELINQUISHED BY	DATE/TIME	RECEIVED BY	RELINQUISHED BY	DATE/TIME	RECEIVED BY
	11/7/18 08:47			11/7/18 0958	

FOR LAB USE ONLY

Samples: WC X MICRO ___ BIO ___ AA ___ SV ___ VOA ___ pH? Y/N TEMP: 2.4 SEALED: Y/N INTACT: Y/N

BD: BIO ___ WC ___ AA ___

CC: AA ___ SV ___ VOA ___

SIL: HP ___ PT ___ QT ___ VOA ___

W/HNO_3 ___ H_2SO_4 ___ NaOH ___

PIL: HNO_3 ___ H_2SO_4 ___ NaOH ___ HCL ___

COMMENTS:

*MATRIX: AQ = Aqueous Nondrinking Water, Digested Metals; FE = Low R.L.s, Aqueous Nondrinking Water, Digested Metals; DW = Drinking Water; SL = Soil Sludge, Solid ; FP = Free Product

**CONTAINER TYPES: AL = Amber Liter; AHL = 500 ml Amber; PT = Pint (Plastic); QT = Quart (Plastic); HG = Half Gallon (Plastic); SJ = Soil Jar; B4 = 4oz. BACT; BT = Brass Tube; VOA = 40mL VOA; OTC - Other Type Container

R ___ PR ___ M ___ F ___

10/29/18

WHITE - LABORATORY YELLOW - CLIENT COPY TO ACCOMPANY FINAL REPORT PINK - CLIENT COPY AS RECEIPT

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 304800
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 2 (11/7/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT	304800-001
TIGER PIT	304800-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 11/08/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**304800**
Client:	**Pacific Gas & Electric**
Location:	**Resample 2 (11/7/18)**
Request Date:	**11/07/18**
Samples Received:	**11/07/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 11/07/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recovery was observed for cyanide in the MS for batch 265268; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 304800

Project No:
Project Name: Resample 2 (11/7/18)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other		# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (pretreated with sodium thiosulfate before preserving?)	by SM 4500 CN-ABCE
	Tiger Pit	11/7/18	08:06	X				1				X		X	X
	Tiger Pit	11/7/18	08:06	X				1					X	X	X

Notes: Sample Sent On ice
containers:
500 ml poly
500 ml pol X

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	11/7/18 / 08:50	[signature]	11/7/18 - 8:50 Am
[signature]	11/7/18 - 9:47	[signature]	11-7 947
[signature]	11-7 1051	[signature]	11/7/18 10:51

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 304800 Client: PGE0

Date Received: 11/7/18 Project: _____

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (**skip Section 3 below**)

If no cooler Sample Temp (°C): 14.6 using IR Gun # ☑ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 11/7/18 By (print) AL (sign) _____

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☑ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)	✓		
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?	✓		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 11/7/18 **By (print)** AL **(sign)** _____

Date Labeled 11/7/18 **By (print)** AL **(sign)** _____

Enthalpy Sample Preservation for 304800

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[✓]	_____
-002a	[ ]	[ ]	[ ]	_____

Analyst: [signature]
Date: 11/7/18

Page 1 of 1

ENTHALPY ANALYTICAL

Detections Summary for 304800

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 2 (11/7/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-001

No Detections

Client Sample ID : TIGER PIT Laboratory Sample ID : 304800-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	304800	Location:	Resample 2 (11/7/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265268
Field ID:	TIGER PIT	Sampled:	11/07/18
Matrix:	Water	Received:	11/07/18
Units:	mg/L	Prepared:	11/07/18
Diln Fac:	1.000	Analyzed:	11/08/18

Type	Lab ID	Result	RL
SAMPLE	304800-001	ND	0.010
SAMPLE	304800-002	ND	0.010
BLANK	QC954755	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	304800	Location:	Resample 2 (11/7/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265268
Field ID:	ZZZZZZZZZZ	Sampled:	10/29/18
MSS Lab ID:	304646-001	Received:	10/30/18
Matrix:	Water	Prepared:	11/07/18
Units:	mg/L	Analyzed:	11/08/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC954756		0.2000	0.1613	81	76-120		
MS	QC954757	<0.01000	0.2000	0.1277	64 *	66-120		
MSD	QC954758		0.2000	0.1492	75	66-120	16	28

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 6

Analytical Report on Resampling #4

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305544
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Tiger Pit
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGERT PIT	305544-001
TIGERT PIT	305544-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 12/06/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305544**
Client:	**Pacific Gas & Electric**
Location:	**Tiger Pit**
Request Date:	**12/04/18**
Samples Received:	**12/04/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/04/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 3055544

Project No:

Project Name: Resample 4 (12/4/18)

Rpt Level: II

Turnaround Time: ~~Standard~~ RUSH

Sampler: Muskan Environmental Sampling

Report To: Angel Espiritu

Company: PG&E Gateway Generating Station

Telephone: (925) 522-7838

Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE
	Tiger Pit	12/4/18	08:35	X			1				X		X
	Tiger Pit	12/4/18	08:35	X			1					X	X

Notes: Sample Sent on ICE

Container
Poly 250ml
Poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
	12/4/18 09:50		12-4-18 9:50
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305144 Client: PG+E Gateway Generating

Date Received: 12/4/18 Project: _____

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (skip Section 3 below)

If no cooler Sample Temp (°C): 3.1 using IR Gun # ☐ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 12/4/18 By (print) AC (sign) [signature]

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer? _____			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)	—		
Did you check preservatives for all bottles for each sample?		—	
Did you document your preservative check?	—		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot#	_____	added to samples	_____	on/at	_____
☐ HCL lot#	_____	added to samples	_____	on/at	_____
☐ HNO3 lot#	_____	added to samples	_____	on/at	_____
☐ NaOH lot#	_____	added to samples	_____	on/at	_____

Section 6:

Explanations/Comments: _____

Date Logged in 12/4/18 **By (print)** AC **(sign)** [signature]

Date Labeled 12/4/18 **By (print)** AC **(sign)** [signature]

ENTHALPY ANALYTICAL

Detections Summary for 305544

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Tiger Pit

Client Sample ID : TIGERT PIT Laboratory Sample ID : 305544-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.030		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGERT PIT Laboratory Sample ID : 305544-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.032		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305544	Location:	Tiger Pit
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265928
Field ID:	TIGERT PIT	Sampled:	12/04/18
Matrix:	Water	Received:	12/04/18
Units:	mg/L	Analyzed:	12/05/18
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	305544-001	0.030	0.010
SAMPLE	305544-002	0.032	0.010
BLANK	QC957389	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305544	Location:	Tiger Pit
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Diln Fac:	1.000
Field ID:	TIGERT PIT	Batch#:	265928
MSS Lab ID:	305544-001	Sampled:	12/04/18
Matrix:	Water	Received:	12/04/18
Units:	mg/L	Analyzed:	12/05/18

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC957390		0.2000	0.1831	92	76-120		
MS	QC957391	0.02970	0.2000	0.2115	91	66-120		
MSD	QC957392		0.2000	0.2052	88	66-120	3	28

RPD= Relative Percent Difference

Attachment 7

Analytical Report on Resampling #5

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305713
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 5 (12/11/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT	305713-001
TIGER PIT	305713-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 12/12/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305713**
Client:	**Pacific Gas & Electric**
Location:	**Resample 5 (12/11/18)**
Request Date:	**12/11/18**
Samples Received:	**12/11/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/11/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 305713

Project No:
Project Name: Resample 5 (12/11/18)
Rpt Level: II
Turnaround Time: ~~Standard~~ RUSH

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generation Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide Total (pretreated with sodium thiosulfate before preserving) by SM 4500 CN-A&E
	Tiger Pit	12/11/18	08:36	X			1				X		X
	Tiger Pit	12/11/18	08:36	X			1					X	X

Notes: Sample sent on ICE

Container
Poly 250ml
Poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	12/11/18 10:05	Pat Gonzales	12/11/18 10:05 AM
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305713 Client: PG&E

Date Received: 12-11-18 Project: Resample 5 (12/11/18)

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☒ No (**skip Section 3 below**)

If no cooler Sample Temp (°C): 4.1 using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 12-11-18 By (print) SH (sign) [signature]

Shipping info (if applicable) _____

Are custody seals present? ☒ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)	✓		
Did you check preservatives for all bottles for each sample?	✓		
Did you document your preservative check?	✓		

pH strip lot# HC547770, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 12-11-18 **By (print)** SH **(sign)** [signature]

Date Labeled 12-11-18 **By (print)** SH **(sign)** [signature]

Enthalpy Sample Preservation for 305713

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[✓]	_____
-002a	[ ]	[ ]	[ ]	_____

Analyst: SLS
Date: 12-10-18

ENTHALPY ANALYTICAL

Detections Summary for 305713

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 5 (12/11/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 305713-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.013		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGER PIT Laboratory Sample ID : 305713-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.018		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305713	Location:	Resample 5 (12/11/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266103
Field ID:	TIGER PIT	Sampled:	12/11/18
Matrix:	Water	Received:	12/11/18
Units:	mg/L	Analyzed:	12/12/18
Diln Fac:	1.000		

Type	Lab ID	Result	RL
SAMPLE	305713-001	0.013	0.010
SAMPLE	305713-002	0.018	0.010
BLANK	QC958095	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305713	Location:	Resample 5 (12/11/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Diln Fac:	1.000
Field ID:	TIGER PIT	Batch#:	266103
MSS Lab ID:	305713-001	Sampled:	12/11/18
Matrix:	Water	Received:	12/11/18
Units:	mg/L	Analyzed:	12/12/18

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958096		0.2000	0.1850	93	76-120		
MS	QC958097	0.01250	0.2000	0.1922	90	66-120		
MSD	QC958098		0.2000	0.1538	71	66-120	22	28

RPD= Relative Percent Difference

Attachment 8

Analytical Report on Resampling #6

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305805
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 6 (12/14/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-P	305805-001
TIGER PIT-UP	305805-002

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Signature: Will Rice Date: 12/17/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305805**
Client:	**Pacific Gas & Electric**
Location:	**Resample 6 (12/14/18)**
Request Date:	**12/14/18**
Samples Received:	**12/14/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/14/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 305805

Project No:
Project Name: Resample 6 (12/14/18)
Rpt Level: II
Turnaround Time: ~~Standard~~ RUSH

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generation Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling: Date	Sampling: Time	Matrix: Water	Matrix: Soil	Matrix: Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide total (pretreat with Sodium thiosulfate before preserving) by SM4500 CN-A&E
	Tiger Pit - P	12/14/18	08:35	X			1				X		X
	Tiger Pit - DUP	12/14/18	0835	X			1					X	X

Notes: Sample sent on ICE

Container
poly 250ml
poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
12/14/18 09:48 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
Pat Mongahy 12/14/18 09:48 DATE/TIME
DATE/TIME
DATE/TIME

AM

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305805 Client: PG&E Gateway

Date Received: 12/14/18 Project: Resample 6 (12/14/18)

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☒ No (skip Section 3 below)

If no cooler Sample Temp (°C): 4.2 using IR Gun # ☒ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened _____ By (print)_____ (sign)_____

Shipping info (if applicable) _____

Are custody seals present? ☐ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe)_____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID:_____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1:_____, #2:_____, #3:_____, #4:_____, #5:_____, #6:_____, #7:_____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	X		
Were Method 5035 sampling containers present?		X	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	X		
Are there any missing / extra samples?		X	
Are samples in the appropriate containers for indicated tests?	X		
Are sample labels present, in good condition and complete?	X		
Does the container count match the COC?	X		
Do the sample labels agree with custody papers?	X		
Was sufficient amount of sample sent for tests requested?	X		
Did you change the hold time in LIMS for unpreserved VOAs?			X
Did you change the hold time in LIMS for preserved terracores?			X
Are bubbles > 6mm absent in VOA samples?			X
Was the client contacted concerning this sample delivery?		X	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)	X		
Did you check preservatives for all bottles for each sample?	X		
Did you document your preservative check?	X		

pH strip lot# HG547700, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 12/14/18 **By (print)** VQ **(sign)** VQ

Date Labeled ↓ **By (print)** ↓ **(sign)** ↓

ENTHALPY ANALYTICAL

Detections Summary for 305805

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 6 (12/14/18)

Client Sample ID : TIGER PIT-P Laboratory Sample ID : 305805-001

No Detections

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 305805-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.020		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305805	Location:	Resample 6 (12/14/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	12/14/18
Matrix:	Water	Received:	12/14/18
Units:	mg/L	Prepared:	12/14/18
Diln Fac:	1.000	Analyzed:	12/17/18
Batch#:	266229		

Field ID	Type	Lab ID	Result	RL
TIGER PIT-P	SAMPLE	305805-001	ND	0.010
TIGER PIT-UP	SAMPLE	305805-002	0.020	0.010
	BLANK	QC958630	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305805	Location:	Resample 6 (12/14/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266229
Field ID:	TIGER PIT-P	Sampled:	12/14/18
MSS Lab ID:	305805-001	Received:	12/14/18
Matrix:	Water	Prepared:	12/14/18
Units:	mg/L	Analyzed:	12/17/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958631		0.2000	0.1687	84	76-120		
MS	QC958632	<0.01000	0.2000	0.1396	70	66-120		
MSD	QC958633		0.2000	0.1404	70	66-120	1	28

RPD= Relative Percent Difference

Attachment 9

Analytical Report on Resampling #7

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 305902
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 7 (1218/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-P	305902-001
TIGER PIT-UP	305902-002

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Signature: Will Rice Date: 12/19/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**305902**
Client:	**Pacific Gas & Electric**
Location:	**Resample 7 (1218/18)**
Request Date:	**12/18/18**
Samples Received:	**12/18/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/18/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of TIGER PIT-P (lab # 305902-001); the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 505902

Project No:

Project Name: Resample 7 (12/18/18)

Rpt Level: II

Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling

Report To: Angel Espiritu

Company : PG&E Gateway Generation Station

Telephone: (925) 522-7838

Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide total (pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE
	Tiger Pit-P	12/18/18	07:55	X			1				X		X
	Tiger Pit-UP	12/18/18	07:55	X			1					X	X

Notes: Sample sent on ICE

Container
poly 250ml
poly 250ml

SAMPLE RECEIPT
☐ Intact ☐ Cold
☒ On Ice ☐ Ambient

RELINQUISHED BY:

12/18/18 09:32 DATE/TIME

DATE/TIME

DATE/TIME

RECEIVED BY:

Pat Kamph 12/18/18 09:32 DATE/TIME

DATE/TIME

DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 1805402 Client: PGE

Date Received: 12/18/18 Project:

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (skip Section 3 below)

If no cooler Sample Temp (°C): 1.3 using IR Gun # ☑ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 12/18/18 By (print) AC (sign) [signature]

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?			
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)	✓		
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?	✓		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 12/18/18 **By (print)** AC **(sign)** [signature]

Date Labeled 12/18/18 **By (print)** AC **(sign)** [signature]

Enthalpy Sample Preservation for 305902

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[✓]	_____
-002a	[ ]	[ ]	[ ]	_____

Analyst: AMC
Date: 12/18/18

ENTHALPY ANALYTICAL

Detections Summary for 305902

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 7 (1218/18)

Client Sample ID : TIGER PIT-P Laboratory Sample ID : 305902-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 305902-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.028		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	305902	Location:	Resample 7 (1218/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	12/18/18
Matrix:	Water	Received:	12/18/18
Units:	mg/L	Prepared:	12/18/18
Diln Fac:	1.000	Analyzed:	12/19/18
Batch#:	266298		

Field ID	Type	Lab ID	Result	RL
TIGER PIT-P	SAMPLE	305902-001	0.028	0.010
TIGER PIT-UP	SAMPLE	305902-002	0.028	0.010
	BLANK	QC958894	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	305902	Location:	Resample 7 (1218/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266298
Field ID:	TIGER PIT-P	Sampled:	12/18/18
MSS Lab ID:	305902-001	Received:	12/18/18
Matrix:	Water	Prepared:	12/18/18
Units:	mg/L	Analyzed:	12/19/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC958895		0.2000	0.1834	92	76-120		
MS	QC958896	0.02790	0.2000	0.1537	63 *	66-120		
MSD	QC958897		0.2000	0.1539	63 *	66-120	0	28

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 10

Analytical Report on Resampling #8

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306316
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 8-DW-01102019
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-UP-DW	306316-001
SOURCE-UP-DW	306316-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 01/11/2019

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**306316**
Client:	**Pacific Gas & Electric**
Location:	**Resample 8-DW-01102019**
Request Date:	**01/10/19**
Samples Received:	**01/10/19**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 01/10/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

CHAIN OF CUSTODY

ENTHALPY ANALYTICAL
Formerly Curtis & Tompkins Labs
2323 Fifth Street
Berkeley, CA 94710
Phone (510) 486-0900
Fax (510) 486-0532

Chain of Custody # _____

C&T LOGIN # 306316

Project No:

Project Name: Resample 8_DW-01102019

Project P. O. No:

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☑ RUSH _____ ☐ Standard

Sampler: Doug Welch

Report To: Angel Espiritu

Company: PG&E Gateway Gen Station

Telephone: (925) 522-7838

Email: ABE4@PGE.COM

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST	
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	SM 4500-Cyanide(Total) * CN-ADCE	
	Tiger Pit-UP-DW	01/10/2019	0917	✓				1					✓	✓	
	Source-UP-DW	01/10/2019	0923	✓				1					✓	✓	

Notes:
* All Samples pretreated w/ sodium thiosulfate. Samples sent on ice.

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
Doug Welch DATE: 1/10/19 TIME: 0923
DATE: 1-10 TIME: 1162
DATE: TIME:

RECEIVED BY:
DATE: 1-10-19 TIME: 0923
DATE: 1/11/19 TIME: 12:00
DATE: TIME:

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 306316 Client: PG&E

Date Received: 1.10.19 Project: _____

ENTHALPY ANALYTICAL

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 1.10.19 By (print) SH (sign) SH

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☒ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☒ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☒ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☒ A ☐ B

Cooler Temp (°C): #1: 3.3, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer? _____			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			—
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 1/10/19 **By (print)** AC **(sign)** _____

Date Labeled 1/10/19 **By (print)** AC **(sign)** _____

ENTHALPY ANALYTICAL

Detections Summary for 306316

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 8-DW-01102019

Client Sample ID : TIGER PIT-UP-DW Laboratory Sample ID : 306316-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.055		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : SOURCE-UP-DW Laboratory Sample ID : 306316-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	306316	Location:	Resample 8-DW-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	01/10/19
Matrix:	Water	Received:	01/10/19
Units:	mg/L	Prepared:	01/10/19
Diln Fac:	1.000	Analyzed:	01/11/19
Batch#:	266844		

Field ID	Type	Lab ID	Result	RL
TIGER PIT-UP-DW	SAMPLE	306316-001	0.055	0.010
SOURCE-UP-DW	SAMPLE	306316-002	ND	0.010
	BLANK	QC960973	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	306316	Location:	Resample 8-DW-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266844
Field ID:	ZZZZZZZZZZ	Sampled:	01/07/19
MSS Lab ID:	306233-001	Received:	01/07/19
Matrix:	Water	Prepared:	01/10/19
Units:	mg/L	Analyzed:	01/11/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25

RPD= Relative Percent Difference

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306317
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 8-ENT-01102019
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT-UP	306317-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 01/11/2019

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**306317**
Client:	**Pacific Gas & Electric**
Location:	**Resample 8-ENT-01102019**
Request Date:	**01/10/19**
Samples Received:	**01/10/19**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 01/10/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

CHAIN OF CUSTODY

ENTHALPY ANALYTICAL
Formerly Curtis & Tompkins Labs
2323 Fifth Street
Berkeley, CA 94710
Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 306317

Chain of Custody #

Project No:

Project Name: Resample 8 - ENT-01102019

Project P. O. No:

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☑ RUSH ☐ Standard

Sampler: Jacob Hohn

Report To: Angel Espiritu

Company: PG&E Gateway Gen. Station

Telephone: (925) 522-7838

Email: ABE4@PGE.COM

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	SM 4500 CN-ABE - Cyanide (Total) *
	Tiger Pit-UP	01/10/2019		✓									✓	✓

Notes:
* Sample pretreated w/ sodium thiosulfate. Sample sent on ice.

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 1-10 TIME: 1102
DATE: TIME:
DATE: TIME:

RECEIVED BY:
DATE: 1/10/19 TIME: 12:00
DATE: TIME:
DATE: TIME:

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 306317 Client: PG&E

Date Received: 1.10.19 Project: _____

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 1.10.19 By (print) SH (sign) SH

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☒ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☒ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☒ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☑ A ☐ B

Cooler Temp (°C): #1: 3.3, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			—
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 1/10/19 By (print) AC (sign) AC

Date Labeled 1/10/19 By (print) AC (sign) AC

ENTHALPY ANALYTICAL

Detections Summary for 306317

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 8-ENT-01102019

Client Sample ID : TIGER PIT-UP Laboratory Sample ID : 306317-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.051		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	306317	Location:	Resample 8-ENT-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266844
Field ID:	TIGER PIT-UP	Sampled:	01/10/19
Matrix:	Water	Received:	01/10/19
Units:	mg/L	Prepared:	01/10/19
Diln Fac:	1.000	Analyzed:	01/11/19

Type	Lab ID	Result	RL
SAMPLE	306317-001	0.051	0.010
BLANK	QC960973	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	306317	Location:	Resample 8-ENT-01102019
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266844
Field ID:	ZZZZZZZZZZ	Sampled:	01/07/19
MSS Lab ID:	306233-001	Received:	01/07/19
Matrix:	Water	Prepared:	01/10/19
Units:	mg/L	Analyzed:	01/11/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC960974		0.2000	0.1686	84	75-120		
MS	QC960975	<0.01000	0.2000	0.1710	86	56-120		
MSD	QC960976		0.2000	0.1580	79	56-120	8	25

RPD= Relative Percent Difference

Attachment 11

Analytical Report on Resampling #9

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 306446
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 9 (1/16/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP TIGER PIT	306446-001
UP HRSG IP A	306446-002
UP HRSG IP B	306446-003
UP PHOSPHATE	306446-004
UP CC COOLING WATER	306446-005
UP AMINE	306446-006
UP E-006	306446-007
UP HAMMOND TANK	306446-008
UP OWS	306446-009
UP AMMONIA SUMP	306446-010
UP SERVICE WATER	306446-011
UP SOURCE WATER	306446-012

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Will Rice Date: 01/17/2019

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**306446**
Client:	**Pacific Gas & Electric**
Location:	**Resample 9 (1/16/19)**
Request Date:	**01/16/19**
Samples Received:	**01/16/19**

This data package contains sample and QC results for twelve water samples, requested for the above referenced project on 01/16/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD of UP TIGER PIT (lab # 306446-001); the LCS was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 306446

Project No:
Project Name: Resample 9 (1/16/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush 24 hour

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Analytical Request: Cyanide (total) (pre-treated with sodium thiosulfate before preservation) by SM 4500 CN-ABCE

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Matrix: Soil	Matrix: Other		# of Container	HCl	H_2SO_4	HNO_3	NaOH	None	Cyanide (total) by SM 4500 CN-ABCE
-	UP Tiger Pit	1/16/19	08:55	X				1					X	
-	UP HRSG IP A	1/16/19	09:11	X				1					X	X
-	UP HRSG IP B	1/16/19	09:15	X				1					X	X
-	UP Phosphate	1/16/19	09:23	X				1					X	X
-	UP Cooling Water (~~UP Cooling Water~~)	1/16/19	09:30	X				1					X	X
-	UP AMINE	1/16/19	09:35	X				1					X	X
-	UP E-006	1/16/19	09:41	X				1					X	X
-	UP Hammond Tank	1/16/19	09:50	X				1					X	X
-	UP OWS	1/16/19	10:02	X				1					X	X
-	UP Ammonia Sump	1/16/19	10:09	X				1					X	X
-	UP Service Water	1/16/19	10:20	X				1					X	X
-	UP Source Water	1/16/19	10:30	X				1					X	X

Notes:
sample sent on ICE
containers
500 ml poly

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:	DATE/TIME
[signature]	1/16/19 11:31	Pat Gomez [signature]	1/16/19 11:31

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 350446 Client: PG+E

Date Received: 1/16/19 Project: _____

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 1/16/19 By (print) M (sign) [signature]

Shipping Info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☑ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (If other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☑ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☑ B

Cooler Temp (°C): #1: 1.6, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	—		
Were Method 5035 sampling containers present?		—	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	—		
Are there any missing / extra samples?		—	
Are samples in the appropriate containers for indicated tests?	—		
Are sample labels present, in good condition and complete?	—		
Does the container count match the COC?	—		
Do the sample labels agree with custody papers?	—		
Was sufficient amount of sample sent for tests requested?	—		
Did you change the hold time in LIMS for unpreserved VOAs?			—
Did you change the hold time in LIMS for preserved terracores?			—
Are bubbles > 6mm absent in VOA samples?			—
Was the client contacted concerning this sample delivery?		—	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			—
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 1/16/19 By (print) AC (sign) [signature]

Date Labeled 1/16/19 By (print) AC (sign) [signature]

ENTHALPY ANALYTICAL

Detections Summary for 306446

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 9 (1/16/19)

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 306446-001

No Detections

Client Sample ID : UP HRSG IP A Laboratory Sample ID : 306446-002

No Detections

Client Sample ID : UP HRSG IP B Laboratory Sample ID : 306446-003

No Detections

Client Sample ID : UP PHOSPHATE Laboratory Sample ID : 306446-004

No Detections

Client Sample ID : UP CC COOLING WATER Laboratory Sample ID : 306446-005

No Detections

Client Sample ID : UP AMINE Laboratory Sample ID : 306446-006

No Detections

Client Sample ID : UP E-006 Laboratory Sample ID : 306446-007

No Detections

Client Sample ID : UP HAMMOND TANK Laboratory Sample ID : 306446-008

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.026		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP OWS Laboratory Sample ID : 306446-009

No Detections

Client Sample ID : UP AMMONIA SUMP Laboratory Sample ID : 306446-010

No Detections

Client Sample ID : UP SERVICE WATER Laboratory Sample ID : 306446-011

No Detections

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 306446-012

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	306446	Location:	Resample 9 (1/16/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	01/16/19
Matrix:	Water	Received:	01/16/19
Units:	mg/L	Prepared:	01/16/19
Diln Fac:	1.000	Analyzed:	01/17/19
Batch#:	266990		

Field ID	Type	Lab ID	Result	RL
UP TIGER PIT	SAMPLE	306446-001	ND	0.010
UP HRSG IP A	SAMPLE	306446-002	ND	0.010
UP HRSG IP B	SAMPLE	306446-003	ND	0.010
UP PHOSPHATE	SAMPLE	306446-004	ND	0.010
UP CC COOLING WATER	SAMPLE	306446-005	ND	0.010
UP AMINE	SAMPLE	306446-006	ND	0.010
UP E-006	SAMPLE	306446-007	ND	0.010
UP HAMMOND TANK	SAMPLE	306446-008	0.026	0.010
UP OWS	SAMPLE	306446-009	ND	0.010
UP AMMONIA SUMP	SAMPLE	306446-010	ND	0.010
UP SERVICE WATER	SAMPLE	306446-011	ND	0.010
UP SOURCE WATER	SAMPLE	306446-012	ND	0.010
	BLANK	QC961536	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	306446	Location:	Resample 9 (1/16/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	266990
Field ID:	UP TIGER PIT	Sampled:	01/16/19
MSS Lab ID:	306446-001	Received:	01/16/19
Matrix:	Water	Prepared:	01/16/19
Units:	mg/L	Analyzed:	01/17/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC961537		0.2000	0.1742	87	75-120		
MS	QC961538	<0.01000	0.2000	<0.01000	0 *	56-120		
MSD	QC961539		0.2000	<0.01000	0 *	56-120	NC	25

*= Value outside of QC limits; see narrative
NC= Not Calculated
RPD= Relative Percent Difference

Attachment 12

Analytical Report on Resampling #10

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307019
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 10 (2/7/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP HAMMOND TANK	307019-001
UP TIGER PIT	307019-002
UP SOURCE WATER	307019-003

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 02/08/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307019**
Client:	**Pacific Gas & Electric**
Location:	**Resample 10 (2/7/19)**
Request Date:	**02/07/19**
Samples Received:	**02/07/19**

This data package contains sample and QC results for three water samples, requested for the above referenced project on 02/07/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 307019

Project No:
Project Name: Resample 10 (2/7/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other		# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: cyanide (total) (preserved with sodium thiosulfate before preserving)	by SM 4500 CN-ABCE
	UP Hammond Tank	2/7/19	09:20	X				1					X	X	X
	UP Tiger Pit	2/7/19	09:10	X				1					X	X	X
	UP Source Water	2/7/19	09:35	X				1					X	X	X

Notes:
sample sent on ICE
containers
500 ml poly

SAMPLE RECEIPT
☐ Intact ☐ Cold
☒ On Ice ☐ Ambient

RELINQUISHED BY:		RECEIVED BY:	
[signature] 2/7/19 10:32	DATE/TIME	[signature] 2-7-19 10:32	DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 262019 Client: PGE

Date Received: 2/7/19 Project: _____

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☒ No (skip Section 3 below)

If no cooler Sample Temp (°C): 2.3 using IR Gun # ☒ A, or ☐ B

☒ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/7/19 By (print) _____ (sign) _____

Shipping info (if applicable) _____

Are custody seals present? ☒ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☒ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable			
Were Method 5035 sampling containers present?			
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?			
Are there any missing / extra samples?			
Are samples in the appropriate containers for indicated tests?			
Are sample labels present, in good condition and complete?			
Does the container count match the COC?			
Do the sample labels agree with custody papers?			
Was sufficient amount of sample sent for tests requested?			
Did you change the hold time in LIMS for unpreserved VOAs?			
Did you change the hold time in LIMS for preserved terracores?			
Are bubbles > 6mm absent in VOA samples?			
Was the client contacted concerning this sample delivery?			
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 2/7/19 By (print) AC (sign) _____

Date Labeled 2/7/19 By (print) AC (sign) _____

ENTHALPY ANALYTICAL

Detections Summary for 307019

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 10 (2/7/19)

Client Sample ID : UP HAMMOND TANK Laboratory Sample ID : 307019-001

No Detections

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307019-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.013		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 307019-003

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307019	Location:	Resample 10 (2/7/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	02/07/19
Matrix:	Water	Received:	02/07/19
Units:	mg/L	Prepared:	02/07/19
Diln Fac:	1.000	Analyzed:	02/08/19
Batch#:	267621		

Field ID	Type	Lab ID	Result	RL
UP HAMMOND TANK	SAMPLE	307019-001	ND	0.010
UP TIGER PIT	SAMPLE	307019-002	0.013	0.010
UP SOURCE WATER	SAMPLE	307019-003	ND	0.010
	BLANK	QC964159	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307019	Location:	Resample 10 (2/7/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	267621
Field ID:	UP SOURCE WATER	Sampled:	02/07/19
MSS Lab ID:	307019-003	Received:	02/07/19
Matrix:	Water	Prepared:	02/07/19
Units:	mg/L	Analyzed:	02/08/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964160		0.2000	0.1579	79	75-120		
MS	QC964161	<0.01000	0.2000	0.1211	61	56-120		
MSD	QC964162		0.2000	0.1513	76	56-120	22	25

RPD= Relative Percent Difference

Attachment 13

Analytical Report on Resampling #11

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1902474

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue
Antioch, CA 94509

Project Contact: Angel Espiritu
Project P.O.:
Project: Resample II (2/11/19)

Project Received: 02/11/2019

Analytical Report reviewed & approved for release on 02/12/2019 by:

Christine Askari
Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station
Project: Resample II (2/11/19)
WorkOrder: 1902474

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
TZA	TimeZone Net Adjustment for sample collected outside of MAI's UTC.
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1902474
Date Received:	2/11/19 10:05	**Extraction Method:**	SM4500-CN⁻ E
Date Prepared:	2/12/19	**Analytical Method:**	SM4500-CN⁻ CE
Project:	Resample II (2/11/19)	**Unit:**	µg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
UP Tiger Pit	1902474-001A	Water	02/11/2019 08:30	WC_SKALAR 021219A1_29	172888

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	**29**	1.0	1	02/12/2019 11:55

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
UP RO	1902474-002A	Water	02/11/2019 09:25	WC_SKALAR 021219A1_32	172888

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	**1.7**	1.0	1	02/12/2019 12:03

Analyst(s): NM

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1902474
Date Prepared:	2/12/19	**BatchID:**	172888
Date Analyzed:	2/12/19	**Extraction Method:**	SM4500-CN⁻ E
Instrument:	WC_SKALAR	**Analytical Method:**	SM4500-CN⁻ CE
Matrix:	Water	**Unit:**	µg/L
Project:	Resample II (2/11/19)	**Sample ID:**	MB/LCS/LCSD-172888

QC Summary Report for SM4500-CN⁻ CE

Analyte	MB Result	MDL	RL			
Total Cyanide	ND	0.84	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	41	40	40	102	101	80-120	1.19	20

McCampbell Analytical, Inc.
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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1902474 **ClientCode: PGEA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509
(925) 459-7212 FAX:

Email: abe4@pge.com
cc/3rd Party:
PO:
Project: Resample II (2/11/19)

Bill to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509

Requested TAT: 1 day;

Date Received: **02/11/2019**
Date Logged: **02/11/2019**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1902474-001	UP Tiger Pit	Water	2/11/2019 08:30	☐	A											
1902474-002	UP RO	Water	2/11/2019 09:25	☐	A											

Test Legend:

1	CN_SM4500CE_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: PG&E GATEWAY GENERATING STATION **Project:** Resample II (2/11/19) **Work Order:** 1902474
Client Contact: Angel Espiritu **QC Level:** LEVEL 2
Contact's Email: abe4@pge.com **Comments:** **Date Logged:** 2/11/2019

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1902474-001A	UP Tiger Pit	Water	SM4500-CN¯CE (Cyanide, Total)	1	500mL aHDPE w/ NaOH + Na2S2O3	☐	2/11/2019 8:30	1 day	None	☐	
1902474-002A	UP RO	Water	SM4500-CN¯CE (Cyanide, Total)	1	500mL HDPE w/ Na2S2O3	☐	2/11/2019 9:25	1 day	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

General COC

RUSH

MAI Work Order # 1902477

McCAMPBELL ANALYTICAL, INC.

1534 Willow Pass Rd. Pittsburg, Ca. 94565-1701
Telephone: (877) 252-9262 / Fax: (925) 252-9269
www.mccampbell.com main@mccampbell.com

CHAIN OF CUSTODY RECORD

Turn Around Time: (1 Day Rush)		2 Day Rush		3 Day Rush		STD		Quote #	
J-Flag / MDL		ESL		Cleanup Approved				Bottle Order #	
Delivery Format:	PDF		GeoTracker EDF		EDD		Write On (DW)		EQuIS	

Report To: Angel Espiritu Bill To: PG&E Gateway
Company: PG&E Gateway Generating Station
Email: abe4@pge.com
Alt Email: Tele:
Project Name: Resample 11 (2/11/19) Project #:
Project Location: Tiger Pit, RO PO #
Sampler Signature: Muskan Environmental Sampling LLC

SAMPLE ID Location / Field Point	Sampling Date	Sampling Time	#Containers	Matrix	Preservative
✓ UP Tiger Pit	2/11/19	08:30	1	water	—
✓ UP RO	2/11/19	09:25	1	water	—

Analysis Requested

BTEX & TPH as Gas (8021/ 8015) MTBE	TPH as Diesel (8015) + Motor Oil Without Silica Gel	TPH as Diesel (8015) + Motor Oil With Silca Gel	Total Oil & Grease (1664 / 9071) Without Silica Gel	Total Petroleum Hydrocarbons - Oil & Grease (1664 / 9071) With Silica Gel	Total Petroleum Hydrocarbons (418.1) With Silica Gel	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ; Aroclors only	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)*	Metals (200.8 / 6020)	Baylands Requirements	Lab to filter sample for dissolved metals analysis	Cyanide (Total) preserved with NaOH to pH>12 by SM 4500 CN-A,B,E			
															X			
															X			

MAI clients MUST disclose any dangerous chemicals known to be present in their submitted samples in concentrations that may cause immediate harm or serious future health endangerment as a result of brief, gloved, open air, sample handling by MAI staff. Non-disclosure incurs an immediate $250 surcharge and the client is subject to full legal liability for harm suffered. Thank you for your understanding and for allowing us to work safely.

* If metals are requested for water samples and the water type (Matrix) is not specified on the chain of custody, MAI will default to metals by E200.8.

Please provide an adequate volume of sample. If the volume is not sufficient for a MS/MSD a LCS/LCSD will be prepared in its place and noted in the report.

Comments / Instructions

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
	2/11/19	10:05		2/11/19	10:05

Matrix Code: DW=Drinking Water, GW=Ground Water, WW=Waste Water, SW=Seawater, S=Soil, SL=Sludge, A=Air, WP=Wipe, O=Other

Preservative Code: 1=4°C 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=ZnOAc/NaOH 7=None

Temp 4.4 °C Initials

WET

Page ___ of ___

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"When Quality Counts"

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**PG&E Gateway Generating Station**	Date and Time Received	**2/11/2019 10:05**
Project:	**Resample II (2/11/19)**	Date Logged:	**2/11/2019**
		Received by:	Julia Danielsson
WorkOrder №:	**1902474** Matrix: Water	Logged by:	Agustina Venegas
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA	☑
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						
Sample/Temp Blank temperature	Temp: 4.4°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO3: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
UCMR Samples:						
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA	☑

Comments:

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307128
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 11 (2/11/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP TIGER PIT	307128-001
UP RO	307128-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 02/12/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307128**
Client:	**Pacific Gas & Electric**
Location:	**Resample 11 (2/11/19)**
Request Date:	**02/11/19**
Samples Received:	**02/11/19**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 02/11/19. The samples were received on ice and intact, directly from the field.

Total Cyanide (SM4500CN-C,E):
No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 307128

Project No:
Project Name: Resample II (2/11/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush

Sampler: Muskan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Cremerating Station
Telephone: (925) 522-7838
Email: abe4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: Cyanide (total) (preserved with sodium hydroxide to pH>12 before processing by SM 4500 CN-ABCF
	UP Tiger Pit	2/11/19	08:30	X			1					X	X
	UP RB	2/11/19	09:25	X			1					X	X

Notes:
sample sent on ICE
containers:
500ml poly

Do Not preserve Samples

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:
2/11/19 10:52 DATE/TIME
DATE/TIME
DATE/TIME

RECEIVED BY:
Pat Lam 2/11/19 10:52 DATE/TIME
DATE/TIME
DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 307128 Client: MUSKan Environmental

Date Received: 2/11/19 Project: Resample 11

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): 3.5 using IR Gun # ☑ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened _____ By (print)_____ (sign)_____

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (if other, describe)_____

☐ Bubble Wrap, ☐ Foam blocks, ☑ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID:_____, or IR Gun # ☑ A ☐ B

Cooler Temp (°C): #1: 3.5, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?			
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?		✓	

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 2/11/19 By (print) CF (sign) CF

Date Labeled 2/11/19 By (print) CF (sign) CF

ENTHALPY ANALYTICAL

Detections Summary for 307128

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 11 (2/11/19)

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307128-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Cyanide	0.014		0.010	mg/L	TOTAL	1.000	SM4500CN-C,E	METHOD

Client Sample ID : UP RO Laboratory Sample ID : 307128-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307128	Location:	Resample 11 (2/11/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Sampled:	02/11/19
Matrix:	Water	Received:	02/11/19
Units:	mg/L	Prepared:	02/11/19
Diln Fac:	1.000	Analyzed:	02/12/19
Batch#:	267700		

Field ID	Type	Lab ID	Result	RL
UP TIGER PIT	SAMPLE	307128-001	0.014	0.010
UP RO	SAMPLE	307128-002	ND	0.010
	BLANK	QC964476	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307128	Location:	Resample 11 (2/11/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	267700
Field ID:	UP TIGER PIT	Sampled:	02/11/19
MSS Lab ID:	307128-001	Received:	02/11/19
Matrix:	Water	Prepared:	02/11/19
Units:	mg/L	Analyzed:	02/12/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC964477		0.2000	0.1665	83	75-120		
MS	QC964478	0.01390	0.2000	0.1986	92	56-120		
MSD	QC964479		0.2000	0.1985	92	56-120	0	25

RPD= Relative Percent Difference

Attachment 14

Analytical Report on Resampling #12

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307577
ANALYTICAL REPORT

Pacific Gas & Electric
4801 Oakport Street
Oakland, CA 94601

Project : STANDARD

Level : II

Sample ID	Lab ID
UP HAMMOND TAND	307577-001
UP RO REJECT	307577-002
UP TIGER PIT	307577-003
UP SOURCE WATER	307577-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 02/26/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307577**
Client:	**Pacific Gas & Electric**
Request Date:	**02/25/19**
Samples Received:	**02/25/19**

This data package contains sample and QC results for four water samples, requested for the above referenced project on 02/25/19. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

No analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

Chain of Custody # :

C&T LOGIN # 307577

Project No:
Project Name: Resample 12 (2/25/19)
Rpt Level: II
Turnaround Time: ~~Standard~~ Rush 24hr

Sampler: Muckan Environmental Sampling
Report To: Angel Espiritu
Company : PG&E Gateway Generating Station
Telephone: (925)522-7838
Email: abc4@pge.com

Lab No.	Sample ID.	Sampling Date	Sampling Time	Matrix: Water	Soil	Other	# of Container	Chemical Preservative: HCl	H_2SO_4	HNO_3	NaOH	None	Analytical Request: cyanide (total) (pretreated with sodium thiosulfate before preserving) by SM4500 CN-ABCE
	UP Hammond Tand	2/25/19	08:55	X			1					X	X
	UP RO Reject	2/25/19	08:35	X			1					X	X
	UP Tiger Pit	2/25/19	08:10	X			1					X	X
	UP Source Water	2/25/19	08:45	X			1					X	X

Notes:
Samples Sent on ICE:
containers: 500ml poly

Do Not persERVE Sample

SAMPLE RECEIPT
☐ Intact ☐ Cold
☐ On Ice ☐ Ambient

RELINQUISHED BY:		RECEIVED BY:	
[signature] 2/25/19 / 10:00	DATE/TIME	[signature] 2/25/19 10:00	DATE/TIME
	DATE/TIME		DATE/TIME
	DATE/TIME		DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 307577 Client: PG+E

Date Received: 2-25-19 Project: _____

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): 3.0 C using IR Gun # ☑ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2-25-19 By (print) AJ (sign) AJ

Shipping info (if applicable) _____

Are custody seals present? ☐ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☐ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			✓
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged in 2-25-19 By (print) AJ (sign) AJ

Date Labeled 2-25-19 By (print) AJ (sign) AJ

ENTHALPY ANALYTICAL

Detections Summary for 307577

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location :

Client Sample ID : UP HAMMOND TAND Laboratory Sample ID : 307577-001

No Detections

Client Sample ID : UP RO REJECT Laboratory Sample ID : 307577-002

No Detections

Client Sample ID : UP TIGER PIT Laboratory Sample ID : 307577-003

No Detections

Client Sample ID : UP SOURCE WATER Laboratory Sample ID : 307577-004

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307577	Prep:	METHOD
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E
Project#:	STANDARD		
Analyte:	Cyanide	Sampled:	02/25/19
Matrix:	Water	Received:	02/25/19
Units:	mg/L	Prepared:	02/25/19
Diln Fac:	1.000	Analyzed:	02/26/19
Batch#:	268093		

Field ID	Type	Lab ID	Result	RL
UP HAMMOND TAND	SAMPLE	307577-001	ND	0.010
UP RO REJECT	SAMPLE	307577-002	ND	0.010
UP TIGER PIT	SAMPLE	307577-003	ND	0.010
UP SOURCE WATER	SAMPLE	307577-004	ND	0.010
	BLANK	QC966128	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307577	Prep:	METHOD
Client:	Pacific Gas & Electric	Analysis:	SM4500CN-C,E
Project#:	STANDARD		
Analyte:	Cyanide	Batch#:	268093
Field ID:	ZZZZZZZZZZ	Sampled:	02/14/19
MSS Lab ID:	307279-002	Received:	02/15/19
Matrix:	Water	Prepared:	02/25/19
Units:	mg/L	Analyzed:	02/26/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966129		0.2000	0.1828	91	75-120		
MS	QC966130	<0.01000	0.2000	0.1470	74	56-120		
MSD	QC966131		0.2000	0.1472	74	56-120	0	25

RPD= Relative Percent Difference

Attachment 15

Analytical Report on Resampling #13

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307679
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample Compliance-2/27/19
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP-I-001	307679-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 03/01/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307679**
Client:	**Pacific Gas & Electric**
Location:	**Resample Compliance-2/27/19**
Request Date:	**02/27/19**
Samples Received:	**02/27/19**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/27/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

CHAIN OF CUSTODY

ENTHALPY ANALYTICAL
Formerly Curtis & Tompkins Labs
2323 Fifth Street
Berkeley, CA 94710
Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 207479

Chain of Custody # _____

Project No:

Project Name: Resample Compliance - 2/27/19

Project P. O. No:

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☑ RUSH 24 Hr. ☐ Standard

Sampler: Doug Welch

Report To: Angel Espiritu, Tim Wisdom

Company: PG&E Gateway Generating Station

Telephone: 925-522-7838

Email: ABE4@pge.com, TLW1@pge.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	Cyanide (Total) (preserved w/ $Na_2S_2O_3$) by SM 4500 CN-ABCE
	UP I-001	2/27/19	0944	✓				1					✓	✓

Notes:
Samples set on ICE

Do NOT preserve Sample

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:		RECEIVED BY:	
Doug Welch	DATE: 2/27/19 TIME: 0951		DATE: 2-27 TIME: 951
	DATE: 2-27 TIME: 1055		DATE: 2/27/19 TIME: 10:05
	DATE: TIME:		DATE: TIME:

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 305679 Client: PGEO

Date Received: 2/27/19 Project: _____

Section 2: Samples received in a cooler? ☑ Yes, how many? 1 ☐ No (skip Section 3 below)

If no cooler Sample Temp (°C): _____ using IR Gun # ☐ A, or ☐ B

☐ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/27/19 By (print) AC (sign) _____

Shipping Info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☑ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☑ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☑ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☑ B

Cooler Temp (°C): #1: 5.7, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			✓
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# _____ added to samples _____ on/at _____

Section 6:

Explanations/Comments: _____

Date Logged In 2/27/19 By (print) AC (sign) _____

Date Labeled 2/27/19 By (print) AC (sign) _____

ENTHALPY ANALYTICAL

Detections Summary for 307679

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample Compliance-2/27/19

Client Sample ID : UP-I-001 Laboratory Sample ID : 307679-001

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307679	Location:	Resample Compliance-2/27/19
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	UP-I-001	Sampled:	02/27/19
Matrix:	Water	Received:	02/27/19
Units:	mg/L	Prepared:	02/27/19
Diln Fac:	1.000	Analyzed:	02/28/19

Type	Lab ID	Result	RL
SAMPLE	307679-001	ND	0.010
BLANK	QC966472	ND	0.010

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307679	Location:	Resample Compliance-2/27/19
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	ZZZZZZZZZZ	Sampled:	02/27/19
MSS Lab ID:	307710-001	Received:	02/27/19
Matrix:	Water	Prepared:	02/27/19
Units:	mg/L	Analyzed:	02/28/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 16

Analytical Report on Resampling #14

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 307726
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample Compliance (2/28/19)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
UP I-001	307726-001

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 03/01/2019

Haley Campbell
Project Manager
haley.campbell@enthalpy.com

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**307726**
Client:	**Pacific Gas & Electric**
Location:	**Resample Compliance (2/28/19)**
Request Date:	**02/28/19**
Samples Received:	**02/28/19**

This data package contains sample and QC results for one water sample, requested for the above referenced project on 02/28/19. The sample was received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recoveries were observed for cyanide in the MS/MSD for batch 268177; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

Enthalpy Analytical
Formerly Curtis & Tompkins
Analytical Laboratory Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 Phone
(510)486-0532 Fax

CHAIN OF CUSTODY

C&T LOGIN # 307726

Chain of Custody # :

Project No:

Project Name: Resample Compliance (2/28/19)

Rpt Level: II

Turnaround Time: [redacted] Rush 24hrs

Sampler: Muskan Environmental (Sampling)

Report To: Angel Espiritu

Company : PG&E Gateway Generating Station

Telephone: (925) 522-7838

Email: abe4@pge.com

Lab No.	Sample ID.	Sampling		Matrix			# of Container	Chemical Preservative					Analytical Request: Cyanide (total) (preserved with sodium hydroxide) by SM4500 CN-B&C
		Date	Time	Water	Soil	Other		HCl	H_2SO_4	HNO_3	NaOH	None	
	UP I-001	2/28/19	08:05	X			1					X	X

Notes:
Samples sent on ICE:
containers: 500 ml poly
DO NOT PERSERVE Sample

SAMPLE RECEIPT
☐ Intact ☐ Cold
☒ On Ice ☐ Ambient

RELINQUISHED BY:	RECEIVED BY:
2/28/19 09:25 DATE/TIME	2/28/19 09:25 DATE/TIME
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 307726 Client: DTSC

Date Received: 2/28/19 Project:

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☑ No (skip Section 3 below)

If no cooler Sample Temp (°C): 4.0 using IR Gun # ☑ A, or ☐ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 2/28/19 By (print) AL (sign)

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: *Important*: Notify PM if temperature exceeds 6°C or arrive frozen.

Packing in cooler: (If other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used: ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer?			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? By Date:			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (If N/A, skip the rest of section 5)			✓
Did you check preservatives for all bottles for each sample?			
Did you document your preservative check?			

pH strip lot# _____, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____	added to samples _____	on/at	_____
☐ HCL lot# _____	added to samples _____	on/at	_____
☐ HNO3 lot# _____	added to samples _____	on/at	_____
☐ NaOH lot# _____	added to samples _____	on/at	_____

Section 6:

Explanations/Comments: _____

Date Logged in 2/28/19 By (print) AL (sign)

Date Labeled 2/28/19 By (print) AL (sign)

ENTHALPY ANALYTICAL

Detections Summary for 307726

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample Compliance (2/28/19)

Client Sample ID : UP I-001 Laboratory Sample ID : 307726-001

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	307726	Location:	Resample Compliance (2/28/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	UP I-001	Sampled:	02/28/19
Matrix:	Water	Received:	02/28/19
Units:	mg/L	Analyzed:	02/28/19
Diln Fac:	1.000		

Type	Lab ID	Result	RL	Prepared
SAMPLE	307726-001	ND	0.010	02/28/19
BLANK	QC966472	ND	0.010	02/27/19

ND= Not Detected
RL= Reporting Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	307726	Location:	Resample Compliance (2/28/19)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	268177
Field ID:	ZZZZZZZZZZ	Sampled:	02/27/19
MSS Lab ID:	307710-001	Received:	02/27/19
Matrix:	Water	Prepared:	02/27/19
Units:	mg/L	Analyzed:	02/28/19
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC966473		0.2000	0.1816	91	75-120		
MS	QC966474	<0.01000	0.2000	0.1003	50 *	56-120		
MSD	QC966475		0.2000	0.1001	50 *	56-120	0	25

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Pacific Gas and Electric Company®

Mailing Address:
Pacific Gas & Electric Company
Gateway Generating Station
3225 Wilbur Ave.
Antioch, CA 94509
(925) 522-7801

March 13, 2019

Michael Auer
Delta Diablo (DD)
2500 Pittsburg-Antioch Hwy.
Antioch, CA 94509-1373

Reference: Pacific Gas and Electric Company - Gateway Generating Station (GGS)
DDSD Industrial Wastewater Discharge Permit
Permit Number: 0208841-C

Subject: Request: Exemption from 126 Priority Pollutants Applicability

Dear Mr. Auer,

With reference to 40 CFR 403.12(e)(2), 40 CFR 423.17(d)(2) and Section D.3 of the Industrial Wastewater Discharge Permit (0208841-C), the PG&E Gateway Generating Station (GGS) respectfully requests to forego the monitoring requirement on the Categorical Waste Stream based on the following premises:

1. We understand that the monitoring for the categorical 126 criteria pollutants resulted from GGS operation of the Wet Surface Air Condenser (WSAC).

2. The attached certification from Nalco, indicates that the use of indicated products at the WSAC and elsewhere in the plant will not contribute detectable concentrations of Priority Pollutants listed in 40 CFR 423 to the effluent by the criteria specified in 40 CFR 136, and will not contribute listed priority pollutants to the discharge stream at concentrations greater than 10 parts per billion (ppb).

3. The attached Closure Report on the cyanide event of September 27, 2018 clearly indicate the "false positive" impact of sodium hydroxide preservation of samples on the result of cyanide analysis.

4. The attached Closure Report demonstrates the completion of two consecutive clean results (<10 ppb) on cyanide resampling

If you have any questions about this request, please feel free to contact Angel Espiritu at 925-522-7838, 510-861-1597, or at abe4@pge.com. Thank you.

Sincerely,

Tim Wisdom

Tim Wisdom
Senior Plant Manager

Attachment: a/s

NALCO Water
An Ecolab Company

1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198

March 07, 2019

Angel B. Espiritu
Pacific Gas & Electric – Gateway Generating Station
Sr. Environmental Consultant-Environmental Compliance Manager

To Whom It May Concern

With respect to your request for information regarding the following list of products and whether these products contain chemicals present on the Priority Pollutants List Appendix A (Total Toxic Organics), and Appendix B (40 CFR part 423-126 Priority Pollutants).

- **NALCO® BT-3400**
- **3D TRASAR™ 3DT447**
- **NALCO® TRAC107**
- **STABREX™ ST70**
- **NALCO® 5711**

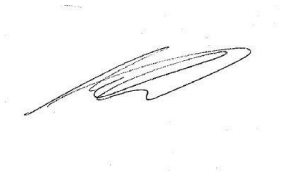
These products do not contain materially identified components as contained in 40 CFR 423 (Appendix A to Part 423-126 Priority Pollutants) either as a formulation component or as a known contaminant. Use of these products will not contribute detectable concentrations of Priority Pollutants listed in 40 CFR 423 to the effluent by the criteria specified in 40 CFR 136, and will not contribute listed priority pollutants to the discharge at concentrations greater than 10 ppb

This information is provided in good faith and is believed accurate as of the date of this letter based on a review of current composition data and information supplied by the vendors. No warranty is expressed or implied. Liability is expressly disclaimed.

1601 W. DIEHL ROAD
NAPERVILLE, IL 60563-1198

Please contact your local Sales Representative if you have additional questions regarding Nalco Water products.

Sincerely,



Nicolás Martin de Eugenio

Product Stewardship North America
PRODUCT, SOLUTIONS & INNOVATION MARKETING
NALCO Water | An Ecolab Company

Pacific Gas and Electric Company®

Mailing Address:
Pacific Gas & Electric Company
Gateway Generating Station
3225 Wilbur Ave.
Antioch, CA 94509
(925) 522-7801

Mar 8, 2019

Michael Auer
Delta Diablo District
2500 Pittsburg-Antioch Hwy.
Antioch, CA 94509-1373

Reference: Pacific Gas and Electric Company - Gateway Generating Station (GGS)
Delta Diablo Industrial Wastewater Discharge Permit Number: 0208841-C

Subject: Closure Report on Cyanide Event of September 2018

Dear Mr. Auer,

This report submits the timeline of activities that GGS implemented as a result of the cyanide exceedance event during the 9/19/2018 semi-annual monitoring of the categorical waste stream. The activities include investigation of the plant's operation processes to identify potential sources of cyanide contamination, clean up of process/storage waste water tanks to remove accumulated debris and sediment, and resampling/analysis of waste streams. This report also submits the results of two consecutive resamplings with non-detectable (<10 parts per billion, ppb) cyanide concentrations.

9/19/2018: The semi-annual monitoring of the categorical waste stream was conducted.

9/27/2018: The analytical result on semi-annual monitoring was received. The cyanide limit (of 0.01 mg/L, or 10 ppb) was exceeded (with 0.047 mg/L, or 47 ppb)

9/27/2018: Notification of exceedance was submitted to the District. GGS suspected a "false positive" on the result. (See Attachment 1 – Notification to Delta Diablo on Cyanide Exceedance)

10/30/2018: The first resampling for cyanide was conducted. Following the recommendations from the District, the samples were collected not from the compliance (sampling) point but from the underground tank (Tiger Pit), which is prior to the compliance point in the plant's process flow. Split samples were collected and sent for analysis to three separate ELAP certified laboratories. All samples were pre-treated with sodium thiosulfate. Each laboratory received two split samples. One sample was preserved with sodium hydroxide the other was not. This approach aims to address the concern on "false positive" results. The samples were analyzed as immediately as feasible to prevent the possible degradation of the analyte over time on the un-preserved samples.

Of the three laboratories, two reported detection levels on cyanide (> 10 ppb) in the preserved samples, but only one in the un-preserved samples. Also, the concentration of cyanide in this un-preserved sample was lower (slightly above the detection level) than in the preserved sample (14 ppb to 21 ppb). The results on this first resampling clearly indicate the "false positive" impact of sodium hydroxide preservation on the cyanide analysis result. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 3 - Analytical Report on Resampling #1.)

11/07/2018: The second resampling on cyanide was collected and analyzed. This is to validate the findings of the first resampling. All results from three laboratories were non-detectable (ND <10 ppb) for both preserved and un-preserved samples. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 4 – Analytical Report on Resampling #2.)

11/24/2018: The third resampling on cyanide was collected and analyzed. The results indicated non-detectable (<10 ppb) concentration in un-preserved sample, and 12 ppb in the preserved sample. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 5 – Analytical Report on Resampling #3.)

12/04/2018: The fourth resampling on cyanide was collected and analyzed. The results in both un-preserved and preserved samples were above detection levels, 32 ppb and 30 ppb, respectively. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 6 – Analytical Report on Resampling #4.)

12/11/2018: The fifth resampling on cyanide was collected and analyzed. The results in both un-preserved and preserved samples were above detection levels, 18 ppb and 13 ppb, respectively. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 7 – Analytical Report on Resampling #5.)

12/14/2018: The sixth resampling on cyanide was collected and analyzed. The results indicated 20 ppb concentration in un-preserved sample, and ND in the preserved sample. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 8 – Analytical Report on Resampling #6.)

12/18/2018: The seventh resampling on cyanide was collected and analyzed. The results in both un-preserved and preserved samples were above detection levels, 28 ppb. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 9 – Analytical Report on Resampling #7.)

1/10/2019: The eighth resampling on cyanide was collected and analyzed. Following the guidance by the District, two sets of samples were collected: one collected by the laboratory sampler, the other by GGS laboratory technician. Both samplers follow the standard sampling procedure. The samples were not preserved. The results in both samples were above detection levels, 51 ppb and 55 ppb, respectively. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 10 – Analytical Report on Resampling #8.)

1/16/2019: The ninth resampling on cyanide was collected and analyzed. On this resampling, GGS investigated the plant's operational processes. This approach aims to identify the potential source/s of cyanide contamination in the wastewater streams prior to and including the Tiger Pit. The source water supply form the City was also sampled. Of the twelve samples, all had non-detectable (ND<10 ppb) concentrations excepting the sample from the Hammond Tank with 26 ppb. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 11 – Analytical Report on Resampling #9.)

1/29/2019: The Hammond Tank was emptied and cleaned-up. GGS suspected that the algal growth inside the tank might have contributed to the above detection level concentration in ninth resampling.

2/7/2019: The tenth resampling on cyanide was collected and analyzed. Three samples were collected: from the Tiger Pit, Hammond Tank, and Source Water. Of these three samples only that which was

collected from the Tiger Pit had detectable concentration. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 12 – Analytical Report on Resampling #10.)

2/11/2019: The eleventh resampling on cyanide was collected and analyzed. Two sets of split samples were collected from the Tiger Pit and RO Reject, and sent to two separate ELAP certified laboratories. The results were closely consistent between the two laboratories. Only the samples that were collected from the Tiger Pit had detectable concentrations. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 13 – Analytical Report on Resampling #11.)

2/20/2019: The Tiger Pit was emptied and cleaned-up.

2/21/2019: The Waste Water Tank was emptied and cleaned-up.

2/25/2019: The twelfth resampling on cyanide was collected and analyzed. Four samples were collected: from the Tiger Pit, Hammond Tank, RO Reject, and Source Water. The results indicated non-detectable concentration (ND<10 ppb) in all samples. (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 14 – Analytical Report on Resampling #12.)

2/27/2019: The thirteenth resampling on cyanide was collected and analyzed. The analytical report on the sample collected from the compliance point indicated non-detectable concentration (ND<10 ppb). (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 15 – Analytical Report on Resampling #13.)

2/28/2019: The fourteenth resampling on cyanide was collected and analyzed. The analytical report on the sample collected from the compliance point indicated non-detectable concentration (ND<10 ppb). (See Attachment 2 – Summary of Cyanide Resampling, and Attachment 16 – Analytical Report on Resampling #14.)

Based on the result of the thirteenth and fourteenth resamplings, GGS believes that the cyanide concentrations of the waste water streams in the system are now below the permit limit.

If you have any questions about this report, please feel free to contact Angel Espiritu at 925-522-7838, 510-861-1597, or at abe4@pge.com. Thank you.

Sincerely,

Tim Wisdom
Senior Plant Manager

Attachment: a/s

Attachment 1

Notification to Delta Diablo on Cyanide Exceedance (09/27/2018)

Espiritu, Angel

From: Espiritu, Angel
Sent: Thursday, September 27, 2018 5:40 PM
To: 'Auer, Michael'
Cc: Wisdom, Tim; Price, Charles; Hammond, David
Subject: Permit Number:0208841-C PG&E Gateway Generating Station
Attachments: 1809780.pdf

Importance: High

Hi Mike,

This is to comply Section F.8 of the Industrial Discharge Permit. Attached is a copy of analytical results on the semi-annual monitoring of the categorical flow. The results on total cyanide is 47 ppb. The limit is 10 ppb. Please let me know if you have questions. I will be off of work tomorrow. Thank you.

Angel B. Espiritu
Pacific Gas & Electric – Gateway Generating Station
Sr. Environmental Consultant-Environmental Compliance Manager
3225 Wilbur Avenue, Antioch, CA 94509
925-522-7838, 510-861-1597 (Cell)
ABE4@pge.com

From: Yen Cao <yen.cao@mccampbell.com> **On Behalf Of** main@mccampbell.com
Sent: Thursday, September 27, 2018 4:20 PM
To: Espiritu, Angel <ABE4@pge.com>
Cc: Hankins, Adam <A1HE@pge.com>; Laurin, Jeremy <J5Ld@pge.com>; Wisdom, Tim <T1WY@pge.com>
Subject: PARTIAL Analytical Report for Project: Semi-Annually Sampling (September 2018) [MAI WO#: 1809780]

Angel,

Attached is your PARTIAL analytical report. The final report and invoice will follow upon completion of the Dioxins and subcontracted results.

Best regards,

Yen Cao
McCampbell Analytical, Inc.
Ph: 925-252-9262
Fx: 925-252-9269
www.mccampbell.com

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station
Project: Semi-Annually Sampling (September 2018)
WorkOrder: 1809780

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E608/SW3620B
Date Prepared:	9/19/18	**Analytical Method:**	E608
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Organochlorine Pesticides + PCBs w/ Florisil Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001E	Water	09/19/2018 11:10	GC22 09211811.D	165139

Analytes	Result	MDL	RL	DF	Date Analyzed
Aldrin	ND	0.00028	0.0010	1	09/21/2018 15:03
a-BHC	ND	0.00031	0.0010	1	09/21/2018 15:03
b-BHC	ND	0.00069	0.0010	1	09/21/2018 15:03
d-BHC	ND	0.00014	0.0010	1	09/21/2018 15:03
g-BHC	ND	0.00045	0.0010	1	09/21/2018 15:03
Chlordane (Technical)	ND	0.0023	0.020	1	09/21/2018 15:03
a-Chlordane	ND	0.00085	0.0010	1	09/21/2018 15:03
g-Chlordane	ND	0.00015	0.0010	1	09/21/2018 15:03
p,p-DDD	ND	0.00011	0.0010	1	09/21/2018 15:03
p,p-DDE	ND	0.00018	0.0010	1	09/21/2018 15:03
p,p-DDT	ND	0.00017	0.0010	1	09/21/2018 15:03
Dieldrin	ND	0.00014	0.0010	1	09/21/2018 15:03
Endosulfan I	ND	0.00011	0.0010	1	09/21/2018 15:03
Endosulfan II	ND	0.00046	0.0010	1	09/21/2018 15:03
Endosulfan sulfate	ND	0.00033	0.0020	1	09/21/2018 15:03
Endrin	ND	0.00018	0.0010	1	09/21/2018 15:03
Endrin aldehyde	ND	0.00053	0.0010	1	09/21/2018 15:03
Endrin ketone	ND	0.00026	0.0010	1	09/21/2018 15:03
Heptachlor	ND	0.00041	0.0010	1	09/21/2018 15:03
Heptachlor epoxide	ND	0.00025	0.0010	1	09/21/2018 15:03
Methoxychlor	ND	0.00012	0.0010	1	09/21/2018 15:03
Toxaphene	ND	0.0020	0.020	1	09/21/2018 15:03
Aroclor1016	ND	0.0019	0.020	1	09/21/2018 15:03
Aroclor1221	ND	0.0024	0.020	1	09/21/2018 15:03
Aroclor1232	ND	0.0038	0.020	1	09/21/2018 15:03
Aroclor1242	ND	0.0028	0.020	1	09/21/2018 15:03
Aroclor1248	ND	0.0018	0.020	1	09/21/2018 15:03
Aroclor1254	ND	0.0015	0.020	1	09/21/2018 15:03
Aroclor1260	ND	0.0028	0.020	1	09/21/2018 15:03
PCBs, total	ND	0.020	0.020	1	09/21/2018 15:03

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	97	14-168	09/21/2018 15:03

Analyst(s): CK

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E624
Date Prepared:	9/20/18	**Analytical Method:**	E624
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Acrolein, Acrylonitrile, & 2-Chloroethyl Vinyl Ether

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001C	Water	09/19/2018 11:10	GC28 09201815.D	165341

Analytes	Result	RL	DF	Date Analyzed
Acrolein (Propenal)	ND	5.0	1	09/20/2018 19:05
Acrylonitrile	ND	2.0	1	09/20/2018 19:05
2-Chloroethyl Vinyl Ether	ND	1.0	1	09/20/2018 19:05

Surrogates	REC (%)	Limits	
Dibromofluoromethane	115	78-141	09/20/2018 19:05

Analyst(s): JEM

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E624
Date Prepared:	9/24/18	**Analytical Method:**	E624
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001B	Water	09/19/2018 11:10	GC10 09241810.D	165451

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.50	1	09/24/2018 13:31
Bromodichloromethane	**1.5**	0.50	1	09/24/2018 13:31
Bromoform	ND	0.50	1	09/24/2018 13:31
Bromomethane	ND	0.50	1	09/24/2018 13:31
Carbon tetrachloride	ND	0.50	1	09/24/2018 13:31
Chlorobenzene	ND	0.50	1	09/24/2018 13:31
Chloroethane	ND	0.50	1	09/24/2018 13:31
Chloroform	**1.2**	0.50	1	09/24/2018 13:31
Chloromethane	ND	0.50	1	09/24/2018 13:31
Dibromochloromethane	ND	0.50	1	09/24/2018 13:31
1,2-Dibromoethane (EDB)	ND	0.50	1	09/24/2018 13:31
1,2-Dichlorobenzene	ND	0.50	1	09/24/2018 13:31
1,3-Dichlorobenzene	ND	0.50	1	09/24/2018 13:31
1,4-Dichlorobenzene	ND	0.50	1	09/24/2018 13:31
1,1-Dichloroethane	ND	0.50	1	09/24/2018 13:31
1,2-Dichloroethane (1,2-DCA)	ND	0.50	1	09/24/2018 13:31
1,1-Dichloroethene	ND	0.50	1	09/24/2018 13:31
trans-1,2-Dichloroethene	ND	0.50	1	09/24/2018 13:31
1,2-Dichloropropane	ND	0.50	1	09/24/2018 13:31
cis-1,3-Dichloropropene	ND	0.50	1	09/24/2018 13:31
trans-1,3-Dichloropropene	ND	0.50	1	09/24/2018 13:31
Ethylbenzene	ND	0.50	1	09/24/2018 13:31
Methyl-t-butyl ether (MTBE)	ND	0.50	1	09/24/2018 13:31
Methylene chloride	ND	2.0	1	09/24/2018 13:31
1,1,2,2-Tetrachloroethane	ND	0.50	1	09/24/2018 13:31
Tetrachloroethene	ND	0.50	1	09/24/2018 13:31
Toluene	ND	0.50	1	09/24/2018 13:31
1,2,4-Trichlorobenzene	ND	0.50	1	09/24/2018 13:31
1,1,1-Trichloroethane	ND	0.50	1	09/24/2018 13:31
1,1,2-Trichloroethane	ND	0.50	1	09/24/2018 13:31
Trichloroethene	ND	0.50	1	09/24/2018 13:31
Trichlorofluoromethane	ND	0.50	1	09/24/2018 13:31
Vinyl chloride	ND	0.50	1	09/24/2018 13:31
m,p-Xylene	ND	0.50	1	09/24/2018 13:31
o-Xylene	ND	0.25	1	09/24/2018 13:31
Xylenes, Total	ND	0.25	1	09/24/2018 13:31

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E624
Date Prepared:	9/24/18	**Analytical Method:**	E624
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001B	Water	09/19/2018 11:10	GC10 09241810.D	165451

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
Dibromofluoromethane	104	78-141		09/24/2018 13:31
Toluene-d8	93	78-129		09/24/2018 13:31
4-BFB	86	61-140		09/24/2018 13:31

Analyst(s): TK

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E625
Date Prepared:	9/19/18	**Analytical Method:**	E625
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001D	Water	09/19/2018 11:10	GC17 09261824.D	165166

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.19	20	09/26/2018 20:45
Acenaphthylene	ND	0.19	20	09/26/2018 20:45
Anthracene	ND	0.19	20	09/26/2018 20:45
Benzidine	ND	96	20	09/26/2018 20:45
Benzo (a) anthracene	ND	0.38	20	09/26/2018 20:45
Benzo (a) pyrene	ND	0.19	20	09/26/2018 20:45
Benzo (b) fluoranthene	ND	0.096	20	09/26/2018 20:45
Benzo (g,h,i) perylene	ND	0.38	20	09/26/2018 20:45
Benzo (k) fluoranthene	ND	0.19	20	09/26/2018 20:45
Benzyl Alcohol	ND	96	20	09/26/2018 20:45
Bis (2-chloroethoxy) Methane	ND	19	20	09/26/2018 20:45
Bis (2-chloroethyl) Ether	ND	0.096	20	09/26/2018 20:45
Bis (2-chloroisopropyl) Ether	ND	0.19	20	09/26/2018 20:45
Bis (2-ethylhexyl) Adipate	ND	57	20	09/26/2018 20:45
Bis (2-ethylhexyl) Phthalate	**6.9**	0.76	20	09/26/2018 20:45
4-Bromophenyl Phenyl Ether	ND	19	20	09/26/2018 20:45
Butylbenzyl Phthalate	ND	38	20	09/26/2018 20:45
4-Chloroaniline	ND	0.38	20	09/26/2018 20:45
4-Chloro-3-methylphenol	ND	19	20	09/26/2018 20:45
2-Chloronaphthalene	ND	19	20	09/26/2018 20:45
2-Chlorophenol	ND	0.38	20	09/26/2018 20:45
4-Chlorophenyl Phenyl Ether	ND	19	20	09/26/2018 20:45
Chrysene	ND	0.19	20	09/26/2018 20:45
Dibenzo (a,h) anthracene	ND	0.19	20	09/26/2018 20:45
Dibenzofuran	ND	19	20	09/26/2018 20:45
Di-n-butyl Phthalate	ND	0.38	20	09/26/2018 20:45
1,2-Dichlorobenzene	ND	38	20	09/26/2018 20:45
1,3-Dichlorobenzene	ND	38	20	09/26/2018 20:45
1,4-Dichlorobenzene	ND	38	20	09/26/2018 20:45
3,3-Dichlorobenzidine	ND	0.38	20	09/26/2018 20:45
2,4-Dichlorophenol	ND	0.19	20	09/26/2018 20:45
Diethyl Phthalate	ND	0.38	20	09/26/2018 20:45
2,4-Dimethylphenol	ND	19	20	09/26/2018 20:45
Dimethyl Phthalate	ND	0.38	20	09/26/2018 20:45
4,6-Dinitro-2-methylphenol	ND	96	20	09/26/2018 20:45
2,4-Dinitrophenol	ND	9.6	20	09/26/2018 20:45
2,4-Dinitrotoluene	ND	0.48	20	09/26/2018 20:45

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E625
Date Prepared:	9/19/18	**Analytical Method:**	E625
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001D	Water	09/19/2018 11:10	GC17 09261824.D	165166

Analytes	Result	RL	DF	Date Analyzed
2,6-Dinitrotoluene	ND	0.19	20	09/26/2018 20:45
Di-n-octyl Phthalate	ND	2.4	20	09/26/2018 20:45
1,2-Diphenylhydrazine	ND	19	20	09/26/2018 20:45
Fluoranthene	ND	0.19	20	09/26/2018 20:45
Fluorene	ND	0.19	20	09/26/2018 20:45
Hexachlorobenzene	ND	0.096	20	09/26/2018 20:45
Hexachlorobutadiene	ND	0.19	20	09/26/2018 20:45
Hexachlorocyclopentadiene	ND	96	20	09/26/2018 20:45
Hexachloroethane	ND	0.19	20	09/26/2018 20:45
Indeno (1,2,3-cd) pyrene	ND	0.38	20	09/26/2018 20:45
Isophorone	ND	19	20	09/26/2018 20:45
2-Methylnaphthalene	ND	0.19	20	09/26/2018 20:45
2-Methylphenol (o-Cresol)	ND	19	20	09/26/2018 20:45
3 & 4-Methylphenol (m,p-Cresol)	ND	19	20	09/26/2018 20:45
Naphthalene	ND	0.19	20	09/26/2018 20:45
2-Nitroaniline	ND	96	20	09/26/2018 20:45
3-Nitroaniline	ND	96	20	09/26/2018 20:45
4-Nitroaniline	ND	96	20	09/26/2018 20:45
Nitrobenzene	ND	19	20	09/26/2018 20:45
2-Nitrophenol	ND	96	20	09/26/2018 20:45
4-Nitrophenol	ND	96	20	09/26/2018 20:45
N-Nitrosodiphenylamine	ND	19	20	09/26/2018 20:45
N-Nitrosodi-n-propylamine	ND	19	20	09/26/2018 20:45
Pentachlorophenol	ND	4.8	20	09/26/2018 20:45
Phenanthrene	ND	0.38	20	09/26/2018 20:45
Phenol	**0.44**	0.38	20	09/26/2018 20:45
Pyrene	ND	0.38	20	09/26/2018 20:45
Pyridine	ND	19	20	09/26/2018 20:45
1,2,4-Trichlorobenzene	ND	19	20	09/26/2018 20:45
2,4,5-Trichlorophenol	ND	0.96	20	09/26/2018 20:45
2,4,6-Trichlorophenol	ND	0.96	20	09/26/2018 20:45
N-Nitrosodimethylamine	ND	96	20	09/26/2018 20:45

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E625
Date Prepared:	9/19/18	**Analytical Method:**	E625
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001D	Water	09/19/2018 11:10	GC17 09261824.D	165166

Analytes	Result	RL	DF	Date Analyzed
Surrogates	**REC (%)**	**Limits**		
2-Fluorophenol	38	23-101		09/26/2018 20:45
Phenol-d5	40	27-116		09/26/2018 20:45
Nitrobenzene-d5	44	29-116		09/26/2018 20:45
2-Fluorobiphenyl	61	29-112		09/26/2018 20:45
2,4,6-Tribromophenol	70	34-125		09/26/2018 20:45
Terphenyl-d14	88	23-136		09/26/2018 20:45

Analyst(s): REB

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	SM4500-CN^- E
Date Prepared:	9/24/18	**Analytical Method:**	SM4500-CN^- CE
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001A	Water	09/19/2018 11:10	WC_SKALAR 092418A1_25	165431

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	**47**	1.0	1	09/24/2018 12:48

Analyst(s): BM

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E245.2
Date Prepared:	9/19/18	**Analytical Method:**	E245.2
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Mercury by Cold Vapor Atomic Absorption

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001F	Water	09/19/2018 11:10	AA1 _16	165200

Analytes	Result	RL	DF	Date Analyzed
Mercury	ND	0.20	1	09/20/2018 11:20

Analyst(s): JC

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Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Received:	9/19/18 13:45	**Extraction Method:**	E200.8
Date Prepared:	9/19/18	**Analytical Method:**	E200.8
Project:	Semi-Annually Sampling (September 2018)	**Unit:**	µg/L

Priority Pollutant Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
I-001	1809780-001F	Water	09/19/2018 11:10	ICP-MS1 124SMPL.D	165141

Analytes	Result	RL	DF	Date Analyzed
Antimony	ND	0.50	1	09/21/2018 02:46
Arsenic	**0.91**	0.50	1	09/21/2018 02:46
Beryllium	ND	0.50	1	09/21/2018 02:46
Cadmium	ND	0.25	1	09/21/2018 02:46
Chromium	ND	0.50	1	09/21/2018 02:46
Copper	**4.3**	2.0	1	09/21/2018 02:46
Lead	ND	0.50	1	09/21/2018 02:46
Mercury	ND	0.050	1	09/21/2018 02:46
Nickel	**1.5**	0.50	1	09/21/2018 02:46
Selenium	ND	0.50	1	09/21/2018 02:46
Silver	ND	0.19	1	09/21/2018 02:46
Thallium	ND	0.50	1	09/21/2018 02:46
Zinc	**61**	15	1	09/21/2018 02:46

Surrogates	REC (%)	Limits	
Terbium	101	70-130	09/21/2018 02:46

Analyst(s): ND

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/18/18	**BatchID:**	165139
Date Analyzed:	9/18/18 - 9/19/18	**Extraction Method:**	E608/SW3620B
Instrument:	GC22	**Analytical Method:**	E608
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165139

QC Summary Report for E608 w/ Florisil Clean-up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.00028	0.0010	-	-	-
a-BHC	ND	0.00031	0.0010	-	-	-
b-BHC	ND	0.00069	0.0010	-	-	-
d-BHC	ND	0.00014	0.0010	-	-	-
g-BHC	ND	0.00045	0.0010	-	-	-
Chlordane (Technical)	ND	0.0023	0.020	-	-	-
a-Chlordane	ND	0.00085	0.0010	-	-	-
g-Chlordane	ND	0.00015	0.0010	-	-	-
p,p-DDD	ND	0.00011	0.0010	-	-	-
p,p-DDE	ND	0.00018	0.0010	-	-	-
p,p-DDT	ND	0.00017	0.0010	-	-	-
Dieldrin	ND	0.00014	0.0010	-	-	-
Endosulfan I	ND	0.00011	0.0010	-	-	-
Endosulfan II	ND	0.00046	0.0010	-	-	-
Endosulfan sulfate	ND	0.00033	0.0020	-	-	-
Endrin	ND	0.00018	0.0010	-	-	-
Endrin aldehyde	ND	0.00053	0.0010	-	-	-
Endrin ketone	ND	0.00026	0.0010	-	-	-
Heptachlor	ND	0.00041	0.0010	-	-	-
Heptachlor epoxide	ND	0.00025	0.0010	-	-	-
Methoxychlor	ND	0.00012	0.0010	-	-	-
Toxaphene	ND	0.0020	0.020	-	-	-
Aroclor1016	ND	0.0019	0.020	-	-	-
Aroclor1221	ND	0.0024	0.020	-	-	-
Aroclor1232	ND	0.0038	0.020	-	-	-
Aroclor1242	ND	0.0028	0.020	-	-	-
Aroclor1248	ND	0.0018	0.020	-	-	-
Aroclor1254	ND	0.0015	0.020	-	-	-
Aroclor1260	ND	0.0028	0.020	-	-	-
PCBs, total	ND	0.020	0.020	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.0453			0.050	91	35-113

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/18/18	**BatchID:**	165139
Date Analyzed:	9/18/18 - 9/19/18	**Extraction Method:**	E608/SW3620B
Instrument:	GC22	**Analytical Method:**	E608
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165139

QC Summary Report for E608 w/ Florisil Clean-up

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.0349	0.0338	0.050	70	68	50-103	3.16	20
a-BHC	0.0375	0.0364	0.050	75	73	63-131	2.97	20
b-BHC	0.0327	0.0314	0.050	65	63	56-112	4.24	20
d-BHC	0.0406	0.0400	0.050	81	80	63-132	1.36	20
g-BHC	0.0363	0.0353	0.050	73	71	61-135	2.66	20
a-Chlordane	0.0343	0.0333	0.050	69	67	54-113	2.91	20
g-Chlordane	0.0359	0.0347	0.050	72	69	55-117	3.31	20
p,p-DDD	0.0340	0.0336	0.050	68	67	56-135	1.22	20
p,p-DDE	0.0365	0.0360	0.050	73	72	56-131	1.43	20
p,p-DDT	0.0344	0.0341	0.050	69	68	47-153	0.865	20
Dieldrin	0.0405	0.0396	0.050	81	79	67-152	2.31	20
Endosulfan I	0.0355	0.0344	0.050	71	69	56-137	3.29	20
Endosulfan II	0.0346	0.0338	0.050	69	68	50-113	2.61	20
Endosulfan sulfate	0.0344	0.0336	0.050	69	67	57-121	2.18	20
Endrin	0.0386	0.0377	0.050	77	75	60-150	2.47	20
Endrin aldehyde	0.0308	0.0304	0.050	62	61	47-121	1.07	20
Endrin ketone	0.0334	0.0326	0.050	67	65	48-130	2.44	20
Heptachlor	0.0350	0.0337	0.050	70	67	46-133	3.60	20
Heptachlor epoxide	0.0336	0.0324	0.050	67	65	54-105	3.61	20
Methoxychlor	0.0398	0.0389	0.050	80	78	54-135	2.20	20
Aroclor1016	0.132	0.129	0.15	88	86	54-103	2.44	20
Aroclor1260	0.124	0.125	0.15	83	83	42-121	0	20
Surrogate Recovery								
Decachlorobiphenyl	0.0354	0.0346	0.050	71	69	35-113	2.23	20

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/20/18	**BatchID:**	165341
Date Analyzed:	9/20/18	**Extraction Method:**	E624
Instrument:	GC28	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165341

QC Summary Report for E624

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acrolein (Propenal)	ND	5.0	-	-	-
Acrylonitrile	ND	2.0	-	-	-
2-Chloroethyl Vinyl Ether	ND	1.0	-	-	-
Surrogate Recovery					
Dibromofluoromethane	31.1		25	124	83-139

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acrolein (Propenal)	17.0	18.0	20	85	90	70-130	5.69	20
Acrylonitrile	15.9	16.0	20	80	80	70-130	0	20
2-Chloroethyl Vinyl Ether	22.5	22.2	20	112	111	70-130	1.36	20
Surrogate Recovery								
Dibromofluoromethane	30.0	29.8	25	120	119	83-139	0.666	20

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/24/18	**BatchID:**	165451
Date Analyzed:	9/24/18	**Extraction Method:**	E624
Instrument:	GC10	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165451

QC Summary Report for E624

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Benzene	ND	0.20	-	-	-
Bromodichloromethane	ND	0.50	-	-	-
Bromoform	ND	0.50	-	-	-
Bromomethane	ND	0.50	-	-	-
Carbon tetrachloride	ND	0.50	-	-	-
Chlorobenzene	ND	0.50	-	-	-
Chloroethane	ND	0.50	-	-	-
Chloroform	ND	0.50	-	-	-
Chloromethane	ND	0.50	-	-	-
Dibromochloromethane	ND	0.50	-	-	-
1,2-Dibromoethane (EDB)	ND	0.50	-	-	-
1,2-Dichlorobenzene	ND	0.50	-	-	-
1,3-Dichlorobenzene	ND	0.50	-	-	-
1,4-Dichlorobenzene	ND	0.50	-	-	-
1,1-Dichloroethane	ND	0.50	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.50	-	-	-
1,1-Dichloroethene	ND	0.50	-	-	-
trans-1,2-Dichloroethene	ND	0.50	-	-	-
1,2-Dichloropropane	ND	0.50	-	-	-
cis-1,3-Dichloropropene	ND	0.50	-	-	-
trans-1,3-Dichloropropene	ND	0.50	-	-	-
Ethylbenzene	ND	0.50	-	-	-
Methyl-t-butyl ether (MTBE)	ND	0.50	-	-	-
Methylene chloride	6.05	2.0	-	-	-
Styrene	ND	0.50	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.50	-	-	-
Tetrachloroethene	ND	0.50	-	-	-
Toluene	ND	0.50	-	-	-
1,2,4-Trichlorobenzene	ND	0.50	-	-	-
1,1,1-Trichloroethane	ND	0.50	-	-	-
1,1,2-Trichloroethane	ND	0.50	-	-	-
Trichloroethene	ND	0.50	-	-	-
Trichlorofluoromethane	ND	0.50	-	-	-
Vinyl chloride	ND	0.50	-	-	-
m,p-Xylene	ND	0.25	-	-	-
o-Xylene	ND	0.25	-	-	-
Xylenes, Total	ND	0.25	-	-	-

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/24/18	**BatchID:**	165451
Date Analyzed:	9/24/18	**Extraction Method:**	E624
Instrument:	GC10	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165451

QC Summary Report for E624

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery					
Dibromofluoromethane	25.0		25	100	83-139
Toluene-d8	23.7		25	95	87-125
4-BFB	2.11		2.5	84	74-133

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/24/18	**BatchID:**	165451
Date Analyzed:	9/24/18	**Extraction Method:**	E624
Instrument:	GC10	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165451

QC Summary Report for E624

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Benzene	9.16	9.35	10	92	93	37-151	2.00	20
Bromodichloromethane	8.12	8.43	10	81	84	35-155	3.65	20
Bromoform	7.56	8.05	10	76	80	45-169	6.33	20
Bromomethane	14.8	14.1	10	148	141	1-242	4.80	20
Carbon tetrachloride	8.54	8.86	10	85	89	70-140	3.70	20
Chlorobenzene	8.85	9.16	10	88	92	37-160	3.40	20
Chloroethane	10.0	9.82	10	100	98	14-230	1.76	20
Chloroform	8.83	9.04	10	88	90	51-138	2.33	20
Chloromethane	5.61	5.68	10	56	57	1-273	1.20	20
Dibromochloromethane	8.09	8.54	10	81	85	53-149	5.37	20
1,2-Dibromoethane (EDB)	8.08	8.55	10	81	86	62-127	5.73	20
1,2-Dichlorobenzene	8.99	9.40	10	90	94	18-190	4.50	20
1,3-Dichlorobenzene	8.55	8.88	10	85	89	59-156	3.84	20
1,4-Dichlorobenzene	8.55	8.88	10	85	89	18-190	3.84	20
1,1-Dichloroethane	8.99	9.29	10	90	93	70-130	3.26	20
1,2-Dichloroethane (1,2-DCA)	7.76	8.03	10	78	80	49-155	3.44	20
1,1-Dichloroethene	9.84	10.0	10	98	100	1-234	2.00	20
trans-1,2-Dichloroethene	9.62	9.82	10	96	98	54-156	2.09	20
1,2-Dichloropropane	8.77	9.03	10	88	90	1-210	2.94	20
cis-1,3-Dichloropropene	8.01	8.42	10	80	84	1-227	4.93	20
trans-1,3-Dichloropropene	8.19	8.70	10	82	87	17-183	6.01	20
Ethylbenzene	9.09	9.45	10	91	94	37-162	3.85	20
Methyl-t-butyl ether (MTBE)	7.58	7.90	10	76	79	70-130	4.21	20
Methylene chloride	8.74	9.12	10	87	91	1-221	4.27	20
Styrene	8.46	8.71	10	85	87	54-135	2.98	20
1,1,2,2-Tetrachloroethane	7.83	8.44	10	78	84	46-157	7.43	20
Tetrachloroethene	9.18	9.52	10	92	95	64-148	3.63	20
Toluene	8.32	8.73	10	83	87	47-150	4.76	20
1,2,4-Trichlorobenzene	9.16	9.49	10	92	95	57-139	3.48	20
1,1,1-Trichloroethane	8.56	8.86	10	86	89	52-162	3.34	20
1,1,2-Trichloroethane	8.14	8.68	10	81	87	52-150	6.41	20
Trichloroethene	9.44	9.55	10	94	96	71-157	1.13	20
Trichlorofluoromethane	8.62	8.85	10	86	89	17-181	2.73	20
Vinyl chloride	9.79	9.68	10	98	97	1-251	1.16	20
m,p-Xylene	17.7	18.2	20	89	91	56-131	2.72	20
o-Xylene	8.76	9.04	10	88	90	62-126	3.10	20
Xylenes, Total	26.5	27.2	30	88	91	59-128	2.84	20

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/24/18	**BatchID:**	165451
Date Analyzed:	9/24/18	**Extraction Method:**	E624
Instrument:	GC10	**Analytical Method:**	E624
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165451

QC Summary Report for E624

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	25.0	25.0	25	100	100	83-139	0	20
Toluene-d8	25.1	25.4	25	100	102	87-125	1.23	20
4-BFB	2.26	2.37	2.5	90	95	74-133	4.75	20

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/19/18	**BatchID:**	165166
Date Analyzed:	9/19/18	**Extraction Method:**	E625
Instrument:	GC17	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165166

QC Summary Report for E625

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Acenaphthene	ND	0.010	-	-	-
Acenaphthylene	ND	0.010	-	-	-
Anthracene	ND	0.010	-	-	-
Benzidine	ND	5.0	-	-	-
Benzo (a) anthracene	ND	0.020	-	-	-
Benzo (a) pyrene	ND	0.010	-	-	-
Benzo (b) fluoranthene	ND	0.0050	-	-	-
Benzo (g,h,i) perylene	ND	0.020	-	-	-
Benzo (k) fluoranthene	ND	0.010	-	-	-
Benzyl Alcohol	ND	5.0	-	-	-
Bis (2-chloroethoxy) Methane	ND	1.0	-	-	-
Bis (2-chloroethyl) Ether	ND	0.0050	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.010	-	-	-
Bis (2-ethylhexyl) Adipate	ND	3.0	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.040	-	-	-
4-Bromophenyl Phenyl Ether	ND	1.0	-	-	-
Butylbenzyl Phthalate	ND	2.0	-	-	-
4-Chloroaniline	ND	0.020	-	-	-
4-Chloro-3-methylphenol	ND	1.0	-	-	-
2-Chloronaphthalene	ND	1.0	-	-	-
2-Chlorophenol	ND	0.020	-	-	-
4-Chlorophenyl Phenyl Ether	ND	1.0	-	-	-
Chrysene	ND	0.010	-	-	-
Dibenzo (a,h) anthracene	ND	0.010	-	-	-
Dibenzofuran	ND	1.0	-	-	-
Di-n-butyl Phthalate	ND	0.020	-	-	-
1,2-Dichlorobenzene	ND	2.0	-	-	-
1,3-Dichlorobenzene	ND	2.0	-	-	-
1,4-Dichlorobenzene	ND	2.0	-	-	-
3,3-Dichlorobenzidine	ND	0.020	-	-	-
2,4-Dichlorophenol	ND	0.010	-	-	-
Diethyl Phthalate	ND	0.020	-	-	-
2,4-Dimethylphenol	ND	1.0	-	-	-
Dimethyl Phthalate	ND	0.020	-	-	-
4,6-Dinitro-2-methylphenol	ND	5.0	-	-	-
2,4-Dinitrophenol	ND	0.50	-	-	-
2,4-Dinitrotoluene	ND	0.025	-	-	-
2,6-Dinitrotoluene	ND	0.010	-	-	-

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/19/18	**BatchID:**	165166
Date Analyzed:	9/19/18	**Extraction Method:**	E625
Instrument:	GC17	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165166

QC Summary Report for E625

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Di-n-octyl Phthalate	ND	0.12	-	-	-
1,2-Diphenylhydrazine	ND	1.0	-	-	-
Fluoranthene	ND	0.010	-	-	-
Fluorene	ND	0.010	-	-	-
Hexachlorobenzene	ND	0.0050	-	-	-
Hexachlorobutadiene	ND	0.010	-	-	-
Hexachlorocyclopentadiene	ND	5.0	-	-	-
Hexachloroethane	ND	0.010	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.020	-	-	-
Isophorone	ND	1.0	-	-	-
2-Methylnaphthalene	ND	0.010	-	-	-
2-Methylphenol (o-Cresol)	ND	1.0	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	1.0	-	-	-
Naphthalene	ND	0.010	-	-	-
2-Nitroaniline	ND	5.0	-	-	-
3-Nitroaniline	ND	5.0	-	-	-
4-Nitroaniline	ND	5.0	-	-	-
Nitrobenzene	ND	1.0	-	-	-
2-Nitrophenol	ND	5.0	-	-	-
4-Nitrophenol	ND	5.0	-	-	-
N-Nitrosodiphenylamine	ND	1.0	-	-	-
N-Nitrosodi-n-propylamine	ND	1.0	-	-	-
Pentachlorophenol	ND	0.25	-	-	-
Phenanthrene	ND	0.020	-	-	-
Phenol	ND	0.020	-	-	-
Pyrene	ND	0.020	-	-	-
Pyridine	ND	1.0	-	-	-
1,2,4-Trichlorobenzene	ND	1.0	-	-	-
2,4,5-Trichlorophenol	ND	0.050	-	-	-
2,4,6-Trichlorophenol	ND	0.050	-	-	-
N-Nitrosodimethylamine	ND	5.0	-	-	-

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/19/18	**BatchID:**	165166
Date Analyzed:	9/19/18	**Extraction Method:**	E625
Instrument:	GC17	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165166

QC Summary Report for E625

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Surrogate Recovery					
2-Fluorophenol	5.08		5	102	8-130
Phenol-d5	5.37		5	107	5-130
Nitrobenzene-d5	4.67		5	93	20-140
2-Fluorobiphenyl	4.58		5	92	40-140
2,4,6-Tribromophenol	5.51		5	110	16-180
Terphenyl-d14	4.34		5	87	40-170

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/19/18	**BatchID:**	165166
Date Analyzed:	9/19/18	**Extraction Method:**	E625
Instrument:	GC17	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165166

QC Summary Report for E625

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acenaphthene	0.217	0.220	0.25	87	88	47-145	1.14	25
Acenaphthylene	0.207	0.212	0.25	83	85	33-145	2.35	25
Anthracene	0.210	0.216	0.25	84	86	27-133	2.92	25
Benzidine	17.0	18.3	25	68	73	43-106	7.53	25
Benzo (a) anthracene	0.197	0.200	0.25	79	80	33-143	1.28	25
Benzo (a) pyrene	0.226	0.222	0.25	90	89	17-163	1.97	25
Benzo (b) fluoranthene	0.231	0.211	0.25	92	84	24-159	9.15	25
Benzo (g,h,i) perylene	0.215	0.213	0.25	86	85	1-219	1.01	25
Benzo (k) fluoranthene	0.207	0.200	0.25	83	80	11-162	3.10	25
Benzyl Alcohol	26.3	23.7	25	105	95	53-117	10.3	25
Bis (2-chloroethoxy) Methane	4.70	4.86	5	94	97	33-184	3.21	25
Bis (2-chloroethyl) Ether	0.254	0.297	0.25	102	119	12-158	15.5	25
Bis (2-chloroisopropyl) Ether	0.270	0.256	0.25	108	102	36-166	5.47	25
Bis (2-ethylhexyl) Adipate	4.08	4.29	5	82	86	55-122	4.99	25
Bis (2-ethylhexyl) Phthalate	0.236	0.241	0.25	95	96	8-158	2.01	25
4-Bromophenyl Phenyl Ether	4.11	4.27	5	82	85	53-127	3.75	25
Butylbenzyl Phthalate	4.99	4.73	5	100	95	1-152	5.38	25
4-Chloroaniline	0.233	0.234	0.25	93	94	63-120	0.618	25
4-Chloro-3-methylphenol	4.55	4.62	5	91	92	22-147	1.54	25
2-Chloronaphthalene	4.62	4.66	5	92	93	60-118	0.892	25
2-Chlorophenol	0.237	0.216	0.25	95	87	23-134	9.26	25
4-Chlorophenyl Phenyl Ether	4.26	4.14	5	85	83	25-158	2.94	25
Chrysene	0.203	0.201	0.25	81	81	17-168	0	25
Dibenzo (a,h) anthracene	0.211	0.210	0.25	84	84	1-227	0	25
Dibenzofuran	4.35	4.38	5	87	88	64-122	0.679	25
Di-n-butyl Phthalate	0.228	0.236	0.25	91	95	1-118	3.69	25
1,2-Dichlorobenzene	4.27	4.02	5	85	80	32-129	6.14	25
1,3-Dichlorobenzene	4.31	4.22	5	86	84	1-172	2.27	25
1,4-Dichlorobenzene	4.48	4.22	5	90	84	20-124	5.99	25
3,3-Dichlorobenzidine	0.217	0.226	0.25	87	90	1-262	3.89	25
2,4-Dichlorophenol	0.243	0.241	0.25	97	96	39-135	1.01	25
Diethyl Phthalate	0.227	0.228	0.25	91	91	1-114	0	25
2,4-Dimethylphenol	4.72	4.85	5	94	97	32-119	2.58	25
Dimethyl Phthalate	0.220	0.223	0.25	88	89	1-112	1.55	25
4,6-Dinitro-2-methylphenol	17.5	18.1	25	70	72	59-123	3.29	25
2,4-Dinitrophenol	0.904	0.891	1.25	72	71	1-191	1.43	25
2,4-Dinitrotoluene	0.197	0.208	0.25	79	83	39-139	5.49	25
2,6-Dinitrotoluene	0.193	0.198	0.25	77	79	50-158	2.65	25

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/19/18	**BatchID:**	165166
Date Analyzed:	9/19/18	**Extraction Method:**	E625
Instrument:	GC17	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165166

QC Summary Report for E625

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Di-n-octyl Phthalate	0.256	0.249	0.25	103	99	4-146	3.11	25
1,2-Diphenylhydrazine	4.44	4.56	5	89	91	66-128	2.57	25
Fluoranthene	0.213	0.219	0.25	85	88	26-137	2.78	25
Fluorene	0.219	0.217	0.25	88	87	59-121	0.827	25
Hexachlorobenzene	0.199	0.207	0.25	79	83	1-152	4.37	25
Hexachlorobutadiene	0.224	0.222	0.25	89	89	24-116	0	25
Hexachlorocyclopentadiene	18.6	18.2	25	74	73	36-109	1.84	25
Hexachloroethane	0.213	0.199	0.25	85	80	40-113	6.69	25
Indeno (1,2,3-cd) pyrene	0.219	0.215	0.25	88	86	1-171	1.95	25
Isophorone	4.56	4.75	5	91	95	21-196	4.01	25
2-Methylnaphthalene	0.249	0.237	0.25	100	95	58-122	5.01	25
2-Methylphenol (o-Cresol)	5.55	5.07	5	111	101	55-121	9.14	25
3 & 4-Methylphenol (m,p-Cresol)	4.91	4.70	5	98	94	58-121	4.41	25
Naphthalene	0.215	0.214	0.25	86	86	21-133	0	25
2-Nitroaniline	23.1	23.7	25	92	95	65-124	2.60	25
3-Nitroaniline	22.1	22.2	25	88	89	67-125	0.295	25
4-Nitroaniline	23.0	22.7	25	92	91	65-124	1.01	25
Nitrobenzene	4.66	4.75	5	93	95	35-180	1.74	25
2-Nitrophenol	22.3	23.3	25	89	93	29-182	4.22	25
4-Nitrophenol	22.5	22.8	25	90	91	1-132	1.23	25
N-Nitrosodiphenylamine	4.15	4.30	5	83	86	67-132	3.56	25
N-Nitrosodi-n-propylamine	4.91	4.70	5	98	94	1-230	4.40	25
Pentachlorophenol	1.12	1.13	1.25	90	91	14-176	1.15	25
Phenanthrene	0.203	0.208	0.25	81	83	54-120	2.76	25
Phenol	0.234	0.221	0.25	93	89	5-112	5.34	25
Pyrene	0.202	0.202	0.25	81	81	52-115	0	25
Pyridine	3.56	3.06	5	71	61	60-140	15.2	25
1,2,4-Trichlorobenzene	4.46	4.53	5	89	91	44-142	1.65	25
2,4,5-Trichlorophenol	0.218	0.226	0.25	87	90	62-124	3.17	25
2,4,6-Trichlorophenol	0.234	0.232	0.25	93	93	37-144	0	25
N-Nitrosodimethylamine	22.6	21.4	25	91	86	45-111	5.63	25

(Cont.)

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/19/18	**BatchID:**	165166
Date Analyzed:	9/19/18	**Extraction Method:**	E625
Instrument:	GC17	**Analytical Method:**	E625
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165166

QC Summary Report for E625

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
2-Fluorophenol	5.14	4.81	5	103	96	29-140	6.60	25
Phenol-d5	5.67	5.34	5	113	107	38-148	5.94	25
Nitrobenzene-d5	5.20	5.24	5	104	105	31-152	0.775	25
2-Fluorobiphenyl	5.01	5.03	5	100	101	40-140	0.514	25
2,4,6-Tribromophenol	5.49	5.74	5	110	115	39-150	4.33	25
Terphenyl-d14	4.79	4.76	5	96	95	38-147	0.689	25

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/24/18	**BatchID:**	165431
Date Analyzed:	9/24/18	**Extraction Method:**	SM4500-CN⁻ E
Instrument:	WC_SKALAR	**Analytical Method:**	SM4500-CN⁻ CE
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165431

QC Summary Report for SM4500-CN⁻ CE

Analyte	MB Result	RL			
Total Cyanide	ND	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	40.5	41.4	40	101	103	80-120	1.99	20

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/19/18	**BatchID:**	165200
Date Analyzed:	9/20/18	**Extraction Method:**	E245.2
Instrument:	AA1	**Analytical Method:**	E245.2
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165200

QC Summary Report for Mercury

Analyte	MB Result	RL			
Mercury	ND	0.20	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Mercury	1.76	1.76	2	88	88	85-115	0	20

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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1809780
Date Prepared:	9/18/18	**BatchID:**	165141
Date Analyzed:	9/19/18	**Extraction Method:**	E200.8
Instrument:	ICP-MS2	**Analytical Method:**	E200.8
Matrix:	Water	**Unit:**	µg/L
Project:	Semi-Annually Sampling (September 2018)	**Sample ID:**	MB/LCS/LCSD-165141

QC Summary Report for Metals

Analyte	MB Result	RL	SPK Val	MB SS %REC	MB SS Limits
Antimony	ND	0.50	-	-	-
Arsenic	ND	0.50	-	-	-
Beryllium	ND	0.50	-	-	-
Cadmium	ND	0.25	-	-	-
Chromium	ND	0.50	-	-	-
Copper	ND	2.0	-	-	-
Lead	ND	0.50	-	-	-
Mercury	ND	0.050	-	-	-
Nickel	ND	0.50	-	-	-
Selenium	ND	0.50	-	-	-
Silver	ND	0.19	-	-	-
Thallium	ND	0.50	-	-	-
Zinc	ND	15	-	-	-
Surrogate Recovery					
Terbium	758		750	101	70-130

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Antimony	52.6	52.5	50	105	105	85-115	0	20
Arsenic	50.4	49.5	50	101	99	85-115	1.92	20
Beryllium	53.0	52.9	50	106	106	85-115	0	20
Cadmium	51.7	51.5	50	103	103	85-115	0	20
Chromium	51.6	51.3	50	103	103	85-115	0	20
Copper	52.0	51.9	50	104	104	85-115	0	20
Lead	50.1	49.8	50	100	100	85-115	0	20
Mercury	1.20	1.18	1.25	96	94	85-115	2.02	20
Nickel	52.5	51.5	50	105	103	85-115	1.96	20
Selenium	51.7	50.0	50	103	100	85-115	3.36	20
Silver	51.8	51.1	50	104	102	85-115	1.36	20
Thallium	48.0	47.9	50	96	96	85-115	0	20
Zinc	517	515	500	103	103	85-115	0	20
Surrogate Recovery								
Terbium	759	758	750	101	101	70-130	0	20

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 1809780 **ClientCode: PGEA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509
(925) 459-7212 FAX:

Email: abe4@pge.com
cc/3rd Party: A1HE@pge.com; J5Ld@pge.com;
PO:
Project: Semi-Annually Sampling (September 2018)

Bill to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509

Requested TATs: 15 days; 5 days;

Date Received: **09/19/2018**
Date Logged: **09/19/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1809780-001	I-001	Water	9/19/2018 11:10	☐	H	E	B	C	D	G	A	F	F			

Test Legend:

1	1613_TCDD_W	2	608_W [J]	3	624_W	4	624ACR+2CEVE_W
5	625_SCSM_W	6	ASBESTOS_E100_1M_WW	7	CN_SM4500CE_W	8	HG_W
9	PP13MS_TTLC_W	10		11		12	

Prepared by: Kena Ponce

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: PG&E GATEWAY GENERATING STATION **Project:** Semi-Annually Sampling (September 2018) **Work Order:** 1809780
Client Contact: Angel Espiritu **QC Level:** LEVEL 2
Contact's Email: abe4@pge.com **Comments:** **Date Logged:** 9/19/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1809780-001A	I-001	Water	SM4500-CN¯CE (Cyanide, Total)	1	250mL aHDPE w/ NaOH + Na2S2O3	☐	9/19/2018 11:10	5 days	Present	☐	
1809780-001B	I-001	Water	E624 (VOCs)	2	VOA w/ HCl	☐	9/19/2018 11:10	5 days	Present	☐	
				2	VOA w/ HCl	☐			Present	☐	
1809780-001C	I-001	Water	E624 (ACRO, ACRY, & 2-CEVE)	2	VOA, Unpres	☐	9/19/2018 11:10	5 days	Present	☐	
				2	VOA, Unpres	☐			Present	☐	
1809780-001D	I-001	Water	E625 (SVOCs, Low-Level)	1	1LA Narrow Mouth, Unpres	☐	9/19/2018 11:10	5 days	Present	☐	
				2	1LA Narrow Mouth, Unpres	☐			Present	☐	
1809780-001E	I-001	Water	E608 (OC Pesticides+PCBs w/ Florisil Clean-up)	1	1LA Narrow Mouth, Unpres	☐	9/19/2018 11:10	5 days	Present	☐	
1809780-001F	I-001	Water	E200.8 (PP13 Metals)	2	250mL HDPE w/ HNO3	☐	9/19/2018 11:10	5 days	Present	☐	
			E245.2 (Mercury)			☐		5 days	Present	☐	
1809780-001G	I-001	Water	Asbestos - E100.1, modified EPA Protocol (MFL)	3	1LA Narrow Mouth, Unpres	☐	9/19/2018 11:10	5 days	Present	☐	SubOut
1809780-001H	I-001	Water	E1613 (2,3,7,8-TCDD only)	3	1LA Narrow Mouth, Unpres	☐	9/19/2018 11:10	15 days	Present	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCAMPBELL ANALYTICAL, INC.

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☐ **PDF** ☐ **Excel** ☐ **Write On (DW)** ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Angel Espiritu **Bill To:** PG&E Gateway

Company: PG&E Gateway Generating Station

E-Mail: abe4@pge.com, A1HE@pge.com, J5Ld@pge.com, tlWY@pge.com

Tel: (925) 522-7838, 925-861-1597 (Cell) **Fax:** ( )

Project Name: Semi- Annually Sampling (September 2018)

Project Location: Categorical Waste-stream

Sampler Signature: Muskan Environmental Sampling

SAMPLE ID	LOCATION / Field Point Name	Sample Type Composite /Grab	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	Matrix Waste Water	Matrix Sewer Water	METHOD PRESERVED None	ICE	H_2SO_4	NaOH	HCL	HNO_3	Other	Analysis Request: Cyanide (TOTAL) (Pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625- Semi Volatile Organic Compounds)	TTO (USEPA 608 – Organochlorine Pesticides and PCBs)	126 Priority Pollutants (see Appendix B analyze only listed compounds)	Remarks
I-001		G	9/19/18	11:10	1	250 ml poly Amb	X			X		X				X					
I-001		G	9/19/18	11:10	2	43-ml VOA	X			X			X				X				
I-001		G	9/19/18	11:10	2	43-ml VOA	X			X							X				
I-001		G	9/19/18	11:10	1	1L Amb	X		X	X								X			
I-001		G	9/19/18	11:10	1	1L Amb	X		X	X									X		
I-001		G	See sheet attached sampling containers			See Appendix B	X													X	

Relinquished By:	Date:	Time:	Received By:
	9/19/18	13:45	9/19/18 13:45
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 5.0
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

VOAS O&G METALS OTHER
PRESERVATION_____ pH<2_____

COMMENTS:
TTO (EPA 608), TTO (EPA 624), TTO (EPA 625) see ATTACHED Appendix A and analyze only listed compounds

Sampling Containers for APPENDIX B

Date:	Time:	# Containers	Container Type	Preservative:	Composite/Grab
9/19/18	11:10	8	Amber Glass 1L	NP	Grab
9/19/18	11:10	2	VOA 40 mL	NP	Grab
9/19/18	11:10	2	VOA 40 mL	HCl	Grab
9/19/18	11:00	2	POLY 250 ml	HNO_3	Composite
9/19/18	11:10	1	Amber Poly 250 mL (pretreated with sodium thiosulfate)	NaOH	Grab

9/19/18
13:45

9/19/18 13:45

APPENDIX A

District Local Discharge Limits include a parameter called Total Toxic Organics (TTO). The required analytical methods for TTO analysis are listed in 40 CFR Part 136 and include the following EPA methods: 624,625, 608, and 1613, respectively. Unless specifically required, EPA method 1613 for dioxins is not mandatory for routine TTO analysis. The constituents with concentrations greater than the minimum limit/reporting limit must be added together to determine compliance with the District's Local Discharge Limit for TTO of 2.0 mg/L. The following is a list of the constituents of TTO:

EPA Method 624 Compounds

Acrolein
Acrylonitrile
Benzene
Bromodichloromethane (Dichlorobromomethane)
Bromform
Bromomethane (Methyl Bromide)
Carbon tetrachloride (Tetrachloromethane)
Chlorobenzene
Chloroethane (Ethyl Chloride)
2-Chloroethyl vinyl ether
Chloroform (trichloromethane)
Chloromethane (Methyl Chloride)
Dibromochloromethane (Chlorodibromomethane)
1, 2-Dichlorobenzene
1, 3-Dichlorobenzene
1, 4-Dichlorobenzene
1, 1-Dichloroethane
1, 2-Dichloroethane
1, 1-Dichloroethene (1, 1-dichloroethylene)
trans-1, 2-Dichloroethene
1, 2-Dichloropropane
cis-1, 3-Dichloropropene
trans-1, 3-Dichloropropene
Ethylbenzene
Methylene Chloride (Dichloromethane)
1, 1, 2, 2,-Tetrachloroethane
Tetrachloroethene (PCE)
Toluene
1, 1, 1-Trichloreothane
1, 1, 2-Trichloroethane
Trichloroethene (TCE)
Trichlorofluoromethane
Vinyl chloride (Chloroethylene)

EPA Method 625 Compounds

Acenaphthene
Acenaphthylene
Anthracene
Benzidine
Benzo (a) anthracene
Benzo (a) pyrene
Benzo (b) fluoranthene
Benzo (g, h, i) perylene
Benzo (k) fluoranthene
Benzyl butyl phthalate
bis (2-Chloroethoxy) methane
bis (2-Chloroethyl) ether
bis (2-Chloroisopropyl) ether
bis (2-Ethylhexyl) phthalate
4-Bromophenyl phenyl ether
4-Chloro-3-methylphenol
2-Chloronaphthalene
2-Chlorophenyl
4-Chlorophenyl phenyl ether
Chrysene
Dibenzo (a, h) anthracene
1, 2-Dichlorobenzene
1, 3-Dichlorobenzene
1, 4-Dichlorobenzene
3, 3'-Dichlorobenzidine
2, 4-Dichlorophenol
Diethyl phthalate
2,4-Dimethylphenol
Dimethylphthalate
Di-n-butylphthalate
2, 4-Dinitrophenol
2, 4-Dinitrotoluene
2, 6-Dinitrotoluene
Di-n-octylphthalate
1,2-Diphenylhydrazine/Azo
Fluoranthene
Fluorene
Hexachlorobenzene
Hexchlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno (1, 2, 3-cd) pyrene
Isophorone
2-Methyl-4, 6-dinitrophenol
Naphthalene
Nitrobenzene
2-Nitrophenol
4-Nitrophenol
N-Nitrosodimethylamine
N-Nitroso-di-n-propylamine
N-Nitrosodiphenylamine
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
1, 2, 4-Trichlorobenzene
2, 4, 6-Trichlorophenol

EPA Method 608 Compounds

Aldrin
alpha-BHC
beta-BHC
delta-BHC
gamma-BHC (Lindane)
Chlordane
4, 4'-DDD
4, 4'-DDE
4,4'DDT
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide
PCB 1016
PCB 1221
PCB 1232
PCB 1242
PCB 1248
PCB 1254
PCB 1260
Toxaphene

9/19/18 13:45
9/19/18
13:45

APPENDIX B

(for 40 CFR part 423 - 126 Priority Pollutants)

001 Acenaphthene
002 Acrolein
003 Acrylonitrile
004 Benzene
005 Benzidine
006 Carbon tetrachloride (tetrachloromethane)
007 Chlorobenzene
008 1, 2, 4-trichlorobenzene
009 Hexachlorobenzene
010 1, 2-dichloroethane
011 1, 1, 1-trichloreothane
012 Hexachloroethane
013 1, 1-dichloroethane
014 1, 1, 2-trichloroethane
015 1, 1, 2, 2-tetrachloroethane
016 Chloroethane
017 Bis (2-chloroethyl) ether
018 2-chloroethyl vinyl ether (mixed)
019 2-chloronaphthalene
020 2, 4, 6-trichlorophenol
021 Parachlorometa cresol
022 Chloroform (trichloromethane)
023 2-chlorophenol
024 1,2-dichlorobenzene (benzo(b)fluoranthene)
025 1,3-dichlorobenzene (benzo(b)fluoranthene)
026 1, 4-dichlorobenzene
027 3, 3-dichlorobenzidine
028 1, 1-dichloroethylene
029 1, 2-trans-dichloroethylene
030 2, 4-dichlorophenol
031 1, 2-dichloropropane
032 1, 2-dichloropropylene (1, 3-dichloropropene)
033 2, 4-dimethylphenol
034 2, 4-dinitrotoluene
035 2, 6-dinitrotoluene
036 1, 2-diphenylhydrazine
037 Ethylbenzene
038 Fluoranthene
039 4-chlorophenyl phenyl ether
040 4-bromophenyl phenyl ether
041 Bis(2-chloroisopropyl) ether
042 Bis(2-chloroethoxy) methane
043 Methylene chloride (dichloromethane)
044 Methyl chloride (dichloromethane)
045 Methyl bromide (bromomethane)
046 Bromoform (tribromomethane)
047 Dichlorobromomethane
048 Chlorodibromomethane
049 Hexachlorobutadiene
050 Hexachloromyclopentadiene
051 Isophorone
052 Naphthalene
053 Nitrobenzene
054 2-Nitrophenol
055 4-nitrophenol
056 2, 4-dinitrophenol
057 4, 6-dinitro-o-cresol
058 N-nitrosodimethylamine
059 N-nitrosodiphenylamine
060 N-nitrosodi-n-propylamine
061 Pentachlorophenol
062 Phenol
063 Bis(2-ethylhexyl) phthalate
064 Butyl benzyl phthalate
065 Di-N-Butyl Phthalate
066 Di-n-octyl Phthalate
067 Diethyl Phthalate
068 Dimethyl phthalate
069 1, 2-benzanthracene (benzo(a)anthracene)
070 Benzo(a)pyrene (3, 4-benzo-pyrene)
071 3,4-Benzofluoranthene (benzo(b) fluoranthene)
072 11,12-benzofluoranthene (benzo(b) fluoranthene)
073 Chrysene
074 Acenaphthylene
075 Anthracene
076 1, 12-benzoperylene (benzo(ghi) perylene
077 Fluorene
078 Phenanthrene
079 1, 2, 5, 6-dibenzanthracene (dibenzo(a,h)anthracene)
080 Indeno (1, 2, 3-cd) pyrene (2, 3-o-pheynylene pyrene)
081 Pyrene
082 Tetrachloroethylene
083 Toluene
084 Trichloroethylene
085 Vinyl chloride (chloroethylene)
086 Aldrin
087 Dieldrin
088 Chlordane (technical mixture and metabolites)
089 4, 4-DDT
090 4, 4-DDE (p, p-DDX)
091 4, 4-DDD (p, p-TDE)
092 Alpha-endosulfan
093 Beta-endosulfan
094 Endosulfan sulfate
095 Endrin
096 Endrin aldehyde
097 Heptachlor
098 Heptachlor epoxide (BHC-hexachlorocyclohexane)
099 Alpha-BHC
100 Beta-BHC
101 Gamma-BHC (lindane)
102 Delta-BHC (PCB-polychlorinated bi-phenyls)
103 PCB-1242 (Arochlor 1242)
104 PCB-1254 (Arochlor 1254)
105 PCB-1221 (Arochlor 1221)
106 PCB-1232 (Arochlor 1232)
107 PCB-1248 (Arochlor 1248)
108 PCB-1260 (Arochlor 1260)
109 PCB-1016 (Arochlor 1016)
110 Toxaphene
111 Antimony
112 Arsenic
113 Asbestos
114 Beryllium
115 Cadmium
116 Chromium
117 Copper
118 Cyanide, (Total)
119 Lead
120 Mercury
121 Nickel
122 Selenium
123 Silver
124 Thallium
125 Zinc
126 2,3,7,8-tetrachloro-dibenzo-p-dioxin (TCDD)

9/19/18 13:45

9/19/18 13:45

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http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**PG&E Gateway Generating Station**	Date and Time Received	**9/19/2018 13:45**
Project:	**Semi-Annually Sampling (September 2018)**	Date Logged:	**9/19/2018**
		Received by:	Tina Perez
WorkOrder №:	**1809780** Matrix: Water	Logged by:	Kena Ponce
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐		
Chain of custody signed when relinquished and received?	Yes	☑	No	☐		
Chain of custody agrees with sample labels?	Yes	☑	No	☐		
Sample IDs noted by Client on COC?	Yes	☑	No	☐		
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐		
Sampler's name noted on COC?	Yes	☑	No	☐		
COC agrees with Quote?	Yes	☐	No	☐	NA	☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA	☑
Shipping container/cooler in good condition?	Yes	☑	No	☐		
Samples in proper containers/bottles?	Yes	☑	No	☐		
Sample containers intact?	Yes	☑	No	☐		
Sufficient sample volume for indicated test?	Yes	☑	No	☐		

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA	☐
Samples Received on Ice?	Yes	☑	No	☐		
(Ice Type: WET ICE)						
Sample/Temp Blank temperature	Temp: 5.6°C				NA	☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA	☑
Sample labels checked for correct preservation?	Yes	☑	No	☐		
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA	☑
UCMR Samples:						
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA	☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA	☑

Comments:

Attachment 2

Summary of Cyanide Resampling Results

GGS - Summary of Cyanide Resampling Results

	Resample #1: 10/30/2018 - @ Tiger Pit		Resample #2: 11/07/2018 @ Tiger Pit		Resample #3: 11/24/2018 @ Tiger Pit		Resample #4: 12/04/2018 @ Tiger Pit		Resample #5: 12/11/2018 @ Tiger Pit		Resample #6: 12/14/2018 @ Tiger Pit		Resample #7: 12/18/2018 @ Tiger Pit	
Analytical Laboratory	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative	No Preservative	w/ NaOH Preservative
	Units: ppb													
Laboratory 1	14.0	21.0	ND (<1.0)	ND (<1.0)										
Laboratory 2	9.7	20.0	ND (J1.1*)	ND (J2.5*)										
Laboratory 3	ND (<10.0)	ND (<10.0)	ND (<10.0)	ND (<10.0)	ND (<10.0)	12.0	32.0	30.0	18.0	13.0	20.0	ND (<10)	28.0	28.0

Note:

** - Non-detect with J Flag: Estimated values below the reporting limit, but above the method detection limit.*

	Resample #8 1/10/2019		Resample #9 (1/16/2019)	Resample #10 (2/7/2019)	Resample #11 (2/11/2019)		Resample #12 (2/25/2019)	Resample #13 (2/27/2019)	Resample #14 (2/28/2019)
	No Preservative	No Preservative	No Preservative	No Preservative	No Preservative		No Preservative	No Preservative	No Preservative
Sampler	Enthalpy	Doug Welch	Muskan	Muskan	Muskan		Muskan	Doug Welch	Muskan
Laboratory	Enthalpy	Enthalpy	Enthalpy	Enthalpy	Enthalpy	MAI	Enthalpy	Enthalpy	Enthalpy
Sampling Location	units: ppb								
Tiger Pit	51.0	55.0	ND (<10)	13.0	14.0	29.0	ND (<10)		
HRSG IP A			ND (<10)						
HRSG IP B			ND (<10)						
Phospate Skid			ND (<10)						
CC Coolong Water			ND (<10)						
Amine Skid			ND (<10)						
E-006 (Storm Outfall)			ND (<10)						
Hammond Tank			26.0	ND (<10)			ND (<10)		
OWS			ND (<10)						
Ammonia Sump			ND (<10)						
Service Water Tank Drain			ND (<10)						
Source Water		ND (<10.0)	ND (<10)	ND (<10)			ND (<10)		
RO Reject					ND (<10)	1.7	ND (<10)		
Compliance Point								ND (<10)	ND (<10)

Attachment 3

Analytical Report on Resampling #1

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1810E56

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue
Antioch, CA 94509

Project Contact: Angel Espiritu
Project P.O.:
Project: Resample 1 (10/30/18)

Project Received: 10/30/2018

Analytical Report reviewed & approved for release on 10/31/2018 by:

Yen Cao
Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station
Project: Resample 1 (10/30/18)
WorkOrder: 1810E56

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1810E56
Date Received:	10/30/18 10:00	**Extraction Method:**	SM4500-CN⁻ E
Date Prepared:	10/30/18	**Analytical Method:**	SM4500-CN⁻ CE
Project:	Resample 1 (10/30/18)	**Unit:**	µg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Tiger Pit-Amber	**1810E56-001A**	**Water**	**10/30/2018 07:55**	**WC_SKALAR 103018A1_35**	**167499**

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	**21**	1.0	1	10/30/2018 11:17

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Tiger Pit-Clear	**1810E56-002A**	**Water**	**10/30/2018 07:55**	**WC_SKALAR 103018A1_36**	**167499**

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	**14**	1.0	1	10/30/2018 11:20

Analyst(s): NM

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
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Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1810E56
Date Prepared:	10/30/18	**BatchID:**	167499
Date Analyzed:	10/30/18	**Extraction Method:**	SM4500-CN⁻ E
Instrument:	WC_SKALAR	**Analytical Method:**	SM4500-CN⁻ CE
Matrix:	Water	**Unit:**	µg/L
Project:	Resample 1 (10/30/18)	**Sample ID:**	MB/LCS/LCSD-167499

QC Summary Report for SM4500-CN⁻ CE

Analyte	MB Result	RL			
Total Cyanide	ND	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	40	40	40	100	99	90-110	0.933	20

McCampbell Analytical, Inc.
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Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1810E56 **ClientCode: PGEA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509
(925) 459-7212 FAX:

Email: abe4@pge.com
cc/3rd Party: A1HE@pge.com; J5Ld@pge.com; tlWY@p
PO:
Project: Resample 1 (10/30/18)

Bill to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509

Requested TAT: 1 day;

Date Received: **10/30/2018**
Date Logged: **10/30/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1810E56-001	Tiger Pit-Amber	Water	10/30/2018 07:55	☐	A											
1810E56-002	Tiger Pit-Clear	Water	10/30/2018 07:55	☐	A											

Test Legend:

1	CN_SM4500CE_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

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WORK ORDER SUMMARY

Client Name: PG&E GATEWAY GENERATING STATION **Project:** Resample 1 (10/30/18) **Work Order:** 1810E56
Client Contact: Angel Espiritu **QC Level:** LEVEL 2
Contact's Email: abe4@pge.com **Comments:** **Date Logged:** 10/30/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1810E56-001A	Tiger Pit-Amber	Water	SM4500-CN¯CE (Cyanide, Total)	1	250mL aHDPE w/ NaOH + Na2S2O3	☐	10/30/2018 7:55	1 day	None	☐	
1810E56-002A	Tiger Pit-Clear	Water	SM4500-CN¯CE (Cyanide, Total)	1	250mL HDPE w/ Na2S2O3	☐	10/30/2018 7:55	1 day	None	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1&1DE56 1 of 1

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

RUSH

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☒ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Angel Espiritu Bill To: PG&E Gateway

Company: PG&E Gateway Generating Station

E-Mail: abe4@pge.com, A1HE@pge.com, J5Ld@pge.com, tlWY@pge.com, DJH2@pge.com

Tel: (925) 522-7838, (510) 861-1597 (Cell) Fax: ( )

Project Name: Resample 1 (10/30/18)

Project Location: Tiger Pit, Source Water

Sampler Signature: Muskan Environmental Sampling

SAMPLE ID	LOCATION / Field Point Name	Sample Type Composite /Grab	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	Matrix: Waste Water	Matrix: Sewer Water	METHOD PRESERVED: None	ICE	H_2SO_4	NaOH	HCL	HNO_3	Other	Analysis Request: Cyanide (TOTAL) (Pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625- Semi Volatile Organic Compounds)	TTO (USEPA 608 – Organochlorine Pesticides and PCBs)	126 Priority Pollutants (see Appendix B analyze only listed compounds)	Remarks
Tiger Pit		G	10/30/18	07:55	1	250 ml poly Amb	X			X		X				X					
Tiger Pit		G	10/30/18	07:55	1	250 ml poly	X			X						X					
Source Water		G	~~10/30/18~~		1	250 ml poly	X			X		X				~~X~~					
Source Water		G	~~10/30/18~~		1	250 ml poly	X			X						—					

Relinquished By:	Date:	Time:	Received By:
	10/30/18	17:00	
Relinquished By:	Date:	Time:	Received By:

ICE/t° 5.5 wet
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____

COMMENTS:
TTO (EPA 608), TTO (EPA 624), TTO (EPA 625) see ATTACHED Appendix A and analyze only listed compounds

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Sample Receipt Checklist

Client Name:	**PG&E Gateway Generating Station**	Date and Time Received	**10/30/2018 10:00**
Project:	**Resample 1 (10/30/18)**	Date Logged:	**10/30/2018**
		Received by:	Jena Alfaro
WorkOrder №:	**1810E56** Matrix: Water	Logged by:	Agustina Venegas
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
(Ice Type: WET ICE)					
Sample/Temp Blank temperature	Temp: 5.5°C				NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☑	No	☐	NA ☐
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
UCMR Samples:					
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA ☑

Comments:

Thursday, November 01, 2018

Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Ave
Antioch, CA 94509

Re Lab Order: T101182 Collected By: MUSKAN ENVIRONMENTAL
Project ID: RESAMPLE 1 (10/30/18) PO/Contract #:

Dear Angel Espiritu:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, October 30, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

CC: Daryl Sattelberg, PG&E Gateway Generating Station

David Hammond, PG&E Gateway Generating Station

Tim Wisdom, PG&E Gateway Generating Station

Enclosures

Project Manager: Eli N. Greenwald

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

SAMPLE SUMMARY

Lab Order: T101182
Project ID: RESAMPLE 1 (10/30/18)

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T101182001	**TIGER PIT (NAOH PRESERVED)**	Water	10/30/2018 07:55	10/30/2018 09:53
T101182002	**TIGER PIT (UNPRESERVED)**	Water	10/30/2018 07:55	10/30/2018 09:53

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NARRATIVE

Lab Order: T101182
Project ID: RESAMPLE 1 (10/30/18)

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

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ANALYTICAL RESULTS

Lab Order: T101182
Project ID: RESAMPLE 1 (10/30/18)

Lab ID	**T101182001**	Date Collected	10/30/2018 07:55	Matrix	Water
Sample ID	**TIGER PIT (NAOH PRESERVED)**	Date Received	10/30/2018 09:53		

Parameters	Result	Units	R. L.	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11				**Analyzed by:**	BCP	
Cyanide	20	ug/L	3	1			10/30/18 16:12	WCO 14042	

Lab ID	**T101182002**	Date Collected	10/30/2018 07:55	Matrix	Water
Sample ID	**TIGER PIT (UNPRESERVED)**	Date Received	10/30/2018 09:53		

Parameters	Result	Units	R. L.	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11				**Analyzed by:**	BCP	
Cyanide	9.7	ug/L	3	1			10/30/18 16:12	WCO 14042	

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QUALITY CONTROL DATA

Lab Order: T101182
Project ID: RESAMPLE 1 (10/30/18)

Analysis Description:	Cyanide, Total Analysis	**QC Batch:**	WCO/14042
Analysis Method:	SM 4500-CN C/E-99/11	**QC Batch Method:**	SM 4500-CN C/E-99/11

METHOD BLANK: 850434

Parameter	Blank Result	Reporting Limit	Units	Qualifiers
Cyanide	ND	3	ug/L	

LABORATORY CONTROL SAMPLE: 850435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Cyanide	ug/L	20	19.9	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 850436 850437

Parameter	Units	T101182001 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Cyanide	ug/L	20	40	52.7	58.6	82	97	80-120	11	20	

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QUALITY CONTROL DATA QUALIFIERS

Lab Order: T101182
Project ID: RESAMPLE 1 (10/30/18)

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: T101182
Project ID: RESAMPLE 1 (10/30/18)

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
T101182001	**TIGER PIT (NAOH**	SM 4500-CN C/E-99/11	WCO/14042		
T101182002	**TIGER PIT (UNPRESERVED)**	SM 4500-CN C/E-99/11	WCO/14042		

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Caltest ANALYTICAL LABORATORY

1885 N. KELLY ROAD NAPA, CA 94558 (707) 258-4000 FAX (707) 226-1001

PAGE 1 OF 1

SAMPLE CHAIN OF CUSTODY

email: abe4@pge.com

PROJECT NAME / PROJECT NUMBER: Resample 1 (10/30/18)

P.O. NUMBER

LAB ORDER # T10182

CLIENT: PG&E Gateway Generation Station

REPORT ATTN: Angel Espiritu

MAILING ADDRESS: 3225 Wilbur Ave. STATE: CA ZIP: 94509

BILLING ADDRESS: (Same) ATTN: Angel Espiritu

PHONE NUMBER: (925)522-7838 FAX PHONE NUMBER: SAMPLER (PRINT & SIGN NAME): Muskan Environmental Sample

ANALYSES REQUESTED

Cyanide (total) pretreated with UV digestion before preserving by SM 4500 CN- ABDE

TURN-AROUND TIME

☐ STANDARD

☒ RUSH

DUE DATE:

CALTEST LAB #	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFICATION / SITE	CLIENT LAB #	COMP. or GRAB	Cyanide (total) pretreated with UV digestion before preserving by SM 4500 CN- ABDE	REMARKS
-1	10/30/18	07:55	Waste Water AQ	500ml poly	NaOH	Tiger Pit		grab	X	Samples sent on ICE
-2	10/30/18	07:55	Waste Water AQ	500ml poly	NaNe preserved	Tiger Pit		grab	X	RUSH

RELINQUISHED BY	DATE/TIME	RECEIVED BY	RELINQUISHED BY	DATE/TIME	RECEIVED BY
L G	10/30/18 09:03	Gle-Imrie	Gle-Imrie	10/30/18 09:53	

FOR LAB USE ONLY

Samples: WC ____ MICRO ____ BIO ____ AA ____ SV ____ VOA ____ pH? Y/N TEMP: 0.6 SEALED: Y/N INTACT: Y/N

BD: BIO ____ WC ____ AA ____

CC: AA ____ SV ____ VOA ____

SIL: HP ____ PT ____ QT ____ VOA ____

W/HNO_3 ____ H_2SO_4 ____ NaOH ____

PIL: HNO_3 ____ H_2SO_4 ____ NaOH ____ HCL ____

COMMENTS:

*MATRIX: AQ = Aqueous Nondrinking Water, Digested Metals; FE = Low R.L.s, Aqueous Nondrinking Water, Digested Metals; DW = Drinking Water; SL = Soil Sludge, Solid ; FP = Free Product

**CONTAINER TYPES: AL = Amber Liter; AHL = 500 ml Amber; PT = Pint (Plastic); QT = Quart (Plastic); HG = Half Gallon (Plastic); SJ = Soil Jar; B4 = 4oz. BACT; BT = Brass Tube; VOA = 40mL VOA; OTC - Other Type Container

R ____ PR ____ M ____ F ____

10/29/18

WHITE - LABORATORY YELLOW - CLIENT COPY TO ACCOMPANY FINAL REPORT PINK - CLIENT COPY AS RECEIPT

ENTHALPY

ANALYTICAL

Enthalpy Analytical

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 304625
ANALYTICAL REPORT

Pacific Gas & Electric	Project : STANDARD
4801 Oakport Street	Location : Resample 1 (10/30/18)
Oakland, CA 94601	Level : II

Sample ID	Lab ID
TIGER PIT	304625-001
TIGER PIT	304625-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: _____ Date: 10/31/2018

Will Rice
Project Manager
will.rice@enthalpy.com
(510) 204-2221 Ext 13102

CA ELAP# 2896, NELAP# 4044-001

ENTHALPY ANALYTICAL

CASE NARRATIVE

Laboratory number:	**304625**
Client:	**Pacific Gas & Electric**
Location:	**Resample 1 (10/30/18)**
Request Date:	**10/30/18**
Samples Received:	**10/30/18**

This data package contains sample and QC results for two water samples, requested for the above referenced project on 10/30/18. The samples were received cold and intact.

Total Cyanide (SM4500CN-C,E):

Low recovery was observed for cyanide in the MS for batch 265009; the parent sample was not a project sample, the LCS was within limits, and the associated RPD was within limits. No other analytical problems were encountered.

CHAIN OF CUSTODY

ENTHALPY ANALYTICAL
Formerly Curtis & Tompkins Labs
2323 Fifth Street
Berkeley, CA 94710
Phone (510) 486-0900
Fax (510) 486-0532

C&T LOGIN # 304625

Chain of Custody # _____

Project No:

Project Name: Resample 1 (10/30/18)

Project P. O. No:

EDD Format: Report Level ☐ II ☐ III ☐ IV

Turnaround Time: ☒ RUSH _____ ☐ Standard

Sampler: Muskan Environmental Sampli

Report To: Angel Espiritu

Company: PG&E Gateway Generating Station

Telephone: (925) 522-7838

Email: abe4@pge.com

Lab No.	Sample ID.	SAMPLING		MATRIX				# of Containers	CHEMICAL PRESERVATIVE					ANALYTICAL REQUEST: Cyanide (Total) (Must be treated with sodium thiosulfate before preservation) by SM 4500 CN-A&E
		Date Collected	Time Collected	Water	Solid				HCl	H2SO4	HNO3	NaOH	None	
	Tiger Pit	10/30/18	07:55	X				1				X		X
	Tiger Pit	10/30/18	07:55	X				1					X	X

Notes: Sample send on ICE

containers:
500ml poly
500ml poly

SAMPLE RECEIPT
☐ Intact
☐ Cold
☐ On Ice
☐ Ambient

RELINQUISHED BY:
DATE: 10/30/18 TIME: 09:30
DATE: 10-30-18 TIME: 10:08
DATE: 10/30 TIME: 1130 pm

RECEIVED BY:
DATE: 10-30-18 TIME: 9:30 AM
DATE: 10-30 TIME: 1008
DATE: 10/30/18 TIME: 11:32

SAMPLE RECEIPT CHECKLIST

Section 1: Login # 304625 Client: PG+E

Date Received: _____ Project: _____

Section 2: Samples received in a cooler? ☐ Yes, how many? _____ ☐ No **(skip Section 3 below)**

If no cooler Sample Temp (°C): 9.9 using IR Gun # ☐ A, or ☑ B

☑ Samples received on ice directly from the field. Cooling process had begun

If in cooler: Date Opened 10/30/18 By (print) AC (sign) A

Shipping info (if applicable) _____

Are custody seals present? ☑ No, or ☐ Yes. If yes, where? ☐ on cooler, ☐ on samples, ☐ on package

☐ Date: _____ How many _____ ☐ Signature, ☐ Initials, ☐ None

Were custody seals intact upon arrival? ☐ Yes ☐ No ☑ N/A

Section 3: ***Important*: Notify PM if temperature exceeds 6°C or arrive frozen.**

Packing in cooler: (if other, describe) _____

☐ Bubble Wrap, ☐ Foam blocks, ☐ Bags, ☐ None, ☐ Cloth material, ☐ Cardboard, ☐ Styrofoam, ☐ Paper towels

☐ Samples received on ice directly from the field. Cooling process had begun

Type of ice used : ☐ Wet, ☐ Blue/Gel, ☐ None Temperature blank(s) included? ☐ Yes, ☐ No

Temperature measured using ☐ Thermometer ID: _____, or IR Gun # ☐ A ☐ B

Cooler Temp (°C): #1: _____, #2: _____, #3: _____, #4: _____, #5: _____, #6: _____, #7: _____

Section 4:	YES	NO	N/A
Were custody papers dry, filled out properly, and the project identifiable	✓		
Were Method 5035 sampling containers present?		✓	
If YES, what time were they transferred to freezer? _____			
Did all bottles arrive unbroken/unopened?	✓		
Are there any missing / extra samples?		✓	
Are samples in the appropriate containers for indicated tests?	✓		
Are sample labels present, in good condition and complete?	✓		
Does the container count match the COC?	✓		
Do the sample labels agree with custody papers?	✓		
Was sufficient amount of sample sent for tests requested?	✓		
Did you change the hold time in LIMS for unpreserved VOAs?			✓
Did you change the hold time in LIMS for preserved terracores?			✓
Are bubbles > 6mm absent in VOA samples?			✓
Was the client contacted concerning this sample delivery?		✓	
If YES, who was called? _____ By _____ Date: _____			

Section 5:	YES	NO	N/A
Are the samples appropriately preserved? (if N/A, skip the rest of section 5)		✓	
Did you check preservatives for all bottles for each sample?		✓	
Did you document your preservative check?	✓		

pH strip lot# HC131225, pH strip lot# _____, pH strip lot# _____

Preservative added:

☐ H2SO4 lot# _____ added to samples _____ on/at _____

☐ HCL lot# _____ added to samples _____ on/at _____

☐ HNO3 lot# _____ added to samples _____ on/at _____

☐ NaOH lot# 164374 added to samples JB on/at 10/30/18 12:57

Section 6:

Explanations/Comments: _____

Date Logged in 10/30/18 **By (print)** AC **(sign)** A

Date Labeled 10/30/18 **By (print)** AC **(sign)** A

Enthalpy Sample Preservation for 304625

Sample	pH: <2	>9	>12	Other
-001a	[ ]	[ ]	[ ]	_____
b	[ ]	[ ]	[-]	_____

Analyst: [signature]
Date: 10/30/18

ENTHALPY ANALYTICAL

Detections Summary for 304625

Results for any subcontracted analyses are not included in this summary.

Client : Pacific Gas & Electric
Project : STANDARD
Location : Resample 1 (10/30/18)

Client Sample ID : TIGER PIT Laboratory Sample ID : 304625-001

No Detections

Client Sample ID : TIGER PIT Laboratory Sample ID : 304625-002

No Detections

ENTHALPY ANALYTICAL

Total Cyanide

Lab #:	304625	Location:	Resample 1 (10/30/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265009
Field ID:	TIGER PIT	Sampled:	10/30/18
Matrix:	Water	Received:	10/30/18
Units:	mg/L	Prepared:	10/30/18
Diln Fac:	1.000	Analyzed:	10/31/18

Type	Lab ID	Result	RL	MDL
SAMPLE	304625-001	ND	0.010	0.0031
SAMPLE	304625-002	ND	0.010	0.0031
BLANK	QC953688	ND	0.010	0.0031

ND= Not Detected at or above MDL
RL= Reporting Limit
MDL= Method Detection Limit

ENTHALPY ANALYTICAL

Batch QC Report

Total Cyanide

Lab #:	304625	Location:	Resample 1 (10/30/18)
Client:	Pacific Gas & Electric	Prep:	METHOD
Project#:	STANDARD	Analysis:	SM4500CN-C,E
Analyte:	Cyanide	Batch#:	265009
Field ID:	ZZZZZZZZZZ	Sampled:	10/24/18
MSS Lab ID:	304494-011	Received:	10/24/18
Matrix:	Water	Prepared:	10/30/18
Units:	mg/L	Analyzed:	10/31/18
Diln Fac:	1.000		

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
LCS	QC953689		0.1000	0.08530	85	76-120		
MS	QC953690	<0.01000	0.1000	0.05860	59 *	66-120		
MSD	QC953691		0.1000	0.06700	67	66-120	13	28

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Attachment 4

Analytical Report on Resampling #2

McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1811249

Report Created for: PG&E Gateway Generating Station

3225 Wilbur Avenue
Antioch, CA 94509

Project Contact: Angel Espiritu
Project P.O.:
Project: Resample 2 (11/7/18)

Project Received: 11/07/2018

Analytical Report reviewed & approved for release on 11/08/2018 by:

Yen Cao

Project Manager

McCampbell Analytical, Inc.
"When Quality Counts"
1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Glossary of Terms & Qualifier Definitions

Client: PG&E Gateway Generating Station
Project: Resample 2 (11/7/18)
WorkOrder: 1811249

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
DF	Dilution Factor
DI WET	(DISTLC) Waste Extraction Test using DI water
DISS	Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)
DLT	Dilution Test (Serial Dilution)
DUP	Duplicate
EDL	Estimated Detection Limit
ERS	External reference sample. Second source calibration verification.
ITEF	International Toxicity Equivalence Factor
LCS	Laboratory Control Sample
MB	Method Blank
MB % Rec	% Recovery of Surrogate in Method Blank, if applicable
MDL	Method Detection Limit
ML	Minimum Level of Quantitation
MS	Matrix Spike
MSD	Matrix Spike Duplicate
N/A	Not Applicable
ND	Not detected at or above the indicated MDL or RL
NR	Data Not Reported due to matrix interference or insufficient sample amount.
PDS	Post Digestion Spike
PDSD	Post Digestion Spike Duplicate
PF	Prep Factor
RD	Relative Difference
RL	Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)
RPD	Relative Percent Deviation
RRT	Relative Retention Time
SPK Val	Spike Value
SPKRef Val	Spike Reference Value
SPLP	Synthetic Precipitation Leachate Procedure
ST	Sorbent Tube
TCLP	Toxicity Characteristic Leachate Procedure
TEQ	Toxicity Equivalents
WET (STLC)	Waste Extraction Test (Soluble Threshold Limit Concentration)

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"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1811249
Date Received:	11/7/18 9:45	**Extraction Method:**	SM4500-CN⁻ E
Date Prepared:	11/7/18	**Analytical Method:**	SM4500-CN⁻ CE
Project:	Resample 2 (11/7/18)	**Unit:**	µg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Tiger Pit-Amber	1811249-001A	Water	11/07/2018 08:06	WC_SKALAR 110718A1_21	167990

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	ND	1.0	1	11/07/2018 11:36

Analyst(s): NM

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
Tiger Pit-Clear	1811249-002A	Water	11/07/2018 08:06	WC_SKALAR 110718A1_24	167990

Analytes	Result	RL	DF	Date Analyzed
Total Cyanide	ND	1.0	1	11/07/2018 11:47

Analyst(s): NM

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:	PG&E Gateway Generating Station	**WorkOrder:**	1811249
Date Prepared:	11/7/18	**BatchID:**	167990
Date Analyzed:	11/7/18	**Extraction Method:**	SM4500-CN⁻ E
Instrument:	WC_SKALAR	**Analytical Method:**	SM4500-CN⁻ CE
Matrix:	Water	**Unit:**	µg/L
Project:	Resample 2 (11/7/18)	**Sample ID:**	MB/LCS/LCSD-167990 1811249-001AMS/MSD

QC Summary Report for SM4500-CN⁻ CE

Analyte	MB Result	RL			
Total Cyanide	ND	1.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	39	40	40	98	99	90-110	1.36	20

Analyte	MS DF	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Total Cyanide	1	41	42	40	ND	102	106	80-120	4.27	20

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1811249 **ClientCode: PGEA**

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQuIS ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag
☐ Detection Summary ☐ Dry-Weight

Report to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509
(925) 459-7212 FAX:

Email: abe4@pge.com
cc/3rd Party: A1HE@pge.com; J5Ld@pge.com; tlWY@p
PO:
Project: Resample 2 (11/7/18)

Bill to:
Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Avenue
Antioch, CA 94509

Requested TAT: 1 day;

Date Received: **11/07/2018**
Date Logged: **11/07/2018**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1811249-001	Tiger Pit-Amber	Water	11/7/2018 08:06	☐	A											
1811249-002	Tiger Pit-Clear	Water	11/7/2018 08:06	☐	A											

Test Legend:

1	CN_SM4500CE_W	2		3		4	
5		6		7		8	
9		10		11		12	

Prepared by: Agustina Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name: PG&E GATEWAY GENERATING STATION **Project:** Resample 2 (11/7/18) **Work Order:** 1811249
Client Contact: Angel Espiritu **QC Level:** LEVEL 2
Contact's Email: abe4@pge.com **Comments:** **Date Logged:** 11/7/2018

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De-chlorinated	Collection Date & Time	TAT	Sediment Content	Hold	SubOut
1811249-001A	Tiger Pit-Amber	Water	SM4500-CN¯CE (Cyanide, Total)	1	250mL aHDPE w/ NaOH + Na2S2O3	☐	11/7/2018 8:06	1 day		☐	
1811249-002A	Tiger Pit-Clear	Water	SM4500-CN¯CE (Cyanide, Total)	1	250mL HDPE w/ Na2S2O3	☐	11/7/2018 8:06	1 day	None	☐	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1811249 Pg 1 of 1

RUSH

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☒ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAY

GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Angel Espiritu Bill To: PG&E Gateway

Company: PG&E Gateway Generating Station

E-Mail: abe4@pge.com, A1HE@pge.com, J5Ld@pge.com, tlWY@pge.com, DJH2@pge.com

Tel: (925) 522-7838, (510) 861-1597 (Cell) Fax: ( )

Project Name: Resample 2 (11/7/18)

Project Location: Tiger Pit, Source Water

Sampler Signature: Muskan Environmental Sampling LL

SAMPLE ID	LOCATION / Field Point Name	Sample Type Composite /Grab	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	Matrix: Waste Water	Matrix: Sewer Water	METHOD PRESERVED: None	ICE	H_2SO_4	NaOH	HCL	HNO_3	Other	Cyanide (TOTAL) (Pretreated with sodium thiosulfate before preserving) by SM 4500 CN-ABCE	TTO (USEPA 624-Volatile Organic Compounds)	TTO (USEPA 625- Semi Volatile Organic Compounds)	TTO (USEPA 608 – Organochlorine Pesticides and PCBs)	126 Priority Pollutants (see Appendix B analyze only listed compounds)	Remarks
Tiger Pit		G	11/7/18	08:06	1	250 ml poly Amb	X			X		X				X					
Tiger Pit		G	11/7/18	08:06	1	250 ml poly	X			X						X					
~~Source Water~~		~~G~~	~~11/7/18~~		~~1~~	~~250 ml poly~~	~~X~~			~~X~~		~~X~~				~~X~~					
~~Source Water~~		~~G~~	~~11/7/18~~		~~1~~	~~250 ml poly~~	~~X~~			~~X~~						~~x~~					

Relinquished By:	Date:	Time:	Received By:
[signature]	11/7/18	09:45	[signature]
Relinquished By:	Date:	Time:	Received By:

ICE/t° 5.0 WET
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____

COMMENTS:
TTO (EPA 608), TTO (EPA 624), TTO (EPA 625) see ATTACHED Appendix A and analyze only listed compounds

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Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269
http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	**PG&E Gateway Generating Station**	Date and Time Received	**11/7/2018 09:45**
Project:	**Resample 2 (11/7/18)**	Date Logged:	**11/7/2018**
		Received by:	Jena Alfaro
WorkOrder №:	**1811249** Matrix: Water	Logged by:	Agustina Venegas
Carrier:	Client Drop-In		

Chain of Custody (COC) Information

Chain of custody present?	Yes	☑	No	☐	
Chain of custody signed when relinquished and received?	Yes	☑	No	☐	
Chain of custody agrees with sample labels?	Yes	☑	No	☐	
Sample IDs noted by Client on COC?	Yes	☑	No	☐	
Date and Time of collection noted by Client on COC?	Yes	☑	No	☐	
Sampler's name noted on COC?	Yes	☑	No	☐	
COC agrees with Quote?	Yes	☐	No	☐	NA ☑

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes	☐	No	☐	NA ☑
Shipping container/cooler in good condition?	Yes	☑	No	☐	
Samples in proper containers/bottles?	Yes	☑	No	☐	
Sample containers intact?	Yes	☑	No	☐	
Sufficient sample volume for indicated test?	Yes	☑	No	☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes	☑	No	☐	NA ☐
Samples Received on Ice?	Yes	☑	No	☐	
	(Ice Type: WET ICE)				
Sample/Temp Blank temperature		Temp: 5.6°C			NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes	☐	No	☐	NA ☑
Sample labels checked for correct preservation?	Yes	☑	No	☐	
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes	☐	No	☐	NA ☑
UCMR Samples:					
pH tested and acceptable upon receipt (200.8: ≤2; 525.3: ≤4; 530: ≤7; 541: <3; 544: <6.5 & 7.5)?	Yes	☐	No	☐	NA ☑
Free Chlorine tested and acceptable upon receipt (<0.1mg/L)?	Yes	☐	No	☐	NA ☑

Comments:

Caltest ANALYTICAL LABORATORY

ENVIRONMENTAL ANALYSES

Friday, November 09, 2018

Angel Espiritu
PG&E Gateway Generating Station
3225 Wilbur Ave
Antioch, CA 94509

Re Lab Order: T110273 Collected By: MUSKAN ENV.
Project ID: RESAMPLE 2 (11/7/18) PO/Contract #:

Dear Angel Espiritu:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, November 07, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

CC: Daryl Sattelberg, PG&E Gateway Generating Station

David Hammond, PG&E Gateway Generating Station

Tim Wisdom, PG&E Gateway Generating Station

Enclosures

Project Manager: Eli N. Greenwald

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

SAMPLE SUMMARY

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	Matrix	Date Collected	Date Received
T110273001	**TIGER PIT (NAOH PRESERVED)**	Water	11/07/2018 08:06	11/07/2018 09:58
T110273002	**TIGER PIT (UNPRESERVED)**	Water	11/07/2018 08:06	11/07/2018 09:58

1885 North Kelly Road • Napa, California 94558
(707) 258-4000 • Fax (707) 226-1001 • e-mail: info@caltestlabs.com

NARRATIVE

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

General Qualifiers and Notes

Caltest authorizes this report to be reproduced only in its entirety. Results are specific to the sample(s) as submitted and only to the parameter(s) reported.

Caltest certifies that all test results for wastewater and hazardous waste analyses meet all applicable NELAC requirements; all microbiology and drinking water testing meet applicable ELAP requirements, unless stated otherwise.

All analyses performed by EPA Methods or Standard Methods.

Dilution Factors (DF) reported greater than '1' have been used to adjust the result, Reporting Limit (RL), and Method Detection Limit (MDL).

All Solid, sludge, and/or biosolids data is reported in Wet Weight, unless otherwise specified.

Filtrations performed at Caltest for dissolved metals (excluding mercury) and/or pH analysis are not performed within the 15 minute holding time as specified by 40CFR 136.3 table II.

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

ND - Non Detect - indicates analytical result has not been detected.

RL - Reporting Limit is the quantitation limit at which the laboratory is able to detect an analyte. An analyte not detected at or above the RL is reported as ND unless otherwise noted or qualified. For analyses pertaining to the State Implementation Plan of the California Toxics Rule, the Caltest Reporting Limit (RL) is equivalent to the Minimum Level (ML). A standard is always run at or below the ML. Where Reporting Limits are elevated due to dilution, the ML calibration criteria has been met.

J - reflects estimated analytical result value detected below the Reporting Limit (RL) and above the Method Detection Limit (MDL). The 'J' flag is equivalent to the DNQ Estimated Concentration flag.

E - indicates an estimated analytical result value.

B - indicates the analyte has been detected in the blank associated with the sample.

NC - means not able to be calculated for RPD or Spike Recoveries.

SS - compound is a Surrogate Spike used per laboratory quality assurance manual.

NOTE: This document represents a complete Analytical Report for the samples referenced herein and should be retained as a permanent record thereof.

Qualifiers and Compound Notes

1	Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.
2	The sample was received unpreserved. At the time of the analysis, the measured pH of the sample was 10.

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ANALYTICAL RESULTS

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	**T110273001**	Date Collected	11/7/2018 08:06	Matrix	Water
Sample ID	**TIGER PIT (NAOH PRESERVED)**	Date Received	11/7/2018 09:58		

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11					**Analyzed by:**	BCP	
Cyanide	J2.5	ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1

Lab ID	**T110273002**	Date Collected	11/7/2018 08:06	Matrix	Water
Sample ID	**TIGER PIT (UNPRESERVED)**	Date Received	11/7/2018 09:58		

Parameters	Result	Units	R. L.	MDL	DF	Prepared	Batch	Analyzed	Batch	Qual
Cyanide, Total Analysis	**Analytical Method:**		SM 4500-CN C/E-99/11					**Analyzed by:**	BCP	
Cyanide	J1.1	ug/L	3	0.90	1			11/07/18 16:47	WCO 14067	1,2

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QUALITY CONTROL DATA

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Analysis Description:	Cyanide, Total Analysis	**QC Batch:**	WCO/14067
Analysis Method:	SM 4500-CN C/E-99/11	**QC Batch Method:**	SM 4500-CN C/E-99/11

METHOD BLANK: 851944

Parameter	Blank Result	Reporting Limit	MDL	Units	Qualifiers
Cyanide	ND	3	0.9	ug/L	

LABORATORY CONTROL SAMPLE: 851945

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% REC Limits	Qualifier
Cyanide	ug/L	20	20.2	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 851946 851947

Parameter	Units	T110110002 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Cyanide	ug/L	1.6	40	40.9	42.9	98	103	80-120	4.8	20	1

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QUALITY CONTROL DATA QUALIFIERS

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

QUALITY CONTROL PARAMETER QUALIFIERS

Results Qualifiers: Report fields may contain codes and non-numeric data correlating to one or more of the following definitions:

NS - means not spiked and will not have recoveries reported for Analyte Spike Amounts

QC Codes Keys: These descriptors are used to help identify the specific QC samples and clarify the report.

MB - Method Blank

Method Blanks are reported to the same Method Detection Limits (MDLs) or Reporting Limits (RLs) as the analytical samples in the corresponding QC batch.

LCS/LCSD - Laboratory Control Spike / Laboratory Control Spike Duplicate

DUP - Duplicate of Original Sample Matrix

MS/MSD - Matrix Spike / Matrix Spike Duplicate

RPD - Relative Percent Difference

%Recovery - Spike Recovery stated as a percentage

1 Nitrate and/or Nitrite was detected in the sample. Sample was treated with Sulfamic Acid prior to analysis.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab Order: T110273
Project ID: RESAMPLE 2 (11/7/18)

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
T110273001	**TIGER PIT (NAOH**	SM 4500-CN C/E-99/11	WCO/14067		
T110273002	**TIGER PIT (UNPRESERVED)**	SM 4500-CN C/E-99/11	WCO/14067		

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Caltest ANALYTICAL LABORATORY

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SAMPLE CHAIN OF CUSTODY

PAGE 1 OF 1

PROJECT NAME / PROJECT NUMBER: Resample 2 (11/7/18)

P.O. NUMBER:

LAB ORDER # T11027.3

CLIENT: PG&E Gateway Generation Station

REPORT ATTN: Angel Espiritu / email: abey@pge.com

MAILING ADDRESS: 3225 Wiber Ave.

STATE: CA

ZIP: 94509

BILLING ADDRESS: (Same)

ATTN:

PHONE NUMBER: (925) 522-7838

FAX PHONE NUMBER:

SAMPLER (PRINT & SIGN NAME): Muskan Environmental Sampling

TURN-AROUND TIME: ☐ STANDARD ☒ RUSH

DUE DATE:

CALTEST LAB #	DATE SAMPLED	TIME SAMPLED	SAMPLE MATRIX*	CONTAINER TYPE/ AMOUNT**	PRESERVATIVE	SAMPLE IDENTIFICATION / SITE	CLIENT LAB #	COMP. or GRAB	ANALYSES REQUESTED: Cyanide (total): preferred with sodium thiosulfate preservative by SM 4500 CN- A&E	REMARKS
1	11/7/18	08:06	AQ waste water	500 ml poly	NaOH	Tiger Pit		Grab	X	samples sent on ICE
2	11/7/18	08:06	AQ waste water	500 ml poly	None preserved	Tiger Pit		Grab	X	

RUSH

RELINQUISHED BY	DATE/TIME	RECEIVED BY	RELINQUISHED BY	DATE/TIME	RECEIVED BY
	11/7/18 08:47			11/7/18 0958	

FOR LAB USE ONLY

Samples: WC X MICRO ___ BIO ___ AA ___ SV ___ VOA ___ pH? Y/N TEMP: 2.4 SEALED: O Y/N INTACT: O Y/N

BD: BIO ___ WC ___ AA ___

CC: AA ___ SV ___ VOA ___

SIL: HP ___ PT ___ QT ___ VOA ___

W/HNO_3 ___ H_2SO_4 ___ NaOH ___

PIL: HNO_3 ___ H_2SO_4 ___ NaOH ___ HCL ___

COMMENTS:

*MATRIX: AQ = Aqueous Nondrinking Water, Digested Metals; FE = Low R.L.s, Aqueous Nondrinking Water, Digested Metals; DW = Drinking Water; SL = Soil Sludge, Solid ; FP = Free Product

**CONTAINER TYPES: AL = Amber Liter; AHL = 500 ml Amber; PT = Pint (Plastic); QT = Quart (Plastic); HG = Half Gallon (Plastic); SJ = Soil Jar; B4 = 4oz. BACT; BT = Brass Tube; VOA = 40mL VOA; OTC - Other Type Container

R ___ PR ___ M ___ F ___

10/29/18

WHITE - LABORATORY YELLOW - CLIENT COPY TO ACCOMPANY FINAL REPORT PINK - CLIENT COPY AS RECEIPT

ENTHALPY

ANALYTICAL