

DOCKETED

Docket Number:	08-AFC-03C
Project Title:	Marsh Landing Generating Station Compliance
TN #:	242515-9
Document Title:	2021 CEC Annual Compliance Report Part 7
Description:	Annual Compliance Operations Report
Filer:	David Frandsen
Organization:	NRG
Submitter Role:	Applicant
Submission Date:	3/31/2022 12:36:45 PM
Docketed Date:	4/1/2022



McC Campbell 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.mcccampbell.com / E-mail: main@mcccampbell.com

WORK ORDER SUMMARY

Client Name: NRG ENERGY, LLC
Client Contact: David Frandsen
Contact's Email: David.Frandsen@nrg.com

Project: Marsh Landing; DDSD; Annual

Work Order: 2102378

QC Level:

Date Logged: 2/8/2021

Comments: Use QUOTE 192976 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQUIS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	SubOut
001A	FAC Combined Wastewater	Water	SM4500S2D (Total Sulfide)	1	250mL HDPE w/ NaOH+ZnAc	☐	☐	2/5/2021 14:00	5 days	2/12/2021	None	☐	
001B	FAC Combined Wastewater	Water	E300.1 (Inorganic Anions) <Sulfate>	1	125mL HDPE, unprsv.	☐	☐	2/5/2021 14:00	5 days	2/12/2021	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.

Chain of Custody

Page 1 of 1-Annual

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

2102370

SAMPLES SUBMITTED TO						SEND INVOICE TO		PROJECT				ANALYSIS REQUEST				
Laboratory: McCampbell Analytical, Inc. Attention: Address: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Phone/Fax: 925.252.9262/ 925.252.9269						Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@cleanenergy.com P.O. No.: 4501905749		Plant: Marsh Landing Title: DDSD Phase: Annual Manager: David Frandsen								
SAMPLE INFORMATION							CONTAINER INFORMATION									
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.	Sulfide (E376.2)	Sulfate (E300.1)			
ML-21-030	5-Feb-21	1400	DDSD	Annual	Wastewater	Grab	FAC Combined Wastewater	1	HDPE Bottle	250	NaOH & ZnAc (ZHS, 4°C)	X	X			
ML-21-031	5-Feb-21	1400	DDSD	Annual	Wastewater	Grab	FAC Combined Wastewater	1	HDPE Bottle	250	Unpreserved (4°C)	X	X			
HOLDING TIME:												7 days	28 days			
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com E-mail CC: joe.moura@nrg.com			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION					DIRECTIONS FOR LABORATORY STANDARD TAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.								
PRINTED NAME			SIGNATURE			COMPANY			DATE			TIME				
Sampled by: James E Robinson			<i>James E. Robinson</i>			Marsh Landing LLC			5-Feb-21			1400				
Relinquished by: James E Robinson			<i>James E. Robinson</i>			Marsh Landing LLC			5-Feb-21			17:02				
Received by: <i>Lilly Ortiz</i>			<i>Lilly Ortiz</i>			McCampbell Analytical, Inc			5-Feb-21			17:02				
Relinquished by:																
Received by:																
Relinquished by:																
Received by:																

3.6 net



Sample Receipt Checklist

Client Name: **NRG Energy, LLC**
Project: **Marsh Landing; DDSD; Annual**

Date and Time Received: **2/5/2021 17:02**

Date Logged: **2/8/2021**

Received by: **Lilly Ortiz**

Logged by: **Tina Perez**

WorkOrder №: **2102378** Matrix: Water

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: 3.6°C		NA ☐
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	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:



CALtrol INC.
1385 PAMA LANE #111
LAS VEGAS, NV. 89119
PHONE: (877) 827-8131



Instrument Calibration Report

Attn: David Frandsen
3201-C Wilbur Ave
Antioch, Ca 94509

Magnetic Flow Meter

Tag/Instrument ID **FT-950002**
Description **Mag-Meter**
Manufacturer **Rosemount**

Calibrated Range **0 TO 80 Gal/m**
Serial Number **0337659**
Model Number **8732E**

Plant / Unit **NRG**
System
Location **Nest to admin building**

Calibration Type **SCHEDULED**
Calibrated **07-Jan-21**
Scheduled **07-Jan-22**

MagMeter Calibration

Stated Accuracy: % of Analog Output

Required Accuracy⁽¹⁾: 0.50%

In Val	In Units	Out Val	Out Units	As Found	Error %	As Left	Error %
0.00	Gal/m	4.00	mA	3.99	-0.06%	4.00	0.00%
3.00	Gal/m	5.60	mA	5.55	-0.31%	5.60	0.00%
10.00	Gal/m	9.33	mA	9.28	-0.31%	9.33	0.00%
30.00	Gal/m	20.00	mA	19.94	-0.37%	19.99	-0.06%
10.00	Gal/m	9.33	mA	9.28	-0.31%	9.33	0.00%
3.00	Gal/m	5.60	mA	5.55	-0.31%	5.60	0.00%
0.00	Gal/m	4.00	mA	3.99	-0.06%	4.00	0.00%

Calibration Parameter Changes

Customer Settings

Calibration Settings

☒ All Settings returned to customer's Configuration

Meter Tube Cal #: 926105209236005
Units of Measure: Gal/M
Lower Range Value: 0
Upper Range Value: 80
Coil Pulse Mode: 37 Hz

1000015010000000
Ft/S
0
30
5 Hz

Test Instruments Used During Calibration

Description	Manufacturer	Model Number	Serial Number	NIST Cert. Number
Hart Communicator	Emerson	TREX		
Flow Simulator	Rosemount	8714D		

Notes about this calibration

1) CALIBRATED AND RECHECKS GOOD.

QC Checklist: **N/A** Isolation valves
N/A Filled legs
X All wires relanded (If removed)
X Verify data (model, tag, serial, mfg)

Calibration Result: **PASS**
Calibrated by: **Matt Nixon**

Checkout By:

Quality Management System
Certified by DNV
=====ISO 9001:2008=====

CALIBRATION DUE: **07-Jan-22**
FT-950002

RECEIVED BY
DELTA DIABLO

JUL 08 2021

Industrial User Report Checklist And Certification Statement Form

Attn: Environmental Compliance Specialist	Jason Yun		
Environmental Specialist Phone	(925) 756-1913	Fax	(925) 756-1961
Industrial User Facility Name	Marsh Landing LLC		
Duly Authorized Representative Name	Joe Moura		
Duly Authorized Representative Phone	925-779-6685		

This Industrial User Report Checklist and Certification Statement Form shall be submitted with all Self-Monitoring Reports (SMRs), as specified by the Wastewater Discharge Permit issued by Delta Diablo, hereinafter referred to as the District. When submitting Self-Monitoring Reports, check all that are applicable.

Self-Monitoring Reports (SMRs) (Required)

☒ Flow Discharge Summary (Review Discharge Permit.)

☐ Calibration of Effluent Flow Meters; if applicable.

☒ **Monitoring Results – all required tests completed, results reviewed, results included**

Quality Assurance/Quality Control (QA/QC) and Chain-of-Custody (COC) (Review Discharge Permit):

☒ **pH (field-grab) (shall be analyzed within 15 minutes of sample collection).**

Results, collection time, analysis time and Technician's Initials shall be reported in the comments section of the respective COC. The pH meter shall be accurate and reproducible to 0.1 pH unit with a range of 0 to 14 and equipped with a temperature-compensation adjustment (Standard methods).

☐ Cyanide samples were tested for oxidizers and preserved with Sodium Hydroxide (NaOH).

This shall be reported in the comments section on the respective COC, if applicable.

☒ Selenium lab analysis by EPA Method 200.8 by Reaction Mode: if applicable.

☐ Total Phenolics lab analysis by EPA Method 420.4: if applicable.

☒ **All sample analysis for regulatory compliance reporting shall be completed by an ELAP certified Laboratory.**

☒ Certification Statement included (see attached)

☐ Other requested data _____



Industrial User Report Checklist And Certification Statement Form

Violations (if applicable)

- ☐ All wastewater discharge violations are reported during this period:
- ☐ The District was contacted within 24- hours of becoming aware of the violation.
Date: _____
- ☐ A follow-up resample was completed. Date: _____
- ☐ Corrective actions implemented to resolve violation (Please explain in writing)

☐ Significant Non-Compliance (SNC) Status Review

Please circle the review period *: **January – June** and **July -December**.

The SIU shall conduct a SNC review for the previous completed period * prior to the Self-monitoring Report (SMR) due date. Examples: A October SMR due date, the SNC review period is **January – June** or an April SMR due date, the SNC review period is **July – December**.

The SNC definition can be found in 40 CFR 403.8.

- a) Chronic SNC= >66% of a regulated parameter in violation during six-month Period *.
- b) Technical Review Criteria (TRC) SNC = >33% of a regulated pollutant during a six-month period* equals or exceeds the product of the daily maximum limit or the average limit multiplied by the applicable TRC factor (1.4 for BOD, TSS and Oil/Grease and 1.2 for all other regulated pollutants except pH).

☐ Is the SIU in SNC (as defined in a and/or b) for this period*? Yes ☐, No ☐; If yes, for what period? _____. Please report the SNC status to the District in the SMR and include corrective actions to resolve the SNC classification.

☐ Other violations – i.e., reporting, spills to sewer, or prohibited discharges

All violations will be discussed in the cover letter of the Self-Monitoring Report.

☐ Significant Changes

Anticipated changes that may alter the nature, quality, or volume of the wastewater discharged. Planned changes shall be submitted at least 90 days prior to implementation, and shall include a detailed description of this change.



Industrial User Report Checklist And Certification Statement Form

Certification Statement

Industrial User Facility Name	Marsh Landing LLC
Industrial User Facility Address	3201-C Wilbur Avenue, Antioch, CA 94509
Duly Authorized Representative Phone	925-779-6685
Indicate Period Covered by This Report	April 1-June 30, 2021

Certification Statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (40 CFR 403.6).

Duly Authorized Representative Signature	
Duly Authorized Representative Print	Joe Moura
Date	7/8/2021



Marsh Landing LLC
Marsh Landing Generating Station
3201-C Wilbur Avenue (shipping)
PO Box 1687 (mailing)
Antioch, CA 94509

July 8, 2021

Mr. Jason Yun
Delta Diablo
2500 Pittsburg-Antioch Highway
Antioch, CA 94509-1373

**Subject: 2021 Second Quarterly (April 1-June 30) Self-Monitoring Report
Marsh Landing LLC, Marsh Landing Generating Station,
Industrial Wastewater Discharge Permit 0311963-S**

This letter documents the transmittal of the 2021 Second Quarterly Self-Monitoring Report (SMR).

Compliance Statement (choose one):

- ☒ There were no violations of waste discharge requirements during the reporting period.
- ☐ The following violation(s) of waste discharge requirements occurred during the reporting period, as described below:

Discussion:

This report is the SMR filed for the station and covers the period from April 1 through June 30, 2021. This report includes monthly flow data and quarterly analytical data required to be collected in 2021. Semiannual analytical data was submitted with the first quarterly report for 2021. Data are summarized in the attached tables.

It should be noted that a Special Discharge Permit (#SDP-0618-1206) was obtained from Delta Diablo for the period of June 18 – June 30, 2021 which allowed for an increased flow rate of 34 gpm which when added to our current permit (0311963-S0) of 21 gpm allowed for a total discharge flow rate of 55 GPM with a daily total discharge of 79,200 Gallons per day.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please contact Mr. David Frandsen, Environmental Specialist at David.Frandsen@nrg.com or call 925.779.6695.

Sincerely,



Joe Moura
Plant Manager
Marsh Landing LLC
Marsh Landing Generating Station

Attachments

Table 1:	Quarterly Analytical Results for Combined Wastewater (FAC Combined)
Table 2:	April 2021 Monthly Flow Data
Table 3:	May 2021 Monthly Flow Data
Table 4:	June 2021 Monthly Flow Data

Attachment 1:	pH COC
Attachment 2:	Analytical Reports

Table 1
Quarterly Results for Combined Wastewater (FAC Combined)

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509

Sample Station Location	FAC Combined
Sample Station Description	Local Limits FAC Combined Wastewater
Reporting Period	April - June 2021
Report Type	Quarterly

Constituent	Sample Date	Permit Limit	Result	Units
Field pH	5/11/2021	6-10	7.9	S.U.
BOD	5/11/2021	-	11	mg/L
COD	5/11/2021	-	29	mg/L
Arsenic	5/11/2021	0.15	0.00075	mg/L
Cadmium	5/11/2021	0.1	ND	mg/L
Chromium	5/11/2021	0.5	0.00050	mg/L
Copper	5/11/2021	0.5	0.0130	mg/L
Iron	5/11/2021	-	0.18	mg/L
Lead	5/11/2021	0.5	ND	mg/L
Mercury	5/11/2021	0.003	ND	mg/L
Molybdenum	5/11/2021	-	0.0025	mg/L
Nickel	5/11/2021	0.5	0.0040	mg/L
Selenium	5/11/2021	0.25	ND	mg/L
Silver	5/11/2021	0.2	ND	mg/L
Zinc	5/11/2021	1.0	0.041	mg/L
TDS	5/11/2021	-	438	mg/L
TSS	5/11/2021	-	17.6	mg/L

J = The reported concentration is an estimated value.

mg/L = Milligrams per liter

ND = Not detected at or above the laboratory Method Detection Limit or Reporting Limit.

S.U. = Standard units

Table 2
Monthly Flow Data

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	April-21
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	4/1/2021 - 4/30/2021
Permit Limits (s.u.)	NTE 30,240 gpd. NTE 21 gpm +10% (23.1 gpm) for 15 consecutive minutes or 30 minutes in a 24-hour period

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 23.1 gpm
1	7,392	19.60	
2	6,857	20.39	
3	411	16.57	
4	3,948	19.81	
5	4,891	20.56	
6	0	0.00	
7	0	0.00	
8	4,379	19.61	
9	0	0.00	
10	4,417	20.67	
11	0	0.00	
12	6,495	19.58	
13	0	0.00	
14	0	0.00	
15	5,977	20.27	
16	5,957	19.67	
17	2,418	19.55	
18	0	0.00	
19	4,290	18.98	
20	17,395	20.18	
21	6,073	19.60	
22	5,198	19.59	
23	1,977	20.67	
24	7,459	21.22	
25	0	0.00	
26	3,439	19.60	
27	8,372	19.57	
28	0	0.00	
29	0	0.00	
30	0	0.00	

Total Monthly Flow (gal)	107,345	Did flow exceed limits?	NO
Daily Max Flow (gpd)	17,395	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	3,578		

Table 3
Monthly Flow Data

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	May-20
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	5/1/2021 - 5/31/2021
Permit Limits (s.u.)	NTE 30,240 gpd. NTE 21 gpm +10% (23.1 gpm) for 15 consecutive minutes or 30 minutes in a 24-hour period

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 23.1 gpm
1	592	24.25	1
2	0	0.00	
3	10,616	19.80	
4	18,914	19.61	
5	0	0.00	
6	0	0.00	
7	0	0.00	
8	0	0.00	
9	0	0.00	
10	10,490	25.12	1
11	16,682	19.65	
12	12,843	20.42	
13	0	0.00	
14	11,875	19.58	
15	7,646	20.48	
16	0	0.00	
17	9,452	19.61	
18	26,091	19.58	
19	3,366	19.76	
20	11,642	19.63	
21	10,153	20.58	
22	7,818	19.58	
23	0	0.00	
24	3,113	16.95	
25	16,976	19.69	
26	2,656	20.06	
27	11,663	19.61	
28	4,849	19.67	
29	7,058	19.62	
30	366	15.77	
31	4,940	19.73	

Total Monthly Flow (gal)	209,802	Did flow exceed limits?	NO
Daily Max Flow (gpd)	26,091	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	6,768		

Table 4
Monthly Flow Data

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	June-20
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	6/1/2021 - 6/30/2021
Permit Limits (s.u.)	NTE 30,240 gpd. NTE 21 gpm +10% (23.1 gpm) for 15 consecutive minutes or 30 minutes in a 24-hour period

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 23.1 gpm
1	17,128	19.58	
2	26,917	25.67	1
3	22,499	25.40	2
4	799	19.56	
5	409	16.04	
6	4,136	19.77	
7	5,530	19.63	
8	0	0.00	
9	5,302	19.63	
10	0	0.00	
11	4,467	20.59	
12	0	0.00	
13	0	0.00	
14	7,667	19.62	
15	18,730	19.60	
16	19,707	19.64	
17	28,037	19.68	
18	29,914	51.84	* 55 gpm = 0
19	68,456	53.25	* 55 gpm = 0
20	71,752	52.52	* 55 gpm = 0
21	6,016	38.30	* 55 gpm = 0
22	14,711	29.32	* 55 gpm = 0
23	0	0.00	* 55 gpm = 0
24	7,696	36.87	* 55 gpm = 0
25	6,693	28.29	* 55 gpm = 0
26	0	0.00	* 55 gpm = 0
27	10,717	37.81	* 55 gpm = 0
28	24,850	51.17	* 55 gpm = 0
29	64,082	51.15	* 55 gpm = 0
30	32,821	50.07	* 55 gpm = 0

* - Permit Flows from June 18 - June 30 were increased with a Special Discharge Permit to 55 GPM with a total daily flow of 79,200 gallons per day.

Total Monthly Flow (gal)	499,036	Did flow exceed limits?	NO
Daily Max Flow (gpd)	71,752	Flow above daily max (30,240 gpd)?	NO
Average Monthly Flow (gpd)	16,635		

Marsh Landing Generating Station

Reported to:
Environmental Engineer

NPDES Monthly Analytical Report

Sample Point	Sample Number	Sample Date (m/d/y)	Sample Collection Time	Date Analyzed (m/d/y)	pH Analysis Time	Sample Medium	Sample Type (Grab)	pH
Method:								SM
Unit:								4500-H+B standard
Reporting Limit:								0.18
Method Detection Limit:								0.06
FAC Combined Waste Water	ML-21-046	5/11/21	1500	5/11/21	1500	Wastewater	Grab	7.9

SM = Standard Method; ppm = parts per million; mg/L = milligrams per liter; N/A = not applicable

Environmental Engineer

David Frandsen

Signature:

David Frandsen

Date:

May 16, 2021

Sampling Technologist: James E Robinson

Signature:

James E. Robinson

Date:

11-May-21



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2105592

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen

Project P.O.: 4501905749

Project: Marsh Landing DDSD Quarterly

Project Received: 05/11/2021

Analytical Report reviewed & approved for release on 05/18/2021 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: Marsh Landing DDSD Quarterly
WorkOrder: 2105592

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
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
LQL	Lowest Quantitation Level
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
PDS D	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)



McC Campbell 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.mcccampbell.com> / E-mail: main@mcccampbell.com

Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: Marsh Landing DDSD Quarterly
WorkOrder: 2105592

Analytical Qualifiers

j1 See attached narrative



Case Narrative

Client: NRG Energy, LLC
Project: Marsh Landing DDSD Quarterly

Work Order: 2105592
May 18, 2021

EPA method 200.8: Metals

Our standard ICP-MS analytical procedure is to analyze selenium using a Hydrogen reaction and/or Helium collision mode.



Analytical Report

Client: NRG Energy, LLC

Date Received: 05/11/2021 16:55

Date Prepared: 05/12/2021

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

Extraction Method: SM5210B

Analytical Method: SM5210 B-2001

Unit: mg/L

Biochemical Oxygen Demand (BOD)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2105592-001B	Water	05/11/2021 15:00	WetChem	221384

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
BOD	11	8.0	8.0	2	05/17/2021 20:09

Analyst(s): HAD



Analytical Report

Client: NRG Energy, LLC

Date Received: 05/11/2021 16:55

Date Prepared: 05/14/2021

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

Extraction Method: SM5220 D-1997

Analytical Method: SM5220 D-1997

Unit: mg/L

Chemical Oxygen Demand (COD) as mg O₂ /L

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2105592-001A	Water	05/11/2021 15:00	SPECTROPHOTOMETER	221552

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
COD	29	7.2	10	1	05/14/2021 17:51

Analyst(s): NYG



Analytical Report

Client: NRG Energy, LLC
Date Received: 05/11/2021 16:55
Date Prepared: 05/12/2021
Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592
Extraction Method: E200.8
Analytical Method: E200.8
Unit: mg/L

Metals

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2105592-001E	Water	05/11/2021 15:00	ICP-MS5 228SMPL.d	221316

Analytes	Result	MDL	RL	DF	Date Analyzed
Arsenic	0.00075	0.00010	0.00050	1	05/14/2021 15:25
Cadmium	ND	0.00024	0.00050	1	05/14/2021 15:25
Chromium	0.00050	0.00035	0.00050	1	05/14/2021 15:25
Copper	0.013	0.00066	0.0015	1	05/14/2021 15:25
Iron	0.18	0.037	0.10	1	05/14/2021 15:25
Lead	ND	0.00027	0.00050	1	05/14/2021 15:25
Mercury	ND	0.000047	0.000050	1	05/14/2021 15:25
Molybdenum	0.0025	0.00018	0.00050	1	05/14/2021 15:25
Nickel	0.0040	0.00027	0.00050	1	05/14/2021 15:25
Selenium	ND	0.00017	0.00050	1	05/14/2021 15:25
Silver	ND	0.00026	0.00050	1	05/14/2021 15:25
Zinc	0.041	0.014	0.020	1	05/14/2021 15:25

Surrogates	REC (%)	Limits	
Terbium	108	70-130	05/14/2021 15:25

Analyst(s): AL **Analytical Comments:** j1



Analytical Report

Client: NRG Energy, LLC

Date Received: 05/11/2021 16:55

Date Prepared: 05/14/2021

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

Extraction Method: SM2540 C-1997

Analytical Method: SM2540 C-1997

Unit: mg/L

Total Dissolved Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2105592-001C	Water	05/11/2021 15:00	WetChem	221540

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Dissolved Solids	438	10.0	10.0	1	05/17/2021 12:58

Analyst(s): NYG



Analytical Report

Client: NRG Energy, LLC

Date Received: 05/11/2021 16:55

Date Prepared: 05/13/2021

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

Extraction Method: SM2540 D-1997

Analytical Method: SM2540 D-1997

Unit: mg/L

Total Suspended Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2105592-001D	Water	05/11/2021 15:00	WetChem	221428

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Total Suspended Solids	17.6	2.00	2.00	2	05/13/2021 14:20

Analyst(s): HAD



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 05/12/2021

Date Analyzed: 05/17/2021

Instrument: WetChem

Matrix: Water

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

BatchID: 221384

Extraction Method: SM5210B

Analytical Method: SM5210 B-2001

Unit: mg/L

Sample ID: MB/LCS/LCSD-221384

QC Summary Report for BOD

Analyte	MB Result	MDL	RL			
BOD	ND	4.00	4.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
BOD	200	212	198	101	107	80-120	5.34	16



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 05/14/2021

Date Analyzed: 05/14/2021

Instrument: SPECTROPHOTOMETER

Matrix: Water

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

BatchID: 221552

Extraction Method: SM5220 D-1997

Analytical Method: SM5220 D-1997

Unit: mg/L

Sample ID: MB/LCS/LCSD-221552

QC Summary Report for COD

Analyte	MB Result	MDL	RL			
COD	ND	7.20	10.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
COD	97.0	107	100	97	107	90-110	9.80	20



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 05/12/2021

Date Analyzed: 05/12/2021 - 05/13/2021

Instrument: ICP-MS2

Matrix: Water

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

BatchID: 221316

Extraction Method: E200.8

Analytical Method: E200.8

Unit: µg/L

Sample ID: MB/LCS/LCSD-221316

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Arsenic	ND	0.100	0.500	-	-	-
Cadmium	ND	0.240	0.500	-	-	-
Chromium	ND	0.350	0.500	-	-	-
Copper	ND	0.660	1.50	-	-	-
Iron	ND	37.0	100	-	-	-
Lead	ND	0.270	0.500	-	-	-
Mercury	ND	0.0470	0.0500	-	-	-
Molybdenum	ND	0.180	0.500	-	-	-
Nickel	ND	0.270	0.500	-	-	-
Selenium	ND	0.170	0.500	-	-	-
Silver	ND	0.260	0.500	-	-	-
Zinc	ND	14.0	20.0	-	-	-

Surrogate Recovery

Terbium	511	500	102	70-130
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Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Arsenic	53.1	53.8	50	106	108	85-115	1.20	20
Cadmium	50.5	51.5	50	101	103	85-115	1.90	20
Chromium	50.5	50.6	50	101	101	85-115	0.297	20
Copper	51.8	52.0	50	104	104	85-115	0.481	20
Iron	5020	5060	5000	100	101	85-115	0.754	20
Lead	49.0	49.6	50	98	99	85-115	1.24	20
Mercury	1.22	1.22	1.25	98	98	85-115	0.164	20
Molybdenum	50.5	51.2	50	101	102	85-115	1.44	20
Nickel	52.2	52.4	50	104	105	85-115	0.459	20
Selenium	52.5	53.3	50	105	107	85-115	1.51	20
Silver	49.2	50.1	50	98	100	85-115	1.81	20
Zinc	524	528	500	105	106	85-115	0.760	20

Surrogate Recovery

Terbium	520	525	500	104	105	70-130	1.02	20
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Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 05/14/2021

Date Analyzed: 05/17/2021

Instrument: WetChem

Matrix: Water

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

BatchID: 221540

Extraction Method: SM2540 C-1997

Analytical Method: SM2540 C-1997

Unit: mg/L

Sample ID: MB/LCS/LCSD-221540

QC Summary Report for Total Dissolved Solids

Analyte	MB Result	MDL	RL			
Total Dissolved Solids	ND	10.0	10.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Dissolved Solids	964	984	1000	96	98	80-120	2.05	10



Quality Control Report

Client: NRG Energy, LLC

Date Prepared: 05/13/2021

Date Analyzed: 05/13/2021

Instrument: WetChem

Matrix: Water

Project: Marsh Landing DDSD Quarterly

WorkOrder: 2105592

BatchID: 221428

Extraction Method: SM2540 D-1997

Analytical Method: SM2540 D-1997

Unit: mg/L

Sample ID: MB/LCS/LCSD-221428

QC Summary Report for Total Suspended Solids

Analyte	MB Result	MDL	RL			
Total Suspended Solids	ND	1.00	1.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Suspended Solids	110	107	100	110	107	80-120	2.76	10



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 2105592

ClientCode: GOA

QuoteID: 203270

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

Report to:

David Frandsen
NRG Energy, LLC
3201 Wilbur Avenue
Antioch, CA 94509
(925) 427-3479 FAX: (925) 779-6679

Email: David.Frandsen@nrg.com
cc/3rd Party: joe.moura@nrg.com; james.robinson@nrg.
PO: 4501905749
Project: Marsh Landing DDSD Quarterly

Bill to:

Accounts Payable
NRG
4900 N. Scottsdale Road, Ste. 5000
Scottsdale, AZ 85251
invoices@clearwayenergy.coupa.com

Requested TATs: **5 days;
7 days;**

Date Received: 05/11/2021

Date Logged: 05/11/2021

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
2105592-001	FAC Combined Wastewater	Water	5/11/2021 15:00	☐	B	A	E	A	C	D						

Test Legend:

1	BOD_W
5	TDS_W
9	

2	COD_W
6	TSS_W
10	

3	METALSMS_TTLC_W
7	
11	

4	PRDisposal Fee
8	
12	

Project Manager: Angela Rydelius

Prepared by: Valerie Alfaro

Comments: Use QUOTE 192976 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

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

WORK ORDER SUMMARY

Client Name: NRG ENERGY, LLC
Client Contact: David Frandsen
Contact's Email: David.Frandsen@nrg.com

Project: Marsh Landing DDSD Quarterly

Work Order: 2105592

QC Level:

Date Logged: 5/11/2021

Comments Use QUOTE 192976 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

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

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	SubOut
001A	FAC Combined Wastewater	Water	SM5220D (COD)	2	aVOA w/ H2SO4	☐	☐	5/11/2021 15:00	5 days	5/18/2021	Present	☐	
001B	FAC Combined Wastewater	Water	SM5210B (BOD)	1	500mL HDPE, unprsv.	☐	☐	5/11/2021 15:00	7 days	5/20/2021	Present	☐	
001C	FAC Combined Wastewater	Water	SM2540C (TDS)	1	500mL HDPE, unprsv.	☐	☐	5/11/2021 15:00	5 days	5/18/2021	Present	☐	
001D	FAC Combined Wastewater	Water	SM2540D (TSS)	1	1L HDPE, unprsv.	☐	☐	5/11/2021 15:00	5 days	5/18/2021	Present	☐	
001E	FAC Combined Wastewater	Water	E200.8 (Metals) <Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Zinc>	1	250mL HDPE w/ HNO3	☐	☐	5/11/2021 15:00	5 days	5/18/2021	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.

2105592

Chain of Custody

Page 1 of 2-Quarterly

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO				SEND INVOICE TO		PROJECT		ANALYSIS REQUEST							
Laboratory: McCampbell Analytical, Inc. ELAP Cert. No. 1644 Address: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Phone/Fax: 925.252.9262/ 925.252.9269				Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@cleanenergy.com P.O. No.: 4501905749		Plant: Marsh Landing Title: DDSD Phase: Quarterly Manager: David Frandsen		COD (SM 5220D) BOD (SM 5210B) TDS (SM 2540B) TSS (SM 2540D)							
SAMPLE INFORMATION								CONTAINER INFORMATION							
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.	COD (SM 5220D)	BOD (SM 5210B)	TDS (SM 2540B)	TSS (SM 2540D)
ML-21-040	11-May-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	2	Amber VOAs	43	H ₂ SO ₄ (pH<2, 4°C)	X			
ML-21-041	11-May-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	1,000	None (ZHS, 4°C)		X		
ML-21-042	11-May-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	500	None (4°C)			X	
ML-21-043	11-May-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	Poly	1,000	None				X
HOLDING TIME:												28 days	48 hours	7 days	7 days
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com E-mail CC: joe.moura@nrg.com			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION				DIRECTIONS FOR LABORATORY STANDARDTAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.								
PRINTED NAME			SIGNATURE			COMPANY		DATE		TIME					
Sampled by: James E Robinson.			<i>James E. Robinson</i>			NRG		11-May-21		1500					
Relinquished by: James E Robinson.			<i>James E. Robinson</i>			NRG		11-May-21		1655					
Received by: <i>Adrianna Cardoza</i>			<i>Adrianna Cardoza</i>			NRG		11-May-21		1655					
Relinquished by:								5-11-21							
Received by:															
Relinquished by:															
Received by:															

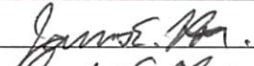
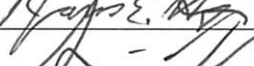
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2105592

Chain of Custody

Page 2 of 2-Quarterly

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO				SEND INVOICE TO				PROJECT				ANALYSIS REQUEST			
Laboratory: McCampbell Analytical, Inc. ELAP Cert. No. 1644 Address: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Phone/Fax: 925.252.9262/ 925.252.9269				Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@cleanenergyinc.com P.O. No.: 4501905749				Plant: Marsh Landing Title: DDSD Phase: Quarterly Manager: David Frandsen				Total Metals¹ (EPA Method 200.8)			
SAMPLE INFORMATION								CONTAINER INFORMATION							
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.				
ML-21-044	11-May-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	250	HNO3 (pH<2)	X			
HOLDING TIME: 28 days															
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com joe.moura@nrg.com				LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION				DIRECTIONS FOR LABORATORY STANDARD TAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. 1. Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Nickel, Molybdenum, Selenium (reaction mode), Silver, Zinc RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.							
PRINTED NAME		SIGNATURE		COMPANY		DATE		TIME							
Sampled by: James E Robinson.				NRG		11-May-21		1500							
Relinquished by: James E Robinson.				NRG		11-May-21		1655							
Received by: Adrienne Caldeira				NRG		11-May-21 5-11-21		1655							
Relinquished by:															
Received by:															
Relinquished by:															
Received by:															



Sample Receipt Checklist

Client Name: **NRG Energy, LLC**
Project: **Marsh Landing DDS Quarterly**

Date and Time Received: **5/11/2021 16:55**
Date Logged: **5/11/2021**
Received by: **Adrianna Cardoza**
Logged by: **Valerie Alfaro**

WorkOrder No: **2105592** Matrix: Water
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 ☒
Custody seals intact on sample bottles?	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: 1.4°C	NA ☐
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	Yes ☐ No ☐	NA ☒
Sample labels checked for correct preservation?	Yes ☒ No ☐	
pH acceptable upon receipt (Metal: <2; Nitrate 353.2/4500NO ₃ : <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



Industrial User Report Checklist And Certification Statement Form

Attn: Environmental Compliance Specialist	Jason Yun		
Environmental Specialist Phone	(925) 756-1913	Fax	(925) 756-1961
Industrial User Facility Name	Marsh Landing LLC		
Duly Authorized Representative Name	Joe Moura		
Duly Authorized Representative Phone	925-779-6685		

This Industrial User Report Checklist and Certification Statement Form shall be submitted with all Self-Monitoring Reports (SMRs), as specified by the Wastewater Discharge Permit issued by Delta Diablo, hereinafter referred to as the District. When submitting Self-Monitoring Reports, check all that are applicable.

Self-Monitoring Reports (SMRs) (Required)

☒ Flow Discharge Summary (Review Discharge Permit.)

☐ Calibration of Effluent Flow Meters; if applicable.

☒ Monitoring Results – all required tests completed, results reviewed, results included

Quality Assurance/Quality Control (QA/QC) and Chain-of-Custody (COC) (Review Discharge Permit):

☒ pH (**field-grab**) (shall be **analyzed within 15 minutes of sample collection**).

Results, collection time, analysis time and Technician's Initials shall be reported in the comments section of the respective COC. The pH meter shall be accurate and reproducible to 0.1 pH unit with a range of 0 to 14 and equipped with a temperature-compensation adjustment (Standard methods).

☒ Cyanide samples were tested for oxidizers and preserved with Sodium Hydroxide (NaOH).

This shall be reported in the comments section on the respective COC, if applicable.

☒ Selenium lab analysis by EPA Method 200.8 by Reaction Mode: if applicable.

☒ Total Phenolics lab analysis by EPA Method 420.4: if applicable.

☒ **All sample analysis for regulatory compliance reporting** shall be completed by an ELAP certified Laboratory.

☒ Certification Statement included (see attached)

☐ Other requested data _____



Industrial User Report Checklist And Certification Statement Form

Violations (if applicable)

- ☐ All wastewater discharge violations are reported during this period:
- ☐ The District was contacted within 24- hours of becoming aware of the violation. Date: _____
- ☐ A follow-up resample was completed. Date: _____
- ☐ Corrective actions implemented to resolve violation (Please explain in writing)

☐ Significant Non-Compliance (SNC) Status Review

Please circle the review period *: **January – June** and **July -December**.

The SIU shall conduct a SNC review for the previous completed period * prior to the Self-monitoring Report (SMR) due date. Examples: A October SMR due date, the SNC review period is **January – June** or an April SMR due date, the SNC review period is **July – December**.

The SNC definition can be found in 40 CFR 403.8.

- a) Chronic SNC= >66% of a regulated parameter in violation during six-month Period *.
- b) Technical Review Criteria (TRC) SNC = >33% of a regulated pollutant during a six-month period* equals or exceeds the product of the daily maximum limit or the average limit multiplied by the applicable TRC factor (1.4 for BOD, TSS and Oil/Grease and 1.2 for all other regulated pollutants except pH).

☐ Is the SIU in SNC (as defined in a and/or b) for this period*? Yes ☐, No ☐; If yes, for what period? _____. Please report the SNC status to the District in the SMR and include corrective actions to resolve the SNC classification.

☐ Other violations – i.e., reporting, spills to sewer, or prohibited discharges

All violations will be discussed in the cover letter of the Self-Monitoring Report.

☐ Significant Changes

Anticipated changes that may alter the nature, quality, or volume of the wastewater discharged. Planned changes shall be submitted at least 90 days prior to implementation, and shall include a detailed description of this change.



Industrial User Report Checklist And Certification Statement Form

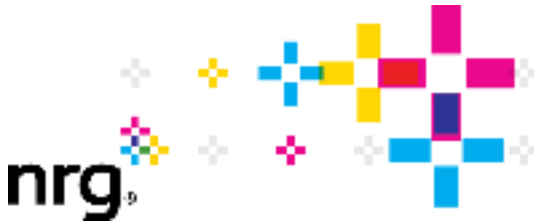
Certification Statement

Industrial User Facility Name	Marsh Landing LLC
Industrial User Facility Address	3201-C Wilbur Avenue, Antioch, CA 94509
Duly Authorized Representative Phone	925-779-6685
Indicate Period Covered by This Report	July 1-September 30, 2021

Certification Statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations (40 CFR 403.6).

Duly Authorized Representative Signature	
Duly Authorized Representative Print	Joe Moura
Date	



Marsh Landing LLC
Marsh Landing Generating Station
3201-C Wilbur Avenue (shipping)
PO Box 1687 (mailing)
Antioch, CA 94509

October 5, 2021

Mr. Jason Yun
Delta Diablo
2500 Pittsburg-Antioch Highway
Antioch, CA 94509-1373

**Subject: 2021 Third Quarterly (July 1-September 30) Self-Monitoring Report
Marsh Landing LLC, Marsh Landing Generating Station,
Industrial Wastewater Discharge Permits 0311963-S, #SDP-0701-1207**

This letter documents the transmittal of the 2021 Third Quarterly Self-Monitoring Report (SMR).

Compliance Statement (choose one):

- ☒ There were no violations of waste discharge requirements during the reporting period.
- ☐ The following violation(s) of waste discharge requirements occurred during the reporting period, as described below:

Discussion:

This report is the SMR filed for the station and covers the period from July 1 through September 30, 2021. This report includes monthly flow data and quarterly and semiannual analytical data required to be collected in 2021. Data are summarized in the attached tables.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

It should be noted that a Special Discharge Permit (#SDP-0701-1207) was obtained from Delta Diablo for the period of July 1 – October 31, 2021 which allowed for an increased flow rate of 34 gpm which when added to our current permit (0311963-S0) of 21 gpm allowed for a total discharge flow rate of 55 GPM with a daily total discharge of 79,200 Gallons per day.

If you have any questions, please contact Mr. David Frandsen, Environmental Specialist at david.frandsen@nrg.com or call 925.779.6695

Sincerely,

Joe Moura

Plant Manager
Marsh Landing LLC
Marsh Landing Generating Station

Attachments

Table 1:	Quarterly Results for Combined Wastewater (FAC Combined)
Table 2:	Semiannual Results for Combined Wastewater (FAC Combined)
Table 3:	July 2021 Monthly Flow Data
Table 4:	August 2021 Monthly Flow Data
Table 5:	September 2021 Monthly Flow Data

Attachment 1:	pH COC
Attachment 2:	Analytical Reports

Table 1
Quarterly Results for Combined Wastewater (FAC Combined)

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509

Sample Station Location	FAC Combined
Sample Station Description	Local Limits FAC Combined Wastewater
Reporting Period	July - September 2021
Report Type	Quarterly

Constituent	Sample Date	Permit Limit	Result	Units
Field pH	8/10/2021	6-10	7.5	S.U.
BOD	8/10/2021	-	9.0	mg/L
COD	8/10/2021	-	29	mg/L
Arsenic	8/10/2021	0.15	0.00090	mg/L
Cadmium	8/10/2021	0.1	ND	mg/L
Chromium	8/10/2021	0.5	0.00036 J	mg/L
Copper	8/10/2021	0.5	0.011	mg/L
Iron	8/10/2021	-	0.160	mg/L
Lead	8/10/2021	0.5	ND	mg/L
Mercury	8/10/2021	0.003	ND	mg/L
Molybdenum	8/10/2021	-	0.0023	mg/L
Nickel	8/10/2021	0.5	0.0032	mg/L
Selenium	8/10/2021	0.25	ND	mg/L
Silver	8/10/2021	0.2	ND	mg/L
Zinc	8/10/2021	1.0	0.025	mg/L
TDS	8/10/2021	-	604	mg/L
TSS	8/10/2021	-	6.80	mg/L

mg/L = Milligrams per liter

ND = Not detected at or above the laboratory Method Detection Limit or Reporting Limit.

J = Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimate.

Table 2
Semiannual Results for Combined Wastewater (FAC Combined)

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509

Sample Station Location	FAC Combined
Sample Station Description	Local Limits FAC Combined Wastewater
Reporting Period	July - September 2021
Report Type	Semiannual

Constituent	Sample Date	Permit Limit	Result	Units
Cyanide	8/10/2021	0.20	ND	mg/L
Total Phenolics (EPA 420.4)	8/10/2021	1.0	0.0025	mg/L
Ammonia as N	8/10/2021	200	4.9	mg/L
Oil and Grease Animal/Vegetable (HEM)	8/10/2021	300	51	mg/L
Oil and Grease Petroleum/Mineral (SGT-HEM)	8/10/2021	100	23	mg/L
<u>TOXIC ORGANICS</u>				
Bromodichloromethane	8/10/2021	-	0.0049	mg/L
Bromoform	8/10/2021	-	0.0027	mg/L
Chloroform	8/10/2021	-	0.0014	mg/L
Dibromochloromethane	8/10/2021	-	0.0075	mg/L
<u>TOTAL TOXIC ORGANICS</u>	8/10/2021	2.0	0.0165	mg/L

mg/L = Milligrams per liter

ND = Not detected at or above the laboratory Method Detection Limit or Reporting Limit.

Table 3
Monthly Flow Data

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	Jul-21
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	7/1/2021 - 7/31/2021
Permit Limits (s.u.)	NTE 79,200 gpd. NTE 55 gpm

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 55 gpm
1	371	17.36	
2	8,993	28.74	
3	1,443	28.91	
4	0	0.00	
5	0	0.00	
6	10,565	37.61	
7	0	0.00	
8	24,210	38.12	
9	29,832	51.12	
10	72,007	50.29	
11	71,937	50.17	
12	71,404	50.23	
13	71,997	50.21	
14	64,886	50.13	
15	4,074	28.83	
16	4,100	36.49	
17	256	36.68	
18	398	16.60	
19	31,771	50.98	
20	37,843	50.12	
21	0	0.00	
22	21,154	50.94	
23	28,535	50.23	
24	5,491	38.30	
25	0	0.00	
26	407	15.44	
27	6,750	25.32	
28	30,285	50.81	
29	57,532	50.90	
30	72,004	50.35	
31	71,371	50.28	
* - Permit Flows from in July 1 - Oct. 31 were increased with a Special Discharge Permit (#SDP-0701-1207) to 55 GPM with a maximum total daily flow of 79,200 gallons per day.			
Total Monthly Flow (gal)	799,614	Did flow exceed limits?	NO
Daily Max Flow (gpd)	72,007	Flow above daily max (79,200 gpd)?	NO
Average Monthly Flow (gpd)	25,794		

Table 4
Monthly Flow Data

Industrial User Name	Marsh Landing LLC		
Location	Marsh Landing Generating Station		
Permit Number	0311963-S		
SIC	4911		
Address	3201-C Wilbur Avenue		
	Antioch CA 94509		
Sample Station Location	Outfall #4		
Sample Station Description	Flow Monitoring Structure		
Reporting Period	Aug-21		
Report Type	Quarterly		
Constituent	Flow		
Sample Type	Continuous, measured by flow meter		
Sample Date	8/1/2021 - 8/31/2021		
Permit Limits (s.u.)	NTE 79,200 gpd. NTE 55 gpm		
Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 55 GPM
1	42,318	50.13	
2	20,744	50.86	
3	52,835	50.75	
4	59,771	50.77	
5	31,040	50.03	
6	3,968	37.39	
7	0	0.00	
8	0	0.00	
9	6,537	16.12	
10	34,416	50.69	
11	33,460	50.80	
12	50,154	50.92	
13	38,403	50.07	
14	8,516	37.66	
15	0	0.00	
16	351	15.02	
17	8,343	26.44	
18	5,949	37.79	
19	1,438	37.80	
20	383	16.41	
21	8,949	27.24	
22	0	0.00	
23	0	0.00	
24	7,921	37.39	
25	0	0.00	
26	0	0.00	
27	20,649	49.88	
28	0	0.00	
29	0	0.00	
30	456	16.36	
31	8,783	26.23	
* - Permit Flows from in July 1 - Oct. 31 were increased with a Special Discharge Permit (#SDP-0701-1207) to 55 GPM with a maximum total daily flow of 79,200 gallons per day.			
Total Monthly Flow (gal)	445,385	Did flow exceed limits?	NO
Daily Max Flow (gpd)	59,771	Flow above daily max (79,200 gpd)?	NO
Average Monthly Flow (gpd)	14,367		

Table 5
Monthly Flow Data

Industrial User Name	Marsh Landing LLC
Location	Marsh Landing Generating Station
Permit Number	0311963-S
SIC	4911
Address	3201-C Wilbur Avenue
	Antioch CA 94509
Sample Station Location	Outfall #4
Sample Station Description	Flow Monitoring Structure
Reporting Period	Sep-21
Report Type	Quarterly
Constituent	Flow
Sample Type	Continuous, measured by flow meter
Sample Date	9/1/2021 - 9/30/2021
Permit Limits (s.u.)	NTE 79,200 gpd. NTE 55 gpm

Day	Total Flow (gpd)	Instantaneous Max (gpm)	Minutes per Day of Flow exceeding 55 GPM
1	11,318	38.28	
2	8,481	25.76	
3	813	25.91	
4	7,348	37.27	
5	8,105	26.74	
6	0	0.00	
7	0	0.00	
8	44,416	50.63	
9	71,286	50.29	
10	71,994	50.12	
11	49,668	50.12	
12	0	0.00	
13	8,745	37.51	
14	7,649	24.08	
15	0	0.00	
16	9,368	37.26	
17	0	0.00	
18	0	0.00	
19	0	0.00	
20	7,200	21.16	
21	0	0.00	
22	0	0.00	
23	9,234	10.85	
24	5,092	16.84	
25	7,525	10.82	
26	0	0.00	
27	0	0.00	
28	0	0.00	
29	893	17.05	
30	10,225	8.07	
* - Permit Flows from in July 1 - Oct. 31 were increased with a <u>Special Discharge Permit (#SDP-0701-1207)</u> to 55 GPM with a maximum total daily flow of 79,200 gallons per day.			
Total Monthly Flow (gal)	339,357	Did flow exceed limits?	NO
Daily Max Flow (gpd)	71,994	Flow above daily max (79,200 gpd)?	NO
Average Monthly Flow (gpd)	11,312		

Marsh Landing Generating Station

Reported to:
Environmental Engineer

NPDES Monthly Analytical Report

Sample Point	Sample Number	Sample Date (m/d/y)	Sample Collection Time	Date Analyzed (m/d/y)	pH Analysis Time	Sample Medium	Sample Type (Grab)	pH
Method:								SM
								4500-H+B
Unit:								standard
Reporting Limit:								0.18
Method Detection Limit:								0.06
FAC Combined Waste Water	ML-21-095	8/10/21	1500	8/10/21	1500	Wastewater	Grab	7.5

SM = Standard Method; ppm = parts per million; mg/L = milligrams per liter; N/A = not applicable

Environmental Engineer David Frandsen
Signature: David Frandsen
Date: Aug 16, 2021

Sampling Technologist: James E Robinson
Signature: James E. Robinson
Date: 10-Aug-21



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2108522

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen

Project P.O.: 4501905749

Project: DDSD Quarterly

Project Received: 08/10/2021

Analytical Report reviewed & approved for release on 08/17/2021 by:

Yen Cao

Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

Project: DDSD Quarterly

WorkOrder: 2108522

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
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
LQL	Lowest Quantitation Level
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)



McC Campbell 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.mcccampbell.com> / E-mail: main@mcccampbell.com

Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

Project: DDSD Quarterly

WorkOrder: 2108522

Analytical Qualifiers

J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/11/2021
Project: DDSD Quarterly

WorkOrder: 2108522
Extraction Method: SM5210B
Analytical Method: SM5210 B-2001
Unit: mg/L

Biochemical Oxygen Demand (BOD)

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108522-002A	Water	08/10/2021 15:00	WetChem	227374

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
BOD	9.0	4.0	4.0	1	08/11/2021 13:11

Analyst(s): MGO



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/12/2021
Project: DDSD Quarterly

WorkOrder: 2108522
Extraction Method: SM5220 D-1997
Analytical Method: SM5220 D-1997
Unit: mg/L

Chemical Oxygen Demand (COD) as mg O₂ /L

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108522-001A	Water	08/10/2021 15:00	SPECTROPHOTOMETER	227514

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
COD	29	7.2	10	1	08/12/2021 16:50

Analyst(s): NYG



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/10/2021
Project: DDSD Quarterly

WorkOrder: 2108522
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L

Metals

Client ID	Lab ID	Matrix	Date Collected			Instrument	Batch ID
FAC Combined Wastewater	2108522-005A	Water	08/10/2021 15:00			ICP-MS4 149SMPL.d	227284
<u>Analytes</u>	<u>Result</u>	<u>Qualifiers</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>	
Arsenic	0.90		0.10	0.50	1	08/12/2021 13:10	
Cadmium	ND		0.24	0.50	1	08/12/2021 13:10	
Chromium	0.36	J	0.35	0.50	1	08/12/2021 13:10	
Copper	11		0.66	1.5	1	08/12/2021 13:10	
Iron	160		37	100	1	08/12/2021 13:10	
Lead	ND		0.27	0.50	1	08/12/2021 13:10	
Mercury	ND		0.047	0.050	1	08/12/2021 13:10	
Molybdenum	2.3		0.18	0.50	1	08/12/2021 13:10	
Nickel	3.2		0.27	0.50	1	08/12/2021 13:10	
Selenium	ND		0.17	0.50	1	08/12/2021 13:10	
Silver	ND		0.26	0.50	1	08/12/2021 13:10	
Zinc	25		14	20	1	08/12/2021 13:10	
<u>Surrogates</u>	<u>REC (%)</u>			<u>Limits</u>			
Terbium	97			70-130		08/12/2021 13:10	
<u>Analyst(s):</u> AL							



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/10/2021
Project: DDSD Quarterly

WorkOrder: 2108522
Extraction Method: SM2540 C-1997
Analytical Method: SM2540 C-1997
Unit: mg/L

Total Dissolved Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108522-003A	Water	08/10/2021 15:00	WetChem	227360

<u>Analytes</u>	<u>Result</u>	<u>MDL</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Total Dissolved Solids	604	10.0	10.0	1	08/11/2021 17:40

Analyst(s): NYG



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/11/2021
Project: DDSD Quarterly

WorkOrder: 2108522
Extraction Method: SM2540 D-1997
Analytical Method: SM2540 D-1997
Unit: mg/L

Total Suspended Solids

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108522-004A	Water	08/10/2021 15:00	WetChem	227387

Analytes	Result	MDL	RL	DF	Date Analyzed
Total Suspended Solids	6.80	2.00	2.00	2	08/11/2021 15:55

Analyst(s): MGO



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/11/2021
Date Analyzed: 08/11/2021
Instrument: WetChem
Matrix: Water
Project: DDSD Quarterly

WorkOrder: 2108522
BatchID: 227374
Extraction Method: SM5210B
Analytical Method: SM5210 B-2001
Unit: mg/L
Sample ID: MB/LCS/LCSD-227374
2108522-002A

QC Summary Report for BOD

Analyte	MB Result	MDL	RL			
BOD	ND	4.00	4.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
BOD	198	180	198	100	91	80-120	9.27	16

Analyte	SAMP Result	DUP Result		RPD	RPD Limit
BOD	8.96	9.26		3.29	10



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/12/2021
Date Analyzed: 08/12/2021
Instrument: SPECTROPHOTOMETER
Matrix: Water
Project: DDSD Quarterly

WorkOrder: 2108522
BatchID: 227514
Extraction Method: SM5220 D-1997
Analytical Method: SM5220 D-1997
Unit: mg/L
Sample ID: MB/LCS/LCSD-227514

QC Summary Report for COD

Analyte	MB Result	MDL	RL			
COD	ND	7.20	10.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
COD	101	97.0	100	101	97	90-110	4.04	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: ICP-MS2
Matrix: Water
Project: DDSD Quarterly

WorkOrder: 2108522
BatchID: 227284
Extraction Method: E200.8
Analytical Method: E200.8
Unit: µg/L
Sample ID: MB/LCS/LCSD-227284

QC Summary Report for Metals

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Arsenic	ND	0.100	0.500	-	-	-
Cadmium	ND	0.240	0.500	-	-	-
Chromium	ND	0.350	0.500	-	-	-
Copper	ND	0.660	1.50	-	-	-
Iron	ND	37.0	100	-	-	-
Lead	ND	0.270	0.500	-	-	-
Mercury	ND	0.0470	0.0500	-	-	-
Molybdenum	ND	0.180	0.500	-	-	-
Nickel	ND	0.270	0.500	-	-	-
Selenium	ND	0.170	0.500	-	-	-
Silver	ND	0.260	0.500	-	-	-
Zinc	ND	14.0	20.0	-	-	-

Surrogate Recovery

Terbium	479			500	96	70-130
---------	-----	--	--	-----	----	--------

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Arsenic	51.2	51.9	50	102	104	85-115	1.20	20
Cadmium	48.5	50.0	50	97	100	85-115	3.09	20
Chromium	48.1	49.2	50	96	98	85-115	2.12	20
Copper	50.8	51.4	50	102	103	85-115	1.21	20
Iron	4810	4900	5000	96	98	85-115	1.77	20
Lead	49.6	49.4	50	99	99	85-115	0.404	20
Mercury	1.16	1.22	1.25	93	98	85-115	4.61	20
Molybdenum	49.1	49.0	50	98	98	85-115	0.143	20
Nickel	50.4	51.1	50	101	102	85-115	1.32	20
Selenium	48.4	51.9	50	97	104	85-115	7.10	20
Silver	50.4	50.3	50	101	101	85-115	0.278	20
Zinc	505	513	500	101	103	85-115	1.51	20

Surrogate Recovery

Terbium	487	489	500	97	98	70-130	0.512	20
---------	-----	-----	-----	----	----	--------	-------	----



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: WetChem
Matrix: Water
Project: DDSD Quarterly

WorkOrder: 2108522
BatchID: 227360
Extraction Method: SM2540 C-1997
Analytical Method: SM2540 C-1997
Unit: mg/L
Sample ID: MB/LCS/LCSD-227360

QC Summary Report for Total Dissolved Solids

Analyte	MB Result	MDL	RL			
Total Dissolved Solids	ND	10.0	10.0	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Dissolved Solids	1080	1060	1000	108	106	80-120	1.88	10



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/11/2021
Date Analyzed: 08/11/2021
Instrument: WetChem
Matrix: Water
Project: DDSD Quarterly

WorkOrder: 2108522
BatchID: 227387
Extraction Method: SM2540 D-1997
Analytical Method: SM2540 D-1997
Unit: mg/L
Sample ID: MB/LCS/LCSD-227387

QC Summary Report for Total Suspended Solids

Analyte	MB Result	MDL	RL			
Total Suspended Solids	ND	1.00	1.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Suspended Solids	103	95.0	100	103	95	80-120	8.08	10

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 2108522

ClientCode: GOA

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

Report to:

David Frandsen
NRG Energy, LLC
3201 Wilbur Avenue
Antioch, CA 94509
(925) 427-3479 FAX: (925) 779-6679

Email: David.Frandsen@nrg.com
cc/3rd Party: joe.moura@nrg.com; james.robinson@nrg.
PO: 4501905749
Project: DDSD Quarterly

Bill to:

Accounts Payable
NRG
4900 N. Scottsdale Road, Ste. 5000
Scottsdale, AZ 85251
invoices@clearwayenergy.coupahost.co

Requested TATs: 5 days;
7 days;

Date Received: 08/10/2021
Date Logged: 08/10/2021

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
2108522-001	FAC Combined Wastewater	Water	8/10/2021 15:00	☐		A		A								
2108522-002	FAC Combined Wastewater	Water	8/10/2021 15:00	☐	A											
2108522-003	FAC Combined Wastewater	Water	8/10/2021 15:00	☐					A							
2108522-004	FAC Combined Wastewater	Water	8/10/2021 15:00	☐						A						
2108522-005	FAC Combined Wastewater	Water	8/10/2021 15:00	☐			A									

Test Legend:

1	BOD_W	2	COD_W	3	METALSMS_TTLC_W	4	PRDisposal Fee
5	TDS_W	6	TSS_W	7		8	
9		10		11		12	

Project Manager: Angela Rydelius

Prepared by: Adrianna Cardoza

Comments: Use QUOTE 192976 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

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.



McC Campbell 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.mcccampbell.com / E-mail: main@mcccampbell.com

WORK ORDER SUMMARY

Client Name: NRG ENERGY, LLC
Client Contact: David Frandsen
Contact's Email: David.Frandsen@nrg.com

Project: DDSD Quarterly

Comments: Use QUOTE 192976 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

Work Order: 2108522
QC Level: LEVEL 2
Date Logged: 8/10/2021

☐ WaterTrax ☐ WriteOn ☐ EDF ☐ Excel ☐ EQulS ☒ Email ☐ HardCopy ☐ ThirdParty ☒ J-flag

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	SubOut
001A	FAC Combined Wastewater	Water	SM5220D (COD)	2	aVOA w/ H2SO4	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
002A	FAC Combined Wastewater	Water	SM5210B (BOD)	1	500mL HDPE, unprsv.	☐	☐	8/10/2021 15:00	7 days	8/19/2021	Present	☐	
003A	FAC Combined Wastewater	Water	SM2540C (TDS)	1	500mL HDPE, unprsv.	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
004A	FAC Combined Wastewater	Water	SM2540D (TSS)	1	1L HDPE, unprsv.	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
005A	FAC Combined Wastewater	Water	E200.8 (Metals) <Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Zinc>	1	250mL HDPE w/ HNO3	☐	☐	8/10/2021 15:00	5 days	8/17/2021	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.

2108522

Chain of Custody

Page 1 of 2-Quarterly

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO				SEND INVOICE TO		PROJECT		ANALYSIS REQUEST							
McC Campbell Analytical, Inc. Laboratory: 1644 ELAP Cert. No. 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 925.252.9262/ 925.252.9269 Phone/Fax:				Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@leahwarranty.com P.O. No.: 4501905749		Plant: Marsh Landing Title: DDSD Phase: Quarterly Manager: David Frandsen		COD (SM 5220D) BOD (SM 5210B) TDS (SM 2540B) TSS (SM 2540D)							
SAMPLE INFORMATION								CONTAINER INFORMATION							
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.	COD	BOD	TDS	TSS
ML-21-080	10-Aug-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	2	Amber VOAs	43	H ₂ SO ₄ (pH<2, 4°C)	X			
ML-21-081	10-Aug-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	1,000	None (ZHS, 4°C)		X		
ML-21-082	10-Aug-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	500	None (4°C)			X	
ML-21-083	10-Aug-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	Poly	1,000	None				X
												HOLDING TIME: 28 days 48 hours 7 days 7 days			
REPORTING			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION					DIRECTIONS FOR LABORATORY							
Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com E-mail CC: joe.moura@nrg.com								STANDARDTAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.							
PRINTED NAME			SIGNATURE			COMPANY		DATE		TIME					
Sampled by: James E. Robinson.			<i>James E. Robinson</i>			NRG		10-Aug-21		1500					
Relinquished by: James E. Robinson.			<i>James E. Robinson</i>			NRG		10-Aug-21		1742					
Received by: <i>Lilly Ortiz</i>			<i>Lilly Ortiz</i>			MAI		10-Aug-21		1747					
Relinquished by:										3.8.21					
Received by:															
Relinquished by:															
Received by:															

2100000

Chain of Custody

Page 2 of 2-Quarterly

Marsh Landing Generating Station
3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509
Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO				SEND INVOICE TO				PROJECT				ANALYSIS REQUEST			
Laboratory: McCampbell Analytical, Inc. ELAP Cert. No.: 1644 Address: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Phone/Fax: 925.252.9262/ 925.252.9269				Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@cleanenergy.com P.O. No.: 4501905749				Plant: Marsh Landing Title: DDSD Phase: Quarterly Manager: David Frandsen				Total Metals¹ (EPA Method 200.8)			
SAMPLE INFORMATION								CONTAINER INFORMATION							
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.				
ML-21-084	10-Aug-21	1500	DDSD	Quarterly	Wastewater	C-24	FAC Combined Wastewater	1	HDPE Bottle	250	HNO3 (pH<2)	X			
HOLDING TIME: 28 days															
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrq.com E-mail CC: james.robinson@nrq.com E-mail CC: joe.moura@nrq.com				LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION				DIRECTIONS FOR LABORATORY STANDARD TAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. 1. Arsenic, Cadmium, Chromium, Copper, Iron, Lead, Mercury, Nickel, Molybdenum, Selenium (reaction mode), Silver, Zinc RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.							
PRINTED NAME		SIGNATURE		COMPANY		DATE		TIME							
Sampled by: James E. Robinson.		<i>James E. Robinson</i>		NRG		10-Aug-21		1500							
Relinquished by: James E. Robinson.		<i>James E. Robinson</i>		NRG		10-Aug-21		1742							
Received by: <i>Lilly Ortiz</i>		<i>Lilly Ortiz</i>		MAI		10-Aug-21		1742							
Relinquished by:								3.8 out							
Received by:															
Relinquished by:															
Received by:															



Sample Receipt Checklist

Client Name: **NRG Energy, LLC**
Project: **DDSD Quarterly**

Date and Time Received: **8/10/2021 17:42**
Date Logged: **8/10/2021**
Received by: **Lilly Ortiz**
Logged by: **Adrianna Cardoza**

WorkOrder №: **2108522** Matrix: Water
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 ☒
Custody seals intact on sample bottles?	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: 3.8°C		NA ☐
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	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:



McC Campbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 2108517 **Amended:** 08/18/2021

Revision: 1

Report Created for: NRG Energy, LLC

3201 Wilbur Avenue
Antioch, CA 94509

Project Contact: David Frandsen

Project P.O.: 4501905749

Project: DDSD Semi-Annual

Project Received: 08/10/2021

Analytical Report reviewed & approved for release on 08/17/2021 by:

Susan Thompson
Project Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in a case narrative.





Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC

Project: DDSD Semi-Annual

WorkOrder: 2108517

Glossary Abbreviation

%D	Serial Dilution Percent Difference
95% Interval	95% Confident Interval
CPT	Consumer Product Testing not NELAP Accredited
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
LQL	Lowest Quantitation Level
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)



Glossary of Terms & Qualifier Definitions

Client: NRG Energy, LLC
Project: DDSD Semi-Annual
WorkOrder: 2108517

Analytical Qualifiers

J Result is less than the RL/ML but greater than the MDL. The reported concentration is an estimated value.
a3 Sample diluted due to high organic content interfering with quantitative/or qualitative analysis.
b6 Lighter than water immiscible sheen/product is present

Quality Control Qualifiers

F2 LCS/LCSD recovery and/or RPD/RSD is out of acceptance criteria.



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/16/2021
Project: DDSO Semi-Annual

WorkOrder: 2108517
Extraction Method: E1664A_SG
Analytical Method: E1664A
Unit: mg/L

Hexane Extractable Material (HEM; Oil & Grease) with Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-002A	Water	08/10/2021 15:00	O&G	227580

Analytes	Result	MDL	RL	DE	Date Analyzed
SGT-HEM	23	0.77	5.3	1	08/17/2021 12:25

Analyst(s): HN

Analytical Comments: b6



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/16/2021
Project: DDSD Semi-Annual

WorkOrder: 2108517
Extraction Method: E1664A
Analytical Method: E1664A
Unit: mg/L

Hexane Extractable Material (HEM; Oil & Grease) without Silica Gel Clean-Up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-001A	Water	08/10/2021 15:00	O&G	227702

Analytes	Result	MDL	RL	DE	Date Analyzed
HEM	51	1.4	5.3	1	08/17/2021 08:40

Analyst(s): HN

Analytical Comments: b6



McC Campbell Analytical, Inc.

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

Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/11/2021
Project: DDSO Semi-Annual

WorkOrder: 2108517
Extraction Method: E608.3/SW3620B
Analytical Method: E608.3
Unit: mg/L

Organochlorine Pesticides + PCBs w/ Florisil Clean-up

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-006A	Water	08/10/2021 15:00	GC40 08162157.d	227382

Analytes	Result	RL	DF	Date Analyzed
Aldrin	ND	0.000011	10	08/17/2021 00:58
a-BHC	ND	0.000011	10	08/17/2021 00:58
b-BHC	ND	0.000011	10	08/17/2021 00:58
d-BHC	ND	0.000011	10	08/17/2021 00:58
g-BHC	ND	0.000011	10	08/17/2021 00:58
Chlordane (Technical)	ND	0.00022	10	08/17/2021 00:58
p,p-DDD	ND	0.000011	10	08/17/2021 00:58
p,p-DDE	ND	0.000011	10	08/17/2021 00:58
p,p-DDT	ND	0.000011	10	08/17/2021 00:58
Dieldrin	ND	0.000011	10	08/17/2021 00:58
Endosulfan I	ND	0.000011	10	08/17/2021 00:58
Endosulfan II	ND	0.000011	10	08/17/2021 00:58
Endosulfan sulfate	ND	0.000022	10	08/17/2021 00:58
Endrin	ND	0.000011	10	08/17/2021 00:58
Endrin aldehyde	ND	0.000011	10	08/17/2021 00:58
Heptachlor	ND	0.000011	10	08/17/2021 00:58
Heptachlor epoxide	ND	0.000011	10	08/17/2021 00:58
Toxaphene	ND	0.00022	10	08/17/2021 00:58
Aroclor1016	ND	0.00022	10	08/17/2021 00:58
Aroclor1221	ND	0.00022	10	08/17/2021 00:58
Aroclor1232	ND	0.00022	10	08/17/2021 00:58
Aroclor1242	ND	0.00022	10	08/17/2021 00:58
Aroclor1248	ND	0.00022	10	08/17/2021 00:58
Aroclor1254	ND	0.00022	10	08/17/2021 00:58
Aroclor1260	ND	0.00022	10	08/17/2021 00:58

Surrogates	REC (%)	Limits	
Decachlorobiphenyl	104	60-130	08/17/2021 00:58

Analyst(s): CN

Analytical Comments: a3



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/11/2021
Project: DDSD Semi-Annual

WorkOrder: 2108517
Extraction Method: E624.1
Analytical Method: E624.1
Unit: mg/L

Acrolein, Acrylonitrile, & 2-Chloroethyl Vinyl Ether

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-008A	Water	08/10/2021 15:00	GC45 08112107.D	227412

Analytes	Result	RL	DF	Date Analyzed
Acrolein (Propenal)	ND	0.0050	1	08/11/2021 12:12
Acrylonitrile	ND	0.0020	1	08/11/2021 12:12
2-Chloroethyl Vinyl Ether	ND	0.0010	1	08/11/2021 12:12

Surrogates	REC (%)	Limits	
Dibromofluoromethane	90	65-165	08/11/2021 12:12

Analyst(s): KF



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/17/2021
Project: DDSD Semi-Annual

WorkOrder: 2108517
Extraction Method: E624.1
Analytical Method: E624.1
Unit: mg/L

Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-007A	Water	08/10/2021 15:00	GC28 08152124.D	227739

Analytes	Result	RL	DF	Date Analyzed
Benzene	ND	0.00020	1	08/17/2021 00:17
Bromodichloromethane	0.0049	0.000050	1	08/17/2021 00:17
Bromoform	0.0027	0.00050	1	08/17/2021 00:17
Bromomethane	ND	0.00050	1	08/17/2021 00:17
Carbon tetrachloride	ND	0.000050	1	08/17/2021 00:17
Chlorobenzene	ND	0.00050	1	08/17/2021 00:17
Chloroethane	ND	0.00050	1	08/17/2021 00:17
Chloroform	0.0014	0.00010	1	08/17/2021 00:17
Chloromethane	ND	0.00050	1	08/17/2021 00:17
Dibromochloromethane	0.0075	0.00015	1	08/17/2021 00:17
1,2-Dichlorobenzene	ND	0.00050	1	08/17/2021 00:17
1,3-Dichlorobenzene	ND	0.00050	1	08/17/2021 00:17
1,4-Dichlorobenzene	ND	0.00050	1	08/17/2021 00:17
1,1-Dichloroethane	ND	0.00050	1	08/17/2021 00:17
1,2-Dichloroethane (1,2-DCA)	ND	0.000020	1	08/17/2021 00:17
1,1-Dichloroethene	ND	0.000010	1	08/17/2021 00:17
trans-1,2-Dichloroethene	ND	0.00050	1	08/17/2021 00:17
1,2-Dichloropropane	ND	0.00020	1	08/17/2021 00:17
cis-1,3-Dichloropropene	ND	0.00050	1	08/17/2021 00:17
trans-1,3-Dichloropropene	ND	0.00050	1	08/17/2021 00:17
Ethylbenzene	ND	0.00050	1	08/17/2021 00:17
Methylene chloride	ND	0.0020	1	08/17/2021 00:17
1,1,2,2-Tetrachloroethane	ND	0.000020	1	08/17/2021 00:17
Tetrachloroethene	ND	0.00020	1	08/17/2021 00:17
Toluene	ND	0.00050	1	08/17/2021 00:17
1,1,1-Trichloroethane	ND	0.00050	1	08/17/2021 00:17
1,1,2-Trichloroethane	ND	0.00020	1	08/17/2021 00:17
Trichloroethene	ND	0.00050	1	08/17/2021 00:17
Trichlorofluoromethane	ND	0.00050	1	08/17/2021 00:17
Vinyl chloride	ND	0.0000050	1	08/17/2021 00:17

Surrogates	REC (%)	Limits	Date Analyzed
Dibromofluoromethane	76	70-130	08/17/2021 00:17
Toluene-d8	85	70-130	08/17/2021 00:17
4-BFB	77	70-130	08/17/2021 00:17

Analyst(s): TW



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/10/2021
Project: DDS Semi-Annual

WorkOrder: 2108517
Extraction Method: E625.1
Analytical Method: E625.1
Unit: mg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-009A	Water	08/10/2021 15:00	GC47 08132119.D	227319

Analytes	Result	RL	DF	Date Analyzed
Acenaphthene	ND	0.000011	2	08/13/2021 17:22
Acenaphthylene	ND	0.000011	2	08/13/2021 17:22
Anthracene	ND	0.000022	2	08/13/2021 17:22
Benzidine	ND	0.011	2	08/13/2021 17:22
Benzo (a) anthracene	ND	0.00011	2	08/13/2021 17:22
Benzo (a) pyrene	ND	0.000011	2	08/13/2021 17:22
Benzo (b) fluoranthene	ND	0.000044	2	08/13/2021 17:22
Benzo (g,h,i) perylene	ND	0.000044	2	08/13/2021 17:22
Benzo (k) fluoranthene	ND	0.000022	2	08/13/2021 17:22
Bis (2-chloroethoxy) Methane	ND	0.0022	2	08/13/2021 17:22
Bis (2-chloroethyl) Ether	ND	0.000011	2	08/13/2021 17:22
Bis (2-chloroisopropyl) Ether	ND	0.00011	2	08/13/2021 17:22
Bis (2-ethylhexyl) Phthalate	ND	0.00044	2	08/13/2021 17:22
4-Bromophenyl Phenyl Ether	ND	0.0022	2	08/13/2021 17:22
Butylbenzyl Phthalate	ND	0.00011	2	08/13/2021 17:22
4-Chloro-3-methylphenol	ND	0.0022	2	08/13/2021 17:22
2-Chloronaphthalene	ND	0.0022	2	08/13/2021 17:22
2-Chlorophenol	ND	0.00011	2	08/13/2021 17:22
4-Chlorophenyl Phenyl Ether	ND	0.0022	2	08/13/2021 17:22
Chrysene	ND	0.000022	2	08/13/2021 17:22
Dibenzo (a,h) anthracene	ND	0.000022	2	08/13/2021 17:22
Di-n-butyl Phthalate	ND	0.00011	2	08/13/2021 17:22
1,2-Dichlorobenzene	ND	0.0022	2	08/13/2021 17:22
1,3-Dichlorobenzene	ND	0.0022	2	08/13/2021 17:22
1,4-Dichlorobenzene	ND	0.0022	2	08/13/2021 17:22
3,3-Dichlorobenzidine	ND	0.000044	2	08/13/2021 17:22
2,4-Dichlorophenol	ND	0.000022	2	08/13/2021 17:22
Diethyl Phthalate	ND	0.00011	2	08/13/2021 17:22
2,4-Dimethylphenol	ND	0.0022	2	08/13/2021 17:22
Dimethyl Phthalate	ND	0.000022	2	08/13/2021 17:22
4,6-Dinitro-2-methylphenol	ND	0.011	2	08/13/2021 17:22
2,4-Dinitrophenol	ND	0.0044	2	08/13/2021 17:22
2,4-Dinitrotoluene	ND	0.00011	2	08/13/2021 17:22
2,6-Dinitrotoluene	ND	0.00011	2	08/13/2021 17:22
Di-n-octyl Phthalate	ND	0.00011	2	08/13/2021 17:22
1,2-Diphenylhydrazine	ND	0.0022	2	08/13/2021 17:22
Fluoranthene	ND	0.000022	2	08/13/2021 17:22

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Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/10/2021
Project: DDSD Semi-Annual

WorkOrder: 2108517
Extraction Method: E625.1
Analytical Method: E625.1
Unit: mg/L

Semi-Volatile Organics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-009A	Water	08/10/2021 15:00	GC47 08132119.D	227319

Analytes	Result	RL	DF	Date Analyzed
Fluorene	ND	0.000022	2	08/13/2021 17:22
Hexachlorobenzene	ND	0.000011	2	08/13/2021 17:22
Hexachlorobutadiene	ND	0.000022	2	08/13/2021 17:22
Hexachlorocyclopentadiene	ND	0.011	2	08/13/2021 17:22
Hexachloroethane	ND	0.00011	2	08/13/2021 17:22
Indeno (1,2,3-cd) pyrene	ND	0.000044	2	08/13/2021 17:22
Isophorone	ND	0.0044	2	08/13/2021 17:22
Naphthalene	ND	0.00011	2	08/13/2021 17:22
Nitrobenzene	ND	0.0022	2	08/13/2021 17:22
2-Nitrophenol	ND	0.011	2	08/13/2021 17:22
4-Nitrophenol	ND	0.011	2	08/13/2021 17:22
N-Nitrosodimethylamine	ND	0.011	2	08/13/2021 17:22
N-Nitrosodiphenylamine	ND	0.0022	2	08/13/2021 17:22
N-Nitrosodi-n-propylamine	ND	0.0022	2	08/13/2021 17:22
Pentachlorophenol	ND	0.00054	2	08/13/2021 17:22
Phenanthrene	ND	0.000044	2	08/13/2021 17:22
Phenol	ND	0.00044	2	08/13/2021 17:22
Pyrene	ND	0.000022	2	08/13/2021 17:22
1,2,4-Trichlorobenzene	ND	0.0022	2	08/13/2021 17:22
2,4,6-Trichlorophenol	ND	0.000022	2	08/13/2021 17:22

Surrogates	REC (%)	Limits	
2-Fluorophenol	45	20-130	08/13/2021 17:22
Phenol-d5	32	20-130	08/13/2021 17:22
Nitrobenzene-d5	60	30-130	08/13/2021 17:22
2-Fluorobiphenyl	60	40-130	08/13/2021 17:22
2,4,6-Tribromophenol	79	40-130	08/13/2021 17:22
Terphenyl-d14	62	40-130	08/13/2021 17:22

Analyst(s): BRV

Analytical Comments: a3



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/11/2021
Project: DDSD Semi-Annual

WorkOrder: 2108517
Extraction Method: E350.1
Analytical Method: E350.1
Unit: mg/L

Ammonia As Nitrogen

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-005A	Water	08/10/2021 15:00	WC_SKALAR 081121A1_45	227370

Analytes	Result	MDL	RL	DE	Date Analyzed
Ammonia, total as N	4.9	0.092	0.10	1	08/11/2021 08:56

Analyst(s): RB



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/13/2021
Project: DDSO Semi-Annual

WorkOrder: 2108517
Extraction Method: Kelada-01
Analytical Method: Kelada-01
Unit: mg/L

Cyanide, Total

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-003A	Water	08/10/2021 15:00	WC_SKALAR 08132021B1_33	227599

<u>Analytes</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Total Cyanide	ND	0.0010	1	08/13/2021 12:22

Analyst(s): JN



Analytical Report

Client: NRG Energy, LLC
Date Received: 08/10/2021 17:42
Date Prepared: 08/13/2021
Project: DDS D Semi-Annual

WorkOrder: 2108517
Extraction Method: E420.4
Analytical Method: E420.4
Unit: mg/L

Phenolics

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
FAC Combined Wastewater	2108517-004A	Water	08/10/2021 15:00	WC_SKALAR 08132021A1_30	227620

Analytes	Result	RL	DF	Date Analyzed
Phenolics	0.0025	0.0020	1	08/13/2021 14:39

Analyst(s): JN



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/13/2021
Date Analyzed: 08/13/2021
Instrument: O&G
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227580
Extraction Method: E1664A_SG
Analytical Method: E1664A
Unit: mg/L
Sample ID: MB/LCS/LCSD-227580

QC Summary Report for E1664A

Analyte	MB Result	MDL	RL			
SGT-HEM	ND	0.720	5.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
SGT-HEM	8.92	8.65	10.42	86	83	64-132	3.00	30



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/16/2021
Date Analyzed: 08/17/2021
Instrument: O&G
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227702
Extraction Method: E1664A
Analytical Method: E1664A
Unit: mg/L
Sample ID: MB/LCS/LCSD-227702

QC Summary Report for E1664A

Analyte	MB Result	MDL	RL			
HEM	ND	1.30	5.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
HEM	18.3	17.9	20.83	88	86	78-114	2.07	30



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/11/2021
Date Analyzed: 08/16/2021 - 08/17/2021
Instrument: GC40
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227382
Extraction Method: E608.3/SW3620B
Analytical Method: E608.3
Unit: µg/L
Sample ID: MB/LCS/LCSD-227382

QC Summary Report for E608.3 w/ Florisil Clean-up

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Aldrin	ND	0.000280	0.00100	-	-	-
a-BHC	ND	0.000310	0.00100	-	-	-
b-BHC	ND	0.000690	0.00100	-	-	-
d-BHC	ND	0.000140	0.00100	-	-	-
g-BHC	ND	0.000450	0.00100	-	-	-
a-Chlordane	ND	0.000850	0.00100	-	-	-
g-Chlordane	ND	0.000150	0.00100	-	-	-
p,p-DDD	ND	0.000110	0.00100	-	-	-
p,p-DDE	ND	0.000180	0.00100	-	-	-
p,p-DDT	ND	0.000170	0.00100	-	-	-
Dieldrin	ND	0.000140	0.00100	-	-	-
Endosulfan I	ND	0.000110	0.00100	-	-	-
Endosulfan II	ND	0.000460	0.00100	-	-	-
Endosulfan sulfate	ND	0.000330	0.00200	-	-	-
Endrin	ND	0.000180	0.00100	-	-	-
Endrin aldehyde	ND	0.000530	0.00100	-	-	-
Endrin ketone	ND	0.000260	0.00100	-	-	-
Heptachlor	ND	0.000410	0.00100	-	-	-
Heptachlor epoxide	ND	0.000250	0.00100	-	-	-
Methoxychlor	ND	0.000120	0.00100	-	-	-
Toxaphene	ND	0.00200	0.0200	-	-	-
Aroclor1016	ND	0.00190	0.0200	-	-	-
Aroclor1221	ND	0.00240	0.0200	-	-	-
Aroclor1232	ND	0.00380	0.0200	-	-	-
Aroclor1242	ND	0.00280	0.0200	-	-	-
Aroclor1248	ND	0.00180	0.0200	-	-	-
Aroclor1254	ND	0.00150	0.0200	-	-	-
Aroclor1260	ND	0.00280	0.0200	-	-	-
Surrogate Recovery						
Decachlorobiphenyl	0.0474			0.05	95	60-130

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Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/11/2021
Date Analyzed: 08/16/2021 - 08/17/2021
Instrument: GC40
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227382
Extraction Method: E608.3/SW3620B
Analytical Method: E608.3
Unit: µg/L
Sample ID: MB/LCS/LCSD-227382

QC Summary Report for E608.3 w/ Florisil Clean-up

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Aldrin	0.0474	0.0489	0.050	95	98	60-130	3.09	20
a-BHC	0.0578	0.0594	0.050	116	119	70-130	2.65	20
b-BHC	0.0486	0.0500	0.050	97	100	70-130	2.68	20
d-BHC	0.0516	0.0528	0.050	103	106	70-130	2.36	20
g-BHC	0.0549	0.0560	0.050	110	112	60-130	1.99	20
a-Chlordane	0.0456	0.0467	0.050	91	93	60-130	2.37	20
g-Chlordane	0.0496	0.0510	0.050	99	102	70-130	2.64	20
p,p-DDD	0.0525	0.0541	0.050	105	108	70-130	3.02	20
p,p-DDE	0.0491	0.0504	0.050	98	101	70-130	2.67	20
p,p-DDT	0.0506	0.0521	0.050	101	104	70-130	2.88	20
Dieldrin	0.0492	0.0503	0.050	98	101	70-130	2.38	20
Endosulfan I	0.0516	0.0528	0.050	103	106	70-130	2.39	20
Endosulfan II	0.0476	0.0490	0.050	95	98	70-130	2.85	20
Endosulfan sulfate	0.0398	0.0404	0.050	80	81	70-130	1.40	20
Endrin	0.0522	0.0530	0.050	104	106	70-130	1.47	20
Endrin aldehyde	0.0399	0.0404	0.050	80	81	60-130	1.40	20
Endrin ketone	0.0409	0.0418	0.050	82	84	60-130	2.21	20
Heptachlor	0.0552	0.0564	0.050	110	113	70-130	2.26	20
Heptachlor epoxide	0.0474	0.0485	0.050	95	97	70-130	2.38	20
Methoxychlor	0.0481	0.0493	0.050	96	99	70-130	2.47	20
Aroclor1016	0.140	0.142	0.15	93	94	70-130	1.09	20
Aroclor1260	0.150	0.142	0.15	100	94	70-130	5.89	20
Surrogate Recovery								
Decachlorobiphenyl	0.0476	0.0482	0.050	95	96	60-130	1.30	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/11/2021
Date Analyzed: 08/11/2021
Instrument: GC45
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227412
Extraction Method: E624.1
Analytical Method: E624.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227412

QC Summary Report for E624.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acrolein (Propenal)	ND	1.50	5.00	-	-	-
Acrylonitrile	ND	0.520	2.00	-	-	-
2-Chloroethyl Vinyl Ether	ND	0.560	1.00	-	-	-
Surrogate Recovery						
Dibromofluoromethane	23.5			25	94	76-110

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acrolein (Propenal)	21.4	21.4	20	107	107	71-140	0.271	20
Acrylonitrile	21.1	21.7	20	105	108	67-145	2.78	20
2-Chloroethyl Vinyl Ether	14.9	20.2	20	75	101	70-124	30.1,F2	20
Surrogate Recovery								
Dibromofluoromethane	22.2	23.4	25	89	94	76-110	5.38	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/16/2021
Date Analyzed: 08/16/2021
Instrument: GC28
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227739
Extraction Method: E624.1
Analytical Method: E624.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227739

QC Summary Report for E624.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Benzene	ND	0.120	0.200	-	-	-
Bromodichloromethane	ND	0.0250	0.0500	-	-	-
Bromoform	ND	0.310	0.500	-	-	-
Bromomethane	ND	0.180	0.500	-	-	-
Carbon Disulfide	ND	0.180	0.500	-	-	-
Carbon tetrachloride	ND	0.0280	0.0500	-	-	-
Chlorobenzene	ND	0.110	0.500	-	-	-
Chloroethane	ND	0.200	0.500	-	-	-
Chloroform	ND	0.0910	0.100	-	-	-
Chloromethane	ND	0.280	0.500	-	-	-
Dibromochloromethane	ND	0.0260	0.150	-	-	-
1,2-Dichlorobenzene	ND	0.160	0.500	-	-	-
1,3-Dichlorobenzene	ND	0.120	0.500	-	-	-
1,4-Dichlorobenzene	ND	0.0930	0.500	-	-	-
Dichlorodifluoromethane	ND	0.290	0.500	-	-	-
1,1-Dichloroethane	ND	0.150	0.500	-	-	-
1,2-Dichloroethane (1,2-DCA)	ND	0.0110	0.0200	-	-	-
1,1-Dichloroethene	ND	0.00940	0.0100	-	-	-
trans-1,2-Dichloroethene	ND	0.110	0.500	-	-	-
1,2-Dichloropropane	ND	0.0190	0.200	-	-	-
cis-1,3-Dichloropropene	ND	0.210	0.500	-	-	-
trans-1,3-Dichloropropene	ND	0.280	0.500	-	-	-
Ethylbenzene	ND	0.140	0.500	-	-	-
Methylene chloride	ND	0.740	2.00	-	-	-
1,1,2,2-Tetrachloroethane	ND	0.0110	0.0200	-	-	-
Tetrachloroethene	ND	0.160	0.200	-	-	-
Toluene	ND	0.170	0.500	-	-	-
1,1,1-Trichloroethane	ND	0.110	0.500	-	-	-
1,1,2-Trichloroethane	ND	0.110	0.200	-	-	-
Trichloroethene	ND	0.250	0.500	-	-	-
Trichlorofluoromethane	ND	0.140	0.500	-	-	-
Vinyl chloride	ND	0.00430	0.00500	-	-	-

Surrogate Recovery

Dibromofluoromethane	22.4	25	89	70-130
Toluene-d8	21.8	25	87	70-130
4-BFB	2.14	2.5	85	70-130

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/16/2021
Date Analyzed: 08/16/2021
Instrument: GC28
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227739
Extraction Method: E624.1
Analytical Method: E624.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227739

QC Summary Report for E624.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
tert-Amyl methyl ether (TAME)	3.80	3.76	4	95	94	60-130	1.01	20
Benzene	3.71	3.60	4	93	90	60-130	3.16	20
Bromodichloromethane	4.39	4.28	4	110	107	60-130	2.40	20
Bromoform	4.18	4.18	4	105	104	50-130	0.131	20
Bromomethane	4.92	4.73	4	123	118	50-130	3.80	20
Carbon Disulfide	4.25	4.42	4	106	110	60-130	3.82	20
Carbon tetrachloride	4.15	4.10	4	104	102	60-130	1.32	20
Chlorobenzene	4.11	4.17	4	103	104	60-130	1.38	20
Chloroethane	4.40	4.26	4	110	107	60-140	3.14	20
Chloroform	4.22	4.15	4	105	104	60-130	1.73	20
Chloromethane	4.35	4.31	4	109	108	50-130	0.994	20
Dibromochloromethane	4.20	4.16	4	105	104	50-130	0.881	20
1,2-Dichlorobenzene	4.03	4.04	4	101	101	60-130	0.264	20
1,3-Dichlorobenzene	4.13	3.85	4	103	96	60-130	7.06	20
1,4-Dichlorobenzene	4.15	4.04	4	104	101	60-130	2.69	20
Dichlorodifluoromethane	3.92	3.96	4	98	99	40-140	0.993	20
1,1-Dichloroethane	3.91	3.91	4	98	98	50-130	0.0136	20
1,2-Dichloroethane (1,2-DCA)	3.56	3.57	4	89	89	60-130	0.165	20
1,1-Dichloroethene	3.79	3.74	4	95	94	60-130	1.36	20
trans-1,2-Dichloroethene	3.81	3.78	4	95	94	60-130	0.969	20
1,2-Dichloropropane	3.82	3.73	4	96	93	60-130	2.48	20
cis-1,3-Dichloropropene	4.09	4.03	4	102	101	60-130	1.42	20
trans-1,3-Dichloropropene	4.34	4.28	4	108	107	60-130	1.38	20
Diisopropyl ether (DIPE)	3.98	3.91	4	99	98	60-130	1.71	20
Ethylbenzene	4.19	4.23	4	105	106	60-130	0.995	20
Ethyl tert-butyl ether (ETBE)	3.76	3.84	4	94	96	60-130	2.09	20
Methylene chloride	4.06	3.96	4	102	99	50-130	2.46	20
1,1,2,2-Tetrachloroethane	3.92	3.90	4	98	98	60-130	0.474	20
Tetrachloroethene	3.99	4.08	4	100	102	60-130	2.23	20
Toluene	3.97	4.01	4	99	100	60-130	1.07	20
1,1,1-Trichloroethane	4.01	3.98	4	100	99	60-130	0.777	20
1,1,2-Trichloroethane	3.94	3.88	4	98	97	60-130	1.46	20
Trichloroethene	3.87	3.88	4	97	97	60-130	0.252	20
Trichlorofluoromethane	3.90	3.94	4	97	99	60-130	1.10	20
Vinyl chloride	2.43	2.42	2	122	121	60-130	0.581	20

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/16/2021
Date Analyzed: 08/16/2021
Instrument: GC28
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227739
Extraction Method: E624.1
Analytical Method: E624.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227739

QC Summary Report for E624.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
Dibromofluoromethane	22.1	22.0	25	88	88	70-130	0.526	20
Toluene-d8	21.1	21.5	25	85	86	70-130	1.67	20
4-BFB	2.00	2.01	2.5	80	80	70-130	0.344	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: GC47
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227319
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227319

QC Summary Report for E625.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
Acenaphthene	ND	0.00280	0.00500	-	-	-
Acenaphthylene	ND	0.00170	0.00500	-	-	-
Acetochlor	ND	0.140	1.00	-	-	-
Anthracene	ND	0.00440	0.0100	-	-	-
Benzidine	ND	0.580	5.00	-	-	-
Benzo (a) anthracene	ND	0.0100	0.0500	-	-	-
Benzo (a) pyrene	ND	0.00250	0.00500	-	-	-
Benzo (b) fluoranthene	ND	0.00500	0.0200	-	-	-
Benzo (g,h,i) perylene	ND	0.00830	0.0200	-	-	-
Benzo (k) fluoranthene	ND	0.00520	0.0100	-	-	-
Benzoic Acid	ND	3.00	5.00	-	-	-
Benzyl Alcohol	ND	3.00	5.00	-	-	-
1,1-Biphenyl	ND	0.00990	0.0500	-	-	-
Bis (2-chloroethoxy) Methane	ND	0.180	1.00	-	-	-
Bis (2-chloroethyl) Ether	ND	0.00290	0.00500	-	-	-
Bis (2-chloroisopropyl) Ether	ND	0.0160	0.0500	-	-	-
Bis (2-ethylhexyl) Adipate	ND	0.110	1.00	-	-	-
Bis (2-ethylhexyl) Phthalate	ND	0.0150	0.200	-	-	-
4-Bromophenyl Phenyl Ether	ND	0.0850	1.00	-	-	-
Butylbenzyl Phthalate	ND	0.00800	0.0500	-	-	-
Carbazole	ND	0.320	1.00	-	-	-
4-Chloro-3-methylphenol	ND	0.150	1.00	-	-	-
4-Chloroaniline	ND	0.00210	0.00500	-	-	-
2-Chloronaphthalene	ND	0.0640	1.00	-	-	-
2-Chlorophenol	ND	0.00770	0.0500	-	-	-
4-Chlorophenyl Phenyl Ether	ND	0.110	1.00	-	-	-
Chrysene	ND	0.00880	0.0100	-	-	-
Dibenzo (a,h) anthracene	ND	0.00830	0.0100	-	-	-
Dibenzofuran	ND	0.200	1.00	-	-	-
Di-n-butyl Phthalate	ND	0.0140	0.0500	-	-	-
1,2-Dichlorobenzene	ND	0.150	1.00	-	-	-
1,3-Dichlorobenzene	ND	0.240	1.00	-	-	-
1,4-Dichlorobenzene	ND	0.340	1.00	-	-	-
3,3-Dichlorobenzidine	ND	0.00290	0.0200	-	-	-
2,4-Dichlorophenol	ND	0.00290	0.0100	-	-	-
Diethyl Phthalate	ND	0.00920	0.0500	-	-	-
2,4-Dimethylphenol	ND	0.610	1.00	-	-	-
Dimethyl Phthalate	ND	0.00480	0.0100	-	-	-

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: GC47
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227319
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227319

QC Summary Report for E625.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
4,6-Dinitro-2-methylphenol	ND	2.30	5.00	-	-	-
2,4-Dinitrophenol	ND	0.550	2.00	-	-	-
2,4-Dinitrotoluene	ND	0.0120	0.0500	-	-	-
2,6-Dichlorophenol	ND	0.00930	0.0500	-	-	-
2,6-Dinitrotoluene	ND	0.00480	0.0500	-	-	-
Di-n-octyl Phthalate	ND	0.0170	0.0500	-	-	-
1,2-Diphenylhydrazine	ND	0.130	1.00	-	-	-
Fluoranthene	ND	0.00430	0.0100	-	-	-
Fluorene	ND	0.00450	0.0100	-	-	-
Hexachlorobenzene	ND	0.000730	0.00500	-	-	-
Hexachlorobutadiene	ND	0.000910	0.0100	-	-	-
Hexachlorocyclopentadiene	ND	2.30	5.00	-	-	-
Hexachloroethane	ND	0.00720	0.0500	-	-	-
Indeno (1,2,3-cd) pyrene	ND	0.00780	0.0200	-	-	-
Isophorone	ND	1.00	2.00	-	-	-
1-Methylnaphthalene	ND	0.00140	0.00500	-	-	-
2-Methylnaphthalene	ND	0.00180	0.0100	-	-	-
2-Methylphenol (o-Cresol)	ND	0.320	1.00	-	-	-
3 & 4-Methylphenol (m,p-Cresol)	ND	0.420	1.00	-	-	-
Naphthalene	ND	0.00550	0.0500	-	-	-
2-Nitroaniline	ND	0.310	5.00	-	-	-
3-Nitroaniline	ND	2.00	5.00	-	-	-
4-Nitroaniline	ND	1.30	5.00	-	-	-
Nitrobenzene	ND	0.300	1.00	-	-	-
2-Nitrophenol	ND	0.550	5.00	-	-	-
4-Nitrophenol	ND	1.60	5.00	-	-	-
N-Nitrosodimethylamine	ND	0.740	5.00	-	-	-
N-Nitrosodi-n-propylamine	ND	0.320	1.00	-	-	-
N-Nitrosodiphenylamine	ND	0.0900	1.00	-	-	-
n-Octadecane	ND	0.100	1.00	-	-	-
Pentachlorophenol	ND	0.0500	0.250	-	-	-
Phenanthrene	ND	0.00740	0.0200	-	-	-
Phenol	ND	0.0200	0.200	-	-	-
Pyrene	ND	0.00420	0.0100	-	-	-
Pyridine	ND	0.160	1.00	-	-	-
2,3,4,6-Tetrachlorophenol	ND	0.180	1.00	-	-	-
1,2,4-Trichlorobenzene	ND	0.0750	1.00	-	-	-
2,4,5-Trichlorophenol	ND	0.00200	0.0100	-	-	-

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: GC47
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227319
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227319

QC Summary Report for E625.1

Analyte	MB Result	MDL	RL	SPK Val	MB SS %REC	MB SS Limits
2,4,6-Trichlorophenol	ND	0.00350	0.0100	-	-	-
Surrogate Recovery						
2-Fluorophenol	4.46			5	89	50-130
Phenol-d5	4.49			5	90	60-130
Nitrobenzene-d5	4.17			5	83	60-130
2-Fluorobiphenyl	4.10			5	82	60-130
2,4,6-Tribromophenol	3.56			5	71	60-130
4-Terphenyl-d14	3.08			5	62	60-130



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: GC47
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227319
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227319

QC Summary Report for E625.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Acenaphthene	0.168	0.147	0.25	67,F2	59,F2	70-130	13.4	25
Acenaphthylene	0.207	0.177	0.25	83	71	60-130	15.8	25
Anthracene	0.175	0.155	0.25	70	62,F2	70-130	12.4	25
Benzidine	18.5	16.4	25	74	66	50-130	11.9	25
Benzo (a) anthracene	0.192	0.170	0.25	77	68	60-130	12.0	25
Benzo (a) pyrene	0.200	0.176	0.25	80	70	70-130	12.7	25
Benzo (b) fluoranthene	0.227	0.211	0.25	91	85	60-130	7.21	25
Benzo (g,h,i) perylene	0.220	0.201	0.25	88	81	70-130	8.81	25
Benzo (k) fluoranthene	0.234	0.195	0.25	93	78	70-130	18.0	25
Benzyl Alcohol	24.5	21.7	25	98	87	70-130	12.4	25
Bis (2-chloroethoxy) Methane	5.05	4.30	5	101	86	70-130	16.1	25
Bis (2-chloroethyl) Ether	0.246	0.222	0.25	98	89	60-130	10.3	25
Bis (2-chloroisopropyl) Ether	0.240	0.214	0.25	96	86	60-130	11.6	25
Bis (2-ethylhexyl) Adipate	3.91	3.39	5	78	68	60-130	14.2	25
Bis (2-ethylhexyl) Phthalate	0.177	0.160	0.25	71	64	60-130	9.79	25
4-Bromophenyl Phenyl Ether	6.54	5.61	5	131,F2	112	70-130	15.3	25
Butylbenzyl Phthalate	0.184	0.158	0.25	74	63	60-130	14.8	25
Carbazole	5.14	4.53	5	103	91	70-130	12.7	25
4-Chloro-3-methylphenol	4.85	4.41	5	97	88	70-130	9.53	25
4-Chloroaniline	0.260	0.232	0.25	104	93	70-130	11.8	25
2-Chloronaphthalene	4.46	3.91	5	89	78	70-130	13.1	25
2-Chlorophenol	0.219	0.198	0.25	88	79	60-130	9.88	25
4-Chlorophenyl Phenyl Ether	5.31	4.54	5	106	91	70-130	15.6	25
Chrysene	0.225	0.189	0.25	90	76	70-130	17.4	25
Dibenzo (a,h) anthracene	0.208	0.160	0.25	83	64,F2	70-130	26.0,F2	25
Dibenzofuran	4.46	3.92	5	89	79	70-130	12.8	25
Di-n-butyl Phthalate	0.197	0.172	0.25	79	69,F2	70-130	13.9	25
1,2-Dichlorobenzene	4.46	4.08	5	89	82	60-130	8.72	25
1,3-Dichlorobenzene	4.26	4.00	5	85	80	60-130	6.26	25
1,4-Dichlorobenzene	4.27	3.98	5	85	80	60-130	7.00	25
3,3-Dichlorobenzidine	0.281	0.250	0.25	112	100	70-130	11.4	25
2,4-Dichlorophenol	0.255	0.218	0.25	102	87	70-130	15.6	25
Diethyl Phthalate	0.229	0.202	0.25	92	81	70-130	12.6	25
2,4-Dimethylphenol	4.39	4.03	5	88	81	70-130	8.57	25
Dimethyl Phthalate	0.220	0.191	0.25	88	76	70-130	14.2	25
4,6-Dinitro-2-methylphenol	21.3	19.8	25	85	79	70-130	7.26	25
2,4-Dinitrophenol	3.80	3.50	5	76	70	60-130	8.32	25
2,4-Dinitrotoluene	0.260	0.236	0.25	104	94	70-130	9.64	25

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: GC47
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227319
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227319

QC Summary Report for E625.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
2,6-Dichlorophenol	0.241	0.216	0.25	96	86	70-130	11.1	25
2,6-Dinitrotoluene	0.216	0.196	0.25	86	78	70-130	9.78	25
Di-n-octyl Phthalate	0.213	0.195	0.25	85	78	70-130	9.19	25
1,2-Diphenylhydrazine	4.94	4.31	5	99	86	70-130	13.7	25
Fluoranthene	0.226	0.198	0.25	91	79	70-130	13.3	25
Fluorene	0.224	0.196	0.25	90	78	70-130	13.5	25
Hexachlorobenzene	0.250	0.214	0.25	100	86	60-130	15.5	25
Hexachlorobutadiene	0.238	0.212	0.25	95	85	60-130	11.8	25
Hexachlorocyclopentadiene	19.8	18.0	25	79	72	60-130	9.59	25
Hexachloroethane	0.152	0.138	0.25	61	55,F2	60-130	10.1	25
Indeno (1,2,3-cd) pyrene	0.212	0.193	0.25	85	77	70-130	9.03	25
Isophorone	5.02	4.53	5	100	91	70-130	10.3	25
1-Methylnaphthalene	0.190	0.174	0.25	76	70	70-130	8.52	25
2-Methylnaphthalene	0.251	0.222	0.25	100	89	60-130	12.3	25
2-Methylphenol (o-Cresol)	4.40	3.89	5	88	78	70-130	12.3	25
3 & 4-Methylphenol (m,p-Cresol)	4.79	4.26	5	96	85	70-130	11.7	25
Naphthalene	0.205	0.183	0.25	82	73	50-130	11.5	25
2-Nitroaniline	22.2	19.5	25	89	78	70-130	13.1	25
3-Nitroaniline	43.2	39.6	25	173,F2	159,F2	70-130	8.57	25
4-Nitroaniline	24.8	22.6	25	99	90	70-130	9.49	25
Nitrobenzene	4.83	4.26	5	97	85	70-130	12.5	25
2-Nitrophenol	23.2	20.6	25	93	82	70-130	11.9	25
4-Nitrophenol	23.2	21.2	25	93	85	50-130	9.03	25
N-Nitrosodimethylamine	21.1	19.5	25	84	78	60-130	7.98	25
N-Nitrosodi-n-propylamine	4.80	4.41	5	96	88	60-130	8.44	25
N-Nitrosodiphenylamine	5.10	4.40	5	102	88	70-130	14.6	25
n-Octadecane	5.18	4.49	5	104	90	70-130	14.2	25
Pentachlorophenol	1.09	0.926	1.25	88	74	60-130	16.7	25
Phenanthrene	0.234	0.203	0.25	94	81	70-130	14.3	25
Phenol	0.887	0.794	1	89	79	60-130	11.1	25
Pyrene	0.245	0.204	0.25	98	82	70-130	18.1	25
Pyridine	4.08	3.45	5	82	69	50-130	16.9	25
1,2,4-Trichlorobenzene	4.69	4.23	5	94	85	70-130	10.2	25
2,4,5-Trichlorophenol	0.211	0.184	0.25	84	73	70-130	13.7	25
2,4,6-Trichlorophenol	0.208	0.182	0.25	83	73	70-130	13.0	25

(Cont.)



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/10/2021
Date Analyzed: 08/11/2021
Instrument: GC47
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227319
Extraction Method: E625.1
Analytical Method: E625.1
Unit: µg/L
Sample ID: MB/LCS/LCSD-227319

QC Summary Report for E625.1

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Surrogate Recovery								
2-Fluorophenol	4.10	4.34	5	82	87	50-130	5.58	25
Phenol-d5	4.41	4.43	5	88	89	60-130	0.516	25
Nitrobenzene-d5	4.44	4.53	5	89	91	60-130	2.03	25
2-Fluorobiphenyl	4.48	4.21	5	90	84	60-130	6.15	25
2,4,6-Tribromophenol	5.18	4.98	5	104	100	60-130	3.86	25
4-Terphenyl-d14	3.58	3.34	5	72	67	60-130	7.04	25



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/11/2021
Date Analyzed: 08/11/2021
Instrument: WC_SKALAR
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227370
Extraction Method: E350.1
Analytical Method: E350.1
Unit: mg/L
Sample ID: MB/LCS/LCSD-227370

QC Summary Report for E350.1

Analyte	MB Result	MDL	RL			
Ammonia, total as N	ND	0.0920	0.100	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Ammonia, total as N	3.95	4.07	4	99	102	88-113	2.99	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/13/2021
Date Analyzed: 08/13/2021
Instrument: WC_SKALAR
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227599
Extraction Method: Kelada-01
Analytical Method: Kelada-01
Unit: µg/L
Sample ID: MB/LCS/LCSD-227599

QC Summary Report for Kelada-01

Analyte	MB Result	MDL	RL			
Total Cyanide	ND	0.770	1.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Total Cyanide	41.4	43.2	40	104	108	90-110	4.19	20



Quality Control Report

Client: NRG Energy, LLC
Date Prepared: 08/13/2021
Date Analyzed: 08/13/2021
Instrument: WC_SKALAR
Matrix: Water
Project: DDSD Semi-Annual

WorkOrder: 2108517
BatchID: 227620
Extraction Method: E420.4
Analytical Method: E420.4
Unit: µg/L
Sample ID: MB/LCS/LCSD-227620

QC Summary Report for E420.4

Analyte	MB Result	MDL	RL			
Phenolics	ND	1.30	2.00	-	-	-

Analyte	LCS Result	LCSD Result	SPK Val	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Limit
Phenolics	41.3	41.6	40	103	104	80-120	0.616	20

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 2108517

ClientCode: GOA

☐ WaterTrax

☐ WriteOn

☐ EDF

☐ EQuIS

☐ Dry-Weight

☒ Email

☐ HardCopy

☐ ThirdParty

☒ J-flag

☐ Detection Summary

☐ Excel

Report to:

David Frandsen
NRG Energy, LLC
3201 Wilbur Avenue
Antioch, CA 94509
(925) 427-3479 FAX: (925) 779-6679

Email: David.Frandsen@nrg.com
cc/3rd Party: joe.moura@nrg.com; james.robinson@nrg.
PO: 4501905749
Project: DDSD Semi-Annual

Bill to:

Accounts Payable
NRG
4900 N. Scottsdale Road, Ste. 5000
Scottsdale, AZ 85251
invoices@clearwayenergy.coupahost.co

Requested TAT: 5 days;

Date Received: 08/10/2021

Date Logged: 08/10/2021

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
2108517-001	ML-21-085	Water	8/10/2021 15:00	☐	A								A			
2108517-002	ML-21-086	Water	8/10/2021 15:00	☐	A								A			
2108517-003	ML-21-087	Water	8/10/2021 15:00	☐							A		A			
2108517-004	ML-21-088	Water	8/10/2021 15:00	☐								A	A			
2108517-005	ML-21-089	Water	8/10/2021 15:00	☐						A			A			
2108517-006	ML-21-090	Water	8/10/2021 15:00	☐		A							A			
2108517-007	ML-21-091	Water	8/10/2021 15:00	☐			A						A			
2108517-008	ML-21-092	Water	8/10/2021 15:00	☐				A					A			
2108517-009	ML-21-093	Water	8/10/2021 15:00	☐					A				A			

Test Legend:

1	1664A_W
5	625_SCSM_W
9	PRDisposal Fee

2	608_W
6	AMMONIA_W
10	

3	624_W
7	CN_W
11	

4	624ACR+2CEVE_W
8	PHENOLICS_W
12	

Project Manager: Angela Rydelius

Prepared by: Adrianna Cardoza

Comments: Use QUOTE 192976 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

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.



McC Campbell 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.mcccampbell.com / E-mail: main@mcccampbell.com

WORK ORDER SUMMARY

Client Name: NRG ENERGY, LLC
Client Contact: David Frandsen
Contact's Email: David.Frandsen@nrg.com

Project: DDSD Semi-Annual

Comments: Use QUOTE 192976 for any Marsh Landing projects to get correct analyte list. Always report in mg/L.

Work Order: 2108517

QC Level: LEVEL 2

Date Logged: 8/10/2021

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

LabID	ClientSampID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	Head Space	Dry-Weight	Collection Date & Time	TAT	Test Due Date	Sediment Content	Hold	SubOut
001A	ML-21-085	Water	E1664A (HEM; Oil & Grease w/o S.G. Clean-Up)	1	1LA w/ HCl	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
002A	ML-21-086	Water	E1664A (HEM; Oil & Grease w/o S.G. Clean-Up)	1	1LA w/ HCl	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
003A	ML-21-087	Water	Kelada-01 (Cyanide, Total)	1	250mL aHDPE w/ NaOH	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
004A	ML-21-088	Water	E420.4 (Phenolics)	1	250mL aG w/ H2SO4	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
005A	ML-21-089	Water	E350.1 (Ammonia)	1	250mL aG w/ H2SO4	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
006A	ML-21-090	Water	E608.3 (OC Pesticides+PCBs w/ Florisil Clean-up)	1	1LA Narrow Mouth, Unpres	☐	☐	8/10/2021 15:00	5 days	8/17/2021	Present	☐	
007A	ML-21-091	Water	E624.1 (VOCs)	2	VOA w/ HCl	☐	☐	8/10/2021 15:00	5 days	8/17/2021	None	☐	
008A	ML-21-092	Water	E624.1 (ACRO, ACRY, & 2-CEVE)	2	VOA, Unpres	☐	☐	8/10/2021 15:00	5 days	8/17/2021	None	☐	
009A	ML-21-093	Water	E625.1 (SVOCs)	1	1LA Narrow Mouth, Unpres	☐	☐	8/10/2021 15:00	5 days	8/17/2021	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.

2108517

Chain of Custody

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Marsh Landing Generating Station

3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509

Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO						SEND INVOICE TO		PROJECT				ANALYSIS REQUEST							
Laboratory: McC Campbell Analytical, Inc. Attention: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Phone/Fax: 925.252.9262/ 925.252.9269						Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@cleanwaterenergy.com P.O. No.: 4501905749		Plant: Marsh Landing Title: DDSD Phase: Semi-Annual Manager: David Frandsen				Oil and Grease (animal/vegetable) ¹ (EPA Method 1664A)				Oil and Grease (Petroleum/Mineral) ² (EPA Method 1664A)			
SAMPLE INFORMATION							CONTAINER INFORMATION												
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, L)	Preserv.								
ML-21-085	10-Aug-21	1500	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	1	Hydrochloric Acid (pH<2, 4°C)	X							
ML-21-086	10-Aug-21	1500	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	1	Hydrochloric Acid (pH<2, 4°C)		X						
HOLDING TIME:												28 days	28 days						
REPORTING			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION					DIRECTIONS FOR LABORATORY											
Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com E-mail CC: joe.moura@nrg.com								STANDARD TAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J flagged concentrations below the RL and include method detection limits (MDLs) in report. 1. Animal/Vegetable O/G 2. Petroleum/Mineral O/G RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.											
PRINTED NAME			SIGNATURE			COMPANY		DATE		TIME									
Sampled by: James E. Robinson.			<i>James E. Robinson</i>			NRG		10-Aug-21		1500									
Relinquished by: James E. Robinson.			<i>James E. Robinson</i>			NRG		10-Aug-21		1742									
Received by: <i>Lilly Ortiz</i>			<i>Lilly Ortiz</i>			MAI		10-Aug-21		1742									
Relinquished by:										3.8.21									
Received by:																			
Relinquished by:																			
Received by:																			

2108517

Chain of Custody

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Marsh Landing Generating Station

3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509

Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO				SEND INVOICE TO				PROJECT				ANALYSIS REQUEST					
Laboratory: McC Campbell Analytical, Inc. Attention: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 925.252.9262/ 925.252.9269 Phone/Fax:				Company: Marsh Landing LLC Attention: Accounts Payable Address: invoices@chevronenergy.com P.O. No.: 4501905749				Plant: Marsh Landing Title: DDSD Phase: Semi-Annual Manager: David Frandsen				Cyanide¹ (Kelada-01) Phenols (EPA Method 420.4) Ammonia as N (EPA Method 350.1)					
SAMPLE INFORMATION								CONTAINER INFORMATION									
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.						
ML-21-087	10-Aug-21	1500	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	HDPE Bottle	250	HNO ₃ (pH<2)	X					
ML-21-088	10-Aug-21	1500	DDSD	Semi-Annual	Wastewater	Grab	FAC Combined Wastewater	1	Amber Glass Jar	500	H ₂ SO ₄ (pH<2, 4°C)		X				
ML-21-089	10-Aug-21	1500	DDSD	Semi-Annual	Wastewater	C-24	FAC Combined Wastewater	1	Amber Glass Jar	500	H ₂ SO ₄ (pH<2, 4°C)			X			
												HOLDING TIME:		14 days	28 days	28 days	
REPORTING Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com joe.moura@nrg.com			LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION Cyanide sample pretreated with sodium thiosulfate prior to preservation with sodium hydroxide.					DIRECTIONS FOR LABORATORY STANDARD TAT (5-day). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. 1. Cyanide sample was pretreated with sodium thiosulfate prior to preservation with sodium hydroxide. RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.									
PRINTED NAME			SIGNATURE			COMPANY			DATE			TIME					
Sampled by: James E. Robinson.			<i>James E. Robinson</i>			NRG			10-Aug-21			1500					
Relinquished by: James E. Robinson.			<i>James E. Robinson</i>			NRG			10-Aug-21			1742					
Received by: <i>Lilly Ortiz</i>			<i>Lilly Ortiz</i>			MAI			10-Aug-21			1742					
Relinquished by:																	
Received by:																	
Relinquished by:																	
Received by:																	

Chain of Custody

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Marsh Landing Generating Station

3201 Wilbur Avenue, P.O. Box 1687, Antioch, CA 94509

Phone: (925) 779-6500 Fax: (925) 779-6509

SAMPLES SUBMITTED TO				SEND INVOICE TO		PROJECT				ANALYSIS REQUEST					
McCampbell Analytical, Inc. Attention: 1534 Willow Pass Road, Pittsburg, CA 94565-1701 Address: 925.252.9262/ 925.252.9269 Phone/Fax:				Company: Marsh Landing LLC Attention: Accounts Payable Address: mcampbell@mcampbellanalytical.com P.O. No.: 4501905749		Plant: Marsh Landing Title: DDSD Phase: Semi-Annual Manager: David Frandsen				Pesticides & PCBs (EPA Method 608) Volatile Organics (EPA Method 624) Volatile Organics ¹ (EPA Method 624) Semi-Volatile Organics (EPA Method 625)					
SAMPLE INFORMATION								CONTAINER INFORMATION							
Sample Number	Sample Date	Sample Collection Time	Regulatory Driver	Regulatory Frequency	Sample Medium	Sample Type	Sample Description	Number	Type	Volume (each, mL)	Preserv.	Pesticides & PCBs (EPA Method 608)	Volatile Organics (EPA Method 624)	Volatile Organics ¹ (EPA Method 624)	Semi-Volatile Organics (EPA Method 625)
ML-21-090	10-Aug-21	1500	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	1	Amber Glass	1,000	None (4°C)	X			
ML-21-091	10-Aug-21	1500	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	2	Clear VOA	43	HCL (ZHS, pH<2, 4°C)		X		
ML-21-092	10-Aug-21	1500	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	2	Clear VOA	43	None (4°C)			X	
ML-21-093	10-Aug-21	1500	DDSD	Semi-Annual	Water	Grab	FAC Combined Wastewater	1	Amber Glass	1,000	None (4°C)				X
* For composite samples, the completion time of the 24-hr composite or the time of the final sample aliquot is considered the "sample collection time" for the purpose of determining sample holding time.												HOLDING TIME: 40 days 14 days 3 days 40 days			
REPORTING		LABORATORY NOTES RE: SAMPLE RECEIPT/CONDITION						DIRECTIONS FOR LABORATORY							
Original to: David Frandsen Title: Environmental Specialist/Engineer Address: P.O. Box 1687 Antioch, CA 94509 Phone/Fax: 925.324-3533/6509 E-mail: david.frandsen@nrg.com E-mail CC: james.robinson@nrg.com joe.moura@nrg.com								Standard TAT (5-DAYS). Establish calibration standards so Minimum Level (ML) value is the lowest calibration standard, the lowest quantifiable concentration or Reporting Limit (RL). Report "Detected, but Not Quantified" (DNQ) with estimated J-flagged concentrations below the RL and include method detection limits (MDLs) in report. 1. VOCs- Acrolein, acrylonitrile, and 2cleave RESULTS AND PRICING PER QUOTE ID: 203270. *Include sample description with client sample ID.							
PRINTED NAME		SIGNATURE		COMPANY		DATE		TIME							
Sampled by: James E. Robinson.		<i>James E. Robinson</i>		NRG		10-Aug-21		1500							
Relinquished by: James E. Robinson.		<i>James E. Robinson</i>		NRG		10-Aug-21		1742							
Received by: <i>Lilly Ortiz</i>		<i>Lilly Ortiz</i>		MAI		10-Aug-21		1742							
Relinquished by:															
Received by:															
Relinquished by:															
Received by:															



Sample Receipt Checklist

Client Name: **NRG Energy, LLC**
Project: **DDSD Semi-Annual**

Date and Time Received: **8/10/2021 17:42**
Date Logged: **8/10/2021**
Received by: **Lilly Ortiz**
Logged by: **Adrianna Cardoza**

WorkOrder No: **2108517** Matrix: Water
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 ☒
Custody seals intact on sample bottles?	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: 3.8°C		NA ☐
ZHS conditional analyses: VOA meets zero headspace requirement (VOCs, TPHg/BTEX, RSK)?	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:



Industrial User Report Checklist And Certification Statement Form

Attn:	Jason Yun		
Environmental Compliance Specialist			
Environmental Specialist	Phone	(925) 756-1913	Fax (925) 756-1961
Industrial User Facility Name	Marsh Landing LLC		
Duly Authorized Representative Name	Joe Moura		
Duly Authorized Representative Phone	925-779-6685		

This Industrial User Report Checklist and Certification Statement Form shall be submitted with all Self-Monitoring Reports (SMRs), as specified by the Wastewater Discharge Permit issued by Delta Diablo, hereinafter referred to as the District. When submitting Self-Monitoring Reports, check all that are applicable.

Self-Monitoring Reports (SMRs) (Required)

☒ Flow Discharge Summary (Review Discharge Permit.)

☐ Calibration of Effluent Flow Meters; if applicable.

☒ **Monitoring Results – all required tests completed, results reviewed, results included**

Quality Assurance/Quality Control (QA/QC) and Chain-of-Custody (COC) (Review Discharge Permit):

☒ pH (**field-grab**) (shall be **analyzed within 15 minutes of sample collection**).

Results, collection time, analysis time and Technician's Initials shall be reported in the comments section of the respective COC. The pH meter shall be accurate and reproducible to 0.1 pH unit with a range of 0 to 14 and equipped with a temperature-compensation adjustment (Standard methods).

☐ Cyanide samples were tested for oxidizers and preserved with Sodium Hydroxide (NaOH).
This shall be reported in the comments section on the respective COC, if applicable.

☒ Selenium lab analysis by EPA Method 200.8 by Reaction Mode: if applicable.

☐ Total Phenolics lab analysis by EPA Method 420.4: if applicable.

☒ **All sample analysis for regulatory compliance reporting** shall be completed by an ELAP certified Laboratory.

☒ Certification Statement included (see attached)

☐ Other requested data _____