

RECEIVED

By Alameda County Environmental Health 12:26 pm, Oct 09, 2015

Mr. Mark Detterman
Alameda County Environmental Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Former Olympic Service Station
1436 Grant Avenue
San Lorenzo, California
ACEHD Case No. RO0000373, GeoTracker No. T0600102256

Dear Mr. Detterman:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,
George and Frida Jaber 1989 Family Trust



Philip Jaber, Trustee



3330 Cameron Park Drive, Ste 550
Cameron Park, California 95682
(530) 676-6004 ~ Fax: (530) 676-6005

TRANSMITTAL

Date October 8, 2015
Project Former Olympic Station

To:
Oro Loma Sanitary District (OLSD)
Industrial Waste Inspector
2600 Grant Avenue, San Lorenzo, CA 94580
Attn: Rodney Smith

Re: Wastewater Discharge Monthly Report (Permit #SDP-2014147)

Item	Description
1	Analytical Report (Effluent sample collected on 9/1/15)
2	Operational Uptime and Flow Summary Table (Table 3)
3	Operational Performance and Mass Removal Summary Table (Table 9: GW Extraction Component)

Dear Mr. Smith:

Please find attached for your review the analytical results for the effluent water sample collected on September 1, 2015, the pH readings (Table 3), and groundwater discharge flow rates (Table 9) observed from the dual-phase extraction and groundwater remediation system at the Former Olympic Station Facility, located at 1436 Grant Avenue, San Lorenzo, California. Between September 1 and October 6, 2015, all extracted groundwater was treated using carbon vessels, and discharged into the sanitary sewer. The approximate monthly discharge and extraction rates are as follows:

- August 3 – October 6, 2015: 249,260 gallons (3.0 gpm)

The system operated in compliance with permit conditions and all effluent sample results were below laboratory reporting limits, and within the permit limitations.

“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, or need more information, please contact me at (530) 313-9974 or dbarr@stratusinc.net.

Sincerely,



Deborah L. Barr, P.E.





Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

Stratus Environmental
3330 Cameron Park Drive
Cameron Park, CA 956828861

Attn: Scott Bittinger
Phone: (530) 676-2062
Fax: (530) 676-6005
Date Received : 09/02/15

Job: Olympic Station

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B / SW8260B
Volatile Organic Compounds (VOCs) EPA Method SW8260B

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID : Oly W EFF				
Lab ID : STR15090240-01A	TPH-P (GRO)	ND	09/02/15	09/02/15
Date Sampled 09/01/15 05:21	Methyl tert-butyl ether (MTBE)	ND	09/02/15	09/02/15
	Benzene	ND	09/02/15	09/02/15
	Toluene	ND	09/02/15	09/02/15
	Ethylbenzene	ND	09/02/15	09/02/15
	m,p-Xylene	ND	09/02/15	09/02/15
	o-Xylene	ND	09/02/15	09/02/15
Client ID : Oly A EFF				
Lab ID : STR15090240-02A	TPH-P (GRO)	ND	09/02/15 10:15	09/02/15
Date Sampled 09/01/15 05:18	Methyl tert-butyl ether (MTBE)	ND	09/02/15 10:15	09/02/15
	Benzene	ND	09/02/15 10:15	09/02/15
	Toluene	ND	09/02/15 10:15	09/02/15
	Ethylbenzene	ND	09/02/15 10:15	09/02/15
	m,p-Xylene	ND	09/02/15 10:15	09/02/15
	o-Xylene	ND	09/02/15 10:15	09/02/15

Gasoline Range Organics (GRO) C4-C13

Note: For sample -02A concentrations of air in a Tedlar Bag are at 24 degrees Celsius and 30.00 inches of mercury.

ND = Not Detected

Reported in micrograms per Liter, per client request.



Roger Scholl

Randy Gardner

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered in any way.

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



[Signature]
9/2/15

Report Date



Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC Sample Preservation Report

Work Order: STR15090240

Job: Olympic Station

Alpha's Sample ID	Client's Sample ID	Matrix	pH
15090240-01A	Oly W EFF	Aqueous	2

9/2/15

Report Date



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
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Date:
04-Sep-15

QC Summary Report

Work Order:
15090240

Method Blank

File ID: 15090205.D

Type MBLK

Test Code: EPA Method SW8015B/C / SW8260B

Sample ID: MBLK MS15A0902B

Units : mg/m³

Run ID: MSD_15_150902A

Batch ID: MS15A0902B

Analysis Date: 09/02/2015 11:54

Prep Date: 09/02/2015 11:54

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

ND

10

Surr: 1,2-Dichloroethane-d4

1.78

2

89

70

130

Surr: Toluene-d8

2.08

2

104

70

130

Surr: 4-Bromofluorobenzene

2.02

2

101

70

130

Laboratory Control Spike

File ID: 15090203.D

Type LCS

Test Code: EPA Method SW8015B/C / SW8260B

Sample ID: GLCS MS15A0902B

Units : mg/m³

Run ID: MSD_15_150902A

Batch ID: MS15A0902B

Analysis Date: 09/02/2015 10:50

Prep Date: 09/02/2015 10:50

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

TPH-P (GRO)

427

10

400

107

70

130

Surr: 1,2-Dichloroethane-d4

8.8

10

88

70

130

Surr: Toluene-d8

10.5

10

105

70

130

Surr: 4-Bromofluorobenzene

10

10

100

70

130

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:
04-Sep-15

QC Summary Report

Work Order:
15090240

Method Blank

File ID: 15090204.D

Type MBLK Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS09W0902B

Analysis Date: 09/02/2015 12:34

Sample ID: MBLK MS09W0902B

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 12:34

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	10.2		10		102	70	130			
Surr: Toluene-d8	10.2		10		102	70	130			
Surr: 4-Bromofluorobenzene	9.68		10		97	70	130			

Laboratory Control Spike

File ID: 15090203.D

Type LCS Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS09W0902B

Analysis Date: 09/02/2015 12:09

Sample ID: GLCS MS09W0902B

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 12:09

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	421	50	400		105	70	130			
Surr: 1,2-Dichloroethane-d4	10.3		10		103	70	130			
Surr: Toluene-d8	9.97		10		99.7	70	130			
Surr: 4-Bromofluorobenzene	10.1		10		101	70	130			

Sample Matrix Spike

File ID: 15090216.D

Type MS Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS09W0902B

Analysis Date: 09/02/2015 17:26

Sample ID: 15090240-01AGS

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 17:26

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2130	250	2000		0	107	54	143		
Surr: 1,2-Dichloroethane-d4	51.4		50		103	70	130			
Surr: Toluene-d8	49.8		50		99.6	70	130			
Surr: 4-Bromofluorobenzene	50		50		100	70	130			

Sample Matrix Spike Duplicate

File ID: 15090217.D

Type MSD Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS09W0902B

Analysis Date: 09/02/2015 17:50

Sample ID: 15090240-01AGSD

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 17:50

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2250	250	2000		0	113	54	143	2132	5.6(23)
Surr: 1,2-Dichloroethane-d4	51.3		50		103	70	130			
Surr: Toluene-d8	50.4		50		101	70	130			
Surr: 4-Bromofluorobenzene	48.6		50		97	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.



Alpha Analytical, Inc.

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Date:
04-Sep-15

QC Summary Report

Work Order:
15090240

Method Blank
File ID: 15090205.D

Type MBLK Test Code: EPA Method SW8260B

Batch ID: MS15A0902A

Analysis Date: 09/02/2015 11:54

Sample ID: MBLK MS15A0902A

Units: mg/m³

Run ID: MSD_15_150902A

Prep Date: 09/02/2015 11:54

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1								
Benzene	ND	0.1								
Toluene	ND	0.1								
Ethylbenzene	ND	0.1								
m,p-Xylene	ND	0.1								
o-Xylene	ND	0.1								
Surr: 1,2-Dichloroethane-d4	1.78		2		89	70	130			
Surr: Toluene-d8	2.08		2		104	70	130			
Surr: 4-Bromofluorobenzene	2.02		2		101	70	130			

Laboratory Control Spike

Type LCS Test Code: EPA Method SW8260B

File ID: 15090202.D

Batch ID: MS15A0902A

Analysis Date: 09/02/2015 10:25

Sample ID: LCS MS15A0902A

Units: mg/m³

Run ID: MSD_15_150902A

Prep Date: 09/02/2015 10:25

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	8.74	0.1	10		87	63	137			
Benzene	8.97	0.1	10		90	70	130			
Toluene	10	0.1	10		100	70	130			
Ethylbenzene	9.36	0.1	10		94	70	130			
m,p-Xylene	9.8	0.1	10		98	65	139			
o-Xylene	9.44	0.1	10		94	70	130			
Surr: 1,2-Dichloroethane-d4	8.94		10		89	70	130			
Surr: Toluene-d8	10.4		10		104	70	130			
Surr: 4-Bromofluorobenzene	9.98		10		99.8	70	130			

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



Alpha Analytical, Inc.

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Date:
04-Sep-15

QC Summary Report

Work Order:
15090240

Method Blank

Type MBLK Test Code: EPA Method 624/8260

File ID: 15090204.D

Batch ID: MS09W0902A

Analysis Date: 09/02/2015 12:34

Sample ID: MBLK MS09W0902A

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 12:34

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.5								
Benzene	ND	0.5								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
m,p-Xylene	ND	0.5								
o-Xylene	ND	0.5								
Surr: 1,2-Dichloroethane-d4	10.2		10		102	70	130			
Surr: Toluene-d8	10.2		10		102	70	130			
Surr: 4-Bromofluorobenzene	9.68		10		97	70	130			

Laboratory Control Spike

Type LCS Test Code: EPA Method 624/8260

File ID: 15090202.D

Batch ID: MS09W0902A

Analysis Date: 09/02/2015 11:44

Sample ID: LCS MS09W0902A

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 11:44

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	9.06	0.5	10		91	63	137			
Benzene	10	0.5	10		100	70	130			
Toluene	9.7	0.5	10		97	70	130			
Ethylbenzene	8.74	0.5	10		87	70	130			
m,p-Xylene	9.21	0.5	10		92	65	139			
o-Xylene	9.93	0.5	10		99	70	130			
Surr: 1,2-Dichloroethane-d4	10		10		100	70	130			
Surr: Toluene-d8	10		10		100	70	130			
Surr: 4-Bromofluorobenzene	9.84		10		98	70	130			

Sample Matrix Spike

Type MS Test Code: EPA Method 624/8260

File ID: 15090214.D

Batch ID: MS09W0902A

Analysis Date: 09/02/2015 16:37

Sample ID: 15090240-01AMS

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 16:37

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	48.8	1.3	50	0	98	56	140			
Benzene	51.1	1.3	50	0	102	67	134			
Toluene	47.9	1.3	50	0	96	38	130			
Ethylbenzene	41.8	1.3	50	0	84	70	130			
m,p-Xylene	43.2	1.3	50	0	86	65	139			
o-Xylene	48.6	1.3	50	0	97	69	130			
Surr: 1,2-Dichloroethane-d4	52		50		104	70	130			
Surr: Toluene-d8	49.1		50		98	70	130			
Surr: 4-Bromofluorobenzene	49.6		50		99	70	130			

Sample Matrix Spike Duplicate

Type MSD Test Code: EPA Method 624/8260

File ID: 15090215.D

Batch ID: MS09W0902A

Analysis Date: 09/02/2015 17:01

Sample ID: 15090240-01AMSD

Units : µg/L

Run ID: MSD_09_150902A

Prep Date: 09/02/2015 17:01

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	54	1.3	50	0	108	56	140	48.79	10.1(40)	
Benzene	57.1	1.3	50	0	114	67	134	51.11	11.0(21)	
Toluene	53.1	1.3	50	0	106	38	130	47.86	10.4(20)	
Ethylbenzene	47.2	1.3	50	0	94	70	130	41.81	12.1(20)	
m,p-Xylene	49.2	1.3	50	0	98	65	139	43.23	13.0(20)	
o-Xylene	54.5	1.3	50	0	109	69	130	48.62	11.4(20)	
Surr: 1,2-Dichloroethane-d4	51		50		102	70	130			
Surr: Toluene-d8	49		50		98	70	130			
Surr: 4-Bromofluorobenzene	48.7		50		97	70	130			



Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:
04-Sep-15

QC Summary Report

Work Order:
15090240

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Billing Information :

CHAIN-OF-CUSTODY RECORD

RUSH CA

Alpha Analytical, Inc.
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
 TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : STR15090240
Report Due By : 5:00 PM On : 02-Sep-15

Client:
 Stratus Environmental
 3330 Cameron Park Drive
 Suite 550
 Cameron Park, CA 95682-8861

Report Attention	Phone Number	EEmail Address
Scott Bittinger	(530) 676-2062 x	sbittinger@stratusinc.net

EDD Required : Yes

Sampled by : C. Hill

PO :
 Client's COC # : 04518 Job : Olympic Station

Cooler Temp	Samples Received	Date Printed
0 °C	02-Sep-15	02-Sep-15

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests						Sample Remarks				
				Alpha	Sub	TAT	TPHP_A	TPHP_W	VOC_A	VOC_W							
STR15090240-01A	Oly W EFF	AQ	09/01/15 05:21	3	0	0											
STR15090240-02A	Oly A EFF	AR	09/01/15 05:18	1	0	0	GAS-N/C			BTEX/MTB E							Tedlar.

Comments: ASAP TAT. Security seals intact. Frozen ice. Chain split due to different TATs. :

Signature	Print Name	Company	Date/Time
<i>Jessica Alvarado</i>	JESSICA ALVARADO	Alpha Analytical, Inc.	9/2/15 955

Logged in by: _____

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Company: Stratis
 Attn: 3330 Canyon Blvd
 Address: Canyon Rd
 City, State, Zip: _____
 Phone Number: _____ Fax: _____



Alpha Analytical, Inc.
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431
 Satellite Service Centers:
 Northern CA: 9891 Horn Road, Suite C, Rancho Cordova, CA 95827
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746
 Northern NV: 1250 Lamolle Hwy., #310, Elko, NV 89801
 Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120

Phone: 775-355-1044
 Fax: 775-355-0406
 Phone: 916-366-9089
 Phone: 714-366-2901
 Phone: 775-388-7043
 Phone: 702-281-4848

04518

Page # 1 of 1

Company: Stratis
 Address: _____
 City, State, Zip: _____

Job and Purchase Order Info:
 Job # _____
 Job Name: Olympic Station
 P.O. #: _____

Report Attention/Project Manager:
 Name: SCOTT
 Email Address: _____
 Phone #: _____
 Cell #: _____

QC Deliverable Info:
 EDD Required? Yes / No _____ EDF Required? Yes / No _____
 Global ID: _____
 Data Validation Packages: III or IV _____

Samples Collected from which State? (circle one) AR CA KS NV OR WA DOD Site Other

Time Sampled (HHMM)	Date Sampled (MMDD)	Matrix* (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	# Containers* (See Key Below)	Analysis Requested			Remarks	
							Field Filtered?	GRD	BTEX		MTBE
							Yes	No			
0528	9/5	AQ		Oly W INT	STD	3	X	X	X		
0526	)	)		Oly W GAC1	STD	3	X	X	X		
0523	)	)		Oly W GAC2	STD	3	X	X	X		
0521	9/5	AQ		Oly W EFF	Z4	3	X	X	X		
0520	9/15	AQ		Oly A Sys INT	STD	1	X	X	X		
0518	9/15	AQ		Oly A EFF	Z4	1	X	X	X		

ADDITIONAL INSTRUCTIONS:

I (field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled By: <u>Stratis</u>	Date: <u>9/15</u>	Time: <u>1210</u>	Received by: (Signature/Affiliation): <u>E. Friguano</u>	Date: <u>09/15</u>	Time: <u>1210</u>
Relinquished by: (Signature/Affiliation): <u>Stratis</u>	Date: _____	Time: _____	Received by: (Signature/Affiliation): <u>fol.</u>	Date: <u>9/2/15</u>	Time: <u>950</u>
Relinquished by: (Signature/Affiliation): _____	Date: _____	Time: _____	Received by: (Signature/Affiliation): _____	Date: _____	Time: _____

* Key: AQ - Aqueous OT - Other So-Soil WA - Waste ** B - Brass L - Liter O - Orbo OT - Other P - Plastic S-Soil Jar T - Tedlar V - VOA

NOTE: Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

**TABLE 3
OPERATIONAL UPTIME AND FLOW SUMMARY**

DPE REMEDIATION EVENT

Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date & Time	Notes	Hour Meter Reading	Applied Vac	Area	Sys Inf Temp	Sys Inf Air Velocity	Sys Inf Air Flowrate	Control Temp	Effluent Air Temp	Area	Dilution Air Temp	Dilution Air Velocity	Dilution Air Flowrate	pH		PID	
														Inf	Eff	Sys Inf	Eff
														pH	°F	ppmv	ppmv
7/21/14 6:00	1	3,478.1	16.0	0.0491	95	2,000	98.2	1,452	1,411	0.0218	76	680	15	7.69	7.60	310	1.6
7/24/14 6:00	2	3,480.0	19.0	0.0491	95	2,000	98.2	1,460	1,410	0.0218	75	800	17	--	--	350	2.1
7/29/14 5:30	3	3,599.7	16.0	0.0491	90	2,200	108.0	1,465	1,425	0.0218	76	720	16	--	8.01	310	1.1
8/4/14 7:10	4	3,600.4	15.0	0.0491	85	2,000	98.2	1,493	1,430	0.0218	69	840	18	--	--	300	1.2
8/18/14 6:30	5	3,862.0	13.0	0.0491	90	2,350	115.4	1,475	1,426	--	--	--	--	7.87	7.89	110	2.3
9/8/14 7:30		4,247.0	12.0	0.0491	100	2,600	127.6	1,463	1,422	--	--	--	--	7.81	7.87	90	2.1
9/19/14 5:00		4,509.0	12.0	0.0491	100	2,700	132.5	1,464	1,425	--	--	--	--	--	--	150	1.7
10/2/14 6:48	6	4,823.0	12.0	0.0491	98	2,800	137.4	1,467	1,429	--	--	--	--	7.91	7.93	25	2.3
10/20/14 10:00	7	5,039.0	14.0	0.0491	90	2,500	122.7	1,460	1,389	--	--	--	--	--	--	45	2.6
11/3/14 7:00	8	5,265.0	14.0	0.0491	90	2,600	127.6	1,426	1,471	--	--	--	--	8.17	8.31	50	2.1
11/18/14 6:00	9	5,269.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/4/14 5:45	10	5,271.0	20.0	0.0491	90	2,000	98.2	1,468	1,310	0.0218	63	3096	68	8.13	8.36	16	2.4
12/16/14 5:30		5,557.0	16.0	0.0491	80	2,500	122.7	1,463	1,420	0.0218	55	2910	63	--	--	50	1.2
1/5/15 7:15	8	5,873.0	19.0	0.0491	72	1,500	73.6	1,534	1,400	0.0218	50	1534	33	8.19	8.41	10	1.8
1/19/15 6:00	8	5,888.0	18.0	0.0491	80	1,800	88.4	1,460	1,365	0.0218	50	1484	32	--	--	10	1.3
2/2/15 5:55	8	5,926.0	17.0	0.0491	80	1,750	85.9	1,467	1,413	0.0218	60	1987	43	8.05	8.13	5	1.3
2/16/15 6:00	8	5,930.0	19.0	0.0491	75	1,500	73.6	1,474	1,350	0.0218	63	1348	29	--	--	6	0.8
3/10/15 5:05	8	5,941.0	20.0	0.0491	78	1,500	73.6	1,463	1,350	0.0218	67	1771	39	8.13	8.21	10	0.9
3/23/15 7:00	11	6,015.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**TABLE 3
OPERATIONAL UPTIME AND FLOW SUMMARY**

DPE REMEDIATION EVENT

Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date & Time	Notes	Hour Meter Reading	Applied Vac	Area	Sys Inf Temp	Sys Inf Air Velocity	Sys Inf Air Flowrate	Control Temp	Effluent Air Temp	Area	Dilution Air Temp	Dilution Air Velocity	Dilution Air Flowrate	pH		PID	
														Inf	Eff	Sys Inf	Eff
														pH	°F	ppmv	ppmv
5/5/15 5:00	12	6,018.0	14.5	0.0491	80	1,600	78.5	1494	1400	0.0218	55	2319	51	7.49	7.96	25	2.5
5/20/15 5:45	13	6,059.0	15.0	0.0491	80	1,450	71.2	1450	--	0.0218	65	685	15	--	--	40	1.3
5/21/15 5:10	14	6,083.0	15.0	0.0491	90	1,500	73.6	1450	--	0.0218	--	--	--	--	--	--	--
6/2/15 4:45	15	6,233.0	15.0	0.0491	90	1,500	73.6	1450	1380	0.0218	--	--	--	8.01	7.81	6	0.3
6/22/15 4:00		6,712.0	14.0	0.0491	85	1,500	73.6	1450	1310	0.0218	--	--	--	--	--	10	0.2
7/1/15 5:30	16	6,929.0	14.0	0.0491	95	1,600	78.5	1456	--	0.0218	--	--	--	--	--	5	0.4
7/14/15 5:15	13	6,930.0	15.0	0.0491	80	1,450	71.2	1450	1376	0.0218	--	--	--	--	--	75	1.2
8/3/15 6:00	17	7,410.0	12.0	0.0491	96	1,600	78.5	1450	1125	0.0218	--	--	--	7.74	7.50	5	0.8
8/18/15 5:00	18	7,725.0	12.0	0.0491	90	1,500	73.6	1460	1105	0.0218	--	--	--	--	--	3	0.8
9/1/15 5:00	19	7,903.0	12.5	0.0491	90	1,500	73.6	1460	1360	0.0218	--	--	--	7.74	7.38	2	0.5
9/22/15 4:45	20	8,407.0	12.0	0.0491	90	1,600	78.5	1450	1125	0.0218	--	--	--	--	--	30	0.9
10/6/15 5:30	16	8,744.0	14.0	0.0491	92	1,700	83.4	1452	1011	0.0218	--	--	--	7.85	7.56	9	2.5
Average			15.1		88	1,890	92.8	1,463	1,348		63	1552	34	7.9	7.9	73.5	1.4

Legend / Key:

Vac = Vacuum
 "Hg = inches mercury
 ft² = square feet
 Temp = temperature
 °F = Fahrenheit
 Inf = Influent
 -- = not applicable/ not measured

fpm = feet per minute
 acfm = actual cubic feet per minute
 ppmv = parts per million by volume
 PID = Photoionization Detector
 Sys Inf = System Influent (includes dilution air)
 Eff = Effluent

Sample Calculation:

air flow = area of pipe (0.0491 ft²) × air velocity (fpm) = flowrate (acfm)

**TABLE 3
OPERATIONAL UPTIME AND FLOW SUMMARY**

DPE REMEDIATION EVENT

Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date & Time	Notes	Hour Meter Reading	Applied Vac	Area	Sys Inf Temp	Sys Inf Air Velocity	Sys Inf Air Flowrate	Control Temp	Effluent Air Temp	Area	Dilution Air Temp	Dilution Air Velocity	Dilution Air Flowrate	pH		PID	
			"Hg	ft ²	°F	fpm	acfm	°F	°F	ft ²	°F	fpm	acfm	Inf pH	Eff °F	Sys Inf ppmv	Eff ppmv
<p>Notes: Influent pipe diameter = 3.0 inches 1 System briefly started to conduct an initial sampling event extracting from wells EX-2 through EX-7. Stingers placed at 13-feet (EX-2), 10-feet (EX-3, EX-4, and EX-6), 13-feet (EX-5) and 8-feet bgs (EX-7). System down upon departure waiting results. 2 System down upon arrival, system re-started for 1-week operation per groundwater discharge permit. System modified to extract from extraction wells EX-2 through EX-6. 3 Samples obtained per discharge permit, system shutdown upon departure pending approval of analytical results to begin discharging treated groundwater into on-site sewer cleanout. 4 System down upon arrival; groundwater discharge permit approved. System re-started upon departure for continuous operation extracting from wells EX-2 through EX-7 with stinger placed at 6-feet bgs (EX-7). 5 System down upon arrival, stinger depths modified, EX-2 through EX-4 and EX-6 placed at 10-feet, EX-5 at 13-feet, and EX-7 at 5-feet bgs. 6 System down upon arrival, system modified to extract from wells EX-1 through EX-7, system re-started upon departure. 7 System down upon arrival, replaced switch on combustion blower, system re-started upon departure. 8 System down upon arrival, system re-started upon departure. 9 System down upon arrival, due to scheduled groundwater sampling event system remained down upon departure. 10 System down upon arrival, system modified to extract from wells EX-1, EX-5 and EX-6, system re-started upon departure. 11 System down upon arrival, system remained down upon departure to evaluate pulse operation and second quarter groundwater sampling. 12 System down upon arrival, system re-started to obtain air and water samples. System modified to extract from wells EX-3, EX-6, MW-5A, and MW-6A. Sewer system observed to be backed up, therefore, maintenance to be completed prior to continuous system operation. System manually shutdown upon departure. 13 System down upon arrival, system re-started for continuous operation. 14 System modified to extract from wells EX-1, EX-6, MW-5A and MW-6A. 15 System modified to extract from wells EX-1, MW-5A and MW-6A. 16 System manually shutdown temporarily for upcoming sampling event. 17 System modified well EX-6 brought on-line, valve open 10%. 18 System down upon arrival, flame off, system modified well EX-6 open 25%, system re-started upon departure. 19 System modified well EX-6 open 10%. 20 System modified well EX-6 open 30%.</p>																	

TABLE 9
GROUNDWATER EXTRACTION COMPONENT - OPERATIONAL PERFORMANCE AND MASS REMOVAL SUMMARY
DPE REMEDIATION EVENT
Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Date	Notes	Sample Time	Hour Meter Reading ¹	Sewer Discharge Data				Analytical Results			Mass Removed			Cumulative Mass Removed		
				Totalizer Reading (gallons)	Period (gallons)	Cumulative Flow (gallons)	Average Sewer Discharge Flow Rate (gpm) ^a	Influent			This Period			Mass Removed		
								GRO (µg/L)	Benzene (µg/L)	MTBE (µg/L)	GRO (lbs)	Benzene (lbs)	MTBE (lbs)	GRO (lbs)	Benzene (lbs)	MTBE (lbs)
7/21/14	1	7:43	3,478.1	60,440	--	--	--	Start of Test								
07/29/14		5:55	3,599.7	110,120	49,680	49,680	6.81	310	3.3	37	0.13	0.0014	0.015	0.13	0.0014	0.015
08/18/14		7:15	3,862.0	196,310	86,190	135,870	5.48	170	3.4	39	0.17	0.0024	0.027	0.30	0.0038	0.043
09/08/14		7:55	4,247.0	305,370	109,060	244,930	4.72	<50	0.89	12	<0.10	0.0020	0.023	<0.40	0.0057	0.066
10/02/14	2	7:25	4,823.0	458,740	153,370	398,300	4.44	<50	0.77	11	<0.06	0.0011	0.015	<0.47	0.0068	0.081
11/03/14		7:58	5,265.0	618,930	160,190	558,490	6.04	<50	<0.50	13	<0.07	<0.001	0.016	<0.53	<0.008	0.097
12/04/14	3	6:55	5,271.0	621,440	2,510	561,000	6.97	<50	0.98	21	<0.001	<0.00002	0.0004	<0.53	<0.008	0.097
01/05/15		7:46	5,873.0	875,710	254,270	815,270	7.04	<50	5.4	29	<0.106	<0.00677	0.0530	<0.64	<0.014	0.150
02/02/15		6:47	5,926.0	898,290	22,580	837,850	7.10	<50	2.4	22	<0.009	<0.00073	0.0048	<0.65	<0.015	0.155
03/10/15	4	7:05	5,941.0	904,000	5,710	843,560	6.34	<50	1.5	21	<0.002	<0.00009	0.0010	<0.65	<0.015	0.156
03/23/15	5	--	6,015.0	927,780	23,780	867,340	5.36	--	--	--	<0.010	<0.00030	0.0042	<0.66	<0.016	0.160
05/05/15	6	7:32	6,018.0	929,200	1,420	868,760	7.89	96	5.0	19	<0.001	<0.00006	0.0002	<0.66	<0.016	0.160
06/02/15	7	5:35	6,233.0	979,100	49,900	918,660	3.87	<50	<0.50	7.7	<0.030	<0.00115	0.0056	<0.69	<0.017	0.166
07/01/15		5:55	6,929.0	1,122,860	143,760	1,062,420	3.44	<50	<0.50	6.9	<0.060	<0.00060	0.0088	<0.75	<0.017	0.175
08/03/15	8	6:23	7,410.0	1,220,100	97,240	1,159,660	3.37	<50	<0.50	9.6	<0.041	<0.00041	0.0067	<0.79	<0.018	0.181
09/01/15		5:28	7,903.0	1,299,690	79,590	1,239,250	2.69	<50	<0.50	9.7	<0.033	<0.00033	0.0064	<0.83	<0.018	0.188
10/06/15		--	8,744.0	1,469,360	169,670	1,408,920	3.36	Waiting results								

Legend / Key:

GRO = Gasoline Range Organics C4-C13

µg/L = micrograms per liter

lbs = pounds

MTBE = Methyl tertiary butyl ether

gpm = gallons per minute

-- = data not collected/not calculated

Analytical Methods /Laboratory:

GRO analyzed using EPA Method SW8015B/SW8260B

Benzene and MTBE analyzed using EPA Method SW8260B

Alpha Analytical, Inc. (ELAP # 2019)

^a Not representative of actual flow rate, calculation affected by system down time.

^b Mass removed this period (pounds) = Average concentration (µg/L)[between the sample dates] x Period gallons x (2.2046 x 10⁻⁹)(lb/µg) / 0.26418 (gal/L)

¹ Hour meter readings were not taken at exact sampling times, therefore, times noted are readings obtained closest to the actual sampling times.

TABLE 9
GROUNDWATER EXTRACTION COMPONENT - OPERATIONAL PERFORMANCE AND MASS REMOVAL SUMMARY
DPE REMEDIATION EVENT
Former Olympic Station, 1436 Grant Avenue, San Lorenzo, California

Notes:

- 1 DPE extracting from extraction wells EX-2 through EX-7.
- 2 DPE extracting from extraction wells EX-1 through EX-7.
- 3 DPE extracting from extraction wells EX-1, EX-5 and EX-6.
- 4 DPE extracting from extraction wells EX-1 and EX-5.
- 5 Mass removed is based on analytical results obtained during March 10, 2015 sampling event.
- 6 System was non-operational between March 23 and May 5, 2015 due to budget constraints. After maintenance, the system was re-started for continuous operation on May 20, 2015, extracting from wells EX-3, EX-6, MW-5A and MW-6A.
- 7 DPE extracting from extraction wells EX-1, MW-5A and MW-6A.
- 8 DPE extracting from extraction wells EX-1, EX-6, MW-5A and MW-6A.