

Pond 2 Multi-Well Storage Pond (Location ID: 291973)

Reclamation and Closure Sampling Narrative

This sampling narrative outlines the reclamation and closure of Pond 2. This is being provided in support of Oxy's Pond 2 pit closure documentation (REM # 7983). The narrative details what closure, and background samples were taken, where they were taken, and for what purpose.

Post Reclaim Sample 06/25/2013 & 06/26/2013 (L643913, L643598)

- Oxy removed the pit liner and removed all suspected contaminated soil from the pit bottom with a back hoe. The post reclaim samples consisted of ten grab samples taken from various points both strategic and random from the pit bottom and side walls. The post reclaim samples were taken from each pit wall, along the pit bottom, and from the suspected contaminated parent shale material. Each sample was collected from 6"-12" deep from the pit surface. The pit bottom was approximately 12'-15' feet below the pad surface. The post reclaim samples are represented in the Pond 2 Closure Sampling tabulated data spreadsheet, in the first ten columns and are labeled as "Post Reclamation/Confirmation" for Sample Type on the first of the attached Pond 2 Closure Sampling tables. The post reclaim sample dates were 06/25/2013 and 06/26/2013. The Sample Names from the data tabulation describe the approximate sample locations. The attached Pond 2 Sample Location Map shows post reclaim samples as red and blue dots and are referenced in the legend as *Confirmation Pond Bottom Sample Location*, and *Confirmation Pond Sidewall Sample Location*. The lab data reports for these samples are attached. The sample values can be found on lab report L643598 and the Sample IDs from the lab report are *SE Blue Shale* found on pages 2-3, *NE Bottom* found on pages 4-5, *W Wall* found on pages 6-7, *E Wall* found on pages 8-9, *SW Wall* found on pages 10-11, *W Bottom* found on pages 12-13, and *Center Bottom* found on pages 14-15. The remaining sample values found on lab report L643913 include Sample IDs: *N Wall* found on pages 2-3, *E End Bottom* found on pages 4-5, and *Central Pit Bottom* found on pages 6-7.

- Post reclaim values showed elevated concentrations for sodium adsorption ratio (SAR), pH, and Arsenic (As). Native background soil samples within the area showed elevated concentrations of naturally occurring As to be present within the area, reference Background Samples section below.

Mixed Pit Contents 07/10/2013 (L645959)

- Oxy backfilled the pit with mixed and stabilized pit contents. The pit contents were staged on the pad to allow for drying and volatilization. The pit contents were then mixed with stockpiled native clean material and backfilled into the pit to three feet below pad grade (9-12 feet deep). Three grab samples were collected from random points to represent the mixed contents as a whole and were analyzed for complete COGCC table 910-1 standards. The mixed pit content samples are represented on the second page of the Pond 2 Closure Sampling tabulated data spreadsheet in the first through third columns. They are labeled as *Center – 5 FT*, *W Side – 2 FT*, and *E Side – 2 FT* respectively in the Sample Name Row. Sample Type for the above mentioned samples is defined as *Mixed pit Contents*. The mixed pit content samples were collected on 07/10/2013. The sample values can be found on lab report L645959 and the Sample IDs from the lab report are *CENTER – 5 FT* found on pages 2-3, *W SIDE – 2 FT* found on pages 4-5, and *E SIDE – 2 FT* found on pages 6-7. The lab data report for this sample is attached. The mixed pit contents samples are not represented on the attached sampling maps as they were collected on the pad before being backfilled into the pit.

- The mixed pit contents samples were tested for complete COGCC table 910-1 standards. All analytes were found to be below COGCC table 910-1 standards with the exception of As prior to being backfilled into the pit. Native background soil samples within the area showed elevated concentrations of naturally occurring As to be present within the area, reference Background Samples section below.

Cap Sample 07/24/2013 (L648353)

- Oxy backfilled the pit with mixed and stabilized pit contents. The pit contents were mixed with stockpiled native clean material and backfilled into the pit to a level three feet below pad grade (9-12 feet deep). A five point composite sample and a randomly placed grab sample were taken of the cap material and analyzed for complete COGCC table 910-1 standards. The cap material will serve as a cap for the elevated value of pH and SAR found in the reclaimed pit bottom. The cap sample is represented on the third page of the Pond 2 Closure Sampling tabulated data spreadsheet in the first and second columns. They are labeled as Pond 2 Comp Cap, and Pond 2 Cap Grab respectively in the Sample Name Row. Sample Type for the above mentioned samples is defined as Cap. The cap samples were collected on 07/24/2013. The sample values can be found on lab report L648353 and the Sample IDs from the lab report are POND 2 5 PT COMP CAP found on pages 2-3, and POND 2 CAP GRAB found on pages 4-5. These samples are shown on the Pond 2 Sampling Locations Map as yellow dots and are referenced in the legend as Confirmation Cap Sample location. The lab data report for this sample is attached.

- The cap samples were tested for complete COGCC table 910-1 standards. The analyte exceedances found in the post reclaim samples were SAR, pH, and As. All cap samples were found to be below the COGCC's table 910-1 allowable analyte concentrations, with the exception of As, which were found to be below undisturbed background samples. Please reference Background Samples section below.

Background Samples 07/01/2011 (L524257)

- In an effort to identify naturally occurring concentrations of As similar to that which was previously identified in the Post Reclamation samples, Oxy collected background samples from native undisturbed locations around the area. Oxy collected four background grab samples (cardinal directions) on 07/01/2011 from undisturbed locations around the pad at depths of 0-12 inches. The background samples were collected on 07/01/2011 and can be found on the third page of the Pond 2 Closure Sampling tabulated data in columns 3 through 6. The Sample Name from the data tabulation is NW, W, S, and SE. Sample Type for the above mentioned samples is defined as Background. The sample values can be found on lab report L524257 and the sample IDs from the lab report are 610-21-41 BACKGROUND NW 6 IN found on pages 2-3, 610-21-41 BACKGROUND W 6 IN found on pages 4-5, 610-21-41 BACKGROUND S 9 IN found on pages 6-7, and 610-21-41 BACKGROUND SE 6 IN found on pages 8-9. These samples are shown on the Pond 2 Background Sampling Locations Map as dots varying in color depending on their value and are referenced in the legend as Background Soil Samples Arsenic.

- The sampling effort yielded a background As concentration above those found in the Post Reclamation, Mixed pit contents, and Cap samples.

In conclusion, this pit has been closed and meets both the COGCC 900 series and 1000 series rules for pit closure. All analyte concentrations were found to be below COGCC table 910-1 allowable concentrations, below native background levels, or were mitigated using a cap to ensure a sufficient agronomic zone. Oxy will continue to monitor this site for stormwater compliance until final pad reclamation has occurred.

Pond 2 Sample Location Map

Revised: Oct 16, 2013 Garfield County, Colorado
0 40 80 120 160 200 Feet

- Confirmation Cap sample location
- Confirmation Pond bottom sample location
- Confirmation Pond sidewall sample location

Pond 2 Background
Sample Location Map

Revised: July 25, 2013 Garfield County, Colorado
0.025 Miles
0.05 Miles
0.075 Miles

Background Soil Samples

Arsenic (mg/Kg)

0.0 - 1.6

1.7 - 4.8

4.9 - 9.0

9.1 - 14.0

14.1 - 30.0



Pond 2 Closure Sampling

Pad #: Pond 2

Sample Date: 6/12/2013

		Sample Identifications (mg/kg)									
		L643598	L643598	L643598	L643598	L643598	L643598	L643598	L643598	L643598	L643598
		6/26/2013	6/26/2013	6/26/2013	6/26/2013	6/26/2013	6/26/2013	6/26/2013	6/26/2013	6/26/2013	6/26/2013
	Lab Report #	L643598	L643598	L643598	L643598	L643598	L643598	L643598	L643598	L643598	L643598
	Date Sampled	6/26/2013	Post	Post	Post	Post	Post	Post	Post	Post	Post
	Post Reclamation/ Confirmation	SE Blue Shale	NE Bottom	W Wall	E Wall	Reclamation/ Confirmation					
	Sample Type	Sample Name	MCL (mg/kg)								
Organics in Soil											
TPH - GRO	500	BDL	BDL	BDL	BDL	3.90	BDL	0.63	BDL	0.84	2.90
TPH - DRO		BDL	40.00	120.00	4.50	160.00	15.00	83.00	80.00	5.70	89.00
Benzene	0.17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	85	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes	175	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Organics in Soil (PAH's)											
Acenaphthene	1000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.01	BDL
Anthracene	1000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.01	BDL
Benz(a)anthracene	0.22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benz(b)fluoranthene	0.22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benz(k)fluoranthene	2.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benz(a)pyrene	0.022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a,H)anthracene	0.022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	1000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Flourene	1000	BDL	BDL	BDL	BDL	BDL	BDL	0.1	BDL	0.04	BDL
Indeno(1,2,3,C,D)pyrene	0.22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Naphthalene	23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Pyrene	1000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Inorganics in Soil											
EC	<4 mmhos/cm or 2X BG	3.1	2.10	2.00	2.30	3.30	1.70	2.00	1.10	2.70	1.70
SAR	<12	80.0	46.00	9.10	55.00	38.00	21.00	22.00	89.00	5.20	15.00
pH	6-9	8.5	8.60	7.80	9.10	8.30	8.30	8.10	8.10	8.50	8.50
Metals in Soils											
Arsenic	0.39	7.1	6.50	10.00	9.40	12.00	18.00	11.00	13.00	8.00	9.90
Barium (LDNR True Total)	15,000	320.0	380.00	980.00	350.00	920.00	410.00	800.00	270.00	460.00	780.00
Cadmium	70	0.3	BDL	BDL	BDL	BDL	BDL	BDL	0.44	0.36	0.43
Chromium III	120,000	49.0	47.00	43.00	55.00	49.00	63.00	64.00	59.00	60.00	58.00
Chromium VI	23	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	3100	8.8	8.80	8.90	9.00	11.00	9.70	11.00	8.70	9.20	9.70
Lead	400	8.9	7.50	8.80	8.70	9.20	8.50	9.20	10.00	12.00	11.00
Mercury	23	BDL	BDL	BDL	0.02	BDL	BDL	BDL	0.02	BDL	BDL
Nickel	1600	26.0	23.00	26.00	24.00	27.00	24.00	29.00	28.00	28.00	28.00
Selenium	390	1.6	1.30	1.50	1.00	1.50	1.20	2.30	BDL	BDL	BDL
Silver	390	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc	23,000	44.0	37.00	42.00	41.00	39.00	44.00	41.00	43.00	43.00	43.00

Pond 2 Closure Sampling

Pad #:	Pond 2
Sample Date:	6/12/2013

		Sample Identifications (mg/kg)			
		Lab Report #	L645959	L645959	L645959
	Date Sampled	7/10/2013	7/10/2013	7/10/2013	7/10/2013
	Sample Type	Mixed pit Contents	Mixed pit Contents	Mixed pit Contents	Mixed pit Contents
	Sample Name	Center - 5 Ft	W Side - 2 FT	E Side - 2 FT	E Side - 2 FT
	MCL (mg/Kg)				
Organics in Soil					
TPH - GRO	500	BDL	BDL	BDL	BDL
TPH - DRO		BDL	BDL	BDL	11.00
Benzene	0.17	BDL	BDL	BDL	BDL
Toluene	85	BDL	BDL	BDL	BDL
Ethylbenzene	100	BDL	BDL	BDL	BDL
Xylenes	175	BDL	BDL	BDL	BDL
Organics in Soil (PAH's)					
Acenaphthene	1000	BDL	BDL	BDL	BDL
Anthracene	1000	BDL	BDL	BDL	BDL
Benzo(A)anthracene	0.22	BDL	BDL	BDL	BDL
Benzo(B)fluoranthene	0.22	BDL	BDL	BDL	BDL
Benzo(K)fluoranthene	2.2	BDL	BDL	BDL	BDL
Benzo(A)pyrene	0.022	BDL	BDL	BDL	BDL
Chrysene	22	BDL	BDL	BDL	BDL
Dibenzo(A,H)anthracene	0.022	BDL	BDL	BDL	BDL
Fluoranthene	1000	BDL	BDL	BDL	BDL
Fluorene	1000	BDL	BDL	BDL	BDL
Indeno(1,2,3-C,D)pyrene	0.22	BDL	BDL	BDL	BDL
Naphthalene	23	BDL	BDL	BDL	BDL
Pyrene	1000	BDL	BDL	BDL	BDL
Inorganics in Soil					
EC	<4 mmhos/cm or 2X BG	0.47	0.57	0.41	0.41
SAR	<12	4.60	3.30	3.00	3.00
pH	6.9	8.50	7.70	7.80	7.80
Metals in Soils					
Arsenic	0.39	8.00	8.90	12.00	12.00
Barium (LDNR True Total)	15,000	260.00	290.00	360.00	360.00
Cadmium	70	0.30	0.34	0.37	0.37
Chromium III	120,000	72.00	52.00	57.00	57.00
Chromium VI	23	BDL	BDL	BDL	BDL
Copper	3100	11.00	11.00	13.00	13.00
Lead	400	11.00	12.00	15.00	15.00
Mercury	23	BDL	BDL	BDL	BDL
Nickel	1600	29.00	22.00	25.00	25.00
Selenium	390	BDL	BDL	3.80	3.80
Silver	390	BDL	BDL	BDL	BDL
Zinc	23,000	45.00	38.00	45.00	45.00

Pond 2 Closure Sampling

Pad #:	Pond 2
Sample Date:	6/12/2013

		Sample Identifications (mg/kg)				
		L648353	L648353	L524257	L524257	L524257
	Date Sampled	7/24/2013	7/24/2013	7/1/2011	7/1/2011	7/1/2011
	Sample Type	Cap	Cap	Background	Background	Background
	Sample Name	Pond 2 Comp	Cap	Pond 2 Cap	Grab	S
MCL (mg/Kg)			NW	W		
Organics in Soil						
TPH - GRO	500	BDL	BDL	BDL	BDL	BDL
TPH - DRO		BDL	BDL	1.30	1.40	1.80
Benzene	0.17	BDL	BDL	BDL	BDL	BDL
Toluene	85	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	100	BDL	BDL	BDL	BDL	BDL
Xylenes	175	BDL	BDL	BDL	BDL	BDL
Organics in Soil (PAHs)						
Acenaphthene	1000	BDL	BDL	BDL	BDL	BDL
Anthracene	1000	BDL	BDL	BDL	BDL	BDL
Benz(A)anthracene	0.22	BDL	BDL	BDL	BDL	BDL
Benz(B)fluoranthene	0.22	BDL	BDL	BDL	BDL	BDL
Benz(K)fluoranthene	2.2	BDL	BDL	BDL	BDL	BDL
Benz(A)pyrene	0.022	BDL	BDL	BDL	BDL	BDL
Chrysene	22	BDL	BDL	BDL	BDL	BDL
Dibenz(A,H)anthracene	0.022	BDL	BDL	BDL	BDL	BDL
Fluoranthene	1000	BDL	BDL	BDL	BDL	BDL
Fluorene	1000	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3,C,D)pyrene	0.22	BDL	BDL	BDL	BDL	BDL
Naphthalene	23	BDL	BDL	0.01	BDL	BDL
Pyrene	1000	BDL	BDL	BDL	BDL	BDL
Inorganics in Soil						
EC	<4 mmhos/cm or 2X BG	0.32	0.20	0.034	0.032	0.033
SAR	<12	2.00	1.10	0.24	0.35	0.47
pH	6-9	8.30	8.30	6.40	6.40	6.50
Metals in Soils						
Arsenic	0.39	13.00	10.00	8.00	30.00	6.20
Barium (LDNR True Total)	15,000	330.00	250.00	280.00	390.00	260.00
Cadmium	70	0.32	BDL	BDL	BDL	BDL
Chromium III	120,000	69.00	58.00	49.00	49.00	48.00
Chromium VI	23	BDL	BDL	5.60	BDL	4.30
Copper	3100	12.00	10.00	8.90	7.50	8.00
Lead	400	12.00	10.00	12.00	14.00	12.00
Mercury	23	BDL	BDL	0.014	0.033	0.02
Nickel	1600	28.00	22.00	25.00	30.00	24.00
Selenium	390	BDL	BDL	BDL	BDL	BDL
Silver	390	BDL	BDL	0.19	0.117	0.117
Zinc	23,000	49.00	42.00	42.00	44.00	50.00



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Est. 1970

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Tuesday July 02, 2013

Report Number: L643598

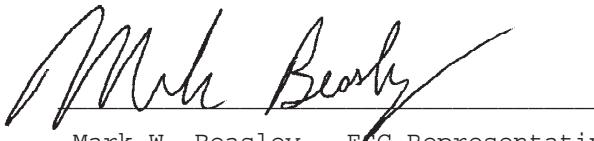
Samples Received: 06/27/13

Client Project: 013-1508

Description: Pond 2

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:



Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : SE BLUE SHALE
Collected By : Blair Rollins
Collection Date : 06/26/13 13:00

ESC Sample # : L643598-01
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/01/13	1
Chromium, Trivalent	49.	2.0	mg/kg	Calc.	07/01/13	1
ORP	96.		mV	2580 B-2011	06/28/13	1
pH	8.5		su	9045D	07/01/13	1
Sodium Adsorption Ratio	80.			Calc.	07/01/13	1
Specific Conductance	3100		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	06/29/13	1
Arsenic	7.1	0.38	mg/kg	6010B	07/01/13	1
Barium	320	0.25	mg/kg	6010B	07/01/13	1
Cadmium	0.29	0.25	mg/kg	6010B	07/01/13	1
Chromium	49.	0.50	mg/kg	6010B	07/01/13	1
Copper	8.8	1.0	mg/kg	6010B	07/01/13	1
Lead	8.9	0.25	mg/kg	6010B	07/01/13	1
Nickel	26.	1.0	mg/kg	6010B	07/01/13	1
Selenium	1.6	1.0	mg/kg	6010B	07/01/13	1
Silver	BDL	0.50	mg/kg	6010B	07/01/13	1
Zinc	44.	1.5	mg/kg	6010B	07/01/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/29/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.5		% Rec.	602/8015	06/29/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/28/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/28/13	5
Surrogate Recovery						
Toluene-d8	99.1		% Rec.	8260B	06/28/13	5
Dibromofluoromethane	98.6		% Rec.	8260B	06/28/13	5
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	06/28/13	5
4-Bromofluorobenzene	99.2		% Rec.	8260B	06/28/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/01/13	1
Surrogate recovery(%)						
o-Terphenyl	77.6		% Rec.	3546/DRO	07/01/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643598-01 (PH) - 8.5@21.6c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : SE BLUE SHALE
Collected By : Blair Rollins
Collection Date : 06/26/13 13:00

ESC Sample # : L643598-01
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Surrogate Recovery						
Nitrobenzene-d5	88.0		% Rec.	8270C-SIM	06/29/13	1
2-Fluorobiphenyl	89.8		% Rec.	8270C-SIM	06/29/13	1
p-Terphenyl-d14	77.6		% Rec.	8270C-SIM	06/29/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L643598-01 (PH) - 8.5@21.6c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013	ESC Sample # : L643598-04
Description : Pond 2	Site ID : POND 2
Sample ID : NE BOTTOM	Project # : 013-1508
Collected By : Blair Rollins	
Collection Date : 06/26/13 13:10	

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/01/13	1
Chromium, Trivalent	47.	2.0	mg/kg	Calc.	07/01/13	1
ORP	93.		mV	2580 B-2011	06/28/13	1
pH	8.6		su	9045D	07/01/13	1
Sodium Adsorption Ratio	46.			Calc.	07/01/13	1
Specific Conductance	2100		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	06/29/13	1
Arsenic	6.5	0.38	mg/kg	6010B	07/01/13	1
Barium	380	0.25	mg/kg	6010B	07/01/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/01/13	1
Chromium	47.	0.50	mg/kg	6010B	07/01/13	1
Copper	8.8	1.0	mg/kg	6010B	07/01/13	1
Lead	7.5	0.25	mg/kg	6010B	07/01/13	1
Nickel	23.	1.0	mg/kg	6010B	07/01/13	1
Selenium	1.3	1.0	mg/kg	6010B	07/01/13	1
Silver	BDL	0.50	mg/kg	6010B	07/01/13	1
Zinc	37.	1.5	mg/kg	6010B	07/01/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/29/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.6		% Rec.	602/8015	06/29/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/28/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/28/13	5
Surrogate Recovery						
Toluene-d8	97.8		% Rec.	8260B	06/28/13	5
Dibromofluoromethane	100.		% Rec.	8260B	06/28/13	5
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	06/28/13	5
4-Bromofluorobenzene	97.9		% Rec.	8260B	06/28/13	5
TPH (GC/FID) High Fraction	40.	4.0	mg/kg	3546/DRO	06/29/13	1
Surrogate recovery(%)						
o-Terphenyl	64.8		% Rec.	3546/DRO	06/29/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643598-04 (PH) - 8.6@21.5c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : NE BOTTOM
Collected By : Blair Rollins
Collection Date : 06/26/13 13:10

ESC Sample # : L643598-04
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Phenanthrene	0.015	0.0060	mg/kg	8270C-SIM	06/29/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Surrogate Recovery						
Nitrobenzene-d5	81.5		% Rec.	8270C-SIM	06/29/13	1
2-Fluorobiphenyl	83.8		% Rec.	8270C-SIM	06/29/13	1
p-Terphenyl-d14	81.5		% Rec.	8270C-SIM	06/29/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : W WALL
Collected By : Blair Rollins
Collection Date : 06/26/13 13:20

ESC Sample # : L643598-05
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/01/13	1
Chromium, Trivalent	43.	2.0	mg/kg	Calc.	07/01/13	1
ORP	110		mV	2580 B-2011	06/28/13	1
pH	7.8		su	9045D	07/01/13	1
Sodium Adsorption Ratio	9.1			Calc.	07/01/13	1
Specific Conductance	2000		umhos/cm	9050AMod	07/02/13	1
Mercury	0.023	0.020	mg/kg	7471	06/29/13	1
Arsenic	10.	0.38	mg/kg	6010B	07/01/13	1
Barium	980	0.25	mg/kg	6010B	07/01/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/01/13	1
Chromium	43.	0.50	mg/kg	6010B	07/01/13	1
Copper	8.9	1.0	mg/kg	6010B	07/01/13	1
Lead	8.8	0.25	mg/kg	6010B	07/01/13	1
Nickel	26.	1.0	mg/kg	6010B	07/01/13	1
Selenium	1.5	1.0	mg/kg	6010B	07/01/13	1
Silver	BDL	0.50	mg/kg	6010B	07/01/13	1
Zinc	42.	1.5	mg/kg	6010B	07/01/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/29/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.4		% Rec.	602/8015	06/29/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/28/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/28/13	5
Surrogate Recovery						
Toluene-d8	98.5		% Rec.	8260B	06/28/13	5
Dibromofluoromethane	98.0		% Rec.	8260B	06/28/13	5
a,a,a-Trifluorotoluene	99.5		% Rec.	8260B	06/28/13	5
4-Bromofluorobenzene	96.6		% Rec.	8260B	06/28/13	5
TPH (GC/FID) High Fraction	120	4.0	mg/kg	3546/DRO	06/29/13	1
Surrogate recovery(%)						
o-Terphenyl	69.4		% Rec.	3546/DRO	06/29/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643598-05 (PH) - 7.8@21.7c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : W WALL
Collected By : Blair Rollins
Collection Date : 06/26/13 13:20

ESC Sample # : L643598-05
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Surrogate Recovery						
Nitrobenzene-d5	83.4		% Rec.	8270C-SIM	06/29/13	1
2-Fluorobiphenyl	82.4		% Rec.	8270C-SIM	06/29/13	1
p-Terphenyl-d14	78.3		% Rec.	8270C-SIM	06/29/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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L643598-05 (PH) - 7.8@21.7c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2

ESC Sample # : L643598-06

Sample ID : E WALL

Site ID : POND 2

Collected By : Blair Rollins
Collection Date : 06/26/13 13:30

Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/01/13	1
Chromium, Trivalent	55.	2.0	mg/kg	Calc.	07/01/13	1
ORP	79.		mV	2580 B-2011	06/28/13	1
pH	9.1		su	9045D	07/01/13	1
Sodium Adsorption Ratio	55.			Calc.	07/01/13	1
Specific Conductance	2300		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	06/29/13	1
Arsenic	9.4	0.38	mg/kg	6010B	07/01/13	1
Barium	350	0.25	mg/kg	6010B	07/01/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/01/13	1
Chromium	55.	0.50	mg/kg	6010B	07/01/13	1
Copper	9.0	1.0	mg/kg	6010B	07/01/13	1
Lead	8.7	0.25	mg/kg	6010B	07/01/13	1
Nickel	25.	1.0	mg/kg	6010B	07/01/13	1
Selenium	1.0	1.0	mg/kg	6010B	07/01/13	1
Silver	BDL	0.50	mg/kg	6010B	07/01/13	1
Zinc	41.	1.5	mg/kg	6010B	07/01/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/29/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.5		% Rec.	602/8015	06/29/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/28/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/28/13	5
Surrogate Recovery						
Toluene-d8	98.8		% Rec.	8260B	06/28/13	5
Dibromofluoromethane	100.		% Rec.	8260B	06/28/13	5
a,a,a-Trifluorotoluene	102.		% Rec.	8260B	06/28/13	5
4-Bromofluorobenzene	100.		% Rec.	8260B	06/28/13	5
TPH (GC/FID) High Fraction	4.5	4.0	mg/kg	3546/DRO	06/29/13	1
Surrogate recovery(%)						
o-Terphenyl	58.6		% Rec.	3546/DRO	06/29/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643598-06 (PH) - 9.1@21.4c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : E WALL
Collected By : Blair Rollins
Collection Date : 06/26/13 13:30

ESC Sample # : L643598-06
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Surrogate Recovery						
Nitrobenzene-d5	88.2		% Rec.	8270C-SIM	06/29/13	1
2-Fluorobiphenyl	90.5		% Rec.	8270C-SIM	06/29/13	1
p-Terphenyl-d14	88.0		% Rec.	8270C-SIM	06/29/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : SW WALL
Collected By : Blair Rollins
Collection Date : 06/26/13 13:45

ESC Sample # : L643598-07
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	4.0	mg/kg	3060A/7196A	07/01/13	2
Chromium, Trivalent	49.	4.0	mg/kg	Calc.	07/01/13	1
ORP	92.		mV	2580 B-2011	06/28/13	1
pH	8.3		su	9045D	07/01/13	1
Sodium Adsorption Ratio	38.			Calc.	07/01/13	1
Specific Conductance	3300		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	06/29/13	1
Arsenic	12.	0.38	mg/kg	6010B	07/01/13	1
Barium	920	0.25	mg/kg	6010B	07/01/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/01/13	1
Chromium	49.	0.50	mg/kg	6010B	07/01/13	1
Copper	11.	1.0	mg/kg	6010B	07/01/13	1
Lead	9.2	0.25	mg/kg	6010B	07/01/13	1
Nickel	24.	1.0	mg/kg	6010B	07/01/13	1
Selenium	1.5	1.0	mg/kg	6010B	07/01/13	1
Silver	BDL	0.50	mg/kg	6010B	07/01/13	1
Zinc	39.	1.5	mg/kg	6010B	07/01/13	1
TPH (GC/FID) Low Fraction	3.9	0.50	mg/kg	8015D/GRO	06/29/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	94.6		% Rec.	602/8015	06/29/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/28/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/28/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/28/13	5
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	06/28/13	5
Dibromofluoromethane	97.7		% Rec.	8260B	06/28/13	5
a,a,a-Trifluorotoluene	99.8		% Rec.	8260B	06/28/13	5
4-Bromofluorobenzene	109.		% Rec.	8260B	06/28/13	5
TPH (GC/FID) High Fraction	160	20.	mg/kg	3546/DRO	06/29/13	5
Surrogate recovery(%)						
o-Terphenyl	52.4		% Rec.	3546/DRO	06/29/13	5

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643598-07 (SV8270PAHSIM) - Dilution due to matrix
L643598-07 (PH) - 8.3@21.5c
L643598-07 (CR6) - diluted due to sample color



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : SW WALL
Collected By : Blair Rollins
Collection Date : 06/26/13 13:45

ESC Sample # : L643598-07
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Acenaphthene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Acenaphthylene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Benz(a)anthracene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Benz(a)pyrene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Benz(b)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Benz(g,h,i)perylene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Benz(k)fluoranthene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Chrysene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Dibenz(a,h)anthracene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Fluoranthene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Fluorene	0.088	0.030	mg/kg	8270C-SIM	06/29/13	5
Indeno(1,2,3-cd)pyrene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
Naphthalene	BDL	0.10	mg/kg	8270C-SIM	06/29/13	5
Phenanthrene	0.080	0.030	mg/kg	8270C-SIM	06/29/13	5
Pyrene	BDL	0.030	mg/kg	8270C-SIM	06/29/13	5
1-Methylnaphthalene	BDL	0.10	mg/kg	8270C-SIM	06/29/13	5
2-Methylnaphthalene	0.17	0.10	mg/kg	8270C-SIM	06/29/13	5
2-Chloronaphthalene	BDL	0.10	mg/kg	8270C-SIM	06/29/13	5
Surrogate Recovery						
Nitrobenzene-d5	111.		% Rec.	8270C-SIM	06/29/13	5
2-Fluorobiphenyl	85.4		% Rec.	8270C-SIM	06/29/13	5
p-Terphenyl-d14	81.1		% Rec.	8270C-SIM	06/29/13	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 07/02/13 14:20 Printed: 07/02/13 14:21

L643598-07 (SV8270PAHSIM) - Dilution due to matrix

L643598-07 (PH) - 8.3@21.5c

L643598-07 (CR6) - diluted due to sample color



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : WEST BOTTOM
Collected By : Blair Rollins
Collection Date : 06/26/13 14:00

ESC Sample # : L643598-08

Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/01/13	1
Chromium, Trivalent	63.	2.0	mg/kg	Calc.	07/01/13	1
ORP	88.		mV	2580 B-2011	06/28/13	1
pH	8.3		su	9045D	07/01/13	1
Sodium Adsorption Ratio	21.			Calc.	07/01/13	1
Specific Conductance	1700		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	06/29/13	1
Arsenic	18.	0.38	mg/kg	6010B	07/01/13	1
Barium	410	0.25	mg/kg	6010B	07/01/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/01/13	1
Chromium	63.	0.50	mg/kg	6010B	07/01/13	1
Copper	9.7	1.0	mg/kg	6010B	07/01/13	1
Lead	8.5	0.25	mg/kg	6010B	07/01/13	1
Nickel	27.	1.0	mg/kg	6010B	07/01/13	1
Selenium	1.2	1.0	mg/kg	6010B	07/01/13	1
Silver	BDL	0.50	mg/kg	6010B	07/01/13	1
Zinc	44.	1.5	mg/kg	6010B	07/01/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/29/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.3		% Rec.	602/8015	06/29/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/29/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/29/13	5
Surrogate Recovery						
Toluene-d8	97.7		% Rec.	8260B	06/29/13	5
Dibromofluoromethane	98.9		% Rec.	8260B	06/29/13	5
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	06/29/13	5
4-Bromofluorobenzene	97.1		% Rec.	8260B	06/29/13	5
TPH (GC/FID) High Fraction	15.	4.0	mg/kg	3546/DRO	06/29/13	1
Surrogate recovery(%)						
o-Terphenyl	70.7		% Rec.	3546/DRO	06/29/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643598-08 (PH) - 8.3@21.6c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : WEST BOTTOM
Collected By : Blair Rollins
Collection Date : 06/26/13 14:00

ESC Sample # : L643598-08
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Surrogate Recovery						
Nitrobenzene-d5	87.7		% Rec.	8270C-SIM	06/29/13	1
2-Fluorobiphenyl	88.0		% Rec.	8270C-SIM	06/29/13	1
p-Terphenyl-d14	86.2		% Rec.	8270C-SIM	06/29/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 07/02/13 14:20 Printed: 07/02/13 14:21
L643598-08 (PH) - 8.3@21.6c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : CENTER BOTTOM
Collected By : Blair Rollins
Collection Date : 06/26/13 14:10

ESC Sample # : L643598-09

Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	4.0	mg/kg	3060A/7196A	07/01/13	2
Chromium, Trivalent	64.	4.0	mg/kg	Calc.	07/01/13	1
ORP	100		mV	2580 B-2011	06/28/13	1
pH	8.1		su	9045D	07/01/13	1
Sodium Adsorption Ratio	22.			Calc.	07/01/13	1
Specific Conductance	2000		umhos/cm	9050AMod	07/02/13	1
Mercury	0.023	0.020	mg/kg	7471	06/29/13	1
Arsenic	11.	0.38	mg/kg	6010B	07/01/13	1
Barium	800	0.25	mg/kg	6010B	07/01/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/01/13	1
Chromium	64.	0.50	mg/kg	6010B	07/01/13	1
Copper	11.	1.0	mg/kg	6010B	07/01/13	1
Lead	9.2	0.25	mg/kg	6010B	07/01/13	1
Nickel	29.	1.0	mg/kg	6010B	07/01/13	1
Selenium	2.3	1.0	mg/kg	6010B	07/01/13	1
Silver	BDL	0.50	mg/kg	6010B	07/01/13	1
Zinc	44.	1.5	mg/kg	6010B	07/01/13	1
TPH (GC/FID) Low Fraction	0.63	0.50	mg/kg	8015D/GRO	06/29/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.1		% Rec.	602/8015	06/29/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/29/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/29/13	5
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	06/29/13	5
Dibromofluoromethane	100.		% Rec.	8260B	06/29/13	5
a,a,a-Trifluorotoluene	101.		% Rec.	8260B	06/29/13	5
4-Bromofluorobenzene	103.		% Rec.	8260B	06/29/13	5
TPH (GC/FID) High Fraction	83.	20.	mg/kg	3546/DRO	07/01/13	5
Surrogate recovery(%)						
o-Terphenyl	62.9		% Rec.	3546/DRO	07/01/13	5

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643598-09 (CR6) - diluted due to sample color
L643598-09 (PH) - 8.1@21.4c



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REPORT OF ANALYSIS

July 02, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 27, 2013
Description : Pond 2
Sample ID : CENTER BOTTOM
Collected By : Blair Rollins
Collection Date : 06/26/13 14:10

ESC Sample # : L643598-09
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	0.0078	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthene	0.0076	0.0060	mg/kg	8270C-SIM	06/29/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Fluorene	0.041	0.0060	mg/kg	8270C-SIM	06/29/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Phenanthrene	0.041	0.0060	mg/kg	8270C-SIM	06/29/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	06/29/13	1
1-Methylnaphthalene	0.034	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Methylnaphthalene	0.042	0.020	mg/kg	8270C-SIM	06/29/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	06/29/13	1
Surrogate Recovery						
Nitrobenzene-d5	105.		% Rec.	8270C-SIM	06/29/13	1
2-Fluorobiphenyl	83.2		% Rec.	8270C-SIM	06/29/13	1
p-Terphenyl-d14	88.7		% Rec.	8270C-SIM	06/29/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 07/02/13 14:20 Printed: 07/02/13 14:21
L643598-09 (CR6) - diluted due to sample color
L643598-09 (PH) - 8.1@21.4c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L643598-01	WG669264	SAMP	Phenanthrene	R2727881	J4
L643598-04	WG669264	SAMP	Phenanthrene	R2727881	J4
L643598-05	WG669264	SAMP	Phenanthrene	R2727881	J4
L643598-06	WG669264	SAMP	Phenanthrene	R2727881	J4
L643598-07	WG669264	SAMP	Phenanthrene	R2727881	J4
	WG669307	SAMP	Chromium, Hexavalent	R2728704	O
L643598-08	WG669264	SAMP	Phenanthrene	R2727881	J4
L643598-09	WG669264	SAMP	Phenanthrene	R2727881	J4
	WG669571	SAMP	Barium	R2729820	V
	WG669307	SAMP	Chromium, Hexavalent	R2728704	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J4	The associated batch QC was outside the established quality control range for accuracy.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
07/02/13 at 14:21:39

TSR Signing Reports: 134
R4 - Rush: Three Day

Log BTEX by 8260 unless otherwise noted

Sample: L643598-01 Account: OXYGJCO Received: 06/27/13 09:30 Due Date: 07/02/13 00:00 RPT Date: 07/02/13 14:20

Sample: L643598-04 Account: OXYGJCO Received: 06/27/13 09:30 Due Date: 07/02/13 00:00 RPT Date: 07/02/13 14:20

Sample: L643598-05 Account: OXYGJCO Received: 06/27/13 09:30 Due Date: 07/02/13 00:00 RPT Date: 07/02/13 14:20

Sample: L643598-06 Account: OXYGJCO Received: 06/27/13 09:30 Due Date: 07/02/13 00:00 RPT Date: 07/02/13 14:20

Sample: L643598-07 Account: OXYGJCO Received: 06/27/13 09:30 Due Date: 07/02/13 00:00 RPT Date: 07/02/13 14:20

Sample: L643598-08 Account: OXYGJCO Received: 06/27/13 09:30 Due Date: 07/02/13 00:00 RPT Date: 07/02/13 14:20

Sample: L643598-09 Account: OXYGJCO Received: 06/27/13 09:30 Due Date: 07/02/13 00:00 RPT Date: 07/02/13 14:20

L643q13

Troy Dunlap

From: Mark Beasley
 Sen.:
 To:
 Cc:
 Subject:

Mark Beasley
 OXYGJCO rush arriving 6/28
 Log in; Extractions; Due Metals; Due SVOC; Due VOC; Due Wetlab
 Thursday, June 27, 2013 6:33 PM

We will receive 3 SS for V8260BTEX, GRO, DRO, SV8270PAHSIM, SAR, SPCON, PH, MRCRA8, CUICP, NICP, ZNCP, CR3, & CR655. Log as R4 due 7/3.

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Thanks
 Mark Beasley
 ESC Lab Sciences
 Direct Phone: (615) 773-9672
 Toll-free: 1-800-767-5859 ext 9672
 Email: mbeasley@esclabsciences.com



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Tax I.D. 62-0814289

Est. 1970

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Friday July 05, 2013

Report Number: L643913

Samples Received: 06/28/13

Client Project: 013-1508

Description: Pond 2

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:



Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

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Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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Est. 1970

REPORT OF ANALYSIS

July 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 28, 2013
Description : Pond 2
Sample ID : N. WALL
Collected By : Blair Rollins
Collection Date : 06/25/13 15:10

ESC Sample # : L643913-01
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/03/13	1
Chromium, Trivalent	59.	2.0	mg/kg	Calc.	07/02/13	1
ORP	170		mV	2580 B-2011	07/03/13	1
pH	8.1		su	9045D	07/02/13	1
Sodium Adsorption Ratio	89.			Calc.	07/01/13	1
Specific Conductance	1100		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	07/02/13	1
Arsenic	13.	0.38	mg/kg	6010B	07/02/13	1
Barium	270	0.25	mg/kg	6010B	07/02/13	1
Cadmium	0.44	0.25	mg/kg	6010B	07/02/13	1
Chromium	59.	0.50	mg/kg	6010B	07/02/13	1
Copper	8.7	1.0	mg/kg	6010B	07/02/13	1
Lead	10.	0.25	mg/kg	6010B	07/03/13	1
Nickel	28.	1.0	mg/kg	6010B	07/02/13	1
Selenium	BDL	1.0	mg/kg	6010B	07/03/13	1
Silver	BDL	0.50	mg/kg	6010B	07/02/13	1
Zinc	41.	1.5	mg/kg	6010B	07/02/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	06/30/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.7		% Rec.	602/8015	06/30/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/29/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/29/13	5
Surrogate Recovery						
Toluene-d8	100.		% Rec.	8260B	06/29/13	5
Dibromofluoromethane	103.		% Rec.	8260B	06/29/13	5
a,a,a-Trifluorotoluene	97.4		% Rec.	8260B	06/29/13	5
4-Bromofluorobenzene	108.		% Rec.	8260B	06/29/13	5
TPH (GC/FID) High Fraction	80.	4.0	mg/kg	3546/DRO	07/02/13	1
Surrogate recovery(%)						
o-Terphenyl	60.7		% Rec.	3546/DRO	07/02/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643913-01 (PH) - 8.1@21.8c



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REPORT OF ANALYSIS

July 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 28, 2013
Description : Pond 2
Sample ID : N. WALL
Collected By : Blair Rollins
Collection Date : 06/25/13 15:10

ESC Sample # : L643913-01
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
Surrogate Recovery						
Nitrobenzene-d5	87.7		% Rec.	8270C-SIM	07/02/13	1
2-Fluorobiphenyl	87.4		% Rec.	8270C-SIM	07/02/13	1
p-Terphenyl-d14	79.8		% Rec.	8270C-SIM	07/02/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L643913-01 (PH) - 8.1@21.8c



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REPORT OF ANALYSIS

July 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 28, 2013
Description : Pond 2
Sample ID : E. END BOTTOM
Collected By : Blair Rollins
Collection Date : 06/25/13 15:30

ESC Sample # : L643913-02

Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/03/13	1
Chromium, Trivalent	60.	2.0	mg/kg	Calc.	07/02/13	1
ORP	180		mV	2580 B-2011	07/03/13	1
pH	8.1		su	9045D	07/02/13	1
Sodium Adsorption Ratio	5.2			Calc.	07/01/13	1
Specific Conductance	2700		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	07/02/13	1
Arsenic	8.0	0.38	mg/kg	6010B	07/02/13	1
Barium	460	0.25	mg/kg	6010B	07/02/13	1
Cadmium	0.36	0.25	mg/kg	6010B	07/02/13	1
Chromium	60.	0.50	mg/kg	6010B	07/02/13	1
Copper	9.2	1.0	mg/kg	6010B	07/02/13	1
Lead	12.	0.25	mg/kg	6010B	07/03/13	1
Nickel	28.	1.0	mg/kg	6010B	07/02/13	1
Selenium	BDL	2.0	mg/kg	6010B	07/03/13	2
Silver	BDL	0.50	mg/kg	6010B	07/02/13	1
Zinc	43.	1.5	mg/kg	6010B	07/02/13	1
TPH (GC/FID) Low Fraction	0.84	0.50	mg/kg	8015D/GRO	06/30/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	96.0		% Rec.	602/8015	06/30/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/29/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/29/13	5
Surrogate Recovery						
Toluene-d8	101.		% Rec.	8260B	06/29/13	5
Dibromofluoromethane	104.		% Rec.	8260B	06/29/13	5
a,a,a-Trifluorotoluene	98.2		% Rec.	8260B	06/29/13	5
4-Bromofluorobenzene	110.		% Rec.	8260B	06/29/13	5
TPH (GC/FID) High Fraction	5.7	4.0	mg/kg	3546/DRO	07/02/13	1
Surrogate recovery(%)						
o-Terphenyl	72.5		% Rec.	3546/DRO	07/02/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643913-02 (PH) - 8.1@21.7c



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REPORT OF ANALYSIS

July 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 28, 2013
Description : Pond 2

ESC Sample # : L643913-02

Sample ID : E. END BOTTOM

Site ID : POND 2

Collected By : Blair Rollins
Collection Date : 06/25/13 15:30

Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
Phenanthrene	0.0076	0.0060	mg/kg	8270C-SIM	07/02/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
Surrogate Recovery						
Nitrobenzene-d5	75.8		% Rec.	8270C-SIM	07/02/13	1
2-Fluorobiphenyl	78.5		% Rec.	8270C-SIM	07/02/13	1
p-Terphenyl-d14	78.6		% Rec.	8270C-SIM	07/02/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L643913-02 (PH) - 8.1@21.7c



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REPORT OF ANALYSIS

July 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 28, 2013
Description : Pond 2
Sample ID : CENTRAL PIT BOTTOM
Collected By : Blair Rollins
Collection Date : 06/25/13 15:20

ESC Sample # : L643913-03
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/03/13	1
Chromium, Trivalent	58.	2.0	mg/kg	Calc.	07/02/13	1
ORP	170		mV	2580 B-2011	07/03/13	1
pH	8.5		su	9045D	07/02/13	1
Sodium Adsorption Ratio	15.			Calc.	07/01/13	1
Specific Conductance	1700		umhos/cm	9050AMod	07/02/13	1
Mercury	BDL	0.020	mg/kg	7471	07/02/13	1
Arsenic	9.9	0.38	mg/kg	6010B	07/02/13	1
Barium	780	0.25	mg/kg	6010B	07/02/13	1
Cadmium	0.43	0.25	mg/kg	6010B	07/02/13	1
Chromium	58.	0.50	mg/kg	6010B	07/02/13	1
Copper	9.7	1.0	mg/kg	6010B	07/02/13	1
Lead	11.	0.25	mg/kg	6010B	07/03/13	1
Nickel	29.	1.0	mg/kg	6010B	07/02/13	1
Selenium	BDL	2.0	mg/kg	6010B	07/03/13	2
Silver	BDL	0.50	mg/kg	6010B	07/02/13	1
Zinc	43.	1.5	mg/kg	6010B	07/02/13	1
TPH (GC/FID) Low Fraction	2.9	0.50	mg/kg	8015D/GRO	06/30/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	95.7		% Rec.	602/8015	06/30/13	5
Benzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Toluene	BDL	0.025	mg/kg	8260B	06/29/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	06/29/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	06/29/13	5
Surrogate Recovery						
Toluene-d8	102.		% Rec.	8260B	06/29/13	5
Dibromofluoromethane	100.		% Rec.	8260B	06/29/13	5
a,a,a-Trifluorotoluene	98.2		% Rec.	8260B	06/29/13	5
4-Bromofluorobenzene	119.		% Rec.	8260B	06/29/13	5
TPH (GC/FID) High Fraction	89.	4.0	mg/kg	3546/DRO	07/03/13	1
Surrogate recovery(%)						
o-Terphenyl	69.2		% Rec.	3546/DRO	07/03/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L643913-03 (PH) - 8.5@21.6c



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REPORT OF ANALYSIS

July 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : June 28, 2013
Description : Pond 2
Sample ID : CENTRAL PIT BOTTOM
Collected By : Blair Rollins
Collection Date : 06/25/13 15:20

ESC Sample # : L643913-03
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	0.0093	0.0060	mg/kg	8270C-SIM	07/02/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Fluorene	0.013	0.0060	mg/kg	8270C-SIM	07/02/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
Phenanthrene	0.021	0.0060	mg/kg	8270C-SIM	07/02/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/02/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/02/13	1
Surrogate Recovery						
Nitrobenzene-d5	87.8		% Rec.	8270C-SIM	07/02/13	1
2-Fluorobiphenyl	88.3		% Rec.	8270C-SIM	07/02/13	1
p-Terphenyl-d14	90.9		% Rec.	8270C-SIM	07/02/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L643913-03 (PH) - 8.5@21.6c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L643913-02	WG669902	SAMP	Selenium	R2731801	O
	WG669453	SAMP	TPH (GC/FID) High Fraction	R2732240	J3
L643913-03	WG669531	SAMP	4-Bromofluorobenzene	R2727760	J1
	WG669902	SAMP	Selenium	R2731801	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
J3	The associated batch QC was outside the established quality control range for precision.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



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Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Friday July 19, 2013

Report Number: L645959

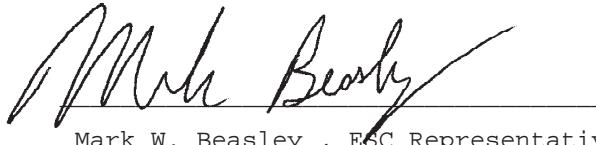
Samples Received: 07/11/13

Client Project: 013-1508

Description: Pond 2-Pit Contents

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:



Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

July 19, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 11, 2013	ESC Sample # : L645959-01
Description : Pond 2-Pit Contents	Site ID : POND 2
Sample ID : CENTER-5 FT	Project # : 013-1508
Collected By : Lilly Griffin	
Collection Date : 07/10/13 11:00	

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/18/13	1
Chromium, Trivalent	72.	2.0	mg/kg	Calc.	07/17/13	1
ORP	190		mV	2580 B-2011	07/13/13	1
pH	8.5		su	9045D	07/17/13	1
Sodium Adsorption Ratio	4.6			Calc.	07/13/13	1
Specific Conductance	470		umhos/cm	9050AMod	07/13/13	1
Mercury	BDL	0.020	mg/kg	7471	07/12/13	1
Arsenic	8.0	0.38	mg/kg	6010B	07/17/13	1
Barium	260	0.25	mg/kg	6010B	07/17/13	1
Cadmium	0.30	0.25	mg/kg	6010B	07/17/13	1
Chromium	72.	0.50	mg/kg	6010B	07/17/13	1
Copper	11.	1.0	mg/kg	6010B	07/17/13	1
Lead	11.	0.25	mg/kg	6010B	07/17/13	1
Nickel	29.	1.0	mg/kg	6010B	07/17/13	1
Selenium	BDL	1.0	mg/kg	6010B	07/17/13	1
Silver	BDL	0.50	mg/kg	6010B	07/17/13	1
Zinc	45.	1.5	mg/kg	6010B	07/17/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	07/13/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	95.5		% Rec.	602/8015	07/13/13	5
Benzene	BDL	0.0050	mg/kg	8260B	07/12/13	5
Toluene	BDL	0.025	mg/kg	8260B	07/12/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	07/12/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	07/12/13	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	07/12/13	5
Dibromofluoromethane	103.		% Rec.	8260B	07/12/13	5
a,a,a-Trifluorotoluene	106.		% Rec.	8260B	07/12/13	5
4-Bromofluorobenzene	108.		% Rec.	8260B	07/12/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/15/13	1
Surrogate recovery(%)						
o-Terphenyl	72.8		% Rec.	3546/DRO	07/15/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L645959-01 (PH) - 8.5@21.9c



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REPORT OF ANALYSIS

July 19, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 11, 2013
Description : Pond 2-Pit Contents
Sample ID : CENTER-5 FT
Collected By : Lilly Griffin
Collection Date : 07/10/13 11:00

ESC Sample # : L645959-01
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
Surrogate Recovery						
Nitrobenzene-d5	72.0		% Rec.	8270C-SIM	07/18/13	1
2-Fluorobiphenyl	79.5		% Rec.	8270C-SIM	07/18/13	1
p-Terphenyl-d14	88.2		% Rec.	8270C-SIM	07/18/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L645959-01 (PH) - 8.5@21.9c



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Est. 1970

REPORT OF ANALYSIS

July 19, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 11, 2013	ESC Sample # : L645959-02
Description : Pond 2-Pit Contents	Site ID : POND 2
Sample ID : W SIDE-2 FT	Project # : 013-1508
Collected By : Lilly Griffin	
Collection Date : 07/10/13 10:15	

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	4.0	mg/kg	3060A/7196A	07/18/13	2
Chromium, Trivalent	52.	4.0	mg/kg	Calc.	07/17/13	1
ORP	180		mV	2580 B-2011	07/13/13	1
pH	7.7		su	9045D	07/17/13	1
Sodium Adsorption Ratio	3.3			Calc.	07/13/13	1
Specific Conductance	570		umhos/cm	9050AMod	07/13/13	1
Mercury	BDL	0.020	mg/kg	7471	07/12/13	1
Arsenic	8.9	0.38	mg/kg	6010B	07/17/13	1
Barium	290	0.25	mg/kg	6010B	07/17/13	1
Cadmium	0.34	0.25	mg/kg	6010B	07/17/13	1
Chromium	52.	0.50	mg/kg	6010B	07/17/13	1
Copper	11.	1.0	mg/kg	6010B	07/17/13	1
Lead	12.	0.25	mg/kg	6010B	07/17/13	1
Nickel	22.	1.0	mg/kg	6010B	07/17/13	1
Selenium	BDL	1.0	mg/kg	6010B	07/17/13	1
Silver	BDL	0.50	mg/kg	6010B	07/17/13	1
Zinc	38.	1.5	mg/kg	6010B	07/17/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	07/13/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	95.0		% Rec.	602/8015	07/13/13	5
Benzene	BDL	0.0050	mg/kg	8260B	07/12/13	5
Toluene	BDL	0.025	mg/kg	8260B	07/12/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	07/12/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	07/12/13	5
Surrogate Recovery						
Toluene-d8	104.		% Rec.	8260B	07/12/13	5
Dibromofluoromethane	101.		% Rec.	8260B	07/12/13	5
a,a,a-Trifluorotoluene	107.		% Rec.	8260B	07/12/13	5
4-Bromofluorobenzene	109.		% Rec.	8260B	07/12/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/15/13	1
Surrogate recovery(%)						
o-Terphenyl	69.8		% Rec.	3546/DRO	07/15/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L645959-02 (CR6) - Diluted due to sample color interference.
L645959-02 (PH) - 7.7@21.6c



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REPORT OF ANALYSIS

July 19, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 11, 2013
Description : Pond 2-Pit Contents
Sample ID : W SIDE-2 FT
Collected By : Lilly Griffin
Collection Date : 07/10/13 10:15

ESC Sample # : L645959-02
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
Surrogate Recovery						
Nitrobenzene-d5	98.5		% Rec.	8270C-SIM	07/18/13	1
2-Fluorobiphenyl	89.4		% Rec.	8270C-SIM	07/18/13	1
p-Terphenyl-d14	94.6		% Rec.	8270C-SIM	07/18/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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L645959-02 (CR6) - Diluted due to sample color interference.

L645959-02 (PH) - 7.7@21.6c



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REPORT OF ANALYSIS

July 19, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 11, 2013	ESC Sample # : L645959-03
Description : Pond 2-Pit Contents	Site ID : POND 2
Sample ID : E SIDE-2 FT	Project # : 013-1508
Collected By : Lilly Griffin	
Collection Date : 07/10/13 09:45	

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/18/13	1
Chromium, Trivalent	57.	2.0	mg/kg	Calc.	07/17/13	1
ORP	190		mV	2580 B-2011	07/13/13	1
pH	7.8		su	9045D	07/17/13	1
Sodium Adsorption Ratio	3.0			Calc.	07/13/13	1
Specific Conductance	410		umhos/cm	9050AMod	07/13/13	1
Mercury	BDL	0.020	mg/kg	7471	07/12/13	1
Arsenic	12.	0.38	mg/kg	6010B	07/17/13	1
Barium	360	0.25	mg/kg	6010B	07/17/13	1
Cadmium	0.37	0.25	mg/kg	6010B	07/17/13	1
Chromium	57.	0.50	mg/kg	6010B	07/17/13	1
Copper	13.	1.0	mg/kg	6010B	07/17/13	1
Lead	15.	0.25	mg/kg	6010B	07/17/13	1
Nickel	25.	1.0	mg/kg	6010B	07/17/13	1
Selenium	3.8	1.0	mg/kg	6010B	07/17/13	1
Silver	BDL	0.50	mg/kg	6010B	07/17/13	1
Zinc	45.	1.5	mg/kg	6010B	07/17/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	07/13/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	94.9		% Rec.	602/8015	07/13/13	5
Benzene	BDL	0.0050	mg/kg	8260B	07/12/13	5
Toluene	BDL	0.025	mg/kg	8260B	07/12/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	07/12/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	07/12/13	5
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	07/12/13	5
Dibromofluoromethane	104.		% Rec.	8260B	07/12/13	5
a,a,a-Trifluorotoluene	109.		% Rec.	8260B	07/12/13	5
4-Bromofluorobenzene	110.		% Rec.	8260B	07/12/13	5
TPH (GC/FID) High Fraction	11.	4.0	mg/kg	3546/DRO	07/15/13	1
Surrogate recovery(%)						
o-Terphenyl	64.3		% Rec.	3546/DRO	07/15/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L645959-03 (PH) - 7.8@21.9c



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REPORT OF ANALYSIS

July 19, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 11, 2013
Description : Pond 2-Pit Contents
Sample ID : E SIDE-2 FT
Collected By : Lilly Griffin
Collection Date : 07/10/13 09:45

ESC Sample # : L645959-03
Site ID : POND 2
Project # : 013-1508

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/18/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/18/13	1
Surrogate Recovery						
Nitrobenzene-d5	89.3		% Rec.	8270C-SIM	07/18/13	1
2-Fluorobiphenyl	91.9		% Rec.	8270C-SIM	07/18/13	1
p-Terphenyl-d14	95.3		% Rec.	8270C-SIM	07/18/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 07/19/13 11:52 Printed: 07/19/13 11:53
L645959-03 (PH) - 7.8@21.9c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L645959-01	WG672050	SAMP	Chromium	R2747600	J6
L645959-02	WG671931	SAMP	Chromium, Hexavalent	R2748061	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
07/19/13 at 11:53:10

TSR Signing Reports: 134
R3 - Rush: Two Day

Log BTEX by 8260 unless otherwise noted

Sample: L645959-01 Account: OXYGJCO Received: 07/11/13 09:00 Due Date: 07/19/13 00:00 RPT Date: 07/19/13 11:52
Changed to rush - MB 7/16

Sample: L645959-02 Account: OXYGJCO Received: 07/11/13 09:00 Due Date: 07/18/13 00:00 RPT Date: 07/19/13 11:52

Sample: L645959-03 Account: OXYGJCO Received: 07/11/13 09:00 Due Date: 07/18/13 00:00 RPT Date: 07/19/13 11:52

L643353

Thanks

TCP benzene

OXYGCO is requesting a 3 day turn on 1 pit liner sample arriving 07/25/2013:

Hi,

On Jul 24, 2013, at 7:20 PM, "Vanessa Florea" <vflorea@escalabsciences.com> wrote:

Can do.

From: Ken Buckley
 To: Vanessa Florea
 Subject: Re: Rush Request for OXYGCO
 Cc:
 Bcc:
 Date: Wednesday, July 24, 2013 7:43 PM

Troy Dunlap



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Est. 1970

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Monday August 05, 2013

Report Number: L648353

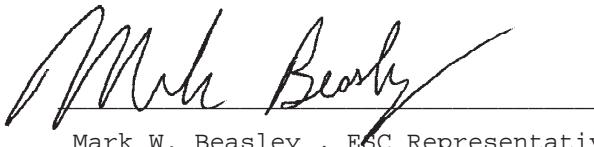
Samples Received: 07/25/13

Client Project:

Description: Pond 2 Cap/ 797-06-07 Liner

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:



Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - 01157CA, CT - PH-0197,
FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
NC - ENV375/DW21704/BIO041, ND - R-140, NJ - TN002, NJ NELAP - TN002,
SC - 84004, TN - 2006, VA - 460132, WV - 233, AZ - 0612,
MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032011-1,
TX - T104704245-11-3, OK - 9915, PA - 68-02979, IA Lab #364

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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REPORT OF ANALYSIS

August 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 25, 2013
Description : Pond 2 Cap/ 797-06-07 Liner
Sample ID : POND 2 5 PT COMP CAP 6IN
Collected By : Lilly Griffin
Collection Date : 07/24/13 12:30

ESC Sample # : L648353-01

Site ID : POND 2 / 797-06-07
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	07/30/13	1
Chromium, Trivalent	69.	2.0	mg/kg	Calc.	07/26/13	1
ORP	320		mV	2580 B-2011	07/26/13	1
pH	8.3		su	9045D	07/30/13	1
Sodium Adsorption Ratio	2.0			Calc.	07/30/13	1
Specific Conductance	320		umhos/cm	9050AMod	07/29/13	1
Mercury	BDL	0.020	mg/kg	7471	07/29/13	1
Arsenic	13.	0.38	mg/kg	6010B	07/26/13	1
Barium	330	0.25	mg/kg	6010B	07/26/13	1
Cadmium	0.32	0.25	mg/kg	6010B	07/26/13	1
Chromium	69.	0.50	mg/kg	6010B	07/26/13	1
Copper	12.	1.0	mg/kg	6010B	07/26/13	1
Lead	12.	0.25	mg/kg	6010B	07/26/13	1
Nickel	28.	1.0	mg/kg	6010B	07/26/13	1
Selenium	BDL	2.0	mg/kg	6010B	07/26/13	2
Silver	BDL	0.50	mg/kg	6010B	07/26/13	1
Zinc	49.	1.5	mg/kg	6010B	07/26/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	07/30/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	97.3		% Rec.	602/8015	07/30/13	5
Benzene	BDL	0.0050	mg/kg	8260B	07/27/13	5
Toluene	BDL	0.025	mg/kg	8260B	07/27/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	07/27/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	07/27/13	5
Surrogate Recovery						
Toluene-d8	106.		% Rec.	8260B	07/27/13	5
Dibromofluoromethane	104.		% Rec.	8260B	07/27/13	5
a,a,a-Trifluorotoluene	107.		% Rec.	8260B	07/27/13	5
4-Bromofluorobenzene	100.		% Rec.	8260B	07/27/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/30/13	1
Surrogate recovery(%)						
o-Terphenyl	70.5		% Rec.	3546/DRO	07/30/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit(PQL)
L648353-01 (PH) - 8.3@21.7c



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REPORT OF ANALYSIS

August 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 25, 2013
Description : Pond 2 Cap/ 797-06-07 Liner
Sample ID : POND 2 5 PT COMP CAP 6IN
Collected By : Lilly Griffin
Collection Date : 07/24/13 12:30

ESC Sample # : L648353-01

Site ID : POND 2 / 797-06-07
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	08/02/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	08/02/13	1
Surrogate Recovery						
Nitrobenzene-d5	81.0	% Rec.		8270C-SIM	08/02/13	1
2-Fluorobiphenyl	84.7	% Rec.		8270C-SIM	08/02/13	1
p-Terphenyl-d14	94.7	% Rec.		8270C-SIM	08/02/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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L648353-01 (PH) - 8.3@21.7c



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REPORT OF ANALYSIS

August 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 25, 2013
Description : Pond 2 Cap/ 797-06-07 Liner
Sample ID : POND 2 CAP GRAB
Collected By : Lilly Griffin
Collection Date : 07/24/13 12:45

ESC Sample # : L648353-02

Site ID : POND 2 / 797-06-07
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	4.0	mg/kg	3060A/7196A	07/30/13	2
Chromium, Trivalent	58.	4.0	mg/kg	Calc.	07/26/13	1
ORP	310		mV	2580 B-2011	07/26/13	1
pH	8.3		su	9045D	07/30/13	1
Sodium Adsorption Ratio	1.1			Calc.	07/30/13	1
Specific Conductance	200		umhos/cm	9050AMod	07/29/13	1
Mercury	BDL	0.020	mg/kg	7471	07/29/13	1
Arsenic	10.	0.38	mg/kg	6010B	07/26/13	1
Barium	250	0.25	mg/kg	6010B	07/26/13	1
Cadmium	BDL	0.25	mg/kg	6010B	07/26/13	1
Chromium	58.	0.50	mg/kg	6010B	07/26/13	1
Copper	10.	1.0	mg/kg	6010B	07/26/13	1
Lead	10.	0.25	mg/kg	6010B	07/26/13	1
Nickel	22.	1.0	mg/kg	6010B	07/26/13	1
Selenium	BDL	1.0	mg/kg	6010B	07/26/13	1
Silver	BDL	0.50	mg/kg	6010B	07/26/13	1
Zinc	42.	1.5	mg/kg	6010B	07/26/13	1
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	8015D/GRO	07/30/13	5
Surrogate Recovery (70-130)						
a,a,a-Trifluorotoluene(FID)	97.5		% Rec.	602/8015	07/30/13	5
Benzene	BDL	0.0050	mg/kg	8260B	07/27/13	5
Toluene	BDL	0.025	mg/kg	8260B	07/27/13	5
Ethylbenzene	BDL	0.0050	mg/kg	8260B	07/27/13	5
Total Xylenes	BDL	0.015	mg/kg	8260B	07/27/13	5
Surrogate Recovery						
Toluene-d8	105.		% Rec.	8260B	07/27/13	5
Dibromofluoromethane	104.		% Rec.	8260B	07/27/13	5
a,a,a-Trifluorotoluene	104.		% Rec.	8260B	07/27/13	5
4-Bromofluorobenzene	102.		% Rec.	8260B	07/27/13	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	07/30/13	1
Surrogate recovery(%)						
o-Terphenyl	66.8		% Rec.	3546/DRO	07/30/13	1

Polynuclear Aromatic Hydrocarbons

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

L648353-02 (PH) - 8.3@21.6c

L648353-02 (CR6) - diluted due to sample color interference



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REPORT OF ANALYSIS

August 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 25, 2013
Description : Pond 2 Cap/ 797-06-07 Liner
Sample ID : POND 2 CAP GRAB
Collected By : Lilly Griffin
Collection Date : 07/24/13 12:45

ESC Sample # : L648353-02

Site ID : POND 2 / 797-06-07
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Acenaphthene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Acenaphthylene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Benz(a)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Benz(a)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Benz(b)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Benz(g,h,i)perylene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Benz(k)fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Chrysene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Dibenz(a,h)anthracene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Fluoranthene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Fluorene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Indeno(1,2,3-cd)pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Naphthalene	BDL	0.020	mg/kg	8270C-SIM	07/31/13	1
Phenanthrene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
Pyrene	BDL	0.0060	mg/kg	8270C-SIM	07/31/13	1
1-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/31/13	1
2-Methylnaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/31/13	1
2-Chloronaphthalene	BDL	0.020	mg/kg	8270C-SIM	07/31/13	1
Surrogate Recovery						
Nitrobenzene-d5	99.5		% Rec.	8270C-SIM	07/31/13	1
2-Fluorobiphenyl	91.8		% Rec.	8270C-SIM	07/31/13	1
p-Terphenyl-d14	92.7		% Rec.	8270C-SIM	07/31/13	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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L648353-02 (PH) - 8.3@21.6c

L648353-02 (CR6) - diluted due to sample color interference



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REPORT OF ANALYSIS

August 05, 2013

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : July 25, 2013
Description : Pond 2 Cap/ 797-06-07 Liner
Sample ID : 797-06-07 LINER
Collected By : Lilly Griffin
Collection Date : 07/24/13 11:00

ESC Sample # : L648353-03

Site ID : POND 2 / 797-06-07

Project :

Parameter	Result	Det.	Limit	Units	Limit	Method	Date/Time	By	Dil
TCLP ZHE Extraction	-				1311		07/27/13 0823	MVE	1
TCLP Volatiles									
Benzene	BDL	0.050		mg/l	0.50	8260B	07/27/13 1428	DAH	1
Toluene	BDL	0.050		mg/l		8260B	07/27/13 1428	DAH	1
Ethylbenzene	BDL	0.050		mg/l		8260B	07/27/13 1428	DAH	1
Total Xylenes	BDL	0.15		mg/l		8260B	07/27/13 1428	DAH	1
Surrogate Recovery									
Toluene-d8	103.		% Rec.		114.	8260B	07/27/13 1428	DAH	1
Dibromofluoromethane	104.		% Rec.		125.	8260B	07/27/13 1428	DAH	1
a,a,a-Trifluorotoluene	101.		% Rec.		114.	8260B	07/27/13 1428	DAH	1
4-Bromofluorobenzene	97.5		% Rec.		128.	8260B	07/27/13 1428	DAH	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Limit - Maximum Contaminant Level as established by the US EPA

Note:

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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L648353-01	WG673803	SAMP	Selenium	R2758800	O
L648353-02	WG673803	SAMP	Chromium, Trivalent	R2758800	O
	WG673578	SAMP	Chromium, Hexavalent	R2760820	O

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
08/05/13 at 15:17:24

TSR Signing Reports: 134
R5 - Desired TAT

Log BTEX by 8260 unless otherwise noted

Sample: L648353-01 Account: OXYGJCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date: 08/05/13 15:16

Sample: L648353-02 Account: OXYGJCO Received: 07/25/13 09:30 Due Date: 08/01/13 00:00 RPT Date: 08/05/13 15:16

Sample: L648353-03 Account: OXYGJCO Received: 07/25/13 09:30 Due Date: 07/30/13 00:00 RPT Date: 08/05/13 15:16

OXY USA Inc. - Grand
Junction, CO
760 Horizon Dr., Ste 101
Grand Junction, CO 81506

Alternate billing information:

CO Table 910

Analysis/Container/Preservative

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Prepared by:

Chain of Custody
Page

ENVIRONMENTAL
SCIENCE CORP.

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E012

Template/Prelogin
CoCode OXYGJC0 (lab use only)

Shipped Via:

LS2h2S

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1

100

1

100

17

1

9

Matrix: SS - Soil/Solid GW - Groundwater WWT - Wastewater DW - Drinking Water OT - Other

Domatium

Matrix:	SS - Soil/Solid	GW - Groundwater	WW - WasteWater	DW - Drinking Water	OT - Other	pH	Temp	
Remarks:							Flow	Other
<u>Relinquished by: (Signature)</u>	Date: <u>7/11/11</u>	Time: <u>17:00</u>	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition:	(lab use only) <u>O/C</u>		
<u>Relinquished by: (Signature)</u>	Date:	Time:	Received by: (Signature)	Temp: <u>34</u>	Bottles Received: <u>12-801</u>	Date: <u>07-02-11</u>	pH Checked: <u>0544</u>	NCF: _____
<u>Relinquished by: (Signature)</u>	Date:	Time:	Received for lab by: (Signature)					



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Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Tuesday July 12, 2011

Report Number: L524257

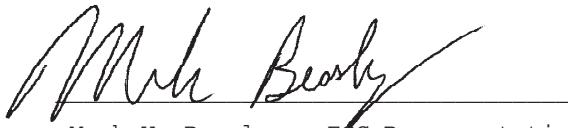
Samples Received: 07/02/11

Client Project: 900546.0005.010

Description: 610-21-41 Background

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Entire Report Reviewed By:



Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487
GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375/DW21704, ND - R-140
NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910, NV - TN000032008A,
TX - T104704245, OK-9915

Accreditation is only applicable to the test methods specified on each scope of accreditation held by ESC Lab Sciences.

Note: The use of the preparatory EPA Method 3511 is not approved or endorsed by the CA ELAP.

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Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

REPORT OF ANALYSIS

July 12, 2011

Date Received : July 02, 2011
Description : 610-21-41 Background
Sample ID : 610-21-41 BACKGROUND NW 6 IN
Collected By :
Collection Date : 07/01/11 13:18

ESC Sample # : L524257-01
Site ID :
Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	5.6	3.5	10.	mg/kg	J	3060A/7	07/09/11	5
Chromium,Trivalent	49.	0.17	0.50	mg/kg		Calc.	07/07/11	1
ORP	37.			mV		2580	07/11/11	1
pH	6.4			su		9045D	07/09/11	1
Sodium Adsorption Ratio	0.24					Calc.	07/06/11	1
Specific Conductance	34.			umhos/cm		9050AMo	07/11/11	1
Mercury	0.014	0.0015	0.020	mg/kg	J	7471	07/06/11	1
Arsenic	8.0	0.32	1.0	mg/kg		6010B	07/07/11	1
Barium	280	0.050	0.25	mg/kg		6010B	07/07/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	07/07/11	1
Chromium	54.	0.085	0.50	mg/kg		6010B	07/07/11	1
Copper	8.9	0.21	1.0	mg/kg		6010B	07/07/11	1
Lead	12.	0.090	0.25	mg/kg		6010B	07/07/11	1
Nickel	25.	0.26	1.0	mg/kg		6010B	07/07/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/07/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/07/11	1
Zinc	42.	0.34	1.5	mg/kg		6010B	07/07/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg	J3	8015D/G	07/04/11	5
Surrogate Recovery (70-130)				% Rec.		602/801	07/04/11	5
a,a,a-Trifluorotoluene(FID)	102.							
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/05/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/05/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/05/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/05/11	5
Surrogate Recovery								
Toluene-d8	107.			% Rec.		8260B	07/05/11	5
Dibromofluoromethane	110.			% Rec.		8260B	07/05/11	5
a,a,a-Trifluorotoluene	102.			% Rec.		8260B	07/05/11	5
4-Bromofluorobenzene	87.2			% Rec.		8260B	07/05/11	5
TPH (GC/FID) High Fraction	1.3	0.77	4.0	mg/kg	J	3546/DR	07/08/11	1
Surrogate recovery(%)				% Rec.		3546/DR	07/08/11	1
o-Terphenyl	53.3							

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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Reported: 07/12/11 16:09 Printed: 07/12/11 16:10

L524257-01 (PH) - 6.4@20.9c

L524257-01 (CR6) - diluted due to sample color interference



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Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

REPORT OF ANALYSIS

July 12, 2011

Date Received : July 02, 2011
Description : 610-21-41 Background
Sample ID : 610-21-41 BACKGROUND NW 6 IN
Collected By :
Collection Date : 07/01/11 13:18

ESC Sample # : L524257-01
Site ID :
Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	0.012	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	0.0076	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	0.010	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	59.1			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	71.1			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	79.4			% Rec.		8270C-S	07/08/11	1

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L524257-01 (PH) - 6.4@20.9c

L524257-01 (CR6) - diluted due to sample color interference



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REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

July 12, 2011

Date Received : July 02, 2011
Description : 610-21-41 Background
Sample ID : 610-21-41 BACKGROUND W 6 IN
Collected By :
Collection Date : 07/01/11 13:20

ESC Sample # : L524257-02
Site ID :
Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	3.5	10.	mg/kg	O	3060A/7	07/09/11	5
Chromium,Trivalent	49.	0.17	0.50	mg/kg		Calc.	07/07/11	1
ORP	45.			mV		2580	07/11/11	1
pH	6.4			su		9045D	07/09/11	1
Sodium Adsorption Ratio	0.35					Calc.	07/06/11	1
Specific Conductance	32.			umhos/cm		9050AMo	07/11/11	1
Mercury	0.033	0.0015	0.020	mg/kg		7471	07/06/11	1
Arsenic	30.	0.32	1.0	mg/kg		6010B	07/07/11	1
Barium	390	0.050	0.25	mg/kg		6010B	07/07/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	07/07/11	1
Chromium	49.	0.085	0.50	mg/kg		6010B	07/07/11	1
Copper	7.5	0.21	1.0	mg/kg		6010B	07/07/11	1
Lead	14.	0.090	0.25	mg/kg		6010B	07/07/11	1
Nickel	30.	0.26	1.0	mg/kg		6010B	07/07/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/07/11	1
Silver	0.19	0.16	0.50	mg/kg	J	6010B	07/07/11	1
Zinc	44.	0.34	1.5	mg/kg		6010B	07/07/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/05/11	5
Surrogate Recovery (70-130)				% Rec.		602/801	07/05/11	5
a,a,a-Trifluorotoluene(FID)	102.							
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/05/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/05/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/05/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/05/11	5
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	07/05/11	5
Dibromofluoromethane	110.			% Rec.		8260B	07/05/11	5
a,a,a-Trifluorotoluene	102.			% Rec.		8260B	07/05/11	5
4-Bromofluorobenzene	86.1			% Rec.		8260B	07/05/11	5
TPH (GC/FID) High Fraction	1.4	0.77	4.0	mg/kg	J	3546/DR	07/12/11	1
Surrogate recovery(%)				% Rec.		3546/DR	07/12/11	1
o-Terphenyl	55.2							

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L524257-02 (CR6) - diluted due to sample color interference
L524257-02 (PH) - 6.4@20.9c



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Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

REPORT OF ANALYSIS

July 12, 2011

Date Received : July 02, 2011
 Description : 610-21-41 Background
 Sample ID : 610-21-41 BACKGROUND W 6 IN
 Collected By :
 Collection Date : 07/01/11 13:20

ESC Sample # : L524257-02
 Site ID :
 Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	0.0024	0.00060	0.0060	mg/kg	J	8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	70.2			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	73.9			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	82.1			% Rec.		8270C-S	07/08/11	1

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 L524257-02 (CR6) - diluted due to sample color interference
 L524257-02 (PH) - 6.4@20.9c



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Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

REPORT OF ANALYSIS

July 12, 2011

Date Received : July 02, 2011
 Description : 610-21-41 Background
 Sample ID : 610-21-41 BACKGROUND S 9 IN
 Collected By :
 Collection Date : 07/01/11 13:45

ESC Sample # : L524257-03
 Site ID :
 Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	U	3.5	10.	mg/kg	O	3060A/7	07/09/11	5
Chromium,Trivalent	48.	0.17	0.50	mg/kg		Calc.	07/07/11	1
ORP	59.			mV		2580	07/11/11	1
pH	6.5			su		9045D	07/09/11	1
Sodium Adsorption Ratio	0.47					Calc.	07/06/11	1
Specific Conductance	33.			umhos/cm		9050AMo	07/11/11	1
Mercury	0.024	0.0015	0.020	mg/kg		7471	07/06/11	1
Arsenic	6.2	0.32	1.0	mg/kg		6010B	07/07/11	1
Barium	260	0.050	0.25	mg/kg		6010B	07/07/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	07/07/11	1
Chromium	48.	0.085	0.50	mg/kg		6010B	07/07/11	1
Copper	8.0	0.21	1.0	mg/kg		6010B	07/07/11	1
Lead	12.	0.090	0.25	mg/kg		6010B	07/07/11	1
Nickel	24.	0.26	1.0	mg/kg		6010B	07/07/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/07/11	1
Silver	0.17	0.16	0.50	mg/kg	J	6010B	07/07/11	1
Zinc	44.	0.34	1.5	mg/kg		6010B	07/07/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/05/11	5
Surrogate Recovery (70-130)				% Rec.		602/801	07/05/11	5
a,a,a-Trifluorotoluene(FID)	101.							
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/05/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/05/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/05/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/05/11	5
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	07/05/11	5
Dibromofluoromethane	112.			% Rec.		8260B	07/05/11	5
a,a,a-Trifluorotoluene	103.			% Rec.		8260B	07/05/11	5
4-Bromofluorobenzene	87.0			% Rec.		8260B	07/05/11	5
TPH (GC/FID) High Fraction	1.8	0.77	4.0	mg/kg	J	3546/DR	07/12/11	1
Surrogate recovery(%)				% Rec.		3546/DR	07/12/11	1
o-Terphenyl	67.9							

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L524257-03 (PH) - 6.5@20.8c

L524257-03 (CR6) - diluted due to sample color interference



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OXY USA Inc - Grand Junction, CO
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Grand Junction, CO 81506

REPORT OF ANALYSIS

July 12, 2011

Date Received : July 02, 2011
 Description : 610-21-41 Background
 Sample ID : 610-21-41 BACKGROUND S 9 IN
 Collected By :
 Collection Date : 07/01/11 13:45

ESC Sample # : L524257-03
 Site ID :
 Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	79.5			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	72.9			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	128.			% Rec.		8270C-S	07/08/11	1

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L524257-03 (PH) - 6.5@20.8c

L524257-03 (CR6) - diluted due to sample color interference



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REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

July 12, 2011

Date Received : July 02, 2011
Description : 610-21-41 Background
Sample ID : 610-21-41 BACKGROUND SE 8 IN
Collected By :
Collection Date : 07/01/11 14:05

ESC Sample # : L524257-04
Site ID :
Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	4.3	3.5	10.	mg/kg	J	3060A/7	07/09/11	5
Chromium,Trivalent	34.	0.17	0.50	mg/kg		Calc.	07/07/11	1
ORP	74.			mV		2580	07/11/11	1
pH	6.2			su		9045D	07/09/11	1
Sodium Adsorption Ratio	1.2					Calc.	07/06/11	1
Specific Conductance	56.			umhos/cm		9050AMo	07/11/11	1
Mercury	0.012	0.0015	0.020	mg/kg	J	7471	07/06/11	1
Arsenic	2.6	0.32	1.0	mg/kg		6010B	07/07/11	1
Barium	300	0.050	0.25	mg/kg		6010B	07/07/11	1
Cadmium	0.063	0.040	0.25	mg/kg	J	6010B	07/07/11	1
Chromium	38.	0.085	0.50	mg/kg		6010B	07/07/11	1
Copper	12.	0.21	1.0	mg/kg		6010B	07/07/11	1
Lead	13.	0.090	0.25	mg/kg		6010B	07/07/11	1
Nickel	22.	0.26	1.0	mg/kg		6010B	07/07/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/07/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/07/11	1
Zinc	50.	0.34	1.5	mg/kg		6010B	07/07/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/05/11	5
Surrogate Recovery (70-130)				% Rec.		602/801	07/05/11	5
a,a,a-Trifluorotoluene(FID)	101.							
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/05/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/05/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/05/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/05/11	5
Surrogate Recovery								
Toluene-d8	109.			% Rec.		8260B	07/05/11	5
Dibromofluoromethane	111.			% Rec.		8260B	07/05/11	5
a,a,a-Trifluorotoluene	102.			% Rec.		8260B	07/05/11	5
4-Bromofluorobenzene	87.8			% Rec.		8260B	07/05/11	5
TPH (GC/FID) High Fraction	3.2	0.77	4.0	mg/kg	J	3546/DR	07/08/11	1
Surrogate recovery(%)				% Rec.		3546/DR	07/08/11	1
o-Terphenyl	50.0							

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L524257-04 (PH) - 6.2@20.9c

L524257-04 (CR6) - diluted due to sample color interference



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REPORT OF ANALYSIS

Blair Rollins
OXY USA Inc - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

July 12, 2011

Date Received :	July 02, 2011	ESC Sample # :	L524257-04
Description :	610-21-41 Background	Site ID :	
Sample ID :	610-21-41 BACKGROUND SE 8 IN	Project # :	900546.0005.010
Collected By :			
Collection Date :	07/01/11 14:05		

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg	J3	8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	0.0019	0.00060	0.0060	mg/kg	J	8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	64.8			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	68.7			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	111.			% Rec.		8270C-S	07/08/11	1

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MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 07/12/11 16:09 Printed: 07/12/11 16:10

L524257-04 (PH) - 6.2@20.9c

L524257-04 (CR6) - diluted due to sample color interference

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L524257-01	WG544370	SAMP	TPH (GC/FID) High Fraction	R1752832	J
	WG544563	SAMP	Chromium, Hexavalent	R1753509	J
	WG543944	SAMP	Mercury	R1750810	J
	WG544002	SAMP	TPH (GC/FID) Low Fraction	R1749529	J3
	WG544417	SAMP	Acenaphthene	R1752851	J3
	WG544417	SAMP	Acenaphthylene	R1752851	J3
	WG5444161	SAMP	Silver	R1752550	J
L524257-02	WG545021	SAMP	TPH (GC/FID) High Fraction	R1757810	J
	WG544563	SAMP	Chromium, Hexavalent	R1753509	O
	WG544417	SAMP	Acenaphthene	R1752851	J3
	WG544417	SAMP	Acenaphthylene	R1752851	J3
	WG544417	SAMP	2-Chloronaphthalene	R1752851	J
L524257-03	WG5444161	SAMP	Silver	R1752550	J
	WG545021	SAMP	TPH (GC/FID) High Fraction	R1757810	J
	WG544563	SAMP	Chromium, Hexavalent	R1753509	O
	WG544417	SAMP	Acenaphthene	R1752851	J3
	WG544417	SAMP	Acenaphthylene	R1752851	J3
L524257-04	WG5444161	SAMP	Cadmium	R1752550	J
	WG544370	SAMP	TPH (GC/FID) High Fraction	R1752832	J
	WG544563	SAMP	Chromium, Hexavalent	R1753509	J
	WG543944	SAMP	Mercury	R1750810	J
	WG544417	SAMP	Acenaphthene	R1752851	J3
	WG544417	SAMP	Acenaphthylene	R1752851	J3
	WG544417	SAMP	2-Chloronaphthalene	R1752851	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J3	The associated batch QC was outside the established quality control range for precision.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable "unless qualified as 'R' (Rejected)."

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
07/12/11 at 16:10:26

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L524257-01 Account: OXYGJCO Received: 07/02/11 09:00 Due Date: 07/11/11 00:00 RPT Date: 07/12/11 16:09
Sample: L524257-02 Account: OXYGJCO Received: 07/02/11 09:00 Due Date: 07/11/11 00:00 RPT Date: 07/12/11 16:09
Sample: L524257-03 Account: OXYGJCO Received: 07/02/11 09:00 Due Date: 07/11/11 00:00 RPT Date: 07/12/11 16:09
Sample: L524257-04 Account: OXYGJCO Received: 07/02/11 09:00 Due Date: 07/11/11 00:00 RPT Date: 07/12/11 16:09