

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form). Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b)

RECEIVED
4/30/2012

1. OGCC Operator Number: 66571	4. Contact Name: Daniel I. Padilla	Complete the Attachment Checklist OP OGCC
2. Name of Operator: OXY USA WTP LP	Phone: 970.263.3637	
3. Address: 760 Horizon Drive, Suite 101 City: Grand Junction State: CO Zip: 81506	Fax: 970.263.3694	
5. API Number: 05-045-10675	OGCC Facility ID Number: 335815 (Facility ID)	Survey Plat
6. Well/Facility Name: 697-08-53 Reserve Pit	7. Well/Facility Number: 697-08-53	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Meridian): NWSE, Sec 8, T6S, R97W, 6th PM		Surface Equip Diagram
9. County: Garfield	10. Field Name: Grand Valley	Technical Info Page
11. Federal, Indian or State Lease Number:		Other Lab data, Map

General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNL/FSL <input type="checkbox"/> FUL/FWL
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/>
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/>
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/> <input type="checkbox"/> attach directional survey
Bottomhole location Qtr/Sec, Twp, Rng, Mer	
Latitude	Distance to nearest property line
Longitude	Distance to nearest bldg, public rd, utility or RR
Ground Elevation	Distance to nearest lease line
	Is location in a High Density Area (rule 603b)? Yes/No
	Distance to nearest well same formation
	Surface owner consultation date:
GPS DATA:	
Date of Measurement	PDCP Reading
	Instrument Operator's Name
<input type="checkbox"/> CHANGE SPACING UNIT	
Formation	Formation Code
Spacing order number	Unit Acreage
	Unit configuration
<input type="checkbox"/> Remove from surface bond	
Signed surface use agreement attached	
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling):	
Effective Date:	
Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	
<input type="checkbox"/> CHANGE WELL NAME	
From:	NUMBER
To:	
Effective Date:	
<input type="checkbox"/> ABANDONED LOCATION:	
Was location ever built?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Is site ready for inspection?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Date Ready for Inspection:	
<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS	
Date well shut in or temporarily abandoned:	
Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
MIT required if shut in longer than two years. Date of last MIT:	
<input type="checkbox"/> SPUD DATE:	
<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing seq)	
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	
*submit cbl and cement job summaries	
Method used	Cementing tool setting/perf depth
Cement volume	Cement top
Cement bottom	Date
<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.	
Final reclamation will commence on approximately	
<input type="checkbox"/> Final reclamation is completed and site is ready for inspection.	

Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent		<input type="checkbox"/> Report of Work Done
Approximate Start Date:		Date Work Completed:
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)		
<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: Application of diff. standard	for Spills and Releases

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Daniel I. Padilla Date: 4/30/12 Email: daniel_padilla@oxy.comPrint Name: Daniel I. Padilla Title: Regulatory Advisor

COGCC Approved:

Title: FORDate: 05/02/2012

CONDITIONS OF APPROVAL, IF ANY:

Chris Canfield
EPS NW Region

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 66571 API Number: 05-045-10675
2. Name of Operator: OXY USA WTP LP OGCC Facility ID # 335815
3. Well/Facility Name: 697-08-53 Reserve Pit Well/Facility Number: 697-08-53
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWSE, Sec 8, T6S, R97W, 6th PM

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

OXY USA WTP LP (Oxy) has completed reclamation of the above-mentioned reserve pit. Oxy identified post reclamation levels for Arsenic (As) initially to be above table 910-1 allowable concentrations. Upon receiving these results Oxy requested that ESC Lab Sciences re-analyze the same sample for As. The new value for As, although above table 910-1 allowable concentration levels, was below undisturbed background levels. Oxy believes that that the difference in these values are indicative of the naturally occurring As variability in the area. Oxy requests consideration as an alternative to the default value for As in Table 910-1, based on our demonstration of naturally occurring concentrations of As in undisturbed samples taken from native material collected from the pit bottom before use, as per foot note 1 of COGCC Table 910-1. Please refer to attached table, analytical data, and sample location map.

The sampling method Oxy employed was to take a representative random grab sample for each background sample location, and post reclaim sample. The analytical concentrations table identifies the COGCC Table 910-1 concentration levels, Oxy's undisturbed background concentrations (06/10/2011), and Oxy's post reclamation concentrations (post reclaim 04/18/2012). The post reclaim concentrations of As are below those found in background samples.

Post reclaim samples showed one sample to exceed the allowable concentration level for pH, however that level is found to be equal to levels found in undisturbed background samples. As a result of the elevated level of background pH, Oxy will not be capping this pit. The reclaimed pit was contoured to be level with the pad grade (active working surface for operations & maintenance activities) to minimize stormwater run-on and run-off, during the operational phase of the pad. Final pad reclamation will occur at the end of the life of the pad.

697-08-53 Reserve Pit Closure	
Pad #:	697-08-53
Sample Date:	4/19/2012
Clearance Achieved Date:	

		Sample Identifications (mg/kg)													
		Lab Report #	L570913	L570913	L570913	L570913	L570913	L570913	L570913	L520524	L520524	L520524	L520524		
		Date Sampled	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012	4/18/2012	6/10/2011	6/10/2011	6/10/2011	6/10/2011		
		Sample Name	697-08-53-PB-E	697-08-53-PB-E Duplicate	697-08-53-PB-W	697-08-53-PB-NE	697-08-53-PB-SW	697-08-53-PB-CENTER	697-08-53-PB-COMP	697-08-53-PB-BG-SS-6	697-08-53-PB-BG-SS-7	697-08-53-PB-BG-SS-8	697-08-53-PB-BG-SS-9		
Organics in Soil		MCL (mg/Kg)													
TPH (GRO and DRO) - Sen Area		500	23.0		18.0	14.54	13.0	18.0	62.2	4.6	1.2	1.6	5.3		
Benzene		0.17	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Toluene		86	0.00		BDL	0.0042	BDL	0.0037	0.0100	BDL	BDL	BDL	BDL		
Ethylbenzene		100	BDL		BDL	BDL	BDL	BDL	0.0051	BDL	BDL	BDL	BDL		
Xylenes		175	0.022		0.0038	0.0170	0.0052	0.031	0.120	BDL	BDL	BDL	BDL		
Organics in Soil (PAH's)															
Acenaphthene		1000	0.0008		0.00088	BDL	BDL	BDL	0.0042	BDL	BDL	BDL	BDL		
Anthracene		1000	0.0012		0.001	BDL	BDL	BDL	0.0021	BDL	BDL	BDL	BDL		
Benzo(A)anthracene		0.22	0.0011		BDL	BDL	BDL	0.0015	BDL	0.0012	BDL	BDL	BDL		
Benzo(B)fluoranthene		0.22	0.0016		0.0018	0.0021	0.0016	0.0024	0.0014	0.0016	BDL	0.0016	0.0017		
Benzo(K)fluoranthene		2.2	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Benzo(A)pyrene		0.022	0.00064		0.00094	0.0007	0.00074	0.0013	0.0011	BDL	BDL	0.00086	0.00066		
Chrysene		22	0.0017		0.0019	0.0016	BDL	BDL	0.0025	BDL	BDL	BDL	BDL		
Dibenzo(A,H)anthracene		0.022	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Fluoranthene		1000	0.0031		0.0061	0.0035	0.0034	0.0036	0.0018	BDL	BDL	0.0011	BDL		
Flourene		1000	0.022		0.012	0.001	0.011	0.007	0.063	BDL	BDL	BDL	BDL		
Indeno(1,2,3,C,D)pyrene		0.22	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Napthalene		23	0.066		0.018	0.012	0.02	0.016	0.13	BDL	BDL	BDL	0.0008		
Pyrene		1000	0.0029		0.0037	0.0032	0.0022	0.0034	0.0031	0.00076	BDL	0.0011	0.0029		
Inorganics in Soil															
EC		<4 mmhos/cm or 2X background	0.13		0.12	0.17	0.23	0.220	0.460	0.100	0.110	0.140	0.140		
SAR		<12	1.3		1.8	0.9	2.5	3.1	2.8	2.5	0.8	1.0	1.0		
pH		6-9	8.3		8.6	8.5	8.7	8.8	9.2	9.2	8.8	8.5	7.3		
Metals in Soils															
Arsenic		0.39	47.0	7.4	4.9	11.0	6.3	5.7	6.7	17.0	19.0	14.0	20.0		
Barium (LDNR True Total)		15,000	220		340	490	220	200	4000	360	410	320	410		
Cadmium		70	1.50		0.55	1.60	0.71	0.59	0.62	2.60	2.00	1.80	1.90		
Chromium III		120,000	37.0		55.0	34.0	53.0	53.0	46.0	58.0	86.0	84.0	82.0		
Chromium VI		23	1.2		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Copper		3100	24.0		18.0	20.0	19.0	20.0	19.0	22.0	14.0	16.0	16.0		
Lead		400	26.0		17.0	21.0	17.0	18.0	18.0	21.0	18.0	17.0	14.0		
Mercury		23	0.009		0.0095	0.012	0.010	0.012	0.016	0.033	0.022	0.019	0.015		
Nickel		1600	24.0		25.0	19.0	22.0	28.0	22.0	34.0	39.0	38.0	37.0		
Selenium		390	BDL		BDL	BDL	BDL	BDL	BDL	0.66	BDL	BDL	BDL		
Silver		390	BDL		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Zinc		23,000	87.0		58.0	69.0	BDL	61.0	60.0	66.0	46.0	52.0	54.0		



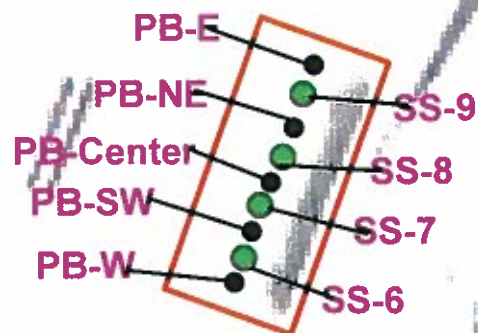
OXY USA WTP LP

760 Horizon Drive, Suite 101
Grand Junction, CO 81506

697-08-53 Reserve Pit Closure Sampling

Updated: April 27, 2012 Garfield County, Colorado

0 0.005 0.01 0.02 0.03 0.04 0.05 Miles



-  Pit Bottom Background Samples
-  Post Reclaim Samples Samples
-  Pit Boundary
- SS-6** Sample Label



12065 Lebanon Rd.
Mt. Juliet, TN 37122
(615) 758-5858
1-800-767-5859
Fax (615) 758-5859

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

Monday June 20, 2011

Report Number: L520524

Samples Received: 06/11/11

Client Project: 900546.0001.050

Description: 697-08-53-Pit 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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Where applicable, sampling conducted by ESC is performed per guidance provided
in laboratory standard operating procedures: 060302, 060303, and 060304.



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REPORT OF ANALYSIS

June 20, 2011

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

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-6
Collected By : CJB
Collection Date : 06/10/11 10:40

ESC Sample # : L520524-01

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	58.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	44.			mV		2580	06/17/11	1
pH	9.2			su		9045D	06/17/11	1
Sodium Adsorption Ratio	2.5					Calc.	06/14/11	1
Specific Conductance	100			umhos/cm		9050AMo	06/17/11	1
Mercury	0.033	0.0015	0.020	mg/kg		7471	06/15/11	1
Arsenic	17.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	360	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	2.6	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	58.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	22.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	21.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	34.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	0.66	0.32	1.0	mg/kg	J	6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	66.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	94.1			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	111.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	99.0			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	4.6	0.77	4.0	mg/kg		3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	83.1			% Rec.		3546/DR	06/18/11	1

U = ND (Not Detected)

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: 06/20/11 16:37 Printed: 06/20/11 16:38

L520524-01 (PH) - 9.2@20.4c



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REPORT OF ANALYSIS

June 20, 2011

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

Date Received : June 11, 2011
Description : 697-08-53-Pit Background

Sample ID : SS-6

Collected By : CJB
Collection Date : 06/10/11 10:40

ESC Sample # : L520524-01

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(a)anthracene	0.0012	0.00092	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(b)fluoranthene	0.0016	0.00082	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(g,h,i)perylene	0.0016	0.0012	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/16/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	06/16/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/16/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/16/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	06/16/11	1
Phenanthrene	0.0019	0.00074	0.0060	mg/kg	J	8270C-S	06/16/11	1
Pyrene	0.00076	0.00059	0.0060	mg/kg	J	8270C-S	06/16/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	06/16/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	06/16/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/16/11	1
Surrogate Recovery								
Nitrobenzene-d5	45.9			% Rec.		8270C-S	06/16/11	1
2-Fluorobiphenyl	51.6			% Rec.		8270C-S	06/16/11	1
p-Terphenyl-d14	43.8			% Rec.		8270C-S	06/16/11	1

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REPORT OF ANALYSIS

June 20, 2011

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

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-7
Collected By : CJB
Collection Date : 06/10/11 11:00

ESC Sample # : L520524-02

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	86.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	63.			mV		2580	06/17/11	1
pH	8.8			su		9045D	06/17/11	1
Sodium Adsorption Ratio	0.80					Calc.	06/14/11	1
Specific Conductance	110			umhos/cm		9050AMo	06/17/11	1
Mercury	0.022	0.0015	0.020	mg/kg		7471	06/15/11	1
Arsenic	19.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	410	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	2.0	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	86.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	14.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	18.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	39.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	46.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	94.3			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	108.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	103.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	99.4			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.2	0.77	4.0	mg/kg	J	3546/DR	06/17/11	1
Surrogate recovery(%)								
o-Terphenyl	80.0			% Rec.		3546/DR	06/17/11	1

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RDL = Reported Detection Limit = LOQ = PQL = EQL

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Reported: 06/20/11 16:37 Printed: 06/20/11 16:38
L520524-02 (PH) - 8.8@20.4c



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

June 20, 2011

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

Date Received : June 11, 2011
Description : 697-08-53-Pit Background

Sample ID : SS-7

Collected By : CJB
Collection Date : 06/10/11 11:00

ESC Sample # : L520524-02

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/16/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/16/11	1
Benzo(g,h,i)perylene	0.0017	0.0012	0.0060	mg/kg	J	8270C-S	06/16/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/16/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/16/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	06/16/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/16/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/16/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	06/16/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	06/16/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	06/16/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	06/16/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	06/16/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/16/11	1
Surrogate Recovery								
Nitrobenzene-d5	50.2			% Rec.		8270C-S	06/16/11	1
2-Fluorobiphenyl	55.8			% Rec.		8270C-S	06/16/11	1
p-Terphenyl-d14	63.0			% Rec.		8270C-S	06/16/11	1

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MDL = Minimum Detection Limit = LOD

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REPORT OF ANALYSIS

June 20, 2011

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

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-8
Collected By : CJB
Collection Date : 06/10/11 11:07

ESC Sample # : L520524-03

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	84.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	87.			mV		2580	06/17/11	1
pH	8.5			su		9045D	06/17/11	1
Sodium Adsorption Ratio	0.99					Calc.	06/14/11	1
Specific Conductance	140			umhos/cm		9050AMo	06/17/11	1
Mercury	0.019	0.0015	0.020	mg/kg	J	7471	06/16/11	1
Arsenic	14.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	320	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	1.8	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	84.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	17.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	38.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	52.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	94.0			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	104.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	111.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	92.8			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.6	0.77	4.0	mg/kg	J	3546/DR	06/18/11	1
Surrogate recovery(%)								
o-Terphenyl	76.1			% Rec.		3546/DR	06/18/11	1

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L520524-03 (PH) - 8.5@20.3c



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REPORT OF ANALYSIS

June 20, 2011

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

ESC Sample # : L520524-03

Date Received : June 11, 2011
Description : 697-08-53-Pit Background

Site ID :

Sample ID : SS-8

Project # : 900546.0001.050

Collected By : CJB
Collection Date : 06/10/11 11:07

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)pyrene	0.00086	0.00062	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(b)fluoranthene	0.0016	0.00082	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(g,h,i)perylene	0.0042	0.0012	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/17/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Fluoranthene	0.0011	0.0010	0.0060	mg/kg	J	8270C-S	06/17/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/17/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/17/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	06/17/11	1
Phenanthrene	0.00079	0.00074	0.0060	mg/kg	J	8270C-S	06/17/11	1
Pyrene	0.0011	0.00059	0.0060	mg/kg	J	8270C-S	06/17/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	06/17/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	06/17/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/17/11	1
Surrogate Recovery								
Nitrobenzene-d5	98.9			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	98.7			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	93.2			% Rec.		8270C-S	06/17/11	1

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REPORT OF ANALYSIS

June 20, 2011

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

ESC Sample # : L520524-04

Date Received : June 11, 2011
Description : 697-08-53-Pit Background

Site ID :

Sample ID : SS-9

Project # : 900546.0001.050

Collected By : CJB
Collection Date : 06/10/11 11:13

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/17/11	1
Chromium, Trivalent	82.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	85.			mV		2580	06/17/11	1
pH	7.3			su		9045D	06/17/11	1
Sodium Adsorption Ratio	0.95					Calc.	06/14/11	1
Specific Conductance	140			umhos/cm		9050AMo	06/17/11	1
Mercury	0.015	0.0015	0.020	mg/kg	J	7471	06/16/11	1
Arsenic	20.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	410	0.050	0.25	mg/kg	V	6010B	06/15/11	1
Cadmium	1.9	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	82.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	14.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	37.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	06/15/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/15/11	1
Zinc	54.	0.34	1.5	mg/kg		6010B	06/15/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/13/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	94.4			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/13/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/13/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/13/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/13/11	5
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	106.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	97.0			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	5.3	0.77	4.0	mg/kg		3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	79.3			% Rec.		3546/DR	06/18/11	1

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L520524-04 (PH) - 7.3@20.6c



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REPORT OF ANALYSIS

June 20, 2011

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

Date Received : June 11, 2011
Description : 697-08-53-Pit Background
Sample ID : SS-9
Collected By : CJB
Collection Date : 06/10/11 11:13

ESC Sample # : L520524-04

Site ID :

Project # : 900546.0001.050

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/17/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(a)pyrene	0.00066	0.00062	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(b)fluoranthene	0.0017	0.00082	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(g,h,i)perylene	0.0014	0.0012	0.0060	mg/kg	J	8270C-S	06/17/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/17/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/17/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	06/17/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/17/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/17/11	1
Naphthalene	0.00080	0.00065	0.0060	mg/kg	J	8270C-S	06/17/11	1
Phenanthrene	0.0010	0.00074	0.0060	mg/kg	J	8270C-S	06/17/11	1
Pyrene	0.0029	0.00059	0.0060	mg/kg	J	8270C-S	06/17/11	1
1-Methylnaphthalene	0.0010	0.00079	0.0060	mg/kg	J	8270C-S	06/17/11	1
2-Methylnaphthalene	0.0024	0.00059	0.0060	mg/kg	J	8270C-S	06/17/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/17/11	1
Surrogate Recovery								
Nitrobenzene-d5	100.			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	101.			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	107.			% Rec.		8270C-S	06/17/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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L520524-04 (PH) - 7.3@20.6c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L520524-01	WG540600	SAMP	Lead	R1727230	B
	WG540130	SAMP	Selenium	R1724389	J
	WG540795	SAMP	Benzo(a)anthracene	R1728470	J
	WG540795	SAMP	Benzo(b)fluoranthene	R1728470	J
	WG540795	SAMP	Benzo(g,h,i)perylene	R1728470	J
	WG540795	SAMP	Phenanthrene	R1728470	J
	WG540795	SAMP	Pyrene	R1728470	J
L520524-02	WG540600	SAMP	Lead	R1727230	B
	WG540644	SAMP	TPH (GC/FID) High Fraction	R1728369	J
	WG540527	SAMP	Benzo(g,h,i)perylene	R1727331	J
L520524-03	WG540600	SAMP	Lead	R1727230	B
	WG540644	SAMP	TPH (GC/FID) High Fraction	R1728369	J
	WG540079	SAMP	Mercury	R1726809	J
	WG540652	SAMP	Benzo(a)pyrene	R1727749	J
	WG540652	SAMP	Benzo(b)fluoranthene	R1727749	J
	WG540652	SAMP	Benzo(g,h,i)perylene	R1727749	J
	WG540652	SAMP	Fluoranthene	R1727749	J
	WG540652	SAMP	Phenanthrene	R1727749	J
	WG540652	SAMP	Pyrene	R1727749	J
L520524-04	WG540130	SAMP	Barium	R1724389	V
	WG540600	SAMP	Lead	R1727230	B
	WG540079	SAMP	Mercury	R1726809	J
	WG540652	SAMP	Benzo(a)pyrene	R1727749	J
	WG540652	SAMP	Benzo(b)fluoranthene	R1727749	J
	WG540652	SAMP	Benzo(g,h,i)perylene	R1727749	J
	WG540652	SAMP	Naphthalene	R1727749	J
	WG540652	SAMP	Phenanthrene	R1727749	J
	WG540652	SAMP	Pyrene	R1727749	J
	WG540652	SAMP	1-Methylnaphthalene	R1727749	J
	WG540652	SAMP	2-Methylnaphthalene	R1727749	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
B	(EPA) - The indicated compound was found in the associated method blank as well as the laboratory sample.
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
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
06/20/11 at 16:38:24

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L520524-01 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/20/11 16:37
Sample: L520524-02 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/20/11 16:37
Sample: L520524-03 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/20/11 16:37
Sample: L520524-04 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/20/11 16:37



NON-CONFORMANCE FORM

Login No.: LS20524-0C
Date: 6/11/11
Evaluated by: Mate
Client: OXYGEN

Non-Conformance (check applicable items)

- | | |
|---|--|
| <input type="checkbox"/> Parameter(s) past holding time | <input type="checkbox"/> Login Clarification Needed |
| <input type="checkbox"/> Improper temperature | <input type="checkbox"/> Chain of custody is incomplete |
| <input type="checkbox"/> Improper container type | <input type="checkbox"/> Chain of Custody is missing (see below) |
| <input type="checkbox"/> Improper preservation | <input type="checkbox"/> Broken container(s) (See below) |
| <input type="checkbox"/> Container lid not intact | <input checked="" type="checkbox"/> Broken container: sufficient sample
volume remains for analysis requested (See below) |

If no COC: Received by _____
Date: _____ Time: _____
Temp: _____ Cont. Rec. _____ pH: _____
☐ Fedex ☐ UPS ☐ SWA ☐ Other _____
Tracking # _____

- ☐ Insufficient packing material around container
- ☐ Insufficient packing material inside cooler
- ☐ Improper handling by carrier (FedEx / UPS / Courier)
- ☐ Sample was frozen

Comments: Received 1 SS-8 Broken

Login Instructions:

TSR Initials: _____

Client informed by call / email / fax / voice mail date: _____ time: _____

Client contact: _____

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

Report Summary

Tuesday April 24, 2012

Report Number: L570913

Samples Received: 04/19/12

Client Project: WA-000546-0013-10

Description: 697-08-S3

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

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FL - E87487, GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016,
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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-01

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-E 20 FT
Collected By : CJB
Collection Date : 04/18/12 10:01

Site ID : 697-08-S3

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	1.2	0.71	2.0	mg/kg	J	3060A/7	04/24/12	1
Chromium, Trivalent	37.	0.17	2.0	mg/kg		Calc.	04/21/12	1
ORP	150			mV	T8	2580	04/21/12	1
pH	8.3			su		9045D	04/21/12	1
Sodium Adsorption Ratio	1.3					Calc.	04/23/12	1
Specific Conductance	130			umhos/cm		9050AMo	04/21/12	1
Mercury	0.0092	0.00080	0.020	mg/kg	J	7471	04/21/12	1
Arsenic	47.	0.32	1.0	mg/kg		6010B	04/21/12	1
Barium	220	0.050	0.25	mg/kg		6010B	04/21/12	1
Cadmium	1.5	0.040	0.25	mg/kg		6010B	04/21/12	1
Chromium	38.	0.085	0.50	mg/kg		6010B	04/21/12	1
Copper	24.	0.21	1.0	mg/kg		6010B	04/21/12	1
Lead	26.	0.090	0.25	mg/kg		6010B	04/21/12	1
Nickel	24.	0.26	1.0	mg/kg		6010B	04/21/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/21/12	2
Silver	U	0.16	0.50	mg/kg		6010B	04/21/12	1
Zinc	87.	0.34	1.5	mg/kg		6010B	04/21/12	1
TPH (GC/FID) Low Fraction	4.0	0.25	0.50	mg/kg		8015D/G	04/21/12	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	97.0			% Rec.		602/801	04/21/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/21/12	5
Toluene	0.0023	0.0016	0.025	mg/kg	J	8260B	04/21/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/21/12	5
Total Xylenes	0.022	0.0023	0.015	mg/kg		8260B	04/21/12	5
Surrogate Recovery								
Toluene-d8	98.6			% Rec.		8260B	04/21/12	5
Dibromofluoromethane	90.9			% Rec.		8260B	04/21/12	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	04/21/12	5
4-Bromofluorobenzene	101.			% Rec.		8260B	04/21/12	5
TPH (GC/FID) High Fraction	19.	0.77	4.0	mg/kg		3546/DR	04/24/12	1
Surrogate recovery(%)								
o-Terphenyl	108.			% Rec.		3546/DR	04/24/12	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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L570913-01 (PH) - 8.3@23.9c



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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-01

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-E 20 FT

Site ID : 697-08-S3

Project # : WA-000546-0013-10

Collected By : CJB
Collection Date : 04/18/12 10:01

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0012	0.00076	0.0060	mg/kg	J	8270C-S	04/22/12	1
Acenaphthene	0.00080	0.00071	0.0060	mg/kg	J	8270C-S	04/22/12	1
Acenaphthylene	0.00057	0.00057	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(a)anthracene	0.0011	0.00092	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(a)pyrene	0.00064	0.00062	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(b)fluoranthene	0.0016	0.00082	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(g,h,i)perylene	0.0031	0.0012	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/22/12	1
Chrysene	0.0017	0.0011	0.0060	mg/kg	J	8270C-S	04/22/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Fluoranthene	0.0031	0.0010	0.0060	mg/kg	J	8270C-S	04/22/12	1
Fluorene	0.022	0.00055	0.0060	mg/kg		8270C-S	04/22/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/22/12	1
Naphthalene	0.066	0.00065	0.0060	mg/kg		8270C-S	04/22/12	1
Phenanthrene	0.032	0.00074	0.0060	mg/kg		8270C-S	04/22/12	1
Pyrene	0.0029	0.00059	0.0060	mg/kg	J	8270C-S	04/22/12	1
1-Methylnaphthalene	0.048	0.00079	0.0060	mg/kg		8270C-S	04/22/12	1
2-Methylnaphthalene	0.13	0.00059	0.0060	mg/kg		8270C-S	04/22/12	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/22/12	1
Surrogate Recovery								
Nitrobenzene-d5	93.8			% Rec.		8270C-S	04/22/12	1
2-Fluorobiphenyl	89.6			% Rec.		8270C-S	04/22/12	1
p-Terphenyl-d14	109.			% Rec.		8270C-S	04/22/12	1

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L570913-01 (PH) - 8.3@23.9c

REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-02

Date Received : April 19, 2012
Description : 697-08-S3

Site ID : 697-08-S3

Sample ID : 697-08-53-PB-W 15-18 FT

Project # : WA-000546-0013-10

Collected By : CJB
Collection Date : 04/18/12 10:24

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	04/24/12	1
Chromium, Trivalent	55.	0.17	2.0	mg/kg		Calc.	04/21/12	1
ORP	140			mV	T8	2580	04/21/12	1
pH	8.6			su		9045D	04/21/12	1
Sodium Adsorption Ratio	1.8					Calc.	04/23/12	1
Specific Conductance	120			umhos/cm		9050AMo	04/21/12	1
Mercury	0.0095	0.00080	0.020	mg/kg	JP1	7471	04/21/12	1
Arsenic	4.9	0.32	1.0	mg/kg		6010B	04/21/12	1
Barium	340	0.050	0.25	mg/kg	V	6010B	04/21/12	1
Cadmium	0.55	0.040	0.25	mg/kg		6010B	04/21/12	1
Chromium	55.	0.085	0.50	mg/kg		6010B	04/21/12	1
Copper	18.	0.21	1.0	mg/kg		6010B	04/21/12	1
Lead	17.	0.090	0.25	mg/kg		6010B	04/21/12	1
Nickel	25.	0.26	1.0	mg/kg		6010B	04/21/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/21/12	2
Silver	U	0.16	0.50	mg/kg		6010B	04/21/12	1
Zinc	58.	0.34	1.5	mg/kg		6010B	04/21/12	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	04/20/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98.4			% Rec.		602/801	04/20/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/21/12	5
Toluene	U	0.0016	0.025	mg/kg		8260B	04/21/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/21/12	5
Total Xylenes	0.0038	0.0023	0.015	mg/kg	J	8260B	04/21/12	5
Surrogate Recovery								
Toluene-d8	97.7			% Rec.		8260B	04/21/12	5
Dibromofluoromethane	94.7			% Rec.		8260B	04/21/12	5
a,a,a-Trifluorotoluene	103.			% Rec.		8260B	04/21/12	5
4-Bromofluorobenzene	100.			% Rec.		8260B	04/21/12	5
TPH (GC/FID) High Fraction	18.	0.77	4.0	mg/kg		3546/DR	04/24/12	1
Surrogate recovery (%) o-Terphenyl	84.0			% Rec.		3546/DR	04/24/12	1

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L570913-02 (PH) - 8.6@24.3c



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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-02

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-W 15-18 FT

Site ID : 697-08-S3

Collected By : CJB
Collection Date : 04/18/12 10:24

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0010	0.00076	0.0060	mg/kg	J	8270C-S	04/22/12	1
Acenaphthene	0.00088	0.00071	0.0060	mg/kg	J	8270C-S	04/22/12	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)pyrene	0.00094	0.00062	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(b)fluoranthene	0.0018	0.00082	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(g,h,i)perylene	0.0042	0.0012	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/22/12	1
Chrysene	0.0019	0.0011	0.0060	mg/kg	J	8270C-S	04/22/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Fluoranthene	0.0061	0.0010	0.0060	mg/kg		8270C-S	04/22/12	1
Fluorene	0.012	0.00055	0.0060	mg/kg		8270C-S	04/22/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/22/12	1
Naphthalene	0.018	0.00065	0.0060	mg/kg		8270C-S	04/22/12	1
Phenanthrene	0.017	0.00074	0.0060	mg/kg		8270C-S	04/22/12	1
Pyrene	0.0037	0.00059	0.0060	mg/kg	J	8270C-S	04/22/12	1
1-Methylnaphthalene	0.018	0.00079	0.0060	mg/kg		8270C-S	04/22/12	1
2-Methylnaphthalene	0.050	0.00059	0.0060	mg/kg		8270C-S	04/22/12	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/22/12	1
Surrogate Recovery								
Nitrobenzene-d5	74.3			% Rec.		8270C-S	04/22/12	1
2-Fluorobiphenyl	89.8			% Rec.		8270C-S	04/22/12	1
p-Terphenyl-d14	114.			% Rec.		8270C-S	04/22/12	1

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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-03

Date Received : April 19, 2012
Description : 697-08-S3

Site ID : 697-08-S3

Sample ID : 697-08-53-PB-NE 20 FT

Project # : WA-000546-0013-10

Collected By : CJB
Collection Date : 04/18/12 09:32

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	04/24/12	1
Chromium, Trivalent	34.	0.17	2.0	mg/kg		Calc.	04/21/12	1
ORP	150			mV	T8	2580	04/21/12	1
pH	8.5			su		9045D	04/21/12	1
Sodium Adsorption Ratio	0.89					Calc.	04/23/12	1
Specific Conductance	170			umhos/cm		9050AMo	04/21/12	1
Mercury	0.012	0.00080	0.020	mg/kg	J	7471	04/21/12	1
Arsenic	11.	0.65	2.0	mg/kg		6010B	04/21/12	2
Barium	490	0.050	0.25	mg/kg		6010B	04/21/12	1
Cadmium	1.6	0.080	0.50	mg/kg		6010B	04/21/12	2
Chromium	34.	0.085	0.50	mg/kg		6010B	04/21/12	1
Copper	20.	0.21	1.0	mg/kg		6010B	04/21/12	1
Lead	21.	0.18	0.50	mg/kg		6010B	04/21/12	2
Nickel	19.	0.26	1.0	mg/kg		6010B	04/21/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/21/12	2
Silver	U	0.16	0.50	mg/kg		6010B	04/21/12	1
Zinc	69.	0.34	1.5	mg/kg		6010B	04/21/12	1
TPH (GC/FID) Low Fraction	0.54	0.25	0.50	mg/kg		8015D/G	04/20/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	98.4			% Rec.		602/801	04/20/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/21/12	5
Toluene	0.0042	0.0016	0.025	mg/kg	J	8260B	04/21/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/21/12	5
Total Xylenes	0.017	0.0023	0.015	mg/kg		8260B	04/21/12	5
Surrogate Recovery								
Toluene-d8	99.3			% Rec.		8260B	04/21/12	5
Dibromofluoromethane	92.9			% Rec.		8260B	04/21/12	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	04/21/12	5
4-Bromofluorobenzene	103.			% Rec.		8260B	04/21/12	5
TPH (GC/FID) High Fraction	14.	0.77	4.0	mg/kg		3546/DR	04/23/12	1
Surrogate recovery(%) o-Terphenyl	78.3			% Rec.		3546/DR	04/23/12	1

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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-03

Date Received : April 19, 2012
Description : 697-08-S3

Sample ID : 697-08-53-PB-NE 20 FT

Collected By : CJB
Collection Date : 04/18/12 09:32

Site ID : 697-08-S3

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	04/22/12	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	04/22/12	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)pyrene	0.00070	0.00062	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(b)fluoranthene	0.0021	0.00082	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(g,h,i)perylene	0.0040	0.0012	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/22/12	1
Chrysene	0.0016	0.0011	0.0060	mg/kg	J	8270C-S	04/22/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Fluoranthene	0.0035	0.0010	0.0060	mg/kg	J	8270C-S	04/22/12	1
Fluorene	0.0011	0.00055	0.0060	mg/kg	J	8270C-S	04/22/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/22/12	1
Naphthalene	0.012	0.00065	0.0060	mg/kg		8270C-S	04/22/12	1
Phenanthrene	0.0075	0.00074	0.0060	mg/kg		8270C-S	04/22/12	1
Pyrene	0.0032	0.00059	0.0060	mg/kg	J	8270C-S	04/22/12	1
1-Methylnaphthalene	0.0070	0.00079	0.0060	mg/kg		8270C-S	04/22/12	1
2-Methylnaphthalene	0.020	0.00059	0.0060	mg/kg		8270C-S	04/22/12	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/22/12	1
Surrogate Recovery								
Nitrobenzene-d5	74.0			% Rec.		8270C-S	04/22/12	1
2-Fluorobiphenyl	94.0			% Rec.		8270C-S	04/22/12	1
p-Terphenyl-d14	123.			% Rec.		8270C-S	04/22/12	1

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L570913-03 (PH) - 8.5@24.5c



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REPORT OF ANALYSIS

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

April 24, 2012

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-SW 15-20 FT
Collected By : CJB
Collection Date : 04/18/12 10:16

ESC Sample # : L570913-04

Site ID : 697-08-S3

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	04/24/12	1
Chromium, Trivalent	53.	0.17	2.0	mg/kg		Calc.	04/21/12	1
ORP	140			mV	T8	2580	04/21/12	1
pH	8.7			su		9045D	04/21/12	1
Sodium Adsorption Ratio	2.5					Calc.	04/23/12	1
Specific Conductance	230			umhos/cm		9050AMo	04/21/12	1
Mercury	0.010	0.00080	0.020	mg/kg	J	7471	04/21/12	1
Arsenic	5.3	0.32	1.0	mg/kg		6010B	04/21/12	1
Barium	220	0.050	0.25	mg/kg		6010B	04/21/12	1
Cadmium	0.71	0.040	0.25	mg/kg		6010B	04/21/12	1
Chromium	53.	0.085	0.50	mg/kg		6010B	04/21/12	1
Copper	19.	0.21	1.0	mg/kg		6010B	04/21/12	1
Lead	17.	0.090	0.25	mg/kg		6010B	04/21/12	1
Nickel	22.	0.26	1.0	mg/kg		6010B	04/21/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/21/12	2
Silver	U	0.16	0.50	mg/kg		6010B	04/21/12	1
Zinc	60.	0.34	1.5	mg/kg		6010B	04/21/12	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	04/20/12	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	98.3			% Rec.		602/801	04/20/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/21/12	5
Toluene	U	0.0016	0.025	mg/kg		8260B	04/21/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/21/12	5
Total Xylenes	0.0052	0.0023	0.015	mg/kg	J	8260B	04/21/12	5
Surrogate Recovery								
Toluene-d8	97.8			% Rec.		8260B	04/21/12	5
Dibromofluoromethane	93.7			% Rec.		8260B	04/21/12	5
a,a,a-Trifluorotoluene	105.			% Rec.		8260B	04/21/12	5
4-Bromofluorobenzene	101.			% Rec.		8260B	04/21/12	5
TPH (GC/FID) High Fraction	13.	0.77	4.0	mg/kg		3546/DR	04/24/12	1
Surrogate recovery(%)								
o-Terphenyl	84.7			% Rec.		3546/DR	04/24/12	1

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L570913-04 (PH) - 8.7@24.3c



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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-04

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-SW 15-20 FT

Site ID : 697-08-S3

Project # : WA-000546-0013-10

Collected By : CJB
Collection Date : 04/18/12 10:16

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	04/22/12	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	04/22/12	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)pyrene	0.00074	0.00062	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(b)fluoranthene	0.0016	0.00082	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(g,h,i)perylene	0.0029	0.0012	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/22/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Fluoranthene	0.0034	0.0010	0.0060	mg/kg	J	8270C-S	04/22/12	1
Fluorene	0.011	0.00055	0.0060	mg/kg		8270C-S	04/22/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/22/12	1
Naphthalene	0.020	0.00065	0.0060	mg/kg		8270C-S	04/22/12	1
Phenanthrene	0.013	0.00074	0.0060	mg/kg		8270C-S	04/22/12	1
Pyrene	0.0022	0.00059	0.0060	mg/kg	J	8270C-S	04/22/12	1
1-Methylnaphthalene	0.019	0.00079	0.0060	mg/kg		8270C-S	04/22/12	1
2-Methylnaphthalene	0.052	0.00059	0.0060	mg/kg		8270C-S	04/22/12	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/22/12	1
Surrogate Recovery								
Nitrobenzene-d5	71.0			% Rec.		8270C-S	04/22/12	1
2-Fluorobiphenyl	80.2			% Rec.		8270C-S	04/22/12	1
p-Terphenyl-d14	105.			% Rec.		8270C-S	04/22/12	1

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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-05

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-CENTER 15-19 FT

Site ID : 697-08-S3

Project # : WA-000546-0013-10

Collected By : CJB
Collection Date : 04/18/12 10:41

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	04/24/12	1
Chromium, Trivalent	53.	0.17	2.0	mg/kg		Calc.	04/21/12	1
ORP	140			mV	T8	2580	04/21/12	1
pH	8.8			su		9045D	04/21/12	1
Sodium Adsorption Ratio	3.1					Calc.	04/23/12	1
Specific Conductance	220			umhos/cm		9050AMo	04/21/12	1
Mercury	0.012	0.00080	0.020	mg/kg	J	7471	04/21/12	1
Arsenic	5.7	0.32	1.0	mg/kg		6010B	04/21/12	1
Barium	200	0.050	0.25	mg/kg		6010B	04/21/12	1
Cadmium	0.59	0.040	0.25	mg/kg		6010B	04/21/12	1
Chromium	53.	0.085	0.50	mg/kg		6010B	04/21/12	1
Copper	20.	0.21	1.0	mg/kg		6010B	04/21/12	1
Lead	18.	0.090	0.25	mg/kg		6010B	04/21/12	1
Nickel	28.	0.26	1.0	mg/kg		6010B	04/21/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/21/12	2
Silver	U	0.16	0.50	mg/kg		6010B	04/21/12	1
Zinc	61.	0.34	1.5	mg/kg		6010B	04/21/12	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	04/20/12	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	98.1			% Rec.		602/801	04/20/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/20/12	5
Toluene	0.0037	0.0016	0.025	mg/kg	J	8260B	04/20/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/20/12	5
Total Xylenes	0.031	0.0023	0.015	mg/kg		8260B	04/20/12	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	04/20/12	5
Dibromofluoromethane	107.			% Rec.		8260B	04/20/12	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	04/20/12	5
4-Bromofluorobenzene	93.2			% Rec.		8260B	04/20/12	5
TPH (GC/FID) High Fraction	18.	0.77	4.0	mg/kg		3546/DR	04/24/12	1
Surrogate recovery(%)								
o-Terphenyl	82.0			% Rec.		3546/DR	04/24/12	1

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L570913-05 (PH) - 8.8@24.1c



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REPORT OF ANALYSIS

April 24, 2012

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

ESC Sample # : L570913-05

Site ID : 697-08-S3

Project # : WA-000546-0013-10

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-CENTER 15-19 FT
Collected By : CJB
Collection Date : 04/18/12 10:41

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	04/22/12	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	04/22/12	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)anthracene	0.0015	0.00092	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(a)pyrene	0.0013	0.00062	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(b)fluoranthene	0.0024	0.00082	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(g,h,i)perylene	0.0057	0.0012	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/22/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Fluoranthene	0.0036	0.0010	0.0060	mg/kg	J	8270C-S	04/22/12	1
Fluorene	0.0071	0.00055	0.0060	mg/kg		8270C-S	04/22/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/22/12	1
Naphthalene	0.016	0.00065	0.0060	mg/kg		8270C-S	04/22/12	1
Phenanthrene	0.0080	0.00074	0.0060	mg/kg		8270C-S	04/22/12	1
Pyrene	0.0034	0.00059	0.0060	mg/kg	J	8270C-S	04/22/12	1
1-Methylnaphthalene	0.014	0.00079	0.0060	mg/kg		8270C-S	04/22/12	1
2-Methylnaphthalene	0.038	0.00059	0.0060	mg/kg		8270C-S	04/22/12	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/22/12	1
Surrogate Recovery								
Nitrobenzene-d5	62.6			% Rec.		8270C-S	04/22/12	1
2-Fluorobiphenyl	75.0			% Rec.		8270C-S	04/22/12	1
p-Terphenyl-d14	92.5			% Rec.		8270C-S	04/22/12	1

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REPORT OF ANALYSIS

April 24, 2012

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760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

ESC Sample # : L570913-06

Date Received : April 19, 2012

Description : 697-08-S3

Site ID : 697-08-S3

Sample ID : 697-08-53-PB-COMP 6-12 IN

Project # : WA-000546-0013-10

Collected By : CJB

Collection Date : 04/18/12 11:02

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	04/24/12	1
Chromium, Trivalent	46.	0.17	2.0	mg/kg		Calc.	04/21/12	1
ORP	140			mV	T8	2580	04/21/12	1
pH	9.2			su		9045D	04/21/12	1
Sodium Adsorption Ratio	2.8					Calc.	04/23/12	1
Specific Conductance	460			umhos/cm		9050AMo	04/21/12	1
Mercury	0.016	0.00080	0.020	mg/kg	J	7471	04/21/12	1
Arsenic	6.7	0.32	1.0	mg/kg		6010B	04/21/12	1
Barium	400	0.050	0.25	mg/kg		6010B	04/21/12	1
Cadmium	0.62	0.040	0.25	mg/kg		6010B	04/21/12	1
Chromium	46.	0.085	0.50	mg/kg		6010B	04/21/12	1
Copper	19.	0.21	1.0	mg/kg		6010B	04/21/12	1
Lead	18.	0.090	0.25	mg/kg		6010B	04/21/12	1
Nickel	22.	0.26	1.0	mg/kg		6010B	04/21/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/21/12	2
Silver	U	0.16	0.50	mg/kg		6010B	04/21/12	1
Zinc	60.	0.34	1.5	mg/kg		6010B	04/21/12	1
TPH (GC/FID) Low Fraction	3.2	0.25	0.50	mg/kg		8015D/G	04/20/12	5
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	98.5			% Rec.		602/801	04/20/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/20/12	5
Toluene	0.010	0.0016	0.025	mg/kg	J	8260B	04/20/12	5
Ethylbenzene	0.0051	0.0019	0.0050	mg/kg		8260B	04/20/12	5
Total Xylenes	0.12	0.0023	0.015	mg/kg		8260B	04/20/12	5
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	04/20/12	5
Dibromofluoromethane	105.			% Rec.		8260B	04/20/12	5
a, a, a-Trifluorotoluene	101.			% Rec.		8260B	04/20/12	5
4-Bromofluorobenzene	105.			% Rec.		8260B	04/20/12	5
TPH (GC/FID) High Fraction	59.	3.8	20.	mg/kg		3546/DR	04/24/12	5
Surrogate recovery(%) o-Terphenyl	141.			% Rec.		3546/DR	04/24/12	5

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L570913-06 (PH) - 9.2024.1c



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REPORT OF ANALYSIS

Daniel Padilla
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760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

April 24, 2012

Date Received : April 19, 2012
Description : 697-08-S3
Sample ID : 697-08-53-PB-COMP 6-12 IN
Collected By : CJB
Collection Date : 04/18/12 11:02

ESC Sample # : L570913-06
Site ID : 697-08-S3
Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0021	0.00076	0.0060	mg/kg	J	8270C-S	04/22/12	1
Acenaphthene	0.0042	0.00071	0.0060	mg/kg	J	8270C-S	04/22/12	1
Acenaphthylene	0.0016	0.00057	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/22/12	1
Benzo(a)pyrene	0.0011	0.00062	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(b)fluoranthene	0.0014	0.00082	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(g,h,i)perylene	0.0014	0.0012	0.0060	mg/kg	J	8270C-S	04/22/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/22/12	1
Chrysene	0.0025	0.0011	0.0060	mg/kg	J	8270C-S	04/22/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/22/12	1
Fluoranthene	0.0018	0.0010	0.0060	mg/kg	J	8270C-S	04/22/12	1
Fluorene	0.063	0.00055	0.0060	mg/kg		8270C-S	04/22/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/22/12	1
Naphthalene	0.13	0.00065	0.0060	mg/kg		8270C-S	04/22/12	1
Phenanthrene	0.071	0.00074	0.0060	mg/kg		8270C-S	04/22/12	1
Pyrene	0.0031	0.00059	0.0060	mg/kg	J	8270C-S	04/22/12	1
1-Methylnaphthalene	0.14	0.00079	0.0060	mg/kg		8270C-S	04/22/12	1
2-Methylnaphthalene	0.37	0.012	0.12	mg/kg		8270C-S	04/24/12	20
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/22/12	1
Surrogate Recovery								
Nitrobenzene-d5	148.			% Rec.	J1	8270C-S	04/22/12	1
2-Fluorobiphenyl	86.5			% Rec.		8270C-S	04/22/12	1
p-Terphenyl-d14	101.			% Rec.		8270C-S	04/22/12	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

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L570913-06 (PH) - 9.2@24.1c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L570913-01	WG588672	SAMP	Selenium	R2134814	O
	WG588793	SAMP	Chromium, Hexavalent	R2138193	J
	WG588659	SAMP	Mercury	R2136694	J
	WG588833	SAMP	Toluene	R2135193	J
	WG588886	SAMP	Anthracene	R2136493	J
	WG588886	SAMP	Acenaphthene	R2136493	J
	WG588886	SAMP	Acenaphthylene	R2136493	J
	WG588886	SAMP	Benzo(a)anthracene	R2136493	J
	WG588886	SAMP	Benzo(a)pyrene	R2136493	J
	WG588886	SAMP	Benzo(b)fluoranthene	R2136493	J
	WG588886	SAMP	Benzo(g,h,i)perylene	R2136493	J
	WG588886	SAMP	Chrysene	R2136493	J
	WG588886	SAMP	Fluoranthene	R2136493	J
	WG588886	SAMP	Pyrene	R2136493	J
	WG588816	SAMP	ORP	R2135533	T8
L570913-02	WG588672	SAMP	Barium	R2134814	V
	WG588672	SAMP	Selenium	R2134814	O
	WG588659	SAMP	Mercury	R2136694	JP1
	WG588833	SAMP	Total Xylenes	R2135193	J
	WG588886	SAMP	Anthracene	R2136493	J
	WG588886	SAMP	Acenaphthene	R2136493	J
	WG588886	SAMP	Benzo(a)pyrene	R2136493	J
	WG588886	SAMP	Benzo(b)fluoranthene	R2136493	J
	WG588886	SAMP	Benzo(g,h,i)perylene	R2136493	J
	WG588886	SAMP	Chrysene	R2136493	J
	WG588886	SAMP	Pyrene	R2136493	J
	WG588816	SAMP	ORP	R2135533	T8
L570913-03	WG588672	SAMP	Selenium	R2134814	O
	WG588660	SAMP	Mercury	R2136697	J
	WG588833	SAMP	Toluene	R2135193	J
	WG588886	SAMP	Benzo(a)pyrene	R2136493	J
	WG588886	SAMP	Benzo(b)fluoranthene	R2136493	J
	WG588886	SAMP	Benzo(g,h,i)perylene	R2136493	J
	WG588886	SAMP	Chrysene	R2136493	J
	WG588886	SAMP	Fluoranthene	R2136493	J
	WG588886	SAMP	Fluorene	R2136493	J
	WG588886	SAMP	Pyrene	R2136493	J
	WG588816	SAMP	ORP	R2135533	T8
L570913-04	WG588672	SAMP	Selenium	R2134814	O
	WG588660	SAMP	Mercury	R2136697	J
	WG588833	SAMP	Total Xylenes	R2135193	J
	WG588886	SAMP	Benzo(a)pyrene	R2136493	J
	WG588886	SAMP	Benzo(b)fluoranthene	R2136493	J
	WG588886	SAMP	Benzo(g,h,i)perylene	R2136493	J
	WG588886	SAMP	Fluoranthene	R2136493	J
	WG588886	SAMP	Pyrene	R2136493	J
	WG588816	SAMP	ORP	R2135533	T8
L570913-05	WG588672	SAMP	Selenium	R2134814	O
	WG588660	SAMP	Mercury	R2136697	J
	WG588687	SAMP	Toluene	R2135133	J
	WG588886	SAMP	Benzo(a)anthracene	R2136493	J
	WG588886	SAMP	Benzo(a)pyrene	R2136493	J
	WG588886	SAMP	Benzo(b)fluoranthene	R2136493	J
	WG588886	SAMP	Benzo(g,h,i)perylene	R2136493	J
	WG588886	SAMP	Fluoranthene	R2136493	J
	WG588886	SAMP	Pyrene	R2136493	J
	WG588816	SAMP	ORP	R2135533	T8
L570913-06	WG588672	SAMP	Selenium	R2134814	O
	WG588660	SAMP	Mercury	R2136697	J
	WG588687	SAMP	Toluene	R2135133	J
	WG588886	SAMP	Anthracene	R2136493	J
	WG588886	SAMP	Acenaphthene	R2136493	J
	WG588886	SAMP	Acenaphthylene	R2136493	J
	WG588886	SAMP	Benzo(a)pyrene	R2136493	J
	WG588886	SAMP	Benzo(b)fluoranthene	R2136493	J
	WG588886	SAMP	Benzo(g,h,i)perylene	R2136493	J
	WG588886	SAMP	Chrysene	R2136493	J
	WG588886	SAMP	Fluoranthene	R2136493	J
	WG588886	SAMP	Pyrene	R2136493	J

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
	WG588886	SAMP	Nitrobenzene-d5	R2136493	J1
	WG588816	SAMP	ORP	R2135533	T8

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
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.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.
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
04/24/12 at 17:01:26

TSR Signing Reports: 134
R4 - Rush: Three Day

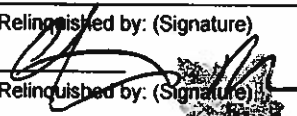
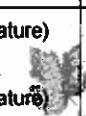
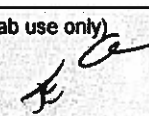
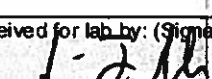
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Changed to rush - MB 4/20/12
Sample: L570913-02 Account: OXYGJCO Received: 04/19/12 09:00 Due Date: 04/24/12 00:00 RPT Date: 04/24/12 17:00
Sample: L570913-03 Account: OXYGJCO Received: 04/19/12 09:00 Due Date: 04/24/12 00:00 RPT Date: 04/24/12 17:00
Sample: L570913-04 Account: OXYGJCO Received: 04/19/12 09:00 Due Date: 04/24/12 00:00 RPT Date: 04/24/12 17:00
Sample: L570913-05 Account: OXYGJCO Received: 04/19/12 09:00 Due Date: 04/24/12 00:00 RPT Date: 04/24/12 17:00
Sample: L570913-06 Account: OXYGJCO Received: 04/19/12 09:00 Due Date: 04/24/12 00:00 RPT Date: 04/24/12 17:00

OXY USA WTP LP. - Grand Junction, CO 760 Horizon Dr., Ste 101 Grand Junction, CO 81506				Alternate billing information: CO Table 910				Analysis/Container/Preservative				Chain of Custody Page <u>1</u> of <u>1</u>																																																																																																																																													
				Report to: Daniel Padilla / Blair Rollins Email to: blair-rollins@oxy.com daniel_padilla@oxy.com, blai																																																																																																																																																					
Project Description: 697-08-S3				City/State Collected: Parachute								Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (615) 758-5858 Phone (800) 767-5859 FAX (615) 758-5859 C239																																																																																																																																													
Phone: (970) 263-3601 FAX:		Client Project #: WA-000546-0013-10		ESC Key: OXYGJCO-TABLE910																																																																																																																																																					
Collected by: CSB		Site/Facility ID#: 697-08-S3		P.O.#:																																																																																																																																																					
Collected by (signature): 		Rush? (Lab MUST Be Notified) Same Day.....200% Next Day.....100% Two Day.....50%		Date Results Needed: Email? <u>No</u> <u>X</u> Yes FAX? <u>X</u> <u>No</u> Yes		No. of Cntrs																																																																																																																																																			
Packed on Ice <u>N</u>												CoCode OXYGJCO (lab use only) Template/Prelogin T74772 Shipped Via:																																																																																																																																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample ID</th> <th>Comp/Grab</th> <th>Matrix*</th> <th>Depth</th> <th>Date</th> <th>Time</th> <th></th> <th>V8260BTEX, GRO</th> <th>DRO, SV8270PAHSIM</th> <th>SAR, SPCON, pH</th> <th>MRCRA8 + Cu, Ni, Zn</th> <th>CR3, CR6SS</th> <th>Remarks/Contaminant</th> <th>Sample # (lab only)</th> </tr> </thead> <tbody> <tr> <td>697-08-S3-PB-E</td> <td>Grab</td> <td>SS</td> <td>20' 1001</td> <td>4/18/12</td> <td>1001</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>6770913-X</td> </tr> <tr> <td>697-08-S3-PB-W</td> <td>Grab</td> <td>SS</td> <td>15'-18'</td> <td>4/18/12</td> <td>1024</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>2</td> </tr> <tr> <td>697-08-S3-PB-NE</td> <td>Grab</td> <td>SS</td> <td>20' 0932</td> <td>4/18/12</td> <td>0932</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>83</td> </tr> <tr> <td>697-08-S3-PB-SW</td> <td>Grab</td> <td>SS</td> <td>15'-20'</td> <td>4/18/12</td> <td>1016</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>69</td> </tr> <tr> <td>697-08-S3-PB-center</td> <td>Grab</td> <td>SS</td> <td>15'-19' 1041</td> <td>4/18/12</td> <td>1041</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>08</td> </tr> <tr> <td>697-08-S3-PB-Camp</td> <td>Grab Camp</td> <td>SS</td> <td>6'-12"</td> <td>4/18/12</td> <td>1102</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>11</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>												Sample ID	Comp/Grab	Matrix*	Depth	Date	Time		V8260BTEX, GRO	DRO, SV8270PAHSIM	SAR, SPCON, pH	MRCRA8 + Cu, Ni, Zn	CR3, CR6SS	Remarks/Contaminant	Sample # (lab only)	697-08-S3-PB-E	Grab	SS	20' 1001	4/18/12	1001	3	X	X	X	X	X		6770913-X	697-08-S3-PB-W	Grab	SS	15'-18'	4/18/12	1024	3	X	X	X	X	X		2	697-08-S3-PB-NE	Grab	SS	20' 0932	4/18/12	0932	3	X	X	X	X	X		83	697-08-S3-PB-SW	Grab	SS	15'-20'	4/18/12	1016	3	X	X	X	X	X		69	697-08-S3-PB-center	Grab	SS	15'-19' 1041	4/18/12	1041	3	X	X	X	X	X		08	697-08-S3-PB-Camp	Grab Camp	SS	6'-12"	4/18/12	1102	3	X	X	X	X	X		11																																												
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697-08-S3-PB-W	Grab	SS	15'-18'	4/18/12	1024	3	X	X	X	X	X		2																																																																																																																																												
697-08-S3-PB-NE	Grab	SS	20' 0932	4/18/12	0932	3	X	X	X	X	X		83																																																																																																																																												
697-08-S3-PB-SW	Grab	SS	15'-20'	4/18/12	1016	3	X	X	X	X	X		69																																																																																																																																												
697-08-S3-PB-center	Grab	SS	15'-19' 1041	4/18/12	1041	3	X	X	X	X	X		08																																																																																																																																												
697-08-S3-PB-Camp	Grab Camp	SS	6'-12"	4/18/12	1102	3	X	X	X	X	X		11																																																																																																																																												

*Matrix SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____ pH _____ Temp _____

Remarks:

5040 0628 1625 low _____ Other _____

Relinquished by: (Signature) 	Date: 4/18/12	Time: 5:00	Received by: (Signature) 	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier		Condition: (lab use only)	
	Date:	Time:	Received by: (Signature)	Temp: 24°C	Bottles Received: 19-902		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 04-19-12	Time: 0900	pH Checked:	NCF: