

State of Colorado  
Oil and Gas Conservation Commission

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



DOCUMENT  
#2224491

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  
5/8/2012

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 05-045-10865	OGCC Facility ID Number 335643 (Facility ID)	Survey Plat
6. Well/Facility Name: 697-16-28 Reserve Pit	7. Well/Facility Number 697-16-28	Directional Survey
8. Location (Qtr/Sec, Twp, Rng, Meridian): SENW, Sec 16, T6S, R97W, 6th PM		Surface Eqpm Diagram
9. County: Garfield	10. Field Name: Grand Valley	Technical Info Page <input checked="" type="checkbox"/>
11. Federal, Indian or State Lease Number:		Other Lab data, Map <input checked="" type="checkbox"/>

General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)	
Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/> FNL/FSL <input type="checkbox"/> FEU/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"/> 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 <input type="checkbox"/>
	Distance to nearest well same formation
	Surface owner consultation date:
GPS DATA:	
Date of Measurement	PDOP 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 (5 mos from date casing set)	
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK	
Method used	*submit cbl and cement job summaries
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: 5/7/12 Email: daniel\_padilla@oxy.com  
Print Name: Daniel I. Padilla Title: Regulatory Advisor

OGCC Approved: Chris Campfield Title: FOR Date: 05/11/2012

CONDITIONS OF APPROVAL, IF ANY:

Chris Campfield  
EPS NW Region

Background Arsenic consideration OK ✓  
Reserve pit closure OK ✓  
etc.

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 66571 API Number: 05-045-10865
2. Name of Operator: OXY USA WTP LP OGCC Facility ID # 335643
3. Well/Facility Name: 697-16-28 Reserve Pit Well/Facility Number: 697-16-28
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SENW, Sec 16, 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) to be above table 910-1 allowable concentrations, but below background levels. 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, and in surface native material collected from nearby locations, 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 (06/03/2011, 06/10/2011), and Oxy's post reclamation concentrations (post reclaim 04/24/2012, 04/25/2012). The post reclaim concentrations of As are below those found in background samples.

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.

It should be noted that Oxy collected samples for closure in March 2012. At this time, Oxy identified elevated levels of TPH and pH. Subsequently Oxy conducted an investigation to determine if the elevated levels of TPH were a result of an upset condition or release. Oxy determined that closure activities in the winter months did not allow for sufficient aeration which accounted for elevated levels of TPH generated in standard completions activities. Oxy decided to cap the pit in this state to stabilize it during winter conditions and postpone closure activities until spring time. During the spring Oxy re-excavated the pit and mixed in additional native material. Oxy then allowed for sufficient aeration time before re-sampling and closure. The initial sampling data and tabulation are attached on a separate spreadsheet.

697-16-28 Reserve Pit Closure	
Pad #:	697-16-28
Sample Date:	04/24/2012

		Sample Identifications (mg/kg)											
	Lab Report #	L571734	L571734	L571734	L571734	L571883	L519772	L519772	L520529	L520529	L520529	L520529	L520529
	Date Sampled	04/24/2012	04/24/2012	04/24/2012	04/24/2012	04/25/2012	06/03/2011	06/03/2011	06/10/2011	06/10/2011	06/10/2011	06/10/2011	06/10/2011
	Sample Name	697-16-28-PB-S	697-16-28-PB-SE	697-16-28-PB-N	697-16-28-PB-NW	697-16-28 Spoil Pile	Background - 1	Background - 2	SS-1	SS-2	SS-3	SS-4	SS-5
	Sample Identifier	Pit Bottom	Pit Bottom	Pit Bottom	Pit Bottom	Pit Contents	Background	Background	Pit-Background	Pit-Background	Pit-Background	Pit-Background	Pit-Background
	MCL (mg/Kg)												
Organics in Soil													
TPH (GRO and DRO) - San Area	500	258.0	152.3	97.0	39.4	174.6	1.1	2.0	1.4	0.95	1.50	1.10	1.90
Benzene	0.17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Toluene	85	BDL	BDL	BDL	0.0054	0.0026	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Ethylbenzene	100	BDL	BDL	BDL	0.0032	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Xylenes	175	0.46	0.019	BDL	0.081	0.024	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Organics in Soil (PAH's)													
Acenaphthene	1000	0.032	0.0088	0.0074	0.0015	0.018	0.0037	0.034	BDL	BDL	BDL	BDL	BDL
Anthracene	1000	0.0051	0.0032	0.003	BDL	0.0036	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(A)anthracene	0.22	BDL	BDL	BDL	BDL	0.00095	0.0022	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(B)fluoranthene	0.22	BDL	BDL	BDL	BDL	0.0011	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(K)fluoranthene	2.2	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(A)pyrene	0.022	0.0011	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenzo(A,H)anthracene	0.022	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Fluoranthene	1000	0.0035	0.0011	BDL	BDL	0.0042	0.0018	0.015	BDL	BDL	BDL	BDL	BDL
Flourene	1000	0.078	0.034	0.0047	0.002	0.073	0.0029	0.0720	BDL	BDL	BDL	BDL	BDL
Indeno(1,2,3,C,D)pyrene	0.22	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Napthalene	23	0.32	0.16	0.21	0.028	0.41	0.02	0.11	BDL	BDL	BDL	BDL	BDL
Pyrene	1000	0.0022	0.0019	0.0016	BDL	0.0029	0.0079	0.053	BDL	BDL	BDL	BDL	BDL
Inorganics in Soil													
EC	<4 mmhos/cm or 2X background	0.51	0.28	0.29	0.36	0.24	0.012	0.023	0.010	0.0075	0.0083	0.0068	0.0110
SAR	<12	3.7	2.4	1.9	1.7	2.1	1.00	0.70	1.80	1.50	1.50	1.50	4.00
pH	6-9	8.5	8.4	8.4	8.3	8.1	8.7	9.0	8.6	8.5	8.6	8.6	8.8
Metals in Soils													
Arsenic	0.39	4.6	BDL	1.7	1.0	7.7	4.7	20.0	12.0	5.0	13.0	16.0	17.0
Barium (LDNR True Total)	15,000	2100	1700	2700	300	1600	280.0	440.0	280.0	280.0	300.0	290.0	260.0
Cadmium	70	0.35	0.13	0.07	BDL	0.43	1.600	1.20	1.60	1.20	2.20	1.70	2.70
Chromium III	120,000	35.0	34.0	37.0	30.0	36.0	32.0	31.0	49.0	50.0	48.0	48.0	44.0
Chromium VI	23	BDL	BDL	0.76	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Copper	3100	28.0	23.0	19.0	21.0	22.0	21.0	22.0	21.0	19.0	25.0	21.0	41.0
Lead	400	19.0	12.0	11.0	11.0	14.0	16.0	19.0	14.0	15.0	14.0	17.0	20.0
Mercury	23	0.017	0.013	0.024	0.018	0.021	0.031	0.0230	0.031	0.0280	0.0480	0.0450	0.0540
Nickel	1600	24.0	18.0	19.0	22.0	20.0	27.0	29.0	29.0	26.0	28.0	27.0	36.0
Selenium	390	BDL	BDL	BDL	BDL	16.00	12.00	13.00	0.59	BDL	BDL	0.90	BDL
Silver	390	0.48	BDL	0.31	0.31	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Zinc	23,000	63.0	54.0	44.0	64.0	62.0	57.0	56.0	59.0	59.0	71.0	62.0	84.0

**Initial 697-16-28 Reserve Pit Closure Attempt 03/12**

Location: 697-16-28

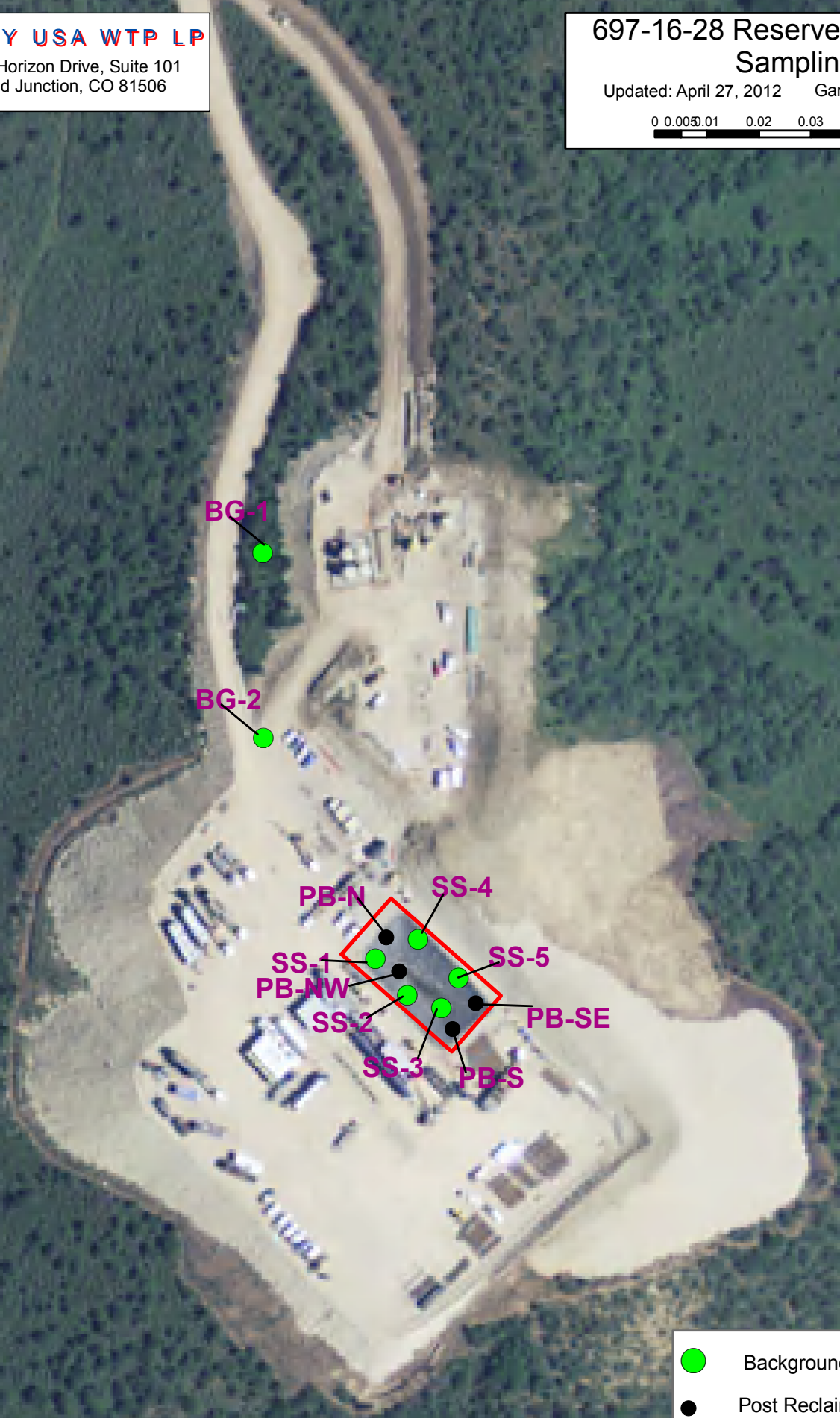
**Sample Details**

Lab Report #	L519772	L519772	L560776	L560776	L560776	L560776	L560776	L560776	L561903
Date Sampled	06/08/2011	06/08/2011	02/15/2012	02/15/2012	02/15/2012	02/15/2012	02/15/2012	02/15/2012	02/21/2012
Sample Name	697-16-28 BG-1	697-16-28 BG-2	697-16-28-PC-COMP	697-16-28-PB-N	697-16-28-PB-S	697-16-28-PB-E	697-16-28-PB-W	697-16-28-Cap Comp	
Organics in Soil	MCL (mg/Kg)								
TPH (GRO and DRO)	500	1.1	2	2500	99	2190	2900	2200	1010
Benzene	0.17	U	U	0.24	0.025	0.23	0.32	0.73	0.047
Toluene	85	U	U	10	1.1	10	14	20	1.8
Ethylbenzene	100	U	U	3.6	0.45	3.6	5.4	7.9	0.95
Xylenes	175	U	U	68	9	72	100	120	21
Organics in Soil (PAH's)									
Acenaphthene	1000	0.0037	0.034	0.35	0.023	0.054	0.034	0.068	0.02
Anthracene	1000	U	U	0.17	0.012	0.019	0.013	0.024	0.0032
Benzo(A)anthracene	0.22	0.0022	U	0.0016	U	U	U	0.0015	U
Benzo(B)fluoranthene	0.22	U	U	0.0026	U	U	U	U	U
Benzo(K)fluoranthene	2.2	U	U	U	U	U	U	U	U
Benzo(A)pyrene	0.022	U	U	0.0013	U	U	U	U	U
Chrysene	22	U	U	0.0064	U	0.0013	U	0.0015	U
Dibenzo(A,H)anthracene	0.022	U	U	U	U	U	U	U	U
Fluoranthene	1000	0.0018	0.015	0.0078	0.0017	0.0026	0.001	0.0019	U
Flourene	1000	0.0072	0.072	0.9	0.086	0.24	0.12	0.26	0.047
Indeno(1,2,3,C,D)pyrene	0.22	U	U	U	U	U	U	U	U
Naphthalene	23	0.02	0.11	6.6	0.82	2	1.2	2.1	0.42
Pyrene	1000	0.0079	0.053	0.018	0.0037	0.0052	0.0036	0.0057	0.0014
Inorganics in Soil									
EC	<4 mmhos/cm or 2X background	0.120	0.23	0.87	0.3	0.66	0.96	1.2	0.57
SAR	<12	1.0	0.7	6.2	3.5	6.4	6.7	8.2	5.4
pH	6-9	8.7	9	11	8.5	11	11	11	9.9
Metals in Soils									
Arsenic	0.39	4.7	20	6	7.2	5.8	7.4	6.4	8.9
Barium	15,000	280	440	8500	8400	8800	9000	8800	7800
Cadmium	70	1.60	1.2	0.53	0.86	0.56	0.56	0.53	0.54
Chromium III	120,000	32.0	31	22	29	24	25	23	30
Chromium VI	23	U	U	U	U	1.4	U	1.4	U
Copper	3100	21.0	22	20	20	23	24	24	20
Lead	400	16	19	9.8	12	12	16	11	11
Mercury	23	0.031	0.023	0.027	0.032	0.026	0.032	0.037	0.03
Nickel	1600	27.0	29	10	15	11	12	11	13
Selenium	390	12	13	U	U	U	U	U	1.6
Silver	390	U	U	U	U	U	U	U	0.43
Zinc	23,000	57.0	56	40	52	44	50	48	46

# 697-16-28 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



- 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: L519772

Samples Received: 06/08/11

Client Project:

Description: Oxy 6971628 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.

This report may not be reproduced, except in full, without written approval from ESC Lab Sciences. 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

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

June 20, 2011

Date Received : June 08, 2011  
Description : Oxy 6971628 Background

Sample ID : BACKGROUND-1

Collected By : CJB  
Collection Date : 06/03/11 11:00

ESC Sample # : L519772-01

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/14/11	1
Chromium, Trivalent	32.	0.17	2.0	mg/kg		Calc.	06/10/11	1
ORP	73.			mV		2580	06/15/11	1
pH	8.7			su		9045D	06/10/11	1
Sodium Adsorption Ratio	1.0					Calc.	06/10/11	1
Specific Conductance	120			umhos/cm		9050AMo	06/09/11	1
Mercury	0.031	0.0015	0.020	mg/kg		7471	06/10/11	1
Arsenic	4.7	0.32	1.0	mg/kg		6010B	06/10/11	1
Barium	280	0.050	0.25	mg/kg		6010B	06/10/11	1
Cadmium	1.6	0.040	0.25	mg/kg		6010B	06/10/11	1
Chromium	32.	0.085	0.50	mg/kg		6010B	06/10/11	1
Copper	21.	0.21	1.0	mg/kg		6010B	06/10/11	1
Lead	16.	0.090	0.25	mg/kg		6010B	06/10/11	1
Nickel	27.	0.26	1.0	mg/kg		6010B	06/10/11	1
Selenium	12.	0.32	1.0	mg/kg		6010B	06/10/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/10/11	1
Zinc	57.	0.34	1.5	mg/kg		6010B	06/10/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/09/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	103.			% Rec.		602/801	06/09/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/09/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/09/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/09/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/09/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	06/09/11	5
Dibromofluoromethane	107.			% Rec.		8260B	06/09/11	5
a,a,a-Trifluorotoluene	102.			% Rec.		8260B	06/09/11	5
4-Bromofluorobenzene	102.			% Rec.		8260B	06/09/11	5
TPH (GC/FID) High Fraction	1.1	0.77	4.0	mg/kg	J	3546/DR	06/12/11	1
Surrogate recovery(%) o-Terphenyl	66.3			% Rec.		3546/DR	06/12/11	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.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 06/20/11 16:37 Printed: 06/20/11 16:40  
L519772-01 (PH) - 8.7@20.6c



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

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Est. 1970

# REPORT OF ANALYSIS

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

June 20, 2011

Date Received : June 08, 2011  
Description : Oxy 6971628 Background

Sample ID : BACKGROUND-1

Collected By : CJB  
Collection Date : 06/03/11 11:00

ESC Sample # : L519772-01

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	06/13/11	1
Acenaphthene	0.0037	0.00071	0.0060	mg/kg	J	8270C-S	06/13/11	1
Acenaphthylene	0.00082	0.00057	0.0060	mg/kg	J	8270C-S	06/13/11	1
Benzo(a)anthracene	0.0022	0.00092	0.0060	mg/kg	J	8270C-S	06/13/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	06/13/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/13/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	06/13/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/13/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/13/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/13/11	1
Fluoranthene	0.0018	0.0010	0.0060	mg/kg	J	8270C-S	06/13/11	1
Fluorene	0.0072	0.00055	0.0060	mg/kg		8270C-S	06/13/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/13/11	1
Naphthalene	0.020	0.00065	0.0060	mg/kg		8270C-S	06/13/11	1
Phenanthrene	0.019	0.00074	0.0060	mg/kg		8270C-S	06/13/11	1
Pyrene	0.0079	0.00059	0.0060	mg/kg		8270C-S	06/13/11	1
1-Methylnaphthalene	0.020	0.00079	0.0060	mg/kg		8270C-S	06/13/11	1
2-Methylnaphthalene	0.039	0.00059	0.0060	mg/kg		8270C-S	06/13/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/13/11	1
Surrogate Recovery								
Nitrobenzene-d5	49.5			% Rec.		8270C-S	06/13/11	1
2-Fluorobiphenyl	50.8			% Rec.		8270C-S	06/13/11	1
p-Terphenyl-d14	54.6			% Rec.		8270C-S	06/13/11	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 16:40  
L519772-01 (PH) - 8.7@20.6c





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Est. 1970

# REPORT OF ANALYSIS

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

June 20, 2011

Date Received : June 08, 2011  
Description : Oxy 6971628 Background

Sample ID : BACKGROUND-2

Collected By : CJB  
Collection Date : 06/03/11 11:15

ESC Sample # : L519772-02

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	06/14/11	1
Chromium, Trivalent	31.	0.17	2.0	mg/kg		Calc.	06/10/11	1
ORP	100			mV		2580	06/20/11	1
pH	9.0			su		9045D	06/10/11	1
Sodium Adsorption Ratio	0.70					Calc.	06/10/11	1
Specific Conductance	230			umhos/cm		9050AMo	06/09/11	1
Mercury	0.023	0.0015	0.020	mg/kg		7471	06/10/11	1
Arsenic	20.	0.65	2.0	mg/kg		6010B	06/10/11	2
Barium	440	0.050	0.25	mg/kg		6010B	06/10/11	1
Cadmium	1.2	0.040	0.25	mg/kg		6010B	06/10/11	1
Chromium	31.	0.085	0.50	mg/kg		6010B	06/10/11	1
Copper	22.	0.21	1.0	mg/kg		6010B	06/10/11	1
Lead	19.	0.090	0.25	mg/kg		6010B	06/10/11	1
Nickel	29.	0.53	2.0	mg/kg		6010B	06/10/11	2
Selenium	13.	0.32	1.0	mg/kg		6010B	06/10/11	1
Silver	U	0.16	0.50	mg/kg		6010B	06/10/11	1
Zinc	56.	0.34	1.5	mg/kg		6010B	06/10/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	06/09/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	103.			% Rec.		602/801	06/09/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/09/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/09/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/09/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/09/11	5
Surrogate Recovery								
Toluene-d8	96.8			% Rec.		8260B	06/09/11	5
Dibromofluoromethane	111.			% Rec.		8260B	06/09/11	5
a,a,a-Trifluorotoluene	99.9			% Rec.		8260B	06/09/11	5
4-Bromofluorobenzene	105.			% Rec.		8260B	06/09/11	5
TPH (GC/FID) High Fraction	2.0	0.77	4.0	mg/kg	J	3546/DR	06/12/11	1
Surrogate recovery(%) o-Terphenyl	56.6			% Rec.		3546/DR	06/12/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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Est. 1970

# REPORT OF ANALYSIS

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

June 20, 2011

Date Received : June 08, 2011  
Description : Oxy 6971628 Background

Sample ID : BACKGROUND-2

Collected By : CJB  
Collection Date : 06/03/11 11:15

ESC Sample # : L519772-02

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.0076	0.060	mg/kg		8270C-S	06/14/11	10
Acenaphthene	0.034	0.0071	0.060	mg/kg	J	8270C-S	06/14/11	10
Acenaphthylene	U	0.0057	0.060	mg/kg		8270C-S	06/14/11	10
Benzo(a)anthracene	U	0.0092	0.060	mg/kg		8270C-S	06/14/11	10
Benzo(a)pyrene	U	0.0062	0.060	mg/kg		8270C-S	06/14/11	10
Benzo(b)fluoranthene	U	0.0082	0.060	mg/kg		8270C-S	06/14/11	10
Benzo(g,h,i)perylene	U	0.012	0.060	mg/kg		8270C-S	06/14/11	10
Benzo(k)fluoranthene	U	0.013	0.060	mg/kg		8270C-S	06/14/11	10
Chrysene	U	0.011	0.060	mg/kg		8270C-S	06/14/11	10
Dibenz(a,h)anthracene	U	0.011	0.060	mg/kg		8270C-S	06/14/11	10
Fluoranthene	0.015	0.010	0.060	mg/kg	J	8270C-S	06/14/11	10
Fluorene	0.072	0.0055	0.060	mg/kg		8270C-S	06/14/11	10
Indeno(1,2,3-cd)pyrene	U	0.012	0.060	mg/kg		8270C-S	06/14/11	10
Naphthalene	0.11	0.0065	0.060	mg/kg		8270C-S	06/14/11	10
Phenanthrene	0.18	0.0074	0.060	mg/kg		8270C-S	06/14/11	10
Pyrene	0.053	0.0059	0.060	mg/kg	J	8270C-S	06/14/11	10
1-Methylnaphthalene	0.14	0.0079	0.060	mg/kg		8270C-S	06/14/11	10
2-Methylnaphthalene	0.25	0.0059	0.060	mg/kg		8270C-S	06/14/11	10
2-Chloronaphthalene	U	0.0060	0.060	mg/kg		8270C-S	06/14/11	10
Surrogate Recovery								
Nitrobenzene-d5	50.0			% Rec.		8270C-S	06/14/11	10
2-Fluorobiphenyl	57.1			% Rec.		8270C-S	06/14/11	10
p-Terphenyl-d14	54.0			% Rec.		8270C-S	06/14/11	10

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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Reported: 06/20/11 16:37 Printed: 06/20/11 16:40  
L519772-02 (PH) - 9.0@20.9c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L519772-01	WG539462	SAMP	TPH (GC/FID) High Fraction	R1719949	J
	WG539568	SAMP	Acenaphthene	R1719432	J
	WG539568	SAMP	Acenaphthylene	R1719432	J
	WG539568	SAMP	Benzo(a)anthracene	R1719432	J
	WG539568	SAMP	Fluoranthene	R1719432	J
L519772-02	WG539462	SAMP	TPH (GC/FID) High Fraction	R1719949	J
	WG539568	SAMP	Acenaphthene	R1719432	J
	WG539568	SAMP	Fluoranthene	R1719432	J
	WG539568	SAMP	Pyrene	R1719432	J

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.

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 16:40:48

TSR Signing Reports: 134  
R5 - Desired TAT

Sample: L519772-01 Account: OXYGJCO Received: 06/08/11 09:00 Due Date: 06/20/11 00:00 RPT Date: 06/20/11 16:37

Sample: L519772-02 Account: OXYGJCO Received: 06/08/11 09:00 Due Date: 06/20/11 00:00 RPT Date: 06/20/11 16:37

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

Alternate billing information:

CO Table 910

Report to:

Email to: Blair\_Rodriguez  
Daniel\_Padilla @oxy.com

Analysis/Container/Preservative

D112

Custody  
of 1

Prepared by:

 **ENVIRONMENTAL  
SCIENCE CORP.**

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: Oxy Background <sup>697-16-28</sup>

City/State  
Collected Parachute

Phone: (970) 263-3601  
FAX:

Client Project #:

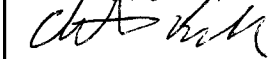
ESC Key:

Collected by: CSB

Site/Facility ID#:

P.O.#:

Collected by (signature):



**Rush?** ( Lab MUST Be Notified )

\_\_\_\_ Same Day.....200%

\_\_\_\_ Next Day.....100%

\_\_\_\_ Two Day.....50%

Date Results Needed:

Email? No X Yes

FAX? No Yes

No.  
of  
Cntrs

Packed on Ice N (Y)

CoCode OXYGJCO (lab use only)

Template/Prelogin

Shipped Via:

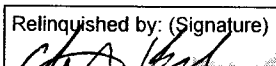

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260BTEX, GRO	DRO, SV8270PAHSIM	SAR, SPCON, pH	MRCRA8 + Cu, Ni, Zn	CR3, CR6SS	Remarks/Contaminant	Sample # (lab only)
Background-1	Grab	SS	5'	6/3/11	1100	3	X	X	X	X	X	L519772	-01
Background-2	Grab	SS	6'	6/3/11	1115	3	X	X	X	X	X		-02

\*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

4/341 9819 4/800 Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) 	Date: <u>6/7/11</u>	Time: <u>5:00</u>	Received by: (Signature) 	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only) <u>(OK)</u>		
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <u>37°C</u>	Bottles Received: <u>6-002</u>		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <u>Ann Waller</u>	Date: <u>6/8/11</u>	Time: <u>0900</u>	pH Checked:	NCF:



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

## Report Summary

Tuesday June 21, 2011

Report Number: L520529

Samples Received: 06/11/11

Client Project: 900546.0001.050

Description: 697-16-28-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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# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-1

Collected By : CJB  
Collection Date : 06/10/11 09:15

ESC Sample # : L520529-01

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	49.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	79.			mV		2580	06/17/11	1
pH	8.6			su		9045D	06/17/11	1
Sodium Adsorption Ratio	1.8					Calc.	06/15/11	1
Specific Conductance	100			umhos/cm		9050AMo	06/17/11	1
Mercury	0.031	0.0015	0.020	mg/kg		7471	06/16/11	1
Arsenic	12.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	280	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	1.6	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	49.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	21.	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	29.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	0.59	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	59.	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	108.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	105.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	96.6			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.4	0.77	4.0	mg/kg	J	3546/DR	06/21/11	1
Surrogate recovery(%) o-Terphenyl	71.5			% Rec.		3546/DR	06/21/11	1

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Note:

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L520529-01 (PH) - 8.6@20.5c





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# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-1

Collected By : CJB  
Collection Date : 06/10/11 09:15

ESC Sample # : L520529-01

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	06/17/11	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	U	0.00062	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		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	U	0.00065	0.0060	mg/kg		8270C-S	06/17/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	06/17/11	1
Pyrene	U	0.00059	0.0060	mg/kg		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	87.9			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	96.0			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	97.5			% 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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L520529-01 (PH) - 8.6@20.5c



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Est. 1970

# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-2

Collected By : CJB  
Collection Date : 06/10/11 09:20

ESC Sample # : L520529-02

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	50.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	82.			mV		2580	06/17/11	1
pH	8.5			su		9045D	06/17/11	1
Sodium Adsorption Ratio	1.5					Calc.	06/15/11	1
Specific Conductance	75.			umhos/cm		9050AMo	06/17/11	1
Mercury	0.028	0.0015	0.020	mg/kg		7471	06/16/11	1
Arsenic	5.0	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	280	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	1.2	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	50.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	19.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	15.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	26.	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	59.	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)	94.7			% Rec.		602/801	06/13/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	06/15/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	06/15/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	06/15/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	06/15/11	5
Surrogate Recovery								
Toluene-d8	105.			% Rec.		8260B	06/15/11	5
Dibromofluoromethane	104.			% Rec.		8260B	06/15/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	06/15/11	5
4-Bromofluorobenzene	105.			% Rec.		8260B	06/15/11	5
TPH (GC/FID) High Fraction	0.95	0.77	4.0	mg/kg	J	3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	55.4			% Rec.		3546/DR	06/18/11	1

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Est. 1970

# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-2

Collected By : CJB  
Collection Date : 06/10/11 09:20

ESC Sample # : L520529-02

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	06/19/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	06/19/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	06/19/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	06/19/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	06/19/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/19/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	06/19/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	06/19/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	06/19/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	06/19/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	06/19/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	06/19/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	06/19/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	06/19/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	06/19/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	06/19/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	06/19/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	06/19/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	06/19/11	1
Surrogate Recovery								
Nitrobenzene-d5	68.3			% Rec.		8270C-S	06/19/11	1
2-Fluorobiphenyl	79.5			% Rec.		8270C-S	06/19/11	1
p-Terphenyl-d14	69.6			% Rec.		8270C-S	06/19/11	1

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# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-3

Collected By : CJB  
Collection Date : 06/10/11 09:24

ESC Sample # : L520529-03

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	48.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	84.			mV		2580	06/17/11	1
pH	8.6			su		9045D	06/17/11	1
Sodium Adsorption Ratio	1.5					Calc.	06/15/11	1
Specific Conductance	83.			umhos/cm		9050AMo	06/17/11	1
Mercury	0.048	0.0015	0.020	mg/kg		7471	06/16/11	1
Arsenic	13.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	300	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	2.2	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	48.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	25.	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	28.	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	71.	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)	95.8			% 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	107.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	110.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	103.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	97.5			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.5	0.77	4.0	mg/kg	J	3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	54.1			% Rec.		3546/DR	06/18/11	1

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# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-3

Collected By : CJB  
Collection Date : 06/10/11 09:24

ESC Sample # : L520529-03

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	U	0.00062	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		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	U	0.00065	0.0060	mg/kg		8270C-S	06/17/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	06/17/11	1
Pyrene	U	0.00059	0.0060	mg/kg		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	82.7			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	80.7			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	82.0			% Rec.		8270C-S	06/17/11	1

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# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-4

Collected By : CJB  
Collection Date : 06/10/11 09:38

ESC Sample # : L520529-04

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	48.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	88.			mV		2580	06/17/11	1
pH	8.6			su		9045D	06/17/11	1
Sodium Adsorption Ratio	1.5					Calc.	06/15/11	1
Specific Conductance	68.			umhos/cm		9050AMo	06/17/11	1
Mercury	0.045	0.0015	0.020	mg/kg		7471	06/16/11	1
Arsenic	16.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	290	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	1.7	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	48.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	21.	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	27.	0.26	1.0	mg/kg		6010B	06/15/11	1
Selenium	0.90	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	62.	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)	96.0			% 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	105.			% Rec.		8260B	06/13/11	5
Dibromofluoromethane	110.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	93.7			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.1	0.77	4.0	mg/kg	J	3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	57.6			% Rec.		3546/DR	06/18/11	1

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# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-4

Collected By : CJB  
Collection Date : 06/10/11 09:38

ESC Sample # : L520529-04

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	U	0.00062	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		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	U	0.00065	0.0060	mg/kg		8270C-S	06/17/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	06/17/11	1
Pyrene	U	0.00059	0.0060	mg/kg		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	82.9			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	86.7			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	91.6			% Rec.		8270C-S	06/17/11	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

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# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

ESC Sample # : L520529-05

Sample ID : SS-5

Site ID :

Collected By : CJB  
Collection Date : 06/10/11 09:48

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	44.	0.17	2.0	mg/kg		Calc.	06/15/11	1
ORP	91.			mV		2580	06/17/11	1
pH	8.8			su		9045D	06/17/11	1
Sodium Adsorption Ratio	4.0					Calc.	06/15/11	1
Specific Conductance	110			umhos/cm		9050AMo	06/17/11	1
Mercury	0.054	0.0015	0.020	mg/kg		7471	06/16/11	1
Arsenic	17.	0.32	1.0	mg/kg		6010B	06/15/11	1
Barium	260	0.050	0.25	mg/kg		6010B	06/15/11	1
Cadmium	2.7	0.040	0.25	mg/kg		6010B	06/15/11	1
Chromium	44.	0.085	0.50	mg/kg		6010B	06/15/11	1
Copper	41.	0.21	1.0	mg/kg		6010B	06/15/11	1
Lead	20.	0.090	0.25	mg/kg	B	6010B	06/16/11	1
Nickel	36.	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	84.	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)	95.9			% 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	109.			% Rec.		8260B	06/13/11	5
a,a,a-Trifluorotoluene	102.			% Rec.		8260B	06/13/11	5
4-Bromofluorobenzene	99.7			% Rec.		8260B	06/13/11	5
TPH (GC/FID) High Fraction	1.9	0.77	4.0	mg/kg	J	3546/DR	06/18/11	1
Surrogate recovery(%) o-Terphenyl	55.6			% 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: 06/21/11 11:33 Printed: 06/21/11 11:34  
L520529-05 (PH) - 8.8@20.6c





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(615) 758-5858  
1-800-767-5859  
Fax (615) 758-5859

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Est. 1970

# REPORT OF ANALYSIS

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

June 21, 2011

Date Received : June 11, 2011  
Description : 697-16-28-Pit Background

Sample ID : SS-5

Collected By : CJB  
Collection Date : 06/10/11 09:48

ESC Sample # : L520529-05

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	U	0.00062	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	06/17/11	1
Benzo(g,h,i)perylene	0.0022	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	U	0.00065	0.0060	mg/kg		8270C-S	06/17/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	06/17/11	1
Pyrene	U	0.00059	0.0060	mg/kg		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	84.5			% Rec.		8270C-S	06/17/11	1
2-Fluorobiphenyl	94.0			% Rec.		8270C-S	06/17/11	1
p-Terphenyl-d14	90.2			% Rec.		8270C-S	06/17/11	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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L520529-05 (PH) - 8.8@20.6c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L520529-01	WG540600	SAMP	Lead	R1727230	B
	WG540130	SAMP	Selenium	R1724389	J
	WG541424	SAMP	TPH (GC/FID) High Fraction	R1731493	J
L520529-02	WG540600	SAMP	Lead	R1727230	B
	WG540786	SAMP	TPH (GC/FID) High Fraction	R1728510	J
L520529-03	WG540600	SAMP	Lead	R1727230	B
	WG540786	SAMP	TPH (GC/FID) High Fraction	R1728510	J
L520529-04	WG540600	SAMP	Lead	R1727230	B
	WG540130	SAMP	Selenium	R1724389	J
	WG540786	SAMP	TPH (GC/FID) High Fraction	R1728510	J
L520529-05	WG540600	SAMP	Lead	R1727230	B
	WG540786	SAMP	TPH (GC/FID) High Fraction	R1728510	J
	WG540652	SAMP	Benzo(g,h,i)perylene	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.

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  
06/21/11 at 11:34:08

TSR Signing Reports: 134  
R5 - Desired TAT

Sample: L520529-01 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/21/11 11:33  
Sample: L520529-02 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/21/11 11:33  
Sample: L520529-03 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/21/11 11:33  
Sample: L520529-04 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/21/11 11:33  
Sample: L520529-05 Account: OXYGJCO Received: 06/11/11 09:00 Due Date: 06/17/11 00:00 RPT Date: 06/21/11 11:33

<b>OXY USA Inc. - Grand Junction, CO</b> 760 Horizon Dr., Ste 101 Grand Junction, CO 81506				Alternate billing information:				Analysis/Container/Preservative						Chain of Custody Page <u>1</u> of <u>1</u>  Prepared by:  <div style="text-align: center;"> <b>ENVIRONMENTAL SCIENCE CORP.</b>          12065 Lebanon Road          Mt. Juliet, TN 37122           Phone (615) 758-5858          Phone (800) 767-5859          FAX (615) 758-5859   <b>F154</b>           CoCode OXYGJCO (lab use only)          Template/Prelogin           Shipped Via:       </div>																																																																																																																																																									
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				Email to: <u>Starr - Rollins</u> <u>Daniel - Padilla</u> @oxy.com																																																																																																																																																																			
Project Description: <u>697-16-28-Pit Background</u>				City/State Collected: <u>Parachute</u>				<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>No. of Cntrs</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>SS-1</td> <td>Grab</td> <td>SS</td> <td>-</td> <td>6/10/11</td> <td>9:15</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>L52052901</td> </tr> <tr> <td>SS-2</td> <td>Grab</td> <td>SS</td> <td>-</td> <td>6/10/11</td> <td>9:20</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>-02</td> </tr> <tr> <td>SS-3</td> <td>Grab</td> <td>SS</td> <td>-</td> <td>6/10/11</td> <td>9:24</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>-03</td> </tr> <tr> <td>SS-4</td> <td>Grab</td> <td>SS</td> <td>-</td> <td>6/10/11</td> <td>9:38</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>-04</td> </tr> <tr> <td>SS-5</td> <td>Grab</td> <td>SS</td> <td>-</td> <td>6/10/11</td> <td>9:45</td> <td>3</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> <td>-05</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> <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	No. of Cntrs	V8260BTEX, GRO	DRO, SV8270PAHSIM	SAR, SPCON, pH	MRCRA8 + Cu, Ni, Zn	CR3, CR6SS	Remarks/Contaminant	Sample # (lab only)	SS-1	Grab	SS	-	6/10/11	9:15	3	X	X	X	X	X		L52052901	SS-2	Grab	SS	-	6/10/11	9:20	3	X	X	X	X	X		-02	SS-3	Grab	SS	-	6/10/11	9:24	3	X	X	X	X	X		-03	SS-4	Grab	SS	-	6/10/11	9:38	3	X	X	X	X	X		-04	SS-5	Grab	SS	-	6/10/11	9:45	3	X	X	X	X	X		-05																																																																						
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SS-3	Grab	SS	-	6/10/11	9:24	3	X							X	X	X	X		-03																																																																																																																																																				
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Phone: (970) 263-3601				Client Project #:				ESC Key:																																																																																																																																																															
FAX:				<u>700546.0001.050</u>																																																																																																																																																																			
Collected by: <u>CJB</u>				Site/Facility ID#:				P.O.#:																																																																																																																																																															
Collected by (signature):				<b>Rush?</b> (Lab MUST Be Notified) ___ Same Day.....200% ___ Next Day.....100% ___ Two Day.....50%				Date Results Needed: Email? ___No___Yes FAX? ___No___Yes																																																																																																																																																															
Packed on Ice <u>N</u>																																																																																																																																																																							

\*Matrix: **SS** - Soil/Solid **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other \_\_\_\_\_

Remarks:

pH \_\_\_\_\_ Temp \_\_\_\_\_

Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)  Relinquished by: (Signature)  Relinquished by: (Signature) 	Date:	Time:	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/> _____		Condition: (lab use only)	
	Date:	Time:	Received by: (Signature)	Temp: <u>3.7</u>	Bottles Received: <u>15-802</u>		
	Date:	Time:	Received for lab by: (Signature)	Date: <u>6/11/11</u>	Time: <u>0900</u>	pH Checked:	NCF:



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Est. 1970

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

## Report Summary

Monday April 30, 2012

Report Number: L571734

Samples Received: 04/25/12

Client Project: WA-000546-0013-10

Description: 697-16-28 Pit Sampling

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

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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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# REPORT OF ANALYSIS

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

April 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-S 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 12:00

ESC Sample # : L571734-01

Site ID : 697-16-28

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	04/27/12	1
Chromium, Trivalent	35.	0.17	2.0	mg/kg		Calc.	04/27/12	1
ORP	97.			mV	T8	2580	04/27/12	1
pH	8.5			su		9045D	04/26/12	1
Sodium Adsorption Ratio	3.7					Calc.	04/27/12	1
Specific Conductance	510			umhos/cm		9050AMo	04/26/12	1
Mercury	0.017	0.00080	0.020	mg/kg	J	7471	04/26/12	1
Arsenic	4.6	0.32	1.0	mg/kg		6010B	04/27/12	1
Barium	2100	0.050	0.25	mg/kg		6010B	04/27/12	1
Cadmium	0.35	0.040	0.25	mg/kg		6010B	04/27/12	1
Chromium	35.	0.085	0.50	mg/kg		6010B	04/27/12	1
Copper	28.	0.21	1.0	mg/kg		6010B	04/27/12	1
Lead	19.	0.090	0.25	mg/kg		6010B	04/27/12	1
Nickel	24.	0.26	1.0	mg/kg		6010B	04/27/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/27/12	2
Silver	0.48	0.16	0.50	mg/kg	J	6010B	04/27/12	1
Zinc	63.	0.34	1.5	mg/kg		6010B	04/27/12	1
TPH (GC/FID) Low Fraction	78.	25.	50.	mg/kg		8015D/G	04/26/12	500
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	97.4			% Rec.		602/801	04/26/12	500
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/27/12	5
Toluene	U	0.0016	0.025	mg/kg		8260B	04/27/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/27/12	5
Total Xylenes	0.46	0.0023	0.015	mg/kg		8260B	04/27/12	5
Surrogate Recovery								
Toluene-d8	107.			% Rec.		8260B	04/27/12	5
Dibromofluoromethane	114.			% Rec.		8260B	04/27/12	5
a,a,a-Trifluorotoluene	111.			% Rec.		8260B	04/27/12	5
4-Bromofluorobenzene	115.			% Rec.		8260B	04/27/12	5
TPH (GC/FID) High Fraction	180	0.77	4.0	mg/kg		3546/DR	04/27/12	1
Surrogate recovery (%) o-Terphenyl	267.			% Rec.	J1	3546/DR	04/27/12	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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Reported: 04/30/12 13:22 Printed: 04/30/12 13:23

L571734-01 (PH) - 8.5@21.9c

L571734-01 (DRO) - second extraction confirms high surrogate



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Est. 1970

# REPORT OF ANALYSIS

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

April 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-S 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 12:00

ESC Sample # : L571734-01

Site ID : 697-16-28

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0051	0.00076	0.0060	mg/kg	J	8270C-S	04/26/12	1
Acenaphthene	0.032	0.00071	0.0060	mg/kg		8270C-S	04/26/12	1
Acenaphthylene	0.0035	0.00057	0.0060	mg/kg	J	8270C-S	04/26/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(a)pyrene	0.0011	0.00062	0.0060	mg/kg	J	8270C-S	04/26/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/26/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Fluoranthene	0.0035	0.0010	0.0060	mg/kg	J	8270C-S	04/26/12	1
Fluorene	0.078	0.00055	0.0060	mg/kg		8270C-S	04/26/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/26/12	1
Naphthalene	0.32	0.013	0.12	mg/kg		8270C-S	04/27/12	20
Phenanthrene	0.047	0.00074	0.0060	mg/kg		8270C-S	04/26/12	1
Pyrene	0.0022	0.00059	0.0060	mg/kg	J	8270C-S	04/26/12	1
1-Methylnaphthalene	0.34	0.016	0.12	mg/kg		8270C-S	04/27/12	20
2-Methylnaphthalene	0.84	0.012	0.12	mg/kg		8270C-S	04/27/12	20
2-Chloronaphthalene	U	0.012	0.12	mg/kg		8270C-S	04/27/12	20
Surrogate Recovery								
Nitrobenzene-d5	296.			% Rec.	J7	8270C-S	04/27/12	20
2-Fluorobiphenyl	103.			% Rec.		8270C-S	04/26/12	1
p-Terphenyl-d14	110.			% Rec.		8270C-S	04/26/12	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

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L571734-01 (PH) - 8.5@21.9c

L571734-01 (DRO) - second extraction confirms high surrogate





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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

April 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-SE 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 11:45

ESC Sample # : L571734-03

Site ID : 697-16-28

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	04/27/12	1
Chromium, Trivalent	34.	0.17	2.0	mg/kg		Calc.	04/27/12	1
ORP	100			mV	T8	2580	04/27/12	1
pH	8.4			su		9045D	04/26/12	1
Sodium Adsorption Ratio	2.4					Calc.	04/27/12	1
Specific Conductance	280			umhos/cm		9050AMo	04/26/12	1
Mercury	0.013	0.00080	0.020	mg/kg	J	7471	04/26/12	1
Arsenic	U	0.32	1.0	mg/kg		6010B	04/27/12	1
Barium	1700	0.050	0.25	mg/kg		6010B	04/27/12	1
Cadmium	0.13	0.040	0.25	mg/kg	J	6010B	04/27/12	1
Chromium	34.	0.085	0.50	mg/kg		6010B	04/27/12	1
Copper	23.	0.21	1.0	mg/kg		6010B	04/27/12	1
Lead	12.	0.090	0.25	mg/kg		6010B	04/27/12	1
Nickel	18.	0.26	1.0	mg/kg		6010B	04/27/12	1
Selenium	U	0.32	1.0	mg/kg		6010B	04/27/12	1
Silver	U	0.16	0.50	mg/kg		6010B	04/27/12	1
Zinc	54.	0.34	1.5	mg/kg		6010B	04/27/12	1
TPH (GC/FID) Low Fraction	2.3	0.25	0.50	mg/kg		8015D/G	04/26/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98.2			% Rec.		602/801	04/26/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/27/12	5
Toluene	U	0.0016	0.025	mg/kg		8260B	04/27/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/27/12	5
Total Xylenes	0.019	0.0023	0.015	mg/kg		8260B	04/27/12	5
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	04/27/12	5
Dibromofluoromethane	106.			% Rec.		8260B	04/27/12	5
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	04/27/12	5
4-Bromofluorobenzene	107.			% Rec.		8260B	04/27/12	5
TPH (GC/FID) High Fraction	150	0.77	4.0	mg/kg		3546/DR	04/27/12	1
Surrogate recovery (%) o-Terphenyl	280.			% Rec.	J1	3546/DR	04/27/12	1

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L571734-03 (PH) - 8.4@22.0c

L571734-03 (SV8270PAHSIM) - Surrogate failure due to matrix interference; confirmed by MS/D

L571734-03 (DRO) - second extraction confirms high surrogate



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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 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-SE 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 11:45

ESC Sample # : L571734-03

Site ID : 697-16-28

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0032	0.00076	0.0060	mg/kg	J	8270C-S	04/26/12	1
Acenaphthene	0.0088	0.00071	0.0060	mg/kg		8270C-S	04/26/12	1
Acenaphthylene	0.0018	0.00057	0.0060	mg/kg	J	8270C-S	04/26/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(g,h,i)perylene	0.0015	0.0012	0.0060	mg/kg	J	8270C-S	04/26/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/26/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Fluoranthene	0.0011	0.0010	0.0060	mg/kg	J	8270C-S	04/26/12	1
Fluorene	0.034	0.00055	0.0060	mg/kg		8270C-S	04/26/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/26/12	1
Naphthalene	0.16	0.00065	0.0060	mg/kg	V	8270C-S	04/26/12	1
Phenanthrene	0.030	0.00074	0.0060	mg/kg		8270C-S	04/26/12	1
Pyrene	0.0019	0.00059	0.0060	mg/kg	J	8270C-S	04/26/12	1
1-Methylnaphthalene	0.16	0.00079	0.0060	mg/kg	V	8270C-S	04/26/12	1
2-Methylnaphthalene	0.48	0.012	0.12	mg/kg		8270C-S	04/27/12	20
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/26/12	1
Surrogate Recovery								
Nitrobenzene-d5	282.			% Rec.	J1	8270C-S	04/26/12	1
2-Fluorobiphenyl	95.4			% Rec.		8270C-S	04/26/12	1
p-Terphenyl-d14	106.			% Rec.		8270C-S	04/26/12	1

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L571734-03 (PH) - 8.4@22.0c

L571734-03 (SV8270PAHSIM) - Surrogate failure due to matrix interference; confirmed by MS/D

L571734-03 (DRO) - second extraction confirms high surrogate



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Est. 1970

# REPORT OF ANALYSIS

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

April 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-N 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 11:00

ESC Sample # : L571734-04

Site ID : 697-16-28

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	0.76	0.71	2.0	mg/kg	J	3060A/7	04/27/12	1
Chromium, Trivalent	37.	0.17	2.0	mg/kg		Calc.	04/27/12	1
ORP	110			mV	T8	2580	04/27/12	1
pH	8.4			su		9045D	04/26/12	1
Sodium Adsorption Ratio	1.9					Calc.	04/27/12	1
Specific Conductance	290			umhos/cm		9050AMo	04/26/12	1
Mercury	0.024	0.00080	0.020	mg/kg		7471	04/26/12	1
Arsenic	1.7	0.32	1.0	mg/kg		6010B	04/27/12	1
Barium	2700	0.050	0.25	mg/kg		6010B	04/27/12	1
Cadmium	0.073	0.040	0.25	mg/kg	J	6010B	04/27/12	1
Chromium	38.	0.085	0.50	mg/kg		6010B	04/27/12	1
Copper	19.	0.21	1.0	mg/kg		6010B	04/27/12	1
Lead	11.	0.090	0.25	mg/kg		6010B	04/27/12	1
Nickel	19.	0.26	1.0	mg/kg		6010B	04/27/12	1
Selenium	U	0.32	1.0	mg/kg		6010B	04/27/12	1
Silver	0.31	0.16	0.50	mg/kg	J	6010B	04/27/12	1
Zinc	44.	0.34	1.5	mg/kg		6010B	04/27/12	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	04/26/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	99.5			% Rec.		602/801	04/26/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/27/12	5
Toluene	U	0.0016	0.025	mg/kg		8260B	04/27/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/27/12	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	04/27/12	5
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	04/27/12	5
Dibromofluoromethane	109.			% Rec.		8260B	04/27/12	5
a,a,a-Trifluorotoluene	107.			% Rec.		8260B	04/27/12	5
4-Bromofluorobenzene	106.			% Rec.		8260B	04/27/12	5
TPH (GC/FID) High Fraction	97.	0.77	4.0	mg/kg		3546/DR	04/27/12	1
Surrogate recovery (%) o-Terphenyl	287.			% Rec.	J1	3546/DR	04/27/12	1

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L571734-04 (DRO) - second extraction confirms high surrogate

L571734-04 (PH) - 8.4@21.8c



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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 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-N 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 11:00

ESC Sample # : L571734-04

Site ID : 697-16-28

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0030	0.00076	0.0060	mg/kg	J	8270C-S	04/26/12	1
Acenaphthene	0.0074	0.00071	0.0060	mg/kg		8270C-S	04/26/12	1
Acenaphthylene	0.00084	0.00057	0.0060	mg/kg	J	8270C-S	04/26/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/26/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	04/26/12	1
Fluorene	0.0047	0.00055	0.0060	mg/kg	J	8270C-S	04/26/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/26/12	1
Naphthalene	0.21	0.00065	0.0060	mg/kg		8270C-S	04/26/12	1
Phenanthrene	0.023	0.00074	0.0060	mg/kg		8270C-S	04/26/12	1
Pyrene	0.0016	0.00059	0.0060	mg/kg	J	8270C-S	04/26/12	1
1-Methylnaphthalene	0.19	0.00079	0.0060	mg/kg		8270C-S	04/26/12	1
2-Methylnaphthalene	0.52	0.012	0.12	mg/kg		8270C-S	04/27/12	20
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/26/12	1
Surrogate Recovery								
Nitrobenzene-d5	174.			% Rec.	J1	8270C-S	04/26/12	1
2-Fluorobiphenyl	119.			% Rec.		8270C-S	04/26/12	1
p-Terphenyl-d14	109.			% Rec.		8270C-S	04/26/12	1

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L571734-04 (DRO) - second extraction confirms high surrogate

L571734-04 (PH) - 8.4@21.8c



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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 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-NW 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 11:30

ESC Sample # : L571734-05

Site ID : 697-16-28

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	04/27/12	1
Chromium, Trivalent	30.	0.17	2.0	mg/kg		Calc.	04/27/12	1
ORP	130			mV	T8	2580	04/27/12	1
pH	8.3			su		9045D	04/26/12	1
Sodium Adsorption Ratio	1.7					Calc.	04/27/12	1
Specific Conductance	360			umhos/cm		9050AMo	04/26/12	1
Mercury	0.018	0.00080	0.020	mg/kg	J	7471	04/26/12	1
Arsenic	1.0	0.32	1.0	mg/kg	J3	6010B	04/27/12	1
Barium	300	0.050	0.25	mg/kg	J3V	6010B	04/27/12	1
Cadmium	U	0.040	0.25	mg/kg		6010B	04/27/12	1
Chromium	30.	0.085	0.50	mg/kg		6010B	04/27/12	1
Copper	21.	0.21	1.0	mg/kg		6010B	04/27/12	1
Lead	11.	0.090	0.25	mg/kg		6010B	04/27/12	1
Nickel	22.	0.26	1.0	mg/kg		6010B	04/27/12	1
Selenium	U	0.63	2.0	mg/kg	O	6010B	04/27/12	2
Silver	0.31	0.16	0.50	mg/kg	J	6010B	04/27/12	1
Zinc	64.	0.34	1.5	mg/kg		6010B	04/27/12	1
TPH (GC/FID) Low Fraction	1.4	0.25	0.50	mg/kg		8015D/G	04/26/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	99.7			% Rec.		602/801	04/26/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/27/12	5
Toluene	0.0054	0.0016	0.025	mg/kg	J	8260B	04/27/12	5
Ethylbenzene	0.0032	0.0019	0.0050	mg/kg	J	8260B	04/27/12	5
Total Xylenes	0.081	0.0023	0.015	mg/kg		8260B	04/27/12	5
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	04/27/12	5
Dibromofluoromethane	110.			% Rec.		8260B	04/27/12	5
a,a,a-Trifluorotoluene	108.			% Rec.		8260B	04/27/12	5
4-Bromofluorobenzene	107.			% Rec.		8260B	04/27/12	5
TPH (GC/FID) High Fraction	38.	0.77	4.0	mg/kg		3546/DR	04/27/12	1
Surrogate recovery (%) o-Terphenyl	141.			% Rec.		3546/DR	04/27/12	1

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L571734-05 (PH) - 8.3@21.7c



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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 30, 2012

Date Received : April 25, 2012  
Description : 697-16-28 Pit Sampling  
Sample ID : 697-16-28-PB-NW 15-20 FT  
Collected By : CJB  
Collection Date : 04/24/12 11:30

ESC Sample # : L571734-05

Site ID : 697-16-28

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	04/26/12	1
Acenaphthene	0.0015	0.00071	0.0060	mg/kg	J	8270C-S	04/26/12	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	04/26/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/26/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/26/12	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	04/26/12	1
Fluorene	0.0020	0.00055	0.0060	mg/kg	J	8270C-S	04/26/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/26/12	1
Naphthalene	0.028	0.00065	0.0060	mg/kg		8270C-S	04/26/12	1
Phenanthrene	0.0050	0.00074	0.0060	mg/kg	J	8270C-S	04/26/12	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	04/26/12	1
1-Methylnaphthalene	0.031	0.00079	0.0060	mg/kg		8270C-S	04/26/12	1
2-Methylnaphthalene	0.076	0.00059	0.0060	mg/kg		8270C-S	04/26/12	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	04/26/12	1
Surrogate Recovery								
Nitrobenzene-d5	87.1			% Rec.		8270C-S	04/26/12	1
2-Fluorobiphenyl	88.1			% Rec.		8270C-S	04/26/12	1
p-Terphenyl-d14	102.			% Rec.		8270C-S	04/26/12	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: 04/30/12 13:22 Printed: 04/30/12 13:23  
L571734-05 (PH) - 8.3@21.7c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L571734-01	WG589536	SAMP	Selenium	R2146873	O
	WG589536	SAMP	Silver	R2146873	J
	WG589892	SAMP	o-Terphenyl	R2146853	J1
	WG589541	SAMP	Mercury	R2144073	J
	WG589549	SAMP	Anthracene	R2146219	J
	WG589549	SAMP	Acenaphthylene	R2146219	J
	WG589549	SAMP	Benzo(a)pyrene	R2146219	J
	WG589549	SAMP	Fluoranthene	R2146219	J
	WG589549	SAMP	Pyrene	R2146219	J
	WG589549	SAMP	Nitrobenzene-d5	R2146219	J7
	WG589756	SAMP	ORP	R2146673	T8
L571734-03	WG589536	SAMP	Cadmium	R2146873	J
	WG589892	SAMP	o-Terphenyl	R2146853	J1
	WG589541	SAMP	Mercury	R2144073	J
	WG589549	SAMP	Anthracene	R2146219	J
	WG589549	SAMP	Acenaphthylene	R2146219	J
	WG589549	SAMP	Benzo(g,h,i)perylene	R2146219	J
	WG589549	SAMP	Fluoranthene	R2146219	J
	WG589549	SAMP	Naphthalene	R2146219	V
	WG589549	SAMP	Pyrene	R2146219	J
	WG589549	SAMP	1-Methylnaphthalene	R2146219	V
	WG589549	SAMP	Nitrobenzene-d5	R2146219	J1
	WG589756	SAMP	ORP	R2146673	T8
L571734-04	WG589536	SAMP	Cadmium	R2146873	J
	WG589536	SAMP	Silver	R2146873	J
	WG589892	SAMP	o-Terphenyl	R2146853	J1
	WG589119	SAMP	Chromium, Hexavalent	R2146795	J
	WG589549	SAMP	Anthracene	R2146219	J
	WG589549	SAMP	Acenaphthylene	R2146219	J
	WG589549	SAMP	Fluorene	R2146219	J
	WG589549	SAMP	Pyrene	R2146219	J
	WG589549	SAMP	Nitrobenzene-d5	R2146219	J1
	WG589756	SAMP	ORP	R2146673	T8
L571734-05	WG589536	SAMP	Arsenic	R2146873	J3
	WG589536	SAMP	Barium	R2146873	J3V
	WG589536	SAMP	Selenium	R2146873	O
	WG589536	SAMP	Silver	R2146873	J
	WG589541	SAMP	Mercury	R2144073	J
	WG589872	SAMP	Toluene	R2145433	J
	WG589872	SAMP	Ethylbenzene	R2145433	J
	WG589549	SAMP	Acenaphthene	R2146219	J
	WG589549	SAMP	Fluorene	R2146219	J
	WG589549	SAMP	Phenanthrene	R2146219	J
	WG589756	SAMP	ORP	R2146673	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
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
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.
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  
04/30/12 at 13:23:16

TSR Signing Reports: 134  
R2 - Rush: Next Day

Sample: L571734-01 Account: OXYGJCO Received: 04/25/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 13:22  
Sample: L571734-03 Account: OXYGJCO Received: 04/25/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 13:22  
Sample: L571734-04 Account: OXYGJCO Received: 04/25/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 13:22  
Sample: L571734-05 Account: OXYGJCO Received: 04/25/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 13:22

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

Alternate billing information:

CO Table 910

Report to: Daniel Padilla / Blair Rollins

Email to: ~~Blair\_Rollins@oxy.com~~  
Daniel\_Padilla@oxy.com

Analysis/Container/Preservative

Prepared by:

 ENVIRONMENTAL  
SCIENCE CORP.

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: 697-16-28 Pit Sampling

City/State  
Collected

Parachute

Phone: (970) 263-3601  
FAX:

Client Project #:

WA-000546-0013-10

ESC Key:

OXYGJCO-TABLE910

Collected by: CJB

Site/Facility ID#:

697-16-28

P.O.#:

Collected by (signature):

**Rush?** (Lab MUST Be Notified)

Same Day.....200%

Next Day.....100%

☒ Two Day.....50%

Date Results Needed:

Email? ☐ No ☒ YesFAX? ☒ No ☐ YesNo.  
of  
CntrsPacked on Ice N ☒

CoCode OXYGJCO (lab use only)

Template/Prelogin T74772

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260BTEX, GRO	DRO, SV8270PAHSIM	SAR, SPCON, pH	MRCRA8 + Cu, Ni, Zn	CR3, CR6SS	Remarks/Contaminant	Sample # (lab only)
697-16-28-PB-S	Grab	SS	15-20'	4/24/12	1200	3	X	X	X	X	X		L 57754-1
697-16-28-PB-SE	Grab	SS	15-20'	4/24/12	1145	3	X	X	X	X	X		2
697-16-28-PB-N	Grab	SS	15-20'	4/24/12	1100	3	X	X	X	X	X		03
697-16-28-PB-NW	Grab	SS	15-20'	4/24/12	1130	3	X	X	X	X	X		04

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

3071006275340 Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature)	Date: 4/24/12	Time: 5:00	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: J12 (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.2	Bottles Received: 12-302
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/24/12	Time: 0900
			pH Checked:		NCF:

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

## Report Summary

Tuesday May 01, 2012

Report Number: L571883

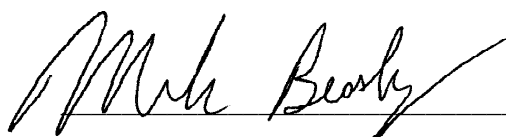
Samples Received: 04/26/12

Client Project: WA-000546-0013-10

Description: 697-16-28 Spoil Pile

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

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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1-800-767-5859  
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

May 01, 2012

Date Received : April 26, 2012  
Description : 697-16-28 Spoil Pile

Sample ID : 697-16-28 SPOIL PILE

Collected By : CJB  
Collection Date : 04/25/12 13:00

ESC Sample # : L571883-01

Site ID : 697-16-28

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	04/27/12	1
Chromium, Trivalent	36.	0.17	2.0	mg/kg		Calc.	04/27/12	1
ORP	130			mV	T8	2580	04/27/12	1
pH	8.1			su	T8	9045D	04/30/12	1
Sodium Adsorption Ratio	2.1					Calc.	04/27/12	1
Specific Conductance	240			umhos/cm		9050AMo	04/28/12	1
Mercury	0.021	0.00080	0.020	mg/kg		7471	04/26/12	1
Arsenic	7.7	0.32	1.0	mg/kg		6010B	04/27/12	1
Barium	1600	0.050	0.25	mg/kg		6010B	04/27/12	1
Cadmium	0.43	0.040	0.25	mg/kg		6010B	04/27/12	1
Chromium	36.	0.085	0.50	mg/kg		6010B	04/27/12	1
Copper	22.	0.21	1.0	mg/kg		6010B	04/27/12	1
Lead	14.	0.090	0.25	mg/kg		6010B	04/27/12	1
Nickel	20.	0.26	1.0	mg/kg		6010B	04/27/12	1
Selenium	16.	0.32	1.0	mg/kg		6010B	04/27/12	1
Silver	U	0.16	0.50	mg/kg		6010B	04/27/12	1
Zinc	62.	0.34	1.5	mg/kg		6010B	04/27/12	1
TPH (GC/FID) Low Fraction	4.6	0.25	0.50	mg/kg		8015D/G	04/27/12	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	98.4			% Rec.		602/801	04/27/12	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	04/26/12	5
Toluene	0.0026	0.0016	0.025	mg/kg	J	8260B	04/26/12	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	04/26/12	5
Total Xylenes	0.024	0.0023	0.015	mg/kg		8260B	04/26/12	5
Surrogate Recovery								
Toluene-d8	107.			% Rec.		8260B	04/26/12	5
Dibromofluoromethane	96.7			% Rec.		8260B	04/26/12	5
a,a,a-Trifluorotoluene	109.			% Rec.		8260B	04/26/12	5
4-Bromofluorobenzene	111.			% Rec.		8260B	04/26/12	5
TPH (GC/FID) High Fraction	170	0.77	4.0	mg/kg		3546/DR	04/27/12	1
Surrogate recovery (%) o-Terphenyl	206.			% Rec.	J1	3546/DR	04/27/12	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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Reported: 05/01/12 18:34 Printed: 05/01/12 19:28

L571883-01 (PH) - 8.1@22.0c

L571883-01 (DRO) - MS/D confirms high surrogate



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Mt. Juliet, TN 37122  
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1-800-767-5859  
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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

May 01, 2012

Date Received : April 26, 2012  
Description : 697-16-28 Spoil Pile

Sample ID : 697-16-28 SPOIL PILE

Collected By : CJB  
Collection Date : 04/25/12 13:00

ESC Sample # : L571883-01

Site ID : 697-16-28

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0036	0.00076	0.0060	mg/kg	J	8270C-S	04/28/12	1
Acenaphthene	0.018	0.00071	0.0060	mg/kg		8270C-S	04/28/12	1
Acenaphthylene	0.0020	0.00057	0.0060	mg/kg	J	8270C-S	04/28/12	1
Benzo(a)anthracene	0.00095	0.00092	0.0060	mg/kg	J	8270C-S	04/28/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	04/28/12	1
Benzo(b)fluoranthene	0.0011	0.00082	0.0060	mg/kg	J	8270C-S	04/28/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	04/28/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	04/28/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	04/28/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	04/28/12	1
Fluoranthene	0.0042	0.0010	0.0060	mg/kg	J	8270C-S	04/28/12	1
Fluorene	0.073	0.00055	0.0060	mg/kg		8270C-S	04/28/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	04/28/12	1
Naphthalene	0.41	0.0032	0.030	mg/kg		8270C-S	04/30/12	5
Phenanthrene	0.062	0.00074	0.0060	mg/kg		8270C-S	04/28/12	1
Pyrene	0.0029	0.00059	0.0060	mg/kg	J	8270C-S	04/28/12	1
1-Methylnaphthalene	0.43	0.0039	0.030	mg/kg		8270C-S	04/30/12	5
2-Methylnaphthalene	1.3	0.0029	0.030	mg/kg		8270C-S	04/30/12	5
2-Chloronaphthalene	0.0023	0.00060	0.0060	mg/kg	J	8270C-S	04/28/12	1
Surrogate Recovery								
Nitrobenzene-d5	70.0			% Rec.		8270C-S	04/30/12	5
2-Fluorobiphenyl	95.5			% Rec.		8270C-S	04/28/12	1
p-Terphenyl-d14	146.			% Rec.	J1	8270C-S	04/28/12	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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Reported: 05/01/12 18:34 Printed: 05/01/12 19:28

L571883-01 (PH) - 8.1@22.0c

L571883-01 (DRO) - MS/D confirms high surrogate

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L571883-01	WG589340	SAMP	o-Terphenyl	R2146133	J1
	WG589733	SAMP	Toluene	R2145393	J
	WG589806	SAMP	pH	R2149953	T8
	WG589644	SAMP	Anthracene	R2148153	J
	WG589644	SAMP	Acenaphthylene	R2148153	J
	WG589644	SAMP	Benzo(a)anthracene	R2148153	J
	WG589644	SAMP	Benzo(b)fluoranthene	R2148153	J
	WG589644	SAMP	Fluoranthene	R2148153	J
	WG589644	SAMP	Pyrene	R2148153	J
	WG589644	SAMP	2-Chloronaphthalene	R2148153	J
	WG589644	SAMP	p-Terphenyl-d14	R2148153	J1
	WG589756	SAMP	ORP	R2146673	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
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

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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.

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

Alternate billing information:

CO Table 910

Report to:

Daniel Padilla / Blair Rollins

Email to:

Blair-Rollins@oxy.com  
daniel\_padilla@oxy.com

Analysis/Container/Preservati

D122

Chain of Custody  
Page 1 of 1

Prepared by:

 ENVIRONMENTAL  
SCIENCE CORP.

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project  
Description:

697-16-28 Spoil Pile

City/State  
Collected

Paradise

Phone:

(970) 263-3601

FAX:

Client Project #:

WA-000546-0013-10

ESC Key:

OXYGJCO-TABLE910

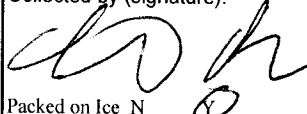
Collected by: CJB

Site/Facility ID#:

697-16-28

P.O.#:

Collected by (signature):



**Rush?**

(Lab MUST Be Notified)

Same Day.....200%

7 Next Day.....100%

Two Day.....50%

Date Results Needed:

Email? No Yes

FAX? Yes No

No.

of

Cntrs

V8260BTEX, GRO

DRO, SV8270PAHSIM

SAR, SPCON, pH

MRCRA8 + Cu, Ni, Zn

CR3, CR6SS

CoCode OXYGJCO (lab use only)

Template/Prelogin T74772

Shipped Via:

Remarks/Contaminant

Sample # (lab only)

Sample ID

Comp/Grab

Matrix\*

Depth

Date

Time

No.

of

Cntrs

V8260BTEX, GRO

DRO, SV8270PAHSIM

SAR, SPCON, pH

MRCRA8 + Cu, Ni, Zn

CR3, CR6SS

697-16-28 Spoil Pile

Comp

SS

—

4/25/12

1300

3

X

X

X

X

X

KIDAY Turn Around \* 657/883-01

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH Temp

Remarks:

\* Please 1 DAY Turn Around

5040 OG26 4265

Flow Other

Relinquished by: (Signature)	Date: 4/25/12	Time: 5:06	Received by: (Signature)	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) OK
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.1	Bottles Received: 3-802ms
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4-26-12	Time: 0900
				pH Checked:	NCF:





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

## Report Summary

Friday February 24, 2012

Report Number: L560776

Samples Received: 02/16/12

Client Project: WA-000546-0013-10

Description: 697-16-28 Pit

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,  
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# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PC-COMP

Collected By : CJB  
Collection Date : 02/15/12 17:00

ESC Sample # : L560776-01

Site ID :

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	02/20/12	1
Chromium, Trivalent	22.	0.17	2.0	mg/kg		Calc.	02/17/12	1
ORP	64.			mV		2580	02/18/12	1
pH	11.			su	T8	9045D	02/20/12	1
Sodium Adsorption Ratio	6.2					Calc.	02/20/12	1
Specific Conductance	870			umhos/cm		9050AMo	02/17/12	1
Mercury	0.027	0.00080	0.020	mg/kg		7471	02/20/12	1
Arsenic	6.0	0.32	1.0	mg/kg		6010B	02/17/12	1
Barium	8500	0.25	1.3	mg/kg		6010B	02/17/12	5
Cadmium	0.53	0.040	0.25	mg/kg		6010B	02/17/12	1
Chromium	22.	0.085	0.50	mg/kg		6010B	02/17/12	1
Copper	20.	0.21	1.0	mg/kg		6010B	02/17/12	1
Lead	9.8	0.090	0.25	mg/kg		6010B	02/17/12	1
Nickel	10.	0.26	1.0	mg/kg		6010B	02/17/12	1
Selenium	U	0.32	1.0	mg/kg		6010B	02/17/12	1
Silver	U	0.16	0.50	mg/kg		6010B	02/17/12	1
Zinc	40.	0.34	1.5	mg/kg		6010B	02/17/12	1
TPH (GC/FID) Low Fraction	1100	12.	25.	mg/kg		8015D/G	02/17/12	250
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	102.			% Rec.		602/801	02/17/12	250
Benzene	0.24	0.085	0.25	mg/kg	J	8260B	02/16/12	250
Toluene	10.	0.078	1.3	mg/kg		8260B	02/16/12	250
Ethylbenzene	3.6	0.094	0.25	mg/kg		8260B	02/16/12	250
Total Xylenes	68.	0.12	0.75	mg/kg		8260B	02/16/12	250
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	02/16/12	250
Dibromofluoromethane	95.5			% Rec.		8260B	02/16/12	250
a,a,a-Trifluorotoluene	102.			% Rec.		8260B	02/16/12	250
4-Bromofluorobenzene	97.7			% Rec.		8260B	02/16/12	250
TPH (GC/FID) High Fraction	1400	15.	80.	mg/kg		3546/DR	02/20/12	20
Surrogate recovery (%) o-Terphenyl	0.00			% Rec.	J7	3546/DR	02/20/12	20

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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L560776-01 (PH) - 10.7 @ 20.8c



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# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PC-COMP

Collected By : CJB  
Collection Date : 02/15/12 17:00

ESC Sample # : L560776-01

Site ID :

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.17	0.00076	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthene	0.35	0.018	0.15	mg/kg		8270C-S	02/22/12	25
Acenaphthylene	0.080	0.014	0.15	mg/kg	J	8270C-S	02/22/12	25
Benzo(a)anthracene	0.0016	0.00092	0.0060	mg/kg	J	8270C-S	02/21/12	1
Benzo(a)pyrene	0.0013	0.00062	0.0060	mg/kg	J	8270C-S	02/21/12	1
Benzo(b)fluoranthene	0.0026	0.00082	0.0060	mg/kg	J	8270C-S	02/21/12	1
Benzo(g,h,i)perylene	0.0013	0.0012	0.0060	mg/kg	J	8270C-S	02/21/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	02/21/12	1
Chrysene	0.0064	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Fluoranthene	0.0078	0.0010	0.0060	mg/kg		8270C-S	02/21/12	1
Fluorene	0.90	0.014	0.15	mg/kg		8270C-S	02/22/12	25
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Naphthalene	6.6	0.016	0.15	mg/kg		8270C-S	02/22/12	25
Phenanthrene	0.40	0.00074	0.0060	mg/kg	E	8270C-S	02/21/12	1
Pyrene	0.018	0.00059	0.0060	mg/kg		8270C-S	02/21/12	1
1-Methylnaphthalene	4.0	0.020	0.15	mg/kg		8270C-S	02/22/12	25
2-Methylnaphthalene	14.	0.015	0.15	mg/kg	E	8270C-S	02/22/12	25
2-Chloronaphthalene	U	0.015	0.15	mg/kg		8270C-S	02/22/12	25
Surrogate Recovery								
Nitrobenzene-d5	0.00			% Rec.	J7	8270C-S	02/22/12	25
2-Fluorobiphenyl	0.00			% Rec.	J7	8270C-S	02/22/12	25
p-Terphenyl-d14	114.			% Rec.		8270C-S	02/21/12	1

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# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-N

Collected By : CJB  
Collection Date : 02/15/12 13:37

ESC Sample # : L560776-03

Site ID :

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	02/20/12	1
Chromium, Trivalent	29.	0.17	2.0	mg/kg		Calc.	02/17/12	1
ORP	73.			mV		2580	02/18/12	1
pH	8.5			su	T8	9045D	02/20/12	1
Sodium Adsorption Ratio	3.5					Calc.	02/20/12	1
Specific Conductance	300			umhos/cm		9050AMo	02/17/12	1
Mercury	0.032	0.00080	0.020	mg/kg		7471	02/20/12	1
Arsenic	7.2	0.32	1.0	mg/kg		6010B	02/17/12	1
Barium	8400	0.25	1.3	mg/kg		6010B	02/17/12	5
Cadmium	0.86	0.040	0.25	mg/kg		6010B	02/17/12	1
Chromium	29.	0.085	0.50	mg/kg		6010B	02/17/12	1
Copper	20.	0.21	1.0	mg/kg		6010B	02/17/12	1
Lead	12.	0.090	0.25	mg/kg		6010B	02/17/12	1
Nickel	15.	0.26	1.0	mg/kg		6010B	02/17/12	1
Selenium	U	1.6	5.0	mg/kg	O	6010B	02/17/12	5
Silver	U	0.16	0.50	mg/kg		6010B	02/17/12	1
Zinc	52.	0.34	1.5	mg/kg		6010B	02/17/12	1
TPH (GC/FID) Low Fraction	47.	2.5	5.0	mg/kg		8015D/G	02/17/12	50
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	101.			% Rec.		602/801	02/17/12	50
Benzene	0.025	0.017	0.050	mg/kg	J	8260B	02/16/12	50
Toluene	1.1	0.016	0.25	mg/kg		8260B	02/16/12	50
Ethylbenzene	0.45	0.019	0.050	mg/kg		8260B	02/16/12	50
Total Xylenes	9.0	0.023	0.15	mg/kg		8260B	02/16/12	50
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	02/16/12	50
Dibromofluoromethane	90.1			% Rec.		8260B	02/16/12	50
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	02/16/12	50
4-Bromofluorobenzene	102.			% Rec.		8260B	02/16/12	50
TPH (GC/FID) High Fraction	52.	0.77	4.0	mg/kg		3546/DR	02/22/12	1
Surrogate recovery (%) o-Terphenyl	154.			% Rec.	J1	3546/DR	02/22/12	1

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L560776-03 (DRO) - high surrogate confirms with original extract

L560776-03 (PH) - 8.5 @ 20.9c



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# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-N

Collected By : CJB  
Collection Date : 02/15/12 13:37

ESC Sample # : L560776-03

Site ID :

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.012	0.00076	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthene	0.023	0.00071	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthylene	0.00080	0.00057	0.0060	mg/kg	J	8270C-S	02/21/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	02/21/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Fluoranthene	0.0017	0.0010	0.0060	mg/kg	J	8270C-S	02/21/12	1
Fluorene	0.086	0.00055	0.0060	mg/kg		8270C-S	02/21/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Naphthalene	0.82	0.013	0.12	mg/kg		8270C-S	02/22/12	20
Phenanthrene	0.063	0.00074	0.0060	mg/kg		8270C-S	02/21/12	1
Pyrene	0.0037	0.00059	0.0060	mg/kg	J	8270C-S	02/21/12	1
1-Methylnaphthalene	0.55	0.016	0.12	mg/kg		8270C-S	02/22/12	20
2-Methylnaphthalene	1.8	0.012	0.12	mg/kg		8270C-S	02/22/12	20
2-Chloronaphthalene	U	0.012	0.12	mg/kg		8270C-S	02/22/12	20
Surrogate Recovery								
Nitrobenzene-d5	0.00			% Rec.	J7	8270C-S	02/22/12	20
2-Fluorobiphenyl	88.4			% Rec.		8270C-S	02/21/12	1
p-Terphenyl-d14	98.2			% Rec.		8270C-S	02/21/12	1

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L560776-03 (DRO) - high surrogate confirms with original extract

L560776-03 (PH) - 8.5 @ 20.9c



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# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-S

Collected By : CJB  
Collection Date : 02/15/12 13:59

ESC Sample # : L560776-04

Site ID :

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium,Hexavalent	1.4	0.71	2.0	mg/kg	J	3060A/7	02/20/12	1
Chromium,Trivalent	23.	0.17	2.0	mg/kg		Calc.	02/17/12	1
ORP	60.			mV		2580	02/18/12	1
pH	11.			su	T8	9045D	02/20/12	1
Sodium Adsorption Ratio	6.4					Calc.	02/20/12	1
Specific Conductance	660			umhos/cm		9050AMo	02/17/12	1
Mercury	0.026	0.00080	0.020	mg/kg		7471	02/20/12	1
Arsenic	5.8	0.32	1.0	mg/kg		6010B	02/17/12	1
Barium	8800	0.25	1.3	mg/kg		6010B	02/17/12	5
Cadmium	0.56	0.040	0.25	mg/kg		6010B	02/17/12	1
Chromium	24.	0.085	0.50	mg/kg		6010B	02/17/12	1
Copper	23.	0.21	1.0	mg/kg		6010B	02/17/12	1
Lead	12.	0.090	0.25	mg/kg		6010B	02/17/12	1
Nickel	11.	0.26	1.0	mg/kg		6010B	02/17/12	1
Selenium	U	0.32	1.0	mg/kg		6010B	02/17/12	1
Silver	U	0.16	0.50	mg/kg		6010B	02/17/12	1
Zinc	44.	0.34	1.5	mg/kg		6010B	02/17/12	1
TPH (GC/FID) Low Fraction	990	25.	50.	mg/kg		8015D/G	02/17/12	500
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene(FID)	101.			% Rec.		602/801	02/17/12	500
Benzene	0.23	0.17	0.50	mg/kg	J	8260B	02/16/12	500
Toluene	10.	0.16	2.5	mg/kg		8260B	02/16/12	500
Ethylbenzene	3.6	0.19	0.50	mg/kg		8260B	02/16/12	500
Total Xylenes	72.	0.23	1.5	mg/kg		8260B	02/16/12	500
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	02/16/12	500
Dibromofluoromethane	90.6			% Rec.		8260B	02/16/12	500
a,a,a-Trifluorotoluene	105.			% Rec.		8260B	02/16/12	500
4-Bromofluorobenzene	100.			% Rec.		8260B	02/16/12	500
TPH (GC/FID) High Fraction	1200	15.	80.	mg/kg		3546/DR	02/20/12	20
Surrogate recovery(%) o-Terphenyl	0.00			% Rec.	J7	3546/DR	02/20/12	20

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L560776-04 (PH) - 11 @ 20.9c



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# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-S

Collected By : CJB  
Collection Date : 02/15/12 13:59

ESC Sample # : L560776-04

Site ID :

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.019	0.00076	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthene	0.054	0.00071	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthylene	0.0068	0.00057	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	02/21/12	1
Chrysene	0.0013	0.0011	0.0060	mg/kg	J	8270C-S	02/21/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Fluoranthene	0.0026	0.0010	0.0060	mg/kg	J	8270C-S	02/21/12	1
Fluorene	0.24	0.00055	0.0060	mg/kg		8270C-S	02/21/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Naphthalene	2.0	0.013	0.12	mg/kg		8270C-S	02/22/12	20
Phenanthrene	0.15	0.00074	0.0060	mg/kg		8270C-S	02/21/12	1
Pyrene	0.0052	0.00059	0.0060	mg/kg	J	8270C-S	02/21/12	1
1-Methylnaphthalene	1.1	0.016	0.12	mg/kg		8270C-S	02/22/12	20
2-Methylnaphthalene	3.7	0.012	0.12	mg/kg		8270C-S	02/22/12	20
2-Chloronaphthalene	U	0.012	0.12	mg/kg		8270C-S	02/22/12	20
Surrogate Recovery								
Nitrobenzene-d5	0.00			% Rec.	J7	8270C-S	02/22/12	20
2-Fluorobiphenyl	129.			% Rec.		8270C-S	02/21/12	1
p-Terphenyl-d14	104.			% Rec.		8270C-S	02/21/12	1

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

Note:

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L560776-04 (PH) - 11 @ 20.9c



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Mt. Juliet, TN 37122  
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-E

Collected By : CJB  
Collection Date : 02/15/12 14:10

ESC Sample # : L560776-05

Site ID :

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	02/20/12	1
Chromium, Trivalent	25.	0.17	2.0	mg/kg		Calc.	02/17/12	1
ORP	37.			mV		2580	02/18/12	1
pH	11.			su	T8	9045D	02/20/12	1
Sodium Adsorption Ratio	6.7					Calc.	02/20/12	1
Specific Conductance	960			umhos/cm		9050AMo	02/17/12	1
Mercury	0.032	0.00080	0.020	mg/kg		7471	02/20/12	1
Arsenic	7.4	0.32	1.0	mg/kg		6010B	02/17/12	1
Barium	9000	0.25	1.3	mg/kg		6010B	02/17/12	5
Cadmium	0.56	0.040	0.25	mg/kg		6010B	02/17/12	1
Chromium	25.	0.085	0.50	mg/kg		6010B	02/17/12	1
Copper	24.	0.21	1.0	mg/kg		6010B	02/17/12	1
Lead	16.	0.090	0.25	mg/kg		6010B	02/17/12	1
Nickel	12.	0.26	1.0	mg/kg		6010B	02/17/12	1
Selenium	U	0.32	1.0	mg/kg		6010B	02/17/12	1
Silver	U	0.16	0.50	mg/kg		6010B	02/17/12	1
Zinc	50.	0.34	1.5	mg/kg		6010B	02/17/12	1
TPH (GC/FID) Low Fraction	1400	12.	25.	mg/kg		8015D/G	02/17/12	250
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	101.			% Rec.		602/801	02/17/12	250
Benzene	0.32	0.085	0.25	mg/kg		8260B	02/16/12	250
Toluene	14.	0.078	1.3	mg/kg		8260B	02/16/12	250
Ethylbenzene	5.4	0.094	0.25	mg/kg		8260B	02/16/12	250
Total Xylenes	100	0.12	0.75	mg/kg		8260B	02/16/12	250
Surrogate Recovery								
Toluene-d8	102.			% Rec.		8260B	02/16/12	250
Dibromofluoromethane	92.4			% Rec.		8260B	02/16/12	250
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	02/16/12	250
4-Bromofluorobenzene	99.9			% Rec.		8260B	02/16/12	250
TPH (GC/FID) High Fraction	1500	15.	80.	mg/kg		3546/DR	02/20/12	20
Surrogate recovery (%) o-Terphenyl	0.00			% Rec.	J7	3546/DR	02/20/12	20

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L560776-05 (PH) - 11 @ 20.9c





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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-E

Collected By : CJB  
Collection Date : 02/15/12 14:10

ESC Sample # : L560776-05

Site ID :

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.013	0.00076	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthene	0.034	0.00071	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthylene	0.0041	0.00057	0.0060	mg/kg	J	8270C-S	02/21/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	02/21/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Fluoranthene	0.0010	0.0010	0.0060	mg/kg	J	8270C-S	02/21/12	1
Fluorene	0.12	0.00055	0.0060	mg/kg		8270C-S	02/21/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Naphthalene	1.2	0.013	0.12	mg/kg		8270C-S	02/22/12	20
Phenanthrene	0.095	0.00074	0.0060	mg/kg		8270C-S	02/21/12	1
Pyrene	0.0036	0.00059	0.0060	mg/kg	J	8270C-S	02/21/12	1
1-Methylnaphthalene	0.65	0.016	0.12	mg/kg		8270C-S	02/22/12	20
2-Methylnaphthalene	2.2	0.012	0.12	mg/kg		8270C-S	02/22/12	20
2-Chloronaphthalene	U	0.012	0.12	mg/kg		8270C-S	02/22/12	20
Surrogate Recovery								
Nitrobenzene-d5	0.00			% Rec.	J7	8270C-S	02/22/12	20
2-Fluorobiphenyl	97.9			% Rec.		8270C-S	02/21/12	1
p-Terphenyl-d14	86.4			% Rec.		8270C-S	02/21/12	1

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Est. 1970

# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-W

Collected By : CJB  
Collection Date : 02/15/12 13:55

ESC Sample # : L560776-06

Site ID :

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	1.4	0.71	2.0	mg/kg	J	3060A/7	02/20/12	1
Chromium, Trivalent	23.	0.17	2.0	mg/kg		Calc.	02/17/12	1
ORP	13.			mV		2580	02/18/12	1
pH	11.			su	T8	9045D	02/20/12	1
Sodium Adsorption Ratio	8.2					Calc.	02/20/12	1
Specific Conductance	1200			umhos/cm		9050AMo	02/17/12	1
Mercury	0.037	0.00080	0.020	mg/kg		7471	02/20/12	1
Arsenic	6.4	0.32	1.0	mg/kg		6010B	02/17/12	1
Barium	8800	0.25	1.3	mg/kg		6010B	02/17/12	5
Cadmium	0.53	0.040	0.25	mg/kg		6010B	02/17/12	1
Chromium	24.	0.085	0.50	mg/kg		6010B	02/17/12	1
Copper	24.	0.21	1.0	mg/kg		6010B	02/17/12	1
Lead	11.	0.090	0.25	mg/kg		6010B	02/17/12	1
Nickel	11.	0.26	1.0	mg/kg		6010B	02/17/12	1
Selenium	U	0.32	1.0	mg/kg		6010B	02/17/12	1
Silver	U	0.16	0.50	mg/kg		6010B	02/17/12	1
Zinc	48.	0.34	1.5	mg/kg		6010B	02/17/12	1
TPH (GC/FID) Low Fraction	1300	12.	25.	mg/kg		8015D/G	02/17/12	250
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	97.4			% Rec.		602/801	02/17/12	250
Benzene	0.73	0.034	0.10	mg/kg		8260B	02/16/12	100
Toluene	20.	0.16	2.5	mg/kg		8260B	02/18/12	500
Ethylbenzene	7.9	0.037	0.10	mg/kg		8260B	02/16/12	100
Total Xylenes	120	0.23	1.5	mg/kg		8260B	02/18/12	500
Surrogate Recovery								
Toluene-d8	108.			% Rec.		8260B	02/16/12	100
Dibromofluoromethane	90.1			% Rec.		8260B	02/16/12	100
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	02/16/12	100
4-Bromofluorobenzene	115.			% Rec.		8260B	02/16/12	100
TPH (GC/FID) High Fraction	1900	15.	80.	mg/kg		3546/DR	02/20/12	20
Surrogate recovery (%) o-Terphenyl	0.00			% Rec.	J7	3546/DR	02/20/12	20

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L560776-06 (PH) - 11 @ 20.6c



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# REPORT OF ANALYSIS

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

February 24, 2012

Date Received : February 16, 2012  
Description : 697-16-28 Pit

Sample ID : 697-16-28-PB-W

Collected By : CJB  
Collection Date : 02/15/12 13:55

ESC Sample # : L560776-06

Site ID :

Project # : WA-000546-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.024	0.00076	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthene	0.068	0.00071	0.0060	mg/kg		8270C-S	02/21/12	1
Acenaphthylene	0.0067	0.00057	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(a)anthracene	0.0015	0.00092	0.0060	mg/kg	J	8270C-S	02/21/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	02/21/12	1
Chrysene	0.0015	0.0011	0.0060	mg/kg	J	8270C-S	02/21/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	02/21/12	1
Fluoranthene	0.0019	0.0010	0.0060	mg/kg	J	8270C-S	02/21/12	1
Fluorene	0.26	0.00055	0.0060	mg/kg		8270C-S	02/21/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	02/21/12	1
Naphthalene	2.1	0.013	0.12	mg/kg		8270C-S	02/22/12	20
Phenanthrene	0.18	0.00074	0.0060	mg/kg		8270C-S	02/21/12	1
Pyrene	0.0057	0.00059	0.0060	mg/kg	J	8270C-S	02/21/12	1
1-Methylnaphthalene	1.2	0.016	0.12	mg/kg		8270C-S	02/22/12	20
2-Methylnaphthalene	3.9	0.012	0.12	mg/kg		8270C-S	02/22/12	20
2-Chloronaphthalene	U	0.012	0.12	mg/kg		8270C-S	02/22/12	20
Surrogate Recovery								
Nitrobenzene-d5	0.00			% Rec.	J7	8270C-S	02/22/12	20
2-Fluorobiphenyl	122.			% Rec.		8270C-S	02/21/12	1
p-Terphenyl-d14	104.			% Rec.		8270C-S	02/21/12	1

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Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L560776-01	WG578862	SAMP	o-Terphenyl	R2042315	J7
	WG578874	SAMP	Benzene	R2040294	J
	WG579164	SAMP	pH	R2043113	T8
	WG578754	SAMP	Acenaphthylene	R2042472	J
	WG578754	SAMP	Benzo(a)anthracene	R2042472	J
	WG578754	SAMP	Benzo(a)pyrene	R2042472	J
	WG578754	SAMP	Benzo(b)fluoranthene	R2042472	J
	WG578754	SAMP	Benzo(g,h,i)perylene	R2042472	J
	WG578754	SAMP	Phenanthrene	R2042472	E
	WG578754	SAMP	2-Methylnaphthalene	R2042472	E
	WG578754	SAMP	Nitrobenzene-d5	R2042472	J7
	WG578754	SAMP	2-Fluorobiphenyl	R2042472	J7
L560776-03	WG578878	SAMP	Selenium	R2041513	O
	WG579455	SAMP	o-Terphenyl	R2045032	J1
	WG578874	SAMP	Benzene	R2040294	J
	WG579164	SAMP	pH	R2043113	T8
	WG578754	SAMP	Acenaphthylene	R2042472	J
	WG578754	SAMP	Fluoranthene	R2042472	J
	WG578754	SAMP	Pyrene	R2042472	J
	WG578754	SAMP	Nitrobenzene-d5	R2042472	J7
L560776-04	WG578862	SAMP	o-Terphenyl	R2042315	J7
	WG578839	SAMP	Chromium, Hexavalent	R2043432	J
	WG578874	SAMP	Benzene	R2040294	J
	WG579164	SAMP	pH	R2043113	T8
	WG578879	SAMP	Chrysene	R2042473	J
	WG578879	SAMP	Fluoranthene	R2042473	J
	WG578879	SAMP	Pyrene	R2042473	J
	WG578879	SAMP	Nitrobenzene-d5	R2042473	J7
L560776-05	WG578862	SAMP	o-Terphenyl	R2042315	J7
	WG579164	SAMP	pH	R2043113	T8
	WG578879	SAMP	Acenaphthylene	R2042473	J
	WG578879	SAMP	Fluoranthene	R2042473	J
	WG578879	SAMP	Pyrene	R2042473	J
L560776-06	WG578879	SAMP	Nitrobenzene-d5	R2042473	J7
	WG578862	SAMP	o-Terphenyl	R2042315	J7
	WG578839	SAMP	Chromium, Hexavalent	R2043432	J
	WG579164	SAMP	pH	R2043113	T8
	WG578879	SAMP	Benzo(a)anthracene	R2042473	J
	WG578879	SAMP	Chrysene	R2042473	J
	WG578879	SAMP	Fluoranthene	R2042473	J
	WG578879	SAMP	Pyrene	R2042473	J
	WG578879	SAMP	Nitrobenzene-d5	R2042473	J7

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
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
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out
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.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

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)."

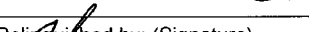
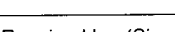
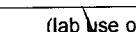

Definitions

- 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  
02/24/12 at 10:54:25

TSR Signing Reports: 134  
R5 - Desired TAT

Sample: L560776-01 Account: OXYGJCO Received: 02/16/12 09:00 Due Date: 02/23/12 00:00 RPT Date: 02/24/12 10:53  
Sample: L560776-03 Account: OXYGJCO Received: 02/16/12 09:00 Due Date: 02/23/12 00:00 RPT Date: 02/24/12 10:53  
Sample: L560776-04 Account: OXYGJCO Received: 02/16/12 09:00 Due Date: 02/23/12 00:00 RPT Date: 02/24/12 10:53  
Sample: L560776-05 Account: OXYGJCO Received: 02/16/12 09:00 Due Date: 02/23/12 00:00 RPT Date: 02/24/12 10:53  
Sample: L560776-06 Account: OXYGJCO Received: 02/16/12 09:00 Due Date: 02/23/12 00:00 RPT Date: 02/24/12 10:53

Relinquished by: (Signature) 	Date: 2/15/12	Time: 5:00	Received by: (Signature) 	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>		Condition: (lab use only) 	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 37°	Bottles Received: 15802		
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) 	Date: 2/16/12	Time: 0900	pH Checked:	NCF:



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

### Report Summary

Wednesday February 29, 2012

Report Number: L561903

Samples Received: 02/23/12

Client Project: WA-000548-0013-10

Description: 697-16-28 Cap

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

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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Tax I.D. 62-0814289

Est. 1970

# REPORT OF ANALYSIS

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

February 29, 2012

Date Received : February 23, 2012  
Description : 697-16-28 Cap

Sample ID : 697-16-28 COMP

Collected By : CJB  
Collection Date : 02/21/12 11:30

ESC Sample # : L561903-01

Site ID :

Project # : WA-000548-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	02/28/12	1
Chromium, Trivalent	30.	0.17	2.0	mg/kg		Calc.	02/25/12	1
ORP	26.			mV	T8	2580	02/28/12	1
pH	9.9			su	T8	9045D	02/27/12	1
Sodium Adsorption Ratio	5.4					Calc.	02/28/12	1
Specific Conductance	570			umhos/cm		9050AMo	02/27/12	1
Mercury	0.030	0.00080	0.020	mg/kg		7471	02/27/12	1
Arsenic	8.9	0.32	1.0	mg/kg		6010B	02/25/12	1
Barium	7800	0.25	1.3	mg/kg		6010B	02/26/12	5
Cadmium	0.54	0.040	0.25	mg/kg		6010B	02/25/12	1
Chromium	30.	0.085	0.50	mg/kg		6010B	02/25/12	1
Copper	20.	0.21	1.0	mg/kg		6010B	02/25/12	1
Lead	11.	0.090	0.25	mg/kg		6010B	02/25/12	1
Nickel	13.	0.26	1.0	mg/kg		6010B	02/25/12	1
Selenium	1.6	0.32	1.0	mg/kg		6010B	02/25/12	1
Silver	0.43	0.16	0.50	mg/kg	J	6010B	02/25/12	1
Zinc	46.	0.34	1.5	mg/kg		6010B	02/25/12	1
TPH (GC/FID) Low Fraction	340	25.	50.	mg/kg		8015D/G	02/24/12	500
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	02/24/12	500
Benzene	0.047	0.034	0.10	mg/kg	J	8260B	02/27/12	100
Toluene	1.8	0.031	0.50	mg/kg		8260B	02/27/12	100
Ethylbenzene	0.95	0.037	0.10	mg/kg		8260B	02/27/12	100
Total Xylenes	21.	0.046	0.30	mg/kg		8260B	02/27/12	100
Surrogate Recovery								
Toluene-d8	94.6			% Rec.		8260B	02/27/12	100
Dibromofluoromethane	101.			% Rec.		8260B	02/27/12	100
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	02/27/12	100
4-Bromofluorobenzene	127.			% Rec.		8260B	02/27/12	100
TPH (GC/FID) High Fraction	670	15.	80.	mg/kg		3546/DR	02/27/12	20
Surrogate recovery (%) o-Terphenyl	0.00			% Rec.	J7	3546/DR	02/27/12	20

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: 02/29/12 17:10 Printed: 02/29/12 17:10  
L561903-01 (PH) - 9.9@22.2c



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Est. 1970

# REPORT OF ANALYSIS

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

February 29, 2012

Date Received : February 23, 2012  
Description : 697-16-28 Cap

Sample ID : 697-16-28 COMP

Collected By : CJB  
Collection Date : 02/21/12 11:30

ESC Sample # : L561903-01

Site ID :

Project # : WA-000548-0013-10

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0032	0.00076	0.0060	mg/kg	J	8270C-S	02/27/12	1
Acenaphthene	0.020	0.00071	0.0060	mg/kg		8270C-S	02/27/12	1
Acenaphthylene	0.0017	0.00057	0.0060	mg/kg	J	8270C-S	02/27/12	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	02/27/12	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	02/27/12	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	02/27/12	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	02/27/12	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	02/27/12	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	02/27/12	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	02/27/12	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	02/27/12	1
Fluorene	0.047	0.00055	0.0060	mg/kg		8270C-S	02/27/12	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	02/27/12	1
Naphthalene	0.42	0.013	0.12	mg/kg		8270C-S	02/28/12	20
Phenanthrene	0.031	0.00074	0.0060	mg/kg		8270C-S	02/27/12	1
Pyrene	0.0014	0.00059	0.0060	mg/kg	J	8270C-S	02/27/12	1
1-Methylnaphthalene	0.24	0.016	0.12	mg/kg		8270C-S	02/28/12	20
2-Methylnaphthalene	0.73	0.012	0.12	mg/kg		8270C-S	02/28/12	20
2-Chloronaphthalene	U	0.012	0.12	mg/kg		8270C-S	02/28/12	20
Surrogate Recovery								
Nitrobenzene-d5	0.00			% Rec.	J7	8270C-S	02/28/12	20
2-Fluorobiphenyl	81.1			% Rec.		8270C-S	02/27/12	1
p-Terphenyl-d14	99.1			% Rec.		8270C-S	02/27/12	1

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L561903-01 (PH) - 9.9@22.2c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L561903-01	WG579950	SAMP	Silver	R2049054	J
	WG580239	SAMP	o-Terphenyl	R2051537	J7
	WG580303	SAMP	Benzene	R2050393	J
	WG580088	SAMP	pH	R2050412	T8
	WG579984	SAMP	Anthracene	R2050613	J
	WG579984	SAMP	Acenaphthylene	R2050613	J
	WG579984	SAMP	Pyrene	R2050613	J
	WG579984	SAMP	Nitrobenzene-d5	R2050613	J7
	WG580399	SAMP	ORP	R2052092	T8

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J7	Surrogate recovery limits cannot be evaluated; surrogates were diluted out
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

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  
02/29/12 at 17:10:57

TSR Signing Reports: 134  
R5 - Desired TAT

Sample: L561903-01 Account: OXYGJCO Received: 02/23/12 09:00 Due Date: 03/01/12 00:00 RPT Date: 02/29/12 17:10

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

Alternate billing information:

CO Table 910

Report to: Blair-Rollins@oxy.com  
Daniel Padilla / Blair Rollins  
Email to: daniel\_padilla@oxy.com, blai

Analysis/Container/Preservative

C216

in of Custody  
je 1 of 1

Prepared by:

**ENVIRONMENTAL  
SCIENCE CORP.**

12065 Lebanon Road  
Mt. Juliet, TN 37122

Phone (615) 758-5858

Phone (800) 767-5859

FAX (615) 758-5859

Project Description: 697-16-28 Cap  
Phone: (970) 263-3601  
FAX: WA-000548-0013-10  
Client Project #: ESC Key: OXYGJCO-TABLE910

Collected by: CTB  
Site/Facility ID#: Parachute  
P.O.#:

Collected by (signature): [Signature]  
Packed on Ice N  
**Rush?** (Lab MUST Be Notified)  
\_\_\_\_ Same Day.....200%  
\_\_\_\_ Next Day.....100%  
\_\_\_\_ Two Day.....50%  
Date Results Needed:  
Email? No X Yes  
FAX? No Yes

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V8260BTEX, GRO	DRO, SV8270PAHSIM	SAR, SPCON, pH	MRCRA8 + Cu, Ni, Zn	CR3, CR6SS	Remarks/Contaminant	Sample # (lab only)
697-16-28 <u>Comp</u>	Comp	SS	6"	2/21/12	11:30	3	X	X	X	X	X	1561903-01	

\*Matrix: SS - Soil/Solid GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other \_\_\_\_\_

pH \_\_\_\_\_ Temp \_\_\_\_\_

Remarks:

504006235453 Flow \_\_\_\_\_ Other \_\_\_\_\_

Relinquished by: (Signature) <u>[Signature]</u>	Date: <u>2/21/12</u>	Time: <u>5:00</u>	Received by: (Signature) <u>[Signature]</u>	Samples returned via: <input checked="" type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <u>OK</u> (lab use only)
Relinquished by: (Signature) <u>[Signature]</u>	Date: _____	Time: _____	Received by: (Signature) <u>[Signature]</u>	Temp: <u>3.7°</u>	Bottles Received: <u>3</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date: _____	Time: _____	Received for lab by: (Signature) <u>[Signature]</u>	Date: <u>2-23-12</u>	Time: <u>0900</u>
				pH Checked: _____	NCF: _____