

McDaniel 14-3 Reserve Pit (Location ID: 334198) Reclamation and Closure Sampling Narrative

Outlined below is the McDaniel 14-3 reserve pit sampling narrative. This is being provided in support of Oxy's McDaniel 14-3 Sundry Notice reserve pit closure documentation. The narrative details what closure, and background samples were taken, where they were taken and for what purpose.

Pre-Reclaim Sample 3/27/2009 (L394974)

- Oxy removed the pit liner and collected a pit bottom grab sample before reclamation of the reserve pit. The pre-reclaim sample was taken within the eastern portion of the pit at the low spot of the pit bottom, which was approximately 10' feet below the pad surface. The pre-reclaim sample was collected assuming if the liner was compromised then this would be the most likely location where environmental concerns would be present. The pre-reclaim sample is represented in the tabulated data spreadsheet in the second column and labeled as "Pre-Reclaim (pit)" for Sample Type on the attached pit reclaim data table. The pre-reclaim sample date was 3/27/2009 and the Sample ID from the lab report is McDaniel 14-3-Pre-Rec 0-6 ft. This sample is shown on the McDaniel 14-3 Sampling Map as a black dot and is referenced on the map as Pre-Reclaim Sample. The lab data report for this sample is attached and the values can be found on lab report L394974 on pages 4 and 5 as sample ID McDaniel 14-3-Pre-Rec -6 ft.
- Pre-Reclaim values showed elevated concentrations for sodium adsorption ratio (SAR), pH, and arsenic (As).

Post Reclaim Sample 3/27/2009 (L394974)

- Once the liner was removed and the pre-reclaim sample was collected, the pit bottom was mixed with a backhoe. The post reclaim sample was a five point composite sample of the pit bottom, which was consistent with practices conducted at time of closure (2009). The post reclaim samples were taken along the length of the pit between 0 – 6 ft deep at the pit bottom, which was an approximately 10' below the pad surface. The post reclaim sample was collected on 3/27/2009 and is represented in the post reclaim tabulated data spreadsheet in the first column and labeled as "Post Reclaim" for Sample Name. These sample locations are shown on the McDaniel 14-3 Sampling Map as yellow dots and are referenced in the legend as Post Reclaim Sample. Lab report L394974, as attached, depicts these sample values on pages 6 and 7 for sample ID McDaniel 14-3 – Post – Rec 0-6FT.
- Post Reclaim values showed elevated concentrations for pH.

Background Sample 3/27/2009 and 4/19/2012 (L394974 and L571201)

- In an effort to identify elevated concentrations of naturally occurring As similar to that which was previously identified in the Pre-Reclaim sample, Oxy collected background samples from native undisturbed locations around the area. Oxy collected one background grab sample on 3/27/2009 from undisturbed native material at a depth of 0-6 feet. The 3/27/2009 background sample can be found in column 3 of the tabulated data spreadsheet with the Sample Name of "Background". This sample is shown on the McDaniel 14-3 Background Sampling Locations Map as a green dot, is labeled as "Background", and is referenced in the legend as Background Sample Location. The background

sample value can be found on lab report L394974 on pages 2 and 3 as Sample ID McDaniel 14-3 – BG 0-6FT.

- Oxy collected additional background grab samples from native undisturbed background locations within the area on 4/19/2012. The 4/19/2012 background grab sample can be found in column 5 of the tabulated data spreadsheet with the Sample name of “Brush Creek 14-10 Background”. This sample is shown on the McDaniel 14-3 Background Sampling Locations Map as a green dot, is labeled as “Brush Creek 14-10 Background”, and referenced in the legend as Background Sample Location. The background sample value can be found on lab report L571201 on page 2 as Sample ID BG-PT127 6IN.
- The sampling effort yielded background As concentrations above those found in the Post Reclaim sample.

Cap Sample 11/22/2011 (L548467)

- Oxy backfilled the pit with stockpiled native clean material to pad grade (4-10 feet deep). A five point composite sample was taken of the cap material and analyzed for COGCC Table 910-1, since the cap material will serve as a cap for the elevated value of pH found in the reclaimed pit bottom. The cap sample is represented in the tabulated data spreadsheet in the fourth column and labeled as Cap (10-01-10) for Sample Name on the attached pit reclaim data table. The cap sample was collected on 11/22/2011 and the Sample ID from the lab report is McDaniel 14-3 – Cap Sample 6IN. This sample is shown on the McDaniel 14-3 Sampling Map as a pink dot and is referenced in the legend as Cap Sample. Lab report L548467, as attached, depicts the sample results on pages 2 and 3 for sample ID McDaniel 14-3 – Cap Sample 6IN.
- The cap sample was tested for COGCC Table 910-1, to ensure a sufficient cap is provided. All analytes were found to be below the COGCC’s table 910-1 allowable concentrations.

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



OXY USA Inc.
760 Horizon Drive, Suite 101
Grand Junction, CO 81506





McDaniel 14-3 Sampling Map

Mesa County, Colorado

0 0.005 0.01 0.015 0.02 Miles



Pre-Reclaim Sample

Pit	
Post Reclaim Sample	
Cap Sample	
Back Ground Samples	

**McDaniel14-3 Background
Sampling Locations Map**
Updated Nov 14, 2012 Mesa County, Colorado

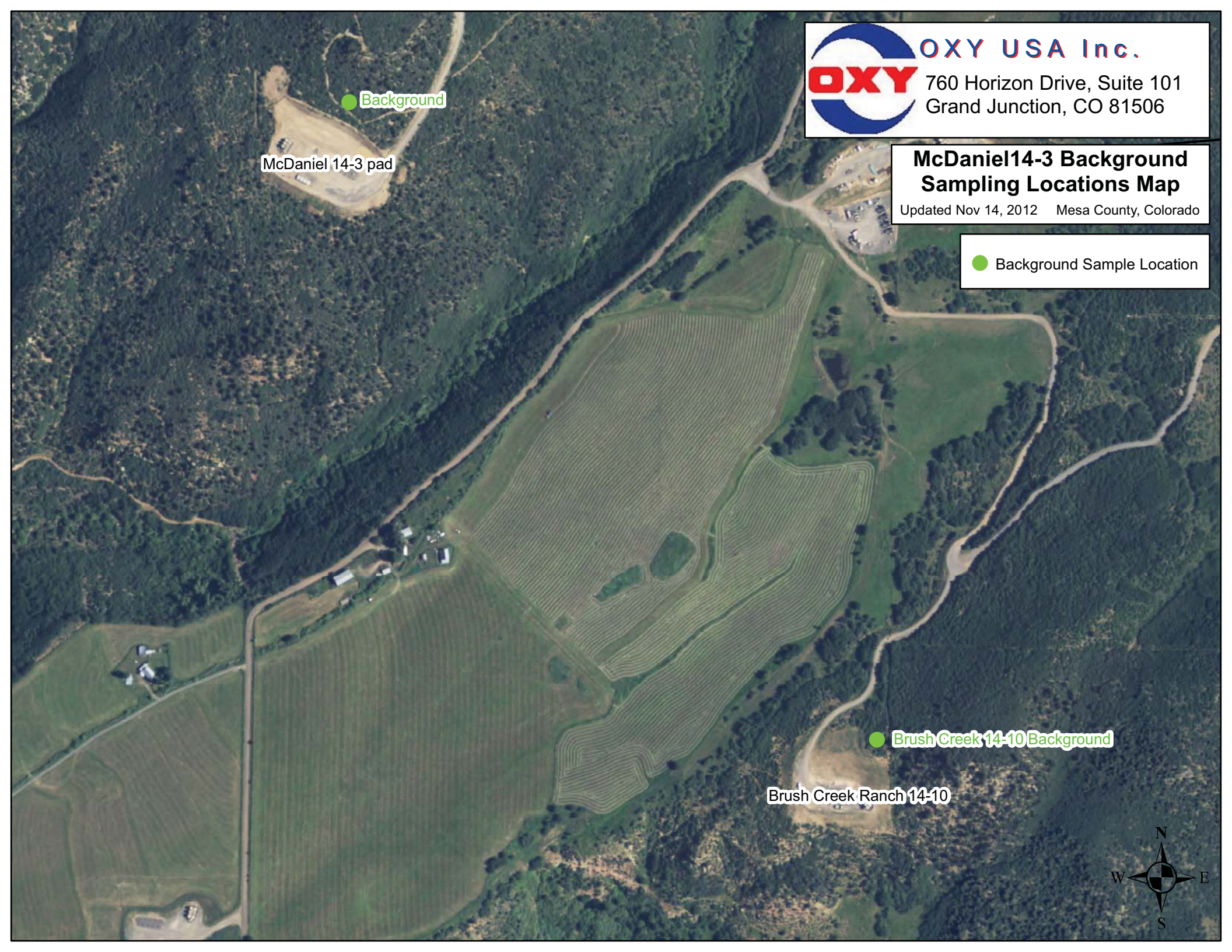
● Background Sample Location

● Background

McDaniel 14-3 pad

● Brush Creek 14-10 Background

Brush Creek Ranch 14-10



Pit Reclaims - Collbran

Pad #:	McDaniel 14-3
Sample Date:	3/27/2009

		Sample Identifications (mg/kg)					
		Lab Report #	L394974	L394974	L394974	L548467	L571201
		Date Sampled	3/27/2009	3/27/2009	3/27/2009	11/22/2011	4/19/2012
		Sample Name	Post Reclaim	Pre-Reclaim (pit)	Background	Cap Sample	Brush Creek 14-10 Background
Organics in Soil	MCL (mg/kg)						
TPH (GRO and DRO)	500	<0.50	0.96	<0.50	U		
Benzene	0.17	<0.0025	0.040	<0.0025	U		
Toluene	85	<0.025	0.038	<0.025	U		
Ethylbenzene	100	<0.0025	0.0026	<0.0025	U		
Xylenes	175	0.0080	0.025	<0.0075	U		
Organics in Soil (PAH's)							
Acenaphthene	1000	<0.033	<0.033	<0.033	0.0027		
Anthracene	1000	<0.033	<0.033	<0.033	0.0025		
Benzo(A)anthracene	0.22	<0.033	<0.033	<0.033	U		
Benzo(B)fluoranthene	0.22	<0.033	<0.033	<0.033	U		
Benzo(K)fluoranthene	2.2	<0.033	<0.033	<0.033	U		
Benzo(A)pyrene	0.022	<0.033	<0.033	<0.033	U		
Chrysene	22	<0.033	<0.033	<0.033	0.0044		
Dibenzo(A,H)anthracene	0.022	<0.033	<0.033	<0.033	U		
Fluoranthene	1000	<0.033	<0.033	<0.033	0.0017		
Flourene	1000	<0.033	<0.033	<0.033	0.0082		
Indeno(1,2,3,C,D)pyrene	0.22	<0.033	<0.033	<0.033	U		
Napthalene	23	<0.033	0.060	<0.033	0.042		
Pyrene	1000	<0.033	<0.033	<0.033	0.0025		
Inorganics in Soil							
EC	<4 mmhos/cm or 2X background	0.870	1.10	0.510	0.460	0.036	
SAR	<12	10.0	31.0	4.7	6.4		
pH	6-9	9.5	11.0	9.1	8.4	6.3	
Metals in Soils							
Arsenic	0.39	0.52	1.4	0.79	U	4.2	
Barium	15000	1900	4700	180	1400		
Boron (Hot Water Soluble)	2 (mg/L)	0.8	2.3	0.2	NA		
Cadmium	70	0.80	0.58	0.86	U		
Chromium	12000	19.0	11.0	15.0	16.0		
Chromium VI	23	<2.0	<2.0	<2.0	U		
Copper	3100	19.0	22.0	17.0	22.0		
Lead	400	9	7.7	9.5	8.0		
Mercury	23	<0.020	<0.020	<0.020	0.01		
Nickel	1600	14.0	10.0	14.0	14.0		
Selenium	390	<1.0	<1.0	<1.0	1.5		
Silver	390	<0.50	<0.50	<0.50	U		
Zinc	23000	44.0	33.0	33.0	59.0		

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

Report Summary

Thursday December 01, 2011

Report Number: L548467

Samples Received: 11/23/11

Client Project: 900546.0005.010

Description: McDaniel 14-3

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
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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

December 01, 2011

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

ESC Sample # : L548467-01

Date Received : November 23, 2011
Description : McDaniel 14-3

Site ID :

Sample ID : MCDANIEL 14-3-CAP SAMPLE 6 IN

Project # : 900546.0005.010

Collected By : LG
Collection Date : 11/22/11 15:30

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	12/01/11	1
Chromium, Trivalent	16.	0.17	2.0	mg/kg		Calc.	11/27/11	1
ORP	120			mV	T8	2580	11/30/11	1
pH	8.4			su		9045D	11/28/11	1
Sodium Adsorption Ratio	6.4					Calc.	11/30/11	1
Specific Conductance	460			umhos/cm		9050AMo	11/30/11	1
Mercury	0.010	0.0015	0.020	mg/kg	J	7471	11/28/11	1
Arsenic	U	0.32	1.0	mg/kg		6010B	11/27/11	1
Barium	1400	0.050	0.25	mg/kg		6010B	11/27/11	1
Cadmium	U	0.040	0.25	mg/kg		6010B	11/27/11	1
Chromium	16.	0.085	0.50	mg/kg		6010B	11/27/11	1
Copper	22.	0.21	1.0	mg/kg		6010B	11/27/11	1
Lead	8.0	0.090	0.25	mg/kg		6010B	11/27/11	1
Nickel	14.	0.26	1.0	mg/kg		6010B	11/27/11	1
Selenium	1.5	0.32	1.0	mg/kg		6010B	11/27/11	1
Silver	U	0.16	0.50	mg/kg		6010B	11/27/11	1
Zinc	59.	0.34	1.5	mg/kg		6010B	11/27/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	11/24/11	5
Surrogate Recovery (70-130) a, a, a-Trifluorotoluene (FID)	97.0			% Rec.		602/801	11/24/11	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	11/24/11	5
Toluene	U	0.0016	0.025	mg/kg		8260B	11/24/11	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	11/24/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	11/24/11	5
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	11/24/11	5
Dibromofluoromethane	103.			% Rec.		8260B	11/24/11	5
a, a, a-Trifluorotoluene	108.			% Rec.		8260B	11/24/11	5
4-Bromofluorobenzene	102.			% Rec.		8260B	11/24/11	5
TPH (GC/FID) High Fraction	U	0.77	4.0	mg/kg		3546/DR	11/29/11	1
Surrogate recovery(%) o-Terphenyl	71.5			% Rec.		3546/DR	11/29/11	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: 12/01/11 14:01 Printed: 12/01/11 14:17

L548467-01 (PH) - 8.35@18.5c



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REPORT OF ANALYSIS

December 01, 2011

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

ESC Sample # : L548467-01

Date Received : November 23, 2011
 Description : McDaniel 14-3

Site ID :

Sample ID : MCDANIEL 14-3-CAP SAMPLE 6 IN

Project # : 900546.0005.010

Collected By : LG
 Collection Date : 11/22/11 15:30

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	0.0025	0.00076	0.0060	mg/kg	J	8270C-S	11/28/11	1
Acenaphthene	0.0027	0.00071	0.0060	mg/kg	J	8270C-S	11/28/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	11/28/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	11/28/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	11/28/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	11/28/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	11/28/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	11/28/11	1
Chrysene	0.0044	0.0011	0.0060	mg/kg	J	8270C-S	11/28/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	11/28/11	1
Fluoranthene	0.0017	0.0010	0.0060	mg/kg	J	8270C-S	11/28/11	1
Fluorene	0.0082	0.00055	0.0060	mg/kg		8270C-S	11/28/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	11/28/11	1
Naphthalene	0.042	0.00065	0.0060	mg/kg		8270C-S	11/28/11	1
Phenanthrene	0.022	0.00074	0.0060	mg/kg		8270C-S	11/28/11	1
Pyrene	0.0025	0.00059	0.0060	mg/kg	J	8270C-S	11/28/11	1
1-Methylnaphthalene	0.045	0.00079	0.0060	mg/kg		8270C-S	11/28/11	1
2-Methylnaphthalene	0.14	0.00059	0.0060	mg/kg		8270C-S	11/28/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	11/28/11	1
Surrogate Recovery								
Nitrobenzene-d5	86.1			% Rec.		8270C-S	11/28/11	1
2-Fluorobiphenyl	77.8			% Rec.		8270C-S	11/28/11	1
p-Terphenyl-d14	88.3			% Rec.		8270C-S	11/28/11	1

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L548467-01 (PH) - 8.35@18.5c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L548467-01	WG567255	SAMP	Mercury	R1948074	J
	WG567393	SAMP	Anthracene	R1948172	J
	WG567393	SAMP	Acenaphthene	R1948172	J
	WG567393	SAMP	Chrysene	R1948172	J
	WG567393	SAMP	Fluoranthene	R1948172	J
	WG567393	SAMP	Pyrene	R1948172	J
	WG567573	SAMP	ORP	R1950672	T8

Attachment B
Explanation of QC Qualifier Codes

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



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

Grand Junction, CO 81506

Report Summary

Wednesday April 01, 2009

Report Number: L394974

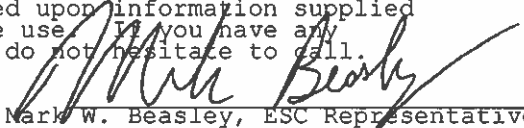
Samples Received: 03/28/09

Client Project:

Description: Pit Reclaims-Coll Bran

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

Entire Report Reviewed By:


Mark W. Beasley, ESC Representative

Laboratory Certification Numbers

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GA - 923, IN - C-TN-01, KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140
NJ - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233
AZ - 0612, MN - 047-999-395, NY - 11742, WI - 998093910

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REPORT OF ANALYSIS

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

April 01, 2009

Date Received : March 28, 2009
Description : Pit Reclaims-Coll Bran
Sample ID : MCDANIEL 14-3-BG 0-6FT
Collected By : Brett Kennedy
Collection Date : 03/27/09 15:00

ESC Sample # : L394974-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/01/09	1
ORP	180		mV	2580	03/30/09	1
pH	9.1		su	9045D	03/31/09	1
Sodium Adsorption Ratio	4.7			Calc.	04/01/09	1
Specific Conductance	510		umhos/cm	9050AMod	03/30/09	1
Mercury	BDL	0.020	mg/kg	7471	03/30/09	1
Arsenic	BDL	1.0	mg/kg	6010B	03/31/09	1
Barium	180	0.25	mg/kg	6010B	03/31/09	1
Cadmium	0.86	0.25	mg/kg	6010B	03/31/09	1
Chromium	15.	0.50	mg/kg	6010B	03/31/09	1
Copper	17.	1.0	mg/kg	6010B	03/31/09	1
Lead	9.5	0.25	mg/kg	6010B	03/31/09	1
Nickel	14.	1.0	mg/kg	6010B	03/31/09	1
Selenium	BDL	1.0	mg/kg	6010B	03/31/09	1
Silver	BDL	0.50	mg/kg	6010B	03/31/09	1
Zinc	46.	1.5	mg/kg	6010B	03/31/09	1
Benzene	BDL	0.0025	mg/kg	8021/8015	03/31/09	5
Toluene	BDL	0.025	mg/kg	8021/8015	03/31/09	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	03/31/09	5
Total Xylene	BDL	0.0075	mg/kg	8021/8015	03/31/09	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	03/31/09	5
Surrogate Recovery-%						
a, a, a-Trifluorotoluene (FID)	100.		% Rec.	8021/8015	03/31/09	5
a, a, a-Trifluorotoluene (PID)	107.		% Rec.	8021/8015	03/31/09	5
TPH (GC/FID) High Fraction	BDL	4.0	mg/kg	3546/DRO	04/01/09	1
Surrogate recovery(%)						
o-Terphenyl	73.8		% Rec.	3546/DRO	04/01/09	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Acenaphthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo (a) anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo (a) pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo (b) fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo (g, h, i) perylene	BDL	0.033	mg/kg	8270C	03/30/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit (PQL)
L394974-01 (PH) - 9.1@19.4c



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REPORT OF ANALYSIS

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

April 01, 2009

Date Received : March 28, 2009
Description : Pit Reclaims-Coll Bran
Sample ID : MCDANIEL 14-3-BG 0-6FT
Collected By : Brett Kennedy
Collection Date : 03/27/09 15:00

ESC Sample # : L394974-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Chrysene	BDL	0.033	mg/kg	8270C	03/30/09	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Fluorene	BDL	0.033	mg/kg	8270C	03/30/09	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/30/09	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Surrogate Recovery						
Nitrobenzene-d5	75.1		% Rec.	8270C	03/30/09	1
2-Fluorobiphenyl	66.8		% Rec.	8270C	03/30/09	1
p-Terphenyl-d14	67.1		% Rec.	8270C	03/30/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

Note:

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L394974-01 (PH) - 9.1@19.4c



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REPORT OF ANALYSIS

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

April 01, 2009

Date Received : March 28, 2009
Description : Pit Reclaims-Coll Bran
Sample ID : MCDANIEL 14-3-PRE-REC 0-6FT
Collected By : Brett Kennedy
Collection Date : 03/27/09 15:15

ESC Sample # : L394974-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/01/09	1
ORP	120		mV	2580	03/30/09	1
pH	11.		su	9045D	03/31/09	1
Sodium Adsorption Ratio	31.			Calc.	04/01/09	1
Specific Conductance	1100		umhos/cm	9050AMod	03/30/09	1
Mercury	BDL	0.020	mg/kg	7471	03/30/09	1
Arsenic	1.4	1.0	mg/kg	6010B	03/31/09	1
Barium	4700	1.2	mg/kg	6010B	03/31/09	5
Cadmium	0.58	0.25	mg/kg	6010B	03/31/09	1
Chromium	11.	0.50	mg/kg	6010B	03/31/09	1
Copper	22.	1.0	mg/kg	6010B	03/31/09	1
Lead	7.7	0.25	mg/kg	6010B	03/31/09	1
Nickel	10.	1.0	mg/kg	6010B	03/31/09	1
Selenium	BDL	1.0	mg/kg	6010B	03/31/09	1
Silver	BDL	0.50	mg/kg	6010B	03/31/09	1
Zinc	33.	1.5	mg/kg	6010B	03/31/09	1
Benzene	0.040	0.0025	mg/kg	8021/8015	03/31/09	5
Toluene	0.038	0.025	mg/kg	8021/8015	03/31/09	5
Ethylbenzene	0.0026	0.0025	mg/kg	8021/8015	03/31/09	5
Total Xylene	0.025	0.0075	mg/kg	8021/8015	03/31/09	5
TPH (GC/FID) Low Fraction	0.96	0.50	mg/kg	GRO	03/31/09	5
Surrogate Recovery-%						
a, a, a-Trifluorotoluene (FID)	99.1		% Rec.	8021/8015	03/31/09	5
a, a, a-Trifluorotoluene (PID)	106.		% Rec.	8021/8015	03/31/09	5
TPH (GC/FID) High Fraction	9.2	4.0	mg/kg	3546/DRO	03/30/09	1
Surrogate recovery(%)						
o-Terphenyl	71.1		% Rec.	3546/DRO	03/30/09	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Acenaphthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/30/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit (PQL)
L394974-02 (PH) - 11.1@19.6c



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REPORT OF ANALYSIS

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

April 01, 2009

Date Received : March 28, 2009
Description : Pit Reclaims-Coll Bran
Sample ID : MCDANIEL 14-3-PRE-REC 0-6FT
Collected By : Brett Kennedy
Collection Date : 03/27/09 15:15

ESC Sample # : L394974-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo(k)fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Chrysene	BDL	0.033	mg/kg	8270C	03/30/09	1
Dibenz(a,h)anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Fluorene	BDL	0.033	mg/kg	8270C	03/30/09	1
Indeno(1,2,3-cd)pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Naphthalene	0.060	0.033	mg/kg	8270C	03/30/09	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Surrogate Recovery						
Nitrobenzene-d5	66.4		% Rec.	8270C	03/30/09	1
2-Fluorobiphenyl	70.7		% Rec.	8270C	03/30/09	1
p-Terphenyl-d14	66.5		% Rec.	8270C	03/30/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

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REPORT OF ANALYSIS

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

April 01, 2009

Date Received : March 28, 2009
Description : Pit Reclaims-Coll Bran
Sample ID : MCDANIEL 14-3-POST-REC 0-6FT
Collected By : Brett Kennedy
Collection Date : 03/27/09 15:30

ESC Sample # : L394974-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Chromium, Hexavalent	BDL	2.0	mg/kg	3060A/7196A	04/01/09	1
ORP	150		mV	2580	03/30/09	1
pH	9.5		su	9045D	03/31/09	1
Sodium Adsorption Ratio	10.			Calc.	04/01/09	1
Specific Conductance	870		umhos/cm	9050AMod	03/30/09	1
Mercury	BDL	0.020	mg/kg	7471	03/30/09	1
Arsenic	BDL	1.0	mg/kg	6010B	03/31/09	1
Barium	1900	0.25	mg/kg	6010B	03/31/09	1
Cadmium	0.80	0.25	mg/kg	6010B	03/31/09	1
Chromium	14.	0.50	mg/kg	6010B	03/31/09	1
Copper	19.	1.0	mg/kg	6010B	03/31/09	1
Lead	9.0	0.25	mg/kg	6010B	03/31/09	1
Nickel	14.	1.0	mg/kg	6010B	03/31/09	1
Selenium	BDL	1.0	mg/kg	6010B	03/31/09	1
Silver	BDL	0.50	mg/kg	6010B	03/31/09	1
Zinc	44.	1.5	mg/kg	6010B	03/31/09	1
Benzene	BDL	0.0025	mg/kg	8021/8015	03/31/09	5
Toluene	BDL	0.025	mg/kg	8021/8015	03/31/09	5
Ethylbenzene	BDL	0.0025	mg/kg	8021/8015	03/31/09	5
Total Xylene	0.0080	0.0075	mg/kg	8021/8015	03/31/09	5
TPH (GC/FID) Low Fraction	BDL	0.50	mg/kg	GRO	03/31/09	5
Surrogate Recovery-%						
a, a, a-Trifluorotoluene (FID)	100.		% Rec.	8021/8015	03/31/09	5
a, a, a-Trifluorotoluene (PID)	107.		% Rec.	8021/8015	03/31/09	5
TPH (GC/FID) High Fraction	7.0	4.0	mg/kg	3546/DRO	03/30/09	1
Surrogate recovery(%)						
o-Terphenyl	71.0		% Rec.	3546/DRO	03/30/09	1
Polynuclear Aromatic Hydrocarbons						
Anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Acenaphthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Acenaphthylene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(a)anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(a)pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(b)fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Benzo(g,h,i)perylene	BDL	0.033	mg/kg	8270C	03/30/09	1

BDL - Below Detection Limit
Det. Limit - Practical Quantitation Limit (PQL)
L394974-03 (PH) - 9.5@18.5c



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REPORT OF ANALYSIS

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

April 01, 2009

Date Received : March 28, 2009
Description : Pit Reclaims-Coll Bran
Sample ID : MCDANIEL 14-3-POST-REC 0-6FT
Collected By : Brett Kennedy
Collection Date : 03/27/09 15:30

ESC Sample # : L394974-03
Site ID :
Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Benzo (k) fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Chrysene	BDL	0.033	mg/kg	8270C	03/30/09	1
Dibenz (a,h) anthracene	BDL	0.033	mg/kg	8270C	03/30/09	1
Fluoranthene	BDL	0.033	mg/kg	8270C	03/30/09	1
Fluorene	BDL	0.033	mg/kg	8270C	03/30/09	1
Indeno (1,2,3-cd) pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Naphthalene	BDL	0.033	mg/kg	8270C	03/30/09	1
Phenanthrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Pyrene	BDL	0.033	mg/kg	8270C	03/30/09	1
Surrogate Recovery						
Nitrobenzene-d5	80.3		% Rec.	8270C	03/30/09	1
2-Fluorobiphenyl	72.4		% Rec.	8270C	03/30/09	1
p-Terphenyl-d14	72.9		% Rec.	8270C	03/30/09	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit (PQL)

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L394974-03 (PH) - 9.5@18.5c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L394974-01	WG414272	SAMP	Arsenic	R689031	J6
	WG414272	SAMP	Barium	R689031	J6B
	WG414272	SAMP	Cadmium	R689031	J6
	WG414272	SAMP	Chromium	R689031	J6
	WG414272	SAMP	Selenium	R689031	P1
	WG414272	SAMP	Zinc	R689031	J6
L394974-02	WG414272	SAMP	Barium	R689031	B
L394974-03	WG414272	SAMP	Barium	R689031	B

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.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

Qualifier Report Information

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

Definitions

- Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.
- Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.
- Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.
- TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.



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

Report Summary

Thursday April 26, 2012

Report Number: L571201

Samples Received: 04/20/12

Client Project:

Description: Brush Creek Ranch 14-10 BG 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 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT127 6IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:38

ESC Sample # : L571201-01
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.3			su	T8	9045D	04/25/12	1
Specific Conductance	36.			umhos/cm		9050AMo	04/24/12	1
Arsenic	4.2	0.32	1.0	mg/kg		6010B	04/26/12	1

U = ND (Not Detected)
 MDL = Minimum Detection Limit = LOD
 RDL = Reported Detection Limit = LOQ = PQL = EQL
 Note:

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 L571201-01 (PH) - 6.3@19.4c



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REPORT OF ANALYSIS

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April 26, 2012

Date Received : April 20, 2012
Description : Brush Creek Ranch 14-10 BG Sampling
Sample ID : BG-PT127 6IN
Collected By : Lilly Griffin
Collection Date : 04/19/12 10:38

ESC Sample # : L571201-02
Site ID : BCR 14-10
Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	3.4	0.32	1.0	mg/kg		6010B	04/26/12	1

U = ND (Not Detected)
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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 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT128 6IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:44

ESC Sample # : L571201-03
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.8			su	T8	9045D	04/25/12	1
Specific Conductance	46.			umhos/cm		9050AMo	04/24/12	1
Arsenic	3.2	0.32	1.0	mg/kg		6010B	04/26/12	1

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 L571201-03 (PH) - 6.8@19.2c



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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 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT128 6IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:44

ESC Sample # : L571201-04
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	3.1	0.32	1.0	mg/kg		6010B	04/26/12	1

U = ND (Not Detected)
 MDL = Minimum Detection Limit = LOD
 RDL = Reported Detection Limit = LOQ = PQL = EQL
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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 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT129 10IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:50

ESC Sample # : L571201-05
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.0			su	T8	9045D	04/25/12	1
Specific Conductance	43.			umhos/cm		9050AMo	04/24/12	1
Arsenic	3.5	0.32	1.0	mg/kg		6010B	04/26/12	1

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 RDL = Reported Detection Limit = LOQ = PQL = EQL
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 760 Horizon Dr., Ste. 101
 Grand Junction, CO 81506

April 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT129 10IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:50

ESC Sample # : L571201-06
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	3.1	0.32	1.0	mg/kg		6010B	04/25/12	1

U = ND (Not Detected)
 MDL = Minimum Detection Limit = LOD
 RDL = Reported Detection Limit = LOQ = PQL = EQL
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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 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT130 10IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:58

ESC Sample # : L571201-07
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.1			su	T8	9045D	04/25/12	1
Specific Conductance	33.			umhos/cm		9050AMo	04/24/12	1
Arsenic	2.6	0.32	1.0	mg/kg		6010B	04/25/12	1

U = ND (Not Detected)
 MDL = Minimum Detection Limit = LOD
 RDL = Reported Detection Limit = LOQ = PQL = EQL
 Note:

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Reported: 04/26/12 12:47 Printed: 04/26/12 12:48
 L571201-07 (PH) - 6.1@18.9c



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

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April 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT130 10IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:58

ESC Sample # : L571201-08
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	2.9	0.32	1.0	mg/kg		6010B	04/25/12	1

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April 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT131 6IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 11:05

ESC Sample # : L571201-09
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.4			su	T8	9045D	04/25/12	1
Specific Conductance	93.			umhos/cm		9050AMo	04/24/12	1
Arsenic	3.2	0.32	1.0	mg/kg		6010B	04/25/12	1

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 L571201-09 (PH) - 6.4@19.6c



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April 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT131 6IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 11:05

ESC Sample # : L571201-10
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	3.5	0.32	1.0	mg/kg		6010B	04/25/12	1

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 OXY USA Inc - Grand Junction, CO
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April 26, 2012

Date Received : April 20, 2012
 Description : Brush Creek Ranch 14-10 BG Sampling
 Sample ID : BG-PT126 8IN
 Collected By : Lilly Griffin
 Collection Date : 04/19/12 10:30

ESC Sample # : L571201-11
 Site ID : BCR 14-10
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.4			su	T8	9045D	04/25/12	1
Specific Conductance	75.			umhos/cm		9050AMo	04/24/12	1
Arsenic	4.8	0.32	1.0	mg/kg		6010B	04/25/12	1

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 L571201-11 (PH) - 6.4@19.9c



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REPORT OF ANALYSIS

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

April 26, 2012

Date Received : April 20, 2012
Description : Brush Creek Ranch 14-10 BG Sampling
Sample ID : BG-PT126 8IN
Collected By : Lilly Griffin
Collection Date : 04/19/12 10:30

ESC Sample # : L571201-12
Site ID : BCR 14-10
Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	4.6	0.32	1.0	mg/kg		6010B	04/25/12	1

U = ND (Not Detected)
MDL = Minimum Detection Limit = LOD
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Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L571201-01	WG589378	SAMP	pH	R2141715	T8
L571201-03	WG589378	SAMP	pH	R2141715	T8
L571201-05	WG589381	SAMP	pH	R2141733	T8
L571201-07	WG589381	SAMP	pH	R2141733	T8
L571201-09	WG589381	SAMP	pH	R2141733	T8
L571201-11	WG589381	SAMP	pH	R2141733	T8

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
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
04/26/12 at 12:48:10

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L571201-01 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-02 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-03 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-04 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-05 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-06 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-07 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-08 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-09 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-10 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-11 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47
Sample: L571201-12 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/26/12 12:47



Fwd: McDaniel 14-3 Reserve Pit Closure (Location ID: 334198), Reference Document No: 2221492

1 message

Lujan - DNR, Carlos <carlos.lujan@state.co.us>

Tue, Feb 12, 2013 at 12:17 PM

To: "EnviroScan, OGCC" <OGCC.EnviroScan@state.co.us>

Cc: Alex Fischer <alex.fischer@state.co.us>, Blair Rollins <Blair_Rollins@oxy.com>, Daniel Padilla <Daniel_Padilla@oxy.com>, Chris Clark <Chris_Clark@oxy.com>

Amber,

Please upload the attached document "McDaniel 14-3 Supporting documentation 11.16.12" and this email and link to:

Location ID # 334198

API # 077 09116

Thanks,

Blair,

Thanks for sending the narrative that Linda requested. No Further Action is required at this time regarding the McDaniel 14-3 reserve pit closure.

Based on review of data presented, it appears that no further action is necessary at this time at this site. However, should future conditions at the site be discovered of contaminant concentrations in soils exceeding COGCC standards or if groundwater is found to be significantly impacted, COGCC may require that further investigation and/or remediation be conducted.

Note: This Sundry was approved on 12/12/2012.

Thanks,
Carlos

----- Forwarded message -----

From: **Fischer, Alex** <alex.fischer@state.co.us>

Date: Mon, Nov 19, 2012 at 10:56 AM

Subject: Re: McDaniel 14-3 Reserve Pit Closure (Location ID: 334198), Reference Document No: 2221492

To: Blair Rollins <brollins@walshenv.com>

Cc: "Canfield, Chris" <Chris.Canfield@state.co.us>, "Lujan, Carlos" <Carlos.Lujan@state.co.us>, "Chris_Clark@oxy.com" <Chris_Clark@oxy.com>, "Daniel_Padilla@oxy.com" <Daniel_Padilla@oxy.com>

Blair,

Thanks. We will review.

Alex

On Fri, Nov 16, 2012 at 2:59 PM, Blair Rollins <brollins@walshenv.com> wrote:

Dear Mr. Fischer,

Oxy submitted a sundry notice documenting closure of the McDaniel 14-3 reserve pit on December 7, 2011, reference document #2221492. Following review of the sundry notice and discussion during the Oxy and COGCC August 22, 2012 Legacy Pit Closure meeting, additional sampling details were requested for the pit closure via email on October 17, 2012. Oxy is providing you the following reserve pit closure documentation for the above referenced location. Oxy attempts to capture in this email, the associated correspondence and resolution to provide adequate closure documentation for the McDaniel 14-3 reserve pit.

The COGCC document #2221492 did not provide closure documentation guidance following review. Oxy is therefore following the closure procedures outlined in the August 22, 2012 meeting and providing you with this email to support the December 7, 2011 sundry notice (document #2221492). Included as part of the reserve pit closure documentation:

- McDaniel 14-3 reserve pit sampling narrative
- McDaniel 14-3 reserve pit tabulated data
- Supporting lab analytical data package reflecting the tabulated data
- McDaniel 14-3 sampling map

Please let Daniel or me know if sufficient information has been provided to close the reserve pit or if you require additional information.

Thank you,

Blair Rollins

Environmental Scientist

Walsh Environmental Scientists and Engineers, LLC.

535 Grand Avenue

Grand Junction, CO 81501

Cell: (970) 261-1224

—
Alex Fischer, P.G.

Environmental Supervisor, Western Colorado

State of Colorado, Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801

Denver, Colorado 80203

office: 303.894-2100 ext. 5138 | fax: 303.894-2109

email: alex.fischer@state.co.us

Carlos A. Luján, Ph.D

Groundwater Hydrologist

Cell: (720) 272-2306

**Colorado Oil & Gas Conservation
Commission**

1120 Lincoln Street, Suite 801, Denver, CO
80203

(303) 894-2100 Ext. 5105

Carlos.lujan@state.co.us



Please consider the environment prior to printing this e-mail...

 **McDaniel 14-3 Supporting documentation 11.16.12.pdf**
1226K