

FORM
4
Rev 12/05

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
#2224459

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
11/20/2012

Re submitted
11/20/2012

1. OGCC Operator Number: 66561	4. Contact Name: Daniel I. Padilla	Complete the Attachment Checklist OP OGCC
2. Name of Operator: OXY USA Inc.	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 05-077-09681	OGCC Facility ID Number 334445(Facility ID)	Survey Plat
6. Well/Facility Name: Griffith 11-2 Reserve Pit	7. Well/Facility Number 11-2	Directional Survey
8. Location (Qtr/qr, Sec, Twp, Rng, Meridian): NWNE, Sec 11, T9S, R94W, 6th PM		Surface Eqpm Diagram
9. County: Mesa	10. Field Name: Brush Creek	Technical Info Page
11. Federal, Indian or State Lease Number:		Other Lab data, Map

General Notice

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

Technical Engineering/Environmental Notice

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

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
Print Name: Daniel I. PadillaDate: 5/9/12 Email: daniel_padilla@oxy.com
Title: Regulatory AdvisorCOGCC Approved: Carol Foyes
CONDITIONS OF APPROVAL, IF ANY:Title: FOR Date: 02/12/2013

Alex Fischer
Supervisor
Western Region

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

- | | |
|--|----------------------------|
| 1. OGCC Operator Number: 66561 | API Number: 05-077-09681 |
| 2. Name of Operator: OXY USA Inc. | OGCC Facility ID #: 334445 |
| 3. Well/Facility Name: Griffith 11-2 Reserve Pit | Well/Facility Number: 11-2 |
| 4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NWNE, Sec 11, T9S, R94W, 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 Inc. (Oxy) has completed reclamation of the above-mentioned reserve pit. Oxy identified post reclamation levels for Arsenic (As) to be above table 910-1, but below undisturbed 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 nearby areas, 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 (08/25/2010, 12/08/2011, 04/19/2012), and Oxy's post reclamation concentrations (post reclaim 08/25/2010). The post reclaim concentrations of As are below those found in background samples.

To address elevated concentrations of SAR, Oxy will cap the pit below at least three feet of native material to ensure a sufficient agronomic zone. Oxy backfilled and graded the pit to be level with the working surface of the pad. Therefore final pit capping and pad reclamation will occur at the end of the life of the pad.

Based on review of data presented, it appears that no further action is necessary at this time at this site. Reclamation has not been completed yet. Please ensure that reclamation is completed as indicated in this Form 27, and according to the 1000 Series of the COGCC Rules and Regulations. Reclamation activities should be completed preferably in spring and at the most by end of September 2011.

Griffith 11-2 Reserve Pit (Location ID: 334495) Reclamation and Closure Sampling Narrative

Outlined below is the Griffith 11-2 reserve pit sampling narrative. This is being provided in support of Oxy's Griffith 11-2 Sundry Notice reserve pit closure documentation. The narrative details what closure, and background samples were taken, where they were taken and for what purpose.

Post Reclaim Sample 8/25/2010 (L475917)

- Oxy removed the pit liner and mixed the pit bottom with a back hoe. Oxy then collected a five-point composite post reclaim sample of the pit bottom, which was consistent with practices conducted at time of closure (2010). The post reclaim samples were taken along the length of the pit between 6-8 inches at the pit bottom, which was approximately 10' feet below the pad surface. The post reclaim sample is represented in the post reclaim tabulated data spreadsheet, in the first column and labeled as "Post Reclaim" for Sample Type. The post reclaim sample date was 8/25/2010 and the Sample ID from the data tabulation is Griffith 11-2 Post Rec 6-8 IN. These samples are shown on the Griffith 11-2 Closure Sampling Map as a black dot and are referenced in the legend as Pit Sample. The sample values for this sample can be found within the attached lab report L475917 on pages 2 and 3 as sample ID Griffith 11-2 Post Rec 6-8 IN.
- Initial Post Reclaim values showed elevated concentrations for sodium adsorption ratio (SAR) and arsenic (As).

Cap and Soil Pile samples 9/8/2010 and 10/1/2010 (L478000 and L481950)

- Prior to backfilling the pit, Oxy collected soil samples from material on location to verify these soil piles would be adequate capping material. The cap and soil pile samples are represented in the post reclaim tabulated data spreadsheet in columns 14, 15, and 16 and labeled "Cap" or "Soil Pile" for Sample Type. These samples were collected on 9/8/2010 and 10/1/2010 and the Sample ID from the tabulated data is Cap and Soil Pile. The sample value for the 9/8/2010 sample can be found within the attached lab reports L478000 on page 2 as sample ID Griffith 11-2 Cap 0-6 IN. The sample values for the 10/1/2010 Cap and Soil pile samples can be found on the attached lab report L481950 on pages 2 and 3 as sample ID's Griffith 11-2 Cap 0-6IN and Soil Pile 11-2 0-6IN.
- Cap and Soil pile values showed elevated concentrations for SAR. Oxy will therefore cap the reserve pit with at least three feet of native material to ensure a sufficient agronomic zone is provided at the end of the life of the pad.

Fill Sample 11/1/2010 (L486809)

- Oxy backfilled the pit with stockpiled native clean material to pad grade (6-10 feet deep). Oxy collected five individual grab samples of the fill material and analyzed them only for the analyte exceedances found in the post reclaim samples, specifically SAR as outlined above, since the fill material will serve as a cap for the elevated value of SAR found in the reclaimed pit bottom. The fill samples are represented in the tabulated data spreadsheet in the 17th through the 21st columns and labeled as "Fill" for Sample Type on the attached pit reclaim table. The fill samples dates were November 2, 2012 and the Sample ID from the data tabulation is #1 Fill, #2 Fill, #3 Fill, #4 Fill, and #5 Fill. The samples are shown on the Griffith 11-2 Closure Sampling Map as black dots with blue labels and are referenced in the legend as Pit Samples. The lab data report for these samples is attached.

Sample values can be found on lab report L486809 on pages 2 through 6 as sample ID Griffith 11-2 #1 Fill, Griffith 11-2 #2 Fill, Griffith 11-2 #3 Fill, Griffith 11-2 #4 Fill, and Griffith 11-2 #5 Fill.

- The fill samples were tested for SAR since this was the only analyte exceedance found in the post reclaim sample. The SAR value for all fill samples was found to be below the COGCC's table 910-1 allowable concentrations.

Background Samples 8/25/2010, 12/8/2011, and 4/16/2012 (L475917, L551143, and 571147)

- In an effort to identify elevated concentrations of naturally occurring As similar to that which was previously identified in the Post Reclaim and Fill samples, Oxy collected multiple grab samples from native undisturbed areas around the pad and area. The samples were collected at various depths ranging between 0 – 12 inches. Oxy collected four grab samples from native background soil on 8/25/2010 at depths of 0 – 12 inches. Oxy collected two additional grab samples from native undisturbed locations on 12/8/2011 at depths ranging from 0 – 12. Oxy also collected six grab samples from native background soil on 4/16/2012 at depths ranging from 0 – 12 inches. Based on the many sampling events, Oxy identified As concentrations ranging between 1.0 – 9.5 mg/kg in native background locations. Oxy believes these results prove the As values found in the post reclaim samples of the pit bottom are naturally occurring and demonstrate the highly variable As values in this region. Oxy assumes the soil in the area is such that, As precipitates down through the soil profile where it meets a soil inclusion (likely bedrock) that catches or holds the As. This would explain the higher As values found at pit bottom and at depths of 10-14 ft in background samples. Please reference the attached tabulated data spreadsheet.
- The first set of grab background samples were collected on 08/25/2010 and can be found in the 2nd – 5th columns of the tabulated data spreadsheet. The sample names from the data tabulation are Background – N, Background – E, Background – S, and Background – W. These samples are shown on the Griffith 11-2 Closure Sampling Map as green dots with labels and are referenced in the legend as Background Sample. The sample values can be found on lab report L475917 on pages 4-7 as sample ID's Griffith 11-2 BG-N 0-6IN, Griffith 11-2 BG-E 0-6IN, Griffith 11-2 BG-S 0-6IN, Griffith 11-2 BG-W 0-6IN.
- The second set of grab background samples were collected on 12/8/2011 and can be found in the 6th and 7th columns of the tabulated data spreadsheet. The sample names from the data tabulation are Griffith 11-2 BG-CS and Griffith 11-2 BG-SE. These samples are shown on the Griffith 11-2 Closure Sampling Map as green dots with labels and are referenced in the legend as Background Sample. The sample values can be found on lab report L551143 on pages 2-5 as sample ID's Griffith 1-2 BG-CS and Griffith 11-2 BG-SE.
- The final set of grab background samples were collected from an adjacent well pad on 04/19/2012 and can be found in the 8th – 13th columns of the tabulated data spreadsheet. Each sample was analyzed two separate times for As, as depicted by the two As values for each sample. The sample names from the data tabulation are McDaniel 11-11 Pt 138, McDaniel 11-11 Pt 139, McDaniel 11-11 Pt 140, McDaniel 11-11 Pt 142, McDaniel 11-11 Pt 143, and McDaniel 11-11 Pt 150. These samples are shown on the Griffith 11-2 Closure Sampling Map with McDaniel Close-Up map as green dots with labels and are referenced in the legend as Background Samples. The sample values can be found on lab report L571147 on pages 2-13 as sample ID's BG-N. Most-Pt 138, BG-NW-Pt 139, BG-NE-Pt 140, BG-SE-Pt 142, BG-S. Most-Pt 143, BG-S. Most-Pt 150.

- This sampling effort yielded background As concentrations above those found in Post Reclaim sample (8/25/2010).

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 mitigated using a cap to ensure a sufficient agronomic zone, or were found to be below native background concentration levels (As). Oxy will continue to monitor this site for stormwater compliance until final pad reclamation has occurred.

Pit Reclaims - Collbran

Pad #:	Griffith 11-2
Sample Date:	8/25/2010
Clearance Achieved Date:	

		Sample Identifications (mg/kg)																				
Sample Type		Post Reclaim	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Cap	Cap	Soil Pile	Fill	Fill	Fill	Fill	Fill	
Lab Report		L475917	L475917	L475917	L475917	L475917	L551143	L551143	L571147	L571147	L571147	L571147	L571147	L478000	L481950	L481950	L486809	L486809	L486809	L486809	L486809	
Date Sampled		8/25/2010	8/25/2010	8/25/2010	8/25/2010	8/25/2010	12/8/2012	12/8/2012	4/19/2012	4/19/2012	4/19/2012	4/19/2012	4/19/2012	9/8/2010	10/1/2010	10/1/2010	11/2/2010	11/2/2010	11/2/2010	11/2/2010	11/2/2010	
Sample Name		Post Reclaim	Background - N	Background - E	Background - S	Background - W	Griffith 11-2 BG-CS	Griffith 11-2 BG-SE	McDaniel 11-11 Pt 140	McDaniel 11-11 Pt 150	McDaniel 11-11 Pt 138	McDaniel 11-11 Pt 142	McDaniel 11-11 Pt 143	McDaniel 11-11 Pt 138	Cap	Cap	Cap	#1 Fill	#2 Fill	#3 Fill	#4 Fill	#5 North
Organics in Soil	MCL (mg/kg)																					
TPH (GRO and DRO)	500	50.0					U	0.95														
Benzene	0.17	<0.0090					U	U														
Toluene	85	<0.0015					U	U														
Ethylbenzene	100	0.0026					U	U														
Xylenes	175	0.0034					U	U														
Organics in Soil (PAH's)																						
Acenaphthene	1000	<0.011					U	U														
Anthracene	1000	<0.0093					U	U														
Benzo(A)anthracene	0.22	<0.0077					U	U														
Benzo(B)fluoranthene	0.22	<0.0078					U	U														
Benzo(K)fluoranthene	2.2	<0.012					U	U														
Benzo(A)pyrene	0.022	<0.0074					U	U														
Chrysene	22	<0.0091					U	U														
Dibenzo(A,H)anthracene	0.022	<0.011					U	U														
Fluoranthene	1000	<0.0079					U	U														
Fluorene	1000	0.013					U	U														
Indeno(1,2,3,C,D)pyrene	0.22	<0.011					U	U														
Napthalene	23	0.064					U	U														
Pyrene	1000	<0.0089					U	U														
Inorganics in Soil																						
EC	<4 mmhos/cm or 2X background	1.60	0.290	0.280	0.240	0.230	0.210	0.051	0.130	0.150	0.130	0.110	0.099	0.100	20.00	20.00	17.00	8.30	9.70	4.30	5.00	5.7
SAR	<12	25.0	0.50	0.60	0.90	0.30	1.50	0.60														
pH	6-9	8.8	7.0	7.2	6.7	6.3	8.9	6.5	7.9	7.8	7.8	7.9	7.9	7.8								
Metals in Soils																						
Arsenic	0.39	8.6	3.9	6.4	4.9	5.0	1.7	4.2	9.5	8.6	<1.0	7.1	5.0	1.4	NA	NA	NA	NA	NA	NA	NA	NA
Arsenic (2)	0.39	NA	NA	NA	NA	NA	NA	NA	6.0	8.7	2.0	4.3	6.1	1.7								
Barium	15000	5200					140	150														
Boron (Not Applicable)	2 (mg/L)	-					NA	NA														
Cadmium	70	0.16					0.6	0.3														
Chromium	12000	18.0					12.0	13.0														
Chromium VI	23	<0.31					U	U														
Copper	3100	16.0					9.8	12.0														
Lead	400	14.0					7.6	8.2														
Mercury	23	0.027					0.016	0.009														
Nickel	1600	12.0					9.7	9.4														
Selenium	390	<1.6					U	0.62														
Silver	390	<0.16					U	1.1														
Zinc	23000	47.0					43.0	40.0														



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

Griffith 11- 2 Closure Sampling Map

Mesa County, Colorado

0 0.01 0.02 0.03 0.04 Miles



Pit Area



Pit Sample



Background Sample

BG-CS-N

Sample Identification



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

**Griffith 11- 2 Closure Sampling Map
With McDaniel Close-up**

Mesa County, Colorado

0 0.01 0.02 0.03 0.04 Miles

BG - PT 138 ●

● BG - PT 139

BG - PT 140 ●

● BG - PT 141

BG - PT 142 ●

● BG - PT 143



Pit Area



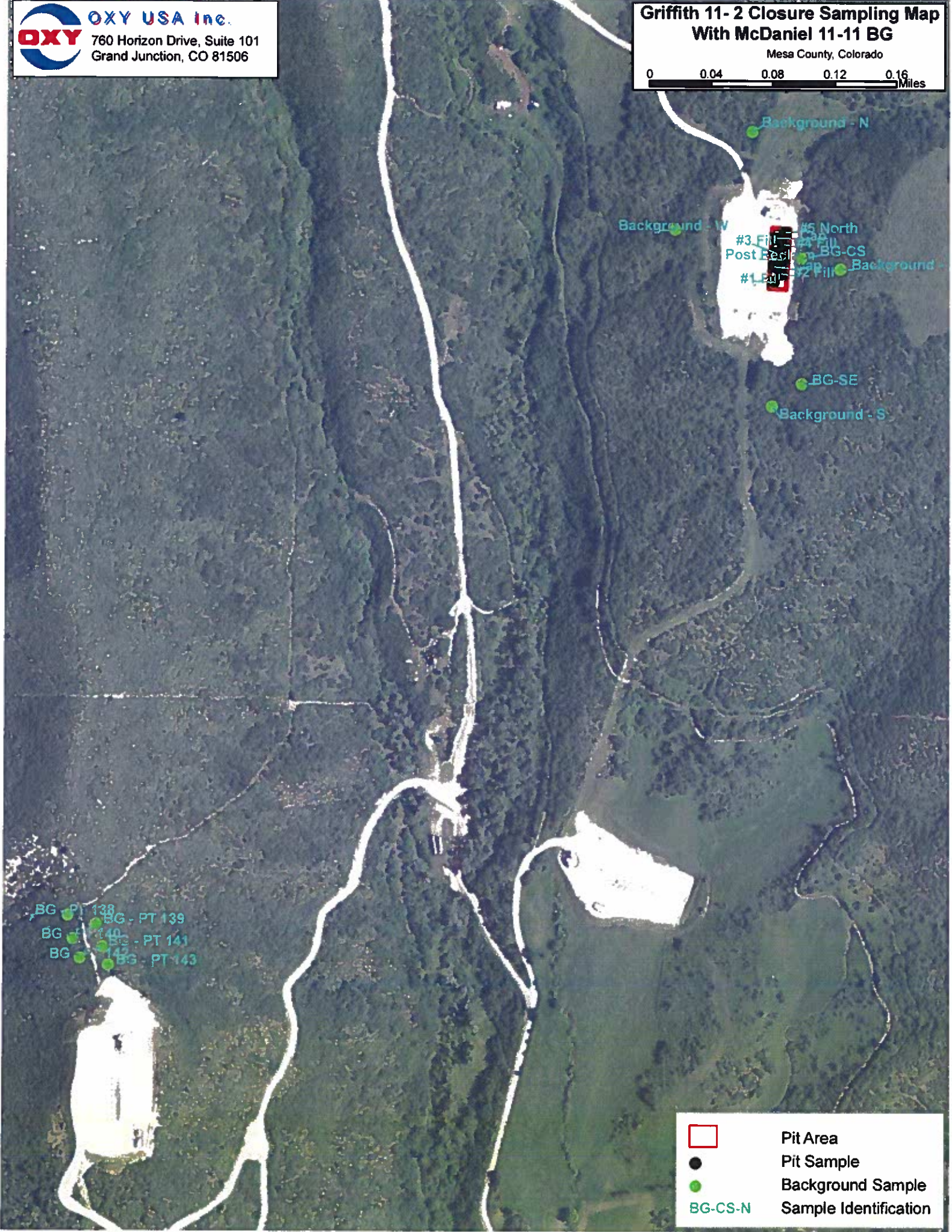
Pit Sample



Background Sample

BG-CS-N

Sample Identification





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

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Report Summary

Thursday September 02, 2010

Report Number: L475917

Samples Received: 08/27/10

Client Project:

Description: Pit Reclaims

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

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

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

September 02, 2010

Date Received : August 27, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 POST REC 6-8 IN
Collected By : Brett Kennedy
Collection Date : 08/25/10 10:15

ESC Sample # : L475917-01

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.31	2.0	mg/kg		3060A/7	08/28/10	1
ORP	42.			mV		2580	08/31/10	1
pH	8.8			su		9045D	09/01/10	1
Sodium Adsorption Ratio	25.					Calc.	08/29/10	1
Specific Conductance	1600			umhos/cm		9050AMo	08/28/10	1
Arsenic	8.6	1.6	5.0	mg/kg		6010B	08/31/10	5
Barium	5200	0.050	0.25	mg/kg		6010B	08/30/10	1
Cadmium	0.16	0.040	0.25	mg/kg	J	6010B	08/30/10	1
Calcium	U	5.4	25.	mg/kg		6010B	08/30/10	1
Chromium	18.	0.085	0.50	mg/kg		6010B	08/30/10	1
Copper	16.	0.21	1.0	mg/kg		6010B	08/30/10	1
Lead	14.	0.45	1.3	mg/kg		6010B	08/31/10	5
Nickel	12.	0.26	1.0	mg/kg		6010B	08/30/10	1
Selenium	U	1.6	5.0	mg/kg	O	6010B	08/31/10	5
Silver	U	0.16	0.50	mg/kg		6010B	08/30/10	1
Zinc	47.	1.7	7.5	mg/kg		6010B	08/31/10	5
Benzene	U	0.00090	0.0025	mg/kg		8021/80	08/29/10	5
Toluene	U	0.0015	0.025	mg/kg		8021/80	08/29/10	5
Ethylbenzene	0.0026	0.0013	0.0025	mg/kg		8021/80	08/29/10	5
Total Xylene	0.0034	0.0028	0.0075	mg/kg	J	8021/80	08/29/10	5
TPH (GC/FID) Low Fraction	U	0.14	0.50	mg/kg		GRO	08/29/10	5
Surrogate Recovery-%								
a,a,a-Trifluorotoluene (FID)	97.5			% Rec.		8021/80	08/29/10	5
a,a,a-Trifluorotoluene (PID)	103.			% Rec.		8021/80	08/29/10	5
TPH (GC/FID) High Fraction	50.	0.77	4.0	mg/kg		3546/DR	09/01/10	1
Surrogate recovery(%)								
o-Terphenyl	52.5			% Rec.		3546/DR	09/01/10	1
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.0093	0.033	mg/kg		8270C	08/29/10	1
Acenaphthene	U	0.011	0.033	mg/kg		8270C	08/29/10	1
Acenaphthylene	U	0.011	0.033	mg/kg		8270C	08/29/10	1
Benzo(a)anthracene	U	0.0077	0.033	mg/kg		8270C	08/29/10	1
Benzo(a)pyrene	U	0.0074	0.033	mg/kg		8270C	08/29/10	1
Benzo(b)fluoranthene	U	0.0078	0.033	mg/kg		8270C	08/29/10	1
Benzo(g,h,i)perylene	U	0.0095	0.033	mg/kg		8270C	08/29/10	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: 09/02/10 14:14 Printed: 09/02/10 14:14
L475917-01 (PH) - 8.8@21.8c



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Mt. Juliet, TN 37122
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

September 02, 2010

Date Received : August 27, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 POST REC 6-8 IN
Collected By : Brett Kennedy
Collection Date : 08/25/10 10:15

ESC Sample # : L475917-01

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Benzo(k)fluoranthene	U	0.012	0.033	mg/kg		8270C	08/29/10	1
Chrysene	U	0.0091	0.033	mg/kg		8270C	08/29/10	1
Dibenz(a,h)anthracene	U	0.011	0.033	mg/kg		8270C	08/29/10	1
Fluoranthene	U	0.0079	0.033	mg/kg		8270C	08/29/10	1
Fluorene	0.013	0.0095	0.033	mg/kg	J	8270C	08/29/10	1
Indeno(1,2,3-cd)pyrene	U	0.011	0.033	mg/kg		8270C	08/29/10	1
Naphthalene	0.064	0.016	0.033	mg/kg		8270C	08/29/10	1
Phenanthrene	0.026	0.0073	0.033	mg/kg	J	8270C	08/29/10	1
Pyrene	U	0.0089	0.033	mg/kg		8270C	08/29/10	1
Surrogate Recovery								
Nitrobenzene-d5	87.2			% Rec.		8270C	08/29/10	1
2-Fluorobiphenyl	89.9			% Rec.		8270C	08/29/10	1
p-Terphenyl-d14	86.5			% Rec.		8270C	08/29/10	1

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MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

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L475917-01 (PH) - 8.8@21.8c



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REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

September 02, 2010

Date Received : August 27, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 BG-N 0-6 IN
Collected By : Brett Kennedy
Collection Date : 08/25/10 10:40

ESC Sample # : L475917-02

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.0			su		9045D	09/01/10	1
Sodium Adsorption Ratio	0.50					Calc.	08/29/10	1
Specific Conductance	290			umhos/cm		9050AMo	08/28/10	1
Arsenic	3.9	0.32	1.0	mg/kg		6010B	09/01/10	1

U = ND (Not Detected)

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L475917-02 (PH) - 7.0@21.8c



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REPORT OF ANALYSIS

September 02, 2010

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

Date Received : August 27, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 BG-E 0-6 IN
Collected By : Brett Kennedy
Collection Date : 08/25/10 10:45

ESC Sample # : L475917-03

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.2			su		9045D	09/01/10	1
Sodium Adsorption Ratio	0.60					Calc.	08/29/10	1
Specific Conductance	280			umhos/cm		9050AMo	08/28/10	1
Arsenic	6.4	0.32	1.0	mg/kg		6010B	09/01/10	1

U = ND (Not Detected)

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RDL = Reported Detection Limit = LOQ = PQL = EQL

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L475917-03 (PH) - 7.2@21.5c



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REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

September 02, 2010

Date Received : August 27, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 BG-S 0-6 IN
Collected By : Brett Kennedy
Collection Date : 08/25/10 10:54

ESC Sample # : L475917-04

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.7			su		9045D	09/01/10	1
Sodium Adsorption Ratio	0.90					Calc.	08/29/10	1
Specific Conductance	240			umhos/cm		9050AMo	08/28/10	1
Arsenic	4.9	0.32	1.0	mg/kg		6010B	09/01/10	1

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MDL = Minimum Detection Limit = LOD

RDL = Reported Detection Limit = LOQ = PQL = EQL

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L475917-04 (PH) - 6.7@21.6c



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REPORT OF ANALYSIS

Brett Kennedy
Oxy USA WTP LP - Grand Junction, CO
760 Horizon Dr., Ste. 101
Grand Junction, CO 81506

September 02, 2010

Date Received : August 27, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 BG-W 0-6 IN
Collected By : Brett Kennedy
Collection Date : 08/25/10 11:02

ESC Sample # : L475917-05

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	6.3			su		9045D	08/31/10	1
Sodium Adsorption Ratio	0.30					Calc.	08/29/10	1
Specific Conductance	230			umhos/cm		9050AMo	08/28/10	1
Arsenic	5.0	0.32	1.0	mg/kg		6010B	09/01/10	1

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RDL = Reported Detection Limit = LOQ = PQL = EQL

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L475917-05 (PH) - 6.3@22.7c

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L475917-01	WG495797	SAMP	Total Xylene	R1352048	J
	WG495996	SAMP	Cadmium	R1355249	J
	WG495996	SAMP	Selenium	R1355249	O
	WG495714	SAMP	Fluorene	R1351228	J
	WG495714	SAMP	Phenanthrene	R1351228	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.

Qualifier Report Information

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

Definitions

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

Summary of Remarks For Samples Printed
09/02/10 at 14:14:56

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L475917-01 Account: OXYWTPGJCO Received: 08/27/10 09:00 Due Date: 09/02/10 00:00 RPT Date: 09/02/10 14:14
Sample: L475917-02 Account: OXYWTPGJCO Received: 08/27/10 09:00 Due Date: 09/01/10 00:00 RPT Date: 09/02/10 14:14
Sample: L475917-03 Account: OXYWTPGJCO Received: 08/27/10 09:00 Due Date: 09/01/10 00:00 RPT Date: 09/02/10 14:14
Sample: L475917-04 Account: OXYWTPGJCO Received: 08/27/10 09:00 Due Date: 09/01/10 00:00 RPT Date: 09/02/10 14:14
Sample: L475917-05 Account: OXYWTPGJCO Received: 08/27/10 09:00 Due Date: 09/01/10 00:00 RPT Date: 09/02/10 14:14



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

Report Summary

Friday December 16, 2011

Report Number: L551143

Samples Received: 12/13/11

Client Project: 900546.0005.010

Description: Griffith 11-2 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
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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

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

December 16, 2011

Date Received : December 13, 2011
Description : Griffith 11-2 Background
Sample ID : GRIFFITH 11-2 B6-CS
Collected By :
Collection Date : 12/12/11 09:20

ESC Sample # : L551143-01
Site ID :
Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	12/16/11	1
Chromium, Trivalent	12.	0.17	2.0	mg/kg		Calc.	12/14/11	1
ORP	-29.			mV	T8	2580	12/14/11	1
pH	8.9			su	T8	9045D	12/16/11	1
Sodium Adsorption Ratio	1.5					Calc.	12/15/11	1
Specific Conductance	210			umhos/cm		9050AMo	12/14/11	1
Mercury	0.016	0.0015	0.020	mg/kg	J	7471	12/14/11	1
Arsenic	1.7	0.32	1.0	mg/kg		6010B	12/14/11	1
Barium	140	0.050	0.25	mg/kg		6010B	12/14/11	1
Cadmium	0.59	0.040	0.25	mg/kg		6010B	12/14/11	1
Chromium	12.	0.085	0.50	mg/kg		6010B	12/14/11	1
Copper	9.8	1.0	5.0	mg/kg		6010B	12/14/11	5
Lead	7.6	0.090	0.25	mg/kg		6010B	12/15/11	1
Nickel	9.7	0.26	1.0	mg/kg		6010B	12/14/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	12/14/11	1
Silver	U	0.82	2.5	mg/kg	O	6010B	12/14/11	5
Zinc	43.	0.34	1.5	mg/kg		6010B	12/14/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	12/14/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	92.6			% Rec.		602/801	12/14/11	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	12/14/11	5
Toluene	U	0.0016	0.025	mg/kg		8260B	12/14/11	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	12/14/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	12/14/11	5
Surrogate Recovery								
Toluene-d8	97.8			% Rec.		8260B	12/14/11	5
Dibromofluoromethane	95.3			% Rec.		8260B	12/14/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	12/14/11	5
4-Bromofluorobenzene	105.			% Rec.		8260B	12/14/11	5
TPH (GC/FID) High Fraction	U	0.77	4.0	mg/kg		3546/DR	12/13/11	1
Surrogate recovery(%) o-Terphenyl	78.9			% Rec.		3546/DR	12/13/11	1

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MDL = Minimum Detection Limit = LOD

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L551143-01 (PH) - 8.90@17.7c



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REPORT OF ANALYSIS

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

December 16, 2011

Date Received : December 13, 2011
Description : Griffith 11-2 Background
Sample ID : GRIFFITH 11-2 B6-CS
Collected By :
Collection Date : 12/12/11 09:20

ESC Sample # : L551143-01

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	12/14/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	12/14/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	12/14/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	12/14/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	12/14/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	12/14/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	12/14/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	12/14/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	12/14/11	1
Phenanthrene	0.00081	0.00074	0.0060	mg/kg	J	8270C-S	12/14/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	12/14/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	12/14/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	12/14/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	12/14/11	1
Surrogate Recovery								
Nitrobenzene-d5	54.8			% Rec.		8270C-S	12/14/11	1
2-Fluorobiphenyl	65.0			% Rec.		8270C-S	12/14/11	1
p-Terphenyl-d14	73.8			% Rec.		8270C-S	12/14/11	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

December 16, 2011

Date Received : December 13, 2011
Description : Griffith 11-2 Background
Sample ID : GRIFFITH 11-2 BG-SE
Collected By :
Collection Date : 12/12/11 09:32

ESC Sample # : L551143-02

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	7.1	20.	mg/kg	O	3060A/7	12/16/11	10
Chromium, Trivalent	13.	0.17	20.	mg/kg	J	Calc.	12/14/11	1
ORP	20.			mV	T8	2580	12/14/11	1
pH	6.5			su	T8	9045D	12/16/11	1
Sodium Adsorption Ratio	0.60					Calc.	12/15/11	1
Specific Conductance	51.			umhos/cm		9050AMo	12/14/11	1
Mercury	0.0091	0.0015	0.020	mg/kg	J	7471	12/14/11	1
Arsenic	4.2	0.32	1.0	mg/kg		6010B	12/14/11	1
Barium	150	0.050	0.25	mg/kg		6010B	12/14/11	1
Cadmium	0.28	0.040	0.25	mg/kg		6010B	12/14/11	1
Chromium	13.	0.085	0.50	mg/kg		6010B	12/14/11	1
Copper	12.	0.21	1.0	mg/kg		6010B	12/14/11	1
Lead	8.2	0.090	0.25	mg/kg		6010B	12/15/11	1
Nickel	9.4	0.26	1.0	mg/kg		6010B	12/14/11	1
Selenium	0.62	0.32	1.0	mg/kg	J	6010B	12/14/11	1
Silver	1.1	0.16	0.50	mg/kg		6010B	12/14/11	1
Zinc	40.	0.34	1.5	mg/kg		6010B	12/14/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	12/14/11	5
Surrogate Recovery (70-130)								
a,a,a-Trifluorotoluene (FID)	92.6			% Rec.		602/801	12/14/11	5
Benzene	U	0.0017	0.0050	mg/kg		8260B	12/14/11	5
Toluene	U	0.0016	0.025	mg/kg		8260B	12/14/11	5
Ethylbenzene	U	0.0019	0.0050	mg/kg		8260B	12/14/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	12/14/11	5
Surrogate Recovery								
Toluene-d8	97.5			% Rec.		8260B	12/14/11	5
Dibromofluoromethane	94.8			% Rec.		8260B	12/14/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	12/14/11	5
4-Bromofluorobenzene	99.1			% Rec.		8260B	12/14/11	5
TPH (GC/FID) High Fraction	0.95	0.77	4.0	mg/kg	J	3546/DR	12/13/11	1
Surrogate recovery(%)								
o-Terphenyl	71.0			% Rec.		3546/DR	12/13/11	1

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L551143-02 (PH) - 6.52@19.1c

L551143-02 (CR6) - Diluted due to sample color interference.



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REPORT OF ANALYSIS

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

December 16, 2011

Date Received : December 13, 2011
Description : Griffith 11-2 Background
Sample ID : GRIFFITH 11-2 BG-SE
Collected By :
Collection Date : 12/12/11 09:32

ESC Sample # : L551143-02

Site ID :

Project # : 900546.0005.010

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	12/14/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	12/14/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	12/14/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	12/14/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	12/14/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	12/14/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	12/14/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	12/14/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	12/14/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	12/14/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	12/14/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	12/14/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	12/14/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	12/14/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	12/14/11	1
Surrogate Recovery								
Nitrobenzene-d5	72.9			% Rec.		8270C-S	12/14/11	1
2-Fluorobiphenyl	66.1			% Rec.		8270C-S	12/14/11	1
p-Terphenyl-d14	146.			% Rec.	J1	8270C-S	12/14/11	1

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Reported: 12/16/11 16:24 Printed: 12/16/11 16:24

L551143-02 (PH) - 6.52@19.1c

L551143-02 (CR6) - Diluted due to sample color interference.

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L551143-01	WG569766	SAMP	Silver	R1967074	O
	WG569738	SAMP	Mercury	R1965915	J
	WG570065	SAMP	pH	R1969016	T8
	WG569801	SAMP	Phenanthrene	R1966173	J
	WG569795	SAMP	ORP	R1966193	T8
L551143-02	WG569766	SAMP	Selenium	R1967074	J
	WG569759	SAMP	TPH (GC/FID) High Fraction	R1965575	J
	WG569826	SAMP	Chromium, Hexavalent	R1969413	O
	WG569738	SAMP	Mercury	R1965915	J
	WG570065	SAMP	pH	R1969016	T8
	WG569801	SAMP	p-Terphenyl-d14	R1966173	J1
	WG569795	SAMP	ORP	R1966193	T8
	WG569766	SAMP	Chromium, Trivalent	R1967074	J

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits
O	(ESC) Sample diluted due to matrix interferences that impaired the ability to make an accurate analytical determination. The detection limit is elevated in order to reflect the necessary dilution.
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
12/16/11 at 16:24:42

TSR Signing Reports: 134
R4 - Rush: Three Day

Sample: L551143-01 Account: OXYGJCO Received: 12/13/11 09:46 Due Date: 12/16/11 00:00 RPT Date: 12/16/11 16:24

Sample: L551143-02 Account: OXYGJCO Received: 12/13/11 09:46 Due Date: 12/16/11 00:00 RPT Date: 12/16/11 16:24



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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: L571147

Samples Received: 04/20/12

Client Project:

Description: McDaniel 11-11 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

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

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

April 30, 2012

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-NE-PT 140 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:42

ESC Sample # : L571147-01

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.9			su	T8	9045D	04/24/12	1
Specific Conductance	130			umhos/cm		9050AMo	04/23/12	1
Arsenic	9.5	1.6	5.0	mg/kg		6010B	04/29/12	5

U = ND (Not Detected)

MDL = Minimum Detection Limit = LOD

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Reported: 04/30/12 08:18 Printed: 04/30/12 08:19

L571147-01 (PH) - 7.9@21.1c



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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 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-NE-PT 140 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:42

ESC Sample # : L571147-02

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	6.0	1.6	5.0	mg/kg		6010B	04/29/12	5

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 30, 2012

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-W.CENTRAL PT 150 8 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:50

ESC Sample # : L571147-03

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.8			su	T8	9045D	04/24/12	1
Specific Conductance	150			umhos/cm		9050AMo	04/23/12	1
Arsenic	8.6	1.6	5.0	mg/kg		6010B	04/29/12	5

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L571147-03 (PH) - 7.8@21.1c



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REPORT OF ANALYSIS

April 30, 2012

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

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-W.CENTRAL PT 150 8 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:50

ESC Sample # : L571147-04

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	8.7	1.6	5.0	mg/kg		6010B	04/29/12	5

U = ND (Not Detected)

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REPORT OF ANALYSIS

April 30, 2012

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

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-NW-PT 139 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:36

ESC Sample # : L571147-05

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.8			su	T8	9045D	04/24/12	1
Specific Conductance	130			umhos/cm		9050AMo	04/23/12	1
Arsenic	U	0.32	1.0	mg/kg		6010B	04/29/12	1

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L571147-05 (PH) - 7.8@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

April 30, 2012

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-NW-PT 139 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:36

ESC Sample # : L571147-06
Site ID : MCD 11-11
Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	2.0	0.32	1.0	mg/kg		6010B	04/28/12	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

April 30, 2012

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-SE-PT 142 8 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:55

ESC Sample # : L571147-07

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.9			su	T8	9045D	04/24/12	1
Specific Conductance	110			umhos/cm		9050AMo	04/23/12	1
Arsenic	7.1	1.6	5.0	mg/kg		6010B	04/29/12	5

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L571147-07 (PH) - 7.9@20.6c



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Daniel Padilla
OXY USA Inc - Grand Junction, CO
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April 30, 2012

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-SE-PT 142 8 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:55

ESC Sample # : L571147-08

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	4.3	1.6	5.0	mg/kg	J	6010B	04/29/12	5

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

April 30, 2012

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-S.MOST-PT 143 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 14:02

ESC Sample # : L571147-09

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.9			su	T8	9045D	04/24/12	1
Specific Conductance	99.			umhos/cm		9050AMo	04/23/12	1
Arsenic	5.0	0.32	1.0	mg/kg		6010B	04/28/12	1

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L571147-09 (PH) - 7.9@21.1c



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REPORT OF ANALYSIS

April 30, 2012

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

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-S.MOST-PT 143 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 14:02

ESC Sample # : L571147-10

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	6.1	0.32	1.0	mg/kg		6010B	04/28/12	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

April 30, 2012

Date Received : April 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-N.MOST-PT 138 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:31

ESC Sample # : L571147-11

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
pH	7.8			su	T8	9045D	04/24/12	1
Specific Conductance	100			umhos/cm		9050AMo	04/23/12	1
Arsenic	1.4	0.32	1.0	mg/kg		6010B	04/28/12	1

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Reported: 04/30/12 08:18 Printed: 04/30/12 08:19
L571147-11 (PH) - 7.8@21.1c



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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 20, 2012
Description : McDaniel 11-11 BG Sampling
Sample ID : BG-N.MOST-PT 138 6 FT
Collected By : Lilly Griffin
Collection Date : 04/19/12 13:31

ESC Sample # : L571147-12

Site ID : MCD 11-11

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	1.7	0.32	1.0	mg/kg		6010B	04/28/12	1

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Reported: 04/30/12 08:18 Printed: 04/30/12 08:19

Attachment A
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L571147-01	WG589208	SAMP	pH	R2139213	T8
L571147-03	WG589208	SAMP	pH	R2139213	T8
L571147-05	WG589208	SAMP	pH	R2139213	T8
L571147-07	WG589208	SAMP	pH	R2139213	T8
L571147-08	WG589050	SAMP	Arsenic	R2147774	J
L571147-09	WG589208	SAMP	pH	R2139213	T8
L571147-11	WG589208	SAMP	pH	R2139213	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.

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- 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 08:19:05

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L571147-01 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-02 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-03 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-04 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-05 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-06 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-07 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-08 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-09 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-10 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-11 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18
Sample: L571147-12 Account: OXYGJCO Received: 04/20/12 09:00 Due Date: 04/27/12 00:00 RPT Date: 04/30/12 08:18

[illegible]



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Est. 1970

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

Report Summary

Wednesday September 15, 2010

Report Number: L478000

Samples Received: 09/10/10

Client Project:

Description: Pit Reclaims - Collbran

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

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REPORT OF ANALYSIS

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

September 15, 2010

Date Received : September 10, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 CAP 0-6 IN
Collected By : Brett Kennedy
Collection Date : 09/08/10 16:15

ESC Sample # : L478000-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	20.			Calc.	09/13/10	5

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 09/15/10 17:15 Printed: 09/15/10 17:15

Summary of Remarks For Samples Printed
09/15/10 at 17:15:23

TSR Signing Reports: 134
R4 - Rush: Three Day

Sample: L478000-01 Account: OXYGJCO Received: 09/10/10 09:00 Due Date: 09/15/10 00:00 RPT Date: 09/15/10 17:15



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

Report Summary

Wednesday October 06, 2010

Report Number: L481950

Samples Received: 10/02/10

Client Project:

Description: Pit Reclaims - Collbran

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:

Craig Cothron , 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,
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REPORT OF ANALYSIS

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

October 06, 2010

Date Received : October 02, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 CAP 0-6 IN
Collected By : Brett Kennedy
Collection Date : 10/01/10 12:00

ESC Sample # : L481950-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	20.			Calc.	10/05/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 10/06/10 16:48 Printed: 10/06/10 16:49



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REPORT OF ANALYSIS

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

October 06, 2010

Date Received : October 02, 2010
Description : Pit Reclaims - Collbran
Sample ID : SOIL PILE 11-2 0-6 IN
Collected By : Brett Kennedy
Collection Date : 10/01/10 12:12

ESC Sample # : L481950-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	17.			Calc.	10/05/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 10/06/10 16:48 Printed: 10/06/10 16:49

Summary of Remarks For Samples Printed
10/06/10 at 16:49:08

TSR Signing Reports: 134
R4 - Rush: Three Day

Sample: L481950-01 Account: OXYGJCO Received: 10/02/10 09:00 Due Date: 10/06/10 00:00 RPT Date: 10/06/10 16:48

Sample: L481950-02 Account: OXYGJCO Received: 10/02/10 09:00 Due Date: 10/06/10 00:00 RPT Date: 10/06/10 16:48



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

Report Summary

Wednesday November 10, 2010

Report Number: L486809

Samples Received: 11/02/10

Client Project:

Description: Pit Reclaims - Collbran

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,
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REPORT OF ANALYSIS

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

November 10, 2010

Date Received : November 02, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 1 FILL 0-6 IN
Collected By : Brett Kennedy
Collection Date : 11/01/10 13:30

ESC Sample # : L486809-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	8.3			Calc.	11/07/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/10/10 14:50 Printed: 11/10/10 14:50



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REPORT OF ANALYSIS

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

November 10, 2010

Date Received : November 02, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 2 FILL 0-6 IN
Collected By : Brett Kennedy
Collection Date : 11/01/10 13:33

ESC Sample # : L486809-02

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	9.7			Calc.	11/07/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/10/10 14:50 Printed: 11/10/10 14:50



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REPORT OF ANALYSIS

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

November 10, 2010

Date Received : November 02, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 3 FILL 0-6 IN
Collected By : Brett Kennedy
Collection Date : 11/01/10 13:38

ESC Sample # : L486809-03

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	4.3			Calc.	11/07/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

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Reported: 11/10/10 14:50 Printed: 11/10/10 14:50



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REPORT OF ANALYSIS

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

November 10, 2010

Date Received : November 02, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 4 FILL 0-6 IN
Collected By : Brett Kennedy
Collection Date : 11/01/10 13:42

ESC Sample # : L486809-04

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	5.0			Calc.	11/07/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/10/10 14:50 Printed: 11/10/10 14:50



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REPORT OF ANALYSIS

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

November 10, 2010

Date Received : November 02, 2010
Description : Pit Reclaims - Collbran
Sample ID : GRIFFITH 11-2 5N 0-6 IN
Collected By : Brett Kennedy
Collection Date : 11/01/10 13:46

ESC Sample # : L486809-05

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Sodium Adsorption Ratio	5.7			Calc.	11/07/10	1

BDL - Below Detection Limit

Det. Limit - Practical Quantitation Limit(PQL)

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/10/10 14:50 Printed: 11/10/10 14:50

Summary of Remarks For Samples Printed
11/10/10 at 14:50:59

TSR Signing Reports: 134
R5 - Desired TAT

Sample: L486809-01 Account: OXYGJCO Received: 11/02/10 09:30 Due Date: 11/09/10 00:00 RPT Date: 11/10/10 14:50
Sample: L486809-02 Account: OXYGJCO Received: 11/02/10 09:30 Due Date: 11/09/10 00:00 RPT Date: 11/10/10 14:50
Sample: L486809-03 Account: OXYGJCO Received: 11/02/10 09:30 Due Date: 11/09/10 00:00 RPT Date: 11/10/10 14:50
Sample: L486809-04 Account: OXYGJCO Received: 11/02/10 09:30 Due Date: 11/09/10 00:00 RPT Date: 11/10/10 14:50
Sample: L486809-05 Account: OXYGJCO Received: 11/02/10 09:30 Due Date: 11/09/10 00:00 RPT Date: 11/10/10 14:50

Company Name/Address:

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

OXY USA Inc - Grand Junction, CO

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

Prepared by:

**ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (615) 758-5858
Phone (800) 767-5859
FAX (615) 758-5859

A150

Report to:

Brett Kennedy

Email to:

brett.kennedy@oxy.com

Project:

Description: Pit Reckins - Lebban

City/State
Collected

Phone: (970) 263-3601

Client Project #:

ESC Key:

FAX:

Collected by:

Brett Kennedy

Site/Facility ID#:

P.O.#:

Collected by (signature):

Brett Kennedy

Rush? (Lab MUST Be Notified)

Packed on Ice N Y

Same Day... 200%
Next Day... 100%
Two Day... 50%
Three Day... 25%Date Results Needed:
Email? No Yes
FAX? No Yes

No. of Cnts

Remarks/Contaminant

Sample # (lab only)

CoCode: OXYGJCO (lab use only)

Template/Prelogin

Shipped via:

648680901

Sample ID

Comp/Grab

Matrix*

Depth

Date

Time

No.

Cnts

648680901

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04

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Re: Griffith 11-2 Reserve Pit Closure (Location ID: 334495) Sundry submitted via email to COGCC on May 9th, 2012, COGCC Document number not provided

1 message

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

Tue, Feb 12, 2013 at 2:16 PM

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

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

Amber,

Please enter/upload the attached Form 04 (Reserve pit closure), the attached document "Griffith 11-2 Supporting documentation 11.20.12" attached document and this email (all in one new document) and link to:

Location ID # 334445

API # 077 09681

Thanks,

Blair,

Thanks for sending the narrative that Linda requested. No Further Action is required at this time regarding the Griffith 11-2 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:

Please moving forward, when you provide additional information or a report related to an ongoing Remediation Project, please include a Sundry Notice (Form 04) as cover page, so that it can be signed as a proof of approval and uploaded to the database. To expedite the closure of this project, I updated and used the old Form 04.

Thanks,
Carlos

On Tue, Nov 20, 2012 at 11:52 AM, Blair Rollins <brollins@walshenv.com> wrote:

Dear Mr. Fischer,

Oxy submitted a sundry notice documenting closure of the Griffith 11-2 reserve pit on May 9, 2012, no COGCC document number was provided but receipt was provided by you at 12:49PM on May 9, 2012. Following COGCC review completed by Linda Spry O'Rourke on October 17, 2012, and discussion during the Oxy and COGCC August 22, 2012 Legacy Pit Closure meeting, Oxy is providing you the following reserve pit closure documentation for the above referenced location.

Closure of the Griffith 11-2 reserve pit is in compliance with the COGCC 1000 Series Rules, specifically 1003.d (Drilling Pit Closure), which requires that COGCC Table 910-1 concentration levels are met.

No specific COGCC closure documentation guidance was provided to Oxy. Oxy is therefore following the closure procedures outlined in the August 22, 2012 meeting and providing you with this email to support the May 9, 2012 sundry notice (no COGCC document # provided). Included as part of the reserve pit closure documentation:

- Griffith 11-2 reserve pit sampling narrative
- Griffith 11-2 reserve pit tabulated data
- Supporting lab analytical data package reflecting the tabulated data
- Griffith 11-2 sampling locations 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

—

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...

2 attachments



Griffith 11-2 Form 04 _ Signed CALS.pdf

99K



Griffith 11-2 Supporting documentation 11.20.12.pdf

1755K