



Received  
9/18/2012 Rifle  
COGCC

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.)

1. OGCC Operator Number: <u>66561</u>	4. Contact Name: <u>Daniel I. Padilla</u>	Complete the Attachment Checklist OP OGCC
2. Name of Operator: <u>OXY USA Inc.</u>	Phone: <u>970.263.3637</u>	
3. Address: <u>760 Horizon Drive, Suite 101</u> City: <u>Grand Junction</u> State: <u>CO</u> Zip: <u>81506</u>	Fax: <u>970.263.3694</u>	
5. API Number: <u>05-</u>	OGCC Facility ID Number: <u>334543</u>	Survey Plat
6. Well/Facility Name: <u>Hawkins Ranch (Reserve Pit)</u>	7. Well/Facility Number: <u>10-9</u>	Directional Survey
8. Location (Qtr/Qtr, Sec, Twp, Rng, Meridian): <u>NESE, Sec 10, T10S, R94W, 6th PM</u>		Surface Eqm't Diagram
9. County: <u>Mesa</u>	10. Field Name: <u>Plateau</u>	Technical Info Page
11. Federal, Indian or State Lease Number: _____		Other Lab Data, Maps

General Notice

CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit)

Change of Surface Footage from Exterior Section Lines:	<input type="checkbox"/>	FNL/FSL	<input type="checkbox"/>	FEL/FWL	<input type="checkbox"/>
Change of Surface Footage to Exterior Section Lines:	<input type="checkbox"/>				
Change of Bottomhole Footage from Exterior Section Lines:	<input type="checkbox"/>				
Change of Bottomhole Footage to Exterior Section Lines:	<input type="checkbox"/>				

Bottomhole location Qtr/Qtr, Sec, Twp, Rng, Mer \_\_\_\_\_ attach directional survey

Latitude \_\_\_\_\_ Distance to nearest property line \_\_\_\_\_ Distance to nearest bldg, public rd, utility or RR \_\_\_\_\_

Longitude \_\_\_\_\_ Distance to nearest lease line \_\_\_\_\_ Is location in a High Density Area (rule 603b)? Yes/No

Ground Elevation \_\_\_\_\_ Distance to nearest well same formation \_\_\_\_\_ Surface owner consultation date: \_\_\_\_\_

GPS DATA:  
Date of Measurement \_\_\_\_\_ PDOP Reading \_\_\_\_\_ Instrument Operator's Name \_\_\_\_\_

CHANGE SPACING UNIT

Formation	Formation Code	Spacing order number	Unit Acreage	Unit configuration

Remove from surface bond  
Signed surface use agreement attached

CHANGE OF OPERATOR (prior to drilling):  
Effective Date: \_\_\_\_\_  
Plugging Bond:  Blanket  Individual

CHANGE WELL NAME NUMBER  
From: \_\_\_\_\_  
To: \_\_\_\_\_  
Effective Date: \_\_\_\_\_

ABANDONED LOCATION:  
Was location ever built?  Yes  No  
Is site ready for inspection?  Yes  No  
Date Ready for Inspection: \_\_\_\_\_

NOTICE OF CONTINUED SHUT IN STATUS  
Date well shut in or temporarily abandoned: \_\_\_\_\_  
Has Production Equipment been removed from site?  Yes  No  
MIT required if shut in longer than two years. Date of last MIT \_\_\_\_\_

SPUD DATE: \_\_\_\_\_

REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)

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

RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004.  
Final reclamation will commence on approximately \_\_\_\_\_  Final reclamation is completed and site is ready for inspection.

Technical Engineering/Environmental Notice

Notice of Intent Approximate Start Date \_\_\_\_\_

Report of Work Done Date Work Completed \_\_\_\_\_

Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)

<input type="checkbox"/> Intent to Recomplete (submit form 2)	<input type="checkbox"/> Request to Vent or Flare	<input type="checkbox"/> E&P Waste Disposal
<input type="checkbox"/> Change Drilling Plans	<input type="checkbox"/> Repair Well	<input type="checkbox"/> Beneficial Reuse of E&P Waste
<input type="checkbox"/> Gross Interval Changed?	<input type="checkbox"/> Rule 502 variance requested	<input type="checkbox"/> Status Update/Change of Remediation Plans for Spills and Releases
<input type="checkbox"/> Casing/Cementing Program Change	<input checked="" type="checkbox"/> Other: <u>Reserve Pit Closure</u>	

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

Signed: [Signature] Date: 9/19/12 Email: daniel\_padilla@oxy.com  
Print Name: Daniel I. Padilla Title: Regulatory Advisor

COGCC Approved: \_\_\_\_\_ Title: \_\_\_\_\_ Date: 10/17/2012

CONDITIONS OF APPROVAL, IF ANY:

Based on the information provided, the COGCC staff approves the pit closure. However, should future conditions at the site be discovered of contaminant concentrations in soils exceeding COGCC standards, or if ground water is found to be significantly impacted, then OXY may be required to conduct further investigation and/or remediation at the site."

TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

1. OGCC Operator Number: 66561	API Number:
2. Name of Operator: OXY USA Inc.	OGCC Facility ID # 334543
3. Well/Facility Name: Hawkins Ranch (Reserve Pit)	Well/Facility Number: 10-9
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): NESE, Sec 10, T10S, 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 below undisturbed background levels but above COGCC Table 910-1 concentration 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 locations, as per foot note 1 of COGCC Table 910-1. Please refer to the attached sampling narrative, data table, analytical data, and sample location maps.

As consistent with closures of that time, the sampling method Oxy employed was to take a representative 5-point composite sample for the initial background sample, post reclaim sample, and fill sample. After the initial sampling, Oxy employed a random grab sampling method for all subsequent samples (Post reclaim re-sample 09/08/2010, and all background samples through 08/17/2012). The analytical concentrations table identifies the COGCC Table 910-1 concentration levels, Oxy's undisturbed background concentrations (10/25/2009 - 08/17/2012), and Oxy's post reclamation concentrations (Post Reclaim 10/25/2009), upon initial post reclamation As values, Oxy dug three bell holes and resampled the pit bottom for As concentrations (09/08/2010). Oxy conducted additional background sampling events to demonstrate environmental variability for As at varying depths within the area. Based on the background sample concentrations of As (08/17/2012) at depths relatively equal to those at the bottom of the reserve pit, Oxy's sundry notice requests to apply different standards to the COGCC Table 910-1 concentration levels. Please see attached Hawkins Ranch 10-9 Sampling Narrative for a more thorough sampling description.

Oxy also identified elevated concentrations of pH in post reclamation pit samples. Oxy has buried and capped the pit bottom contents below at least three feet of native material. The reclaimed pit was contoured to be level with active production pad surface, which includes proper stormwater run-on and runoff controls during the operational phase of the production pad. Oxy proposes to leave the reclaimed pit surface level with the working production pad surface until final pad reclamation occurs. At that time Oxy will re-sample the cap to ensure that table 910-1 standards are met. Oxy requests the closure of the Hawkins 10-9 reserve pit.

## **Hawkins Ranch 10-9 Reserve Pit (Location ID: 334543) Reclamation and Closure Sampling Narrative**

This is Oxy's updated Hawkins Ranch 10-9 reserve pit sampling narrative. This is being provided in support of the Hawkins Ranch 10-9 Sundry Notice reserve pit closure documentation submitted in accordance with this narrative. The narrative details what closure, and background samples were taken, where they were taken and for what purpose.

### ***Post Reclaim Samples 10/25/2009 (L429066, Accutest T40469)***

- Oxy removed the pit liner and mixed the pit bottom with a back hoe. The initial 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 initial post reclaim samples were taken along the length of the pit between 0-6 inches at the pit bottom, which was approximately 10' feet below the pad surface. The initial post reclaim samples are represented in the post reclaim tabulated data spreadsheet, in the first and second columns and labeled as "Post Reclaim" for Sample Type on the attached post reclaim table. Note that there are two "Post Reclaim" sample columns; this is due to that fact that two separate labs were used to process the samples. Lab sample L429066 analyzed the majority of the 910-1 constituents and the Accutest T40469 lab sample analyzed Barium and Boron. The initial post reclaim sample date was 10/25/2009 and the Sample ID from the data tabulation is Hawkins 10-9 Post Rec 0-6 IN. These samples are shown on the Hawkins 10-9 Reserve Pit Post Reclaim Sampling map as yellow dots and are referenced in the legend as Post Rec. Composite (10/25/2009). The lab data reports for these samples are attached. The sample values can be found on lab report L429066 on pages 3 and 4 and on Accutest T40469 pages 5 and 6 as sample ID Hawkins 10-9 Post Rec.
- Initial Post Reclaim values showed elevated concentrations for pH, and Arsenic (As).

### ***Fill Samples 11/30/2009 (L434451)***

- Oxy backfilled the pit with stockpiled native clean material to pad grade (6-10 feet deep). A five point composite sample was taken of the fill material and analyzed only for the analyte exceedances found in the initial post reclaim samples, specifically pH, as the fill material was meant to serve as a cap for the elevated value of pH found in the reclaimed pit bottom. The fill samples are represented in the tabulated data spreadsheet in the third column and labeled as "Fill" for Sample Type on the attached post reclaim table. The fill sample date was 11/30/2009 and the Sample ID from the data tabulation is Hawkins 10-9 Fill (0-12 IN). These samples are shown on the Hawkins 10-9 Reserve Pit Post Reclaim Sampling map as black dots and are referenced in the legend as Fill Samples (11/30/2009). The lab data reports for these samples are attached. The sample values can be found on lab report L434451 on page 2 as sample ID Hawkins 10-9 Fill.
- Fill samples were tested only for pH as this was the only analyte exceedance found in the initial post reclaim samples, other than As. All analytes were found to be below the COGCC's table 910-1 allowable concentrations.

### ***Post Reclaim re-samples 09/08/2010 (L477988)***

- Based on the initial post reclaim As analyte exceedances found, Oxy mobilized an excavator to dig three bell holes (east, west, and central) down to the pit bottom (6-10 feet) to collect three grab

samples. There were no other analyte exceedances found, Oxy suspected the elevated As concentration to be the result of naturally occurring As. The Post Reclaim re-sample is represented in the tabulated data spreadsheet in the 4<sup>th</sup>-6<sup>th</sup> columns and labeled as "Post Reclaim Resample" for Sample Type on the attached post reclaim table. The Post Reclaim re-sample date was 09/08/2010 and the Sample ID's from the data tabulation is Hawkins 10-9 PR-E (6-10FT), Hawkins 10-9 PR-CENT (6-10FT), Hawkins 10-9 PR-W (6-10FT). These samples are shown on the Sampling map as green dots and are referenced in the legend as Post Rec. Re-Samples 09/08/2010. The lab data report for these samples is attached. The sample values can be found on lab report L477998 on pages 2-4 as sample ID's, Hawkins 10-9 PR-E, Hawkins 10-9 PR-CENT, Hawkins 10-9 PR-W.

- Sample results yielded elevated concentrations of As.

***Background Samples 10/25/2009 – 08/17/2012 (L429066 – L590753)***

- In an effort to identify elevated concentrations of naturally occurring As similar to that which was previously identified in the Post Reclaim sample, Oxy collected multiple grab samples from native undisturbed areas around the pad and in the four major soil types in the area. The samples were collected at various depths ranging between 0 inches to 14 ft. Oxy collected one native background composite sample on 10/25/2009 from undisturbed locations around the pad at depths of 0-6 inches. Oxy collected 28 grab samples from native undisturbed locations at depths ranging from 0-14 feet on dates 05/06/2010, 06/30/2011, 06/07/2012, and 08/17/2012. Based on the many sampling events, Oxy identified As concentrations ranging between 1.0 – 28.0 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 there. 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 background sample spreadsheet. All Background samples are represented in the Background tabulated data spreadsheet.
- The initial composite background sample date was 10/25/2009 and can be found in the first column of the Background tabulated data. The Sample ID from the data tabulation is Hawkins 10-9 BG (0-6 IN). These samples are shown on the Hawkins 10-9 Reserve Pit Background Sampling maps as fuchsia dots and are referenced in the legend as 10/25/2009 Composite BG's. The sample values can be found on lab report L429066 on page 2 as sample ID Hawkins 10-9 BG 0-6IN.
- The first set of grab background samples were collected on 05/06/2010 and can be found in the 2<sup>nd</sup> – 5<sup>th</sup> column of the Background tabulated data. The sample ID's from the data tabulation are BG-W (0-6 IN), BG-N (0-6 IN), BG-E (0-6 IN), BG-S (0-6 IN). These samples are shown on the Hawkins 10-9 Reserve Pit Background Sampling maps as yellow dots and are referenced in the legend as 05/06/2010 Grab BG's. The sample values can be found on lab report L458022 on pages 2-5 as sample ID's Hawkins 10-9 BG-W (0-6 IN), Hawkins 10-9 BG-N (0-6 IN), Hawkins 10-9 BG-E (0-6 IN), Hawkins 10-9 BG-S (0-6 IN).
- The next set of grab background samples were collected on 06/30/2011 and can be found in the 6<sup>th</sup> – 14<sup>th</sup> columns of the Background tabulated data. The sample ID's from the data tabulation are BG-SB-West (1 FT), BG-SB-Center (1 FT), BG-SB-East (1 FT), BG-EB-North (1 FT), BG-EB-South (1 FT), BG-NB-West (1 FT), BG-NB-Center (1 FT), BG-NB-East (1 FT), BG-NE (1 FT). These samples are shown on the

Hawkins 10-9 Reserve Pit Background Sampling maps as green dots and are referenced in the legend as 06/30/2011 Grab BG's. The sample values can be found on lab report L524086 on pages 2-11 and pages 16-23 as sample ID's BG-SB-West 1 FT, BG-SB-Center 1 FT, BG-SB-East 1 FT, BG-EB-North 1 FT, BG-EB-South 1 FT, BG-NB-West 1 FT, BG-NB-Center 1 FT, BG-NB-East 1 FT, BG-NE 1 FT.

- The next set of grab background samples were collected on 06/07/2012 and can be found in the 15<sup>th</sup> - 22<sup>nd</sup> columns of the Background tabulated data. Each sample was analyzed four separate times for As and you will find four values for As for each sample. Note these samples were collected from undisturbed areas of the four dominant soil types in the area; Soil type 1 (S1) Hesperus-Empedrado Moist –Pagoda Complex 35-55% slopes corresponds with the sample ID's that begin with S1. Soil type 2 (S2) Hesperus Pagoda Complex 3-12% slopes corresponds with the sample ID's that begin with S2. Soil type 3 (S3) Pagoda Hesperus Complex 12-40% slopes corresponds with the sample ID's that begin with S3. Soil type 4 (S4) Borpark Stony Loam 40-75% slopes corresponds with the sample ID's that begin with S4. The sample ID's from the data tabulation are S1-1-2.5-BG (2.5 FT), S1-2-5.0-BG (5.0 FT), S2-1-2.5-BG (2.5 FT), S2-2-5.0-BG (5.0 FT), S3-1-2.5-BG (2.5 FT), S3-2-4.0-BG (4.0 FT), S4-1-2.5-BG (2.5 FT), S4-2-5.0-BG (5.0 FT). These samples are shown on the Hawkins 10-9 Reserve Pit Background Sampling maps as blue dots and are referenced in the legend as 06/07/2012 Grab BG's. The sample values can be found on lab report L579427 on pages 2-41 as sample ID's S1-1-2.5-BG, S1-2-5.0-BG, S2-1-2.5-BG, S2-2-5.0-BG, S3-1-2.5-BG, S3-2-4.0-BG, S4-1-2.5-BG, S4-2-5.0-BG.
- The next set of grab background samples were collected on 08/17/2012 and can be found in the 23<sup>rd</sup> – 29<sup>th</sup> columns of the Background tabulated data. Each sample was analyzed twice for As and you will find two values for As for each sample. The sample ID's from the data tabulation are Hawkins 10-9 (2 FT), Hawkins 10-9 (4 FT), Hawkins 10-9 (6 FT), Hawkins 10-9 (8 FT), Hawkins 10-9 (10 FT), Hawkins 10-9 (12 FT), Hawkins 10-9 (14 FT). These samples are shown on the Hawkins 10-9 Reserve Pit Background Sampling maps as Orange dots and are referenced in the legend as 08/17/2012 Grab BG's. As these samples were taken in a vertical line the sampling map depicts this sampling point as one large orange dot. The sample values can be found on lab report L590753 on pages 2-15 as sample ID's Hawkins 10-9 2 FT, Hawkins 10-9 4 FT, Hawkins 10-9 6 FT, Hawkins 10-9 8 FT, Hawkins 10-9 10 FT, Hawkins 10-9 12 FT, Hawkins 10-9 14 FT.
- This sampling effort yielded background As concentrations above those found in Post Reclaim, and Post Reclaim Re-Samples (10/25/2009 & 09/08/2010).

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 found to be below COGCC table 910-1 allowable concentrations, or were found to be below native background levels. Oxy will continue to monitor this site to ensure that the pit cap has not subsided and for stormwater compliance until final pad reclamation has occurred.

**Pit Reclaims - Collbran**

Pad #: Hawkins 10-9

Sample Identifications (mg/kg)

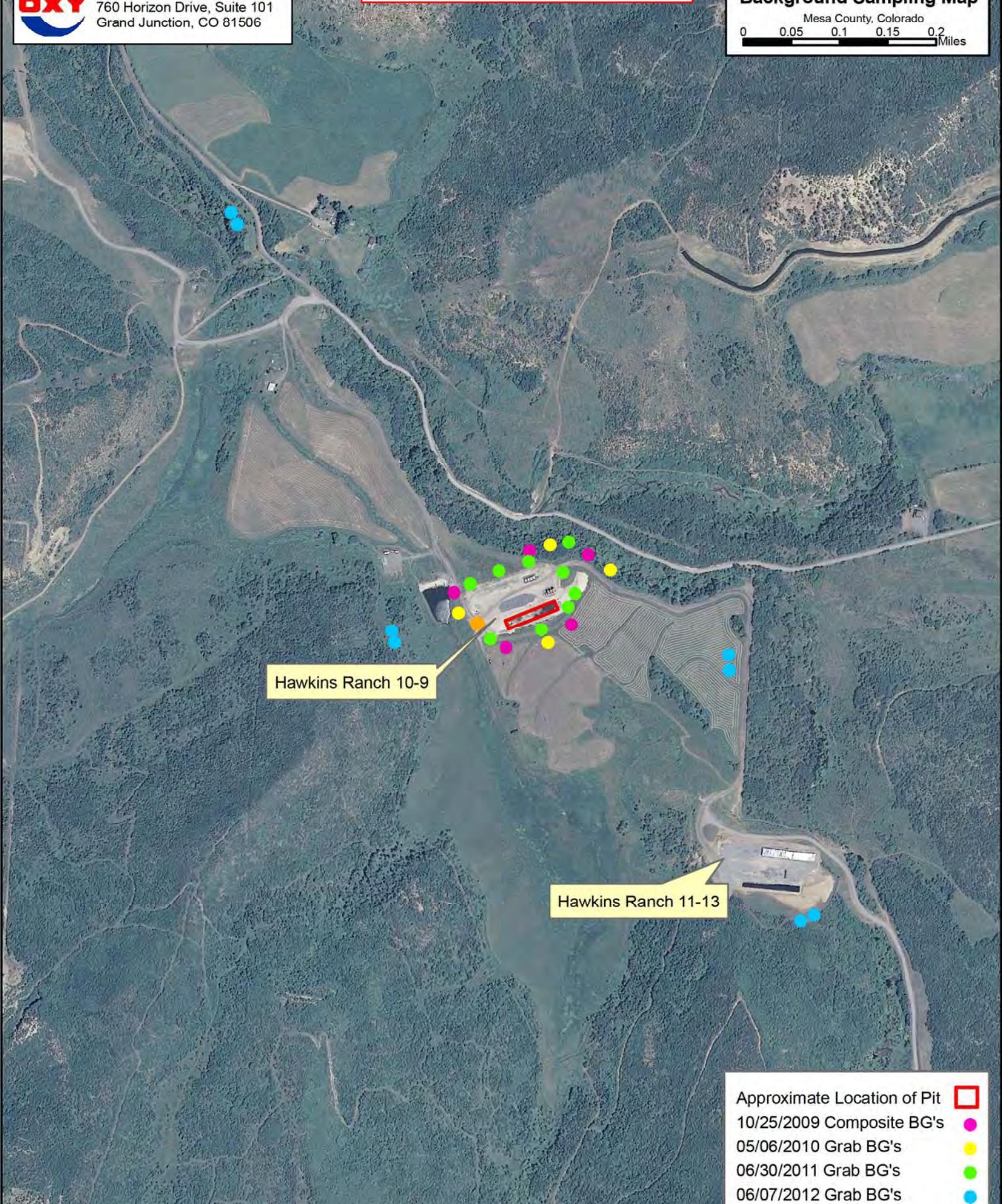
Lab Report #	L429066	T40469	L434451	L477998	L477998	L477998
Sample Date	10/25/2009	10/25/2009	11/30/2009	9/8/2010	9/8/2010	9/8/2010
Sample Type	Post Reclaim	Post Reclaim	Fill/Cap	Post Reclaim Resample	Post Reclaim Resample	Post Reclaim Resample
Sample ID	Hawkins 10-9 Post Rec (0-6 IN)	Hawkins 10-9 Post Rec (0-6 IN)	Hawkins 10-9 Fill (0-12 IN)	Hawkins 10-9 PR-E (6-10 FT)	Hawkins 10-9 PR-CENT (6-10 FT)	Hawkins 10-9 PR-W (6-10 FT)

Organics in Soil	MCL (mg/kg)						
<b>TPH (GRO and DRO)</b>	<b>500</b>	69.15		-	-	-	-
<b>Benzene</b>	<b>0.17</b>	U		-	-	-	-
<b>Toluene</b>	<b>85</b>	U		-	-	-	-
<b>Ethylbenzene</b>	<b>100</b>	U		-	-	-	-
<b>Xylenes</b>	<b>175</b>	U		-	-	-	-
<b>Organics in Soil (PAH's)</b>							
<b>Acenaphthene</b>	<b>1000</b>	U		-	-	-	-
<b>Anthracene</b>	<b>1000</b>	U		-	-	-	-
<b>Benzo(A)anthracene</b>	<b>0.22</b>	U		-	-	-	-
<b>Benzo(B)fluoranthene</b>	<b>0.22</b>	U		-	-	-	-
<b>Benzo(K)fluoranthene</b>	<b>2.2</b>	U		-	-	-	-
<b>Benzo(A)pyrene</b>	<b>0.022</b>	U		-	-	-	-
<b>Chrysene</b>	<b>22</b>	U		-	-	-	-
<b>Dibenzo(A,H)anthracene</b>	<b>0.022</b>	U		-	-	-	-
<b>Fluoranthene</b>	<b>1000</b>	U		-	-	-	-
<b>Flourene</b>	<b>1000</b>	0.011		-	-	-	-
<b>Indeno(1,2,3,C,D)pyrene</b>	<b>0.22</b>	U		-	-	-	-
<b>Napthalene</b>	<b>23</b>	0.05		-	-	-	-
<b>Pyrene</b>	<b>1000</b>	U		-	-	-	-
<b>Inorganics in Soil</b>							
<b>EC</b>	<b>&lt;4 mmhos/cm or 2X background</b>	0.950		-	-	-	-
<b>SAR</b>	<b>&lt;12</b>	10.0		-	-	-	-
<b>pH</b>	<b>6-9</b>	<b>9.3</b>		8.4	-	-	-
<b>Metals in Soils</b>							
<b>Arsenic</b>	<b>0.39</b>	<b>7.8</b>		-	<b>6.4</b>	<b>8.6</b>	<b>6.1</b>
<b>Barium</b>	<b>15000</b>	NA	138	-	-	-	-
<b>Boron (Hot Water Soluble)</b>	<b>2 (mg/L)</b>	NA	<0.20	-	-	-	-
<b>Cadmium</b>	<b>70</b>	1.6		-	-	-	-
<b>Chromium</b>	<b>12000</b>	20.0		-	-	-	-
<b>Chromium VI</b>	<b>23</b>	U		-	-	-	-
<b>Copper</b>	<b>3100</b>	24.0		-	-	-	-
<b>Lead</b>	<b>400</b>	26.0		-	-	-	-
<b>Mercury</b>	<b>23</b>	0.023		-	-	-	-
<b>Nickel</b>	<b>1600</b>	16.0		-	-	-	-
<b>Selenium</b>	<b>390</b>	1.10		-	-	-	-
<b>Silver</b>	<b>390</b>	1.4		-	-	-	-
<b>Zinc</b>	<b>23000</b>	40.0		-	-	-	-



- Post Rec. Composite 10/25/2009 ●
- Fill/Cap Composite 11/30/2009 ●
- Post Rec. Re-Sample 09/08/2010 ●
- Approximate Location of Pit

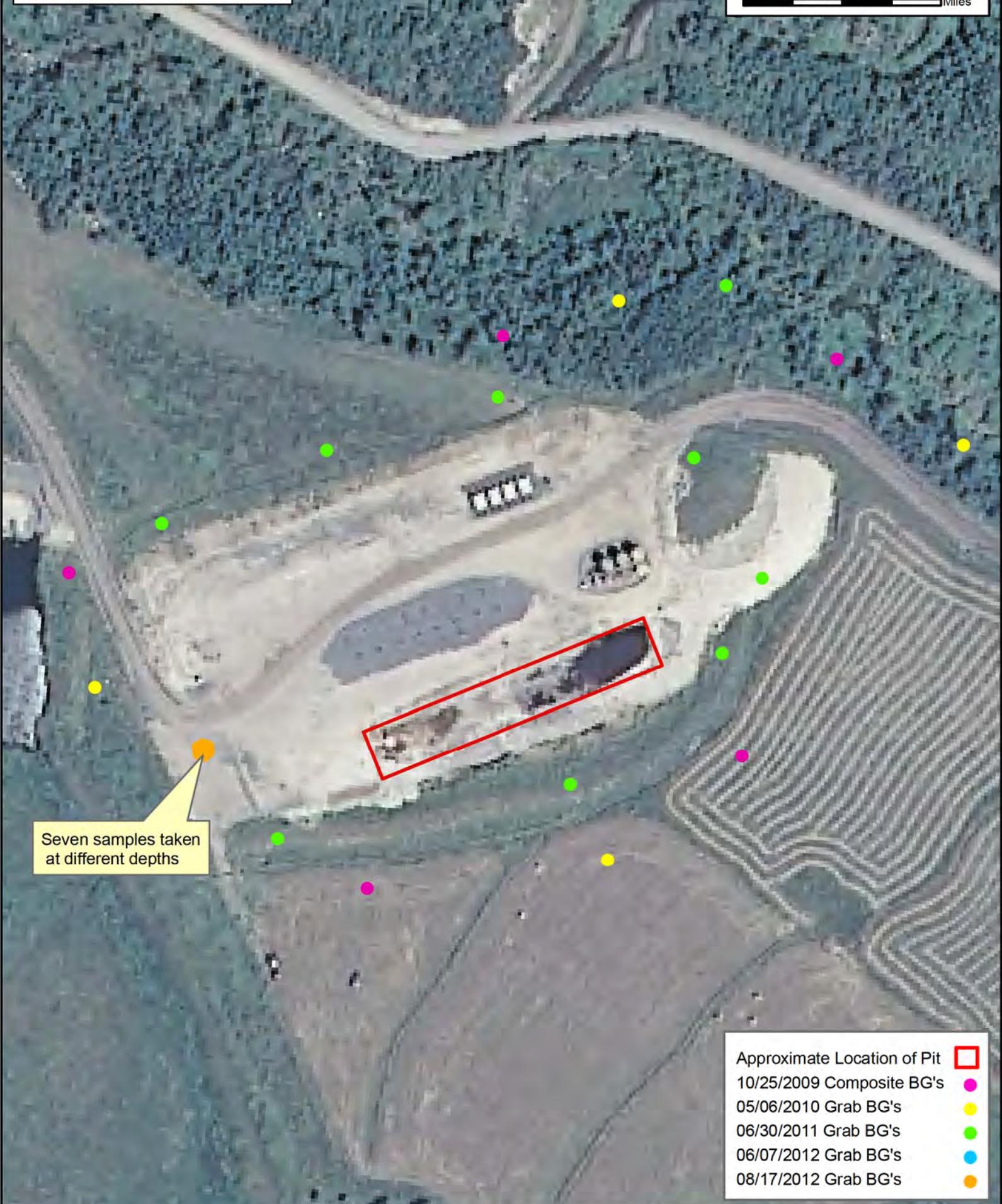




Hawkins Ranch 10-9

Hawkins Ranch 11-13

- Approximate Location of Pit □
- 10/25/2009 Composite BG's ●
- 05/06/2010 Grab BG's ●
- 06/30/2011 Grab BG's ●
- 06/07/2012 Grab BG's ●
- 08/17/2012 Grab BG's ●



- Approximate Location of Pit □
- 10/25/2009 Composite BG's ●
- 05/06/2010 Grab BG's ●
- 06/30/2011 Grab BG's ●
- 06/07/2012 Grab BG's ●
- 08/17/2012 Grab BG's ●



12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
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Tax I.D. 62-0814289  
Est. 1970

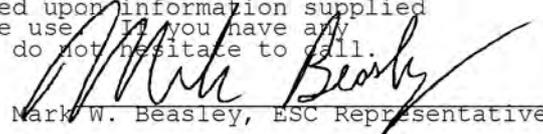
Brett Kennedy  
OXY USA Inc - Grand Junction, CO  
760 Horizon Dr., Ste. 101

Grand Junction, CO 81506

Report Summary  
Tuesday November 03, 2009  
Report Number: L429066  
Samples Received: 10/27/09  
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

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

This report may not be reproduced, except in full, without written approval from Environmental Science Corp.  
Where applicable, sampling conducted by ESC is performed per guidance provided  
in laboratory standard operating procedures: 060302, 060303, and 060304.



YOUR LAB OF CHOICE

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Mt. Juliet, TN 37122  
(615) 758-5858  
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

November 03, 2009

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

Date Received : October 27, 2009  
Description : Pit Reclaims - Collbran  
Sample ID : HAWKINS 10-9 BG 0-6IN  
Collected By : Brett Kennedy  
Collection Date : 10/25/09 14:15

ESC Sample # : L429066-01

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Q	Method	Date	Dil.
pH	7.8			su		9045D	10/27/09	1
Sodium Adsorption Ratio	0.39					Calc.	11/01/09	1
Specific Conductance	53.			umhos/cm		9050AMo	10/29/09	1
Arsenic	2.4	0.32	1.0	mg/kg		6010B	11/02/09	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: 11/03/09 13:08 Printed: 11/03/09 13:09  
L429066-01 (PH) - 7.8@19.7c



**YOUR LAB OF CHOICE**

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

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

November 03, 2009

Date Received : October 27, 2009  
Description : Pit Reclaims - Collbran  
Sample ID : HAWKINS 10-9 POST REC 0-6IN  
Collected By : Brett Kennedy  
Collection Date : 10/25/09 14:25

ESC Sample # : L429066-02  
Site ID :  
Project # :

Parameter	Result	MDL	RDL	Units	Q	Method	Date	Dil.
Chromium, Hexavalent	U	0.10	2.0	mg/kg	J6	3060A/7	10/29/09	1
ORP	110			mV		2580	10/29/09	1
pH	9.3			su	J3	9045D	10/27/09	1
Sodium Adsorption Ratio	10.					Calc.	11/01/09	1
Specific Conductance	950			umhos/cm		9050AMo	10/29/09	1
Mercury	0.023	0.0025	0.020	mg/kg		7471	10/29/09	1
Arsenic	7.8	0.32	1.0	mg/kg		6010B	11/02/09	1
Cadmium	1.6	0.040	0.25	mg/kg		6010B	11/02/09	1
Chromium	20.	0.085	0.50	mg/kg		6010B	11/02/09	1
Copper	24.	0.21	1.0	mg/kg		6010B	11/02/09	1
Lead	26.	0.090	0.25	mg/kg		6010B	11/02/09	1
Nickel	16.	0.26	1.0	mg/kg		6010B	11/02/09	1
Selenium	1.1	0.32	1.0	mg/kg		6010B	11/02/09	1
Silver	1.4	0.16	0.50	mg/kg		6010B	11/02/09	1
Zinc	40.	0.34	1.5	mg/kg		6010B	11/02/09	1
Benzene	U	0.00090	0.0025	mg/kg		8021/80	10/31/09	5
Toluene	U	0.0015	0.025	mg/kg		8021/80	10/31/09	5
Ethylbenzene	U	0.0013	0.0025	mg/kg		8021/80	10/31/09	5
Total Xylene	U	0.0028	0.0075	mg/kg		8021/80	10/31/09	5
TPH (GC/FID) Low Fraction	0.15	0.14	0.50	mg/kg	J	GRO	10/31/09	5
Surrogate Recovery-%								
a,a,a-Trifluorotoluene (FID)	98.9			% Rec.		8021/80	10/31/09	5
a,a,a-Trifluorotoluene (PID)	103.			% Rec.		8021/80	10/31/09	5
TPH (GC/FID) High Fraction	69.	1.3	4.0	mg/kg		3546/DR	10/30/09	1
Surrogate recovery(%)								
o-Terphenyl	84.9			% Rec.		3546/DR	10/30/09	1
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.0093	0.033	mg/kg		8270C	10/30/09	1
Acenaphthene	U	0.011	0.033	mg/kg		8270C	10/30/09	1
Acenaphthylene	U	0.011	0.033	mg/kg	J3	8270C	10/30/09	1
Benzo(a)anthracene	U	0.0077	0.033	mg/kg		8270C	10/30/09	1
Benzo(a)pyrene	U	0.0074	0.033	mg/kg	J3	8270C	10/30/09	1
Benzo(b)fluoranthene	U	0.0078	0.033	mg/kg		8270C	10/30/09	1
Benzo(g,h,i)perylene	U	0.0095	0.033	mg/kg	J3	8270C	10/30/09	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: 11/03/09 13:08 Printed: 11/03/09 13:09  
L429066-02 (PH) - 9.3819.3c



YOUR LAB OF CHOICE

12065 Lebanon Rd.  
Mt. Juliet, TN 37122  
(615) 758-5858  
1-800-767-5859  
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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 03, 2009

Date Received : October 27, 2009  
Description : Pit Reclaims - Collbran  
Sample ID : HAWKINS 10-9 POST REC 0-6IN  
Collected By : Brett Kennedy  
Collection Date : 10/25/09 14:25

ESC Sample # : L429066-02

Site ID :

Project # :

Parameter	Result	MDL	RDL	Units	Q	Method	Date	Dil.
Benzo(k)fluoranthene	U	0.012	0.033	mg/kg		8270C	10/30/09	1
Chrysene	U	0.0091	0.033	mg/kg		8270C	10/30/09	1
Dibenz(a,h)anthracene	U	0.011	0.033	mg/kg	J3	8270C	10/30/09	1
Fluoranthene	U	0.0079	0.033	mg/kg		8270C	10/30/09	1
Fluorene	0.011	0.0095	0.033	mg/kg	J	8270C	10/30/09	1
Indeno(1,2,3-cd)pyrene	U	0.011	0.033	mg/kg		8270C	10/30/09	1
Naphthalene	0.050	0.016	0.033	mg/kg		8270C	10/30/09	1
Phenanthrene	0.020	0.0073	0.033	mg/kg	J	8270C	10/30/09	1
Pyrene	U	0.0089	0.033	mg/kg		8270C	10/30/09	1
Surrogate Recovery								
Nitrobenzene-d5	47.7			% Rec.		8270C	10/30/09	1
2-Fluorobiphenyl	61.6			% Rec.		8270C	10/30/09	1
p-Terphenyl-d14	64.5			% Rec.		8270C	10/30/09	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: 11/03/09 13:08 Printed: 11/03/09 13:09  
L429066-02 (PH) - 9.3819.3c

Attachment A  
List of Analytes with QC Qualifiers

Sample Number	Work Group	Sample Type	Analyte	Run ID	Qualifier
L429066-02	WG447681	SAMP	pH	R969969	J3
	WG448443	SAMP	TPH (GC/FID) Low Fraction	R979088	J
	WG447938	SAMP	Chromium, Hexavalent	R973068	J6
	WG448111	SAMP	Acenaphthylene	R975950	J3
	WG448111	SAMP	Benzo(a)pyrene	R975950	J3
	WG448111	SAMP	Benzo(g,h,i)perylene	R975950	J3
	WG448111	SAMP	Dibenz(a,h)anthracene	R975950	J3
	WG448111	SAMP	Fluorene	R975950	J
	WG448111	SAMP	Phenanthrene	R975950	J

Attachment B  
Explanation of QC Qualifier Codes

Qualifier	Meaning
J	(EPA) - Estimated value below the lowest calibration point. Confidence correlates with concentration.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low

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  
11/03/09 at 13:09:06

TSR Signing Reports: 134  
R5 - Desired TAT

Sample: L429066-01 Account: OXYGJCO Received: 10/27/09 09:00 Due Date: 11/03/09 00:00 RPT Date: 11/03/09 13:08

Sample: L429066-02 Account: OXYGJCO Received: 10/27/09 09:00 Due Date: 11/03/09 00:00 RPT Date: 11/03/09 13:08





## Technical Report for

Oxy USA Inc.

Colibrán - Pit Reclaims

Accutest Job Number: T40469

Sampling Date: 10/25/09

Report to:

Oxy USA Inc.  
760 Horizon DR, Suite 101  
Grand Junction, CO 81506  
Brett\_Kennedy@oxy.com

ATTN: Brett Kennedy

Total number of pages in report: **20**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

*Paul K Canevaro*

Paul Canevaro  
Laboratory Director

Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)  
OK (9103) UT(7132714700)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

# Table of Contents

Sections:



-1-

<b>Section 1: Sample Summary</b> .....	<b>3</b>
<b>Section 2: Sample Results</b> .....	<b>4</b>
<b>2.1:</b> T40469-1: HAWKINS 10-9 POST REC .....	5
<b>2.2:</b> T40469-1A: HAWKINS 10-9 POST REC .....	6
<b>Section 3: Misc. Forms</b> .....	<b>7</b>
<b>3.1:</b> Chain of Custody .....	8
<b>Section 4: Metals Analysis - QC Data Summaries</b> .....	<b>11</b>
<b>4.1:</b> Prep QC MP10561: Ba .....	12
<b>4.2:</b> Prep QC MP10562: B .....	16



### Sample Summary

Oxy USA Inc.

Job No: T40469

Colibrán - Pit Reclaims

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
T40469-1	10/25/09	14:25 BK	10/27/09	SO	Soil	HAWKINS 10-9 POST REC
T40469-1A	10/25/09	14:25 BK	10/27/09	SO	Soil	HAWKINS 10-9 POST REC

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Results

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Report of Analysis

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### Report of Analysis

<b>Client Sample ID:</b>	HAWKINS 10-9 POST REC	<b>Date Sampled:</b>	10/25/09
<b>Lab Sample ID:</b>	T40469-1	<b>Date Received:</b>	10/27/09
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.7
<b>Project:</b>	Colibrán - Pit Reclaims		

**Total True Barium Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Barium	138	11	mg/kg	1	10/30/09	11/07/09 NS	SW846 6010B <sup>1</sup>	LADNR 29B <sup>2</sup>

(1) Instrument QC Batch: MA4382

(2) Prep QC Batch: MP10561

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> HAWKINS 10-9 POST REC	<b>Date Sampled:</b> 10/25/09
<b>Lab Sample ID:</b> T40469-1A	<b>Date Received:</b> 10/27/09
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.7
<b>Project:</b> Colibrán - Pit Reclaims	

### Hot Water Soluble Boron Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Boron	< 0.20	0.20	mg/l	1	10/30/09	10/31/09 NS	SW846 6010B <sup>1</sup>	LADNR 29B <sup>2</sup>

(1) Instrument QC Batch: MA4365

(2) Prep QC Batch: MP10562

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RL = Reporting Limit



## Misc. Forms

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### Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody



# CHAIN OF CUSTODY

2235 Route 130, Dayton, NJ 08810  
732-329-0200 FAX: 732-329-3499/3480

Client / Reporting Information		Project Information		Requested Analysis		Matrix Codes	
Company Name <b>OXY USA INC</b> Address <b>760 Horizon Dr., Ste. 101</b> City State Zip <b>Grand Junction, CO 81506</b> Project Contact: <b>Ehatt Kennedy</b> Phone # <b>970-253-3501</b> Samplers Name <b>Ehatt Kennedy</b>		Project Name: <b>Fit Reclaims - Colbran</b> Street City State Project # Client Purchase Order #		Accutest Dues # Accutest Job # <b>740469</b>		DW- Drinking Water GW- Ground Water WW- Water SW- Surface Water SD- Soil SL- Sludge OI- Oil LIQ- Other Liquid AIR- Air SOL- Other Solid WP- Wipe <b>LAB USE ONLY</b>	
Accutest	SUMMA #	Collection		Number of preserved Bottles			
Sample #	Field ID / Point of Collection	MEOH Vol	Date	Time	Sampled by	Matrix	# of bottles
	<b>Hawkins 10-9 Post Rec</b>		<b>10/25/18</b>	<b>1445</b>	<b>BR</b>	<b>SO</b>	<b>1</b>
Turnaround Time (Business days)		Approved By/Date:		Data Deliverable Information		Comments / Remarks	
<input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> 10 Day RUSH <input checked="" type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> Other				<input checked="" type="checkbox"/> Commercial "A" <input type="checkbox"/> Commercial "B" <input type="checkbox"/> NJ Reduced <input type="checkbox"/> NJ Full <input type="checkbox"/> Other _____ Commercial "A" = Results Only		<input type="checkbox"/> FULL CLP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format	
Emergency T/A data available VIA Lablink							
Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished by:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:
<b>Ehatt Kennedy</b>	<b>10/25/18 10256</b>	<b>1</b>		<b>2</b>	<b>10-27-18 915</b>	<b>3</b>	
Relinquished by:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:
		<b>3</b>		<b>4</b>		<b>4</b>	
Relinquished by:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:
		<b>5</b>					
Custody Seal #		Preserved where applicable		On Ice		Cooler Temp.	
						<b>12.6°</b>	

31  
3

# SAMPLE INSPECTION FORM

Accutest Job Number: T40469 Client: OXY USA, Inc. Date/Time Received: 10/27/09 0915

# of Coolers Received: 1 Thermometer #: 12-1 Temperature Adjustment Factor: +0.4

Cooler Temps: #1: 18.6 #2: \_\_\_\_\_ #3: \_\_\_\_\_ #4: \_\_\_\_\_ #5: \_\_\_\_\_ #6: \_\_\_\_\_ #7: \_\_\_\_\_ #8: \_\_\_\_\_

Method of Delivery:  FEDEX  UPS  Accutest Courier  Greyhound  Delivery  Other

Airbill Numbers: \_\_\_\_\_

- COOLER INFORMATION**
- Custody seal missing or not intact
  - Temperature criteria not met
  - Wet ice received in cooler

- CHAIN OF CUSTODY**
- Chain of Custody not received
  - Sample D/T unclear or missing
  - Analyses unclear or missing
  - COC not properly executed

- SAMPLE INFORMATION**
- Sample containers received broken
  - VOC vials have headspace
  - Sample labels missing or illegible
  - ID on COC does not match label(s)
  - D/T on COC does not match label(s)
  - Sample/Bottles rcvd but no analysis on COC
  - Sample listed on COC, but not received
  - Bottles missing for requested analysis
  - Insufficient volume for analysis
  - Sample received improperly preserved

- TRIP BLANK INFORMATION**
- Trip Blank on COC but not received
  - Trip Blank received but not on COC
  - Trip Blank not intact
  - Received Water Trip Blank
  - Received Soil TB

Number of Encores? \_\_\_\_\_  
 Number of 5035 kits? \_\_\_\_\_  
 Number of lab-filtered metals? \_\_\_\_\_

Summary of Discrepancies: NO ICE

TECHNICIAN SIGNATURE/DATE: [Signature]

INFORMATION AND SAMPLE LABELING VERIFIED BY: [Signature]

**CORRECTIVE ACTIONS**

Client Representative Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Accutest Representative: \_\_\_\_\_ Via: Phone Email

Client Instructions: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

I:\nwalker\forms\samplemanagement

31  
3





## Metals Analysis

---

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: T40469  
Account: OXYCOGJ - Oxy USA Inc.  
Project: Colibrán - Pit Reclaims

QC Batch ID: MP10561  
Matrix Type: SOLID

Methods: SW846 6010B  
Units: mg/kg

Prep Date: 10/30/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.82	2.2		
Antimony	0.50	.11	.14		
Arsenic	0.50	.089	.1		
Barium	10	.007	.03	0.10	<10
Beryllium	0.25	.0055	.01		
Boron	5.0	.054	.11		
Cadmium	0.25	.013	.05		
Calcium	250	.27	.86		
Chromium	0.50	.055	.035		
Cobalt	2.5	.025	.09		
Copper	1.3	.029	.065		
Iron	5.0	.65	1.1		
Lead	0.50	.079	.2		
Magnesium	250	.34	.58		
Manganese	0.75	.01	.035		
Molybdenum	0.50	.048	.075		
Nickel	2.0	.048	.065		
Potassium	250	2.7	16		
Selenium	0.50	.16	.12		
Silver	0.50	.043	.04		
Sodium	250	6.5	13		
Strontium	1.0	.0085	.025		
Thallium	0.50	.16	.25		
Tin	1.0	.09	.12		
Titanium	1.0	.015	.045		
Vanadium	2.5	.03	.06		
Zinc	1.0	.025	.2		

Associated samples MP10561: T40469-1

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC Limits  
(anr) Analyte not requested

4.1.1  
4

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T40469  
 Account: OXYCOGJ - Oxy USA Inc.  
 Project: Colibrán - Pit Reclaims

QC Batch ID: MP10561  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 10/30/09

Metal	T40469-1 Original	DUP	RPD	QC Limits
-------	----------------------	-----	-----	--------------

Aluminum				
Antimony				
Arsenic				
Barium	138	126	9.1	0-20
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10561: T40469-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

4.1.2  
**4**

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T40469  
 Account: OXYCOGJ - Oxy USA Inc.  
 Project: Colibrán - Pit Reclaims

QC Batch ID: MP10561  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: mg/kg

Prep Date: 10/30/09 10/30/09

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits	BSD Result	Spikelot MPTW4	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony									
Arsenic									
Barium	21.0	20	105.0	80-120	21.9	20	109.5	4.2	
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP10561: T40469-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC Limits  
 (anr) Analyte not requested

4.1.3  
**4**

SERIAL DILUTION RESULTS SUMMARY

Login Number: T40469  
 Account: OXYCOGJ - Oxy USA Inc.  
 Project: Colibrán - Pit Reclaims

QC Batch ID: MP10561  
 Matrix Type: SOLID

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/30/09

Metal	T40469-1	Original	SDL 1:5	%DIF	QC Limits
-------	----------	----------	---------	------	-----------

Aluminum					
Antimony					
Arsenic					
Barium	2470	2700	9.4		0-10
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP10561: T40469-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC Limits  
 (anr) Analyte not requested

4.1.4  
**4**

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: T40469  
Account: OXYCOGJ - Oxy USA Inc.  
Project: Colibrán - Pit Reclaims

QC Batch ID: MP10562  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 10/30/09

Metal	RL	IDL	MDL	MB raw	final
Aluminum	400	33	34		
Antimony	10	4.5	6		
Arsenic	10	3.5	4		
Barium	400	.28	5.4		
Beryllium	10	.22	.4		
Boron	200	2.2	4.2	-12	<200
Cadmium	8.0	.5	.6		
Calcium	10000	11	70		
Chromium	20	2.2	3.8		
Cobalt	100	1	1.6		
Copper	50	1.2	12		
Iron	200	26	26		
Lead	6.0	3.2	3.4		
Magnesium	10000	13	16		
Manganese	30	.4	15		
Molybdenum	20	1.9	2.6		
Nickel	80	1.9	6.4		
Potassium	10000	110	110		
Selenium	10	6.5	6.4		
Silver	20	1.7	1.6		
Sodium	10000	260	270		
Strontium	40	.34	.8		
Thallium	20	6.5	5.2		
Tin	40	3.6	5.8		
Titanium	40	.6	.6		
Vanadium	100	1.2	1.2		
Zinc	40	.98	8.2		

Associated samples MP10562: T40469-1A

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC Limits  
(anr) Analyte not requested

4.2.1  
4

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T40469  
 Account: OXYCOGJ - Oxy USA Inc.  
 Project: Colibrán - Pit Reclaims

QC Batch ID: MP10562  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/30/09 10/30/09

Metal	T39947-1A Original	DUP	RPD	QC Limits	T39947-1A Original MS	Spikelot MPTW4	% Rec	QC Limits
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Boron	256	246	4.0	0-20	256	2090	1000	94.2 80-120
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Molybdenum								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Strontium								
Thallium								
Tin								
Titanium								
Vanadium								
Zinc								

Associated samples MP10562: T40469-1A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC Limits  
 (anr) Analyte not requested

4.2.2  
4

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: T40469  
 Account: OXYCOGJ - Oxy USA Inc.  
 Project: Colibrán - Pit Reclaims

QC Batch ID: MP10562  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/30/09

Metal	T39947-1A Original MSD	Spikelot MPTW4	% Rec	MSD RPD	QC Limit
-------	---------------------------	-------------------	-------	------------	-------------

Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron	256	2090	1000	91.6	0.0
Cadmium					20
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP10562: T40469-1A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

4.2.2  
4

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: T40469  
 Account: OXYCOGJ - Oxy USA Inc.  
 Project: Colibrán - Pit Reclaims

QC Batch ID: MP10562  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/30/09

Metal	BSP Result	Spikelot MPTW4	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron	2060	1000	102.8	80-120
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10562: T40469-1A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC Limits  
 (anr) Analyte not requested

4.2.3  
4

SERIAL DILUTION RESULTS SUMMARY

Login Number: T40469  
 Account: OXYCOGJ - Oxy USA Inc.  
 Project: Colibrán - Pit Reclaims

QC Batch ID: MP10562  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 10/30/09

Metal	T39947-1A	Original	SDL 1:5	%DIF	QC Limits
-------	-----------	----------	---------	------	-----------

Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron	131	126	3.8		0-10
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP10562: T40469-1A

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC Limits  
 (anr) Analyte not requested

4.2.4  
4



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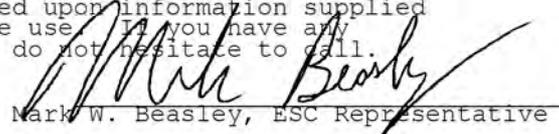
Brett Kennedy  
OXY USA Inc - Grand Junction, CO  
760 Horizon Dr., Ste. 101

Grand Junction, CO 81506

Report Summary  
Thursday December 03, 2009  
Report Number: L434451  
Samples Received: 12/02/09  
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*

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REPORT OF ANALYSIS

December 03, 2009

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

Date Received : December 02, 2009  
Description : Pit Reclaims - Collbran  
Sample ID : HAWKINS 10-9 FILL  
Collected By : Brett Kennedy  
Collection Date : 11/30/09 11:20

ESC Sample # : L434451-01

Site ID :

Project # :

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
pH	8.4		su	9045D	12/03/09	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: 12/03/09 12:22 Printed: 12/03/09 13:46  
L434451-01 (PH) - 8.4@17.0c

Summary of Remarks For Samples Printed  
12/03/09 at 13:46:49

TSR Signing Reports: 134  
R5 - Desired TAT

Sample: L434451-01 Account: OXYGJCO Received: 12/02/09 09:00 Due Date: 12/09/09 00:00 RPT Date: 12/03/09 12:22





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

### Report Summary

Monday September 13, 2010

Report Number: L477998

Samples Received: 09/10/10

Client Project:

Description: Pit Reclaims - Collbran

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Entire Report Reviewed By:

Mark W. Beasley, ESC Representative

#### Laboratory Certification Numbers

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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 13, 2010

Date Received : September 10, 2010  
 Description : Pit Reclaims - Collbran  
 Sample ID : HAWKINS 10-9-PR-E  
 Collected By : Brett Kennedy  
 Collection Date : 09/08/10 12:40

ESC Sample # : L477998-01  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	6.4	0.32	1.0	mg/kg		6010B	09/12/10	1

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

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Reported: 09/13/10 11:23 Printed: 09/13/10 11:23



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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 13, 2010

Date Received : September 10, 2010  
 Description : Pit Reclaims-Collbran  
 Sample ID : HAWKINS 10-9-PR-CENT  
 Collected By : Brett Kennedy  
 Collection Date : 09/08/10 12:50

ESC Sample # : L477998-02  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	8.6	0.32	1.0	mg/kg		6010B	09/12/10	1

U = ND (Not Detected)  
 MDL = Minimum Detection Limit = LOD  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
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Reported: 09/13/10 11:23 Printed: 09/13/10 11:23



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REPORT OF ANALYSIS

September 13, 2010

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

Date Received : September 10, 2010  
Description : Pit Reclaims-Collbran  
Sample ID : HAWKINS 10-9-PR-W  
Collected By : Brett Kennedy  
Collection Date : 09/08/10 13:05

ESC Sample # : L477998-03  
Site ID :  
Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	6.1	0.32	1.0	mg/kg		6010B	09/12/10	1

U = ND (Not Detected)  
MDL = Minimum Detection Limit = LOD  
RDL = Reported Detection Limit = LOQ = PQL = EQL  
Note:  
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Reported: 09/13/10 11:23 Printed: 09/13/10 11:23

Summary of Remarks For Samples Printed  
09/13/10 at 11:23:21

TSR Signing Reports: 134  
R4 - Rush: Three Day

Sample: L477998-01 Account: OXYGJCO Received: 09/10/10 09:00 Due Date: 09/15/10 00:00 RPT Date: 09/13/10 11:23

Sample: L477998-02 Account: OXYGJCO Received: 09/10/10 09:00 Due Date: 09/15/10 00:00 RPT Date: 09/13/10 11:23

Sample: L477998-03 Account: OXYGJCO Received: 09/10/10 09:00 Due Date: 09/15/10 00:00 RPT Date: 09/13/10 11:23

Company Name/Address:  
**OXY USA - Grand Junction, CO**  
 760 Horizon Dr., Ste. 101  
 Grand Junction, CO 81506

Alternate billing information:

Analysis/Container/Preservative

E171 Chain of Custody Page 1 of 1  
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 Phone (800) 767-5859  
 FAX (615) 758-5859

Report to: *Brett Kennedy*

Email to: *brett-kennedy@oay.com*

Project Description: *Pit Reclaims - Colbran*

City/State Collected: *-*

Phone: (970) 263-3601  
 FAX:

Client Project #: *-*

ESC Key: *-*

Collected by: *Brett Kennedy*

Site/Facility ID#: *-*

P.O.#: *-*

Collected by (signature): *Brett Kennedy*  
 Immediately  
 Packed on Ice N  Y

**Rush?** (Lab MUST Be Notified)  
 Same Day . . . . . 200%  
 Next Day . . . . . 100%  
 Two Day . . . . . 50%  
 Three Day . . . . . 25%

Date Results Needed:  
 Email?  No  Yes  
 FAX?  No  Yes

No. of Cntrs  
*AS*

CoCode **OXYGJCO** (lab use only)  
 Template/Prelogin  
 Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs
<i>Hawkins 10-9-PR-E</i>	<i>grab</i>	<i>SS</i>	<i>6-10'</i>	<i>9/18/10</i>	<i>1240</i>	<i>1</i>
<i>Hawkins 10-9-PR-Cent</i>	<i>↓</i>	<i>↓</i>	<i>4-6'</i>	<i>↓</i>	<i>1250</i>	<i>1</i>
<i>Hawkins 10-9-PR-W</i>	<i>↓</i>	<i>↓</i>	<i>6-8'</i>	<i>↓</i>	<i>1305</i>	<i>1</i>

Remarks/Contaminant	Sample # (lab only)
	<i>1477998-01</i>
	<i>02</i>

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

Relinquished by: (Signature) <i>Brett Kennedy</i>	Date: <i>9/19/10</i>	Time: <i>1630</i>	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <i>OK</i>
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: <i>3.50</i>	Bottles Received: <i>3-802</i>
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Jen Wren</i>	Date: <i>9/10/10</i>	Time: <i>0900</i>
					pH Checked: NCF:



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

### Report Summary

Tuesday May 11, 2010

Report Number: L458022

Samples Received: 05/08/10

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

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NJ - TN002, NJ NELAP - TN002, SC - 84004, TN - 2006, VA - 00109, WV - 233  
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REPORT OF ANALYSIS

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

May 11, 2010

Date Received : May 08, 2010  
 Description : Pit Reclaims - Collbran  
 Sample ID : HAWKINS 10-9 BG-W 0-6 IN  
 Collected By : Brett Kennedy  
 Collection Date : 05/06/10 14:21

ESC Sample # : L458022-01  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	2.9	0.32	1.0	mg/kg		6010B	05/10/10	1

U = ND (Not Detected)  
 MDL = Minimum Detection Limit = LOD  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
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Reported: 05/11/10 09:16 Printed: 05/11/10 09:16



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REPORT OF ANALYSIS

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

May 11, 2010

Date Received : May 08, 2010  
 Description : Pit Reclaims - Collbran  
 Sample ID : HAWKINS 10-9 BG-N 0-6 IN  
 Collected By : Brett Kennedy  
 Collection Date : 05/06/10 14:26

ESC Sample # : L458022-02  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	3.6	0.32	1.0	mg/kg		6010B	05/10/10	1

U = ND (Not Detected)  
 MDL = Minimum Detection Limit = LOD  
 RDL = Reported Detection Limit = LOQ = PQL = EQL  
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Reported: 05/11/10 09:16 Printed: 05/11/10 09:16



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REPORT OF ANALYSIS

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

May 11, 2010

Date Received : May 08, 2010  
 Description : Pit Reclaims - Collbran  
 Sample ID : HAWKINS 10-9 BG-E 0-6 IN  
 Collected By : Brett Kennedy  
 Collection Date : 05/06/10 14:30

ESC Sample # : L458022-03  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	1.9	0.32	1.0	mg/kg		6010B	05/10/10	1

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

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Reported: 05/11/10 09:16 Printed: 05/11/10 09:16



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REPORT OF ANALYSIS

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

May 11, 2010

Date Received : May 08, 2010  
 Description : Pit Reclaims - Collbran  
 Sample ID : HAWKINS 10-9 BG-S 0-6 IN  
 Collected By : Brett Kennedy  
 Collection Date : 05/06/10 14:35

ESC Sample # : L458022-04  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Arsenic	3.0	0.32	1.0	mg/kg		6010B	05/10/10	1

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

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Reported: 05/11/10 09:16 Printed: 05/11/10 09:16

Summary of Remarks For Samples Printed  
05/11/10 at 09:16:57

TSR Signing Reports: 134  
R4 - Rush: Three Day

Sample: L458022-01 Account: OXYGJCO Received: 05/08/10 09:00 Due Date: 05/12/10 00:00 RPT Date: 05/11/10 09:16

Sample: L458022-02 Account: OXYGJCO Received: 05/08/10 09:00 Due Date: 05/12/10 00:00 RPT Date: 05/11/10 09:16

Sample: L458022-03 Account: OXYGJCO Received: 05/08/10 09:00 Due Date: 05/12/10 00:00 RPT Date: 05/11/10 09:16

Sample: L458022-04 Account: OXYGJCO Received: 05/08/10 09:00 Due Date: 05/12/10 00:00 RPT Date: 05/11/10 09:16





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Est. 1970

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

<p style="text-align: center;"><b>Report Summary</b></p> <p style="text-align: center;">Monday July 11, 2011</p> <p style="text-align: center;">Report Number: L524086</p> <p style="text-align: center;">Samples Received: 07/01/11</p> <p style="text-align: center;">Client Project:</p> <p style="text-align: center;">Description: Hawkins 10-9</p>
--

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Entire Report Reviewed By:

Mark W. Beasley , ESC Representative

**Laboratory Certification Numbers**

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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

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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-SB-WEST 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:00

ESC Sample # : L524086-01  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	5.2	3.5	10.	mg/kg	J	3060A/7	07/08/11	5
Chromium, Trivalent	14.	0.17	0.50	mg/kg		Calc.	07/04/11	1
ORP	200			mV		2580	07/06/11	1
pH	6.5			su		9045D	07/08/11	1
Sodium Adsorption Ratio	1.0					Calc.	07/03/11	1
Specific Conductance	94.			umhos/cm		9050AMo	07/06/11	1
Mercury	0.011	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	3.2	0.32	1.0	mg/kg		6010B	07/04/11	1
Barium	160	0.050	0.25	mg/kg		6010B	07/04/11	1
Cadmium	0.28	0.040	0.25	mg/kg		6010B	07/04/11	1
Chromium	19.	0.085	0.50	mg/kg		6010B	07/04/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	07/04/11	1
Lead	9.8	0.090	0.25	mg/kg		6010B	07/04/11	1
Nickel	13.	0.26	1.0	mg/kg		6010B	07/04/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/04/11	1
Silver	0.59	0.16	0.50	mg/kg		6010B	07/04/11	1
Zinc	49.	0.34	1.5	mg/kg		6010B	07/04/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg	J5J3	8015D/G	07/02/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/02/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/04/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/04/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/04/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/04/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	07/04/11	5
Dibromofluoromethane	97.7			% Rec.		8260B	07/04/11	5
a,a,a-Trifluorotoluene	108.			% Rec.		8260B	07/04/11	5
4-Bromofluorobenzene	93.3			% Rec.		8260B	07/04/11	5
TPH (GC/FID) High Fraction	1.2	0.77	4.0	mg/kg	J	3546/DR	07/07/11	1
Surrogate recovery(%) o-Terphenyl	63.8			% Rec.		3546/DR	07/07/11	1

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 L524086-01 (PH) - 6.5@21.3c



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 Est. 1970

REPORT OF ANALYSIS

July 11, 2011

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

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-SB-WEST 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:00

ESC Sample # : L524086-01  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5		77.8		% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl		85.9		% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14		107.		% Rec.		8270C-S	07/08/11	1

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REPORT OF ANALYSIS

July 11, 2011

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

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-SB-CENTER 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:18

ESC Sample # : L524086-02  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	15.	7.1	20.	mg/kg	J	3060A/7	07/08/11	10
Chromium, Trivalent	0.91	0.17	0.50	mg/kg		Calc.	07/04/11	1
ORP	200			mV		2580	07/06/11	1
pH	6.7			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.53					Calc.	07/03/11	1
Specific Conductance	90.			umhos/cm		9050AMo	07/06/11	1
Mercury	0.014	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	2.5	0.32	1.0	mg/kg		6010B	07/04/11	1
Barium	150	0.050	0.25	mg/kg		6010B	07/04/11	1
Cadmium	0.24	0.040	0.25	mg/kg	J	6010B	07/04/11	1
Chromium	16.	0.085	0.50	mg/kg		6010B	07/04/11	1
Copper	15.	0.21	1.0	mg/kg		6010B	07/04/11	1
Lead	7.7	0.090	0.25	mg/kg		6010B	07/04/11	1
Nickel	14.	0.26	1.0	mg/kg		6010B	07/04/11	1
Selenium	0.56	0.32	1.0	mg/kg	J	6010B	07/04/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/04/11	1
Zinc	43.	0.34	1.5	mg/kg		6010B	07/04/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/04/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/04/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/04/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/04/11	5
Surrogate Recovery								
Toluene-d8	97.9			% Rec.		8260B	07/04/11	5
Dibromofluoromethane	96.0			% Rec.		8260B	07/04/11	5
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	07/04/11	5
4-Bromofluorobenzene	90.8			% Rec.		8260B	07/04/11	5
TPH (GC/FID) High Fraction	2.5	0.77	4.0	mg/kg	J	3546/DR	07/07/11	1
Surrogate recovery(%) o-Terphenyl	70.8			% Rec.		3546/DR	07/07/11	1

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 L524086-02 (PH) - 6.7@20.8c



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REPORT OF ANALYSIS

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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-SB-CENTER 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:18

ESC Sample # : L524086-02  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5		77.6		% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl		78.2		% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14		86.6		% Rec.		8270C-S	07/08/11	1

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REPORT OF ANALYSIS

July 11, 2011

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

Date Received : July 01, 2011  
Description : Hawkins 10-9  
Sample ID : BG-SB-EAST 1FT  
Collected By : Travis Brophy  
Collection Date : 06/30/11 06:30

ESC Sample # : L524086-03  
Site ID :  
Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	9.9	3.5	10.	mg/kg	J	3060A/7	07/08/11	5
Chromium, Trivalent	6.2	0.17	0.50	mg/kg		Calc.	07/04/11	1
ORP	210			mV		2580	07/06/11	1
pH	6.5			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.67					Calc.	07/03/11	1
Specific Conductance	69.			umhos/cm		9050AMo	07/06/11	1
Mercury	0.013	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	2.8	0.32	1.0	mg/kg		6010B	07/04/11	1
Barium	150	0.050	0.25	mg/kg		6010B	07/04/11	1
Cadmium	0.31	0.040	0.25	mg/kg		6010B	07/04/11	1
Chromium	16.	0.085	0.50	mg/kg		6010B	07/04/11	1
Copper	15.	0.21	1.0	mg/kg		6010B	07/04/11	1
Lead	9.3	0.090	0.25	mg/kg		6010B	07/04/11	1
Nickel	14.	0.26	1.0	mg/kg		6010B	07/04/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/04/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/04/11	1
Zinc	48.	0.34	1.5	mg/kg		6010B	07/04/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	102.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/04/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/04/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/04/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/04/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	07/04/11	5
Dibromofluoromethane	103.			% Rec.		8260B	07/04/11	5
a,a,a-Trifluorotoluene	108.			% Rec.		8260B	07/04/11	5
4-Bromofluorobenzene	92.2			% Rec.		8260B	07/04/11	5
TPH (GC/FID) High Fraction	2.4	0.77	4.0	mg/kg	J	3546/DR	07/07/11	1
Surrogate recovery(%) o-Terphenyl	83.3			% Rec.		3546/DR	07/07/11	1

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L524086-03 (PH) - 6.5@21.1c



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REPORT OF ANALYSIS

July 11, 2011

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

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-SB-EAST 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:30

ESC Sample # : L524086-03  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	0.00096	0.00092	0.0060	mg/kg	J	8270C-S	07/08/11	1
Benzo(a)pyrene	0.00084	0.00062	0.0060	mg/kg	JV3	8270C-S	07/08/11	1
Benzo(b)fluoranthene	0.00099	0.00082	0.0060	mg/kg	JV3	8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	0.00091	0.00074	0.0060	mg/kg	J	8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	75.7			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	70.8			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	128.			% Rec.		8270C-S	07/08/11	1

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REPORT OF ANALYSIS

July 11, 2011

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

Date Received : July 01, 2011  
Description : Hawkins 10-9  
Sample ID : BG-EB-NORTH 1FT  
Collected By : Travis Brophy  
Collection Date : 06/30/11 06:55

ESC Sample # : L524086-04  
Site ID :  
Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	9.2	3.5	10.	mg/kg	J	3060A/7	07/08/11	5
Chromium, Trivalent	8.3	0.17	0.50	mg/kg		Calc.	07/04/11	1
ORP	190			mV		2580	07/06/11	1
pH	6.8			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.82					Calc.	07/03/11	1
Specific Conductance	120			umhos/cm		9050AMo	07/06/11	1
Mercury	0.014	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	2.1	0.32	1.0	mg/kg		6010B	07/04/11	1
Barium	150	0.050	0.25	mg/kg		6010B	07/04/11	1
Cadmium	0.30	0.040	0.25	mg/kg		6010B	07/04/11	1
Chromium	18.	0.085	0.50	mg/kg		6010B	07/04/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	07/04/11	1
Lead	9.5	0.090	0.25	mg/kg		6010B	07/04/11	1
Nickel	10.	0.26	1.0	mg/kg		6010B	07/04/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/04/11	1
Silver	0.95	0.16	0.50	mg/kg		6010B	07/04/11	1
Zinc	50.	0.34	1.5	mg/kg		6010B	07/04/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/06/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/06/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/06/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/06/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	07/06/11	5
Dibromofluoromethane	96.0			% Rec.		8260B	07/06/11	5
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	07/06/11	5
4-Bromofluorobenzene	95.7			% Rec.		8260B	07/06/11	5
TPH (GC/FID) High Fraction	2.6	0.77	4.0	mg/kg	J	3546/DR	07/07/11	1
Surrogate recovery(%) o-Terphenyl	66.5			% Rec.		3546/DR	07/07/11	1

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L524086-04 (PH) - 6.8@20.8c



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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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-EB-NORTH 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:55

ESC Sample # : L524086-04  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	0.0010	0.00074	0.0060	mg/kg	J	8270C-S	07/08/11	1
Pyrene	0.0048	0.00059	0.0060	mg/kg	J	8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	77.6			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	73.0			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	147.			% Rec.	J1	8270C-S	07/08/11	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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-EB-SOUTH 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:45

ESC Sample # : L524086-05  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	11.	7.1	20.	mg/kg	J	3060A/7	07/08/11	10
Chromium, Trivalent	5.2	0.17	0.50	mg/kg		Calc.	07/04/11	1
ORP	210			mV		2580	07/06/11	1
pH	7.0			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.50					Calc.	07/03/11	1
Specific Conductance	190			umhos/cm		9050AMo	07/06/11	1
Mercury	0.014	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	3.1	0.32	1.0	mg/kg		6010B	07/04/11	1
Barium	150	0.050	0.25	mg/kg		6010B	07/04/11	1
Cadmium	0.25	0.040	0.25	mg/kg	J	6010B	07/04/11	1
Chromium	16.	0.085	0.50	mg/kg		6010B	07/04/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	07/04/11	1
Lead	8.8	0.090	0.25	mg/kg		6010B	07/04/11	1
Nickel	14.	0.26	1.0	mg/kg		6010B	07/04/11	1
Selenium	0.51	0.32	1.0	mg/kg	J	6010B	07/04/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/04/11	1
Zinc	46.	0.34	1.5	mg/kg		6010B	07/04/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/06/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/06/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/06/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/06/11	5
Surrogate Recovery				% Rec.				
Toluene-d8	100.			% Rec.		8260B	07/06/11	5
Dibromofluoromethane	96.0			% Rec.		8260B	07/06/11	5
a,a,a-Trifluorotoluene	105.			% Rec.		8260B	07/06/11	5
4-Bromofluorobenzene	94.3			% Rec.		8260B	07/06/11	5
TPH (GC/FID) High Fraction	6.9	0.77	4.0	mg/kg		3546/DR	07/08/11	1
Surrogate recovery(%) o-Terphenyl	76.5			% Rec.		3546/DR	07/08/11	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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-EB-SOUTH 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 06:45

ESC Sample # : L524086-05  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	0.00099	0.00092	0.0060	mg/kg	J	8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	0.0012	0.00074	0.0060	mg/kg	J	8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	77.8			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	70.7			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	144.			% Rec.	J1	8270C-S	07/08/11	1

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REPORT OF ANALYSIS

July 11, 2011

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

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : SPOIL-WEST 3-6IN  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:10

ESC Sample # : L524086-06  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	7.0	3.5	10.	mg/kg	J	3060A/7	07/08/11	5
Chromium, Trivalent	11.	0.17	0.50	mg/kg		Calc.	07/03/11	1
ORP	210			mV		2580	07/06/11	1
pH	7.5			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.56					Calc.	07/03/11	1
Specific Conductance	190			umhos/cm		9050AMo	07/06/11	1
Mercury	0.017	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	4.5	0.32	1.0	mg/kg		6010B	07/03/11	1
Barium	170	0.050	0.25	mg/kg	J6	6010B	07/03/11	1
Cadmium	0.18	0.040	0.25	mg/kg	JP1	6010B	07/03/11	1
Chromium	18.	0.085	0.50	mg/kg		6010B	07/03/11	1
Copper	18.	0.21	1.0	mg/kg		6010B	07/03/11	1
Lead	7.7	0.090	0.25	mg/kg		6010B	07/03/11	1
Nickel	14.	0.26	1.0	mg/kg		6010B	07/03/11	1
Selenium	0.80	0.32	1.0	mg/kg	JP1	6010B	07/03/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/03/11	1
Zinc	46.	0.34	1.5	mg/kg		6010B	07/03/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	105.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/06/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/06/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/06/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/06/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	07/06/11	5
Dibromofluoromethane	96.7			% Rec.		8260B	07/06/11	5
a,a,a-Trifluorotoluene	106.			% Rec.		8260B	07/06/11	5
4-Bromofluorobenzene	94.7			% Rec.		8260B	07/06/11	5
TPH (GC/FID) High Fraction	13.	0.77	4.0	mg/kg		3546/DR	07/08/11	1
Surrogate recovery(%) o-Terphenyl	86.4			% Rec.		3546/DR	07/08/11	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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : SPOIL-WEST 3-6IN  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:10

ESC Sample # : L524086-06  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	0.00097	0.00092	0.0060	mg/kg	J	8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	76.9			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	72.4			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	120.			% Rec.		8270C-S	07/08/11	1

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

July 11, 2011

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

Date Received : July 01, 2011  
Description : Hawkins 10-9  
Sample ID : SPOIL-EAST 3-6IN  
Collected By : Travis Brophy  
Collection Date : 06/30/11 07:20

ESC Sample # : L524086-07  
Site ID :  
Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	11.	7.1	20.	mg/kg	J	3060A/7	07/08/11	10
Chromium, Trivalent	0.78	0.17	0.50	mg/kg		Calc.	07/03/11	1
ORP	200			mV		2580	07/06/11	1
pH	7.3			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.28					Calc.	07/03/11	1
Specific Conductance	310			umhos/cm		9050AMo	07/06/11	1
Mercury	0.013	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	2.7	0.32	1.0	mg/kg		6010B	07/03/11	1
Barium	100	0.050	0.25	mg/kg		6010B	07/03/11	1
Cadmium	1.3	0.040	0.25	mg/kg		6010B	07/03/11	1
Chromium	12.	0.085	0.50	mg/kg		6010B	07/03/11	1
Copper	13.	0.21	1.0	mg/kg		6010B	07/03/11	1
Lead	7.2	0.090	0.25	mg/kg		6010B	07/03/11	1
Nickel	11.	0.26	1.0	mg/kg		6010B	07/03/11	1
Selenium	U	1.6	5.0	mg/kg	O	6010B	07/03/11	5
Silver	U	0.16	0.50	mg/kg		6010B	07/03/11	1
Zinc	36.	0.34	1.5	mg/kg		6010B	07/03/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/06/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/06/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/06/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/06/11	5
Surrogate Recovery								
Toluene-d8	99.1			% Rec.		8260B	07/06/11	5
Dibromofluoromethane	98.6			% Rec.		8260B	07/06/11	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	07/06/11	5
4-Bromofluorobenzene	93.6			% Rec.		8260B	07/06/11	5
TPH (GC/FID) High Fraction	6.4	0.77	4.0	mg/kg		3546/DR	07/08/11	1
Surrogate recovery(%) o-Terphenyl	75.1			% Rec.		3546/DR	07/08/11	1

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Reported: 07/11/11 14:44 Printed: 07/11/11 14:44  
L524086-07 (PH) - 7.3@21.2c



12065 Lebanon Rd.  
 Mt. Juliet, TN 37122  
 (615) 758-5858  
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 Tax I.D. 62-0814289  
 Est. 1970

REPORT OF ANALYSIS

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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : SPOIL-EAST 3-6IN  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:20

ESC Sample # : L524086-07  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5		77.8		% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl		72.0		% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14		129.		% Rec.		8270C-S	07/08/11	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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-NB-WEST 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:30

ESC Sample # : L524086-08  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	07/08/11	1
Chromium, Trivalent	19.	0.17	0.50	mg/kg		Calc.	07/03/11	1
ORP	200			mV		2580	07/06/11	1
pH	7.7			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.46					Calc.	07/03/11	1
Specific Conductance	220			umhos/cm		9050AMo	07/06/11	1
Mercury	0.017	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	6.0	0.32	1.0	mg/kg		6010B	07/03/11	1
Barium	170	0.050	0.25	mg/kg		6010B	07/03/11	1
Cadmium	1.7	0.040	0.25	mg/kg		6010B	07/03/11	1
Chromium	19.	0.085	0.50	mg/kg		6010B	07/03/11	1
Copper	16.	0.21	1.0	mg/kg		6010B	07/03/11	1
Lead	9.7	0.090	0.25	mg/kg		6010B	07/03/11	1
Nickel	15.	0.26	1.0	mg/kg		6010B	07/03/11	1
Selenium	4.9	1.6	5.0	mg/kg	J	6010B	07/03/11	5
Silver	U	0.16	0.50	mg/kg		6010B	07/03/11	1
Zinc	46.	0.34	1.5	mg/kg		6010B	07/03/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/06/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/06/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/06/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/06/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	07/06/11	5
Dibromofluoromethane	94.8			% Rec.		8260B	07/06/11	5
a,a,a-Trifluorotoluene	104.			% Rec.		8260B	07/06/11	5
4-Bromofluorobenzene	98.0			% Rec.		8260B	07/06/11	5
TPH (GC/FID) High Fraction	7.5	0.77	4.0	mg/kg		3546/DR	07/08/11	1
Surrogate recovery(%) o-Terphenyl	80.9			% Rec.		3546/DR	07/08/11	1

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 L524086-08 (PH) - 7.7@20.8c



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REPORT OF ANALYSIS

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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-NB-WEST 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:30

ESC Sample # : L524086-08  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	U	0.0010	0.0060	mg/kg		8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	U	0.00074	0.0060	mg/kg		8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	74.8			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	69.4			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	103.			% Rec.		8270C-S	07/08/11	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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : RG-NB-CENTER 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:40

ESC Sample # : L524086-09  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	U	0.71	2.0	mg/kg		3060A/7	07/08/11	1
Chromium, Trivalent	16.	0.17	0.50	mg/kg		Calc.	07/05/11	1
ORP	190			mV		2580	07/06/11	1
pH	7.4			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.20					Calc.	07/03/11	1
Specific Conductance	220			umhos/cm		9050AMo	07/06/11	1
Mercury	0.015	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	3.7	0.32	1.0	mg/kg		6010B	07/05/11	1
Barium	170	0.050	0.25	mg/kg		6010B	07/05/11	1
Cadmium	0.050	0.040	0.25	mg/kg	J	6010B	07/05/11	1
Chromium	16.	0.085	0.50	mg/kg		6010B	07/05/11	1
Copper	14.	0.21	1.0	mg/kg		6010B	07/05/11	1
Lead	10.	0.090	0.25	mg/kg		6010B	07/05/11	1
Nickel	14.	0.26	1.0	mg/kg		6010B	07/05/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/05/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/05/11	1
Zinc	48.	0.34	1.5	mg/kg		6010B	07/05/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg	J3	8260B	07/05/11	5
Toluene	U	0.0017	0.025	mg/kg	J3	8260B	07/05/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg	J3	8260B	07/05/11	5
Total Xylenes	U	0.0023	0.015	mg/kg	J3	8260B	07/05/11	5
Surrogate Recovery								
Toluene-d8	101.			% Rec.		8260B	07/05/11	5
Dibromofluoromethane	110.			% Rec.		8260B	07/05/11	5
a,a,a-Trifluorotoluene	101.			% Rec.		8260B	07/05/11	5
4-Bromofluorobenzene	92.7			% Rec.		8260B	07/05/11	5
TPH (GC/FID) High Fraction	6.7	0.77	4.0	mg/kg		3546/DR	07/08/11	1
Surrogate recovery(%) o-Terphenyl	77.9			% Rec.		3546/DR	07/08/11	1

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 L524086-09 (PH) - 7.4@20.7c



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REPORT OF ANALYSIS

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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9

ESC Sample # : L524086-09

Sample ID : RG-NB-CENTER 1FT

Site ID :

Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:40

Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Polynuclear Aromatic Hydrocarbons								
Anthracene	U	0.00076	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthene	U	0.00071	0.0060	mg/kg		8270C-S	07/08/11	1
Acenaphthylene	U	0.00057	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)anthracene	U	0.00092	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(a)pyrene	U	0.00062	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(b)fluoranthene	U	0.00082	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(g,h,i)perylene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Benzo(k)fluoranthene	U	0.0013	0.0060	mg/kg		8270C-S	07/08/11	1
Chrysene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Dibenz(a,h)anthracene	U	0.0011	0.0060	mg/kg		8270C-S	07/08/11	1
Fluoranthene	0.0013	0.0010	0.0060	mg/kg	J	8270C-S	07/08/11	1
Fluorene	U	0.00055	0.0060	mg/kg		8270C-S	07/08/11	1
Indeno(1,2,3-cd)pyrene	U	0.0012	0.0060	mg/kg		8270C-S	07/08/11	1
Naphthalene	U	0.00065	0.0060	mg/kg		8270C-S	07/08/11	1
Phenanthrene	0.0018	0.00074	0.0060	mg/kg	J	8270C-S	07/08/11	1
Pyrene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
1-Methylnaphthalene	U	0.00079	0.0060	mg/kg		8270C-S	07/08/11	1
2-Methylnaphthalene	U	0.00059	0.0060	mg/kg		8270C-S	07/08/11	1
2-Chloronaphthalene	U	0.00060	0.0060	mg/kg		8270C-S	07/08/11	1
Surrogate Recovery								
Nitrobenzene-d5	65.8			% Rec.		8270C-S	07/08/11	1
2-Fluorobiphenyl	60.1			% Rec.		8270C-S	07/08/11	1
p-Terphenyl-d14	138.			% Rec.		8270C-S	07/08/11	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

July 11, 2011

Date Received : July 01, 2011  
 Description : Hawkins 10-9  
 Sample ID : BG-NB-EAST 1FT  
 Collected By : Travis Brophy  
 Collection Date : 06/30/11 07:45

ESC Sample # : L524086-10  
 Site ID :  
 Project # :

Parameter	Result	MDL	RDL	Units	Qualifier	Method	Date	Dil.
Chromium, Hexavalent	8.4	3.5	10.	mg/kg	J	3060A/7	07/08/11	5
Chromium, Trivalent	5.1	0.17	0.50	mg/kg		Calc.	07/05/11	1
ORP	180			mV		2580	07/06/11	1
pH	7.3			su		9045D	07/08/11	1
Sodium Adsorption Ratio	0.25					Calc.	07/03/11	1
Specific Conductance	160			umhos/cm		9050AMo	07/06/11	1
Mercury	0.013	0.0015	0.020	mg/kg	J	7471	07/05/11	1
Arsenic	2.9	0.32	1.0	mg/kg		6010B	07/05/11	1
Barium	150	0.050	0.25	mg/kg		6010B	07/05/11	1
Cadmium	0.12	0.040	0.25	mg/kg	J	6010B	07/05/11	1
Chromium	14.	0.085	0.50	mg/kg		6010B	07/05/11	1
Copper	14.	0.21	1.0	mg/kg		6010B	07/05/11	1
Lead	11.	0.090	0.25	mg/kg		6010B	07/05/11	1
Nickel	14.	0.26	1.0	mg/kg		6010B	07/05/11	1
Selenium	U	0.32	1.0	mg/kg		6010B	07/05/11	1
Silver	U	0.16	0.50	mg/kg		6010B	07/05/11	1
Zinc	44.	0.34	1.5	mg/kg		6010B	07/05/11	1
TPH (GC/FID) Low Fraction	U	0.25	0.50	mg/kg		8015D/G	07/03/11	5
Surrogate Recovery (70-130) a,a,a-Trifluorotoluene (FID)	104.			% Rec.		602/801	07/03/11	5
Benzene	U	0.0021	0.0050	mg/kg		8260B	07/05/11	5
Toluene	U	0.0017	0.025	mg/kg		8260B	07/05/11	5
Ethylbenzene	U	0.0016	0.0050	mg/kg		8260B	07/05/11	5
Total Xylenes	U	0.0023	0.015	mg/kg		8260B	07/05/11	5
Surrogate Recovery								
Toluene-d8	103.			% Rec.		8260B	07/05/11	5
Dibromofluoromethane	109.			% Rec.		8260B	07/05/11	5
a,a,a-Trifluorotoluene	99.9			% Rec.		8260B	07/05/11	5
4-Bromofluorobenzene	89.6			% Rec.		8260B	07/05/11	5
TPH (GC/FID) High Fraction	4.6	0.77	4.0	mg/kg		3546/DR	07/08/11	1
Surrogate recovery(%) o-Terphenyl	76.5			% Rec.		3546/DR	07/08/11	1

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