

# FINAL C-141 AND CLOSURE REPORT

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**RECEIVED**  
JUN 10 2010  
HOBSOCD

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company <u>Fasken Oil and Ranch, Ltd.</u>	Contact <u>Jimmy D. Carlile</u>
Address <u>303 W. Wall, Ste 1800 Midland, TX</u>	Telephone No. <u>432 687-1777</u>
Facility Name <u>Denton SWD No. 5</u>	Facility Type <u>SWD</u>
Surface Owner <u>State</u>	Mineral Owner <u>State</u>
Lease No. _____	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	2	15S	37E	660	South	1980	West	Lea

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

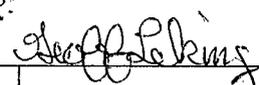
Type of Release <u>salt water</u>	Volume of Release <u>80</u>	Volume Recovered <u>5</u>
Source of Release <u>flowline</u>	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <u>9/29/08</u>	<u>9/30/08</u>
By Whom?	<u>midnight</u>	<u>9 am</u>
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date and Hour	If YES, Volume Impacting the Watercourse.

If a Watercourse was Impacted, Describe Fully.\*  
  
NA

Describe Cause of Problem and Remedial Action Taken.\*  
Poly line separated from fiberglass tee. Area production was shutin. Line has been repaired.

Describe Area Affected and Cleanup Action Taken.\*  
The area was excavated to 4' - 5' and a liner installed. 7118 cubic yards of material was hauled to Sundance outside of Eunice. 7118 cubic yards of clean soil (tested prior to backfilling) was placed into the excavation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <u>Jimmy D. Carlile</u>	Approved by <u>ENV ENGINEER:</u> District Supervisor: 	
Title: <u>Regulatory Affairs Coord.</u>	Approval Date: <u>06/17/10</u>	Expiration Date: _____
E-mail Address: <u>jimmyc@forl.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>4/26/10</u> Phone: <u>4326871777</u>		<u>IRP-1968</u>

\* Attach Additional Sheets If Necessary



May 6, 2010

RECEIVED

JUN 10 2010

HOBBSOCD

AMARILLO  
921 North Bivins  
Amarillo, Texas 79107  
Phone 806.467.0607  
Fax 806.467.0622

ARTESIA  
408 West Texas Ave.  
Artesia, New Mexico 88210  
Phone 575.746.8768  
Fax 575.746.8905

AUSTIN  
911 West Anderson Lane  
Suite 202  
Austin, Texas 78757  
Phone 512.989.3428  
Fax 512.989.3487

HOBBS  
318 East Taylor Street  
Hobbs, New Mexico 88240  
Phone 575.393.4261  
Fax 575.393.4658

MIDLAND  
2901 State Hwy 349  
Midland, Texas 79706  
Phone 432.522.2133  
Fax 432.522.2180

SAN ANTONIO  
17170 Jordan Rd  
Suite 102  
Selma, Texas 78154  
Phone 210.265.8025  
Fax 210.568.2191

TULSA  
525 South Main Street  
Suite 535  
Tulsa, Oklahoma 74103  
Phone 918.742.0871  
Fax 918.382.0232

Mr. Geoff Leking  
District 1, New Mexico Oil Conservation Division  
1625 North French Drive  
Hobbs, New Mexico 88240

**RE: Denton SWD #5 Produced Water Flowline Surface Release – Risk-Based Remedial Closure**

Mr. Leking,

On behalf of Fasken Oil and Ranch, LTD (Fasken), Talon/LPE (Talon) provides this closure letter, transmitting the final Form C-141 and copies of the analytical data from the site excavation and backfill activities to the New Mexico Oil Conservation Division (NMOCD) District 1 Office.

**Background**

Fasken Oil and Ranch, LTD experienced a produced water release from a poly-line at the Denton SWD #5 on September 29, 2008. Initial estimates documented the volume of released material at 80 barrels (bbls) with approximately 5 barrels initially recovered. The surface expression of the release was measured as approximately 150 feet by 200 feet. Fasken subsequently contracted Safety and Environmental Solutions (SES) to perform site delineation activities (December 2008). This report, entitled “Denton SWD #5/Delineation Report, December 22, 2008” was previously supplied to the NMOCD by Fasken.

Shallow soils at the site range from sandy loam (surface to approximately 3.5 feet below grade) to silty clays (encountered predominantly in the northern portion of the excavation at approximately 3.5 feet below grade). Caliche is also present within the excavation limits, first encountered in the central portion of the excavation at a depth of 2 feet below ground surface (bgs). Based on the information obtained from soil borings performed by SES, caliche and sandstone bedrock are prevalent in the subsurface to at least the total depth of the borings at approximately 30 feet bgs.

Information from the State Engineer’s records and information from off-site monitoring wells suggests that groundwater beneath the site is present at between 50 feet and 75 feet bgs.

**Excavation/Sampling**

Talon was retained by Fasken to perform soil excavation activities at the Denton SWD #5 release site in July 2009, and began those activities on

ENVIRONMENTAL CONSULTING  
ENGINEERING  
DRILLING  
CONSTRUCTION  
SPILL MANAGEMENT  
GENERAL CONTRACTING

Toll Free: 866.742.0742  
www.talonlpe.com

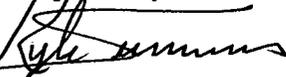
August 8, 2009. Excavation and sampling activities continued intermittently until December 2010. Over 7,000 cubic yards of material were transported to Sundance Services, Inc. for internment (manifests attached). Although delineation activities were previously performed, both field samples and samples for laboratory analyses were collected during the course of the remedial activities. The first analytical samples (Comp-1 and Comp-2, and BH2C, BH-4C, BH-6C, and BH-10C) collected during the excavation activities were obtained on August 18, 2009 (attached). Subsequently, on October 7, 2010, samples B-1A through B-14A were collected for laboratory analyses (attached). Sample locations for the final sampling event are presented on Figure 1 (attached). Sample times, analyses, and locations were coordinated with the NMOCD District 1 office, and an NMOCD representative was on-site during sampling activities.

### **Closure Activities**

All analytical results were forwarded to the NMOCD, and on January 19, 2010, the NMOCD provided a letter of approval for a risk-based closure at the Denton SWD #5 (attached). The final excavation dimensions measured approximately 200 feet E/W by 220 feet N/S, in an “L” shape around the northwest corner of the tank battery pad. The depth of the excavation ranged from 4 feet bgs to 6 feet bgs.

The bottom of the excavation was prepared, and in the presence of the NMOCD, the impermeable liner was placed to prevent downward percolation of rainwater through any remaining chloride-affected material. Subsequent to the liner installation, the site was backfilled with “like” material from a nearby borrow pit. Analytical results for the backfill material (Backfill 1 – Backfill 5) are attached. The site was reseeded on March 4-5, 2010 (NMSLO Revegetation Form is attached) with the approved seed mixture.

Respectfully Submitted,



Kyle Summers  
Talon/LPE - Artesia

Attachments:      Laboratory Reports  
                         Topographic Map and Site Map  
                         Revegetation Form  
                         Photographs  
                         NMOCD Closure Approval  
                         Initial and Final Form C-141  
                         Disposal Manifests

# New Mexico State Land Office

## Field Operations Division

(505) 827-5723 P.O. Box 1148 Santa Fe, NM 87504  
 (575) 392-8736 2702-D N. Grimes Hobbs, NM 88240  
 (575) 885-1323 N. Canal, Suite B Carlsbad, NM 88220  
 (575) 623-4979 1001 S. Atkinson Roswell, NM 88210  
 (575) 763-0796 105 E. 6<sup>th</sup> St. Clovis, NM 88101



## REVEGETATION FORM

### 1. General Information

Site name: <i>Denton SWD #5</i>		Lease No.:				
U/L or Qtr/Qtr	Section	Township	Range	County	Latitude	Longitude
	<i>2</i>	<i>15S</i>	<i>37E</i>	<i>Lea</i>		
Company Name: <i>Fasken Oil + Ranch LTD</i>			Contact Name: <i>Jimmy Carlile</i>			
Phone no.:		Email: <i>jimmyc@forl.com</i>				
Address: <i>Hwy 82 E. of Lovington</i>						
Spill / Release <input checked="" type="checkbox"/>		P&A Well <input type="checkbox"/>		Pit Closure <input type="checkbox"/>		Facility Closure <input type="checkbox"/>
OCD Spill No.		API No.		Type:		
Site size: <i>1.5</i> acres		<i>65,340</i> square feet		Map detail of site attached <input type="checkbox"/>		
Additional information:						

### 3. Soils

*\*Do not rip caliche subsoils; caliche rocks brought to the surface by ripping shall be removed.*

Salvaged from site <input type="checkbox"/>	Bioremediated <input type="checkbox"/>	Imported <input checked="" type="checkbox"/>	Blended <input type="checkbox"/>	Depth (in):
Texture: <i>silty/caliche</i> Describe soil & subsoil: <i>clay/caliche</i>				
Soil prep methods: Rip <input checked="" type="checkbox"/>	Depth(in): <i>6inch</i>	Disc <input type="checkbox"/>	Depth (in):	Rollerpack <input type="checkbox"/>
Date completed: <i>1/1</i>	Photos attached <input type="checkbox"/>		Number of photos:	

### 4. Seeding

*\*Attach seed bag tags to this form. Seed bag tags shall contain the site name and S-T-R.*

Custom seed mix <input checked="" type="checkbox"/>	Prescribed mix <input type="checkbox"/>	Seed mix name: <i>Custom Mix</i>	Seeding date: <i>3/1/10</i>
Is seed mix divided into submixes based on seed size? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			
Drill Seeder <input type="checkbox"/>	Broadcast <input checked="" type="checkbox"/>		Hydroseeding <input type="checkbox"/>
Drill Type: Method: <i>mechanical</i>			
Soil conditions during seeding: Dry <input type="checkbox"/> Damp <input checked="" type="checkbox"/> Wet <input type="checkbox"/>			
Photos attached <input type="checkbox"/>	Observations:		
Number of photos:			

### 5. Additional Methods

Mulching <input type="checkbox"/>	Crimping <input type="checkbox"/>	Fertilizer <input type="checkbox"/>	Other <input type="checkbox"/>
Mulch type:		Type:	Describe:
Tons/acre:		Lbs/acre:	
Photos attached <input checked="" type="checkbox"/>	Observations:		
Number of photos: <i>10</i>			

Additional Information:

### 5. Certification I hereby certify that the information in this form and attachments is true and complete to the best of my knowledge and belief.

Name: <i>Simon Hudgens</i>	Title: <i>Environmental Scientist</i>	Date:
Signature: <i>Simon Hudgens</i>		

\* Mail form and attachments to the Santa Fe office address listed above, attention: FOD- Environmental.

Denton SWD # 5

Seeded on 3/4/10

by: Saul Nieto  
Simon

Curtis & Curtis Seed  
4500 N. Prince  
Clovis, NM 88101  
Phone: 575-762-4759

Talon Drilling LP  
Custom Mix Broadcast Rate  
Job: Denton SWD # 5  
1 - 1 Acre Bag @ 46.46 Bulk Pounds  
1-1/2 Acre Bag @ 23.23

Lot# M-93458

Germ & Test	PLS	Origin	Purity	Germ	Dormant	Dormant	Date	Pounds
Sideoats Grama Niner		Colorado	14.04%	89.00%	0.00%	92.00%	10/09	09.00
Blue Grama Not Stated		New Mexico	09.56%	90.00%	0.00%	90.00%(TZ)	02/10	06.00
Little Bluestem Pastura		Texas	15.75%	10.00%	72.00%	82.00%	02/10	09.00
Sand Bluestem Champ		Nebraska	05.06%	74.00%	11.00%	85.00%	08/09	03.00
Sand Dropseed Not Stated		Texas	08.78%	07.00%	91.00%	98.00%	01/10	06.00
Indiangrass Cheyenne		Missouri	05.48%	70.50%	08.00%	78.50%	06/09	03.00
Yellow Prairie Coneflower Not Stated		Oregon	05.52%	78.00%	00.00%	78.00%	09/09	03.00
White Evening Primrose Not Stated		California	05.66%	76.00%	00.00%	76.00%	02/10	03.00
Four-wing Saltbush Not Stated		New Mexico	11.96%	36.00%	00.00%	36.00%(TZ)	08/09	03.00

Other Crop: 00.09% There Are 2 Bags For This Mix Total Bulk Pounds: 46.46  
Weed Seed: 00.11% This Bag Weighs 46.46 Bulk Pounds  
Inert Matter: 16.99% Use This Bag For 1 Acre

Broadcast  
Seeder

Disc'd  
after

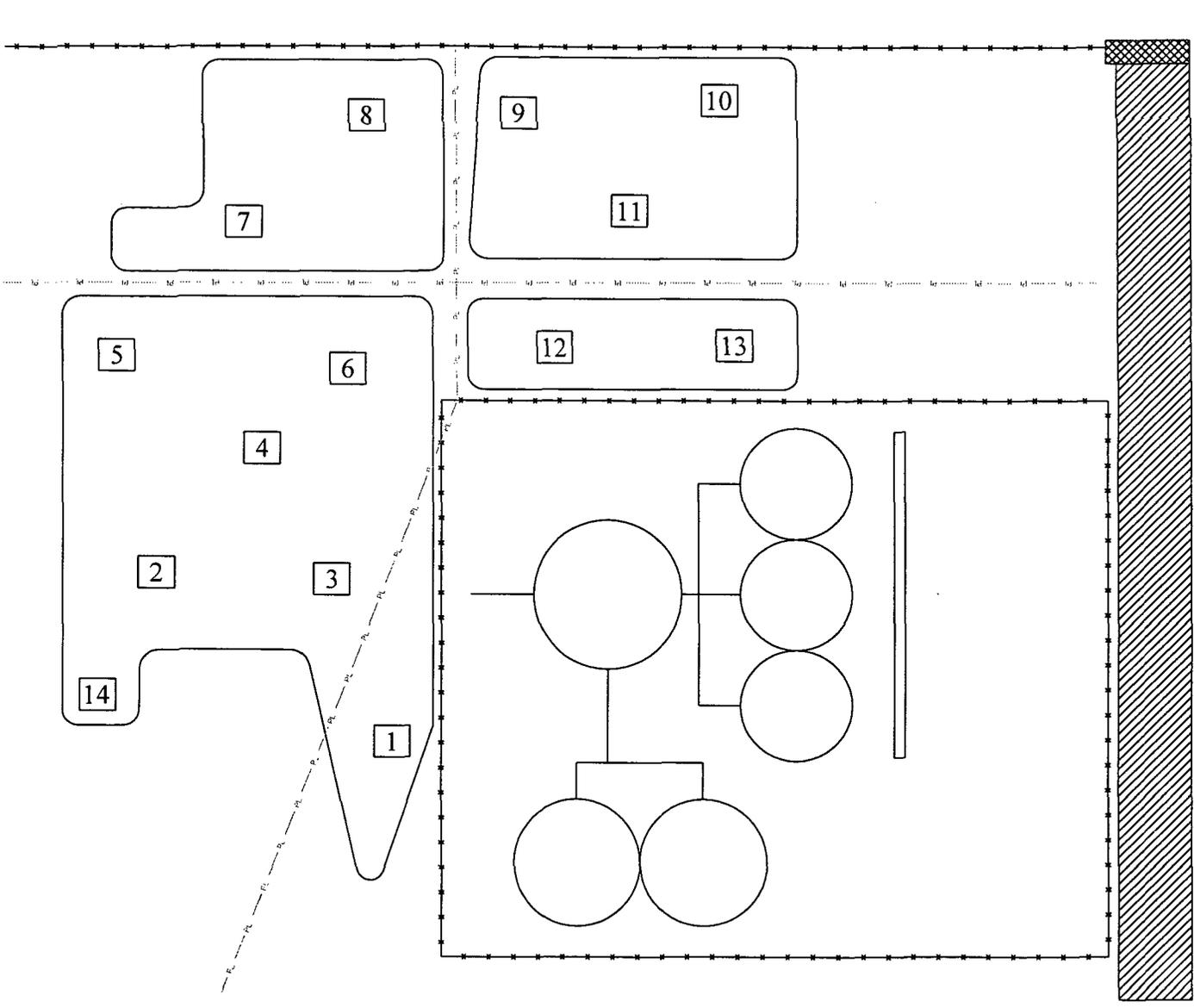
Curtis & Curtis Seed  
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Phone: 575-762-4759

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Other Crop: 00.09% There Are 2 Bags For This Mix Total Bulk Pounds: 23.23  
Weed Seed: 00.11% This Bag Weighs 23.23 Bulk Pounds  
Inert Matter: 16.99% Use This Bag For 1/2 Acre



0 25 50  
Scale in Feet

LEGEND	
	Final Excavation Boundaries
	Underground Pipeline
	Fence
	Tank Battery
	Lease Road (Caliche)
	Cattle Guard
	Confirmation Sample Locations
APPROXIMATE SCALE = 1" = 50'	
1" = 5 DRAWING UNITS	



Date: 04/27/2010  
Scale: 1" = 50'  
Drawn By: TJS

Fasken Oil & Ranch LTD, Denton SWD #5  
Address  
Lea County, New Mexico  
Figure 1 - Site Plan

## Summary Report

Kyle Summers  
 Talon LPE-Midland  
 2901 State Highway 349  
 Midland, TX 79706

Report Date: August 21, 2009

Work Order: 9081938



Project Location: Lea County, NM  
 Project Name: Denton #5 SWD  
 Project Number: 701014.013.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
206665	Comp. 1	soil	2009-08-18	14:30	2009-08-19
206666	Comp. 2	soil	2009-08-18	14:40	2009-08-19

**Sample: 206665 - Comp. 1**

Param	Flag	Result	Units	RL
Chloride		4350	mg/Kg	4.00

**Sample: 206666 - Comp. 2**

Param	Flag	Result	Units	RL
Chloride		3940	mg/Kg	4.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298  
 200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313  
 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
 E-Mail: lab@traceanalysis.com

### Certifications

**WBENC:** 237019      **HUB:** 1752439743100-86536      **DBE:** VN 20657  
**NCTRCA** WFWB38444Y0909

### NELAP Certifications

**Lubbock:** T104704219-08-TX      **El Paso:** T104704221-08-TX      **Midland:** T104704392-08-TX  
 LELAP-02003      LELAP-02002  
 Kansas E-10317

## Analytical and Quality Control Report

Kyle Summers  
 Talon LPE-Midland  
 2901 State Highway 349  
 Midland, TX, 79706

Report Date: August 21, 2009

Work Order: 9081938



Project Location: Lea County, NM  
 Project Name: Denton #5 SWD  
 Project Number: 701014.013.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
206665	Comp. 1	soil	2009-08-18	14:30	2009-08-19
206666	Comp. 2	soil	2009-08-18	14:40	2009-08-19

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 5 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

*Blair Leftwich*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

**Standard Flags**

**B** - The sample contains less than ten times the concentration found in the method blank.

## Case Narrative

Samples for project Denton #5 SWD were received by TraceAnalysis, Inc. on 2009-08-19 and assigned to work order 9081938. Samples for work order 9081938 were received intact at a temperature of 6.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	53504	2009-08-20 at 08:51	62712	2009-08-20 at 15:25

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9081938 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

## Analytical Report

**Sample: 206665 - Comp. 1**

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-20	Analyzed By: AR
QC Batch: 62712	Sample Preparation: 2009-08-20	Prepared By: AR
Prep Batch: 53504		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>4350</b>	mg/Kg	100	4.00

**Sample: 206666 - Comp. 2**

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-20	Analyzed By: AR
QC Batch: 62712	Sample Preparation: 2009-08-20	Prepared By: AR
Prep Batch: 53504		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3940</b>	mg/Kg	100	4.00

**Method Blank (1)      QC Batch: 62712**

QC Batch: 62712	Date Analyzed: 2009-08-20	Analyzed By: AR
Prep Batch: 53504	QC Preparation: 2009-08-20	Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

**Laboratory Control Spike (LCS-1)**

QC Batch: 62712	Date Analyzed: 2009-08-20	Analyzed By: AR
Prep Batch: 53504	QC Preparation: 2009-08-20	Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.8	mg/Kg	1	100	<2.18	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.7	mg/Kg	1	100	<2.18	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 206699

QC Batch: 62712 Date Analyzed: 2009-08-20 Analyzed By: AR  
Prep Batch: 53504 QC Preparation: 2009-08-20 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10200	mg/Kg	100	10000	<218	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10300	mg/Kg	100	10000	<218	101	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Standard (ICV-1)**

QC Batch: 62712 Date Analyzed: 2009-08-20 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2009-08-20

**Standard (CCV-1)**

QC Batch: 62712 Date Analyzed: 2009-08-20 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-08-20



## Summary Report

Kyle Summers  
Talon LPE-Midland  
2901 State Highway 349  
Midland, TX 79706

Report Date: August 21, 2009

Work Order: 9081937



Project Location: Lea County, NM  
Project Name: Denton #5 SWD  
Project Number: 701014.013.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
206661	BH-2C	soil	2009-08-18	14:50	2009-08-19
206662	BH-4C	soil	2009-08-18	14:55	2009-08-19
206663	BH-6C	soil	2009-08-18	15:00	2009-08-19
206664	BH-10C	soil	2009-08-18	15:10	2009-08-19

### Sample: 206661 - BH-2C

Param	Flag	Result	Units	RL
Chloride		3270	mg/Kg	4.00

### Sample: 206662 - BH-4C

Param	Flag	Result	Units	RL
Chloride		3580	mg/Kg	4.00

### Sample: 206663 - BH-6C

Param	Flag	Result	Units	RL
Chloride		3810	mg/Kg	4.00

### Sample: 206664 - BH-10C

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Param	Flag	Result	Units	RL
Chloride		<b>1320</b>	mg/Kg	4.00

---



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296  
 200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944  
 5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313  
 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260  
 E-Mail: lab@traceanalysis.com

### Certifications

**WBENC:** 237019      **HUB:** 1752439743100-86536      **DBE:** VN 20657  
**NCTRCA** WFWB38444Y0909

### NELAP Certifications

**Lubbock:** T104704219-08-TX      **El Paso:** T104704221-08-TX      **Midland:** T104704392-08-TX  
 LELAP-02003      LELAP-02002  
 Kansas E-10317

## Analytical and Quality Control Report

Kyle Summers  
 Talon LPE-Midland  
 2901 State Highway 349  
 Midland, TX, 79706

Report Date: August 21, 2009

Work Order: 9081937



Project Location: Lea County, NM  
 Project Name: Denton #5 SWD  
 Project Number: 701014.013.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
206661	BH-2C	soil	2009-08-18	14:50	2009-08-19
206662	BH-4C	soil	2009-08-18	14:55	2009-08-19
206663	BH-6C	soil	2009-08-18	15:00	2009-08-19
206664	BH-10C	soil	2009-08-18	15:10	2009-08-19

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 6 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

*Blair Leftwich*

---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

**Standard Flags**

**B** - The sample contains less than ten times the concentration found in the method blank.

## Case Narrative

Samples for project Denton #5 SWD were received by TraceAnalysis, Inc. on 2009-08-19 and assigned to work order 9081937. Samples for work order 9081937 were received intact at a temperature of 6.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	53503	2009-08-20 at 08:51	62711	2009-08-20 at 15:24

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9081937 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

## Analytical Report

**Sample: 206661 - BH-2C**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 62711      Date Analyzed: 2009-08-20      Analyzed By: AR  
Prep Batch: 53503      Sample Preparation: 2009-08-20      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3270</b>	mg/Kg	100	4.00

**Sample: 206662 - BH-4C**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 62711      Date Analyzed: 2009-08-20      Analyzed By: AR  
Prep Batch: 53503      Sample Preparation: 2009-08-20      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3580</b>	mg/Kg	100	4.00

**Sample: 206663 - BH-6C**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 62711      Date Analyzed: 2009-08-20      Analyzed By: AR  
Prep Batch: 53503      Sample Preparation: 2009-08-20      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3810</b>	mg/Kg	100	4.00

**Sample: 206664 - BH-10C**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 62711      Date Analyzed: 2009-08-20      Analyzed By: AR  
Prep Batch: 53503      Sample Preparation: 2009-08-20      Prepared By: AR

*continued . . .*

sample 206664 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1320	mg/Kg	50	4.00

**Method Blank (1)**      QC Batch: 62711

QC Batch: 62711      Date Analyzed: 2009-08-20      Analyzed By: AR  
Prep Batch: 53503      QC Preparation: 2009-08-20      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

**Laboratory Control Spike (LCS-1)**

QC Batch: 62711      Date Analyzed: 2009-08-20      Analyzed By: AR  
Prep Batch: 53503      QC Preparation: 2009-08-20      Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.0	mg/Kg	1	100	<2.18	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)**      Spiked Sample: 206664

QC Batch: 62711      Date Analyzed: 2009-08-20      Analyzed By: AR  
Prep Batch: 53503      QC Preparation: 2009-08-20      Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11500	mg/Kg	100	10000	1320	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.





## Summary Report

Kyle Summers  
 Talon LPE-Midland  
 2901 State Highway 349  
 Midland, TX 79706

Report Date: October 14, 2009

Work Order: 9100928



Project Location: Lea County, NM  
 Project Name: Denton #5 SWD  
 Project Number: 701014.013.01

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
212098	B-1A	soil	2009-10-07	16:00	2009-10-09
212099	B-2A	soil	2009-10-07	15:50	2009-10-09
212100	B-3A	soil	2009-10-07	15:45	2009-10-09
212101	B-4A	soil	2009-10-07	15:40	2009-10-09
212102	B-5A	soil	2009-10-07	15:35	2009-10-09
212103	B-6A	soil	2009-10-07	15:30	2009-10-09
212104	B-7A	soil	2009-10-07	15:25	2009-10-09
212105	B-8A	soil	2009-10-07	15:20	2009-10-09
212106	B-9A	soil	2009-10-07	15:15	2009-10-09
212107	B-10A	soil	2009-10-07	15:10	2009-10-09
212108	B-11A	soil	2009-10-07	15:05	2009-10-09
212109	B-12A	soil	2009-10-07	15:00	2009-10-09
212110	B-13A	soil	2009-10-07	14:55	2009-10-09
212111	B-14A	soil	2009-10-07	15:55	2009-10-09

**Sample: 212098 - B-1A**

Param	Flag	Result	Units	RL
Chloride		2080	mg/Kg	4.00

**Sample: 212099 - B-2A**

Param	Flag	Result	Units	RL
Chloride		1670	mg/Kg	4.00

**Sample: 212100 - B-3A**

Param	Flag	Result	Units	RL
Chloride		2470	mg/Kg	4.00

**Sample: 212101 - B-4A**

Param	Flag	Result	Units	RL
Chloride		3530	mg/Kg	4.00

**Sample: 212102 - B-5A**

Param	Flag	Result	Units	RL
Chloride		5340	mg/Kg	4.00

**Sample: 212103 - B-6A**

Param	Flag	Result	Units	RL
Chloride		4320	mg/Kg	4.00

**Sample: 212104 - B-7A**

Param	Flag	Result	Units	RL
Chloride		5340	mg/Kg	4.00

**Sample: 212105 - B-8A**

Param	Flag	Result	Units	RL
Chloride		5240	mg/Kg	4.00

**Sample: 212106 - B-9A**

Param	Flag	Result	Units	RL
Chloride		1210	mg/Kg	4.00

**Sample: 212107 - B-10A**

Param	Flag	Result	Units	RL
Chloride		4420	mg/Kg	4.00

**Sample: 212108 - B-11A**

Param	Flag	Result	Units	RL
Chloride		405	mg/Kg	4.00

**Sample: 212109 - B-12A**

Param	Flag	Result	Units	RL
Chloride		1980	mg/Kg	4.00

**Sample: 212110 - B-13A**

Param	Flag	Result	Units	RL
Chloride		319	mg/Kg	4.00

**Sample: 212111 - B-14A**

Param	Flag	Result	Units	RL
Chloride		3650	mg/Kg	4.00



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200 East Sunset Road, Suite E El Paso, Texas 79922 888•598•3443 915•585•3443 FAX 915•585•4944  
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313  
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•261•5260  
E-Mail: lab@traceanalysis.com

### Certifications

**WBENC:** 237019      **HUB:** 1752439743100-86536      **DBE:** VN 20657  
**NCTRCA** WFWB38444Y0909

### NELAP Certifications

**Lubbock:** T104704219-08-TX      **El Paso:** T104704221-08-TX      **Midland:** T104704392-08-TX  
LELAP-02003      LELAP-02002  
Kansas E-10317

## Analytical and Quality Control Report

Kyle Summers  
Talon LPE-Midland  
2901 State Highway 349  
Midland, TX, 79706

Report Date: October 14, 2009

Work Order: 9100928



Project Location: Lea County, NM  
Project Name: Denton #5 SWD  
Project Number: 701014.013.01

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
212098	B-1A	soil	2009-10-07	16:00	2009-10-09
212099	B-2A	soil	2009-10-07	15:50	2009-10-09
212100	B-3A	soil	2009-10-07	15:45	2009-10-09
212101	B-4A	soil	2009-10-07	15:40	2009-10-09
212102	B-5A	soil	2009-10-07	15:35	2009-10-09
212103	B-6A	soil	2009-10-07	15:30	2009-10-09
212104	B-7A	soil	2009-10-07	15:25	2009-10-09
212105	B-8A	soil	2009-10-07	15:20	2009-10-09
212106	B-9A	soil	2009-10-07	15:15	2009-10-09
212107	B-10A	soil	2009-10-07	15:10	2009-10-09

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
212108	B-11A	soil	2009-10-07	15:05	2009-10-09
212109	B-12A	soil	2009-10-07	15:00	2009-10-09
212110	B-13A	soil	2009-10-07	14:55	2009-10-09
212111	B-14A	soil	2009-10-07	15:55	2009-10-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.




---

Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

**Standard Flags**

**B** - The sample contains less than ten times the concentration found in the method blank.

## Case Narrative

Samples for project Denton #5 SWD were received by TraceAnalysis, Inc. on 2009-10-09 and assigned to work order 9100928. Samples for work order 9100928 were received intact at a temperature of 13.0 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	54965	2009-10-12 at 13:48	64408	2009-10-13 at 15:47
Chloride (Titration)	SM 4500-Cl B	54966	2009-10-12 at 13:48	64409	2009-10-13 at 15:48

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9100928 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

## Analytical Report

### Sample: 212098 - B-1A

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2080	mg/Kg	100	4.00

### Sample: 212099 - B-2A

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1670	mg/Kg	100	4.00

### Sample: 212100 - B-3A

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2470	mg/Kg	100	4.00

### Sample: 212101 - B-4A

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

*continued ...*

sample 212101 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3530</b>	mg/Kg	100	4.00

**Sample: 212102 - B-5A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>5340</b>	mg/Kg	100	4.00

**Sample: 212103 - B-6A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>4320</b>	mg/Kg	100	4.00

**Sample: 212104 - B-7A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>5340</b>	mg/Kg	100	4.00

**Sample: 212105 - B-8A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-C1 B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5240	mg/Kg	100	4.00

**Sample: 212106 - B-9A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-C1 B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1210	mg/Kg	50	4.00

**Sample: 212107 - B-10A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-C1 B      Prep Method: N/A  
QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4420	mg/Kg	100	4.00

**Sample: 212108 - B-11A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-C1 B      Prep Method: N/A  
QC Batch: 64409      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54966      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		405	mg/Kg	50	4.00

Report Date: October 14, 2009  
701014.013.01

Work Order: 9100928  
Denton #5 SWD

Page Number: 7 of 10  
Lea County, NM

**Sample: 212109 - B-12A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64409      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54966      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>1980</b>	mg/Kg	100	4.00

**Sample: 212110 - B-13A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64409      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54966      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>319</b>	mg/Kg	50	4.00

**Sample: 212111 - B-14A**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 64409      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54966      Sample Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<b>3650</b>	mg/Kg	100	4.00

**Method Blank (1)**      QC Batch: 64408

QC Batch: 64408      Date Analyzed: 2009-10-13      Analyzed By: AR  
Prep Batch: 54965      QC Preparation: 2009-10-12      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4





**Standard (ICV-1)**

QC Batch: 64409

Date Analyzed: 2009-10-13

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2009-10-13

**Standard (CCV-1)**

QC Batch: 64409

Date Analyzed: 2009-10-13

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2009-10-13

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
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5002 Basin Street, Suite A1  
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200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
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1 (888) 588-3443

8808 Camp Bowie Blvd. West, Suite 180  
Ft. Worth, Texas 76116  
Tel (817) 201-5260  
Fax (817) 560-4336

Company Name: **Talon LPE** Phone #: **432 522 2138**

Address: (Street, City, Zip) Fax #:

Contact Person: **Ryle Summers** E-mail: **ksummers@TalonLPE.com**

Invoice to: (If different from above) **Foster Oil & Ranch** **Jimmy Carlisle**

Project #: **7D1014.013.01** Project Name: **Denton SUMMERS**

Project Location (including state): **Lea Co. NM** Sampler Signature: *[Signature]*

## ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		Turn Around Time if different from standard	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE			DATE
212098	B-1A	1	402	X							X		10/7/09	1600		
699	B-2A	1												1550		
100	B-3A	1												1545		
101	B-4A	1												1540		
102	B-5A	1												1535		
103	B-6A	1												1530		
104	B-7A	1												1525		
105	B-8A	1												1520		
106	B-9A	1												1515		
107	B-10A	1												1510		
108	B-11A	1												1505		

- MTBE 8021 / 602 / 8260 / 624
- BTX 8021 / 602 / 8260 / 624
- TPH 418.1 / TX1005 / TX1005 Ex(C35)
- TPH 8015 GRO / DRO / TVHC
- PAH 8270 / 625
- Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7
- TCLP Metals Ag As Ba Cd Cr Pb Se Hg
- TCLP Volatiles
- TCLP Semi Volatiles
- TCLP Pesticides
- RCI
- GC/MS Vol. 8260 / 624
- GC/MS Semi. Vol. 8270 / 625
- PCB's 8082 / 608
- Pesticides 8081 / 608
- BOD, TSS, pH
- Moisture Content
- Chlorides

Relinquished by: <i>[Signature]</i>	Company: <b>Talon</b>	Date: <b>10/9/09</b>	Time: <b>11:22</b>	Received by: <i>[Signature]</i>	Company: <b>Trace</b>	Date: <b>10/9/09</b>	Time: <b>12:22</b>	INST <input type="checkbox"/>	OBS <input checked="" type="checkbox"/>	COR <input type="checkbox"/>
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST <input type="checkbox"/>	OBS <input type="checkbox"/>	COR <input type="checkbox"/>
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST <input type="checkbox"/>	OBS <input type="checkbox"/>	COR <input type="checkbox"/>

**LAB USE ONLY**

Inact  N

Headspace:  Y /  N /  NA

Log-in-Review

REMARKS: **All tests-Midland**

Dry Weight Basis Required

TRRP Report Required

Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier # **Carry**

# TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9  
Lubbock, Texas 79424  
Tel (806) 794-1296  
Fax (806) 794-1298  
1 (800) 378-1296

5002 Basin Street, Suite A1  
Midland, Texas 79703  
Tel (432) 689-6301  
Fax (432) 689-6313

200 East Sunset Rd., Suite E  
El Paso, Texas 79922  
Tel (915) 585-3443  
Fax (915) 585-4944  
1 (888) 588-3443

8808 Camp Bowie Blvd. West, Suite 180  
Ft. Worth, Texas 76116  
Tel (817) 201-5260  
Fax (817) 560-4336

Company Name: Talon LPE Phone #: 432 522 2123

Address: (Street, City, Zip) \_\_\_\_\_ Fax #: \_\_\_\_\_

Contact Person: Ryle Summers E-mail: \_\_\_\_\_

Invoice to: (if different from above) Forsen Oil & Ranch Jimmy Corlito

Project #: 701014.013.01 Project Name: Denton SWD #3

Project Location (including state): Lea Co, NM Sampler Signature: \_\_\_\_\_

## ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ex(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Turn Around Time if different from standard	Hold				
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE																				DATE	TIME		
<u>2109</u>	<u>B-12A</u>	<u>1</u>	<u>↓</u>	<u>X</u>																																
<u>10</u>	<u>B-13A</u>	<u>1</u>	<u>↓</u>	<u>↓</u>																																
<u>111</u>	<u>B-14A</u>	<u>1</u>	<u>↓</u>	<u>↓</u>																																
<u>NFC</u> <u>RS</u>																																				

Relinquished by: <u>R/L</u>	Company: <u>Talon</u>	Date: <u>10/9/09</u>	Time: <u>11:22</u>	Received by: <u>[Signature]</u>	Company: <u>Trace</u>	Date: <u>10/9/09</u>	Time: <u>12:22</u>	INST <u>132</u>
Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____	INST _____
Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____	INST _____

**LAB USE ONLY**

Initials: Y/N

Headspace: Y/N/NA

Log-in-Review: \_\_\_\_\_

REMARKS:

Dry Weight Basis Required

TRRP Report Required

Check If Special Reporting Limits Are Needed

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL OOPY

Carrier # \_\_\_\_\_



# TRACE ANALYSIS, INC.

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 6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5266  
 E-Mail: [info@traceanalysis.com](mailto:info@traceanalysis.com)

## Certifications

**WBENC:** 237019      **HUB:** 1752439743100-86536      **DBE:** VN 20657  
**NCTRCA** WFWB38444Y0909

## NELAP Certifications

**Lubbock:** T104704219-08-TX      **El Paso:** T104704221-08-TX      **Midland:** T104704392-08-TX  
 LELAP-02003      LELAP-02002  
 Kansas E-10317

## Analytical and Quality Control Report

Kyle Summers  
 Talon LPE-Artesia  
 104 Hermosa Dr.  
 Artesia, NM, 88210

Report Date: December 23, 2009

Work Order: 9121611



Project Location: Lea Co., NM  
 Project Name: Denton SWD #5  
 Project Number: 701014.013.01

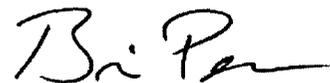
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
217390	Backfill 1	soil	2009-12-10	10:30	2009-12-16
217391	Backfill 2	soil	2009-12-10	10:31	2009-12-16
217392	Backfill 3	soil	2009-12-10	10:32	2009-12-16
217393	Backfill 4	soil	2009-12-10	10:33	2009-12-16
217394	Backfill 5	soil	2009-12-10	10:34	2009-12-16

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of

TraceAnalysis, Inc.



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Dr. Blair Leftwich, Director  
Dr. Michael Abel, Project Manager

**Standard Flags**

**B** - The sample contains less than ten times the concentration found in the method blank.

## Case Narrative

Samples for project Denton SWD #5 were received by TraceAnalysis, Inc. on 2009-12-16 and assigned to work order 9121611. Samples for work order 9121611 were received intact at a temperature of 3.4 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	56577	2009-12-21 at 15:00	66187	2009-12-21 at 12:51
Chloride (Titration)	SM 4500-Cl B	56470	2009-12-17 at 08:42	66072	2009-12-17 at 13:44
TPH DRO - NEW	Mod. 8015B	56461	2009-12-16 at 11:18	66055	2009-12-16 at 11:18
TPH GRO	S 8015B	56577	2009-12-21 at 15:00	66188	2009-12-21 at 13:19

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9121611 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

## Analytical Report

**Sample: 217390 - Backfill 1**

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5035
Analysis: BTEX	Date Analyzed: 2009-12-21	Analyzed By: AG
QC Batch: 66187	Sample Preparation: 2009-12-21	Prepared By: AG
Prep Batch: 56577		

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.64	mg/Kg	1	2.00	132	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.19	mg/Kg	1	2.00	110	43.1 - 158.4

**Sample: 217390 - Backfill 1**

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-12-17	Analyzed By: AR
QC Batch: 66072	Sample Preparation: 2009-12-17	Prepared By: AR
Prep Batch: 56470		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

**Sample: 217390 - Backfill 1**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO - NEW	Date Analyzed: 2009-12-16	Analyzed By: kg
QC Batch: 66055	Sample Preparation: 2009-12-16	Prepared By: kg
Prep Batch: 56461		

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		107	mg/Kg	1	100	107	70 - 130

**Sample: 217390 - Backfill 1**

Laboratory: Midland  
 Analysis: TPH GRO                      Analytical Method: S 8015B                      Prep Method: S 5035  
 QC Batch: 66188                      Date Analyzed: 2009-12-21                      Analyzed By: AG  
 Prep Batch: 56577                      Sample Preparation: 2009-12-21                      Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.27	mg/Kg	1	2.00	114	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.61	mg/Kg	1	2.00	130	61.7 - 131.1

**Sample: 217391 - Backfill 2**

Laboratory: Midland  
 Analysis: BTEX                      Analytical Method: S 8021B                      Prep Method: S 5035  
 QC Batch: 66187                      Date Analyzed: 2009-12-21                      Analyzed By: AG  
 Prep Batch: 56577                      Sample Preparation: 2009-12-21                      Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.36	mg/Kg	1	2.00	118	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.96	mg/Kg	1	2.00	98	43.1 - 158.4

**Sample: 217391 - Backfill 2**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 66072      Date Analyzed: 2009-12-17      Analyzed By: AR  
 Prep Batch: 56470      Sample Preparation: 2009-12-17      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

**Sample: 217391 - Backfill 2**

Laboratory: Midland  
 Analysis: TPH DRO - NEW      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 66055      Date Analyzed: 2009-12-16      Analyzed By: kg  
 Prep Batch: 56461      Sample Preparation: 2009-12-16      Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

**Sample: 217391 - Backfill 2**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 66188      Date Analyzed: 2009-12-21      Analyzed By: AG  
 Prep Batch: 56577      Sample Preparation: 2009-12-21      Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		1.16	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.14	mg/Kg	1	2.00	107	61.7 - 131.1

**Sample: 217392 - Backfill 3**

Laboratory: Midland  
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035  
 QC Batch: 66187 Date Analyzed: 2009-12-21 Analyzed By: AG  
 Prep Batch: 56577 Sample Preparation: 2009-12-21 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.57	mg/Kg	1	2.00	128	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	43.1 - 158.4

**Sample: 217392 - Backfill 3**

Laboratory: Midland  
 Analysis: Chloride (Titration) Analytical Method: SM 4500-C1 B Prep Method: N/A  
 QC Batch: 66072 Date Analyzed: 2009-12-17 Analyzed By: AR  
 Prep Batch: 56470 Sample Preparation: 2009-12-17 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

**Sample: 217392 - Backfill 3**

Laboratory: Midland  
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A  
 QC Batch: 66055 Date Analyzed: 2009-12-16 Analyzed By: kg  
 Prep Batch: 56461 Sample Preparation: 2009-12-16 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		107	mg/Kg	1	100	107	70 - 130

**Sample: 217392 - Backfill 3**

Laboratory: Midland  
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035  
 QC Batch: 66188 Date Analyzed: 2009-12-21 Analyzed By: AG  
 Prep Batch: 56577 Sample Preparation: 2009-12-21 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.21	mg/Kg	1	2.00	110	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.28	mg/Kg	1	2.00	114	61.7 - 131.1

**Sample: 217393 - Backfill 4**

Laboratory: Midland  
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035  
 QC Batch: 66187 Date Analyzed: 2009-12-21 Analyzed By: AG  
 Prep Batch: 56577 Sample Preparation: 2009-12-21 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.58	mg/Kg	1	2.00	129	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	43.1 - 158.4

**Sample: 217393 - Backfill 4**

Laboratory: Midland  
 Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A  
 QC Batch: 66072 Date Analyzed: 2009-12-17 Analyzed By: AR  
 Prep Batch: 56470 Sample Preparation: 2009-12-17 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

**Sample: 217393 - Backfill 4**

Laboratory: Midland  
 Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A  
 QC Batch: 66055 Date Analyzed: 2009-12-16 Analyzed By: kg  
 Prep Batch: 56461 Sample Preparation: 2009-12-16 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		109	mg/Kg	1	100	109	70 - 130

**Sample: 217393 - Backfill 4**

Laboratory: Midland  
 Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035  
 QC Batch: 66188 Date Analyzed: 2009-12-21 Analyzed By: AG  
 Prep Batch: 56577 Sample Preparation: 2009-12-21 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.28	mg/Kg	1	2.00	114	61.7 - 131.1

**Sample: 217394 - Backfill 5**

Laboratory: Midland  
 Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035  
 QC Batch: 66187 Date Analyzed: 2009-12-21 Analyzed By: AG  
 Prep Batch: 56577 Sample Preparation: 2009-12-21 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.64	mg/Kg	1	2.00	132	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.13	mg/Kg	1	2.00	106	43.1 - 158.4

**Sample: 217394 - Backfill 5**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 66072      Date Analyzed: 2009-12-17      Analyzed By: AR  
 Prep Batch: 56470      Sample Preparation: 2009-12-17      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

**Sample: 217394 - Backfill 5**

Laboratory: Midland  
 Analysis: TPH DRO - NEW      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 66055      Date Analyzed: 2009-12-16      Analyzed By: kg  
 Prep Batch: 56461      Sample Preparation: 2009-12-16      Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		108	mg/Kg	1	100	108	70 - 130

**Sample: 217394 - Backfill 5**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 66188      Date Analyzed: 2009-12-21      Analyzed By: AG  
 Prep Batch: 56577      Sample Preparation: 2009-12-21      Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.27	mg/Kg	1	2.00	114	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.36	mg/Kg	1	2.00	118	61.7 - 131.1

**Method Blank (1)**      QC Batch: 66055

QC Batch: 66055      Date Analyzed: 2009-12-16      Analyzed By: kg  
Prep Batch: 56461      QC Preparation: 2009-12-16      Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

**Method Blank (1)**      QC Batch: 66072

QC Batch: 66072      Date Analyzed: 2009-12-17      Analyzed By: AR  
Prep Batch: 56470      QC Preparation: 2009-12-17      Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

**Method Blank (1)**      QC Batch: 66187

QC Batch: 66187      Date Analyzed: 2009-12-21      Analyzed By: AG  
Prep Batch: 56577      QC Preparation: 2009-12-21      Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.40	mg/Kg	1	2.00	120	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.95	mg/Kg	1	2.00	98	43.9 - 141.9

**Method Blank (1)**      QC Batch: 66188

QC Batch: 66188  
Prep Batch: 56577

Date Analyzed: 2009-12-21  
QC Preparation: 2009-12-21

Analyzed By: AG  
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.13	mg/Kg	1	2.00	106	66.2 - 145
4-Bromofluorobenzene (4-BFB)		2.16	mg/Kg	1	2.00	108	62 - 120.5

**Laboratory Control Spike (LCS-1)**

QC Batch: 66055  
Prep Batch: 56461

Date Analyzed: 2009-12-16  
QC Preparation: 2009-12-16

Analyzed By: kg  
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	266	mg/Kg	1	250	<5.86	106	57.4 - 133.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	272	mg/Kg	1	250	<5.86	109	57.4 - 133.4	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	110	112	mg/Kg	1	100	110	112	70 - 130

**Laboratory Control Spike (LCS-1)**

QC Batch: 66072  
Prep Batch: 56470

Date Analyzed: 2009-12-17  
QC Preparation: 2009-12-17

Analyzed By: AR  
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.7	mg/Kg	1	100	<2.18	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec. Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Laboratory Control Spike (LCS-1)**

QC Batch: 66187  
Prep Batch: 56577

Date Analyzed: 2009-12-21  
QC Preparation: 2009-12-21

Analyzed By: AG  
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.87	mg/Kg	1	2.00	<0.00410	94	75.4 - 115.7
Toluene	1.95	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6
Ethylbenzene	1.96	mg/Kg	1	2.00	<0.00240	98	76 - 114.2
Xylene	5.84	mg/Kg	1	6.00	<0.00650	97	76.9 - 113.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.84	mg/Kg	1	2.00	<0.00410	92	75.4 - 115.7	2	20
Toluene	1.93	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6	1	20
Ethylbenzene	1.93	mg/Kg	1	2.00	<0.00240	96	76 - 114.2	2	20
Xylene	5.76	mg/Kg	1	6.00	<0.00650	96	76.9 - 113.6	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.42	2.32	mg/Kg	1	2.00	121	116	65 - 142.9
4-Bromofluorobenzene (4-BFB)	2.13	2.04	mg/Kg	1	2.00	106	102	43.8 - 144.9

**Laboratory Control Spike (LCS-1)**

QC Batch: 66188  
Prep Batch: 56577

Date Analyzed: 2009-12-21  
QC Preparation: 2009-12-21

Analyzed By: AG  
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.1	mg/Kg	1	20.0	<0.396	76	52.5 - 114.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.4	mg/Kg	1	20.0	<0.396	77	52.5 - 114.3	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.18	2.11	mg/Kg	1	2.00	109	106	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.36	2.30	mg/Kg	1	2.00	118	115	64.1 - 127.4

**Matrix Spike (MS-1)** Spiked Sample: 217098

QC Batch: 66055 Date Analyzed: 2009-12-16 Analyzed By: kg  
Prep Batch: 56461 QC Preparation: 2009-12-16 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	239	mg/Kg	1	250	<5.86	96	35.2 - 167.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	238	mg/Kg	1	250	<5.86	95	35.2 - 167.1	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	98.4	100	mg/Kg	1	100	98	100	70 - 130

**Matrix Spike (MS-1)** Spiked Sample: 217394

QC Batch: 66072 Date Analyzed: 2009-12-17 Analyzed By: AR  
Prep Batch: 56470 QC Preparation: 2009-12-17 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9740	mg/Kg	100	10000	<218	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	9930	mg/Kg	100	10000	<218	99	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

**Matrix Spike (MS-1)** Spiked Sample: 217295

QC Batch: 66187 Date Analyzed: 2009-12-21 Analyzed By: AG  
Prep Batch: 56577 QC Preparation: 2009-12-21 Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.88	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7
Toluene	2.00	mg/Kg	1	2.00	<0.00310	100	53.4 - 146.6
Ethylbenzene	2.05	mg/Kg	1	2.00	<0.00240	102	62.1 - 141.6
Xylene	6.12	mg/Kg	1	6.00	<0.00650	102	61.2 - 142.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.01	mg/Kg	1	2.00	<0.00410	100	57.7 - 140.7	7	20
Toluene	2.15	mg/Kg	1	2.00	<0.00310	108	53.4 - 146.6	7	20
Ethylbenzene	2.20	mg/Kg	1	2.00	<0.00240	110	62.1 - 141.6	7	20
Xylene	6.56	mg/Kg	1	6.00	<0.00650	109	61.2 - 142.7	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.57	2.62	mg/Kg	1	2	128	131	62.7 - 139.6
4-Bromofluorobenzene (4-BFB)	2.12	2.15	mg/Kg	1	2	106	108	49.6 - 146.7

**Matrix Spike (MS-1) Spiked Sample: 217831**

QC Batch: 66188  
Prep Batch: 56577

Date Analyzed: 2009-12-21  
QC Preparation: 2009-12-21

Analyzed By: AG  
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.0	mg/Kg	1	20.0	<0.396	80	10 - 198.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	17.2	mg/Kg	1	20.0	<0.396	86	10 - 198.3	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.10	2.22	mg/Kg	1	2	105	111	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.24	2.40	mg/Kg	1	2	112	120	58.6 - 140

**Standard (CCV-2)**

QC Batch: 66055

Date Analyzed: 2009-12-16

Analyzed By: kg









# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Jon Goldstein**  
Cabinet Secretary  
**Jim Noel**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



January 19, 2010

RECEIVED

JAN 21 2010

FASKEN OIL AND  
RANCH, LTD.

**Jimmy D. Carlile**  
Fasken Oil and Ranch, Ltd.  
303 West Wall, Suite 1800  
Midland, TX 79701

RE: DENTON NO. 5 EXCAVATION CLOSURE

Dear Mr. Carlile:

This letter documents the approval via email of December 9, 2009 which stated that Fasken may move forward and close the Denton No. 5 excavation using a 40 mil liner and site like soils for cover. The cover soil must be tested for benzene, BTEX, TPH and chlorides and pass applicable limits before emplacement. The analytical data displaying the above must be included with the final closure report / C-141. Please call if you have any questions.

Thank you,

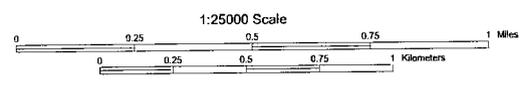
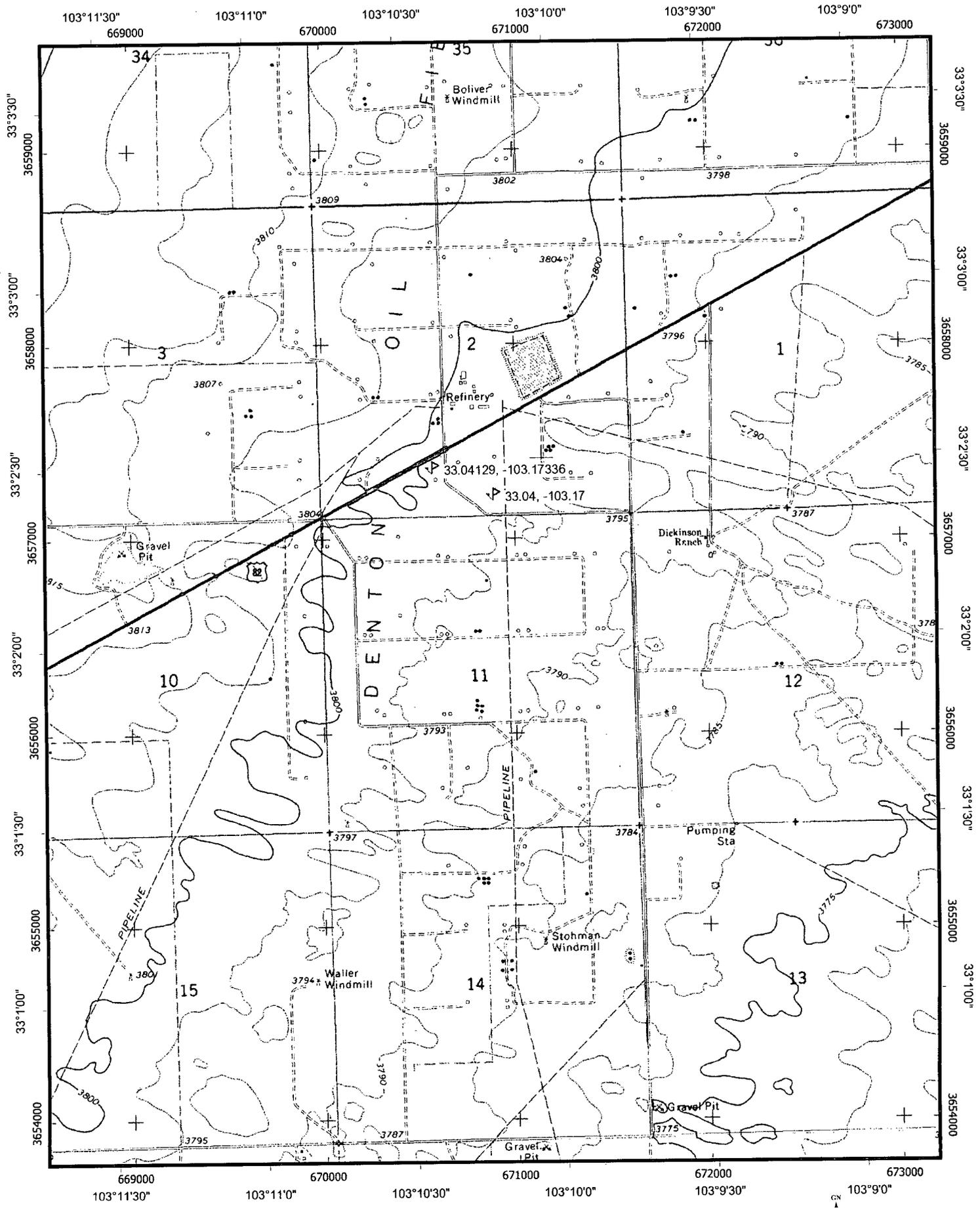
**Geoffrey Leking**  
Environmental Engineer  
NMOCD-Hobbs

Oil Conservation Division \* 1625 N. French Dr.\*

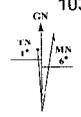
\* Hobbs, New Mexico 88240

\* Phone: (505) 393-6161 \* Fax (505) 392-0720\* <http://www.emnrd.state.nm.us>





Universal Transverse Mercator (UTM) Projection Zone 13  
 North American Datum of 1983 (NAD83)  
 UTM Grid shown in Blue



Magnetic declination at center of map on  
 September 16, 2009

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
(Revised October 10, 2003)  
Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report  Final Report

Name of Company: <u>Pasken Oil and Ranch, Ltd.</u>	Contact: <u>Jimmy D. Carlile</u>
Address: <u>03 West Wall, Midland, TX 79701</u>	Telephone No.: <u>432-687-1777</u>
Facility Name: <u>Denton SWD No. 5</u>	Facility Type: <u>SWD</u>

Surface Owner: <u>State</u>	Mineral Owner: <u>State</u>	Lease No.:
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
<u>N</u>	<u>2</u>	<u>15S</u>	<u>37E</u>	<u>660</u>	<u>south</u>	<u>1980</u>	<u>west</u>	<u>Lea</u>

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release: <u>salt water</u>	Volume of Release: <u>80</u>	Volume Recovered: <u>5</u>
Source of Release: <u>Flowline</u>	Date and Hour of Occurrence:	Date and Hour of Discovery:
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <u>9/29/08</u> <u>midnight</u>	<u>9/30/08</u> <u>9 am</u>
By Whom? _____	Date and Hour _____	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse:	

If a Watercourse was Impacted, Describe Fully.\*  
NA

Describe Cause of Problem and Remedial Action Taken.\*  
Poly line separated from fiberglass tee. Area production shutin. Line has been repaired.

Describe Area Affected and Cleanup Action Taken.\*  
Area has been allowed to dry. Area has been delineated both horizontally and vertically. We will dig and haul the most heavily contaminated soils to an OCD approved disposal. Sampling will be conducted as the work proceeds.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <u>Jimmy D. Carlile</u>	OIL CONSERVATION DIVISION	
Printed Name: <u>Jimmy D. Carlile</u>	Approved by District Supervisor: <u>[Signature]</u>	ENVIRONMENTAL ENGINEER
Title: <u>Regulatory affairs Coord.</u>	Approval Date: <u>7.14.09</u>	Expiration Date: <u>9.14.09</u>
E-mail Address: <u>jimmyc@forl.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>7/14/09</u> Phone: <u>432 687-1777</u>		<u>IRP # 1968</u>

\* Attach Additional Sheets If Necessary

Original 141 filed 9/30/08

(CONT)

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

RECEIVED  
JUN 10 2010  
HOBSOCD

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**  Initial Report  Final Report

Name of Company	Fasken Oil and Ranch, Ltd.	Contact	Jimmy D. Carlile
Address	303 W. Wall, Ste 1800 Midland, TX	Telephone No.	432 687-1777
Facility Name	Denton SWD No. 5	Facility Type	SWD

Surface Owner	State	Mineral Owner	State	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	2	15S	37E	660	South	1980	West	Lea

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

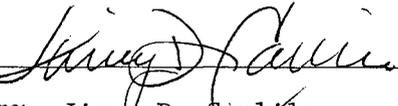
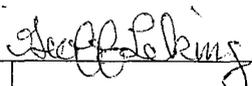
Type of Release	salt water	Volume of Release	80	Volume Recovered	5
Source of Release	flowline	Date and Hour of Occurrence		Date and Hour of Discovery	
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	9/29/08 midnight	9/30/08 9 am	
By Whom?		Date and Hour			
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*  
  
NA

Describe Cause of Problem and Remedial Action Taken.\*  
Poly line separated from fiberglass tee. Area production was shutin. Line has been repaired.

Describe Area Affected and Cleanup Action Taken.\*  
The area was excavated to 4' - 5' and a liner installed. 7118 cubic yards of material was hauled to Sundance outside of Eunice. 7118 cubic yards of clean soil (tested prior to backfilling) was placed into the excavation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Jimmy D. Carlile	Approved by District Supervisor: 	ENV ENGINEER:
Title: Regulatory Affairs Coord.	Approval Date: 06/17/10	Expiration Date: _____
E-mail Address: jimmyc@for1.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 4/26/10 Phone: 432 687 1777		IRP-1968

\* Attach Additional Sheets If Necessary



