

10/07/08

Ms. Bonham,

I was advised, this date by Mr, Joseph Baca, that the originals of the attached reports had not been received in your offices.

Please accept the following as replacement submittals.

If you have any questions, please do not hesitate to contact me.

Thank you for your time ~

Pam

Pam Inskeep  
BTA Oil Producers  
104 S. Pecos  
Midland, TX 79701  
432-682-3753  
432-683-0325 fax  
[pinskeep@btaoil.com](mailto:pinskeep@btaoil.com)

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 March 17, 1999

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  Amended Final Report

Name of Company	BTA Oil Producers	Contact	<input type="checkbox"/> Pam Inskeep
Address	104 S. Pecos, Midland, TX 79701	Telephone No.	<input type="checkbox"/> (432) 682-3753
Facility Name	Owl, 20504 JV-P, #5	Facility Type	<input type="checkbox"/> Well
Surface Owner	Forehand Ranch/grazing lessee	Mineral Owner	Federal
		Lease No.	<input type="checkbox"/> NMNM 114969

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	18	26S	27E	2310	South	2130	East	Eddy

**NATURE OF RELEASE**

Type of Release	Produced Water	Volume of Release	500 bbls	Volume Recovered	not known at this time
Source of Release	Lightning Strike	Date and Hour of Occurrence	am CDT, late 09/08/2008	Date and Hour of Discovery	12 pm CDT, late 09/08/2008
Was Immediate Notice Given?	If YES, To Whom?				
As soon as notified in the office <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	Richard Inge, OCD Office, Artesia      BLM Field Office, Carlsbad				
By Whom? <input type="checkbox"/>	Pam Inskeep	Date and Hour	<input type="checkbox"/> 9:00 a.m. CDT 09/09/2008		
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.				
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

If a Watercourse was Impacted, Describe Fully.\*  
N/A

Describe Cause of Problem and Remedial Action Taken.\*  
The pumper discovered the lightning strike damage at the location. All fiberglass tanks were totally destroyed. No other equipment was damaged. Approximately 550 bbls of produced water was released, with an estimated 425 bbls held by within the dike. Due to a breach in the firewall caused by produced water flowing around the load line that was placed through the poly liner (which covered the floor and over the firewalls), an estimated 75 bbls was released outside the containment. JD Vacuum Truck Services recovered 425 bbls. The area outside the dike is sparsely vegetated plain. The affected area was cleaned in its entirety. Burnt debris was removed and transported to an approved disposal site. Impacted soil was removed and stockpiled. A waste characterization was collected from the stockpile before transport of the soil to the approved disposal site. Soil samples were collected from the tank battery site as well as three areas outside the containment and all were submitted to a laboratory for analysis. Thirteen samples in all were collected from the site for analysis. Based on the analytical results of the samples, the site is deemed restored to below applicable regulatory clean-up levels. Said results have been provided in our Closure Report submitted by Mr. Joseph Baca, BTA.

Describe Area Affected and Cleanup Action Taken.\*  
See above explanation

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:	<i>Pam Inskeep</i> 10/7/08	<b>OIL CONSERVATION DIVISION</b>	
Printed Name:	Pam Inskeep	Approved by <input type="checkbox"/> District Supervisor:	<i>TCum by SB</i>
Title:	Regulatory Administrator	Approval Date:	10-8-08
Date:	10/02/2008	Expiration Date:	N/A
Phone:	(432) 682-3753	Conditions of Approval:	N/A
		Attached <input type="checkbox"/>	N/A

\* Attach Additional Sheets If Necessary

2RP - 225



**BTA OIL PRODUCERS**

104 SOUTH PECOS STREET  
MIDLAND, TEXAS 79701  
OFFICE: 432-682-3753 Fax 432-683-0325

October 1, 2008

NEW MEXICO OIL CONSERVATION DIVISION  
DISTRICT II  
Artesia Field Office  
1301 W. Grand Avenue  
Artesia, New Mexico 88210

CERTIFIED MAIL 7007 2560 0003 3660 4548

Re: 20504 JV-P, Owl #5 SWD Battery  
NW/4, SE/4, Section 18, T26S, R27E,  
Eddy County, New Mexico

Dear Ms. Bonham,

Enclosed is a copy of the Owl #5 SWD Battery Closure Report for the unscheduled release of September 8, 2008. BTA Oil Producers, LLC has completed the remediation of the site and is presenting this report to the Oil Conservation Division (OCD) for closure. Thank you for your time in this matter. Should you have any questions, feel free to contact me at 432.553.5352.

Regards,

A handwritten signature in cursive script that reads 'Joseph A. (Skip) Baca'.

Joseph A. (Skip) Baca, P.G.  
Environmental Coordinator  
BTA Oil Producers  
104 South Pecos  
Midland, Texas 79701

2RP - 225



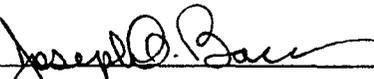
# **SITE REMEDIATION AND CLOSURE REPORT**

**20504 JV-P Owl #5 SWD Battery  
24.0 Miles Southwest of Loving, New Mexico  
Eddy County, New Mexico  
BTA Project Number: Env. 2008-034**

Prepared for:  
**New Mexico Oil Conservation Division**  
1301 W. Grand Avenue  
Artesia, New Mexico 88210

Prepared by:  
**BTA Oil Producers**  
104 S. Pecos  
Midland, Texas 79701

September 2008

  
\_\_\_\_\_  
Joseph A. Baca, P.G  
Environmental Coordinator  
BTA Oil Producers

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- Figure 1: Site Location Map
- Figure 2: Site Details Map with Confirmation Soil Sample Locations

**TABLES**

- Table 1: Analytical Results – Stockpile, Excavated Area, and Background

**APPENDICES**

- Appendix A: Completed C-141
- Appendix B: Laboratory Analytical Reports

## **1.0 INTRODUCTION**

BTA Oil Producers (BTA) is pleased to submit this Site Remediation and Closure Report (SRCR) for the BTA Owl #5 SWD Battery (Owl) clean up of produced water contaminated soil. The Owl (Project No. Env. 2008-034) site is located in Eddy County approximately 24.0 miles south of Loving, New Mexico. The GPS coordinates are N 32° 02.487' and W 104° 13.542'. A Site Location Map is provided as FIGURE 1.

According to BTA field personnel, on Tuesday, September 9, 2008 the pumper was making his rounds and went by the Owl #5 SWD Battery and found that the facility had been struck by lightning during a sever thunder on the evening of Monday, September 8, 2008. Upon further investigation it was found that the fiberglass tanks within the firewalls had been struck by the lightning and burned completely to the ground and produced water held in the tanks was released into the secondary containment. The facility is approximately one year old and was constructed using a poly-liner on the floor and over the firewalls. A breach in the firewall caused by produced water flowing around the load line that was placed through the poly-liner and firewall causing a design weakness in the firewall construction. It was also found that a total of approximately 500 barrels of produced water was released, approximately 425 barrels was held by the secondary containment. However, 75 barrels was release outside the containment (Figure 2). The pumper immediately notified the BTA Oil Producers office about the fire and release. The release was verbally reported to the Oil Conservation Division (OCD) in Artesia, New Mexico on September 9, 2008 and a New Mexico form C-141 was completed on September 9, 2008 and submitted to the state. A copy of the C-141 is included with this report in the Appendices as Appendix A.

### **1.1 Purpose of Report**

The purpose of this report is to document remediation activities and present supporting analytical data to the OCD requesting remediation of the referenced produced water release accordance with the applicable OCD cleanup guidelines for produced water releases.

## **2.0 SUMMARY OF FIELD ACTIVITIES**

### **2.1 Burnt Debris and Impacted Soil Removal**

After the roustabout crew completed activities related to the battery fire, BTA, mobilized equipment to the site the morning of September 9, 2008. A backhoe, front end loader, three (3) belly dumps and two end dump trucks were utilized in the remediation of the site. Burnt debris from the battery fire was broken into manageable pieces, loaded into end-dump trucks, tarped and transported to an approved disposal site.

Impacted soil from the battery fire and soil from the produced water runs were remove and stockpiled. A waste characterization was collected from the stockpile as required by the acceptance criterion of the approved disposal site before transport of the soil to the site. This material included impacted soil from the battery and firewalls, which measured approximately 100-feet long by 50-feet wide by 2.5-feet height and soil from three (3) easterly trending runs. The runs measured approximately 3 to 10-feet wide by 500-feet long by .083-feet deep Figure 2). A soil volume of approximately 140-yards, that included the battery soil and the soil from the three produced water runs were removed from the site and transported to

an approved disposal site. Approximately 150 yards of clean soil and caliche were trucked into the site and used to construct a new Owl #5 SWD Battery. Soil samples were collected from the tank battery site and three runs and submitted to a laboratory for analysis.

## **2.2 Confirmation Soil Sampling**

Thirteen soil samples were collected from the site. On September 9, 2008 one (1) waste characterization sample was collected from the stockpile. On September 10, 2008 eleven (11) confirmation soil samples were collected from the battery site and runs. On September 11, 2008 one (1) background sample was collected from an area approximately 75-feet north of the wellhead. The sample was submitted to a laboratory for analysis.

## **2.3 Analytical Results – Stockpile, Excavated Area(s), and Background**

On September 9, 2008, one (1) waste characterization stockpile sample, identified as Firewall & Floor was collected from the soil stockpile. The sample was submitted for laboratory analysis. The analytical results exhibited no results above regulatory limits and would not require further treatment.

On September 10, 2008 after the impacted areas had been excavated, eleven soil samples were collected from the battery site and the run sites and are identified as NW, NE, C, SW, SE, F1, F2, F3, F4, F5 and F6. They were submitted to the laboratory for analysis. The results the samples were below regulatory limits and no other action would be required (Table 1).

On September 11, 2008 one background sample was collected from a location approximately 75 feet north of the injection wellhead outside the site and identified as Owl background. The soil sample was submitted to the laboratory for analysis. The results indicated the sample was below regulatory limits (Table 1).

Laboratory submitted samples were placed in a new sterile glass container, equipped with a Teflon-lined lid furnished by the laboratory. The samples were labeled, placed on ice, chilled to a temperature of approximately 4°C and transported to Trace Analysis, Inc in Midland, Texas for analysis of DRO (Mod. 8015B), GRO (S 8015B), BTEX (8021 B) and Chlorides (SM 4500-CI B). Appropriate chain-of-custody documentation and shipping protocols were followed. The laboratory analytical reports are provided in Appendix B. Figure 2 displays the excavation limits and the location of each confirmation soil sample. Table 1 displays the analytical results of field tested and laboratory analyzed confirmation soil samples.

## **2.4 SITE RESTORATION**

Based on the confirmation soil samples collected from the site and analytical results of those samples the site was deemed clean and was restored to its original condition.

## **3.0 SUMMARY AND REQUEST FOR CLOSURE**

Based on the laboratory analyzed confirmation soil samples collected from the site, impacted soil was removed, properly disposed and the site was remediated to below applicable regulatory clean up levels.

#### **4.0 LIMITATIONS**

BTA has prepared this Site Closure Report to the best of its ability. No other warranty, expressed or implied, is made or intended. BTA has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. BTA has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. BTA has prepared this report in a professional manner, using a degree of skill and care. BTA also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared by BTA. The information contained in this report including all exhibits and attachments may not be used by any other party without the express written consent of BTA.

**5.0 DISTRIBUTION**  
**Site Remediation and Closure Report**  
**BTA Oil Producers, LLC**  
**Owl #5 SWD Battery,**  
**Eddy County, New Mexico**  
**BTA Project No. Env. 2008-034**

**Copies 1-2**  
Oil Conservation Division (OCD)  
1301 W. Grand Avenue  
Artesia, New Mexico 88210

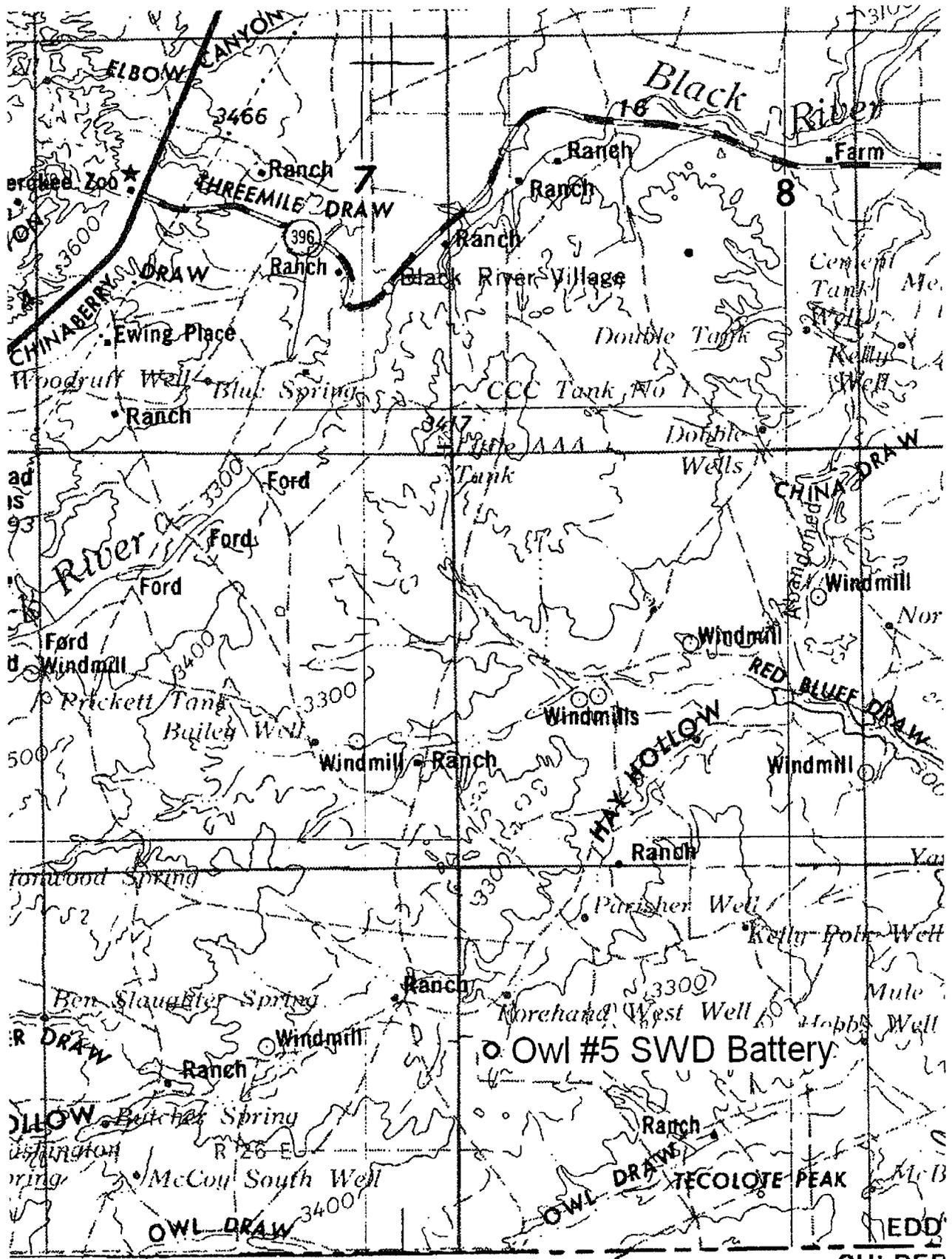
**Copy 3**  
BTA Central File

COPY # \_\_\_\_\_

# **ATTACHMENTS**

# FIGURES

**Figure 1**



Carlsbad, NM, TX

CULBER

**Figure 2**



# **TABLES**

**Table I**  
**Soil TPH, DRO and GRO Analytical Results**  
**Soil Chloride Analysis**  
**BTA - Owl #5 SWD Battery - Eddy County, New Mexico**  
**Oil Conservation Division and New Mexico Bureau of Land Management (BLM)**  
**BTA Project Number Env. 2008-034**

GLE 3,281'				Analytical Methods						
ANALYTICAL METHOD				Mod. 8015B	S 8015B	S 8021B				SM 4500-CL B
SAMPLE DATE	SAMPLE IDENTIFICATION	Client No.	TOTAL TPH	TPH DRO mg/Kg	TPH GRO mg/Kg	BENZENE mg/Kg	TOLUENE mg/Kg	ETHYLBENZE NE mg/Kg	XYLENE mg/Kg	CHLORIDES (mg/Kg)
<b>Excavation</b>										
9/10/2008	NW		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	NE		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	C		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	SW		<100.0	<50.0	<1.00	NA	NA	NA	NA	116
	SE		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	F1		<100.0	<50.0	<1.00	NA	NA	NA	NA	135
	F2		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	F3		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	F4		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	F5		<100.0	<50.0	<1.00	NA	NA	NA	NA	106
	F6		<100.0	<50.0	<1.00	NA	NA	NA	NA	<100
	Background		NA	NA	NA	NA	NA	NA	NA	<100

Note: Values in bold are outside regulatory limits

# **APPENDICES**

# Appendix A

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 March 17, 1999

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	BTA Oil Producers	Contact <input type="checkbox"/>	Pam Inskeep
Address	104 S. Pecos, Midland, TX 79701	Telephone No. <input type="checkbox"/>	(432) 682-3753
Facility Name	Owl, 20504 JV-P, #5	Facility Type <input type="checkbox"/>	Well
Surface Owner	Forehand Ranch/grazing lessee	Mineral Owner	Federal
			Lease No. <input type="checkbox"/> NMNM 114969

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County <input type="checkbox"/>
J	18	26S	27E	2310	South	2130	East	Eddy

**NATURE OF RELEASE**

Type of Release	Volume of Release	Volume Recovered <input type="checkbox"/> not known at this time
Source of Release Lightning Strike	Date and Hour of Occurrence am CDT, late 09/08/2008	Date and Hour of Discovery <input type="checkbox"/> 12 pm CDT, late 09/08/2008
Was Immediate Notice Given? As soon as notified in the office <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Richard Inge, OCD Office, Artesia      BLM Field Office, Carlsbad	
By Whom? <input type="checkbox"/> Pam Inskeep	Date and Hour <input type="checkbox"/> 9:00 a.m. CDT 09/09/2008	
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.\*

N/A

Describe Cause of Problem and Remedial Action Taken.\*

The pumper discovered the lightning strike damage at the location. All tanks were totally destroyed. No other equipment was damaged. Most of the fluid was contained within the dike. A small undetermined volume of water was released outside the dike, due to liner installation – a hole was cut in the liner to allow the flowline to pass through it. JD Vacuum Truck Services recovered 425 bbls. 45 bbls were lost inside the dike and 30 bbls were lost outside the dike. The area outside the dike is sparsely vegetated plain. The affected area will be cleaned in its entirety. An additional follow-up report will be submitted.

Describe Area Affected and Cleanup Action Taken.\*

See above explanation

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: Pam Inskeep		Approved by <input type="checkbox"/> District Supervisor:	
Title: Regulatory Administrator		Approval Date:	Expiration Date:
Date: 09/10/2008	Phone: (432) 682-3753	Conditions of Approval:	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary

## **Appendix B**

## Summary Report

Skip Baca  
BTA Oil Producers  
104 S. Pecos  
Midland, TX, 79701

Report Date: September 12, 2008

Work Order: 8091108



Project Location: 24 miles from Orla  
Project Name: Owl SWD Battery

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
173158	NW	soil	2008-09-10	16:30	2008-09-11
173159	NE	soil	2008-09-10	16:35	2008-09-11
173160	C	soil	2008-09-10	16:38	2008-09-11
173161	SW	soil	2008-09-10	16:40	2008-09-11
173162	SE	soil	2008-09-10	16:43	2008-09-11
173163	F1	soil	2008-09-10	16:46	2008-09-11
173164	F2	soil	2008-09-10	16:49	2008-09-11
173165	F3	soil	2008-09-10	16:53	2008-09-11
173166	F4	soil	2008-09-10	16:58	2008-09-11
173167	F5	soil	2008-09-10	17:01	2008-09-11
173168	F6	soil	2008-09-10	17:07	2008-09-11

Sample - Field Code	TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
173158 - NW	<50.0	<1.00
173159 - NE	<50.0	<1.00
173160 - C	<50.0	<1.00
173161 - SW	<50.0	<1.00
173162 - SE	<50.0	<1.00
173163 - F1	<50.0	<1.00
173164 - F2	<50.0	<1.00
173165 - F3	<50.0	<1.00
173166 - F4	<50.0	<1.00
173167 - F5	<50.0	<1.00
173168 - F6	<50.0	<1.00

Sample: 173158 - NW

Report Date: September 12, 2008

Work Order: 8091108  
Owl SWD Battery

Page Number: 2 of 3  
24 miles from Orla

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**Sample: 173159 - NE**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**Sample: 173160 - C**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**Sample: 173161 - SW**

Param	Flag	Result	Units	RL
Chloride		116	mg/Kg	2.00

**Sample: 173162 - SE**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**Sample: 173163 - F1**

Param	Flag	Result	Units	RL
Chloride		135	mg/Kg	2.00

**Sample: 173164 - F2**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**Sample: 173165 - F3**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Report Date: September 12, 2008

Work Order: 8091108  
Owl SWD Battery

Page Number: 3 of 3  
24 miles from Orla

**Sample: 173166 - F4**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**Sample: 173167 - F5**

Param	Flag	Result	Units	RL
Chloride		106	mg/Kg	2.00

**Sample: 173168 - F6**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298  
200 Eas. Sunset Road, Suite 2 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

**WBE:** 237019

**HUB:** 1752439743100-86536

**DBE:** VN 20657

## NELAP Certifications

**Lubbock:** T104704219-08-TX  
LELAP-02003  
Kansas E-10317

**El Paso:** T104704221-08-TX  
LELAP-02002

**Midland:** T104704392-08-TX

## Analytical and Quality Control Report

Skip Baca  
BTA Oil Producers  
104 S. Pecos  
Midland, TX, 79701

Report Date: September 12, 2008

Work Order: 8091108



Project Location: 24 miles from Orla  
Project Name: Owl SWD Battery  
Project Number: Owl SWD Battery

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
173158	NW	soil	2008-09-10	16:30	2008-09-11
173159	NE	soil	2008-09-10	16:35	2008-09-11
173160	C	soil	2008-09-10	16:38	2008-09-11
173161	SW	soil	2008-09-10	16:40	2008-09-11
173162	SE	soil	2008-09-10	16:43	2008-09-11
173163	F1	soil	2008-09-10	16:46	2008-09-11

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
173164	F2	soil	2008-09-10	16:49	2008-09-11
173165	F3	soil	2008-09-10	16:53	2008-09-11
173166	F4	soil	2008-09-10	16:58	2008-09-11
173167	F5	soil	2008-09-10	17:01	2008-09-11
173168	F6	soil	2008-09-10	17:07	2008-09-11

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 21 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director

**Standard Flags**

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

## Case Narrative

Samples for project Owl SWD Battery were received by TraceAnalysis, Inc. on 2008-09-11 and assigned to work order 8091108. Samples for work order 8091108 were received intact at a temperature of 3.2 deg. C.

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

<u>Test</u>	<u>Method</u>
Chloride (Titration)	SM 4500-Cl B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

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 8091108 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: 173158 - NW**

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2008-09-11	Analyzed By: AR
QC Batch: 52289	Sample Preparation: 2008-09-11	Prepared By: AR
Prep Batch: 44822		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173158 - NW**

Laboratory: Midland	Analytical Method: Mod. 8015B	Prep Method: N/A
Analysis: TPH DRO	Date Analyzed: 2008-09-11	Analyzed By: LD
QC Batch: 52308	Sample Preparation: 2008-09-11	Prepared By: LD
Prep Batch: 44839		

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-Triacontane		128	mg/Kg	1	100	128	10 - 250.4

**Sample: 173158 - NW**

Laboratory: Midland	Analytical Method: S 8015B	Prep Method: S 5035
Analysis: TPH GRO	Date Analyzed: 2008-09-11	Analyzed By: DC
QC Batch: 52309	Sample Preparation: 2008-09-11	Prepared By: DC
Prep Batch: 44832		

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)		1.13	mg/Kg	1	1.00	113	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.874	mg/Kg	1	1.00	87	66 - 142.8

**Sample: 173159 - NE**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
 Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173159 - NE**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
 Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		126	mg/Kg	1	100	126	10 - 250.4

**Sample: 173159 - NE**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
 Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.868	mg/Kg	1	1.00	87	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.855	mg/Kg	1	1.00	86	66 - 142.8

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**Sample: 173160 - C**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173160 - C**

Laboratory: Midland  
Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		114	mg/Kg	1	100	114	10 - 250.4

**Sample: 173160 - C**

Laboratory: Midland  
Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.883	mg/Kg	1	1.00	88	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.860	mg/Kg	1	1.00	86	66 - 142.8

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**Sample: 173161 - SW**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		116	mg/Kg	50	2.00

**Sample: 173161 - SW**

Laboratory: Midland  
Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		122	mg/Kg	1	100	122	10 - 250.4

**Sample: 173161 - SW**

Laboratory: Midland  
Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.880	mg/Kg	1	1.00	88	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.862	mg/Kg	1	1.00	86	66 - 142.8

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**Sample: 173162 - SE**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173162 - SE**

Laboratory: Midland  
Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		125	mg/Kg	1	100	125	10 - 250.4

**Sample: 173162 - SE**

Laboratory: Midland  
Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.894	mg/Kg	1	1.00	89	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.862	mg/Kg	1	1.00	86	66 - 142.8

**Sample: 173163 - F1**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
 Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		135	mg/Kg	50	2.00

**Sample: 173163 - F1**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
 Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		125	mg/Kg	1	100	125	10 - 250.4

**Sample: 173163 - F1**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
 Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.873	mg/Kg	1	1.00	87	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.852	mg/Kg	1	1.00	85	66 - 142.8

**Sample: 173164 - F2**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
 Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173164 - F2**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
 Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		122	mg/Kg	1	100	122	10 - 250.4

**Sample: 173164 - F2**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
 Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.893	mg/Kg	1	1.00	89	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.862	mg/Kg	1	1.00	86	66 - 142.8

**Sample: 173165 - F3**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
 Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173165 - F3**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
 Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		118	mg/Kg	1	100	118	10 - 250.4

**Sample: 173165 - F3**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
 Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.901	mg/Kg	1	1.00	90	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.863	mg/Kg	1	1.00	86	66 - 142.8

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**Sample: 173166 - F4**

Laboratory: Midland  
Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173166 - F4**

Laboratory: Midland  
Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		119	mg/Kg	1	100	119	10 - 250.4

**Sample: 173166 - F4**

Laboratory: Midland  
Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.910	mg/Kg	1	1.00	91	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.863	mg/Kg	1	1.00	86	66 - 142.8

**Sample: 173167 - F5**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 52289      Date Analyzed: 2008-09-11      Analyzed By: AR  
 Prep Batch: 44822      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		106	mg/Kg	50	2.00

**Sample: 173167 - F5**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
 Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		127	mg/Kg	1	100	127	10 - 250.4

**Sample: 173167 - F5**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
 Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.908	mg/Kg	1	1.00	91	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.869	mg/Kg	1	1.00	87	66 - 142.8

**Sample: 173168 - F6**

Laboratory: Midland  
 Analysis: Chloride (Titration)      Analytical Method: SM 4500-Cl B      Prep Method: N/A  
 QC Batch: 52290      Date Analyzed: 2008-09-11      Analyzed By: AR  
 Prep Batch: 44823      Sample Preparation: 2008-09-11      Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Sample: 173168 - F6**

Laboratory: Midland  
 Analysis: TPH DRO      Analytical Method: Mod. 8015B      Prep Method: N/A  
 QC Batch: 52308      Date Analyzed: 2008-09-11      Analyzed By: LD  
 Prep Batch: 44839      Sample Preparation: 2008-09-11      Prepared By: LD

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-Triacontane		128	mg/Kg	1	100	128	10 - 250.4

**Sample: 173168 - F6**

Laboratory: Midland  
 Analysis: TPH GRO      Analytical Method: S 8015B      Prep Method: S 5035  
 QC Batch: 52309      Date Analyzed: 2008-09-11      Analyzed By: DC  
 Prep Batch: 44832      Sample Preparation: 2008-09-11      Prepared By: DC

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)		0.968	mg/Kg	1	1.00	97	75 - 117.2
4-Bromofluorobenzene (4-BFB)		0.872	mg/Kg	1	1.00	87	66 - 142.8

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**Method Blank (1)**      QC Batch: 52289

QC Batch: 52289  
Prep Batch: 44822

Date Analyzed: 2008-09-11  
QC Preparation: 2008-09-11

Analyzed By: AR  
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

**Method Blank (1)**      QC Batch: 52290

QC Batch: 52290  
Prep Batch: 44823

Date Analyzed: 2008-09-11  
QC Preparation: 2008-09-11

Analyzed By: AR  
Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

**Method Blank (1)**      QC Batch: 52308

QC Batch: 52308  
Prep Batch: 44839

Date Analyzed: 2008-09-11  
QC Preparation: 2008-09-11

Analyzed By: LD  
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		<15.8	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		120	mg/Kg	1	100	120	30.9 - 146.4

**Method Blank (1)**      QC Batch: 52309

QC Batch: 52309  
Prep Batch: 44832

Date Analyzed: 2008-09-11  
QC Preparation: 2008-09-11

Analyzed By: DC  
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		0.868	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.924	mg/Kg	1	1.00	92	70 - 130

*continued ...*



Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	299	mg/Kg	1	250	<15.8	120	27.8 - 152.1

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	279	mg/Kg	1	250	<15.8	112	27.8 - 152.1	7	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-Triacontane	121	118	mg/Kg	1	100	121	118	38 - 130.4

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

QC Batch: 52309  
Prep Batch: 44832

Date Analyzed: 2008-09-11  
QC Preparation: 2008-09-11

Analyzed By: DC  
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	9.00	mg/Kg	1	10.0	0.868	81	70 - 130

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
GRO	9.26	mg/Kg	1	10.0	0.868	84	70 - 130	3	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)	0.960	0.960	mg/Kg	1	1.00	96	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.896	0.905	mg/Kg	1	1.00	90	90	70 - 130

**Matrix Spike (MS-1) Spiked Sample: 173167**

QC Batch: 52289  
Prep Batch: 44822

Date Analyzed: 2008-09-11  
QC Preparation: 2008-09-11

Analyzed By: AR  
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	4930	mg/Kg	50	5000	106	96	85 - 115

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

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Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	4990	mg/Kg	50	5000	106	98	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: 173245

QC Batch: 52290 Date Analyzed: 2008-09-11 Analyzed By: AR  
Prep Batch: 44823 QC Preparation: 2008-09-11 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	8190	mg/Kg	50	5000	3420	95	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	8300	mg/Kg	50	5000	3420	98	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: 173158

QC Batch: 52308 Date Analyzed: 2008-09-11 Analyzed By: LD  
Prep Batch: 44839 QC Preparation: 2008-09-11 Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	291	mg/Kg	1	250	<15.8	116	18 - 179.5

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	273	mg/Kg	1	250	<15.8	109	18 - 179.5	6	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-Triacontane	129	121	mg/Kg	1	100	129	121	34.1 - 158

**Matrix Spike (MS-1)** Spiked Sample: 173222

QC Batch: 52309 Date Analyzed: 2008-09-11 Analyzed By: DC  
Prep Batch: 44832 QC Preparation: 2008-09-11 Prepared By: DC





Report Date: September 12, 2008  
Owl SWD Battery

Work Order: 8091108  
Owl SWD Battery

Page Number: 21 of 21  
24 miles from Orla

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2008-09-11

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# TraceAnalysis, Inc.

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8808 Camp Bowie Blvd. West, Suite 180  
Ft. Worth, Texas 76116  
Tel (817) 201-5260  
Fax (817) 580-4336

Company Name: **BTA Oil Producers** Phone #: **(432) 553-5352**  
Address: **104 S. Pecos St.** Fax #: **(432) 683-0325**  
Contact Person: **Skip Brea** E-mail: **sbrea@btaoil.com**

Project #: **OW/SWD Facility**  
Project Name: **Oil SWD Battery**  
Sampler Signature: **Skip Brea**

LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH	ICE	NONE	DATE
	NW	1	4oz	X						X			9/10/08	4:30
	NE	1												4:35
	C	1												4:38
	SW	1												4:40
	SE	1												4:43
	F1	1												4:46
	F2	1												4:49
	F3	1												4:53
	F4	1												4:58
	F5	1												5:01
	F6	1												5:07

Relinquished by: **Skip Brea BTA** Company: **BTA** Date: **9/11/08** Time: **9:52** Temp: **32**  
 Relinquished by: **Cambridge** Company: **Cambridge** Date: **9-11-08** Time: **9:52** Temp: **32**

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

<input type="checkbox"/>	MTBE 8021B / 602 / 8260B / 624
<input type="checkbox"/>	BTEX 8021B / 602 / 8260B / 624
<input type="checkbox"/>	TPH 418.1 / TX1005 / TX1005 Ext(C35)
<input type="checkbox"/>	TPH 8015 GRO / DRO / TVHC
<input type="checkbox"/>	PAH 8270C / 625
<input type="checkbox"/>	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010B/200.7
<input type="checkbox"/>	TCP Metals Ag As Ba Cd Cr Pb Se Hg
<input type="checkbox"/>	TCP Volatiles
<input type="checkbox"/>	TCP Semi Volatiles
<input type="checkbox"/>	TCP Pesticides
<input type="checkbox"/>	RCI
<input type="checkbox"/>	GC/MS Vol. 8260B / 624
<input type="checkbox"/>	GC/MS Semi. Vol. 8270C / 625
<input type="checkbox"/>	PCBs 8082 / 608
<input type="checkbox"/>	Pesticides 8081A / 608
<input type="checkbox"/>	BOD, TSS, PH
<input type="checkbox"/>	Moisture Content
<input checked="" type="checkbox"/>	Chlorides

REMARKS: **BTEX on highest GRO + DRO**

Dry Weight Basis Required  
 TRRP Report Required  
 Check if Special Reporting Limits Are Needed

## Summary Report

Skip Baca  
BTA Oil Producers  
104 S. Pecos  
Midland, TX, 79701

Report Date: September 15, 2008

Work Order: 8091208



Project Location: 24 miles from Orla  
Project Name: Owl SWD Battery

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
173287	Owl Background	soil	2008-09-11	15:30	2008-09-12

**Sample: 173287 - Owl Background**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00



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 6015 Harris Parkway, Suite 110 Ft Worth, Texas 76132 817•201•5260  
 E-Mail: lab@traceanalysis.com

### Certifications

**WBE:** 237019      **HUB:** 1752439743100-86536      **DBE:** VN 20657

### 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

Skip Baca  
 BTA Oil Producers  
 104 S. Pecos  
 Midland, TX, 79701

Report Date: September 15, 2008

Work Order: 8091208



Project Location: 24 miles from Orla  
 Project Name: Owl SWD Battery  
 Project Number: Owl SWD Battery

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
173287	Owl Background	soil	2008-09-11	15:30	2008-09-12

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.



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Dr. Blair Leftwich, Director

**Standard Flags**

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

## Case Narrative

Samples for project Owl SWD Battery were received by TraceAnalysis, Inc. on 2008-09-12 and assigned to work order 8091208. Samples for work order 8091208 were received intact at a temperature of 3.7 deg. C.

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

<u>Test</u>	<u>Method</u>
Chloride (Titration)	SM 4500-Cl B

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 8091208 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: 173287 - Owl Background**

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2008-09-15	Analyzed By: AG
QC Batch: 52364	Sample Preparation: 2008-09-15	Prepared By: AG
Prep Batch: 44890		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<100	mg/Kg	50	2.00

**Method Blank (1)      QC Batch: 52364**

QC Batch: 52364	Date Analyzed: 2008-09-15	Analyzed By: AG
Prep Batch: 44890	QC Preparation: 2008-09-15	Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Chloride		<0.500	mg/Kg	2

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

QC Batch: 52364	Date Analyzed: 2008-09-15	Analyzed By: AG
Prep Batch: 44890	QC Preparation: 2008-09-15	Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.5	mg/Kg	1	100	<0.500	100	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	99.5	mg/Kg	1	100	<0.500	100	85 - 115	0	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: 173287**

QC Batch: 52364	Date Analyzed: 2008-09-15	Analyzed By: AG
Prep Batch: 44890	QC Preparation: 2008-09-15	Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	5070	mg/Kg	50	5000	95.7	99	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	5020	mg/Kg	50	5000	95.7	98	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: 52364

Date Analyzed: 2008-09-15

Analyzed By: AG

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2008-09-15

**Standard (CCV-1)**

QC Batch: 52364

Date Analyzed: 2008-09-15

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2008-09-15

