



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  $\sim$ 

Pam

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

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1023 N. FTERCH DI , HOUDS, NW 88240						e of New Mexico rals and Natural Resources				Form C-141 Revised March 17, 1999	
District III         Oil Cor           1000 Rio Brazos Road, Aztec, NM 87410         1220 Sc           District IV         1220 Sc			South	outh St. Francis Dr. District Office in activity with Rule 116			Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form				
			Rel	ease Notific				e A	ctior	1	
:				01	PERA	TOR			Initia	I Report	Amended Final Report
Name of CompanyBTA Oil ProducersAddress104 S. Pecos, Midland, TX 79701					Contact Telephone 1		Inske	ep -3753			
Facility Na	me	Owl, 20504	the second se	and the second se		Facility Typ			-3733		
Surface Ow	nerForeha	and Ranch/gr	azing les	see Mineral O	wner	Federal				Lease N	lo. O NMNM 114969
····					TIO	N OF REI	EASE				
Unit Letter J	Section 18	Township 26S	Range 27E	Feet from the 2310		South Line	Feet from 2130	the	East/ East	West Line	County(.) Eddy
				NAT	URE	OF RELI	CASE				
Source of Rele	lease	Produced W Lightning				Volume of Date and H am CDT, la	Release 50 our of Occu te 09/08/20	rrence		Date and I	ecovered [] not known at this time four of Discovery [] T, late 09/08/2008
Was Immedia			Yes [	No 🗌 Not Ree	quired	If YES, To Richard Ing		fice, A	rtesia	BLN	1 Field Office, Carlsbad
By Whom? [] Was a Watero						Date and H If YES, Vo	our□ 9:00	a.m. C	CDT 09		
If a Watercou			Yes 🛛								
Describe Caus		m and Remed	ial Action	Taken *							
The pumper d Approximatel produced wate was released o area was clear waste characte battery site as the site for ana	iscovered to y 550 bbls of er flowing a putside the of ned in its en erization wa well as threa alysis. Base	he lightning st of produced w around the load containment tirety. Burnt as collected fro ee areas outsid ed on the analy	rike dama ater was r d line that JD Vacuu debris wa om the sto e the cont ytical resu	ge at the location. eleased, with an es was placed throug m Truck Services i s removed and tran ckpile before trans ainment and all we	stimated the precover asported port of the site	d 425 bbls hel oly liner (whi ed 425 bbls. d to an appro- the soil to the nitted to a late e is deemed re	d by within ch covered The area ou red disposal approved c oratory for	the di the flo tside t site. lisposa analys	ke. Du oor and he dike Impaci al site. sis. Th	te to a bread over the fir e is sparsely ted soil was Soil sample irteen samp	tipment was damaged. h in the firewall caused by ewalls), an estimated 75 bbls vegetated plain. The affected removed and stockpiled. A es were collected from the tank les in all were collected from y clean-up levels. Said results
Describe Area	Affected a	nd Cleanup A	ction Take	en.*							
See abo	ove explana	tion					4				
regulations all public health o should their op	operators a r the enviro erations have nent. In add	re required to onment. The a ve failed to ad dition, NMOC	report and cceptance equately i Daccepta	Vor file certain rele of a C-141 report nvestigate and rem	ease not by the nediate port doe	tifications and NMOCD mail contaminatio	l perform co ked as "Fin that pose a the operator	orrecti al Rep a threa r of res	ve action port" de t to gre sponsil	ons for relea bes not relie bund water, bility for con	ant to NMOCD rules and uses which may endanger ve the operator of liability surface water, human health npliance with any other DIVISION
Signature:	tom	h	Heef	2		pproved by□	District Sup	erviso	)r:		<b>A</b> D
Printed Name:		m Inskeep gulatory Admi	inistrator			pproval Date				xpiration D	
ردی Date: 10/0	2/2008		Phone	e: (432) 682-3753	C	onditions of A	pproval:	14	A		Attached Attached
Attach Additio	nal Sheets	s If Necessar					,			2RP -	225

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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,

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

2RP - 225

BTA OIL PRODUCERS, 104 SOUTH PECOS STREET, MIDLAND, TEXAS 79701, OFFICE: 432-682-3753, FAX: 432-683-0325



# 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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# **ATTACHMENTS**

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# **FIGURES**

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

# TABLES

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

## **APPENDICES**

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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

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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, tarpped 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

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

# ATTACHMENTS

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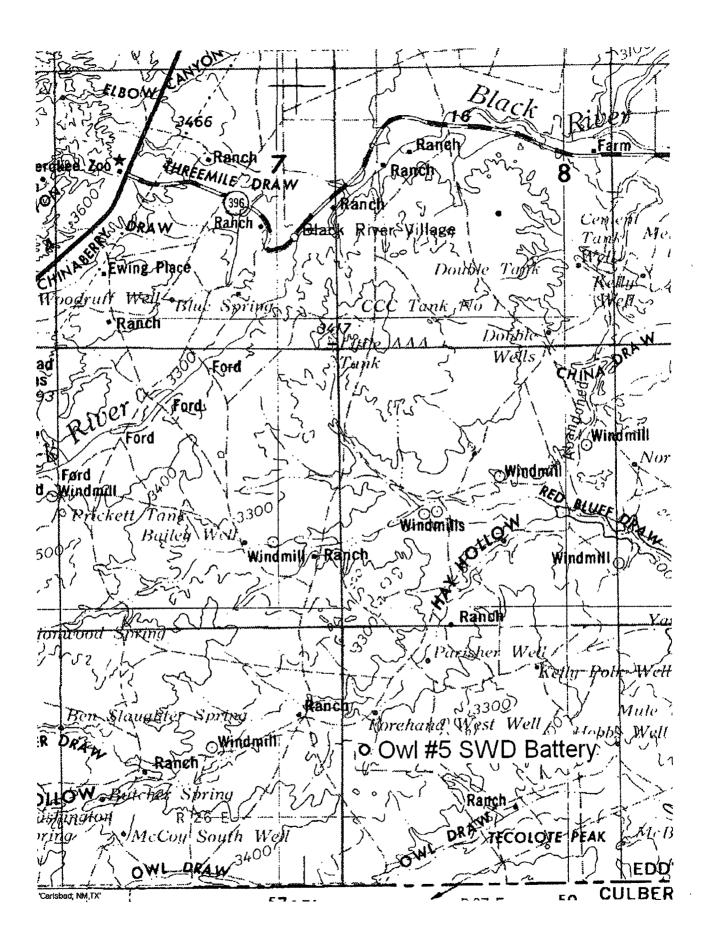
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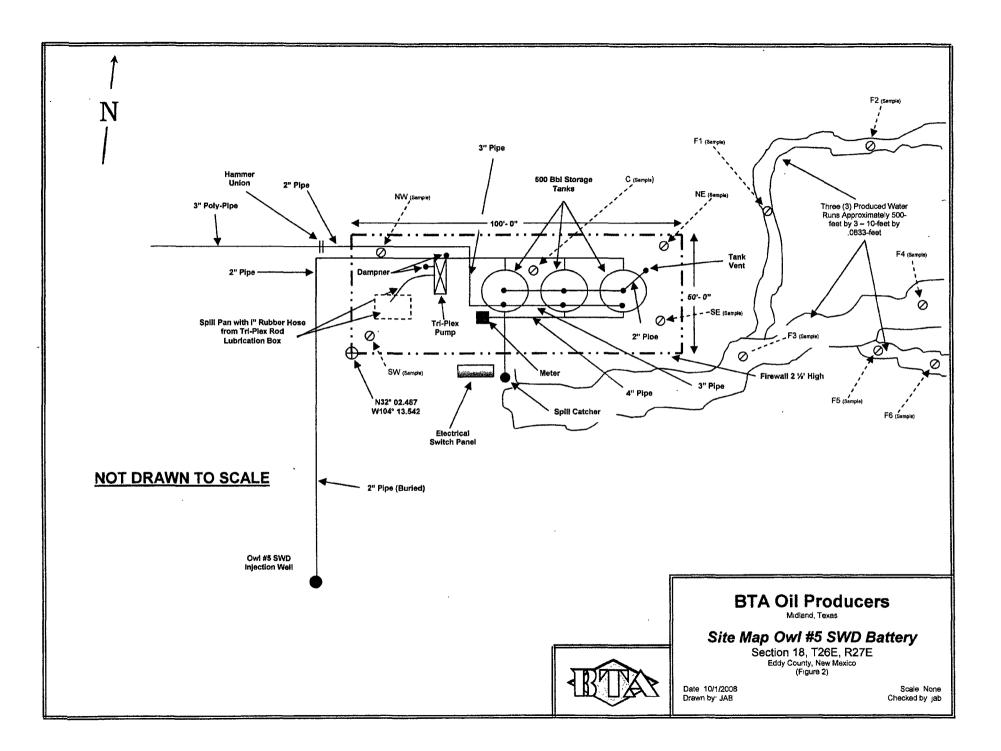
# FIGURES

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# Figure 1



# Figure 2



# **TABLES**

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# Table ISoil TPH, DRO and GRO Analytical ResultsSoil Chloride AnalysisBTA - Owl #5 SWD Battery - Eddy County, New MexicoOil Concervation Division and New MexicoBureau of Land Management (BLM)BTA Project Number Env. 2008-034

	GLE 3,281'				Analytical Methods						
ANALYTICAL METHOD				Mod. 8015B	Aod. 8015B S 8015B S 8021B					SM 4500-CL B	
SAMPLE	SAMPLE IDENTIFICATION	Client No.	TOTAL	TPH DRO	TPH GRO	BENZENE	TOLUENE	ETHYLBENZE	XYLENE	CHLORIDES	
DATE	SAMILLE IDENTIFICATION	Chefft NO.	TPH	mg/Kg	mg/Kg	mg/Kg	mg/Kg	NE mg/Kg	mg/Kg	(mg/Kg)	
	Excavation		であった。 「「「「「」」 「「「」」」								
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	
	С		<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	

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Note: Values in bold are outside regulatory limits

# APPENDICES

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# Appendix A

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District II Energy Minerals						of New Mexico als and Natural Resources Revised					Form C-141 vised March 17, 1999
District IV 1220 Sout					Conser South						ppies to appropriate ffice in accordance h Rule 116 on back side of form
			Rel	ease Notific				ction			
						OPERA'				al Report	Final Report
Name of Co	mpany E	BTA Oil Pro	oducers			Contact []	Pam Insk	eep			
Address		04 S. Pecos	s, Midlan	d, TX 79701		Telephone 1					
Facility Nan	ne (	Owl, 20504	JV-P, #5			Facility Typ	e Well				
Surface Own	nerForehan	d Ranch/gr	azing les	see Mineral C	Owner	Federal			Lease N	No. 🗆 NMN	VM 114969
·····	·	<u></u>	<u></u>			N OF REI				<b></b>	
Unit Letter J	Section 18	Township 26S	Range 27E	Feet from the 2310	North/   South	/South Line	Feet from the 2130	East/V East	West Line	County□ Eddy	
				NAT	URE	OF REL	EASE	-			
Type of Relea						Volume of	Release 500 bb	ls			ot known at this time
Source of Rel		Lightning	g Strike			am CDT, l	Iour of Occurrence ate 09/08/2008	e		Hour of Disc DT, late 09/08	
Was Immedia As soon as			Yes [	] No 🗌 Not Re	equired	If YES, To Richard In	Whom? ge, OCD Office, A	Artesia	BLN	M Field Offic	e, Carlsbad
By Whom?		Pam Insk	eep	·····	<u></u>	Date and H	Iour 9:00 a.m.	CDT 09	/09/2008		
Was a Waterc	ourse Reach					If YES, Vo	olume Impacting t	the Wat	ercourse.		
l			Yes 🛛	No				_			
If a Watercour	rse was Imp	acted, Descr	ibe Fully.	F							
N/.	A										
Describe Caus	CD 11	1.0	1. 1 A		····						·····
The pumper d was contained to allow the fl	iscovered th I within the owline to pa	e lightning s dike. A sma uss through it	strike dam ll undeteri t. JD Vac	age at the location	water wa	as released ou vered 425 bbl:	tside the dike, du s. 45 bbls were lo	e to line ost insid	er installation e the dike a	on – a hole wa ind 30 bbls wa	is cut in the liner ere lost outside the
Describe Area	Affected ar	d Cleanup A	Action Tal	en *							
		-	(II	•							
See ab	ove explana	tion									
regulations all public health of should their op	operators a or the enviro perations ha ment. In ad	re required to onment. The ve failed to a dition, NMO	o report an acceptance idequately ICD accept	is true and comp ad/or file certain r ce of a C-141 report investigate and r tance of a C-141	elease nort by the emediate	otifications a e NMOCD m e contaminati	nd perform correct arked as "Final R on that pose a thr	ctive act eport" c reat to g	ions for rel loes not rel round wate	eases which r ieve the opera r, surface wat	nay endanger itor of liability er, human health
		<u>· · ∂</u> _					OIL CON	SERV	ATION	DIVISIO	N
Signature:											
Printed Name:	Pa	m Inskeep			.	Approved by	District Supervi	isor:			
Title:		gulatory Ad	ministrato	r		Approval Dat	.e:		Expiration	Date:	
Date: 09/	10/2008		Pho	one: (432) 682-37		Conditions of	<u> </u>			Attached	

\* Attach Additional Sheets If Necessary

District I

# Appendix B

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# **Summary Report**

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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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
173158	NW	soil	2008-09-10	16:30	2008-09-11
173159	NE	soil	2008-09-10	16:35	2008-09-11
173160	С	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	$\mathbf{F1}$	soil	2008-09-10	16:46	2008-09-11
173164	$\mathbf{F2}$	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	$\mathbf{F5}$	soil	2008-09-10	17:01	2008-09-11
173168	F6	soil	2008-09-10	17:07	2008-09-11

	TPH DRO	TPH GRO
	DRO	GRO
Sample - Field Code	(mg/Kg)	(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

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data.

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	ing any opposite of the second the term of the second second second second second second second second second s	<100	mg/Kg	2.00
Sample: 173159 - NE		ţ		
Param	Flag	Result	Units	$\mathbf{RL}$
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	$\mathbf{RL}$
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	$\mathbf{RL}$
Chloride		<100	mg/Kg	2.00

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TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data.

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		2.0	
Sample: 173167	- F5				
Sample: 173167	- F5 Flag	Result	Units	RL	

Param	Flag	Result	Units	$\mathbf{RL}$
Chloride		<100	mg/Kg	2.00

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TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data.



 6701 Aberdeen Avenue, Suite 9
 Lubbock, Texas 79424

 200 Eas, Sunset Road, Suite E
 El Paso, Texas 79922

 5002 Basin Streat, Suite A1
 Midland Texas 79703

 6015 Harris Parkway, Suite 110
 Ft. Worth Texas 76132

Lubbock, Texas 79424 800+378+1295 21 Paso, Texas 79922 688+588+5443 Midland Texas 79703 1 Worth Texas 76132 E-Mail Tab@traceanalysis.com 806•794•1296 +AX 806•794•1298 915•585•3443 FAX 915•585•4944 432•689•6501 FAX 432•689•6313 817•201•5260

**WBE:** 237019

**Certifications 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 OrlaProject Name:Owl SWD BatteryProject Number:Owl SWD Battery

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
173158	NW	soil	2008-09-10	16:30	2008-09-11
173159	NE	soil	2008-09-10	16:35	2008-09-11
173160	С	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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
173164	F2	soil	2008-09-10	16:49	2008-09-11
173165	F3	soil	2008-09-10	16:53	2008-09-11
173166	$\mathbf{F4}$	soil	2008-09-10	16:58	2008-09-11
173167	$\mathbf{F5}$	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.

Michael Abril

Dr. Blair Leftwich, Director

### Standard Flags

 ${f B}$  - The sample contains less than ten times the concentration found in the method blank.

# **Case Narrative**

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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.

Test	Method
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.

Report Date: September 12, 2008 Owl SWD Battery

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Work Order: 8091108 Owl SWD Battery .

Page Number: 4 of 21 24 miles from Orla

# **Analytical Report**

Sample: 173158 - NW

Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 52289 44822	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2008-09-11 2008-09-11	Prep Method: Analyzed By: Prepared By:	ÁR
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride			mg/Kg	50	2.00

### Sample: 173158 - NW

n-Triacontan	9	128	mg/Kg	1	100	128	10 - 250.4
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO			<50.0	mg/	Kg	1	50.0
Parameter	Fla	3	RL Result		nits	Dilution	RL
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 52308 44839		Analytical Me Date Analyze Sample Prepa	d: 2008-		-	Method: N/A ed By: LD ed By: LD

### Sample: 173158 - NW

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 52309 44832		Analytical Date Anal Sample Pr		S 8015B 2008-09-11 2008-09-11		Prep Meth Analyzed Prepared 1	By: DC
			RL					
Parameter	Flag		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		1.13	mg/Kg	1	1.00	113	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		0.874	mg/Kg	1	1.00	87	66 - 142.8

Report Date Owl SWD B	e: September 12, 2 Sattery	:008			er: 8091108 D Battery	, 		mber: 5 of 21 les from Orla
Sample: 17	3159 - NE							
Laboratory:	Midland							
Analysis:	Chloride (Titrat	ion)	Analy	tical Metho	d: SM 45	00-Cl B	Prep M	ethod: N/A
QC Batch:	52289	·	Date A	Analyzed:	2008-0	9-11	Analyze	ed By: AR
Prep Batch:	44822		$\mathbf{Sampl}$	e Preparati	on: 2008-0	9-11	Prepare	ed By: AR
			· RL					
Parameter	Flag	ç	Result		Units		Dilution	$\mathbf{RL}$
Chloride		· · · · · · · · · · · · · · · · · · ·	<100		mg/Kg		50	2.00
Sample: 17								
Laboratory:	Midland					-		
Analysis:	TPH DRO		Analytical		Mod. 8013		Prep M	
QC Batch:	52308		Date Anal		2008-09-11		Analyze	
Prep Batch:	44839		Sample Pr	eparation:	2008-09-11	_	Prepare	ed By: LD
<b>-</b>		•	RL					
Parameter	Flag	5	Result		Units		Dilution	RL
DRO			<50.0		mg/Kg		1	50.0
<b>o</b> .			<b>TT I</b> .	54		Spike	Percent	Recovery
Surrogate	Flag	Result	Units		ition	Amount	Recovery	Limits
n-Triacontan	e	126	mg/Kg		1	100	126	10 - 250.4
Sample: 17 Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 52309		-		S 8015B 2008-09-11 2008-09-11		Prep Met Analyzed Prepared	By: DC
Parameter	Flag	٤	$\mathbf{RL}$ Result		Units		Dilution	$\mathbf{RL}$
GRO	· · · · · · · · · · · · · · · · · · ·	·	<1.00		mg/Kg	<u></u>	1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution			Limits
Trifluorotolue	ene (TFT) obenzene (4-BFB)		Result 0.868	Units mg/Kg	Dilution 1			

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Report Date Owl SWD B	: September 12, 20 attery				er: 8091108 D Battery			umber: 6 o iles from C
Sample: 17	3160 - C							
Laboratory:							-	
Analysis:	Chloride (Titratio	n)		ical Metho		00-Cl B		Aethod: N
QC Batch:	52289			nalyzed:	2008-0			ied By: A
Prep Batch:	44822		Sample	e Preparati	on: 2008-0	9-11	Prepar	red By: A
			$\mathbf{RL}$					
Parameter	Flag		Result		Units		Dilution	
Chloride		<u></u>	<100		mg/Kg	<u>,</u>	50	2
Sample: 17 Laboratory:								
Analysis:	TPH DRO		Analytical	Method	Mod. 8015	в	Prep M	Aethod: N
QC Batch:	52308		Date Anal		2008-09-11			ed By: L
Prep Batch:			Sample Pr	<i>v</i>	2008-09-11		Prepar	
· · · · · · · · · · · · · · · · · · ·			-	-1				Ŭ
Parameter	Flag		$\operatorname{RL}$ Result		Units		Dilution	
DRO	1 105		<50.0		mg/Kg		1	
								······
Surrogate	Flag	Result	Units	Dilu	ition	Spike Amount	Percent Recovery	Recov Limi
n-Triacontan		114	mg/Kg		1	100	114	10 - 25
Sample: 17 Laboratory: Analysis:	<b>3160 - C</b> Midland TPH GRO		Analytical	Method:	S 8015B		Prep Me Analyzed	
QC Batch: Prep Batch:	52309 44832		Date Anal Sample Pr		2008-09-11 2008-09-11		Preparec	
QC Batch: Prep Batch:	52309 44832		Sample Pro		2008-09-11		Prepared	I By: DC
QC Batch: Prep Batch: Parameter	52309		Sample Pro RL Result		2008-09-11 Units			I By: DC
QC Batch: Prep Batch:	52309 44832		Sample Pro		2008-09-11		Prepared Dilution 1	I By: DC
QC Batch: Prep Batch: Parameter GRO	52309 44832	. Flag	Sample Pro RL Result <1.00	eparation:	2008-09-11 Units mg/Kg	Spike	Prepared Dilution 1 Percent	I By: DC
QC Batch: Prep Batch: Parameter	52309 44832 Flag	. Flag	Sample Pro RL Result		2008-09-11 Units	Spike	Prepared Dilution 1 Percent	I By: DC

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Report Date Owl SWD B	e: September 12, 2008 Sattery	Work Order: Owl SWD E	Page Number: 7 of 24 miles from Or			
Sample: 17	3161 - 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:	$\mathbf{AR}$
Prep Batch:	44822	Sample Preparation:	2008-09-11	۰.	Prepared By:	AR
		RL				
Parameter	Flag	Result	Units	Dilutio	on	$\mathbf{RL}$
Chloride		116	mg/Kg		50	2.00

# Sample: 173161 - SW

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Laboratory: Analysis: QC Batch: Prep Batch:	lysis: TPH DRO Batch: 52308		Date Analyzed: 200		8015B 9-11 9-11	-	fethod: N/A ed By: LD ed By: LD
			$\mathbf{RL}$				
Parameter	Flag		Result	Uni	Units		RL
DRO			<50.0	mg/I	Kg	1	50.0
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontan		122	mg/Kg	1	100	122	10 - 250.4
Sample: 17	3161 - SW						
Laboratory:	Midland						

Analysis: QC Batch: Prep Batch:	TPH GRO 52309 44832		Analytical Date Anal Sample Pr	yzed:	S 8015B 2008-09-11 2008-09-11		Prep Meth Analyzed Prepared 1	By: DC
			$\mathbf{RL}$		·			
Parameter	Flag		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
GRO		·····	<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolu	ene (TFT)		0.880	mg/Kg	1	1.00	88	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		0.862	mg/Kg	1	1.00	86	66 - 142.8

Report Date: Owl SWD Ba	September 12, 20 attery	08			er: 8091108 D Battery			imber: 8 of les from O
Sample: 173	8162 - SE							
Laboratory:	Midland Chloride (Titratio	-	A no live	ical Method	4. SM 45	00-Cl B	Prep M	ethod: N
Analysis: QC Batch:	52289	11)		nalyzed:	2008-0		Analyz	
Prep Batch:	44822			e Preparatio			Prepare	
			$\mathbf{RL}$					
Parameter	Flag		Result		Units		Dilution	
Chloride			<100		mg/Kg		50	2
Sample: 173 Laboratory: Analysis: QC Batch: Prep Batch:	8162 - SE Midland TPH DRO 52308 44839		Analytical Date Anal Sample Pr		Mod. 8015 2008-09-11 2008-09-11		Prep M Analyza Prepara	ed By: L
Parameter	Flag		RL Result		Units		Dilution	
DRO	Flag		<50.0		mg/Kg		1	5
	<u></u>						<b>_</b>	
~						Spike	Percent	Recove
Surrogate	Flag	Result	Units	Dilu		Amount	Recovery	Limit
n-Triacontane	<u> </u>	125	mg/Kg			100	125	10 - 25
Sample: 173 Laboratory: Analysis: QC Batch: Prep Batch:	8162 - SE Midland TPH GRO 52309 44832		Analytical Date Anal Sample Pr	yzed:	S 8015B 2008-09-11 2008-09-11		Prep Met Analyzed Prepared	By: DC
Parameter	Flag		RL Result		Units		Dilution	
GRO			<1.00		mg/Kg		1	1
						Spike	Percent	Recove
Surrogate		Flag	Result	Units	Dilution			Limi
			0.001	17.5		1 00	00	MW 44
Trifluorotolue	ne (TFT) obenzene (4-BFB)		0.894 0.862	mg/Kg mg/Kg	1 1	1.00 1.00	89 86	75 - 11 66 - 14

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Report Date Owl SWD B	e: September 12, 2008 Eattery	Work Order: Owl SWD B	Page Number: 9 of 21 24 miles from Orla		
Sample: 17	3163 - F1				
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 52289 44822	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2008-09-11 2008-09-11	Prep Method: Analyzed By: Prepared By:	N/A AR AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		135	mg/Kg	50	2.00

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### Sample: 173163 - F1

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n-Triacontane	,,	125	mg/Kg	1	100	125	10 - 250.4
Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
DRO			<50.0	mg/I	Кg	1	50.0
Parameter	Fla	S	RL Result	Un		Dilution	RL
Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 52308 44839		Analytical M Date Analyze Sample Prepa	ed: 2008-0	9-11	Analyz	fethod: N/A ed By: LD ed By: LD

# Sample: 173163 - F1

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 52309 44832	1	Analytical Date Anal Sample Pr		S 8015B 2008-09-11 2008-09-11		Prep Metl Analyzed Prepared	By: DC
			$\mathbf{RL}$					
Parameter	Flag		Result		Units	D	ilution	$\mathbf{RL}$
GRO			<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotolue	ene (TFT)		0.873	mg/Kg	1	1.00	87	75 - 117.2
	obenzene (4-BFB)		0.852	mg/Kg	1	1.00	85	66 - 142.8

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Report Date Owl SWD B	: September 12, 2008 attery	Work Order: 8 Owl SWD B		Page Number: 1 24 miles from	
Sample: 17	3164 - 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:	$\mathbf{AR}$
Prep Batch:	44822	Sample Preparation:	2008-09-11	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100	mg/Kg	50	2.00

### Sample: 173164 - F2

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Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 52308 44839		Analytical M Date Analyze Sample Prepa	ed: 2008-		Analyz	fethod: N/A ed By: LD ed By: LD
			RL				
Parameter	Fla	g	Result	$\mathbf{U}_{1}$	nits	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

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Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 52309 44832		Analytical Date Anal Sample Pr		S 8015B 2008-09-11 2008-09-11		Prep Meth Analyzed I Prepared I	By: DC
			$\mathbf{RL}$			,		
Parameter	Flag		$\mathbf{Result}$		Units	D	ilution	$\mathbf{RL}$
GRO		······································	<1.00	·····	mg/Kg		1	1.00
,						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		0.893	mg/Kg	1	1.00	89	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		0.862	mg/Kg	1	1.00	86	66 - 142.8

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Report Date Owl SWD B	: September 12, 2008 ·	Work Order: Owl SWD H		Page Number: 11 24 miles from	
Sample: 17	3165 - 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:	$\mathbf{AR}$
Prep Batch:	44822	Sample Preparation	: 2008-09-11	Prepared By:	$\mathbf{AR}$
		$\mathbf{RL}$			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		<100	mg/Kg	50	2.00
Sample: 17	3165 - F3				
Laboratory:	Midland				
Analysis:	TPH DRO	Analytical Method: M	Mod. 8015B	Prep Method:	N/A
QC Batch:	52308	-	008-09-11	Analyzed By:	ĹĎ
Prep Batch:	44839	•	008-09-11	Prepared By:	LD
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
DRO	· ·	<50.0	mg/Kg	1	50.0

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DRO			<50.0	mg/ł	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

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Laboratory:	Midland							
Analysis:	TPH GRO		Analytical	Method:	S 8015B		Prep Meth	nod: S 5035
QC Batch:	52309		Date Anal		2008-09-11		Analyzed	By: DC
Prep Batch:	44832		Sample Pr	reparation:	2008-09-11		Prepared 1	By: DC
			$\mathbf{RL}$					
Parameter	Flag		$\mathbf{Result}$		Units	D	vilution	$\mathbf{RL}$
GRO	·····		<1.00		mg/Kg		1	1.00
						Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	Amount	Recovery	Limits
Trifluorotolue	ene (TFT)		0.901	mg/Kg	1	1.00	90	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		0.863	mg/Kg	1	1.00	86	66 - 142.8

Report Date: Septemb Owl SWD Battery	oer 12, 20	08		Work Order Owl SWD			Page Number: 1: 24 miles from	
Sample: 173166 - F	4							
Laboratory: Midland Analysis: Chloride QC Batch: 52289 Prep Batch: 44822	e (Titratic	on)	Date A	tical Methoo Analyzed: e Preparatio	2008-0		Prep M Analyz Prepare	ed By: AR
····			-				•	v
Parameter	Flag		$\operatorname{RL}$ Result		Units		Dilution	$\mathbf{RL}$
Chloride		·····	<100		mg/Kg		50 ·	2.00
Laboratory: Midland Analysis: TPH DF QC Batch: 52308 Prep Batch: 44839			Analytical Date Anal Sample Pr		Mod. 8015 2008-09-11 2008-09-11	В	Prep M Analyz Prepare	ed By: LD
Parameter	Flag		RL Result		Units	·	Dilution	RL
DRO			<50.0		mg/Kg		1	50.0
	lag	Result	Units	Dilu		Spike Amount	Percent Recovery	Recovery Limits
-Triacontane		119	mg/Kg	1	L	100	119	10 - 250.4
Sample: 173166 - Fo Laboratory: Midland Analysis: TPH GF QC Batch: 52309 Prep Batch: 44832	1		Analytical Date Anal Sample Pr		S 8015B 2008-09-11 2008-09-11		Prep Met Analyzed Prepared	By: DC
Parameter	Flag		RL Result		Units		Dilution	RL
GRO		•	<1.00		mg/Kg		1	1.00
Surrogate		Flag	Result	Units	Dilution			Recovery Limits
Irifluorotoluene (TFT)	1		0.910	mg/Kg	1	1.00	91	75 - 117.2

Report Date Owl SWD B	: September 12, 2008 attery	Work Order: 8 Owl SWD B	Page Number: 13 of 24 miles from Or		
Sample: 17	3167 - 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:	$\mathbf{AR}$
Prep Batch:	44822	Sample Preparation:	2008-09-11	Prepared By:	AR
		RL			
Parameter	Flag	Result	Units	Dilution	$\mathbf{RL}$
Chloride		106	ng/Kg	50	2.00

## Sample: 173167 - F5

Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH DRO 52308 44839		Analytical Date Anal Sample Pr		Mod. 8015 2008-09-11 2008-09-11	-	Prep M Analyze Prepare	ed By: LD
<b>D</b>			RL		<b>TT</b> •.		D11	Dr
Parameter DRO	Flag		$\frac{\text{Result}}{<50.0}$		Units		Dilution 1	RL 50.0
	·····		< 30.0	· · · · · · · · · · · · · · · · ·	mg/Kg		1	
						Spike	Percent	Recovery
Surrogate	Flag	Result	$\mathbf{Units}$	Dih	ition	Amount	Recovery	Limits
n-Triacontan	e	127	mg/Kg		1	100	127	10 - 250.4
Sample: 17: Laboratory: Analysis: QC Batch: Prep Batch:	Midland TPH GRO 52309 44832		-		S 8015B 2008-09-11 2008-09-11		Prep Met Analyzed Prepared	By: DC
<b>D</b>			RL		<b>TT 1</b>		1011 (1	DI
Parameter GRO	Flag		Result		Units		Dilution 1	RL
GU			<1.00		mg/Kg	Spike	Percent	Recovery
Surrogate		Flag	Result	Units	Dilution	-	t Recovery	Limits
Trifluorotolue	ene (TFT)		0.908	mg/Kg	1	1.00	91	75 - 117.2
4-Bromofluor	obenzene (4-BFB)		0.869	mg/Kg	1	1.00	87	66 - 142.8

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Report Date Owl SWD B	: September 1: attery	2, 2008		Work Orde Owl SWI			Page Number: 14 of 24 miles from Orl		
Sample: 17	3168 - F6								
Laboratory:	Midland							r., 1 7,74	
Analysis:	Chloride (Tit	ration)		tical Metho		00-Cl B	Prep M		
QC Batch:	52290			Analyzed:	2008-0		Analyze Prepare		
Prep Batch:	44823		Sampi	e Preparati	ion: 2008-0	9-11	Flepare	su by. An	
_	_		RL					~	
Parameter	H	lag	Result		Units		Dilution	R	
Chloride			<100		mg/Kg	·····	50	2.(	
Sample: 17									
Laboratory:	Midland					_			
Analysis:	TPH DRO		Analytical		Mod. 8015		Prep M		
QC Batch:	52308		Date Anal		2008-09-11		Analyz		
Prep Batch:	44839		Sample Pi	reparation:	2008-09-11		Prepare	ed By: LD	
			$\mathbf{RL}$				•		
Parameter	F	lag	Result		Units		Dilution	R	
DRO			<50.0		mg/Kg		1	50.	
						Spike	Percent	Recover	
Surrogate	Flag	Result	Units	-	ution	Amount	Recovery	Limits	
n-Triacontan	9	128	mg/Kg		1	100 '	128	10 - 250	
Sample: 17: Laboratory: Analysis: QC Batch: Prep Batch:		128	Analytical Date Anal	Method:	1 S 8015B 2008-09-11 2008-09-11		Prep Met Analyzed Prepared	hod: S 50 By: DC	
-			RL	opurumoni					
Parameter	F	'lag	Result		Units		Dilution	R	
GRO			<1.00	<b></b>	mg/Kg	<u> </u>	1	1.(	
						Spike	Percent	Recover	
Surrogate		Flag	Result	Units	Dilution			Limits	
Trifluorotolue	ene (TFT) obenzene (4-Bl	· .	0.968 0.872	mg/Kg mg/Kg	1	1.00 1.00	97 87	75 - 117 66 - 142	

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Owl SWD Battery	ber 12, 2008		order: 8091108 WD Battery			mber: 15 liles from	
Method Blank (1)	QC Batch: 52289						
QC Batch: 52289 Prep Batch: 44822		Date Analyzed: QC Preparation:	2008-09-11 2008-09-11		v	yzed By: ared By:	AR AR
		М	DL				
Parameter	Flag	Res			nits		RL
Chloride		<0.		mg	/Kg		2
Method Blank (1)	QC Batch: 52290						
QC Batch: 52290		Date Analyzed:	2008-09-11		Analy	yzed By:	AR
Prep Batch: 44823		QC Preparation:	2008-09-11			ared By:	AR
Parameter	Flag	M Res	DL	IJr	nits		$\mathbf{RL}$
Chloride	Tiag	<0.			/Kg		$\frac{101}{2}$
. ,	QC Batch: 52308	Date Analyzed:	2008-09-11		Analy	yzed By:	LD
Method Blank (1) QC Batch: 52308 Prep Batch: 44839	QC Batch: 52308	QC Preparation:	2008-09-11 2008-09-11 DL			yzed By: ared By:	LD LD
QC Batch: 52308 Prep Batch: 44839 Parameter	QC Batch: 52308 Flag	QC Preparation: M Res	2008-09-11 DL ult		Prepa		LD RL
QC Batch: 52308 Prep Batch: 44839 Parameter		QC Preparation:	2008-09-11 DL ult		Prepa		LŊ
QC Batch: 52308 Prep Batch: 44839 Parameter DRO	Flag	QC Preparation: M Res <1	2008-09-11 DL ult 5.8	mg, Spike	Prepa nits /Kg Percent	ared By:	LD RL 50 very
QC Batch: 52308 Prep Batch: 44839 Parameter DRO Surrogate		QC Preparation: M Res <1	2008-09-11 DL ult 5.8	mg	Prepa nits /Kg	ared By:	LD RL 50 very nits
QC Batch: 52308 Prep Batch: 44839 Parameter DRO Surrogate n-Triacontane Method Blank (1) QC Batch: 52309	Flag Flag Result	QC Preparation: M Res <1 Units D	2008-09-11 DL ult 5.8 Vilution	mg Spike Amount	Prepa nits /Kg Percent Recovery 120 . Analy	ared By: Reco Lin	LD RL 50 very nits
QC Batch: 52308 Prep Batch: 44839 Parameter DRO Surrogate n-Triacontane Method Blank (1) QC Batch: 52309 Prep Batch: 44832	Flag Flag Result 120 QC Batch: 52309	QC Preparation: M Res <1 Units D mg/Kg Date Analyzed: QC Preparation: M	2008-09-11 DL ult 5.8 Pilution 1 2008-09-11 2008-09-11 DL	mg, Spike Amount 100	Prepa nits /Kg Percent Recovery 120 Analy Prepa	Reco Lin 30.9 -	LD RL 50 very nits 146.4 DC DC
QC Batch: 52308 Prep Batch: 44839 Parameter DRO Surrogate n-Triacontane Method Blank (1) QC Batch: 52309 Prep Batch: 44832 Parameter	Flag Flag Result 120	QC Preparation: M Res <1 Units D mg/Kg Date Analyzed: QC Preparation: M Res	2008-09-11 DL ult 5.8 Pilution 1 2008-09-11 2008-09-11 DL	mg, Spike Amount 100 Un	Prepa nits /Kg Percent Recovery 120 Analy Prepa	Reco Lin 30.9 -	LD RL 50 very iits 146.4 DC
QC Batch: 52308 Prep Batch: 44839 Parameter DRO Surrogate n-Triacontane Method Blank (1) QC Batch: 52309	Flag Flag Result 120 QC Batch: 52309	QC Preparation: M Res <1 Units D mg/Kg Date Analyzed: QC Preparation: M Res	2008-09-11 DL ult 5.8 Vilution 1 2008-09-11 2008-09-11 DL ult 368	mg, Spike Amount 100 Ur mg, Spike	Prepa nits /Kg Percent Recovery 120 Analy Prepa nits /Kg Percent	Reco Lim 30.9 - yzed By: ared By: Rec	LD RL 50 very nits 146.4 DC DC DC RL

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Report Date: September 12, 2008 Owl SWD Battery				WD Battery		·····	Pa			l6 of 21 m Orla
method blank continued		··				Spike	Pe	rcent	R	ecovery
Surrogate	Flag	Result	Unit	s Dilu	tion	Amount		covery		Limits
4-Bromofluorobenzene (4-BFB)		0.864	mg/k			1.00		86		) - 130
<u></u>	<u></u>									
Laboratory Control Spike (LC	S-1)				¥					
QC Batch: 52289		Date A	nalvzed:	2008-09-11				Analy	zed By	: AR
Prep Batch: 44822			paration:	2008-09-11				Prepa	-	
	т	7 <b>0</b>			<b>C</b> mileo	Мо	trix			Rec.
Param	L( Res		Units	Dil.	Spike Amount			Rec.		Limit
Chloride	98		mg/Kg	1	100		500	99		5 - 115
Percent recovery is based on the sp				the spike an	d spike d	uplicate r	esult.			
	LCSD			Spike	Matrix		Rec			RPD
									2.00	<b>T P P P</b>
Param	Result	Units	Dil.	Amount	Result	Rec.	Limi	it 1	RPD	Limit
Param Chloride Percent recovery is based on the sp	Result 99.4	mg/Kg	; 1	Amount 100	< 0.500	99	85 - 1		<u>RPD</u> 1	20
Chloride	Result 99.4 ike result.	mg/Kg RPD is Date An	; 1 based on t	Amount 100	<0.500 d spike d	99	85 - 1	15 Analys		20 : AR
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC: QC Batch: 52290	Result 99.4 ike result. S-1)	mg/Kg RPD is Date An QC Pre	; 1 based on t nalyzed:	Amount 100 the spike an 2008-09-11	<0.500 d spike d	99 uplicate r	85 - 1 esult.	15 Analys	1 · zed By	20 : AR : AR
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC: QC Batch: 52290 Prep Batch: 44823	Result 99.4 ike result.	mg/Kg RPD is Date An QC Pre	; 1 based on t nalyzed:	Amount 100 the spike an 2008-09-11	<0.500 d spike d	99 uplicate r Ma	85 - 1	15 Analys	1 zed By red By	20 : AR
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC QC Batch: 52290 Prep Batch: 44823 Param	Result 99.4 iike result. S-1)	mg/Kg RPD is Date An QC Pre CS Sult	; 1 based on t nalyzed: paration:	Amount 100 the spike an 2008-09-11 2008-09-11	<0.500 d spike d Spike	99 uplicate r Ma Re	85 - 1 esult. trix	15 Analy: Prepa	1 zed By red By	20 : AR : AR Rec.
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC: QC Batch: 52290	Result 99.4 ike result. S-1) L( Res 98	mg/Kg RPD is Date An QC Pre CS Sult	the section of the se	Amount 100 the spike an 2008-09-11 2008-09-11 Dil. 1	<0.500 d spike d Spike Amount 100	99 uplicate r Ma Re <0.	85 - 1 esult. trix sult 500	15 Analy: Prepa Rec.	1 zed By red By	20 : AR : AR Rec. Limit
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC: QC Batch: 52290 Prep Batch: 44823 Param Chloride	Result 99.4 ike result. S-1) L( Res 98	mg/Kg RPD is Date An QC Pre CS Sult	the section of the se	Amount 100 100 the spike and 2008-09-11 2008-09-11 Dil. 1 the spike an	<0.500 d spike d Spike Amount 100	99 uplicate r Ma Re <0 uplicate r	85 - 1 esult. trix sult 500	15 Analy: Prepa Rec. 99	1 zed By red By	20 : AR : AR Rec. Limit
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC: QC Batch: 52290 Prep Batch: 44823 Param Chloride	Result 99.4 ike result. S-1) LC(Res 98 ike result. LCSD Result	mg/Kg RPD is Date An QC Pre CS Sult	the section of the se	Amount 100 the spike an 2008-09-11 2008-09-11 Dil. 1	<0.500 d spike d Amount 100 d spike d	99 uplicate r Ma Re <0 uplicate r	85 - 1 esult. trix sult 500 esult.	Analy: Prepar Rec. 99	1 zed By red By	20 : AR : AR Rec. Limit 5 - 115
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC: QC Batch: 52290 Prep Batch: 44823 Param Chloride Percent recovery is based on the sp	Result 99.4 ike result. S-1) LC(Res 98 ike result. LCSD Result	mg/Kg RPD is Date An QC Pre CS sult 3.6 RPD is	the section of the se	Amount 100 the spike and 2008-09-11 2008-09-11 Dil. 1 the spike an Spike	<0.500 d spike d Spike Amount 100 d spike d Matrix	99 uplicate r Ma Rei <0. uplicate r Rec.	85 - 1 esult. trix sult 500 esult. Rec	Analy: Prepa: Rec. 99	1 zed By red By	20 : AR : AR Rec. Limit 5 - 115 RPD
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC: QC Batch: 52290 Prep Batch: 44823 Param Chloride Percent recovery is based on the sp Param	Result 99.4 ike result. S-1) LC Res 98 ike result. LCSD Result 101	mg/Kg RPD is Date An QC Pre CS sult 3.6 RPD is Units mg/Kg	the section of the se	Amount 100 the spike an 2008-09-11 2008-09-11 Dil. 1 the spike an Spike Amount 100	<0.500 d spike d Spike Amount 100 d spike d Matrix Result <0.500	99 uplicate r Ma Rec <0. uplicate r Rec. 101	85 - 1 esult. trix sult 500 esult. Rec Limi 85 - 1	Analy: Prepa: Rec. 99	1 zed By red By 8 RPD	20 : AR : AR Ecc. Limit 5 - 115 RPD Limit
Chloride Percent recovery is based on the sp Laboratory Control Spike (LC QC Batch: 52290 Prep Batch: 44823 Param Chloride Percent recovery is based on the sp Param Chloride	Result 99.4 ike result. S-1) LC Res 98 ike result. LCSD Result 101 ike result.	mg/Kg RPD is Date An QC Pre CS sult 3.6 RPD is Units mg/Kg	the section of the se	Amount 100 the spike an 2008-09-11 2008-09-11 Dil. 1 the spike an Spike Amount 100	<0.500 d spike d Spike Amount 100 d spike d Matrix Result <0.500	99 uplicate r Ma Rec <0. uplicate r Rec. 101	85 - 1 esult. trix sult 500 esult. Rec Limi 85 - 1	Analy: Prepa: Rec. 99	1 zed By red By 8 RPD	20 : AR : AR Ecc. Limit 5 - 115 RPD Limit
Chloride         Percent recovery is based on the sp         Laboratory Control Spike (LC)         QC Batch:       52290         Prep Batch:       44823         Param         Chloride         Percent recovery is based on the sp         Param         Chloride         Percent recovery is based on the sp         Param         Chloride         Percent recovery is based on the sp         Laboratory Control Spike (LC)	Result 99.4 ike result. S-1) LC Res 98 ike result. LCSD Result 101 ike result.	mg/Kg RPD is Date An QC Pre CS sult 3.6 RPD is Mg/Kg RPD is	the set of	Amount 100 the spike and 2008-09-11 2008-09-11 Dil. 1 the spike an Spike Amount 100 the spike and	<0.500 d spike d Spike Amount 100 d spike d Matrix Result <0.500 d spike d	99 uplicate r Ma Rec <0. uplicate r Rec. 101	85 - 1 esult. trix sult 500 esult. Rec Limi 85 - 1	Analy: Prepa: Rec. 99	1 zed By red By 8 RPD 2	20 : AR : AR Rec. Limit 5 - 115 RPD Limit 20
Chloride         Percent recovery is based on the sp         Laboratory Control Spike (LC)         QC Batch:       52290         Prep Batch:       44823         Param         Chloride         Percent recovery is based on the sp         Param         Chloride         Percent recovery is based on the sp         Param         Chloride         Percent recovery is based on the sp	Result 99.4 ike result. S-1) LC Res 98 ike result. LCSD Result 101 ike result.	mg/Kg RPD is Date An QC Pre CS sult 6 RPD is Mnits mg/Kg RPD is Date An	the set of	Amount 100 100 100 100 2008-09-11 2008-09-11 Dil. 1 1 the spike an Spike Amount 100 the spike an 2008-09-11	<0.500 d spike d Spike Amount 100 d spike d Matrix Result <0.500 d spike d	99 uplicate r Ma Rec <0. uplicate r Rec. 101	85 - 1 esult. trix sult 500 esult. Rec Limi 85 - 1	Analy: Prepa: Rec. 99	1 zed By red By 8 RPD	20 : AR : AR Rec. Limit 5 - 115 RPD Limit 20 : LD

Report Date: September 12 Owl SWD Battery	2, 2008				COrder: 809 I SWD Batt			1	Page Nu 24 m		17 of 21 om Orla
Param		LCS Resu		Units	Dil.	Spike Amount	Mat Res		Rec.		Rec. Limit
DRO	·	299	r	ng/Kg	1.	250	<1	5.8	120	27.8	3 - 152.1
Percent recovery is based or	h the sp	oike result.	RPD is	based o	on the spike	and spike	duplicate	result.			
		LCSD			Spiles	Matrix		Rec			RPD
Param		Result	Units	Dil.	Spike Amount	Result	Rec.	Lim		RPD	Limit
DRO	••••••	279	mg/Kg	1	250	<15.8	112	27.8 - 1		7	20
Percent recovery is based or	the sr										
-	-				in one opinio	-					
	LCS	LCSD		T . 14	D*1	Spike	LC		LCSD		Rec.
Surrogate I n-Triacontane	Result	Result		Units	Dil.	Amount 100			Rec. 118		Limit
1-Irlacontane	121	118	m	ıg/Kg	1	100	12	1	118	38	3 - 130.4
QC Batch: 52309 Prep Batch: 44832			Date A QC Pre			)-11			Analy Prepa		7: DC
_		$\mathbf{LC}$				Spike		latrix			Rec.
Param		Rest		Units	Dil.	Amou		lesult	Rec.		Limit
GRO		9.0		mg/Kg		10.0		0.868	81		70 - 130
Percent recovery is based or	the sp	oike result.	RPD is	based o	on the spike	and spike	duplicate	result.			
		LCSD			Spike	Matri	x	Re	ec.		RPD
Param		Result	Units	$\mathbf{Dil}$	. Amoun	it Resul	t Rec.	. Lir	nit .	RPD	Limit
GRO		9.26	mg/K	g 1	10.0	0.868	84	70 -	130	3	20
Percent recovery is based or	the sp	oike result.	RPD is	based o	on the spike	and spike	duplicate	e result.			
3≁		LCS	s L	CSD			Spike	LCS	LCS	D	Rec.
Surrogate		Resu		esult	Units	Dil. A	mount	Rec.	Rec		Limit
Irifluorotoluene (TFT)		0.96		.960	mg/Kg	1	1.00	96	96		70 - 130
4-Bromofluorobenzene (4-B)	FB)	0.89	60	.905	mg/Kg	1	1.00	90	90		70 - 130
Matrix Spike (MS-1) QC Batch: 52289 Prep Batch: 44822	Spiked	Sample: 17	3167 Date A: QC Pre						Analy Prepa		
		MS	5			Spike	e N	latrix			Rec.
		-		** **	<b>D</b> .1	Α.	a4 T.	) and It	<b>D</b>		T 1
Param Chloride		Resu	11t	Units	Dil. 50	Amou	n r	lesult 106	Rec.		Limit 85 - 11

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

Owl SWD Battery					Order: 80911 WD Batter		24 miles from Orla			
	Ν	ASD			Spike	Matrix		Rec.		RPI
Param		esult	Units		Amount	Result	Rec.	Limit	RPD	Limi
Chloride	4	1990	mg/K	g 50	5000	106	98	85 - 115	<u>i 1</u>	20
Percent recovery is base	ed on the spike	result.	RPD is	based on	the spike ar	ad spike du	iplicate i	result.		
Matrix Spike (MS-1)	) Spiked San	nple: 1	73245							
QC Batch: 52290			Date A	nalyzed:	2008-09-1	1		А	nalyzed E	By: AF
Prep Batch: 44823				eparation:	2008-09-1	1		Р	repared B	y: AF
		М	s			Spike	Ma	atrix		Rec.
Param		Res	ult	Units	Dil.	Amount			Rec.	Limit
Chloride		81	90	mg/Kg	50	5000	34	420	95	85 - 11
Percent recovery is base	ed on the spike	result.	RPD is	based on	the spike ar	nd spike du	iplicate r	esult.		
<b>D</b>		ASD	<b>.</b>		Spike	Matrix	n	Rec.	DDD	RP
Param		esult	Units		Amount	Result	Rec.	Limit	RPD	Lim
Chloride	8	3300	mg/K	g 50	5000	3420	98	85 - 115	<u>i 1</u>	20
Matrix Spike (MS-1)	) Spiked Sam	ple: 1				nd spike du	-			
<b>Matrix Spike (MS-1)</b> QC Batch: 52308 Prep Batch: 44839	) Spiked Sam	iple: 1	Date A	analyzed: eparation:	2008-09-1 2008-09-1		-	A	nalyzed F repared F	
QC Batch: 52308	) Spiked Sam	-	Date A QC Pr		2008-09-1	1	-	A F		By: LI
QC Batch: 52308 Prep Batch: 44839	) Spiked Sam	M	Date A QC Pr	eparation:	2008-09-1 2008-09-1	1 1 Spike	Mat	A F rix	repared E	By: LI Rec.
QC Batch: 52308 Prep Batch: 44839 Param	) Spiked Sam	M	Date A QC Pr S ult	eparation: Units	2008-09-1 2008-09-1 Dil.	1 1 Spike Amount	Mat Res	A F rix ult R	repared I	By: LI Rec. Limit
QC Batch: 52308 Prep Batch: 44839		MS Rest 29	Date A QC Pr 5 ult	eparation: Units mg/Kg	2008-09-1 2008-09-1 Dil.	1 1 Spike Amount 250	Mat Res <15	A F rix ult R 5.8 1	repared I	By: LI Rec. Limit
QC Batch: 52308 Prep Batch: 44839 Param DRO	ed on the spike r	MS Rest 29	Date A QC Pr 5 ult	eparation: Units mg/Kg	2008-09-1 2008-09-1 Dil. 1 the spike an	1 1 Spike Amount 250	Mat Res <15	A F rix ult R 5.8 1	repared I	By: LI Rec. Limit 8 - 179
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base Param	ed on the spike m M Re	MS Rest 29 result. ISD esult	Date A QC Pr 5 ult	eparation: Units mg/Kg	2008-09-1 2008-09-1 Dil.	1 1 Spike Amount 250 nd spike du	Mat Res <15	A F ult R 5.8 1 result. Rec. Limit	repared E ec. 16 1 RPD	By: LI Rec. Limit 8 - 179 RPI Lim
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base	ed on the spike m M Re	MS Rest 29 result. ISD	Date A QC Pr S ult RPD is	eparation: Units mg/Kg based on Dil.	2008-09-1 2008-09-1 Dil. 1 the spike an Spike	1 1 Spike Amount 250 nd spike du Matrix	Mat Res <15 iplicate i	A F ult R 5.8 1 result. Rec.	repared E ec. 16 1 RPD	By: LI Rec. Limit 8 - 179 RPI Lim
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base Param	ed on the spike m M Re 2	Mi Rest 29 result. ISD esult 273	Date A QC Pr S ult RPD is Units mg/Kg	eparation: Units mg/Kg based on Dil. g 1	2008-09-1 2008-09-1 Dil. 1 the spike an Spike Amount 250	1 Spike Amount 250 nd spike du Matrix Result <15.8	Mat Res <15 uplicate n Rec. 109	A F ult R 5.8 1 result. Rec. Limit 18 - 179.	repared E ec. 16 1 RPD	3y: LI Rec. Limit 8 - 179 RPI Lim
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base Param DRO Percent recovery is base	ed on the spike of M Re 2 ed on the spike of MS	MS Ress 29 result. SD essult 273 result.	Date A QC Pr S ult RPD is <u>mg/Kg</u> RPD is	units mg/Kg based on Dil. g 1 based on	2008-09-1 2008-09-1 Dil. 1 the spike an Spike Amount 250 the spike an	1 Spike Amount 250 nd spike du Matrix Result <15.8 nd spike du Spike	Mat Res <15 uplicate n Rec. 109 uplicate n MS	A F rix ult R 5.8 1 result. Rec. Limit 18 - 179. result.	repared E ec. 16 1 <u>RPD</u> 5 6	By: LI Rec. Limit 8 - 179 RP: Lim 20 Rec.
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base Param DRO Percent recovery is base Surrogate	ed on the spike of M Re ed on the spike of MS Result	Ms Result 29 result. ISD esult 273 result. MSD Resul	Date A QC Pr Sult 1 RPD is <u>mg/Ka</u> RPD is t	eparation: <u>Units</u> <u>mg/Kg</u> based on <u>Dil.</u> <u>g 1</u> based on <u>Units</u>	2008-09-1 2008-09-1 Dil. 1 the spike an Spike Amount 250 the spike an Dil.	1 1 Spike Amount 250 nd spike du Matrix Result <15.8 nd spike du Spike Amount	Mat Res oplicate n Rec. 109 oplicate n MS Rec	A F rix ult R 5.8 1 result. Rec. Limit 18 - 179. result. S. MS c. Re	repared E ec. 16 1 <u>RPD</u> 5 6 SD ec.	By: LE Rec. Limit 8 - 179 RPI Lim 20 Rec. Limit
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base Param DRO Percent recovery is base Surrogate	ed on the spike of M Re ed on the spike of MS Result	Ms Result 29 result. ISD esult 273 result. MSD Resul	Date A QC Pr Sult 1 RPD is <u>mg/Ka</u> RPD is t	eparation: <u>Units</u> <u>mg/Kg</u> based on <u>Dil.</u> <u>g 1</u> based on <u>Units</u>	2008-09-1 2008-09-1 Dil. 1 the spike an Spike Amount 250 the spike an Dil.	1 1 Spike Amount 250 nd spike du Matrix Result <15.8 nd spike du Spike Amount	Mat Res oplicate n Rec. 109 oplicate n MS Rec	A F rix ult R 5.8 1 result. Rec. Limit 18 - 179. result. S. MS c. Re	repared E ec. 16 1 <u>RPD</u> 5 6 SD ec.	3y: I Rec. Limi 8 - 17 RJ Lin 2 Rec. Limi
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base Param DRO Percent recovery is base	ed on the spike a M Re 2 ed on the spike a MS Result 129	MS Ress 29 result. SD essult 273 result. MSD Result 121	Date A QC Pr S ult 1 RPD is <u>mg/Kg</u> RPD is t	units mg/Kg based on Dil. g 1 based on	2008-09-1 2008-09-1 Dil. 1 the spike an Spike Amount 250 the spike an	1 Spike Amount 250 nd spike du Matrix Result <15.8 nd spike du Spike	Mat Res <15 uplicate n Rec. 109 uplicate n MS	A F rix ult R 5.8 1 result. Rec. Limit 18 - 179. result. S. MS c. Re	repared E ec. 16 1 <u>RPD</u> 5 6 SD ec.	By: Ll Rec. Limit 8 - 179 RP Lim 20 Rec. Limit
QC Batch: 52308 Prep Batch: 44839 Param DRO Percent recovery is base Param DRO Percent recovery is base Surrogate n-Triacontane	ed on the spike a M Re 2 ed on the spike a MS Result 129	MS Ress 29 result. SD essult 273 result. MSD Result 121	Date A QC Pr S ult 1 RPD is <u>mg/Kg</u> RPD is t t	eparation: <u>Units</u> <u>mg/Kg</u> based on <u>Dil.</u> <u>g 1</u> based on <u>Units</u>	2008-09-1 2008-09-1 Dil. 1 the spike an Spike Amount 250 the spike an Dil.	1 1 Spike Amount 250 nd spike du Matrix Result <15.8 nd spike du Spike Amount 100	Mat Res oplicate n Rec. 109 oplicate n MS Rec	A F rix ult R 5.8 1 result. Rec. Limit 18 - 179. result. S. MS c. Re 0 12	repared E ec. 16 1 <u>RPD</u> 5 6 SD ec.	By: Ll Rec. Limit 8 - 179 RP Lim 20 Rec. Limit 4.1 - 1

Report Dat Owl SWD	te: September : Battery	12, 2008			k Order: 80 vl SWD Bat						umber: niles fro	
Param		R	MS esult	Units	Dil.	Am	ike ount	Re	trix sult	Rec.	L	Rec.
GRO			22.9	mg/Kg	2		0.0		.342	114	22.3	- 134.6
rercent reco	overy is based (	on the spike resu	iit. RPD	is based	on the spike	e and s	ріке а	upncat	e result	•		
-		MSD			Spike		trix			ec.	DDD	RPD
Param GRO		Result 21.5			Amount 20.0		sult .342	Rec. 108		mit 134.6	RPD 6	Limit 20
	overv is based (	on the spike resu	mg/l									
ercent reco	overy is based o				on the spike	and a						
			MS	MSD	** •.	<b>D</b> ''	Sp		MS	MSD		Rec.
Surrogate	uene (TFT)		esult .85	Result 1.74	Units	Dil.	Amo	ount2	Rec. 92	Rec. 87		imit - 113.1
	orobenzene (4-I		80 86	1.74 1.90	mg/Kg mg/Kg	$\frac{2}{2}$		2	92 93	95		- 134.3
Standard ( QC Batch:			Date	Analyzed	l: 2008-09	-11				Anal	yzed By	: AR
			ICV	s	ICVs	]	[CVs		Perc	ent		
			Tru		Found		ercent		Reco	•		Date
Param Chloride	Flag	Units mg/Kg	$\frac{\text{Cono}}{100}$		Conc. 99.1	Re	covery 99	, <u></u>	Lim 85 -			alyzed 8-09-11
Standard ( QC Batch:			Date	Analyzed	I: 2008-09	-11				Anal	yzed By	r: AR
			~~~	-			~~~		~			
			CCV True		CCVs Found		CCVs ercent		Perc Reco		,	Date
Param	Flag	Units	Cone		Conc.		ercent	,	Lim	•		alyzed
Chloride		mg/Kg	100		101		101		85 -	115		8-09-11
Standard (	(ICV-1)											
QC Batch:	52290		Date	Analyzed	I: 2008-09	-11				Anal	yzed By	: AR
Param	Flag	Units	ICV True Cone	e	ICVs Found Conc.	$\mathbf{P}_{i}$	(CVs ercent ecovery		Perc Reco Lim	very		Date alyzed
and the second se	1 tag					100						8-09-1
Chloride Standard (		mg/Kg	100		103	- <u></u>	103		85 -			

Report Dat Owl SWD	te: September Battery	12, 2008		Work Order: 8 Owl SWD Ba			umber: 20 of 2 niles from Orla
Param	Flor	Units	CCVs True	CCVs Found Conc.	CCVs Percent	Percent Recovery Limits	Date Analyzed
Chloride	Flag	mg/Kg	<u>Conc.</u> 100	97.3	Recovery 97	<u>85 - 115</u>	2008-09-11
		<u></u>					
Standard	(CCV-1)						
QC Batch:	52308		Date Ana	lyzed: 2008-09	9-11	Ana	lyzed By: LD
			CCVs True	CCVs Found	CCVs Percent	Percent Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	284	114	85 - 115	2008-09-11
Standard	(CCV-2)						
QC Batch:	52308		Date Ana	lyzed: 2008-09	)-11	Anal	yzed By: LD
			CCVs	CCVs	$\mathbf{CCVs}$	Percent	
_			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	287	115	85 - 115	2008-09-11
Standard (	(CCV-3)						
QC Batch:	52308		Date Ana	lyzed: 2008-09	)-11	Anal	lyzed By: LD
			CCVs	CCVs	$\mathbf{CCVs}$	Percent	
_			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
DRO		mg/Kg	250	288	115	85 - 115	2008-09-11
Standard (	(ICV-1)						
QC Batch:	52309		Date Ana	lyzed: 2008-09	)-11	Anal	yzed By: DC
			ICVs	ICVs	ICVs	Percent	
			True	Found	Percent	Recovery	Date
	Flag	Units	Conc.	Conc.	Recovery 106	Limits 85 - 115	Analyzed 2008-09-11
Param GRO		mg/Kg	1.00	1.06			

QC Batch: 52309

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Date Analyzed: 2008-09-11

Analyzed By: DC

Report Date: September 12, 2008 Owl SWD Battery			Work Order: 8 Owl SWD Ba	Page Number: 21 of 21 24 miles from Orla			
			CCVs	CCVs	CCVs	Percent	
			True	Found	Percent	Recovery	Date
Param	Flag	Units	Conc.	Conc.	Recovery	Limits	Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2008-09-11

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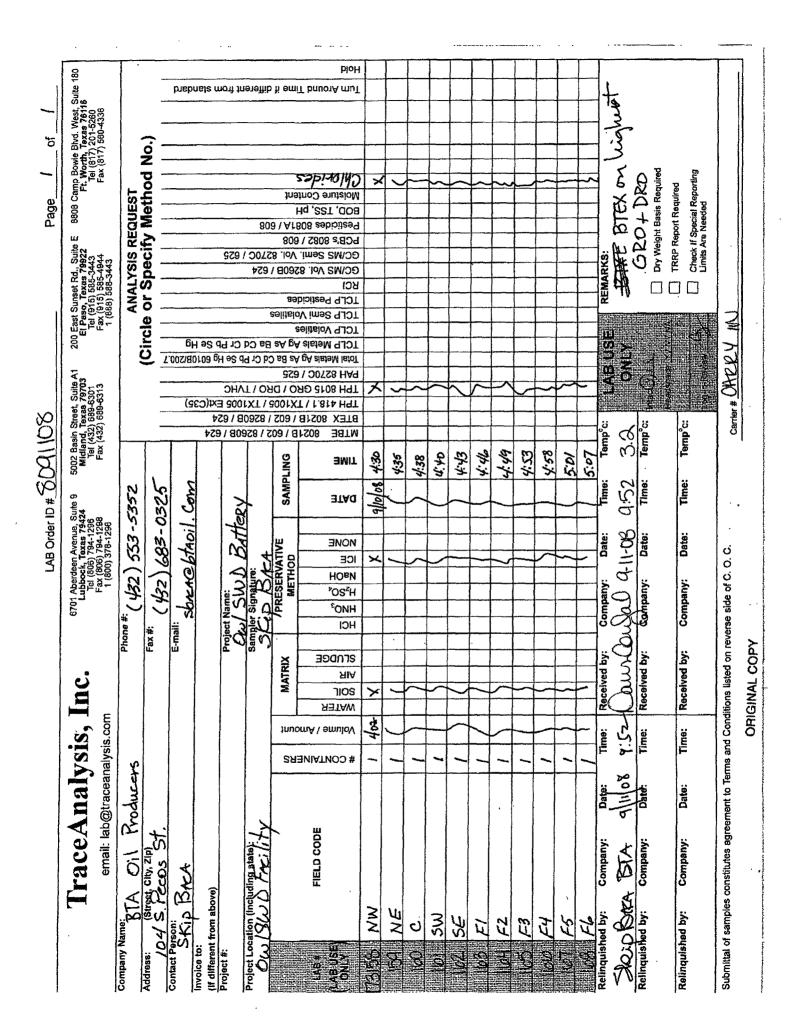
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# **Summary Report**

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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

TraceAnalysis, Inc. • 6701 Aberdeen Ave., Suite 9 • Lubbock, TX 79424-1515 • (806) 794-1296 This is only a summary. Please, refer to the complete report package for quality control data. MULLIUM TRACEANALYSIS, INC.

 6701 Aberdeen Avenue, Suite 9
 Lubbock, Texas 79424

 200 East Sunset Road, Suite E
 El Paso, Texas 79922

 5002 Basin Street Suite A1
 Midland, Texas 79703

 6015 Harris Parkway, Suite 110
 Ft Worth, Texas 76132

Lubbock, Texas 79424 800 • 378 • 1296 E! Paso, Texas 79922 888 • 588 • 3443 Midfand, Texas 79703 t Worth, Texas 76132 E-Mail: lab@traceanalysis com 806•794•1296 FAX 806•794•1298 915•585•3443 FAX 915•585•4944 432•689•6301 FAX 432•689•6313 817•201•5260

**7DE**. 997010

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 15, 2008

Work Order: 8091208

Project Location:24 miles from OrlaProject Name:Owl SWD BatteryProject Number:Owl SWD Battery

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

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	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.

Michael abel

Dr. Blair Leftwich, Director

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Standard Flags

 ${\bf B}\,$  - The sample contains less than ten times the concentration found in the method blank.

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Page 2 of 5

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## **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.

Test		Method
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.

Report Date: September 15, 2008 Owl SWD Battery Work Order: 8091208 Owl SWD Battery

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# **Analytical Report**

### Sample: 173287 - Owl Background

Chloride		<100	mg/Kg	50	2.00
Parameter	Flag	RL Result	Units	Dilution	RL
Laboratory: Analysis: QC Batch: Prep Batch:	Midland Chloride (Titration) 52364 44890	Analytical Method: Date Analyzed: Sample Preparation:	SM 4500-Cl B 2008-09-15 2008-09-15	Prep Method: Analyzed By: Prepared By:	AG

## Method Blank (1) QC Batch: 52364

QC Batch: 523	64 Date Analyzed	2008-09-15	Analyzed By:	AG
Prep Batch: 4489	90 QC Preparatio	n: 2008-09-15	Prepared By:	AG

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

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

QC Batch:	52364	Date Analyzed:	2008-09-15	Analyzed By:	$\mathbf{AG}$
Prep Batch:	44890	QC Preparation:	2008-09-15	Prepared By:	AG

	LCS			Spike	Matrix		Rec.
Param	Result	Units	Dil.	Amount	Result	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.

	LCSD			Spike	Matrix		Rec.		RPD
Param	Result	Units	Dil.	Amount	Result	Rec.	Limit	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:	$\mathbf{AG}$

Owl SWD	ate: September 15, Battery	2008	Work Order: 8091208 Owl SWD Battery								Page Number: 5 of 5 24 miles from Orla			
Param		-	AS esult	Units	Dil.	Spike Amount		trix sult	Rec.	•	Rec. Limit			
Chloride		5	070	mg/Kg	50	5000	9	5.7	99		85 - 115			
Percent re	covery is based on t	he spike result	t. RPD is	based on	the spike a	nd spike duj	plicate r	esult.						
		MSD			Spike	Matrix		Rec	-		RPD			
Param		Result	Units		Amount	Result	Rec.	Limi		RPD	Limit			
Chloride		5020	mg/K	g 50	5000	95.7	98	85 - 1	15	1	20			
Standard	(ICV-1)													
			Date A	nalyzed:	2008-09-15				Analy	vzed B	y: AG			
			Date A ICVs	•	2008-09-15 VVs	ICVs		Percent	·	vzed B	y: AG			
				IC				Percent Recover:	;	vzed B	y: AG Date			
QC Batch:		Units	ICVs	IC Fo	Vs	ICVs			; y		-			
QC Batch: Param	52364	Units mg/Kg	ICVs True	IC Fo Cc	Vs und	ICVs Percent		Recover	; y	A	Date nalyzed			
Standard QC Batch: Param Chloride Standard	52364 Flag		ICVs True Conc.	IC Fo Cc	UVs und onc.	ICVs Percent Recovery		Recover: Limits	; y	A	Date			
QC Batch: Param Chloride Standard	52364 Flag (CCV-1)		ICVs True Conc. 100	IC Fo Cc	UVs und onc.	ICVs Percent Recovery 100		Recover Limits 85 - 115	; y	A 20	Date nalyzed 08-09-15			
QC Batch: Param Chloride Standard	52364 Flag (CCV-1)		ICVs True Conc. 100 Date A CCVs	IC Fo Cc 1 nalyzed:	2Vs und 00 2008-09-15 CVs	ICVs Percent Recovery 100		Recover: Limits 85 - 115 Percent	y 5 Analy	A 20	Date nalyzed 08-09-15 y: AG			
QC Batch: Param Chloride Standard QC Batch:	52364 Flag (CCV-1) 52364	mg/Kg	ICVs True Conc. 100 Date A CCVs True	IC Fo Cc 1 nalyzed: CC Fo	VVs und onc. 00 2008-09-15 CVs und	ICVs Percent Recovery 100 CCVs Percent		Recover: Limits 85 - 115 Percent Recover:	y 5 Analy ; y	A 20 vzed B	Date nalyzed 08-09-15 y: AG Date			
QC Batch: Param Chloride	52364 Flag (CCV-1)		ICVs True Conc. 100 Date A CCVs	IC Fo Cc 1 nalyzed: CC Fo Cc	2Vs und 00 2008-09-15 CVs	ICVs Percent Recovery 100		Recover: Limits 85 - 115 Percent	y 5 Analy ; y	A 20 vzed B A	Date nalyzed 08-09-15 y: AG			

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	C. O. C.	n Date:	n Date:		r: Date:						X	NaOH ICE NONE	ESERVATIVE	Signature	ittery		sbredeblail.com	) 683-	2) 553-	6701 Absrdeen Avenue, Suite 9 Lubbock, Texas 79424 Tel (606) 794-1296 Fax (806) 794-1296 1 (800) 378-1296	LAB Order ID #
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		Check If Special Reporting Limits Are Needed	Dry Weight Basis Required TRRP Report Required	A. Common	RKS:				 		×	BOD, TSS, ph Moisture Cont	ł ent						QUEST	8808 Camp Bowle Blvd. West, Suite 180 Ft. Worth, Texas 76116 Tel (817) 201-5280 Fax (617) 580-4336	Page/_
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