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 Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Part of Devon Clean-up Program

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application
Type of action:  Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  Modification to an existing permit  Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system,
below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of <u>liability</u> should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
I.
Operator: DEVON ENERGY PRODUCTION COMPANY, L.P. OGRID #: 6137
Address: c/o Mike Pippin LLC, 3104 N. Sullivan, Farmington, NM 87401
Facility or well name: NEBU #423A
API Number: 30-039-30510 OCD Permit Number:
U/L or Qtr/Qtr I Section 8 Township 30-N Range 07-W County: Rio Arriba
Center of Proposed Design: Latitude 36.82425 Longitude -107.58874 NAD: 1927 1983
Surface Owner: A Federal A State Private Tribal Trust or Indian Allotment
2\(\sim \frac{Pit}{2}:\) Subsection F or G of 19:15:17:11 NMAC RCVD_JUL_24_03
Temporary: Drilling Workover . OIL CONS. DTV.
Temporary: Druning   workover
Lined Unlined Liner type: Thickness 12 mil LLDPE HDPE PVC Other
String-Reinforced
Liner Seams: Welded Factory Other Volume: 12.857 bbl Dimensions: L 120' x W 75' x D 10'
3.  Closed-loop System: Subsection H of 19.15.17.11 NMAC
Type of Operation. P&A Drilling a new well Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other
Liner Seams:  Welded  Factory Other
4
Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume:bbl Type of fluid:
Tank Construction material:
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
Visible sidewalls and liner Visible sidewalls only Other
Liner type: Thicknessmil
5.
Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)  Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, hospital, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify					
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)  Screen Netting Other  Monthly inspections (If netting or screening is not physically feasible)					
8.  Signs: Subsection C of 19.15.17.11 NMAC  12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  Signed in compliance with 19.15.3.103 NMAC					
Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.  Please check a box if one or more of the following is requested, if not leave blank:  Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau consideration of approval.  Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	office for				
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acce, material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the approoffice or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to dry above-grade tanks associated with a closed-loop system.	opriate district approval.				
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.  - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No				
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	Yes No				
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No				
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA				
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.  - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☐ No				
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality, Written approval obtained from the municipality	☐ Yes ☐ No				
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No				
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☐ No				
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	☐ Yes ☐ No				
Within a 100-year floodplain FEMA map	☐ Yes ☐ No				

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC  Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  Previously Approved Design (attach copy of design) API Number:  or Permit Number:
or Permit Number.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC  Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number: (Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.    Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Climatological Factors Assessment   Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC   Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC   Quality Control/Quality Assurance Construction and Installation Plan   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
<ul> <li>□ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>□ Nuisance or Hazardous Odors, including H₂S, Prevention Plan</li> <li>□ Emergency Response Plan</li> <li>□ Oil Field Waste Stream Characterization</li> <li>□ Monitoring and Inspection Plan</li> <li>□ Erosion Control Plan</li> <li>□ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC</li> </ul>
Proposed Closure: 19.15.17.13 NMAC
Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.  Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative  Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Maste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.    Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC   Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC   Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)   Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC   Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

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Waste Removal Closure For Closed-loop Systems That Utilize Above Ground St. Instructions: Please indentify the facility or facilities for the disposal of liquids, d. facilities are required.							
•	Disposal Facility Permit Number:						
	Disposal Facility Permit Number:						
Will any of the proposed closed-loop system operations and associated activities occ Yes (If yes, please provide the information below) \( \subseteq \) No	-						
Required for impacted areas which will not be used for future service and operation  Soil Backfill and Cover Design Specifications based upon the appropriate Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection	requirements of Subsection H of 19.15.17.13 NMA( of 19.15.17.13 NMAC	C					
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the coprovided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for	administrative approval from the appropriate dist Bureau office for consideration of approval. Just	rict office or may be					
Ground water is less than 50 feet below the bottom of the buried waste.  NM Office of the State Engineer - iWATERS database scarch; USGS; Data	obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Ground water is more than 100 feet below the bottom of the buried waste.  - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ Yes ☐ No ☐ NA					
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sign lake (measured from the ordinary high-water mark).  - Topographic map; Visual inspection (certification) of the proposed site	ificant watercourse or lakebed, sinkhole, or playa	☐ Yes ☐ No					
Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site; Aerial photo; Satellite		☐ Yes ☐ No					
-Within-500-horizontal-feet-of-a-private, domestic-fresh-water-well-or-spring-that-less- watering purposes, or within 1000 horizontal feet of any other fresh water well or sp - NM Office of the State Engineer - iWATERS database; Visual inspection (c	ring, in existence at the time of initial application.						
Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality; Written approva		Yes No					
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual	inspection (certification) of the proposed site	☐ Yes ☐ No					
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining a	and Mineral Division	☐ Yes ☐ No					
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology Society; Topographic map</li> </ul>	& Mineral Resources; USGS; NM Geological	☐ Yes ☐ No					
Within a 100-year floodplain FEMA map		☐ Yes ☐ No					
Is.  On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC  Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC  Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC  Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)  Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC							

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19.
Operator Application Certification:  I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print):
Signature: Date:
e-mail address: Telephone:
20.  OCD Approval: ☐ Permit Application (including closure plan) ☑ Closure Plan (only) ☐ OCD Conditions (see attachment)
OCD Representative Signature: Approval Date: Approval Date: Approval Date:
Title: Compliance Office OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.
☐ Closure Completion Date: 12/18/08
22.  Closure Method:  Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  Waste Removal (Closed-loop systems only)  If different from approved plan, please explain.
23.  Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Aboye Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more the two facilities were utilized.
Disposal Facility Name: Disposal Facility Permit Number:
Disposal-Facility-Name:Disposal-Facility-Permit-Number:
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?  Yes (If yes, please demonstrate compliance to the items below)  No
Required for impacted areas which will not be used for future service and operations:  Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique
14. <u>Closure Report Attachment Checklist</u> : <u>Instructions</u> : Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.
<ul> <li>Operator Closure Certification:</li> <li>I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and</li> </ul>
belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print): Mike Pippin Title: Petroleum Engineer
Signature: Date: June 25, 2009
e-mail address: mike@pippinllc.com Telephone: 505-327-4573

#### DEVON ENERGY PIT CLOSURE NEBU #423A

#### Block #24, Box #4

Samples were mistakenly not taken on this well before the pit closed.

#### Block #24, Box #6

All liquids were hauled to one of the following company disposal wells:

Middle Mesa SWD #2 SWD-441
Middle Mesa SWD #1 SWD-365
Simms Mesa SWD #1 SWD-339
Pump Mesa SWD #1 SWD-366

#### Block #24, Box #7

The liner was removed above "mud level" after stabilization. Pit contents were mixed with clean soil. After solidification and testing, the pit was backfilled with compacted, non-waste containing, soil. The pit was filled with clean excavated dirt and covered with 1 foot of top soil.

#### Block #24, Box #8

The area where the temporary drilling pit has been buried in place was seeded on 6/1/09 with 60 lbs of BLM seed mix for precipitation less than 10". Seed was no till & drill over a total acreage of 4.0 acres. The seed rate was 20 lbs PLS/acre for mechanical and 35 lbs PLS/acre for hand/broadcast and Harrow.

Two Copies	nate District Of	fice		State of New				Form C-105					
District I 1625 N French Dr	, Hobbs, NM 8	8240	Energy, Minerals and Natural Resources			1. WELL	API 1	NO.		J	luly 17, 2008		
District II 1301 W Grand Av	net II  W Grand Avenue, Artesia, NM 88210 Oil Conservation Division							30-039-30510					
District III 1000 Rio Brazos R	d , Aztec, NM l	87410		20 South St.				2. Type of Lease  STATE FEE FED/INDIAN					
District IV 1220 S St Francis		ĺ	12	Santa Fe, NI				3. State Oil &				ED/IND	AIN
ļ. <u> </u>			RECOMPL	ETION REP						A SHEET			
4. Reason for fil					<u> </u>			5. Lease Nam				me	Programme of the state of the state of
☐ COMPLET	ION REPOR	T (Fill in boxe	s #1 through #31	for State and Fee v	wells only)			Northeast 6. Well Numb					
C-144 CLO #33; attach this a	SURE ATTA and the plat to	CHMENT (F	ill in boxes #1 th	rough #9, #15 Date ordance with 19.15	Rig Release		i/or	0. WCH NUME	)CI. 4	23A			
7 Type of Com	pletion.	VORKOVER I	T DEEDENING	□PLUGBACK	□ Dicceo	ENT DECEDA	/OID	OTHER					
8. Name of Oper					Dirrek	LIVI KUSUK	Oliv	9. OGRID: 0	6137				<del>,</del>
10. Address of O	perator	· · · · · · · · · · · · · · · · · · ·						11. Pool name	or W	ıldcat:	······································		
12.Location	Unit Ltr	Section	Township	Range	Lot	Feet from t	the	N/S Line	Feet	from the	E/W L	ine	County
13. Date Spudde	d 14 Date	T.D. Reached	15. Date Dr 11/3/08	illing Rig Released	1	6. Date Comp	letec	I (Ready to Proc	luce		7. Elevati T, GR, et		and RKB,
18. Total Measur	red Depth of V	Vell		ck Measured Depth	1 2	20. Was Direct	tiona	al Survey Made	,				her Logs Run
22 Producing Interval(s), of this completion - Top, Bottom, Name					<u> </u>								
22 Froducing in	tervar(s), or u	us completion -	· rop, bottom, iv	ame				Ì					
23.			CAS	ING RECO	RD (Re	port all st	rin	gs set in w	ell)				
CASING SI	ZE ·	WEIGHT LB	/FT.	DEPTH SET	]	HOLE SIZE		CEMENTIN	G RE	CORD	AM	OUNT	PULLED
								<del> </del>					
						<del> </del>		<del> </del>					
24.			LIN	VER RECORD			25.	. T	UВП	NG REC	ORD		
SIZE	TOP	BC	OTTOM	SACKS CEMEN	VT SCRE	EN	SLZ	ZE	Di	EPTH SET	<u> </u>	PACKE	R SET
26.				<u> </u>	27. A	CID. SHOT.	FR	ACTURE, CE	<u> </u>	IT. SOUL	EEZE. E	TC.	
						H INTERVAL		AMOUNT A					
1						······································		<del>                                     </del>					
					RODUC								
Date First Produc	ction	Produc	ction Method (FI	owing, gas lift, pun	nping - Size	and type pump	0)	Well Status	(Proc	d. or Shut-	·ın)		
Date of Test	Hours Tes	sted Ch	noke Size	Prod'n For	Oil - E	361	Ga	s - MCF	- W	ater - Bbl.	T	Gas - C	il Ratio
Flow Tubing Press.	Casing Pr	I	alculated 24- our Rate	Oil - Bbl.	G;	as - MCF	 	Water - Bbl.		Oil Gra	vity - AP	Pl - (Cori	-)
29 Disposition o	of Gas (Sold, u	ised for fuel, ve	inted, etc.)	1		- <del></del>			30. 1	est Witne	ssed By.		
31. List Attachm	ents	<del> </del>	. — . — 8 1 <del>1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 </del>	<del>/</del>				······································					
32 If a temporar	y pit was used	at the well, att	ach a plat with th	ne location of the te	mporary pit	l.			~				
33. If an on-site burial was used at the well, report the exact location of the on-site burial:  Latitude 36 82425 Longitude -107 58874 NAD 1927 1983													
I hereby certi	•	$I \subset I \subset I$		h sides of this for Printed			lete						
Signature	Mod	typin	,		Pippin	Title:	Petr	roleum Engin	eer	Date	e: 6/25	/09	
E-mail Addre	E-mail Address: mike@pippinllc.com												

#### Castro, Melisa

From:

Castro, Melisa

Sent:

Wednesday, August 20, 2008 10:52 AM

To:

M Dombrowski - BOR SC

Subject:

NEBU 423A Temproary Pit Closure Notification

Attachments: Pit Closure Plan.doc

Devon Energy Corporation 20 North Broadway Oklahoma City, OK 73102-8260 405 552 7917 Phone www.devonenergy.com

August 20, 2008

IN RE: NEBU 423A

API # 30-039-30510

NE SE 1,610' FSL & 905' FEL

Sec. 8, T30N, R7W

Rio Arriba County, New Mexico

VIA EMAIL:

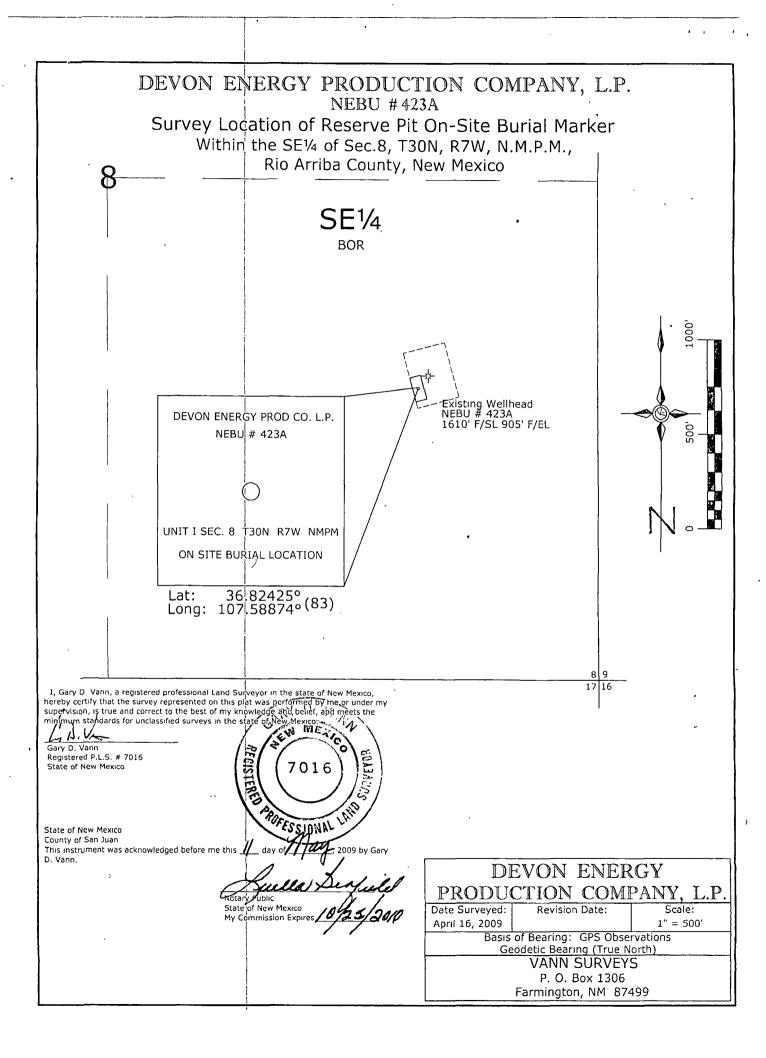
Dear Mr. Dombrowski,

This submittal is pursuant to Rule 19.15.17.13 requiring operators to notify the surface owners of an onsite burial of a temporary pit. Devon Energy Production Company, L.P. is herby providing written documentation of our intention to close the temporary pit associated with the aforementioned location by means of in place on-site burial.

Please feel free to contact me with any questions or require further information. My contact information is listed below.

Respectfully,

Melisa S. Castro
Devon Energy Production Company, L.P.
Senior Staff Operations Technician
405-323-3184 - Cell.
405-323-1357 - Fax
Melisa.Castro@dvn.com



District I 1625 N. French Dr., Hobbs, NM 88240 District.U 1301 W. Grand Avenue, Artesia, NM 88210 District III

1000 Rio Brazos Rd., Aztec, NM 87410

1220 S. St. Francis Dr., Santa Fe, NM 87505

District IV

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies

Fee Lease - 3 Copies

Santa Fe, NM 87505

☐ AMENDED REPORT AS DRILLED

			WELL LC			N AND ACR	<u>E</u> A	<u>GE</u>	DEDIC	<u>'ATI</u>	<u>ON PL</u>	<u>T</u>		<del></del>
	PI Number		•		Code					Do	Pool Na	me 		1
4 Property Co	039-305	10 71629 Basin Fruitland Coal												
19641	- 1	Northeast Blanco Unit							l	423A				
OGRID N						Operator l						<del></del>	<del></del>	* Elevation
06137	1	i		Deve	on Er	_	,						6285' GL	
					/11 2/2	10				-1 •	·····		<u> </u>	1283 GL
UL or lot no.	Cartion	Township	p Range	Lot Io	T	Feet from the			ogth line	For	t from the	East/We		County
T T	8	30-N	, ,	LAN	•	1610'	l	SOU		1	905'	EAS		San Juan
<del></del>		1 30		44			ــــــ					2,41	<u> </u>	Dan Fuun
UL or lot no.	Section	T-	BC			le Location If						R		Country
OF OLIVERY	Section 8	Township 30-N		Lot le	°°	Feet from the 1953'	J	SOU	outh line	j .	t from the	East/We		County
1 Dedicated Acres	Joint or		14 Consolidation		Tu On	1933   der No.	<u> </u>	300	716		131			San Juan
E/2-320	JOHN W	r latur	Сопусканали	Coae	0.0	ler No.								W 21 '08
	<u>ا ا</u>		L		<u></u>						·			NS. DIV.
yo allowable w livision.	ill be ass	signed to	-	tion un	ıtil alı	l interests have l	been	1 cons	solidated	or a n	on-standa	rd unit has		pproved by the
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6280

6270

#### PAD LAYOUT PLAN & PROFILE DEVON ENERGY PRODUCTION COMPANY, L.P. Nebu #423A

1610' F/SL 905' F/EL SEC. 8, T30N, R7W, N.M.P.M. RIO ARRIBA COUNTY, NEW MEXICO Lat: 36.82429° (83) Long: 107.58851° (83) C Lat: 36.82439° (83) Center of Pit- Calc. (S) 10 © F 5' F 6' **PROPOSED** FLARE PIT **PROPOSED** 20' 18 RESERVE PIT Mud Tonks 0 ELEV. | 6285 N 15° W 150 Draw Works LAYDOWN 2012 SCALE: 1° = 60' SFVISED JULY 22, 2008 Proposed Access Road @U2 150 150 В, NOTES Reserve Pt Dise - Should be 8' above Deep side (overtible - 3' lende & 1' above stocke side)

There Pt - Overtible pipe should be hofferly betreen lop and bottom and extend over plastic liner and

400' CONSTRUCTION ZONE Construction Zone - 330's400' or 3.03 ocres, in SCALE: 1'=60'-HORIZ. 1"=40'-VERT. NOTE Lat & Long are for mapping purposes only and are not to be relied upon for re-establishment of well location. 6300 6290 6280 NOTE: Contractor should call One—Call for localion of any marked or unmarked buried pipelines or collects on well pad ord/or occass nood at least low (2) working days prior to construction 6270 8-B 6300 6290 Cuts and file shown are approximate - Irnal linshed elevation is to be adjusted so certisent will bolonce. Corner states are approximate and do not include additional areas received for sidestinges and drainages. Final Pad Dimensions are to be ventiled by Contractor. 6280

> 07/23/2008 10:37AM (GMT-05:00)

VANN SURVEYS

P. O. Box 1306 Farmington, NM

#### WELL SITE DOCUMENTATION

Company Name: DEVON ENERGY Well Name: NEBU 423A

Legal Description: Section 8 TWNSHP 30N Range 7W

County: Rio Arriba San Juan State: NM

Area Seeded: (See Attached Digital Photos) Dates of Seeding: 6-01-2009

Seed Mix: Southwest Colorado Seed less than 10 BLM NM/CO Certified Mix NOTE: Application rate is based upon pure live seed (PLS). BLM certified seed is delivered from Dolores, Colorado in 20 lb. sacks. 100% PLS PER BAG. Included in the cost to customer per acre is \$6.40 per PLS pound. BLM recommended seeding rate for mechanical application is 13.25 LBS PLS per acre and 26.50 LBS per acre for broadcast application. \*Based upon BLM application rate chart dated May 5, 2006\*

Seed Rate: Mechanical:

Hand/Broadcast and Harrow:

20.00 lbs PLS/acre

30.00 lbs PLS/acre

\*Based upon BLM application rate chart

Mechanical Acreage: Acreage Meter

Start: 1352.6 End: 1355.4

No-Till Drill Application Acreage:

Total: 3.0

Note: An additional 1.0 acre charge for rocky topsoil conditions.

1.0

Broadcast/Harrow Application Acreage:

Total: 4.0 Acres

**Total Acreage Seeded: No-Till Drill Application** 

TOTAL: 4.0 Acres 60 Lbs

Seeding Process:

2006 John Deere 5205 MFW 56 HP Tractor 2004 Great Plains No-Till Drill Model 605 NT

2006 Land Pride Broadcast

2006 8 ft. Harrow

Topography: Dry clay/loam with some evidence of small to medium sized sandstone rock. Steep to moderate slope conditions on three sides of location. Some seeder slippage due to steep slope conditions. Utilized no-till drill application and pre-harrowed site location.

Comments: A separate invoice will be created for the following services rendered:

•	Operator Hourly Rate:	\$35.00 X 9 =	\$315.00
•	Tractor Hourly Rate:	\$75.00 X 4.5 =	\$337.50
•	Fuel/Milage Surcharge:	\$2.00 X 118 Miles =	\$236.00
•	Seeding Cost:	\$600.00 Per Acre X 4 acres =	\$2,400.00

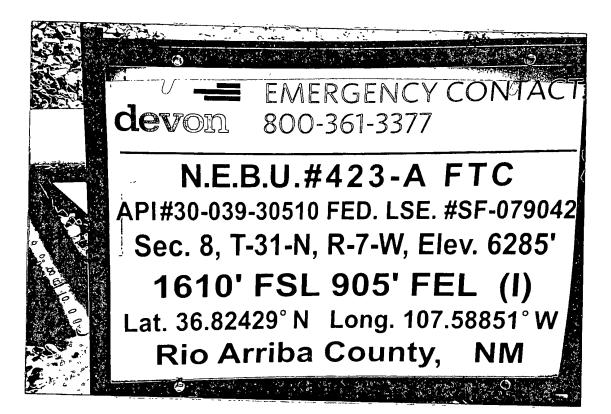
NOTE: Cost includes the use of seeders and seed cost per acre.

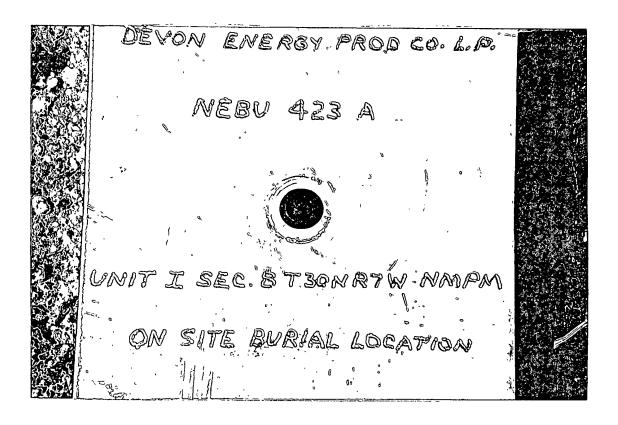
**Total Invoice Cost:** \$3,288.50

NOTE: There is a minimum charge of \$600.00 per acre for each well site.

ST Seeding and Tractor P.O. Box 551 Bloomfield, NM 87413 Ph: 505.793.0364







#### DEVON ENERGY PRODUCTION COMPANY, L.P. Mike Pippin 3104 N. Sullivan Avenue Farmington, NM 87401

505-327-4573 (phone) mike@pippinllc.com

October 27, 2011

**NMOCD** c/o Jonathan Kelly 1000 Rio Brazos Rd. Aztec. NM 87410

> RE: Pit Closure Packages from 2008 and 2009, Form C-144

> > Northeast Blanco Unit

Dear Mr. Kelly,

I have reviewed the list of Northeast Blanco Unit wells you sent me on 10/26/11. As you indicated, many of the pit closure packages from 2008 and 2009 on these wells did not include proof that notice was given to the NMOCD within one week of the drilling pit closure, nor did they include proof of the pit inspections. Although we believe that both the notices and the pit inspections occurred, this was an oversight that the proof was not included in the pit closure packages. Unfortunately, this data is no longer available.

In the future, Devon will include proof of drilling pit closure notice and pit inspection logs in all drilling pit closure packages.

Please contact me at 505-327-4573 should you have any guestions.

Very truly yours,

Mike Pippin PE Petroleum Engineer

RCVD OCT 31'11

OIL CONS. DIV.

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#### EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Devon	Project #:	01058-0154
Sample ID:	Pit Comp	Date Reported:	11-09-11
Laboratory Number:	60200	Date Sampled:	11-03-11
Chain of Custody No:	12890	Date Received:	11-03-11
Sample Matrix:	Soil	Date Extracted:	11-04-11
Preservative:	Cool	Date Analyzed:	11-07-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	· ND	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste, SW-846, USEPA, December 1996.

Comments:

Confirmation Sampling/ NEBU #423A

' Review



#### **EPA Method 8015 Modified** Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

#### **Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	11-07-11 QA/QC	Date Reported:	11-09-11
Laboratory Number:	60201	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-07-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RE	G-Cal RF:	6 Difference	Accept: Range
Gasoline Range C5 - C10	40854	9.996E+02	1.000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	40854	9.996E+02	1.000E+03	0.04%	0 - 15%

Blank Conc. (mg/L-mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	8.5	0.2
Diesel Range C10 - C28	8.0	0.1

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Range
Gasoline Range C5 - C10	7.5	7.2	3.91%	0 - 30%
Diesel Range C10 - C28	22.4	24.8	10.5%	0 - 30%

Spike Conc. (mg/kg)	Sample	Spike Addêd	🦟 Spike Result 🛠	% Recovery	Z Accept Range
Gasoline Range C5 - C10	7.5	250	222	86.1%	75 - 125%
Diesel Range C10 - C28	22.4	250	239	87.9%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 60199-60205, 60212 and 60213.



#### **EPA METHOD 8021** AROMATIC VOLATILE ORGANICS

Client:	Devon	Project #:	01058-0154
Sample ID:	Pit Comp	Date Reported:	11-08-11
Laboratory Number:	60200	Date Sampled:	11-03-11
Chain of Custody:	12890	Date Received:	11-03-11
Sample Matrix:	Soil	Date Analyzed:	11-07-11
Preservative:	Cool	Date Extracted:	11-04-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
	(3.3)	(33.13)	
Benzene	ND	0.9	
Toluene	ND	1.0	
Ethylbenzene	ND	. 1.0	
p,m-Xylene	ND	1.2	
o-Xylene	ND	0.9	
Total BTEX	ND		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	87.0 %
	1,4-difluorobenzene	99.1 %
	Bromochlorobenzene	99.5 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

Confirmation Sampling/ NEBU #423A



#### **EPA METHOD 8021** AROMATIC VOLATILE ORGANICS

Client:	N/A	n	144.	A17	
Sample ID:	1107BCAL QA/QC		roject#:	N/.	4 -08-11
Laboratory Number:	60199		ate Reported:		
Sample Matrix:	Soll		ate Sampled: ate Received:	N/ N/	
Preservative:	N/A	_	ate Received: ate Analyzed:		-07-11
Condition:	N/A		nalysis:		EX
Contract.	COLO.		ilution:	10	EA
Calibration and OR Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff.	Blank V	Detect 1
Benzene	1.0639E+004	1.0660E+004	0.2%	ND	0.1
Toluene	2.2801E+004	2.2847E+004	0.2%	ND	0.1
Ethylbenzene	5.2825E+003	5.2730E+003	0.2%	ND	0.1
p,m-Xylene	1.4203E+004	1.4231E+004	0.2%	ИD	0.1
o-Xylena	6.8952E+003	6.9090E+003	0.2%	ND	0.1
o-Xylene  Duplicate Conc. (ug/Kg)	,			ND Accept Range	0.1 Detect Limit
	,				
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect Limit
Duplicate Conc. (ug/Kg). Benzene	Sample ND	Duplicate ND	%Diff.	Accept Range	Detect: Limit
Duplicate Conc. (ug/Kg): Benzene Toluene	Sample ND ND	Duplicate ND ND	%Diff. 0.0% 0.0%	Accept Range 0 - 30% 0 - 30%	Detect: Limit 90.9 0.9 1.0
Duplicate Conc. (ug/Kg): Benzene Toluene Ethylbenzene	Sample ND ND ND ND	Duplicate ND ND ND	%Diff. 0.0% 0.0% 0.0%	Accept Range: ** 0 - 30% 0 - 30% 0 - 30%	0.9 1.0 1.0
Duplicate Conc. (ug/Kg).  Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene Spike Conc. (ug/Kg)	Sample  ND ND ND ND ND ND	Duplicate  ND  ND  ND  ND  ND  ND	%Diff. 0.0% 0.0% 0.0% 0.0% Splked Sample.	Accept Range 0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	0.9 1.0 1.0 1.2 0.9
Duplicate Conc. (ug/Kg); Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	Sample ND ND ND ND ND	Duplicate  ND ND ND ND ND ND ND Solvent Spiked	%Diff 0.0% 0.0% 0.0% 0.0% 0.0%	Accept Range 7 0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	0.9 1.0 1.0 1.2

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Ethylbenzene

p,m-Xylene

o-Xylene

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-848, USEPA,

ND

ND

ND

500

1000

500

518

528

1,040

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photolonization and/or Electrolytic Conductivity Detectors, SW-848, USEPA December 1996.

Comments:

QA/QC for Samples 60199-60205, 60212-60213 and 60222.

32 - 160

46 - 148

46 - 148

104%

104%

106%



#### Chloride

Client: Devon Project #: 01058-0154 Sample ID: Pit Comp Date Reported: 11-08-11 Lab ID#: 60200 Date Sampled: 11-03-11 Sample Matrix: Soil Date Received: 11-03-11 Preservative: Cool Date Analyzed: 11-07-11 Condition: Intact Chain of Custody: 12890

**Parameter** 

Concentration (mg/Kg)

**Total Chloride** 

70

Reference:

U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.

Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Confirmation Sampling/ NEBU #423A

Review

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

# CHAIN OF CUSTODY RECORD

12890

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5796 US Highway 64 • Farmington, NM 87401 • 505-632-0615 • lab@envirotech-inc.com

# **CHAIN OF CUSTODY RECORD**

12300

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November 28, 2011

New Mexico Oil Conservation Division Attention: Jonathan Kelly 1000 Rio Brazos Rd Aztec, NM 87410

Dear Mr. Kelly,

As indicated on the list sent to us on 10/26/2011, permit number 729 was missing the sample results for the pit closure on the NEBU 423A. Although we believe this sample was taken, the results did not get submitted to the NMOCD. This well was drilled and completed at the end of our 2008 drilling program and with the time that has passed; we were unable to locate the results from the original testing. Due to the lack of results we had the location re-sampled by Envirotech on November 3, 2011 and the results have been submitted to the NMOCD.

In the future, Devon will make sure to submit all proper paperwork and results in a more timely manner. To ensure this, we have created a check list to follow

Please contact me at 505-320-1395 if you should have any additional questions.

Robert Jordan

Sincerely,

Production Foreman



30-039-30510December 29, 2011

Ms. Lindsey Anderson Devon Energy PO Box 6459 Navajo Dam, New Mexico 87419



Project Number 01058-0154

Phone: (505) 324-5607

RE: DRILL PIT CLOSURE DOCUMENTATION FOR THE NEBU #423A WELL SITE, RIO ARRIBA COUNTY, NEW-MEXICO

Dear Ms. Anderson.

Enclosed please find the field notes and analytical results for drill pit closure activities conducted at the NEBU #423A well site located in Section 8, Township 30 North, Range 7 West, Rio Arriba County, New Mexico. On November 2, 2011, Envirotech personnel were on-site to collect a five (5)-point composite sample from a reclaimed drill pit. Using a hand auger, Envirotech personnel augered to approximately nine (9) feet below ground surface, where a five (5)-point composite sample was collected; see attached *Field Notes*. The sample was placed into a four (4)-ounce glass jar, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for gasoline and diesel range hydrocarbons using USEPA Method 8015, for benzene and BTEX using USEPA Method 8021, and for total chlorides using USEPA Method 4500. Upon review of the analytical results, it was discovered that not all required analyses were requested by Envirotech personnel. At the time this was observed, the sample's holding time had expired. This incident was reported to Ms. Lindsey Anderson and Mr. Robert Jordan of Devon Energy on December 1, 2011. Envirotech recommended re-sampling of the drill pit and analyzing the sample for all required analysis.

Envirotech personnel returned to the location on December 1, 2011 for re-sampling of the drill pit. Using a hand auger, Envirotech personnel augered to approximately nine (9) feet six (6) inches below ground surface where a five (5)-point composite sample was collected; see attached *Field Notes*. The sample was placed into a four (4)-ounce glass jar, capped headspace free, and transported on ice, under chain of custody, to Envirotech's Analytical Laboratory to be analyzed for total petroleum hydrocarbons (TPH) using USEPA Method 418.1, for gasoline and diesel range hydrocarbons using USEPA Method 8015, for benzene and BTEX using USEPA Method 8021, and for total chlorides using USEPA Method 4500. The sample returned results below the regulatory limits for all constituents analyzed; see attached *Analytical Results*. Envirotech, Inc. recommends no further action in regards to this incident.

Devon Energy NEBU 423A Well Site Reclaimed Drill Pit Sampling Project Number: 01058-0154

We apologize for any inconvenience and appreciate the opportunity to be of service. If you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,

ENVIROTECH, INC.

Environmental Field Technician faragon@envirotech-inc.com

Enclosures:

Field Notes

**Analytical Results** 

Cc:

Client File 01058



#### **EPA Method 8015 Modified** Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

#### **Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	12-02-11 QA/QC	Date Reported:	12-07-11
Laboratory Number:	60481	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-02-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	l-Cal RF:	C-Cal RF: %	Difference	Accept. Range
Gasoline Range C5 - C10	40879	9.996E+02	1.000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	40879	9.996E+02	1.000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	0.6	0.2
Diesel Range C10 - C28	1.5	0.1

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Range
Gasoline Range C5 - C10	ND	ND	0.00%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.00%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept: Range
Gasoline Range C5 - C10	ND	250	239	95.7%	75 - 125%
Diesel Range C10 - C28	ND	250	209	83.4%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste,

SW-846, USEPA, December 1996.

Comments:

QA/QC for Samples 60299, 60481-60483, 60487-60492 and 60497

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Devon Energy	Project #:	01058-0154
Sample ID:	Pit Comp @ 9'6 BGS	Date Reported:	12-08-11
Laboratory Number:	60497	Date Sampled:	12-01-11
Chain of Custody:	13002	Date Received:	12-01-11
Sample Matrix:	Soil	Date Analyzed:	12-07-11
Preservative:	Cool	Date Extracted:	12-01-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Renzene	ND	0.0	

Benzene	ND	0.9
Toluene	1.6	1.0
Ethylbenzene	ND	1.0
p,m-Xylene	ND	1.2
o-Xylene	3.5	0.9

Total BTEX 5.1

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	87.3 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	93.7 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

Pit Closure/ NEBU 423A

Analyst



### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Pr	roject#:	N/A	4
Sample ID:	1207BBLK QA/QC	Date Reported:		12-	-07-11
Laboratory Number:	60529	Date Sampled:		N/A	4
Sample Matrix:	Soil	Da	ate Received:	N/A	4
Preservative:	N/A		ate Analyzed:		-07-11
Condition:	N/A		nalysis:	ВТ	EX
	non in the company of		lution:	10	- NOOCOMO CONTRA CO
Calibration and Detection Limits (ug/L)	l-Cal RF	C-Cal.RF: Accept. Range	%Diff. 0 - 15%	Blank Conc	Detect Limit
Benzene	2.2785E+007	2.2831E+007	0.2%	ND	0.1
Toluene	2.3071E+007	2.3118E+007	0.2%	ND	0.1
Ethylbenzene	2.0214E+007	2.0254E+007	0.2%	ND	0.1
p,m-Xylene	5.0478E+007	5 0579E+007	0.2%	ND	0.1
o-Xylene	1.8703E+007	1.8740E+007	0.2%	ND	0.1
Duplicate Conc. (ug/Kg)				ccept Range	Detect: Limit
•					
Duplicate Conc. (ug/kg)  Benzene Toluene Ethylbenzene p,m-Xylene	Sample ND 37.9 60.9 827 250	Duplicate ND 36.7 59.1 812	%Diff 0.0% 3.2% 3.0% 1.8% 2.0%	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	0.9 1.0 1.0 1.2

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996,

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photolonization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 60497, 60529-60531

Analyst



#### **EPA METHOD 418.1** TOTAL PETROLEUM HYDROCARBONS

Client: **Devon Energy** Project #: 01058-0154 Sample ID: Pit Comp @ 9'6" BGS Date Reported: 12-12-11 Laboratory Number: 60497 Date Sampled: 12-01-11 Chain of Custody No: 13002 Date Received: 12-01-11 Sample Matrix: Soil Date Extracted: 12-12-11 Preservative: Cool Date Analyzed: 12-12-11 Condition: Intact Analysis Needed: TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

77.0

6.4

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments: Pit Closure/ NEBU 423A

Analyst

Ph (505) 632 0615 Fr (800) 362-1879 Fx (505) 632-1865 Lab@envirotech-inc.com envirotech-inc.com



# EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS QUALITY ASSURANCE REPORT

Client: **QA/QC** N/A Project #: QA/QC 12-12-11 Sample ID: Date Reported: Laboratory Number: 12-12-TPH.QA/QC 60577 Date Sampled: N/A Sample Matrix: 12-12-11 Freon-113 Date Analyzed: Preservative: N/A 12-12-11 Date Extracted: Condition: N/A Analysis Needed: **TPH** 

 Calibration
 I-Cal Date
 C-Cal Date
 I-Cal RF:
 C-Cal RF:
 % Difference
 Accept Range

 11-16-11
 12-12-11
 1,610
 1,720
 6.8%
 +/- 10%

Blank Conc. (mg/Kg) Concentration Detection Limit 7
TPH ND 6.4

Duplicate Conc. (mg/Kg)

Sample Duplicate % Difference Accept Range

TPH

19.3

19.3

0.0%

+/- 30%

Spike Conc. (mg/Kg)
Sample Spike Added Spike Result % Recovery Accept Range
TPH
19.3 2,000 1,670 82.7% 80 - 120%

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water

and Waste, USEPA Storet No. 4551, 1978.

Comments: QA/QC for Samples 60497 and 60573-60580

Ånalyst



#### Chloride

Client: **Devon Energy** Project #: 04108-0136 Sample ID: Pit Comp @ 9' 6" BGS Date Reported: 12-05-11 Lab ID#: 60497 Date Sampled: 12-01-11 Sample Matrix: Soil Date Received: 12-01-11 Preservative: Cool Date Analyzed: 12-02-11 Condition: Intact Chain of Custody: 13002

**Parameter** Concentration (mg/Kg)

**Total Chloride** 

220

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.

Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Pit Closure/ NEBU 423A

Analyst

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

## CHAIN OF CUSTODY RECORD

Client:	۱، <i>ا</i>	Pro	ject Name / Locati	on: NEI	801 14	125	1	ANALYSIS / PARAME					ETEF	RS							
Email results to:  F. Aragon Client Phone No	) <del>-)</del>	Sai	mpler Name:  F. Arago x ent No.:  O/OS	7-01	54			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	118.1)	RIDE			Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	No./Volumo of Containe	e	Preserva	tive Coul	TPH (I	втех	) oon	RCRA	Cation	RCI	TCLP	CO Ta	TPH (418.1)	CHLORIDE			Sampl	Sampl
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LOCATION:	NAME: 1	16BU		WELL #:	423A	TEMP PIT: 🔀	PERMAN	ENT PIT:	BGT:
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DEPTH TO GR					· · · · · · · · · · · · · · · · · · ·				
TEMPOR	ARY PIT - GR	OUNDWAT	ER 50-100 FI	ET DEEP					
BENZENE	≤ 0.2 mg/kg, B1	EX ≤ 50 mg/l	g, GRO & DRO	FRACTION	V (8015) ≤ 50	0 mg/kg, TPH (	418.1) ≤ 2500	mg/kg, CHL	ORIDES ≤ 500 mg/kg
	ARY PIT - GR								
					I (8015) < 500	ma/ka TPH (4	18 1) < 2500	ma/ka CHI (	ORIDES ≤ 1000 mg/kg
			B, 0.10 to 2.10		. (00.3) 2 300		10.17 = 2500	ing ng, critic	JIGDES I 1000 Mg Kg
	ENT PIT OR I		f. 77011 (410.1	100 · fl	CIN ONTO	TO . O.O. A			
BENZENE	E ≤ 0.2 mg/kg, B	IEX ≤ 50 mg/	kg, 1PH (418.1	) ≤ 100 mg/k	g, CHLORID	ES ≤ 250 mg/kg	Į.		
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<b> </b>	418.1	<del> </del>	Ranking: WORKORDE	R #		WHO ORDER	FD		



#### EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Devon	Project #:	01058-0154
Sample ID:	Pit Comp	Date Reported:	11-09-11
Laboratory Number:	60200	Date Sampled:	11-03-11
Chain of Custody No:	12890	Date Received:	11-03-11
Sample Matrix:	Soil	Date Extracted:	11-04-11
Preservative:	Cool	Date Analyzed:	11-07-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste, SW-846, USEPA, December 1996.

Comments:

Confirmation Sampling/ NEBU #423A

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



#### EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

#### **Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	11-07-11 QA/QC	Date Reported:	11-09-11
Laboratory Number:	60201	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	11-07-11
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF: %	Difference	Accept Range
Gasoline Range C5 - C10	40854	9.996E+02	1.000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	40854	9.996E+02	1.000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	
Gasoline Range C5 - C10	8.5	0.2
Diesel Range C10 - C28	8.0	0.1

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Range
Gasoline Range C5 - C10	7.5	7.2	3.91%	0 - 30%
Diesel Range C10 - C28	22.4	24.8	10.5%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	7.5	250	222	86.1%	75 <b>-</b> 125%
Diesel Range C10 - C28	22.4	250	239	87.9%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste,

SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 60199-60205, 60212 and 60213.

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Devon	Project#:	01058-0154
Sample ID:	Pit Comp	Date Reported:	11-08-11
Laboratory Number:	60200	Date Sampled:	11-03-11
Chain of Custody:	12890	Date Received:	11-03-11
Sample Matrix:	Soil	Date Analyzed:	11-07-11
Preservative:	Cool	Date Extracted:	11-04-11
Condition:	Intact	Analysis Requested:	BTEX
		Dilution:	10

	Det.	
Concentration	Limit	
(ug/Kg)	(ug/Kg)	
		Concentration Limit

_		
Benzene	ND	0.9
Toluene	ND	1.0
Ethylbenzene	ND	. 1.0
p,m-Xylene	ND	1.2
o-Xylene	ND	0.9
Total BTEX	ND	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	87.0 %
	1,4-difluorobenzene	99.1 %
	Bromochlorobenzene	99.5 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments: Confirmation Sampling/ NEBU #423A

Analyst



#### **EPA METHOD 8021** AROMATIC VOLATILE ORGANICS

Client:	N/A	7	Project #:	N	N/A					
Sample ID:	1107BCAL QA/QC	Į	Date Reported:	1	11-08-11					
Laboratory Number:	60199	ı	Date Sampled:	N	I/A					
Sample Matrix:	Soil	1	Date Received:	· N	I/A					
Preservative:	N/A	1	Date Analyzed:	1	1-07-11					
Condition:	N/A	•	Analysis:	B	TEX					
		1	Dilution:	10	)					
Calibration and	I-Cal RF:	C-Cal RF:	% %Diff.	Blank	Detect					
Detection Limits (ug/L)	YSSELABOOKTER RELECT # 1800 1701 1. P.	Accept Rang	Compression and the second of	Conc	Limit					
<b>.</b>			0.00/		• 4					
Benzene	1.0639E+004	1.0660E+004	0.2%	ND	0.1					
Toluene	2.2801E+004	2.2847E+004	0.2%	ND	0.1					
Ethylbenzene	5.2625E+003	5.2730E+003	0.2%	ND	0.1					
p,m-Xylene	1.4203E+004	1.4231E+004	0.2%	ND	0.1					
o-Xylene	6.8952E+003	6.9090E+003	0.2%	ND	0.1					
Duplicate Conc. (ug/Kg)	Sample /	C Duplicate	S. %Diff.	Accept Range	Detect Limit					
Benzene	ND	ND	0.0%	0 - 30%	0.9					
Toluene	ND	ND	0.0%	0 - 30%	1.0					
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.0					
p,m-Xylene	ND	ND	0.0%	0 - 30%	1.2					
				0 - 30% 0.9						

Spike Conc. (ug/Kg)	Sample	ount Sciked Spil	ked Sample :%	Recovery	Accept Range	A. M. Sand
Benzene	ND	500	530	106%	39 - 150	
Toluene	ND	500	524	105%	46 - 148	
Ethylbenzene	ND	500	518	104%	32 - 160	
p,m-Xylene	ND	1000	1,040	104%	46 - 148	
o-Xylene	ND	500	528	106%	46 - 148	

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 60199-60205, 60212-60213 and 60222.



#### Chloride

70

Client: Devon Project #: 01058-0154 Sample ID: Pit Comp Date Reported: 11-08-11 Lab ID#: 60200 Date Sampled: 11-03-11 Sample Matrix: Soil 11-03-11 Date Received: Preservative: Cool Date Analyzed: 11-07-11 Condition: Intact Chain of Custody: 12890

**Parameter** Concentration (mg/Kg)

**Total Chloride** 

Reference:

U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.

Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Confirmation Sampling/ NEBU #423A

Review

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# CHAIN OF CUSTODY RECORD

12890

Client:		F	Project Name /	Location	:	100	/		Л	ANALYSIS / PARAMETERS														
Devon			Sampler Name: / NEBU #423A						т~	1	т	T	I	Γ	Т	Т	T	1		T 1		Τ		
Client Address:		١	Sampler Name:					15)	BTEX (Method 8021)	VOC (Method 8260)														
00-15			T. Aragan					TPH (Method 8015)	8 po	9 p	as	۳		<u>G</u>							_	5		
Client Phone No.:		10	Client No.:	_ ^						tho	et	l Š	RCRA 8 Metals	Cation / Anion		TCLP with H/P		TPH (418.1)	님				Sample Cool	Sample Intact
OI-N/	To		010	<u>587</u>	015	10/20/2000				ß.	<u>≥</u>	E	A 8	٦		Ϋ́		4	CHLORIDE		l		ble	e l
Sample No./	Sample Date	Sample Time	Lab No.	1	ample Matrix	No./Volume of		HCI		H	<u>  E</u>	8	S S	atic	22	5	PAH	H	굿				am	am
	Date	rine		60	Sludge	Containers	11907		a			-	"	<u>ب</u>	<u>u</u>	-	111	-	<del> </del>					
Pit Comp	11-3-1/	141:00	(0)200	Solid	Aqueous	1-402			X	X	X								X				γ_	Y
				Soil Solid	Sludge Aqueous																		·	
				Soil Solid	Sludge Aqueous																			
				Soil Solid	Sludge Aqueous																			
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#### **EPA METHOD 8015 Modified** Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons**

Devon Energy	Project #:	01058-0154
Pit Comp @ 9'6" BGS	Date Reported:	12-07-11
60497	Date Sampled:	12-01-11
13002	Date Received:	12-01-11
Soil	Date Extracted:	12-01-11
Cool	Date Analyzed:	12-02-11
Intact	Analysis Requested:	8015 TPH
	Pit Comp @ 9'6" BGS 60497 13002 Soil Cool	Pit Comp @ 9'6" BGS Date Reported: 60497 Date Sampled: 13002 Date Received: Soil Date Extracted: Cool Date Analyzed:

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	25.4	0.1
Total Petroleum Hydrocarbons	25.4	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid

Waste, SW-846, USEPA, December 1996.

Comments:

Pit Closure/ NEBU 423 A

Analyst

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,		AT Pro-				_ 1	ENVIRON	MENTAL SPECIALIST:	
PAGE NO: OF			§ er	IVİr	ote	ch	F. Am	1	
DATE STARTED: //- Z-/	,		(5	05) G32-061	5 (800) 362-		LAT: 36	82429422	
DATE FINISHED:	<b>,</b>		5796	U.S. Hwy 64,	Farmington, Nh	187401		107. 5885332	
FIELD REPORT: BGT / PIT CLOSURE VERIFICATION									
LOCATION: NAME:	EBU		WELL #: 4	23 A	TEMP PIT: 🛪	PERMAN	ENT PIT:	BGT:	
LEGAL ADD: UNIT:		SEC: 8		TWP: 30	7	rng: 7	W	PM:	
QTR/FOOTAGE: 1610/ F	SL 905	FEL	CNTY: R	<u>٥٠٥ کردړ. ۲۰</u>	ba	ST: N	<u>u</u>		
EXCAVATION APPROX: FT. X FT. X FT. DEEP CUBIC YARDAGE:									
DISPOSAL FACILITY:					TION METHO				
LAND OWNER: Lease FEL			API: 30-	039-30	570	BGT / PIT \			
CONSTRUCTION MATERIA					VITH LEAK I		1: N F	+	
LOCATION APPROXIMATE			FT. 25	20°	FROM WELL	HEAD			
DEPTH TO GROUNDWATE		60ft	CET DEED						
TEMPORARY PIT - GR BENZENE ≤ 0.2 mg/kg, BT				1/0016) ~ 60	0 de TDU (	410 11 - 2000		ORIDEC < 500 4	
,				1 (6013) 5 30	o mgrkg, irri (	+10.1) 5 2300	mg/kg, CnL	OKIDE2 7 200 mB/kB	
TEMPORARY PIT - GR									
BENZENE ≤ 0.2 mg/kg, BT	EX ≤ 50 mg/k	g, GRO & DRO	FRACTION	(8015) ≤ 500	mg/kg, TPH (4	18.1) ≤ 2500	mg/kg, CHL	ORIDES & 1000 mg/kg	
PERMANENT PIT OR I									
BENZENE ≤ 0.2 mg/kg, B	$TEX \le 50 \text{ mg/}$	/kg, TPH (418.1	) ≤ 100 mg/k	g, CHLORID	ES ≤ 250 mg/kg	5			
					D 418.1 ANAL	YSIS			
	TIME	SAMPLE I.D.	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (mg/kg)	
	17.00	P.t Comp	1	<del></del>	-	<del></del>		NS	
	7,00	V-7 COMP	2		<del></del>		**************************************	/(,,,,,	
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			4						
		<del>}</del>	5			<del></del>	<del> </del>	·	
•		-t		J		<b></b>		***************************************	
PERIME	ETER		FIELD C	HLORIDE	S RESULTS		PRC	FILE	
			SAMPLE	READING	CALC.				
		<b>⋌</b> ?	ID	READING	(mg/kg)	1~	mana crimer - warrang - a.y. conservation		
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					RESULTS	1			
			SAME	PLE ID	(mg/kg)				
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						<u> </u>	Mil X	The gladion	
LAB SAMPLES NOTES: Collect and 11) one 5pt 10mm South at 2925 1845									
SAMPLE ID ANALYSIS RESULTS  BENZENE No Field analysis									
BIEX									
☐ GRO & DRO		]							
CHLORIDES		do anticia							
<b> </b>	<del> </del>	Ranking: WORKORDE	R #		WHO ORDER	Fn	<del></del>	<u> </u>	
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