

· · ·

.

 $\mathbf{C-144}$ 

# Date: 2015

•L .

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	State o Energy Minera D Oil Cons 1220 Sou Santa	of New Mexico ls and Natural Res Department ervation Division 1th St. Francis Di Fe, NM 87505	ources For tempor below-grad n NMOCD D For perma the Santa For provide a co District Off	Rev ary pits, closed-loo e tanks, submit to the istrict Office. ment pits and excep Environmental Buu ppy to the appropriation.	Form C-14 vised August 1, 201 p systems, and te appropriate tions submit to eau office and e NMOCD
$\underline{\text{Pit, C}}$	losed-Loop Sy	stem, Below-C	Grade Tank, or		
Proposed Alter Type of action: Permi Closu Modit Closu below-grade tank, or propo	t of a pit, closed-loop re of a pit, closed-loop rication to an existing re plan only submitte sed alternative metho	d Permit or Clo system, below-grad p system, below-grad permit d for an existing perd d	DSURE Plan Appl de tank, or proposed a ade tank, or proposed mitted or non-permitt	ication Iternative method alternative method ed pit, closed-loop	) system,
Instructions: Please submit one application of this request does n environment. Nor does approval relieve the operator	ttion (Form C-144) per ot relieve the operator of of its responsibility to co	<i>individual pit, closed</i> liability should operation mply with any other ap	-loop system, below-gra ons result in pollution of s plicable governmental au	de tank or alternati surface water, ground thority's rules, regular	<i>ve request</i> water or the ions or ordinance
Operator: Williams Four Corners LLC			OGRID #:		
Address: 188 County Road 4900, Bloomfield,	NM 87413		·		
Facility or well name: Thompson Compressor	Station	<u> </u>			
API Number: Not Applicable		OCD Peri	nit Number:		
U/L of Qtr/Qtr     P     Section     2       Center of Proposed Design:     Latitude       Surface Owner:     ☑ Federal     □ State	36.834019	Longitude Trust or Indian Allotn	-107.097793		an 7 🔀 1983
<ul> <li>2.</li> <li>Pit: Subsection F or G of 19.15.17.11 NM.</li> <li>Temporary: Drilling Workover</li> <li>Permanent Emergency Cavitation </li> <li>Lined Unlined Liner type: Thickness</li> <li>String-Reinforced</li> </ul>	AC P&A mi1 🔲 LL1	DPE 🗋 HDPE 🗋 P	VC 🗋 Other	RCVD DEC DIL CONS. DIST. :	3'13 DIV. 3
Liner Seams: Welded Factory Other		Volume:	bbl Dimensions	:: Lx W	x D
3.         Closed-loop System:       Subsection H of 19.1         Type of Operation:       P&A         Drilling a new intent)         Drying Pad       Above Ground Steel Tanks         Lined       Unlined Liner type:         Liner Seams:       Welded       Factory	5.17.11 NMAC well  Workover or I Haul-off Bins mil	Drilling (Applies to ac Other LLDPE 🔲 HDPE 🗌	tivities which require pri	or approval of a per	mit or notice of
4. Below-grade tank: Subsection I of 19.15.1	7.11 NMAC				
Volume:       70       bbl       Type of         Tank Construction Material       Steel         Secondary containment with leak detection         Visible sidewalls and liner       Visible sidewalls is sidewalls and liner         Liner type:       Thickness       m	of fluid: Produced W	iner, 6-inch lift and au Single wall, double	tomatic overflow shut-o	ff	
5. <u>Alternative Method</u> : Submittal of an exception request is required. E	xceptions must be subn	nitted to the Santa Fe	Environmental Bureau o	ffice for consideration	on of approval.

۰

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

6.

7

10

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)

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 19.15.16.8 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 office for consideration of approval.

Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

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 acceptable source
material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district
office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.
Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or
above-grade tanks associated with a closed-loop system.

<ul> <li>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>	Yes No
<ul> <li>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).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	Yes 🗍 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	Yes No
<ul> <li>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>(Applies to permanent pits)</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	Yes No
<ul> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	Yes No
<ul> <li>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.</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	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
<ul> <li>Within the area overlying a subsurface mine.</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>	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.         Image: Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC         Image: Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC         Image: Sting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC         Image: Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC         Image: Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC         Image: Design Plan - Based upon the appropriate requirements of 19.15.17.12 NMAC         Image: Design Plan - Based upon the appropriate requirements of 19.15.17.12 NMAC         Image: Design Plan - Based upon the appropriate requirements of 19.15.17.12 NMAC         Image: Design Plan - Based upon the appropriate requirements of 19.15.17.12 NMAC         Image: Design Plan - Based upon the appropriate requirements of 19.15.17.12 NMAC         Image: Design Plan - Based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC         Image: Design Plan - Based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number:
<ul> <li>12. <u>Closed-loop Systems Permit Application Attachment Checklist</u>: Subsection B of 19.15.17.9 NMAC</li> <li><i>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.</i></li> <li>Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9</li> <li>Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC</li> </ul>
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)
13.         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         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         Liner Specifications and Compatibility Assessment - 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 19.15.17.11 NMAC         Husicace or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan         Emergency Response Plan         Oil Field Waste Stream Characterization         Monitoring and Inspection Plan         Erosion Control Plan         Closure Plan - based upon the appropriate requirements of 19.15.17.13 NMAC
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 dethod (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
<ul> <li><sup>15.</sup> Waste 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.</li> <li> ○ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC </li> <li> ○ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC </li> <li> ○ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) </li> <li> ○ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC </li> <li> ○ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC </li> </ul>

,

ł

\_\_\_\_

<sup>16.</sup> Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Ste Instructions: Please indentify the facility or facilities for the disposal of liquids, drill facilities are required	el Tanks or Haul-off Bins Only: (19.15.17.13.D ling fluids and drill cuttings. Use attachment if n	NMAC) nore than two
Disposal Facility Name:	sposal Facility Permit Number	
Disposal Facility Name:	sposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur Yes (If yes, please provide the information below) No	on or in areas that <i>will not</i> be used for future serv	ice and operations?
Required for impacted areas which will not be used for future service and operations:         Soil Backfill and Cover Design Specifications based upon the appropriate red         Re-vegetation Plan - based upon the appropriate requirements of Subsection I of         Site Reclamation Plan - based upon the appropriate requirements of Subsection	quirements of Subsection H of 19.15.17.13 NMAC f 19.15.17.13 NMAC G of 19.15.17.13 NMAC	2
<sup>17.</sup> Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the clos provided below. Requests regarding changes to certain siting criteria may require an considered an exception which must be submitted to the Santa Fe Environmental Bu demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for a	sure plan. Recommendations of acceptable sour dministrative approval from the appropriate distr areau office for consideration of approval. Justij guidance.	ce material are ict office or may be fications and/or
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data of	stained 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 of	tained 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 ob	ptained from nearby wells	□ Yes □ No □ NA
<ul> <li>Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significate (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	cant watercourse or lakebed, sinkhole, or playa	🔲 Yes 🗌 No
Within 300 feet from a permanent residence, school, hospital, institution, or church in - Visual inspection (certification) of the proposed site; Aerial photo; Satellite im	existence at the time of initial application. age	🗋 Yes 🗌 No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less th watering purposes, or within 1000 horizontal feet of any other fresh water well or spring - NM Office of the State Engineer - iWATERS database; Visual inspection (cer	an five households use for domestic or stock ng, in existence at the time of initial application. tification) of the proposed site	🗋 Yes 🗌 No
<ul> <li>Within incorporated municipal boundaries or within a defined municipal fresh water w adopted pursuant to NMSA 1978, Section 3-27-3, as amended.</li> <li>Written confirmation or verification from the municipality; Written approval or within the municipality.</li> </ul>	rell field covered under a municipal ordinance btained from the municipality	Yes No
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual in</li> </ul>	spection (certification) of the proposed site	Yes No
<ul><li>Within the area overlying a subsurface mine.</li><li>Written confirmation or verification or map from the NM EMNRD-Mining an</li></ul>	d Mineral Division	🗋 Yes 🗌 No
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Society; Topographic map</li> </ul>	Mineral Resources; USGS; NM Geological	🗋 Yes 🗌 No
Within a 100-year floodplain. - FEMA map		Yes No
<ul> <li>18.</li> <li>On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the for by a check mark in the box, that the documents are attached.</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate require Proof of Surface Owner Notice - based upon the appropriate requirements of Su Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate of a drying pad)</li> <li>Protocols and Procedures - based upon the appropriate requirements of 19.15.17</li> <li>Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Su Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill Soil Cover Design - based upon the appropriate requirements of Subsection H or Subsection H o</li></ul>	billowing items must be attached to the closure platements of 19.15.17.10 NMAC bsection F of 19.15.17.13 NMAC opriate requirements of 19.15.17.11 NMAC - based upon the appropriate requirements of 19.77.13 NMAC ements of Subsection F of 19.15.17.13 NMAC ossection F of 19.15.17.13 NMAC cuttings or in case on-site closure standards cannel f 19.15.17.13 NMAC	an. Please indicate,

Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

.

, : 			
0. <u>Operator Applic</u>	ation Certification:		
I hereby certify t	hat the information submitted with this applicatio	n is true, accurate and com	plete to the best of my knowledge and belief.
Name (Print):	Graham Stahnke, PE	Title:	Environmental Specialist
Signature:	20-52	Date:	November 18, 2013
e-mail address:	graham.stahnke@williams.com	Telephone:	(505) 632-4606
20.			
OCD Approval:	Permit Application (including closure plan)	Closure Plan (only)	OCD Conditions (see attachment)
OCD Represent	ative Signature:	elly	Approval Date: <u>12/3/2013</u>
Title: _ Com	pliance lottice	OCD Per	mit Number:
21. Closure Report	Y (required within 60 days of closure completion	: Subsection K of 19.15.	17.13 NMAC
Instructions: Op The closure repo	erators are required to obtain an approved closu rt is required to be submitted to the division with muntil an approved closure plan has been obtain	re plan prior to implement in 60 days of the complete in ad and the closure active	tting any closure activities and submitting the closure repo ion of the closure activities. Please do not complete this it is have been completed
section of the for	m unni un approvea ciosure pian nas been obiai	nea ana ine ciosure activi	ure Completion Date:
22.			
Closure Method Waste Excave I If different fr	ation and Removal	Alternative Closur	e Method 🔲 Waste Removal (Closed-loop systems only)
23.	Pagarding Wasta Domousi Closure For Closed	loon Systems That Utili	The Above Crowned Steel Tools on Head off Dire Only
Instructions: Ple two facilities wer	ase indentify the facility or facilities for where the utilized.	he liquids, drilling fluids of	and drill cuttings were disposed. Use attachment if more th
Disposal Facilit	y Name:	Disposal	Facility Permit Number:
Disposal Facilit	y Name:	Disposal	Facility Permit Number:
Were the closed-l Yes (If yes	oop system operations and associated activities p , please demonstrate compliance to the items belo	erformed on or in areas that w) 🔲 No	at will not be used for future service and operations?
Required for imposed for $\Box$	acted areas which will not be used for future serve	ice and operations:	
Site Reclar	ation (Photo Documentation) Illing and Cover Installation		
Re-vegetat	ion Application Rates and Seeding Technique	·	
<sup>24.</sup> Closure Report	Attachment Checklist: Instructions: Each of the	he following items must b	e attached to the closure report. Please indicate, by a chec
mark in the box, $\square$ Proof of C	that the documents are attached.		
Proof of D	eed Notice (required for on-site closure)		
Plot Plan (	for on-site closures and temporary pits)		
Waste Mat	on Sampling Analytical Results (11 applicable) erial Sampling Analytical Results (required for or	n-site closure)	
Disposal F	acility Name and Permit Number		
Soil Backf	illing and Cover Installation		
☐ Re-vegetat	notion (Photo Documentation)		
On-site Cl	osure Location: Latitude	Longitude	NAD: []1927 [] 1983
25. Openetar Olar	Cartification		
I hereby certify the	<u>e certification</u> : that the information and attachments submitted with the the closure complies with all applicable of	h this closure report is true	e, accurate and complete to the best of my knowledge and
Name (Print):		Title:	and and opported in the upproved closure plan.
Signature:		Date:	
a mail address-		Dur.	
e-mail address:		relephone:	



# Background

The following Closure Plan has been developed to satisfy requirements of the "Pit Rule" as defined in 19.15.17.11 New Mexico Administrative Code (NMAC) and describes the requirements and procedures to be used by Williams Four Corners LLC (WFC) when removing below grade tanks (BGTs). The plan will be used when closing BGT locations near term, and for all BGTs which are required to be closed by June 15, 2013. This plan shall also be used when closing any other BGT operated by WFC.

Certain below grade tanks targeted under this closure plan were, in some cases, installed subsequent to earthen pit closures and were constructed in conformance with New Mexico Oil Conservation Division (NMOCD) approved criteria. All BGTs have been operating in general compliance with NMOCD regulations developed prior to the new Pit Rule enacted in June 2008.

# Applicability

This plan shall be implemented when any BGT is retired or removed from service due to operational considerations or when tank integrity is compromised beyond repair. Closure shall commence within 60 days of cessation of use or sooner if directed by NMOCD.

The plan shall also be used if any leaking BGT is not retrofitted or modified to comply with applicable design criteria defined in the Pit Rule or when it is determined that continued operation of the BGT represents an imminent danger to fresh water, human health or the environment. All BGTs with or without completely visible sidewalls, and that do not meet current design standards, shall be closed prior to sale, transfer, or change of Operator or be retrofitted to meet current design standards. In any event, all single walled tanks without completely visible sidewalls shall be closed by June 15, 2013 in accordance with the provisions herein.

If there are conditions at a BGT location which prevent or limit adherence to this plan, a separate site specific plan will be developed. Such a plan will be prepared and submitted to the NMOCD for approval and serve as a new, site specific closure plan.

# **Description of Work**

Prior to initiating BGT closure work, notification will be made to the NMOCD Aztec Office 3-7 days before work is scheduled. In addition, the landowner of record (obtained through county tax records) will be notified in advance by certified mail with return receipt. Notifications will provide operator identity, and legal location of the BGT, and the well name / number and American Petroleum Institute (API) number if the BGT is associated with a well. Notification to NMOCD will be made via email or by phone. If prudent, and contingent upon work schedules and manpower assignments, more than one location may be included in a single communication.

Discharge to the BGT will be eliminated and all piping removed or re-routed as appropriate. The liquid contents in the tank will be removed and shipped for disposal at an NMOCD approved and permitted facility. Williams may utilize other facilities which may be approved by the NMOCD in the future. As such, the selected disposal site will be identified on the closure form (C-144) prepared for each discrete closure action. Table 1 provides a summary of waste materials and the facility proposed for disposal or recycling.

Waste Materials	Disposal Facility
Steel Tank	SJ County Landfill or Steel Recycling
Fiberglass Tank	SJ County or Bondad Landfill * or Re-use
Liner (cleaned – absent soil / sludge)	SJ County or Bondad Landfill
Sludge	Envirotech, IEI, TNT, or Bondad Landfill
Liquids (Water / Hydrocarbons)	Basin Disposal, Key Energy, TNT
Contaminated Soil	Envirotech, IEI, TNT, or Bondad Landfill
Fencing / Miscellaneous	Re-use or scrap

#### Table 1. Summary of Waste Materials and Disposal Facilities

\*The tank must be empty, cut up or shredded and EPA clean

Permit Numbers and additional approved facilities are listed on the attached spreadsheet.

The use of any disposal or recycling facility will be identified on the C-144 form submitted to the NMOCD as part of the closure report. Any and all ancillary equipment related to the tank will also be removed, including any synthetic liner material(s) and fencing. Williams will ensure that liners and liner material will be free of soil and sludge material and disposed of at a NMOCD approved solid waste facility (e.g. San Juan County Landfill or Permitted Colorado Facility).

Steel or fiberglass tanks will be removed and shipped to a WFC storage yard where the condition of each tank will be evaluated for recycling, reuse, or disposal, subject to NMOCD approval. If the tank is not in a condition allowing reuse, it will either be shipped to a permitted recycling facility (for steel tanks) or it will be disposed of at the San Juan County Landfill (NMED Permit SWM-052426) or other NMOCD approved solid waste disposal site. Specific waste acceptance conditions of the landfill could necessitate further actions as appropriate. Such actions include, but may not be limited to, cutting, shredding, or sizing; emptying or cleaning of tanks or liner material, and otherwise those necessary to conform with permit conditions for Subtitle D disposal and conditions identified in 19.15.35.8 NMAC.

After the tank and equipment have been removed, soils beneath the tank will be tested and evaluated to determine if there is hydrocarbon impact or otherwise if a release event has occurred. Specific sampling protocol will follow the description provided in the Pit Rule which calls for a five point composite sample (see Sampling and Lab Analyses section). Additional grab samples will be collected if there is obvious staining, or when wet or discolored soil exists, or if there is other evidence of soil impact(s). Samples will be shipped to an off-site environmental testing laboratory for proper analyses. Results will be submitted to the NMOCD on form C-141. Further sampling may be required if NMOCD determines additional assessment work is necessary.

If there has been no release to underlying soils as demonstrated by soil analyses (i.e. lab results), or if impacts are below closure limits provided in the table below, then the depression (i.e., excavation) will be backfilled with "non-waste containing" fill material. Depending on site conditions and operating needs, the backfilled area will be reclaimed with prescribed topsoil and reseeded.

If NMOCD or WFC determines a release event has occurred, WFC will comply with 19.15.29 NMAC and/or 19.15.30 NMAC as appropriate. If analyses of soils excavated in conjunction with the BGT removal should reveal contaminant concentrations at or below specified closure limits presented in Table 2, then the soil may be returned to the excavation and covered with prescribed soil cover. Sampling of the excavated material is detailed in the Sampling and Laboratory Analyses section later in this plan.

Due to the fact that a majority of WFC BGTs are located on active well sites, reclamation efforts may be deferred in order to avoid impact to ongoing lease operations. In this event, the area of the retired BGT will be incorporated into the overall well site reclamation effort with WFC documenting surface owner and lease operator approval of the proposed alternative.

The BGT site will nevertheless be prepared to prevent erosion, and protect fresh water, human health, and the environment. WFC will submit this documentation to the NMOCD for approval.

Restoration efforts shall incorporate proper contouring as described in the Pit Rule and shall be constructed in a manner to prevent ponding and erosion, using drainage controls such as water bars and/or silt traps as appropriate. Soil cover (suitable for vegetative growth) will be equivalent to the background thickness of topsoil or minimum one foot depth (or background thickness whichever is greater). The area will be contoured in a manner blending soil into/with the surrounding grade. Reclamation shall target the location of the BGT along with associated access roads (not used for production operations) and be implemented to ensure a safe and stable condition that blends with the surrounding undisturbed area.

Re-vegetation efforts will conform with NMOCD approved methods and recommendations including seed type and application rates and shall effect cover equaling 70% of native perennial vegetation. Re-vegetation shall establish at least three native plant species, including at least one grass, but not including any noxious weeds, through two successive growing seasons. Seeding will be accomplished by drilling on the contour whenever practicable or by other NMOCD approved methods.

Seeding efforts will be initiated during the first growing season after closure work is approved and be repeated until re-vegetation is successful. Notification will be made to NMOCD anytime seeding efforts begin and when successful re-vegetation is sustained. Adverse growing conditions (e.g. drought, etc.) may cause delay until conditions are more favorable or necessitate enhanced cultivation techniques (e.g. mulching, irrigating, etc.) as approved by NMOCD.

#### Sampling and Laboratory Analyses

A minimum five point composite sample shall be collected from the soils beneath the BGT and one or more grab samples from each area that is wet, discolored or showing other evidence of a release. Sampled soil will be placed in clean glass jars and cooled and maintained at 39°F. Samples will be packaged and shipped under United States Environmental Protection Agency (USEPA) Chain-of-Custody protocol to an approved and certified environmental laboratory.

Soil samples collected from the earthen containment (i.e. BGT excavation) will be analyzed by an approved environmental laboratory by the listed test methods or as may

be directed by the NMOCD. Table 2 summarizes the constituents of concern (COC), testing methods, and the closure limits defining action levels:

Constituents of Concern	Test Methods	Closure Limits (mg/Kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2
BTEX	EPA SW-846 Method 8021B or 8260B	50
ТРН	Method 418.1++	100
Chlorides	EPA SW-846 Method 300.1	250*

#### Table 2. Summary of COCs, Test Methods, and Closure Limits

\* Or background concentration – whichever is greater.

++ Not currently used USEPA Method (Replaced by Method 1664). Method 418.1 is required by NMOCD.

In the event soil is found to have contaminants in excess of the action levels above, requirements of 19.15.29 NMAC and 19.15.30 NMAC shall dictate further actions. Such action would likely include development of a Remedial Action Plan or Abatement Plan as specified under those Rules.

Sampling of any excavated or stockpiled material shall conform with standard environmental sampling protocol. Samples from excavated materials (excavated to facilitate the BGT removal) will be composite samples comprised of at least five discrete samples from the inside and on the surface of the soil pile. A minimum of one composite will be collected from each 25 cubic yards of soil (i.e. one fraction from each cubic yard). Every effort will be made to collect composite fractions from the inside and outside of the soil pile such that a "representative" sample is analyzed.

Stockpile sampling will be facilitated by utilizing a clean soil probe inserted into the soil pile at least three feet or by turning the soil pile with mechanized equipment to expose new soil. The goal is to collect a sample representative of the "whole". These samples will be handled and packaged as described above and be analyzed by the methods listed in Table 2. Soil with contaminant concentrations at or below the Closure Limits may be returned to the BGT excavation prior to initiating reclamation work.

# **Records and Documentation**

All closure activities will be properly documented and include preparation of Form C-144 which shall be submitted to the NMOCD within 60 days of completing closure tasks. Information to be included in the closure report filing shall include, but not necessarily be limited to, the following:

- Proof of closure notice to division and surface owner(s)
- Confirmation sampling and analytical reports (results)
- Disposal facility name and permit information
- Description of capping and reclamation actions (i.e. revegetation rates)
- Photo documentation of site reclamation
- Other information required to complete applicable sections of C-144

As stated above, should conditions at any location necessitate a change to the approach described herein, separate site specific closure details will be provided as an addendum to this plan.



Environmental Affairs 188 County Road 4900 Bloomfield, NM 87413 505/632-4600 505/632-4781 Fax

December 3, 2013

Mr. Jonathan Kelly New Mexico Oil Conservation Division 1000 Rio Brazos Aztec, NM 87410 RCVD DEC 3'13 OIL CONS. DIV. DIST. 3

RE: Below-Grade Tank Closure Plan Approval Request, Thompson Compressor Station, San Juan County, New Mexico

Dear Mr. Kelly,

Attached is a C-144 Below-Grade Tank Closure Application for closure of a below grade tank (BGT), identified as T-10, operated by Williams Four Corners LLC (Williams). The tank was located at the Thompson Compressor Station in a common lined pit and was taken out of service on November 9, 2013.

Williams requests a variance from the Pit Rule for use of Total Petroleum Hydrocarbons (TPH) via EPA SW-846 Method 418.1 for closure. We propose to use the sum of Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) via EPA SW-846 Method 8015M.

Please contact me at (505) 632-4606 with any questions regarding this closure.

Sincerely,

Graham Stahnke, PE Environmental Specialist

Attachments: C-144 BGT T-9 Williams Four Corners LLC, Closure Plan for Below Grade Tanks, San Juan Basin – New Mexico

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 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	Form C-144 Revised August 1, 2011 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, Cl	osed-Loop System, Below-Grade 7	<u>Fank, or</u>
Proposed Alter	mative Method Permit or Closure P	<u>'lan Application</u>
Type of action: Permit Closure Modifie Sclosure below-grade tank, or propose	of a pit, closed-loop system, below-grade tank, o e of a pit, closed-loop system, below-grade tank, o cation to an existing permit e plan only submitted for an existing permitted or ed alternative method	r proposed alternative method or proposed alternative method • non-permitted pit, closed-loop system,
Instructions: Please submit one application	ion (Form C-144) per individual pit, closed-loop syste	em, below-grade tank or alternative request
Please be advised that approval of this request does not environment. Nor does approval relieve the operator o	relieve the operator of liability should operations result in f its responsibility to comply with any other applicable go	n pollution of surface water, ground water or the wernmental authority's rules, regulations or ordinances.
I. Operator: Williams Four Corners LLC	OGRII	D#:
Address: 188 County Road 4900, Bloomfield, N	IM 87413	
Facility or well name: <u>Thompson Compressor St</u>	ation	
API Number: Not Applicable	OCD Permit Numbe	уг:
U/L or Qtr/Qtr P Section 4	Township <u>30 N</u> Range <u>12 W</u>	County San Juan
Center of Proposed Design: Latitude	36.834019 Longitude -107.	097793 NAD: 1927 🛛 1983
Surface Owner: 🛛 Federal 🔲 State 🗌	Private 🔲 Tribal Trust or Indian Allotment	
2.  Pit: Subsection F or G of 19.15.17.11 NMAG Temporary: Drilling Workover Permanent Emergency Cavitation F Lined Unlined Liner type: Thickness String-Reinforced Liner Seams: Welded Factory Other	C P&A mil	RCVD DEC 3 '13           OIL CONS. DIV.           DIST. 3
<ul> <li>3.</li> <li>Closed-loop System: Subsection H of 19.15.</li> <li>Type of Operation: P&amp;A Drilling a new w intent)</li> <li>Drying Pad Above Ground Steel Tanks</li> <li>Lined Unlined Liner type: Thickness</li> <li>Liner Seams: Welded Factory Other</li> </ul>	17.11 NMAC ell 🔲 Workover or Drilling (Applies to activities whi ] Haul-off Bins 🗍 Other mil 🔲 LLDPE 🗍 HDPE 🔲 PVC 🗔	ich require prior approval of a permit or notice of ] Other
4. Below-grade tank: Subsection 1 of 19.15.17.	.11 NMAC	
Volume: 50 bbl Type of Tank Construction Material Steel	fluid: Produced Water	
Secondary containment with leak detection Visible sidewalls and liner Visible sidewalls and liner mil	Visible sidewalls, liner, 6-inch lift and automatic ov         alls only       Other       Single wall, double bottom         HDPE       PVC       Other	/erflow shut-off
5. Alternative Method: Submittal of an exception request is required. Exc	ceptions must be submitted to the Santa Fe Environme	ntal 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)

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 19.15.16.8 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 office for consideration of approval.

Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10. 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 accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro office 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.	ptable source priate district pproval. ing pads or
<ul> <li>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>	🗋 Yes 🗌 No
<ul> <li>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).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗍 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	☐ Yes ☐ No ☐ NA
<ul> <li>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>(Applies to permanent pits)</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	☐ Yes ☐ No ☐ NA
<ul> <li>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.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	Yes No
<ul> <li>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.</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗋 Yes 🗌 No
Within the area overlying a subsurface mine.	🗌 Yes 🗌 No

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

Within an unstable area.

-	Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological
	Society; Topographic map

Within a 100-year floodplain.

FEMA map

Yes No

Yes No

11.       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.
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)
13.         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         Liner Specifications and Compatibility Assessment - 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 19.15.17.11 NMAC         Huscher Control/Quality Assurance Construction and Installation Plan         Oil Field Waste Stream Characterization         Monitoring and Inspection Plan         Emergency Response Plan         Oil Field Waste Stream Characterization         Monitoring and Inspection Plan         Erosion Control Plan         Closure Plan - based upon the appropriate requirements of 19.15.17.9 NMAC and 19.15.17.13 NMAC
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)       Image: Proposed Closure Method (Closed-loop Systems only)
<ul> <li>15.</li> <li>Waste 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.</li> <li></li></ul>

.

.

•

÷

<u>Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only</u> : (19.15.17.13.D N Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if mo facilities are required.	NMAC) ore than two
Disposal Facility Name: Disposal Facility Permit Number:	
Disposal Facility Name: Disposal Facility Permit Number:	
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that <i>will not</i> be used for future servic Yes (If yes, please provide the information below) No	ce and operations?
Required for impacted areas which will not be used for future service and operations:         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 I of 19.15.17.13 NMAC         Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC	
<sup>17.</sup> Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate distric considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justific demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	e material are ct office or may be cations and/or
Ground water is less than 50 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
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 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.       -         -       Visual inspection (certification) of the proposed site; Aerial photo; Satellite image       [	🗌 Yes 🗌 No
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; 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
<ul> <li>18.</li> <li>On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan by a check mark in the box, that the documents are attached.</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC</li> <li>Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>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</li> <li>Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC</li> <li>Confirmation Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC</li> <li>Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot</li> <li>Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> </ul>	n. Please indicate, 5.17.11 NMAC be achieved)

Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

.

<b>Operator Application Certification:</b> I hereby certify that the information submitted with this application is	s true, accurate and com	plete to the best of my knowledge and belief.
Name (Print): Graham Stahnke, PE	Title:	Environmental Specialist
Signature: <u>HD</u>	Date:	November 18 2013
e-mail address:graham.stahnke@williams.com	Telephone:	(505) 632-4606
20. <u>OCD Approval</u> : Permit Application (including closure plan) OCD Representative Signature: Title: <u>COM Diamee</u> Office	Closure Plan (only)	DCD Conditions (see attachment)  Approval Date: 12/3/2013  mit Number:
21. <u>Closure Report (required within 60 days of closure completion)</u> : Instructions: Operators are required to obtain an approved closure The closure report is required to be submitted to the division within section of the form until an approved closure plan has been obtained	Subsection K of 19.15. plan prior to implemen 60 days of the completi d and the closure activi Closu	17.13 NMAC ting any closure activities and submitting the closure report. on of the closure activities. Please do not complete this ties have been completed. ure Completion Date:
22.		
Closure Method: Waste Excavation and Removal On-Site Closure Method If different from approved plan, please explain.	Alternative Closure	e Method 🔲 Waste Removal (Closed-loop systems only)
<sup>23,</sup> <u>Closure Report Regarding Waste Removal Closure For Closed-lo</u> <i>Instructions: Please indentify the facility or facilities for where the</i> <i>two facilities were utilized.</i>	op Systems That Utiliz liquids, drilling fluids d	e Above Ground Steel Tanks or Haul-off Bins Only: and drill cuttings were disposed. Use attachment if more that
Disposal Facility Name:	Disposal 1	Facility Permit Number:
Disposal Facility Name: Disposal Facility Name:	Disposal Disposal Disposal Disposal	Facility Permit Number:
Disposal Facility Name: Disposal Facility Name: Were the closed-loop system operations and associated activities perf U Yes (If yes, please demonstrate compliance to the items below)	Disposal Disposal formed on or in areas that No	Facility Permit Number: Facility Permit Number: t <i>will not</i> be used for future service and operations?
Disposal Facility Name: Disposal Facility Name: Were the closed-loop system operations and associated activities perf Yes (If yes, please demonstrate compliance to the items below) <i>Required for impacted areas which will not be used for future service</i> Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	Disposal Dis	Facility Permit Number: Facility Permit Number: t <i>will not</i> be used for future service and operations?
Disposal Facility Name: Disposal Facility Name: Were the closed-loop system operations and associated activities perf Yes (If yes, please demonstrate compliance to the items below) Required for impacted areas which will not be used for future service Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	Disposal Dis	Facility Permit Number: Facility Permit Number: t <i>will not</i> be used for future service and operations?
Disposal Facility Name: Disposal Facility Name: Were the closed-loop system operations and associated activities perf Yes (If yes, please demonstrate compliance to the items below) Required for impacted areas which will not be used for future service Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-s Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude	Disposal Dis	Facility Permit Number:         Facility Permit Number:         It will not be used for future service and operations?         It will not be used for future service and operationservice and operationservice and operationservice and operationserv
Disposal Facility Name: Disposal Facility Name: Were the closed-loop system operations and associated activities perf Yes (If yes, please demonstrate compliance to the items below) Required for impacted areas which will not be used for future service Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique 24. Closure Report Attachment Checklist: Instructions: Each of the mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-s Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation) On-site Closure Location: Latitude	Disposal 1 Disposal 1 ormed on or in areas tha )  No and operations:  following items must be ite closure) Longitude	Facility Permit Number:
Disposal Facility Name:	Disposal 1 Disposal 1 ormed on or in areas tha ) □ No and operations:  following items must be ite closure)  Longitude his closure report is true ure requirements and co	Facility Permit Number:
Disposal Facility Name:	Disposal 1 Disposal 1 Disposal 1 ormed on or in areas that and operations: following items must be ite closure) Longitude his closure report is true ure requirements and co Title:	Facility Permit Number:
Disposal Facility Name:	Disposal 1 Disposal 1 ormed on or in areas tha ) □ No and operations:  following items must be ite closure) Longitude his closure report is true ure requirements and co Title: Date:	Facility Permit Number:

.



# Background

The following Closure Plan has been developed to satisfy requirements of the "Pit Rule" as defined in 19.15.17.11 New Mexico Administrative Code (NMAC) and describes the requirements and procedures to be used by Williams Four Corners LLC (WFC) when removing below grade tanks (BGTs). The plan will be used when closing BGT locations near term, and for all BGTs which are required to be closed by June 15, 2013. This plan shall also be used when closing any other BGT operated by WFC.

Certain below grade tanks targeted under this closure plan were, in some cases, installed subsequent to earthen pit closures and were constructed in conformance with New Mexico Oil Conservation Division (NMOCD) approved criteria. All BGTs have been operating in general compliance with NMOCD regulations developed prior to the new Pit Rule enacted in June 2008.

# Applicability

This plan shall be implemented when any BGT is retired or removed from service due to operational considerations or when tank integrity is compromised beyond repair. Closure shall commence within 60 days of cessation of use or sooner if directed by NMOCD.

The plan shall also be used if any leaking BGT is not retrofitted or modified to comply with applicable design criteria defined in the Pit Rule or when it is determined that continued operation of the BGT represents an imminent danger to fresh water, human health or the environment. All BGTs with or without completely visible sidewalls, and that do not meet current design standards, shall be closed prior to sale, transfer, or change of Operator or be retrofitted to meet current design standards. In any event, all single walled tanks without completely visible sidewalls shall be closed by June 15, 2013 in accordance with the provisions herein.

If there are conditions at a BGT location which prevent or limit adherence to this plan, a separate site specific plan will be developed. Such a plan will be prepared and submitted to the NMOCD for approval and serve as a new, site specific closure plan.

#### **Description of Work**

Prior to initiating BGT closure work, notification will be made to the NMOCD Aztec Office 3-7 days before work is scheduled. In addition, the landowner of record (obtained through county tax records) will be notified in advance by certified mail with return receipt. Notifications will provide operator identity, and legal location of the BGT, and the well name / number and American Petroleum Institute (API) number if the BGT is associated with a well. Notification to NMOCD will be made via email or by phone. If prudent, and contingent upon work schedules and manpower assignments, more than one location may be included in a single communication.

Discharge to the BGT will be eliminated and all piping removed or re-routed as appropriate. The liquid contents in the tank will be removed and shipped for disposal at an NMOCD approved and permitted facility. Williams may utilize other facilities which may be approved by the NMOCD in the future. As such, the selected disposal site will be identified on the closure form (C-144) prepared for each discrete closure action. Table 1 provides a summary of waste materials and the facility proposed for disposal or recycling.

Waste Materials	Disposal Facility
Steel Tank	SJ County Landfill or Steel Recycling
Fiberglass Tank	SJ County or Bondad Landfill * or Re-use
Liner (cleaned – absent soil / sludge)	SJ County or Bondad Landfill
Sludge	Envirotech, IEI, TNT, or Bondad Landfill
Liquids (Water / Hydrocarbons)	Basin Disposal, Key Energy, TNT
Contaminated Soil	Envirotech, IEI, TNT, or Bondad Landfill
Fencing / Miscellaneous	Re-use or scrap

# Table 1. Summary of Waste Materials and Disposal Facilities

\*The tank must be empty, cut up or shredded and EPA clean

Permit Numbers and additional approved facilities are listed on the attached spreadsheet.

The use of any disposal or recycling facility will be identified on the C-144 form submitted to the NMOCD as part of the closure report. Any and all ancillary equipment related to the tank will also be removed, including any synthetic liner material(s) and fencing. Williams will ensure that liners and liner material will be free of soil and sludge material and disposed of at a NMOCD approved solid waste facility (e.g. San Juan County Landfill or Permitted Colorado Facility).

Steel or fiberglass tanks will be removed and shipped to a WFC storage yard where the condition of each tank will be evaluated for recycling, reuse, or disposal, subject to NMOCD approval. If the tank is not in a condition allowing reuse, it will either be shipped to a permitted recycling facility (for steel tanks) or it will be disposed of at the San Juan County Landfill (NMED Permit SWM-052426) or other NMOCD approved solid waste disposal site. Specific waste acceptance conditions of the landfill could necessitate further actions as appropriate. Such actions include, but may not be limited to, cutting, shredding, or sizing; emptying or cleaning of tanks or liner material, and otherwise those necessary to conform with permit conditions for Subtitle D disposal and conditions identified in 19.15.35.8 NMAC.

After the tank and equipment have been removed, soils beneath the tank will be tested and evaluated to determine if there is hydrocarbon impact or otherwise if a release event has occurred. Specific sampling protocol will follow the description provided in the Pit Rule which calls for a five point composite sample (see Sampling and Lab Analyses section). Additional grab samples will be collected if there is obvious staining, or when wet or discolored soil exists, or if there is other evidence of soil impact(s). Samples will be shipped to an off-site environmental testing laboratory for proper analyses. Results will be submitted to the NMOCD on form C-141. Further sampling may be required if NMOCD determines additional assessment work is necessary.

If there has been no release to underlying soils as demonstrated by soil analyses (i.e. lab results), or if impacts are below closure limits provided in the table below, then the depression (i.e., excavation) will be backfilled with "non-waste containing" fill material. Depending on site conditions and operating needs, the backfilled area will be reclaimed with prescribed topsoil and reseeded.

If NMOCD or WFC determines a release event has occurred, WFC will comply with 19.15.29 NMAC and/or 19.15.30 NMAC as appropriate. If analyses of soils excavated in conjunction with the BGT removal should reveal contaminant concentrations at or below specified closure limits presented in Table 2, then the soil may be returned to the excavation and covered with prescribed soil cover. Sampling of the excavated material is detailed in the Sampling and Laboratory Analyses section later in this plan.

Due to the fact that a majority of WFC BGTs are located on active well sites, reclamation efforts may be deferred in order to avoid impact to ongoing lease operations. In this event, the area of the retired BGT will be incorporated into the overall well site reclamation effort with WFC documenting surface owner and lease operator approval of the proposed alternative.

The BGT site will nevertheless be prepared to prevent erosion, and protect fresh water, human health, and the environment. WFC will submit this documentation to the NMOCD for approval.

Restoration efforts shall incorporate proper contouring as described in the Pit Rule and shall be constructed in a manner to prevent ponding and erosion, using drainage controls such as water bars and/or silt traps as appropriate. Soil cover (suitable for vegetative growth) will be equivalent to the background thickness of topsoil or minimum one foot depth (or background thickness whichever is greater). The area will be contoured in a manner blending soil into/with the surrounding grade. Reclamation shall target the location of the BGT along with associated access roads (not used for production operations) and be implemented to ensure a safe and stable condition that blends with the surrounding undisturbed area.

Re-vegetation efforts will conform with NMOCD approved methods and recommendations including seed type and application rates and shall effect cover equaling 70% of native perennial vegetation. Re-vegetation shall establish at least three native plant species, including at least one grass, but not including any noxious weeds, through two successive growing seasons. Seeding will be accomplished by drilling on the contour whenever practicable or by other NMOCD approved methods.

Seeding efforts will be initiated during the first growing season after closure work is approved and be repeated until re-vegetation is successful. Notification will be made to NMOCD anytime seeding efforts begin and when successful re-vegetation is sustained. Adverse growing conditions (e.g. drought, etc.) may cause delay until conditions are more favorable or necessitate enhanced cultivation techniques (e.g. mulching, irrigating, etc.) as approved by NMOCD.

# **Sampling and Laboratory Analyses**

A minimum five point composite sample shall be collected from the soils beneath the BGT and one or more grab samples from each area that is wet, discolored or showing other evidence of a release. Sampled soil will be placed in clean glass jars and cooled and maintained at 39°F. Samples will be packaged and shipped under United States Environmental Protection Agency (USEPA) Chain-of-Custody protocol to an approved and certified environmental laboratory.

Soil samples collected from the earthen containment (i.e. BGT excavation) will be analyzed by an approved environmental laboratory by the listed test methods or as may

be directed by the NMOCD. Table 2 summarizes the constituents of concern (COC), testing methods, and the closure limits defining action levels:

Constituents of Concern	Test Methods	Closure Limits (mg/Kg)
Benzene	EPA SW-846 Method 8021B or 8260B	0.2
BTEX	EPA SW-846 Method 8021B or 8260B	50
TPH	Method 418.1++	100
Chlorides	EPA SW-846 Method 300.1	250*

#### Table 2. Summary of COCs, Test Methods, and Closure Limits

\* Or background concentration – whichever is greater.

++ Not currently used USEPA Method (Replaced by Method 1664). Method 418.1 is required by NMOCD.

In the event soil is found to have contaminants in excess of the action levels above, requirements of 19.15.29 NMAC and 19.15.30 NMAC shall dictate further actions. Such action would likely include development of a Remedial Action Plan or Abatement Plan as specified under those Rules.

Sampling of any excavated or stockpiled material shall conform with standard environmental sampling protocol. Samples from excavated materials (excavated to facilitate the BGT removal) will be composite samples comprised of at least five discrete samples from the inside and on the surface of the soil pile. A minimum of one composite will be collected from each 25 cubic yards of soil (i.e. one fraction from each cubic yard). Every effort will be made to collect composite fractions from the inside and outside of the soil pile such that a "representative" sample is analyzed.

Stockpile sampling will be facilitated by utilizing a clean soil probe inserted into the soil pile at least three feet or by turning the soil pile with mechanized equipment to expose new soil. The goal is to collect a sample representative of the "whole". These samples will be handled and packaged as described above and be analyzed by the methods listed in Table 2. Soil with contaminant concentrations at or below the Closure Limits may be returned to the BGT excavation prior to initiating reclamation work.

# **Records and Documentation**

All closure activities will be properly documented and include preparation of Form C-144 which shall be submitted to the NMOCD within 60 days of completing closure tasks. Information to be included in the closure report filing shall include, but not necessarily be limited to, the following:

- Proof of closure notice to division and surface owner(s)
- Confirmation sampling and analytical reports (results)
- Disposal facility name and permit information
- Description of capping and reclamation actions (i.e. revegetation rates)
- Photo documentation of site reclamation
- Other information required to complete applicable sections of C-144

As stated above, should conditions at any location necessitate a change to the approach described herein, separate site specific closure details will be provided as an addendum to this plan.



Environmental Affairs 188 County Road 4900 Bloomfield, NM 87413 505/632-4600 505/632-4781 Fax

December 3, 2013

Mr. Jonathan Kelly New Mexico Oil Conservation Division 1000 Rio Brazos Aztec, NM 87410 RCVD DEC 3'13 OIL CONS. DIV. DIST. 3

RE: Below-Grade Tank Closure Plan Approval Request, Thompson Compressor Station, San Juan County, New Mexico

Dear Mr. Kelly,

Attached is a C-144 Below-Grade Tank Closure Application for closure of a below grade tank (BGT), identified as T-9, operated by Williams Four Corners LLC (Williams). The tank was located at the Thompson Compressor Station in a common lined pit and was taken out of service on November 9, 2013.

Williams requests a variance from the Pit Rule for use of Total Petroleum Hydrocarbons (TPH) via EPA SW-846 Method 418.1 for closure. We propose to use the sum of Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) via EPA SW-846 Method 8015M.

Please contact me at (505) 632-4606 with any questions regarding this closure.

Sincerely,

Graham Stahnke, PE Environmental Specialist

Attachments: C-144 BGT T-9 Williams Four Corners LLC, Closure Plan for Below Grade Tanks, San Juan Basin – New Mexico

۲	·	
<u>District 1</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 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	Form C-144 Revised June 6, 2013 For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office. For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.
	Pit Below-Grade Tank or	
12105/0 Proposed Alt	ernative Method Permit or Closure 1	Plan Application RECEIVED
Tad Sul <u>Toposed And</u>	Emative Method I emit of Closure I	
Type of action: Below Perm Closu Modi Closu or proposed alternative me	v grade tank registration it of a pit or proposed alternative method ire of a pit, below-grade tank, or proposed alternat fication to an existing permit/or registration ire plan only submitted for an existing permitted o thod	r non-permitted pit, below-gradeland DISTRICT III
Instructions: Please submit of	one application (Form C-144) per individual pit, below	y-grade tank or alternative-request
Please be advised that approval of this request does n environment. Nor does approval relieve the operator	ot relieve the operator of liability should operations result of its responsibility to comply with any other applicable g	in pollution of surface water, ground water or the overnmental authority's rules, regulations or ordinances.
1. Operator: Williams Four Corners LLC		
Address, 188 County Road 4900, Bloomfie	00000 #	
Facility or well name. Thompson Compress	or Station	
A DI Number	OCD Pormit Number	· · · · · · · · · · · · · · · · · · ·
Lui an Otriotre P Section 4	OCD Fernit Number	Country San Juan
U/L or Qtr/Qtr Section	Range Range	
Center of Proposed Design: Latitude Net-Design		NAD: []1927 🖬 1983
Surface Owner: E Federal State Private	Tribal Trust or Indian Allotment	
<ul> <li>Pit: Subsection F, G or J of 19.15.17.11 N</li> <li>Temporary: Drilling Workover</li> <li>Permanent Emergency Cavitation</li> <li>Lined Unlined Liner type: Thickness</li> <li>String-Reinforced</li> <li>Liner Seams: Welded Factory Other</li> </ul>	MAC P&A  Multi-Well Fluid Management  mil LLDPE HDPE Volume: bt	Low Chloride Drilling Fluid  yes no Other
3	••••••••••••••••••••••••••••••••••••••	
Below-grade tank: Subsection I of 19.15.1	.7.11 NMAC	
Volume:bbl Type of		
Tank Construction material:		
Secondary containment with leak detection	Visible sidewalls, liner, 6-inch lift and automatic o	overflow shut-off
☐ Visible sidewalls and liner ☐ Visible side	walls only 🔳 Other Single wall, double bollom	
Liner type: Thicknessm	il L HDPE PVC Other	
4		
Alternative Method:		·
Submittal of an exception request is required.	exceptions must be submitted to the Santa Fe Environment	ental Bureau office for consideration of approval.
<ul> <li>5.</li> <li>Fencing: Subsection D of 19.15.17.11 NMAC (</li> <li>Chain link, six feet in height, two strands of <i>institution or church</i>)</li> <li>Four foot height, four strands of barbed wire</li> </ul>	Applies to permanent pits, temporary pits, and below-g parbed wire at top (Required if located within 1000 feet evenly spaced between one and four feet	grade tanks) of a permanent residence, school, hospital,
Alternate. Please specify		
Form C-144	Oil Conservation Division	Page 1 of 6

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)

#### 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 19.15.16.8 NMAC

# Variances 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:

- Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
- Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

#### 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 acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks. **General siting** Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. 🗌 Yes 🗌 No NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 🗆 NA 🗌 Yes 🗌 No Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. 🗌 NA NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance Yes No adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks) Written confirmation or verification from the municipality; Written approval obtained from the municipality Within the area overlying a subsurface mine. (Does not apply to below grade tanks) 🗌 Yes 🗌 No Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division Within an unstable area. (Does not apply to below grade tanks) Yes No Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map Yes No Within a 100-year floodplain. (Does not apply to below grade tanks) FEMA map **Below Grade Tanks** Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured Yes No from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 🗌 Yes 🗌 No Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter) Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, Yes No or plava lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) Topographic map; Visual inspection (certification) of the proposed site Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial Yes No application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock $\Box$ Yes $\Box$ No watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application.

NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site

Within 100 feet of a wetland.       US Fish and Wildfit Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       U'res         Temporary Pit Non-low chloride drilling fluid       Within 300 feet of a continuously flowing watercorrse, or any other significant watercourse, or within 200 feet of any lakehed, sinkhole, or playa lake (measured from the ordinary high-water mark).       U'res         Within 300 feet of any other residence, school, hospital, institution, or church in existence at the time of initial application.       V res         Within 300 feet of any other fesh water well or spring, in the existence at the time of initial application.       V res         Within 300 feet of any other fesh water well or spring, in the existence at the time of the initial application.       V res         Within 300 feet of a wetland.       U S Fish and Wildliff Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       V res         Within 300 feet of a wetland.       U S Fish and Wildliff Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       V res         Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from a permaner residence, school, hopsital, institution, or church in existence at the time of initial application.       V res         Within 300 feet of a spring or a feet water well used for domestic or stock watering purposes, in existence at the time of initial application.       V res <t< th=""><th></th><th>•</th></t<>		•			
Temporary Pit Non-low chloride drilling fluid         Within 300 feet of a continuously flowing vatercourse, or my other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake imessared from the ordinary high-water mark). <ul> <li>Topographic map, Visual inspection (certification) of the proposed site</li> <li>Visual inspection (certification) of the proposed site; Aerial photo, Satellite image</li> <li>Within 300 heirontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> <li>Ves [</li> </ul> <li>Within 300 feet of a wetland.</li> <li>Us Fish and Wildliff Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> <li>Ves [</li> <li>Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured for the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> <li>Ves [</li> <li>Within 300 feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site.</li> <li>Within 300 feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site.</li> <li>Within 300 feet of a welland.</li> <li>US Fish and Wildliff Wetland Identification map; Topographic map; Visu</li>	<ul> <li>Within 100 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	Yes No			
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakeded, sinkhole, <ul> <li>Topgarphic may. Visual impection (certification) of the proposed site</li> <li>Visual inspection (certification) of the proposed site, Acrial photo, Satellite image</li> <li>Visual inspection (certification) of the proposed site, Acrial photo, Satellite image</li> <li>Visual inspection (certification) of the proposed site, Acrial photo, Satellite image</li> <li>Visual inspection (certification) of the proposed site, Acrial photo, Satellite image</li> <li>Visual inspection (certification) of the proposed site</li> <li>Ves</li> </ul> <li>Within 300 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> <li>Ves</li> <li>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 ortinny high-water matk).</li> <li>Topographic may. Visual inspection (certification) of the proposed site</li> <li>Ves</li> <li>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 ortinny high-water matk).</li> <li>Topographic may. Visual inspection (certification) of the proposed site</li> <li>Ves</li> <li>Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site.</li> <li>NO Office of the State Engineer - iWATERS database search, Visual inspection (certification) of the proposed site.<!--</td--><td>Temporary Pit Non-low chloride drilling fluid</td><td></td></li>	Temporary Pit Non-low chloride drilling fluid				
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.       \vec{vec}         Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well used by less than five households for domestic or stock watering purposes, in wistence at we taken of the proposed site       \vec{vec}         Within 300 feet of a vectand.       \vec{vec}       \vec{vec}         Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (messared from the ordinary high-water mark).       \vec{vec}         Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.       \vec{vec}         Visual inspection (certification) of the proposed site.       \vec{vec}       \vec{vec}         Within 500 feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       \vec{vec}         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the ine of initial application.       \vec{vec}	<ul> <li>Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	□ Yes □ No			
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application.       N Ves         Within 300 feet of a wethand.       Us Fish and Wildlife Wethand Identification map; Topographic map; Visual inspection (certification) of the proposed site       Y es         Permanent Pit or Multi-Well Fluid Management Pit       Within 300 feet of a centinuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).       Y es         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).       Y es         Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.       Y es         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       Y es         Within 500 feet of a wetland.       US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       Y es         Within 500 feet of a wetland.       US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       Y es         Within 500 feet of a wetland.       US Fish and Wildlife Wetland Identification m	<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	Yes No			
Within 300 feet of a wethand.	<ul> <li>Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No			
Permanent Pit or Multi-Well Fluid Management Pit         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         Within 1000 feet form a permanent residence, school, hospital, institution, or church in existence at the time of initial application.       □ Yes         • Visual inspection (certification) of the proposed site; Aerial photo; Satellite image       □ Yes         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       • Wes         • NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site       □ Yes         Within 500 feet of a welland.       • US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       □ Yes         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.       □ Subsection B of 19.15.17.9 NMAC         □ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC       □ Subsection D of 19.15.17.9 NMAC         □ Hydrogeologic Data (Temporary and Emergency Pity) - based upon the appropriate requirements of 19.15.17.10 NMAC       □ Design Plan - based upon the appropriate requirements of 19.15.17	<ul> <li>Within 300 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 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       Image: Visual inspection (certification) of the proposed site and the proposed site and the proposed site application.       Visual inspection (certification) of the proposed site application.         • Visual inspection (certification) of the proposed site, Aerial photo, Satellite image       Image: Visual inspection (certification) of the proposed site application.       Visual inspection (certification) of the proposed site application.         • NN Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site       Image: Ves Image	<u>Permanent Pit or Multi-Well Fluid Management Pit</u>				
Take (measured from the ordinary high-water mark).       Yes         Topographic map; Visual inspection (certification) of the proposed site       Yes         Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.       Yes         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       Yes         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       Yes         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       Yes         Within 500 feet of a wetland.       US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       Yes         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.       Plast in the box, that the documents are attached.         Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of 19.15.17.19 NMAC       Subsection B of 19.15.17.9 NMAC         Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC       Cosure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of 19	Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa				
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.       Yes [         Visual inspection (certification) of the proposed site, Aerial photo, Satellite image       Yes [         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       Yes [         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       Yes [         Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application.       Yes [         Within 500 horizontal feet of a weltand.       US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site       Yes [         Imatructions: 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.       Yes [         Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC       Sting Criteria Compliance Demonstrations - based upon the appropriate requirements of Paragraph (2) of Subsection B of 19.15.17.9 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         Imatructions: Each of the following items must be attached to the application. Pleas	- Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No			
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. <ul> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> <li>Ves</li> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> <li>Ves</li> <li>In.</li> <li>Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application. Attachment Checklist:</li> <li>Subsection B of 19.15.17.9 NMAC</li> <li>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.</li> <li>Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC</li> <li>Sting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Previously Approved Design (attach copy of design) API Number: or Permit Number:</li></ul>	<ul> <li>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No			
Initial approximation of the state Engineer - iWATERS database search; Visual inspection (certification) of the proposed site   Within 500 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site Yes   Image: 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 appropriate requirements of Paragraph (2) 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   Bydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of 19.15.17.10 NMAC   Design Plan - based upon the appropriate requirements of 19.15.17.10 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   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.   Previously Approved Design (attach copy of design)   API Number:   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.   Previously Approved Design (attach copy of design)   API Number:   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.   Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Instructions: Each of	Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application				
Within 500 feet of a wetland.	- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No			
10.       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         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 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.         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.         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.         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.         Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that th	<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No			
II.         Multi-Well Fluid Management Pit 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. <ul> <li>Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>A List of wells with approved application for permit to drill associated with the pit.</li> <li>Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC</li> <li>Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.10 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> </ul> Previously Approved Design (attach conv of design) <ul> <li>APl Number:</li> <li>Or Permit Number:</li> </ul>	10.         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 19.15.17.10 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:				
	11.         Multi-Well Fluid Management Pit 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 dot attached.         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         A List of wells with approved application for permit to drill associated with the pit.         Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC         Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC         Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC         Previously Approved Design (attach copy of design)       API Number: or Permit Number: or Permit Number:	cuments are .15.17.9 NMAC			

•

•

12.	
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC	lo orregante ano
attached.	locuments are
<ul> <li>Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Climatological Factors Assessment</li> </ul>	
Certified Engineering Design Plans - 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 Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC	
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC	
Quality Control/Quality Assurance Construction and instantation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC	
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC	
$\square$ Emergency Response Plan	
Oil Field Waste Stream Characterization	
Erosion Control Plan	
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	
13. <u>Proposed Closure</u> : 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 Multi-well Fl	uid Management Pit
Proposed Closure Method: Waste Excavation and Removal	
<ul> <li>Waste Removal (Closed-loop systems only)</li> <li>On-site Closure Method (Only for temporary pits and closed-loop systems)</li> </ul>	
In-place Burial On-site Trench Burial	
14.	
waste Excavation and Removal Closure Plan Checkist.       (19.15.17.15 NMAC) Instructions. Each of the following items must be a 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 C 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 H of 19.15.17.13 NMAC             Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	nnachea io me
15.	
Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. P 19.15.17.10 NMAC for guidance.	ce material are lease refer to
Ground water is less than 25 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
<ul> <li>Ground water is between 25-50 feet below the bottom of the buried waste</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>	□ Yes □ No □ NA
<ul> <li>Ground water is more than 100 feet below the bottom of the buried waste.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>	□ Yes □ No □ NA
<ul> <li>Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	Yes No
<ul> <li>Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application.</li> <li>NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	🗌 Yes 🗌 No
Written confirmation or verification from the municipality; Written approval obtained from the municipality Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☐ No ☐ Yes ☐ No

•

•

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
<ul> <li>Within the area overlying a subsurface mine.</li> <li>Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>	🗌 Yes 🗌 No
Within an unstable area.	
<ul> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society: Topographic map</li> </ul>	
Within a 100-year floodplain.	Yes No
- FEMA map	Yes No
<ul> <li>16.</li> <li>On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plane by a check mark in the box, that the documents are attached.</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC</li> <li>Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.13 NMAC</li> <li>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</li> <li>Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards canned Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> <li>Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> </ul>	an. Please indicate, 11 NMAC 15.17.11 NMAC ot be achieved)
17. 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 believed and be	ef.
Name (Print): Title:	
Signature: Date:	
Signature:       Date:         e-mail address:       Telephone:	
Signature:       Date:         e-mail address:       Telephone:         Is.       Telephone:         OCD'Approval:       Permit Application (including closure plan)         Is.       OCD Conditions (see attachment)	
Signature: Date:   e-mail address: Telephone:   Is. OCD 'Approval:   OCD 'Approval: Permit Application (including closure plan)   Is. OCD Conditions (see attachment)   OCD Representative Signature: Approval Date:	-/15
Signature:       Date:         e-mail address:       Telephone:         Image: Constraint of the sector of the	-/15
Signature:       Date:         e-mail address:       Telephone:         18.       OCD'Approval:       Permit Application (including closure plan)       Closure Plan(only)       OCD Conditions (see attachment)         OCD Representative Signature:       Approval Date:       2/5         Title:       Falsion Merched       Spec       OCD Permit Number:         19.       Closure Report (required within 60 days of closure completion):       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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed.         Image: Closure Completion Date:       10/28/2014	the closure report. complete this
Signature:	the closure report. complete this

.

.

#### 22. Operator Closure Certification:

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 belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Matt Webre	Title:
Signature:	Date:
e-mail address: matt.webre@williams.com	Telephone: 505-632-4442

3

٠,



188 County Road 4900 Bloomfield, NM 87413 (505) 632-4700 Fax (505) 632-4782

# <u>US Mail</u>

November 13, 2014

Mr. Cory Smith Environmental Specialist New Mexico Oil Conservation Division 1000 Rio Brazos Aztec, NM 87410

RECEIVED FEB 0 2 2015 NMOCD DISTRICT III

÷.

Re: C-144 Below-Grade Tank Closure, Thompson Compressor Station, San Juan County, New Mexico

Dear Mr. Smith,

Williams Four Corners LLC (Williams) is submitting the C-144 Below-Grade Tank (BGT) Closure for the Thompson Compressor Station. The closure plan was approved by the New Mexico Oil Conservation Division (NMOCD) on December 3, 2013.

A fire occurred at the facility on the evening of Friday, November 8, 2013 associated with operation of one of the BGTs. During removal of the BGTs and liner, impacted soils were discovered beneath the BGTs that were determined to be associated from a historical release. Remediation activities including removal of impacted soil to bedrock and two applications of potassium permanganate were performed to achieve NMOCD remediation action levels. A summary of the historical activities completed between November 8, 2014 and October 30, 2014 are presented Table 1. A total of five (5) sampling events were performed between December 16, 2013 and October 30, 2014 and the soil analytical results are summarized in Table 2.

The TPH concentration as determined by United Station Environmental Protection Agency (USEPA) Method 418.1 in the most recent confirmation sample slightly exceeded the New Mexico Oil and Gas Conservation Division (NMOCD) standard for BGT closures established in 19.15.17 New Mexico Administrative Code (NMAC) with a concentration of 120 milligrams per kilogram (mg/kg). The sample was also analyzed for total petroleum hydrocarbons – gasoline range organics (TPH-GRO) and total petroleum hydrocarbons – diesel range organics (TPH-DRO) by USEPA Method 8015. No benzene, toluene, ethyl benzene, or TPH-DRO were detected in the most recently collected soil sample. Total Xylenes and TPH-DRO were detected at low concentrations, however all concentrations with the exception of TPH Method 418.1 result are below the NMOCD remediation action levels. Based on this information, it can be

Mr. Cory Smith November 13, 2014 Page 2

deduced that the remaining soil impact beneath the former BGT is in the heavier hydrocarbon range (oil range organics), which is less likely to mobilize in the soil. It should be noted that there was a liner in place below the BGT prior to closure so the cleanup standards used to determine closure should be the NMOCD remediation action levels (TPH with Method 8015) and not the Pit Rule (TPH with 418.1) because it was an historical release not associated with the BGT.

з

Please contact me at (505) 632-4442 with any questions regarding this information.

ġ,

Sincerely,

This 

Matt Webre, PG Supervisor, Environmental Services

Attachments

cc: Shari Ketcham (BLM)

# Table 1. Historical Summary for BGT Closure

.

Williams Four Corners, LLC - Thompson Compressor Station

Date	Description
November 8, 2013	Fire occurred at the Thompson Compressor Station associated with a Below-Grade Tank (BGT). The
	New Mexico Oil Conservation Division (NMOCD) along with other regulatory agencies were
	immediately notified of the fire.
November 18, 2013	Submitted final C-141 to NMOCD and BLM documenting the Thompson fire/release.
December 10, 2013	Williams submits notifications via email of the BGT closure to commence on December 13, 2014.
December 13, 2013	Williams initiates BGT closure activities including removal of BGT and impacted soils.
December 16, 2013	Williams collects samples (Thompson Seperator Pit 001 side and Thompson Seperator Pit 002 Bot)
	from bottom and sidewalls of open excavation. The results indicate that the concentrations on the
	bottom of the excavation exceed closure standards for total BTEX and TPH of 50 mg/kg and 100 mg/kg,
	respectively.
January 13, 2014	Williams collects sample (Thompson CS 003 Bottom Comp) from bottom of open excavation. The
	results indicate that the concentrations on the bottom of the excavation exceed closure standards for
	total TPH.
March 21, 2014	The bottom of the excavation is treated with potassium permanganate after receiving approval from
	the NMOCD and the landowner.
March 31, 2014	Williams collects sample (Thompson Trunk A Pits Bottom) from bottom of open excavation. The results
	indicate that the concentrations on the bottom of the excavation exceed closure standards for total
	трн.
April 24, 2014	BLM provides approval for Williams to backfill the excavation (to address safety concerns) upon the
	agreement to resample in 6 months (October 2014).
June 2, 2014	The bottom of the excavation is re-treated with potassium permanganate. Williams collects sample
	(Thompson TRK-A Pit Bottom C) from bottom of open excavation. The results indicate that the
	concentrations on the bottom of the excavation exceed closure standards for total TPH. Williams
	backfills the excavation and plans on resampling in October 2014.
October 28, 2014	Williams provides notification to BLM of planned sampling event.
October 30, 2014	Williams collects sample (TRK-A Pit Resample) from bottom of open excavation. The results indicate
	that the concentrations on the bottom of the excavation slightly exceed closure standards for total
	TPH based on Method 418.1, however the TPH results are below the closure standards based on
	Method 8015.

# Table 2. Summary of Soil Analytical Results Williams Four Corners LLC - Thompson Compressor Station

		Sample ID	Thompson Seperator	Thompson Seperator	Thompson CS 003	Thompson Trunk A	Thompson TRK-A Pit	TRK-A Pit
Sample ID		Pit 001 Side	Pit 002 Bot	Bottom Comp	Pits Bottom	Bottom C	Resample	
		Sample Date	12/16/2013	12/16/2013	1/13/2014	3/31/2014	6/2/2014	10/30/2014
Analyte	Method	Units					- ·	
Benzene	8021B	mg/kg	<0.049	0.83	<0.94	<0.23	<0.048	<0.049
Toluene	8021B	mg/kg	<0.049	16	3.3	0.48	<0.096	<0.049
Ethylbenzene	8021B	mg/kg	<0.049	2.4	2.5	<0.23	0.26	<0.049
Xylenes, Total	8021B	mg/kg	<0.049	42	39	15	<0.19	0.14
BTEX, Total		mg/kg	<0.049	61.23	44.8	15.48	0.26	0.14
TPH-DRO	8015	mg/kg	NA	NA	200	240	NA	41
TPH-GRO	8015	mg/kg	<4.9	620	460	250	NA	<4.9
ТРН	418.1	mg/kg	<20	610	840	750	480	120
Chlorides	300	mg/kg	58	30	NA	NA	NA	42

 $\overline{v}^{i}$ 

Notes:

mg/kg = milligrams per kilogram

NA = Not analyzed

Non-detected results are indicated "<" with laboratory method detection limit (<0.049)

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

API No.

# **Release Notification and Corrective Action**

	<b>OPERATOR</b>	Initial Report	Final Report
Name of Company Williams Four Corners LLC	Contact Graham Stahnke, PE		
Address 188 CR 4900, Bloomfield, NM 87413	Telephone No. 505-632-4606		
Facility Name Thompson Compressor Station	Facility Type Compressor Station		
· · · · · · · · · · · · · · · · · · ·			

Surface	Owner	BLM

# LOCATION OF RELEASE

Mineral Owner

Unit Letter P	Section 4	Township 30N	Range 12W	Feet from the	North/South Line	Feet from the	East/West Line	County San Juan
	1							

Latitude <u>36° 50.0550 N</u> Longitude <u>108° 5.8700 W</u>

# NATURE OF RELEASE

Trans of Dalasan Fine	VI CD1 (10)(CD	NUL D	1 314							
Type of Release Fire	Volume of Release 41.2 MCF	Volume Re	ecovered NA							
Source of Release Produced Water Tank caught fire	Date and Hour of Occurrence	Date and F	lour of Discovery							
	11/08/2013, 6:00 PM	11/08/2013	3, 6:00 PM							
Was Immediate Notice Given?	If YES, To Whom?									
🖾 Yes 🔲 No 🔲 Not Required	ved Verbal to NMOCD (Brandon Powell) and BLM (Ranger on scene)									
By Whom? Matt Webre, PG	Date and Hour 11/08/2013, 6:30 PM									
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.								
🗌 Yes 🖾 No										
If a Watercourse was Impacted, Describe Fully.*			· · · · · · · · · · · · · · · · · · ·							
r.	3									
Describe Cause of Problem and Remedial Action Taken.*	· · · · · · · · · · · · · · · · · · ·									
On Friday, November 8, 2013 at 5:55 PM, as Williams personnel were p	reparing to leave the facility, a below	grade produce	d water tank caught on fire at							
the Thompson Compressor Station. The fire caused a facility shut down	which allowed 41.2 MCF of natural ga	is to be release	ed to the atmosphere. The fire							
was extinguished at approximately 7:00 PM by county and local fire dep	artments. No produced water was rele	ased as a resu	t of the fire. No injuries							
occurred, however three nearby residences were evacuated. The root cau	se of the incident is under investigation	n.								
Describe Area Affected and Cleanup Action Taken *	· · · ·	· · · · · · · · · · · · · · · · · · ·								
After the fire was extinguished fire watch was implemented for 30 minu	tes and the tank was checked for heat	The below g	rade tank that caught fire was							
removed on Saturday November 9, 2013. There was no damage to the tai	nk other charring. The below grade to	nk will be ck	sed out in accordance with the							
Temoved on Saturday November 9, 2015. There was no damage to the tank other charring. The below grade tank will be closed out in accordance with the NMOCD Bit Bulo, with additional correspondence to follow this patification.										
I hereby certify that the information given above is true and complete to	the best of my knowledge and underst	and that pure	ant to NMOCD rules and							
received the and complete to report and/or file contain releases	netifications and perform corrective of	and that pursu	and to NMOCD fulles and							
regulations an operators are required to report and/of the certain release $f$ while health or the any iron ment. The appendiculations of a C 141 report by the	he NMOCD mericed on "Einel Benert"	doog not rolig	us the operator of lightlity							
build their exercises have failed to adequately investigate and remadic	te contemination that none a threat to	does not rene	surface water, human health							
should their operations have failed to adequately investigate and remedia	the contamination that pose a threat to	ground water,	surface water, numan nearth							
or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other										
federal, state, or local laws and/or regulations.										
Au Sala	OIL CONSERVATION DIVISION									
AT 245										
Signature:										
	Approved by Environmental Specialist:									
Printed Name: Graham Stahnke, PE										
Title: Environmental Specialist	Approval Date:	ate:								
	· · ·	•								
E-mail Address: graham.stahnke@williams.com	Conditions of Approval:									
	Attached []									
Date: 11/18/13 Phone: 505-632-4606										

\* Attach Additional Sheets If Necessary

.

•

State of New Mexico Energy Minerals and Natural Resources

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

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

					ana r	C, INIVI 075	03					
			Rele	ease Notific	catio	n and Co	orrective A	ction	l			A.
						OPERATOR			🛛 Initial Report 🔲 Final Repor			
Name of Company Williams Four Corners LLC						Contact Matt Webre						
Address 188 CR 4900, Bloomfield, NM 87413					Telephone No. 505-632-4606							
Facility Name         Thompson Compressor Station         I					Facility Type Compressor Station							
Surface Owner BLM Mineral Owner						<u> </u>		API No				
				LOCA	<b>ATIO</b>	N OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the	North	n/South Line	Feet from the	East/V	Vest Line	County		
Р	4	30N	12W							San Juan		
	I	I	[	Latitude <u>36.83</u>	4839°	<u>N</u> Longitud	e <u>108.098698°V</u>	<u> </u>		[		
				NAT	TURF	C OF REL	EASE	_				
Type of Rele	ase Produ	ced Water/Co	ndensate			Volume of	Release Unknow	vn	Volume F	Recovered	NA	
Source of Re	lease Histo	oric Release				Date and I	lour of Occurrenc	nce Date and Hour of Discove			covery	
Was Immedi	ate Notice (	Given?		. <u>.</u>		Historic	Whom?		Historic			
was minicul			Yes 🗌	] No 🛛 Not R	equired		whom:					
By Whom?						Date and Hour						
Was a Water	course Read	ched?				If YES, Vo	olume Impacting t	the Wate	ercourse.			
			Yes 🗵	No								
Describe Cau During remo	use of Probl val of a 50	emand Reme bbl below-grad	dial Actio de tank an	n Taken.* d liner, a historic	release	was discovere	ed.			ą:		
Describe Are Remediation	a Affected activities w	and Cleanup / /ill occur in th	Action Tal e near futi	Ire.								
I hereby certi regulations a public health should their of or the enviro federal, state	fy that the Il operators or the envi operations h nment. In a , or local lat	information g are required t ronment. The nave failed to addition, NMC ws and/or regu	iven above o report and acceptane adequately OCD accept ulations.	e is true and comp nd/or file certain r ce of a C-141 repo v investigate and r otance of a C-141	olete to release ort by t remedia report	the best of my notifications a he NMOCD m the contaminat does not reliev	knowledge and u nd perform correc arked as "Final R ion that pose a thr e the operator of	inderstan ctive act leport" c reat to gu respons	nd that purs ions for rele loes not rel round water ibility for c	suant to NM eases which ieve the ope r, surface wa ompliance v	OCD r may e rator o ater, hu vith an	ules and ndanger f liability man health y other
$\int d \sigma$						OIL CONSERVATION DIVISION						
Signature:	1h	$\leq$	<del>.</del>									
Printed Name: Matt Webre					Approved by Environmental Specialist:							
Title: Superv	visor, Envir	onmental Ser	vices			Approval Date:			Expiration Date:			
E-mail Addr	ess:_matt.w	ebre@willian	ns.com			Conditions of Approval:			Attachec	tached		
Date: N	ovember 12	2, 2014	Р	hone: 505-632-44	42		······					

,

\* Attach Additional Sheets If Necessary



Williams Four Corners LLC Below Grade Tank Closure Report Location Name: Thompson Compressor Station API Number: NA

The following provides information related to the closure of the below-grade tank (BGT) at the named location. All work was performed in accordance with Rule 19.15.17.13 NMAC and was consistent with the Williams BGT Closure Plan approved by NMOCD with any exceptions described below.

Requirement: Provide notices to NMOCD and landowner prior to closure actions.

<u>Action</u>: A fire occurred at the Thompson Compressor Station on Friday, November 8, 2014. Immediate notifications were made to the NMOCD Aztec District Office and the landowner (Bureau of Reclamation [BLM]) in accordance with release reporting requirements. The final C-141 submitted to the NMOCD and the BLM documenting the notifications is attached. As part of continuing actions associated with the fire, Williams removed the BGT from the facility. The BGT was located on a lined containment and impacts were discovered beneath the tank upon removal of the BGT and liner. After removal of the BGT and liner, it was determined that the discovered impacts were associated with a historical release. The C-141 documenting the historical release is attached.

The email notification to the NMOCD documenting the proposed BGT removal date is included with the closure report. The notification provided to the BLM regarding the BGT removal date cannot be located. It should be noted that Williams was in continual contact with the BLM starting with the initial release notification associated with the fire and follow up remediation discussions.

**Requirement:** Eliminate discharge to BGT and remove free-standing liquids from BGT and or containment.

<u>Action</u>: Discharge to the BGT was eliminated and liquids, when present, were removed by a licensed hauler and taken to a NMOCD-permitted facility listed in the aforementioned closure plan.

Requirement: Remove ancillary equipment including piping, liner material, and fencing.

<u>Action</u>: Piping, liner material, and fencing were removed in advance or at the time of BGT retirement work. Scrap steel was recycled or placed in a Williams-owned storage area to allow evaluation for final disposition.

**Requirement:** Sample and test soils beneath the BGT to determine if there was hydrocarbon impact.

<u>Action</u>: Five point composite soil samples were collected from beneath the BGT and analyzed for TPH, BTEX and chlorides. Results are attached to the C-144 Closure Form and are part of the closure documentation.

**Requirement:** Address contamination consistent with the Closure Plan or Remedial Action Plan/Protocol.

<u>Action:</u> Contaminated soil was disposed at the JFJ Landfarm c/o Industrial Ecosystem, Inc. (IEI) NMOCD permit number NM-01-0010B (identified in the approved Closure Plan).

**Requirement:** Backfill containment/excavation with acceptably clean materials and return area to grade such that ponding and erosion are mitigated.

<u>Action</u>: Clean soil (as defined) was used to return the BGT area to grade and was contoured/leveled consistent with the Pit Rule criteria.

Requirement: Reclaim and re-seed the area consistent with the Pit Rule and Closure Plan criteria.

<u>Action:</u> This requirement was not completed as the BGT was located within an active compressor station. As stated in the approved plan, this requirement is deferred when the facility is reclaimed.

Any additional work performed and not described herein was completed consistent with the BGT Closure Plan and/or applicable NMOCD requirements. Further information is provided in the C-144 Closure Form as specified in the Pit Rule.

# Webre, Matt

From: Sent: To: Subject: Kelly, Jonathan, EMNRD <Jonathan.Kelly@state.nm.us> Tuesday, December 10, 2013 8:54 AM Stahnke, Graham RE: Thompson Compressor BGT Permits

Thank you Graham.

Jonathan D. Kelly Compliance Officer Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 122 jonathan.kelly@state.nm.us

From: Stahnke, Graham [mailto:Graham.Stahnke@williams.com]
Sent: Tuesday, December 10, 2013 8:04 AM
To: Kelly, Jonathan, EMNRD
Subject: RE: Thompson Compressor BGT Permits

Hi Jonathan,

We are planning on starting the Thompson BGT closure on Friday (12/13/13). We will be locating an adjacent 10-inch line on Thursday prior to starting excavation on Friday.

Best Regards, Graham

Graham Stahnke, PE | Environmental Specialist, Environmental Services - FCÁ | Operational Excellence | Williams O: 505-632-4606 | C: 505-258-9277 graham.stahnke@williams.com

"Achieving environmental excellence through stewardship, common sense, and innovation for our company, customers and communities."

From: Stahnke, Graham Sent: Wednesday, December 04, 2013 8:28 AM To: 'Kelly, Jonathan, EMNRD' Subject: RE: Thompson Compressor BGT Permits

Thanks Jonathan,

We will likely complete closure in the next couple weeks and I will provide NMOCD with the necessary notice prior to closure activities in accordance with the Pit Rule.

Best Regards, Graham

Graham Stahnke, PE | Environmental Specialist, Environmental Services - FCA | Operational Excellence | Williams O: 505-632-4606 | C: 505-258-9277 graham.stahnke@williams.com

"Achieving environmental excellence through stewardship, common sense, and innovation for our company, customers and communities."
From: Kelly, Jonathan, EMNRD [mailto:Jonathan.Kelly@state.nm.us] Sent: Wednesday, December 04, 2013 8:04 AM To: Stahnke, Graham Subject: FW: Thompson Compressor BGT Permits

As requested, here are approved copies of the 2 Thompson Compressor Station BGT Closure Permits.

Jonathan D. Kelly Compliance Officer Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 122 jonathan.kelly@state.nm.us

From: Atchley, Calvin, EMNRD Sent: Wednesday, December 04, 2013 7:15 AM To: Kelly, Jonathan, EMNRD Subject: Permits

Jonathan,

Attached are the permits you requested. Thanks.

Calvin

#### Webre, Matt

From: Sent: To: Cc: Subject: Franchini, Jana Tuesday, October 28, 2014 4:54 PM Ketcham, Shari Webre, Matt FW: Thompson Compressor

Shari,

We are planning to perform the re-sampling event at Thompson this Thursday, October 30th.

In addition, we will keep you informed of the results.

Sincerely,

Jana

From: Ketcham, Shari [mailto:sketcham@blm.gov] Sent: Thursday, April 24, 2014 1:59 PM To: Stahnke, Graham Subject: Thompson Compressor

As per our phone conversation a few minutes ago, Williams is approved to close the excavation at Thompson Compressor since the DRO is at 240 ppm and has dropped 220 ppm since January.

1

Please send me a copy of the soil sample results for the file.

We discussed and agreed upon re-sampling in 6 months, ~October 24th, 2014.

Thank you!

Shari Ketcham Natural Resource Specialist, Spills Biologist BLM Farmington Field Office 6251 College Blvd Suite A Farmington, NM 87402 Office: (505) 564-7713 Fax: (505) 564-7607



\*\* .



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

December 20, 2013

Graham Stahnke Williams Field Services 188 Co. Rd 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

RE: Thompson Seperator Pit

OrderNo.: 1312738

ð

Dear Graham Stahnke:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/17/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

andig

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

#### **Analytical Report** Lab Order 1312738

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/20/2013

CLIENT: WI	illiams Field Services		(	Client Sample ID: Thompson Seperator Pit 001 side
Project: The	nompson Seperator Pit			Collection Date: 12/16/2013 11:55:00 AM
Lab ID: 131	12738-001	Matrix:	MEOH (SOIL)	Received Date: 12/17/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	12/18/2013 1:05:05 PM	R15586
Surr: BFB	98.6	74.5-129	%REC	1	12/18/2013 1:05:05 PM	R15586
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.049	mg/Kg	1	12/18/2013 1:05:05 PM	R15586
Toluene	ND	0.049	mg/Kg	1	12/18/2013 1:05:05 PM	R15586
Ethylbenzene	ND	0.049	mg/Kg	1	12/18/2013 1:05:05 PM	R15586
Xylenes, Total	ND	0.097	mg/Kg	1	12/18/2013 1:05:05 PM	R15586
Surr: 4-Bromofluorobenzene	105	80-120	%REC	1	12/18/2013 1:05:05 PM	R15586
EPA METHOD 300.0: ANIONS					Analyst	JRR
Chloride	58	1.5	mg/Kg	1	12/18/2013 5:40:26 PM	10863
EPA METHOD 418.1: TPH					Analyst	JME
Petroleum Hydrocarbons, TR	ND	20	mg/Kg	1	12/18/2013	10802

3

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 1 of 5 Sample pH greater than 2 for VOA and TOC only. Р
- Reporting Detection Limit RL

### **Analytical Report** Lab Order 1312738

#### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 12/20/2013 Client Sample ID: Thompson Seperator Pit 002 Bot Collection Date: 12/16/2013 12:30:00 PM

**CLIENT:** Williams Field Services Thompson Seperator Pit **Project:** 

Lab ID: 1312738-002 Matrix: MEOH (SOIL) Received Date: 12/17/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RAN	GE					Anal	yst: NSB
Gasoline Range Organics (GRO)	620	43		mg/Kg	10	12/18/2013 12:36:23	9 PM R15586
Surr: BFB	245	74.5-129	S	%REC	10	12/18/2013 12:36:23	8 PM R15586
EPA METHOD 8021B: VOLATILES						Anal	yst: NSB
Benzene	0.83	0.43		mg/Kg	10	12/18/2013 12:36:23	8 PM R15586
Toluene	16	0.43		mg/Kg	10	12/18/2013 12:36:23	3 PM R15586
Ethylbenzene	2.4	0.43		mg/Kg	10	12/18/2013 12:36:23	8 PM R15586
Xylenes, Total	42	0.87		mg/Kg	10	12/18/2013 12:36:23	8 PM R15586
Surr: 4-Bromofluorobenzene	121	80-120	S	%REC	10	12/18/2013 12:36:23	8 PM R15586
EPA METHOD 300.0: ANIONS						Anal	yst: JRR
Chloride	30	1.5		mg/Kg	1	12/18/2013 6:05:15	PM 10863
EPA METHOD 418.1: TPH						Anal	yst: JME
Petroleum Hydrocarbons, TR	610	20		mg/Kg	1	12/18/2013	10802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

\* Value exceeds Maximum Contaminant Level.

Е Value above quantitation range

Qualifiers:

- Analyte detected below quantitation limits J
- 0 RSD is greater than RSD1imit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н

ND Not Detected at the Reporting Limit Page 2 of 5

- Sample pH greater than 2 for VOA and TOC only. Р
- Reporting Detection Limit RL

WO#: 1312738

#### 20-Dec-13

## Hall Environmental Analysis Laboratory, Inc.

Client:	Williar	Williams Field Services								
Project:	Thomp	son Seperator Pit	t							
Sample ID	MB-10802	SampType:	MBLK	TestCode: EPA Method 418.1: TPH						
Client ID:	PBS	Batch ID:	10802	F	lunNo: 18	5588				
Prep Date:	12/16/2013	Analysis Date:	12/18/2013	5	eqNo: 44	48814	Units: mg/H	٢g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyo	Irocarbons, TR	ND	20							
Sample ID	ample ID LCS-10802 SampType: LCS TestCode: EPA Method 418.1: TPH									
Client ID:	LCSS	Batch ID:	10802	F	RunNo: <b>18</b>	5588				
Prep Date:	12/16/2013	Analysis Date:	12/18/2013	S	SeqNo: 44	48821	Units: mg/M	٢g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	irocarbons, TR	95	20 100.0	0	95.3	80	120			
Sample ID	LCSD-10802	SampType:	LCSD	Tes	tCode: EF	PA Method	418.1: TPH			
Client ID:	LCSS02	Batch ID:	10802	F	RunNo: 15	5588		-		
Prep Date:	12/16/2013	Analysis Date:	12/18/2013	S	eqNo: 44	48826	Units: mg/k	٢g		
Analyte		Result PC	L SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	Irocarbons, TR	96	20 100.0	0	96.5	80	120	1.27	20	

Qualifiers:

â

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

۰.

- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1312738

20-Dec-13

Client: Project:	Williams Thompso	s Field Serv on Seperato	ices r Pit								
Sample ID       MB-10837 MK       SampType:       MBLK         Client ID:       PBS       Batch ID:       R15586         Prep Date:       Analysis Date:       12/18/2013			Tes F	tCode: El RunNo: 1 SeaNo: 4	PA Method 5586 49123	8015D: Gasc	oline Rang	e			
Analyte Gasoline Range Surr: BFB	Organics (GRO)	Result ND 920	PQL 5.0	SPK value	SPK Ref Val %REC LowLimit		HighLimit	%RPD	RPDLimit	Qual	
Sample ID L Client ID: L	CS-10837 MK CSS	SampT Batch	ype: LC	LCS TestCode: EPA Method R15586 RunNo: 15586			PA Method	8015D: Gasc	bline Rang	e	
Analyte Gasoline Range Surr: BFB	Organics (GRO)	Result 27 980	ate: 12 PQL 5.0	2/18/2013 SPK value 25.00 1000	SPK Ref Val	%REC 107 98.2	49124 LowLimit 74.5 74.5	Units: mg/F HighLimit 126 129	kg <u>%RPD</u>	RPDLimit	Qual

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDImit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 4 of 5

î:

WO#:	1312	738
	<b>2</b> 0 <b>D</b>	

## Hall Environmental Analysis Laboratory, Inc.

Ð

Client: William Project: Thomp:	ns Field Serv son Seperato	services erator Pit				1								
Sample ID MB-10837 MK	SampT	уре: МВ	BLK	Tes	tCode: El	PA Method	od 8021B: Volatiles							
Client ID: PBS	Batcl	h ID: <b>R1</b>	5586	RunNo: 15586										
Prep Date:	Analysis D	Date: 12	2/18/2013	S	SeqNo: 4	449140 Units: mg/Kg								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	ND	0.050							1					
Toluene	ND	0.050												
Ethylbenzene	ND	0.050												
Xylenes, Total	ND	0.10		,										
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120							
Sample ID LCS-10837 MK	Samp1	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles						
Client ID: LCSS	Batcl	h ID: <b>R1</b>	5586 <sup>°</sup>	F	RunNo: 1	5586								
Prep Date:	Analysis E	Date: 12	2/18/2013	S	SeqNo: 4	49141	Units: mg/k	٢g						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	1.0	0.050	1.000	0	104	80	120							
Toluene	1.0	0.050	1.000	0	102	80	120							
Ethylbenzene	1.0	0.050	1.000	0	104	80	120							
Xylenes, Total	3.1	0.10	3.000	0	102	80	120	•						
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120							

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environme TEL: 505-345-3 Website: www	ntal Analysis Labor 4901 Hawkin Albuquerque, NM 8 1975 FAX: 505-345- v.hallenvironmenta	atory ns NE 17105 <b>Sam</b> 1.com	ple Log-In Check List						
Client Name: WILLIAMS FIELD SERVI	Work Order Num	ber: 1312738	RcptNo: 1							
Received by/date:	12/17/13	3		· ·						
Logged By: Michelle Garcia	12/17/2013 10:00:0	IO AM	Minute Ca	nin						
Completed By: Michelle Garcia	12/17/2013 10:18:2	7 AM	Minute Cp	uie						
Reviewed By:	12/17/2013	b								
Chain of Custody	1									
1. Custody seals intact on sample bottles?		Yes 🗌	No. 🗌	Not Present 🗹						
2. Is Chain of Custody complete?		Yes 🔽	No 🗌	Not Present						
3. How was the sample delivered?		Courier								
<u>Log In</u>										
4. Was an attempt made to cool the samples	?	Yes 🗹	No 🗌							
5. Were all samples received at a temperatur	e of  >0° C to 6.0°C	Yes 🗹	No 🗌							
6. Sample(s) in proper container(s)?		Yes 🔽	No 🗍							
7. Sufficient sample volume for indicated test	(s)?	Yes 🔽	No 🗌							
8. Are samples (except VOA and ONG) prope	rly preserved?	Yes 🗹	No 🗌							
9. Was preservative added to bottles?		Yes	No 🗹	NA 🗌						
10.VOA vials have zero headspace?		Yes 🗌	No 🗌	No VOA Vials 🗹						
11. Were any sample containers received brok	xen?	Yes	No 🗹	# of preserved						
12.Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🔽	No 🗌	bottles checked for pH: (<2 or >12 unless not						
13. Are matrices correctly identified on Chain of	f Custody?	Yes 🗹	No 🗌	Adjusted?						
14. Is it clear what analyses were requested?		Yes 🗹	No							
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes 🗹	No 🗌	Checked by:						
Special Handling (if applicable)										

 $\hat{}$ 

16. Was client notified of all o	liscrepancies with this order?	Yes	No 🗹	NA 🗌
Person Notified:		Date:		
By Whom:		Via: 📋 eMail 🗌 P	hone 🗌 Fax 🔲 li	n Person
Regarding:				
Client Instructions:	a com a fair ach a chantaire an Sararan baan ta carta a carta sanan	1999 - 1997 - 19		and a state state state

17. Additional remarks:

18. Cooler Information

Cooler No Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1 2.6	Good	Yes			

Ċ	hain	of-Cu	ustody Record	Turn-Around	Time:									<b>A 11</b> .	<i></i>	• •	<b></b>			
Client:	NES	<u> </u>		□ Standard	Rush	30	147				A	al Na		NN STS	71F 5 I	CU _AF	N F 30	RA RA	TOF	8Y
4	<u>~</u>	· •		Project Name		2_4.4	0:4		<u>+</u> -*					viron	men	tal co				~ •
Mailing	Address	: 188	CR 4900	THOMP	Ser Jer	err"	<i>,</i> ,,,		49(	)1 H	awkir	is NE	- Ali	ouau	erau	e. Ni	M 87	109		
RINA	a Ei	14	A/m 27,113	Project #:				1	Τe	I. 50	5-34	5-397	5	Fax	505-	-345-	410	7		
Phone a	# 505	63	258-9277										Anàl	ysis	Řěč	uest				
email o	r Fax#: <b>6</b>	Gham.	StoHNKA Q williams. com	Project Mana	iger:				(yl	Ô				5						
QA/QC I	Package:			1				3021	as or	/ MF		Ω.		SC SC	CB's					
Stan	dard		Level 4 (Full Validation)	GraHa	m stal	hNKe		13) 14	ů)	8		MIS		۲. O	2 P(					
Accredi	tation			Sampler: M	orgen Ki	11:00			ГРН		<del>.</del>			No.	808		Î			Î
	AP 		er	On Ice:	ZZ/es	E No	(1997) (1997)	+	+ ш	L E E E E E E E E E E E E E E E E E E E	418	8 20 2 20	s s	Ş	es /		Ø			- Z
	(Type)_	1		Sanpierieni			and the second		<b>ITB</b>	) BB	thod	a lt	Meta	j.	ticid	(YO	- - -	-2		es (
Date	Time	Matrix	Sample Request ID	Container	Preservative	HE	AL No. 447	+ ×	2 + + X	801	(Met	(Me	8 A 8 I	ns (F	I Pes	S) B(V	) (Se	lori		ldduß
				Type and #	rybe	131	2768	BTE	BTE	H	H	EDB PAH	RCF	Anio	808	826(	827(	J		AirE
2/16/13	11:55	soil	Thompson Seferator Pit 001 sides	1-462	Cool		061	+			×	_						×		
12/16/B	12:30	50 il	P. + 002 Bottom	1-402	fisol		()62	+	-		X							×		
							<b>.</b>										·			
								<u> </u>					1							
								<u> </u>												
													<u> </u>		[					
	· ·		-					-						<u> </u>						
													- <u> </u>	+						
															1					
<u> </u>														1						
								<u> </u>		-			$\uparrow$	<u> </u>						
Date:	Time:	Relinquist	ned by:	Received by:		Date	Time	Rer	nark	 s:			100	1	1 1		I			<u> </u>
44/3	1415	More	Lillion	Auntin	Watte	12/16	13 15/5			C	idd	6.Re	\$ <i>  /</i> ^	0 )	6	- 00	, z	le la		
Date:	Time:	Relinquish	ned by:	Received by:	$\sim$	Date	Time	1							·		14	/26		
12/18/13	1750	1/Jan	istue Deele	Min	utto	DHE	13 1000								÷					
	f necessary,	samples sut	bmitted to Hall Environmental may be subc	ontracted to other a	ccredited aboratori	es. This ser	ves as notice of this	s possi	bility.	Any su	b-contra	acted da	ta will b	e clear	ly note	ated on	the ar	nalytica	l report.	

٩.		١
District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., 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	Form C-144 Revised June 6, 2013 For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office. For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.
	Pit Below-Grade Tank or	
12455 Proposed	Alternative Method Permit or Closure	Plan Application
Type of action:	Below grade tank registration Permit of a pit or proposed alternative method Closure of a pit, below-grade tank, or proposed alterna Modification to an existing permit/or registration Closure plan only submitted for an existing permitted e method <i>bmit one application (Form C-144) per individual pit, belo</i> does not relieve the operator of liability should operations resu perator of its responsibility to comply with any other applicable	FEB 0 2 2015 or non-permitted pit, below-grade tank, <i>DISTRICT III</i> It in pollution of surface water, ground-water or the governmental authority's rules, regulations or ordinances.
1. Williams Four Corpers LLC		· · · · ·
Addresse 188 County Road 4900, Bloc	OGRID#:OGRID#:	
Facility or well name: Thompson Comp	pressor Station	
API Number	OCD Permit Number	· · · · · · · · · · · · · · · · · · ·
U/L or Otr/Otr P Section	4 Township 30N Range 12W	County: San Juan
Center of Proposed Design: Latitude N36	5.834771 Longitude W108.09862	0 NAD: 1927 1983
Surface Owner: Federal State Pr	ivate  Tribal Trust or Indian Allotment	
	· · · · · · · · · · · · · · · · · · ·	
2. <b>Pit:</b> Subsection F, G or J of 19.15.17	.11 NMAC	
Temporary: Drilling Workover		
Permanent 🗌 Emergency 🗍 Cavitation	on 🔲 P&A 🛄 Multi-Well Fluid Management	Low Chloride Drilling Fluid 🗌 yes 🗌 no
Lined Unlined Liner type: Thick	nessmil 🔲 LLDPE 🗌 HDPE 🔲 PVC 🗌	Other
String-Reinforced		· · ·
Liner Seams: 🗌 Welded 🗌 Factory 🔲	Other Volume:1	bbl Dimensions: Lx Wx D
3. Below-grade tank: Subsection L of L	9 15 17 11 NMAC	
Volume.70 BBL bbl Ty	vpe of fluid. Produced Water	
Tank Construction material: Steel	pe of nata.	· · · ·
Secondary containment with leak deter	ction Visible sidewalls, liner, 6-inch lift and automatic	overflow shut-off
$\square$ Visible sidewalls and liner $\square$ Visible	e sidewalls only I Other Single wall, double bottom	
Liner type: Thickness	mil    HDPE    PVC    Other	
Alternative Method:		
Submittal of an exception request is require	ed. Exceptions must be submitted to the Santa Fe Environ	nental Bureau office for consideration of approval.
		·····
Fencing: Subsection D of 19.15.17.11 NM	AC (Applies to permanent pits, temporary pits, and below	-grade tanks)
Chain link, six feet in height, two strand	ds of barbed wire at top <i>(Required if located within 1000 fe</i>	et 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		
Form C-144	Oil Conservation Division	Page Lof 6

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

Screen Netting Other

6.

7

Monthly inspections (If netting or screening is not physically feasible)

#### 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 19.15.16.8 NMAC

#### Variances 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:

- Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
- Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

9. 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 accept material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	ptable source
General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. -	□ Yes □ No □ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
<ul> <li>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. (Does not apply to below grade tanks)</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	🗌 Yes 🗌 No
Within the area overlying a subsurface mine. (Does not apply to below grade tanks) - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	🗌 Yes 🗌 No
<ul> <li>Within an unstable area. (Does not apply to below grade tanks)</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. (Does not apply to below grade tanks) - FEMA map	Yes No
Below Grade Tanks	
<ul> <li>Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗋 Yes 🗋 No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
<ul> <li>Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.)</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	Yes 🗌 No
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	□ Yes □ No

<ul> <li>Within 100 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
Temporary Pit Non-low chloride drilling fluid	
<ul> <li>Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;</li> <li>NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
<ul> <li>Within 300 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa	
- Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
<ul> <li>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>	🗌 Yes 🗌 No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, 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
<ul> <li>Within 500 feet of a wetland.</li> <li>US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	🗌 Yes 🗌 No
10.         Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 N         Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc attached. <ul> <li>Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC</li> <li>Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.</li> <li>and 19.15.17.13 NMAC</li> <li>Previously Approved Design (attach copy of design) API Number: or Permit Number:</li> </ul>	MAC cuments are NMAC 15.17.9 NMAC
11. Multi Well Fluid Management Bit Chashlist, Subsection D of 10 15 170 NMAC	
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the doc	cuments are
attached.  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  A List of wells with approved application for permit to drill associated with the pit.  Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19. and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC	15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	

٩.

٠

,

ι.									
12. <u>Permanent Pits Permit Application Checklist</u> : 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 attached	documents are								
<ul> <li>Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Climatological Factors Assessment</li> </ul>									
<ul> <li>Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>									
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan									
<ul> <li>Sportung and Multichine Plan - based upon the appropriate requirements of 19:15:17:12 NMAC</li> <li>Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19:15:17:11 NMAC</li> <li>Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan</li> </ul>									
<ul> <li>Oil Field Waste Stream Characterization</li> <li>Monitoring and Inspection Plan</li> </ul>									
Erosion Control Plan     Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC									
<sup>13.</sup> <u>Proposed Closure</u> : 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 Multi-well F	luid Management Pit								
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									
Waste Excavation and Removal Closure Plan Checklist:       (19.15.17.13 NMAC) Instructions: Each of the following items must be 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 C 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 H of 19.15.17.13 NMAC            Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC	attached to the								
15. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. I 19.15.17.10 NMAC for guidance.	rce material are Please refer to								
Ground water is less than 25 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 between 25-50 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								
<ul> <li>Ground water is more than 100 feet below the bottom of the buried waste.</li> <li>NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>	$\square Yes \square No$ $\square NA$								
<ul> <li>Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</li> <li>Topographic map; Visual inspection (certification) of the proposed site</li> </ul>	_ Yes _ No								
<ul> <li>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.</li> <li>Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>									
Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database: Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No								
Written confirmation or verification from the municipality; Written approval obtained from the municipality	🗌 Yes 🗌 No								
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; 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									
Form C-144 Oil Conservation Division Page 4 c	of 6 50								

. 1

<ul> <li>adopted pursuant to NMSA 1978, Section 3-27-3, as amended.</li> <li>Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>	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>	
Within a 100-year floodplain	🗌 Yes 🗌 No
- FEMA map	Yes No
<ul> <li>16.</li> <li>On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plate by a check mark in the box, that the documents are attached.</li> <li>Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC</li> <li>Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.13 NMAC</li> <li>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</li> <li>Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC</li> <li>Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards canned Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> <li>Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> <li>Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC</li> </ul>	II NMAC 15.17.11 NMAC ot be achieved)
17. 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 believed and be	ef.
Name (Print): Title:	
Signature: Date:	
e-mail address:Telephone:	
18. <u>OCD Approval:</u> Permit Application (inordiding closure plan) 🕅 Closure Plan (only) 🗌 OCD Conditions (see attachment)	<u>.</u>
OCD Representative Signature: Approval Date: 2/5	/15
Title: <u>Fausinomental</u> Spec. OCD Permit Number:	/
<sup>19.</sup> <u>Closure Report (required within 60 days of closure completion)</u> : 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 is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. Closure Completion Date: <u>10/28/2014</u>	the closure report. complete this
<ul> <li>20.</li> <li><u>Closure Method</u>:</li> <li>Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loo If different from approved plan, please explain.</li> </ul>	op systems only)
<ul> <li>21. Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please intermark in the box, that the documents are attached.</li> <li>Proof of Closure Notice (surface owner and division)</li> <li>Proof of Deed Notice (required for on-site closure for private land only)</li> <li>Plot Plan (for on-site closures and temporary pits)</li> <li>Confirmation Sampling Analytical Results (if applicable)</li> <li>Waste Material Sampling Analytical Results (required for on-site closure)</li> <li>Disposal Facility Name and Permit Number</li> <li>Soil Backfilling and Cover Installation</li> <li>Promotion Standing Technique</li> </ul>	licate, by a check
Site Reclamation (Photo Documentation)	

۰

.

,

Operator Closure Certification:	
I hereby certify that the information and attachments submitted with this oblief. I also certify that the closure complies with all applicable closure r	closure report is true, accurate and complete to the best of my knowledge and requirements and conditions specified in the approved closure plan.
Name (Print): Matt Webre	Title: Supervisor, Environmental Services
Signature:	Date:
e-mail address:matt.webre@williams.com	Telephone: 505-632-4442

٠

16



188 County Road 4900 Bloomfield, NM 87413 (505) 632-4700 Fax (505) 632-4782

#### US Mail

November 13, 2014

Mr. Cory Smith Environmental Specialist New Mexico Oil Conservation Division 1000 Rio Brazos Aztec, NM 87410



Re: C-144 Below-Grade Tank Closure, Thompson Compressor Station, San-Juan County, New Mexico

Dear Mr. Smith,

Williams Four Corners LLC (Williams) is submitting the C-144 Below-Grade Tank (BGT) Closure for the Thompson Compressor Station. The closure plan was approved by the New Mexico Oil Conservation Division (NMOCD) on December 3, 2013.

A fire occurred at the facility on the evening of Friday, November 8, 2013 associated with operation of one of the BGTs. During removal of the BGTs and liner, impacted soils were discovered beneath the BGTs that were determined to be associated from a historical release. Remediation activities including removal of impacted soil to bedrock and two applications of potassium permanganate were performed to achieve NMOCD remediation action levels. A summary of the historical activities completed between November 8, 2014 and October 30, 2014 are presented Table 1. A total of five (5) sampling events were performed between December 16, 2013 and October 30, 2014 and the soil analytical results are summarized in Table 2.

The TPH concentration as determined by United Station Environmental Protection Agency (USEPA) Method 418.1 in the most recent confirmation sample slightly exceeded the New Mexico Oil and Gas Conservation Division (NMOCD) standard for BGT closures established in 19.15.17 New Mexico Administrative Code (NMAC) with a concentration of 120 milligrams per kilogram (mg/kg). The sample was also analyzed for total petroleum hydrocarbons – gasoline range organics (TPH-GRO) and total petroleum hydrocarbons – diesel range organics (TPH-DRO) by USEPA Method 8015. No benzene, toluene, ethyl benzene, or TPH-DRO were detected in the most recently collected soil sample. Total Xylenes and TPH-DRO were detected at low concentrations, however all concentrations with the exception of TPH Method 418.1 result are below the NMOCD remediation action levels. Based on this information, it can be

Mr. Cory Smith November 13, 2014 Page 2

٩,

deduced that the remaining soil impact beneath the former BGT is in the heavier hydrocarbon range (oil range organics), which is less likely to mobilize in the soil. It should be noted that there was a liner in place below the BGT prior to closure so the cleanup standards used to determine closure should be the NMOCD remediation action levels (TPH with Method 8015) and not the Pit Rule (TPH with 418.1) because it was an historical release not associated with the BGT.

÷

Please contact me at (505) 632-4442 with any questions regarding this information.

Sincerely,

The 

Matt Webre, PG Supervisor, Environmental Services

Attachments

14

cc: Shari Ketcham (BLM)

#### Table 1. Historical Summary for BGT Closure

Williams Four Corners, LLC - Thompson Compressor Station

Date	Description
November 8, 2013	Fire occurred at the Thompson Compressor Station associated with a Below-Grade Tank (BGT). The
	New Mexico Oil Conservation Division (NMOCD) along with other regulatory agencies were
	immediately notified of the fire.
November 18, 2013	Submitted final C-141 to NMOCD and BLM documenting the Thompson fire/release.
December 10, 2013	Williams submits notifications via email of the BGT closure to commence on December 13, 2014.
December 13, 2013	Williams initiates BGT closure activities including removal of BGT and impacted soils.
December 16, 2013	Williams collects samples (Thompson Seperator Pit 001 side and Thompson Seperator Pit 002 Bot)
	from bottom and sidewalls of open excavation. The results indicate that the concentrations on the
	bottom of the excavation exceed closure standards for total BTEX and TPH of 50 mg/kg and 100 mg/kg,
	respectively.
January 13, 2014	Williams collects sample (Thompson CS 003 Bottom Comp) from bottom of open excavation. The
	results indicate that the concentrations on the bottom of the excavation exceed closure standards for
	total TPH.
March 21, 2014	The bottom of the excavation is treated with potassium permanganate after receiving approval from
	the NMOCD and the landowner.
March 31, 2014	Williams collects sample (Thompson Trunk A Pits Bottom) from bottom of open excavation. The results
	indicate that the concentrations on the bottom of the excavation exceed closure standards for total
	ТРН.
April 24, 2014	BLM provides approval for Williams to backfill the excavation (to address safety concerns) upon the
	agreement to resample in 6 months (October 2014).
June 2, 2014	The bottom of the excavation is re-treated with potassium permanganate. Williams collects sample
	(Thompson TRK-A Pit Bottom C) from bottom of open excavation. The results indicate that the
	concentrations on the bottom of the excavation exceed closure standards for total TPH. Williams
	backfills the excavation and plans on resampling in October 2014.
October 28, 2014	Williams provides notification to BLM of planned sampling event.
October 30, 2014	Williams collects sample (TRK-A Pit Resample) from bottom of open excavation. The results indicate
	that the concentrations on the bottom of the excavation slightly exceed closure standards for total $_{\star}$
	TPH based on Method 418.1, however the TPH results are below the closure standards based on
	Method 8015.

# Table 2. Summary of Soil Analytical Results Williams Four Corners LLC - Thompson Compressor Station

		Sample ID	Thompson Seperator	Thompson Seperator	Thompson CS 003	Thompson Trunk A	Thompson TRK-A Pit	TRK-A Pit
Sample is		Pit 001 Side	Pit 002 Bot	Bottom Comp	Pits Bottom	Bottom C	Resample	
		Sample Date	12/16/2013	12/16/2013	1/13/2014	3/31/2014	6/2/2014	10/30/2014
Analyte	Method	Units	<u>-</u>					
Benzene	8021B	mg/kg	<0.049	0.83	<0.94	<0.23	<0.048	<0.049
Toluene	8021B	mg/kg	<0.049	16	3.3	0.48	<0.096	<0.049
Ethylbenzene	8021B	mg/kg	<0.049	2.4	2.5	<0.23	0.26	<0.049
Xylenes, Total	8021B	mg/kg	<0.049	42	39	15	<0.19	0.14
BTEX, Total		mg/kg	<0.049	61.23	44.8 15.48		0.26	0.14
TPH-DRO	8015	mg/kg	NA	NA	200	240	NA	41
TPH-GRO	8015	mg/kg	<4.9	620	460	250	NA	<4.9
ТРН	418.1	mg/kg	<20	610,	840	750	480	120
Chlorides	300	mg/kg	58	30	NA	NA	NA	42

Notes:

mg/kg = milligrams per kilogram

NA = Not analyzed

Non-detected results are indicated "<" with laboratory method detection limit (<0.049)

.

\*

#### State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action								
		<b>OPERA</b>	ГOR	Initial Report	Final Report			
Name of Company Williams Four Corners I	LC	Contact	Graham Stahnke, PI	3				
Address 188 CR 4900, Bloomfield, NM	37413	Telephone 1	No. 505-632-4606					
Facility Name Thompson Compressor Static	Facility Type Compressor Station							
Surface Owner BLM	Mineral Owner			API No.				

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County	
r	4	30IN	12W					San Juan	-

Latitude <u>36° 50.0550 N</u> Longitude <u>108° 5.8700 W</u>

#### NATURE OF RELEASE

Type of Release Fire	Volume of Release 41.2 MCF	Volume Recovered NA					
Source of Release Produced Water Tank caught fire	Date and Hour of Occurrence 11/08/2013, 6:00 PM	Date and Hour of Discovery 11/08/2013, 6:00 PM					
Was Immediate Notice Given?	If YES, To Whom?						
Yes 🗌 No 🗌 Not Required	d Verbal to NMOCD (Brandon Powell) and BLM (Ranger on scene)						
By Whom? Matt Webre, PG	Date and Hour 11/08/2013, 6:30 F	PM					
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.					
🗌 Yes 🖾 No							
If a Watercourse was Impacted, Describe Fully.*							
	â.						
Describe Cause of Problem and Remedial Action Taken.*							
On Friday, November 8, 2013 at 5:55 PM, as Williams personnel were p	reparing to leave the facility, a below	grade produced water tank caught on fire at					
the Thompson Compressor Station. The fire caused a facility shut down	which allowed 41.2 MCF of natural ga	s to be released to the atmosphere. The fire					
was extinguished at approximately 7:00 PM by county and local fire dep	artments. No produced water was relea	ased as a result of the fire. No injuries					
occurred, however three nearby residences were evacuated. The root cau	se of the incident is under investigatio	n					
,							
Describe Area Affected and Cleanup Action Taken.*							
After the fire was extinguished, fire watch was implemented for 30 minu	tes and the tank was checked for heat.	The below grade tank that caught fire was					
removed on Saturday November 9, 2013. There was no damage to the tai	nk other charring. The below grade ta	ink will be closed out in accordance with the					
NMOCD Pit Rule, with additional correspondence to follow this notifica	tion.						
I hereby cartify that the information given above is true and complete to	the best of my knowledge and underst	and that pursuant to NMOCD rules and					
regulations all operators are required to report and/or file certain release	notifications and perform corrective as	and that pursuant to NMOCD fulles and					
public health or the environment. The acceptance of a C-141 report by the	he NMOCD marked as "Final Report"	does not relieve the operator of liability					
should their operations have failed to adequately investigate and remedia	te contamination that pose a threat to	round water, surface water, human health					
should then operations have failed to adequately investigate and remedia or the environment. In addition NMOCD acceptance of a $C_{-1}41$ report.	does not relieve the operator of respon	sibility for compliance with any other					
federal state or local laws and/or regulations	uses not reneve the operator of respon	sionity for compliance with any outer					
Tederal, state, or focul faws and/or regulations.	OIL CONSERV	VATION DIVISION					
$Q_{1} \rightarrow c \Delta$	<u>OIL COINSER</u>	VATION DIVISION					
Signature:							
Printed Name: Graham Stahnke PE	Approved by Environmental Speciali	ST:					
Trined France. Standin Staninks, FD	······	· · · · · · · · · · · · · · · · · · ·					
Title: Environmental Specialist	Approval Date:	Expiration Date:					
E-mail Address: graham.stahnke@williams.com	Conditions of Approval:						
		Attached					
Date: 11/18/13 Phone: 505-632-4606	· · ·						

\* Attach Additional Sheets If Necessary

٦

**י** ב

#### State of New Mexico Energy Minerals and Natural Resources

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

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

			Rele	ease Notific	atior	n and Co	orrective A	ction				
						<b>OPERA</b>	ΓOR	D	🛛 Initia	al Report		Final Report
Name of Co	ompany W	illiams Four	Corners	LLC		Contact Matt Webre						
Address	188 CR 49	00, Bloomfi	eld, NM	87413		Telephone No. 505-632-4606						
Facility Nat	ne Thomp	oson Compre	ssor Stat	ion		Facility Type Compressor Station						
Surface Ow	ner BLM			Mineral O	wner				API No			
				LOCA	ΤΙΟΙ	N OF REI	LEASE					
Unit Letter P	Section 4	Township 30N	Range 12W	Feet from the	North/	South Line	Feet from the	East/We	est Line	County San Juan		
				Latitude <u>36.834</u>	<u>1771°N</u>	Longitud	e <u>108.098620°V</u>	<u>N</u>				
True of Dala	ana Duadaa	I Weter/Cer			URE	OF RELI	LASE		7 - 1 T	)		
Source of Re	lease Histo	ric Release	Idensate			Date and H	Release Unknow	vn v ve I	Date and	Hour of Dis	NA Coverv	
	ieuse miste	The Refeuse				Historic	our of occurrent	H H	Historic	fiour of Dis	covery	
Was Immedi	ate Notice (	Given?	Yes [	] No 🛛 Not Re	quired	If YES, To	Whom?					
By Whom?						Date and H	our					
Was a Water	course Read	ched?	Yes 🗵	] No		If YES, Vo	lume Impacting	the Waterc	course.			
Describe Cau During remo	If a Watercourse was Impacted, Describe Fully.* No impacts to a watercourse occurred. Describe Cause of Problem and Remedial Action Taken.* During removal of a 70 bbl below-grade tank and liner, a historic release was discovered.											
Describe Are Remediation	a Affected activities w	and Cleanup A	Action Tal	ure.								
I hereby certi regulations a public health should their o or the enviro federal, state	fy that the ll operators or the envi operations h nment. In a , or local lav	information gi are required t ronment. The have failed to a addition, NMC ws and/or regu	ven above o report an acceptane adequately OCD accept adations.	e is true and compl nd/or file certain re ce of a C-141 repo / investigate and re otance of a C-141 r	ete to the elease n rt by the emediate report d	he best of my notifications and e NMOCD m e contaminati loes not reliev	knowledge and u nd perform correc arked as "Final R on that pose a the e the operator of	understand ctive action Report" doe reat to grou responsibi	that purs ns for release not release und water ility for c	suant to NM eases which ieve the ope r, surface wa ompliance v	OCD ru may en rator of ater, hur vith any	les and danger liability nan health other
Signature: The Conservation Div								DIVISIO	<u>)N</u>			
Printed Nam	e: Matt We	bre		Approved by	Environmental S	Specialist:				•		
Title: Super	visor, Envir	onmental Ser	vices			Approval Dat	e:	Ex	piration	Date:		
E-mail Addr	ess: matt.w	ebre@william	is.com			Conditions of	Approval:			Attached		
Date: N	Date: November 12, 2014 Phone: 505-632-4442											

\* Attach Additional Sheets If Necessary



Williams Four Corners LLC Below Grade Tank Closure Report Location Name: Thompson Compressor Station API Number: NA

The following provides information related to the closure of the below-grade tank (BGT) at the named location. All work was performed in accordance with Rule 19.15.17.13 NMAC and was consistent with the Williams BGT Closure Plan approved by NMOCD with any exceptions described below.

Requirement: Provide notices to NMOCD and landowner prior to closure actions.

<u>Action</u>: A fire occurred at the Thompson Compressor Station on Friday, November 8, 2014. Immediate notifications were made to the NMOCD Aztec District Office and the landowner (Bureau of Reclamation [BLM]) in accordance with release reporting requirements. The final C-141 submitted to the NMOCD and the BLM documenting the notifications is attached. As part of continuing actions associated with the fire, Williams removed the BGT from the facility. The BGT was located on a lined containment and impacts were discovered beneath the tank upon removal of the BGT and liner. After removal of the BGT and liner, it was determined that the discovered impacts were associated with a historical release. The C-141 documenting the historical release is attached.

The email notification to the NMOCD documenting the proposed BGT removal date is included with the closure report. The notification provided to the BLM regarding the BGT removal date cannot be located. It should be noted that Williams was in continual contact with the BLM starting with the initial release notification associated with the fire and follow up remediation discussions.

**Requirement:** Eliminate discharge to BGT and remove free-standing liquids from BGT and or containment.

<u>Action:</u> Discharge to the BGT was eliminated and liquids, when present, were removed by a licensed hauler and taken to a NMOCD-permitted facility listed in the aforementioned closure plan.

Requirement: Remove ancillary equipment including piping, linér material, and fencing.

<u>Action:</u> Piping, liner material, and fencing were removed in advance or at the time of BGT retirement work. Scrap steel was recycled or placed in a Williams-owned storage area to allow evaluation for final disposition.

Requirement: Sample and test soils beneath the BGT to determine if there was hydrocarbon impact.

<u>Action:</u> Five point composite soil samples were collected from beneath the BGT and analyzed for TPH, BTEX and chlorides. Results are attached to the C-144 Closure Form and are part of the closure documentation.

**Requirement:** Address contamination consistent with the Closure Plan or Remedial Action Plan/Protocol.

<u>Action:</u> Contaminated soil was disposed at the JFJ Landfarm c/o Industrial Ecosystem, Inc. (IEI) NMOCD permit number NM-01-0010B (identified in the approved Closure Plan).

**Requirement:** Backfill containment/excavation with acceptably clean materials and return area to grade such that ponding and erosion are mitigated.

<u>Action:</u> Clean soil (as defined) was used to return the BGT area to grade and was contoured/leveled consistent with the Pit Rule criteria.

4

Requirement: Reclaim and re-seed the area consistent with the Pit Rule and Closure Plan criteria.

<u>Action</u>: This requirement was not completed as the BGT was located within an active compressor station. As stated in the approved plan, this requirement is deferred when the facility is reclaimed.

Any additional work performed and not described herein was completed consistent with the BGT Closure Plan and/or applicable NMOCD requirements. Further information is provided in the C-144 Closure Form as specified in the Pit Rule.

÷£,

#### Webre, Matt

From: Sent: To: Subject: Kelly, Jonathan, EMNRD <Jonathan.Kelly@state.nm.us> Tuesday, December 10, 2013 8:54 AM Stahnke, Graham RE: Thompson Compressor BGT Permits

Thank you Graham.

Jonathan D. Kelly Compliance Officer Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 122 jonathan.kelly@state.nm.us

From: Stahnke, Graham [mailto:Graham.Stahnke@williams.com]
Sent: Tuesday, December 10, 2013 8:04 AM
To: Kelly, Jonathan, EMNRD
Subject: RE: Thompson Compressor BGT Permits

Hi Jonathan,

We are planning on starting the Thompson BGT closure on Friday (12/13/13). We will be locating an adjacent 10-inch line on Thursday prior to starting excavation on Friday.

Best Regards,

Graham

Graham Stahnke, PE | Environmental Specialist, Environmental Services - FCA | Operational Excellence | Williams O: 505-632-4606 | C: 505-258-9277 graham.stahnke@williams.com

"Achieving environmental excellence through stewardship, common sense, and innovation for our company, customers and communities."

1

From: Stahnke, Graham Sent: Wednesday, December 04, 2013 8:28 AM To: 'Kelly, Jonathan, EMNRD' Subject: RE: Thompson Compressor BGT Permits

Thanks Jonathan,

We will likely complete closure in the next couple weeks and I will provide NMOCD with the necessary notice prior to closure activities in accordance with the Pit Rule.

Best Regards,

Graham

Graham Stahnke, PE | Environmental Specialist, Environmental Services - FCA | Operational Excellence | Williams O: 505-632-4606 | C: 505-258-9277 graham.stahnke@williams.com

"Achieving environmental excellence through stewardship, common sense, and innovation for our company, customers and communities."

From: Kelly, Jonathan, EMNRD [mailto:Jonathan.Kelly@state.nm.us] Sent: Wednesday, December 04, 2013 8:04 AM To: Stahnke, Graham Subject: FW: Thompson Compressor BGT Permits

As requested, here are approved copies of the 2 Thompson Compressor Station BGT Closure Permits.

Ŷ

١

Jonathan D. Kelly Compliance Officer Oil Conservation Division Energy, Minerals, & Natural Resources 1000 Rio Brazos, Aztec, NM 87410 (505)334-6178 ext 122 jonathan.kelly@state.nm.us

From: Atchley, Calvin, EMNRD Sent: Wednesday, December 04, 2013 7:15 AM To: Kelly, Jonathan, EMNRD Subject: Permits

Jonathan,

Attached are the permits you requested. Thanks.

Calvin

#### Webre, Matt

From: Sent: To: Cc: Subject: Franchini, Jana Tuesday, October 28, 2014 4:54 PM Ketcham, Shari Webre, Matt FW: Thompson Compressor

Shari,

We are planning to perform the re-sampling event at Thompson this Thursday, October 30th.

In addition, we will keep you informed of the results.

Sincerely,

Jana

From: Ketcham, Shari [<u>mailto:sketcham@blm.gov</u>] Sent: Thursday, April 24, 2014 1:59 PM To: Stahnke, Graham Subject: Thompson Compressor

As per our phone conversation a few minutes ago, Williams is approved to close the excavation at Thompson Compressor since the DRO is at 240 ppm and has dropped 220 ppm since January.

.

Please send me a copy of the soil sample results for the file.

We discussed and agreed upon re-sampling in 6 months, ~October 24th, 2014.

Thank you!

Shari Ketcham Natural Resource Specialist, Spills Biologist BLM Farmington Field Office 6251 College Blvd Suite A Farmington, NM 87402 Office: (505) 564-7713 Fax: (505) 564-7607





Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: <u>www.hallenvironmental.com</u>

December 20, 2013

Graham Stahnke Williams Field Services 188 Co. Rd 4900 Bloomfield, NM 87413 TEL: (505) 632-4442 FAX

**RE:** Thompson Seperator Pit

OrderNo.: 1312738

Dear Graham Stahnke:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/17/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

Andy .

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1312738

#### Hall Environmental Analysis Laboratory, Inc.

Gasoline Range Organićs (GRO)

**EPA METHOD 8021B: VOLATILES** 

Surr: 4-Bromofluorobenzene

**EPA METHOD 300.0: ANIONS** 

EPA METHOD 418.1: TPH

Petroleum Hydrocarbons, TR

Surr: BFB

Benzene

Toluene

Chloride

Qualifiers:

Ethylbenzene

Xylenes, Total

Date Reported: 12/20/2013

12/18/2013 1:05:05 PM R15586

12/18/2013 5:40:26 PM 10863

Analyst: NSB

Analyst: JRR

Analyst: JME

10802

EPA MET	EPA METHOD 8015D: GASOLINE RANGE Analyst: NSB								
Analyses		Result	RL Ç	Qual	Units	DF Date Analyzed	Batch		
Lab ID:	1312738-001	Matrix:	MEOH (SO	IL)	Receive	d Date: 12/17/2013 10:00:00 A	M		
Project:	Thompson Seperator Pit	Collection Date: 12/16/2013 11:55:00 AM							
CLIENT:	Williams Field Services	Client Sample ID: Thompson Seperator Pit 001 side							

4.9

74.5-129

0.049

0.049

0.049

0.097

80-120

1.5

20

mg/Kg

%REC

mg/Kg

mg/Kg

mg/Kg

mg/Kg

%REC

mg/Kg

mg/Kg

1

1

1

1

1

1

1

1

1

/

12/18/2013

ND

98.6

ND

ND

ND

ND

105

58

ND

The first of the CC building report and sample regimences for nagged CC data and preservation information	Refer to the OC	2 Summary report and	sample login check	klist for flagged OC	C data and i	preservation information.
---	-----------------	----------------------	--------------------	----------------------	--------------	---------------------------

\* Value exceeds Maximum Contaminant Level.

- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 1 of 5
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

#### Analytical Report Lab Order 1312738 Date Reported: 12/20/2013

#### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Williams Field Services Project: Thompson Seperator Pit

Lab ID: 1312738-002

Client Sample ID: Thompson Seperator Pit 002 Bot Collection Date: 12/16/2013 12:30:00 PM Matrix: MEOH (SOIL) Received Date: 12/17/2013 10:00:00 AM

Analyses	Result	RL (	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RAN	GE					Analy	st: NSB
Gasoline Range Organics (GRO)	620	43		mg/Kg	10	12/18/2013 12:36:23	PM R15586
Surr: BFB	245	74.5-129	S	%REC	10	12/18/2013 12:36:23	PM R15586
EPA METHOD 8021B: VOLATILES						Analy	st: NSB
Benzene	0.83	0.43		mg/Kg	10	12/18/2013 12:36:23	PM R15586
Toluene	16	0.43		mg/Kg	10	12/18/2013 12:36:23	PM R15586
Ethylbenzene	2.4	0.43		mg/Kg	10	12/18/2013 12:36:23	PM R15586
Xylenes, Total	42	0.87		mg/Kg	10	12/18/2013 12:36:23	PM R15586
Surr: 4-Bromofluorobenzene	121	80-120	S	%REC	10	12/18/2013 12:36:23	PM R15586
EPA METHOD 300.0: ANIONS						Analy	st: JRR
Chloride	30	1.5		mg/Kg	1	12/18/2013 6:05:15 F	M 10863
EPA METHOD 418.1: TPH						Analy	st: JME
Petroleum Hydrocarbons, TR	610	20		mg/Kg	1	12/18/2013	10802

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

\* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Qualifiers:

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit Page 2 of 5

- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Client: Project:	William: Thomps	s Field Servi on Seperator	ices r Pit								
Sample ID	MB-10802	SampTy	/pe: ME	BLK	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	PBS	Batch	ID: 10	802	F	RunNo: 1	5588				
Prep Date:	12/16/2013	Analysis Da	ate: 12	2/18/2013	5	SeqNo: 4	48814	Units: <b>mg/H</b>	ίg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyc	irocarbons, TR	ND	20								
Sample ID	Sample ID LCS-10802 SampType: LCS TestCode: EPA Method 418.1: TPH										
Client ID:	LCSS	Batch	ID: 10	802	F	RunNo: 1	5588				
Prep Date:	12/16/2013	Analysis Da	ate: 12	2/18/2013	5	SeqNo: 4	48821	Units: <b>mg/k</b>	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	Irocarbons, TR	95	20	100.0	0	95.3	80	120			
Sample ID	LCSD-10802	SampTy	/pe: LC	SD	Tes	tCode: E	PA Method	418.1: TPH			
Client ID:	LCSS02	Batch	ID: 10	802	F	RunNo: 1	5588				
Prep Date:	12/16/2013	Analysis Da	ate: 12	2/18/2013		SeqNo: 4	48826	Units: mg/k	ζg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Petroleum Hyd	Irocarbons, TR	96	20	100.0	0	96.5	80	120	1.27	20	

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank

N

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 3 of 5

WO#: 1312738

20-Dec-13

### Hall Environmental Analysis Laboratory, Inc.

WO#:	1312738

20-Dec-13

Client: William Project: Thomps	s Field Serv	vices or Pit								
Sample ID MB-10837 MK SampType: MBLK			TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batc	h ID: R1	5586	F	unNo: 1	5586				
Prep Date:	Analysis E	Date: 12	2/18/2013	S	eqNo: 4	49123	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		92.0	74.5	129			
Sample ID LCS-10837 MK	Samp	Type: LC	s	Tes	Code: El	PA Method	8015D: Gaso	line Rang	 e	
Client ID: LCSS	Batc	h ID: <b>R1</b>	5586	F	lunNo: 1	5586				
Prep Date:	Analysis [	Date: 12	2/18/2013	S	eqNo: 4	49124	Units: mg/H	ίg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	74.5	126			
Surr: BFB	980		1000		98.2	74.5	129			

Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 4 of 5

WO#:	1312738

# Hall Environmental Analysis Laboratory, Inc.

Client:WilliamProject:Thomps	s Field Serv on Seperato	vices or Pit								
Sample ID MB-10837 MK	SampT	Гуре: МЕ	3LK	Tes	tCode: E	PA Method	8021B: Vola	tiles		,
Client ID: PBS	Batcl	h ID: <b>R1</b>	5586	F	RunNo: 1	5586				
Prep Date:	Analysis E	Date: 12	2/18/2013	S	SeqNo: 4	49140	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.0		1.000		105	80	120			
Sample ID LCS-10837 MK	SampT	Type: LC	s	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Batcl	h ID: R1	5586	F	RunNo: 1	5586				
Prep Date:	Analysis D	Date: 12	2/18/2013	S	SeqNo: 4	49141	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	104	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	. 80	120			
Xylenes, Total	3.1	0.10	3.000	0	102	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

**Qualifiers:** 

ie,

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

÷.

- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Page 5 of 5

HALL Hai ENV ENTAL ANALYSIS LABORATORY TE	ll Environmental Analysis Labora 4901 Hawkin: Albuquerque, NM 87 L: 505-345-3975 FAX: 505-345-4 Website: www.hallenvironmental.	ttory s NE 7109 <b>Sam</b> 4107 com	Sample Log-In Check List				
Client Name: WILLIAMS FIELD SERVI Work	Order Number: 1312738		RcptNo: 1				
Received by/date:	2/17/13	Mubill Con	( au				
	010 10.00.00 AM						
Completed By: Michelle Garcia 12/1//20	013 10:18:27 AM	91 perule Go	ue>				
Reviewed By: 10 12/17	12013						
Chain of Custody							
1. Custody seals intact on sample bottles?	Yes	No.	Not Present 🗹				
2. Is Chain of Custody complete?	Yes 🔽	No 🗌	Not Present				
3. How was the sample delivered?	Courier						
<u>Log In</u>							
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗌					
5. Were all samples received at a temperature of >0° 0	C to 6.0°C Yes 🗹	No 🗌					
6. Sample(s) in proper container(s)?	Yes 🔽	No 🗌					
7. Sufficient sample volume for indicated test(s)?	Yes 🗹	No 🗍					
8. Are samples (except VOA and ONG) properly preser	ved? Yes 🗹	No 🗌					
9. Was preservative added to bottles?	Yes	No 🗹	NA 🗔				
10.VOA vials have zero headspace?	Yes	No 🗋	No VOA Vials 🗹				
11. Were any sample containers received broken?	Yes	No 🗹	# of preserved				
12.Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🔽	No 🗆	for pH: (<2 or >12 unless noted)				
13. Are matrices correctly identified on Chain of Custody	? Yes 🗹	No 🗔	Adjusted?				
14. Is it clear what analyses were requested?	Yes 🗹	No 🗌					
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🗹	No 🗌	Checked by:				
Special Handling (if applicable)							
16. Was client notified of all discrepancies with this orde	r? Yes 🗌	No 🔽					

0.V	as client notified of all	discrepancies with this order?	res L	NO 💌	
	Person Notified:		Date:		
	By Whom:		Via: 🗌 eMail 🗌	Phone 🗌 Fax 🔲	In Person
	Regarding:	an and a state of the spectrum of the spectrum of the spectrum of the state of the state of the state of the st	an a	مانده مرد مردم البلغ المرافق في محمد المرافق من معالم المرافق المرافق من محمد المرافق المرافق المرافق المرافق منافع من مرافق المرافق المحمد المرافق المحمد المرافق المرافق المرافق المرافق المرافق المرافق المرافق المرافق ال	
	<b>Client Instructions</b>	a de la companya de la	ан на селото на Слад, су станована на селото на селото селото на селото селото селото селото селото селото село Историја селото селот		

17. Additional remarks:

18. Cooler Information

1	Cooler No Temp °C	Condition	Seal Intact	Seal No Seal Date	Signed By															
1	2.6	Good	Yes																	
Client: WFS				Turn-Around Time:										<b>8</b> 13.	e te se	20			<b></b>	3
--	------------------	-------------	---------------------------------------	--	----------------------	--	-----------------	--	------------	----------------------------	-------------------------	----------------------------	----------------------	---------------	---------------	-------------	--------------	-----------	-------------------------	---------------
				□ Standard Project Name: ThomPSon ScPertor Pit Project #: Project Manager:				+ HALL ENVIRONMENTA - ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109												
Tel. 505-345-3975 Fax 505-345-4107																				
			16 4 6 4 4						Anal	ysis	Req	ues	2007 2007 2007							
	(ylr	<i>S</i> 0)								5										
QA/QC Package:								3021	IO SE	/ MF			5		04,S(	CB's				
□ Standard □ Level 4 (Full Validation)								GraHam Stahuke				) () 12	Ű	RO		MIS		PC	2 P(	
				Sampler: Morgen Kill: on					TPH			÷ 2		N N N	808					Î
								н В	+  Ш	U S S S S S	1418	or 8	SIE	N0.	les /		Q			Y or
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	に 1111日 11日 11日 11日 11日 11日 11日	AEN0-4 27785	BTEX + MTB	BTEX + MTB	ГРН 8015B (	<b>IPH (Method</b>	EDB (Methoc PAH's 78310	CRA 8 Meta	Anions (F,CI,	3081 Pesticic	3260B (VOA)	3270 (Semi-\	Ch loride		Air Bubbles (
2/16/12	11:55	soil	Thompson Separator Dit 001 Sides	1-462	Coval	-	[]] []]	+		F=	$\overline{\mathbf{X}}$				8			X	++	+
12/16/B	12:36	Soil	Thompson Scpcrotor P. + 002 Bottom	1-402	Cuol	-	062	4	-		×							×		
			· .			<u> </u>		<u> </u>												$\perp$
						· ·		<u> </u>												
							····													
													ļ						$\downarrow \downarrow$	
												_							$\downarrow \downarrow$	$\perp$
								<b> </b>					-						$\downarrow$	$\perp$
Data	Time:	Polinguich		Papajued by:		Data	Time	Bar												
4 <b>4/</b> 3	1415 Mort illion			Muthe Wate 12/16/13 19/15				add 640/000 to -002												
Date:	Time:	Relinquish	ed by:	Received by: Time					7 14/20											
12/1v/m	1750	1 An	sthe bleete	Mindy to DHITHIS 1000																