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

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

Form C-144
July 21, 2008

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.

2284

Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Type of action:
- ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
- ☐ Modification to an existing permit
- ☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.
Operator: Williams Operating Co, LLC OGRID #: 120782
Address: PO Box 640 / 721 S Main Aztec, NM 87410
Facility or well name: Rosa Unit #100E
API Number: 3003925135 OCD Permit Number:
U/L or Qtr/Qtr I Section 21 Township 31N Range 6W County: Rio Arriba
Center of Proposed Design: Latitude 36.88204N Longitude -107.46175W NAD: ☐1927 ☒1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness _____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____bbl Dimensions: L___ x W___ x D___

3.
☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

RECEIVED
OCT 2010
OIL CONS. DIV. DIST. 3

4.
☒ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: 120 bbl Type of fluid: Produced Water
Tank Construction material: Fiberglass w/ liner (removed)
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____mil ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

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_____BLM specification in APD_____

7.

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

☐ Screen ☐ Netting ☐ Other_____

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

8.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.3.103 NMAC

9.

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 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.**

Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to temporary, emergency, or cavitation pits and below-grade tanks)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☒ No ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. *(Applies to permanent pits)* - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☒ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - 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. - FEMA map	☐ 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.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

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
- ☐ 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 Installation 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
- ☐ Nuisance or Hazardous Odors, including H_2S, 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 Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.
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)

15.
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.***

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- ☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- ☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- ☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- ☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

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 *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

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

17.

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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

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 ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☒ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☒ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other 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
Within an unstable area. - 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. - FEMA map	☐ Yes ☒ No

18.

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) ***Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.***

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.
Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____

Signature: _____ Date: _____

e-mail address: _____ Telephone: _____

20.
OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure ~~Plan (only)~~ ☐ OCD Conditions (see attachment)

OCD Representative Signature: Jonathan Kelly **Approval Date:** 2/01/2012

Title: Compliance Officer **OCD Permit Number:** _____

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ **Closure Completion Date:** 10/09/08 (sampling & backfill)

22.
Closure Method:

☒ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24.
Closure Report Attachment Checklist: ***Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.***

☒ Proof of Closure Notice (surface owner and division) (see spill reports)
☐ 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-site closure)
☒ Disposal Facility Name and Permit Number (refer to COW)
☒ Soil Backfilling and Cover Installation
☒ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐1927 ☐ 1983

25.
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): Michael K. Lane Title: Sr. EH & S Specialist

Signature: _____ Date: 10/28/08

e-mail address: myke.lane@williams.com Telephone: 505-634-4219

Exploration & Production
PO Box 640
Aztec, NM 87410
505/634-4219
505/634-4205 fax

Transmittal

To: File

From: Michael K. Lane
San Juan-EH&S Team Leader

CC:

Date: Nov 5, 2008

Re: Rosa Unit 100E Production Pit Closure Summary

Date	Description
Aug 28	• Pit closure initiated remove fence, tank, liner, and collect composite sample. • Notice to BLM and NMOCD not done prior to initiation of work. Williams has initiated a process change to ensure future (as of this memo date) pit closure notice is provided and documented. • Fiberglass tank and liner disposed of at San Juan Regional Landfill operated by Waste Management under Permit NMED Permit SWM-052426.
Sep 12	Lab analysis indicates TPH by 418.1 exceeds closure plan report spil to NMOCD & BLM
Oct 7	Resample pit excavation
Oct 23	• Following notice from lab, backfill and cover pit. • All other equipment continues to be in use to optimize production (e.g. separator, piping, controls, ...) • As pit within secondary containment for an above ground tank, area will not be reclaimed until entire location abandoned. Reclamation to comply with BLM requirements in APD and COAs.

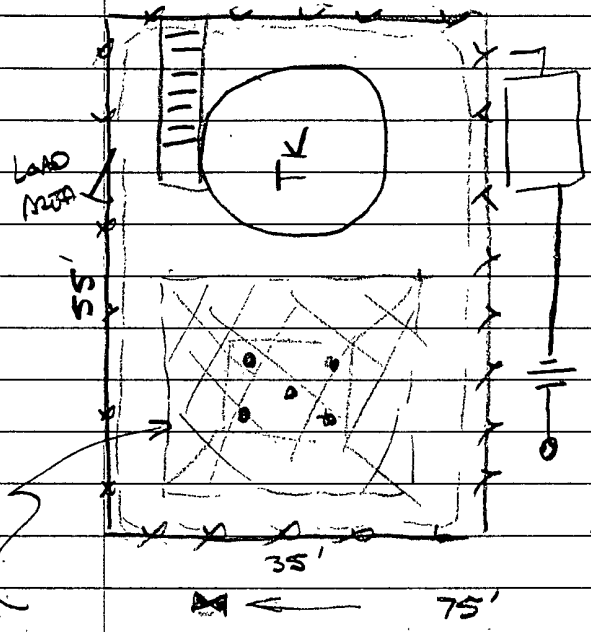
Encl:

- Site Sketch
- 10/23/08 clsoure samples
- C-141 report
- BLM UE Report
- COW
- Initial Lab Results.

10/4/08

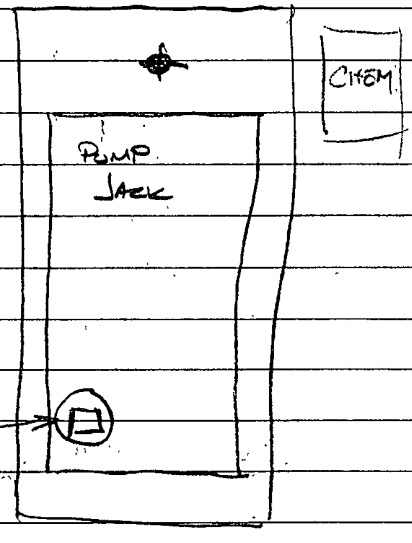
ROSA 100E

PUMP UNIT C-96
S/N 209395 24.3 hp 18.1 kw
NO YR MFG.
FORMER PIT 36.88026 N -107.4d75



EXCAVATION FOR FORMER PIT

• SAMPLE (GRAB) LOCATIONS



TANK API 12F
02-08 MFG
500bbl 13'4" ⌀ x 20'
S/N 46170 PERMIAN TANK

SEP 2-P VERT.
S/N 21422 1993
20" OD X 7'6"
1000 PSI
1500 PSI

CHEM PUMP EATON CHEMICAL
@ 34 PSI
J ROSS 325-5208
SCORPION GR-185
CHAMPION TECH
65gal
W/ CURRENT

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Resample for Custody. [initials]

RECEIVED
OCT 27 2008
WPX

October 23, 2008

Williams Production
Mr. Myke Lane
P.O. Box 640
Aztec, NM 87410

Phone: (505) 634-4219
Fax: (505) 634-4214

Client No.: 04108-003

Dear Mr. Lane,

Enclosed are the analytical results for the sample collected from the location designated as "Rosa 100E". One soil sample was collected by Williams Production personnel on 10/07/08 and was received by the Envirotech laboratory on 10/08/08 for BTEX per USEPA Method 8021, Total Petroleum Hydrocarbons (TPH) per USEPA Method 418.1 and Chloride.

The sample was documented on Envirotech Chain of Custody No. 5496 and assigned Laboratory No. 47664 (Former BGT @ 9' BGS) for tracking purposes.

The sample was analyzed on 10/09/08 - 10/15/08 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Lab Manager

enc.

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Williams Prod.	Project #.	04108-0003
Sample ID:	Former BGT @ 9' BGS	Date Reported.	10-22-08
Laboratory Number:	47664	Date Sampled:	10-07-08
Chain of Custody:	5496	Date Received.	10-08-08
Sample Matrix:	Soil	Date Analyzed.	10-14-08
Preservative:	Cool	Date Extracted:	10-13-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**1.1**	**0.9**
Toluene	**4.9**	**1.0**
Ethylbenzene	**1.1**	**1.0**
p,m-Xylene	**2.5**	**1.2**
o-Xylene	**2.0**	**0.9**
Total BTEX	**11.6**	

ND - Parameter not detected at the stated detection limit.

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

References

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Rosa 100E.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID.	10-14-BT QA/QC	Date Reported	10-22-08
Laboratory Number:	47659	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received.	N/A
Preservative.	N/A	Date Analyzed	10-14-08
Condition.	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	5 3606E+007	5 3714E+007	0.2%	ND	0.1
Toluene	3 9705E+007	3 9785E+007	0.2%	ND	0.1
Ethylbenzene	3 0665E+007	3 0726E+007	0.2%	ND	0.1
p,m-Xylene	6 5506E+007	6 5637E+007	0.2%	ND	0.1
o-Xylene	2 9567E+007	2 9626E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	1.8	1.7	5.6%	0 - 30%	0.9
Toluene	5.8	6.0	3.4%	0 - 30%	1.0
Ethylbenzene	3.0	3.1	3.3%	0 - 30%	1.0
p,m-Xylene	6.9	7.2	4.3%	0 - 30%	1.2
o-Xylene	4.2	4.0	4.8%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.8	50.0	50.8	98.1%	39 - 150
Toluene	5.8	50.0	50.8	91.0%	46 - 148
Ethylbenzene	3.0	50.0	51.0	96.2%	32 - 160
p,m-Xylene	6.9	100	98.9	92.5%	46 - 148
o-Xylene	4.2	50.0	51.2	94.5%	46 - 148

ND - Parameter not detected at the stated detection limit

References

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: **QA/QC for Samples 47659 - 47662, 47664 - 47666, 47668, 47685 and 47686.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Williams Prod.	Project #:	04108-0003
Sample ID:	Former BGT @ 9' BGS	Date Reported:	10-23-08
Laboratory Number:	47664	Date Sampled:	10-07-08
Chain of Custody No:	5496	Date Received:	10-08-08
Sample Matrix:	Soil	Date Extracted:	10-09-08
Preservative:	Cool	Date Analyzed:	10-09-08
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**11.3**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Rosa 100E.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM HYROCARBONS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	10-10-08
Laboratory Number:	10-09-TPH.QA/QC 47664	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	10-09-08
Preservative:	N/A	Date Extracted:	10-09-08
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	10-06-08	10-09-08	1,770	1,820	2.8%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	5.0

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	11.3	12.8	13.3%	+/- 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	11.3	2,000	2,060	102%	80 - 120%

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **QA/QC for Samples 47598 - 47599, 47664, 47640, 47641,47685 and 47686.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Williams Prod.	Project #:	04108-0003
Sample ID:	Former BGT @ 9' BGS	Date Reported:	10-23-08
Lab ID#:	47664	Date Sampled:	10-07-08
Sample Matrix:	Soil	Date Received:	10-08-08
Preservative.	Cool	Date Analyzed:	10-15-08
Condition:	Intact	Chain of Custody:	5496

Parameter	Concentration (mg/Kg)
Total Chloride	**3.61**

Reference: EPA Method 300.0, Determination of Inorganic Anions in Drinking Water by Ion Chromatography,

Comments: **Rosa 100E.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

CHAIN OF CUSTODY RECORD

5496

Client: Williams Prod.	Project Name / Location: Rosa 100E	ANALYSIS / PARAMETERS
Client Address:	Sampler Name: Myke Lane	
Client Phone No.:	Client No.: 04108-0003	

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Preservative	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Former BGT @9' BGS	10/7	1430	47664	~~Soil~~ Sludge Solid Aqueous	1-4oz			✓		✓							✓	✓				X	X
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	10/8/08	1045	[signature]	10-08-08	1045
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

RECEIVED
OCT 27 2008
WPX

ENVIROTECH INC.

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **Williams Production**	Contact **Michael K. Lane**
Address **PO Box 640**	Telephone No. **505-634-4219**
Facility Name **Rosa Unit #100E (API: 30-039-25135)**	Facility Type **Well Site**

Surface Owner **BLM-FFO**	Mineral Owner **BLM**	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	**21**	**31 N**	**06W**	**1570**	**S**	**870**	**W**	**Rio Arriba**

Latitude 36.88217 **Longitude** -107.46179

NATURE OF RELEASE

Type of Release **Produced Water – dissolved phase TPH**	Volume of Release **UNK**	Volume Recovered **None**
Source of Release **Produced Water Pit**	Date and Hour of Occurrence **9/12/08 <9:45 AM**	Date and Hour of Discovery **<8/28/08**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Hand Deliverd to NMOCD & Mark Kelly, BLM-FFO (email)**	
By Whom? **Myke Lane**	Date and Hour **9/12/08 ~9:45 AM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.

Describe Cause of Problem and Remedial Action Taken.
Residual hydrocarbon contamination under former pit discovered following lab results of soil samples.

Describe Area Affected and Cleanup Action Taken.
Impacted areas immediately around pit and within bermed area. Continue excavation of contaminated soils, haul to Envirotech Landfarm, following clearance samples close in accordance to approved closure plan.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: **Michael K. Lane**	Approved by District Supervisor:	
Title: **SJB EH&S Specialist**	Approval Date:	Expiration Date:
E-mail Address: **myke.lane@wlliams.com**	Conditions of Approval:	Attached ☐
Date: **9/12/08** Phone: **(505) 330-3198**		

* Attach Additional Sheets If Necessary

Form NM 3162-1
(Revised - August 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
New Mexico State Office

REPORT OF THE UNDESIRABLE EVENT

DATE OF OCCURRENCE/DISCOVERY: 9/12/08 TIME OF OCCURRENCE: <9:45AM

DATE REPORTED TO BLM: 9/12/08 TIME REPORTED: 09:45AM

BLM OFFICE REPORTED TO: (FIELD/DISTRICT/OTHER) FFO

LOCATION: (¼ ¼) I SECTION 21 T., 31N, R. 06W MERIDIAN: NMPM

COUNTY: Rio Arriba STATE: NM WELL NAME: Rosa 100E

OPERATOR: COMPANY NAME Williams Production PHONE NO. 505-330-3198

CONTACT PERSON'S NAME: Myke Lane

SURFACE OWNER: BLM MINERAL OWNER: Federal
(FEDERAL/INDIAN/FEE/STATE)

LEASE NO.: _____ RIGHT-OF-WAY NO.: _____

UNIT NAME / COMMUNITIZATION AGREEMENT NO.: Rosa

TYPE OF EVENT, CIRCLE APPROPRIATE ITEM (S):

BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, OIL SPILL, SALTWATER SPILL, OIL AND SALTWATER SPILL, TOXIC FLUID SPILL, HAZARDOUS MATERIAL SPILL, UNCONTROLLED FLOW OF WELLBORE FLUIDS, OTHER (SPECIFY):
Produced Water Spill-dissolved phase hydrocarbons

CAUSE OF EVENT: Following pit removal and soil sampling, lab results indicate minor residual hydrocarbon contamination (~200ppm TPH)

HazMat Notified: (for spills) NA

Law Enforcement Notified: (for thefts) NA

CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S):
NA

Safety Officer Notified: _____

EFFECTS OF EVENT: minor soil impact.

ACTION TAKEN TO CONTROL EVENT: S remove impacted soils and close pit in accordance to NMOCD rules.

LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE: NA

VOLUMES DISCHARGED: OIL _____ WATER UNKI GAS _____

OTHER AGENCIES NOTIFIED: NMOCD

ACTION TAKEN OR TO BE TAKEN TO PREVENT RECURRENCE: See above.

FINAL INVESTIGATION:

TEAM NAME(S) NA

FIELD INSPECTION DATE _____

SUMMARY OF RESULTS OF INSPECTION _____

RESOURCE LOSS WAS (CIRCLE ITEM): AVOIDABLE UNAVOIDABLE

DATE OF MEMO NOTIFYING MINERALS MANAGEMENT SERVICE THAT LOSS WAS AVOIDABLE:
NA

DATE/TIME/PERSON NOTIFIED:

STATE OFFICE _____

WASHINGTON OFFICE _____

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION:
See above. No resources lost.

REMARKS: _____

SIGNATURE OF AUTHORIZED OFFICER _____

DATE: _____ TITLE: _____

Lane, Myke (E&P)

From: Lane, Myke (E&P)
Sent: Friday, September 12, 2008 9:33 AM
To: Mark Kelly (Mark_Kelly@nm.blm.gov)
Subject: Rosa 100E Pit Removal - UE
Attachments: NM 3162-1 UE Rosa 100E 9-12-08.DOC

Mark please accept the attached release report for the 100E pit closure.

Michael K. (Myke) Lane, PE
EH&S Team Leader - San Juan Basin Operations
721 S. Main/PO Box 640, Aztec, NM 87410
(505) 634-4219(off); -4205(fax); 330-3198(cell)

"The problems we face cannot be resolved at the same level of thinking as that which gave rise to them!"---shared with me by Brent Hale

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

State of New Mexico
Energy Minerals and Natural Resources

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

04108-0065
Form C-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Williams Production Co, LLC, PO Box 640, Aztec, NM
Disposal Requested by: Jason Richardson (NXEJJ334281)

2. **Originating Site:**
Rosa #100E

3. **Location of Material (Street Address, City, State or ULSTR):**
I-S21-T31N-R06W, NMPM
Rio Arriba Co., NM

4. **Source and Description of Waste:** HC Impacted soil from under produced water storage pit.
Estimated Volume 15 yd^3 / bbls Known Volume (to be entered by the operator at the end of the haul) 8 yd^3 / bbls

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Michael K. Lane, representative or authorized agent for **Williams Production Co, LLC** do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

☒ RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☐ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, April E Pohl, representative for Envirotech Inc do hereby certify that
Representative/Agent Signature
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter: Riley Industrial**

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech Inc Soil Remediation Facility Permit #NM-01-0011**

Address of Facility: **Hilltop, NM**

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status:

☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: April E Pohl TITLE: Land Farm Administrator DATE: 9-16-08

SIGNATURE: April E Pohl TELEPHONE NO.: 505-632-0615
Surface Waste Management Facility Authorized Agent

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

SAMPLING & TANK REMOVAL SPILL RPRTD.

September 10, 2008

Williams Production
Mr. Myke Lane
P.O. Box 640
Aztec, NM 87410

Phone: (505) 634-4219
Fax: (505) 634-4214

Client No.: 04108-003

Dear Mr. Lane,

Enclosed are the analytical results for the sample collected from the location designated as "Rosa 100E". One soil sample was collected by Williams Production personnel on 8/28/08 and was received by the Envirotech laboratory on 8/29/08 for BTEX per USEPA Method 8021, Total Petroleum Hydrocarbons (TPH) per USEPA Method 8015, Total Petroleum Hydrocarbons (TPH) per USEPA Method 418.1 and Chloride analysis.

The sample was documented on Envirotech Chain of Custody No. 5162 and assigned Laboratory No. 46992 (SGT) for tracking purposes.

The sample was analyzed on 9/05/08 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Lab Manager

enc.

RECEIVED
SEP 12 2008
WPX

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Williams Prod.	Project #:	04108-0003
Sample ID:	SGT	Date Reported:	09-09-08
Laboratory Number:	46992	Date Sampled:	08-28-08
Chain of Custody No:	5162	Date Received:	08-29-08
Sample Matrix:	Soil	Date Extracted:	09-04-08
Preservative:		Date Analyzed:	09-05-08
Condition:	Intact	Analysis Requested:	8015 TPH

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

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Rosa 100E**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Williams Prod.	Project #:	04108-0003
Sample ID:	SGT	Date Reported:	09-09-08
Laboratory Number:	46992	Date Sampled:	08-28-08
Chain of Custody:	5162	Date Received:	08-29-08
Sample Matrix:	Soil	Date Analyzed:	09-05-08
Preservative:		Date Extracted:	09-04-08
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**0.9**
Toluene	**58.5**	**1.0**
Ethylbenzene	**9.7**	**1.0**
p,m-Xylene	**48.2**	**1.2**
o-Xylene	**24.9**	**0.9**
Total BTEX	**141**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**98.0 %**
	1,4-difluorobenzene	**98.0 %**
	Bromochlorobenzene	**98.0 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Rosa 100E**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Williams Prod	Project #:	04108-0003
Sample ID:	SGT	Date Reported:	09-10-08
Laboratory Number:	46992	Date Sampled:	08-28-08
Chain of Custody No:	5162	Date Received:	09-29-08
Sample Matrix:	Soil	Date Extracted:	09-05-08
Preservative:		Date Analyzed:	09-05-08
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**222**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Rosa 100E.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	Williams Prod	Project #:	04108-0003
Sample ID:	SGT	Date Reported:	09-10-08
Lab ID#:	46962	Date Sampled:	08-28-08
Sample Matrix:	Soil	Date Received:	08-29-08
Preservative:		Date Analyzed:	09-05-08
Condition:	Intact	Chain of Custody:	5162

Parameter	Concentration (mg/Kg)
Total Chloride	**32.0**

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Rosa 100E.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	09-05-08 QA/QC	Date Reported:	09-09-08
Laboratory Number:	46985	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-05-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	9.9190E+002	9.9229E+002	**0.04%**	**0 - 15%**
Diesel Range C10 - C28	05-07-07	1.0021E+003	1.0025E+003	**0.04%**	**0 - 15%**

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	**ND**	**0.2**
Diesel Range C10 - C28	**ND**	**0.1**
Total Petroleum Hydrocarbons	**ND**	**0.2**

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	**ND**	**ND**	**0.0%**	**0 - 30%**
Diesel Range C10 - C28	**ND**	**ND**	**0.0%**	**0 - 30%**

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	**ND**	**250**	**252**	**101%**	**75 - 125%**
Diesel Range C10 - C28	**ND**	**250**	**254**	**102%**	**75 - 125%**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 46984 - 46987, 46992, and 46993.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	09-05-BT QA/QC	Date Reported:	09-09-08
Laboratory Number	46985	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-05-08
Condition.	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	8.0875E+007	8 1037E+007	**0.2%**	**ND**	**0.1**
Toluene	6 2040E+007	6 2164E+007	**0.2%**	**ND**	**0.1**
Ethylbenzene	4 8594E+007	4.8691E+007	**0.2%**	**ND**	**0.1**
p,m-Xylene	1.0104E+008	1 0124E+008	**0.2%**	**ND**	**0.1**
o-Xylene	4.6678E+007	4.6771E+007	**0.2%**	**ND**	**0.1**

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	**1.8**	**1.9**	**5.6%**	**0 - 30%**	**0.9**
Toluene	**5.2**	**5.5**	**5.8%**	**0 - 30%**	**1.0**
Ethylbenzene	**2.8**	**3.0**	**7.1%**	**0 - 30%**	**1.0**
p,m-Xylene	**3.8**	**3.9**	**2.6%**	**0 - 30%**	**1.2**
o-Xylene	**2.9**	**3.1**	**6.9%**	**0 - 30%**	**0.9**

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	**1.8**	**50.0**	**51.4**	**99.2%**	**39 - 150**
Toluene	**5.2**	**50.0**	**53.2**	**96.4%**	**46 - 148**
Ethylbenzene	**2.8**	**50.0**	**49.8**	**94.3%**	**32 - 160**
p,m-Xylene	**3.8**	**100**	**98.8**	**95.2%**	**46 - 148**
o-Xylene	**2.9**	**50.0**	**47.9**	**90.5%**	**46 - 148**

ND - Parameter not detected at the stated detection limit.

References. Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996

Comments: **QA/QC for Samples 46984 - 46993.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM HYROCARBONS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	09-08-08
Laboratory Number:	09-05-TPH.QA/QC 46985	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	09-03-08
Preservative:	N/A	Date Extracted:	09-03-08
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	08-22-08	09-03-08	1,680	1,590	5.4%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	13.4

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	73.9	53.7	27.3%	+/- 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	73.9	2,000	1,850	89.2%	80 - 120%

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **QA/QC for Samples 46984 - 46987 and 46992.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615 • Fax 505-632-1865

CHAIN OF CUSTODY RECORD

5162

Client: Williams Prod.	Project Name / Location: Rosa 100E
Client Address:	Sampler Name: Jason Richardson
Client Phone No.:	Client No.: 04108-0003

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Preservative	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
SGT	8/28	1500	46992	~~Soil~~ Sludge Solid Aqueous	1			✓	✓	✓							✓	✓					✓
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			
				Soil Sludge Solid Aqueous																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	~~8/28~~ 8/29	1350	[signature]	8/29/08	1350
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

RECEIVED
SEP 12 2008
WPX

ENVIROTECH INC.

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615