

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

3678

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: Black Hills Gas Resources OGRID #: 013925  
Address: P.O. Box 249 / 3200 North First Street Bloomfield, NM 87413  
Facility or well name: Jicarilla 457-04 #144  
API Number: 30-039-30100 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr Unit J / NW/SE Section 4 Township 30 North Range 3 West County: Rio Arriba  
Center of Proposed Design: Latitude: 36.835876° N Longitude: 107.148541 W 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 \_\_\_\_\_

4.  
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
Tank Construction material: \_\_\_\_\_  
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_  
Liner type: 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 \_\_\_\_\_

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.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> 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).<br>- Topographic map; Visual inspection (certification) of the proposed site   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>(Applies to temporary, emergency, or cavitation pits and below-grade tanks)<br>- Visual inspection (certification) of the proposed site; Aerial photo, Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>(Applies to permanent pits)<br>- Visual inspection (certification) of the proposed site; Aerial photo, Satellite image   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> 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.<br>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> 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.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 500 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within the area overlying a subsurface mine.<br>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within an unstable area.<br>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources, USGS; NM Geological Society; Topographic map  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within a 100-year floodplain<br>- FEMA map   | <input type="checkbox"/> Yes <input type="checkbox"/> 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 NMAC
- ☐ 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<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 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  
☐ AlternativeProposed 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 &amp; 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 D. Kelly Approval Date: 1/12/2012

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: 6/01/2009

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

On-site Closure Location: Latitude 36.69839° N Longitude 107.26538° W 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): Daniel Manus Title: Regulatory Technician

Signature: Daniel Manus Date: 7/1/09

e-mail address: daniel.manus@blackhillscorp.com Telephone: 505-634-1111 ext 28



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**Inter-Mountain Laboratories**

Date: 26-Nov-08

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**CLIENT:** Black Hills Gas Resources  
**Project:** Jic457-4#144 Pit  
**Lab Order:** O0811026

**CASE NARRATIVE**

**Report ID:** O0811026001

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This data package consists of the following:

Case Narrative - 1 page  
Sample Analysis Reports - 1 pages  
Quality Control Reports - 7 pages  
Inorganic Sample Analysis Reports - 1 page  
Copy of the Chain of Custody Record - 1 page  
Condition Upon Receipt form - 1 page

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Samples were analyzed for organic constituents using the methods outlined in the following references:

- Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition, United States Environmental Protection Agency (USEPA).

The use of test methods using CFC-113 has been discouraged or disallowed by the EPA as per the final rules in Federal register 40 CFR Parts 136 and 260, Vol. 64, No. 93 / Friday, May 14, 1999 and final rules 40 CFR Parts 122, 136, 141, 143, 430, 455, and 465, Volume 72, Number 47, March 12, 2007. Inter-Mountain labs has replaced 418.1 with 1664.

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All method blanks, duplicates, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Data qualifiers are defined at the bottom of each page.



## **Black Hills Gas Resources**

**Jicarilla 457-04 #144**

Surface Location: 775' FSL 454' FEL (NW/SE) Unit J

Sec. 04 T30N R3W

Rio Arriba County, New Mexico

Lease: Contract 457

### **Closure Report Compliance Demonstrations**

- **Pit closure date**
  - Pit was closed on June 1, 2009
- **Proof of Closure Notification**
  - See attached letter and certified mail return receipt
- **Proof of Deed Notice**
  - The pit is located on Jicarilla Apache Reservation.
- **Plot Plan**
  - See attached Plot Plan for the pit and the well location map.
- **Confirmation Sampling**
  - See attached supporting analytical results
    - Benzene measured ND below the *detection limit of 0.2 mg/kg*
    - BTEX measured ND mg/kg total, below the *detection limit of 50 mg/kg total*
    - TPH measured ND mg/kg below the *detection limit of 2500 mg/kg*
    - GRO measured ND mg/kg below the *detection limit of 500 mg/kg*
    - DRO measured 47 mg/kg below the *detection limit of 500 mg/kg*
    - Chloride measured 50 below the *detection limit of 1000 mg/kg*
- **Soil Backfilling and Cover Installation**
  - The pit was closed using BHGR previously approved closure plan.
    - Highlights
      - The pit contents were blended 3 to 1 and sampled
      - Four-foot of soil cover was used to cover the pit contents.
      - Topsoil was applied to the thickness of background topsoil.
      - Seeds were applied using a Land Pride drill seeder set at approximately 21 pounds per acre. Approximately 1.5 acres including the pit were reclaimed and re-seeded with a total of approximately 32 pounds of seed used.
    - See BHGR typical pit closure design
- **Re-vegetation Application Rate**
  - The approved BIA/Jicarilla seed mix was applied at a rate of 21 pounds per acre.
  - See attached BIA/Jicarilla seed mixture and application rates.
- **Site Reclamation**
  - See attached before and after photos of the pit.
- **Pit inspection**
  - See attached.

*Siting Criteria for Jicarilla 457-04 #144*



# Black Hills Gas Resources, Inc.

*A subsidiary of Black Hills Exploration and Production, Inc.*

3200 N 1<sup>st</sup> Street – PO Box 249 Bloomfield, NM 87413

**Daniel Manus**  
Regulatory Technician

Bus: (505) 634-1111 ext. 28

Fax: (505) 634-1116

[daniel.manus@blackhillscorp.com](mailto:daniel.manus@blackhillscorp.com)

June 26, 2009

Bureau of Indian Affairs  
Jicarilla Agency  
P.O. Box 167  
Dulce, NM 87528

Manual Myore:

In accordance with the State of New Mexico Rule 19.15.17.12 NMAC, Surface Owner Notification, Black Hills Gas Resources (BHGR) has closed the drilling pit for the Jicarilla 457-04 #144 gas well. The pit was closed on June 1, 2009. Attached are a site map and the Plot Plan indicating the location and the closed pit in reference to the well-head.

If there are any questions contact Daniel Manus (505) 634-1111 extensions 28.

Respectfully,

**Daniel Manus**  
Regulatory Technician

| SENDER: COMPLETE THIS SECTION  |  | COMPLETE THIS SECTION ON DELIVERY   |  |
|--|--|---|--|
| <ul style="list-style-type: none"><li>■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.</li><li>■ Print your name and address on the reverse so that we can return the card to you.</li><li>■ Attach this card to the back of the mailpiece, or on the front if space permits.</li></ul> |  | <p>A. Signature<br/><i>Henry Harrison</i> <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) <i>Henry Harrison</i> C. Date of Delivery <i>6-29-09</i></p> <p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes<br/>If YES, enter delivery address below: <input checked="" type="checkbox"/> No</p> |  |
| 1. Article Addressed to:<br><br><i>Manuel Myore<br/>BIA Jicarilla Agency<br/>PO BOX 167<br/>Dulce NM 87528</i>   |  | 3. Service Type<br><input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail<br><input type="checkbox"/> Registered <input checked="" type="checkbox"/> Return Receipt for Merchandise<br><input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.  |  |
| 2. <i>7006 0100 0003 5288 0635</i>   |  | 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes  |  |

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1541

CERTIFIED MAIL 7006 0100 0003 5288 0635

CC File  
Brandon Powell NMOCD



WELL PAD DIAGRAM

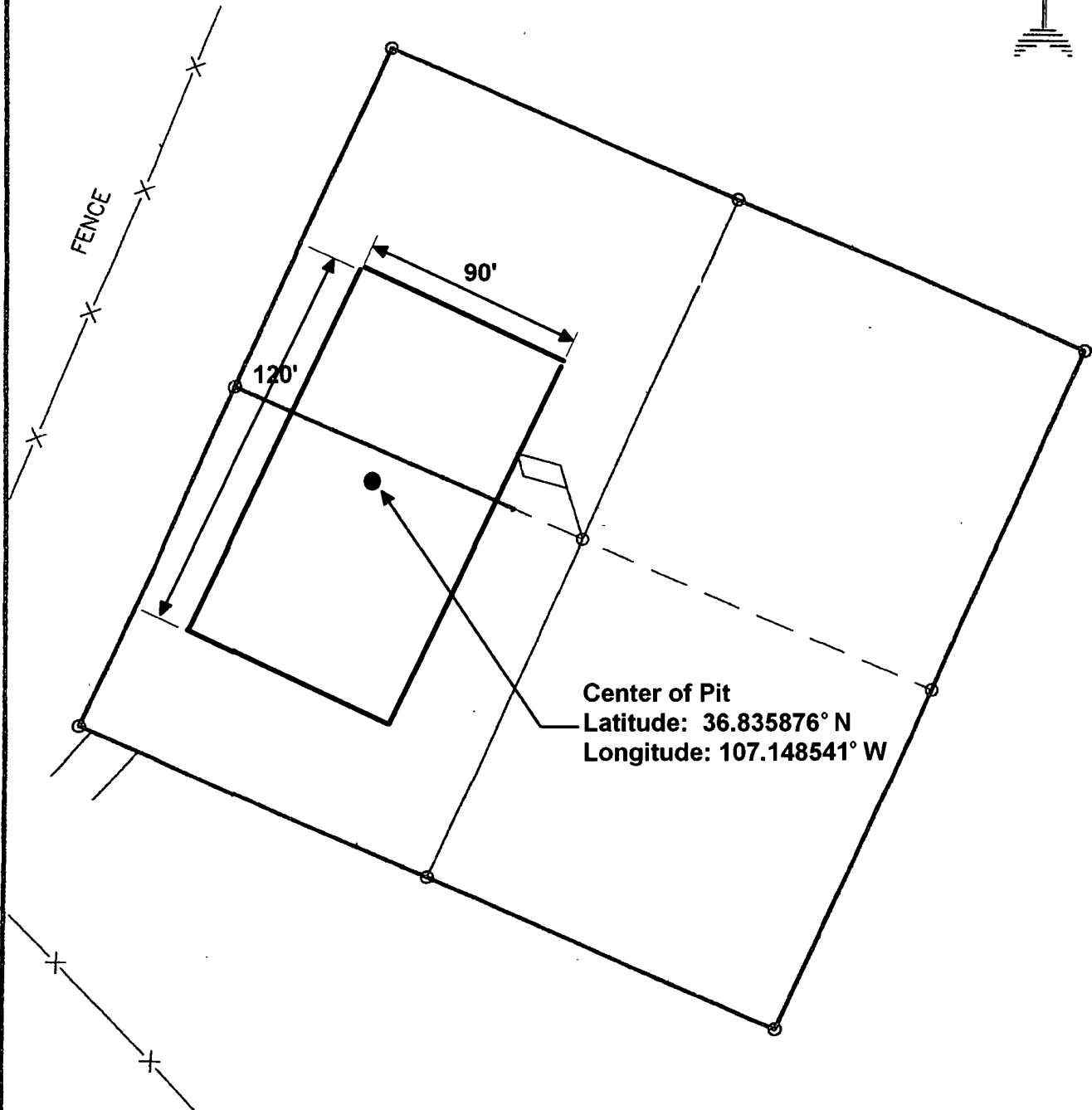
COMPANY: BLACK HILLS GAS RESOURCES

LEASE: JICARILLA 457-04 No. 44

FOOTAGE: 775 FSL 545 FEL

SEC.: 4, TWN: 30-N, RNG: 3-W, NMPM

ELEVATION: 7112'





### Sample Analysis Report

**CLIENT:** Black Hills Gas Resources

3200 North 1st Street

PO Box 249

Bloomfield, NM 87413

**Date Reported:** 11/23/2008

**Report ID:** O0811026001

**Project:** Jic457-4#144 Pit

**Lab ID:** O0811026-001

**Client Sample ID:** Jic457-4#144 Pit

**Matrix:** Soil

**Work Order:** O0811026

**Collection Date:** 11/18/2008 12:25:00 PM

**Date Received:** 11/19/2008 10:20:00 AM

**COC:** 116880

| Analyses                                  | Result | PQL  | Limits | Qual | Units | Date Analyzed/Init           |
|---|--------|------|--------|------|-------|------------------------------|
| <b>8021B MBTEXN-Soil</b>                  |        |      |        |      |       | <b>Prep Date: 11/19/2008</b> |
| Benzene                                   | ND     | 0.50 |        |      | mg/Kg | 11/20/2008 MAB               |
| Toluene                                   | ND     | 0.50 |        |      | mg/Kg | 11/20/2008 MAB               |
| Ethylbenzene                              | ND     | 0.50 |        |      | mg/Kg | 11/20/2008 MAB               |
| m,p-Xylenes                               | ND     | 1.0  |        |      | mg/Kg | 11/20/2008 MAB               |
| o-Xylene                                  | ND     | 0.50 |        |      | mg/Kg | 11/20/2008 MAB               |
| Surr: 4-Bromofluorobenzene                | 105    |      | 80-138 |      | %REC  | 11/20/2008 MAB               |
| <b>8015B Gasoline Range Organics-Soil</b> |        |      |        |      |       | <b>Prep Date: 11/19/2008</b> |
| Gasoline Range Organics (nC6-nC10)        | ND     | 10   |        |      | mg/Kg | 11/20/2008 MAB               |
| Surr: 4-Bromofluorobenzene                | 107    |      | 65-141 |      | %REC  | 11/20/2008 MAB               |
| <b>8015B Diesel Range Organics-Soil</b>   |        |      |        |      |       | <b>Prep Date: 11/20/2008</b> |
| Diesel Range Organics (nC10-nC32)         | 47     | 20   |        |      | mg/Kg | 11/21/2008 ECS               |
| Surr: o-Terphenyl                         | 80.5   |      | 56-117 |      | %REC  | 11/21/2008 ECS               |

These results apply only to the samples tested.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- D Diluted out of recovery limit
- H Holding times for preparation or analysis exceeded
- M Matrix Effect
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit

Reviewed by:

Tom Patten, Laboratory Manager



## ANALYTICAL QC SUMMARY REPORT

Date: 11/23/2008

CLIENT: Black Hills Gas Resources

Report ID: O0811026001Q

Work Order: O0811026

Project: Jic457-4#144 Pit

TestCode: 8015DROS

|                                   |                |                    |              |                           |              |          |           |             |      |          |      |
|-----------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-3104                | SampType: MBLK | TestCode: 8015DROS | Units: mg/Kg | Prep Date: 11/20/2008     | RunNo: 4272  |          |           |             |      |          |      |
| Client ID: ZZZZZ                  | Batch ID: 3104 | TestNo: 8015DROS   | (SW3550A)    | Analysis Date: 11/21/2008 | SeqNo: 62865 |          |           |             |      |          |      |
| Analyte                           | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Diesel Range Organics (nC10-nC32) | ND             | 20                 |              |                           |              |          |           |             |      |          |      |
| Surr. o-Terphenyl                 |                |                    |              |                           | 86.2         | 56       | 117       |             |      |          |      |

|                                   |                |                    |              |                           |              |          |           |             |      |          |      |
|-----------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-3104               | SampType: LCS  | TestCode: 8015DROS | Units: mg/Kg | Prep Date: 11/20/2008     | RunNo: 4272  |          |           |             |      |          |      |
| Client ID: ZZZZZ                  | Batch ID: 3104 | TestNo: 8015DROS   | (SW3550A)    | Analysis Date: 11/21/2008 | SeqNo: 62866 |          |           |             |      |          |      |
| Analyte                           | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Diesel Range Organics (nC10-nC32) | 108.9          | 20                 | 160          |                           | 68           | 50       | 99        |             |      |          |      |
| Surr: o-Terphenyl                 |                |                    |              |                           | 85.6         | 56       | 117       |             |      |          |      |

|                                   |                |                    |              |                           |              |          |           |             |      |          |      |
|-----------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCSD-3104              | SampType LCSD  | TestCode: 8015DROS | Units: mg/Kg | Prep Date: 11/20/2008     | RunNo: 4272  |          |           |             |      |          |      |
| Client ID: ZZZZZ                  | Batch ID: 3104 | TestNo: 8015DROS   | (SW3550A)    | Analysis Date: 11/21/2008 | SeqNo: 62867 |          |           |             |      |          |      |
| Analyte                           | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Diesel Range Organics (nC10-nC32) | 106.1          | 20                 | 160          | 0                         | 66.3         | 50       | 99        | 108.9       | 2.54 | 20       |      |
| Surr. o-Terphenyl                 |                |                    |              | 0                         | 85.9         | 56       | 117       | 0           | 0    | 20       |      |

|             |   |  |   |   |    |  |
|-------------|---|--|---|---|----|--|
| Qualifiers: | D | Diluted out of recovery limit              | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
|             | J | Analyte detected below quantitation limits | M | Matrix Effect                                   | ND | Not Detected at the Reporting Limit                |
|             | R | RPD outside accepted recovery limits       | S | Spike Recovery outside accepted recovery limits |    |  |



## ANALYTICAL QC SUMMARY REPORT

Date: 11/23/2008

CLIENT: Black Hills Gas Resources

Report ID: O0811026001Q

Work Order: O0811026

Project: Jic457-4#144 Pit

TestCode: 8015DROS

|                                   |                |                    |              |                           |              |          |           |             |      |          |      |
|-----------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: O0811027-006AMS        | SampType: MS   | TestCode: 8015DROS | Units: mg/Kg | Prep Date: 11/20/2008     | RunNo: 4272  |          |           |             |      |          |      |
| Client ID: ZZZZZ                  | Batch ID: 3104 | TestNo: 8015DROS   | (SW3550A)    | Analysis Date: 11/21/2008 | SeqNo: 62877 |          |           |             |      |          |      |
| Analyte                           | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Diesel Range Organics (nC10-nC32) | 178.7          | 20                 | 160          | 89.58                     | 55.7         | 29       | 110       | 0           | 0    |          |      |
| Surr: o-Terphenyl                 |                |                    |              | 0                         | 74.8         | 56       | 117       | 0           | 0    |          |      |

|                                   |                |                    |              |                           |              |          |           |             |       |          |      |
|-----------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|-------|----------|------|
| Sample ID: O0811027-001ADUP       | SampType: DUP  | TestCode: 8015DROS | Units: mg/Kg | Prep Date: 11/20/2008     | RunNo: 4272  |          |           |             |       |          |      |
| Client ID: ZZZZZ                  | Batch ID: 3104 | TestNo: 8015DROS   | (SW3550A)    | Analysis Date: 11/21/2008 | SeqNo: 62870 |          |           |             |       |          |      |
| Analyte                           | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| Diesel Range Organics (nC10-nC32) | 90.83          | 20                 | 0            | 0                         | 0            | 0        | 0         | 90.72       | 0.123 | 20       |      |
| Surr: o-Terphenyl                 |                |                    |              | 0                         | 65.8         | 56       | 117       | 0           | 0     | 20       |      |

|             |  |   |  |
|-------------|--|---|--|
| Qualifiers: | D Diluted out of recovery limit              | E Value above quantitation range                  | H Holding times for preparation or analysis exceeded |
|             | J Analyte detected below quantitation limits | M Matrix Effect                                   | ND Not Detected at the Reporting Limit               |
|             | R RPD outside accepted recovery limits       | S Spike Recovery outside accepted recovery limits |  |



## ANALYTICAL QC SUMMARY REPORT

Date: 11/23/2008

CLIENT: Black Hills Gas Resources

Report ID: O0811026001Q

Work Order: O0811026

Project: Jic457-4#144 Pit

TestCode: 8015GROS

|                                    |                |                    |              |               |            |          |           |             |      |          |      |
|------------------------------------|----------------|--------------------|--------------|---------------|------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-3103                 | SampType: MBLK | TestCode: 8015GROS | Units: mg/Kg | Prep Date     | 11/19/2008 | RunNo    | 4268      |             |      |          |      |
| Client ID: ZZZZZ                   | Batch ID: 3103 | TestNo: 8015GROS   | (SW5035)     | Analysis Date | 11/20/2008 | SeqNo    | 62775     |             |      |          |      |
| Analyte                            | Result         | PQL                | SPK value    | SPK Ref Val   | %REC       | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (nC6-nC10) | ND             | 10                 |              |               |            |          |           |             |      |          |      |
| Surr: 4-Bromofluorobenzene         |                |                    |              |               | 108        | 65       | 141       |             |      |          |      |

|                                    |                |                           |              |                           |              |          |           |             |      |          |      |
|------------------------------------|----------------|---------------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCS-3103                | SampType: LCS  | TestCode: 8015GROS        | Units: mg/Kg | Prep Date: 11/19/2008     | RunNo: 4268  |          |           |             |      |          |      |
| Client ID: ZZZZZ                   | Batch ID: 3103 | TestNo: 8015GROS (SW5035) |              | Analysis Date: 11/20/2008 | SeqNo: 62773 |          |           |             |      |          |      |
| Analyte                            | Result         | PQL                       | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (nC6-nC10) | 87.59          | 10                        | 90           |                           | 97.3         | 75       | 118       |             |      |          |      |
| Surr: 4-Bromofluorobenzene         |                |                           |              |                           | 103          | 65       | 141       |             |      |          |      |

|                                    |                |                    |              |                           |              |          |           |             |      |          |      |
|------------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: LCSD-3103               | SampType: LCSD | TestCode: 8015GROS | Units: mg/Kg | Prep Date: 11/19/2008     | RunNo: 4268  |          |           |             |      |          |      |
| Client ID: ZZZZZ                   | Batch ID: 3103 | TestNo: 8015GROS   | (SW5035)     | Analysis Date: 11/20/2008 | SeqNo: 62774 |          |           |             |      |          |      |
| Analyte                            | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (nC6-nC10) | 104.4          | 10                 | 90           | 0                         | 116          | 75       | 118       | 87.59       | 17.5 | 20       |      |
| Surr: 4-Bromofluorobenzene         |                |                    |              | 0                         | 104          | 65       | 141       | 0           | 0    | 20       |      |

Qualifiers: D Diluted out of recovery limit  
J Analyte detected below quantitation limits  
R RPD outside accepted recovery limits

E Value above quantitation range  
M Matrix Effect  
S Spike Recovery outside accepted recovery limits

H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit



## ANALYTICAL QC SUMMARY REPORT

Date: 11/23/2008

CLIENT: Black Hills Gas Resources

Report ID: O0811026001Q

Work Order: O0811026

Project: Jic457-4#144 Pit

TestCode: 8015GROS

|                                    |                |                    |              |                           |              |          |           |             |      |          |      |
|------------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: O0811026-001AMS         | SampType: MS   | TestCode: 8015GROS | Units: mg/Kg | Prep Date: 11/19/2008     | RunNo: 4268  |          |           |             |      |          |      |
| Client ID: Jic457-4#144 Pit        | Batch ID: 3103 | TestNo: 8015GROS   | (SW5035)     | Analysis Date: 11/20/2008 | SeqNo: 62776 |          |           |             |      |          |      |
| Analyte                            | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (nC6-nC10) | 92.66          | 10                 | 90           | 0                         | 103          | 58       | 122       | 0           | 0    |          |      |
| Surr: 4-Bromofluorobenzene         |                |                    |              | 0                         | 108          | 65       | 141       | 0           | 0    |          |      |

|                                    |                |                    |              |                           |              |          |           |             |      |          |      |
|------------------------------------|----------------|--------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: O0811026-001AMSD        | SampType: MSD  | TestCode: 8015GROS | Units: mg/Kg | Prep Date: 11/19/2008     | RunNo: 4268  |          |           |             |      |          |      |
| Client ID: Jic457-4#144 Pit        | Batch ID: 3103 | TestNo: 8015GROS   | (SW5035)     | Analysis Date: 11/20/2008 | SeqNo: 62778 |          |           |             |      |          |      |
| Analyte                            | Result         | PQL                | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (nC6-nC10) | 90.47          | 10                 | 90           | 0                         | 101          | 58       | 122       | 92.66       | 2.40 | 20       |      |
| Surr: 4-Bromofluorobenzene         |                |                    |              | 0                         | 105          | 65       | 141       | 0           | 0    | 20       |      |

|             |   |  |   |   |    |  |
|-------------|---|--|---|---|----|--|
| Qualifiers: | D | Diluted out of recovery limit              | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
|             | J | Analyte detected below quantitation limits | M | Matrix Effect                                   | ND | Not Detected at the Reporting Limit                |
|             | R | RPD outside accepted recovery limits       | S | Spike Recovery outside accepted recovery limits |    |  |



## ANALYTICAL QC SUMMARY REPORT

Date: 11/23/2008

CLIENT: Black Hills Gas Resources

Report ID: O0811026001Q

Work Order: O0811026

Project: Jic457-4#144 Pit

TestCode: 8021MBTEXN\_S

|                            |                |                             |                                   |             |                           |                       |             |             |      |          |      |
|----------------------------|----------------|-----------------------------|-----------------------------------|-------------|---------------------------|-----------------------|-------------|-------------|------|----------|------|
| Sample ID                  | MB-3103        | SampType: MBLK              | TestCode: 8021MBTEXN Units: mg/Kg |             |                           | Prep Date: 11/19/2008 | RunNo: 4267 |             |      |          |      |
| Client ID: ZZZZZ           | Batch ID: 3103 | TestNo: 8021MBTEXN (SW5035) |                                   |             | Analysis Date: 11/20/2008 | SeqNo: 62769          |             |             |      |          |      |
| Analyte                    | Result         | PQL                         | SPK value                         | SPK Ref Val | %REC                      | LowLimit              | HighLimit   | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene                    | ND             | 0.50                        |                                   |             |                           |                       |             |             |      |          |      |
| Toluene                    | ND             | 0.50                        |                                   |             |                           |                       |             |             |      |          |      |
| Ethylbenzene               | ND             | 0.50                        |                                   |             |                           |                       |             |             |      |          |      |
| m,p-Xylenes                | ND             | 1.0                         |                                   |             |                           |                       |             |             |      |          |      |
| o-Xylene                   | ND             | 0.50                        |                                   |             |                           |                       |             |             |      |          |      |
| Surr: 4-Bromofluorobenzene |                |                             |                                   |             | 105                       | 80                    | 138         |             |      |          |      |

|                            |          |                |                             |              |                           |              |           |             |      |          |      |
|----------------------------|----------|----------------|-----------------------------|--------------|---------------------------|--------------|-----------|-------------|------|----------|------|
| Sample ID                  | LCS-3103 | SampType: LCS  | TestCode: 8021MBTEXN        | Units: mg/Kg | Prep Date: 11/19/2008     | RunNo: 4267  |           |             |      |          |      |
| Client ID:                 | ZZZZZ    | Batch ID: 3103 | TestNo: 8021MBTEXN (SW5035) |              | Analysis Date: 11/20/2008 | SeqNo: 62767 |           |             |      |          |      |
| Analyte                    | Result   | PQL            | SPK value                   | SPK Ref Val  | %REC                      | LowLimit     | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene                    | 9.445    | 0.50           | 10                          |              | 94.4                      | 82           | 104       |             |      |          |      |
| Toluene                    | 9.790    | 0.50           | 10                          |              | 97.9                      | 82           | 107       |             |      |          |      |
| Ethylbenzene               | 9.235    | 0.50           | 10                          |              | 92.4                      | 85           | 108       |             |      |          |      |
| m,p-Xylenes                | 19.17    | 1.0            | 20                          |              | 95.8                      | 87           | 109       |             |      |          |      |
| o-Xylene                   | 10.57    | 0.50           | 10                          |              | 106                       | 84           | 110       |             |      |          |      |
| Surr: 4-Bromofluorobenzene |          |                |                             |              | 106                       | 80           | 138       |             |      |          |      |

|             |   |  |   |   |    |  |
|-------------|---|--|---|---|----|--|
| Qualifiers: | D | Diluted out of recovery limit              | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
|             | J | Analyte detected below quantitation limits | M | Matrix Effect                                   | ND | Not Detected at the Reporting Limit                |
|             | R | RPD outside accepted recovery limits       | S | Spike Recovery outside accepted recovery limits |    |  |



## ANALYTICAL QC SUMMARY REPORT

Date: 11/23/2008

CLIENT: Black Hills Gas Resources

Report ID: O0811026001Q

Work Order: O0811026

Project: Jic457-4#144 Pit

TestCode: 8021MBTEXN\_S

|                            |                |                                   |           |             |      |                           |           |             |              |          |      |
|----------------------------|----------------|-----------------------------------|-----------|-------------|------|---------------------------|-----------|-------------|--------------|----------|------|
| Sample ID: LCSD-3103       | SampType: LCSD | TestCode: 8021MBTEXN Units: mg/Kg |           |             |      | Prep Date: 11/19/2008     |           |             | RunNo: 4267  |          |      |
| Client ID: ZZZZZ           | Batch ID: 3103 | TestNo. 8021MBTEXN (SW5035)       |           |             |      | Analysis Date: 11/20/2008 |           |             | SeqNo: 62768 |          |      |
| Analyte                    | Result         | PQL                               | SPK value | SPK Ref Val | %REC | LowLimit                  | HighLimit | RPD Ref Val | %RPD         | RPDLimit | Qual |
| Benzene                    | 9.720          | 0.50                              | 10        | 0           | 97.2 | 82                        | 104       | 9.445       | 2.87         | 20       |      |
| Toluene                    | 10.06          | 0.50                              | 10        | 0           | 101  | 82                        | 107       | 9.79        | 2.77         | 20       |      |
| Ethylbenzene               | 9.450          | 0.50                              | 10        | 0           | 94.5 | 85                        | 108       | 9.235       | 2.30         | 20       |      |
| m,p-Xylenes                | 19.82          | 1.0                               | 20        | 0           | 99.1 | 87                        | 109       | 19.17       | 3.33         | 20       |      |
| o-Xylene                   | 10.38          | 0.50                              | 10        | 0           | 104  | 84                        | 110       | 10.57       | 1.81         | 20       |      |
| Surr: 4-Bromofluorobenzene |                |                                   |           | 0           | 105  | 80                        | 138       | 0           | 0            | 20       |      |

|                             |                |                             |              |                           |              |          |           |             |      |          |      |
|-----------------------------|----------------|-----------------------------|--------------|---------------------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: O0811026-001AMS  | SampType: MS   | TestCode: 8021MBTEXN        | Units: mg/Kg | Prep Date: 11/19/2008     | RunNo: 4267  |          |           |             |      |          |      |
| Client ID: Jic457-4#144 Pit | Batch ID: 3103 | TestNo: 8021MBTEXN (SW5035) |              | Analysis Date: 11/20/2008 | SeqNo: 62770 |          |           |             |      |          |      |
| Analyte                     | Result         | PQL                         | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Benzene                     | 9.425          | 0.50                        | 10           | 0                         | 94.2         | 73       | 103       | 0           | 0    |          |      |
| Toluene                     | 9.680          | 0.50                        | 10           | 0                         | 96.8         | 75       | 103       | 0           | 0    |          |      |
| Ethylbenzene                | 9.380          | 0.50                        | 10           | 0                         | 93.8         | 76       | 109       | 0           | 0    |          |      |
| m,p-Xylenes                 | 19.72          | 1.0                         | 20           | 0                         | 98.6         | 77       | 107       | 0           | 0    |          |      |
| o-Xylene                    | 10.46          | 0.50                        | 10           | 0                         | 105          | 77       | 107       | 0           | 0    |          |      |
| Surr: 4-Bromofluorobenzene  |                |                             |              | 0                         | 109          | 80       | 138       | 0           | 0    |          |      |

|             |   |  |   |   |    |  |
|-------------|---|--|---|---|----|--|
| Qualifiers: | D | Diluted out of recovery limit              | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
|             | J | Analyte detected below quantitation limits | M | Matrix Effect                                   | ND | Not Detected at the Reporting Limit                |
|             | R | RPD outside accepted recovery limits       | S | Spike Recovery outside accepted recovery limits |    |  |





## ANALYTICAL QC SUMMARY REPORT

Date: 11/23/2008

CLIENT: Black Hills Gas Resources

Report ID: O0811026001Q

Work Order: O0811026

Project: Jic457-4#144 Pit

TestCode: 8021MBTEXN\_S

| Sample ID: O0811026-001AMSD | SampType: MSD  | TestCode: 8021MBTEXN        | Units: mg/Kg | Prep Date: 11/19/2008     | RunNo: 4267  |          |           |             |       |          |      |
|-----------------------------|----------------|-----------------------------|--------------|---------------------------|--------------|----------|-----------|-------------|-------|----------|------|
| Client ID: Jic457-4#144 Pit | Batch ID: 3103 | TestNo: 8021MBTEXN (SW5035) |              | Analysis Date: 11/20/2008 | SeqNo: 62772 |          |           |             |       |          |      |
| Analyte                     | Result         | PQL                         | SPK value    | SPK Ref Val               | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| Benzene                     | 9.360          | 0.50                        | 10           | 0                         | 93.6         | 73       | 103       | 9.425       | 0.692 | 20       |      |
| Toluene                     | 9.895          | 0.50                        | 10           | 0                         | 99           | 75       | 103       | 9.68        | 2.20  | 20       |      |
| Ethylbenzene                | 9.535          | 0.50                        | 10           | 0                         | 95.4         | 76       | 109       | 9.38        | 1.64  | 20       |      |
| m,p-Xylenes                 | 20.00          | 1.0                         | 20           | 0                         | 100          | 77       | 107       | 19.72       | 1.46  | 20       |      |
| o-Xylene                    | 10.47          | 0.50                        | 10           | 0                         | 105          | 77       | 107       | 10.46       | 0.143 | 20       |      |
| Surr: 4-Bromofluorobenzene  |                |                             |              | 0                         | 107          | 80       | 138       | 0           | 0     | 20       |      |

|             |   |  |   |   |    |  |
|-------------|---|--|---|---|----|--|
| Qualifiers: | D | Diluted out of recovery limit              | E | Value above quantitation range                  | H  | Holding times for preparation or analysis exceeded |
|             | J | Analyte detected below quantitation limits | M | Matrix Effect                                   | ND | Not Detected at the Reporting Limit                |
|             | R | RPD outside accepted recovery limits       | S | Spike Recovery outside accepted recovery limits |    |  |



Inter-Mountain Laboratories, Inc  
1673 Terra Avenue, Sheridan, Wyoming 82801

(307) 672-8945

### Sample Analysis Report

**CLIENT:** Black Hills Gas Resources  
3200 North 1st Street; P.O. Box 249  
Bloomfield, NM 87413

**Date Reported:** 11/25/2008  
**Report ID:** S0811319001

**Project:** Jic457-4 #144 Pit  
**Lab ID:** S0811319-001  
**Client Sample ID:** Jic457-4 #144 Pit  
**COC:** 116880

**Work Order:** S0811319  
**Collection Date:** 11/18/2008  
**Date Received:** 11/19/2008  
**Sampler:**  
**Matrix:** Soil

| Analyses                    | Result | PQL  | Qual | Units | Date Analyzed/Init  | Method     |
|-----------------------------|--------|------|------|-------|---------------------|------------|
| General Parameters-Soil     |        |      |      |       |                     |            |
| Total Petroleum Hydrocarbon | ND     | 200  |      | ppm   | 11/24/2008 1105 TWP | EPA 1664   |
| Soil Anions                 |        |      |      |       |                     |            |
| Chloride                    | 50.0   | 0.01 |      | ppm   | 11/25/2008 1045 LK  | USDA 60-3a |

These results apply only to the samples tested.

**Qualifiers:**

- Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- M Value exceeds Monthly Ave or MCL
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- L Analyzed by a contract laboratory
- ND Not Detected at the Reporting Limit

Reviewed by: Karen A Secor  
Karen Secor, Soil Lab Supervisor



Inter-Mountain Laboratories, Inc.

Sheridan, WY and Gillette, WY

CHAIN OF CUSTODY RECORD

This is a LEGAL DOCUMENT. All shaded fields must be completed.

# 116880

|  |   |   |                                    |
|--|---|---|------------------------------------|
| Client Name<br><b>Black Hills Gas Resources</b>                                | Project Identification<br><b>Jic457-4#144 P.H.</b>                              | Sampler (Signature/Printed)<br><b>Daniel Manus / Daniel Manus</b> | Telephone #<br><b>505 349 0327</b> |
| Report Address<br><b>PO Box 249<br/>3200 N 1st St<br/>Blainville, WY 82414</b> | Contact Name and Email<br><b>Daniel Manus<br/>daniel.manus@blackhillsco.com</b> | ANALYSES / PARAMETERS   |                                    |
| Invoice Address<br><b>SAME AS ABOVE</b>  | Voice<br><b>505 634 1111 x 28</b>   |   |                                    |
|  | FAX<br><b>505 634 1116</b>  |   |                                    |
|  | Purchase Order #  | Quote #   |                                    |

| ITEM | LAB ID<br>(Lab Use Only) | DATE<br>SAMPLED | TIME  | SAMPLE<br>IDENTIFICATION | Matrix | # of<br>Containers | BTX | GRD | PRD | TPH-418 | CL | REMARKS |
|------|--------------------------|-----------------|-------|--------------------------|--------|--------------------|-----|-----|-----|---------|----|---------|
| 1    |                          | 11-18-08        | 12:15 | Jic457-4#144 P.H.        | SL     | 4                  | X   | X   | X   | X       | X  |         |
| 2    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 3    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 4    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 5    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 6    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 7    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 8    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 9    |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 10   |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 11   |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 12   |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 13   |                          |                 |       |                          |        |                    |     |     |     |         |    |         |
| 14   |                          |                 |       |                          |        |                    |     |     |     |         |    |         |

|              |                                     |       |       |                                  |       |       |
|--------------|-------------------------------------|-------|-------|----------------------------------|-------|-------|
| LAB COMMENTS | Relinquished By (Signature/Printed) | DATE  | TIME  | Received By (Signature/Printed)  | DATE  | TIME  |
| 4.3°C        | <b>Daniel Manus / Daniel Manus</b>  | 11/18 | 16:30 | <b>Ed Scranton / Ed Scranton</b> | 11/18 | 10:20 |
|              |                                     |       |       |                                  |       |       |
|              |                                     |       |       |                                  |       |       |

|   |               |   |                            |                    |
|---|---------------|---|----------------------------|--------------------|
| SHIPPING INFO                                   | MATRIX CODES  | TURN AROUND TIMES   | COMPLIANCE INFORMATION     | ADDITIONAL REMARKS |
| <input type="checkbox"/> UPS                    | Water WT      | Check desired service                                     | Compliance Monitoring ?    |                    |
| <input checked="" type="checkbox"/> Fed Express | Soil SE       | <input type="checkbox"/> Standard turnaround              | Program (SDWA, NPDES, ...) |                    |
| <input type="checkbox"/> US Mail                | Solid SD      | <input checked="" type="checkbox"/> RUSH - 5 Working Days | PWSID / Permit #           |                    |
| <input type="checkbox"/> Hand Carried           | Trip Blank TB | <input type="checkbox"/> URGENT - < 2 Working Days        | Chlorinated?               |                    |
| <input type="checkbox"/> Other                  | Other OT      | Rush & Urgent Surcharges will be applied                  | Sample Disposal: Lab       |                    |

00811026



### Condition Upon Receipt (Attach to COC)

#### Sample Receipt

1 Number of ice chests/packages received: 1

Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples.

Temps (°C): 4.3

Acceptable is 0.1 to 6°C. Also acceptable is "Received on Ice" (ROI) for samples received on the same day as sampled or "Received at Room Temperature" (RRT) for samples received within one hour of sampling.

Client contact for temperature failures must be documented below.

3 COC Number (If applicable): 116880

4 Do the number of bottles agree with the COC?

Yes

No

N/A

5 Were the samples received intact? (no broken bottles, leaks, etc.)

Yes

No

N/A

6 Were the sample custody seals intact?

Yes

No

N/A

7 Is the COC properly completed, legible, and signed?

Yes

No

#### Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate?

Yes

No

2 Did the bottle labels correspond with the COC information?

Yes

No

3 Samples collected in proper containers?

Yes

No

4 Were all containers properly preserved?

Yes

No

N/A

Added  
at Lab

Client contact for preservation failures must be documented below.

5 VOA vials have <6mm headspace?

Yes

No

N/A

6 Were all analyses within holding time at the time of receipt?

Yes

No

7 Have rush or project due dates been checked and accepted?

Yes

No

N/A

Attach Lab ID labels to the containers and deliver to appropriate lab section.

Set ID: 00811026

8 Login verification

Client Name: Yes - No

Project Name: Yes - No

Matrix: Yes - No

Sample Receipt, Verification, Login, Labeling & Distribution completed by (initials):

SP

#### Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Initiated By: \_\_\_\_\_

Date/Time: \_\_\_\_\_

Problem: \_\_\_\_\_

Resolution: \_\_\_\_\_

Person Contacted: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

Initiated By: \_\_\_\_\_

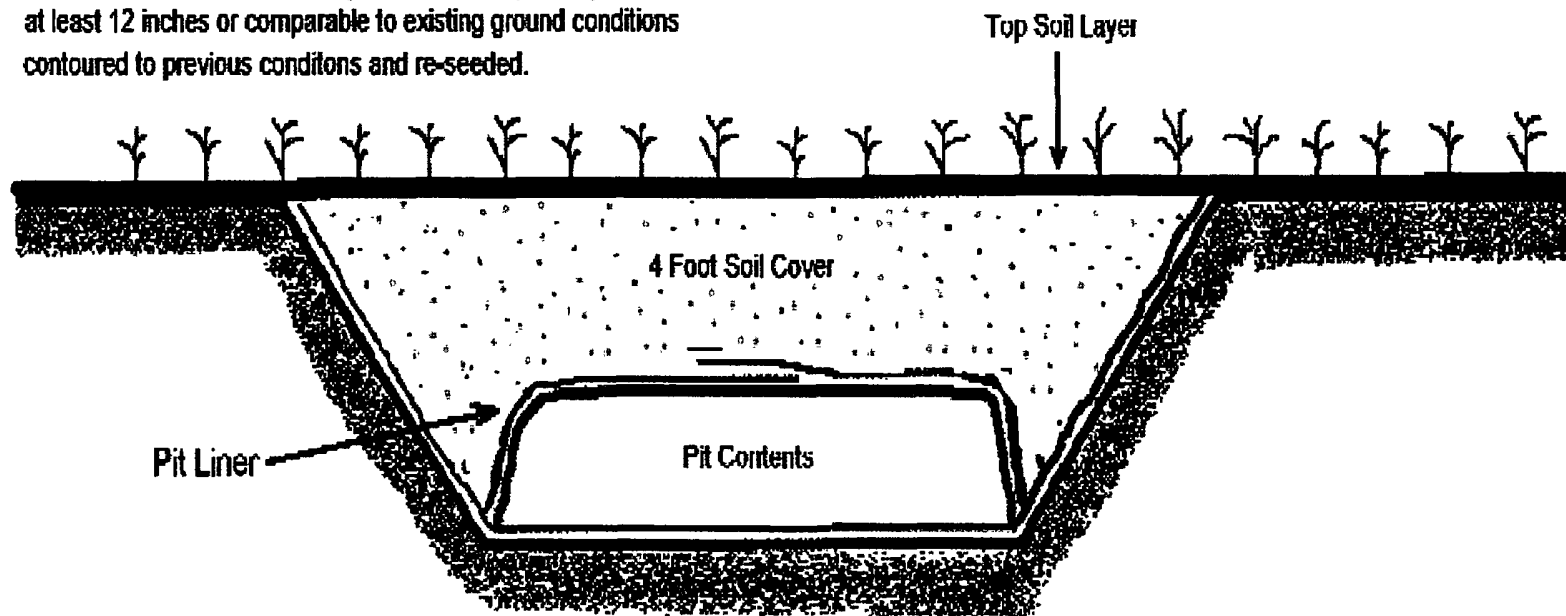
Date/Time: \_\_\_\_\_

Problem: \_\_\_\_\_

Resolution: \_\_\_\_\_

## Black Hills Gas Resources Pit Closure Diagram

Minimum 4 foot soil cover compacted with a topsoil layer at least 12 inches or comparable to existing ground conditions contoured to previous conditions and re-seeded.



### III. THREATENED AND ENDANGERED SPECIES:

If, in its operations, operator/holder discovers any Threatened/Endangered/Sensitive Species – Plant/Animal, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to the Surface Managing Agency. The Authorized Officer will then specify what action is to be taken. Failure to notify the Surface Managing Agency about a discovery that leads to the take of a listed species may result in civil or criminal penalties in accordance with the Endangered Species Act of 1973 (as amended.)

### IV. RESEEDING AND ABANDONMENT

1. All surface areas disturbed during drilling activities and not in use for production activities will be reseeded. Any stockpiled topsoil on location will be used in the seeding effort. The goal of reseeded is successful revegetation to the site's capability. If, in the opinion of the Surface Managing Agency, the seeding is unsuccessful, the lessee/operator may be required to make subsequent seedings.

In conformance with the *BLA, Jicarilla Agency and Jicarilla Apache Nation Environmental Protection Office (EPO)*, the following recommended seed mixture will be applied to the appropriate proposed action.

12/2004

| <b>NORTH (of Tapacito Wash)</b>  |                         |                 |                         |
|--|-------------------------|-----------------|-------------------------|
| <b>SEED MIXTURE</b>  | <b>LBS PLS PER ACRE</b> | <b>% OF MIX</b> | <b>% LIVE SEED/ACRE</b> |
| Alkali Sacaton<br>Salado Variety   | 1.0                     | 25              | .25                     |
| Western Wheat Grass<br>Arriba or Barton Variety                            | 8.0                     | 25              | 2.0                     |
| Intermediate Wheat<br>Grass Amur or Oahe Variety                           | 9.0                     | 20              | 1.80                    |
| Galleta<br>Caryopsis   | 2.0                     | 20              | .40                     |
| Blue Gramma<br>Machita, Lovington  | 1.0                     | 10              | .10                     |
| <b>SOUTH (of Tapacito Wash)</b>  |                         |                 |                         |
| Western Wheat Grass<br>Arriba or Barton Variety                            | 8.0                     | 25              | 2.0                     |
| Intermediate Wheat<br>Grass Amur or Oahe Variety                           | 9.0                     | 20              | 1.80                    |
| Galleta<br>Caryopsis   | 2.0                     | 20              | .40                     |
| Blue Gramma<br>Hachita, Lovington  | 1.0                     | 10              | .10                     |
| <b>Multiply LBS PLS/Per Acre X Total Acres to get total required seed.</b> |                         |                 |                         |

Species shall be planted in pounds of pure live seed per acre:

Present Pure Live Seed (PLS) = Purity X Germination/100

Two lots of seed can be compared on the basis of PLS as follows:

Source No. One (poor quality)

|             |            |
|-------------|------------|
| Purity      | 50 percent |
| Germination | 40 percent |
| Percent PLS | 20 percent |

***5 lb. bulk seed required to  
make 1 lb. PLS.***

Source No. two (better quality)

|             |            |
|-------------|------------|
| Purity      | 80 percent |
| Germination | 63 percent |
| Percent PLS | 50 percent |

***2 lb. bulk seed required to  
make 1 lb. PLS.***

Seed mixture used must be *certified*. There shall be **NO** primary or secondary noxious weeds in seed mixture. Seed labels from each bag shall be available for inspection while seed is being sown.

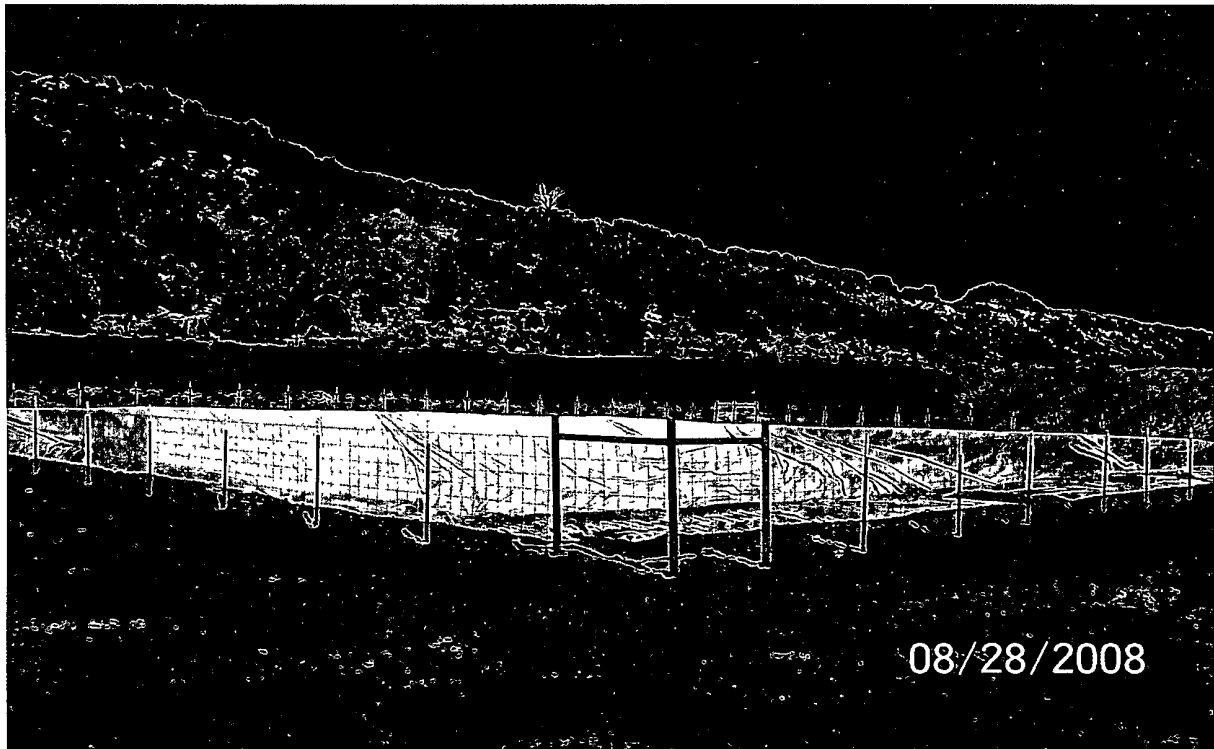
Seeding shall be accomplished between July 1 and September 15 (later date may be extended on a case-by-case basis with AO approval). Seeding shall be repeated if a satisfactory stand is not obtained as determined by the AO upon evaluation after the second growing season.

Compacted areas shall be ripped to a depth of 12" and disked to a depth of six inches before seeding. Seed with a disk-type drill with two boxes for various seed sizes. The drill rows shall be eight to ten inches apart. Seed shall be planted at not less than one-half inch deep or more than one inch deep. The seeder shall be followed with a drag, packer, or roller to ensure uniform coverage of the seed, and adequate compaction. Drilling shall be done on the contour where possible, not up and down the slope.

Where slopes are too steep for contour drilling a "cyclone" hand seeder or similar broadcast seeder shall be used. Seed shall then be covered to the depth described above by whatever means is practical, i.e. hand raked. If the seed is not covered, the prescribed seed mixture amount (pounds/acre/PLS) will be doubled.

If, upon abandonment of wells, the retention of access road is not considered necessary for the management and multiple use of the natural resources, it will be ripped a minimum of 12" in depth. After ripping, water bars will be installed. All ripped surfaces are to be protected from vehicular travel by construction of a dead end ditch and earthen barricade at the entrance to these ripped areas. (Reseeding of affected areas may be required.)

**ABANDONMENT:** Ninety days prior to termination of the ROW, the holder shall contact the AO to arrange a joint inspection of the ROW. This inspection will be held to agree to an acceptable termination (and rehabilitation) plan. This plan shall include, but is not limited to, removal of facilities, drainage structures, or surfacing material, recontouring, topsoiling or seeding. The AO must approve the plan in writing prior to the holder's commencement of any termination actions.



*Jicarilla 457-04 #144Drilling Pit Before Closure*



*Jicarilla 457-04 #144Drilling Pit After Closure*



## JICARILLA 457-04 #144

## DRILLING RIG

## PIT LEVEL DATA

## DATE

|            |                                |
|------------|--------------------------------|
| 10/8/2008  | 7' BELOW TOP, 5' BELOW MAX     |
| 10/9/2008  | 7' BELOW TOP, 5' BELOW MAX     |
| 10/10/2008 | 7' BELOW TOP, 5' BELOW MAX     |
| 10/11/2008 | 7' BELOW TOP, 5' BELOW MAX     |
| 10/12/2008 | 7' BELOW TOP, 5' BELOW MAX     |
| 10/13/2008 | 7' BELOW TOP, 5' BELOW MAX     |
| 10/14/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 10/15/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 10/16/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 10/17/2008 | 3' BELOW TOP, 1' BELOW MAX     |
| 10/18/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 10/19/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 10/20/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 10/21/2008 | 3' BELOW TOP, 1' BELOW MAX     |
| 10/22/2008 | 3' BELOW TOP, 1' BELOW MAX     |
| 10/23/2008 | 3' BELOW TOP, 1' BELOW MAX     |
| 10/24/2008 | 3' BELOW TOP, 1' BELOW MAX     |
| 10/25/2008 | 3.5' BELOW TOP, 1.5' BELOW MAX |
| 10/26/2008 | 3.5' BELOW TOP, 1.5' BELOW MAX |
| 10/27/2008 | 3.5' BELOW TOP, 1.5' BELOW MAX |
| 10/28/2008 | 3' BELOW TOP, 1' BELOW MAX     |

Darrel Baxter

## COMPLETION RIG

|            |                                |
|------------|--------------------------------|
| 11/7/2008  | 5' BELOW TOP, 3' BELOW MAX     |
| 11/8/2008  | 5' BELOW TOP, 3' BELOW MAX     |
| 11/11/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 11/12/2008 | 3.5' BELOW TOP, 1.5' BELOW MAX |
| 11/13/2008 | 3' BELOW TOP, 1' BELOW MAX     |
| 11/14/2008 | 4.5' BELOW TOP, 2.5' BELOW MAX |
| 11/15/2008 | 4' BELOW TOP, 2' BELOW MAX     |
| 11/18/2008 | 6' BELOW TOP, 4' BELOW MAX     |
| 11/19/2008 | 7' BELOW TOP, 5' BELOW MAX     |

Mike Romo

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.

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

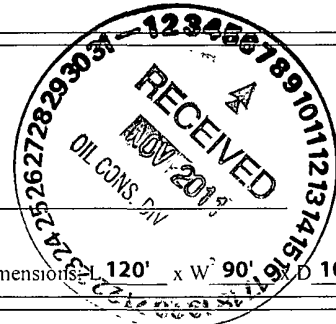
- Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  
☐ Modification to an existing permit  
☐ Closure plan only submitted for an existing permitted or non-permitted 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: **Black Hills Gas Resources** OGRID #: **013925**  
Address **3200 N 1st St Bloomfield, NM 87413**  
Facility or well name: **Jicarilla 457-4 #144**  
API Number: **30-039-30100** OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr **Unit P** Section **4** Township **30N** Range **3W** County: **Rio Arriba**  
Center of Proposed Design: Latitude **36.835876 N** Longitude **107.148541 W** 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 **20** mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☐ String-Reinforced  
Liner Seams: ☐ Welded ☒ Factory ☐ Other \_\_\_\_\_ Volume: **~ 16,000** bbl Dimensions: **120'** x **W 90'** x **D 10'**



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

4.  
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
Tank Construction material: \_\_\_\_\_  
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other \_\_\_\_\_  
Liner type: 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.

|  |   |  |
|--|---|--|
| Submit To Appropriate District Office<br>Two Copies<br><u>District I</u><br>1625 N. French Dr., Hobbs, NM 88240<br><u>District II</u><br>811 S. First St., Artesia, NM 88210<br><u>District III</u><br>1000 Rio Brazos Rd., Aztec, NM 87410<br><u>District IV</u><br>1220 S. St. Francis Dr., Santa Fe, NM 87505 | <b>State of New Mexico</b><br><b>Energy, Minerals and Natural Resources</b><br><br><b>Oil Conservation Division</b><br><b>1220 South St. Francis Dr.</b><br><b>Santa Fe, NM 87505</b> | <b>Form C-105</b><br>Revised August 1, 2011<br><br>1. WELL API NO.<br><b>30-039-30100</b><br><br>2. Type of Lease<br><input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/> FED/INDIAN<br><br>3. State Oil & Gas Lease No |
|--|---|--|

| WELL COMPLETION OR RECOMPLETION REPORT AND LOG  |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|---|----------------------------------|--|---|--|--|---------------------------------------|--------------|---|-------------|-------------------|--|
| 4. Reason for filing:<br><br><input type="checkbox"/> <b>COMPLETION REPORT</b> (Fill in boxes #1 through #31 for State and Fee wells only)<br><br><input checked="" type="checkbox"/> <b>C-144 CLOSURE ATTACHMENT</b> (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33, attach this and the plat to the C-144 closure report in accordance with 19.15.17.13 K NMAC) |                                  |  |   |  |  |                                       |              | 5. Lease Name or Unit Agreement Name<br><br><b>Contract 458</b> |             |                   |  |
| 7. Type of Completion<br><input checked="" type="checkbox"/> <b>NEW WELL</b> <input type="checkbox"/> <b>WORKOVER</b> <input type="checkbox"/> <b>DEEPENING</b> <input type="checkbox"/> <b>PLUGBACK</b> <input type="checkbox"/> <b>DIFFERENT RESERVOIR</b> <input type="checkbox"/> <b>OTHER</b>  |                                  |  |   |  |  |                                       |              | 6. Well Number:<br><br><b>Jicarilla 457-04 #144</b>             |             |                   |  |
| 8. Name of Operator <b>Black Hills Gas Resources</b>  |                                  |  |   |  |  |                                       |              | 9. OGRID <b>013925</b>  |             |                   |  |
| 10. Address of Operator <b>3200 N 1st Street</b><br><b>Bloomfield, NM 87413</b>   |                                  |  |   |  |  |                                       |              | 11. Pool name or Wildcat  |             |                   |  |
| 12. Location  | Unit Ltr                         | Section  | Township  | Range                                      | Lot                                    | Feet from the                         | N/S Line     | Feet from the   | E/W Line    | County            |  |
| <b>Surface:</b>   | <b>P</b>                         | <b>4</b>   | <b>30N</b>                                      | <b>3W</b>                                  |  | <b>775'</b>                           | <b>South</b> | <b>545'</b>   | <b>East</b> | <b>Rio Arriba</b> |  |
| <b>BIT:</b>   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| 13. Date Spudded  |                                  | 14. Date T.D. Reached  |   | 15. Date Rig Released<br><b>11/17/2008</b> |  | 16. Date Completed (Ready to Produce) |              | 17. Elevations (DF and RKB, RT, GR, etc.)                       |             |                   |  |
| 18. Total Measured Depth of Well  |                                  |  |   | 19. Plug Back Measured Depth               |  | 20. Was Directional Survey Made?      |              | 21. Type Electric and Other Logs Run                            |             |                   |  |
| 22. Producing Interval(s), of this completion - Top, Bottom, Name   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| 23. <b>CASING RECORD (Report all strings set in well)</b>   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| CASING SIZE   | WEIGHT LB /FT                    | DEPTH SET  | HOLE SIZE                                       | CEMENTING RECORD                           | AMOUNT PULLED                          |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| 24. LINER RECORD  |                                  |  | 25. TUBING RECORD                               |  |  |                                       |              |   |             |                   |  |
| SIZE  | TOP                              | BOTTOM   | SACKS CEMENT                                    | SCREEN                                     | SIZE                                   |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| 26. Perforation record (interval, size, and number)   |                                  |  | 27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC  |  |  |                                       |              |   |             |                   |  |
|   |                                  |  | DEPTH INTERVAL    AMOUNT AND KIND MATERIAL USED |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| <b>PRODUCTION</b>   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| Date First Production   |                                  | Production Method ( <i>Flowing, gas lift, pumping - Size and type pump</i> ) |   |  | Well Status ( <i>Prod or Shut-in</i> ) |                                       |              |   |             |                   |  |
| Date of Test  | Hours Tested                     | Choke Size   | Prod'n For Test Period                          | Oil - Bbl                                  | Gas - MCF                              | Water - Bbl                           |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| Flow Tubing Press   | Casing Pressure                  | Calculated 24-Hour Rate  | Oil - Bbl                                       | Gas - MCF                                  | Water - Bbl                            | Oil Gravity - API - ( <i>Corr</i> )   |              |   |             |                   |  |
|   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| 29. Disposition of Gas ( <i>Sold, used for fuel, vented, etc</i> )  |                                  |  |   |  | 30. Test Witnessed By                  |                                       |              |   |             |                   |  |
| 31. List Attachments  |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| 32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit <b>Plat on closure attachment</b>   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| 33. If an on-site burial was used at the well, report the exact location of the on-site burial:   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| Latitude  |                                  |  | Longitude                                       |  | NAD 1927 1983                          |                                       |              |   |             |                   |  |
| <i>I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief</i>   |                                  |  |   |  |  |                                       |              |   |             |                   |  |
| Signature   | Printed Name <b>Daniel Manus</b> |  |   | Title <b>Regulatory Technician</b>         |  | Date <b>11/07/2011</b>                |              |   |             |                   |  |
| E-mail Address <b>Daniel.Manus@blackhillscorp.com</b>   |                                  |  |   |  |  |                                       |              |   |             |                   |  |



# Black Hills Gas Resources, Inc.

*A subsidiary of Black Hills Exploration and Production, Inc.*

3200 N 1<sup>st</sup> Street – PO Box 249 Bloomfield, NM 87413

Daniel Manus  
Regulatory Technician II

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November 7, 2011

New Mexico Oil Conservation Division  
Aztec Office  
1000 Rio Brazos Road  
Aztec, NM 87410

Subject: Jicarilla 457-4 #144 temporary drilling pit closure

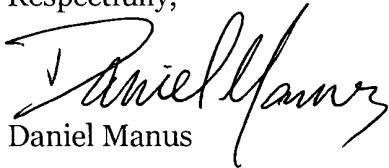
Dear Sir or Madam

Black Hills Gas Resources' (BHGR) Jicarilla 457-4 #144 temporary drilling pit was closed on June 1, 2009 and the rig was released on November 19, 2008. Due to extreme weather that year BHGR was unable to close the pit within the 60 day time limit.

As for the notification to the NMOCD of closure of the pit, it is unknown if the notification was made by phone or email. BHGR understands going forward that all contact will be made or followed up by email for documentation.

If you have any questions, please contact me.

Respectfully,



Daniel Manus

11a 457-048-144  
30 033-30100  
36 8 35876  
102118541  
4-130NR21/1517

RCVD JAN 12 '12  
OIL CONS. DIV.  
DIST. 3