

NEWFIELD



March 3, 2005

RECEIVED  
MAR 04 2005  
DIV. OF OIL, GAS & MINING

State of Utah  
Division of Oil, Gas & Mining  
Attn: Diana Whitney  
1594 West North Temple - Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

RE: Applications for Permit to Drill: Federal 2-7-9-18, 8-8-9-18, 9-8-9-18, and 11-8-9-18. ✓

Dear Diana:

Enclosed find APD's on the above referenced wells. If you have any questions, feel free to give either Brad or myself a call.

Sincerely,

A handwritten signature in cursive script that reads "Mandie Crozier".

Mandie Crozier  
Regulatory Specialist

mc  
enclosures

**RECEIVED**  
**MAR 04 2005**  
**DIV. OF OIL, GAS & MINING**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

|   |  |
|---|--|
| 5. Lease Serial No.<br><p style="text-align: center;">UTU-16540</p>   |  |
| 6. If Indian, Allottee or Tribe Name<br><p style="text-align: center;">N/A</p>  |  |
| 7. If Unit or CA Agreement, Name and No.<br><p style="text-align: center;">N/A</p>  |  |
| 8. Lease Name and Well No.<br><p style="text-align: center;">Federal 9-8-9-18</p>   |  |
| 9. API Well No.<br><p style="text-align: center;">43-047-36345</p>  |  |
| 1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER  | 10. Field and Pool, or Exploratory<br><p style="text-align: center;">Eight Mile Flat</p>   |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone            | 11. Sec., T., R., M., or Blk. and Survey or Area<br><p style="text-align: center;">NE/SE    Sec. 8, T9S R18E</p>   |
| 2. Name of Operator<br><p style="text-align: center;">Newfield Production Company</p>   | 12. County or Parish      13. State<br><p style="text-align: center;">Uintah                      UT</p>   |
| 3a. Address<br><p style="text-align: center;">Route #3 Box 3630, Myton UT 84052</p>   | 3b. Phone No. (include area code)<br><p style="text-align: center;">(435) 646-3721</p>   |
| 4. Location of Well (Report location clearly and in accordance with any State requirements. *)<br>At surface NE/SE    1980' FSL 660' FEL 593017X    40.043650<br>At proposed prod. zone                      4432961Y -109.909642 |  |
| 14. Distance in miles and direction from nearest town or post office*<br><p style="text-align: center;">Approximatley 19.3 miles southeast of Myton, Utah</p>   | 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)    Approx. 660' #/lse, NA #/unit<br><p style="text-align: center;">Approx. 1320'</p> |
| 16. No. of Acres in lease<br><p style="text-align: center;">1356.44</p>   | 17. Spacing Unit dedicated to this well<br><p style="text-align: center;">40 Acres</p>   |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.    Approx. 1320'   | 19. Proposed Depth<br><p style="text-align: center;">5880'</p>   |
| 20. BLM/BIA Bond No. on file<br><p style="text-align: center;">UTU0056</p>  | 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br><p style="text-align: center;">5011' GL</p>   |
| 22. Approximate date work will start*<br><p style="text-align: center;">3rd Quarter 2005</p>  | 23. Estimated duration<br><p style="text-align: center;">Approximately seven (7) days from spud to rig release.</p>  |

**24. Attachments**

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Well plat certified by a registered surveyor.</li> <li>2. A Drilling Plan.</li> <li>3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).</li> </ol> | <ol style="list-style-type: none"> <li>4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).</li> <li>5. Operator certification.</li> <li>6. Such other site specific information and/or plans as may be required by the authorized officer.</li> </ol> |
|--|---|

|   |   |   |
|---|---|---|
| 25. Signature<br>   | Name (Printed/Typed)<br><p style="text-align: center;">Mandie Crozier</p>   | Date<br><p style="text-align: center;">3/3/05</p>   |
| Title<br><p style="text-align: center;">Regulatory Specialist</p> |   |   |
| Approved by (Signature)<br>                                       | Name (Printed/Typed)<br><p style="text-align: center;"><b>BRADLEY G. HILL</b><br/>ENVIRONMENTAL SCIENTIST III</p> | Date<br><p style="text-align: center;">03-10-05</p> |
| Title<br><p style="text-align: center;">Office</p>                |   |   |

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

**Federal Approval of this  
Action is Necessary**



INLAND PRODUCTION COMPANY  
FEDERAL #9-8-9-18  
NE/SE SECTION 8, T9S, R18E  
UINTAH COUNTY, UTAH

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. GEOLOGIC SURFACE FORMATION:

Uinta formation of Upper Eocene Age

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:

|             |            |
|-------------|------------|
| Uinta       | 0' – 1960' |
| Green River | 1960'      |
| Wasatch     | 5880'      |

3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:

Green River Formation 1960' – 5880' - Oil

4. PROPOSED CASING PROGRAM

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Please refer to the Monument Butte Field SOP. See Exhibit "C".

6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

Please refer to the Monument Butte Field SOP.

7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Please refer to the Monument Butte Field SOP.

8. TESTING, LOGGING AND CORING PROGRAMS:

Please refer to the Monument Butte Field SOP.

9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

The anticipated maximum bottom hole pressure is 2000 psi. It is not anticipated that abnormal temperatures will be encountered.

10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

Please refer to the Monument Butte Field SOP.

NEWFIELD PRODUCTION COMPANY  
FEDERAL #9-8-9-18  
NE/SE SECTION 8, T9S, R18E  
UINTAH COUNTY, UTAH

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. EXISTING ROADS

See attached Topographic Map "A"

To reach Newfield Production Company well location site Federal #9-8-9-18 located in the NE 1/4 SE 1/4 Section 8, T9S, R18E, Uintah County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles ± to the junction of this highway and UT State Hwy 53; proceed southeasterly along Hwy 53 - 11.7 miles ± to it's junction with an existing road to the southeast; proceed southeasterly - 3.6 miles ± to it's junction with an existing road to the east; proceed northeasterly - 2.4 miles ± to it's junction with the beginning of the proposed access road; proceed northerly along the proposed access road 750' ± to the proposed well location.

2. PLANNED ACCESS ROAD

See Topographic Map "B" for the location of the proposed access road.

3. LOCATION OF EXISTING WELLS

Refer to Exhibit "B".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

5. LOCATION AND TYPE OF WATER SUPPLY

Please refer to the Monument Butte Field SOP. See Exhibit "A".

6. SOURCE OF CONSTRUCTION MATERIALS

Please refer to the Monument Butte Field SOP.

7. METHODS FOR HANDLING WASTE DISPOSAL

Please refer to the Monument Butte Field SOP.

8. ANCILLARY FACILITIES

Please refer to the Monument Butte Field SOP.

9. WELL SITE LAYOUT

See attached Location Layout Diagram.

10. PLANS FOR RESTORATION OF SURFACE

Please refer to the Monument Butte Field SOP.

11. SURFACE OWNERSHIP - Bureau Of Land Management

12. OTHER ADDITIONAL INFORMATION

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #04-130, 9/10/04. Paleontological Resource Survey prepared by, Wade E. Miller, 7/9/04. See attached report cover pages, Exhibit "D".

For the Federal #9-8-9-18 Newfield Production Company requests 750' of disturbed area be granted in Lease UTU-16540 to allow for construction of the proposed access road. **Refer to Topographic Map "B"**. The proposed access road will be an 18' crown road (9' either side of the centerline) with drainage ditches along either side of the proposed road whether it is deemed necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area. The maximum grade will be less than 8%. There will be no culverts required along this access road. There will be barrow ditches and turnouts as needed along this road. There are no fences encountered along this proposed road. There will be no new gates or cattle guards required. All construction material for this access road will be borrowed material accumulated during construction of the access road.

Newfield Production Company requests 750' of disturbed area be granted in Lease UTU-16540 to allow for construction of the proposed gas lines. It is proposed that the disturbed area will be 50' wide to allow for construction of a 6" gas gathering line, and a 3" poly fuel gas line. Both lines will tie in to the existing pipeline infrastructure. **Refer to Topographic Map "C."** For a ROW plan of development, please refer to the Monument Butte Field SOP.

Newfield Production Company requests 750' of disturbed area be granted in Lease UTU-16540 to allow for construction of the proposed water lines. It is proposed that the disturbed area will be 50' wide to allow for construction of a buried 3" steel water injection line and a 3" poly water return line. **Refer to Topographic Map "C."** For a ROW plan of development, please refer to the Monument Butte Field SOP.

**Water Disposal**

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

**Threatened, Endangered, And Other Sensitive Species**

**Mountain Plover:** If new construction or surface disturbing activities are scheduled to occur between May 1 and June 15, detailed surveys of the area within 0.5 mile of the proposed location and within 300 feet of proposed access routes must be conducted to detect the presence of mountain plovers. All surveys must be conducted in accordance with the survey protocols outlined in the most recent USFWS Survey Protocol. Surveys must be completed prior to initiating new construction or surface disturbing activities. No new construction or surface disturbing activities will be allowed

between March 15 and August 15 within a 0.5 mile radius of any documented mountain plover nest site.

**Burrowing Owl:** Due to the proximity of the location to active prairie dog towns, there is the potential to encounter nesting burrowing owls between April 1 and August 15. If new construction or surface disturbing activities are scheduled between April 1 and August 15, pre-construction surveys will be conducted to detect the presence of nesting burrowing owls within 0.5 mile of any new construction or surface disturbing activity (see Vernal BLM Field Office Protocol). No new construction or surface disturbing activities will be allowed between April 1 and August 15 within a 0.5 mile radius of any active burrowing owl nest.

**Reserve Pit Liner**

Please refer to the Monument Butte Field SOP.

**Location and Reserve Pit Reclamation**

Please refer to the Monument Butte Field SOP.

The following seed mixture will be used on the topsoil stockpile, to the recontoured surface of the reserve pit, and for final reclamation: (All poundages are in pure live seed)

|                    |                               |            |
|--------------------|-------------------------------|------------|
| Shadscale          | <i>Atriplex confertifolia</i> | 4 lbs/acre |
| Scarlet globmallow | <i>Sphaeralcea concineae</i>  | 4 lbs/acre |
| Crested Wheatgrass | <i>Agropyron cristatum</i>    | 4 lbs/acre |

**Details of the On-Site Inspection**

The proposed Federal #9-8-9-18 was on-sited on 4/14/04. The following were present; Brad Mecham (Newfield Production), David Gerbig (Newfield Production), Byron Tolman (Bureau of Land Management), and a SWCA representative. Weather conditions were clear.

13. **LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION**

Representative

Name: Brad Mecham  
Address: Route #3 Box 3630  
Myton, UT 84052  
Telephone: (435) 646-3721

Certification

Please be advised that NEWFIELD PRODUCTION COMPANY is considered to be the operator of well #9-8-9-18 NE/SE Section 8, Township 9S, Range 18E: Lease UTU-16540 Uintah County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

I hereby certify that the proposed drillsite and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

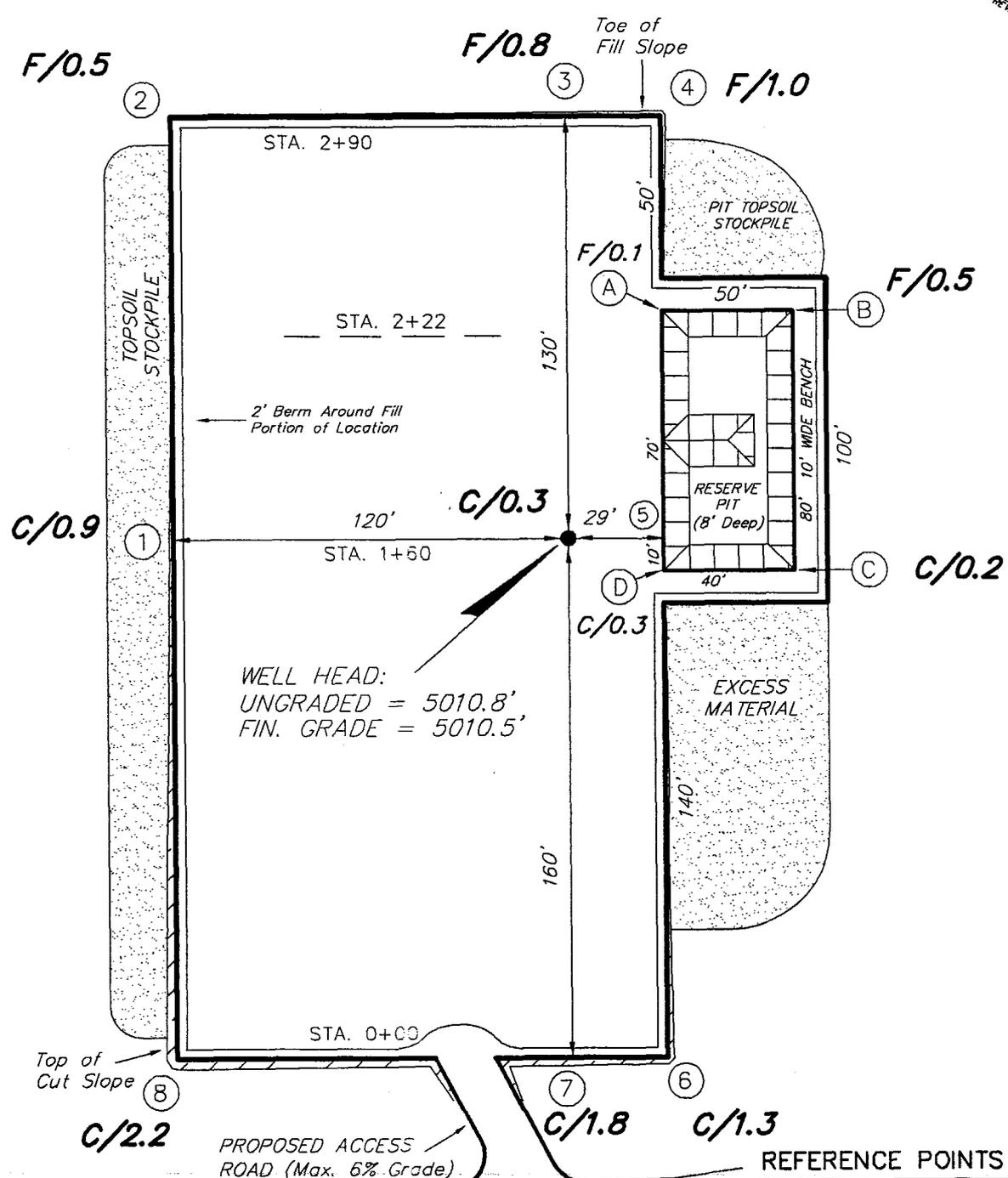
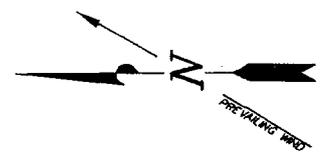
3/3/05  
Date

  
Mandie Crozier  
Regulatory Specialist  
Newfield Production Company

# NEWFIELD PRODUCTION COMPANY

FEDERAL 9-8-9-18

Section 8, T9S, R18E, S.L.B.&M.



**REFERENCE POINTS**

|                |           |
|----------------|-----------|
| 180' EASTERLY  | = 5009.0' |
| 230' EASTERLY  | = 5008.7' |
| 170' NORTHERLY | = 5011.4' |
| 220' NORTHERLY | = 5011.3' |

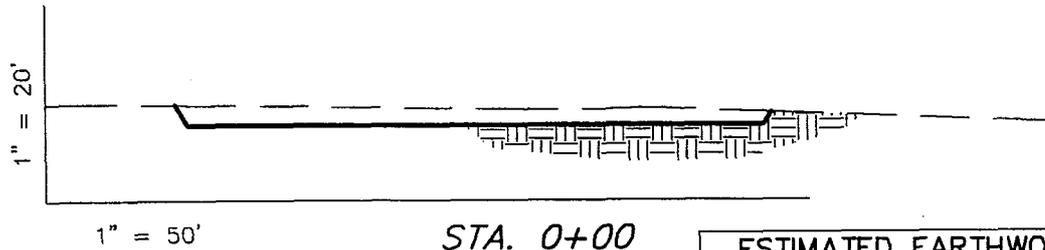
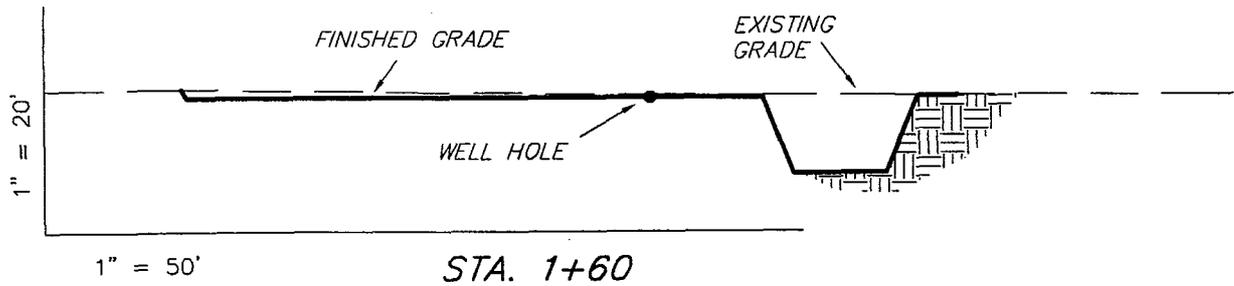
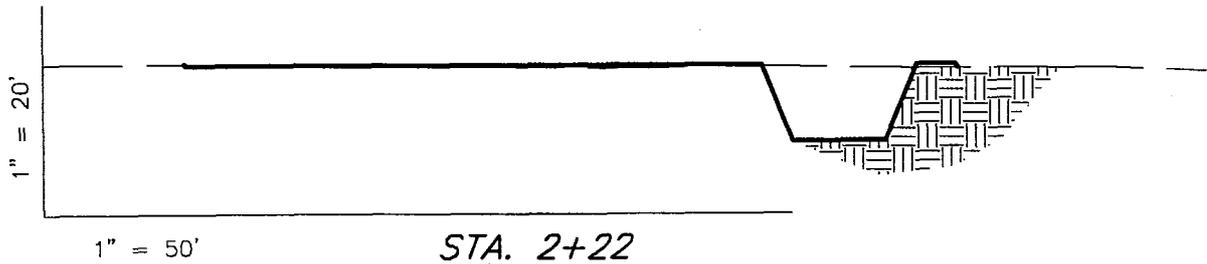
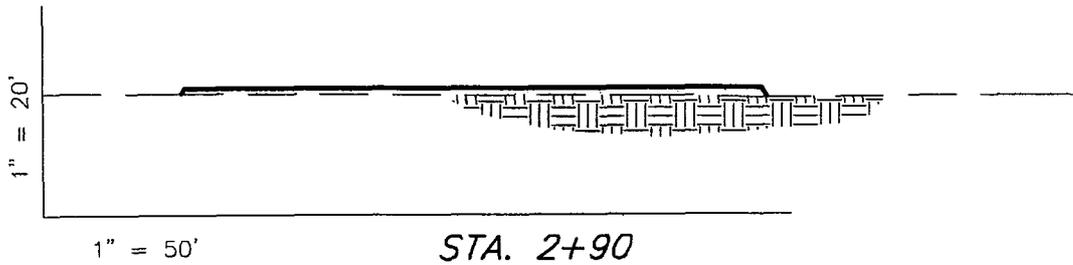
|                   |                 |
|-------------------|-----------------|
| SURVEYED BY: C.M. | SCALE: 1" = 50' |
| DRAWN BY: F.T.M.  | DATE: 2-8-05    |

**Tri State**  
 Land Surveying, Inc.  
 180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
 (435) 781-2501

# NEWFIELD PRODUCTION COMPANY

## CROSS SECTIONS

FEDERAL 9-8-9-18



ESTIMATED EARTHWORK QUANTITIES  
(No Shrink or swell adjustments have been used)  
(Expressed in Cubic Yards)

| ITEM   | CUT   | FILL | 6" TOPSOIL                         | EXCESS |
|--------|-------|------|------------------------------------|--------|
| PAD    | 510   | 510  | Topsoil is not included in Pad Cut | 0      |
| PIT    | 640   | 0    |                                    | 640    |
| TOTALS | 1,150 | 510  | 920                                | 640    |

NOTE:  
UNLESS OTHERWISE NOTED  
ALL CUT/FILL SLOPES ARE  
AT 1.5:1

SURVEYED BY: C.M.

SCALE: 1" = 50'

DRAWN BY: F.T.M.

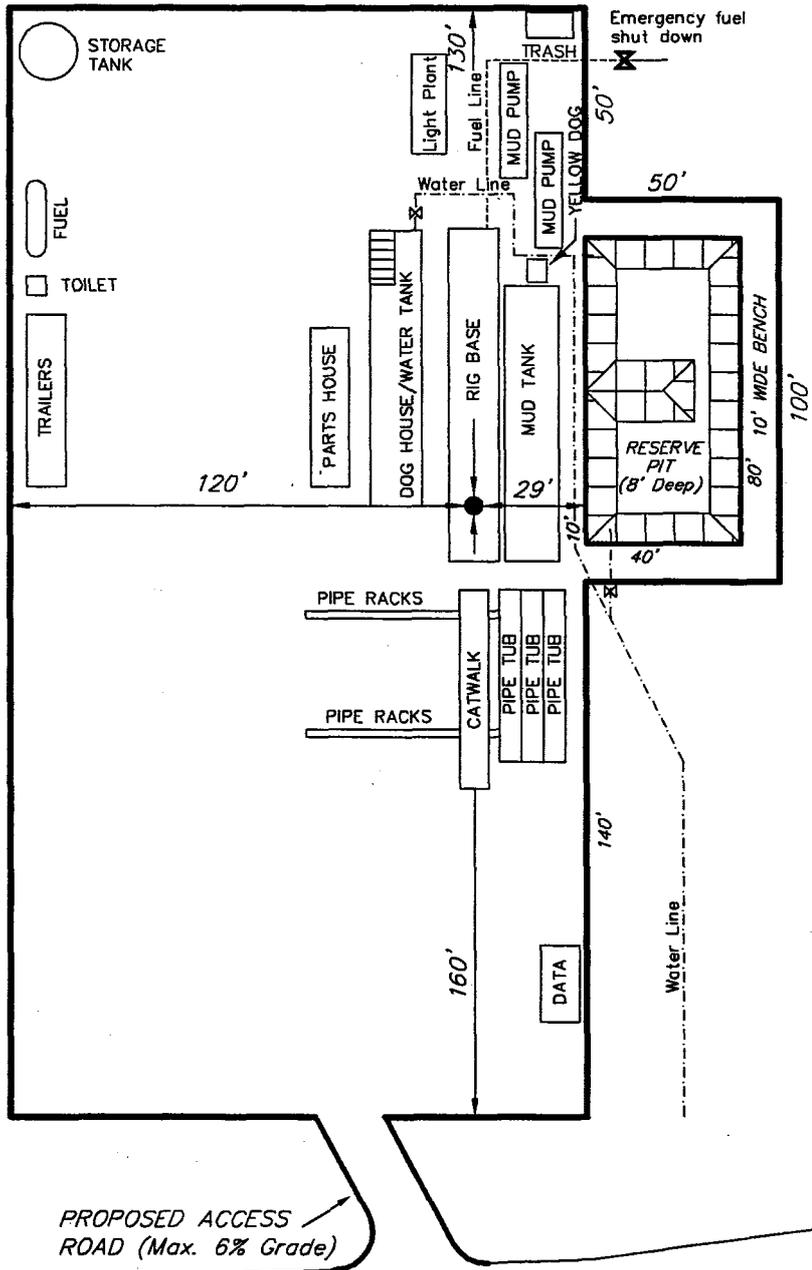
DATE: 2-8-05

Tri State  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501

# NEWFIELD PRODUCTION COMPANY

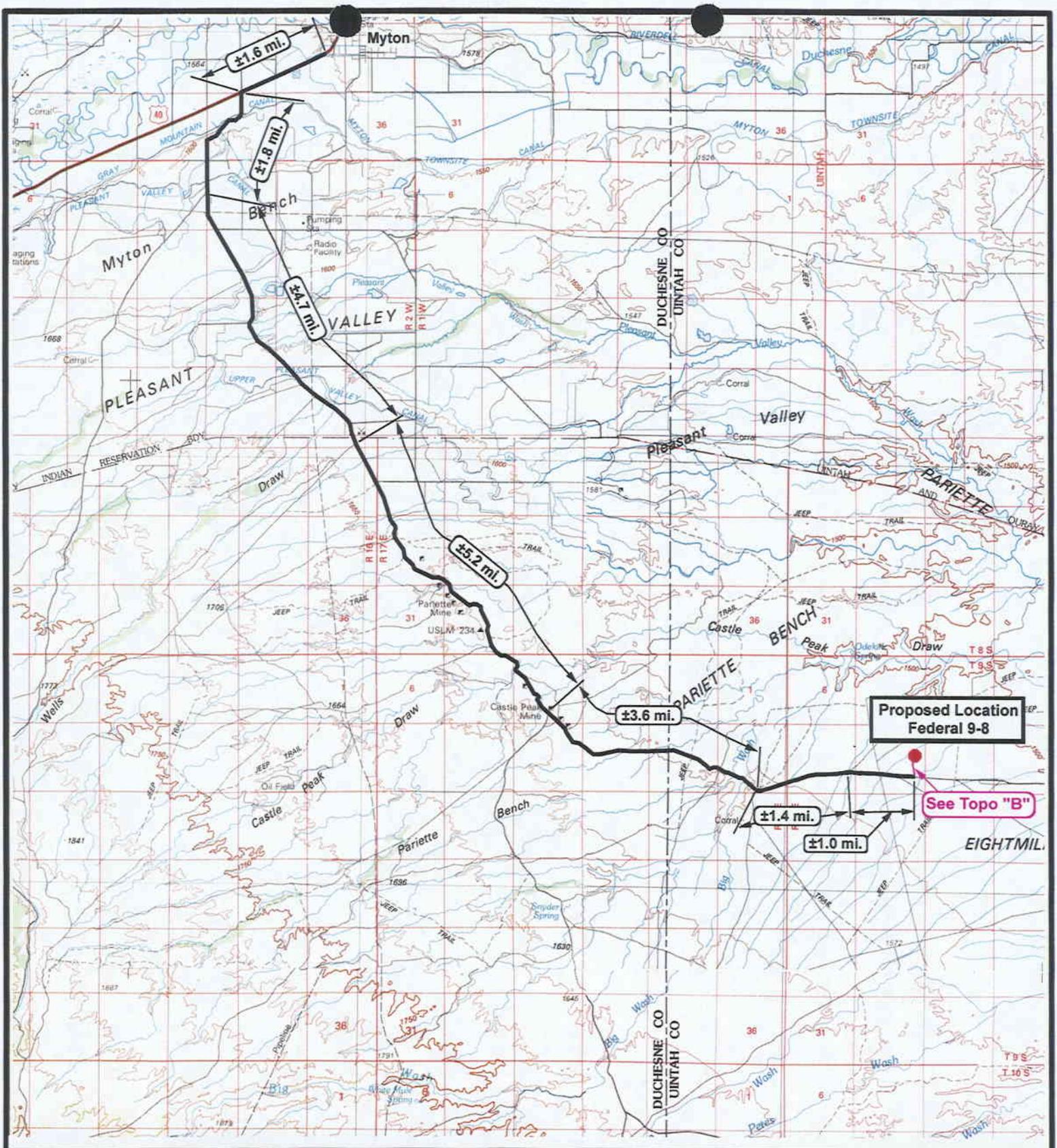
## TYPICAL RIG LAYOUT

### FEDERAL 9-8-9-18



Proposed Access for the 8-9-8-18 Well Pad

|                   |                 |   |
|-------------------|-----------------|---|
| SURVEYED BY: C.M. | SCALE: 1" = 50' | <p style="margin: 0;">(435) 781-2501<br/>180 NORTH VERNAL AVE. VERNAL, UTAH 84078</p> |
| DRAWN BY: F.T.M.  | DATE: 2-8-05    |   |



**Proposed Location  
Federal 9-8**

See Topo "B"

**NEWFIELD**  
Exploration Company

**Federal 9-8-9-18**  
**SEC. 8, T9S, R18E, S.L.B.&M.**



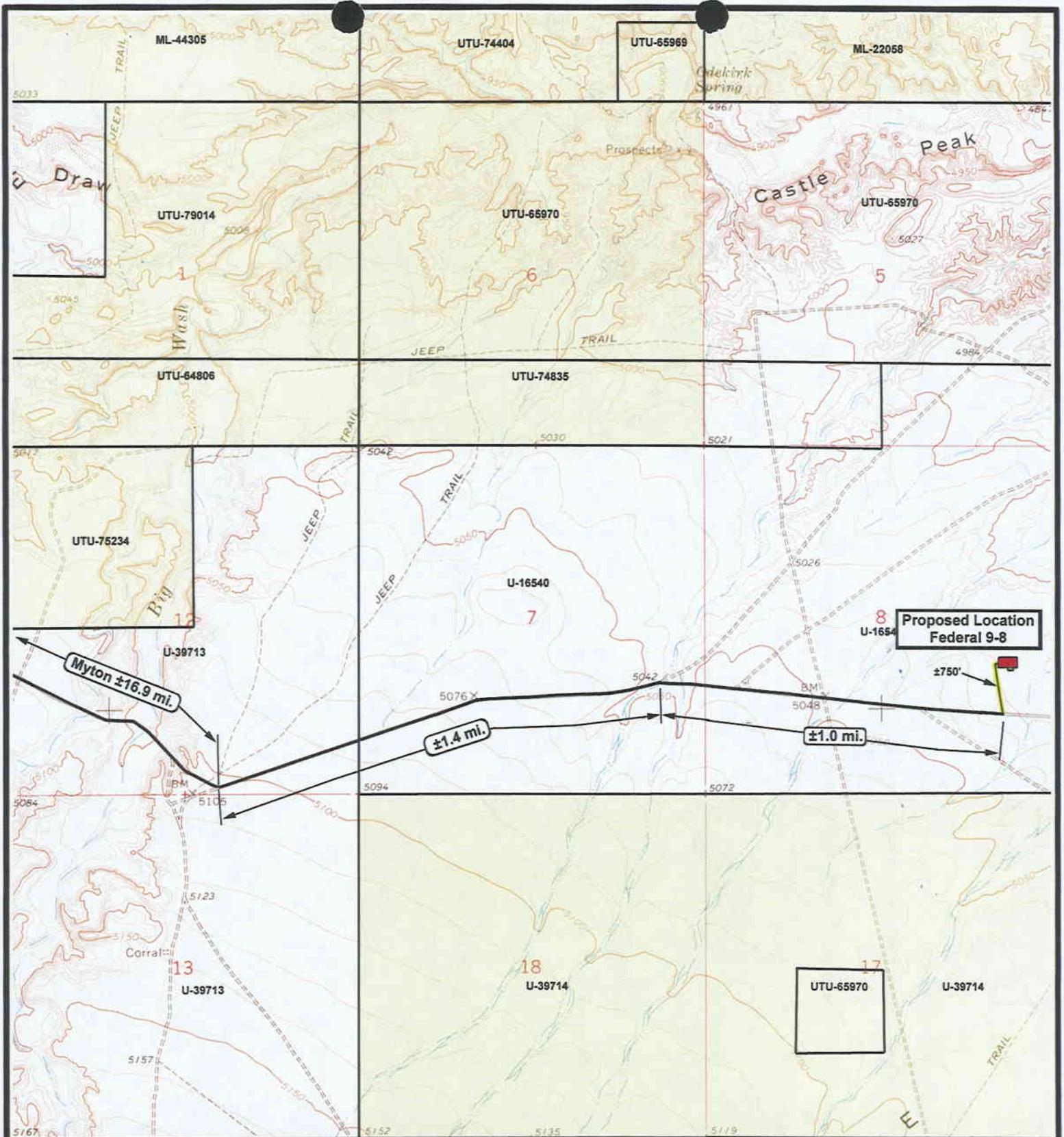
**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1 = 100,000  
DRAWN BY: mw  
DATE: 02-14-2005

**Legend**

- Existing Road
- Proposed Access

**TOPOGRAPHIC MAP**  
**"A"**



**NEWFIELD**  
Exploration Company

**Federal 9-8-9-18**  
**SEC. 8, T9S, R18E, S.L.B.&M.**



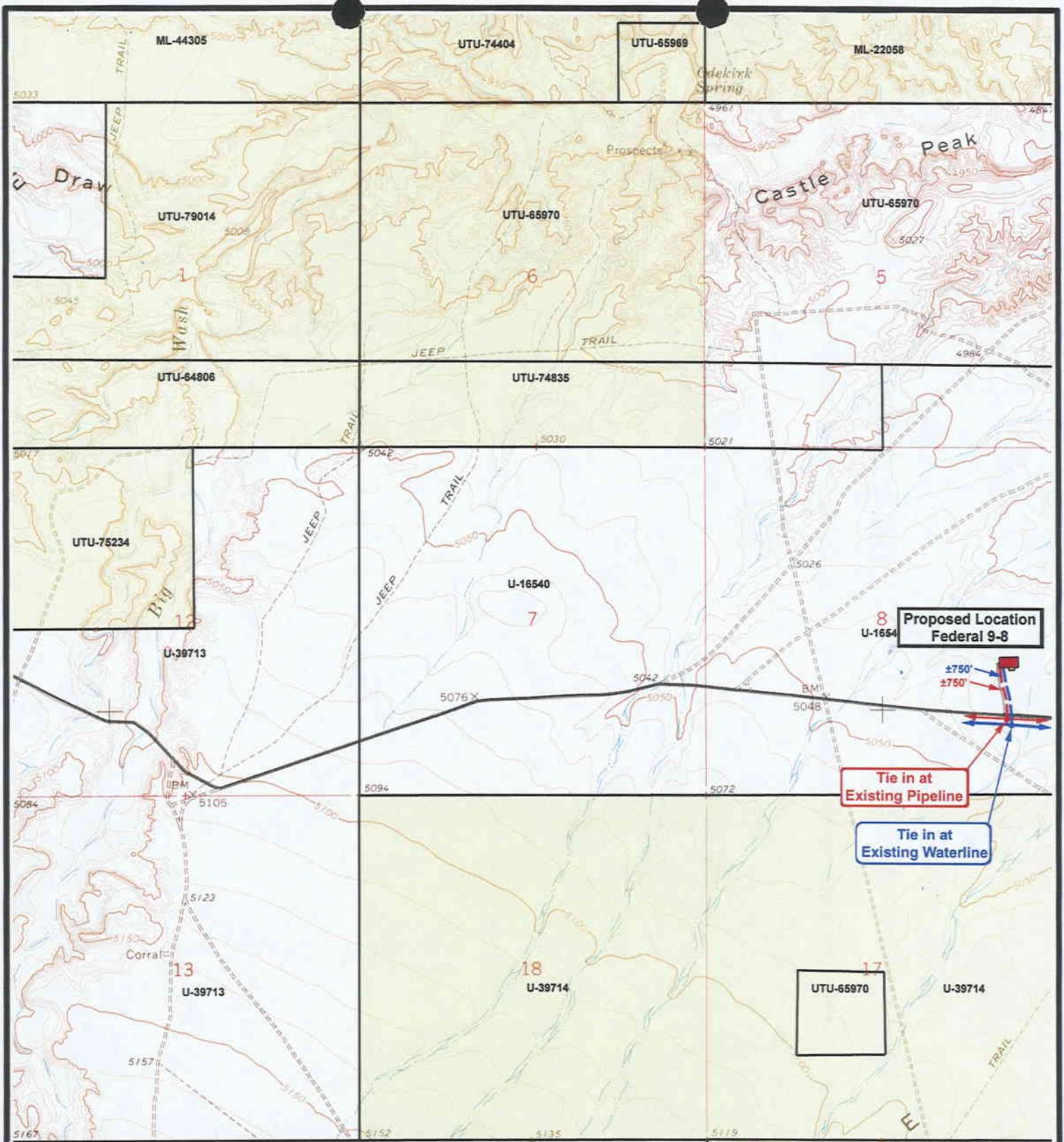
**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
DRAWN BY: mw  
DATE: 02-08-2005

**Legend**

- Existing Road
- Proposed Access

TOPOGRAPHIC MAP  
**"B"**



**NEWFIELD**  
Exploration Company

**Federal 9-8-9-18**  
**SEC. 8, T9S, R18E, S.L.B.&M.**

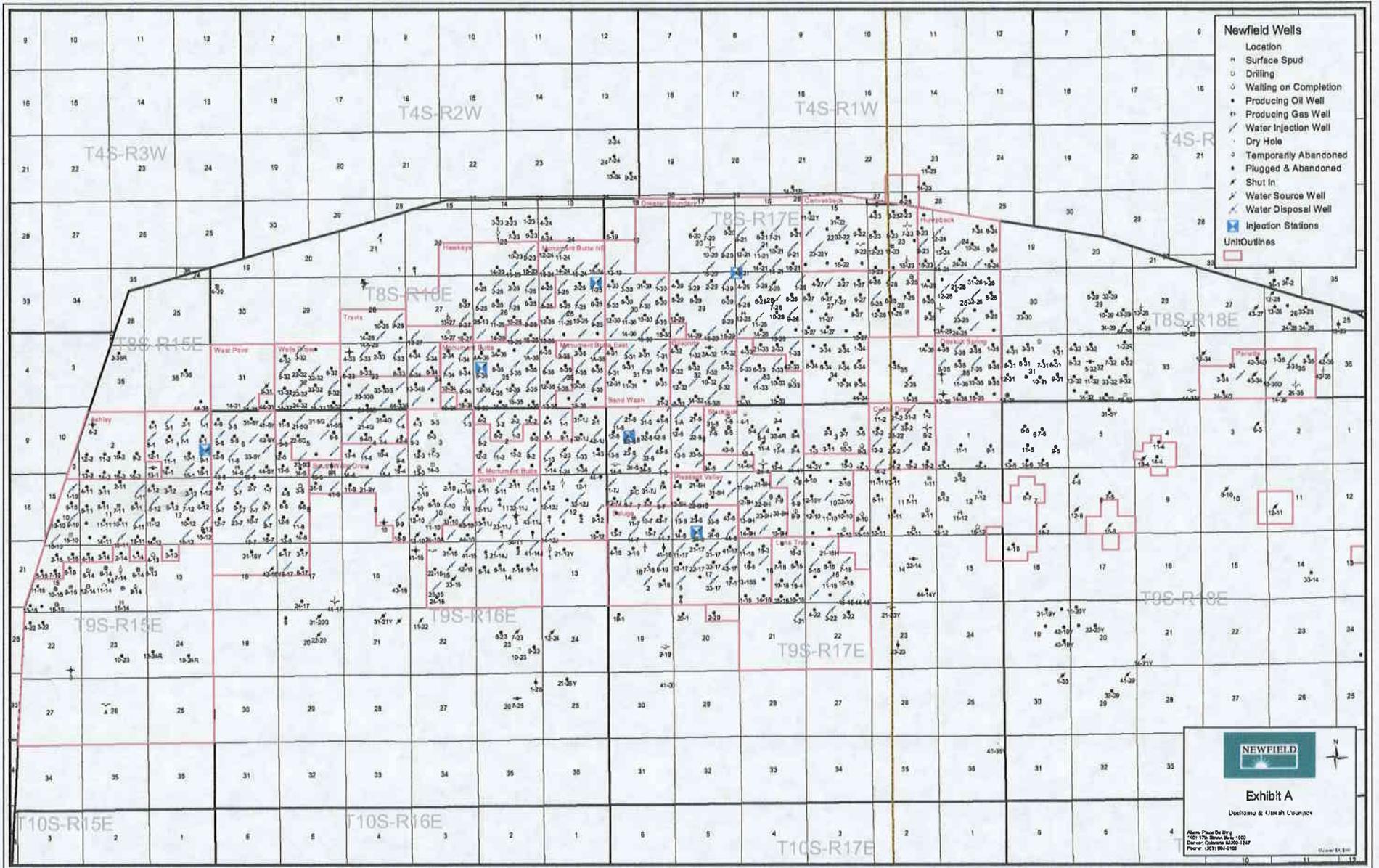
**Tri-State**  
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(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

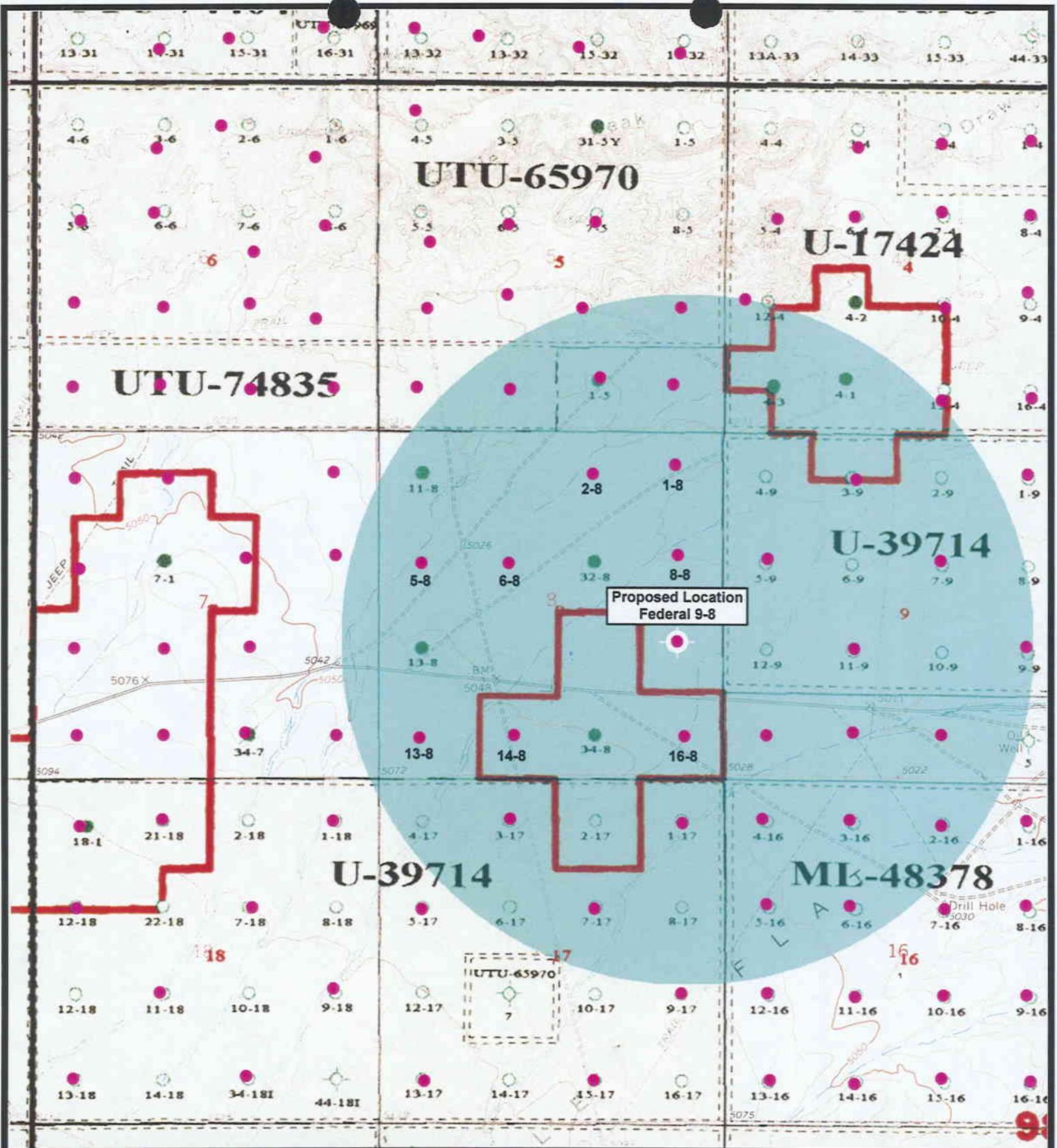
SCALE: 1" = 2,000'  
DRAWN BY: mw  
DATE: 02-08-2005

**Legend**

- Roads
- Existing Gas Line
- Proposed Gas Line
- Existing Water Line
- Proposed Water Line

**TOPOGRAPHIC MAP**  
**"C"**





Proposed Location  
Federal 9-8

**NEWFIELD**  
Exploration Company

**Federal 9-8-9-18**  
**SEC. 8, T9S, R18E, S.L.B.&M.**



*Tri-State*  
*Land Surveying Inc.*  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
DRAWN BY: mw  
DATE: 02-08-2005

Legend

- Location
- One-Mile Radius

**Exhibit "B"**

# 2-M SYSTEM

Blowout Prevention Equipment Systems

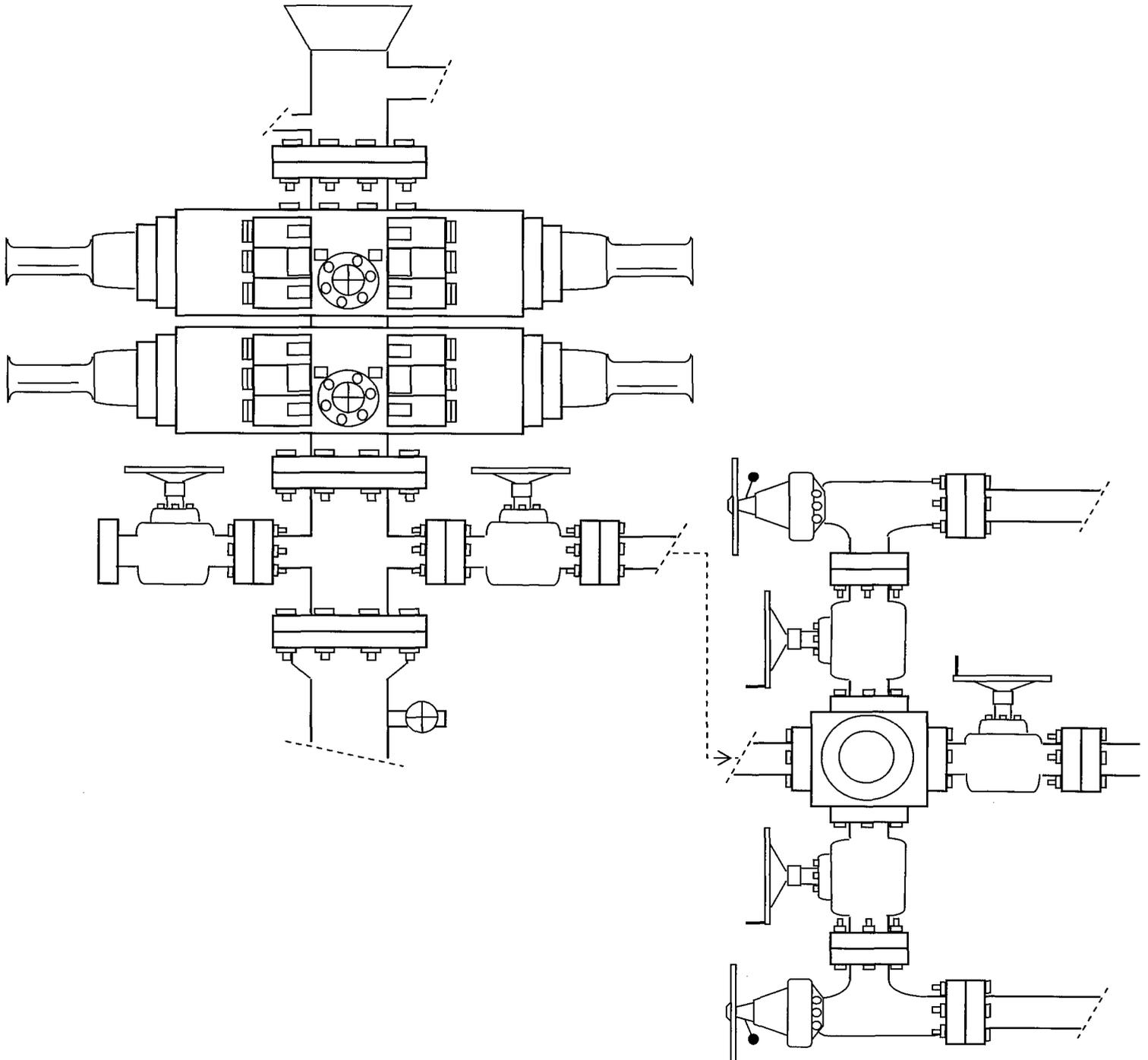


EXHIBIT C

CULTURAL RESOURCE INVENTORY OF  
INLAND RESOURCES' BLOCK SURVEY ON EIGHT MILE FLAT,  
TOWNSHIP 9 SOUTH, RANGE 18 EAST,  
SECTIONS 1,5,7,8,12,13, and 24, UINTAH COUNTY, UTAH

by

Josh C. Whiting  
and  
Keith R. Montgomery

Prepared For:

Bureau of Land Management  
Vernal Field Office

Prepared Under Contract With:

Inland Production  
Route 3 Box 3630  
Myton, Utah 84052

Prepared By:

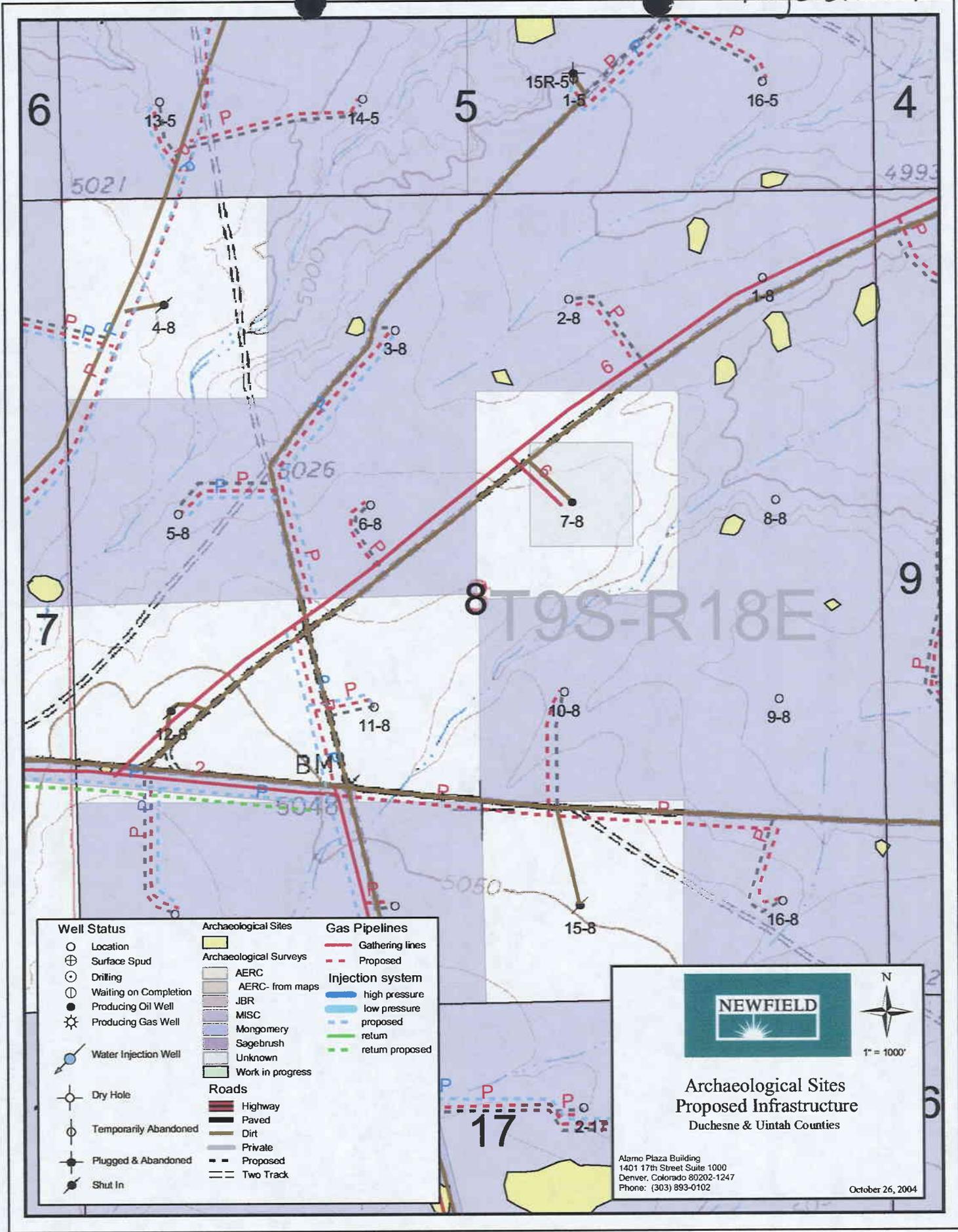
Montgomery Archaeological Consultants  
P.O. Box 147  
Moab, Utah 84532

MOAC Report No. 04-130

September 10, 2004

United States Department of Interior (FLPMA)  
Permit No. 04-UT-60122

State of Utah Antiquities Project (Survey)  
Permit No. U-04-MQ-0455b



| Well Status             | Archaeological Sites   | Gas Pipelines           |
|-------------------------|------------------------|-------------------------|
| ○ Location              | Archaeological Sites   | — Gathering lines       |
| ⊕ Surface Spud          | Archaeological Surveys | - - - Proposed          |
| ⊙ Drilling              | AERC                   | <b>Injection system</b> |
| ⊙ Waiting on Completion | AERC- from maps        | — high pressure         |
| ● Producing Oil Well    | JBR                    | — low pressure          |
| ☀ Producing Gas Well    | MISC                   | - - - proposed          |
| ⊙ Water Injection Well  | Mongomery              | — return                |
| ⊙ Dry Hole              | Sagebrush              | - - - return proposed   |
| ⊙ Temporarily Abandoned | Unknown                |                         |
| ⊙ Plugged & Abandoned   | Work in progress       |                         |
| ⊙ Shut In               | <b>Roads</b>           |                         |
|                         | — Highway              |                         |
|                         | — Paved                |                         |
|                         | — Dirt                 |                         |
|                         | — Private              |                         |
|                         | — Proposed             |                         |
|                         | — Two Track            |                         |



**Archaeological Sites  
Proposed Infrastructure**  
Duchesne & Uintah Counties

Alamo Plaza Building  
1401 17th Street Suite 1000  
Denver, Colorado 80202-1247  
Phone: (303) 893-0102

October 26, 2004

**INLAND RESOURCES, INC.**

**PALEONTOLOGICAL FIELD SURVEY OF PROPOSED  
PRODUCTION DEVELOPMENT AREAS,  
DUCHESNE & UINTAH COUNTIES, UTAH**

Section 34, T 8 S, R 17 E (NW/SW, SW/SW, SE/SW, SW/SE);  
Section 20, T 8 S, R 17 E (NW/SE); Section 17, T 9 S, R 17 E  
(SE/SW, SW/SE, SE/SE); Section 20, T 9 S, R 17 E (NE/NE, NE/NW);  
Section 8, T 9 S, R 18 E (excluding NW/NW, SW/NE, NE/SW, NW/SW, SW/SE)

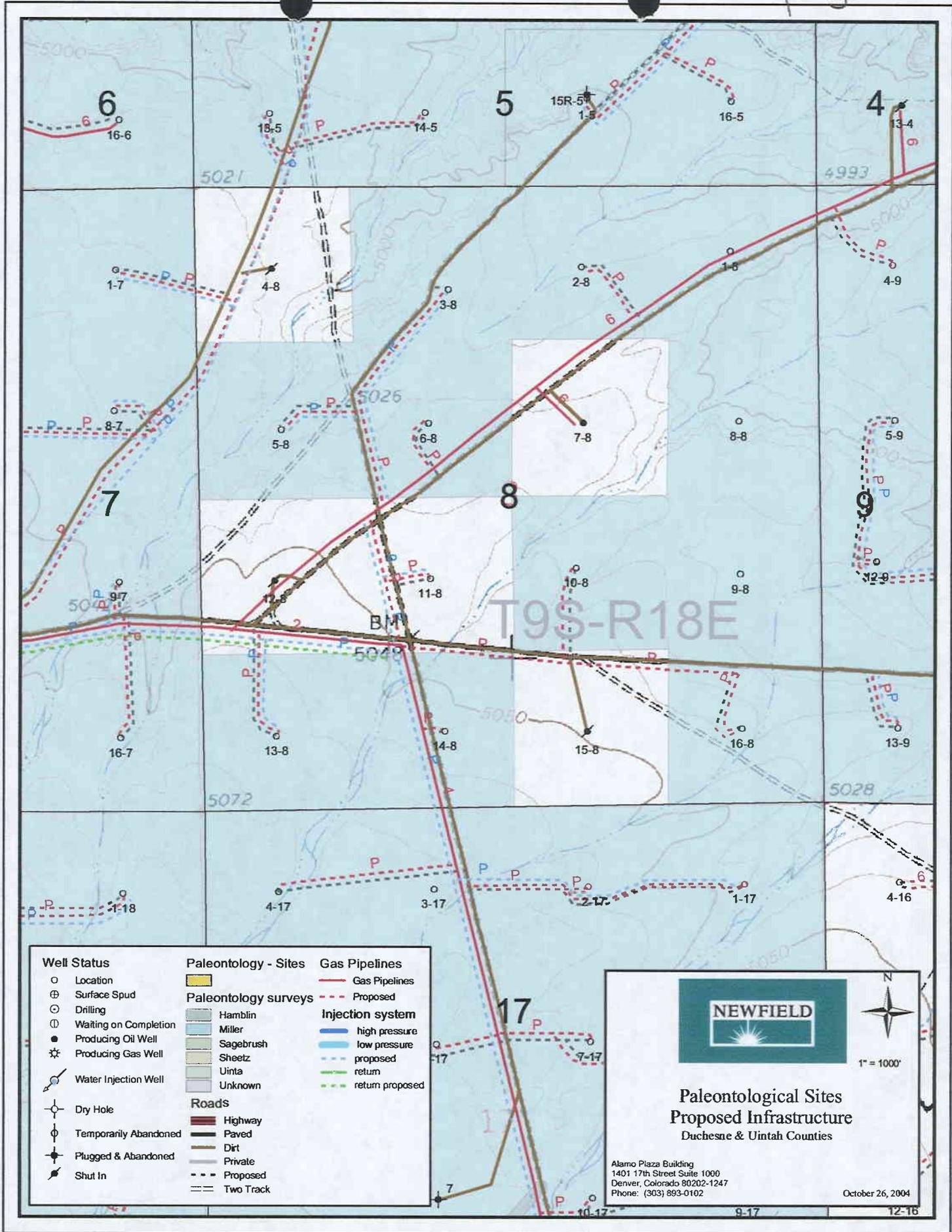
**REPORT OF SURVEY**

Prepared for:

**Inland Resources, Inc.**

Prepared by:

Wade E. Miller  
Consulting Paleontologist  
July 9, 2004



| Well Status             | Paleontology - Sites        | Gas Pipelines           |
|-------------------------|-----------------------------|-------------------------|
| ○ Location              | Yellow box                  | — Gas Pipelines         |
| ⊕ Surface Spud          |                             | - - - Proposed          |
| ⊙ Drilling              | <b>Paleontology surveys</b> | <b>Injection system</b> |
| ⊖ Waiting on Completion | Hamblin                     | — high pressure         |
| ● Producing Oil Well    | Miller                      | — low pressure          |
| ⊛ Producing Gas Well    | Sagebrush                   | - - - proposed          |
| ⊕ Water Injection Well  | Sheetz                      | — return                |
| ⊖ Dry Hole              | Uinta                       | - - - return proposed   |
| ⊖ Temporarily Abandoned | Unknown                     |                         |
| ⊖ Plugged & Abandoned   | <b>Roads</b>                |                         |
| ⊖ Shut In               | — Highway                   |                         |
|                         | — Paved                     |                         |
|                         | — Dirt                      |                         |
|                         | — Private                   |                         |
|                         | - - - Proposed              |                         |
|                         | - - - Two Track             |                         |



**NEWFIELD**

**Paleontological Sites  
Proposed Infrastructure**  
Duchesne & Uintah Counties

Alamo Plaza Building  
1401 17th Street Suite 1000  
Denver, Colorado 80202-1247  
Phone: (303) 893-0102

October 26, 2004

1" = 1000'

003

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 03/04/2005

API NO. ASSIGNED: 43-047-36345

WELL NAME: FEDERAL 9-8-9-18  
OPERATOR: NEWFIELD PRODUCTION ( N2695 )  
CONTACT: MANDIE CROZIER

PHONE NUMBER: 435-646-3721

PROPOSED LOCATION:

NESE 08 090S 180E  
SURFACE: 1980 FSL 0660 FEL  
BOTTOM: 1980 FSL 0660 FEL  
UINTAH  
8 MILE FLAT NORTH ( 590 )

| INSPECT LOCATN BY: / / |          |      |
|------------------------|----------|------|
| Tech Review            | Initials | Date |
| Engineering            |          |      |
| Geology                |          |      |
| Surface                |          |      |

LEASE TYPE: 1 - Federal  
LEASE NUMBER: UTU-16540  
SURFACE OWNER: 1 - Federal  
PROPOSED FORMATION: GRRV  
COALBED METHANE WELL? NO

LATITUDE: 40.04365  
LONGITUDE: -109.9096

RECEIVED AND/OR REVIEWED:

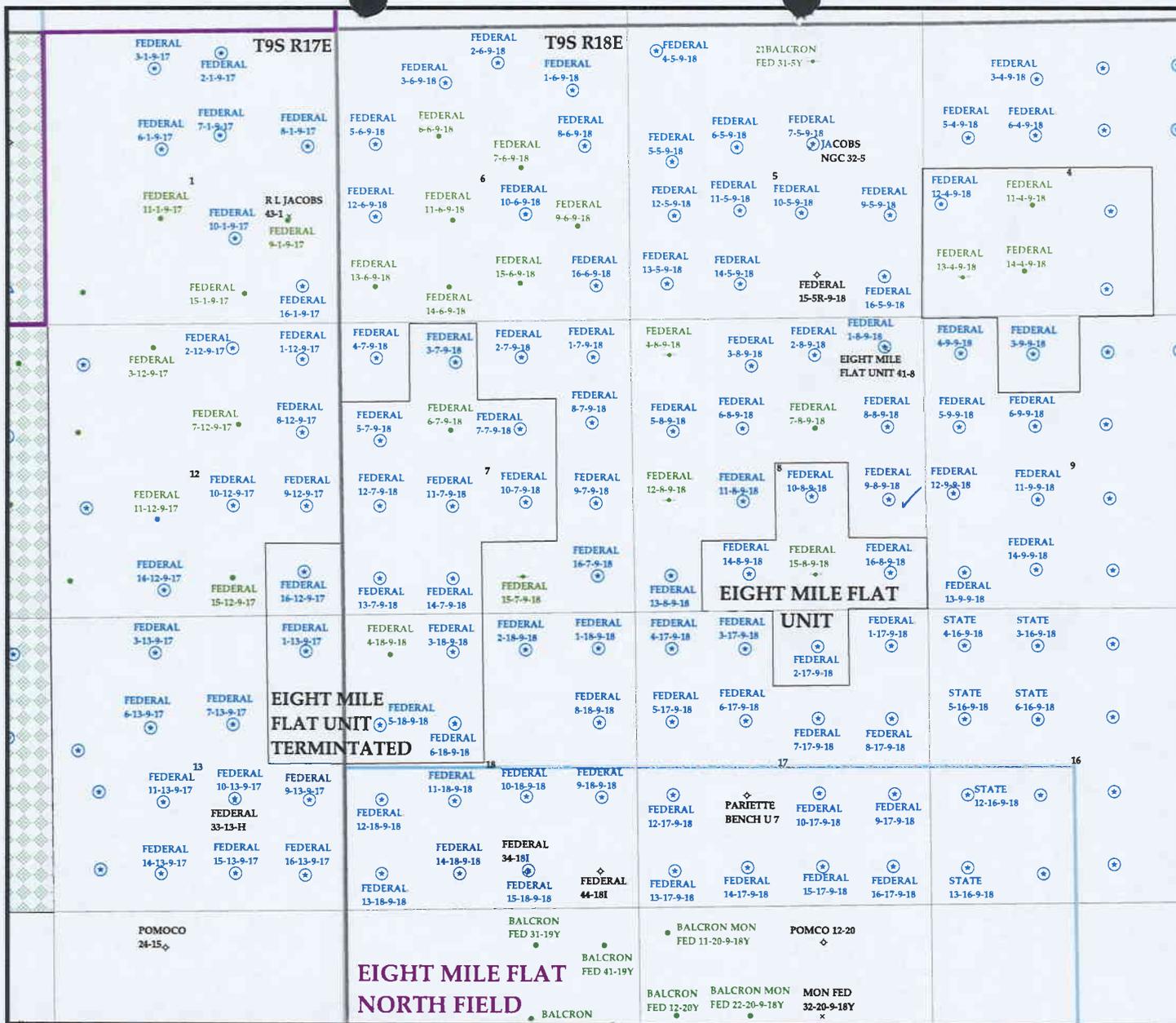
- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. UTU0056 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. MUNICIPAL )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)

LOCATION AND SITING:

- R649-2-3.  
Unit \_\_\_\_\_
- R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells
- R649-3-3. Exception
- Drilling Unit  
Board Cause No: \_\_\_\_\_  
Eff Date: \_\_\_\_\_  
Siting: \_\_\_\_\_
- R649-3-11. Directional Drill

COMMENTS: Sop, Separate file

STIPULATIONS: 1- Federal approval  
2- Spacing Strip



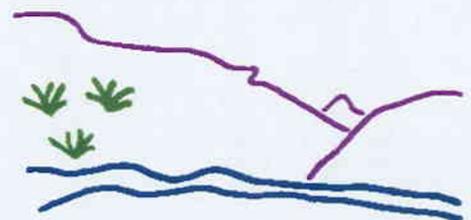
OPERATOR- NEWFIELD PROD CO (N2695)

SEC. 7 T.9S R.18E

FIELD: EIGHT MILE FLAT NORTH (590)

COUNTY: UINTAH

SPACING: R649-3-2 / GENERAL SITING



Utah Oil Gas and Mining

| Wells                 | Units.shp      | Fields.shp   |
|-----------------------|----------------|--------------|
| ⊕ GAS INJECTION       | □ EXPLORATORY  | □ ABANDONED  |
| ⊙ GAS STORAGE         | □ GAS STORAGE  | □ ACTIVE     |
| × LOCATION ABANDONED  | □ NF PP OIL    | □ COMBINED   |
| ⊕ NEW LOCATION        | □ NF SECONDARY | □ INACTIVE   |
| ⊕ PLUGGED & ABANDONED | □ PENDING      | □ PROPOSED   |
| ⊕ PRODUCING GAS       | □ PI OIL       | □ STORAGE    |
| ● PRODUCING OIL       | □ PP GAS       | □ TERMINATED |
| ⊕ SHUT-IN GAS         | □ PP GEOTHERML |              |
| ⊕ SHUT-IN OIL         | □ PP OIL       |              |
| ⊕ TEMP. ABANDONED     | □ SECONDARY    |              |
| ○ TEST WELL           | □ TERMINATED   |              |
| △ WATER INJECTION     |                |              |
| ◆ WATER SUPPLY        |                |              |
| ⊕ WATER DISPOSAL      |                |              |



PREPARED BY: DIANA WHITNEY  
DATE: 8-MARCH-2005



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

MARY ANN WRIGHT  
*Acting Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

March 10, 2005

Newfield Production Company  
Rt. #3, Box 3630  
Myton, UT 84052

Re: Federal 9-8-9-18 Well, 1980' FSL, 660' FEL, NE SE, Sec. 8, T. 9 South,  
R. 18 East, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-36345.

Sincerely,

John R. Baza  
Associate Director

pab  
Enclosures

cc: Uintah County Assessor  
Bureau of Land Management, Vernal District Office

Operator: Newfield Production Company

Well Name & Number Federal 9-8-9-18

API Number: 43-047-36345

Lease: UTU-16540

Location: NE SE                      Sec. 8                      T. 9 South                      R. 18 East

### Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284.

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dan Jarvis at (801) 538-5338

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

RECEIVED

DEC 30 2005

DIV. OF OIL, GAS & MINING

MAR 04 2005

DIVISIONAL, UTAH

Form 3160-3  
(September 2001)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

5. Lease Serial No.  
UTU-16540

6. If Indian, Allottee or Tribe Name  
N/A

7. If Unit or CA Agreement, Name and No.  
N/A

8. Lease Name and Well No.  
Federal 9-8-9-18

9. API Well No.  
K3-047-36345

10. Field and Pool, or Exploratory  
Eight Mile Flat

11. Sec., T., R., M., or Blk. and Survey or Area  
NE/SE Sec. 8, T9S R18E

12. County or Parish  
Uintah

13. State  
UT

1a. Type of Work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator  
Newfield Production Company

3a. Address  
Route #3 Box 3630, Myton UT 84052

3b. Phone No. (include area code)  
(435) 646-3721

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)  
At surface NE/SE 1980' FSL 660' FEL  
At proposed prod. zone

14. Distance in miles and direction from nearest town or post office\*  
Approximatley 19.3 miles southeast of Myton, Utah

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 660' f/lse, NA f/unit

16. No. of Acres in lease  
1356.44

17. Spacing Unit dedicated to this well  
40 Acres

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1320'

19. Proposed Depth  
5880'

20. BLM/BIA Bond No. on file  
UTU0056

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
5011' GL

22. Approximate date work will start\*  
3rd Quarter 2005

23. Estimated duration  
Approximately seven (7) days from spud to rig release.

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- 1. Well plat certified by a registered surveyor.
- 2. A Drilling Plan.
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification.
- 6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature *Mandie Crozier* Name (Printed/Typed) Mandie Crozier Date 3/3/05  
Title Regulatory Specialist

Approved by (Signature) *[Signature]* Name (Printed/Typed) PIEDIE K SOKOLOSKY Date DEC 22 2005  
Title Assistant Field Manager  
Office VERNAL FIELD OFFICE

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

200600  
NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED

05JM0496A

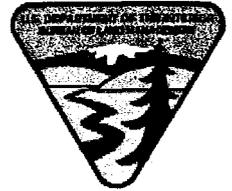
1/6/05

sent 03/29/05



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East VERNAL, UT 84078 (435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO  
DRILL**

Company: NEWFIELD PRODUCTION CO      Location: NESE, Sec.8 , T9S, R18E  
Well No: Federal 9-8-9-18                      Lease No: UTU-16540  
API No: 43-047-36345                              Agreement: N/A

|                                   |  |                      |                    |
|-----------------------------------|--|----------------------|--------------------|
| Petroleum Engineer:               | Matt Baker                                 | Office: 435-781-4490 | Cell: 435-828-4470 |
| Petroleum Engineer:               | Michael Lee                                | Office: 435-781-4432 | Cell: 435-828-7875 |
| Supervisory Petroleum Technician: | Jamie Sparger                              | Office: 435-781-4502 | Cell: 435-828-3913 |
| Environmental Scientist:          | Paul Buhler                                | Office: 435-781-4475 | Cell: 435-828-4029 |
| Environmental Scientist:          | Karl Wright                                | Office: 435-781-4484 |                    |
| Natural Resource Specialist:      | Holly Villa                                | Office: 435-781-4404 |                    |
| Natural Resource Specialist:      | Melissa Hawk                               | Office: 435-781-4476 |                    |
| Office Fax: (435) 781-4410        | After hours message number: (435) 781-4513 |                      |                    |

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations.

**NOTIFICATION REQUIREMENTS**

- Location Construction (Notify Melissa Hawk ES / NRS) - Forty-Eight (48) hours prior to construction of location and access roads.
- Location Completion (Notify Melissa Hawk ES / NRS) - Prior to moving on the drilling rig.
- Spud Notice (Notify PE) - Twenty-Four (24) hours prior to spudding the well.
- Casing String & Cementing (Notify Jamie Sparger SPT) - Twenty-Four (24) hours prior to running casing and cementing all casing strings.
- BOP & Related Equipment Tests (Notify Jamie Sparger SPT) - Twenty-Four (24) hours prior to initiating pressure tests.
- First Production Notice (Notify PE) - Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

***SURFACE USE PROGRAM  
CONDITIONS OF APPROVAL (COAs)***

- This well is being approved in accordance with Washington Instruction Memorandum 2005-247 and Section 390 (Category 3) of the Energy Policy Act which establishes statutory categorical exclusions (CX) under the National Environmental Policy Act (NEPA). Category 3 states that an oil or gas well can be drilled within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed drilling as a reasonably foreseeable activity, so long as such plan or document was approved within five (5) years prior to the date of spudding the well. This well is covered under the *Final Environmental Impact Statement and Record of Decision Castle Peak and Eightmile Flat Oil and Gas Exploration Project Newfield Rocky Mountains Inc.*, signed November 21, 2005. If the well has not been spudded by November 21, 2010, a new environmental document will have to be prepared prior to the approval of the APD.
- Mountain Plover surveys will have to be conducted in accordance with the U.S. Fish and Wildlife Service Mountain Plover Survey Guidelines.
- No construction or drilling shall be allowed during the burrowing owl nesting season (April 1 to Aug. 15), without first consulting the BLM biologist. If no nesting owls are found, drilling will be allowed.
- 4 to 6 inches of topsoil shall be stripped from the location and placed where it can most easily be accessed for interim reclamation. Once the well has been converted to water injection, the fill slopes shall be recontoured and the topsoil shall be spread over the entire well location. The well location shall then be seeded with crested wheatgrass (Variety Hycrest) at a 12 lb/acre rate (pure live seed). After seeding has been completed, an access road loop to the well head can be established. The reserve pit will be allowed to stay open until interim reclamation is completed so the entire area can be seeded at the same time. The interim seeding of the well location and reserve pit shall be done by either drilling the seed or by broadcasting the seed and dragging it with a spike tooth harrow.
- The pipeline trench shall be dug in the borrow ditch of the road and the trench material side cast into the existing vegetation. Both the water line and the gas line shall be buried in the same trench. When backfilling the trenches, care shall be taken to disturb as little of the vegetation as possible and thus allowing the existing plants to reestablish on their own, however, these disturbed areas shall also be seeded with crested wheatgrass at the 12 lb/acre rate to ensure vegetation establishment and to keep invasive weeds to a minimum. All seeding of the pipelines shall be completed using a seed drill.
- The temporary gas lines used during the temporary production phase shall be laid on the surface, and then removed once the well is turned to water injection.
- No pipeline construction will be allowed when soils are muddy and rutting of soils becomes apparent from the use of vehicles. If rutting occurs, operations must cease until soils are dry or frozen.

### ***DOWNHOLE CONDITIONS OF APPROVAL***

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### **SITE SPECIFIC DOWNHOLE CONDITIONS OF APPROVAL**

1. Casing cementing operations for production casing shall return cement to surface.

#### **DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

1. There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well. Any changes in operation must have prior approval from the BLM, Vernal Field Office Petroleum Engineers.
2. The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
3. **Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.**
4. Blowout prevention equipment (BOPE) will remain in use until the well is completed or abandoned. Closing unit controls must remain unobstructed and readily accessible at all times. Choke manifolds must be located outside of the rig substructure.

All BOPE components will be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests must be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test must be reported in the driller's log.

BOP drills must be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

No aggressive/fresh hard-banded drill pipe shall be used within casing.

5. All shows of fresh water and minerals will be reported and protected. A sample will be taken of any water flows and a water analysis furnished the BLM, Vernal Field Office.

All oil and gas shows will be adequately tested for commercial possibilities, reported, and protected.

6. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the BLM, Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM, Vernal Field Office must be obtained and notification given before resumption of operations.
7. Chronologic drilling progress reports must be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

Any change in the program must be approved by the BLM, Vernal Field Office. "Sundry Notices and Reports on Wells" (Form BLM 3160-5) must be filed for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Emergency approval may be obtained orally, but such approval does not waive the written report requirement. Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, will require the filing of a suitable plan pursuant to Onshore Oil & Gas Order No. 1 of 43 CFR 3164.1 and prior approval by the BLM, Vernal Field Office.

In accordance with 43 CFR 3162.4-3, this well must be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

8. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) will be submitted only when requested by the BLM, Vernal Field Office.

**Please submit an electronic copy of all logs run on this well in LAS format to [UT\\_VN\\_Welllogs@BLM.gov](mailto:UT_VN_Welllogs@BLM.gov). This submission will supersede the requirement for submittal of paper logs to the BLM. The cement bond log must be submitted in raster format (TIF, PDF other).**

9. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the BLM, Vernal Field Office.

All measurement points shall be identified as point of sales or allocation for royalty determination prior to the installation of facilities.

10. Oil and gas meters will be calibrated in place prior to any deliveries. The Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the BLM, Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement.
11. A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM, Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
12. This APD is approved subject to the requirement that, should the well be successfully completed for production, the BLM, Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
- a. Operator name, address, and telephone number.
  - b. Well name and number.
  - c. Well location ( $\frac{1}{4}$ / $\frac{1}{4}$ , Sec., Twn, Rng, and P.M.).
  - d. Date well was placed in a producing status (date of first production for which royalty will be paid).
  - e. The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - f. The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - g. Unit agreement and / or participating area name and number, if applicable.
  - h. Communitization agreement number, if applicable.

13. Any venting or flaring of gas will be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from Field Office Petroleum Engineers.
14. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events as defined in NTL3A, will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production
15. Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
16. Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

# DIVISION OF OIL, GAS AND MINING

## **SPUDDING INFORMATION**

Name of Company: NEWFIELD PRODUCTION COMPANY

Well Name: FEDERAL 9-8-9-18

Api No: 43-047-36345 Lease Type: FEDERAL

Section 08 Township 09S Range 18E County UINTAH

Drilling Contractor ROSS DRILLING RIG # 24

### **SPUDDED:**

Date 03/20/06

Time 5:30 PM

How DRY

**Drilling will Commence:** \_\_\_\_\_

Reported by DON BASTIAN

Telephone # 1-435-823-6012

Date 03/21/2006 Signed CHD

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ENTITY ACTION FORM - FORM 6

OPERATOR: NEWFIELD PRODUCTION COMPANY  
ADDRESS: RT. 3 BOX 3630  
MYTON, UT 84052

OPERATOR ACCT. NO. N2685

| ACTION CODE                               | CURRENT ENTITY NO. | NEW ENTITY NO. | API NUMBER   | WELL NAME          | WELL LOCATION |    |    |     |        | SPUD DATE | EFFECTIVE DATE |
|---|--------------------|----------------|--------------|--------------------|---------------|----|----|-----|--------|-----------|----------------|
|   |                    |                |              |                    | QQ            | SC | TP | RG  | COUNTY |           |                |
| B   | 99999              | 14844          | 43-047-36026 | FEDERAL 15-33-8-18 | SW8E          | 33 | 8S | 18E | UINTAH | 03/15/06  | 3/23/06        |
| WELL 1 COMMENTS: <i>GRRV Sundance</i> — K |                    |                |              |                    |               |    |    |     |        |           |                |
| A   | 99999              | 15258          | 43-047-36192 | FEDERAL 14-19-8-18 | SE/SW         | 19 | 8S | 18E | UINTAH | 03/18/06  | 3/23/06        |
| <i>GRRV</i> — K                           |                    |                |              |                    |               |    |    |     |        |           |                |
| B   | 99999              | 14844          | 43-047-36346 | FEDERAL 8-8-8-18   | SE/NE         | 8  | 9S | 18E | UINTAH | 03/18/06  | 3/23/06        |
| <i>GRRV Sundance</i> — K                  |                    |                |              |                    |               |    |    |     |        |           |                |
| A   | 99999              | 15259          | 43-047-36193 | FEDERAL 15-19-8-18 | SWSE          | 19 | 8S | 18E | UINTAH | 03/20/06  | 3/23/06        |
| <i>GRRV</i> — K                           |                    |                |              |                    |               |    |    |     |        |           |                |
| B   | 99999              | 14844          | 43-047-36345 | FEDERAL 9-8-8-18   | NE/SE         | 8  | 9S | 18E | UINTAH | 03/21/06  | 3/23/06        |
| WELL 5 COMMENTS: <i>GRRV Sundance</i> — K |                    |                |              |                    |               |    |    |     |        |           |                |
| A   | 99999              | 15260          | 43-047-36225 | FEDERAL 4-30-8-18  | NW/NW         | 30 | 8S | 18E | UINTAH | 03/21/06  | 3/23/06        |
| WELL 5 COMMENTS: <i>GRRV</i> — K          |                    |                |              |                    |               |    |    |     |        |           |                |

ACTION CODES (See instructions on back of form)

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comment section)

NOTE: Use COMMENTS section to explain why each Action Code was selected.

RECEIVED  
MAR 23 2006

*Lana Nebeker*  
Lana Nebeker  
Production Clerk  
March 23, 2006  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.  
UTU16540

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or No.  
SUNDANCE UNIT

8. Well Name and No.  
FEDERAL 9-8-9-18

9. API Well No.  
4304736345

10. Field and Pool, or Exploratory Area  
Monument Butte

11. County or Parish, State  
Uintah, UT

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630  
Myton, UT 84052

3b. Phone No. (include are code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1980 FSL 660 FEL  
NE/SE Section 8 T9E R18E

12. CHECK APPROPRIATE BOX(ES) TO INIDICATE NATURE OF NOTICE, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                               |   |  |   |
|--|--|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize             | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production(Start/Resume)  | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing        | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair       | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input type="checkbox"/> Other _____    |
|  | <input type="checkbox"/> Change Plans        | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon       |   |
|  | <input type="checkbox"/> Convert to Injector | <input type="checkbox"/> Plug Back        | <input checked="" type="checkbox"/> Water Disposal |   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Formation water is produced to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E) or at State of Utah approved surface disposal facilities.

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY**

**RECEIVED  
MAY 08 2006  
DIV. OF OIL, GAS & MINING**

|   |                                |
|---|--------------------------------|
| I hereby certify that the foregoing is true and correct<br>Name (Printed/Typed)<br>Mandie Crozier | Title<br>Regulatory Specialist |
| Signature<br>   | Date<br>05/05/2006             |

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

|   |              |            |
|---|--------------|------------|
| Approved by _____   | Title _____  | Date _____ |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | Office _____ |            |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.  
UTU16540

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or No.  
SUNDANCE UNIT

8. Well Name and No.  
FEDERAL 9-8-9-18

9. API Well No.  
4304736345

10. Field and Pool, or Exploratory Area  
Monument Butte

11. County or Parish, State  
Uintah, UT

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630  
Myton, UT 84052

3b. Phone No. (include are code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1980 FSL 660 FEL  
NE/SE Section 8 T9E R18E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                               |   |  |   |
|--|--|---|--|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize             | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off         |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing        | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity         |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair       | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other _____ |
|  | <input type="checkbox"/> Change Plans        | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon       | Variance _____                                  |
|  | <input type="checkbox"/> Convert to Injector | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            | _____   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Newfield Production Company is requesting a variance from Onshore Order 43 CFR Part 3160 Section 4 requiring production tanks to be equipped with Enardo or equivalent vent line valves. Newfield operates wells that produce from the Green River formation, which are relatively low gas producers (20 mcfpd). The majority of the wells are equipped with a three phase separator to maximize gas separation and sales.

Newfield is requesting a variance for safety reasons. Crude oil production tanks equipped with back pressure devices will emit a surge of gas when the thief hatches are open. While gauging tanks, lease operators will be subject to breathing toxic gases as well as risk a fire hazard, under optimum conditions

Accepted by the  
Utah Division of  
Oil, Gas and Mining

Federal Approval Of This  
Action Is Necessary

RECEIVED  
MAY 08 2006

DIV. OF OIL, GAS & MINING

Date: 6/6/06  
By: [Signature]

I hereby certify that the foregoing is true and correct

Name (Printed/ Typed)  
Mandie Crozier

Signature  
[Signature]

Title  
Regulatory Specialist

Date  
05/05/2006

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

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Office \_\_\_\_\_

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
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**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630  
Myton, UT 84052

3b. Phone No. (include area code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1980 FSL 660 FEL  
NE/SE Section 8 T9E R18E

5. Lease Serial No.

UTU16540

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or No.

SUNDANCE UNIT

8. Well Name and No.

FEDERAL 9-8-9-18

9. API Well No.

4304736345

10. Field and Pool, or Exploratory Area Monument Butte

11. County or Parish, State

Uintah, UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                               |   |   |   |  |
|---|--|---|---|---|--|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize             | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production(Start/Resume) | <input type="checkbox"/> Water Shut-Off         |  |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing        | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation              | <input type="checkbox"/> Well Integrity         |  |
| <input type="checkbox"/> Final Abandonment Notice     | <input type="checkbox"/> Casing Repair       | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete               | <input checked="" type="checkbox"/> Other _____ |  |
|   | <input type="checkbox"/> Change Plans        | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon      | Spud Notice _____                               |  |
|   | <input type="checkbox"/> Convert to Injector | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal           | _____   |  |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 3/21/2006 MIRU Ross Rig # 24. Spud well @ 12:00 PM. Drill 315' of 12 1/4" hole with air mist. TIH W/ 7 Jt's 8 5/8" J-55 24 # csgn. Set @ 319.65' KB On 3/23/2006 cement with 160 sks of class "G" w/ 3% CaCL2 + 1/4# sk Cello- Flake Mixed @ 15.8 ppg > 1.17 cf/ sk yeild. Return 5 bbls cement to pit. WOC.

I hereby certify that the foregoing is true and correct

Name (Printed/ Typed)  
Floyd Mitchell

Title

Drilling Supervisor

Signature

*Floyd Mitchell*

Date

03/23/2006

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by \_\_\_\_\_

Title

Date

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(Instructions on reverse)

**MAR 28 2006**

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

8 5/8 CASING SET AT 319.65

LAST CASING 8 5/8" SET AT 319.65'  
 DATUM 12' KB  
 DATUM TO CUT OFF CASING \_\_\_\_\_  
 DATUM TO BRADENHEAD FLANGE \_\_\_\_\_  
 TD DRILLER 315' LOGGER \_\_\_\_\_  
 HOLE SIZE 12 1/4

OPERATOR Newfield Production Company  
 WELL Federal 9-8-9-18  
 FIELD/PROSPECT Monument Butte  
 CONTRACTOR & RIG # Ross Rig # 24

| LOG OF CASING STRING:                                 |        |   |          |                                   |        |       |               |
|---|--------|---|----------|-----------------------------------|--------|-------|---------------|
| PIECES  | OD     | ITEM - MAKE - DESCRIPTION   | WT / FT  | GRD                               | THREAD | CONDT | LENGTH        |
|   |        | Shoe Joint 41.13'   |          |                                   |        |       |               |
|   |        | WHI - 92 csg head   |          |                                   | 8rd    | A     | 0.95          |
| 7   | 8 5/8" | Maverick ST&C csg   | 24#      | J-55                              | 8rd    | A     | 307.8         |
|   |        | <b>GUIDE</b> shoe   |          |                                   | 8rd    | A     | 0.9           |
| CASING INVENTORY BAL.                                 |        | FEET  | JTS      | TOTAL LENGTH OF STRING            |        |       | 309.65        |
| TOTAL LENGTH OF STRING                                |        | 309.65  | 7        | LESS CUT OFF PIECE                |        |       | 2             |
| LESS NON CSG. ITEMS                                   |        | 1.85  |          | PLUS DATUM TO T/CUT OFF CSG       |        |       | 12            |
| PLUS FULL JTS. LEFT OUT                               |        | 0   |          | CASING SET DEPTH                  |        |       | <b>319.65</b> |
| TOTAL   |        | 307.8   | 7        | } COMPARE                         |        |       |               |
| TOTAL CSG. DEL. (W/O THRDS)                           |        | 307.8   | 7        |                                   |        |       |               |
| TIMING  |        | 1ST STAGE   |          |                                   |        |       |               |
| BEGIN RUN CSG.  | Spud   | 3/21/2006   | 12:00 PM | GOOD CIRC THRU JOB <u>Yes</u>     |        |       |               |
| CSG. IN HOLE  |        | 3/21/2006   | 4:10 PM  | Bbls CMT CIRC TO SURFACE <u>5</u> |        |       |               |
| BEGIN CIRC  |        | 3/23/2006   | 11:56 AM | RECIPROCATED PIPE FOR <u>N/A</u>  |        |       |               |
| BEGIN PUMP CMT  |        | 3/23/2006   | 12:09 PM |                                   |        |       |               |
| BEGIN DSPL. CMT                                       |        | 3/23/2006   | 12:21 PM | BUMPED PLUG TO <u>620</u> PSI     |        |       |               |
| PLUG DOWN   |        | 3/23/2006   | 12:29 PM |                                   |        |       |               |
| CEMENT USED   |        | CEMENT COMPANY- <b>B. J.</b>  |          |                                   |        |       |               |
| STAGE   | # SX   | CEMENT TYPE & ADDITIVES   |          |                                   |        |       |               |
| 1   | 160    | Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield |          |                                   |        |       |               |
| CENTRALIZER & SCRATCHER PLACEMENT                     |        | SHOW MAKE & SPACING   |          |                                   |        |       |               |
| Centralizers - Middle first, top second & third for 3 |        |   |          |                                   |        |       |               |

COMPANY REPRESENTATIVE Floyd Mitchell

DATE 3/23/2006

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630

Myton, UT 84052

3b. Phone No. (include are code)

435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1980 FSL 660 FEL

NE/SE Section 8 T9E R18E

5. Lease Serial No.

UTU16540

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or No.

SUNDANCE UNIT

8. Well Name and No.

FEDERAL 9-8-9-18

9. API Well No.

4304736345

10. Field and Pool, or Exploratory Area  
Monument Butte

11. County or Parish, State

Uintah, UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                               |   |   |   |
|---|--|---|---|---|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize             | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production(Start/Resume) | <input type="checkbox"/> Water Shut-Off         |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing        | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation              | <input type="checkbox"/> Well Integrity         |
| <input type="checkbox"/> Final Abandonment Notice     | <input type="checkbox"/> Casing Repair       | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete               | <input checked="" type="checkbox"/> Other _____ |
|   | <input type="checkbox"/> Change Plans        | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon      | Weekly Status Report                            |
|   | <input type="checkbox"/> Convert to Injector | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal           |   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 4/1/2006 MIRU NDSI Rig # 1. Set all equipment. Pressure test Kelly, TIW, Choke manifold, & Bop's to 2,000 psi. Test 8.625 csgn to 1,500 psi. Vernal BLM field, & Roosevelt DOGM office was notified of test. PU BHA and tag cement @ 280'. Drill out cement & shoe. Drill a 7.875 hole with fresh water to a depth of 5846'. Lay down drill string & BHA. Open hole log w/ Dig/SP/GR log's TD to surface. PU & TIH with Guide shoe, shoe jt, float collar, 137 jt's of 5.5 J-55, 15.5# csgn. Set @ 5834.62' / KB. Cement with 300 sks cement mixed @ 11.0 ppg & 3.43 yld. The 450 sks cement mixed @ 14.4 ppg & 1.24 yld. Returned 1 bbls of cement to reserve pit. Nipple down Bop's. Drop slips @ 80,000 #'s tension. Release rig @ 7:00 am 4/6/2006.

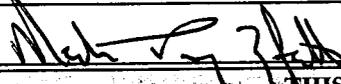
I hereby certify that the foregoing is true and correct

Name (Printed/ Typed)  
Troy Zufelt

Title

Drilling Foreman

Signature



Date

04/06/2006

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

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Date

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(Instructions on reverse)

**RECEIVED**

**APR 10 2006**

**DIV. OF OIL, GAS & MINING**

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

\_\_\_\_\_ **5 1/2"** CASING SET AT \_\_\_\_\_ **5834.62**

Fit cllr @ 5793.32

LAST CASING 8 5/8" Set @ 319.65

OPERATOR Newfield Production Company

DATUM 12' KB

WELL Federal 9-8-9-18

DATUM TO CUT OFF CASING 12'

FIELD/PROSPECT Monument Butte

DATUM TO BRADENHEAD FLANGE \_\_\_\_\_

CONTRACTOR & RIG # NDSI Rig # 1

TO DRILLER 5846' LOGGE 5846'

HOLE SIZE 7 7/8"

| LOG OF CASING STRING:   |        |   |                     |  |        |       |                |
|---|--------|---|---------------------|--|--------|-------|----------------|
| PIECES  | OD     | ITEM - MAKE - DESCRIPTION   | WT / FT             | GRD  | THREAD | CONDT | LENGTH         |
|   |        | Landing Jt  |                     |  |        |       | 14             |
|   |        | <b>5.75 short jt @ 3944.46</b>  |                     |  |        |       |                |
| 137   | 5 1/2" | ETC LT & C casing   | 15.5#               | J-55                                       | 8rd    | A     | 5778.72        |
|   |        | Float collar  |                     |  |        |       | 0.6            |
| 1   | 5 1/2" | ETC LT&C csg  | 15.5#               | J-55                                       | 8rd    | A     | 42.65          |
|   |        | <b>GUIDE</b> shoe   |                     |  | 8rd    | A     | 0.65           |
| CASING INVENTORY BAL.   |        | FEET  | JTS                 | TOTAL LENGTH OF STRING                     |        |       | 5836.62        |
| TOTAL LENGTH OF STRING  |        | 5836.62   | 138                 | LESS CUT OFF PIECE                         |        |       | 14             |
| LESS NON CSG. ITEMS   |        | 15.25   |                     | PLUS DATUM TO T/CUT OFF CSG                |        |       | 12             |
| PLUS FULL JTS. LEFT OUT   |        | 85.26   | 2                   | CASING SET DEPTH                           |        |       | <b>5834.62</b> |
| TOTAL   |        | <b>5906.63</b>  | 140                 | } COMPARE                                  |        |       |                |
| TOTAL CSG. DEL. (W/O THRDS)   |        | 5906.63   | 140                 |  |        |       |                |
| TIMING  |        | 1ST STAGE   | 2nd STAGE           |  |        |       |                |
| BEGIN RUN CSG.  |        | 11:30 PM  | 4/5/2006            | GOOD CIRC THRU JOB <u>YES</u>              |        |       |                |
| CSG. IN HOLE  |        | 3:00 AM   | 4/6/2006            | Bbls CMT CIRC TO SURFACE <u>1</u>          |        |       |                |
| BEGIN CIRC  |        | 3:30 AM   | 4/6/2006            | RECIPROCATED PIPE FOR <u>THRUSTROKE</u> No |        |       |                |
| BEGIN PUMP CMT  |        | 5:00 AM   | 4/6/2006            | DID BACK PRES. VALVE HOLD ? <u>YES</u>     |        |       |                |
| BEGIN DSPL. CMT   |        | 5:58 AM   | 4/6/2006            | BUMPED PLUG TO <u>1660</u> PSI             |        |       |                |
| PLUG DOWN   |        | <b>6:21 AM</b>  | <b>4/6/2006</b>     |  |        |       |                |
| CEMENT USED   |        | CEMENT COMPANY- <b>B. J.</b>  |                     |  |        |       |                |
| STAGE   | # SX   | CEMENT TYPE & ADDITIVES   |                     |  |        |       |                |
| 1   | 300    | Premlite II w/ 10% gel + 3 % KCL, 5#s /sk CSE + 2# sk/kolseal + 1/2#s/sk Cello Flake          |                     |  |        |       |                |
|   |        | mixed @ 11.0 ppg W / 3.43 cf/sk yield   |                     |  |        |       |                |
| 2   | 450    | 50/50 poz W/ 2% Gel + 3% KCL, .5%EC1, 1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD |                     |  |        |       |                |
| CENTRALIZER & SCRATCHER PLACEMENT   |        |   | SHOW MAKE & SPACING |  |        |       |                |
| Centralizers - Middle first, top second & third. Then every third collar for a total of 20. |        |   |                     |  |        |       |                |

COMPANY REPRESENTATIVE Troy Zufelt

DATE 4/6/2006

RECEIVED  
APR 10 2006  
DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
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abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well  
 Oil Well    Gas Well    Other

2. Name of Operator  
 NEWFIELD PRODUCTION COMPANY

3a. Address    Route 3 Box 3630  
                   Myton, UT 84052

3b. Phone No. (include area code)  
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4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
 1980 FSL 660 FEL  
 NE/SE Section 8 T9S R18E

5. Lease Serial No.  
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 SUNDANCE UNIT

8. Well Name and No.  
 FEDERAL 9-8-9-18

9. API Well No.  
 4304736345

10. Field and Pool, or Exploratory Area  
 Monument Butte

11. County or Parish, State  
 Uintah, UT

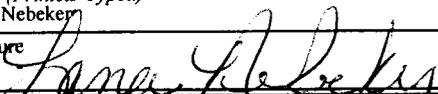
**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                               |   |   |   |  |
|---|--|---|---|---|--|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize             | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production(Start/Resume) | <input type="checkbox"/> Water Shut-Off         |  |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing        | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation              | <input type="checkbox"/> Well Integrity         |  |
| <input type="checkbox"/> Final Abandonment Notice     | <input type="checkbox"/> Casing Repair       | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete               | <input checked="" type="checkbox"/> Other _____ |  |
|   | <input type="checkbox"/> Change Plans        | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon      | Weekly Status Report                            |  |
|   | <input type="checkbox"/> Convert to Injector | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal           |   |  |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Status report for time period 04/18/06 - 05/04/06

Subject well had completion procedures initiated in the Green River formation on 04-18-06 without the use of a service rig over the well. A cement bond log was run and a total of four Green River intervals were perforated and hydraulically fracture treated with 20/40 mesh sand. Perforated intervals are as follows: Stage #1 (5620'-5628'),(5568'-5576'); Stage #2(5448'-5454'),(5374'-5386'); Stage #3 (4746'-4756'); Stage #4 (4528'-4539'). All perforations, were 4 JSPF. Composite flow-through frac plugs were used between stages. Fracs were flowed back through chokes. A service rig was moved over the well on 04-29-2006. Bridge plugs were drilled out and well was cleaned to 5791'. Zones were swab tested for sand cleanup. A new 1 1/2" bore rod pump was run in well on sucker rods. Well was placed on production via rod pump on 05-04-2006.

|  |                    |
|--|--------------------|
| I hereby certify that the foregoing is true and correct  | Title              |
| Name (Printed/ Typed)<br>Lana Nebeker  | Production Clerk   |
| Signature<br> | Date<br>05/31/2006 |

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

|   |        |      |
|---|--------|------|
| Approved by   | Title  | Date |
| Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. | Office |      |

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

**JUN 02 2006**

**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**

5. LEASE DESIGNATION AND SERIAL NO.

**UTU-16540**

6. IF INDIAN ALLOTTEE OR TRIBE NAME

**NA**

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG\***

7. UNIT AGREEMENT NAME

**Sundance Unit**

1a. TYPE OF WORK

OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

1b. TYPE OF WELL

NEW WELL  WORK OVER  DEEPEN  PLUG BACK  DIFF RESVR.  Other \_\_\_\_\_

8. FARM OR LEASE NAME, WELL NO.

**Federal 9-8-9-18**

2. NAME OF OPERATOR

**Newfield Exploration Company**

9. WELL NO.

**43-047-36345**

3. ADDRESS AND TELEPHONE NO.

**1401 17th St. Suite 1000 Denver, CO 80202**

10. FIELD AND POOL OR WILDCAT

**Eight Mile Flat**

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.\*)

At Surface **1980' FSL & 660' FEL (NE/SE) Sec. 8, T9S, R18E**

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

**Sec. 8, T9S, R18E**

At top prod. Interval reported below

At total depth

14. API NO. **43-047-36345** DATE ISSUED **3/10/05**

12. COUNTY OR PARISH

**Uintah**

13. STATE

**UT**

15. DATE SPUDDED

**3/21/06**

16. DATE T.D. REACHED

**4/5/06**

17. DATE COMPL. (Ready to prod.)

**5/4/06**

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\*

**5011' GL**

19. ELEV. CASINGHEAD

**5023' KB**

20. TOTAL DEPTH, MD & TVD

**5846'**

21. PLUG BACK T.D., MD & TVD

**5791'**

22. IF MULTIPLE COMPL. HOW MANY\*

23. INTERVALS DRILLED BY

----->

ROTARY TOOLS

**X**

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)\*

**Green River 4528'-5628'**

25. WAS DIRECTIONAL SURVEY MADE

**No**

26. TYPE ELECTRIC AND OTHER LOGS RUN

**Dual Induction Guard, SP, Compensated Density, Compensated Neutron, GR, Caliper, Cement Bond Log**

27. WAS WELL CORED

**No**

**23. CASING RECORD (Report all strings set in well)**

| CASING SIZE/GRADE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | TOP OF CEMENT, CEMENTING RECORD         | AMOUNT PULLED |
|-------------------|-----------------|----------------|-----------|---|---------------|
| 8-5/8" - J-55     | 24#             | 320'           | 12-1/4"   | To surface with 160 sx Class "G" cmt    |               |
| 5-1/2" - J-55     | 15.5#           | 5835'          | 7-7/8"    | 300 sx Premlite II and 450 sx 50/50 Poz |               |

**29. LINER RECORD**

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) |
|------|----------|-------------|---------------|-------------|
|      |          |             |               |             |

**30. TUBING RECORD**

| SIZE   | DEPTH SET (MD) | PACKER SET (MD) |
|--------|----------------|-----------------|
| 2-7/8" | EOT @ 5721'    | TA @ 5587'      |

**31. PERFORATION RECORD (Interval, size and number)**

| INTERVAL                     | SIZE | SPF/NUMBER |
|------------------------------|------|------------|
| (CP4&5) 5568'-76', 5620'-28' | .46" | 4/64       |
| (CP1&2) 5374'-86', 5448'-54' | .43" | 4/64       |
| (D3) 4746'-4756'             | .43" | 4/40       |
| (DS3) 4528'-4539'            | .43" | 4/44       |

**32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.**

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED             |
|---------------------|--|
| 5568'-5628'         | Frac w/ 50,377# 20/40 sand in 440 bbls fluid |
| 5374'-5454'         | Frac w/ 60,577# 20/40 sand in 485 bbls fluid |
| 4746'-4756'         | Frac w/ 19,156# 20/40 sand in 287 bbls fluid |
| 4528'-4539'         | Frac w/ 30,547# 20/40 sand in 355 bbls fluid |

**33.\* PRODUCTION**

|  |  |  |                                  |                        |                        |                          |                             |
|--|--|--|----------------------------------|------------------------|------------------------|--------------------------|-----------------------------|
| DATE FIRST PRODUCTION<br><b>5/4/06</b> | PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump)<br><b>2-1/2" x 1-1/2" x 14' RHAC SM Plunger Pump</b> | WELL STATUS (Producing or shut-in)<br><b>PRODUCING</b> |                                  |                        |                        |                          |                             |
| DATE OF TEST<br><b>30 day ave</b>      | HOURS TESTED   | CHOKER SIZE  | PROD'N FOR TEST PERIOD<br>-----> | OIL--BBL.<br><b>65</b> | GAS--MCF.<br><b>10</b> | WATER--BBL.<br><b>41</b> | GAS-OIL RATIO<br><b>154</b> |
| FLOW TUBING PRESS.                     | CASING PRESSURE  | CALCULATED 24-HOUR RATE<br>----->                      | OIL--BBL.                        | GAS--MCF.              | WATER--BBL.            | OIL GRAVITY-API (CORR.)  |                             |

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

**Sold & Used for Fuel**

TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Mandie Crozier  
Mandie Crozier

TITLE Regulatory Specialist

DATE 6/5/2006

**JUN 07 2006**

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals, and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries);

| 38. GEOLOGIC MARKERS | FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC.  | NAME              | TOP         |                  |
|----------------------|-----------|-----|--------|--|-------------------|-------------|------------------|
|                      |           |     |        |  |                   | MEAS. DEPTH | TRUE VERT. DEPTH |
|                      |           |     |        | <p style="text-align: center;"><b>Well Name<br/>Federal 9-8-9-18</b></p> | Garden Gulch Mkr  | 3634'       |                  |
|                      |           |     |        |  | Garden Gulch 1    | 3800'       |                  |
|                      |           |     |        |  | Garden Gulch 2    | 3914'       |                  |
|                      |           |     |        |  | Point 3 Mkr       | 4163'       |                  |
|                      |           |     |        |  | X Mkr             | 4399'       |                  |
|                      |           |     |        |  | Y-Mkr             | 4440'       |                  |
|                      |           |     |        |  | Douglas Creek Mkr | 4566'       |                  |
|                      |           |     |        |  | BiCarbonate Mkr   | 4807'       |                  |
|                      |           |     |        |  | B Limestone Mkr   | 4941'       |                  |
|                      |           |     |        |  | Castle Peak       | 5543'       |                  |
|                      |           |     |        | Basal Carbonate  | 5756'             |             |                  |
|                      |           |     |        | Total Depth (LOGGERS)  | 5846'             |             |                  |



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
1595 WYNKOOP STREET
DENVER, CO 80202-1129
http://www.epa.gov/region8

JUL 2 2007

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

David Gerbig
Newfield Production Company
1401 Seventeenth Street
Suite 1000
Denver, CO 80202

Accepted by the
Utah Division of
Oil, Gas and Mining

FOR RECORD ONLY

43.047.36345
95 18E 8

Re: FINAL Permit
EPA UIC Permit UT21120-07605
Well: Federal 9-8-9-18
Uintah County, UT

Dear Mr. Gerbig:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Federal 9-8-9-18 injection well. A Statement of Basis that discusses the conditions and requirements of this EPA UIC Permit, is also included.

The Public Comment period for this Permit ended on JUN 21 2007. No comments on the Draft Permit were received during the Public Notice period; therefore the Effective Date for this EPA UIC Permit is the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect as of the Effective Date of this Permit.

Please note that under the terms and conditions of this Final Permit you are authorized only to construct the proposed injection well. Prior to commencing injection, you first must fulfill all "Prior to Commencing Injection" requirements of the Final Permit, Part II Section C Subpart 1, and obtain written Authorization to Inject from the EPA. It is your responsibility to be familiar with and to comply with all provisions of your Final Permit.

This EPA UIC Permit is issued for the operating life of the well unless terminated (Part III, Section B). The EPA may review this Permit at least every five (5) years to determine whether any action is warranted pursuant to 40 CFR § 144.36(a).

RECEIVED

JUL 10 2007

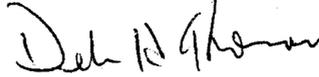
DIV. OF OIL, GAS & MINING



Printed on Recycled Paper

If you have any questions on the enclosed Final Permit or Statement of Basis, please call Emmett Schmitz of my staff at (303) 312-6174, or toll-free at (800) 227-8917, ext. 312-6174.

Sincerely,



*for* Stephen S. Tuber  
Assistant Regional Administrator  
Office of Partnerships and Regulatory Assistance

enclosure: Final UIC Permit  
Statement of Basis  
Form 7520-7 Application to Transfer Permit  
Form 7520-11 Monitoring Report  
Form 7520-12 Well Rework Record  
Form 7520-13 Plugging Record  
Groundwater Section Guidance 37  
Groundwater Section Guidance 39

cc: Letter only:

Curtis Cesspooch, Chairman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Irene Cuch, Vice-Chairman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Frances Poowegup, Councilwoman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Ronald Grove, Councilman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Steven Cesspooch, Councilman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Phillip Chimburas, Councilman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Chester Mills, Superintendent  
Uintah & Ouray Indian Agency  
U.S. Bureau of Indian Affairs

all enclosures:

Michael Guinn, District Manager  
Newfield Production Company  
Myton, Utah

Shaun Chapoose, Director  
Land Use Dept.  
Ute Indian Tribe

Lynn Becker  
Energy & Minerals Dept.  
Ute Indian Tribe

Gilbert Hunt, Associate Director  
Utah Division of Oil, Gas and Mining

Fluid Minerals Engineering Office  
U.S. Bureau of Land Management  
Vernal, Utah







**UNDERGROUND INJECTION CONTROL PROGRAM  
PERMIT**

PREPARED: June 2007

**Permit No. UT21120-07605**

Class II Enhanced Oil Recovery Injection Well

**Federal 9-8-9-18  
Uintah County, UT**

Issued To

**Newfield Production Company**

1401 Seventeenth Street

Suite 1000

Denver, CO 80202

## Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

Under the authority of the Safe Drinking Water Act and Underground Injection Control (UIC) Program regulations of the U. S. Environmental Protection Agency (EPA) codified at Title 40 of the Code of Federal Regulations (40 CFR) Parts 2, 124, 144, 146, and 147, and according to the terms of this Permit,

Newfield Production Company  
1401 Seventeenth Street  
Suite 1000  
Denver, CO 80202

is authorized to construct and to operate the following Class II injection well or wells:

Federal 9-8-9-18  
1980' FSL & 660' FEL, NESE S8, T9S, R18E  
Uintah County, UT

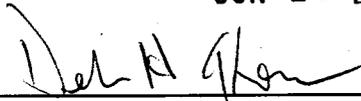
EPA regulates the injection of fluids into injection wells so that injection does not endanger underground sources of drinking water (USDWs). EPA UIC Permit conditions are based on authorities set forth at 40 CFR Parts 144 and 146, and address potential impacts to USDWs.

Under 40 CFR Part 144, Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General permit conditions for which the content is mandatory and not subject to site-specific differences are not discussed in this document. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize injury to persons or property or invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. (40 CFR §144.35) An EPA UIC Permit may be issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR §§144.39, 144.40 and 144.41, and may be reviewed at least once every five (5) years to determine if action is required under 40 CFR §144.36(a).

This Permit is issued for the life of the well(s) unless modified, revoked and reissued, or terminated under 40 CFR 144.39 or 144.40. This EPA Permit may be adopted, modified, revoked and reissued, or terminated if primary enforcement authority for a UIC Program is delegated to an Indian Tribe or State. Upon the effective date of delegation, reports, notifications, questions and other correspondence should be directed to the Indian Tribe or State Director.

Issue Date: JUN 29 2007

Effective Date JUN 29 2007

  
for Stephen S. Tuber

Assistant Regional Administrator\*  
Office of Partnerships and Regulatory Assistance

\*NOTE: The person holding this title is referred to as the "Director" throughout this Permit.

## PART II. SPECIFIC PERMIT CONDITIONS

### Section A. WELL CONSTRUCTION REQUIREMENTS

These requirements represent the approved minimum construction standards for well casing and cement, injection tubing, and packer.

Details of the approved well construction plan are incorporated into this Permit as APPENDIX A. Changes to the approved plan that may occur during construction must be approved by the Director prior to being physically incorporated.

#### **1. Casing and Cement.**

The well or wells shall be cased and cemented to prevent the movement of fluids into or between underground sources of drinking water. The well casing and cement shall be designed for the life expectancy of the well and of the grade and size shown in APPENDIX A. Remedial cementing may be required if shown to be inadequate by cement bond log or other attempted demonstration of Part II (External) mechanical integrity.

#### **2. Injection Tubing and Packer.**

Injection tubing is required, and shall be run and set with a packer at or below the depth indicated in APPENDIX A. The packer setting depth may be changed provided it remains below the depth indicated in APPENDIX A and the Permittee provides notice and obtains the Director's approval for the change.

#### **3. Sampling and Monitoring Devices.**

The Permittee shall install and maintain in good operating condition:

- (a) a "tap" at a conveniently accessible location on the injection flow line between the pump house or storage tanks and the injection well, isolated by shut-off valves, for collection of representative samples of the injected fluid; and
- (b) one-half (1/2) inch female iron pipe fitting, isolated by shut-off valves and located at the wellhead at a conveniently accessible location, for the attachment of a pressure gauge capable of monitoring pressures ranging from normal operating pressures up to the Maximum Allowable Injection Pressure specified in APPENDIX C:
  - (i) on the injection tubing; and
  - (ii) on the tubing-casing annulus (TCA); and
- (c) a pressure actuated shut-off device attached to the injection flow line set to shut-off the injection pump when or before the Maximum Allowable Injection Pressure (MAIP) specified in APPENDIX C is reached at the wellhead; and
- (d) a non-resettable cumulative volume recorder attached to the injection line.

#### **4. Well Logging and Testing**

Well logging and testing requirements are found in APPENDIX B. The Permittee shall ensure the log and test requirements are performed within the time frames specified in APPENDIX B. Well logs and tests shall be performed according to current EPA-approved procedures. Well log and test results shall be submitted to the Director within sixty (60) days of completion of the logging or testing activity, and shall include a report describing the methods used during logging or testing and an interpretation of the test or log results.

#### **5. Postponement of Construction or Conversion**

The Permittee shall complete well construction within one year of the Effective Date of the Permit, or in the case of an Area Permit within one year of Authorization of the additional well. Authorization to construct and operate shall expire if the well has not been constructed within one year of the Effective Date of the Permit or Authorization and the Permit may be terminated under 40 CFR 144.40, unless the Permittee has notified the Director and requested an extension prior to expiration. Notification shall be in writing, and shall state the reasons for the delay and provide an estimated completion date. Once Authorization has expired under this part, the complete permit process including opportunity for public comment may be required before Authorization to construct and operate may be reissued.

#### **6. Workovers and Alterations**

Workovers and alterations shall meet all conditions of the Permit. Prior to beginning any addition or physical alteration to an injection well that may significantly affect the tubing, packer or casing, the Permittee shall give advance notice to the Director and obtain the Director's approval. The Permittee shall record all changes to well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workover, logging, or test data to EPA within sixty (60) days of completion of the activity.

A successful demonstration of Part I MI is required following the completion of any well workover or alteration which affects the casing, tubing, or packer. Injection operations shall not be resumed until the well has successfully demonstrated mechanical integrity and the Director has provided written approval to resume injection.

### **Section B. MECHANICAL INTEGRITY**

The Permittee is required to ensure each injection well maintains mechanical integrity at all times. The Director, by written notice, may require the Permittee to comply with a schedule describing when mechanical integrity demonstrations shall be made.

An injection well has mechanical integrity if:

- (a) There is no significant leak in the casing, tubing, or packer (Part I); and
- (b) There is no significant fluid movement into an underground source of drinking water through vertical channels adjacent to the injection well bore (Part II).

### **1. Demonstration of Mechanical Integrity (MI).**

The operator shall demonstrate MI prior to commencing injection and periodically thereafter. Well-specific conditions dictate the methods and the frequency for demonstrating MI and are discussed in the Statement of Basis. The logs and tests are designed to demonstrate both internal (Part I) and external (Part II) MI as described above. The conditions present at this well site warrant the methods and frequency required in Appendix B of this Permit.

In addition to these regularly scheduled demonstrations of MI, the operator shall demonstrate internal (Part I) MI after any workover which affects the tubing, packer or casing.

The Director may require additional or alternative tests if the results presented by the operator are not satisfactory to the Director to demonstrate there is no movement of fluid into or between USDWs resulting from injection activity. Results of MI tests shall be submitted to the Director as soon as possible but no later than sixty (60) days after the test is complete.

### **2. Mechanical Integrity Test Methods and Criteria**

EPA-approved methods shall be used to demonstrate mechanical integrity. Ground Water Section Guidance No. 34 "Cement Bond Logging Techniques and Interpretation", Ground Water Section Guidance No. 37, "Demonstrating Part II (External) Mechanical Integrity for a Class II injection well permit", and Ground Water Section Guidance No. 39, "Pressure Testing Injection Wells for Part I (Internal) Mechanical Integrity" are available from EPA and will be provided upon request.

The Director may stipulate specific test methods and criteria best suited for a specific well construction and injection operation.

### **3. Notification Prior to Testing.**

The Permittee shall notify the Director at least 30 days prior to any scheduled mechanical integrity test. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

### **4. Loss of Mechanical Integrity.**

If the well fails to demonstrate mechanical integrity during a test, or a loss of mechanical integrity becomes evident during operation (such as presence of pressure in the TCA, water flowing at the surface, etc.), the Permittee shall notify the Director within 24 hours (see Part III Section E Paragraph 11(e) of this Permit) and the well shall be shut-in within 48 hours unless the Director requires immediate shut-in.

Within five days, the Permittee shall submit a follow-up written report that documents test results, repairs undertaken or a proposed remedial action plan.

Injection operations shall not be resumed until after the well has successfully been repaired and demonstrated mechanical integrity, and the Director has provided approval to resume injection.

## **Section C. WELL OPERATION**

### **INJECTION BETWEEN THE OUTERMOST CASING PROTECTING UNDERGROUND SOURCES OF DRINKING WATER AND THE WELL BORE IS PROHIBITED.**

Injection is approved under the following conditions:

#### **1. Requirements Prior to Commencing Injection.**

Well injection, including for new wells authorized by an Area Permit under 40 CFR 144.33 (c), may commence only after all well construction and pre-injection requirements herein have been met and approved. The Permittee may not commence injection until construction is complete, and

- (a) The Permittee has submitted to the Director a notice of completion of construction and a completed EPA Form 7520-10 or 7520-12; all applicable logging and testing requirements of this Permit (see APPENDIX B) have been fulfilled and the records submitted to the Director; mechanical integrity pursuant to 40 CFR 146.8 and Part II Section B of this Permit has been demonstrated; and
  - (i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the Permit; or
  - (ii) The Permittee has not received notice from the Director of his or her intent to inspect or otherwise review the new injection well within 13 days of the date of the notice in Paragraph 1a, in which case prior inspection or review is waived and the Permittee may commence injection.

#### **2. Injection Interval.**

Injection is permitted only within the approved injection interval, listed in APPENDIX C. Additional individual injection perforations may be added provided that they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6.

#### **3. Injection Pressure Limitation**

- (a) The permitted Maximum Allowable Injection Pressure (MAIP), measured at the wellhead, is found in APPENDIX C. Injection pressure shall not exceed the amount the Director determines is appropriate to ensure that injection does not initiate new fractures or propagate existing fractures in the confining zone adjacent to USDWs. In no case shall injection pressure cause the movement of injection or formation fluids into a USDW.
- (b) The Permittee may request a change of the MAIP, or the MAIP may be increased or decreased by the Director in order to ensure that the requirements in Paragraph (a) above are fulfilled. The Permittee may be required to conduct a step rate injection test or other suitable test to provide information for determining the fracture pressure of the injection zone. Change of the permitted MAIP by the Director shall be by modification of this Permit and APPENDIX C.

#### **4. Injection Volume Limitation.**

Injection volume is limited to the total volume specified in APPENDIX C.

#### **5. Injection Fluid Limitation.**

Injected fluids are limited to those identified in 40 CFR 144.6(b)(2) as fluids used for enhanced recovery of oil or natural gas, including those which are brought to the surface in connection with conventional oil or natural gas production that may be commingled with waste waters from gas plants which are an integral part of production operations unless those waters are classified as a hazardous waste at the time of injection, pursuant to 40 CFR 144.6(b). Non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes and vacuum truck wastes, are NOT approved for injection. This well is NOT approved for commercial brine injection, industrial waste fluid disposal or injection of hazardous waste as defined by CFR 40 Part 261. The Permittee shall provide a listing of the sources of injected fluids in accordance with the reporting requirements in Part II Section D Paragraph 4 and APPENDIX D of this Permit.

#### **6. Tubing-Casing Annulus (TCA)**

The tubing-casing annulus (TCA) shall be filled with water treated with a corrosion inhibitor, or other fluid approved by the Director. The TCA valve shall remain closed during normal operating conditions and the TCA pressure shall be maintained at zero (0) psi.

If TCA pressure cannot be maintained at zero (0) psi, the Permittee shall follow the procedures in Ground Water Section Guidance No. 35 "Procedures to follow when excessive annular pressure is observed on a well."

### **Section D. MONITORING, RECORDKEEPING, AND REPORTING OF RESULTS**

#### **1. Monitoring Parameters, Frequency, Records and Reports.**

Monitoring parameters are specified in APPENDIX D. Pressure monitoring recordings shall be taken at the wellhead. The listed parameters are to be monitored, recorded and reported at the frequency indicated in APPENDIX D even during periods when the well is not operating.

Monitoring records must include:

- (a) the date, time, exact place and the results of the observation, sampling, measurement, or analysis, and;
- (b) the name of the individual(s) who performed the observation, sampling, measurement, or analysis, and;
- (c) the analytical techniques or methods used for analysis.

#### **2. Monitoring Methods.**

- (a) Monitoring observations, measurements, samples, etc. taken for the purpose of complying with these requirements shall be representative of the activity or condition being monitored.

- (b) Methods used to monitor the nature of the injected fluids must comply with analytical methods cited and described in Table 1 of 40 CFR 136.3 or Appendix III of 40 CFR 261, or by other methods that have been approved in writing by the Director.
- (c) Injection pressure, annulus pressure, injection rate, and cumulative injected volumes shall be observed and recorded at the wellhead under normal operating conditions, and all parameters shall be observed simultaneously to provide a clear depiction of well operation.
- (d) Pressures are to be measured in pounds per square inch (psi).
- (e) Fluid volumes are to be measured in standard oil field barrels (bbl).
- (f) Fluid rates are to be measured in barrels per day (bbl/day).

### **3. Records Retention.**

- (a) Records of calibration and maintenance, and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit shall be retained for a period of AT LEAST THREE (3) YEARS from the date of the sample, measurement, report, or application. This period may be extended anytime prior to its expiration by request of the Director.
- (b) Records of the nature and composition of all injected fluids must be retained until three (3) years after the completion of any plugging and abandonment (P&A) procedures specified under 40 CFR 144.52(a)(6) or under Part 146 Subpart G, as appropriate. The Director may require the Permittee to deliver the records to the Director at the conclusion of the retention period. The Permittee shall continue to retain the records after the three (3) year retention period unless the Permittee delivers the records to the Director or obtains written approval from the Director to discard the records.
- (c) The Permittee shall retain records at the location designated in APPENDIX D.

### **4. Annual Reports.**

Whether the well is operating or not, the Permittee shall submit an Annual Report to the Director that summarizes the results of the monitoring required by Part II Section D and APPENDIX D.

The first Annual Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequent Annual Reports shall cover the period from January 1 through December 31 of the reporting year. Annual Reports shall be submitted by February 15 of the year following data collection. EPA Form 7520-11 may be copied and shall be used to submit the Annual Report, however, the monitoring requirements specified in this Permit are mandatory even if EPA Form 7520-11 indicates otherwise.

## **Section E. PLUGGING AND ABANDONMENT**

**1. Notification of Well Abandonment, Conversion or Closure.**

The Permittee shall notify the Director in writing at least forty-five (45) days prior to: 1) plugging and abandoning an injection well, 2) converting to a non-injection well, and 3) in the case of an Area Permit, before closure of the project.

**2. Well Plugging Requirements**

Prior to abandonment, the injection well shall be plugged with cement in a manner which isolates the injection zone and prevents the movement of fluids into or between underground sources of drinking water, and in accordance with 40 CFR 146.10 and other applicable Federal, State or local law or regulations. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director.

**3. Approved Plugging and Abandonment Plan.**

The approved plugging and abandonment plan is incorporated into this Permit as APPENDIX E. Changes to the approved plugging and abandonment plan must be approved by the Director prior to beginning plugging operations. The Director also may require revision of the approved plugging and abandonment plan at any time prior to plugging the well.

**4. Forty Five (45) Day Notice of Plugging and Abandonment.**

The Permittee shall notify the Director at least forty-five (45) days prior to plugging and abandoning a well and provide notice of any anticipated change to the approved plugging and abandonment plan.

**5. Plugging and Abandonment Report.**

Within sixty (60) days after plugging a well, the Permittee shall submit a report (EPA Form 7520-13) to the Director. The plugging report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

- (a) A statement that the well was plugged in accordance with the approved plugging and abandonment plan; or
- (b) Where actual plugging differed from the approved plugging and abandonment plan, an updated version of the plan, on the form supplied by the Director, specifying the differences.

**6. Inactive Wells.**

After any period of two years during which there is no injection the Permittee shall plug and abandon the well in accordance with Part II Section E Paragraph 2 of this Permit unless the Permittee:

- (a) Provides written notice to the Director;
- (b) Describes the actions or procedures the Permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures shall include compliance with mechanical integrity demonstration, Financial Responsibility and all other permit requirements designed to protect USDWs; and
- (c) Receives written notice by the Director temporarily waiving plugging and abandonment requirements.

## **PART III. CONDITIONS APPLICABLE TO ALL PERMITS**

### **Section A. EFFECT OF PERMIT**

The Permittee is allowed to engage in underground injection in accordance with the conditions of this Permit. The Permittee shall not construct, operate, maintain, convert, plug, abandon, or conduct any other activity in a manner that allows the movement of fluid containing any contaminant into underground sources of drinking water, if the presence of that contaminant may cause a violation of any primary drinking water regulation under 40 CFR 142 or may otherwise adversely affect the health of persons. Any underground injection activity not authorized by this Permit or by rule is prohibited. Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of any other Federal, State or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any enforcement action brought under the provisions of Section 1431 of the Safe Drinking Water Act (SDWA) or any other law governing protection of public health or the environment, for any imminent and substantial endangerment to human health or the environment, nor does it serve as a shield to the Permittee's independent obligation to comply with all UIC regulations. Nothing in this Permit relieves the Permittee of any duties under applicable regulations.

### **Section B. CHANGES TO PERMIT CONDITIONS**

#### ***1. Modification, Reissuance, or Termination.***

The Director may, for cause or upon a request from the Permittee, modify, revoke and reissue, or terminate this Permit in accordance with 40 CFR 124.5, 144.12, 144.39, and 144.40. Also, this Permit is subject to minor modification for causes as specified in 40 CFR 144.41. The filing of a request for modification, revocation and reissuance, termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any condition of this Permit.

#### ***2. Conversions.***

The Director may, for cause or upon a written request from the Permittee, allow conversion of the well from a Class II injection well to a non-Class II well. Conversion may not proceed until the Permittee receives written approval from the Director. Conditions of such conversion may include but are not limited to, approval of the proposed well rework, follow up demonstration of mechanical integrity, well-specific monitoring and reporting following the conversion, and demonstration of practical use of the converted configuration.

#### ***3. Transfer of Permit.***

Under 40 CFR 144.38, this Permit is transferable provided the current Permittee notifies the Director at least thirty (30) days in advance of the proposed transfer date (EPA Form 7520-7) and provides a written agreement between the existing and new Permittees containing a specific date for transfer of Permit responsibility, coverage and liability between them. The notice shall adequately demonstrate that the financial responsibility requirements of 40 CFR 144.52(a)(7) will be met by the new Permittee. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the Safe Drinking Water Act; in some cases, modification or revocation and reissuance is mandatory.

#### **4. Permittee Change of Address.**

Upon the Permittee's change of address, or whenever the operator changes the address where monitoring records are kept, the Permittee must provide written notice to the Director within 30 days.

#### **5. Construction Changes, Workovers, Logging and Testing Data**

The Permittee shall give advance notice to the Director, and shall obtain the Director's written approval prior to any physical alterations or additions to the permitted facility. Alterations or workovers shall meet all conditions as set forth in this permit. The Permittee shall record any changes to the well construction on a Well Rework Record (EPA Form 7520-12), and shall provide this and any other record of well workovers, logging, or test data to EPA within sixty (60) days of completion of the activity.

Following the completion of any well workovers or alterations which affect the casing, tubing, or packer, a successful demonstration of mechanical integrity (Part III, Section F of this Permit) shall be made, and written authorization from the Director received, prior to resuming injection activities.

### **Section C. SEVERABILITY**

The Provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby.

### **Section D. CONFIDENTIALITY**

In accordance with 40 CFR Part 2 and 40 CFR 144.5, information submitted to EPA pursuant to this Permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice. If a claim is asserted, the validity of the claim will be assessed in accordance with the procedures in 40 CFR Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

- The name and address of the Permittee, and
- information which deals with the existence, absence or level of contaminants in drinking water.

### **Section E. GENERAL PERMIT REQUIREMENTS**

#### **1. Duty to Comply.**

The Permittee must comply with all conditions of this Permit. Any noncompliance constitutes a violation of the Safe Drinking Water Act (SDWA) and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the Permittee need not comply with the provisions of this Permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 CFR 144.34. All violations of the SDWA may subject the Permittee to penalties and/or criminal prosecution as specified in Section 1423 of the SDWA.

## **2. Duty to Reapply.**

If the Permittee wishes to continue an activity regulated by this Permit after the expiration date of this Permit, under 40 CFR 144.37 the Permittee must apply for a new permit prior to the expiration date.

## **3. Need to Halt or Reduce Activity Not a Defense.**

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

## **4. Duty to Mitigate.**

The Permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Permit.

## **5. Proper Operation and Maintenance.**

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

## **6. Permit Actions.**

This Permit may be modified, revoked and reissued or terminated for cause. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

## **7. Property Rights.**

This Permit does not convey any property rights of any sort, or any exclusive privilege.

## **8. Duty to Provide Information.**

The Permittee shall furnish to the Director, within a time specified, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Director, upon request, copies of records required to be kept by this Permit. The Permittee is required to submit any information required by this Permit or by the Director to the mailing address designated in writing by the Director.

## **9. Inspection and Entry.**

The Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- (a) Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;

- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and,
- (d) Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the SDWA, any substances or parameters at any location.

**10. Signatory Requirements.**

All applications, reports or other information submitted to the Director shall be signed and certified according to 40 CFR 144.32. This section explains the requirements for persons duly authorized to sign documents, and provides wording for required certification.

**11. Reporting Requirements.**

- (a) **Planned changes.** The Permittee shall give notice to the Director as soon as possible of any planned changes, physical alterations or additions to the permitted facility, and prior to commencing such changes.
- (b) **Anticipated noncompliance.** The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) **Monitoring Reports.** Monitoring results shall be reported at the intervals specified in this Permit.
- (d) **Compliance schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 30 days following each schedule date.
- (e) **Twenty-four hour reporting.** The Permittee shall report to the Director any noncompliance which may endanger human health or the environment, including:
  - (i) Any monitoring or other information which indicates that any contaminant may cause endangerment to a USDW; or
  - (ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

Information shall be provided, either directly or by leaving a message, within twenty-four (24) hours from the time the permittee becomes aware of the circumstances by telephoning (800) 227-8917 and requesting EPA Region VIII UIC Program Compliance and Technical Enforcement Director, or by contacting the EPA Region VIII Emergency Operations Center at (303) 293-1788.

In addition, a follow up written report shall be provided to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- (f) Oil Spill and Chemical Release Reporting: The Permittee shall comply with all reporting requirements related to the occurrence of oil spills and chemical releases by contacting the National Response Center (NRC) at (800) 424-8802, (202) 267-2675, or through the NRC website <http://www.nrc.uscg.mil/index.htm>.
- (g) Other Noncompliance. The Permittee shall report all instances of noncompliance not reported under paragraphs Part III, Section E Paragraph 11(b) or Section E, Paragraph 11(e) at the time the monitoring reports are submitted. The reports shall contain the information listed in Paragraph 11(e) of this Section.
- (h) Other information. Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information to the Director.

## **Section F. FINANCIAL RESPONSIBILITY**

### ***1. Method of Providing Financial Responsibility.***

The Permittee shall maintain continuous compliance with the requirement to maintain financial responsibility and resources to close, plug, and abandon the underground injection well(s). No substitution of a demonstration of financial responsibility shall become effective until the Permittee receives written notification from the Director that the alternative demonstration of financial responsibility is acceptable. The Director may, on a periodic basis, require the holder of a permit to revise the estimate of the resources needed to plug and abandon the well to reflect changes in such costs and may require the Permittee to provide a revised demonstration of financial responsibility.

### ***2. Insolvency.***

In the event of:

- (a) the bankruptcy of the trustee or issuing institution of the financial mechanism; or
- (b) suspension or revocation of the authority of the trustee institution to act as trustee; or

- (c) the institution issuing the financial mechanism losing its authority to issue such an instrument

the Permittee must notify the Director in writing, within ten (10) business days, and the Permittee must establish other financial assurance or liability coverage acceptable to the Director within sixty (60) days after any event specified in (a), (b), or (c) above.

The Permittee must also notify the Director by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) business days after the commencement of the proceeding. A guarantor, if named as debtor of a corporate guarantee, must make such a notification as required under the terms of the guarantee.

## APPENDIX A

### WELL CONSTRUCTION REQUIREMENTS

See diagram.

The Federal No. 9-8-9-18 was drilled to a total depth of 5846 (KB) feet in the Basal Carbonate Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 320 feet in a 12-1/4 inch hole using 160 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5834 feet (KB) in a 7-7/8 inch hole with 300 sacks of Premium Lite II and 450 sacks of 50/50 poz mix.

The EPA calculates the top of cement as 986 feet from the surface.

The schematic diagram shows enhanced recovery injection perforations in the Garden Gulch and Douglas Creek Members of the Green River Formation. Additional perforations may be added at a later time between the depths of 3684 feet and the top of the Wasatch Formation (Estimated to be 5881 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be required to be set no higher than 100 feet above the top perforation.

# Federal 9-8-9-18

Spud Date: 03/21/06  
 Put on Production: 05/04/06  
 K.B.: 5023, G.L.: 5011

## Proposed Injection Wellbore Diagram

Initial Production: BOPD,  
 MCFD, BWPD

### SURFACE CASING

CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24# *Base USDWs* **4500'**  
 LENGTH: 7 jts. (307.8')  
 DEPTH LANDED: 319.65' KB *TBC/EPA* **986'**  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 160 sxs Class "G" cmt, est 5 bbls cmt to surf.

### PRODUCTION CASING

*Trons* **2812'**  
 CSG SIZE: 5-1/2" *Mahogany bench* **2850-2868**  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 138 jts. (5821.37')  
 DEPTH LANDED: 5834.62' KB  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sxs Prem. Lite II mixed & 450 sxs 50/50 POZ  
 CEMENT TOP AT: 120'

### TUBING

*Confining Zone* **3610'-3634'**  
*Garden Gulch* **3634'**  
 SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#  
 NO. OF JOINTS: 171 jts (5574.63')  
 TUBING ANCHOR: 5586.63' KB  
 NO. OF JOINTS: 2 jts (65.23')  
 SEATING NIPPLE: 2-7/8" (1.10')  
 SN LANDED AT: 5654.66' KB  
 NO. OF JOINTS: 2 jts (65.26') *Douglas Creek* **4566'**  
 TOTAL STRING LENGTH: EOT @ 5721.47' KB

### FRAC JOB

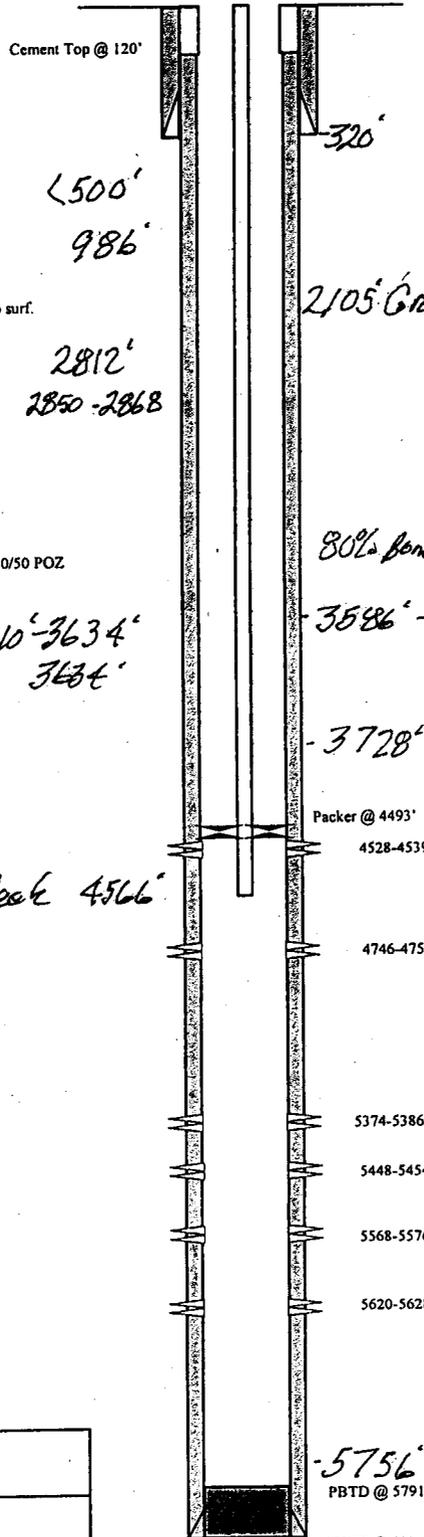
04/26/06 5568-5628' Frac CP4, CP5 sands as follows:  
 50377# 20/40 sand in 440 bbls Lightning 17  
 frac fluid. Treated @ avg press of 1273 psi  
 w/avg rate of 24.9 BPM. ISIP 1230 psi. Calc  
 flush: 5626 gal. Actual flush: 5628 gal.

04/26/06 5374-5454' Frac CP1, CP2 sands as follows:  
 60577# 20/40 sand in 485 bbls Lightning 17  
 frac fluid. Treated @ avg press of 1389 psi  
 w/avg rate of 24.7 BPM. ISIP 1680 psi. Calc  
 flush: 5452 gal. Actual flush: 5334 gal.

04/27/06 4746-4756' Frac D3 sands as follows:  
 19156# 20/40 sand in 287 bbls Lightning 17  
 frac fluid. Treated @ avg press of 1804 psi  
 w/avg rate of 14.3 BPM. ISIP 2080 psi. Calc  
 flush: 4754 gal. Actual flush: 4242 gal.

04/27/06 4528-4539' Frac DS3 sands as follows:  
 30547# 20/40 sand in 355 bbls Lightning 17  
 frac fluid. Treated @ avg press of 2027 psi  
 w/avg rate of 14.3 BPM. ISIP 2430 psi. Calc  
 flush: 4537 gal. Actual flush: 4368 gal.

08/11/06 Pump Change. Rod & Tubing Detail Updated.



### PERFORATION RECORD

| Date     | Depth Range | Tool   | Holes    |
|----------|-------------|--------|----------|
| 04/18/06 | 5620-5628'  | 4 JSPF | 32 holes |
| 04/18/06 | 5568-5576'  | 4 JSPF | 32 holes |
| 04/26/06 | 5448-5454'  | 4 JSPF | 24 holes |
| 04/26/06 | 5374-5386'  | 4 JSPF | 48 holes |
| 04/26/06 | 4746-4756'  | 4 JSPF | 40 holes |
| 04/26/06 | 4528-4539'  | 4 JSPF | 44 holes |

**NEWFIELD**

**Federal 9-8-9-18**

1980' FSL & 660' FEL

NE/SE Section 8-T9S-R18E

Uintah Co, Utah

API #43-047-36345; Lease #UTU-16540

*5756' Basal Carbonate*  
 PBTD @ 5791'

SHOE @ 5834'  
 TD @ 5846'

*Eot 5881' Wasatch*

## APPENDIX B

### LOGGING AND TESTING REQUIREMENTS

#### Logs.

Logs will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well logging required as a condition of this permit.

#### NO LOGGING REQUIREMENTS

#### Tests.

Tests will be conducted according to current UIC guidance. It is the responsibility of the Permittee to obtain and use guidance prior to conducting any well test required as a condition of this permit.

|                                    |   |
|------------------------------------|---|
| <b>WELL NAME:</b> Federal 9-8-9-18 |   |
| <b>TYPE OF TEST</b>                | <b>DATE DUE</b>   |
| Standard Annulus Pressure          | Prior to authorization to inject and at least once every five (5) years thereafter. |
| Pore Pressure                      | Prior to authorization to inject.   |

# APPENDIX C

## OPERATING REQUIREMENTS

### MAXIMUM ALLOWABLE INJECTION PRESSURE:

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

| WELL NAME        | MAXIMUM ALLOWED INJECTION PRESSURE (psi) |
|------------------|--|
|                  | ZONE 1 (Upper)                           |
| Federal 9-8-9-18 | 950                                      |

### INJECTION INTERVAL(S):

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

| WELL NAME: Federal 9-8-9-18 | APPROVED INJECTION INTERVAL (KB, ft) |        | FRACTURE GRADIENT (psi/ft) |
|-----------------------------|--------------------------------------|--------|----------------------------|
|                             | TOP                                  | BOTTOM |                            |
| FORMATION NAME              |                                      |        |                            |
| Green River                 | 3,634.00 - 5,881.00                  |        | 0.650                      |

### ANNULUS PRESSURE:

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

### MAXIMUM INJECTION VOLUME:

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

## APPENDIX C

### OPERATING REQUIREMENTS

#### MAXIMUM ALLOWABLE INJECTION PRESSURE:

Maximum Allowable Injection Pressure (MAIP) as measured at the surface shall not exceed the pressure(s) listed below.

| WELL NAME        | MAXIMUM ALLOWED INJECTION PRESSURE (psi) |
|------------------|--|
|                  | ZONE 1 (Upper)                           |
| Federal 9-8-9-18 | 950                                      |

#### INJECTION INTERVAL(S):

Injection is permitted only within the approved injection interval listed below. Injection perforations may be altered provided they remain within the approved injection interval and the Permittee provides notice to the Director in accordance with Part II, Section A, Paragraph 6. Specific injection perforations can be found in Appendix A.

| WELL NAME: Federal 9-8-9-18 | APPROVED INJECTION INTERVAL (KB, ft) |        | FRACTURE GRADIENT (psi/ft) |
|-----------------------------|--------------------------------------|--------|----------------------------|
|                             | TOP                                  | BOTTOM |                            |
| FORMATION NAME              |                                      |        |                            |
| Green River                 | 3,634.00 - 5,881.00                  |        | 0.650                      |

#### ANNULUS PRESSURE:

The annulus pressure shall be maintained at zero (0) psi as measured at the wellhead. If this pressure cannot be maintained, the Permittee shall follow the procedures listed under Part II, Section C. 6. of this permit.

#### MAXIMUM INJECTION VOLUME:

There is no limitation on the number of barrels per day (bbls/day) of water that shall be injected into this well, provided further that in no case shall injection pressure exceed that limit shown in Appendix C.

## APPENDIX D

### MONITORING AND REPORTING PARAMETERS

This is a listing of the parameters required to be observed, recorded, and reported. Refer to the permit Part II, Section D, for detailed requirements for observing, recording, and reporting these parameters.

| OBSERVE MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS |   |
|--|---|
| <b>OBSERVE<br/>AND<br/>RECORD</b>                          | Injection pressure (psig)                                   |
|  | Annulus pressure(s) (psig)                                  |
|  | Injection rate (bbl/day)                                    |
|  | Fluid volume injected since the well began injecting (bbls) |

| ANNUALLY       |  |
|----------------|--|
| <b>ANALYZE</b> | Injected fluid total dissolved solids (mg/l) |
|                | Injected fluid specific gravity              |
|                | Injected fluid specific conductivity         |
|                | Injected fluid pH                            |

| ANNUALLY      |  |
|---------------|--|
| <b>REPORT</b> | Each month's maximum and averaged injection pressures (psig) |
|               | Each month's maximum and averaged annulus pressure(s) (psig) |
|               | Each month's averaged injection rate (bbl/day)               |
|               | Fluid volume injected since the well began injecting (bbl)   |
|               | Written results of annual injected fluid analysis            |
|               | Sources of all fluids injected during the year               |

Records of all monitoring activities must be retained and made available for inspection at the following location:

**Newfield Production Company**  
**1401 Seventeenth Street - Suite 1000**  
**Denver, CO 80202**

## APPENDIX E

### PLUGGING AND ABANDONMENT REQUIREMENTS

See diagram.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs and in accordance with other applicable federal, State or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within sixty (60) days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

**PLUG NO. 1: Seal Injection Zone:** Set a cast iron bridge plug (CIBP) at approximately 4475 feet or no more than 50 ft above the top injection perforation. Place at least 100 ft of cement plug on top of the CIBP.

**PLUG NO. 2: Seal Mahogany Shale zone:** Squeeze cement a cement plug on the backside of the 5-1/2" casing across the Trona Zone and the Mahogany Shale between approximately 2750 feet to 2910 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 160 ft balanced cement plug inside the 5-1/2" casing across the Trona Zone and the Mahogany Shale, approximately 2750 feet to 2910 ft.

**PLUG NO. 3: Seal USDWs:** Squeeze a cement plug (2050 feet - 2150 feet) on the backside of the 5-1/2" casing across the base of the Uinta formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 100-foot balanced cement plug inside the 5-1/2" casing across the base of the Uinta Formation, from approximately 2050 ft to 2150 ft.

**PLUG NO.4: Seal Surface:** Set a Class "G" cement plug within the 5-1/2 inch casing to 500 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

Federal 9-8-9-18

Spud Date: 03/21/06  
 Put on Production: 05/04/06  
 K.B.: 5023, G.L.: 5011

Proposed P & A  
 Wellbore Diagram

SURFACE CASING

CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7 jts. (307.8')  
 DEPTH LANDED: 319.65' KB  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 160 sxs Class "G" cmt, est 5 bbls cmt to surf.

PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 138 jts. (5821.37')  
 DEPTH LANDED: 5834.62' KB  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sxs Prem. Lite II mixed & 450 sxs 50/50  
 CEMENT TOP AT: 120'

Cement Top @ 120'

Pump 43 sx Class G Cement down 5-1/2" casing to 370'

Casing Shoe @ 320'

500' Bond USDWs  
 - 996' TOC/EPA

*Green River 2105'*

2050' - 2150' Cement Plug

*Tona 2812'*

2750' - 2910' Cement Plug

*Mahogany B. 2250-2262'*

*20% Bond { 3586'  
 3724'*

3610' - 3634' Confining Zone  
 - 3634' Garden Gulch

100' (12 sx) Class G Cement plug on top of CIBP

CIBP @ 4475'  
 4528-4539'

4566' Douglas Creek

4746-4756'

5374-5386'

5448-5454'

5568-5576'

5620-5628'

5756' Base! Carbonate  
 PBTD @ 5791'

SHOE @ 5834'

TD @ 5846'

*E+L 5881' M/2534h*

|   |
|---|
| <br><b>NEWFIELD</b>                                |
| <b>Federal 9-8-9-18</b><br>1980' FSL & 660' FEL<br>NE/SE Section 8-T9S-R18E<br>Uintah Co, Utah<br>API #43-047-36345; Lease #UTU-16540 |

## **APPENDIX F**

### **CORRECTIVE ACTION REQUIREMENTS**

No corrective action is deemed necessary for this project.

# **STATEMENT OF BASIS**

**NEWFIELD PRODUCTION COMPANY**

**FEDERAL 9-8-9-18  
UINTAH COUNTY, UT**

**EPA PERMIT NO. UT21120-07605**

**CONTACT:** Emmett Schmitz  
U. S. Environmental Protection Agency  
Ground Water Program, 8P-W-GW  
1595 Wynkoop Street  
Denver, Colorado 80202-1129  
Telephone: 1-800-227-8917 ext. 312-6174

This STATEMENT OF BASIS gives the derivation of site-specific UIC Permit conditions and reasons for them. Referenced sections and conditions correspond to sections and conditions in the Permit.

EPA UIC permits regulate the injection of fluids into underground injection wells so that the injection does not endanger underground sources of drinking water. EPA UIC permit conditions are based upon the authorities set forth in regulatory provisions at 40 CFR Parts 144 and 146, and address potential impacts to underground sources of drinking water. Under 40 CFR 144.35 Issuance of this permit does not convey any property rights of any sort or any exclusive privilege, nor authorize injury to persons or property of invasion of other private rights, or any infringement of other Federal, State or local laws or regulations. Under 40 CFR 144 Subpart D, certain conditions apply to all UIC Permits and may be incorporated either expressly or by reference. General Permit conditions for which the content is mandatory and not subject to site-specific differences (40 CFR Parts 144, 146 and 147) are not discussed in this document.

Upon the Effective Date when issued, the Permit authorizes the construction and operation of injection wells so that the injection does not endanger underground sources of drinking water, governed by the conditions specified in the Permit. The Permit is issued for the operating life of the injection well or project unless terminated for reasonable cause under 40 CFR 144.39, 144.40 and 144.41. The Permit is subject to EPA review at least once every five (5) years to determine if action is required under 40 CFR 144.36(a).

## PART I. General Information and Description of Facility

Newfield Production Company  
1401 Seventeenth Street, Suite 1000  
Denver, CO 80202

on

February 2, 2007

submitted an application for an Underground Injection Control (UIC) Program Permit or Permit Modification for the following injection well or wells:

Federal 9-8-9-18  
1980' FSL & 660' FEL, NESE S8, T9S, R18E  
Uintah County, UT

Regulations specific to Uintah-Ouray Indian Reservation injection wells are found at 40 CFR 147 Subpart TT.

The application, including the required information and data necessary to issue or modify a UIC Permit in accordance with 40 CFR Parts 144, 146 and 147, was reviewed and determined by EPA to be complete.

The Permit will expire upon delegation of primary enforcement responsibility (primacy) for applicable portions of the UIC Program to the Ute Indian Tribe or the State of Utah unless the delegated agency has the authority and chooses to adopt and enforce this Permit as a Tribal or State Permit.

TABLE 1.1 shows the status of the well or wells as "New", "Existing", or "Conversion" and for Existing shows the original date of injection operation. Well authorization "by rule" under 40 CFR Part 144 Subpart C expires automatically on the Effective Date of an issued UIC Permit.

The Federal No. 9-8-9-18 is currently an active Garden Gulch and Douglas Creek Members oil well. The applicant intends to convert this facility to Class II enhanced recovery injection well.

| <b>CONVERSION WELLS</b> |                    |                          |
|-------------------------|--------------------|--------------------------|
| <b>Well Name</b>        | <b>Well Status</b> | <b>Date of Operation</b> |
| Federal 9-8-9-18        | Conversion         | N/A                      |

## Hydrogeologic Setting

Throughout the Greater Monument Butte Field area undergoing enhanced oil recovery operations, water analyses of the Green River Formation generally exhibit total dissolved solids (TDS) content well in excess of 10,000 mg/l. However, some recent water analyses from the field showed lower TDS values closer to 10,000 mg/l. While rain and surface water recharge into Green River Formation outcrops further south along the Book Cliffs/Roan Cliffs in effect "freshens" the Green River Formation water near those outcrops, in this area of the Monument Butte Field the observed occasional 'freshening' is ascribed to the effective dilution of the originally in-place high TDS water from injection of relatively fresh water for enhanced oil recovery operations. Water samples from deeper Mesaverde Formation sands in the nearby Natural Buttes Unit yield highly saline water.

### Geologic Setting (TABLE 2.1)

The proposed enhanced oil recovery injection well is located in the Greater Monument Butte Field, T7-8-9S and R15-18E, which lies near the center of the broad, gently northward dipping south flank of the Uinta Basin. More than 450 million barrels of oil (63 MT) have been produced from sediments of the Uinta Basin. The Uinta Basin is a topographic and structural trough encompassing an area of more than 9300 square mi (14,900 km) in northeast Utah. The basin is sharply asymmetrical, with a steep north flank bounded by the east-west-trending Uinta Mountains, and a gently dipping south flank. The Uinta Basin was formed in Paleocene to Eocene time, creating a large area of internal drainage which was filled by the ancestral Lake Uinta. The lacustrine, or fresh water lake-formed, sediments deposited in and around Lake Uinta make up the Uintah and Green River Formations. The southern shore of Lake Uinta was very broad and flat, resulting in large cyclic shifts of the location of the shoreline during the many repeated transgressive and regressive cycles caused by the climatic and tectonic-induced rise and fall of water levels of the lake. Distributary-mouth bars, distributary channels, and near-shore bars are the primary oil producing sandstone reservoirs in the area. (Ref: "Reservoir Characterization of the Lower Green River Formation, Southwest Uinta Basin, Utah Biannual Technical Progress Report, 4/1/99-9/30/99", by C. D. Morgan, Program Manager, November 1999, Contract DE-AC26-98BC15103).

The Duchesne River Formation is absent in this area. Shale and siltstone of the Uintah Formation outcrop and compose the surface rock throughout the area. The lower 600 ft to 800 ft of the Uinta Formation, consisting generally of shale interbedded with occasionally water-bearing sandstone lenses between 5 ft to 20 ft thick, is underlain by the Green River Formation. The Green River Formation is further subdivided into several Member and local marker units. The cyclic nature of Green River deposition in the southern shore area resulted in numerous stacked, intertonguing deltaic and near-shore sand and silt deposits. Red alluvial shale and siltstone deposits that intertongue with the Green River sediments are of the Colton and Wasatch Formations. Under the Wasatch Formation is the Mesaverde Formation, which consists primarily of continental-origin deposits of interbedded shale, sandstone, and coal.

The geologic dip is about 200'/mile, and there are no known surface faults in this area. Veins of gilsonite, a natural resinous hydrocarbon occasionally mined as a resource, occurs in the greater Uintah Basin though it is predominantly found on the eastern margin of the basin near the Colorado border. Vertical veins, generally between 2 ft to 6 ft wide but up to 28 ft wide, may extend many miles in length and occasionally extend as deep as 2000 ft. In this area within the Greater

Monument Butte Field there is one known gilsonite vein. This vein is not considered to present a pathway for migration of fluid out of the injection zone because it terminates at depth of about 2000 ft, far above the protective confining layer and much deeper injection zone. Newfield and the owner of this former gilsonite mine have agreed to conditions for operation near this vein to ensure no potential for impact to this vein or to ground water from enhanced oil recovery operations.

**TABLE 2.1**  
**GEOLOGIC SETTING**  
**Federal 9-8-9-18**

| Formation Name | Top (ft) | Base (ft) | TDS (mg/l) | Lithology   |
|----------------|----------|-----------|------------|---|
| Uinta: USDW    | 0        | 500       | < 10,000   | Sand and shale.   |
| Uinta          | 0        | 2,105     | > 10,000   | Interbedded fluvial sand and shale with lacustrine sand, shale and carbonate.               |
| Green River    | 2,105    | 5,881     | > 10,000   | Predomonantly lacustrine sand, shale and carbonate with interbedded fluvial sand and shale. |

**Proposed Injection Zone(s) (TABLE 2.2)**

An injection zone is a geological formation, group of formations, or part of a formation that receives fluids through a well. The proposed injection zones are listed in TABLE 2.2.

Injection will occur into an injection zone that is separated from USDWs by a confining zone which is free of known open faults or fractures within the Area of Review.

The approved interval for enhanced recovery injection is located between the top of the Garden Gulch Member (3634 feet) and the top of the Wasatch Formation which is estimated to be 5881 feet.

**TABLE 2.2**  
**INJECTION ZONES**  
**Federal 9-8-9-18**

| Formation Name                      | Top (ft) | Base (ft) | TDS (mg/l) | Fracture Gradient (psi/ft) | Porosity | Exempted?* |
|-------------------------------------|----------|-----------|------------|----------------------------|----------|------------|
| Green River: Garden Gulch Member    | 3,634    | 4,566     | > 10,000   | 0.650                      |          | N/A        |
| Green River: Douglas Creek Member   | 4,566    | 5,756     | > 10,000   | 0.650                      |          | N/A        |
| Green River: Basal Carbonate Member | 5,756    | 5,881     | > 10,000   | 0.650                      |          | N/A        |

\* C - Currently Exempted  
E - Previously Exempted  
P - Proposed Exemption  
N/A - Not Applicable

**Confining Zone(s) (TABLE 2.3)**

A confining zone is a geological formation, part of a formation, or a group of formations that limits fluid movement above the injection zone. The confining zone or zones are listed in TABLE 2.3.

The 24-foot shale Confining Zone (3610-3634) directly overlies the top of the Garden Gulch Member. An 80% bond index cement bond is present across the entire Confining Zone.

**TABLE 2.3**  
**CONFINING ZONES**  
**Federal 9-8-9-18**

| Formation Name | Formation Lithology | Top (ft) | Base (ft) |
|----------------|---------------------|----------|-----------|
| Green River    | Shale               | 3,610    | 3,634     |

**Underground Sources of Drinking Water (USDWs) (TABLE 2.4)**

Aquifers or the portions thereof which contain less than 10,000 mg/l total dissolved solids (TDS) and are being or could in the future be used as a source of drinking water are considered to be USDWs. The USDWs in the area of this facility are identified in TABLE 2.4.

The State of Utah "Water Wells and Springs", <http://NRWRT1.STATE.UT.US>, identifies no public water supply wells within the one-quarter (1/4) mile Area-of-Review (AOR) around the Federal No. 9-8-9-18.

Technical Publication No. 92: State of Utah, Department of Natural Resources, cites the base of Underground Sources of Drinking Water (USDW) in the Uinta Formation, approximately 500 feet from the surface.

**TABLE 2.4**  
**UNDERGROUND SOURCES OF DRINKING WATER (USDW)**  
**Federal 9-8-9-18**

| Formation Name | Formation Lithology                   | Top (ft) | Base (ft) | TDS (mg/l) |
|----------------|---------------------------------------|----------|-----------|------------|
| Uinta          | Predominantly fluvial sand and shale. | 0        | 500       | < 10,000   |

**PART III. Well Construction (40 CFR 146.22)**

The Federal No. 9-8-9-18 was drilled to a total depth of 5846 (KB) feet in the Basal Carbonate Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 320 feet in a 12-1/4 inch hole using 160 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5834 feet (KB) in a 7-7/8 inch hole with 30 sacks of Premium Lite II and 450 sacks of 50/50 poz mix.

The EPA calculates the top of cement as 986 feet from the surface.

The schematic diagram shows enhanced recovery injection perforations in the Garden Gulch and Douglas Creek Members of the Green River Formation. Additional perforations may be added at a later time between the depths of 3684 feet and the top of the Wasatch Formation (Estimated to be 5881 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

The packer will be required to be set no higher than 100 feet above the top perforation.

**TABLE 3.1**  
**WELL CONSTRUCTION REQUIREMENTS**  
**Federal 9-8-9-18**

| Casing Type | Hole Size (in) | Casing Size (in) | Cased Interval (ft) | Cemented Interval (ft) |
|-------------|----------------|------------------|---------------------|------------------------|
| Production  | 7.88           | 5.50             | 0 - 5,834           | 986 - 5,846            |
| Surface     | 12.25          | 8.63             | 0 - 320             | 0 - 320                |

The approved well completion plan will be incorporated into the Permit as APPENDIX A and will be binding on the Permittee. Modification of the approved plan is allowed under 40 CFR 144.52(a)(1) provided written approval is obtained from the Director prior to actual modification.

### **Casing and Cementing (TABLE 3.1)**

The well construction plan was evaluated and determined to be in conformance with standard practices and guidelines that ensure well injection does not result in the movement of fluids into USDWs. Well construction details for this "new" injection well is shown in TABLE 3.1.

Remedial cementing may be required if the casing cement is shown to be inadequate by cement bond log or other demonstration of Part II (External) mechanical integrity.

### **Tubing and Packer**

Injection tubing is required to be installed from a packer up to the surface inside the well casing. The packer will be set above the uppermost perforation. The tubing and packer are designed to prevent injection fluid from coming into contact with the outermost casing.

### **Tubing-Casing Annulus (TCA)**

The TCA allows the casing, tubing and packer to be pressure-tested periodically for mechanical integrity, and will allow for detection of leaks. The TCA will be filled with fresh water treated with a corrosion inhibitor or other fluid approved by the Director.

|  |
|--|
| The tubing/casing annulus must be kept closed at all times so that it can be monitored as required under conditions of the Permit. |
|--|

### **Monitoring Devices**

The permittee will be required to install and maintain wellhead equipment that allows for monitoring pressures and providing access for sampling the injected fluid. Required equipment may include but is not limited to: 1) shut-off valves located at the wellhead on the injection tubing and on the TCA; 2) a flow meter that measures the cumulative volume of injected fluid; 3) fittings or pressure gauges attached to the injection tubing and the TCA for monitoring the injection and TCA pressure; and 4) a tap on the injection line, isolated by shut-off valves, for sampling the injected fluid.

All sampling and measurement taken for monitoring must be representative of the monitored activity.

## PART IV. Area of Review, Corrective Action Plan (40 CFR 144.55)

**TABLE 4.1  
AOR AND CORRECTIVE ACTION**

| Well Name         | Type     | Status<br>(Abandoned Y/N) | Total<br>Depth (ft) | TOC<br>Depth (ft) | CAP<br>Required (Y/N) |
|-------------------|----------|---------------------------|---------------------|-------------------|-----------------------|
| Federal 10-8-9-18 | Producer | No                        | 5,925               | 477               | No                    |
| Federal 12-9-9-18 | Producer | No                        | 5,850               | 300               | No                    |
| Federal 16-8-9-18 | Producer | No                        | 5,870               | 350               | No                    |
| Federal 8-8-9-18  | Producer | No                        | 6,050               | 1,190             | No                    |

TABLE 4.1 lists the wells in the Area of Review ("AOR") and shows the well type, operating status, depth, top of casing cement ("TOC") and whether a Corrective Action Plan ("CAP") is required for the well.

### Area Of Review

Applicants for Class I, II (other than "existing" wells) or III injection well Permits are required to identify the location of all known wells within the injection well's Area of Review (AOR) which penetrate the injection zone, or in the case of Class II wells operating over the fracture pressure of the formation, all known wells within the area of review that penetrate formations which may be affected by increased pressure. Under 40 CFR 146.6 the AOR may be a fixed radius of not less than one quarter (1/4) mile or a calculated zone of endangering influence. For Area Permits, a fixed width of not less than one quarter (1/4) mile for the circumscribing area may be used.

### Corrective Action Plan

For wells in the AOR which are improperly sealed, completed, or abandoned, the applicant shall develop a Corrective Action Plan (CAP) consisting of the steps or modifications that are necessary to prevent movement of fluid into USDWs.

The CAP will be incorporated into the Permit as APPENDIX F and become binding on the permittee.

## PART V. Well Operation Requirements (40 CFR 146.23)

**TABLE 5.1**  
**INJECTION ZONE PRESSURES**  
**Federal 9-8-9-18**

| Formation Name                      | Depth Used<br>to Calculate<br>MAIP (ft) | Fracture<br>Gradient<br>(psi/ft) | Initial MAIP<br>(psi) |
|-------------------------------------|---|----------------------------------|-----------------------|
| Green River: Basal Carbonate Member | 4,528                                   | 0.650                            | 950                   |
| Green River: Douglas Creek Member   | 4,528                                   | 0.650                            | 950                   |
| Green River: Garden Gulch Member    | 4,528                                   | 0.650                            | 950                   |

### Approved Injection Fluid

The approved injection fluid is limited to Class II injection well fluids pursuant to 40 CFR § 144.6(b). For disposal wells injecting water brought to the surface in connection with natural gas storage operations, or conventional oil or natural gas production, the fluid may be commingled and the well used to inject other Class II wastes such as drilling fluids and spent well completion, treatment and stimulation fluid. Injection of non-exempt wastes, including unused fracturing fluids or acids, gas plant cooling tower cleaning wastes, service wastes, and vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste, is prohibited.

The proposed injectate is a blend of Johnson Water District source water and produced Green River Formation water from Unit wells.

### Injection Pressure Limitation

Injection pressure, measured at the wellhead, shall not exceed a maximum calculated to assure that the pressure used during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the USDWs.

The applicant submitted injection fluid density and injection zone data which was used to calculate a formation fracture pressure and to determine the maximum allowable injection pressure (MAIP), as measured at the surface, for this Permit.

TABLE 5.1 lists the fracture gradient for the injection zone and the approved MAIP, determined according to the following formula:

$$FP = [fg - (0.433 * sg)] * d$$

- FP = formation fracture pressure (measured at surface)
- fg = fracture gradient (from submitted data or tests)
- sg = specific gravity (of injected fluid)
- d = depth to top of injection zone (or top perforation)

### **Injection Volume Limitation**

Cumulative injected fluid volume limits are set to assure that injected fluids remain within the boundary of the exempted area. Cumulative injected fluid volume is limited when injection occurs into an aquifer that has been exempted from protection as a USDW.

There will be no limit on the cumulative volume of authorized fluid injected into the Green River interval 3684 feet to the top of the Wasatch Formation which is estimated to be 5881 feet.

### **Mechanical Integrity (40 CFR 146.8)**

An injection well has mechanical integrity if:

1. there is no significant leak in the casing, tubing, or packer (Part I); and
2. there is no significant fluid movement into a USDW through vertical channels adjacent to the injection well bore (Part II).

The Permit prohibits injection into a well which lacks mechanical integrity.

The Permit requires that the well demonstrate mechanical integrity prior to injection and periodically thereafter. A demonstration of mechanical integrity includes both internal (Part I) and external (Part II). The methods and frequency for demonstrating Part I and Part II mechanical integrity are dependent upon well-specific conditions as explained below.

Well construction and site-specific conditions dictate the following requirements for Mechanical Integrity (MI) demonstrations:

**PART I MI:** Internal MI will be demonstrated prior to beginning injection. Since this well is constructed with a standard casing, tubing, and packer configuration, a successful mechanical integrity test (MIT) is required to take place at least once every five (5) years. A demonstration of Part I MI is also required prior to resuming injection following any workover operation that affects the casing, tubing or packer. Part I MI may be demonstrated by a standard tubing-casing annulus pressure test using the maximum permitted injection pressure or 1000 psi, whichever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

## **PART VI. Monitoring, Recordkeeping and Reporting Requirements**

### **Injection Well Monitoring Program**

At least once a year the permittee must analyze a sample of the injected fluid for total dissolved solids (TDS), specific conductivity, pH, and specific gravity. This analysis shall be reported to EPA annually as part of the Annual Report to the Director. Any time a new source of injected fluid is added, a fluid analysis shall be made of the new source.

Instantaneous injection pressure, injection flow rate, cumulative fluid volume and TCA pressures must be observed on a weekly basis. A recording, at least once every thirty (30) days, must be made of the injection pressure, injection flow rate and cumulative fluid volume, and the maximum and average value for each must be determined for each month. This information is required to be reported annually as part of the Annual Report to the Director.

## **PART VII. Plugging and Abandonment Requirements (40 CFR 146.10)**

### **Plugging and Abandonment Plan**

Prior to abandonment, the well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs, and in accordance with any applicable Federal, State or local law or regulation. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.6 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. The plugging and abandonment plan is described in Appendix E of the Permit.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs and in accordance with other applicable federal, State or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within sixty (60) days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

**PLUG NO. 1:** Seal Injection Zone: Set a cast iron bridge plug (CIBP) at approximately 4475 feet or no more than 50 ft above the top injection perforation. Place at least 100 ft of cement plug on top of the CIBP.

**PLUG NO. 2:** Seal Mahogany Bench zone: Squeeze a cement plug on the backside of the 5-1/2" casing across the Trona Zone and the Mahogany Bench between approximately 2750 feet to 2910 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 160 ft balanced cement plug inside the 5-1/2" casing across the Trona Zone and the

Mahogany Bench, approximately 2750 feet to 2910 ft.

**PLUG NO. 3: Seal USDWs:** Squeeze a cement plug (2050 feet - 2150 feet) on the backside of the 5-1/2" casing across the base of the Uinta Formation-top of the Green River Formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 100-foot balanced cement plug inside the 5-1/2" casing across the base of the Uinta Formation-top of the Green River Formation, from approximately 2050 ft to 2150 ft.

**PLUG NO.4: Seal Surface:** Set a Class "G" cement plug within the 5-1/2 inch casing to 500 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

## **PART VIII. Financial Responsibility (40 CFR 144.52)**

### **Demonstration of Financial Responsibility**

The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance such as financial statements or other materials acceptable to the Director. The Regional Administrator may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well to reflect inflation of such costs, and a revised demonstration of financial responsibility if necessary. Initially, the operator has chosen to demonstrate financial responsibility with:

A Financial Statement that was reviewed and approved by the EPA on March 27, 2007.

Financial Statement, received April 22, 2005

Evidence of continuing financial responsibility is required to be submitted to the Director annually.

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

|  |
|--|
| 5. LEASE DESIGNATION AND SERIAL NUMBER:<br>USA UTU-16540 |
| 6. IF INDIAN, ALLOTTEE OR TRIBE NAME:                    |
| 7. UNIT or CA AGREEMENT NAME:<br>SUNDANCE UNIT           |
| 8. WELL NAME and NUMBER:<br>FEDERAL 9-8-9-18             |
| 9. API NUMBER:<br>4304736345                             |
| 10. FIELD AND POOL, OR WILDCAT:<br>MONUMENT BUTTE        |

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052 PHONE NUMBER 435.646.3721

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 1980 FSL 660 FEL COUNTY:  
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESE, 8, T9S, R18E STATE: UT

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

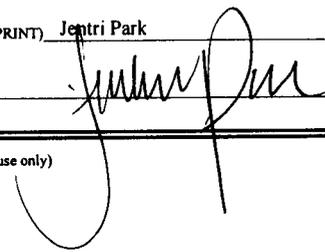
| TYPE OF SUBMISSION  | TYPE OF ACTION  |   |  |
|---|---|---|--|
| <input type="checkbox"/> NOTICE OF INTENT<br><small>(Submit in Duplicate)</small><br><br>Approximate date work will<br><br><hr/>                      | <input type="checkbox"/> ACIDIZE                        | <input type="checkbox"/> DEEPEN                           | <input type="checkbox"/> REPERFORATE CURRENT FORMATION |
|   | <input type="checkbox"/> ALTER CASING                   | <input type="checkbox"/> FRACTURE TREAT                   | <input type="checkbox"/> SIDETRACK TO REPAIR WELL      |
| <input checked="" type="checkbox"/> SUBSEQUENT REPORT<br><small>(Submit Original Form Only)</small><br><br>Date of Work Completion:<br><br>09/10/2007 | <input type="checkbox"/> CASING REPAIR                  | <input type="checkbox"/> NEW CONSTRUCTION                 | <input type="checkbox"/> TEMPORARITLY ABANDON          |
|   | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS       | <input type="checkbox"/> OPERATOR CHANGE                  | <input type="checkbox"/> TUBING REPAIR                 |
|   | <input type="checkbox"/> CHANGE TUBING                  | <input type="checkbox"/> PLUG AND ABANDON                 | <input type="checkbox"/> VENT OR FLAIR                 |
|   | <input type="checkbox"/> CHANGE WELL NAME               | <input type="checkbox"/> PLUG BACK                        | <input type="checkbox"/> WATER DISPOSAL                |
|   | <input checked="" type="checkbox"/> CHANGE WELL STATUS  | <input type="checkbox"/> PRODUCTION (START/STOP)          | <input type="checkbox"/> WATER SHUT-OFF                |
|   | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> RECLAMATION OF WELL SITE         | <input type="checkbox"/> OTHER: -                      |
|   | <input checked="" type="checkbox"/> CONVERT WELL TYPE   | <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION |  |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The subject well has been converted from a producing oil well to an injection well on 08/15/07. On 08/15/07 Dan Jackson with the EPA was contacted concerning the initial MIT on the above listed well. Permission was given at that time to perform the test on 08/30/07. On 08/30/07 the casing was pressured up to 1060 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 0 psig during the test. There was not an EPA representative available to witness the test. EPA# UT21120-07605 API# 43-047-36345

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY**

NAME (PLEASE PRINT) Jenri Park TITLE Production Clerk

SIGNATURE  DATE 09/10/2007

(This space for State use only)

**RECEIVED**  
**SEP 14 2007**  
DIV. OF OIL, GAS & MINING

# Mechanical Integrity Test

## Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency  
Underground Injection Control Program  
999 18<sup>th</sup> Street, Suite 500 Denver, CO 80202-2466

EPA Witness: \_\_\_\_\_ Date: 8/30/07  
 Test conducted by: Trefley J. Rana  
 Others present: \_\_\_\_\_

|  |              |  |
|--|--------------|--|
| Well Name: <u>Fed 9-8-9-18</u>   | Type: ER SWD | Status: AC TA UC                       |
| Field: <u>MONUMENT BUTTE</u>   |              |  |
| Location: <u>N/SE</u> Sec: <u>8</u> T <u>9</u> N <u>10</u> R <u>18E</u> W County: <u>Wintah</u> State: <u>UT</u> |              |  |
| Operator: <u>Newfield</u>  |              |  |
| Last MIT: <u>  /  /  </u>  |              | Maximum Allowable Pressure: _____ PSIG |

Is this a regularly scheduled test?     Yes     No  
 Initial test for permit?                 Yes     No  
 Test after well rework?                 Yes     No  
 Well injecting during test?             Yes     No      If Yes, rate: \_\_\_\_\_ bpd

Pre-test casing/tubing annulus pressure: 0 psig

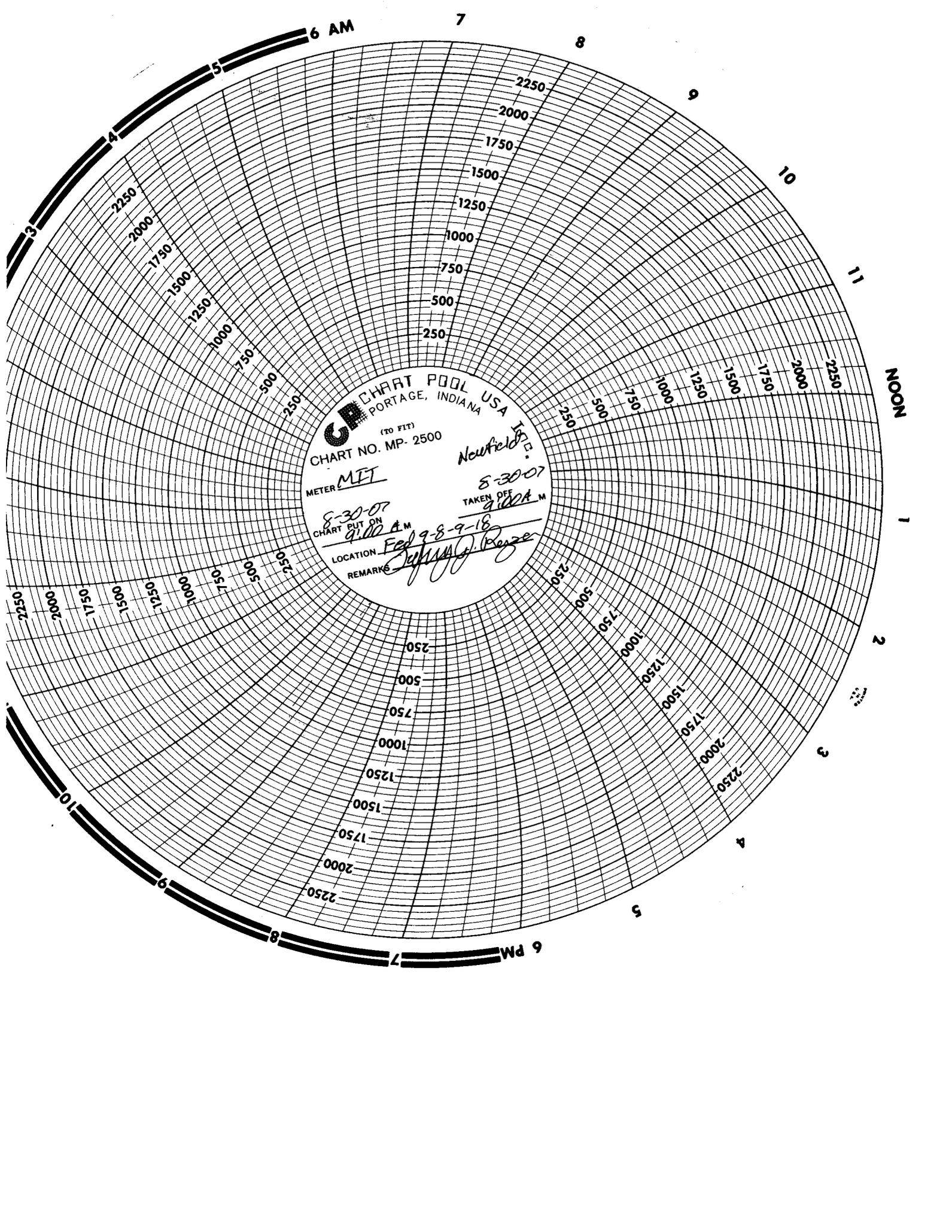
| MIT DATA TABLE                          | Test #1  | Test #2   | Test #3   |
|---|--|---|---|
| <b>TUBING PRESSURE</b>                  |  |   |   |
| Initial Pressure                        | <u>0</u> psig  | psig  | psig  |
| End of test pressure                    | <u>0</u> psig  | psig  | psig  |
| <b>CASING / TUBING ANNULUS PRESSURE</b> |  |   |   |
| 0 minutes                               | <u>1060</u> psig   | psig  | psig  |
| 5 minutes                               | <u>1060</u> psig   | psig  | psig  |
| 10 minutes                              | <u>1060</u> psig   | psig  | psig  |
| 15 minutes                              | <u>1060</u> psig   | psig  | psig  |
| 20 minutes                              | <u>1060</u> psig   | psig  | psig  |
| 25 minutes                              | <u>1060</u> psig   | psig  | psig  |
| 30 minutes                              | <u>1060</u> psig   | psig  | psig  |
| _____ minutes                           | psig   | psig  | psig  |
| _____ minutes                           | psig   | psig  | psig  |
| <b>RESULT</b>                           | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | <input type="checkbox"/> Pass <input type="checkbox"/> Fail | <input type="checkbox"/> Pass <input type="checkbox"/> Fail |

Does the annulus pressure build back up after the test ?     Yes     No

### MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: \_\_\_\_\_



**CHART POOL USA**  
PORTAGE, INDIANA  
(70 FIT)  
CHART NO. MP- 2500  
Newfield, Pa.  
METER MEI  
8-30-07  
CHART PUT ON 9:00 A.M.  
TAKEN OFF 9:00 A.M.  
LOCATION Fed 9-8-9-18  
REMARKS Jeffrey J. Renze



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8  
1595 Wynkoop Street  
DENVER, CO 80202-1129  
Phone 800-227-8917  
<http://www.epa.gov/region08>

SEP 21 2007

Ref: 8P-W-GW

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY

Mr. Mike Guinn  
District Manager  
Newfield Production Company  
Route 3 - Box 3630  
Myton, UT 84502

43-047-36345

RE: Authority to Commence Injection  
Federal No. 9-8-9-18  
Section 8-T9S-R18E  
EPA Permit No. UT21120-07605  
~~Duchesne~~ County, Utah  
Uintah

Dear Mr. Guinn:

Newfield Production Company (Newfield) has satisfactorily fulfilled all the Environmental Protection Agency's (EPA) **Prior to Commencing Injection** requirements in Permit UT21120-07605, effective July 2, 2007. All Prior to Commencing Injection Requirements, i.e., Part I (Internal) Mechanical Integrity Test, Well Rework Record (EPA Form No. 7520-12), and a pore pressure were reviewed and approved by the EPA on September 18, 2007.

Newfield, as of the date of this letter, is authorized to commence injection into Federal No. 9-8-9-18. Until such time that Permittee demonstrates through a Step-Rate Test (SRT) that the Fracture Gradient (FG) is other than 0.650 psi/ft, Federal No. 9-8-9-18 shall be operated at a **maximum allowable injection pressure no greater than 950 psig**.

RECEIVED

SEP 21 2007

DIV. OF OIL, GAS & MINING



Printed on Recycled Paper

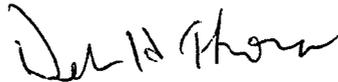
As of this approval, responsibility for Permit compliance and enforcement is transferred to the Region VIII UIC Technical Enforcement Program office. Therefore, please direct all monitoring and compliance correspondence to the following address, referencing your well name and UIC Permit number on all correspondence regarding this well:

Mr. Nathan Wiser  
Technical Enforcement Program - UIC  
U.S. EPA Region 8: Mail Code ENF-UFO  
1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone: 303-312-6211, or 1-800-227-8917 (Ext. 312-6211).

Please be reminded that it is your responsibility to be aware of and to comply with all conditions of Permit UIC 120-07605..

If you have any questions in regard to the above action, please contact Emmett Schmitz at 1-800-227-8917 (Ext. 312-6174), or 303-312-6174.

Sincerely,



*Stephen S. Tuber*  
Stephen S. Tuber  
Assistant Regional Administrator  
Office Of Partnerships and Regulatory Assistance

cc: David Gerbig  
Operations Engineer  
Newfield Production Company  
Denver, CO 80202

Curtis Cesspooch  
Chairman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Irene Cuch  
Vice-Chairman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Lynn Becker  
Director  
Energy & Minerals Department  
Ute Indian Tribe

Shaun Chapoose  
Director  
Land Use Dept.  
Ute Indian Tribe

Chester Mills  
Superintendent  
U.S. Bureau of Indian Affairs  
Uintah & Ouray Indian Agency

Gilbert Hunt  
Assistant Director  
State of Utah - Natural Resources

Fluid Minerals Engineering Office  
U.S. Bureau of Land Management  
Vernal, Utah

Frances Poowegup  
Councilwoman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Steven Cesspooch  
Councilman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Ronald Groves  
Uintah & Ouray Business Committee  
Ute Indian Tribe

Phillip Chimburas  
Councilman  
Uintah & Ouray Business Committee  
Ute Indian Tribe

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT IN THIS CASE: (Check instructions on reverse side)**

1. Type of Well  
 Oil Well    Gas Well    Other

2. Name of Operator  
 NEWFIELD PRODUCTION COMPANY

3a. Address      Route 3 Box 3630  
 Myton, UT 84052

3b. Phone      (include area code)  
 435.646.3721

4. Location of Well      (Footage, Sec., T., R., M., or Survey Description)  
 1980 FSL 660 FEL  
 NESE Section 8 T9S R18E

5. Lease Serial No.  
 USA UTU-16540

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or  
 SUNDANCE UNIT

8. Well Name and No.  
 FEDERAL 9-8-9-18

9. API Well No.  
 4304736345

10. Field and Pool, or Exploratory Area  
 MONUMENT BUTTE

11. County or Parish, State  
 . UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                 |   |   |   |
|--|--|---|---|---|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize               | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production(Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing          | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation              | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Final Abandonment           | <input type="checkbox"/> Casing Repair         | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete               | <input type="checkbox"/> Other _____    |
|  | <input type="checkbox"/> Change Plans          | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon      |   |
|  | <input checked="" type="checkbox"/> Convert to | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal           |   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

The above reference well was put on injection at 11:30:00 AM on 11-19-07.

**RECEIVED**  
**NOV 23 2007**  
**DIV. OF OIL, GAS & MINING**

I hereby certify that the foregoing is true and correct (Printed/ Typed)  
 Kathy Chapman  
 Signature

Title  
 Office Manager

Date  
 11/21/2007

**THIS SPACE FOR FEDERATOR STATE OFFICE USE**

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office \_\_\_\_\_

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires January 31, 2004

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.

**SUBMIT IN TRIPLICATE - Other Instructions on reverse side**

1. Type of Well

Oil Well  Gas Well  Other *WI*

2. Name of Operator

NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630  
Myton, UT 84052

3b. Phone (include are code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1980 FSL 660 FEL

NESE Section 8 T9S R18E

5. Lease Serial No.

USA UTU-16540

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or

SUNDANCE UNIT

8. Well Name and No.

FEDERAL 9-8-9-18

9. API Well No.

4304736345

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

UINTAH, UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

| TYPE OF SUBMISSION                                    | TYPE OF ACTION                         |   |   |   |
|---|--|---|---|---|
| <input type="checkbox"/> Notice of Intent             | <input type="checkbox"/> Acidize       | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production(Start/Resume) | <input type="checkbox"/> Water Shut-Off         |
| <input checked="" type="checkbox"/> Subsequent Report | <input type="checkbox"/> Alter Casing  | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation              | <input type="checkbox"/> Well Integrity         |
| <input type="checkbox"/> Final Abandonment            | <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete               | <input checked="" type="checkbox"/> Other _____ |
|   | <input type="checkbox"/> Change Plans  | <input type="checkbox"/> Plug & Abandon   | <input type="checkbox"/> Temporarily Abandon      | Step Rate Test _____                            |
|   | <input type="checkbox"/> Convert to    | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal           | _____   |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

A step rate test was conducted on the subject well on April 22, 2008. Results from the test indicate that the fracture gradient is .690 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed to 1130 psi.

Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY

I hereby certify that the foregoing is true and correct (Printed/ Typed)

Chevenne Bateman

Signature



Title

Well Analyst Foreman

Date

05/05/2008

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by .....

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on reverse)

RECEIVED

MAY 12 2008

DIV. OF OIL, GAS & MINING

# Step Rate Test (SRT) Analysis

Date: 05/05/2008

Operator:

Newfield Production Company

Well:

Federal 9-8-9-18

Permit #:

UT21120-07605

*Enter the following data :*

|  |   |              |             |                    |
|--|---|--------------|-------------|--------------------|
| <i>Specific Gravity (sg) of injectate</i>  | = | <b>1.015</b> | <i>g/cc</i> |                    |
| <i>Depth to top perforation (D)</i>  | = | <b>4528</b>  | <i>feet</i> | 4528               |
| <i>Top of permitted injection zone depth (blank=use top perforation to calculate fg)</i> | = |              | <i>feet</i> |                    |
| <i>Estimated Formation Parting Pressure (Pfp) from SRT chart</i>                         | = | <b>1135</b>  | <i>psi</i>  |                    |
| <i>Instantaneous Shut In Pressure (ISIP) from SRT</i>                                    | = | <b>1154</b>  | <i>psi</i>  | 1155               |
| <i>Bottom Hole Parting Pressure (Pbhp) from downhole pressure recorder</i>               | = |              | <i>psi</i>  | <i>no downhole</i> |

## Part One - Calculation of Fracture Gradient (fg)

**Calculated Fracture Gradient = 0.690 psi/ft.**

where: fg = Pbhp / D (Note: this formula uses the downhole recorded bottom hole parting pressure if available) = 1154

D = depth used = 4528

Pbhp used = 3125

**Calculated Bottom Hole Parting Pressure (Pbhp) = 3125 psi**

3125.033

to calculate Bottom Hole Parting Pressure (Pbhp) = Formation Fracture Pressure (ISIP or Pfp) + (0.433 \* SG \* D)

(Uses lesser of ISIP or Pfp) Value used = 1135

## Part Two - Calculation of Maximum Allowable Injection Pressure (MAIP)

**Maximum Allowable Injection Pressure (MAIP) = 1130 psig**

D = depth used = 4528

MAIP = [(fg - (0.433 \* SG)) \* D] = 1134.287

(rounded down to nearest 5 psig)

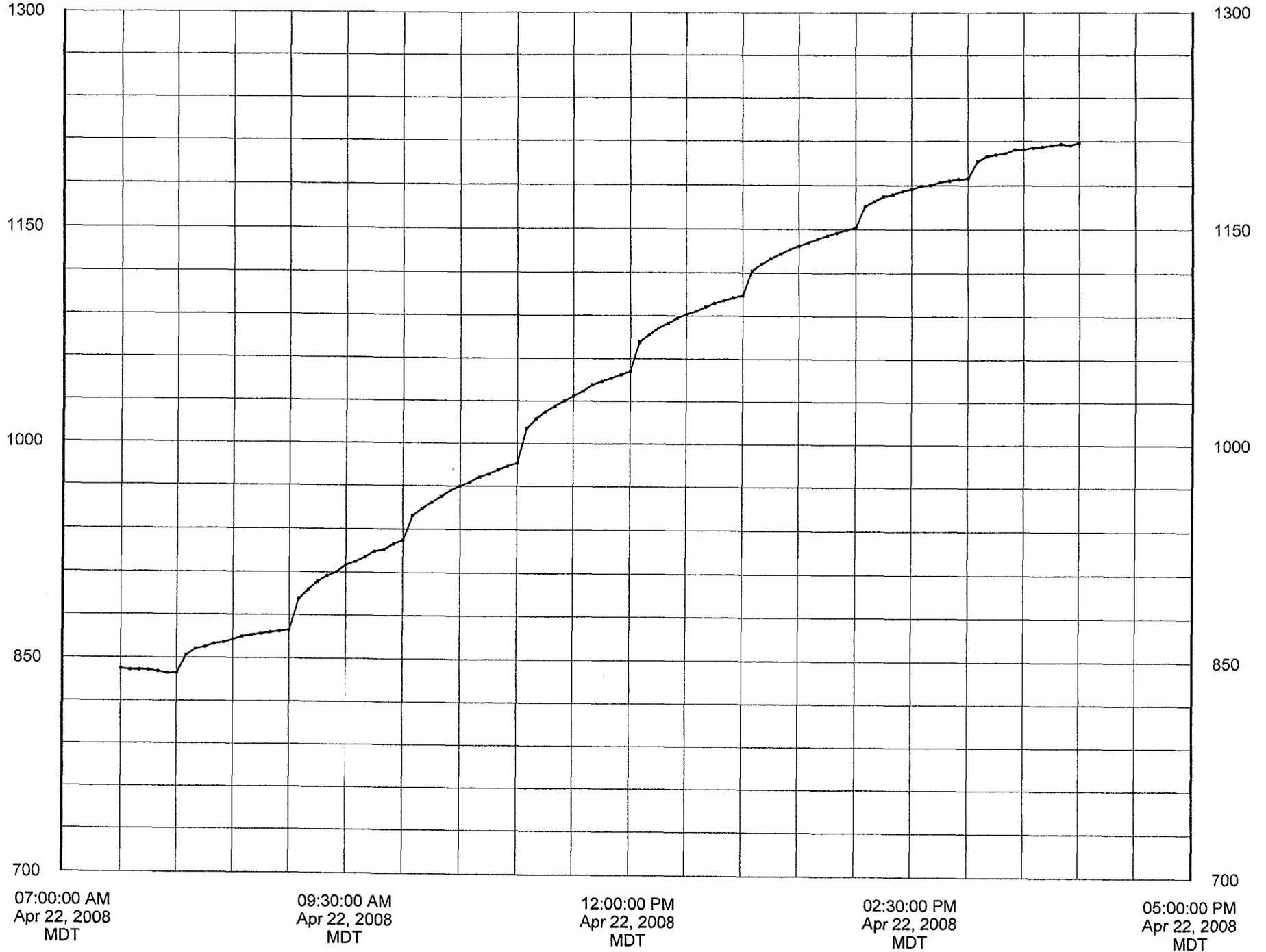
PSIA

Absolute Pressure

Federal 9-8-9-18 SRT 4-22-08

Device - PrTemp1000  
Serial Number - M75866  
Device ID - PrTemp

PSIA



Report Name: PrTemp1000 Data Table  
 Report Date: May 05, 2008 03:05:57 PM MDT  
 File Name: S:\Wefinfo\PTC@ Instruments 2.00\Federal 9-8-9-18 SRT 4-22-08.csv  
 Title: Federal 9-8-9-18 SRT 4-22-08  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Apr 22, 2008 07:30:01 AM MDT  
 Data End Date: Apr 22, 2008 04:00:00 PM MDT  
 Reading Rate: 1 Minute  
 Readings: 1 to 103 of 103  
 Last Calibration Date: Dec 19, 2007  
 Next Calibration Date: Dec 19, 2008

| <u>Reading</u> | <u>Date and Time (MDT)</u> | <u>Absolute Pressure</u> | <u>Annotation</u> |
|----------------|----------------------------|--------------------------|-------------------|
| 1              | Apr 22, 2008 07:30:01 AM   | 842.400                  | PSIA              |
| 2              | Apr 22, 2008 07:35:00 AM   | 841.600                  | PSIA              |
| 3              | Apr 22, 2008 07:40:01 AM   | 841.600                  | PSIA              |
| 4              | Apr 22, 2008 07:45:00 AM   | 841.400                  | PSIA              |
| 5              | Apr 22, 2008 07:50:01 AM   | 840.600                  | PSIA              |
| 6              | Apr 22, 2008 07:55:00 AM   | 839.400                  | PSIA              |
| 7              | Apr 22, 2008 08:00:01 AM   | 839.600                  | PSIA              |
| 8              | Apr 22, 2008 08:05:01 AM   | 851.800                  | PSIA              |
| 9              | Apr 22, 2008 08:10:01 AM   | 856.400                  | PSIA              |
| 10             | Apr 22, 2008 08:15:01 AM   | 857.400                  | PSIA              |
| 11             | Apr 22, 2008 08:20:00 AM   | 859.800                  | PSIA              |
| 12             | Apr 22, 2008 08:25:01 AM   | 860.800                  | PSIA              |
| 13             | Apr 22, 2008 08:30:00 AM   | 862.800                  | PSIA              |
| 14             | Apr 22, 2008 08:35:01 AM   | 865.000                  | PSIA              |
| 15             | Apr 22, 2008 08:40:00 AM   | 866.000                  | PSIA              |
| 16             | Apr 22, 2008 08:45:01 AM   | 867.000                  | PSIA              |
| 17             | Apr 22, 2008 08:50:01 AM   | 868.000                  | PSIA              |
| 18             | Apr 22, 2008 08:55:01 AM   | 868.800                  | PSIA              |
| 19             | Apr 22, 2008 09:00:01 AM   | 869.600                  | PSIA              |
| 20             | Apr 22, 2008 09:05:00 AM   | 891.400                  | PSIA              |
| 21             | Apr 22, 2008 09:10:01 AM   | 897.800                  | PSIA              |
| 22             | Apr 22, 2008 09:15:00 AM   | 903.400                  | PSIA              |
| 23             | Apr 22, 2008 09:20:01 AM   | 907.400                  | PSIA              |
| 24             | Apr 22, 2008 09:25:00 AM   | 910.000                  | PSIA              |
| 25             | Apr 22, 2008 09:30:01 AM   | 915.000                  | PSIA              |
| 26             | Apr 22, 2008 09:35:01 AM   | 917.400                  | PSIA              |
| 27             | Apr 22, 2008 09:40:01 AM   | 920.400                  | PSIA              |
| 28             | Apr 22, 2008 09:45:01 AM   | 924.600                  | PSIA              |
| 29             | Apr 22, 2008 09:50:00 AM   | 925.800                  | PSIA              |
| 30             | Apr 22, 2008 09:55:01 AM   | 929.800                  | PSIA              |
| 31             | Apr 22, 2008 10:00:00 AM   | 932.200                  | PSIA              |
| 32             | Apr 22, 2008 10:05:01 AM   | 949.200                  | PSIA              |
| 33             | Apr 22, 2008 10:10:00 AM   | 954.200                  | PSIA              |
| 34             | Apr 22, 2008 10:15:01 AM   | 958.400                  | PSIA              |
| 35             | Apr 22, 2008 10:20:01 AM   | 962.400                  | PSIA              |
| 36             | Apr 22, 2008 10:25:01 AM   | 966.800                  | PSIA              |
| 37             | Apr 22, 2008 10:30:01 AM   | 970.000                  | PSIA              |
| 38             | Apr 22, 2008 10:35:00 AM   | 972.800                  | PSIA              |
| 39             | Apr 22, 2008 10:40:01 AM   | 976.200                  | PSIA              |
| 40             | Apr 22, 2008 10:45:00 AM   | 978.600                  | PSIA              |
| 41             | Apr 22, 2008 10:50:01 AM   | 981.400                  | PSIA              |
| 42             | Apr 22, 2008 10:55:00 AM   | 984.000                  | PSIA              |
| 43             | Apr 22, 2008 11:00:01 AM   | 986.000                  | PSIA              |
| 44             | Apr 22, 2008 11:05:01 AM   | 1010.400                 | PSIA              |
| 45             | Apr 22, 2008 11:10:01 AM   | 1017.400                 | PSIA              |
| 46             | Apr 22, 2008 11:15:01 AM   | 1022.400                 | PSIA              |
| 47             | Apr 22, 2008 11:20:00 AM   | 1026.400                 | PSIA              |
| 48             | Apr 22, 2008 11:25:01 AM   | 1030.000                 | PSIA              |
| 49             | Apr 22, 2008 11:30:00 AM   | 1033.400                 | PSIA              |
| 50             | Apr 22, 2008 11:35:01 AM   | 1036.800                 | PSIA              |
| 51             | Apr 22, 2008 11:40:00 AM   | 1041.600                 | PSIA              |
| 52             | Apr 22, 2008 11:45:01 AM   | 1044.000                 | PSIA              |
| 53             | Apr 22, 2008 11:50:01 AM   | 1046.200                 | PSIA              |
| 54             | Apr 22, 2008 11:55:01 AM   | 1048.600                 | PSIA              |
| 55             | Apr 22, 2008 12:00:01 PM   | 1051.000                 | PSIA              |
| 56             | Apr 22, 2008 12:05:00 PM   | 1071.600                 | PSIA              |
| 57             | Apr 22, 2008 12:10:01 PM   | 1076.800                 | PSIA              |
| 58             | Apr 22, 2008 12:15:00 PM   | 1081.400                 | PSIA              |
| 59             | Apr 22, 2008 12:20:01 PM   | 1084.800                 | PSIA              |
| 60             | Apr 22, 2008 12:25:00 PM   | 1088.400                 | PSIA              |

|     |                               |          |      |
|-----|-------------------------------|----------|------|
| 61  | PSIA Apr 22, 2008 12:30:01 PM | 1091.000 | PSIA |
| 62  | Apr 22, 2008 12:35:01 PM      | 1093.200 | PSIA |
| 63  | Apr 22, 2008 12:40:01 PM      | 1096.000 | PSIA |
| 64  | Apr 22, 2008 12:45:01 PM      | 1098.600 | PSIA |
| 65  | Apr 22, 2008 12:50:00 PM      | 1100.600 | PSIA |
| 66  | Apr 22, 2008 12:55:01 PM      | 1102.600 | PSIA |
| 67  | Apr 22, 2008 01:00:00 PM      | 1104.200 | PSIA |
| 68  | Apr 22, 2008 01:05:01 PM      | 1121.400 | PSIA |
| 69  | Apr 22, 2008 01:10:00 PM      | 1126.000 | PSIA |
| 70  | Apr 22, 2008 01:15:01 PM      | 1130.000 | PSIA |
| 71  | Apr 22, 2008 01:20:01 PM      | 1133.000 | PSIA |
| 72  | Apr 22, 2008 01:25:01 PM      | 1136.200 | PSIA |
| 73  | Apr 22, 2008 01:30:01 PM      | 1138.600 | PSIA |
| 74  | Apr 22, 2008 01:35:00 PM      | 1140.800 | PSIA |
| 75  | Apr 22, 2008 01:40:01 PM      | 1143.400 | PSIA |
| 76  | Apr 22, 2008 01:45:00 PM      | 1145.600 | PSIA |
| 77  | Apr 22, 2008 01:50:01 PM      | 1147.600 | PSIA |
| 78  | Apr 22, 2008 01:55:00 PM      | 1149.600 | PSIA |
| 79  | Apr 22, 2008 02:00:01 PM      | 1151.400 | PSIA |
| 80  | Apr 22, 2008 02:05:01 PM      | 1165.600 | PSIA |
| 81  | Apr 22, 2008 02:10:01 PM      | 1169.000 | PSIA |
| 82  | Apr 22, 2008 02:15:01 PM      | 1172.200 | PSIA |
| 83  | Apr 22, 2008 02:20:00 PM      | 1173.800 | PSIA |
| 84  | Apr 22, 2008 02:25:01 PM      | 1176.000 | PSIA |
| 85  | Apr 22, 2008 02:30:00 PM      | 1177.400 | PSIA |
| 86  | Apr 22, 2008 02:35:01 PM      | 1179.600 | PSIA |
| 87  | Apr 22, 2008 02:40:00 PM      | 1180.000 | PSIA |
| 88  | Apr 22, 2008 02:45:01 PM      | 1182.200 | PSIA |
| 89  | Apr 22, 2008 02:50:01 PM      | 1183.000 | PSIA |
| 90  | Apr 22, 2008 02:55:01 PM      | 1184.000 | PSIA |
| 91  | Apr 22, 2008 03:00:01 PM      | 1184.800 | PSIA |
| 92  | Apr 22, 2008 03:05:00 PM      | 1196.200 | PSIA |
| 93  | Apr 22, 2008 03:10:01 PM      | 1199.600 | PSIA |
| 94  | Apr 22, 2008 03:15:00 PM      | 1200.800 | PSIA |
| 95  | Apr 22, 2008 03:20:01 PM      | 1201.600 | PSIA |
| 96  | Apr 22, 2008 03:25:00 PM      | 1204.200 | PSIA |
| 97  | Apr 22, 2008 03:30:01 PM      | 1204.200 | PSIA |
| 98  | Apr 22, 2008 03:35:01 PM      | 1205.600 | PSIA |
| 99  | Apr 22, 2008 03:40:01 PM      | 1206.200 | PSIA |
| 100 | Apr 22, 2008 03:45:01 PM      | 1207.200 | PSIA |
| 101 | Apr 22, 2008 03:50:00 PM      | 1208.000 | PSIA |
| 102 | Apr 22, 2008 03:55:01 PM      | 1207.200 | PSIA |
| 103 | Apr 22, 2008 04:00:00 PM      | 1209.000 | PSIA |

Federal 9-8-9-18 ISIP 4-22-08

|               |              |
|---------------|--------------|
| Device        | - PrTemp1000 |
| Serial Number | - M75866     |
| Device ID     | - PrTemp     |

PSIA

Absolute Pressure



PSIA

1300

1300

1225

1225

1150

1150

1075

1075

1000

1000

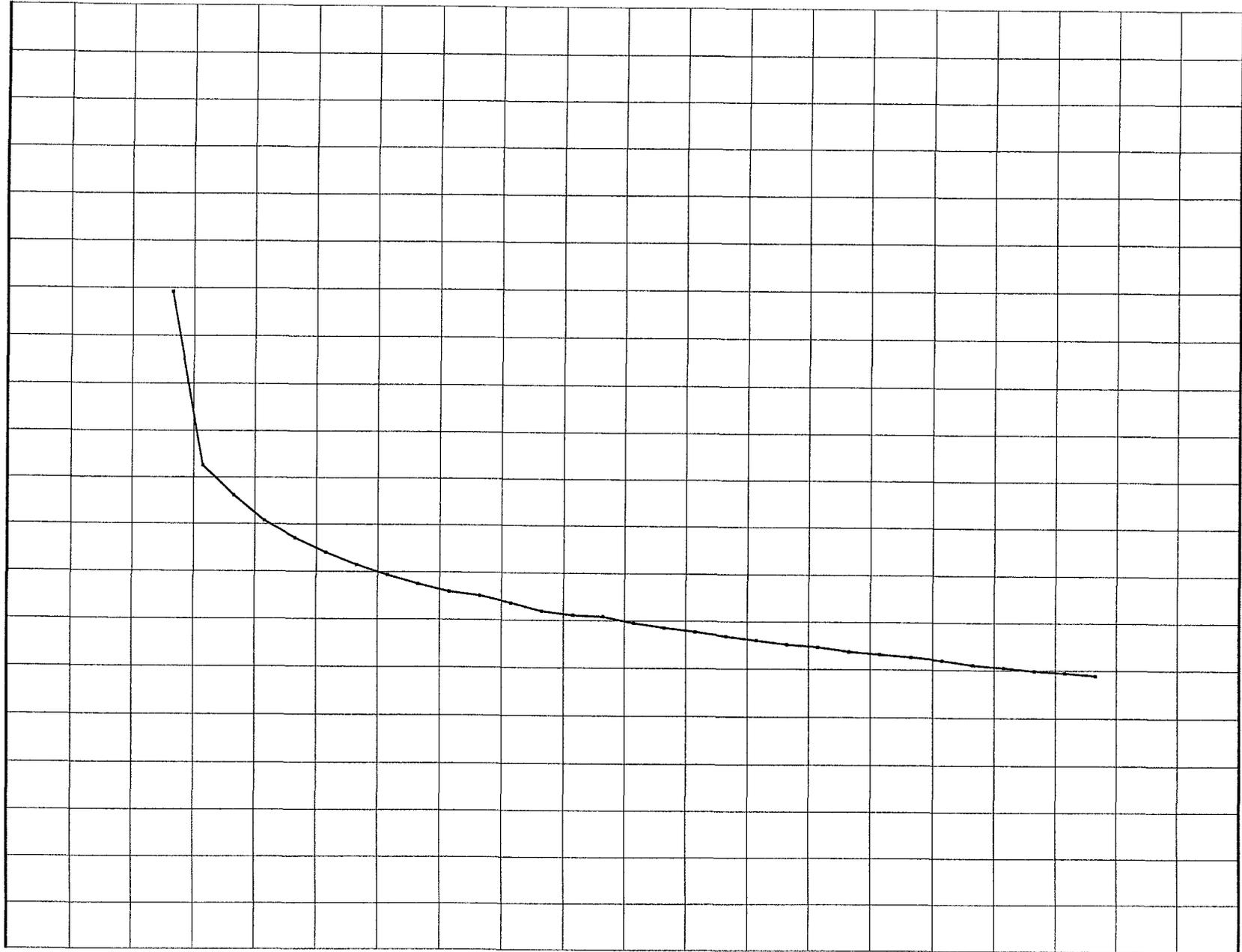
03:55:00 PM  
Apr 22, 2008  
MDT

04:05:00 PM  
Apr 22, 2008  
MDT

04:15:00 PM  
Apr 22, 2008  
MDT

04:25:00 PM  
Apr 22, 2008  
MDT

04:35:00 PM  
Apr 22, 2008  
MDT



Report Name: PrTemp1000 Data Table  
 Report Date: May 05, 2008 03:06:10 PM MDT  
 File Name: S:\Welin\Info\PTC@ Instruments 2.00\Federal 9-8-9-18 ISIP 4-22-08.csv  
 Title: Federal 9-8-9-18 ISIP 4-22-08  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Apr 22, 2008 04:00:18 PM MDT  
 Data End Date: Apr 22, 2008 04:30:18 PM MDT  
 Reading Rate: 1 Minute  
 Readings: 1 to 31 of 31  
 Last Calibration Date: Dec 19, 2007  
 Next Calibration Date: Dec 19, 2008

| <u>Reading</u> | <u>Date and Time (MDT)</u> | <u>Absolute Pressure</u> | <u>Annotation</u> |
|----------------|----------------------------|--------------------------|-------------------|
| 1              | Apr 22, 2008 04:00:18 PM   | 1208.800                 | PSIA              |
| 2              | Apr 22, 2008 04:01:18 PM   | 1153.800                 | PSIA              |
| 3              | Apr 22, 2008 04:02:18 PM   | 1144.200                 | PSIA              |
| 4              | Apr 22, 2008 04:03:18 PM   | 1136.200                 | PSIA              |
| 5              | Apr 22, 2008 04:04:18 PM   | 1130.600                 | PSIA              |
| 6              | Apr 22, 2008 04:05:18 PM   | 1126.000                 | PSIA              |
| 7              | Apr 22, 2008 04:06:18 PM   | 1122.200                 | PSIA              |
| 8              | Apr 22, 2008 04:07:18 PM   | 1119.000                 | PSIA              |
| 9              | Apr 22, 2008 04:08:18 PM   | 1116.200                 | PSIA              |
| 10             | Apr 22, 2008 04:09:18 PM   | 1113.800                 | PSIA              |
| 11             | Apr 22, 2008 04:10:18 PM   | 1112.600                 | PSIA              |
| 12             | Apr 22, 2008 04:11:18 PM   | 1110.400                 | PSIA              |
| 13             | Apr 22, 2008 04:12:18 PM   | 1107.800                 | PSIA              |
| 14             | Apr 22, 2008 04:13:18 PM   | 1106.600                 | PSIA              |
| 15             | Apr 22, 2008 04:14:18 PM   | 1106.200                 | PSIA              |
| 16             | Apr 22, 2008 04:15:18 PM   | 1104.200                 | PSIA              |
| 17             | Apr 22, 2008 04:16:18 PM   | 1102.800                 | PSIA              |
| 18             | Apr 22, 2008 04:17:18 PM   | 1101.600                 | PSIA              |
| 19             | Apr 22, 2008 04:18:18 PM   | 1100.200                 | PSIA              |
| 20             | Apr 22, 2008 04:19:18 PM   | 1099.000                 | PSIA              |
| 21             | Apr 22, 2008 04:20:18 PM   | 1097.800                 | PSIA              |
| 22             | Apr 22, 2008 04:21:18 PM   | 1097.000                 | PSIA              |
| 23             | Apr 22, 2008 04:22:18 PM   | 1095.600                 | PSIA              |
| 24             | Apr 22, 2008 04:23:18 PM   | 1094.800                 | PSIA              |
| 25             | Apr 22, 2008 04:24:18 PM   | 1094.000                 | PSIA              |
| 26             | Apr 22, 2008 04:25:18 PM   | 1093.000                 | PSIA              |
| 27             | Apr 22, 2008 04:26:18 PM   | 1091.600                 | PSIA              |
| 28             | Apr 22, 2008 04:27:18 PM   | 1090.800                 | PSIA              |
| 29             | Apr 22, 2008 04:28:18 PM   | 1089.800                 | PSIA              |
| 30             | Apr 22, 2008 04:29:18 PM   | 1089.200                 | PSIA              |
| 31             | Apr 22, 2008 04:30:18 PM   | 1088.400                 | PSIA              |

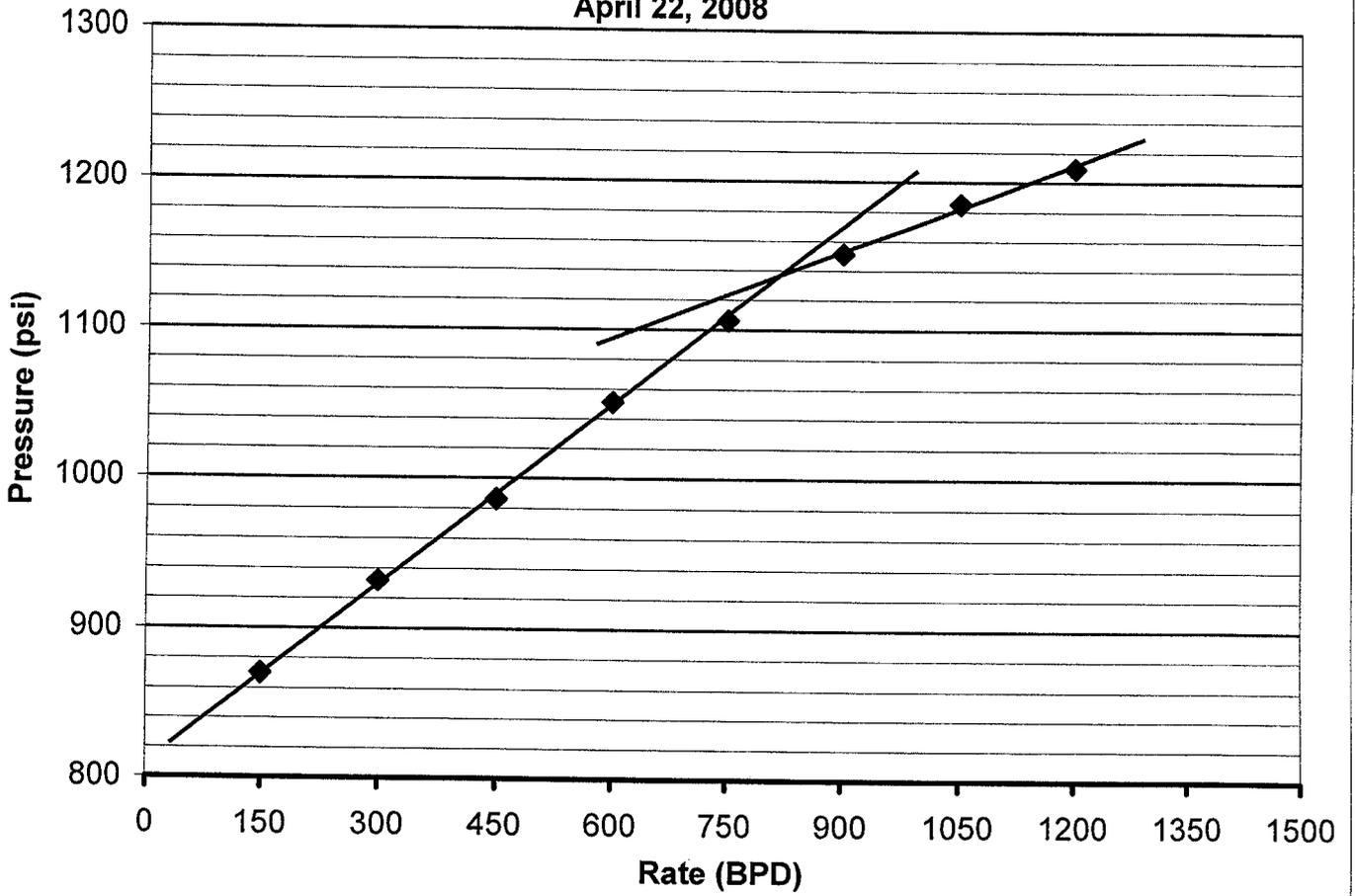
# Federal 9-8-9-18 Rate Sheet (4-22-08)

|                 |       |        |        |        |        |        |        |
|-----------------|-------|--------|--------|--------|--------|--------|--------|
| <i>Step # 1</i> | Time: | 8:05   | 8:10   | 8:15   | 8:20   | 8:25   | 8:30   |
|                 | Rate: | 151.9  | 151.9  | 151.7  | 151.5  | 151.4  | 151    |
|                 | Time: | 8:35   | 8:40   | 8:45   | 8:50   | 8:55   | 9:00   |
|                 | Rate: | 150.8  | 150.7  | 150.6  | 150.3  | 150.3  | 150.2  |
| <i>Step # 2</i> | Time: | 9:05   | 9:10   | 9:15   | 9:20   | 9:25   | 9:30   |
|                 | Rate: | 302.3  | 301.9  | 301.9  | 301.9  | 301.7  | 301.6  |
|                 | Time: | 9:35   | 9:40   | 9:45   | 9:50   | 9:55   | 10:00  |
|                 | Rate: | 301.3  | 301.2  | 301    | 300.8  | 300.7  | 300.5  |
| <i>Step # 3</i> | Time: | 10:05  | 10:10  | 10:15  | 10:20  | 10:25  | 10:30  |
|                 | Rate: | 450.8  | 450.8  | 450.8  | 450.6  | 450.6  | 450.5  |
|                 | Time: | 10:35  | 10:40  | 10:45  | 10:50  | 10:55  | 11:00  |
|                 | Rate: | 450.3  | 450.2  | 450.2  | 450.2  | 450    | 450    |
| <i>Step # 4</i> | Time: | 11:05  | 11:10  | 11:15  | 11:20  | 11:25  | 11:30  |
|                 | Rate: | 601.4  | 601.2  | 601    | 601    | 600.7  | 600.6  |
|                 | Time: | 11:35  | 11:40  | 11:45  | 11:50  | 11:55  | 12:00  |
|                 | Rate: | 600.6  | 600.5  | 600.4  | 600.3  | 600.2  | 600.2  |
| <i>Step # 5</i> | Time: | 12:05  | 12:10  | 12:15  | 12:20  | 12:25  | 12:30  |
|                 | Rate: | 750.8  | 750.6  | 750.6  | 750.5  | 750.4  | 750.4  |
|                 | Time: | 12:35  | 12:40  | 12:45  | 12:50  | 12:55  | 1:00   |
|                 | Rate: | 750.4  | 750.2  | 750.2  | 750.2  | 750    | 750    |
| <i>Step # 6</i> | Time: | 1:05   | 1:10   | 1:15   | 1:20   | 1:25   | 1:30   |
|                 | Rate: | 902    | 901.7  | 901.5  | 901.5  | 901.4  | 901.2  |
|                 | Time: | 1:35   | 1:40   | 1:45   | 1:50   | 1:55   | 2:00   |
|                 | Rate: | 901.2  | 901    | 901    | 900.7  | 900.6  | 900.5  |
| <i>Step # 7</i> | Time: | 2:05   | 2:10   | 2:15   | 2:20   | 2:25   | 2:30   |
|                 | Rate: | 1051.7 | 1051.5 | 1051.4 | 1051.2 | 1051.2 | 1051.1 |
|                 | Time: | 2:35   | 2:40   | 2:45   | 2:50   | 2:55   | 3:00   |
|                 | Rate: | 1051.1 | 1050.9 | 1050.9 | 1050.7 | 1050.7 | 1050.5 |
| <i>Step # 8</i> | Time: | 3:05   | 3:10   | 3:15   | 3:20   | 3:25   | 3:30   |
|                 | Rate: | 1200.8 | 1200.7 | 1200.6 | 1200.6 | 1200.6 | 1200.5 |
|                 | Time: | 3:35   | 3:40   | 3:45   | 3:50   | 3:55   | 4:00   |
|                 | Rate: | 1200.5 | 1200.5 | 1200.3 | 1200.3 | 1200.1 | 1200.1 |

Step # 9

|       |               |               |               |               |               |               |
|-------|---------------|---------------|---------------|---------------|---------------|---------------|
| Time: | 4:05          | 4:10          | 4:15          | 4:20          | 4:25          | 4:30          |
| Rate: | <u>1352.2</u> | <u>1352.1</u> | <u>1351.8</u> | <u>1351.6</u> | <u>1351.5</u> | <u>1351.2</u> |
| Time: | 4:35          | 4:40          | 4:45          | 4:50          | 4:55          | 5:00          |
| Rate: | <u>1351.2</u> | <u>1351.1</u> | <u>1350.7</u> | <u>1350.7</u> | <u>1350.6</u> | <u>1350.5</u> |

Federal 9-8-9-18  
 Sundance Unit  
 Step Rate Test  
 April 22, 2008



Start Pressure: 840 psi  
 Instantaneous Shut In Pressure (ISIP): 1154 psi  
 Top Perforation: 4528 feet  
 Fracture pressure (Pfp): 1135 psi  
 FG: 0.690 psi/ft

| Step | Rate(bpd) | Pressure(psi) |
|------|-----------|---------------|
| 1    | 150       | 870           |
| 2    | 300       | 932           |
| 3    | 450       | 986           |
| 4    | 600       | 1051          |
| 5    | 750       | 1106          |
| 6    | 900       | 1151          |
| 7    | 1050      | 1185          |
| 8    | 1200      | 1209          |

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-16540

**SUNDRY NOTICES AND REPORTS ON WELLS**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

7. UNIT or CA AGREEMENT NAME:  
GMBU

1. TYPE OF WELL:      OIL WELL       GAS WELL       OTHER

8. WELL NAME and NUMBER:  
FEDERAL 9-8-9-18

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4304736345

3. ADDRESS OF OPERATOR:      PHONE NUMBER  
Route 3 Box 3630      CITY Myton      STATE UT      ZIP 84052      435.646.3721

10. FIELD AND POOL, OR WILDCAT:  
GREATER MB UNIT

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 1980 FSL 660 FEL

COUNTY:

OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESE, 8, T9S, R18E

STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION   | TYPE OF ACTION  |   |   |
|--|---|---|---|
| <input type="checkbox"/> NOTICE OF INTENT<br>(Submit in Duplicate)<br><br>Approximate date work will<br>_____                      | <input type="checkbox"/> ACIDIZE                        | <input type="checkbox"/> DEEPEN                           | <input type="checkbox"/> REPERFORATE CURRENT FORMATION      |
|  | <input type="checkbox"/> ALTER CASING                   | <input type="checkbox"/> FRACTURE TREAT                   | <input type="checkbox"/> SIDETRACK TO REPAIR WELL           |
| <input checked="" type="checkbox"/> SUBSEQUENT REPORT<br>(Submit Original Form Only)<br><br>Date of Work Completion:<br>12/16/2010 | <input type="checkbox"/> CASING REPAIR                  | <input type="checkbox"/> NEW CONSTRUCTION                 | <input type="checkbox"/> TEMPORARITLY ABANDON               |
|  | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS       | <input type="checkbox"/> OPERATOR CHANGE                  | <input type="checkbox"/> TUBING REPAIR                      |
|  | <input type="checkbox"/> CHANGE TUBING                  | <input type="checkbox"/> PLUG AND ABANDON                 | <input type="checkbox"/> VENT OR FLAIR                      |
|  | <input type="checkbox"/> CHANGE WELL NAME               | <input type="checkbox"/> PLUG BACK                        | <input type="checkbox"/> WATER DISPOSAL                     |
|  | <input type="checkbox"/> CHANGE WELL STATUS             | <input type="checkbox"/> PRODUCTION (START/STOP)          | <input type="checkbox"/> WATER SHUT-OFF                     |
|  | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> RECLAMATION OF WELL SITE         | <input checked="" type="checkbox"/> OTHER: - Step Rate Test |
|  | <input type="checkbox"/> CONVERT WELL TYPE              | <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION |   |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

A step rate test was conducted on the subject well on December 16, 2010. Results from the test indicate that the fracture gradient is 0.730 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed from 1070 psi to 1315 psi.

EPA: UT21120-07605    API: 43-047-36345

**RECEIVED**

**DEC 21 2010**

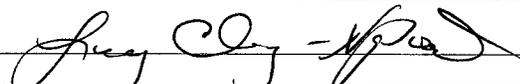
DIV. OF OIL, GAS & MINING

**Accepted by the  
Utah Division of  
Oil, Gas and Mining**

**FOR RECORD ONLY**

NAME (PLEASE PRINT) Lucy Chavez-Naupoto

TITLE Administrative Assistant

SIGNATURE 

DATE 12/17/2010

(This space for State use only)

# Step Rate Test (SRT) Analysis

Date: 12/17/2010

Operator:

Newfield Production Company

Well:

Federal 9-8-9-18

Permit #:

UT21120-07605

**Enter the following data :**

Specific Gravity (sg) of injectate = 1.015 g/cc  
Depth to top perforation (D) = 4528 feet 4528  
Top of permitted injection zone depth (blank=use top perforation to calculate fg) = \_\_\_\_\_ feet  
Estimated Formation Parting Pressure (Pfp) from SRT chart = 1330 psi  
Instantaneous Shut In Pressure (ISIP) from SRT = 1316 psi 1330  
Bottom Hole Parting Pressure (Pbhp) from downhole pressure recorder = \_\_\_\_\_ psi no downhole

## Part One - Calculation of Fracture Gradient (fg)

Calculated Fracture Gradient = 0.730 psi/ft.

where: fg = Pbhp / D (Note: this formula uses the downhole recorded bottom hole parting pressure if available) = 1316

D = depth used = 4528

Pbhp used = 3306

Calculated Bottom Hole Parting Pressure (Pbhp) = 3306 psi 3306.033

to calculate Bottom Hole Parting Pressure (Pbhp) = Formation Fracture Pressure (ISIP or Pfp) + (0.433 \* SG \* D)

(Uses lesser of ISIP or Pfp) Value used = 1316

## Part Two - Calculation of Maximum Allowable Injection Pressure (MAIP)

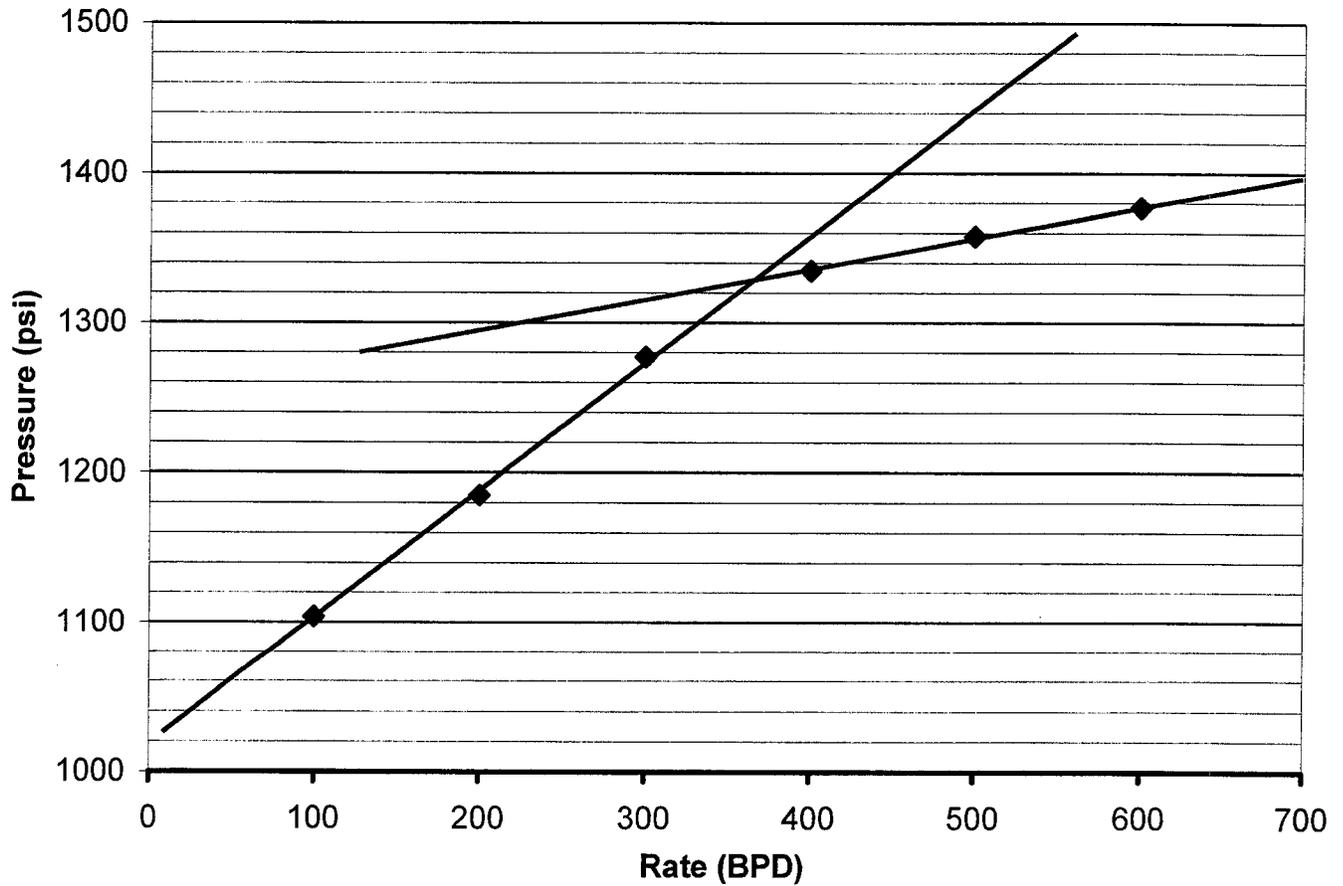
Maximum Allowable Injection Pressure (MAIP) = 1315 psig  
(rounded down to nearest 5 psig)

D = depth used = 4528

MAIP = fg - (0.433 \* SG) \* D = 1315.407

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DEC 21 2010  
DIV. OF OIL, GAS & MINING

Federal 9-8-9-18  
 Greater Monument Butte Unit  
 Step Rate Test  
 December 16, 2010



**Start Pressure:** 1023 psi  
**Instantaneous Shut In Pressure (ISIP):** 1316 psi  
**Top Perforation:** 4528 feet  
**Fracture pressure (Pfp):** 1330 psi  
**FG:** 0.733 psi/ft

| Step | Rate(bpd) | Pressure(psi) |
|------|-----------|---------------|
| 1    | 100       | 1104          |
| 2    | 200       | 1185          |
| 3    | 300       | 1277          |
| 4    | 400       | 1335          |
| 5    | 500       | 1358          |
| 6    | 600       | 1377          |

**RECEIVED**  
**DEC 21 2010**  
 DIV. OF OIL, GAS & MINING

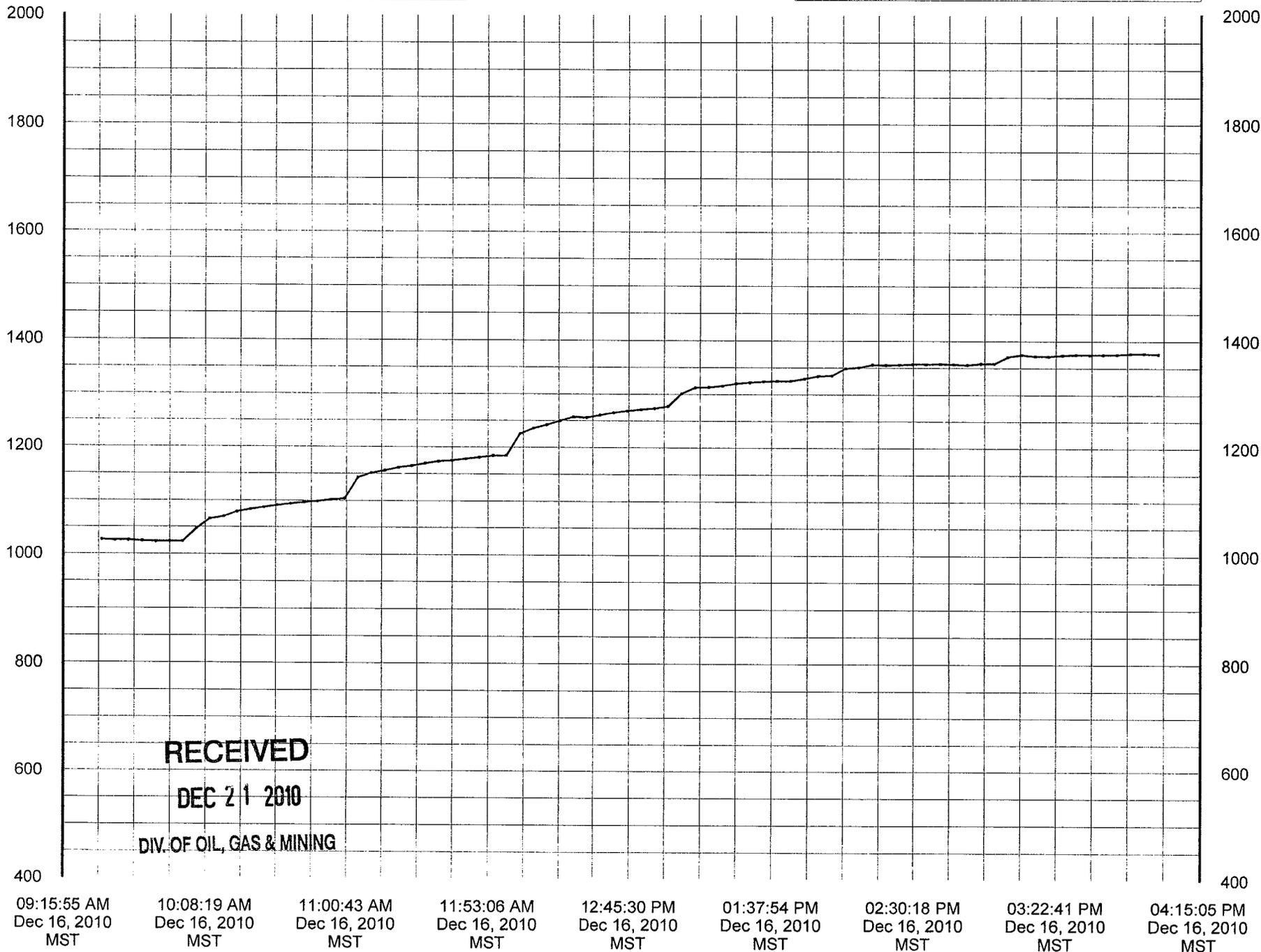
PSIA

Absolute Pressure

Federal 9-8-9-18 SRT (12-16-10)

|               |              |
|---------------|--------------|
| Device        | - PrTemp1000 |
| Serial Number | - M75866     |
| Device ID     | - PrTemp     |

PSIA



**RECEIVED**

**DEC 21 2010**

**DIV. OF OIL, GAS & MINING**

Report Name: PrTemp1000 Data Table  
 Report Date: Dec 17, 2010 08:37:57 AM MST  
 File Name: C:\Program Files\PTC@ Instruments 2.00\Federal 9-8-9-18 SRT (12-16-10).csv  
 Title: Federal 9-8-9-18 SRT (12-16-10)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Dec 16, 2010 09:30:00 AM MST  
 Data End Date: Dec 16, 2010 04:00:00 PM MST  
 Reading Rate: 2 Seconds  
 Readings: 1 to 79 of 79  
 Last Calibration Date: May 22, 2009  
 Next Calibration Date: May 22, 2010

| <u>Reading</u> | <u>Date and Time (MST)</u> | <u>Absolute Pressure</u> | <u>Annotation</u> |
|----------------|----------------------------|--------------------------|-------------------|
| 1              | Dec 16, 2010 09:30:00 AM   | 1026.200                 | PSIA              |
| 2              | Dec 16, 2010 09:35:05 AM   | 1025.000                 | PSIA              |
| 3              | Dec 16, 2010 09:40:00 AM   | 1025.400                 | PSIA              |
| 4              | Dec 16, 2010 09:45:00 AM   | 1024.000                 | PSIA              |
| 5              | Dec 16, 2010 09:50:00 AM   | 1023.000                 | PSIA              |
| 6              | Dec 16, 2010 09:55:00 AM   | 1023.200                 | PSIA              |
| 7              | Dec 16, 2010 10:00:00 AM   | 1023.200                 | PSIA              |
| 8              | Dec 16, 2010 10:05:00 AM   | 1046.800                 | PSIA              |
| 9              | Dec 16, 2010 10:10:00 AM   | 1064.800                 | PSIA              |
| 10             | Dec 16, 2010 10:15:00 AM   | 1069.200                 | PSIA              |
| 11             | Dec 16, 2010 10:20:00 AM   | 1078.600                 | PSIA              |
| 12             | Dec 16, 2010 10:25:00 AM   | 1083.200                 | PSIA              |
| 13             | Dec 16, 2010 10:30:00 AM   | 1087.000                 | PSIA              |
| 14             | Dec 16, 2010 10:35:00 AM   | 1091.000                 | PSIA              |
| 15             | Dec 16, 2010 10:40:00 AM   | 1093.600                 | PSIA              |
| 16             | Dec 16, 2010 10:45:00 AM   | 1096.600                 | PSIA              |
| 17             | Dec 16, 2010 10:50:00 AM   | 1098.400                 | PSIA              |
| 18             | Dec 16, 2010 10:55:00 AM   | 1101.600                 | PSIA              |
| 19             | Dec 16, 2010 11:00:00 AM   | 1103.600                 | PSIA              |
| 20             | Dec 16, 2010 11:05:00 AM   | 1142.800                 | PSIA              |
| 21             | Dec 16, 2010 11:10:00 AM   | 1151.400                 | PSIA              |
| 22             | Dec 16, 2010 11:15:00 AM   | 1156.000                 | PSIA              |
| 23             | Dec 16, 2010 11:20:00 AM   | 1161.400                 | PSIA              |
| 24             | Dec 16, 2010 11:25:00 AM   | 1164.600                 | PSIA              |
| 25             | Dec 16, 2010 11:30:00 AM   | 1169.400                 | PSIA              |
| 26             | Dec 16, 2010 11:35:00 AM   | 1173.200                 | PSIA              |
| 27             | Dec 16, 2010 11:40:00 AM   | 1174.800                 | PSIA              |
| 28             | Dec 16, 2010 11:45:00 AM   | 1178.200                 | PSIA              |
| 29             | Dec 16, 2010 11:50:00 AM   | 1181.000                 | PSIA              |
| 30             | Dec 16, 2010 11:55:00 AM   | 1184.000                 | PSIA              |
| 31             | Dec 16, 2010 12:00:00 PM   | 1184.600                 | PSIA              |
| 32             | Dec 16, 2010 12:05:00 PM   | 1225.000                 | PSIA              |
| 33             | Dec 16, 2010 12:10:00 PM   | 1235.800                 | PSIA              |
| 34             | Dec 16, 2010 12:15:00 PM   | 1242.200                 | PSIA              |
| 35             | Dec 16, 2010 12:20:00 PM   | 1250.000                 | PSIA              |
| 36             | Dec 16, 2010 12:25:00 PM   | 1256.800                 | PSIA              |
| 37             | Dec 16, 2010 12:30:00 PM   | 1255.800                 | PSIA              |
| 38             | Dec 16, 2010 12:35:00 PM   | 1260.400                 | PSIA              |
| 39             | Dec 16, 2010 12:40:00 PM   | 1265.000                 | PSIA              |
| 40             | Dec 16, 2010 12:45:00 PM   | 1268.400                 | PSIA              |
| 41             | Dec 16, 2010 12:50:00 PM   | 1270.800                 | PSIA              |
| 42             | Dec 16, 2010 12:55:00 PM   | 1273.200                 | PSIA              |
| 43             | Dec 16, 2010 01:00:00 PM   | 1277.000                 | PSIA              |
| 44             | Dec 16, 2010 01:05:00 PM   | 1301.000                 | PSIA              |
| 45             | Dec 16, 2010 01:10:00 PM   | 1312.400                 | PSIA              |
| 46             | Dec 16, 2010 01:15:00 PM   | 1313.200                 | PSIA              |
| 47             | Dec 16, 2010 01:20:00 PM   | 1315.600                 | PSIA              |
| 48             | Dec 16, 2010 01:25:00 PM   | 1320.000                 | PSIA              |
| 49             | Dec 16, 2010 01:30:00 PM   | 1322.200                 | PSIA              |
| 50             | Dec 16, 2010 01:35:00 PM   | 1324.000                 | PSIA              |
| 51             | Dec 16, 2010 01:40:00 PM   | 1324.800                 | PSIA              |
| 52             | Dec 16, 2010 01:45:00 PM   | 1325.400                 | PSIA              |
| 53             | Dec 16, 2010 01:50:00 PM   | 1329.600                 | PSIA              |
| 54             | Dec 16, 2010 01:55:00 PM   | 1334.400                 | PSIA              |
| 55             | Dec 16, 2010 02:00:00 PM   | 1335.400                 | PSIA              |
| 56             | Dec 16, 2010 02:05:00 PM   | 1348.600                 | PSIA              |
| 57             | Dec 16, 2010 02:10:00 PM   | 1350.600                 | PSIA              |
| 58             | Dec 16, 2010 02:15:00 PM   | 1356.000                 | PSIA              |
| 59             | Dec 16, 2010 02:20:00 PM   | 1355.200                 | PSIA              |
| 60             | Dec 16, 2010 02:25:00 PM   | 1355.800                 | PSIA              |

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|    |                          |          |      |
|----|--------------------------|----------|------|
| 61 | Dec 16, 2010 02:30:00 PM | 1357.200 | PSIA |
| 62 | Dec 16, 2010 02:35:00 PM | 1356.800 | PSIA |
| 63 | Dec 16, 2010 02:40:00 PM | 1357.800 | PSIA |
| 64 | Dec 16, 2010 02:45:00 PM | 1357.000 | PSIA |
| 65 | Dec 16, 2010 02:50:00 PM | 1356.000 | PSIA |
| 66 | Dec 16, 2010 02:55:00 PM | 1358.400 | PSIA |
| 67 | Dec 16, 2010 03:00:00 PM | 1358.400 | PSIA |
| 68 | Dec 16, 2010 03:05:00 PM | 1370.800 | PSIA |
| 69 | Dec 16, 2010 03:10:00 PM | 1374.800 | PSIA |
| 70 | Dec 16, 2010 03:15:00 PM | 1372.400 | PSIA |
| 71 | Dec 16, 2010 03:20:00 PM | 1372.000 | PSIA |
| 72 | Dec 16, 2010 03:25:00 PM | 1374.000 | PSIA |
| 73 | Dec 16, 2010 03:30:00 PM | 1375.000 | PSIA |
| 74 | Dec 16, 2010 03:35:01 PM | 1374.800 | PSIA |
| 75 | Dec 16, 2010 03:40:00 PM | 1375.200 | PSIA |
| 76 | Dec 16, 2010 03:45:00 PM | 1375.800 | PSIA |
| 77 | Dec 16, 2010 03:50:00 PM | 1377.200 | PSIA |
| 78 | Dec 16, 2010 03:55:00 PM | 1377.400 | PSIA |
| 79 | Dec 16, 2010 04:00:00 PM | 1376.600 | PSIA |

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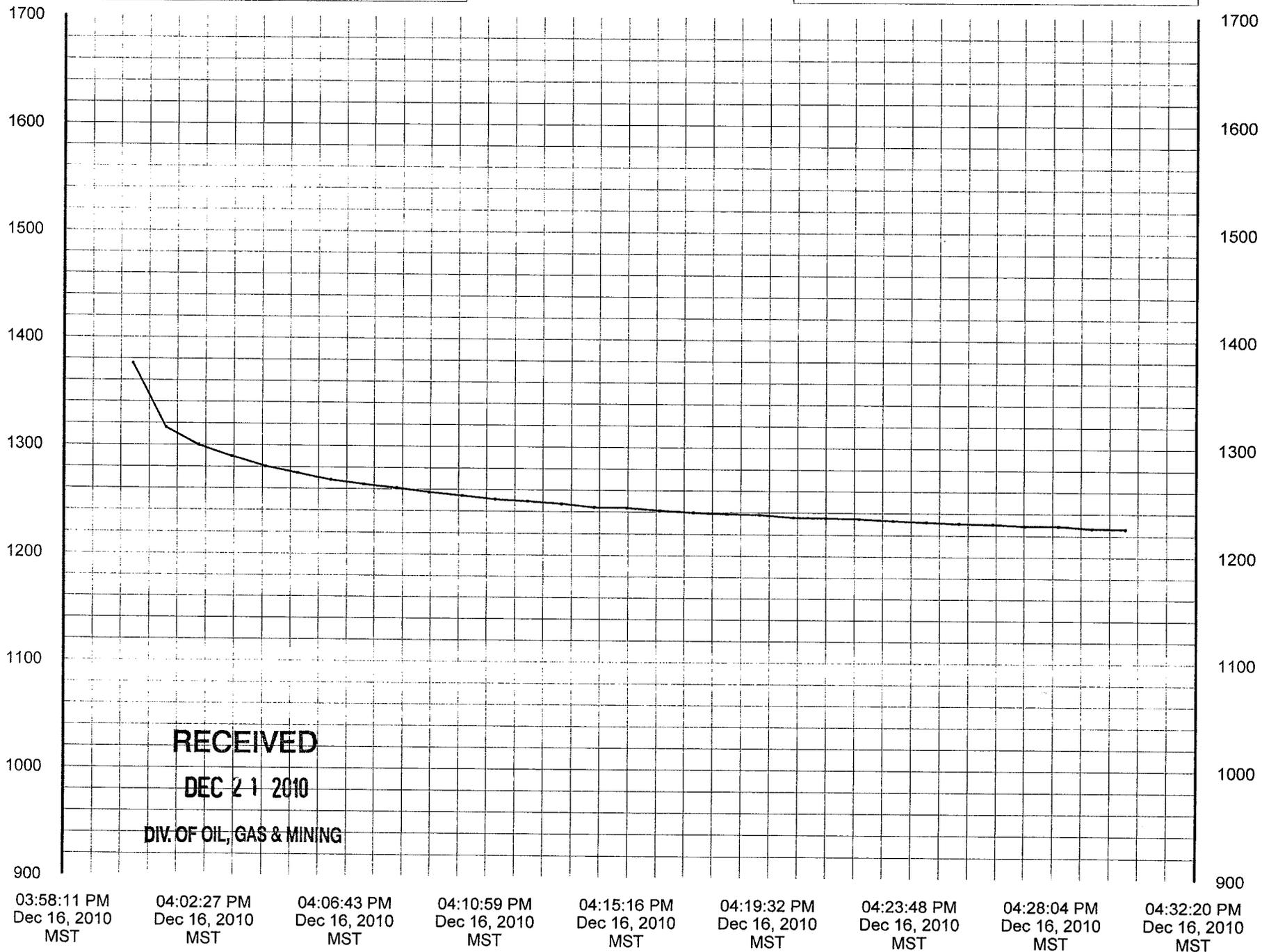
PSIA

Absolute Pressure

Federal 9-8-9-18 ISIP (12-16-10)

Device - PrTemp1000  
Serial Number - M75866  
Device ID - PrTemp

PSIA



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Report Name: PrTemp1000 Data Table  
 Report Date: Dec 17, 2010 08:37:49 AM MST  
 File Name: C:\Program Files\PTC® Instruments 2.00\Federal 9-8-9-18 ISIP (12-16-10).csv  
 Title: Federal 9-8-9-18 ISIP (12-16-10)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Dec 16, 2010 04:00:15 PM MST  
 Data End Date: Dec 16, 2010 04:30:15 PM MST  
 Reading Rate: 2 Seconds  
 Readings: 1 to 31 of 31  
 Last Calibration Date: May 22, 2009  
 Next Calibration Date: May 22, 2010

| <u>Reading</u> | <u>Date and Time (MST)</u> | <u>Absolute Pressure</u> | <u>Annotation</u> |
|----------------|----------------------------|--------------------------|-------------------|
| 1              | Dec 16, 2010 04:00:15 PM   | 1375.600                 | PSIA              |
| 2              | Dec 16, 2010 04:01:15 PM   | 1316.000                 | PSIA              |
| 3              | Dec 16, 2010 04:02:14 PM   | 1300.000                 | PSIA              |
| 4              | Dec 16, 2010 04:03:14 PM   | 1289.600                 | PSIA              |
| 5              | Dec 16, 2010 04:04:15 PM   | 1280.400                 | PSIA              |
| 6              | Dec 16, 2010 04:05:14 PM   | 1274.400                 | PSIA              |
| 7              | Dec 16, 2010 04:06:14 PM   | 1268.400                 | PSIA              |
| 8              | Dec 16, 2010 04:07:15 PM   | 1264.400                 | PSIA              |
| 9              | Dec 16, 2010 04:08:15 PM   | 1261.200                 | PSIA              |
| 10             | Dec 16, 2010 04:09:14 PM   | 1257.400                 | PSIA              |
| 11             | Dec 16, 2010 04:10:15 PM   | 1254.400                 | PSIA              |
| 12             | Dec 16, 2010 04:11:15 PM   | 1251.200                 | PSIA              |
| 13             | Dec 16, 2010 04:12:14 PM   | 1249.600                 | PSIA              |
| 14             | Dec 16, 2010 04:13:15 PM   | 1247.200                 | PSIA              |
| 15             | Dec 16, 2010 04:14:15 PM   | 1244.000                 | PSIA              |
| 16             | Dec 16, 2010 04:15:14 PM   | 1243.800                 | PSIA              |
| 17             | Dec 16, 2010 04:16:14 PM   | 1241.400                 | PSIA              |
| 18             | Dec 16, 2010 04:17:15 PM   | 1239.800                 | PSIA              |
| 19             | Dec 16, 2010 04:18:14 PM   | 1238.800                 | PSIA              |
| 20             | Dec 16, 2010 04:19:14 PM   | 1238.000                 | PSIA              |
| 21             | Dec 16, 2010 04:20:15 PM   | 1235.600                 | PSIA              |
| 22             | Dec 16, 2010 04:21:14 PM   | 1235.200                 | PSIA              |
| 23             | Dec 16, 2010 04:22:14 PM   | 1234.600                 | PSIA              |
| 24             | Dec 16, 2010 04:23:15 PM   | 1233.000                 | PSIA              |
| 25             | Dec 16, 2010 04:24:15 PM   | 1231.800                 | PSIA              |
| 26             | Dec 16, 2010 04:25:14 PM   | 1230.800                 | PSIA              |
| 27             | Dec 16, 2010 04:26:15 PM   | 1230.200                 | PSIA              |
| 28             | Dec 16, 2010 04:27:15 PM   | 1228.600                 | PSIA              |
| 29             | Dec 16, 2010 04:28:14 PM   | 1228.600                 | PSIA              |
| 30             | Dec 16, 2010 04:29:15 PM   | 1226.600                 | PSIA              |
| 31             | Dec 16, 2010 04:30:15 PM   | 1226.200                 | PSIA              |

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## Federal 9-8-9-18 Rate Sheet (12-16-10)

|                 |       |       |       |       |       |       |       |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| <i>Step # 1</i> | Time: | 10:05 | 10:10 | 10:15 | 10:20 | 10:25 | 10:30 |
|                 | Rate: | 100.7 | 100.7 | 100.7 | 100.6 | 100.5 | 100.5 |
|                 | Time: | 10:35 | 10:40 | 10:45 | 10:50 | 10:55 | 11:00 |
|                 | Rate: | 100.5 | 100.5 | 100.4 | 100.4 | 100.4 | 100.3 |
| <i>Step # 2</i> | Time: | 11:05 | 11:10 | 11:15 | 11:20 | 11:25 | 11:30 |
|                 | Rate: | 200.5 | 200.5 | 200.5 | 200.4 | 200.4 | 200.4 |
|                 | Time: | 11:35 | 11:40 | 11:45 | 11:50 | 11:55 | 12:00 |
|                 | Rate: | 200.4 | 200.3 | 200.3 | 200.3 | 200.2 | 200.2 |
| <i>Step # 3</i> | Time: | 12:05 | 12:10 | 12:15 | 12:20 | 12:25 | 12:30 |
|                 | Rate: | 300.6 | 300.6 | 300.5 | 300.5 | 300.5 | 300.5 |
|                 | Time: | 12:35 | 12:40 | 12:45 | 12:50 | 12:55 | 1:00  |
|                 | Rate: | 300.4 | 300.4 | 300.4 | 300.4 | 300.4 | 300.3 |
| <i>Step # 4</i> | Time: | 1:05  | 1:10  | 1:15  | 1:20  | 1:25  | 1:30  |
|                 | Rate: | 400.6 | 400.6 | 400.6 | 400.4 | 400.4 | 400.4 |
|                 | Time: | 1:35  | 1:40  | 1:45  | 1:50  | 1:55  | 2:00  |
|                 | Rate: | 400.4 | 400.4 | 400.3 | 400.3 | 400.3 | 400.2 |
| <i>Step # 5</i> | Time: | 2:05  | 2:10  | 2:15  | 2:20  | 2:25  | 2:30  |
|                 | Rate: | 500.5 | 500.5 | 500.4 | 500.4 | 500.4 | 500.4 |
|                 | Time: | 2:35  | 2:40  | 2:45  | 2:50  | 2:55  | 3:00  |
|                 | Rate: | 500.4 | 500.3 | 500.3 | 500.3 | 500.3 | 500.2 |
| <i>Step # 6</i> | Time: | 3:05  | 3:10  | 3:15  | 3:20  | 3:25  | 3:30  |
|                 | Rate: | 600.3 | 600.3 | 600.3 | 600.2 | 600.2 | 600.2 |
|                 | Time: | 3:35  | 3:40  | 3:45  | 3:50  | 3:55  | 4:00  |
|                 | Rate: | 600.2 | 600.1 | 600.1 | 600.1 | 600.1 | 600.1 |
|                 | Time: |       |       |       |       |       |       |
|                 | Rate: |       |       |       |       |       |       |
|                 | Time: |       |       |       |       |       |       |
|                 | Rate: |       |       |       |       |       |       |
|                 | Time: |       |       |       |       |       |       |
|                 | Rate: |       |       |       |       |       |       |
|                 | Time: |       |       |       |       |       |       |
|                 | Rate: |       |       |       |       |       |       |

12-17-2010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

1595 Wynkoop Street  
Denver, CO 80202-1129  
Phone 800-227-8917  
<http://www.epa.gov/region08>

FEB 03 2011

Ref: 8P-W-GW

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

Mr. Michael Guinn  
District Manager  
Newfield Production Company  
Route 3-Box 3630  
Myton, UT 84502

RE: Underground Injection Control (UIC)  
Minor Permit Modification  
EPA UIC Permit UT21120-07605  
Well: Federal 9-8-9-18  
NE/SE Sec. 8 T9S-R17E 18E  
Uintah County, UT  
API No.: 43-047-36345

Dear Mr. Guinn:

The U.S. Environmental Protection Agency (EPA), Region 8, has received Newfield Production Company's (Newfield) December 17, 2010, letter with enclosures requesting an increase in the Maximum Allowable Injection Pressure (MAIP) for the Federal 9-8-9-18 well. The enclosed Step Rate Test (SRT) results were reviewed and approved by EPA. Therefore, the MAIP for UIC Permit UT21120-07605 is hereby increased to 1,315 psig from the 1,130 psig previously authorized.

You may apply for a higher MAIP at a later date. Your application should be accompanied by the interpreted results of a SRT that measures the fracture parting pressure and determines the fracture gradient at the injection depth and location. A current copy of EPA guidelines for running and interpreting a SRT will be sent upon request.

Please continue to direct all notification, reporting, monitoring and compliance correspondence to the following address, referencing the well name and UIC Permit number on all correspondence regarding this well:

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FEB 09 2011

DIV. OF OIL, GAS & MINING

US EPA, Region 8  
Attn: Nathan Wiser  
MC: ENF-UFO  
1595 Wynkoop Street  
Denver, CO 80202

For questions regarding notification, testing, monitoring, reporting or other permit requirements, Nathan Wiser of the UIC Technical Enforcement Program may be reached by calling 800-227-8917 (ext. 312-6211). Please be reminded that it is your responsibility to be aware of and to comply with all conditions of your UIC Permit.

If you have any questions regarding this approval, please call Tom Aalto at 303-312-6949 or 800-227-8917 (ext. 312-6949).

Sincerely,



 Stephen S. Tuber  
Assistant Regional Administrator  
Office of Partnerships and Regulatory Assistance

cc: Uintah & Ouray Business Committee:

Richard Jenks, Jr., Chairman  
Frances Poowegup, Vice-Chairwoman  
Curtis Cesspooch, Councilman  
Phillip Chimburas, Councilman  
Stewart Pike, Councilman  
Irene Cuch, Councilwoman

Daniel Picard  
BIA - Uintah & Ouray Indian Agency

Mike Natchees  
Environmental Coordinator  
Ute Indian Tribe

Manual Myore  
Director of Energy & Minerals Dept.  
Ute Indian Tribe

Brad Hill  
Acting Associate Director  
Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office  
BLM - Vernal Office

Eric Sundberg, Regulatory Analyst  
Newfield Production Company

|  |  |   |
|--|--|---|
| <b>STATE OF UTAH</b><br>DEPARTMENT OF NATURAL RESOURCES<br>DIVISION OF OIL, GAS, AND MINING  |  | <b>FORM 9</b>   |
| <b>SUNDRY NOTICES AND REPORTS ON WELLS</b><br><br>Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals. |  | <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b><br>UTU-16540 |
|  |  | <b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>                |
| <b>1. TYPE OF WELL</b><br>Water Injection Well   |  | <b>7. UNIT or CA AGREEMENT NAME:</b><br>GMBU (GRRV)         |
| <b>2. NAME OF OPERATOR:</b><br>NEWFIELD PRODUCTION COMPANY   |  | <b>8. WELL NAME and NUMBER:</b><br>FEDERAL 9-8-9-18         |
| <b>3. ADDRESS OF OPERATOR:</b><br>Rt 3 Box 3630 , Myton, UT, 84052   |  | <b>9. API NUMBER:</b><br>43047363450000                     |
| <b>PHONE NUMBER:</b><br>435 646-4825 Ext   |  | <b>9. FIELD and POOL or WILDCAT:</b><br>8 MILE FLAT NORTH   |
| <b>4. LOCATION OF WELL</b><br><b>FOOTAGES AT SURFACE:</b><br>1980 FSL 0660 FEL<br><b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b><br>Qtr/Qtr: NESE Section: 08 Township: 09.0S Range: 18.0E Meridian: S  |  | <b>COUNTY:</b><br>UINTAH                                    |
|  |  | <b>STATE:</b><br>UTAH                                       |

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION   | TYPE OF ACTION   |   |   |
|--|--|---|---|
| <input type="checkbox"/> NOTICE OF INTENT<br>Approximate date work will start:                 | <input type="checkbox"/> ACIDIZE                       | <input type="checkbox"/> ALTER CASING                   | <input type="checkbox"/> CASING REPAIR                  |
| <input checked="" type="checkbox"/> SUBSEQUENT REPORT<br>Date of Work Completion:<br>7/23/2012 | <input type="checkbox"/> CHANGE TO PREVIOUS PLANS      | <input type="checkbox"/> CHANGE TUBING                  | <input type="checkbox"/> CHANGE WELL NAME               |
| <input type="checkbox"/> SPUD REPORT<br>Date of Spud:  | <input type="checkbox"/> CHANGE WELL STATUS            | <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS | <input type="checkbox"/> CONVERT WELL TYPE              |
| <input type="checkbox"/> DRILLING REPORT<br>Report Date:                                       | <input type="checkbox"/> DEEPEN                        | <input type="checkbox"/> FRACTURE TREAT                 | <input type="checkbox"/> NEW CONSTRUCTION               |
|  | <input type="checkbox"/> OPERATOR CHANGE               | <input type="checkbox"/> PLUG AND ABANDON               | <input type="checkbox"/> PLUG BACK                      |
|  | <input type="checkbox"/> PRODUCTION START OR RESUME    | <input type="checkbox"/> RECLAMATION OF WELL SITE       | <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION |
|  | <input type="checkbox"/> REPERFORATE CURRENT FORMATION | <input type="checkbox"/> SIDETRACK TO REPAIR WELL       | <input type="checkbox"/> TEMPORARY ABANDON              |
|  | <input type="checkbox"/> TUBING REPAIR                 | <input type="checkbox"/> VENT OR FLARE                  | <input type="checkbox"/> WATER DISPOSAL                 |
|  | <input type="checkbox"/> WATER SHUTOFF                 | <input type="checkbox"/> SI TA STATUS EXTENSION         | <input type="checkbox"/> APD EXTENSION                  |
|  | <input type="checkbox"/> WILDCAT WELL DETERMINATION    | <input checked="" type="checkbox"/> OTHER               | OTHER: <input type="text" value="5 YR MIT"/>            |

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

On 07/16/2012 Nathan Wiser with the EPA was contacted concerning the 5 year MIT on the above listed well. On 07/23/2012 the casing was pressured up to 1575 psig and charted for 30 minutes with no pressure loss. The well was injecting during the test. The tubing pressure was 1250 psig during the test. There was not an EPA representative available to witness the test. EPA# UT21120-07605

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY  
July 30, 2012**

|   |                                     |   |
|---|-------------------------------------|---|
| <b>NAME (PLEASE PRINT)</b><br>Lucy Chavez-Naupoto | <b>PHONE NUMBER</b><br>435 646-4874 | <b>TITLE</b><br>Water Services Technician |
| <b>SIGNATURE</b><br>N/A                           | <b>DATE</b><br>7/24/2012            |   |

## Mechanical Integrity Test

### Casing or Annulus Pressure Mechanical Integrity Test

U.S. Environmental Protection Agency  
Underground Injection Control Program  
999 18<sup>th</sup> Street, Suite 500 Denver, CO 80202-2466

EPA Witness: \_\_\_\_\_ Date: 7/23/2012  
 Test conducted by: Shannon Lazenby  
 Others present: \_\_\_\_\_

|   |   |                  |
|---|---|------------------|
| Well Name: <u>Federal 9-8-9-18</u>                                      | Type: ER SWD                            | Status: AC TA UC |
| Field: <u>Sundance</u>  |   |                  |
| Location: <u>9-8-9-18</u> Sec: <u>8</u> T <u>95</u> N/S R <u>18</u> E/W | County: <u>Uintah</u>                   | State: <u>UT</u> |
| Operator: <u>Shannon Lazenby</u>  |   |                  |
| Last MIT: <u>1/1</u>  | Maximum Allowable Pressure: <u>1315</u> | PSIG             |

Is this a regularly scheduled test?  Yes  No  
 Initial test for permit?  Yes  No  
 Test after well rework?  Yes  No  
 Well injecting during test?  Yes  No      If Yes, rate: 39 bpd

Pre-test casing/tubing annulus pressure: 1250 psig

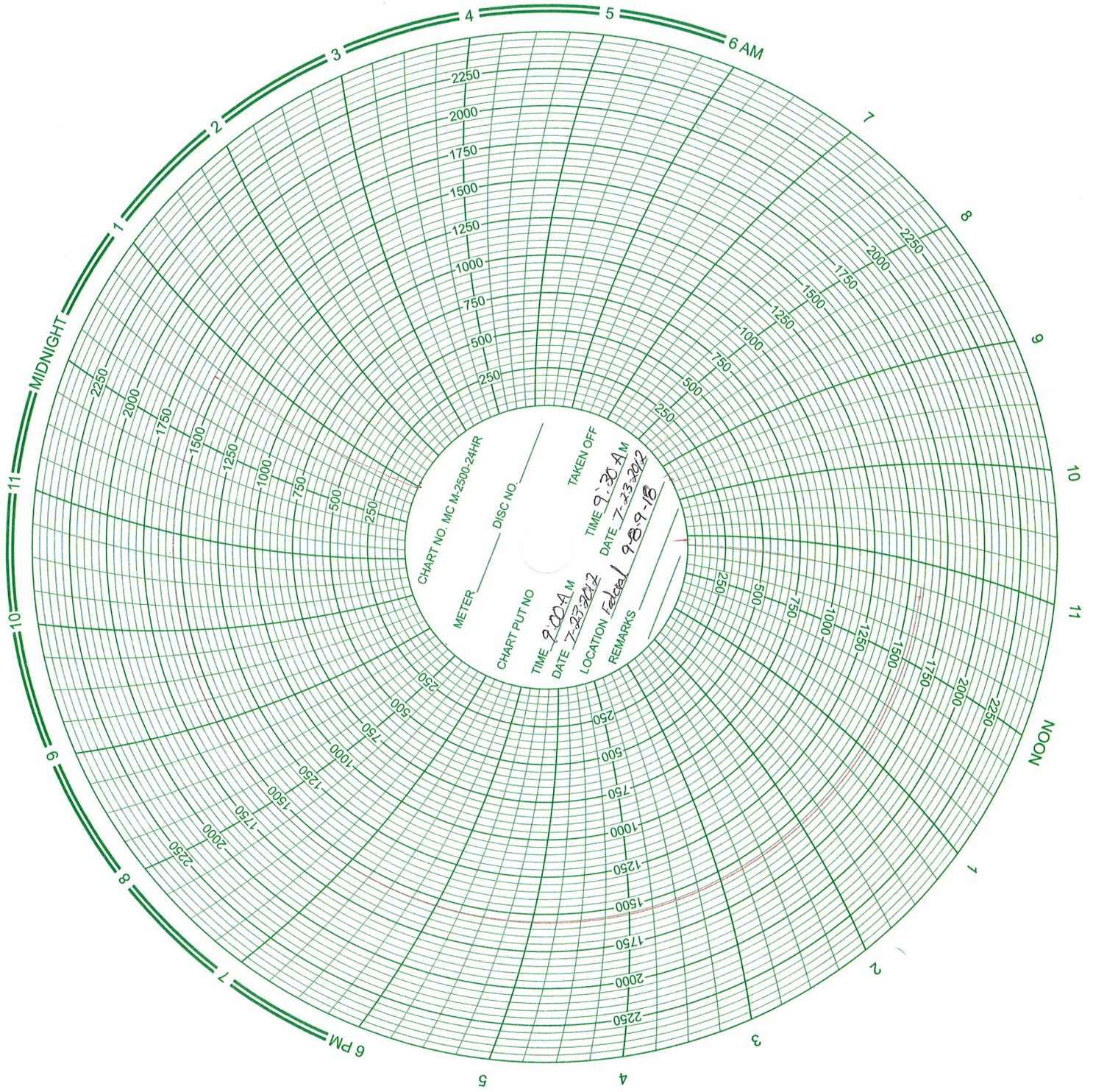
| MIT DATA TABLE                          | Test #1  | Test #2   | Test #3   |
|---|--|---|---|
| <b>TUBING PRESSURE</b>                  |  |   |   |
| Initial Pressure                        | <u>1250</u> psig   | psig  | psig  |
| End of test pressure                    | psig   | psig  | psig  |
| <b>CASING / TUBING ANNULUS PRESSURE</b> |  |   |   |
| 0 minutes                               | <u>1575</u> psig   | psig  | psig  |
| 5 minutes                               | <u>1575</u> psig   | psig  | psig  |
| 10 minutes                              | <u>1575</u> psig   | psig  | psig  |
| 15 minutes                              | <u>1570</u> psig   | psig  | psig  |
| 20 minutes                              | <u>1570</u> psig   | psig  | psig  |
| 25 minutes                              | <u>1570</u> psig   | psig  | psig  |
| 30 minutes                              | <u>1570</u> psig   | psig  | psig  |
| _____ minutes                           | psig   | psig  | psig  |
| _____ minutes                           | psig   | psig  | psig  |
| <b>RESULT</b>                           | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | <input type="checkbox"/> Pass <input type="checkbox"/> Fail | <input type="checkbox"/> Pass <input type="checkbox"/> Fail |

Does the annulus pressure build back up after the test?  Yes  No

## MECHANICAL INTEGRITY PRESSURE TEST

Additional comments for mechanical integrity pressure test, such as volume of fluid added to annulus and bled back at end of test, reason for failing test (casing head leak, tubing leak, other), etc.:

Signature of Witness: \_\_\_\_\_





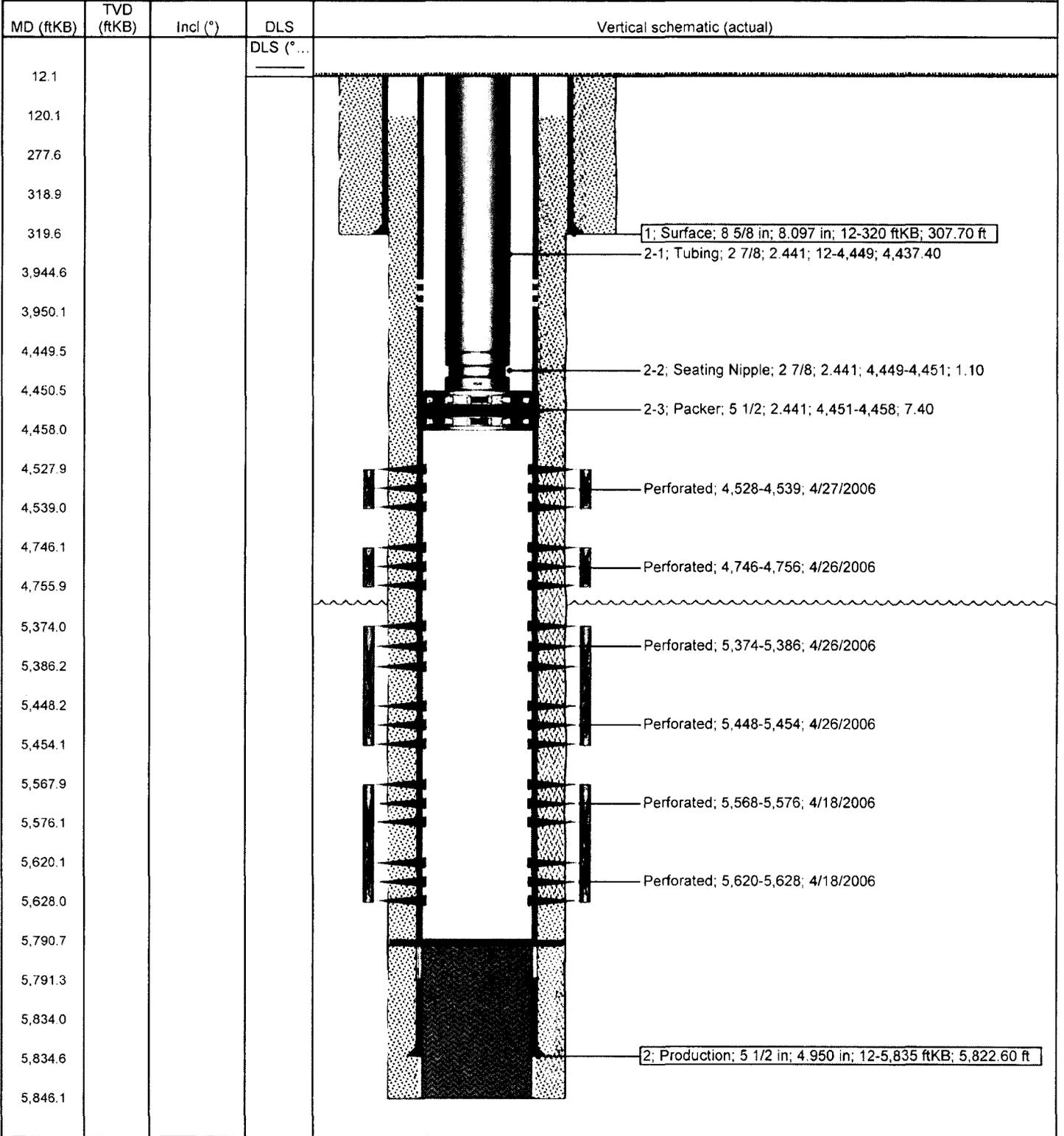
43-047-36345

**Well Name: Federal 9-8-9-18**

|                                     |                              |                                |                                     |                                |                              |                        |  |                  |
|-------------------------------------|------------------------------|--------------------------------|-------------------------------------|--------------------------------|------------------------------|------------------------|--|------------------|
| Surface Legal Location<br>08-9S-18E |                              |                                | API/UWI<br>43047363450000           | Well RC<br>500160487           | Lease                        | State/Province<br>Utah | Field Name<br>GMBU CTB10                     | County<br>Uintah |
| Spud Date<br>3/21/2006              | Rig Release Date<br>4/6/2006 | On Production Date<br>5/4/2006 | Original KB Elevation (ft)<br>5,023 | Ground Elevation (ft)<br>5,011 | Total Depth All (TVD) (ftKB) |                        | PBTD (All) (ftKB)<br>Original Hole - 5,790.7 |                  |

|                         |                  |                           |                             |                           |
|-------------------------|------------------|---------------------------|-----------------------------|---------------------------|
| <b>Most Recent Job</b>  |                  |                           |                             |                           |
| Job Category<br>Testing | Primary Job Type | Secondary Job Type<br>N/A | Job Start Date<br>7/23/2012 | Job End Date<br>7/23/2012 |

**TD: 5,846.0** Vertical - Original Hole, 3/30/2016 12:13:57 PM





## Newfield Wellbore Diagram Data Federal 9-8-9-18

|                                     |  |                                |  |  |  |
|-------------------------------------|--|--------------------------------|--|--|--|
| Surface Legal Location<br>08-9S-18E |  | API/UWI<br>43047363450000      |  | Lease  |  |
| County<br>Uintah                    |  | State/Province<br>Utah         |  | Basin  |  |
| Well Start Date<br>3/21/2006        |  | Spud Date<br>3/21/2006         |  | Final Rig Release Date<br>4/6/2006           |  |
| Original KB Elevation (ft)<br>5,023 |  | Ground Elevation (ft)<br>5,011 |  | Total Depth (ftKB)<br>5,846.0                |  |
|                                     |  |                                |  | Total Depth All (TVD) (ftKB)                 |  |
|                                     |  |                                |  | PBTD (All) (ftKB)<br>Original Hole - 5,790.7 |  |

### Casing Strings

| Csg Des    | Run Date  | OD (in) | ID (in) | Wt/Len (lb/ft) | Grade | Set Depth (ftKB) |
|------------|-----------|---------|---------|----------------|-------|------------------|
| Surface    | 3/21/2006 | 8 5/8   | 8.097   | 24.00          | J-55  | 320              |
| Production | 4/5/2006  | 5 1/2   | 4.950   | 15.50          | J-55  | 5,835            |

### Cement

#### String: Surface, 320ftKB 3/23/2006

|  |  |                          |                              |              |                              |
|--|--|--------------------------|------------------------------|--------------|------------------------------|
| Cementing Company<br>BJ Services Company   |  | Top Depth (ftKB)<br>12.0 | Bottom Depth (ftKB)<br>319.7 | Full Return? | Vol Cement Ret (bb)          |
| Fluid Description<br>Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield |  | Fluid Type<br>Lead       | Amount (sacks)<br>160        | Class<br>G   | Estimated Top (ftKB)<br>12.0 |

#### String: Production, 5,835ftKB 4/6/2006

|  |  |                           |                                |                    |                                 |
|--|--|---------------------------|--------------------------------|--------------------|---------------------------------|
| Cementing Company<br>BJ Services Company   |  | Top Depth (ftKB)<br>120.0 | Bottom Depth (ftKB)<br>5,846.0 | Full Return?       | Vol Cement Ret (bb)             |
| Fluid Description<br>Premite II w/ 10% gel + 3% KCL, 3#'s/sk CSE + 2# sk/kolseal + 1/2#'s/sk Cello Flake           |  | Fluid Type<br>Lead        | Amount (sacks)<br>300          | Class<br>PL II     | Estimated Top (ftKB)<br>120.0   |
| Fluid Description<br>50/50 poz W/ 2% Gel + 3% KCL, .5%EC1, 1/4# sk C.F. 2% gel. 3% SM mixed @ 14.4 ppg W/ 1.24 YLD |  | Fluid Type<br>Tail        | Amount (sacks)<br>450          | Class<br>50/50 Poz | Estimated Top (ftKB)<br>4,000.0 |

### Tubing Strings

| Tubing Description<br>Tubing |     | Run Date<br>8/30/2007 | Set Depth (ftKB)<br>4,457.9 |            |       |          |            |            |
|------------------------------|-----|-----------------------|-----------------------------|------------|-------|----------|------------|------------|
| Item Des                     | Jts | OD (in)               | ID (in)                     | Wt (lb/ft) | Grade | Len (ft) | Top (ftKB) | Btm (ftKB) |
| Tubing                       | 136 | 2 7/8                 | 2.441                       | 6.50       | J-55  | 4,437.40 | 12.0       | 4,449.4    |
| Seating Nipple               |     | 2 7/8                 | 2.441                       |            |       | 1.10     | 4,449.4    | 4,450.5    |
| Packer                       |     | 5 1/2                 | 2.441                       |            |       | 7.40     | 4,450.5    | 4,457.9    |

### Rod Strings

| Rod Description |     | Run Date | Set Depth (ftKB) |       |          |            |            |
|-----------------|-----|----------|------------------|-------|----------|------------|------------|
| Item Des        | Jts | OD (in)  | Wt (lb/ft)       | Grade | Len (ft) | Top (ftKB) | Btm (ftKB) |

### Perforation Intervals

| Stage# | Zone               | Top (ftKB) | Btm (ftKB) | Shot Dens (shots/ft) | Phasing (°) | Nom Hole Dia (in) | Date      |
|--------|--------------------|------------|------------|----------------------|-------------|-------------------|-----------|
| 4      | DS3, Original Hole | 4,528      | 4,539      | 4                    | 90          |                   | 4/27/2006 |
| 3      | D3, Original Hole  | 4,746      | 4,756      | 4                    | 90          |                   | 4/26/2006 |
| 2      | CP1, Original Hole | 5,374      | 5,386      | 4                    | 90          |                   | 4/26/2006 |
| 2      | CP2, Original Hole | 5,448      | 5,454      | 4                    | 90          |                   | 4/26/2006 |
| 1      | CP4, Original Hole | 5,568      | 5,576      | 4                    | 120         |                   | 4/18/2006 |
| 1      | CP5, Original Hole | 5,620      | 5,628      | 4                    | 120         |                   | 4/18/2006 |

### Stimulations & Treatments

| Stage# | ISIP (psi) | Frac Gradient (psi/ft) | Max Rate (bbl/min) | Max PSI (psi) | Total Clean Vol (bbl) | Total Slurry Vol (bbl) | Vol Recov (bbl) |
|--------|------------|------------------------|--------------------|---------------|-----------------------|------------------------|-----------------|
| 1      | 1,230      | 0.65                   | 24.9               | 1,750         |                       |                        |                 |
| 2      | 1,680      | 0.74                   | 24.9               | 1,765         |                       |                        |                 |
| 3      | 2,080      | 0.87                   | 14.6               | 2,010         |                       |                        |                 |
| 4      | 2,430      | 0.97                   | 14.4               | 2,240         |                       |                        |                 |

### Proppant

| Stage# | Total Prop Vol Pumped (lb) | Total Add Amount             |
|--------|----------------------------|------------------------------|
| 1      |                            | Proppant Bulk Sand 50377 lbs |
| 2      |                            | Proppant Bulk Sand 60577 lbs |
| 3      |                            | Proppant Bulk Sand 19156 lbs |
| 4      |                            | Proppant Bulk Sand 30547 lbs |