

**NEWFIELD**



May 31, 2006

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 1-19-9-17, 2-19-9-17, 3-19-9-17, 5-19-9-17, 6-19-9-17, 7-19-9-17, 8-19-9-17, 10-19-9-17, 11-19-9-17, 12-19-9-17, 13-19-9-17, 14-19-9-17, 15-19-9-17, and 16-19-9-17.

Dear Diana:

Enclosed find APD's on the above referenced wells. The proposed 3-19-9-17 and 7-19-9-17 locations are Exception Locations. Our Land Department will send you the required Exception Location Letters. If you have any questions, feel free to give either Shon Mckinnon or myself a call.

Sincerely,

Mandie Crozier  
Regulatory Specialist

mc  
enclosures

**RECEIVED**  
**MAY 31 2006**  
DIV. OF OIL, GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

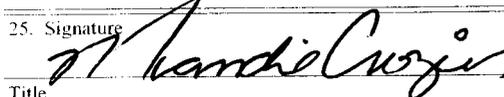
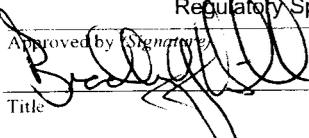
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-77369
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		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Newfield Production Company		7. If Unit or CA Agreement, Name and No. N/A
3a. Address Route #3 Box 3630, Myton UT 84052		8. Lease Name and Well No. Federal 11-19-9-17
3b. Phone No. (include area code) (435) 646-3721		9. API Well No. 43-013-33196
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NE/SW 2002' FSL 1865' FWL 40.014655 - 110.050953 At proposed prod. zone 580996 X 4429605 Y		10. Field and Pool, or Exploratory Monument Butte
14. Distance in miles and direction from nearest town or post office* Approximatley 17.8 miles south of Myton, Utah		11. Sec., T., R., M., or Blk. and Survey or Area NE/SW Sec. 19, T9S R17E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1865' f/lse, NA' f/unit	16. No. of Acres in lease 1189.60	12. County or Parish Duchesne
17. Spacing Unit dedicated to this well 40 Acres	13. State UT	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1231'	19. Proposed Depth 5800'	20. BLM/BLA Bond No. on file UTB000192
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5543' GL	22. Approximate date work will start* 4th Quarter 2006	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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Mandie Crozier	Date 5/31/06
Title Regulatory Specialist		
Approved by (Signature) 	Name (Printed/Typed) BRADLEY G. HILL	Date 06-07-06
Title OFFICE ENVIRONMENTAL MANAGER		

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**

RECEIVED  
MAY 31 2006

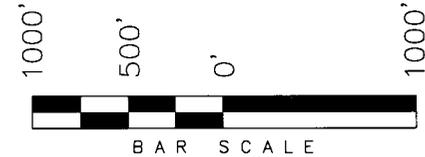
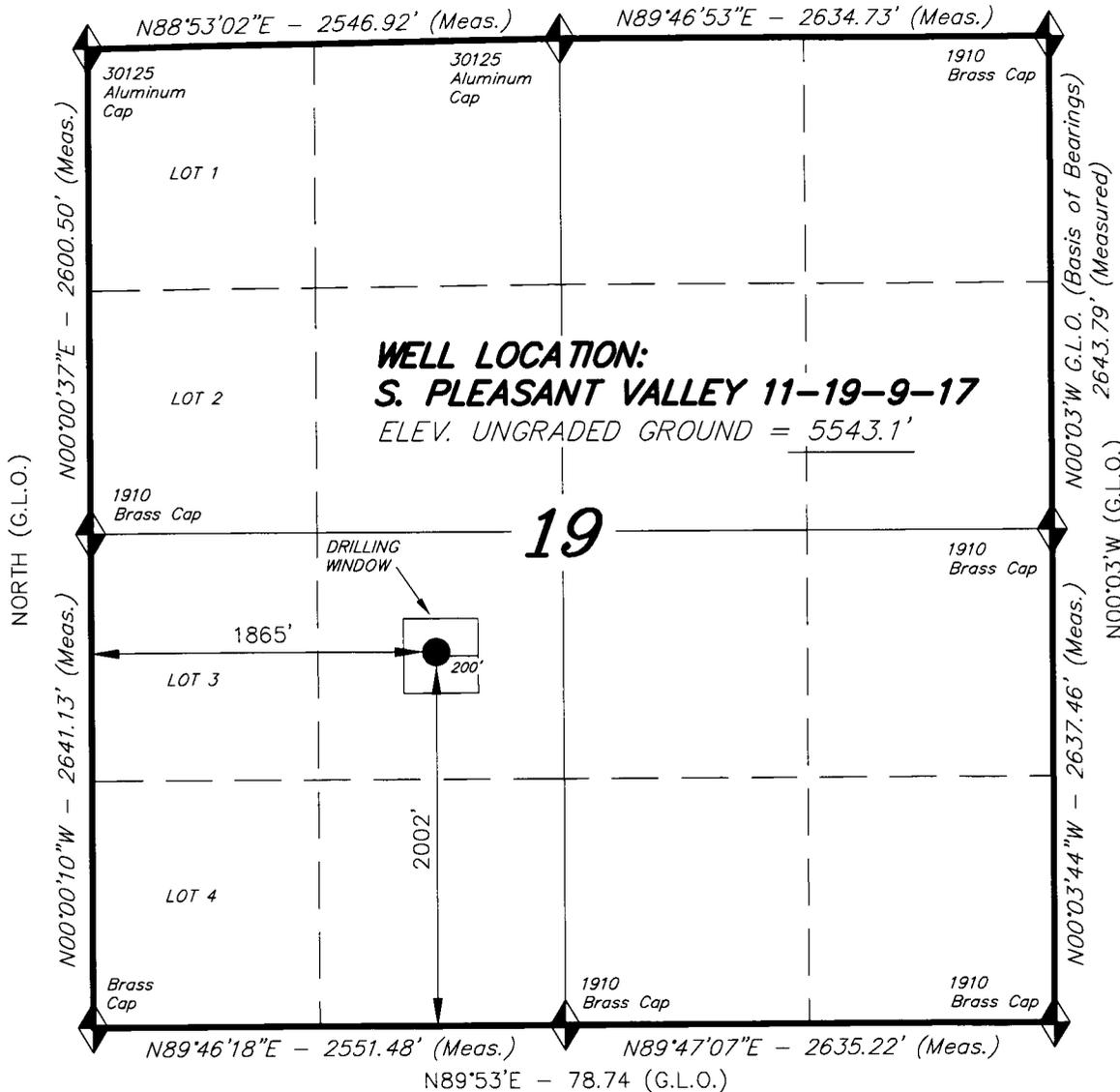
DIV. OF OIL, GAS & MINING

# T9S, R17E, S.L.B.&M.

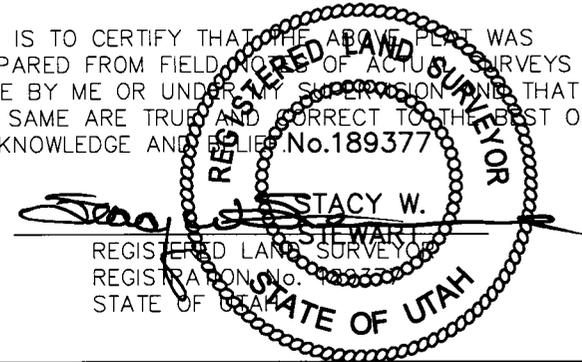
N89°51'E - 78.66 (G.L.O.)

## NEWFIELD PRODUCTION COMPANY

WELL LOCATION, S. PLEASANT VALLEY  
11-19-9-17, LOCATED AS SHOWN IN THE  
NE 1/4 SW 1/4 OF SECTION 19, T9S,  
R17E, S.L.B.&M. DUCHESNE COUNTY, UTAH.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. No.189377



◆ = SECTION CORNERS LOCATED

BASIS OF ELEV;  
U.S.G.S. 7-1/2 min QUAD (MYTON SE)

**S. PLEASANT VALLEY 11-19-9-17**  
**(Surface Location) NAD 83**  
LATITUDE = 40° 00' 52.66"  
LONGITUDE = 110° 03' 06.06"

**TRI STATE LAND SURVEYING & CONSULTING**  
180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 04-21-06	SURVEYED BY: D.P.
DATE DRAWN: 04-25-06	DRAWN BY: F.T.M.
REVISED:	SCALE: 1" = 1000'

**NEWFIELD PRODUCTION COMPANY  
FEDERAL #11-19-9-17  
NE/SW SECTION 19, T9S, R17E  
DUCHESNE 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' – 2500'
Green River	2500'
Wasatch	5800'

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

Green River Formation 2500' – 5800' - 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 1800 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 #11-19-9-17  
NE/SW SECTION 19, T9S, R17E  
DUCHESNE 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 #11-19-9-17 located in the NE 1/4 SW 1/4 Section 19, T9S, R17E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.6 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southeasterly along Hwy 53 - 11.7 miles  $\pm$  to it's junction with an existing dirt road to the southwest; proceed southwesterly - 3.8 miles  $\pm$  to it's junction with an existing two track road to be upgraded; proceed northeasterly along this existing two track road - 250'  $\pm$  to it's junction with the beginning of the proposed access road; proceed southwesterly and then southeasterly along the proposed access road - 0.6 miles  $\pm$  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**

All permanent surface equipment will be painted Carlsbad Canyon. 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 (Proposed location and access roads leading to).

12. **OTHER ADDITIONAL INFORMATION**

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. MOAC Report #04-206, 6/15/05. Paleontological Resource Survey prepared by, Wade E. Miller, 4/26/06. See attached report cover pages, Exhibit "D".

For the Federal #11-19-9-17 Newfield Production Company requests 3470' of disturbed area be granted in Lease UTU-77369 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 8280' of disturbed area be granted in Lease UTU-77369 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 9100' of disturbed area be granted in Lease UTU-77369 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 buried 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**

A 12 mil liner with felt is required. 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)

Western Wheatgrass	<i>Pascopyrum Smithii</i>	6 lbs/acre
Galletta Grass	<i>Hilaria Jamesii</i>	6 lbs/acre

**Details of the On-Site Inspection**

The proposed Federal #11-19-9-17 was on-sited on 4/27/06. The following were present; Shon Mckinnon (Newfeild Production), Chris Carusona (Bureau of Land Management), and Brandon McDonald (Bureau of Landmanagement). Weather conditions were clear and ground cover was 100% open.

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

Representative

Name: Shon Mckinnon  
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 #11-19-9-17 NE/SW Section 19, Township 9S, Range 17E: Lease UTU-77369 Duchesne 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 US Specialty Insurance #B001832.

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.

5/31/06

Date



Mandie Crozier

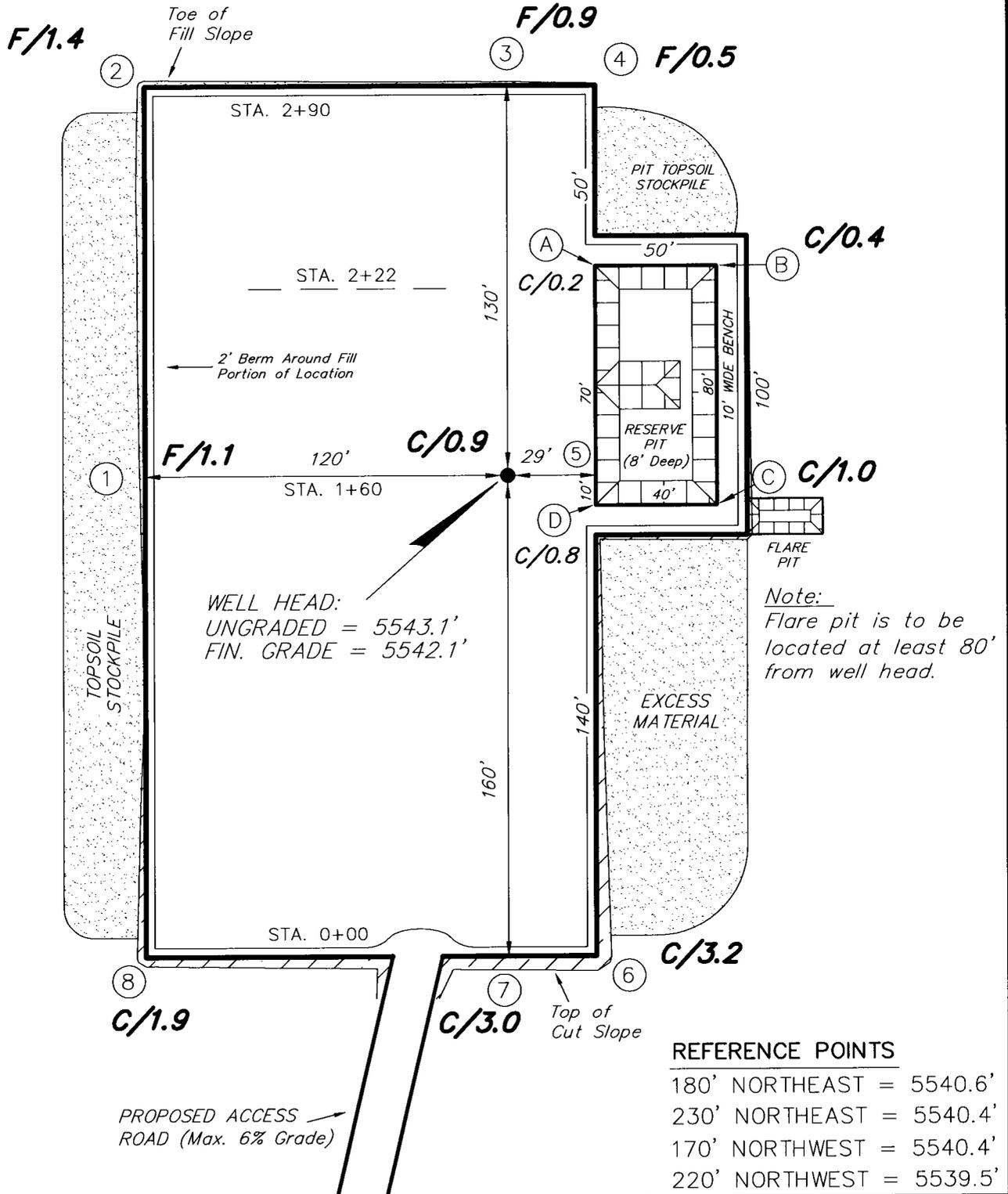
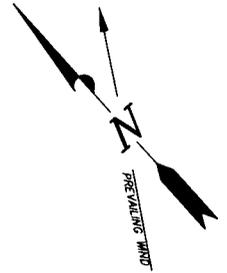
Regulatory Specialist

Newfield Production Company

# NEWFIELD PRODUCTION COMPANY

S. PLEASANT VALLEY 11-19-9-17

Section 19, T9S, R17E, S.L.B.&M.

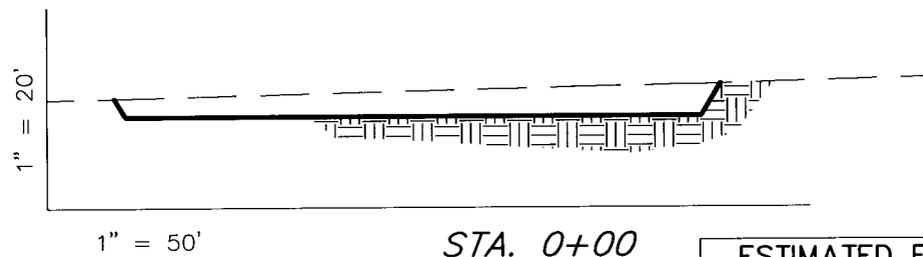
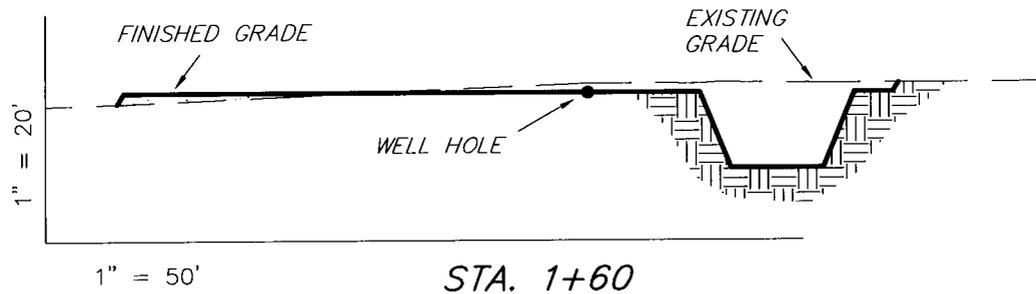
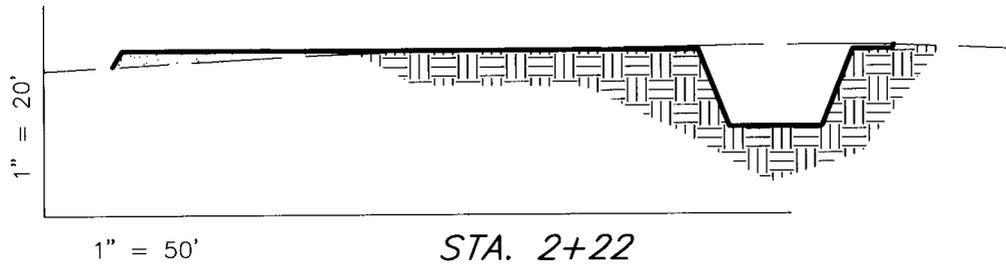
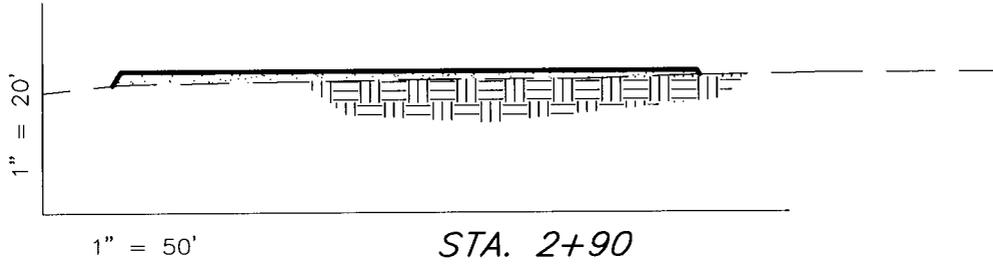


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DRAWN BY: F.T.M.	DATE: 04-27-06

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

**NEW FIELD PRODUCTION COMPANY**  
**CROSS SECTIONS**

**S. PLEASANT VALLEY 11-19-9-17**



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

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

ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	800	800	Topsoil is not included in Pad Cut	0
PIT	640	0		640
<b>TOTALS</b>	<b>1,440</b>	<b>800</b>	<b>930</b>	<b>640</b>

SURVEYED BY: D.P.

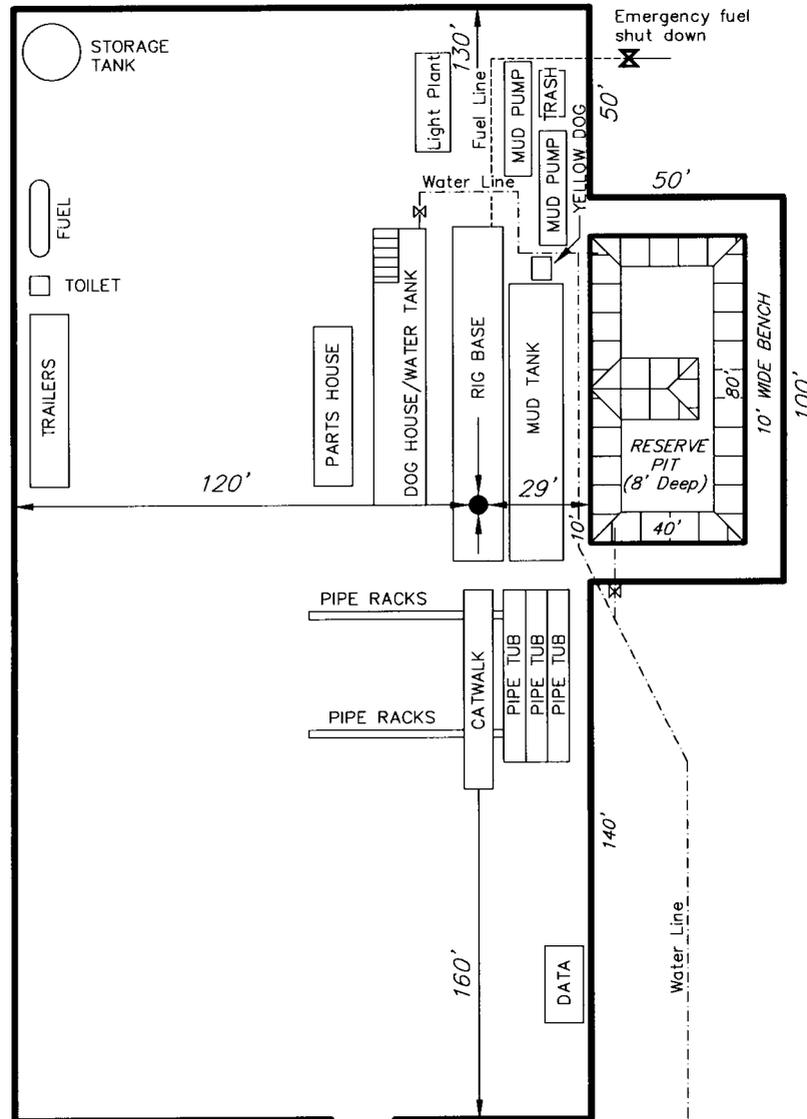
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DATE: 04-27-06

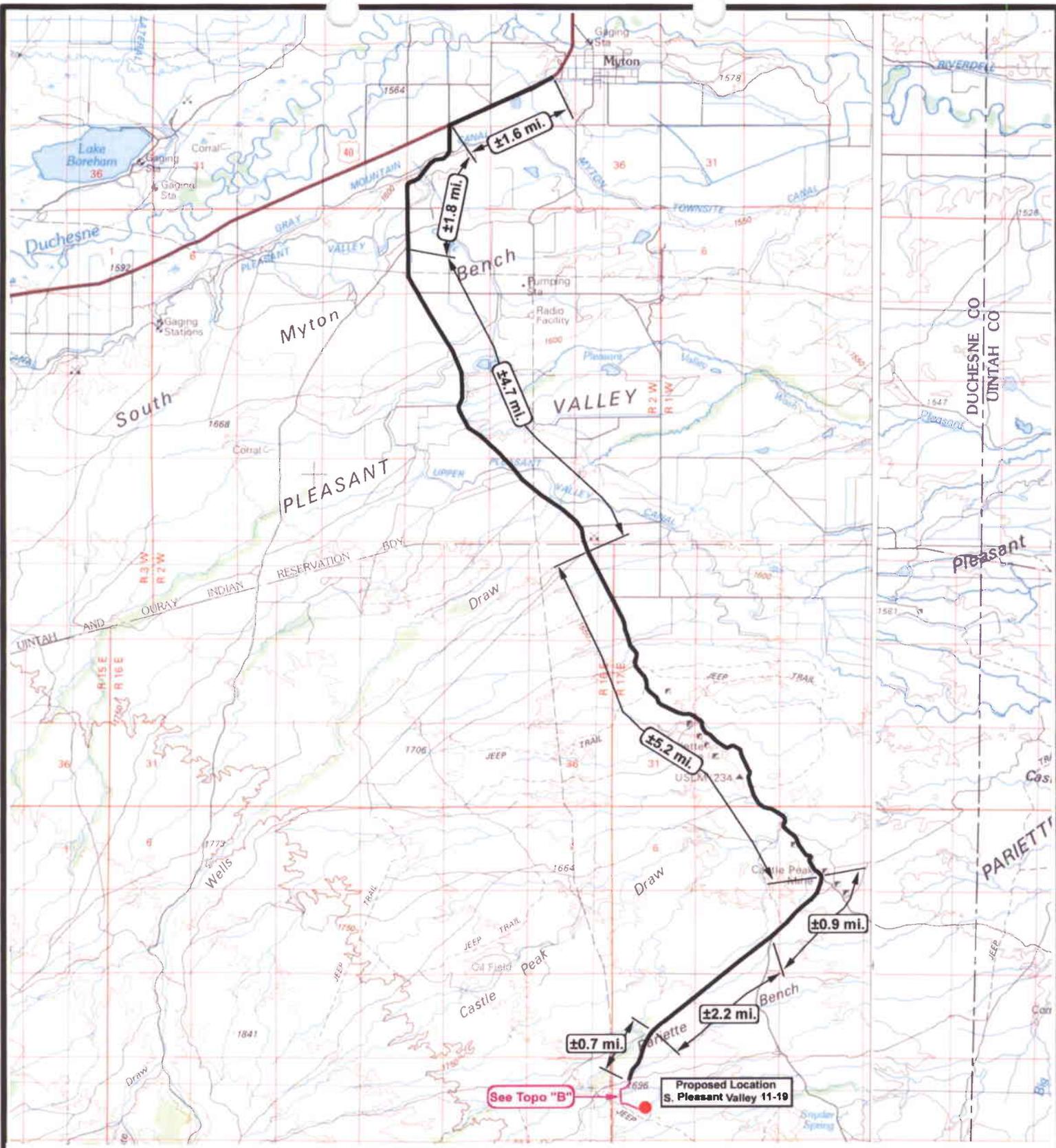
**Tri State** (435) 781-2501  
**Land Surveying, Inc.**  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

**NEWFIELD PRODUCTION COMPANY**  
**TYPICAL RIG LAYOUT**  
**S. PLEASANT VALLEY 11-19-9-17**



SURVEYED BY: D.P.	SCALE: 1" = 50'
DRAWN BY: F.T.M.	DATE: 04-27-06

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




  
**NEWFIELD**  
 Exploration Company

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**S. Pleasant Valley 11-19-9-17**  
**SEC. 19, T9S, R17E, S.L.B.&M.**




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

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SCALE: 1 = 100,000  
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 DATE: 05-05-2006

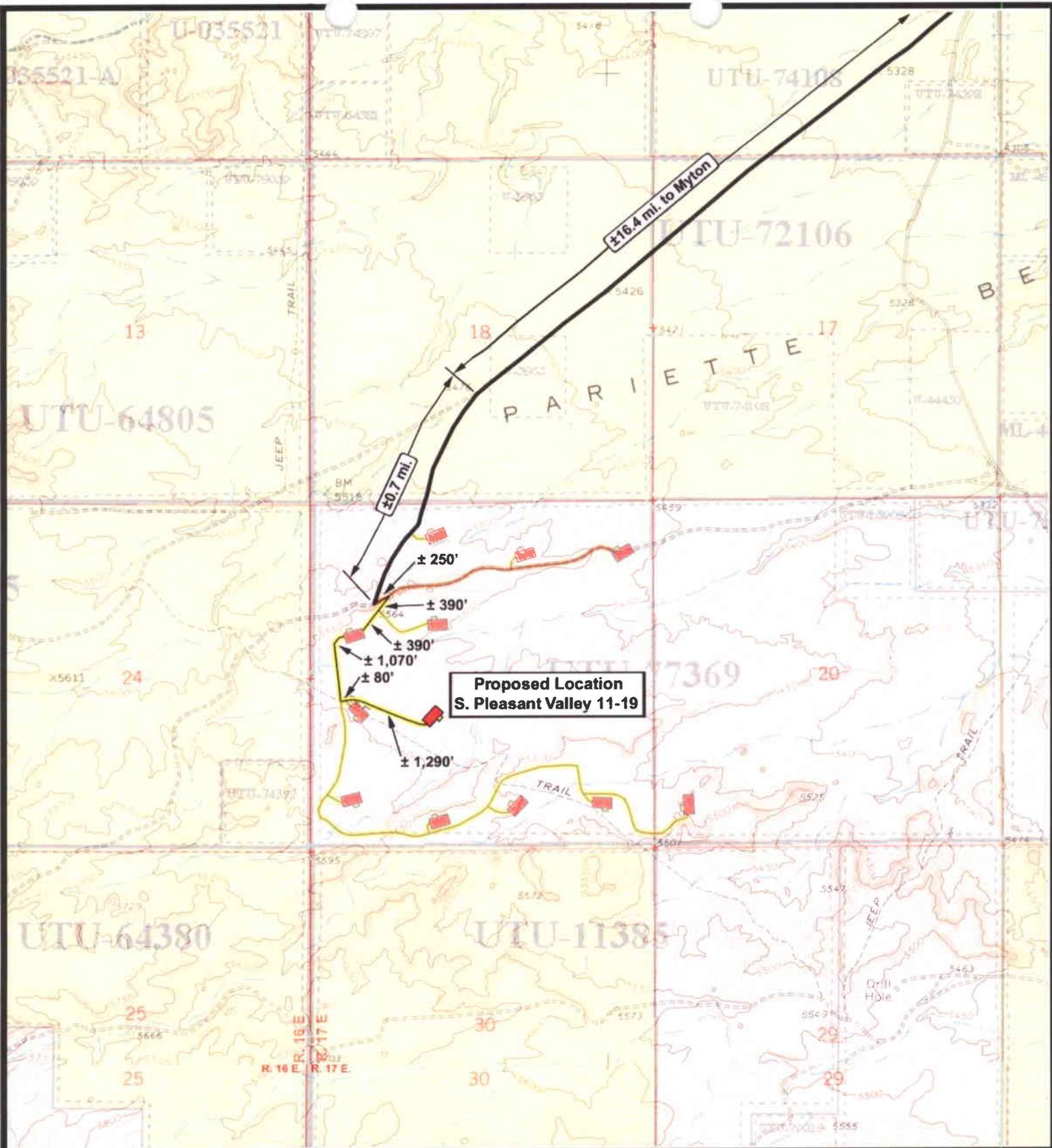
**Legend**

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-  Existing Road
-  Proposed Access

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**TOPOGRAPHIC MAP**  
"A"



**Proposed Location  
S. Pleasant Valley 11-19**

  
**NEWFIELD**  
 Exploration Company

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**S. Pleasant Valley 11-19-9-17  
 SEC. 19, T9S, R17E, S.L.B.&M.**



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

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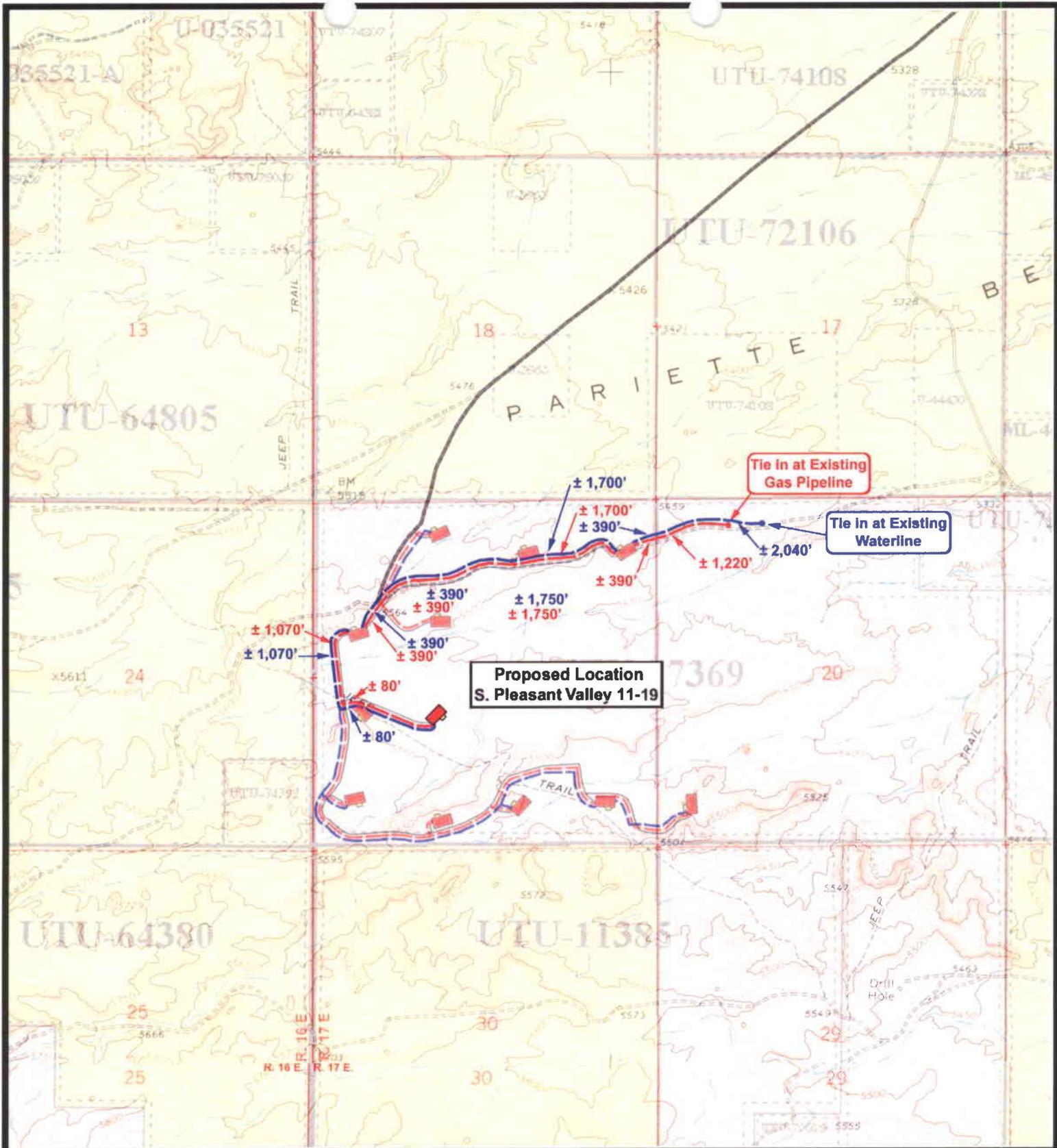
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 DATE: 05-05-2006

**Legend**

-  Existing Road
-  Proposed Access
-  Existing Two-Track

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**TOPOGRAPHIC MAP**  
**"B"**



**Proposed Location  
S. Pleasant Valley 11-19**

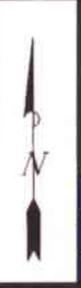
**Tie In at Existing  
Gas Pipeline**

**Tie In at Existing  
Waterline**



**NEWFIELD**  
Exploration Company

**S. Pleasant Valley 11-19-9-17  
SEC. 19, T9S, R17E, S.L.B.&M.**




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

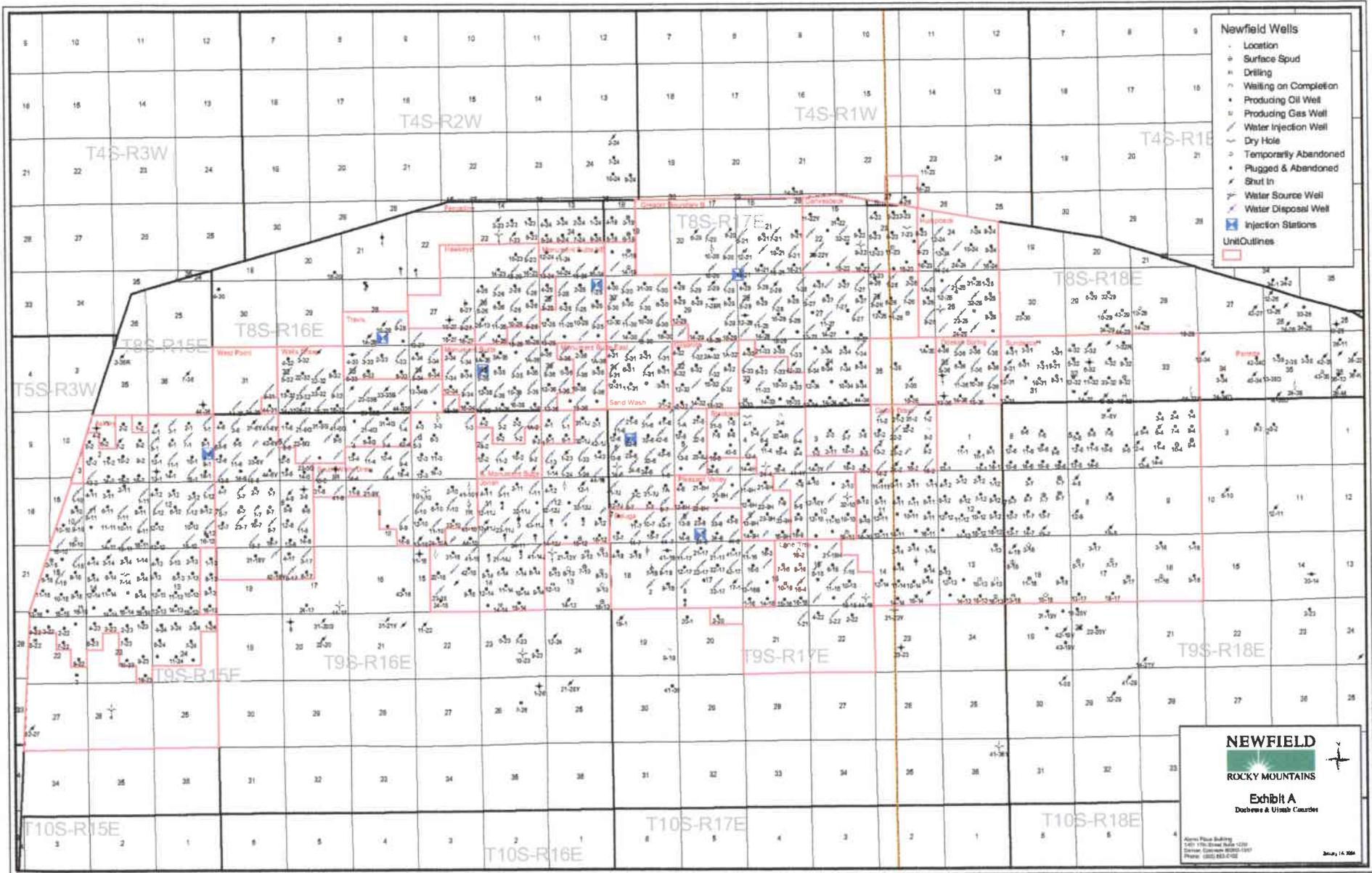
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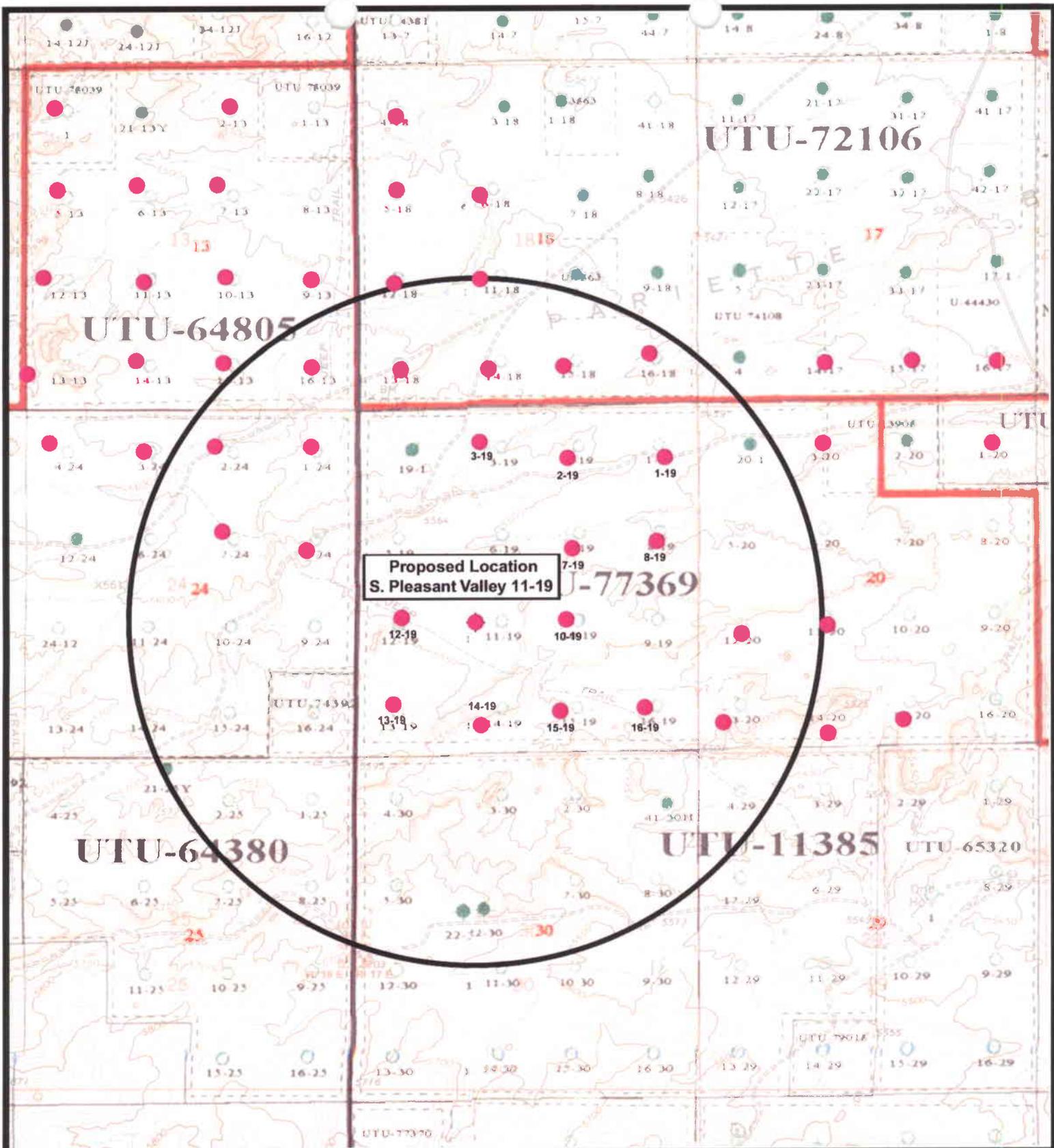
**Legend**

-  Roads
-  Proposed Gas Line
-  Proposed Water Line

**TOPOGRAPHIC MAP**

**"C"**





 **NEWFIELD**  
Exploration Company

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**S. Pleasant Valley 11-19-9-17**  
**SEC. 19, T9S, R17E, S.L.B.&M.**



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

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SCALE: 1" = 2,000'  
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DATE: 05-04-2006

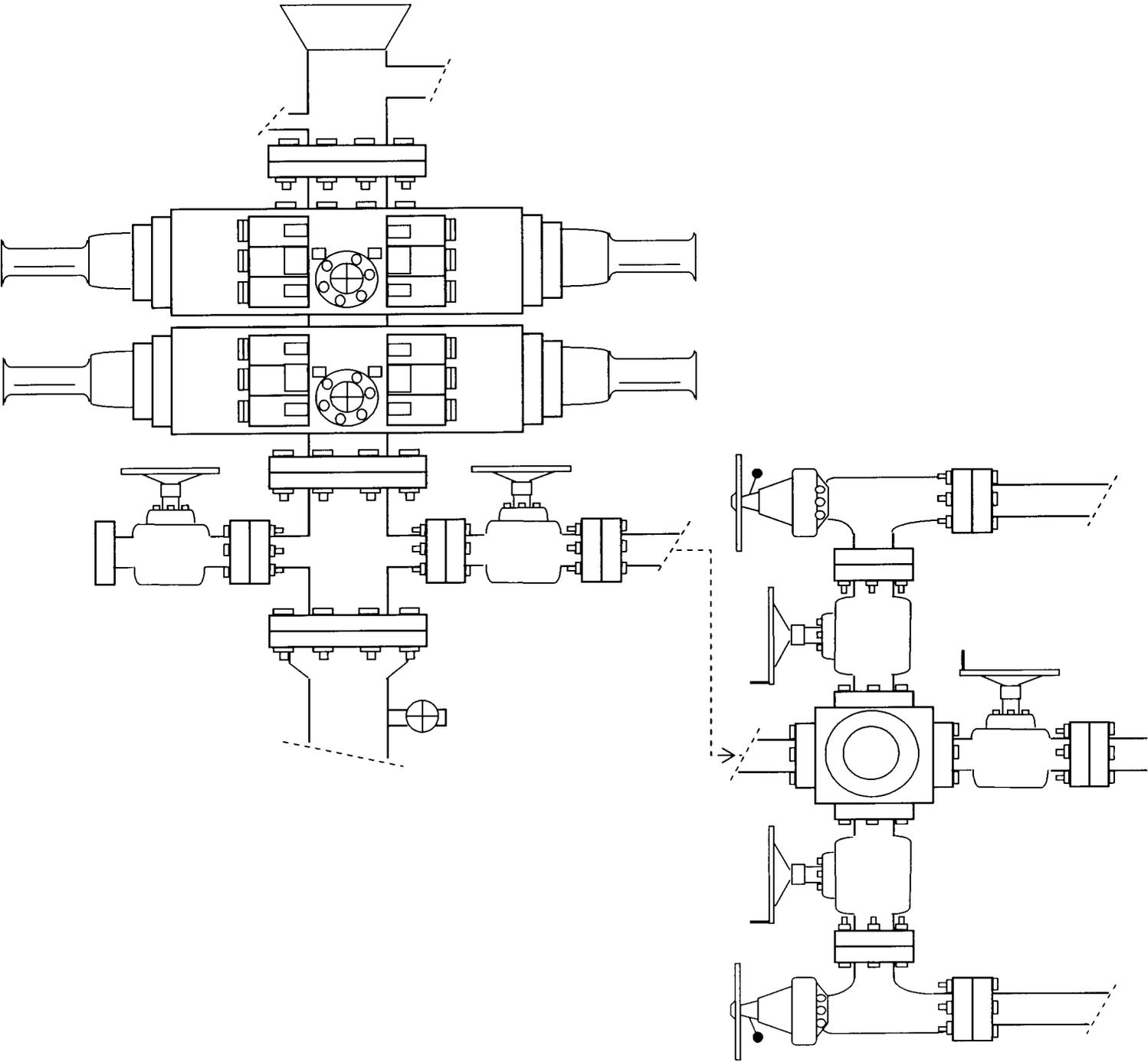
**Legend**

- Location
- One-Mile Radius

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**Exhibit "B"**

**2-M SYSTEM**  
Blowout Prevention Equipment Systems



**EXHIBIT C**

Exhibit "D"  
Page 1 of 2

CULTURAL RESOURCE INVENTORY OF  
NEWFIELD EXPLORATION'S BLOCK PARCELS  
IN T9S, R17E, SEC. 19, 20, 21 & 22  
DUCHESNE COUNTY, UTAH

Katie Simon

Prepared For:

Bureau of Land Management  
Vernal Field Office

Prepared Under Contract With:

Newfield Exploration Company  
Route 3 Box 3630  
Myton, Utah 84052

Prepared By:

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

MOAC Report No. 04-206

June 15, 2005

United States Department of Interior (FLPMA)  
Permit No. 05-UT-60122

State of Utah Antiquities Project (Survey)  
Permit No. U-05-MQ-0516b

**NEWFIELD PRODUCTION COMPANY**

**PALEONTOLOGICAL SURVEY OF PROPOSED  
PRODUCTION DEVELOPMENT AREAS,  
DUCHESNE AND Uintah COUNTIES, UTAH**

NE 1/4, NW 1/4, Section 33, T 9 S, R 18 E; Section 19, T 9 S, R 17 E [entire section excluding the NW 1/4, NW 1/4]; Section 27, T 9 S, R 16 E [entire section excluding the NW 1/4, NW 1/4], Section 28, T 9 S, R 16 E [entire section]; Section 29, T 9 S, R 16 E [entire section]; Section 30, T 9 S, R 16 E [entire section].

**REPORT OF SURVEY**

Prepared for:

**Newfield Production Company**

Prepared by:

Wade E. Miller  
Consulting Paleontologist  
April 26, 2006

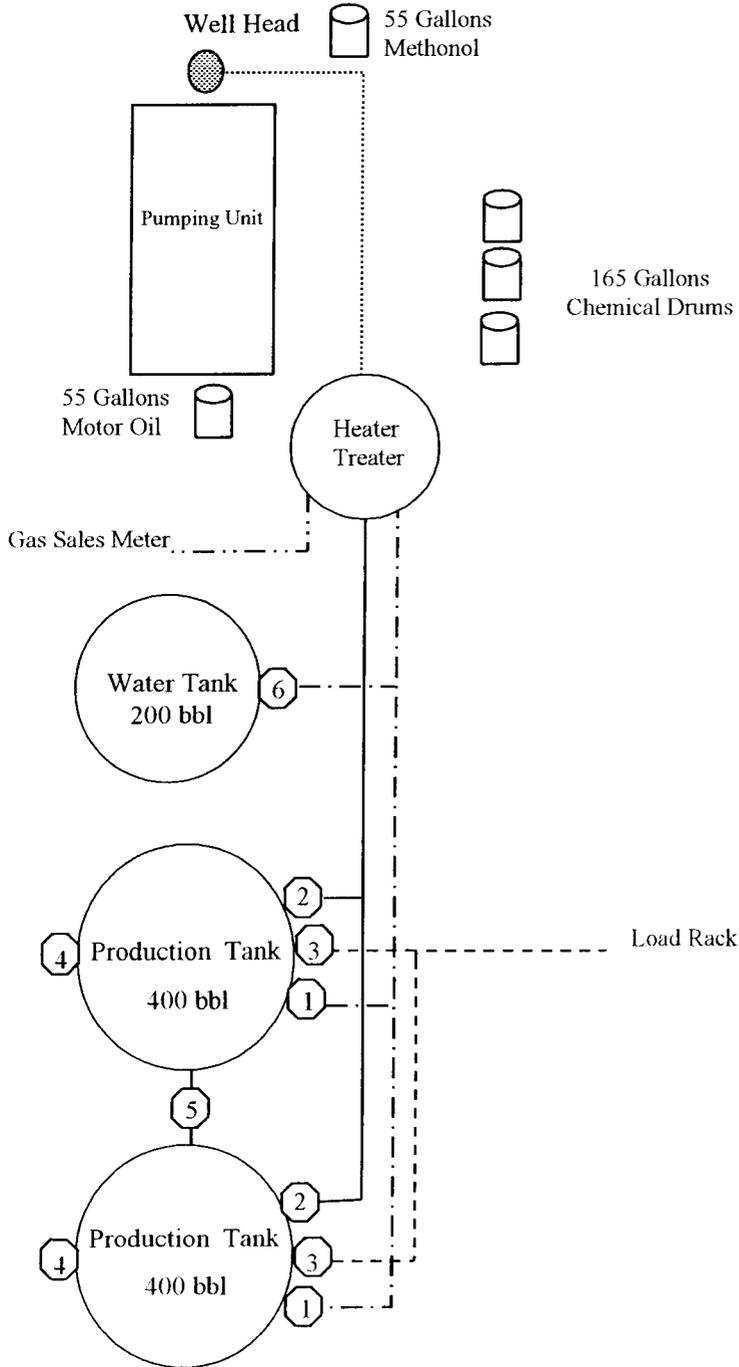
# Newfield Production Company Proposed Site Facility Diagram

Federal 11-19-9-17

NE/SW Sec. 19, T9S, 17E

Duchesne County, Utah

UTU-77369



## Legend

Emulsion Line	.....
Load Rack	- - - - -
Water Line	- . - . - .
Gas Sales	- . - . - .
Oil Line	—————

**Production Phase:**

- 1) Valves 1, 3, and 4 sealed closed
- 2) Valves 2, 5, and 6 sealed open

**Sales Phase:**

- 1) Valves 1, 2, 4, 5, and 6 sealed closed
- 2) Valve 3 open

**Draining Phase:**

- 1) Valves 1 and 6 open

Diked Section



**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 05/31/2006

API NO. ASSIGNED: 43-013-33196
--------------------------------

WELL NAME: FEDERAL 11-19-9-17  
 OPERATOR: NEWFIELD PRODUCTION ( N2695 )  
 CONTACT: MANDIE CROZIER

PHONE NUMBER: 435-646-3721

PROPOSED LOCATION:

NESW 19 090S 170E  
 SURFACE: 2002 FSL 1865 FWL  
 BOTTOM: 2002 FSL 1865 FWL  
 COUNTY: DUCHESNE  
 LATITUDE: 40.01466 LONGITUDE: -110.0510  
 UTM SURF EASTINGS: 580996 NORTHINGS: 4429605  
 FIELD NAME: MONUMENT BUTTE ( 105 )

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

LEASE TYPE: 1 - Federal  
 LEASE NUMBER: UTU-77369  
 SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: GRRV  
 COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

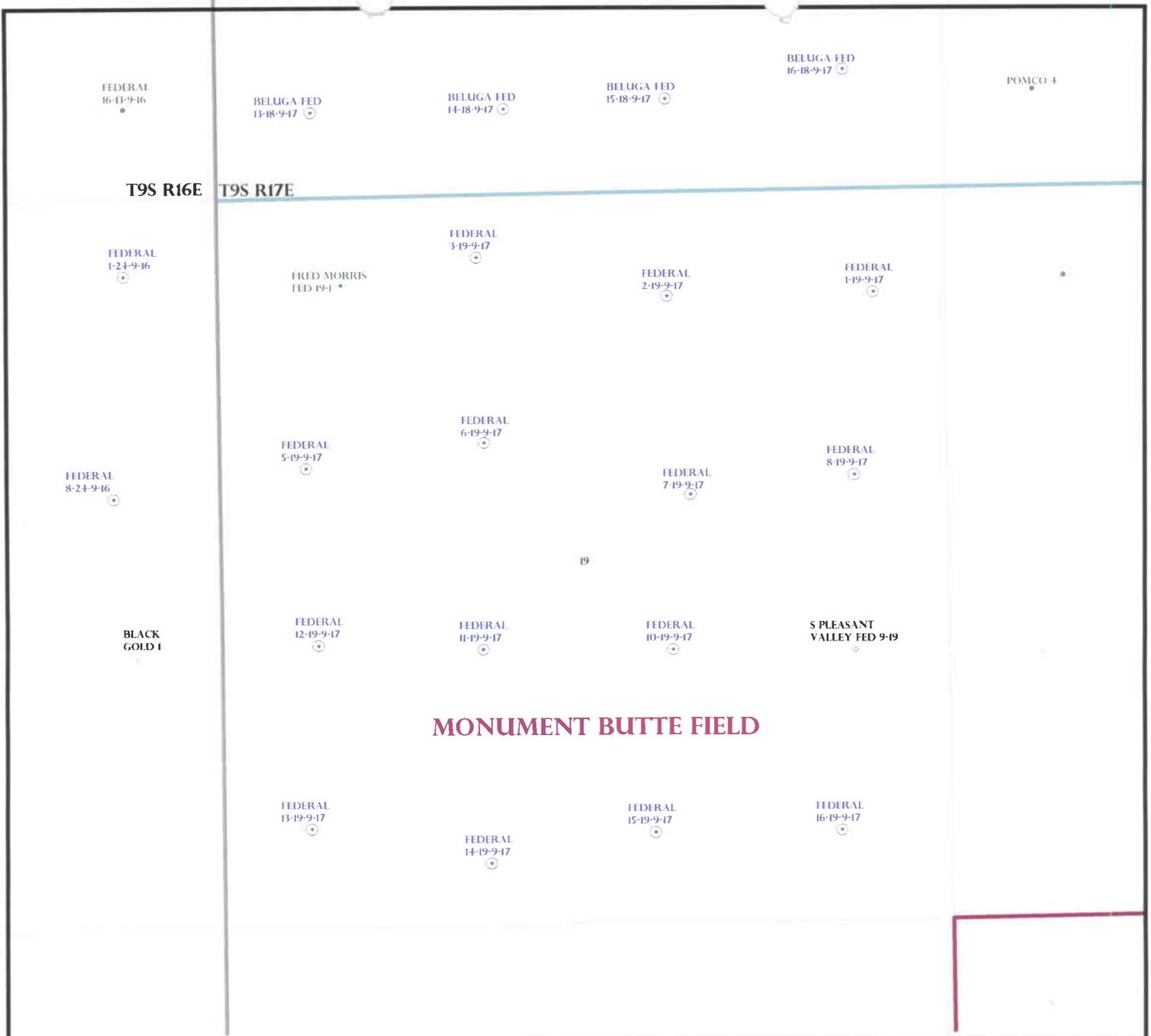
- Plat
- Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. UTB000192 )
- Potash (Y/N)
- Oil Shale 190-5 (B) or 190-3 or 190-13
- Water Permit  
(No. MUNICIPAL )
- RDCC Review (Y/N)  
(Date: \_\_\_\_\_ )
- Fee Surf Agreement (Y/N)
- Intent to Commingle (Y/N)

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: See Separate file

STIPULATIONS: 1- Federal Approval  
2- Spacing Stip



OPERATOR: NEWFIELD PROD CO (N2695)

SEC: 19 T. 9S R. 17E

FIELD: MONUMENT BUTTE (105)

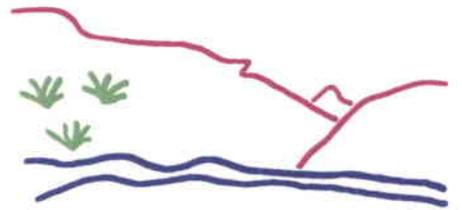
COUNTY: DUCHESNE

SPACING: R649-3-2 / GENERAL SITING

- Field Status**
- ABANDONED
  - ACTIVE
  - COMBINED
  - INACTIVE
  - PROPOSED
  - STORAGE
  - TERMINATED

- Unit Status**
- EXPLORATORY
  - GAS STORAGE
  - NF PP OIL
  - NF SECONDARY
  - PENDING
  - PI OIL
  - PP GAS
  - PP GEOTHERML
  - PP OIL
  - SECONDARY
  - TERMINATED

- Wells Status**
- GAS INJECTION
  - GAS STORAGE
  - LOCATION ABANDONED
  - NEW LOCATION
  - PLUGGED & ABANDONED
  - PRODUCING GAS
  - PRODUCING OIL
  - SHUT-IN GAS
  - SHUT-IN OIL
  - TEMP. ABANDONED
  - TEST WELL
  - WATER INJECTION
  - WATER SUPPLY
  - WATER DISPOSAL
  - DRILLING



*Utah Oil Gas and Mining*



PREPARED BY: DIANA WHITNEY  
DATE: 6-JUNE-2006



**State of Utah**

**Department of  
Natural Resources**

MICHAEL R. STYLER  
*Executive Director*

**Division of  
Oil, Gas & Mining**

JOHN R. BAZA  
*Division Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

June 7, 2006

Newfield Production Company  
Route 3, Box 3630  
Myton, UT 84052

Re: Federal 11-19-9-17 Well, 2002' FSL, 1865' FWL, NE SW, Sec. 19, T. 9 South,  
R. 17 East, Duchesne 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 43-013-33196.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

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

**Operator:** Newfield Production Company

**Well Name & Number** Federal 11-19-9-17

**API Number:** 43-013-33196

**Lease:** UTU-77369

**Location:** NE SW                      **Sec.** 19                      **T.** 9 South                      **R.** 17 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**

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

JUN 01 2006

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No. UTU-77369
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 11-19-9-17
9. API Well No. 43-013-33196
10. Field and Pool, or Exploratory Monument Butte
11. Sec., T., R., M., or Blk. and Survey or Area NE/SW Sec. 19, T9S R17E
12. County or Parish Duchesne
13. State UT

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	
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	
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/SW 2002' FSL 1865' FWL At proposed prod. zone	
14. Distance in miles and direction from nearest town or post office* Approximatley 17.8 miles south of Myton, Utah	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1865' //lse, NA' //unit	16. No. of Acres in lease 1189.60
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. 1231'	19. Proposed Depth 5800'
20. BLM/BIA Bond No. on file UTB000192	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5543' GL	22. Approximate date work will start* 4th Quarter 2006
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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Mandie Crozier</i>	Name (Printed/Typed) Mandie Crozier	Date 5/31/06
Title Regulatory Specialist		

Approved by (Signature) <i>Jerry Kenczka</i>	Name (Printed/Typed) JERRY KENCZKA	Date 2-15-2007
Title Assistant Field Manager Land's & Mineral Resources		

Application approval does not warrant or certify that the applicant holds title or control of the rights in the subject land, which may be used 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)

**CONDITIONS OF APPROVAL ATTACHED**

**NOTICE OF APPROVAL**

**RECEIVED**  
**FEB 22 2007**  
DIV. OF OIL, GAS & MINING

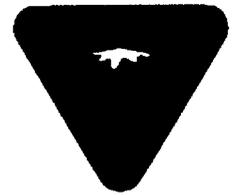


07BM4858A



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 Company      **Location:** NESW, Sec 19, T9S, R17E  
**Well No:** Federal 11-19-9-17      **Lease No:** UTU-77369  
**API No:** 43-013-33196      **Agreement:** N/A

Petroleum Engineer:	Ryan Angus	Office: 435-781-4430	Cell: 435-828-
Petroleum Engineer:	James Ashley	Office: 435-781-4470	Cell: 435-828-7874
Petroleum Engineer:	Matt Baker	Office: 435-781-4490	Cell: 435-828-4470
Petroleum Engineer:	Michael Lee	Office: 435-781-4432	
Supervisory Petroleum Technician:	Jamie Sparger	Office: 435-781-4502	Cell: 435-828-3913
NRS/Environmental Scientist:	Scott Ackerman	Office: 435-781-4437	
NRS/Environmental Scientist:	Paul Buhler	Office: 435-781-4475	Cell: 435-828-4029
NRS/Environmental Scientist:	Jannice Cutler	Office: 435-781-3400	
NRS/Environmental Scientist:	Michael Cutler	Office: 435-781-3401	
NRS/Environmental Scientist:	Anna Figueroa	Office: 435-781-3407	
NRS/Environmental Scientist:	Melissa Hawk	Office: 435-781-4476	
NRS/Environmental Scientist:	Chuck Macdonald	Office: 435-781-4441	
NRS/Environmental Scientist:	Nathan Packer	Office: 435-781-3405	
NRS/Environmental Scientist:	Verlyn Pindell	Office: 435-781-3402	
NRS/Environmental Scientist:	Holly Villa	Office: 435-781-4404	
NRS/Environmental Scientist:	Darren Williams	Office: 435-781-4447	
NRS/Environmental Scientist:	Karl Wright	Office: 435-781-4484	
<b>After Hours Contact Number:</b>	<b>435-781-4513</b>	<b>Fax:</b> 435-781-4410	

**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. **This permit is approved for a one-year period. An additional year extension may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

- Location Construction (Notify NRS) - Forty-Eight (48) hours prior to construction of location and access roads.
- Location Completion (Notify NRS) - Prior to moving on the drilling rig.
- Spud Notice (Notify Petroleum Engineer) - Twenty-Four (24) hours prior to spudding the well.
- Casing String & Cementing (Notify Supervisory Petroleum Technician) - Twenty-Four (24) hours prior to running casing and cementing all casing
- BOP & Related Equipment Tests (Notify Supervisory Petroleum Technician) - Twenty-Four (24) hours prior to initiating pressure tests.
- First Production Notice (Notify Petroleum Engineer) - 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)***

**STIPULATIONS:**

1. Adhere to Executive Order 5327 of April 15, 1930, stipulations for lands in oil shale withdrawal.
2. Lands in this lease have been identified as containing Mountain Plover and Burrowing Owl habitats. Modifications to the Surface Use Plan of Operations may be required in order to protect the Mountain Plover and Burrowing Owl habitats from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
3. Timing Limitations (for construction and drilling) – **May 15 through June 15** – in order to protect Mountain Plover habitat, and – **April 1 through August 15** – to protect Burrowing Owl habitat.

**CONDITIONS OF APPROVAL:**

1. 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 August 24, 2005. If the well has not been spudded by August 24, 2010, a new environmental document will have to be prepared prior to the approval of the APD.
2. All applicable local, state, and/or federal laws, regulations, and/or statutes will be complied with.
3. Right of way (ROW) will not be required.
4. All traffic related to this action will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
5. No vehicle travel, construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support vehicles and/or construction equipment. If such equipment creates ruts in excess of three inches deep, the soil shall be deemed too wet to adequately support construction equipment.
6. The access road will be crowned and ditched. Flat-bladed roads are not allowed.
7. If additional erosion occurs during the life of this project, more culverts, low water crossings, berms, wing ditches or etc. will be needed to control the erosion.
8. Low-water crossings will be appropriately constructed to avoid sedimentation of drainage ways and other water resources.

9. Pipelines will be buried at all major drainage crossings.
10. Prevent fill and stock piles from entering drainages.
11. The reserve pit will be lined with a 12 ml or greater liner and felt prior to spudding.
12. The liner is to be cut 5 feet below ground surface or at the level of the cuttings, whichever is deeper, and the excess liner material is to be disposed of at an authorized disposal site.
13. When the reserve pit contains fluids or toxic substances, the operator must ensure animals do not ingest or become entrapped in pit fluids.
14. If paleontologic or cultural materials are uncovered during construction, the operator shall immediately stop work that might further disturb or move such materials and contact the Authorized Officer (AO) within 48 hours. A determination will be made by the AO as to necessary mitigation for the discovered paleontologic/cultural material.
15. If Uinta Basin hookless cactus or other special status plants are found, construction will cease and the AO will be notified to determine the appropriate mitigation.
16. The following seed mix (PLS formula) will be used for interim reclamation:

Western Wheatgrass ( <i>Pascopyrum smithii</i> )	6 lbs/acre
Galleta Grass ( <i>Hillaria jamesii</i> )	6 lbs/acre

Rates are set for drill seeding; double the rate if broadcasting.  
Reseeding may be required if initial seeding is not successful.

17. The operator will be responsible for treatment and control of invasive and noxious weeds.
18. The topsoil from the reserve pit shall be stripped and piled separately near the reserve pit. When the reserve pit is closed, it shall be re-contoured and the topsoil re-spread, and the area shall be seeded in the same manner as the location topsoil.
19. Once the location is plugged and abandoned, it shall be re-contoured to natural topology, topsoil shall be re-spread, and the entire location shall be seeded with a seed mix recommended by the AO (preferably of native origin). Seed application will follow all guidelines in the interim seed mix bullet statement above. If reclamation seeding shall take place using the broadcast method, the seed at a minimum will be walked into the soil with a dozer immediately after the seeding is completed.
20. The authorized officer may prohibit surface disturbing activities during severe winter conditions to minimize watershed damage. This limitation does not apply to operation and maintenance of producing wells.
21. The authorized officer may prohibit surface disturbing activities during wet or muddy conditions to minimize watershed damage. This limitation does not apply to operation and maintenance of producing wells.

22. All well facilities not regulated by OSHA will be painted Carlsbad Canyon.
23. All boulders with a length or diameter greater than 3 feet, that are found showing at the surface, will be stockpiled for use during final reclamation.
24. Notify the Authorized Officer 48 hours prior to surface disturbing activities.

### ***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. Production casing cement shall be brought up and into the surface.
2. A cement Bond Log (CBL) shall be run from the production casing shoe to the surface casing shoe. A field copy of the CBL shall be submitted to the BLM Vernal Field Office.

#### **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) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

All BOPE components shall 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 shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

BOP drills shall 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. The lessee/operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled and analyzed (a copy of the analyses to be submitted to the BLM Field Office in Vernal, Utah).

6. All oil and gas shows shall be adequately tested for commercial possibilities, reported, and protected.
7. The lessee/operator must report encounters of all non oil & gas mineral resources (such as gilsonite, tar sands, oil shale, etc.) to a geologist of the Vernal Field Office in writing within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
8. No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall 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 shall be obtained and notification given before resumption of operations.
9. Chronologic drilling progress reports shall 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 shall be approved by the BLM, Vernal Field Office. "Sundry Notices and Reports on Wells" (Form BLM 3160-5) shall 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, shall 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 shall 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.

10. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall 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, shall 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) shall be submitted only when requested by the BLM, Vernal Field Office.

A cement bond log (CBL) will be run from the production casing shoe to the surface casing shoe and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

**Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Wellogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**

11. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease shall 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.

12. Oil and gas meters shall 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 shall 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.
13. 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.
14. 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.
15. Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from Field Office Petroleum Engineers.
  16. 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, shall 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
  17. 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.
  18. 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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.  
**UTU-77369**

6. If Indian, Allottee or Tribe Name  
**NA**

7. If Unit or CA, Agreement Designation  
**N/A**

**SUBMIT IN TRIPLICATE**

1. Type of Well  
 Oil Well  Gas Well  Other

8. Well Name and No.  
**FEDERAL 11-19-9-17**

9. API Well No.  
**43-013-33196**

2. Name of Operator  
**NEWFIELD PRODUCTION COMPANY**

10. Field and Pool, or Exploratory Area  
**MONUMENT BUTTE**

3. Address and Telephone No.  
**Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721**

11. County or Parish, State

4. Location of Well (Footage, Sec., T., R., m., or Survey Description)  
**2002 FSL 1865 FWL NE/SW Section 19, T9S R17E**

**DUCHESNE COUNTY, UT.**

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

**TYPE OF SUBMISSION**

- Notice of Intent
- Subsequent Report
- Final Abandonment Notice

**TYPE OF ACTION**

- Abandonment
- Recompletion
- Plugging Back
- Casing Repair
- Altering Casing
- Other **Permit Extension**
- Change of Plans
- New Construction
- Non-Routine Fracturing
- Water Shut-Off
- Conversion to Injection
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 6/7/06 (expiration 6/7/07).

Approved by the  
Utah Division of  
Oil, Gas and Mining

**RECEIVED**  
**MAY 31 2007**

DIV. OF OIL, GAS & MINING

Date: 05-30-07  
By: [Signature]

COPY SENT TO OPERATOR  
Date: 3-31-07  
Initials: Rm

14. I hereby certify that the foregoing is true and correct  
Signed [Signature] Title Regulatory Specialist Date 5/29/2007  
**Mandie Crozier**

CC: UTAH DOGM

(This space for Federal or State office use)

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

Conditions of approval, if any:

CC: Utah DOGM

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 43-013-33196  
**Well Name:** Federal 11-19-9-17  
**Location:** NE/SW Section 19,T9S R17E  
**Company Permit Issued to:** Newfield Production Company  
**Date Original Permit Issued:** 6/7/2006

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes  No

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes  No

Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes  No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes  No

Has the approved source of water for drilling changed? Yes  No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes  No

Is bonding still in place, which covers this proposed well? Yes  No

  
Signature

5/29/2007  
Date

**Title:** Regulatory Specialist

**Representing:** Newfield Production Company

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir. Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No. UTU-77369
6. If Indian, Allottee or Tribe Name NA
7. If Unit or CA, Agreement Designation N/A
8. Well Name and No. FEDERAL 11-19-9-17
9. API Well No. 43-013-33196
10. Field and Pool, or Exploratory Area MONUMENT BUTTE
11. County or Parish, State DUCHESNE COUNTY, UT.

SUBMIT IN TRIPLICATE

1. Type of Well
[X] Oil Well
[ ] Gas Well
[ ] Other

2. Name of Operator NEWFIELD PRODUCTION COMPANY

3. Address and Telephone No. Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721

4. Location of Well (Footage, Sec., T., R., m., or Survey Description) 2002 FSL 1865 FWL NE/SW Section 19, T9S R17E

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

TYPE OF SUBMISSION

[X] Notice of Intent
[ ] Subsequent Report
[ ] Final Abandonment Notice

TYPE OF ACTION

[ ] Abandonment
[ ] Recompletion
[ ] Plugging Back
[ ] Casing Repair
[ ] Altering Casing
[X] Other Permit Extension
[ ] Change of Plans
[ ] New Construction
[ ] Non-Routine Fracturing
[ ] Water Shut-Off
[ ] Conversion to Injection
[ ] Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 2/15/07 (expiration 2/15/08).

RECEIVED
VERNAL FIELD OFFICE
2008 FEB -4 PM 1:25
BUREAU OF LAND MGMT.

CONDITIONS OF APPROVAL ATTACHED

14. I hereby certify that the foregoing is true and correct
Signed Mandie Crozier Title Regulatory Specialist Date 1/31/2008

CC: UTAH DOGM

(This space for Federal or State office use)

Approved by Matt Baker Title Petroleum Engineer Date FEB 14 2008

Conditions of approval, if any:

CC: Utah DOGM

Title 18 U.S.C. Section 1001, makes 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.



RECEIVED
MAR 24 2008
DIV. OF OIL, GAS & MINING

# **CONDITIONS OF APPROVAL**

## **Newfield Production Co.**

### **Notice of Intent APD Extension**

**Lease:** UTU-77369  
**Well:** Fed 11-19-9-17  
**Location:** NESW Sec 19-T9S-R17E

An extension for the referenced APD is granted with the following conditions:

---

1. The extension and APD shall expire on 02/15/09
2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Matt Baker of this office at (435) 781-4490

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

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

5. Lease Designation and Serial No.

**UTU-77369**

6. If Indian, Allottee or Tribe Name

**NA**

7. If Unit or CA, Agreement Designation

**N/A**

8. Well Name and No.

**FEDERAL 11-19-9-17**

9. API Well No.

**43-013-33196**

10. Field and Pool, or Exploratory Area

**MONUMENT BUTTE**

11. County or Parish, State

**DUCHESNE COUNTY, UT.**

**SUBMIT IN TRIPLICATE**

1. Type of Well

Oil Well     Gas Well     Other

2. Name of Operator

**NEWFIELD PRODUCTION COMPANY**

3. Address and Telephone No.

**Rt. 3 Box 3630, Myton Utah, 84052 435-646-3721**

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

**2002 FSL 1865 FWL NE/SW Section 19, T9S R17E**

**RECEIVED  
MAY 28 2008  
DIV. OF OIL, GAS & MINING**

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent <input type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other <b>Permit Extension</b>
	<input type="checkbox"/> Change of Plans <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is direction-ally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Newfield Production Company requests to extend the Permit to Drill this well for one year. The original approval date was 6/7/06.

This APDis not yet due to expire with the BLM.

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

**COPY SENT TO OPERATOR**

**Date: 6.2.2008**

**Initials: KS**

**Date: 05-28-08**

**By: [Signature]**

14. I hereby certify that the foregoing is true and correct

Signed Mandie Crozier Title Regulatory Specialist Date 5/27/2008  
Mandie Crozier

CC: UTAH DOGM

(This space for Federal or State office use)

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

Conditions of approval, if any:

CC: Utah DOGM

RESET

RECEIVED  
MAY 28 2008  
DIV. OF OIL, GAS & MINING

**Application for Permit to Drill  
Request for Permit Extension  
Validation**

(this form should accompany the Sundry Notice requesting permit extension)

**API:** 43-013-33196  
**Well Name:** Federal 11-19-9-17  
**Location:** NE/SW Section 19, T9S R17E  
**Company Permit Issued to:** Newfield Production Company  
**Date Original Permit Issued:** 6/7/2006

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision.

Following is a checklist of some items related to the application, which should be verified.

If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes  No  NA

Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes  No

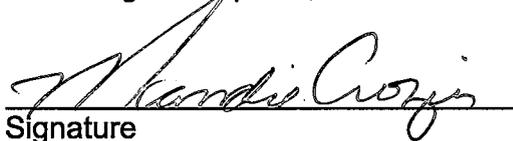
Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes  No

Have there been any changes to the access route including ownership, or right-of-way, which could affect the proposed location? Yes  No

Has the approved source of water for drilling changed? Yes  No

Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes  No

Is bonding still in place, which covers this proposed well? Yes  No

  
Signature

5/27/2008

Date

**Title:** Regulatory Specialist

**Representing:** Newfield Production Company

**DIVISION OF OIL, GAS AND MINING**

**SPUDDING INFORMATION**

Name of Company: NEWFIELD PRODUCTION COMPANY

Well Name: FEDERAL 11-19-9-17

Api No: 43-013-33196 Lease Type: FEDERAL

Section 19 Township 09S Range 17E County DUCHESNE

Drilling Contractor NDSI RIG # NS#1

**SPUDDED:**

Date 08/06/08

Time 10:00 AM

How DRY

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

Reported by SEAN STEVENS

Telephone # (435) 823-1162

Date 08/06/08 Signed CHD



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.

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUBMIT IN TRIPLICATE - Other Instructions on page 2**

5. Lease Serial No.  
UTU-77369

6. If Indian, Allottee or Tribe Name.

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

8. Well Name and No.  
FEDERAL 11-19-9-17

9. API Well No.  
4301333196

10. Field and Pool, or Exploratory Area  
MONUMENT BUTTE

11. County or Parish, State  
DUCHESNE, UT

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)  
2002 FSL 1865 FWL  
NESW Section 19 T9S R17E

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

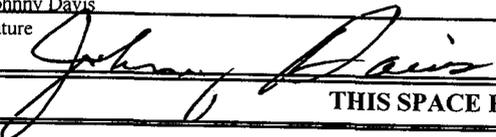
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> 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 _____ Weekly Status Report
	<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 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 recomple 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 recomple 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 10/25/08 MIRU NDSI Rig #3. 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 @ 274'. Drill out cement & shoe. Drill a 7.875 hole with fresh water to a depth of 5680'. 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, 148 jt's of 5.5 J-55, 15.5# csgn. Set @ 5656' / KB. Cement with 300 sks cement mixed @ 11.0 ppg & 3.43 yld. The 400 sks cement mixed @ 14.4 ppg & 1.24 yld. circ 30 bbl cmt to surface. Nipple down Bop's. Set slips @ 83,000 #'s tension. Release rig 3:00 AM on 10/30/08.

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

Signature: Johnny Davis Title: Drilling Foreman

Signature:  Date: 10/31/2008

**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 page 2)

**RECEIVED**

NOV 06 2008

DIV. OF OIL, GAS & MINING





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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
UTU-77369

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

**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: 2002 FSL 1865 FWL COUNTY: DUCHESNE  
OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESW, 19, T9S, R17E STATE: UT

8. WELL NAME and NUMBER:  
FEDERAL 11-19-9-17

9. API NUMBER:  
4301333196

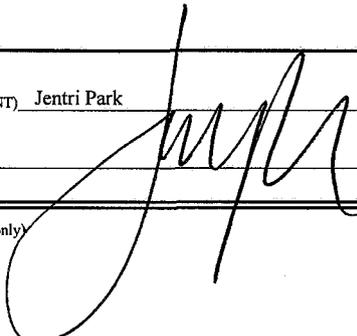
10. FIELD AND POOL, OR WILDCAT:  
MONUMENT BUTTE

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 (Submit in Duplicate) Approximate date work will _____	<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 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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of Work Completion: 12/05/2008	<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: - Weekly Status Report
	<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.  
The above subject well was completed on 11/18/08, attached is a daily completion status report.

NAME (PLEASE PRINT) Jentri Park TITLE Production Clerk

SIGNATURE  DATE 12/05/2008

(This space for State use only)

**RECEIVED**  
**DEC 08 2008**  
DIV. OF OIL, GAS & MINING

**Daily Activity Report**

Format For Sundry

**FEDERAL 11-19-9-17****9/1/2008 To 1/30/2009****11/11/2008 Day: 1****Completion**

Rigless on 11/10/2008 - Install 5M frac head. NU 6" 5M Cameron BOP. RU H/O truck & pressure test casing, blind rams, frac head & casing valves to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD @ 5561' cement top @ 58'. Perforate stage #1. A1 sds @ 4816-26' w/ 3 1/8" slick guns (19 gram, .49" HE, 120°, 21.92" pen, EXP-3319-331 Titan) w/ 4 spf for total of 40 shots. 134 BWTR. SIFN.

**11/14/2008 Day: 2****Completion**

Rigless on 11/13/2008 - Day 2a, Stage #1 A1 sds. RU BJ Services. 175 psi on well. Frac A1 sds w/ 40,297#'s of 20/40 sand in 400 bbls of Lightning 17 fluid. Broke @ 2465 psi. Treated w/ ave pressure of 1826 psi w/ ave rate of 23.2 BPM. ISIP 1951 psi. Leave pressure on well. 534 BWTR. See day 2b. Day 2b, Stage #2 B.5/B1 sds. RU The Perforators, llc WLT, crane & Lubricator. RIH w/ Weatherford 5 1/2" 6K composite flow through frac plug & 4', 8' perf guns. Set plug @ 4670'. Perforate B.5 @ 4578-82' & B1 sds @ 4624-32' w/ 3-1/8" Slick Guns (.49"EH, 19 gram, 120°) w/ 4 spf for total of 48 shots. RU BJ Services. 1720 psi on well. Frac B.5/B1 sds w/ 30,196#'s of 20/40 sand in 387 bbls of Lightning 17 fluid. Broke @ 4220 psi. Treated w/ ave pressure of 1877 psi w/ ave rate of 23.1 BPM. ISIP 1790 psi. Leave pressure on well. 921 BWTR. See day 2c. Day 2c, Stage #3 GB4/GB6 sds. RU The Perforators, llc WLT, crane & Lubricator. RIH w/ Weatherford 5 1/2" 6K composite flow through frac plug & 6', 12' perf guns. Set plug @ 3980'. Perforate GB4 @ 3854-60' & GB6 sds @ 3886-98' w/ 3-1/8" Slick Guns (.49"EH, 19 gram, 120°) w/ 4 spf for total of 72 shots. RU BJ Services. 1350 psi on well. Frac GB4/GB6 sds w/ 58,242#'s of 20/40 sand in 487 bbls of Lightning 17 fluid. Broke @ 1475 psi. Treated w/ ave pressure of 1417 psi w/ ave rate of 23.3 BPM. ISIP 1570 psi. Open well to pit for immediate flowback @ approx. 3 bpm. Well flowed for 5 hrs. & died. Recovered 720 bbls. SWIFN.

**11/15/2008 Day: 3****Completion**

NC #1 on 11/14/2008 - 6:30AM MIRU NC#1, OWU, Flowed 30 BW. N/D 10,000 BOP & Frac HD, N/U 3,000 Flnge & 5,000 BOP. P/U & RIH W/-4 3/4" Bit, Bit Sub, S/N, 126 Jts Tbg To Plg @ 3980', R/U Nabors Pwr Swvl, R/U R/pmp, Drill Up Plg, SWI, Drain Up For Freeze, 6:00PM C/SDFN.

**11/18/2008 Day: 4****Completion**

NC #1 on 11/17/2008 - 6:30AM OWU, RIH W/-Tbg To Plg @ 4670', R/U R/pmp, Drill Up Plg, Swvl I/Hle To Fill @ 5470', Drill & C/Out To PBTD @ 5608', Curc Well Cln 1 Hr, POOH W/-3 Jts Tbg, EOB @ 5530', R/U Swab, RIH IFL @ Surf, Made 12 Swab Runs, Recvred 142 BW, Lite Trce Oil, Lite Trce Sand, FFL @ 2200'. RIH W/-Tbg To Fill @ 5605', C/Out To PBTD @ 5608', Curc Well Cln. POOH W/-23 Jts Tbg, Drop Std Vlve D/-Tbg, P/Test Tbg To 3,000 Psi, Good Test. R/U S/Line Ovrshot & Fish Std Vlve. POOH W/-56 Jts Tbg, SWI, 5:30PM C/SDFN.

**11/19/2008 Day: 5****Completion**

**NC #1 on 11/18/2008 - 6:30AM OWU, POOH W/-98 Jts Tbg, S/N, Bit Sub & Bit. P/U & RIH W/-N/C, 2 Jts Tbg, S/N, 1 Jt Tbg, 5 1/2 T/A, 151 Jts Tbg, N/D BOP, Set T/A In 15,000 Tension, N/U W/-HD. Flush Tbg W/-60 BW. P/U Stroke & RIH W/-CDI-2 1/2x1 1/2x16x20' RHAC, 21,000 Lb Shear Coupling, 4-1 1/2 Wt Bars, 187-3/4 Guided Rods, 3/4x8'-6'-4' Pony Rods, 1 1/2x26' Polish Rod, Seat pmp, R/U Unit, Hole Standing Full, Stroke Unit & Tbg To 800 Psi, Good Test. R/D Rig. POP @ 3:30PM, 102" SL, 5 1/2 SPM ( Final Report ).**

---

**Pertinent Files: Go to File List**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
UTU-77369

6. If Indian, Allottee or Tribe Name  
NA

7. Unit or CA Agreement Name and No.  
FEDERAL

8. Lease Name and Well No.  
FEDERAL 11-19-9-17

9. AFI Well No.  
43-013-33196

10. Field and Pool or Exploratory  
MONUMENT BUTTE

11. Sec., T., R., M., on Block and  
Survey or Area  
SEC. 19, T9S, R17E

12. County or Parish  
DUCHESNE

13. State  
UT

1a. Type of Well  Oil Well  Gas Well  Dry  Other

b. Type of Completion:  New Well  Work Over  Deepen  Plug Back  Diff. Reserv.,  
Other: \_\_\_\_\_

2. Name of Operator  
NEWFIELD EXPLORATION COMPANY

3. Address  
1401 17TH ST. SUITE 1000 DENVER, CO 80202

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

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*  
At surface 2002' FSL & 1865' FWL (NE/SW) SEC. 19, T9S, R17E  
At top prod. interval reported below  
At total depth 5680'

14. Date Spudded  
08/06/2008

15. Date T.D. Reached  
10/29/2008

16. Date Completed 11/18/2000  
 D & A  Ready to Prod.

17. Elevations (DF, RKB, RT, GL)\*  
5543' GL5555' KB

18. Total Depth: MD 6321'  
TVD 6195'

19. Plug Back T.D.: MD 6291'  
TVD

20. Depth Bridge Plug Set: MD  
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND

22. Was well cored?  No  Yes (Submit analysis)  
Was DST run?  No  Yes (Submit report)  
Directional Survey?  No  Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	8-5/8" J-55	24#		320'		160 CLASS G		58'	
7-7/8"	5-1/2" J-55	15.5#		5656'		300 PRIMLITE 400 50/50 POZ			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	EOT@ 4900'	TA @ 4801'						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) GREEN RIVER			(A1) 4816-4826'	.49"	4	40
B) GREEN RIVER			(B1)4624-32'(B.5)4578-82'	.49"	4	4816-4826'
C) GREEN RIVER			(GB4)3854-60(GB6)3886-9	.49"	4	72
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
4816-4826'	Frac w/ 40297# of 20/40 snd 400 bbls fluid
4578-4632'	Frac w/ 30196# 20/40 snd 387 bbls fluid
3854-3898'	Frac w/ 58242# 20/40 snd 487bbls fluid

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/18/08	11/29/08	24	→	16	46	41			2-1/2" x 1-1/2" x 16 x 20' RHAC Pump
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→					PRODUCING	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

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\*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

USED FOR FUEL

30. Summary of Porous Zones (Include Aquifers):

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.

31. Formation (Log) Markers

GEOLOGICAL MARKERS

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GARDEN GULCH MRK GARDEN GULCH 1	3358' 3580'
				GARDEN GULCH 2 POINT 3	3670' 3914'
				X MRKR Y MRKR	4178' 4212'
				DOUGALS CREEK MRK BI CARBONATE MRK	4336' 4566'
				B LIMESTON MRK CASTLE PEAK	4674' 5180'
				BASAL CARBONATE TOTAL DEPTH (LOGGERS)	5606' 5673'

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)     
  Geologic Report     
  DST Report     
  Directional Survey  
 Sundry Notice for plugging and cement verification     
  Core Analysis     
  Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Tammi Lee  
 Signature *Tammi Lee*

Title Production Clerk  
 Date 12/03/2008

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.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**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 page 2**

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 are code)  
                   435.646.3721

4. Location of Well    (Footage, Sec., T., R., M., or Survey Description)  
 2002 FSL 1865 FWL  
 NESW Section 19 T9S R17E

5. Lease Serial No.  
 UTU-77369

6. If Indian, Allottee or Tribe Name.

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

8. Well Name and No.  
 FEDERAL 11-19-9-17

9. API Well No.  
 4301333196

10. Field and Pool, or Exploratory Area  
 GREATER MB UNIT

11. County or Parish, State  
 DUCHESNE, UT

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

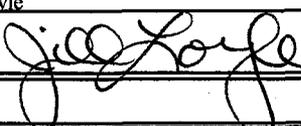
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> 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 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.)

Newfield Production proposes to convert the above mentioned well from producing oil well to an injection well.

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

**RECEIVED  
DEC 29 2011  
DIV. OF OIL, GAS & MINING**

I hereby certify that the foregoing is true and correct (Printed/ Typed) Jill Lovle	Title Regulatory Technician
Signature 	Date 12/21/2011

**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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-77369
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
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>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>1. TYPE OF WELL</b> Oil Well		<b>8. WELL NAME and NUMBER:</b> FEDERAL 11-19-9-17
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>9. API NUMBER:</b> 43013331960000
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052	<b>PHONE NUMBER:</b> 435 646-4825 Ext	<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2002 FSL 1865 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 19 Township: 09.0S Range: 17.0E Meridian: S		<b>COUNTY:</b> DUCHESNE
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 11/2/2012  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input checked="" type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input checked="" type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="New Perforation"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The subject well has been converted from a producing oil well to an injection well on 11/01/2012. New interval added: 4520-4526' 3JSPF.</p> <p>On 11/02/2012 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 11/02/2012 the casing was pressured up to 1925 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 100 psig during the test. There was not an EPA representative available to witness the test. EPA# UT22231-09497</p>		
<p><b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY November 13, 2012</b></p>		
<b>NAME (PLEASE PRINT)</b> Lucy Chavez-Naupoto	<b>PHONE NUMBER</b> 435 646-4874	<b>TITLE</b> Water Services Technician
<b>SIGNATURE</b> N/A		<b>DATE</b> 11/6/2012

## 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: 11, 2, 2012  
 Test conducted by: Cody Marx  
 Others present: \_\_\_\_\_

Ut 22231-09497

Well Name: <u>Federal 11-19-9-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Monument Butte</u>		
Location: <u>NE/SW</u> Sec: <u>19</u> T <u>9</u> N/S R <u>17</u> E/W	County: <u>Duchesne</u>	State: <u>Ut</u>
Operator: <u>Cody Marx</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: 1925 psig

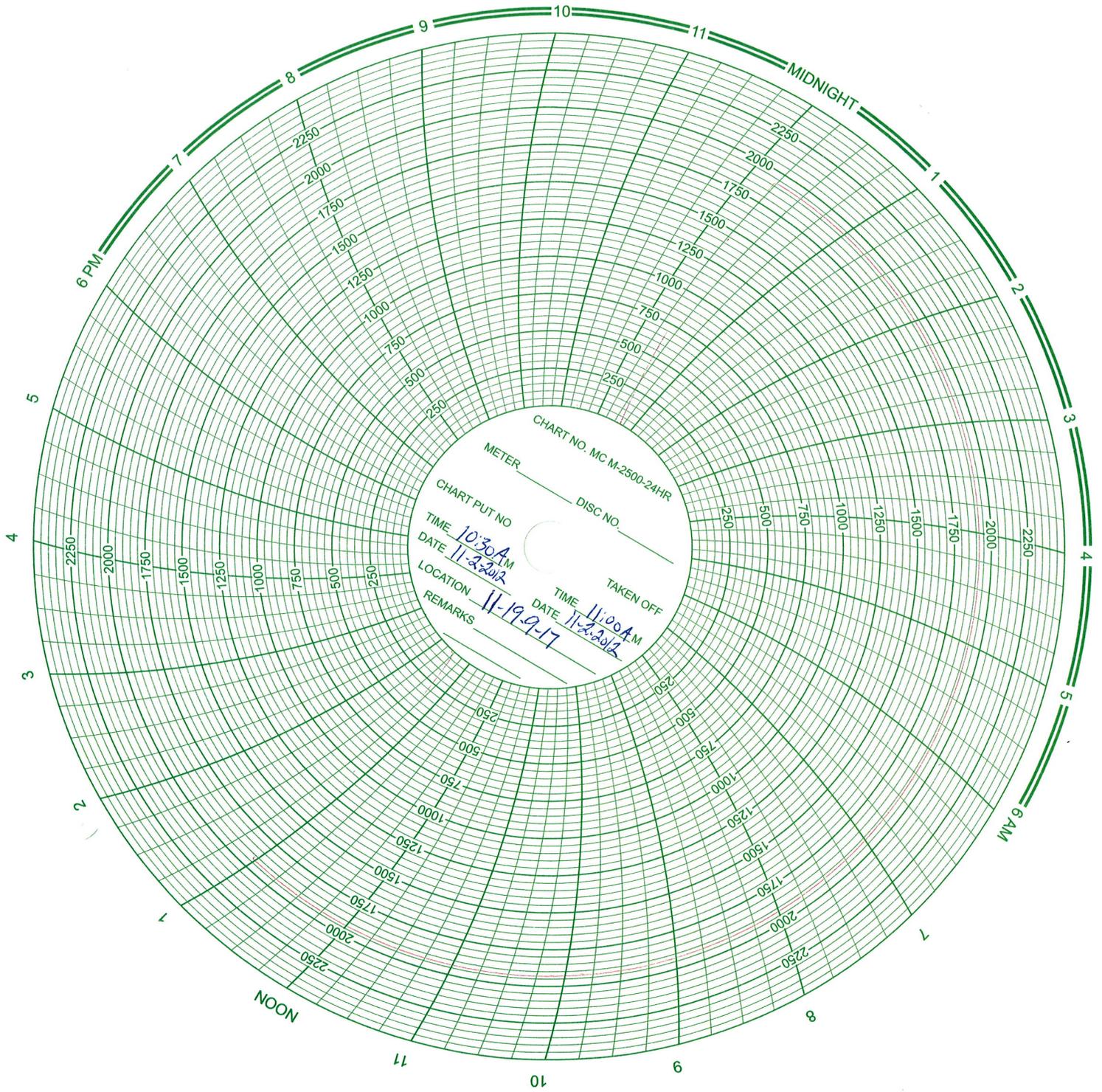
MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	<u>100</u> psig	psig	psig
End of test pressure	<u>100</u> psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	<u>1925</u> psig	psig	psig
5 minutes	<u>1925</u> psig	psig	psig
10 minutes	<u>1925</u> psig	psig	psig
15 minutes	<u>1925</u> psig	psig	psig
20 minutes	<u>1925</u> psig	psig	psig
25 minutes	<u>1925</u> psig	psig	psig
30 minutes	<u>1925</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: \_\_\_\_\_



**Daily Activity Report****Format For Sundry****FEDERAL 11-19-9-17****8/1/2012 To 12/30/2012****10/25/2012 Day: 1****Conversion**

Stone #10 on 10/25/2012 - MIRUSU. Test tbg. LD rods. Release TA. TOO H w/ tbg breaking & doping. - Held safety meeting & discussed JSA's & location hazards. Shut unit down. MIRUSU. Pump 60 bbls hot water down casing. - Unseat pump. Flush rods w/ 40 bbls water. Soft seat rods & test to 3000 psi w/ 4 bbls. Retrieve rods. TOO H w/ rods laying down on trailer, 1-1/2" x 26' polish rod, 8',8',2' x 3/4" pony rods, 186- 3/4" guided, 6- 1-1/2" K-Bars w/ 6- 1" stabilizers. Flush w/ 30 bbls half way out. Pumped 134 bbls w/ 10 bbls circulate. - RU tbg equipment. Release TA. - TOO H breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 87 jts. Flush tbg w/ 20 bbls half way out. SIFN. - Held safety meeting & discussed JSA's & location hazards. Shut unit down. MIRUSU. Pump 60 bbls hot water down casing. - Unseat pump. Flush rods w/ 40 bbls water. Soft seat rods & test to 3000 psi w/ 4 bbls. Retrieve rods. TOO H w/ rods laying down on trailer, 1-1/2" x 26' polish rod, 8',8',2' x 3/4" pony rods, 186- 3/4" guided, 6- 1-1/2" K-Bars w/ 6- 1" stabilizers. Flush w/ 30 bbls half way out. Pumped 134 bbls w/ 10 bbls circulate. - RU tbg equipment. Release TA. - TOO H breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 87 jts. Flush tbg w/ 20 bbls half way out. SIFN. - Held safety meeting & discussed JSA's & location hazards. Shut unit down. MIRUSU. Pump 60 bbls hot water down casing. - Unseat pump. Flush rods w/ 40 bbls water. Soft seat rods & test to 3000 psi w/ 4 bbls. Retrieve rods. TOO H w/ rods laying down on trailer, 1-1/2" x 26' polish rod, 8',8',2' x 3/4" pony rods, 186- 3/4" guided, 6- 1-1/2" K-Bars w/ 6- 1" stabilizers. Flush w/ 30 bbls half way out. Pumped 134 bbls w/ 10 bbls circulate. - RU tbg equipment. Release TA. - TOO H breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 87 jts. Flush tbg w/ 20 bbls half way out. SIFN. - Held safety meeting & discussed JSA's & location hazards. Shut unit down. MIRUSU. Pump 60 bbls hot water down casing. - Unseat pump. Flush rods w/ 40 bbls water. Soft seat rods & test to 3000 psi w/ 4 bbls. Retrieve rods. TOO H w/ rods laying down on trailer, 1-1/2" x 26' polish rod, 8',8',2' x 3/4" pony rods, 186- 3/4" guided, 6- 1-1/2" K-Bars w/ 6- 1" stabilizers. Flush w/ 30 bbls half way out. Pumped 134 bbls w/ 10 bbls circulate. - RU tbg equipment. Release TA. - TOO H breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 87 jts. Flush tbg w/ 20 bbls half way out. SIFN. **Finalized**

**Daily Cost: \$0****Cumulative Cost: \$9,897****10/29/2012 Day: 2****Conversion**

Stone #10 on 10/29/2012 - TOO H w/ tbg. Perferate zone. TIH w/ tools & work string. Test tools. - Held safety meeting & discussed JSA's & location hazards. Open well w/ 50 psi on casing. Flush tbg w/ 20 bbls. Pumped 20 bbls down casing. - Set RBP @ 4569'. Set pkr @ 4528'. Test RBP to 4000 psi w/ 8 bbls water. Release pkr & reset @ 4470'. Zone won't break down @ 5000 psi. SIFN. - Set RBP @ 4569'. Set pkr @ 4528'. Test RBP to 4000 psi w/ 8 bbls water. Release pkr & reset @ 4470'. Zone won't break down @ 5000 psi. SIFN. - PU "TS" 5-1/2" WCS RBP, On/Off tool, 4' x 2-3/8" pup joint, "HD" pkr, 1 jt tbg, SN, Tally, drift & pickup off trailer jts N-80 2-7/8" work string. 144 jts tbg. - TOO H breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 33 jts. LD 31 jts tbg. - RU WLT, crane & lubricator & test. RIH w/ 4.75 gauge ring to 4610'. RiH w/ 3-1/8" disposable perf guns (16 gram, .34"EH, 120°,21" pen) 3 spf. Perferate C sds @ 4520-26' w/ ttl of 18 shots. - Held safety meeting & discussed JSA's & location hazards. Open well w/ 50 psi on casing. Flush tbg w/ 20 bbls. Pumped 20 bbls down casing. - TOO H breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 33 jts. LD 31 jts tbg. - RU WLT, crane & lubricator & test.

RIH w/ 4.75 gauge ring to 4610'. RiH w/ 3-1/8" disposable perf guns (16 gram, .34"EH, 120°,21" pen) 3 spf. Perferate C sds @ 4520-26' w/ ttl of 18 shots. - PU "TS" 5-1/2" WCS RBP, On/Off tool, 4' x 2-3/8" pup joint, "HD" pkr, 1 jt tbg, SN, Tally, drift & pickup off trailer jts N-80 2-7/8" work string. 144 jts tbg. - Set RBP @ 4569'. Set pkr @ 4528'. Test RBP to 4000 psi w/ 8 bbls water. Release pkr & reset @ 4470'. Zone won't break down @ 5000 psi. SIFN. - PU "TS" 5-1/2" WCS RBP, On/Off tool, 4' x 2-3/8" pup joint, "HD" pkr, 1 jt tbg, SN, Tally, drift & pickup off trailer jts N-80 2-7/8" work string. 144 jts tbg. - Held safety meeting & discussed JSA's & location hazards. Open well w/ 50 psi on casing. Flush tbg w/ 20 bbls. Pumped 20 bbls down casing. - TOOH breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 33 jts. LD 31 jts tbg. - RU WLT, crane & lubricator & test. RIH w/ 4.75 gauge ring to 4610'. RiH w/ 3-1/8" disposable perf guns (16 gram, .34"EH, 120°,21" pen) 3 spf. Perferate C sds @ 4520-26' w/ ttl of 18 shots. - Held safety meeting & discussed JSA's & location hazards. Open well w/ 50 psi on casing. Flush tbg w/ 20 bbls. Pumped 20 bbls down casing. - TOOH breaking, inspecting & dopping every collar w/ liquid "o-ring" dope. Stood back 33 jts. LD 31 jts tbg. - RU WLT, crane & lubricator & test. RIH w/ 4.75 gauge ring to 4610'. RiH w/ 3-1/8" disposable perf guns (16 gram, .34"EH, 120°,21" pen) 3 spf. Perferate C sds @ 4520-26' w/ ttl of 18 shots. - PU "TS" 5-1/2" WCS RBP, On/Off tool, 4' x 2-3/8" pup joint, "HD" pkr, 1 jt tbg, SN, Tally, drift & pickup off trailer jts N-80 2-7/8" work string. 144 jts tbg. - Set RBP @ 4569'. Set pkr @ 4528'. Test RBP to 4000 psi w/ 8 bbls water. Release pkr & reset @ 4470'. Zone won't break down @ 5000 psi. SIFN. **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$19,501

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**10/30/2012 Day: 3****Conversion**

Stone #10 on 10/30/2012 - Set tools. RU Baker Hughes. Frac well. Flow well back. Release tools. LD tbg. - Flow well back on 20/64 choke then 30/64 choke for a total of 77 bbls rec'd w/ 1000#'s of sand. - Test lines to 8400 psi. Open well w/ 25 psi on casing. Perfs broke @ 5530 psi back to 2394 psi w/ 1.5 bbls @ 3 bpm. Pump 500 gal of 15% HCL acid @ 3389 psi @ 9 bpm. Lost 800 psi when acid hit perfs. Frac @ ave pressure of 4204 psi @ 18 bpm. Frac w/ 22,239#'s of 20/40 sds in 323 bbls of Lightning 17 frac fluid. ISIP was 1673 psi w/ .80FG. Max pressure was 5500 @ 20 bpm. RD Baker Hughes. - Held safety meeting & discussed job & location hazards. RU frac valve. Set Pkr @ 4470' w/ RBP @ 4570'. Fill casing w/8 bbls fluid. Held 200 psi during frac. MIRU Baker Hughes frac crew. - TOOH w/ tbg LD 84 jts N-80 on trailer. Wait on hot oiler to flush w/ 30 bbls on way out due to oil in tbg. SIFN. - Open equalizer & released pkr. Circulate tbg clean. TIH w/ tbg to C/O 10' of sand. Release RBP @ 4570'. - Flow well back on 20/64 choke then 30/64 choke for a total of 77 bbls rec'd w/ 1000#'s of sand. - Test lines to 8400 psi. Open well w/ 25 psi on casing. Perfs broke @ 5530 psi back to 2394 psi w/ 1.5 bbls @ 3 bpm. Pump 500 gal of 15% HCL acid @ 3389 psi @ 9 bpm. Lost 800 psi when acid hit perfs. Frac @ ave pressure of 4204 psi @ 18 bpm. Frac w/ 22,239#'s of 20/40 sds in 323 bbls of Lightning 17 frac fluid. ISIP was 1673 psi w/ .80FG. Max pressure was 5500 @ 20 bpm. RD Baker Hughes. - Held safety meeting & discussed job & location hazards. RU frac valve. Set Pkr @ 4470' w/ RBP @ 4570'. Fill casing w/8 bbls fluid. Held 200 psi during frac. MIRU Baker Hughes frac crew. - TOOH w/ tbg LD 84 jts N-80 on trailer. Wait on hot oiler to flush w/ 30 bbls on way out due to oil in tbg. SIFN. - Open equalizer & released pkr. Circulate tbg clean. TIH w/ tbg to C/O 10' of sand. Release RBP @ 4570'. - Flow well back on 20/64 choke then 30/64 choke for a total of 77 bbls rec'd w/ 1000#'s of sand. - Test lines to 8400 psi. Open well w/ 25 psi on casing. Perfs broke @ 5530 psi back to 2394 psi w/ 1.5 bbls @ 3 bpm. Pump 500 gal of 15% HCL acid @ 3389 psi @ 9 bpm. Lost 800 psi when acid hit perfs. Frac @ ave pressure of 4204 psi @ 18 bpm. Frac w/ 22,239#'s of 20/40 sds in 323 bbls of Lightning 17 frac fluid. ISIP was 1673 psi w/ .80FG. Max pressure was 5500 @ 20 bpm. RD Baker Hughes. - Held safety meeting & discussed job & location hazards. RU frac valve. Set Pkr @ 4470' w/ RBP @ 4570'. Fill casing w/8 bbls fluid. Held 200 psi during frac. MIRU Baker Hughes frac crew. - TOOH w/ tbg LD 84 jts N-80 on trailer. Wait on hot oiler to flush w/ 30 bbls on way out due to oil in tbg. SIFN. - Open

equalizer & released pkr. Circulate tbg clean. TIH w/ tbg to C/O 10' of sand. Release RBP @ 4570'. - Flow well back on 20/64 choke then 30/64 choke for a total of 77 bbls rec'd w/ 1000#'s of sand. - Test lines to 8400 psi. Open well w/ 25 psi on casing. Perfs broke @ 5530 psi back to 2394 psi w/ 1.5 bbls @ 3 bpm. Pump 500 gal of 15% HCL acid @ 3389 psi @ 9 bpm. Lost 800 psi when acid hit perfs. Frac @ ave pressure of 4204 psi @ 18 bpm. Frac w/ 22,239#'s of 20/40 sds in 323 bbls of Lightning 17 frac fluid. ISIP was 1673 psi w/ .80FG. Max pressure was 5500 @ 20 bpm. RD Baker Hughes. - Held safety meeting & discussed job & location hazards. RU frac valve. Set Pkr @ 4470' w/ RBP @ 4570'. Fill casing w/8 bbls fluid. Held 200 psi during frac. MIRU Baker Hughes frac crew. - TOOH w/ tbg LD 84 jts N-80 on trailer. Wait on hot oiler to flush w/ 30 bbls on way out due to oil in tbg. SIFN. - Open equalizer & released pkr. Circulate tbg clean. TIH w/ tbg to C/O 10' of sand. Release RBP @ 4570'.

**Daily Cost:** \$0

**Cumulative Cost:** \$102,848

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**10/31/2012 Day: 4**

**Conversion**

Stone #10 on 10/31/2012 - LD tbg. PU pkr & BHA. TIH w/ tbg. Test tbg. - - Held safety meeting & dicussed JSA's & location hazards.Flush tbg w/ 40 bbls water. Continue LD tbg on trailer. - TIH w/ 120 jts tbg, EOT @ (3833'). - LD tools. RU Guide, XN nipple, 2-3/8" x 4' pup, X-over (2-3/8" to 2-7/8"), Arrow Set 1 pkr, On/Off tool , X nipple, SN. - Held safety meeting & dicussed JSA's & location hazards.Flush tbg w/ 40 bbls water. Continue LD tbg on trailer. - - Pump 20 bbls water. Drop std valve & test tbg to 3000 psi for 30 min w/ 20 bbls water. No test after 3 attempts. SIFN. - TIH w/ 120 jts tbg, EOT @ (3833'). - LD tools. RU Guide, XN nipple, 2-3/8" x 4' pup, X-over (2-3/8" to 2-7/8"), Arrow Set 1 pkr, On/Off tool , X nipple, SN. - Held safety meeting & dicussed JSA's & location hazards.Flush tbg w/ 40 bbls water. Continue LD tbg on trailer. - - Pump 20 bbls water. Drop std valve & test tbg to 3000 psi for 30 min w/ 20 bbls water. No test after 3 attempts. SIFN. - TIH w/ 120 jts tbg, EOT @ (3833'). - LD tools. RU Guide, XN nipple, 2-3/8" x 4' pup, X-over (2-3/8" to 2-7/8"), Arrow Set 1 pkr, On/Off tool , X nipple, SN. - Held safety meeting & dicussed JSA's & location hazards.Flush tbg w/ 40 bbls water. Continue LD tbg on trailer. - - Pump 20 bbls water. Drop std valve & test tbg to 3000 psi for 30 min w/ 20 bbls water. No test after 3 attempts. SIFN. - TIH w/ 120 jts tbg, EOT @ (3833'). - LD tools. RU Guide, XN nipple, 2-3/8" x 4' pup, X-over (2-3/8" to 2-7/8"), Arrow Set 1 pkr, On/Off tool , X nipple, SN. - Pump 20 bbls water. Drop std valve & test tbg to 3000 psi for 30 min w/ 20 bbls water. No test after 3 attempts. SIFN. **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$110,550

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**11/1/2012 Day: 5**

**Conversion**

Stone #10 on 11/1/2012 - Test tbg. RD BOP's. Pump pkr fluid. Set pkr. Test casing. - RDMOSU. - Held safety meeting & discussed JSA's & location hazards. Test tbg to 3370 for 30 min. Good test. - RU sand line. Retrieve std vlv. - Held safety meeting & discussed JSA's & location hazards. Test tbg to 3370 for 30 min. Good test. - RDMOSU. - RD BOP's. Pump 60 bbls pkr fluid. Set pkr @ 3825' w/ 15,000#'s tension w/ CE @ 3828' w/ EOT @ 3838' w/ 120 jts, SN, On/Off tool w/ X nipple, AS 1 pkr, Cross over to 2-3/8", 4' x 2-3/8" pup jt, XN nipple, Wireline entry guide. Test csg to 1720 psi for 30 min w/ 2 bbls pkr fluid. Good test. - RU sand line. Retrieve std vlv. - Held safety meeting & discussed JSA's & location hazards. Test tbg to 3370 for 30 min. Good test. - RDMOSU. - RD BOP's. Pump 60 bbls pkr fluid. Set pkr @ 3825' w/ 15,000#'s tension w/ CE @ 3828' w/ EOT @ 3838' w/ 120 jts, SN, On/Off tool w/ X nipple, AS 1 pkr, Cross over to 2-3/8", 4' x 2-3/8" pup jt, XN nipple, Wireline entry guide. Test csg to 1720 psi for 30 min w/ 2 bbls pkr fluid. Good test. - RU sand line. Retrieve std vlv. - Held safety meeting & discussed JSA's & location hazards. Test tbg to 3370 for 30 min. Good test. - RDMOSU. - RD BOP's. Pump 60 bbls pkr fluid. Set pkr @ 3825' w/ 15,000#'s tension w/ CE @

3828' w/ EOT @ 3838' w/ 120 jts, SN, On/Off tool w/ X nipple, AS 1 pkr, Cross over to 2-3/8", 4' x 2-3/8" pup jt, XN nipple, Wireline entry guide. Test csg to 1720 psi for 30 min w/ 2 bbls pkr fluid. Good test. - RU sand line. Retrieve std vlv. - RD BOP's. Pump 60 bbls pkr fluid. Set pkr @ 3825' w/ 15,000#'s tension w/ CE @ 3828' w/ EOT @ 3838' w/ 120 jts, SN, On/Off tool w/ X nipple, AS 1 pkr, Cross over to 2-3/8", 4' x 2-3/8" pup jt, XN nipple, Wireline entry guide. Test csg to 1720 psi for 30 min w/ 2 bbls pkr fluid. Good test. **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$115,020

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**11/5/2012 Day: 6**

**Conversion**

Rigless on 11/5/2012 - Conduct initial MIT - On 11/02/2012 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 11/02/2012 the casing was pressured up to 1925 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 100 psig during the test. There was not an EPA representative available to witness the test.EPA# UT22231-09497 - On 11/02/2012 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 11/02/2012 the casing was pressured up to 1925 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 100 psig during the test. There was not an EPA representative available to witness the test.EPA# UT22231-09497 - On 11/02/2012 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 11/02/2012 the casing was pressured up to 1925 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 100 psig during the test. There was not an EPA representative available to witness the test.EPA# UT22231-09497 - On 11/02/2012 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 11/02/2012 the casing was pressured up to 1925 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 100 psig during the test. There was not an EPA representative available to witness the test.EPA# UT22231-09497 **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$188,354

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**Pertinent Files: Go to File List**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

OCT 15 2012

Ref: 8P-W-UIC

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Eric Sundberg
Newfield Production Company
1001 Seventeenth Street, Suite 2000
Denver, CO 80202

RECEIVED
OCT 24 2012
DIV. OF OIL, GAS & MINING

Re: FINAL Permit
EPA UIC Permit UT22231-09497
Well: Federal 11-19-9-17
NESW Sec. 19-T9S-R17E
Duchesne County, UT
API No.: 4301333196

Accepted by the
Utah Division of
Oil, Gas and Mining

FOR RECORD ONLY

Dear Mr. Sundberg:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Program Permit for the proposed Federal 11-19-9-17 injection well. A Statement of Basis that discusses the conditions and requirements of this Environmental Protection Agency (EPA) UIC Permit, is also included.

OCT 04 2012

The public comment period for this permit ended on \_\_\_\_\_. 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.1, and obtain written Authorization to Inject from EPA. It is your responsibility to be familiar with and to comply with all provisions of your final permit. The EPA forms referenced in the permit are available at http://www.epa.gov/safewater/uic/reportingforms.html. Guidance documents for Cement Bond Logging, Radioactive Tracer Testing, Step Rate Testing, Mechanical Integrity Demonstration, Procedure in the Event of a Mechanical Integrity Loss, and other UIC guidances, are available at http://www.epa.gov/region8/water/uic/deep\_injection.html. Upon request, hard copies of the EPA forms and guidances can be provided.

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).

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 Howard M. Cantor, for  
Assistant Regional Administrator  
Office of Partnerships and Regulatory Assistance

enclosure: Final UIC Permit  
Statement of Basis

cc: Letter Only:  
Uintah & Ouray Business Committee:  
Irene Cuch, Chairman  
Ronald Wopsock, Vice-Chairman  
Frances Poowegup, Councilwoman  
Phillip Chimburas, Councilman  
Stewart Pike, Councilman  
Richards Jenks, Jr., Councilman

Johnna Blackhair  
BIA - Uintah & Ouray Indian Agency

cc: All Enclosures:

Reed Durfey  
District Manager  
Newfield Production Company  
Myton, Utah



Mike Natchees  
Environmental Coordinator  
Ute Indian Tribe

Manual Myore  
Director of Energy & Minerals Dept.

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

Fluid Minerals Engineering Office  
BLM - Vernal, Utah Office



## 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 Co.  
1001 Seventeenth Street, Suite 2000  
Denver, CO 80202

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

Federal 11-19-9-17  
2002 FSL & 1865' FWL', NESW S19, T9S, R17E  
Duchesne 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: OCT 15 2012

Effective Date OCT 15 2012



Howard M. Cantor, for  
Assistant Regional Administrator\*

for Office of Partnerships and Regulatory Assistance

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



**UNDERGROUND INJECTION CONTROL PROGRAM  
PERMIT**

PREPARED: October 2012

**Permit No. UT22231-09497**

Class II Enhanced Oil Recovery Injection Well

**Federal 11-19-9-17  
Duchesne County, UT**

Issued To

**Newfield Production Co.**  
1001 Seventeenth Street, Suite 2000  
Denver, CO 80202

## 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 seven calendar days prior to any mechanical integrity test unless the mechanical integrity test is conducted after a well construction, well conversion, or a well rework, in which case any prior notice is sufficient. 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.

### **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 9.2 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

The Federal 11-19-9-17 oil well was drilled to total depth of 5,680 feet in the Basal Carbonate Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 309 feet (GL) 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 5,656 feet (KB) in a 7-7/8 inch hole with 700 sacks of cement. Well construction is considered adequate to protect all USDWs. Top of cement by CBL at 58 feet.

Current injection perforations are 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 3,669 feet and the top of the Wasatch Formation (Estimated to be 5,730 feet) provided that the operator first notifies the Director and later submits an updated Well Rework Record (EPA Form 7520-12) and schematic diagram.

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

# Federal 11-19-9-17

Spud Date: 8/6/08  
 Put on Production: 11/18/08  
 GL: 5543' KB: 5555'

## Proposed Injection Wellbore Diagram

### SURFACE CASING

CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7 jts (309.24')  
 DEPTH LANDED: 309.24' KB  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 1- 160, sxs Class "G" cmt, est 35 bbls cmt to surf.

### PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 157 jts (5945.49')  
 DEPTH LANDED: 5655.91'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sx Premlite and 400 sx 50/50 Poz  
 CEMENT TOP AT: 58'

### TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55  
 NO. OF JOINTS: 151 jts (4778.3')  
 TUBING ANCHOR: 4790.3' KB  
 NO. OF JOINTS: 1 jts (31.3')  
 SEATING NIPPLE: 2-7/8" (1.10')  
 SN LANDED AT: 4824.3' KB  
 NO. OF JOINTS: 2 jts (63.8')  
 TOTAL STRING LENGTH: EOT @ 4890'

### FRAC JOB

11/13/08 4816-4826' Frac A1 sds as follows:  
 40,297#'s of 20/40 sand in 400 bbls of Lightning 17 fluid. Broke @ 2465 psi. Treated w/ ave pressure of 1826 psi w/ ave rate of 23.2 BPM. ISIP 1951 psi. Actual flush: 4309 gals.

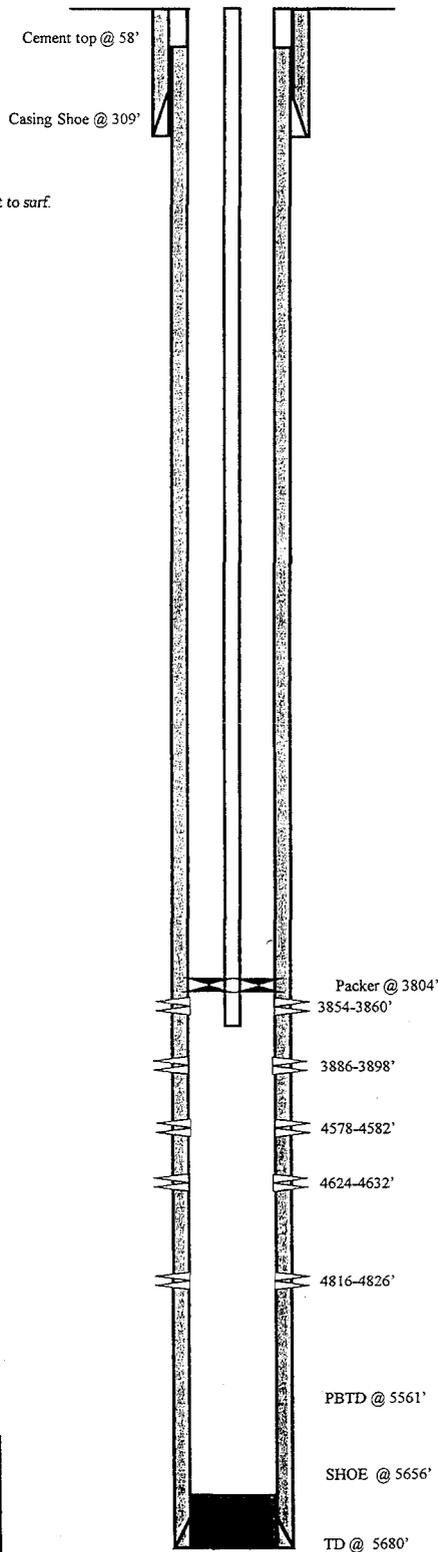
11/13/08 4578-4632' Frac B.5/B1 sds as follows:  
 30,196#'s of 20/40 sand in 387 bbls of Lightning 17 fluid. Broke @ 4220 psi. Treated w/ ave pressure of 1877 psi w/ ave rate of 23.1 BPM. ISIP 1790 psi. Actual flush: 4074 gals.

11/13/08 3854-3898' Frac GB4/GB6 sds as follows:  
 58,242#'s of 20/40 sand in 487 bbls of Lightning 17 fluid. Broke @ 1475 psi. Treated w/ ave pressure of 1417 psi w/ ave rate of 23.3 BPM. ISIP 1570 psi. Actual flush: 3767 gals.

9/18/09 Tubing Leak. Updated rod & tubing details.

6/18/2010 Pump change updated rod and tubing detail.

9/17/2010 Tubing Leak. Updated rod and tubing detail.



### PERFORATION RECORD

Date	Interval	Completion	Holes
11/13/08	3854-3860'	4 JSPF	24 holes
11/13/08	3886-3898'	4 JSPF	48 holes
11/13/08	4578-4582'	4 JSPF	16 holes
11/13/08	4624-4632'	4 JSPF	21 holes
11/13/08	4816-4826'	4 JSPF	40 holes

**NEWFIELD**

**Federal 11-19-9-17**

2002' FSL & 1865' FWL  
 NE/SW Section 19-T9S-R17E  
 Duchesne Co, Utah

API # 43-013-33196; Lease # UTU- 77369

## 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.

**WELL NAME:** Federal 11-19-9-17

<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 after the last successful demonstration of Part I Mechanical Integrity.
Pore Pressure	Prior to receiving 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 11-19-9-17	830

### 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.

FORMATION NAME	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT (psi/ft)
	TOP	BOTTOM	
Green River: Garden Gulch 2	3,669.00	4,337.00	0.655
Green River: Douglas Creek	4,337.00	5,605.00	0.655
Green River: Basal Carbonate	5,605.00	5,730.00	0.655

### 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 AND 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 minimum annulus pressure(s) (psig)
	Each month's injected volume (bbl)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

In addition to these items, additional Logging and Testing results may be required periodically. For a list of those items and their due dates, please refer to **APPENDIX B - LOGGING AND TESTING REQUIREMENTS**.

## APPENDIX E

### PLUGGING AND ABANDONMENT REQUIREMENTS

Plugging and Abandonment: The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluids into or between Underground Sources of Drinking Water (USDW). 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. 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. At a minimum, the following plugs are required:

(1)  Isolate the injection zone: Remove down hole apparatus and perform clean out; displace well fluid with plugging gel. Set a cast iron bridge plug (CIBP) within the innermost casing no more than 50 ft. above the top perforation with a minimum of 20 ft. cement plug on top of the CIBP.

(2)  Isolate the Trona-Bird's Nest and Mahogany Oil Shale: Perforate and squeeze cement up the backside of the outermost casing from at least 55 ft. above the top of the Trona-Bird's Nest to at least 55 ft. below the base of Mahogany Oil Shale, unless there is existing cement across this interval.

(3)  Isolate the Uinta Formation from the Green River Formation: Perforate and squeeze a minimum of 110 ft. cement up the backside of the outermost casing to isolate the contact between the Uinta Formation and the Green River Formation, unless there is existing cement across this interval. Set a minimum 110 ft. cement plug in the innermost casing centered on the contact between the Green River and Uinta Formations.

(4)  Isolate Surface Fluid Migration Paths:

a.  If the depth of the lowermost USDW is above the base of surface casing, perforate the outermost casing string 50 ft. below the base of surface casing and circulate cement to the surface, unless there is existing cement across this interval; OR

b.  If the depth of the lowermost USDW is below the base of surface casing, perforate the outermost casing string 50 ft. below the base of the lowermost USDW and circulate cement to surface; AND

c.  Set a cement plug inside the innermost casing string from 50 ft. below the base of the surface casing to surface.

## APPENDIX F

### CORRECTIVE ACTION REQUIREMENTS

No corrective action is deemed necessary for this project.

# STATEMENT OF BASIS

**NEWFIELD PRODUCTION CO.**

**FEDERAL 11-19-9-17**

**DUCHESNE COUNTY, UT**

**EPA PERMIT NO. UT22231-09497**

**CONTACT:** Emmett Schmitz  
U. S. Environmental Protection Agency Region 8  
Mailcode: 8P-W-UIC  
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 Co.  
1001 Seventeenth Street, Suite 2000  
Denver, CO 80202

on

December 23, 2011

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

Federal 11-19-9-17  
2002 FSL & 1865' FWL', NESW S19, T9S, R17E  
Duchesne 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 11-19-9-17 is currently a Green River Formation oil well with production perforations in the Garden Gulch and Douglas Creek Members. The applicant intends to convert this well to a Class II enhanced recovery injection well.

## PART II. Permit Considerations (40 CFR 146.24)

### Hydrogeologic Setting

Water wells for domestic supply in this area, when present, generally are completed into the shallow alluvium, the Duchesne River Formation, or the underlying Uinta Formation, and the water generally contains approximately 500 to 1,500 mg/l and higher total dissolved solids.

The Uinta-Animas aquifer in the Uinta Basin is present in water-yielding beds of sandstone, conglomerate, and siltstone of the Duchesne River and Uinta Formations, the Renegade Tongue of the Wasatch Formation, and the Douglas Creek Member of the Green River Formation. The Renegade Tongue of the Wasatch Formation and the Douglas Creek Member of the Green River Formation contain an aquifer along the southern and eastern margins of the basin where the rocks primarily consist of fluvial, massive, irregularly bedded sandstone and siltstone. Water-yielding units in the Uinta-Animas aquifer in the Uinta Basin commonly are separated from each other and from the underlying Mesaverde aquifer by units of low permeability composed of claystone, shale, marlstone, or limestone. In the Uinta Basin, for example, the part of the aquifer in the Duchesne River and Uinta Formations ranges in thickness from 0 feet at the southern margin of the aquifer to as much as 9,000 feet in the north-central part of the aquifer. Ground-water recharge to the Uinta-Animas aquifer generally occurs in the areas of higher altitude along the margins of the basin. Ground water is discharged mainly to streams, springs, and by transpiration from vegetation growing along stream valleys. The rate of ground-water withdrawal is small, and natural discharge is approximately equal to recharge. Recharge occurs near the southern margin of the aquifer, and discharge occurs near the White and Green Rivers (from USGS publication HA 730-C). Water samples from Mesaverde sands in the nearby Natural Buttes Unit yielded highly saline water.

### Geologic Setting (TABLE 2.1)

The proposed Class II enhanced oil recovery injection well is located in the Greater Monument Butte Field, T7-9S and R15-19E, 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 9,300 square miles (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 feet to 800 feet of the Uinta Formation, consisting generally of shale interbedded with occasionally water-bearing

sandstone lenses between 5 feet to 20 feet 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 feet per 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 feet to 6 feet wide but up to 28 feet wide, may extend many miles in length and occasionally extend as deep as 2,000 feet.

**TABLE 2.1**  
**GEOLOGIC SETTING**  
Federal 11-19-9-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta: Public. 92	0	1,043	< 10,000	Sand and shale
Uinta	1,043	1,249	< 10,000	Sand, shale & carbonate
Green River	1,249	2,584		Sand, shale, carbonate, evaporite
Green River: Trona	2,584	2,635		Evaporite
Green River: Mahogany Bench	2,635	2,653		Shale
Green River	2,653	3,358		Sand, shale, carbonate,
Green River: Garden Gulch Marker	3,358	3,562		Shale, sand, carbonate
Green River: Garden Gulch 1	3,562	3,669		Shale, sand, carbonate
Green River: Garden Gulch 2	3,669	4,337	32,297	Sand, shale, carbonate
Green River: Douglas Creek	4,337	5,605	32,297	Sand, shale, carbonate
Green River: Basal Carbonate	5,605	5,730		Carbonate
Wasatch	5,730			

**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 EPA-approved interval for Class II enhanced recovery injection is located between the top of the Garden Gulch Member No. 2 (3,669 feet) and the top of the Wasatch Formation which has an estimated top of 5,730 feet.

**TABLE 2.2**  
**INJECTION ZONES**  
Federal 11-19-9-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River: Garden Gulch 2	3,669	4,337	32,297	0.655		N/A
Green River: Douglas Creek	4,337	5,605	32,297	0.655		N/A
Green River: Basal Carbonate	5,605	5,730		0.655		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 EPA-approved Confining Zone is located within the Garden Gulch Member between the depths of 3,171 feet and the top of the Garden Gulch Member No. 2 at 3,669 feet.

**TABLE 2.3**  
**CONFINING ZONES**  
Federal 11-19-9-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River	Sand, shale, carbonate,	2,653	3,358
Green River: Garden Gulch Marker	Shale, sand, carbonate	3,358	3,562
Green River: Garden Gulch 1	Shale, sand, carbonate	3,562	3,669

**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 11-19-9-17.

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 1,043 feet

from the surface.

Absent definitive analyses of water within the Uinta Formation from 1,043 feet to the top of the Green River Formation at 1,249 feet, this 206-foot interval is considered a potential USDW with total dissolved solids less than 10,000 mg/l.

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

The Federal 11-19-9-17 oil well was drilled to total depth of 5,680 feet in the Basal Carbonate Member of the Green River Formation.

Surface casing (8-5/8 inch) was set at a depth of 309 feet (GL) 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 5,656 feet (KB) in a 7-7/8 inch hole with 700 sacks of cement. Well construction is considered adequate to protect all USDWs. Top of cement by CBL at 58 feet.

Current injection perforations are 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 3,669 feet and the top of the Wasatch Formation (Estimated to be 5,730 feet) provided that the operator first notifies the Director and later submits an updated Well Rework Record (EPA Form 7520-12) and schematic diagram.

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

**TABLE 3.1**  
**WELL CONSTRUCTION REQUIREMENTS**  
Federal 11-19-9-17

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Surface	12.25	8.63	0 - 309	0 - 309
Longstring	7.88	5.50	0 - 5,656	58 - 5,656

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 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 (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Federal 10-19-9-17	Other	Yes	5,700	0	No
Federal 12-19-9-17	Producer	No	6,321	69	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.

### **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 EPA-approved injectate will be a blend of produced water from Green River oil wells proximate to the Federal 11-19-9-17 well and/or water from the Green River and/or water from the Johnson Water District reservoir.

### **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 restrictions on the cumulative volume of authorized fluid injected into the Green River Formation 3,669 feet to the top of the Wasatch Formation estimated to be 5,730 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 1,000 psi, whichever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

**PART II MI:** The cement bond log shows sufficient interval of 80 percent cement bond index or greater through the Garden Gulch Confining Zone and Part II MIT is not required.

## **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, annulus pressure, monthly injection flow rate and cumulative fluid volume. 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 9.2 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.

(1)  Isolate the injection zone: Remove down hole apparatus and perform clean out; displace well fluid with plugging gel. Set a cast iron bridge plug (CIBP) within the innermost casing no more than 50 ft. above the top perforation with a minimum of 20 ft. cement plug on top of the CIBP.

(2)  Isolate the Trona-Bird's Nest and Mahogany Oil Shale: Perforate and squeeze cement up the backside of the outermost casing from at least 55 ft. above the top of the Trona-Bird's Nest to at least 55 ft. below the base of Mahogany Oil Shale, unless there is existing cement across this interval.

(3)  Isolate the Uinta Formation from the Green River Formation: Perforate and squeeze a minimum of 110 ft. cement up the backside of the outermost casing to isolate the contact between the Uinta Formation and the Green River Formation, unless there is existing cement across this interval. Set a minimum 110 ft. cement plug in the innermost casing centered on the contact between the Green River and Uinta Formations.

(4)  Isolate Surface Fluid Migration Paths:

a.  If the depth of the lowermost USDW is above the base of surface casing, perforate the outermost casing string 50 ft. below the base of surface casing and circulate cement to the surface, unless there is existing cement across this interval; OR

b.  If the depth of the lowermost USDW is below the base of surface casing, perforate the outermost casing string 50 ft. below the base of the lowermost USDW and circulate cement to surface; AND

c.  Set a cement plug inside the innermost casing string from 50 ft. below the base of the surface casing to 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 demonstration of Financial Responsibility in the amount of \$42,000 has been reviewed and approved by the EPA on December 21, 2011.

The Director may revise the amount required, and may require the Permittee to obtain and provide updated estimates of plugging and abandonment costs according to the approved Plugging and Abandonment Plan.

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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> UTU-77369
		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>1. TYPE OF WELL</b> Water Injection Well		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>8. WELL NAME and NUMBER:</b> FEDERAL 11-19-9-17
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052		<b>9. API NUMBER:</b> 43013331960000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2002 FSL 1865 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 19 Township: 09.0S Range: 17.0E Meridian: S		<b>COUNTY:</b> DUCHESNE
		<b>STATE:</b> 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 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 Date of Work Completion: 12/11/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT 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 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="Put on Injection"/>

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

The above reference well was put on injection at 2:50 PM on  
12/11/2012. EPA # UT22231-09497

**Accepted by the  
Utah Division of  
Oil, Gas and Mining  
FOR RECORD ONLY  
December 13, 2012**

<b>NAME (PLEASE PRINT)</b> Lucy Chavez-Naupoto	<b>PHONE NUMBER</b> 435 646-4874	<b>TITLE</b> Water Services Technician
<b>SIGNATURE</b> N/A	<b>DATE</b> 12/12/2012	



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8**

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

DEC 03 2012

Ref: 8P-W-UIC

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

Mr. Reed Durfey  
District Manager  
Newfield Production Company  
Route 3 – Box 3630  
Myton, Utah

Accepted by the  
Utah Division of  
Oil, Gas and Mining

**FOR RECORD ONLY**

RE: Underground Injection Control (UIC)  
Authorization to Commence Injection  
EPA UIC Permit UT22231-09497  
Well: Federal 11-19-9-17  
NESW Sec. 19-T9S-R17E  
Duchesne County, Utah  
API No.: 43-013-33196

Dear Mr. Durfey:

The U.S. Environmental Protection Agency Region 8 has received Newfield Production Company's (Newfield) November 6, 2012, letter with enclosures. The enclosed Part I (internal) Mechanical Integrity test, Well Rework Record (EPA Form 7520-12), schematic diagram and calculated pore pressure were reviewed and approved by the EPA, satisfactorily completing all Prior to Commencing Injection Requirements for UIC Permit UT22231-09497.

As of the date of this letter, Newfield is authorized to commence injection into the Federal 11-19-9-17 well at a Maximum Allowable Injection Pressure (MAIP) of 830 psig. You may apply for a higher MAIP at a later date. Your application should be accompanied by the interpreted results of a step rate test that measures the fracture parting pressure and calculates the fracture gradient at this depth and location. Newfield must receive prior authorization from the Director to inject at pressures greater than the permitted MAIP during any test.

As of this approval, responsibility for permit compliance and enforcement is transferred to the EPA's UIC Technical Enforcement Program. Therefore, please direct all monitoring and compliance correspondence to Sarah Roberts at the following address, referencing the well name and UIC Permit number on all correspondence:

Sarah Roberts  
U.S. EPA Region 8: 8ENF-UFO  
1595 Wynkoop Street  
Denver, Colorado 80202-1129

Or, you may reach Ms. Roberts by telephone at (303) 312-7056 or (800) 227-8927, extension 312-7056. Please remember that it is your responsibility to be aware of, and to comply with, all conditions of injection well Permit UT22231-09497.

If you have questions regarding the above action, please call Jason Deardorff at (303) 312-6583 or (800) 227-8917, extension 312-6583.

YOUNG & RUBICAM  
YOUNG & RUBICAM

Sincerely,



*for* Derrith Watchman-Moore  
Assistant Regional Administrator  
Office of Partnerships and Regulatory Assistance

cc: Uintah & Ouray Business Committee:

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

Johnna Blackhair  
BIA - Uintah & Ouray Indian Agency

Mike Natchees  
Environmental Coordinator  
Ute Indian Tribe

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

Associate Director  
Utah Division of Oil, Gas, and Mining

Fluid Minerals Engineering Office  
BLM - Vernal Office

Eric Sundberg, Regulatory Analyst  
Newfield Production Company



*Printed on Recycled Paper*

# Federal 11-19-9-17

Spud Date: 8/6/08  
 Put on Production: 11/18/08  
 GL: 5543' KB: 5555'

## Injection Wellbore Diagram

### SURFACE CASING

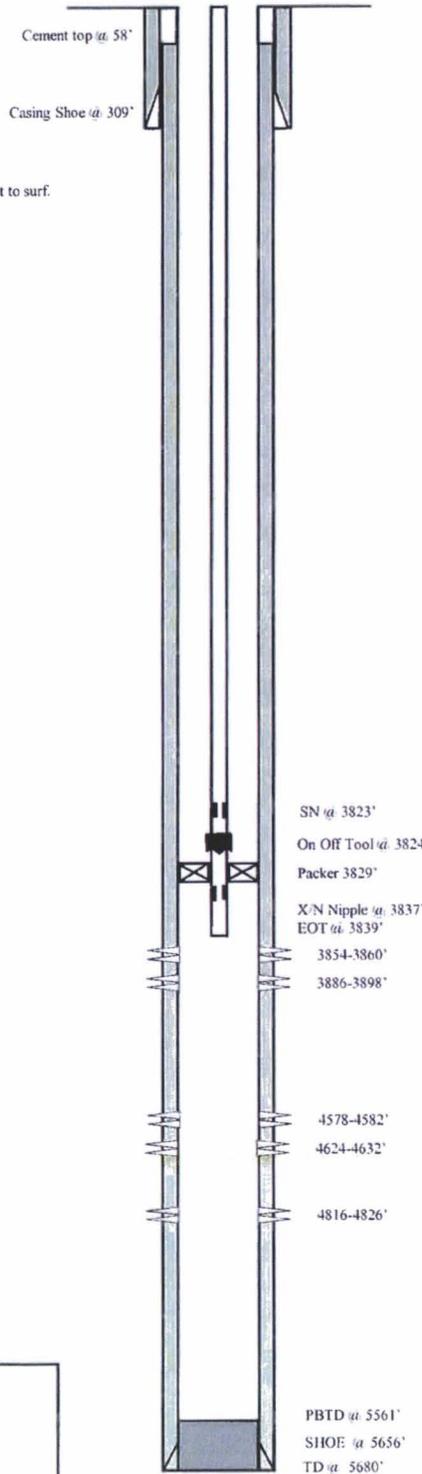
CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7 jts (309.24')  
 DEPTH LANDED: 309.24' KB  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 1- 160, sxs Class "G" cmt, est 35 bbls cmt to surf.

### PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 157 jts (5945.49')  
 DEPTH LANDED: 5655.91'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 300 sx Premlite and 400 sx 50-50 Poz  
 CEMENT TOP AT: 58'

### TUBING

SIZE/GRADE/WT.: 2-7/8" J-55 / 6.5#  
 NO. OF JOINTS: 120 jts (3810.7')  
 SEATING NIPPLE: 2-7/8" (1.10')  
 SN LANDED AT: 3822.7' KB  
 ON-OFF TOOL AT: 3823.8'  
 ARROW #1 PACKER CE AT: 3828.72'  
 TBG PUP w/ XO 2-3/8 J-55 AT: 3832.7'  
 X/N NIPPLE AT: 3837.4'  
 TOTAL STRING LENGTH: EOT @ 3839'



### FRAC JOB

11/13/08 4816-4826' **Frac A1 sds as follows:** 40,297#s of 20/40 sand in 400 bbls of Lightning 17 fluid. Broke @ 2465 psi. Treated w/ ave pressure of 1826 psi w/ ave rate of 23.2 BPM. ISIP 1951 psi. Actual flush: 4309 gals.

11/13/08 4578-4632' **Frac B.5/B1 sds as follows:** 30,196#s of 20/40 sand in 387 bbls of Lightning 17 fluid. Broke @ 4220 psi. Treated w/ ave pressure of 1877 psi w/ ave rate of 23.1 BPM. ISIP 1790 psi. Actual flush: 4074 gals.

11/13/08 3854-3898' **Frac GB4/GB6 sds as follows:** 58,242#s of 20/40 sand in 487 bbls of Lightning 17 fluid. Broke @ 1475 psi. Treated w/ ave pressure of 1417 psi w/ ave rate of 23.3 BPM. ISIP 1570 psi. Actual flush: 3767 gals.

9-18-09 **Tubing Leak.** Updated rod & tubing details.

6-18-2010 **Pump change** updated rod and tubing detail.

9-17-2010 **Tubing Leak.** Updated rod and tubing detail.

10/30/12 4520-4526' **Frac C sds as follows:** 22239#s of 20-40 sand in 311 bbls of Lightning 17 fluid.

11/01/12 **Convert to Injection Well**

11/02/12 **Conversion MIT Finalized** - update tbg detail

### PERFORATION RECORD

Date	Interval	Number of Holes	Completion Type
11/13/08	3854-3860'	4	JSPF 24 holes
11/13/08	3886-3898'	4	JSPF 48 holes
11/13/08	4578-4582'	4	JSPF 16 holes
11/13/08	4624-4632'	4	JSPF 21 holes
11/13/08	4816-4826'	4	JSPF 40 holes
10-29-12	4520-4526'	3	JSPF 18 holes

**NEWFIELD**

**Federal 11-19-9-17**

2002' FSI & 1865' FWL  
 NE/SW Section 19-T9S-R17E  
 Duchesne Co. Utah  
 API # 43-013-33196; Lease # UTU- 77369