

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

**REGULATIVE**  
SUBMIT AT 7 LOCATE\*  
Other location on reverse side)  
**JAN 23 1985**  
**DIV OF OIL, GAS & MINING**

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK**

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 Rocky Mountain Operating Company, Inc.

3. ADDRESS OF OPERATOR  
 6131 S. Forest Court Littleton, CO 80121 303-850-7921

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 1980' FWL, 1980' FSL, NE SW Section 4, T9S, R18E SLB&M  
 At proposed prod. zone  
 Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 20 miles south of Myton, Utah

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)      1980'

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.      1000'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 GR - 4963'

16. NO. OF ACRES IN LEASE

19. PROPOSED DEPTH  
 6000±

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 40

20. ROTARY OR CABLE TOOLS  
 Rotary

22. APPROX. DATE WORK WILL START\*  
 2/15/95

5. LEASE DESIGNATION AND SERIAL NO.  
 U-17424

7. UNIT AGREEMENT NAME  
 Eight Mile Flat Unit

8. FARM OR LEASE NAME  
 Participating Area "C"

9. WELL NO.  
 Federal #4-2

10. FIELD AND POOL, OR WILDCAT

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 4, T9S, R18E SLB&M

12. COUNTY OR PARISH      13. STATE  
 Uintah      Utah

**PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	9-5/8"	36.0#	300'	100 sx Class A
7-7/8"	5 1/2"	17.0#	6000'	400 sx Class A

The operator plans to drill a development well to test the lower Green River formation. The drilling operations will follow the attached drilling prognosis. All water flows and hydrocarbon shows will be reported. Adequate BOP equipment will be maintained at all times. If commercial production is established, production casing will be run and cemented adequately to protect the zones of interest. No abnormal pressures or temperatures are anticipated. Anticipated BHP is 2000 psia.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED [Signature] TITLE President DATE January 1, 1995

(This space for Federal or State office use)

PERMIT NO. 43-047-32654 APPROVAL DATE \_\_\_\_\_

APPROVED BY [Signature] TITLE \_\_\_\_\_ DATE 3/10/95  
 OF UTAH DIVISION OF OIL, GAS, AND MINING

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_ DATE: \_\_\_\_\_ BY: \_\_\_\_\_

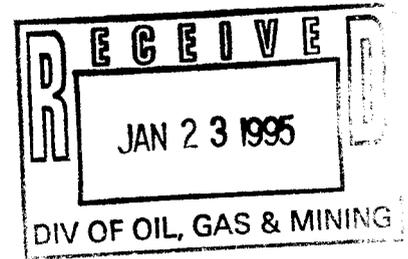
\*See Instructions On Reverse Side



# Rocky Mountain Operating Company, Inc.

6131 S. Forest Ct. • Heritage Village • Littleton, CO 80121 • (303) 850-7921

January 19, 1995



U.S. Department of Interior  
Bureau of Land Management  
170 South 500 East  
Vernal, Utah 84078

Re: APD for #4-2 & #4-3 Wells located in Section 4, T9S, R18E, Uintah County.

Gentlemen:

Find enclosed the following documents related to the drilling of the above captioned wells:

1. Application for Permit to Drill
2. Surveyor's Plat
3. Well/Drilling Prognosis
4. BOP & Pressure Control Specifications
5. 13-Point Surface Use Plan

Your early response to this application will be appreciated as we would like to commence operations as soon as possible. Should you require any additional information, please contact this office.

Sincerely,

Edward Neibauer  
President

encl.

cc. Utah Division of Oil, Gas & Mining  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203

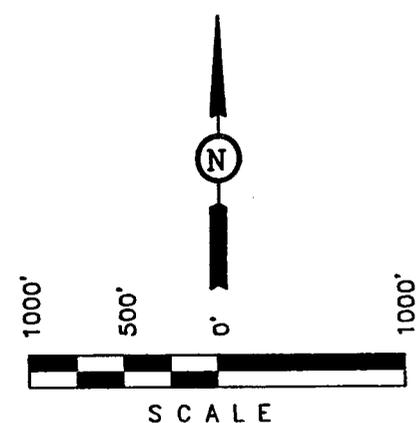
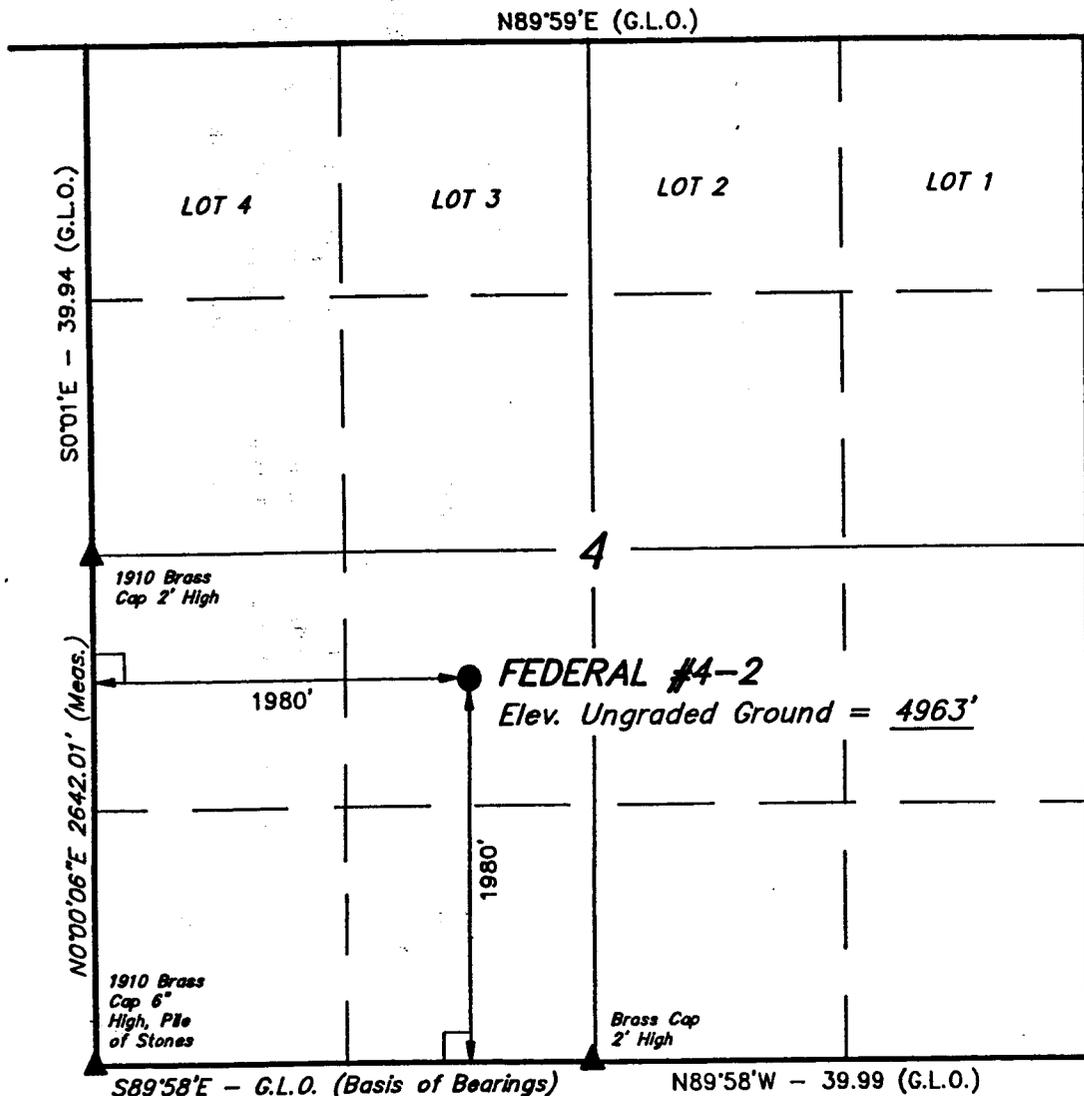
**ROCKY MOUNTAIN OPERATING CO., INC.**

Well location, FEDERAL #4-2, located as shown in the NE 1/4 SW 1/4 of Section 4, T9S, R18E, S.L.B.&M. Uintah County, Utah

**T9S, R18E, S.L.B.&M.**

**BASIS OF ELEVATION**

**T8S**  
**T9S** SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 4, T9S, R18E, 6th P.M. TAKEN FROM THE PARIETTE DRAW SW QUADRANGLE, UTAH, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 4993 FEET.



**CERTIFICATE**

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

*Robert L. Kay*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO. 161319  
STATE OF UTAH

<b>UINTAH ENGINEERING &amp; LAND SURVEYING</b> 85 SOUTH 200 EAST - VERNAL, UTAH 84078 (801) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 9-9-94	DATE DRAWN: 9-15-94
PARTY G.S. R.A. D.J.S.	REFERENCES G.L.O. PLAT	
WEATHER	FILE	

**LEGEND:**

- = 90° SYMBOL
- = PROPOSED WELL HEAD.

## WELL PROGNOSIS

WELL: Federal #4-2

LOCATION: NE/4 SW/4 Section 4, T9S, R18E, Uintah County, Utah

DRILLING CONTRACTOR: To be selected.

ELEVATION: GR - 4963' KB - 4975' (estimated)

FORMATION:	<u>Formation</u>	<u>Depth</u>	<u>Datum</u>
	Uintah	Surface	4963'
	Evacuation Creek	1700'	3275'
	Parachute Creek	2200'	2275'
	Douglas Creek	3900'	1075'
	Black Shale	5300'	-325'
	Green River Tongue	5900'	-925'

**SAMPLE COLLECTION:** Collect cuttings samples at ten (10) foot intervals from under surface casing to total depth. Samples will be collected by drilling crews for the wellsite geologist. Frequency of sample collection may be changed at the wellsite geologist's discretion.

**ELECTRIC LOGGING SURVEYS:** The following logging program will be as follows:

1500' to 6000' 7-7/8" hole below 9-5/8" casing.

1. FDC/CNL/GR
2. DLL/SP/GR

**MUD LOGGING:** A portable mud logging unit will be operated by a wellsite geologist below surface casing to total depth. A geolograph will be in service from surface casing to total depth.

**CORING:** No coring operations are anticipated.

**DRILLSTEM TESTING:** No DST's are anticipated.

## **DRILLING PROGNOSIS**

### **FEDERAL #4-2**

- 1. Move in air rotary drilling rig and drill 12-1/4" hole to 300'. Set and cement 9-5/8", 36# casing to surface with approximately 100 sacks cement.**
- 2. Cut-off 9-5/8" casing and install 3000# casing flange. Install BOP equipment per BOP and Pressure containment program. Pressure test BOP's manifold and all valves to 3000 psig and annular preventer to 2000 psig prior to drilling casing shoe.**
- 3. Drill 7-7/8" hole to total depth. Conduct electric logging and prepare hole for production casing.**
- 4. Run 5-1/2", 17.0 #, K-55 production casing and cement as necessary across potential zones. The length of the cement column will be determined after the logs have been evaluated.**
- 5. Release rotary drilling rig and determine completion procedure.**

### **SPECIAL INSTRUCTIONS:**

- 1. Run deviation surveys at regular intervals and in conjunction with bit trips.**
- 2. Utilize degasser and necessary solids control equipment.**
- 3. Avoid surging hole on trips and fill hole properly when pulling pipe.**
- 4. All crew members should be familiar with BOP operations. Test pipe rams daily and close blind rams each trip out of the hole.**
- 5. Drilling crews should observe to detect either decrease or increase in fluid level.**
- 6. A regular daily mud check should be made by mud engineer.**

**ROCKY MOUNTAIN OPERATING COMPANY, INC.  
13 POINT SURFACE USE PLAN  
FOR  
FEDERAL #4-2  
SECTION 4, T9S, R18E, S.L.B.&M.  
UINTAH COUNTY, UTAH**

**ROCKY MOUNTAIN OPERATING COMPANY, INC.**  
**13 POINT SURFACE USE PLAN**

**1. EXISTING ROADS**

See attached Topographic Map "A" to reach the Federal #4-2 well location, located in Section 4, T9S, R18E, Uintah County, Utah. Proceed south from Myton along a gravel road approximately 19 miles which is known as the Pleasant Valley road. This road is well traveled and used daily to access the existing oil and gas wells in the Monument Butte and Eight Mile Flat Fields.

**2. PLANNED ACCESS ROAD**

See Topographic Map "B" for the proposed access road. In order to facilitate the anticipated traffic flow necessary to drill and produce this well, the following standards will be met:

- A. The proposed access road will be an 18' crown road (9' either side of the center-line) with drain ditches along either side of the proposed road where it is determined necessary in order to handle run-off from any normal meteorological conditions that are prevalent to this area.
- B. Back slopes along the cut areas of the road will be 1 1/2 to 1 slopes and terraced.
- C. The road will be center-line flagged prior to the commencement of construction.
- D. The grade of this road will vary from flat to 8%, but will not exceed this amount. This road will be constructed from native borrow accumulated during construction.
- E. No major cuts, fills or culverts are anticipated for construction on the road.
- F. Any fences that are encountered along this access road will be cut and replaced with a cattleguard with minimum width of 18' and a loading factor large enough to facilitate the truck traffic required in the drilling and production of this well.
- G. If cattleguards are to be located at existing gates they will be installed with the above requirements and with a new gate installed at one end of the cattleguard.
- H. The access from the road to the gate will be of such a nature that there will be no impedance of traffic flow along the main access road and no difficulties encountered by traffic utilizing the gate either leaving or entering the proposed access road.

### **3. LOCATION OF EXISTING WELLS**

As shown on Topographic Map "B", the other known wells within a one-mile radius are identified as follows:

1. Water Wells - None
2. Abandoned Wells - None
3. Temporarily abandoned wells - None
4. Disposal Wells - None
5. Drilling Wells - None
6. Producing Wells - One
7. Shut-in Wells - Six
8. Injection Wells - None
9. Monitoring or observation wells for other purposes - None

### **4. LOCATION OF TANK BATTERIES, PRODUCTION FACILITIES AND PRODUCTION GATHERING LINES AND SERVICE LINES**

All production facilities are to be contained within the proposed location site. In the event production is established:

- (1) Any plans for a oil and gas flowlines from this location to existing gathering lines or a main production line will be submitted to the appropriate agencies for approval.
- (2) All production facilities will be located on the existing site.
- (3) Construction materials will be native borrow or cut exposed on the site and will be consistent with accepted oil field standards and good engineering practices.
- (4) The reserve pit will be fenced on three sides during drilling and completion operations and will be rehabilitated to conform with the provisions of plans for surface restoration.

### **5. LOCATION OF AND TYPE OF WATER SUPPLY**

Water required for drilling operations will be transported by truck over the existing and proposed access roads from private and/or state sources. No additional roads or pipelines will be required. If a water well is necessary for the drilling of this well, proper permits will be obtained prior to commencement of operations.

### **6. SOURCE OF CONSTRUCTION MATERIALS**

Construction materials will be obtained from Federal lands. The proposed access road will be crossing Federal lands.

## **7. METHOD FOR HANDLING WASTE DISPOSAL**

See Location Layout Sheet. A reserve pit will be constructed as follows:

- (1) The reserve pit will be approximately 8' deep and at least one half of this depth shall be below the surface of the existing ground.
- (2) One half of the reserve pit will be used as a fresh water storage area during the drilling of this well and the other half will be used to store non-flammable materials such as cuttings, salts, drilling fluids, chemicals, produced fluids, etc.
- (3) If deemed necessary by the agencies concerned, the reserve pit will be lined with a liner or gel.
- (4) The pits will have overhead flagging installed if deemed necessary to protect the water fowl, wildlife and domestic animals.
- (5) When the reserve pit dries and the reclamation activities commence, the pits will be covered with a minimum of 4 feet of soil and all requirements will be followed.
- (6) Garbage and other waste materials will be contained in an enclosed wire mesh trash bin on the location and hauled to the nearest sanitary fill as necessary.
- (7) A portable chemical toilet will be supplied for human waste.

## **8. ANCILLARY FACILITIES**

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

## **9. WELL SITE LAYOUT**

See Location Layout Sheet. The Bureau of Land Management District Manager shall be notified before any construction begins on the proposed location site. The pits will be unlined unless it is determined by the representatives of the agencies involved that the materials are too porous and cause contamination to the surrounding areas, then the pits will be lined with gel and any other type material necessary to make it safe and tight. When drilling activities commence, all work shall proceed in a neat and orderly sequence.

## **10. PLANS FOR RESTORATION OF SURFACE**

All topsoil shall be stripped and stockpiled. When all drilling production activities have been completed, the location site and access road will be reshaped to the original contour and stockpiled topsoil spread over the disturbed area. All drainage's re-routed during the construction activities shall be restored to their original line of flow as near as possible.

Fences around pits are to be removed upon completion of drilling activities and all waste being contained in the trash pit shall be buried with a minimum of 5' of cover. Any appreciable amount of oil will be removed from the reserve pit prior to restoration activities. Restoration activities shall begin within 90 days after completion of the well. Once completion activities have begun, they shall be completed within 30 days. When restoration activities have been completed, the location site and access ramp shall be reseeded with a seed mixture recommended by the BLM District Manager when the moisture content of the soil is adequate for germination. The Lessee further covenants and agrees that all of said cleanup and restoration activities shall be done and performed in a diligent and most workmanlike manner.

#### 11. OTHER INFORMATION

The surface area in the general area is primarily used for oil and gas operations and grazing domestic sheep and cattle. The topsoil in the area range from a light brownish-gray sandy clay (SM-ML) type soil to poorly graded gravels to a clay (OL) type soil. The majority of the numerous washes and streams in the area are of a non-perennial nature flowing during the early spring run-off and extremely heavy rain storms of long duration which are extremely rare.

Due to the low precipitation average, climatic conditions and the marginal types of soils, the vegetation that is found in the area is common of the semi-arid region that exists in the Uinta Basin. It consists of areas of scrub brush, rabbit brush and grasses as the primary flora.

The fauna of the area consists of predominately of rabbits and varieties of small ground squirrels and other types of rodents. The area is used by man for the primary purpose of grazing domestic sheep and cattle and recreation.

The birds of the area are raptors, finches, ground sparrows and magpies.

The topography of the immediate area consists of a high desert plateau with gentle slopes along with rocky outcrops to the north. The vegetation is predominantly scrub brush and grasses. There are no occupied dwellings or other facilities of this nature in the general area. There are no visible archaeological, historical or cultural sites within any reasonable proximity of the proposed location site.

#### 12. LESSEE'S OR OPERATOR'S REPRESENTATIVE

Edward Neibauer  
6131 South Forest Court  
Littleton, Colorado 80121

Telephone - 303-850-7921  
Fax - 303-850-7950

**13. CERTIFICATION**

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge and belief, true and correct; that the work associated with the operations proposed herein will be performed by Rocky Mountain Operating Company, Inc. and its contractors and sub-contractors in conformity with this plan and terms and conditions under which it is approved.

**ROCKY MOUNTAIN OPERATING COMPANY, INC.**

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**Edward Neibauer, President**

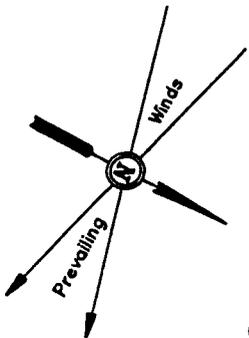
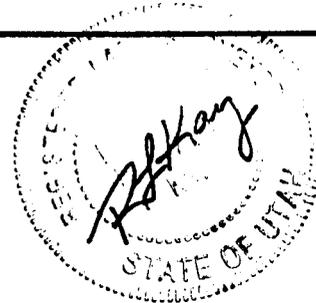
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**Date**

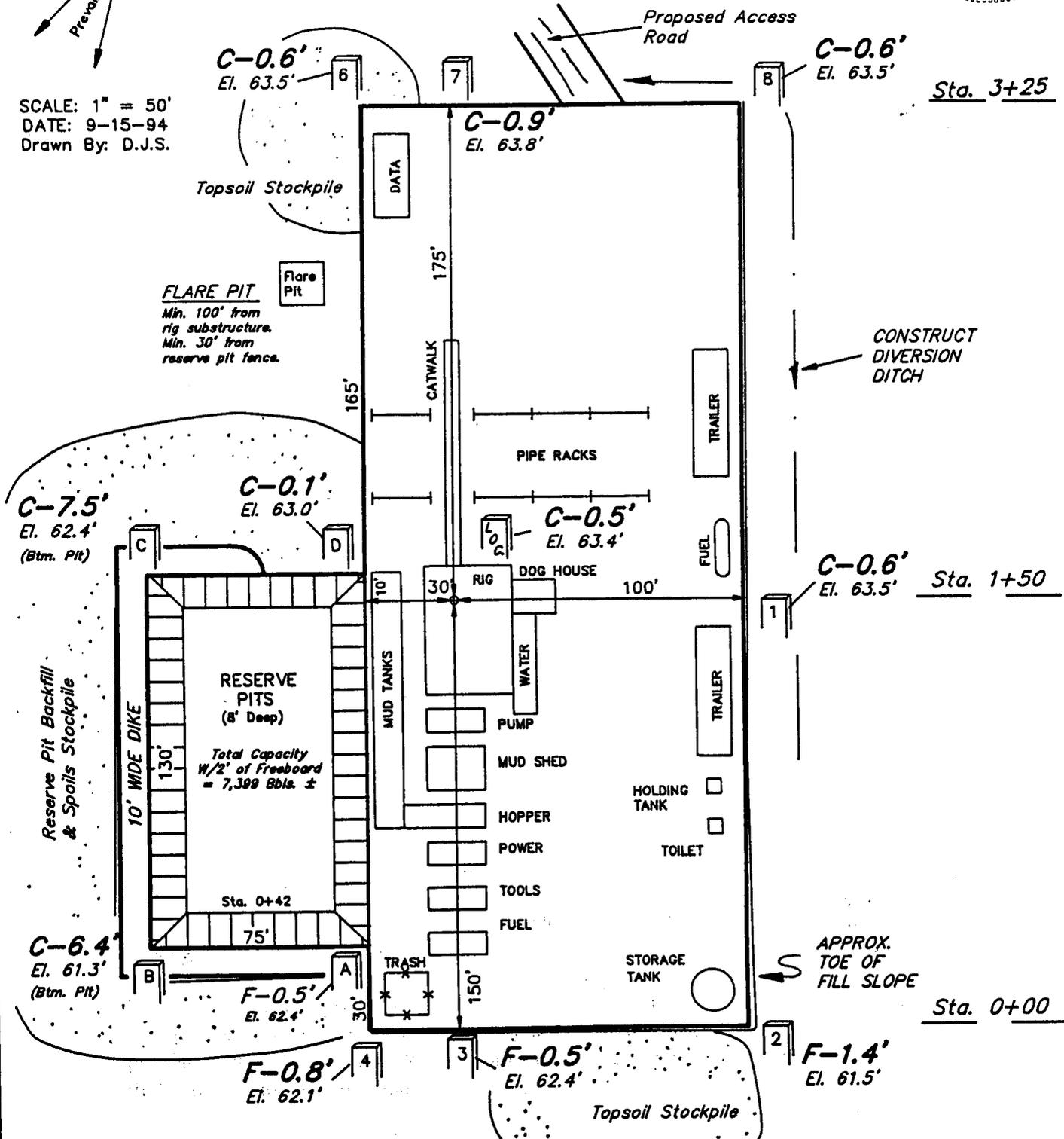
# ROCKY MOUNTAIN OPERATING CO., INC.

## LOCATION LAYOUT FOR

FEDERAL #4-2  
SECTION 4, T9S, R18E, S.L.B.&M.  
1980' FSL 1980' FWL



SCALE: 1" = 50'  
DATE: 9-15-94  
Drawn By: D.J.S.



Elev. Ungraded Ground at Location Stake = 4963.4'

Elev. Graded Ground at Location Stake = 4962.9'

UINTAH ENGINEERING & LAND SURVEYING  
85 So. 200 East • Vernal, Utah 84078 • (801) 789-1017

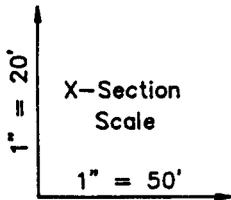
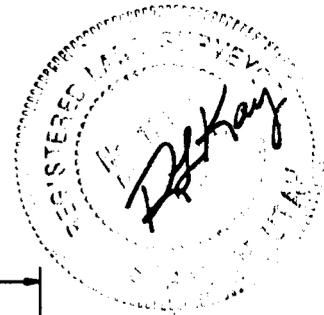
# ROCKY MOUNTAIN OPERATING CO., INC.

## TYPICAL CROSS SECTIONS FOR

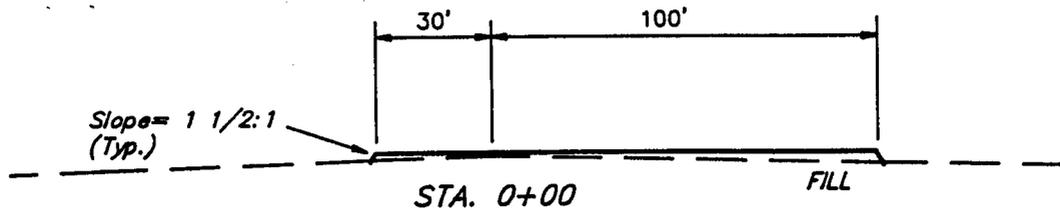
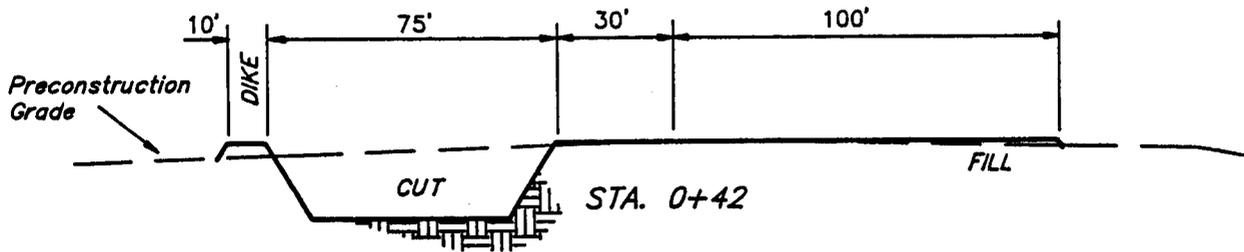
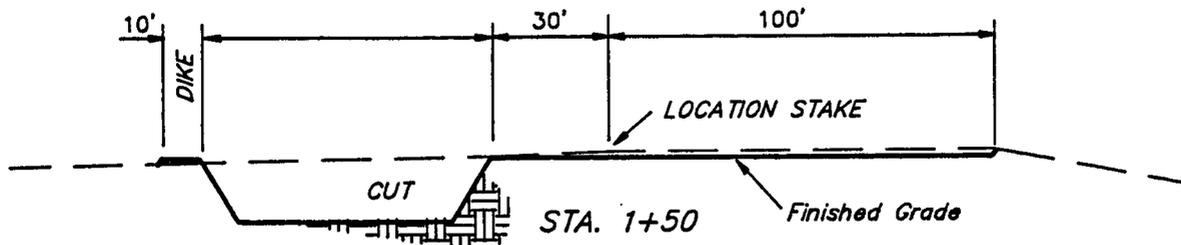
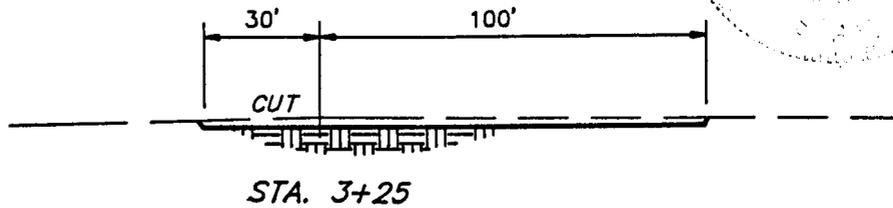
FEDERAL #4-2

SECTION 4, T9S, R18E, S.L.B.&M.

1980' FSL 1980' FWL



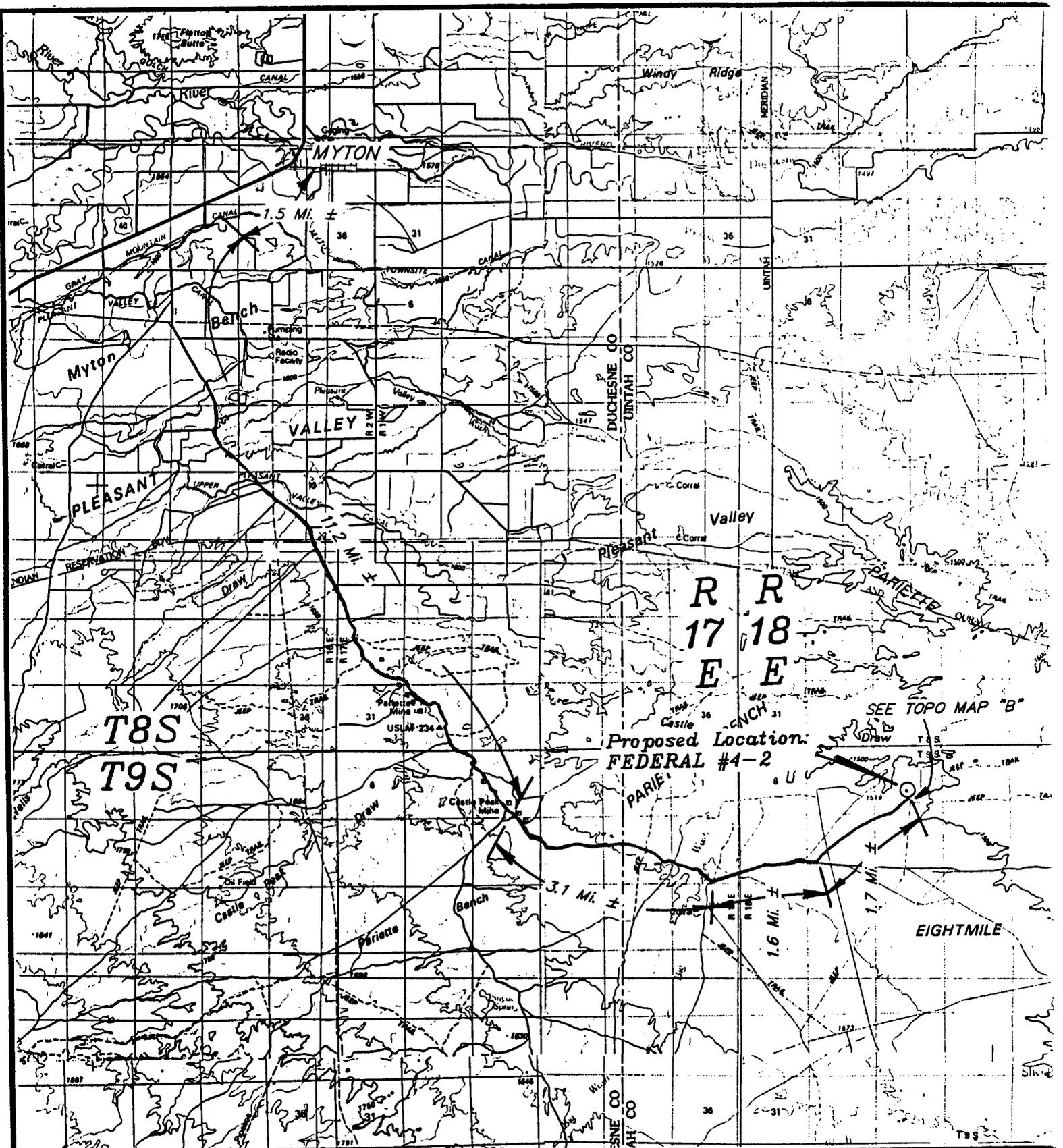
DATE: 9-15-94  
Drawn By: D.J.S.



### APPROXIMATE YARDAGES

CUT		
(6") Topsoil Stripping	=	990 Cu. Yds.
Remaining Location	=	1,950 Cu. Yds.
<b>TOTAL CUT</b>	<b>=</b>	<b>2,940 CU.YDS.</b>
<b>FILL</b>	<b>=</b>	<b>620 CU.YDS.</b>

EXCESS MATERIAL AFTER 5% COMPACTION	=	2,290 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	=	2,100 Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	=	190 Cu. Yds.



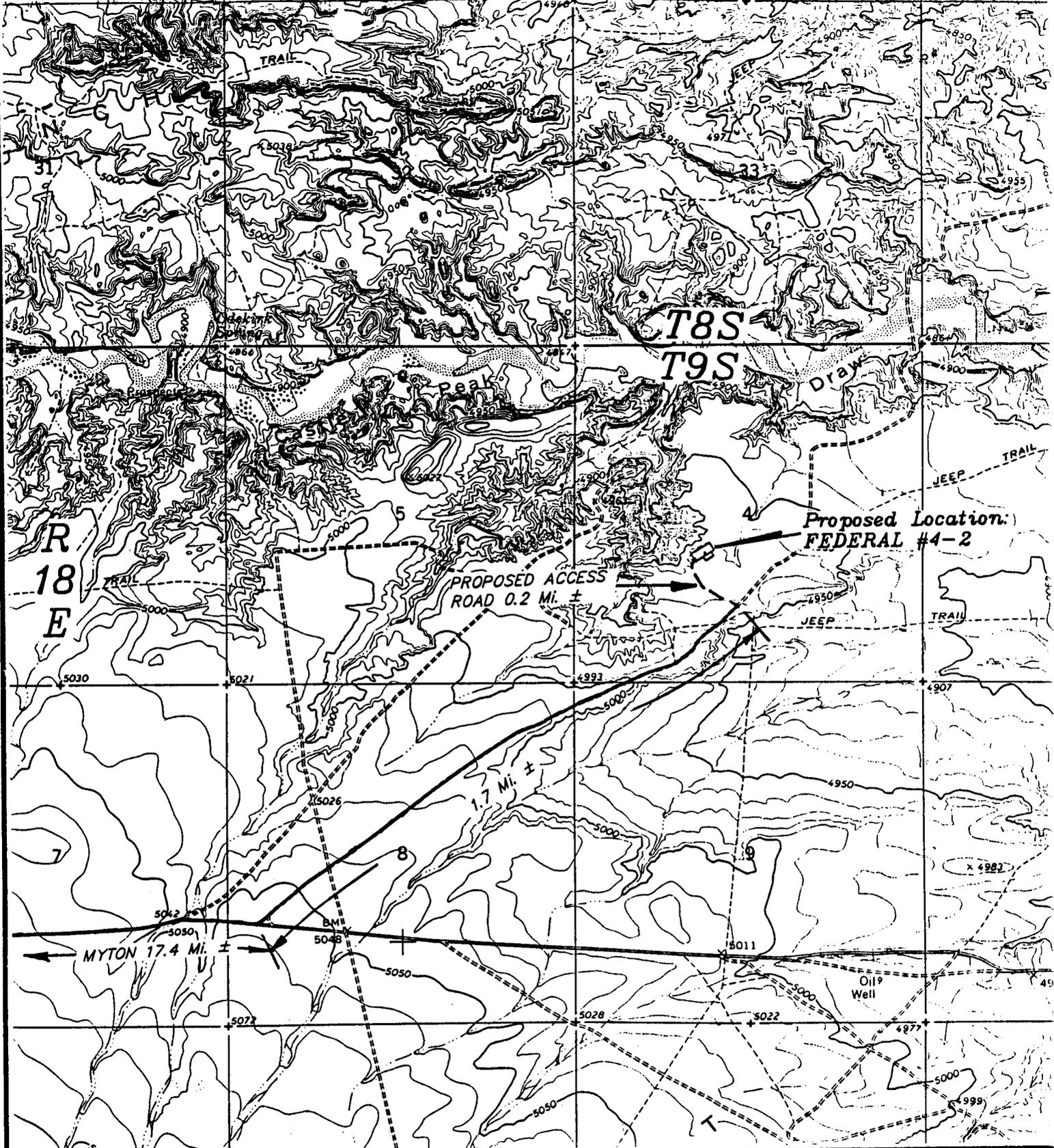
TOPOGRAPHIC  
MAP "A"

DATE: 9-15-94 D.J.S.



**ROCKY MOUNTAIN OPERATING CO., INC.**

FEDERAL #4-2  
SECTION 4, T9S, R18E, S.L.B.&M.  
691' FSL 741' FWL



TOPOGRAPHIC  
 MAP "B"  
 SCALE: 1" = 2000'  
 DATE: 9-15-94 D.J.S.



ROCKY MOUNTAIN OPERATING CO., INC  
 FEDERAL #4-2  
 SECTION 4, T9S, R18E, S.L.B.&M.  
 691' FSL 741' FWL



**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 01/23/95

API NO. ASSIGNED: 43-047-32654

WELL NAME: FEDERAL 4-2  
OPERATOR: ROCKY MOUNTAIN OPERATING (N4890)

PROPOSED LOCATION:  
NESW 04 - T09S - R18E  
SURFACE: 1980-FSL-1980-FWL  
BOTTOM: 1980-FSL-1980-FWL  
UINTAH COUNTY  
EIGHT MILE FLAT NORTH FIELD (590)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: FED  
LEASE NUMBER: U-17424

PROPOSED PRODUCING FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Y Plat  
 \_\_\_ Bond: Federal[] State[] Fee[]  
           (Number \_\_\_\_\_)

N Potash (Y/N)  
N Oil shale (Y/N)  
N Water permit  
           (Number \_\_\_\_\_)

N RDCC Review (Y/N)  
           (Date: \_\_\_\_\_)

LOCATION AND SITING:

R649-2-3. Unit: UTU63073X

\_\_\_ R649-3-2. General.

\_\_\_ R649-3-3. Exception.

\_\_\_ Drilling Unit.  
       Board Cause no: \_\_\_\_\_  
       Date: \_\_\_\_\_

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

STIPULATIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

T 8 S

T 9 S

EIGHT MILE FLAT NORTH FIELD

• FEDERAL #4-2

• FEDERAL #4-3

R 17 E

R 18 E

R 18 E

ROCKY MOUNTAIN OPERATING  
DEVELOPMENT DRILLING  
SEC. 4, T 9 S, R 18 E,  
UINTAH COUNTY  
PARTICIPATING AREA "C"

**STATE OF UTAH**

<b>Operator: ROCKY MOUNTAIN</b>	<b>Well Name: EIGHT MILE FLAT FED.</b>
<b>Project ID: 43-047-32654</b>	<b>Location: NE/SW SEC.4, T09S, R1</b>

**Design Parameters:**

Mud weight ( 9.00 ppg) : 0.468 psi/ft  
 Shut in surface pressure : 2444 psi  
 Internal gradient (burst) : 0.060 psi/ft  
 Annular gradient (burst) : 0.000 psi/ft  
 Tensile load is determined using air weight  
 Service rating is "Sweet"

**Design Factors:**

Collapse : 1.125  
 Burst : 1.00  
 8 Round : 1.80 (J)  
 Buttress : 1.60 (J)  
 Other : 1.50 (J)  
 Body Yield : 1.50 (B)

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	6,000	5.500	17.00	K-55	LT&C	6,000	4.767		
	<b>Load (psi)</b>	<b>Collapse Strgth (psi)</b>	<b>S.F.</b>	<b>Burst Load (psi)</b>	<b>Min Int Strgth (psi)</b>	<b>Yield S.F.</b>	<b>Tension Load (kips)</b>	<b>Strgth (kips)</b>	<b>S.F.</b>
1	2805	4910	1.750	2805	5320	1.90	102.00	272	2.67 J

Prepared by : KMH, Salt Lake City, UT  
 Date : 03-10-1995  
 Remarks :

Minimum segment length for the 6,000 foot well is 1,000 feet.  
 SICP is based on the ideal gas law, a gas gravity of 0.69, and a mean gas temperature of 104°F (Surface 74°F , BHT 134°F & temp. gradient 1.000°/100 ft.)  
 A tension preload of 1 lbs. was applied.  
 The mud gradient and bottom hole pressures (for burst) are 0.468 psi/ft and 2,805 psi, respectively.

**NOTE:** The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06)

**EQUIPMENT INVENTORY**  
**UTAH DIVISION OF OIL, GAS AND MINING**  
**STATE OF UTAH**

Operator: ROCKY MT. OP. Lease: State: \_\_\_\_\_ Federal: X Indian: \_\_\_\_\_ Fee: \_\_\_\_\_

Well Name: FEDERAL 4-2 API Number: 48-047-02654

Section: 4 Township: 22 Range: 165 County: UINTAH Field: MILE FLAT

Well Status: POH Well Type: Oil: X Gas: \_\_\_\_\_

**PRODUCTION LEASE EQUIPMENT: (NUMBER)**

Boiler(s): \_\_\_\_\_ Compressor(s): \_\_\_\_\_ Separator(s): \_\_\_\_\_ Dehydrator(s): \_\_\_\_\_  
Shed(s): \_\_\_\_\_ Line Heater(s): \_\_\_\_\_ Heated Separator(s): \_\_\_\_\_ VRU: \_\_\_\_\_  
Heater Treater(s): 1

**PUMPS:**

Triplex: \_\_\_\_\_ Chemical: 1 Centrifugal: 1

**LIFT METHOD:**

Pumpjack: X Hydraulic: \_\_\_\_\_ Submersible: \_\_\_\_\_ Flowing: \_\_\_\_\_

**GAS EQUIPMENT: (NUMBER)**

Purchase Meter: 0 Sales Meter: 0

**TANKS:**

	NUMBER	SIZE	
Oil Storage Tank(s):	<u>2</u>	<u>400</u>	BBLS
Water Tank(s):	<u>1</u>	<u>100</u>	BBLS
Power Water Tank:	_____	_____	BBLS
Condensate Tank(s):	_____	_____	BBLS
Propane Tank:	<u>1</u>		

**Central Battery Location: (IF APPLICABLE)**

Qtr/Qtr: \_\_\_\_\_ Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_

REMARKS: PRODUCTION TANKS HAVE BURNERS.

David W. Neefus 8/4/95

Rocky Mountain Operating

3-047-32654

Federal 4-2

↑  
North

Access

Gas powered  
Pump jack



wellhead

400  
barrel  
Oil  
Tank

400  
barrel  
Oil  
tank

100  
barrel  
H<sub>2</sub>O

Heater  
treat er

Top  
Soil

Berm

Propane

Reserve  
Pit



**State of Utah**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Ted Stewart  
Executive Director  
James W. Carter  
Division Director

355 West North Temple  
3 Triad Center, Suite 350  
Salt Lake City, Utah 84180-1203  
801-538-5340  
801-359-3940 (Fax)  
801-538-5319 (TDD)

March 10, 1995

Rocky Mountain Operating Company, Inc.  
6131 South Forest Court  
Littleton, Colorado 80121

Re: Federal #4-2 Well, 1980' FSL, 1980' FWL, NE SW, Sec. 4, T. 9 S., R. 18 E.,  
Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Admin. R. 649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-32654.

Sincerely,

A handwritten signature in black ink, appearing to read "R. J. Firth", written over a horizontal line.

R. J. Firth  
Associate Director

ldc

Enclosures

cc: Uintah County Assessor

Bureau of Land Management, Vernal District Office

WAPD



**Operator:** Rocky Mountain Operating Company, Inc.

**Well Name & Number:** Federal #4-2

**API Number:** 43-047-32654

**Lease:** Federal #U-17424

**Location:** NE SW Sec. 4 T. 9 S., R. 18 E.

### **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 following spudding the well or commencing drilling operations. Contact Jimmie Thompson at (801)538-5340.

Notify the Division prior to commencing operations to plug and abandon the well. Contact Frank Matthews or Mike Hebertson at (801)538-5340.

#### **3. Reporting Requirements**

All required reports, forms and submittals shall 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.

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

SUBMIT IN REGISTRATION  
(Other instructions on reverse side)  
**MAR 16 1995**

Form approved.  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.  
**U-17424**

**APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG-GAS & MINING**

1a. TYPE OF WORK <b>DRILL</b> <input checked="" type="checkbox"/> <b>DEEPEN</b> <input type="checkbox"/> <b>PLUG BACK</b> <input type="checkbox"/>		7. UNIT AGREEMENT NAME <b>Eight Mile Flat Unit</b>
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. FARM OR LEASE NAME <b>Participating Area "C"</b>
2. NAME OF OPERATOR <b>Rocky Mountain Operating Company, Inc.</b>		9. WELL NO. <b>Federal #4-2</b>
3. ADDRESS OF OPERATOR <b>6131 S. Forest Court Littleton, CO 80121 303-850-7921</b>		10. FIELD AND POOL, OR WILDCAT <b>Sec. 4, T9S, R18E SLB&amp;M</b>
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface <b>1980' FWL, 1980' FSL, NE SW Section 4, T9S, R18E SLB&amp;M</b> At proposed prod. zone <b>Same</b>		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <b>Sec. 4, T9S, R18E SLB&amp;M</b>
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* <b>Approximately 20 miles south of Myton, Utah</b>		12. COUNTY OR PARISH      13. STATE <b>Uintah      Utah</b>
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) <b>1980'</b>	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL <b>40</b>
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. <b>1000'</b>	19. PROPOSED DEPTH <b>6000±</b>	20. ROTARY OR CABLE TOOLS <b>Rotary</b>
21. ELEVATIONS (Show whether DF, RT, GR, etc.) <b>GR - 4963'</b>		22. APPROX. DATE WORK WILL START* <b>2/15/95</b>

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/2"	9-5/8"	36.0#	300'	100 sx Class A
7-7/8"	5 1/2"	17.0#	6000'	400 sx Class A

The operator plans to drill a development well to test the lower Green River formation. The drilling operations will follow the attached drilling prognosis. All water flows and hydrocarbon shows will be reported. Adequate BOP equipment will be maintained at all times. If commercial production is established, production casing will be run and cemented adequately to protect the zones of interest. No abnormal pressures or temperatures are anticipated. Anticipated BHP is 2000 psia.

JAN 21 1995

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED *Edward H. ...* TITLE President DATE January 1, 1995

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY *...* TITLE ASSISTANT DISTRICT MANAGER MINERALS DATE MAR 10 1995

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

**NOTICE OF APPROVAL**

CONDITIONS OF APPROVAL ATTACHED TO OPERATIONS COPY

*Dio OF M*  
**UFO80-5M-114**

\*See Instructions On Reverse Side

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

Company/Operator: Rocky Mountain Operating

Well Name & Number: Federal 4-2

API Number: 43-047-32654

Lease Number: U-17424

Location: NESW Sec. 4 T. 9S R. 18E

**NOTIFICATION REQUIREMENTS**

- Location Construction - at least forty-eight (48) hours prior to construction of location and access roads.
- Location Completion - prior to moving on the drilling rig.
- Spud Notice - at least twenty-four (24) hours prior to spudding the well.
- Casing String and Cementing - at least twenty-four (24) hours prior to running casing and cementing all casing strings.
- BOP and Related Equipment Tests - at least twenty-four (24) hours prior to initiating pressure tests.
- First Production Notice - within five (5) business days after new well begins, or production resumes after well has been off production for more than ninety (90) days.

For more specific details on notification requirements, please check the Conditions of Approval for Notice to Drill and Surface Use Program.

CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Approval of this application 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.

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Orders, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative by the operator to insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

Report ALL water shows and water-bearing sands to Tim Ingwell of this office. Copies of State of Utah form OGC-8-X are acceptable. If noticeable water flows are detected, submit samples to this office along with any water analyses conducted.

All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc., for a 3M system and individual components shall be operable as designed. Chart recorders shall be used for all pressure tests.

Test charts, with individual test results identified, shall be maintained on location while drilling and shall be made available to a BLM representative upon request.

If an air compressor is on location and is being utilized to provide air for the drilling medium while drilling, the special drilling requirements in Onshore Oil and Gas Order No. 2, regarding air or gas drilling shall be adhered to. If a mist system is being utilized then the requirement for a deduster shall be waived.

The Vernal District Office shall be notified, at least 24 hours prior to initiating the pressure tests, in order to have a BLM representative on location during pressure testing.

3. Casing Program and Auxiliary Equipment

Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

The minimum grade for the surface casing will be **J-55 STC**.

As a minimum, the usable water and oil shale resources shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the base of the Usable Water zone identified at  $\pm 278$  ft. or by extending the surface casing to  $\pm 328$  ft. and having a cement top for the production casing at least 200 ft. above the top of the Mahogany Oil Shale zone identified at  $\pm 2917$  ft.. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

The Vernal District Office shall be notified at least 24 hours prior to the running and cementing of all casing strings, in order to have a BLM representative on location while running and cementing.

4. Mud Program and Circulating Medium

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the AO. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the AO.

A cement bond log (CBL) will be run from the production casing shoe to  $\pm 2717$  ft. if the surface casing is set at  $\pm 328$  ft. or to surface if the surface casing is set at  $\pm 300$  ft.. The CBL shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.

Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the AO.

6. Notifications of Operations

No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The Vernal District Office shall be notified, during regular work hours (7:45 a.m.-4:30 p.m., Monday through Friday except holidays), at least 24 hours prior to spudding the well.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed, for prior approval of the AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

Should the well be successfully completed for production, the AO will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) days following the date on which the well is placed on production.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or approval to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-5 (b.9. d.), and shall be submitted to the appropriate District Office within sixty (60) 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 43 CFR 3162.7-5 (b. 4).

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the AO or his representative, or the appropriate Surface Managing Agency.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted following initial installation and at least quarterly thereafter. The AO will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the Vernal District Office. All meter measurement facilities will conform with Onshore Oil & Gas Order No. 4 for liquid hydrocarbons and Onshore Oil & Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.

"Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hours approvals or notifications are necessary, please contact one of the following individuals:

Wayne P. Bankert      (801) 789-4170  
Petroleum Engineer

Ed Forsman            (801) 789-7077  
Petroleum Engineer

BLM FAX Machine      (801) 781-4410

## EPA'S LIST OF NONEXEMPT EXPLORATION AND PRODUCTION WASTES

While the following wastes are nonexempt, they are not necessarily hazardous.

- Unused fracturing fluids or acids
- Gas plant cooling tower cleaning wastes
- Painting wastes
- Oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids
- Vacuum truck and drum rinsate from trucks and drums, transporting or containing nonexempt waste
- Refinery wastes
- Liquid and solid wastes generated by crude oil and tank bottom reclaimers
- Used equipment lubrication oils
- Waste compressor oil, filters, and blowdown
- Used hydraulic fluids
- Waste solvents
- Waste in transportation pipeline-related pits
- Caustic or acid cleaners
- Boiler cleaning wastes
- Boiler refractory bricks
- Incinerator ash
- Laboratory wastes
- Sanitary wastes
- Pesticide wastes
- Radioactive tracer wastes
- Drums, insulation and miscellaneous solids.

## **SURFACE USE PLAN OF OPERATION** **Conditions of Approval (COAs)**

### Location of Tank Batteries, Production facilities, and Production Gathering Lines and Service Lines

If the well is a producing well and production tanks are required, these tanks will be bermed with an impermeable containment dike sufficient to hold the capacity of 100% of the largest tank on location.

All permanent facilities on location will be painted within six (6) months a non-reflective earthtone color to conform to other facilities in the area and the natural terrain. The color required is Desert Brown (10YR 6/3) referenced in the Standard Environmental Colors on the Munsell Soil Color Chart.

All pits on location will be fenced to the following standards to prevent livestock or wildlife from entering:

1. Fence: 39 inch net wire shall be used with at least one strand of barbed wire on top of the net wire (the barbed wire is not necessary if pipe or some other acceptable type of reinforcement rod is attached to the top of the entire fence.)
2. Wire Spacing: The bottom of the net wire shall be no more than 2 inches above the ground. The barbed wire strand shall be 3 inches above the top of the net wire. Total height of the fence shall be at least 42 inches.
3. Corner Braces: Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
4. Line Posts: Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 feet.
5. Fence Construction: All wire shall be stretched tight before the wire is attached to the corner braces. Pulling the wire tight by hand without the use of a stretching device is not acceptable.

The reserve pit will be fenced on three sides during the drilling operation and on the fourth side when the drill rig and workers leave the location, until the reserve pit is reclaimed.

### Location of and Type of Water Supply

The water source for drilling the well #4-2 will come from Joe Shields water, located in section 15, T4S, R2W or from Kenneth & Barbara Richens water located in section 34, T3S, R2W. This water will be transported over existing roads by Jim Nebeker Trucking. If any other water source is intended to be used the operator is required to have prior approval from the authorized officer of the BLM.

### Methods For Handling Waste Disposal

The operator is required to use a plastic reinforced liner to line the reserve pit. The liner will be a minimum of 12 mil thickness with sufficient bedding to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold in place. No trash, scrap pipe, etc..., that could puncture the liner will be disposed on in the pit.

After first production, produced waste water will be confined to a lined pit or storage tank for a period not to exceed ninety (90) days. During the 90 day period, in accordance with Onshore Order #7, an application for approval of a permanent disposal method and location, along with required water analysis, shall be submitted for the authorized officers approval.

### Well Site Layout

To avoid disturbance of a drainage corner #8 will be rounded and the access road will enter the location from the southwest between corners #6 & 7.

### Plans For Reclamation Of Location

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, materials, and trash not required for production.

Immediately upon well completion, any hydrocarbons on the pit shall be removed in accordance with 43 CFR 3162.7-1.

The plastic liner or the reserve pit shall be torn and perforated before backfilling of the pit when reclaimed.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 120 days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed. After these areas are recontoured they will be reseeded with a seed mix as specified by the authorized officer of the BLM.

At time of abandonment the intent of reclamation will be to return the disturbed area to near natural conditions. Recontour the surface of the disturbed area to blend all cuts, fills, road berms, and borrow ditches to be natural in appearance with the surrounding terrain. Stockpiled topsoil will be spread over the surface, and the area reseeded with a seed mix as specified by the authorized officer of the BLM. The location will require revegetation to the satisfaction of the authorized officer of the BLM.

Additional Surface Conditions of Approval

If the access road and oil well pad are scheduled to be constructed between March 15 and August 15, contact the authorized officer of the BLM to coordinate additional surveys for mountain plover. The surveys will be required a minimum of 14 days prior to surface disturbance. If an active nest or chicks are found, the proposed activity will be delayed until the chicks are out of downy plumage or the brood vacates the area.

FORM 9

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

5. LEASE DESIGNATION & SERIAL NO.

U-17424

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

6. IF INDIAN ALLOTTEE OR TRIBE NAME

1. OIL WELL  GAS WELL  OTHER

7. UNIT AGREEMENT NAME

EIGHT MILE FLAT

2. NAME OF OPERATOR

ROCKY MOUNTAIN OPERATING COMPANY, INC.

8. FARM OR LEASE NAME

PA "C"

3. ADDRESS OF OPERATOR

6131 S. FOREST CT. LITTLETON, CO 80121 303-850-7921

9. WELL NO.

FEDERAL #4-2

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)

At surface 1980' FWL, 1980' FSL AESW SECTION 4 T95 R18E

10. FIELD AND POOL OR WILDCAT

At proposed prod. zone

SAME

11. SEC., T., R., N., OR BLK. AND SURVEY OR AREA

SECT 4 T95 R18E

14. API NO.

47080-5M-114

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

12. COUNTY

UINTAH

13. STATE

UT.

16. 43-041-32654

Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

PULL OR ALTER CASING

WATER SHUT-OFF

REPAIRING WELL

FRACTURE TREAT

MULTIPLE COMPLETE

FRACTURE TREATMENT

ALTERING CASING

SHOOT OR ACIDIZE

ABANDON

SHOOTING OR ACIDIZING

ABANDONMENT\*

REPAIR WELL

CHANGE PLANS

(Other) \_\_\_\_\_

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

(Other) \_\_\_\_\_

APPROX. DATE WORK WILL START 5/15/95

DATE OF COMPLETION \_\_\_\_\_

17. 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.)

\* Must be accompanied by a cement verification report.

OPERATOR HAS SCHEDULED THE SPUDDING OF THE #4-2 WELL ON 5/15/95. THIS WILL SERVE AS NOTICE.

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

SIGNED

TITLE

PRESIDENT

DATE

5/12/95

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: ROCKY MOUNTAIN OPERATING

Well Name: FEDERAL # 4-2

Api No. 43-047-32654

Section 4 Township 9S Range 18E County UINTAH

Drilling Contractor \_\_\_\_\_

Rig # \_\_\_\_\_

SPUDDED: Date 5/15/95

Time \_\_\_\_\_

How ROTARY

Drilling will commence \_\_\_\_\_

Reported by SUNDRY NOTICE

Telephone # \_\_\_\_\_

Date: 5/15/95 Signed: JLT

**RECEIVED**  
OCT 2 1995

FORM 8

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

3. LEASE DESIGNATION AND SERIAL NO.  
U-17424

4. IF INDIAN, ALLOTTEE OR TRIBE NAME

5. WELL COMPLETION OR RECOMPLETION RECORD FOR OIL, GAS & MINING

6. TYPE OF WELL: OIL WELL  GAS WELL  DST  Other \_\_\_\_\_

7. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. ACQV.  Other \_\_\_\_\_

8. NAME OF OPERATOR  
Rocky Mountain Operating Co., Inc.

9. ADDRESS OF OPERATOR  
6131 S. Forest Ct., Littleton CO 80121

10. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)  
At surface 1980' FWL, 1980' FSL, NESW Sec. 4, T9S, R18E SLB&M  
At top prod. interval reported below Same as below  
At total depth 6049'

11. UNIT AGREEMENT NAME  
Eight Mile Flat Unit

12. FARM OR LEASE NAME  
Participating Area "C"

13. WELL NO.  
Federal #4-2

14. FIELD AND POOL OR WILDCAT  
Green River

15. SEC. T. R. M. OR BLOCK AND SURVEY OR AREA  
Sec. 4, T9S, R18E SLB&M

16. API NO. 43-047-32654 DATE ISSUED 3-10-95

17. COUNTY Uintah 18. STATE Utah

19. DATE STUDED 5-13-95 20. DATE T.O. REACHED 5-23-95 21. DATE COMPL. (Ready to prod.) 7-26-95 (Plug & Abd.) 22. ELEVATIONS (OF, BEH, BT, CR, ETC.) KB 4973' 23. ELEV. CASING HEAD 4969'

24. TOTAL DEPTH, MD & TVD 6049' 25. PLUG BACK T.D., MD & TVD 5442' 26. IF MULTIPLE COMPL. HOW MANY 1 27. INTERVALS DRILLED BY TD 6049' 28. ROTARY TOOLS CASLE TOOLS

29. PRODUCING INTERVAL(S) OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)  
5210'-5214', 5006'-5010', 4917'-4921' All in Green River 30. WAS DIRECTIONAL SURVEY MADE No

31. TYPE ELECTRIC AND OTHER LOGS RUN  
Cement bond log w/Gamma Ray/CCL 32. WAS WELL CORED YES  NO  (Include analysis) DRILL STEM TEST YES  NO  (See separate table)

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	MOLE SIZE	CEMENTING RECORD	AMOUNT FILLED
9 5/8"	36.0# new	300'	12 1/4"	100 SX Class A	None
5 1/2"	17.0# new	6049'	7 7/8"	400 SX Class A	None

LINER RECORD				TUBING RECORD			
SIZE	TOP (MD)	BOTTOM (MD)	SPACES CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PAGES SET (MD)
					2 7/8"	4861'	

33. PERFORATION RECORD (Interval, size and number)

5210'-5214'	Perforated 1 hole ea
5006'-5010'	"
4917'-4921'	"

34. ACID, SHOT, FRACTURE CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4917'-4921'	500 Gal. 2% KCL
5006'-5010'	"
4917'-4921'	"

35. PRODUCTION

DATE FIRST PRODUCTION 7-27-95 PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Adesco 640 Pumping unit WELL STATUS (Producing or Abandoned) Producing

DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROG. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
6-30-95	24 hrs.	8/64"	→	45 Bbls.	26 MCF	0	

FLOW, TUBING PRESSURE	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
300 psi		→	45 Bbls.	26 MCF	0	32.2

36. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
Used for Fuel on lease/vented TEST WITNESSED BY Fred Phillips

37. LIST OF ATTACHMENTS  
Treater, Pump Jack, 2 400 BL Oil Tanks and 1-100 BL Water Tank.

38. I HEREBY CERTIFY THAT THE FOREGOING AND ATTACHED INFORMATION IS COMPLETE AND CORRECT AS DETERMINED FROM ALL AVAILABLE RECORDS

SIGNED David M. Anderson TITLE Operations Supervisor DATE 9-28-95

See Spaces for Additional Data on Reverse Side



P. 02/03

FAX NO. 801 559 3940

UTAH DIV OF GAS & MINING

SEP-27-95 WED 09:40 AM

ENTITY ACTION FORM - FORM 6

Rocky Mt. Operating Co. Inc.  
6131 S. Forest Ct.  
ADDRESS Littleton CO

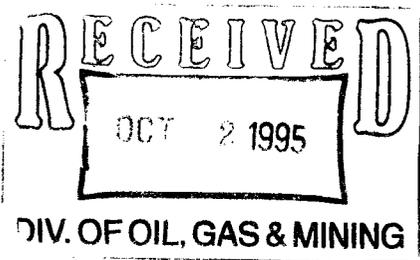
N4890

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	10971	→	43-047-32654	Federal #4-2		4	9S	18E	Uintah	5-13-95	5-13-95
WELL 1 COMMENTS: Drilled new well, the Federal #4-2, within the Participating Area "C" boundaries. <i>(Eight mile Flat Unit) Entity added 10-5-95. Lec</i>											
B	10971	→	43-047-32653	Federal #4-3		4	9S	18E	Uintah	6-8-95	6-8-95
WELL 2 COMMENTS: Drilled new well, the Federal #4-3, within the Participating Area "C" boundaries. <i>(Eight mile Flat Unit) Entity added 10-5-95. Lec</i>											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

- ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
  - B - Add new well to existing entity (group or unit well)
  - C - Re-assign well from one existing entity to another existing entity
  - D - Re-assign well from one existing entity to a new entity
  - E - Other (explain in comments section)

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

(3/89)



*Betty Neibauer*  
Signature  
Secretary 9-28-95  
Title Date  
Phone No. 303 850-7921



# Rocky Mountain Operating Company, Inc.

6131 S. Forest Ct. • Heritage Village • Littleton, CO 80121 • (303) 850-7921

December 1, 1995

Vicky Dyson  
State of Utah  
Department of Natural Resources  
Division of Oil, Gas and Mining  
355 West North Temple  
3 Triad Center. Suite 350  
Salt Lake City UT 84180-1203

43047 32634  
9518E4  
POW

Here our the logs you requested on the ~~Federal #4-2~~ and Federal #4-3 drilled this summer in the Eight Mile Flat Field, Uintah County, Utah. I apologize for not getting them to you sooner.

If you have anymore questions regarding this matter, please contact me at (303)850-7921.

Sincerely,

*Betty Neibauer*

Betty Neibauer

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells.  
Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

5. Lease Designation and Serial Number:

6. If Indian, Allottee or Tribe Name:

7. Unit Agreement Name:

#8910196350

1. Type of Well: OIL  GAS  OTHER:

8. Well Name and Number:

Federal #4-2

2. Name of Operator:

Rocky Mountain Operating Co., Inc.

9. API Well Number:

#43-047-32654

3. Address and Telephone Number:

6111 S. Forest Ct., Littleton CO 80121 (303)850-7921

10. Field and Pool, or Wildcat:

Eight Mile Flat

4. Location of Well

Footages:

QQ, Sec., T., R., M.: NE SW Sec. 4, T9S, R18E

County: Uintah

State: Utah

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

NOTICE OF INTENT  
(Submit in Duplicate)

- Abandonment
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat.
- Multiple Completion
- Other \_\_\_\_\_
- New Construction
- Pull or Alter Casing
- Recompletion
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Approximate date work will start \_\_\_\_\_

SUBSEQUENT REPORT  
(Submit Original Form Only)

- Abandonment \*
- Casing Repair
- Change of Plans
- Conversion to Injection
- Fracture Treat
- Other Annual Status Report
- New Construction
- Pull or Alter Casing
- Shoot or Acidize
- Vent or Flare
- Water Shut-Off

Date of work completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

\* Must be accompanied by a cement verification report.

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

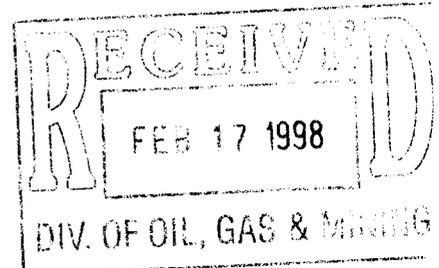
ANNUAL STATUS REPORT: Temporarily shut-in due to low oil prices. Also on the implementation of a water flood program.

13.

Name & Signature: Betty Neibauer *Betty Neibauer* Title: Secretary Date: 2-9-98

(This space for State use only)

(See Instructions on Reverse Side)



**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.

1. Type of Well: OIL  GAS  OTHER:

2. Name of Operator:  
Rocky Mountain Operating Company, Inc.

3. Address and Telephone Number:  
6111 S. Forest Ct., Littleton CO 80121 303-850-7921

4. Location of Well  
Footages:  
OO, Sec., T., R., M.: NE SW Sec. 4, T9S, R18E

5. Lease Designation and Serial Number:

6. If Indian, Aliotsee or Tribe Name:

7. Unit Agreement Name:  
#8910196350

8. Well Name and Number:  
Federal #4-2

9. API Well Number:  
#43-047-32654

10. Field and Pool, or Wildcat:  
Eight Mile Flat

County: Uintah  
State: Utah

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

**NOTICE OF INTENT**  
(Submit in Duplicate)

- |  |   |
|--|---|
| <input type="checkbox"/> Abandonment             | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair           | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans         | <input type="checkbox"/> Recompletion         |
| <input type="checkbox"/> Conversion to Injection | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Fracture Treat          | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Multiple Completion     | <input type="checkbox"/> Water Shut-Off       |
| <input type="checkbox"/> Other _____             |   |

Approximate date work will start \_\_\_\_\_

**SUBSEQUENT REPORT**  
(Submit Original Form Only)

- |   |   |
|---|---|
| <input type="checkbox"/> Abandonment                                  | <input type="checkbox"/> New Construction     |
| <input type="checkbox"/> Casing Repair                                | <input type="checkbox"/> Pull or Alter Casing |
| <input type="checkbox"/> Change of Plans                              | <input type="checkbox"/> Shoot or Acidize     |
| <input type="checkbox"/> Conversion to Injection                      | <input type="checkbox"/> Vent or Flare        |
| <input type="checkbox"/> Fracture Treat                               | <input type="checkbox"/> Water Shut-Off       |
| <input checked="" type="checkbox"/> Other <u>Annual Status Report</u> |   |

Date of work completion \_\_\_\_\_

Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION AND LOG form.

\* Must be accompanied by a cement verification report.

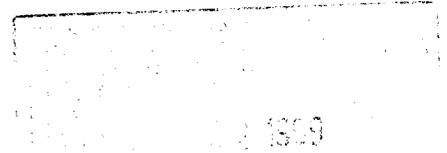
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

ANNUAL STATUS REPORT: Temporarily shut-in due to low oil prices.

13.

Name & Signature: Betty Neibauer *Betty Neibauer* Title: Agent Date: 2-8-99

(This space for State use only)





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155

IN REPLY REFER TO  
UT-922

April 16, 2003

Inland Production Company  
410 17<sup>th</sup> Street, Suite 700  
Denver, Colorado 80202

Re: Eight Mile Flat Unit  
Uintah County, Utah

Gentlemen:

On April 11, 2003, we received an indenture dated March 1, 2003, whereby Rocky Mountain Operating Company, Inc. resigned as Unit Operator and Inland Production Company was designated as Successor Unit Operator for the Eight Mile Flat Unit, Uintah County, Utah.

This indenture was executed by all required parties and the signatory parties have complied with Sections 5 and 6 of the unit agreement. The instrument is hereby approved effective April 16, 2003. In approving this designation, the Authorized Officer neither warrants nor certifies that the designated party has obtained all required approval that would entitle it to conduct operations under the Eight Mile Flat Unit Agreement.

Your statewide (Utah) oil and gas bond No. 0056 will be used to cover all operations within the Eight Mile Flat Unit.

It is requested that you notify all interested parties of the change in unit operator. Copies of the approved instruments are being distributed to the appropriate federal offices, with one copy returned herewith.

Sincerely,

/s/ Robert A. Henricks

Robert A. Henricks  
Chief, Branch of Fluid Minerals

Enclosure

bcc: Field Manager - Vernal (w/enclosure)  
SITLA  
Division of Oil, Gas & Mining  
Minerals Adjudication Group  
File - Eight Mile Flat Unit (w/enclosure)  
Agr. Sec. Chron  
Fluid Chron

UT922:TAThompson:tt:4/16/03

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APR 18 2003

DIV. OF OIL, GAS & MINING

## Results of query for MMS Account Number 891019635

Production	API Number	Operator	Well Name	Well Status	Lease or CA Number	Inspection Item	Township	Range	Section	Quarter/Quarter	File Number
Production	4304731181	ROCKY MOUNTAIN OPERATING CO	4-1 HIKO BELL ✓	OSI	UTU17424	8910196350	9S	18E	4	SESW	8 MIL FLAT NOR
Production	4304732653	ROCKY MOUNTAIN OPERATING CO	4-3 FEDERAL ✓	TA	UTU17424	8910196350	9S	18E	4	SWSW	8 MIL FLAT NOR
Production	4304732654	ROCKY MOUNTAIN OPERATING CO	4-2 FEDERAL ✓	OSI	UTU17424	8910196350	9S	18E	4	NESW	8 MIL FLAT NOR
Production	4304731029	ROCKY MOUNTAIN OPERATING CO	11-1 EIGHT MILE FLAT ✓	OSI	UTU15392	891019635A	9S	18E	11	NWSW	8 MIL FLAT NOR
Production	4304731126	ROCKY MOUNTAIN OPERATING CO	7-1 EIGHT MILE FLAT ✓	TA	UTU16540	891019635B	9S	18E	7	SESW	8 MIL FLAT NOR
Production	4304731142	ROCKY MOUNTAIN OPERATING CO	18-1 EIGHT MILE FLAT ✓	OSI	UTU39714	891019635B	9S	18E	18	NWNW	8 MIL FLAT NOR

Production	4304731277	ROCKY MOUNTAIN OPERATING CO	32-13 EIGHT MILE ✓	OSI	UTU18048	891019635D	9S	18E	13	SWNE	8 MI FLAT NOR
Production	4304731547	ROCKY MOUNTAIN OPERATING CO	34-8 EIGHT MILE FLAT ✓	OSI	UTU16540	891019635E	9S	18E	8	SWSE	8 MI FLAT NOR

*DISCLAIMER for online data: No warranty is made by the BLM for use of the data for purposes not intended by the BLM.*

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

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>U-17424</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.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		7. UNIT or CA AGREEMENT NAME: <b>Eight Mile Flat Unit</b>
2. NAME OF OPERATOR: <b>Inland Production Company</b>		8. WELL NAME and NUMBER: <b>Federal 4-2</b> ✓
3. ADDRESS OF OPERATOR: <b>410 17th St.</b> CITY <b>Denver</b> STATE <b>Co</b> ZIP <b>80202</b>		9. API NUMBER: <b>4304732654</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>1980' FSL &amp; 1980' FWL</b>		10. FIELD AND POOL, OR WILDCAT: <b>Monument Butte</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NESW 4 9s 18e</b>		COUNTY: <b>Uintah</b>
		STATE: <b>UTAH</b>

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will start: _____	<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"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of work completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input checked="" 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 FLARE
	<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/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<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.

Effective March 1, 2003, Inland Production Company has taken over operations of the above referenced well.  
The previous operator was:

Rocky Mountain Operating Company  
6131 S. Forest Ct.  
Littleton, Colorado    80121

Effective March 1, 2003, Inland Production Company is responsible under the terms and conditions of the leases for operations of the leased lands or a portion thereof under Federal Bond #UT-0056.

Rocky Mountain Operating Company

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

NAME (PLEASE PRINT) Brian Harris

TITLE Engineering Technician

SIGNATURE *Brian Harris*

DATE 3/7/2003

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APR 25 2003

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

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>			5. LEASE DESIGNATION AND SERIAL NUMBER: <b>U-17424</b>
			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			7. UNIT or CA AGREEMENT NAME: <b>Eight Mile Flat Unit</b>
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____			8. WELL NAME and NUMBER: <b>Federal 4-2</b>
2. NAME OF OPERATOR: <b>Inland Production Company</b>			9. API NUMBER: <b>4304732654</b>
3. ADDRESS OF OPERATOR: <b>410 17th St.                      Denver                      STATE    Co                      ZIP    80202</b>		PHONE NUMBER: <b>(303) 893-0102</b>	10. FIELD AND POOL, OR WILDCAT: <b>Monument Butte</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>1980' FSL &amp; 1980' FWL</b>			COUNTY: <b>Uintah</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>NESW 4    9s    18e</b>			STATE: <b>UTAH</b>

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> (Submit in Duplicate)  Approximate date work will start: _____  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> (Submit Original Form Only)  Date of work completion: _____	<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"/> TEMPORARILY 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 FLARE
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	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<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.

Effective March 1, 2003, Inland Production Company is changing the name of the Federal 4-2 to Federal 11-4-9-18.

NAME (PLEASE PRINT) <u>Brian Harris</u>	TITLE <u>Engineering Technician</u>
SIGNATURE <u><i>Brian Harris</i></u>	DATE <u>3/7/2003</u>

(This space for State use only)

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**APR 25 2003**

DIV. OF OIL, GAS & MINING

4/30/03  
EE

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. Lease Designation and Serial Number:
Do not use this form for proposals to drill new wells, deepen existing wells, or to reenter plugged and abandoned wells. Use APPLICATION FOR PERMIT TO DRILL OR DEEPEN form for such proposals.		6. If Indian, Alutias or Tribe Name:
		7. Unit Agreement Name: <b>8910196350</b>
1. Type of Well: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER:		8. Well Name and Number: <b>Federal #4-2</b>
2. Name of Operator: <b>Rocky Mountain Operating Company, Inc.</b>		9. API Well Number: <b>43-047-32654</b>
3. Address and Telephone Number: <b>6111 S. Forest Ct., Littleton CO 80121 303-850-7921</b>		10. Field and Pool, or Wildcat: <b>Eight Mile Flat</b>
4. Location of Well Footage: OO, Sec., T., R., M.: <b>NESW Sec. 4, T9S, R18E</b>		County: <b>Uintah</b> State: <b>Utah</b>

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
<p style="text-align: center; font-weight: bold; font-size: small;">NOTICE OF INTENT (Submit in Duplicate)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Abandon  <input type="checkbox"/> Repair Casing  <input type="checkbox"/> Change of Plans  <input type="checkbox"/> Convert to Injection  <input type="checkbox"/> Fracture Treat or Acidize  <input type="checkbox"/> Multiple Completion  <input checked="" type="checkbox"/> Other <u>Change of Operator</u> </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> New Construction  <input type="checkbox"/> Pull or Alter Casing  <input type="checkbox"/> Recomplete  <input type="checkbox"/> Reperforate  <input type="checkbox"/> Vent or Flare  <input type="checkbox"/> Water Shut-Off                 </td> </tr> </table> <p>Approximate date work will start _____</p>	<input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Multiple Completion <input checked="" type="checkbox"/> Other <u>Change of Operator</u>	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recomplete <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off	<p style="text-align: center; font-weight: bold; font-size: small;">SUBSEQUENT REPORT (Submit Original Form Only)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> Abandon  <input type="checkbox"/> Repair Casing  <input type="checkbox"/> Change of Plans  <input type="checkbox"/> Convert to Injection  <input type="checkbox"/> Fracture Treat or Acidize  <input checked="" type="checkbox"/> Other _____                 </td> <td style="width: 50%; vertical-align: top;"> <input type="checkbox"/> New Construction  <input type="checkbox"/> Pull or Alter Casing  <input type="checkbox"/> Reperforate  <input type="checkbox"/> Vent or Flare  <input type="checkbox"/> Water Shut-Off                 </td> </tr> </table> <p>Date of work completion _____</p> <p style="font-size: x-small;">Report results of Multiple Completions and Recompletions to different reservoirs on WELL COMPLETION OR RECOMPLETION REPORT AND LOG form. * Must be accompanied by a cement verification report.</p>	<input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input checked="" type="checkbox"/> Other _____	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input type="checkbox"/> Multiple Completion <input checked="" type="checkbox"/> Other <u>Change of Operator</u>	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Recomplete <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off				
<input type="checkbox"/> Abandon <input type="checkbox"/> Repair Casing <input type="checkbox"/> Change of Plans <input type="checkbox"/> Convert to Injection <input type="checkbox"/> Fracture Treat or Acidize <input checked="" type="checkbox"/> Other _____	<input type="checkbox"/> New Construction <input type="checkbox"/> Pull or Alter Casing <input type="checkbox"/> Reperforate <input type="checkbox"/> Vent or Flare <input type="checkbox"/> Water Shut-Off				

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

Effective 3-1-03 Rocky Mountain Operating Company, Inc.  
is no longer the operator of this lease. The new Operator  
is:

Inland Production Company  
410 17th Street  
Suite 700  
Denver CO 80202  
303-893-0102

13. Name & Signature: Betty Neibauer *Betty Neibauer* Title: Agent Date: 4-7-03

(This space for State use only)

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MAY 12 2003  
DIV. OF OIL, GAS & MINING

**OPERATOR CHANGE WORKSHEET**

1. GLH
2. CDW
3. FILE

**X Change of Operator (Well Sold)**

Designation of Agent/Operator

Operator Name Change

Merger

The operator of the well(s) listed below has changed, effective: **03/01/2003**

<b>FROM: (Old Operator):</b> Rocky Mountain Operating Company, Inc. 6111 S Forest Court Littleton, CO 80121  Phone: 1-(303) 850-7921 Account No. N4890	<b>TO: ( New Operator):</b> Inland Production Company 410 17th St., Suite 700 Denver, CO 80202  Phone: 1-(303) 893-0102 Account No. N5160
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**CA No.** \_\_\_\_\_ **Unit:** **Eight Mile Flat**

<b>WELL(S)</b>								
NAME	SEC TWN RNG			API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
FEDERAL 12-11-9-18	11	090S	180E	4304731029	10970	Federal	OW	S
FEDERAL 6-7-9-18	07	090S	180E	4304731126	10969	Federal	OW	S
FEDERAL 8-3-9-18	03	090S	180E	4304731127	570	Federal	OW	S
FEDERAL 4-18-9-18	18	090S	180E	4304731142	10969	Federal	OW	S
FEDERAL 14-4-9-18	04	090S	180E	4304731181	10971	Federal	OW	S
FEDERAL 15-7-9-18	07	090S	180E	4304731202	564	Federal	OW	S
32-13	13	090S	180E	4304731277	10276	Federal	OW	S
EIGHT MILE FLAT UNIT 34-8	08	090S	180E	4304731547	10972	Federal	OW	S
FEDERAL 13-4-9-18	04	090S	180E	4304732653	10971	Federal	OW	S
FEDERAL 11-4-9-18	04	090S	180E	4304732654	10971	Federal	OW	S
<b>NOT UNIT WELLS</b>								
FEDERAL 6-10-9-18	10	090S	180E	4304731214	10973	Federal	OW	S
FEDERAL 7-8-9-18	08	090S	180E	4304731274	554	Federal	OW	S

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

1. (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 05/12/2003
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 04/25/2003
3. The new company has been checked through the **Department of Commerce, Division of Corporations Database** on: 06/27/2003
4. Is the new operator registered in the State of Utah: YES Business Number: 755627-0143
5. If **NO**, the operator was contacted on: \_\_\_\_\_

6. (R649-9-2)Waste Management Plan has been received on: IN PLACE

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM 04/16/2003 BIA n/a

8. **Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: 04/16/2003

9. **Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: n/a

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: N/A

**DATA ENTRY:**

- 1. Changes entered in the **Oil and Gas Database** on: 06/27/2003
- 2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 06/27/2003
- 3. Bond information entered in RBDMS on: n/a
- 4. Fee wells attached to bond in RBDMS on: n/a

**STATE WELL(S) BOND VERIFICATION:**

1. State well(s) covered by Bond Number: n/a

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: UT-0056

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: n/a

**FEE WELL(S) BOND VERIFICATION:**

- 1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number n/a
- 2. The **FORMER** operator has requested a release of liability from their bond on: n/a  
The Division sent response by letter on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

5. Lease Serial No.  
**U-17424**

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or  
EIGHT MILE FLAT AREA

8. Well Name and No.  
FEDERAL 11-4-9-18

9. API Well No.  
4304732654

10. Field and Pool, or Exploratory Area  
Monument Butte

11. County or Parish, State  
Uintah.UT

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

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
Inland Production Company

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

3b. Phone (include are code)  
435.646.3721

4. Location of (Footage, Sec., T., R., M., or Survey Description)  
1980 FWL 1980 FSL  
NE/SW Section 4 T9S R18E

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 checked="" type="checkbox"/> Recomplete	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontalley, give subsurface locations and measured and tur vericaldepths 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 sahill be filed once testing has been completed. Final

Subject well had recompletion procedures initiated in the Green River formation on 11/4/2003. Existing production equipment was pulled from well. A bit and scraper were run in well. Six Green River intervals, four new and three existing, were perforated and hydraulically fracture treated as follows: Stage #1: CP5 sands @ 5928'-5933', 5866'-5870', and 5830'-5834' (all 4 JSPF) fraced down 2 7/8" N-80 tubing w/ 29,719# 20/40 sand in 269 Bbbs Viking I-25 fluid. Stage #2: CP2 sands @ 5645'-5654', and 5702'-5706' (both 4 JSPF) fraced down 2 7/8" N-80 tubing w/ 39,685# 20/40 sand in 333 Bbbs Viking I-25 fluid. Stage #3: A1 sands @ 5209'-5216' (2 JSPF) fraced down 2 7/8" N-80 tubing w/ 19,583# 20/40 sand in 182 Bbbs Viking I-25 fluid. Stage #4: Existing perforations B.5 sands @ 5004'-5010' (2 JSPF) and new B2 sands @ 5065'-5072' (4 JSPF) fraced down 2 7/8" N-80 tubing w/ 27,770# 20/40 sand in 255 Bbbs Viking I-25 fluid. Stage #5: Existing perforations C sands @ 4916'-4924' (2 JSPF) fraced down 2 7/8" N-80 tubing w/ 19,447# 20/40 sand in 180 Bbbs Viking I-25 fluid. Stage #6: Existing perforations PB7 sands @ 4371'-4378' (2 JSPF) fraced down 2 7/8" N-80 tubing w/ 25,848# 20/40 sand in 204 Bbbs Viking I-25 fluid. Fracs were flowed back through chokes. Sand was cleaned from wellbore to PBTD @ 5998'. New intervals were swab tested for sand cleanup. BHA & production tubing were run in well w/ tubing anchor @ 5805', pump seating nipple @ 5839', and end of tubing string @ 5903'. A repaired 1 1/2" bore rod pump was run in well on sucker rods. Well returned to production via rod pump 11/13/03.

I hereby certify that the foregoing is true and correct (Printed/ Typed) Matthew Richmond	Title Production Clerk
Signature 	Date 11/19/2003

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

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

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

(Instructions on reverse)

**RECEIVED**

**NOV 20 2003**

DIV. OF OIL, GAS & MINING



## Office of the Secretary of State

The undersigned, as Secretary of State of Texas, does hereby certify that the attached is a true and correct copy of each document on file in this office as described below:

Newfield Production Company  
Filing Number: 41530400

Articles of Amendment

September 02, 2004

In testimony whereof, I have hereunto signed my name officially and caused to be impressed hereon the Seal of State at my office in Austin, Texas on September 10, 2004.



A handwritten signature in black ink, appearing to read "G. Connor".

Secretary of State

ARTICLES OF AMENDMENT  
TO THE  
ARTICLES OF INCORPORATION  
OF  
INLAND PRODUCTION COMPANY

FILED  
In the Office of the  
Secretary of State of Texas  
SEP 02 2004  
Corporations Section

Pursuant to the provisions of Article 4.04 of the Texas Business Corporation Act (the "TBCA"), the undersigned corporation adopts the following articles of amendment to the articles of incorporation:

ARTICLE 1 – Name

The name of the corporation is Inland Production Company.

ARTICLE 2 – Amended Name

The following amendment to the Articles of Incorporation was approved by the Board of Directors and adopted by the shareholders of the corporation on August 27, 2004.

The amendment alters or changes Article One of the Articles of Incorporation to change the name of the corporation so that, as amended, Article One shall read in its entirety as follows:

"ARTICLE ONE – The name of the corporation is Newfield Production Company."

ARTICLE 3 – Effective Date of Filing

This document will become effective upon filing.

The holder of all of the shares outstanding and entitled to vote on said amendment has signed a consent in writing pursuant to Article 9.10 of the TBCA, adopting said amendment, and any written notice required has been given.

IN WITNESS WHEREOF, the undersigned corporation has executed these Articles of Amendment as of the 1<sup>st</sup> day of September, 2004.

INLAND RESOURCES INC.

By: Susan G. Riggs  
Susan G. Riggs, Treasurer



# United States Department of the Interior



## BUREAU OF LAND MANAGEMENT

Utah State Office

P.O. Box 45155

Salt Lake City, UT 84145-0155

<http://www.blm.gov>

IN REPLY REFER TO:

3106

(UT-924)

September 16, 2004

### Memorandum

To: Vernal Field Office

From: Acting Chief, Branch of Fluid Minerals

Subject: Merger Approval

Attached is an approved copy of the name change recognized by the Utah State Office. We have updated our records to reflect the merger from Inland Production Company into Newfield Production Company on September 2, 2004.

Michael Coulthard  
Acting Chief, Branch of  
Fluid Minerals

### Enclosure

1. State of Texas Certificate of Registration

cc: MMS, Reference Data Branch, James Sykes, PO Box 25165, Denver CO 80225  
State of Utah, DOGM, Attn: Earlene Russell, PO Box 145801, SLC UT 84114  
Teresa Thompson  
Joe Incardine  
Connie Seare

UTSL-	15855	61052	73088	76561	
071572A	16535	62848	73089	76787	
065914	16539	63073B	73520A	76808	
	16544	63073D	74108	76813	
	17036	63073E	74805	76954	63073X
	17424	63073O	74806	76956	63098A
	18048	64917	74807	77233	68528A
UTU-	18399	64379	74808	77234	72086A
	19267	64380	74389	77235	72613A
02458	26026A	64381	74390	77337	73520X
03563	30096	64805	74391	77338	74477X
03563A	30103	64806	74392	77339	75023X
04493	31260	64917	74393	77357	76189X
05843	33992	65207	74398	77359	76331X
07978	34173	65210	74399	77365	76788X
09803	34346	65635	74400	77369	77098X
017439B	36442	65967	74404	77370	77107X
017985	36846	65969	74405	77546	77236X
017991	38411	65970	74406	77553	77376X
017992	38428	66184	74411	77554	78560X
018073	38429	66185	74805	78022	79485X
019222	38431	66191	74806	79013	79641X
020252	39713	67168	74826	79014	80207X
020252A	39714	67170	74827	79015	81307X
020254	40026	67208	74835	79016	
020255	40652	67549	74868	79017	
020309D	40894	67586	74869	79831	
022684A	41377	67845	74870	79832	
027345	44210	68105	74872	79833	
034217A	44426	68548	74970	79831	
035521	44430	68618	75036	79834	
035521A	45431	69060	75037	80450	
038797	47171	69061	75038	80915	
058149	49092	69744	75039	81000	
063597A	49430	70821	75075		
075174	49950	72103	75078		
096547	50376	72104	75089		
096550	50385	72105	75090		
	50376	72106	75234		
	50750	72107	75238		
10760	51081	72108	76239		
11385	52013	73086	76240		
13905	52018	73087	76241		
15392	58546	73807	76560		

**OPERATOR CHANGE WORKSHEET**

**ROUTING**

1. GLH
2. CDW
3. FILE

Change of Operator (Well Sold)

Designation of Agent/Operator

**X Operator Name Change**

**Merger**

The operator of the well(s) listed below has changed, effective: **9/1/2004**

<b>FROM:</b> (Old Operator): N5160-Inland Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721	<b>TO:</b> ( New Operator): N2695-Newfield Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721
---	--

**CA No.** \_\_\_\_\_ **Unit:** \_\_\_\_\_

**WELL(S)**

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
PARIETTE DRAW FED 10-23	23	080S	170E	4304732672	11824	Federal	D	PA
FEDERAL 24-26	26	080S	180E	4304732700	11808	Federal	OW	P
FEDERAL 13-26	26	080S	180E	4304732720	11832	Federal	OW	P
FEDERAL 43-29	29	080S	180E	4304732701	11816	Federal	OW	P
SUNDANCE ST 5-32	32	080S	180E	4304732685	11781	State	OW	P
FEDERAL 42-35	35	080S	180E	4304732702	11811	Federal	OW	S
FEDERAL 43-35	35	080S	180E	4304732721	11830	Federal	OW	TA
FEDERAL 13-4-9-18	04	090S	180E	4304732653	10971	Federal	OW	S
FEDERAL 11-4-9-18	04	090S	180E	4304732654	10971	Federal	OW	P
BALCRON FED 31-19Y	19	090S	180E	4304732614	11751	Federal	OW	P
BALCRON FED 32-19Y	19	090S	180E	4304732615	11771	Federal	OW	P
BALCRON FED 42-19Y	19	090S	180E	4304732616	11756	Federal	OW	P
BALCRON FED 12-20Y	20	090S	180E	4304732617	11758	Federal	OW	P
BALCRON MON FED 22-20-9-18Y	20	090S	180E	4304732711	11852	Federal	OW	P
BALCRON MON FED 11-20-9-18Y	20	090S	180E	4304732712	11846	Federal	OW	P
MON FED 14-21-9-18Y	21	090S	180E	4304732726	11902	Federal	OW	S
O.K. CORRAL FEDERAL 1-30	30	090S	180E	4304732686	11861	Federal	OW	S

**OPERATOR CHANGES DOCUMENTATION**

Enter date after each listed item is completed

- (R649-8-10) Sundry or legal documentation was received from the **FORMER** operator on: 9/15/2004
- (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 9/15/2004
- The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 2/23/2005
- Is the new operator registered in the State of Utah: YES Business Number: 755627-0143
- If **NO**, the operator was contacted on:

6a. (R649-9-2)Waste Management Plan has been received on: IN PLACE  
6b. Inspections of LA PA state/fee well sites complete on: waived

7. **Federal and Indian Lease Wells:** The BLM and or the BIA has approved the merger, name change, or operator change for all wells listed on Federal or Indian leases on: BLM BIA

8. **Federal and Indian Units:**  
The BLM or BIA has approved the successor of unit operator for wells listed on: n/a

9. **Federal and Indian Communization Agreements ("CA"):**  
The BLM or BIA has approved the operator for all wells listed within a CA on: na/

10. **Underground Injection Control ("UIC")** The Division has approved UIC Form 5, **Transfer of Authority to Inject**, for the enhanced/secondary recovery unit/project for the water disposal well(s) listed on: 2/23/2005

**DATA ENTRY:**

1. Changes entered in the **Oil and Gas Database** on: 2/28/2005
2. Changes have been entered on the **Monthly Operator Change Spread Sheet** on: 2/28/2005
3. Bond information entered in RBDMS on: 2/28/2005
4. Fee/State wells attached to bond in RBDMS on: 2/28/2005
5. Injection Projects to new operator in RBDMS on: 2/28/2005
6. Receipt of Acceptance of Drilling Procedures for APD/New on: waived

**FEDERAL WELL(S) BOND VERIFICATION:**

1. Federal well(s) covered by Bond Number: UT 0056

**INDIAN WELL(S) BOND VERIFICATION:**

1. Indian well(s) covered by Bond Number: 61BSBDH2912

**FEE & STATE WELL(S) BOND VERIFICATION:**

1. (R649-3-1) The **NEW** operator of any fee well(s) listed covered by Bond Number 61BSBDH2919

2. The **FORMER** operator has requested a release of liability from their bond on: n/a\*  
The Division sent response by letter on: n/a

**LEASE INTEREST OWNER NOTIFICATION:**

3. (R649-2-10) The **FORMER** operator of the fee wells has been contacted and informed by a letter from the Division of their responsibility to notify all interest owners of this change on: n/a

**COMMENTS:**

\*Bond rider changed operator name from Inland Production Company to Newfield Production Company - received 2/23/05

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

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

OPERATOR ACCT. NO. N2695

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	10969	14599	43-047-31126	Federal 6-7-9-18	SE/NE	7	9S	18E	Utah		3/14/05
WELL 1 COMMENTS: Effective 1/1/05 <i>GRN</i>											
D	10969	14600	43-047-31142	Federal 4-18-9-18	NW/NE	18	9S	18E	Utah		3/14/05
WELL 2 COMMENTS: Effective 1/1/05 <i>GRN</i>											
D	10971	14601	43-047-31181	Federal 14-4-9-18	SE/SW	4	9S	18E	Utah		3/14/05
WELL 3 COMMENTS: Effective 1/1/05 <i>GRN</i>											
D	10971	14602	43-047-32653	Federal 13-4-9-18	SW/SW	4	9S	18E	Utah		3/14/05
WELL 4 COMMENTS: Effective 1/1/05 <i>GRN</i>											
D	10971	14603	43-047-32654	Federal 11-4-9-18	NE/SW	4	9S	18E	Utah		3/14/05
WELL 5 COMMENTS: Effective 1/1/05 <i>GRN</i>											

- ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
  - B - Add new well to existing entity (group or unit well)
  - C - Re-assign well from one existing entity to another existing entity
  - D - Re-assign well from one existing entity to a new entity
  - E - Other (explain in comments section)

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

RECEIVED  
MAR 14 2005

*Kebbie S. Jones*  
Signature  
Kebbie S. Jones  
Production Clerk  
March 14, 2005  
Date

STATE OF OIL, GAS & MINING

Entity Form 6  
 "C" Change from one existing entity to another existing entity

API	Well	Sec	Twsp	Rng	Entity	Entity Eff Date
4304735697	FEDERAL 15-13-9-17	13	090S	170E	14828 to 14844	9/20/2005
4304735698	FEDERAL 13-13-9-17	13	090S	170E	14813 to 14844	9/20/2005
4304735699	FEDERAL 11-13-9-17	13	090S	170E	14837 to 14844	9/20/2005
4304735702	FEDERAL 5-13-9-17	13	090S	170E	14836 to 14844	9/20/2005
4304736012	FEDERAL 14-13-9-17	13	090S	170E	14790 to 14844	9/20/2005
4304732438	FEDERAL 44-14Y	14	090S	170E	11506 to 14844	9/20/2005
4304735708	FEDERAL 9-14-9-17	14	090S	170E	14808 to 14844	9/20/2005
4304735709	FEDERAL 11-14-9-17	14	090S	170E	14734 to 14844	9/20/2005
4304735710	FEDERAL 15-14-9-17	14	090S	170E	14735 to 14844	9/20/2005
4304736068	FEDERAL 14-14-9-17	14	090S	170E	14770 to 14844	9/20/2005
4304736069	FEDERAL 10-14-9-17	14	090S	170E	14787 to 14844	9/20/2005
4304736071	FEDERAL 6-14-9-17	14	090S	170E	14809 to 14844	9/20/2005
4304731181	FEDERAL 14-4-9-18	04	090S	180E	14601 to 14844	9/20/2005
4304732653	FEDERAL 13-4-9-18	04	090S	180E	14602 to 14844	9/20/2005
4304732654	FEDERAL 11-4-9-18	04	090S	180E	14603 to 14844	9/20/2005
4304735473	FEDERAL 1-4-9-18	04	090S	180E	14533 to 14844	9/20/2005
4304735474	FEDERAL 7-4-9-18	04	090S	180E	14499 to 14844	9/20/2005
4304735475	FEDERAL 9-4-9-18	04	090S	180E	14530 to 14844	9/20/2005
4304735589	FEDERAL 2-4-9-18	04	090S	180E	14485 to 14844	9/20/2005
4304735590	FEDERAL 3-4-9-18	04	090S	180E	14697 to 14844	9/20/2005
4304735591	FEDERAL 5-4-9-18	04	090S	180E	14680 to 14844	9/20/2005
4304735592	FEDERAL 6-4-9-18	04	090S	180E	14696 to 14844	9/20/2005
4304735593	FEDERAL 8-4-9-18	04	090S	180E	14528 to 14844	9/20/2005
4304735594	FEDERAL 10-4-9-18	04	090S	180E	14535 to 14844	9/20/2005
4304735595	FEDERAL 12-4-9-18	04	090S	180E	14670 to 14844	9/20/2005
4304732503	21BALCRON FED 31-5Y	05	090S	180E	11680 to 14844	9/20/2005
4304735290	FEDERAL 5-5-9-18	05	090S	180E	14669 to 14844	9/20/2005
4304735292	FEDERAL 9-5-9-18	05	090S	180E	14554 to 14844	9/20/2005
4304735293	FEDERAL 11-5-9-18	05	090S	180E	14769 to 14844	9/20/2005
4304735294	FEDERAL 13-5-9-18	05	090S	180E	14658 to 14844	9/20/2005
4304735505	FEDERAL 14-5-9-18	05	090S	180E	14687 to 14844	9/20/2005
4304735506	FEDERAL 12-5-9-18	05	090S	180E	14651 to 14844	9/20/2005
4304735891	FEDERAL 10-5-9-18	05	090S	180E	14698 to 14844	9/20/2005
4304734933	FEDERAL 6-6-9-18	06	090S	180E	14152 to 14844	9/20/2005
4304734934	FEDERAL 7-6-9-18	06	090S	180E	14126 to 14844	9/20/2005
4304734936	FEDERAL 13-6-9-18	06	090S	180E	14049 to 14844	9/20/2005



# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, UT 84145-0155



IN REPLY REFER TO  
3180  
UT-922

June 30, 2005

Newfield Production Company  
Attn: Kelly L. Donohoue  
1401 Seventeenth Street, Suite 1000  
Denver, Colorado 80202

Gentlemen:

The Sundance (Green River) Unit Agreement, Uintah County, Utah, was approved June 30, 2005. This agreement has been designated No. UTU82472X, and is effective July 1, 2005. The unit area embraces 11,143.86 acres, more or less.

Pursuant to regulations issued and effective June 17, 1988, all operations within the Sundance (Green River) Unit will be covered by your nationwide (Utah) oil and gas bond No. 0056.

The following leases embrace lands included within the unit area:

UTU0075174	UTU39713	UTU65970*	UTU79013*
UTU16539*	UTU39714	UTU74404	UTU79014*
UTU16540	UTU44429	UTU74835	UTU80915
UTU17424*	UTU64806*	UTU74872*	UTU82205
UTU18043	UTU65969	UTU75234	

\* Indicates lease to be considered for segregation by the Bureau of Land Management pursuant to Section 18 (g) of the unit agreement and Public Law 86-705.

All lands and interests by State of Utah, Cause No. 228-08 are fully committed.

Approval of this agreement does not warrant or certify that the operator thereof and other holders of operating rights hold legal or equitable title to those rights in the subject leases which are committed hereto.

RECEIVED

JUL 0 / 2005

DIV. OF OIL, GAS & MINING

*Docket No  
2005-009*

We are of the opinion that the agreement is necessary and advisable in the public interest and for the purpose of more properly conserving natural resources. Certification-Determination, signed by the School and Institutional Trust Land Administration for the State of Utah, is attached to the enclosed agreement. We request that you furnish the State of Utah and all other interested principals with appropriate evidence of this approval.

Sincerely,

/s/ Terry Catlin

Terry Catlin  
Acting Chief, Branch of Fluid Minerals

**Enclosure**

bcc: Mary Higgins w/enclosure  
MMS - Data Management Division (Attn: James Sykes)  
Trust Lands Administration  
Division of Oil, Gas and Mining  
Field Manager - Vernal w/enclosure  
File - Sundance (Green River) Unit w/enclosure  
Agr. Sec. Chron  
Fluid Chron  
Central Files

UT922:TAThompson:tt:06/30/2005



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

RECEIVED

NOV 11 2009

Ref: 8P-W-GW

DIV. OF OIL, GAS & MINING

NOV 05 2009

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

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

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

Re: Final Permit  
EPA UIC Permit UT21239-08409  
Federal 11-4-9-18  
NE SW Sec. 4-T9S-R18E  
Uintah County, Utah  
API No.: 43-047-32654

Dear Mr. Sundberg:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Federal 11-4-9-18 injection well. A Statement of Basis that discusses the conditions and requirements of this EPA UIC Permit, is also included.

The Public Comment period for this Permit ended on OCT 22 2009. 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 the 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](http://www.epa.gov/region8/water/uic/deep_injection.html). Upon request, hard copies of the EPA forms and guidances can be provided.



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

enclosure: Final UIC Permit  
Statement of Basis

cc: Letter:

Uintah & Ouray Business Committee, Ute Indian Tribe:  
Curtis Cesspooch, Chairman  
Irene Cuch, Vice-Chairwoman  
Frances Poowegup, Councilwoman  
Ronald Groves, Councilman  
Phillip Chimburas, Councilman  
Steven Cesspooch, Councilman

Daniel Picard, Superintendent  
Uintah & Ouray Indian Agency  
U.S. Bureau of Indian Affairs

cc: all enclosures:

Michael Guinn  
District Manager  
Newfield Production Company  
Myton, Utah

Larry Love  
Director  
Energy & Minerals Dept.  
Ute Indian Tribe

Ferron Secakuku  
Director, Natural Resources  
Ute Indian Tribe

Gilbert Hunt  
Associate Director  
State of Utah - Natural Resources

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





**UNDERGROUND INJECTION CONTROL PROGRAM  
PERMIT**

PREPARED: October 2009

**Permit No. UT21239-08409**

Class II Enhanced Oil Recovery Injection Well

**Federal 11-4-9-18  
Uintah County, UT**

Issued To

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

## Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

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

Newfield Production 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 11-4-9-18  
1980' FSL & 1980" FWL, NESW S4, T9S, R18E  
Uintah County, UT

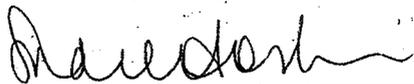
EPA regulates the injection of fluids into injection wells so that injection does not endanger underground sources of drinking water (USDWs). EPA UIC Permit conditions are based on authorities set forth at 40 CFR Parts 144 and 146, and address potential impacts to USDWs.

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

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

Issue Date: NOV 05 2009

Effective Date NOV 05 2009



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

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

## PART II. SPECIFIC PERMIT CONDITIONS

### Section A. WELL CONSTRUCTION REQUIREMENTS

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

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

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

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

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

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

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

The Permittee shall install and maintain in good operating condition:

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

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

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

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

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

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

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

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

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

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

An injection well has mechanical integrity if:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## **Section C. WELL OPERATION**

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

Injection is approved under the following conditions:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Monitoring records must include:

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

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

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

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

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

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

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

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

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

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

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

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

**2. Well Plugging Requirements**

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

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

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

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

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

**5. Plugging and Abandonment Report.**

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

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

**6. Inactive Wells.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

### **Section C. SEVERABILITY**

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

### **Section D. CONFIDENTIALITY**

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

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

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

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

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

**2. Duty to Reapply.**

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

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

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

**4. Duty to Mitigate.**

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

**5. Proper Operation and Maintenance.**

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

**6. Permit Actions.**

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

**7. Property Rights.**

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

**8. Duty to Provide Information.**

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

**9. Inspection and Entry.**

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

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

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

#### **10. Signatory Requirements.**

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

#### **11. Reporting Requirements.**

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

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

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

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

## **Section F. FINANCIAL RESPONSIBILITY**

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

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

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

In the event of:

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

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

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

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

## APPENDIX A

### WELL CONSTRUCTION REQUIREMENTS

Federal No. 11-4-9-18 was drilled to a total depth of 6,049 feet (KB) feet in the Basal Carbonate Member.

Surface casing (8-5/8 inch) was set at a depth of 300 feet in a 12-1/4 inch hole using 100 sacks of Class "A" cement which was circulated to within eighteen (18) feet of the surface.

Production casing (5-1/2 inch) was set at a depth of 6,049 feet (KB) in a 7-7/8 inch hole with 400 sacks of Class "A" cement.

Current construction is not considered adequate to protect USDWs. The Cement Bond Log (CBL), 4,000 feet - 5,988 feet, does not cover the Confining Zone, 3,600 feet - 3790 feet.

Schlumberger, on the front of the CBL, comments "Est. Cement Top: 1,000 feet". This observation must have been made as the CBL was coming out of the hole after logging the 4,000 feet - 5,988 feet interval. Therefore, Table 3.1 identifies the "Cemented Interval" for Production casing as 1,000 feet - 6,049 feet.

The schematic diagram shows enhanced recovery injection perforations in the Garden Gulch and Douglas Creek Members of the Green River Formation. Additional perforations may be added at a later time between the depths of 3,790 feet and the top of the Wasatch Formation (Estimated to be 6,077 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

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

UT 21239-08409  
Federal 11-4-9-18  
(Formerly Federal #4-2)

Spud Date: 5/13/1995  
Put on Production: 7/24/1995  
GL: 4969' KB: 4973'

Initial Production: 45 BOPD,  
26 MCFD, 0 BWPD

Proposed Injection  
Wellbore Diagram

SURFACE CASING

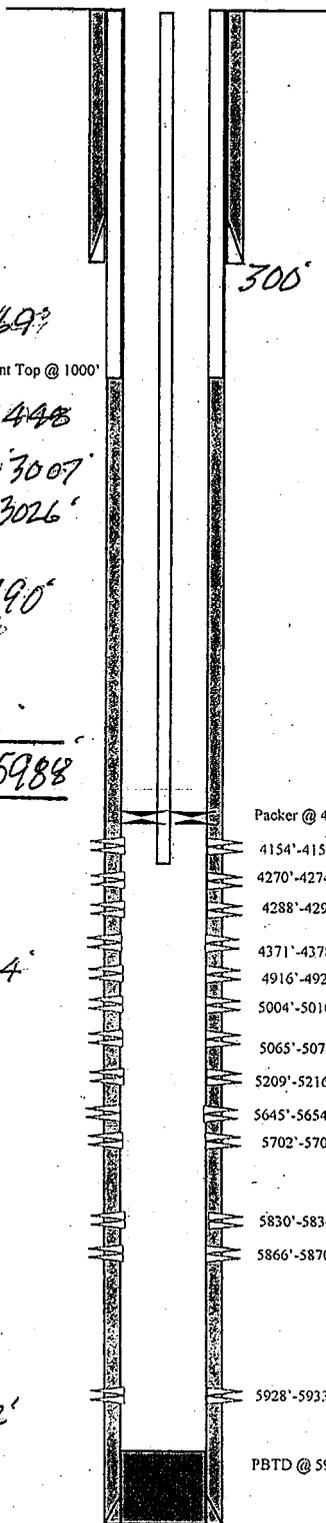
CSG SIZE: 8-5/8"  
GRADE: J-55  
WEIGHT: 24#  
DEPTH LANDED: 300'  
HOLE SIZE: 12-1/4"  
CEMENT DATA: 100 sx. Class "A" cement.

PRODUCTION CASING

CSG SIZE: 5-1/2"  
GRADE: J-55  
WEIGHT: 15.5#  
DEPTH LANDED: 6049'  
HOLE SIZE: 7-7/8"  
CEMENT DATA: 400 sx. Class "A" cement.  
CEMENT TOP AT: 1000' per CBL.

TUBING

SIZE/GRADE/WT.: 2-7/8"/6.5#/J-55  
TUBING LENGTH: 185 jts (5803.84')  
TUBING ANCHOR: 5815.84'  
TUBING LENGTH: 1 jts. (30.90')  
SEATING NIPPLE: 5849.54'  
TUBING LENGTH: 2 jts. (62.22')  
TOTAL STRING LENGTH: EOT @ 5913.31' w/ 12' KB



FRAC JOB

Date	Depth Range	Description
6/30/95	4917'-5214'	Frac zone as follows: 18,700# 20/40 sand + 100,440# 16/30 sand in 650 bbls Viking I-35 frac fluid. Treat at avg. 2600 psi @ 34.8 bpm. ISIP 4500 psi. Calc flush: 4917 gal. Actual flush: 4410 gal.
11/6/96	4154'-4377'	Frac sands as follows: 121,900# 16/30 sand in 688 bbls Viking I frac fluid. Treat at avg. 3000 psi @ 35.8 bpm. ISIP 2420 psi. Calc flush: 4154 gal. Actual flush: 4116 gal.
11/7/03	5830'-5933'	Frac CP5 sands as follows: 29,719# 20/40 sand in 269 bbls Viking I-25 fluid. Treat at avg. 3010 psi @ 13.9 bpm. ISIP 1925 psi. Calc flush: 1499 gal. Actual flush: 1386 gal.
11/7/03	5645'-5706'	Frac CP 2 sands as follows: 39,685# 20/40 sand in 333 bbls Viking I-25 fluid. Treat at avg. 2740 psi @ 14.2 bpm. ISIP 1510 psi. Calc flush: 1470 gal. Actual flush: 1344 gal.
11/7/03	5209'-5216'	Frac A1 sands as follows: 19,583# 20/40 sand in 182 bbls Viking I-25 fluid. Treat at avg. 4855 psi @ 13.7 bpm. ISIP 3310 psi. Calc flush: 1350 gal. Actual flush: 1239 gal.
11/10/03	5004'-5072'	Frac B .5 and 2 sands as follows: 27,770# 20/40 sand in 255 bbls Viking I-25 fluid. Treat at avg. 3215 psi @ 14.5 bpm. ISIP 2300 psi. Calc flush: 1274 gal. Actual flush: 1134 gal.
11/10/03	4916'-4924'	Frac C sands as follows: 19,447# 20/40 sand in 180 bbls Viking I-25 fluid. Treat at avg. 4015 psi @ 14.5 bpm. ISIP 2550 psi. Calc flush: 1257 gal. Actual flush: 1134 gal.
11/10/03	4371'-4378'	Frac PB7 sands as follows: 25,848# 20/40 sand in 204 bbls Viking I-25 fluid. Treat at avg. 36585 psi @ 14.4 bpm. ISIP 3000 psi. Calc flush: 1113 gal. Actual flush: 1008 gal.
4/07/04		Tubing Leak.
04/15/05		Pump Change: Update rod detail
12/28/05		Tubing Leak: Update rod and tubing details.
6-25-07		Tubing Leak: Updated rod and tubing detail.
05/29/08		Parted rods. Updated rod and tubing detail

PERFORATION RECORD

Date	Depth Range	Perforation Details	
11/6/96	4154'-4158'	06 holes	
11/6/96	4270'-4274'	06 holes	
11/6/96	4288'-4292'	05 holes	
11/6/03	4371'-4378'	2JSPF 14 holes	
RE-PERF	11/6/96	4372'-4377'	04 holes
RE-PERF	11/6/03	4916'-4924'	2JSPF 16 holes
RE-PERF	6/29/95	4917'-4921'	05 holes
RE-PERF	11/6/03	5004'-5010'	2JSPF 12 holes
RE-PERF	6/29/95	5006'-5010'	05 holes
RE-PERF	11/6/03	5209'-5216'	2JSPF 14 holes
RE-PERF	6/29/95	5210'-5214'	05 holes
RE-PERF	11/6/03	5928'-5933'	4JSPF 20 holes
RE-PERF	11/6/03	5866'-5870'	4JSPF 16 holes
RE-PERF	11/6/03	5830'-5834'	4JSPF 16 holes
RE-PERF	11/6/03	5702'-5706'	4JSPF 16 holes
RE-PERF	11/6/03	5645'-5654'	4JSPF 36 holes
RE-PERF	11/6/03	5065'-5072'	4JSPF 28 holes

*Base USDWs 3699*  
*Green River 1448*  
*Tonz 2973-3007*  
*Mahogany 3007-3026*  
*Confining Zone 3600-3790*  
*Garden Gulch 3790*

*Douglas Creek 4734*

*Base Carbonate 5952*

**NEWFIELD**  
Federal 11-4-9-18  
(Formerly Federal #4-2)  
1980' FSL & 1980' FWL  
NE/SW Section 4-T9S-R18E  
Uintah Co, Utah  
API #43-047-32654; Lease #UTU-17424

*Est. Masek 6077*

## 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.

<b>WELL NAME:</b> Federal 11-4-9-18	
<b>TYPE OF LOG</b>	<b>DATE DUE</b>
CBL/VDL/GAMMA RAY	Prior to receiving authorization to inject.

#### Tests.

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

<b>WELL NAME:</b> Federal 11-4-9-18	
<b>TYPE OF TEST</b>	<b>DATE DUE</b>
Radioactive Tracer Survey (2)	Run within a 180-day limited authorization to inject if the CBL does not identify requisite cement bond within the Confining Zone.
Standard Annulus Pressure	Prior to receiving authorization to inject and at least once within any five (5) year period following the last successful test.
Pore Pressure	Prior to receiving authorization to inject.

## 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.

<b>WELL NAME:</b> Federal 11-4-9-18	
<b>TYPE OF LOG</b>	<b>DATE DUE</b>
CBL/VDL/GAMMA RAY	Prior to receiving authorization to inject.

#### Tests.

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

<b>WELL NAME:</b> Federal 11-4-9-18	
<b>TYPE OF TEST</b>	<b>DATE DUE</b>
Radioactive Tracer Survey (2)	Run within a 180-day limited authorization to inject if the CBL does not identify requisite cement bond within the Confining Zone. If RTS required, a Part II MIT will be run within any five (5) year period following the last successful test. <i>1 5</i>
Standard Annulus Pressure	Prior to receiving authorization to inject and at least once within any five (5) year period following the last successful test.
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 11-4-9-18	1,080

#### 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 Formation: Garden Gulch, Douglas Creek & Basal Carbonate Members.	3,790.00	6,077.00

#### 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

See diagram.

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

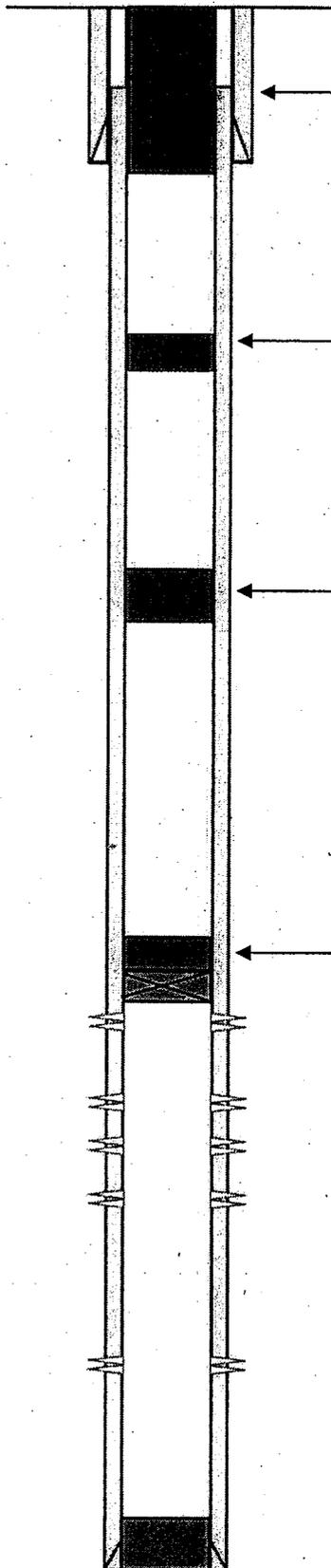
**PLUG NO. 1: Seal Injection Zone:** Set a cast iron bridge plug (CIBP) no more than fifty (50) feet above the top injection perforation. Place at least twenty (20) feet of cement plug on top of the CIBP.

**PLUG NO. 2: Seal Mahogany Shale and Trona intervals:** Squeeze a cement plug on the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale approximately 2,925 feet to 3,075 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 150-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 2,925 feet to 3,075 feet.

**PLUG NO. 3: Seal USDWs:** Squeeze a cement plug (1,390 feet - 1,510 feet) on the backside of the 5-1/2 inch casing across the base of the Uinta formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 120-foot balanced 1,390 feet to 1,510 feet.

**PLUG NO.4: Seal Surface:** Set a Class "G" cement plug within the 5-1/2 inch casing to 420 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

## Plugging and Abandonment Diagram for Federal No. 11-4-9-18



Plug 4: Set a Class "G" cement plug within the 5-1/2 inch casing surface to 420 feet and up the 5-1/2 inch X 8-5/8 inch casing annulus to the surface.

Plug 3: Perforate and squeeze cement up the backside of the casing across the contact between the Uinta Formation and Green River Formation 1,390 feet – 1,510 feet (KB) unless pre-existing backside cement precludes cement-squeezing this interval. Set a minimum 120-foot cement plug inside the casing from approximately 1,390 feet – 1,510 feet.

Plug 2: Perforate and squeeze cement up the backside of the casing across the Trona Zone and the Mahogany Bench from approximately 2,925 feet – 3075 feet (KB) unless pre-existing backside cement precludes cement-squeezing this interval. Set a minimum 150-foot balanced cement plug inside the casing from approximately 2,925 feet – 3,075 feet.

Plug 1: Set a cast iron bridge plug (CIBP) no more than 50 ft above the top perforation with a minimum of 20 ft cement plug on top of the CIBP.

## APPENDIX F

### CORRECTIVE ACTION REQUIREMENTS

No corrective action is deemed necessary for this project.

# STATEMENT OF BASIS

**NEWFIELD PRODUCTION CO.  
FEDERAL 11-4-9-18  
UINTAH COUNTY, UT**

**EPA PERMIT NO. UT21239-08409**

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

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

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

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

## PART I. General Information and Description of Facility

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

on

May 6, 2009

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

Federal 11-4-9-18  
1980' FSL & 1980" FWL, NESW S4, T9S, R18E  
Uintah County, UT

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

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

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

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

Federal No. 11-4-9-18 is currently an active Green River Formation (Garden Gulch & Douglas Creek Members) oil well. It is the initial intent of the applicant to use current production perforations for Class II enhanced recovery injection. Federal No. 11-4-9-18 has total depth (TD) in the Basal Carbonate Member. The submitted Cement Bond Log (CBL) is not adequate to analyze Confining Zone annulus cement.

**TABLE 1.1**  
**WELL STATUS / DATE OF OPERATION**

NEW WELLS		
Well Name	Well Status	Date of Operation
Federal 11-4-9-18	New	N/A

## 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)

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.

**TABLE 2.1  
GEOLOGIC SETTING  
Federal 11-4-9-18**

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta: Public. 92	0	369	< 10,000	Sand and shale.
Uinta	369	1,448		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River	1,448	6,077		Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Trona	2,973	3,007		Evaporite
Green River: Mahogany Bench	3,007	3,026		Shale
Green River: Garden Gulch Member	3,790	4,734	39,041	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Douglas Creek Member	4,734	5,952	39,041	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.
Green River: Basal Carbonate	5,952	6,077		Carbonate

**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 (3,790 feet) and the top of the Wasatch Formation estimated to be 6,077 feet.

**TABLE 2.2  
INJECTION ZONES  
Federal 11-4-9-18**

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River Formation: Garden Gulch, Douglas Creek & Basal Carbonate Members.	3,790	6,077	39,041	0.700		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 190-foot (3,600 feet - 3,790 feet) shale Confining Zone directly overlies the top of the Garden Gulch Member.

**TABLE 2.3**  
**CONFINING ZONES**  
Federal 11-4-9-18

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River	Shale	3,600	3,790

**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.

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

The State of Utah "Water Wells and Springs" identifies no public water supply wells within the one-quarter (1/4) mile Area-of-Review (AOR) around the Federal No. 11-4-9-18.

Technical Publication No. 92: State of Utah, Department of Natural Resources, cites the base of Underground Sources of Drinking Water (USDW) in the Uinta Formation approximately 369 feet from the surface. However, absent definitive information relative to the water quality of the Uinta Formation, from the depth of 369 feet to the base of the Uinta Formation (1,448 feet), the EPA will require, during plugging and abandonment, a cement plug at the base of the Uinta Formation to protect contamination of possible Uinta USDWs.

**TABLE 2.4**  
**UNDERGROUND SOURCES OF DRINKING WATER (USDW)**  
**Federal 11-4-9-18**

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta: Public. 92	Sand and shale.	0	369	< 10,000
Uinta	Interbedded lacustrine sand, shale and carbonate with fluvial sand and shale.	369	1,448	

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

Federal No. 11-4-9-18 was drilled to a total depth of 6,049 feet (KB) feet in the Basal Carbonate Member.

Surface casing (8-5/8 inch) was set at a depth of 300 feet in a 12-1/4 inch hole using 100 sacks of Class "A" cement which was circulated to within eighteen (18) feet of the surface.

Production casing (5-1/2 inch) was set at a depth of 6,049 feet (KB) in a 7-7/8 inch hole with 400 sacks of Class "A" cement.

Current construction is not considered adequate to protect USDWs. The Cement Bond Log (CBL), 4,000 feet - 5,988 feet, does not cover the Confining Zone, 3,600 feet - 3790 feet.

Schlumberger, on the front of the CBL, comments "Est. Cement Top: 1,000 feet". This observation must have been made as the CBL was coming out of the hole after logging the 4,000 feet - 5,988 feet interval. Therefore, Table 3.1 identifies the "Cemented Interval" for Production casing as 1,000 feet - 6,049 feet.

The schematic diagram shows enhanced recovery injection perforations in the Garden Gulch and Douglas Creek Members of the Green River Formation. Additional perforations may be added at a later time between the depths of 3,790 feet and the top of the Wasatch Formation (Estimated to be 6,077 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

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

**TABLE 3.1**  
**WELL CONSTRUCTION REQUIREMENTS**  
**Federal 11-4-9-18**

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Production	7.88	5.50	0 - 6,049	1,000 - 6,049
Surface	12.25	8.63	0 - 300	0 - 300

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

**Casing and Cementing (TABLE 3.1)**

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

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

**Tubing and Packer**

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

**Tubing-Casing Annulus (TCA)**

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

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

**Monitoring Devices**

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

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

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

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Federal No. 14-4-9-18	Producer	No	6,100	565	No
Federal No. 6-4-9-18	Producer	No	6,050	360	No

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

**Area Of Review**

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

**Corrective Action Plan**

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

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

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

Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Green River Formation: Garden Gulch, Douglas Creek & Basal Carbonate Members.	4,154	0.700	1,080

**Approved Injection Fluid**

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

The proposed injectate will be a blend of water from the Johnson Water District pipeline and/or the Green River pipeline, and produced Green River Formation water from wells proximate to the Federal No. 11-4-9-18.

### 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 or daily volume of authorized Class II fluid to be injected into the approved Green River Formation interval. The Permittee shall not exceed the maximum authorized surface injection pressure.

### 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, which ever is less, with a ten (10) percent or less pressure loss over thirty (30) minutes.

PART II MI: Submitted Cement Bond Log (CBL), covering the interval 4,000 feet - 5,985 feet, does not log the Confining Zone (3,600 feet - 3,790 feet). A CBL is required prior to receiving authorization to inject. If the CBL does not demonstrate the presence of requisite Confining Zone annulus cement, the Permittee shall be authorized a 180-day limited authorization injection period in which to run a Radioactive Tracer Survey (RTS). If the RTS is not run, or if the RTS does not confirm "zonal confinement", the Permittee shall demonstrate Part II MI pursuant to 40 CFR §146.8(a)(2) using an approved test method such as a Temperature Log, Noise Log, or Oxygen Activation Log. This demonstration of Part II MI shall be repeated no less than every five (5) years after the last success test.

## **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.

The well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs and in accordance with other applicable Federal, State or local law or regulation. Tubing, packers, and any downhole apparatus shall be removed. Class A, C, G, and H cements, with additives such as accelerators and retarders that control or enhance cement properties, may be used for plugs. However, volume extending additives and gel cements are not

approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. Within sixty (60) days after plugging, the owner or operator shall submit Plugging Record (EPA Form 7520-13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. At a minimum, the following plugs are required:

**PLUG NO. 1: Seal Injection Zone:** Set a cast iron bridge plug (CIBP) no more than fifty (50) feet above the top injection perforation. Place at least twenty (20) feet of cement plug on top of the CIBP.

**PLUG NO. 2: Seal Mahogany Shale and Trona intervals:** Squeeze a cement plug on the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale approximately 2,925 feet to 3,075 feet (unless pre-existing backside cement precludes cement-squeezing this interval) followed by a minimum 150-foot balanced cement plug inside the 5-1/2 inch casing across the Trona Zone and the Mahogany Shale, approximately 2,925 feet to 3,075 feet.

**PLUG NO. 3: Seal USDWs:** Squeeze a cement plug (1,390 feet - 1,510 feet) on the backside of the 5-1/2 inch casing across the base of the Uinta formation (unless pre-existing backside cement precludes cement-squeezing this interval), followed by a minimum 120-foot balanced 1,390 feet to 1,510 feet.

**PLUG NO.4: Seal Surface:** Set a Class "G" cement plug within the 5-1/2 inch casing to 420 feet and up the 5-1/2 inch by 8-5/8 inch casings annulus to the surface.

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

### **Demonstration of Financial Responsibility**

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

A May 27, 2009 demonstration of Financial Responsibility in the amount of \$59,344 has been provided. 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.

Financial Statement, received May 16, 2008

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

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
USA UTU-17424

**SUNDRY NOTICES AND REPORTS ON WELLS**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT or CA AGREEMENT NAME:  
GMBU

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:  
FEDERAL 11-4-9-18

2. NAME OF OPERATOR:  
NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
4304732654

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

10. FIELD AND POOL, OR WILDCAT:  
MONUMENT BUTTE

4. LOCATION OF WELL:  
FOOTAGES AT SURFACE: 1980 FSL 1980 FWL

COUNTY: UINTAH

OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESW, 4, T9S, R18E

STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (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 checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion: <u>04/08/2010</u>	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input checked="" type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: -
	<input checked="" type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
The subject well has been converted from a producing oil well to an injection well on 03/29/2010.  
On 03/25/2010 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 04/08/2010 the casing was pressured up to 1550 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 460 psig during the test. There was not an EPA representative available to witness the test.

EPA# UT21239-08409 API# 43-047-32654

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

NAME (PLEASE PRINT) Lucy Chavez-Naupoto TITLE Administrative Assistant

SIGNATURE  DATE 04/12/2010

(This space for State use only)

**RECEIVED  
APR 15 2010  
DIV. OF OIL, GAS & MINING**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. USA UTU-17424
2. Name of Operator NEWFIELD PRODUCTION COMPANY		6. If Indian, Allottee or Tribe Name.
3a. Address Route 3 Box 3630 Myton, UT 84052	3b. Phone (include are code) 435.646.3721	7. If Unit or CA/Agreement, Name and/or GMBU
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 1980 FSL 1980 FWL NESW Section 4 T9S R18E		8. Well Name and No. FEDERAL 11-4-9-18
		9. API Well No. 4304732654
		10. Field and Pool, or Exploratory Area MONUMENT BUTTE
		11. County or Parish, State UINTAH, UT

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

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

The subject well has been converted from a producing oil well to an injection well on 03/29/2010. On 03/25/2010 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 04/08/2010 the casing was pressured up to 1550 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 460 psig during the test. There was not an EPA representative available to witness the test.

EPA# UT21239-08409      API# 43-047-32654

I hereby certify that the foregoing is true and correct (Printed/ Typed) Lucy Chavez-Naupoto	Title Administrative Assistant
Signature 	Date 04/12/2010

**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**  
**APR 15 2010**

# 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: 4 / 8 / 2010  
 Test conducted by: Alfredo Rios  
 Others present: \_\_\_\_\_

Well Name: <u>Federal 11-4-9-18</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Monument Butte</u>		
Location: <u>11-4-9-18</u> Sec: <u>4</u> T <u>9</u> N <u>(S)</u> R <u>18</u> <u>(E)</u> W County: <u>Uintah</u> State: <u>Utah</u>		
Operator: <u>Alfredo Rios</u>		
Last MIT: <u>  /  /  </u>		Maximum Allowable Pressure: _____ PSIG

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

Pre-test casing/tubing annulus pressure: 0 psig

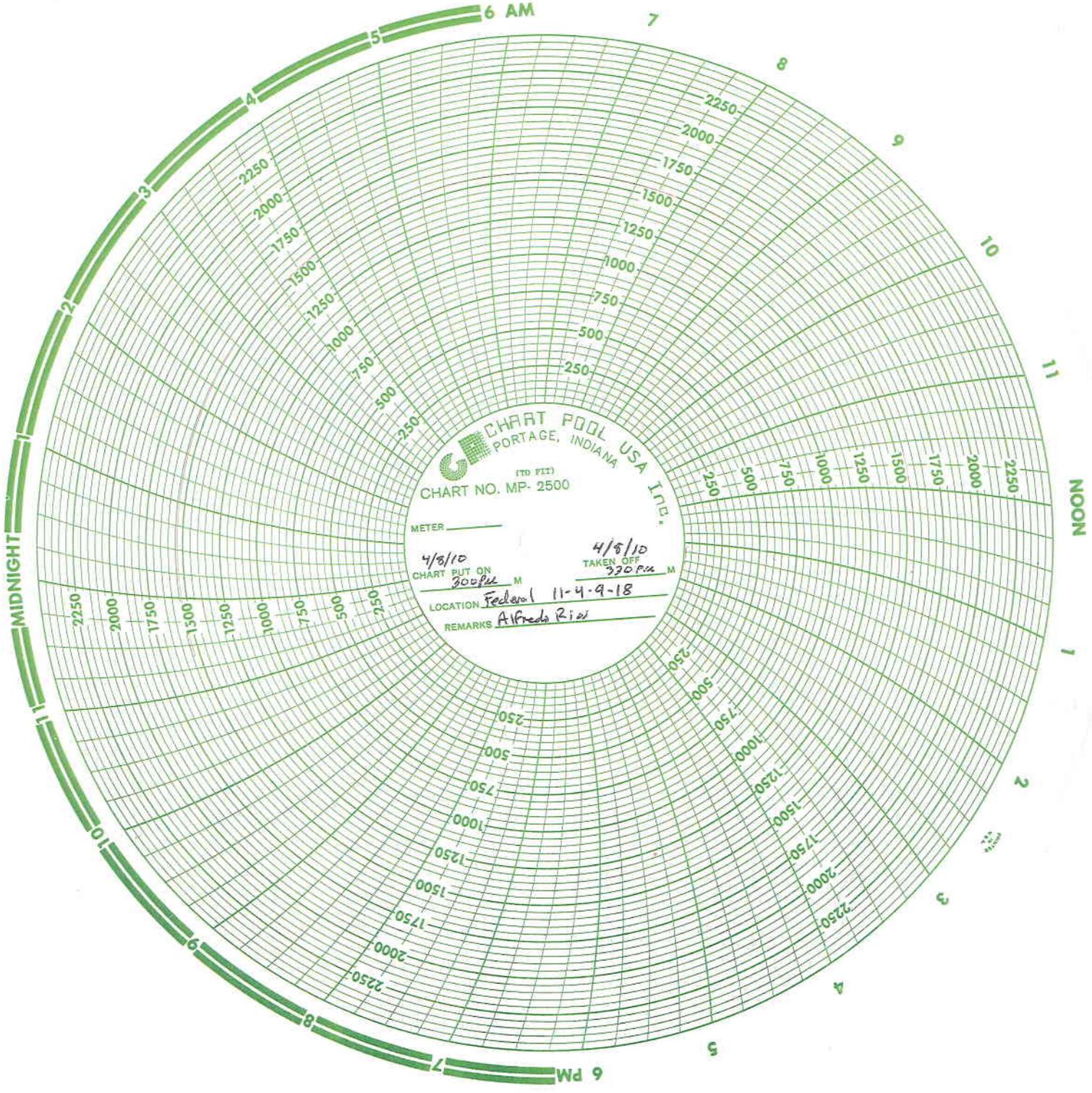
MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	<u>460</u> psig	psig	psig
End of test pressure	<u>460</u> psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	<u>1550</u> psig	psig	psig
5 minutes	<u>1550</u> psig	psig	psig
10 minutes	<u>1550</u> psig	psig	psig
15 minutes	<u>1550</u> psig	psig	psig
20 minutes	<u>1550</u> psig	psig	psig
25 minutes	<u>1550</u> psig	psig	psig
30 minutes	<u>1550</u> psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
<b>RESULT</b>	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail	<input type="checkbox"/> Pass <input type="checkbox"/> Fail

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

## MECHANICAL INTEGRITY PRESSURE TEST

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

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



**CHART POOL USA Inc.**  
PORTAGE, INDIANA  
(TD FT)  
CHART NO. MP- 2500

METER \_\_\_\_\_  
CHART PUT ON 4/8/10  
300 PM M  
TAKEN OFF 4/8/10  
330 PM M  
LOCATION Federal 11-4-9-18  
REMARKS Alfredo River

## Daily Activity Report

Format For Sundry

**FEDERAL 11-4-9-18**

**1/1/2010 To 5/30/2010**

**2/3/2010 Day: 1**

**Pump Change**

Nabors #919 on 2/3/2010 - MIRU - MIRU. Pumped 60 BW @ 250° down csg. Unseated pump, TOOH w/ ponies, 2-3/4" guided rods. Pumped 40 BW @ 250° down tbg @ 300psi. SDFN. - MIRU. Pumped 60 BW @ 250° down csg. Unseated pump, TOOH w/ ponies, 2-3/4" guided rods. Pumped 40 BW @ 250° down tbg @ 300psi. SDFN.

**Daily Cost:** \$0

**Cumulative Cost:** \$2,742

**2/4/2010 Day: 2**

**Pump Change**

Nabors #919 on 2/4/2010 - PWOP - Soft seat & tested tbg to 3000psi. TOOH w/ pump & rods as detailed (rod guided had piled up on top of eachother, LD bad rods). RU & RIH w/ SL, tagged fill @ 5995', no new fill. POOH w/ SL. Pumped 30 BW @ 250° down tbg. PU & primed new pump, TIH w/ pump & rods as detailed. Seated pump, filled tbg w/ 15 BW. Stroke tested pump to 800psi. RDMO. PWOP @ 1430, 3 SPM, 102" SL. Final report - Soft seat & tested tbg to 3000psi. TOOH w/ pump & rods as detailed (rod guided had piled up on top of eachother, LD bad rods). RU & RIH w/ SL, tagged fill @ 5995', no new fill. POOH w/ SL. Pumped 30 BW @ 250° down tbg. PU & primed new pump, TIH w/ pump & rods as detailed. Seated pump, filled tbg w/ 15 BW. Stroke tested pump to 800psi. RDMO. PWOP @ 1430, 3 SPM, 102" SL. Final report

**Daily Cost:** \$0

**Cumulative Cost:** \$8,542

**3/25/2010 Day: 1**

**Conversion**

Nabors #809 on 3/25/2010 - Started LD rod string. - MIRU Nabors rig #809. RU HO trk & pump 60 BW dn annulus @ 250°F. RD pumping unit & unseat rod pump. Flush tbg & rods W/ 40 BW @ 250°F. Re-seat pump, soft joint rod string & strip off flow-T. Fill tbg W/ 8 BW & pressure test to 3000 psi. Retrieve rod string & unseat pump. TOH & LD 103 rods. PU polished rod & SIFN. - MIRU Nabors rig #809. RU HO trk & pump 60 BW dn annulus @ 250°F. RD pumping unit & unseat rod pump. Flush tbg & rods W/ 40 BW @ 250°F. Re-seat pump, soft joint rod string & strip off flow-T. Fill tbg W/ 8 BW & pressure test to 3000 psi. Retrieve rod string & unseat pump. TOH & LD 103 rods. PU polished rod & SIFN. **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$93,246

**3/26/2010 Day: 2**

**Conversion**

Nabors #809 on 3/26/2010 - LD remaining rods. TOH W/ production tbg. TIH & set plug over perfs. - RU HO trk & flush tbg & rods W/ 40 BW @ 250°F. Con't TOH & LD rod string and pump. ND wellhead & release TA @ 5804'. NU BOP. RIH W/ sandline & tag fill @ 5995'. RD sdline. TOH & talley production tbg. Broke even connections, clean & inspect pins and apply Liquid O-ring to pins. LD btm 56 jts tbg and BHA. Re-flushed tbg halfway out W/ 40 add'l BW. MU & TIH W/ Weatherford 5 1/2" "TS" RBP & 132 jts tbg. Set plug @ 4112'. SIFN. - RU HO trk to fill hole W/ 65 BW. Circ add'l 70 bbls around @ 250°F. Isolate wellhead & pressure test casing to 1800 psi. TOH W/ tbg & RH. RU Perforators LLC & run CBL under pressure f/ 4088'

to sfc. Had good bond to 1040' then fell away. RD WLT. TIH W/ tbg. Latch onto & release RBP @ 4112'. TOH W/ tbg. Broke odd connections, clean & inspect pins and apply Liquid O-ring to pins. LD RBP. SIFN. - RU HO trk & flush tbg & rods W/ 40 BW @ 250°F. Con't TOH & LD rod string and pump. ND wellhead & release TA @ 5804'. NU BOP. RIH W/ sandline & tag fill @ 5995'. RD sdline. TOH & talley production tbg. Broke even connections, clean & inspect pins and apply Liquid O-ring to pins. LD btm 56 jts tbg and BHA. Re-flushed tbg halfway out W/ 40 add'l BW. MU & TIH W/ Weatherford 5 1/2" "TS" RBP & 132 jts tbg. Set plug @ 4112'. SIFN. - RU HO trk to fill hole W/ 65 BW. Circ add'l 70 bbis around @ 250°F. Isolate wellhead & pressure test casing to 1800 psi. TOH W/ tbg & RH. RU Perforators LLC & run CBL under pressure f/ 4088' to sfc. Had good bond to 1040' then fell away. RD WLT. TIH W/ tbg. Latch onto & release RBP @ 4112'. TOH W/ tbg. Broke odd connections, clean & inspect pins and apply Liquid O-ring to pins. LD RBP. SIFN. - RU HO trk to fill hole W/ 65 BW. Circ add'l 70 bbis around @ 250°F. Isolate wellhead & pressure test casing to 1800 psi. TOH W/ tbg & RH. RU Perforators LLC & run CBL under pressure f/ 4088' to sfc. Had good bond to 1040' then fell away. RD WLT. TIH W/ tbg. Latch onto & release RBP @ 4112'. TOH W/ tbg. Broke odd connections, clean & inspect pins and apply Liquid O-ring to pins. LD RBP. SIFN. - RU HO trk & flush tbg & rods W/ 40 BW @ 250°F. Con't TOH & LD rod string and pump. ND wellhead & release TA @ 5804'. NU BOP. RIH W/ sandline & tag fill @ 5995'. RD sdline. TOH & talley production tbg. Broke even connections, clean & inspect pins and apply Liquid O-ring to pins. LD btm 56 jts tbg and BHA. Re-flushed tbg halfway out W/ 40 add'l BW. MU & TIH W/ Weatherford 5 1/2" "TS" RBP & 132 jts tbg. Set plug @ 4112'. SIFN. - RU HO trk to fill hole W/ 65 BW. Circ add'l 70 bbis around @ 250°F. Isolate wellhead & pressure test casing to 1800 psi. TOH W/ tbg & RH. RU Perforators LLC & run CBL under pressure f/ 4088' to sfc. Had good bond to 1040' then fell away. RD WLT. TIH W/ tbg. Latch onto & release RBP @ 4112'. TOH W/ tbg. Broke odd connections, clean & inspect pins and apply Liquid O-ring to pins. LD RBP. SIFN. - RU HO trk & flush tbg & rods W/ 40 BW @ 250°F. Con't TOH & LD rod string and pump. ND wellhead & release TA @ 5804'. NU BOP. RIH W/ sandline & tag fill @ 5995'. RD sdline. TOH & talley production tbg. Broke even connections, clean & inspect pins and apply Liquid O-ring to pins. LD btm 56 jts tbg and BHA. Re-flushed tbg halfway out W/ 40 add'l BW. MU & TIH W/ Weatherford 5 1/2" "TS" RBP & 132 jts tbg. Set plug @ 4112'. SIFN. **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** (\$14,126)

**3/29/2010 Day: 4**

**Conversion**

Nabors #809 on 3/29/2010 - TIH W/ packer. Testing injection string. - MU & TIH W/ injection string as follows: new Weatherford 5 1/2" Arrowset 1-X packer (W/ wicker slips & W.L. re-entry guide), new 2 7/8 SN and 132 jts 2 7/8 8rd 6.5# J-55 tbg. Re-torque each connection on TIH. RU HO trk & pump 10 bbis pad. Drop standing valve & pump to SN. Pressure test tbg to 3000 psi. Leaking off 800 psi in 15 minutes. Re-pressure several times W/ same results. TOH W/ 40 jts & re-test-failed. TOH W/ 10 jts. Test successful. TIH W/ remainder of string. Rebreak connections & look over pins & collars. Changed 20 collars throughout top section. W/ entire string in hole, tested to 3000 psi. Leaked to 2800 psi & seems to be holding. Leave pressure on tbg overnight. - MU & TIH W/ injection string as follows: new Weatherford 5 1/2" Arrowset 1-X packer (W/ wicker slips & W.L. re-entry guide), new 2 7/8 SN and 132 jts 2 7/8 8rd 6.5# J-55 tbg. Re-torque each connection on TIH. RU HO trk & pump 10 bbis pad. Drop standing valve & pump to SN. Pressure test tbg to 3000 psi. Leaking off 800 psi in 15 minutes. Re-pressure several times W/ same results. TOH W/ 40 jts & re-test-failed. TOH W/ 10 jts. Test successful. TIH W/ remainder of string. Rebreak connections & look over pins & collars. Changed 20 collars throughout top section. W/ entire string in hole, tested to 3000 psi. Leaked to 2800 psi & seems to be holding. Leave pressure on tbg overnight.

**Daily Cost:** \$0

**Cumulative Cost:** \$2,806

**3/30/2010 Day: 5****Conversion**

Nabors #809 on 3/30/2010 - Tested tbg. Set & test packer. RDMOSU. - Tbg pressure @ 2600 psi. RU HO trk to tbg & bump pressure to 3000 psi. Final test held solid for 30 minutes. Retrieve standing valve W/ overshot on sandline (took 2 tries). ND BOP & land tbg on flange. Mix 15 gals Multi-Chem C-6031 & 5 gals B-8850 in 70 bbls fresh water. Pump dn annulus @ 90°F. PU on tbg & set pkr W/ SN @ 4111', CE @ 4115' & EOT @ 4119'. Land tbg W/ 15,000# tension. NU wellhead. Pressure test annulus & pkr to 1500 psi. Holding solid for 1 hour. RDMOSU. Well ready for MIT. - Tbg pressure @ 2600 psi. RU HO trk to tbg & bump pressure to 3000 psi. Final test held solid for 30 minutes. Retrieve standing valve W/ overshot on sandline (took 2 tries). ND BOP & land tbg on flange. Mix 15 gals Multi-Chem C-6031 & 5 gals B-8850 in 70 bbls fresh water. Pump dn annulus @ 90°F. PU on tbg & set pkr W/ SN @ 4111', CE @ 4115' & EOT @ 4119'. Land tbg W/ 15,000# tension. NU wellhead. Pressure test annulus & pkr to 1500 psi. Holding solid for 1 hour. RDMOSU. Well ready for MIT. - RU Vaughn Energy Services & run gyro survey. RDWLT. - RU Vaughn Energy Services & run gyro survey. RDWLT.

**Daily Cost:** \$0**Cumulative Cost:** \$8,677

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**4/9/2010 Day: 6****Conversion**

Rigless on 4/9/2010 - MIT on Well - On3/25/2010 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well (Federal 11-4-9-18). On 4/8/2010 the csg was pressured up to 1550 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 460 psig during the test. There was not an EPA representative available to witness the test. Final Report EPA# UT21239-08409 API# 43-047-32654 - On3/25/2010 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well (Federal 11-4-9-18). On 4/8/2010 the csg was pressured up to 1550 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 460 psig during the test. There was not an EPA representative available to witness the test. Final Report EPA# UT21239-08409 API# 43-047-32654

**Finalized****Daily Cost:** \$0**Cumulative Cost:** \$8,977

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**Pertinent Files: Go to File List**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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

APR 29 2010

Ref: 8P-W-GW

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

RECEIVED  
MAY 06 2010

DIV. OF OIL, GAS & MINING

Mr. Michael Guinn  
District Manager  
Newfield Production Company  
Route 3 – Box 3630  
Myton, UT 84052

RE: Underground Injection Control (UIC)  
Limited Authorization to Inject  
EPA UIC Permit UT21239-08409  
Federal 11-4-9-18  
NESW Sec. 4-T9S-R18E  
Uintah County, Utah  
API No.: 43-047-32654

Dear Mr. Guinn:

The Environmental Protection Agency Region 8 (EPA) has received Newfield Production Company's (Newfield) April 12, 2010, 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 EPA, satisfactorily completing all Prior to Commencing Injection Requirements for UIC Permit UT21239-08409.

As of the date of this letter, Newfield is authorized to commence injection into the Federal 11-4-9-18 well at a Maximum Allowable Injection Pressure (MAIP) of 1,080 psig for a limited period of 180 days, during which time a Radioactive Tracer Survey (RTS) is required. If Newfield seeks a higher MAIP than 1,080 psig, it may be advantageous to run a Step Rate Test prior to conducting the RTS because a RTS conducted at the higher MAIP will be required. Newfield must receive prior authorization from the Director to inject at pressures greater than the permitted MAIP during any test.

Please remember that it is Newfield's responsibility to be aware of and to comply with all conditions of Permit UT21239-08409.

If you have questions regarding the above action, please call Emmett Schmitz at 303-312-6174 or 1-800-227-8917, ext. 312-6174. The RTS log with interpretation should be mailed to Jason Deardorff at the letterhead address, citing mail code 8P-W-GW.

Sincerely,



for

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

cc: Uintah & Ouray Business Committee:

Curtis Cesspooch, Chairman  
Ronald Groves, Councilman  
Irene Cuch, Vice-Chairwoman  
Steven Cesspooch, Councilman  
Phillip Chimburas, Councilman  
Frances Poowegup, Councilwoman

Daniel Picard  
BIA - Uintah & Ouray Indian Agency

Ferron Secakuku  
Director, Natural Resources  
Ute Indian Tribe

Larry Love  
Director of Energy & Minerals Dept.  
Ute Indian Tribe

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

Fluid Minerals Engineering Office  
BLM - Vernal Office

Eric Sundberg, Regulatory Analyst  
Newfield Production Company

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

5. LEASE DESIGNATION AND SERIAL NUMBER:

USA UTU-17424

**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.

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME:

GMBU

1. TYPE OF WELL:

OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:

FEDERAL 11-4-9-18

2. NAME OF OPERATOR:

NEWFIELD PRODUCTION COMPANY

9. API NUMBER:

4304732654

3. ADDRESS OF OPERATOR:

Route 3 Box 3630 CITY Myton STATE UT ZIP 84052

PHONE NUMBER

435.646.3721

10. FIELD AND POOL, OR WILDCAT:

GREATER MB UNIT

4. LOCATION OF WELL:

FOOTAGES AT SURFACE: 1980 FSL 1980 FWL

COUNTY: UINTAH

OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESW, 4, T9S, R18E

STATE: UT

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT <small>(Submit in Duplicate)</small>  Approximate date work will <u>05/10/2010</u>	<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"/> SUBSEQUENT REPORT <small>(Submit Original Form Only)</small>  Date of Work Completion: _____	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Put on Injection
	<input checked="" type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

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

The above reference well was put on injection at 9:00 AM on 05-10-2010.

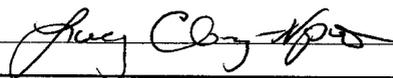
EPA # UT21239-08409 API # 43-047-32654

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

NAME (PLEASE PRINT) Lucy Chavez-Naupoto

TITLE Administrative Assistant

SIGNATURE



DATE 05/10/2010

**RECEIVED**

(This space for State use only)

**MAY 13 2010**

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

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

5. LEASE DESIGNATION AND SERIAL NUMBER:  
 USA UTU-17424

**SUNDRY NOTICES AND REPORTS ON WELLS**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT or CA AGREEMENT NAME:  
 GMBU

1. TYPE OF WELL: OIL WELL  GAS WELL  OTHER

8. WELL NAME and NUMBER:  
 FEDERAL 11-4-9-18

2. NAME OF OPERATOR:  
 NEWFIELD PRODUCTION COMPANY

9. API NUMBER:  
 4304732654

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

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

4. LOCATION OF WELL:  
 FOOTAGES AT SURFACE: 1980 FSL 1980 FWL COUNTY: UINTAH  
 OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: NESW, 4, T9S, R18E STATE: UT

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

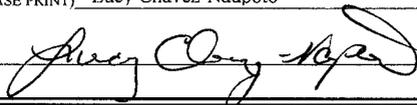
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> 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: 08/25/2010	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Step Rate Test
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  
 A step rate test was conducted on the subject well on August 25, 2010. Results from the test indicate that the fracture gradient is .742 psi/ft. Therefore, Newfield is requesting that the maximum allowable injection pressure (MAIP) be changed from 1080 psi to 1255 psi.

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

NAME (PLEASE PRINT) Lucy Chavez-Naupoto

TITLE Administrative Assistant

SIGNATURE 

DATE 09/01/2010

(This space for State use only)

**: RECEIVED :**  
**SEP 07 2010**  
 DIV. OF OIL, GAS & MINING

## Step Rate Test (SRT) Analysis

Date: 08/27/2010

Operator: Newfield Production Company

Well: Federal 11-4-9-18

Permit #: UT21239-08409

**Enter the following data :**

Specific Gravity (sg) of injectate =	<u>1.015</u>	g/cc
Depth to top perforation (D) =	<u>4154</u>	feet
Top of permitted injection zone depth (blank=use top perforation to calculate fg) =		feet
Estimated Formation Parting Pressure (Pfp) from SRT chart =	<u>1255</u>	psi
Instantaneous Shut In Pressure (ISIP) from SRT =	<u>1283</u>	psi
Bottom Hole Parting Pressure (Pbhp) from downhole pressure recorder =		psi

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

**Calculated Fracture Gradient = 0.742 psi/ft.**

where: fg = Pbhp / D (Note: this formula uses the downhole recorded bottom hole parting pressure if available) = 1283

D = depth used = 4154

Pbhp used = 3081

**Calculated Bottom Hole Parting Pressure (Pbhp) = 3081 psi**

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

(Uses lesser of ISIP or Pfp) Value used = 1255

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

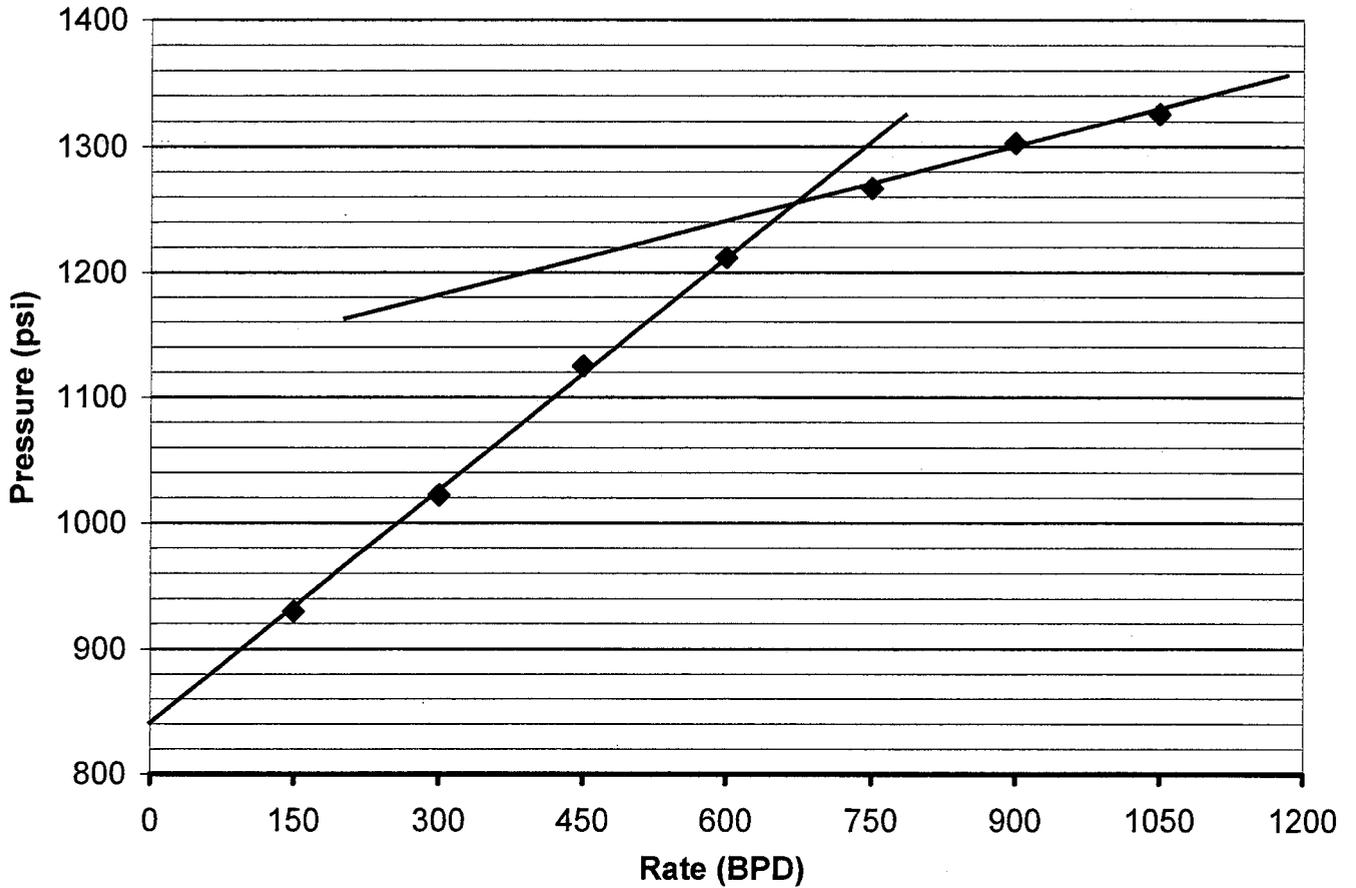
**Maximum Allowable Injection Pressure (MAIP) = 1255 psig**

D = depth used = 4154

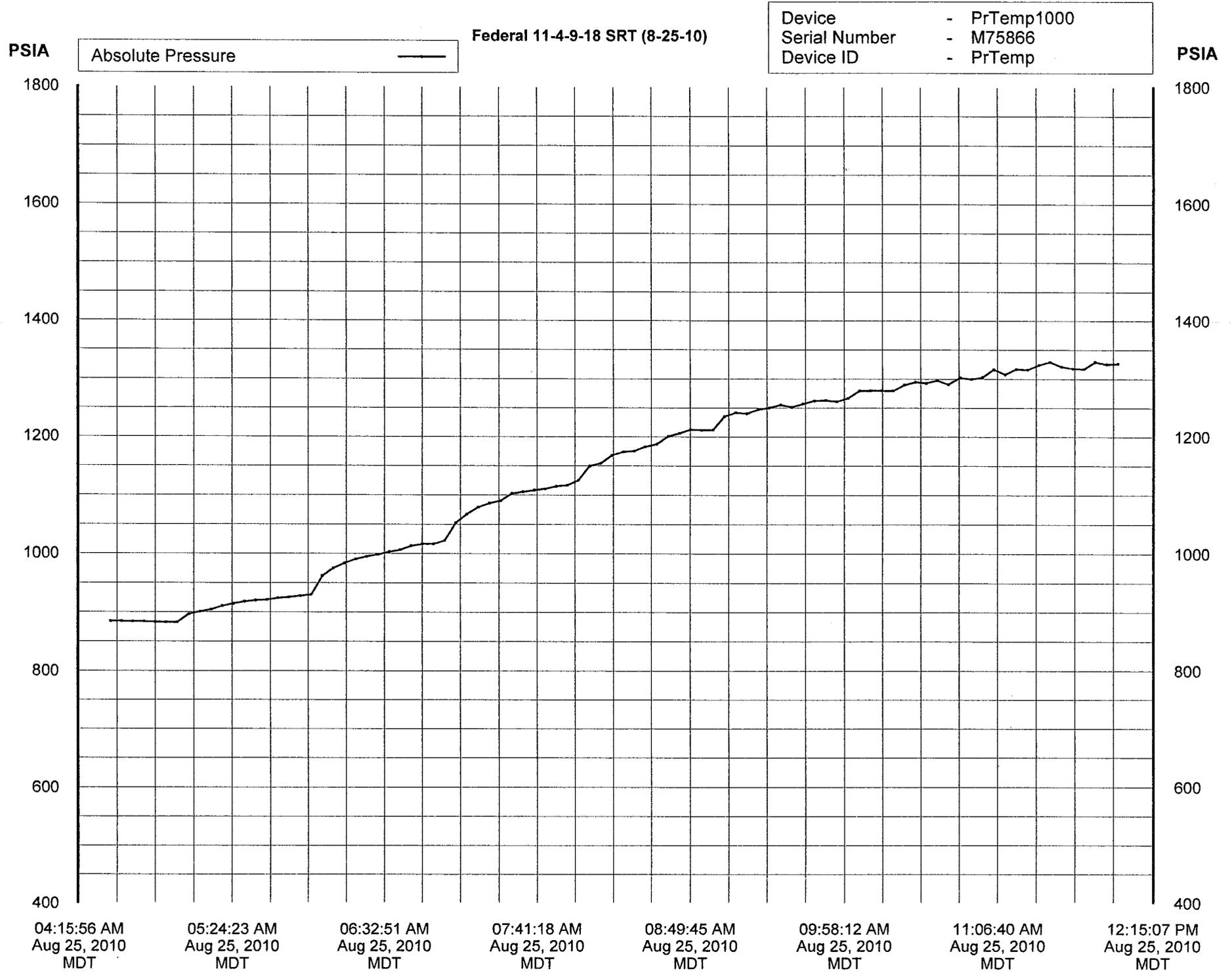
MAIP = [fg \* (0.433 \* SG)] \* D = 1256.606

(rounded down to nearest 5 psig)

Federal 11-4-9-18  
 Greater Monument Butte Unit  
 Step Rate Test  
 August 25, 2010



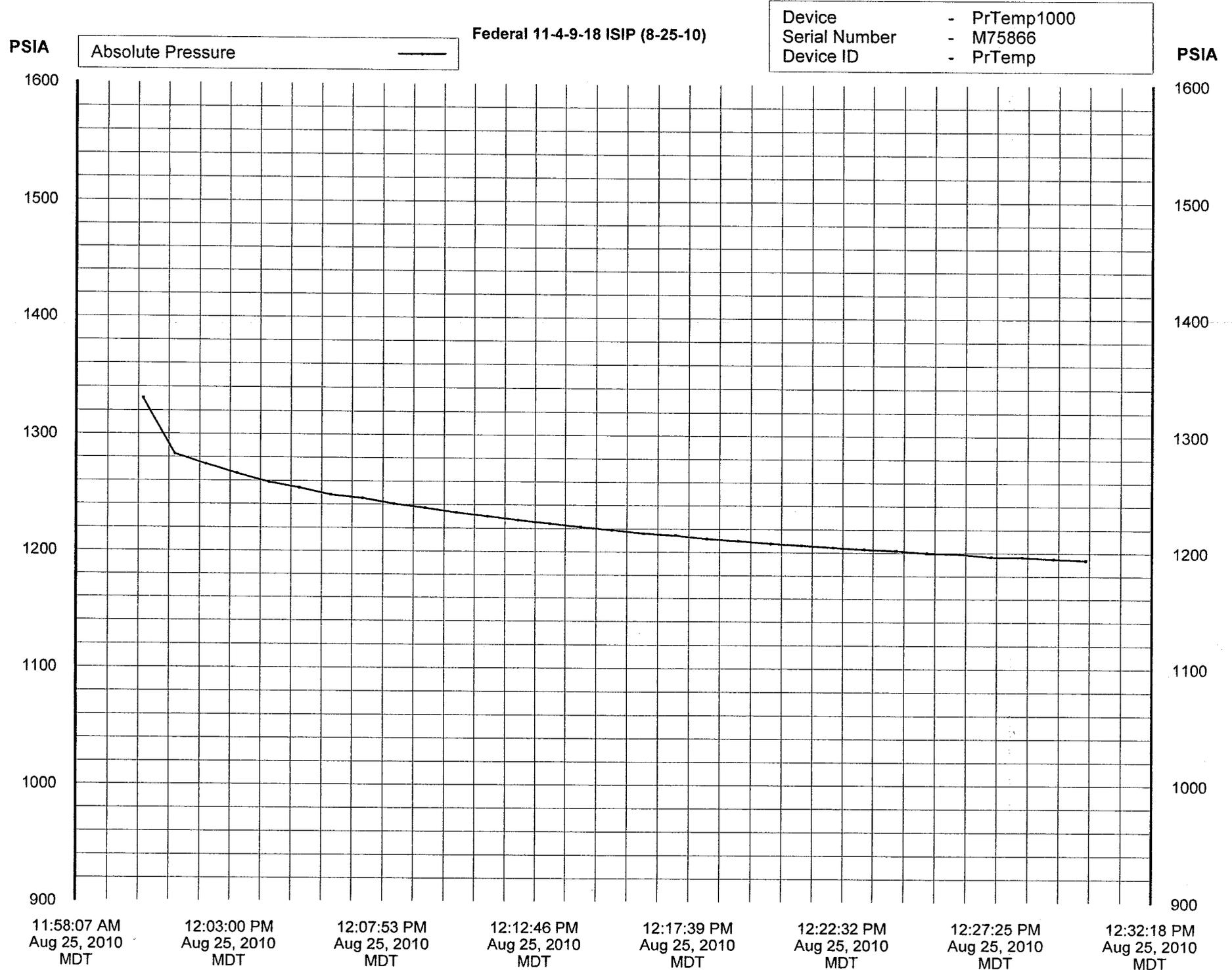
<b>Start Pressure:</b>	882 psi	<b>Step</b>	<b>Rate(bpd)</b>	<b>Pressure(psi)</b>
<b>Instantaneous Shut In Pressure (ISIP):</b>	1283 psi	1	150	930
<b>Top Perforation:</b>	4154 feet	2	300	1022
<b>Fracture pressure (Pfp):</b>	1255 psi	3	450	1125
<b>FG:</b>	0.742 psi/ft	4	600	1212
		5	750	1267
		6	900	1303
		7	1050	1326



Report Name: PrTemp1000 Data Table  
 Report Date: Aug 25, 2010 03:10:51 PM MDT  
 File Name: S:\Wellinfo\PTC@ Instruments 2.00\Federal 11-4-9-18 SRT (8-25-10).csv  
 Title: Federal 11-4-9-18 SRT (8-25-10)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Aug 25, 2010 04:30:01 AM MDT  
 Data End Date: Aug 25, 2010 12:00:01 PM MDT  
 Reading Rate: 2 Seconds  
 Readings: 1 to 91 of 91  
 Last Calibration Date: May 22, 2009  
 Next Calibration Date: May 22, 2010

<u>Reading</u>	<u>Date and Time (MDT)</u>	<u>Absolute Pressure</u>	<u>Annotation</u>
1	Aug 25, 2010 04:30:01 AM	884.200	PSIA
2	Aug 25, 2010 04:35:00 AM	884.200	PSIA
3	Aug 25, 2010 04:40:01 AM	883.800	PSIA
4	Aug 25, 2010 04:45:00 AM	883.800	PSIA
5	Aug 25, 2010 04:50:01 AM	883.000	PSIA
6	Aug 25, 2010 04:55:00 AM	882.400	PSIA
7	Aug 25, 2010 05:00:01 AM	882.400	PSIA
8	Aug 25, 2010 05:05:01 AM	896.200	PSIA
9	Aug 25, 2010 05:10:01 AM	900.400	PSIA
10	Aug 25, 2010 05:15:01 AM	904.200	PSIA
11	Aug 25, 2010 05:20:04 AM	910.200	PSIA
12	Aug 25, 2010 05:25:01 AM	914.400	PSIA
13	Aug 25, 2010 05:30:00 AM	917.800	PSIA
14	Aug 25, 2010 05:35:01 AM	919.800	PSIA
15	Aug 25, 2010 05:40:00 AM	921.000	PSIA
16	Aug 25, 2010 05:45:01 AM	923.800	PSIA
17	Aug 25, 2010 05:50:01 AM	925.400	PSIA
18	Aug 25, 2010 05:55:01 AM	927.600	PSIA
19	Aug 25, 2010 06:00:01 AM	929.600	PSIA
20	Aug 25, 2010 06:05:00 AM	961.800	PSIA
21	Aug 25, 2010 06:10:01 AM	975.000	PSIA
22	Aug 25, 2010 06:15:00 AM	983.600	PSIA
23	Aug 25, 2010 06:20:01 AM	990.200	PSIA
24	Aug 25, 2010 06:25:00 AM	994.800	PSIA
25	Aug 25, 2010 06:30:01 AM	998.000	PSIA
26	Aug 25, 2010 06:35:01 AM	1002.800	PSIA
27	Aug 25, 2010 06:40:01 AM	1006.000	PSIA
28	Aug 25, 2010 06:45:01 AM	1012.800	PSIA
29	Aug 25, 2010 06:50:00 AM	1016.000	PSIA
30	Aug 25, 2010 06:55:01 AM	1016.000	PSIA
31	Aug 25, 2010 07:00:00 AM	1021.800	PSIA
32	Aug 25, 2010 07:05:01 AM	1052.400	PSIA
33	Aug 25, 2010 07:10:00 AM	1067.200	PSIA
34	Aug 25, 2010 07:15:01 AM	1079.200	PSIA
35	Aug 25, 2010 07:20:01 AM	1086.000	PSIA
36	Aug 25, 2010 07:25:01 AM	1090.200	PSIA
37	Aug 25, 2010 07:30:01 AM	1102.600	PSIA
38	Aug 25, 2010 07:35:00 AM	1105.400	PSIA
39	Aug 25, 2010 07:40:01 AM	1108.200	PSIA
40	Aug 25, 2010 07:45:00 AM	1110.400	PSIA
41	Aug 25, 2010 07:50:01 AM	1115.200	PSIA
42	Aug 25, 2010 07:55:00 AM	1116.600	PSIA
43	Aug 25, 2010 08:00:01 AM	1125.400	PSIA
44	Aug 25, 2010 08:05:01 AM	1149.400	PSIA
45	Aug 25, 2010 08:10:01 AM	1154.400	PSIA
46	Aug 25, 2010 08:15:01 AM	1168.000	PSIA
47	Aug 25, 2010 08:20:00 AM	1173.800	PSIA
48	Aug 25, 2010 08:25:01 AM	1175.400	PSIA
49	Aug 25, 2010 08:30:00 AM	1182.800	PSIA
50	Aug 25, 2010 08:35:01 AM	1187.200	PSIA
51	Aug 25, 2010 08:40:00 AM	1200.600	PSIA
52	Aug 25, 2010 08:45:01 AM	1206.000	PSIA
53	Aug 25, 2010 08:50:01 AM	1212.200	PSIA
54	Aug 25, 2010 08:55:01 AM	1211.400	PSIA
55	Aug 25, 2010 09:00:01 AM	1211.800	PSIA
56	Aug 25, 2010 09:05:00 AM	1235.200	PSIA
57	Aug 25, 2010 09:10:01 AM	1241.800	PSIA
58	Aug 25, 2010 09:15:00 AM	1240.200	PSIA
59	Aug 25, 2010 09:20:01 AM	1247.200	PSIA
60	Aug 25, 2010 09:25:00 AM	1250.200	PSIA

61	Aug 25, 2010 09:30:01 AM	1255.200	PSIA
62	Aug 25, 2010 09:35:01 AM	1251.200	PSIA
63	Aug 25, 2010 09:40:01 AM	1257.200	PSIA
64	Aug 25, 2010 09:45:01 AM	1262.200	PSIA
65	Aug 25, 2010 09:50:00 AM	1263.000	PSIA
66	Aug 25, 2010 09:55:01 AM	1261.000	PSIA
67	Aug 25, 2010 10:00:00 AM	1267.000	PSIA
68	Aug 25, 2010 10:05:01 AM	1279.600	PSIA
69	Aug 25, 2010 10:10:00 AM	1280.000	PSIA
70	Aug 25, 2010 10:15:01 AM	1280.000	PSIA
71	Aug 25, 2010 10:20:01 AM	1279.600	PSIA
72	Aug 25, 2010 10:25:01 AM	1289.600	PSIA
73	Aug 25, 2010 10:30:01 AM	1294.600	PSIA
74	Aug 25, 2010 10:35:00 AM	1292.600	PSIA
75	Aug 25, 2010 10:40:01 AM	1297.400	PSIA
76	Aug 25, 2010 10:45:00 AM	1290.600	PSIA
77	Aug 25, 2010 10:50:01 AM	1302.200	PSIA
78	Aug 25, 2010 10:55:00 AM	1299.600	PSIA
79	Aug 25, 2010 11:00:01 AM	1302.800	PSIA
80	Aug 25, 2010 11:05:01 AM	1316.200	PSIA
81	Aug 25, 2010 11:10:01 AM	1307.600	PSIA
82	Aug 25, 2010 11:15:01 AM	1317.000	PSIA
83	Aug 25, 2010 11:20:00 AM	1316.000	PSIA
84	Aug 25, 2010 11:25:01 AM	1324.000	PSIA
85	Aug 25, 2010 11:30:00 AM	1329.200	PSIA
86	Aug 25, 2010 11:35:01 AM	1321.000	PSIA
87	Aug 25, 2010 11:40:00 AM	1318.000	PSIA
88	Aug 25, 2010 11:45:01 AM	1317.200	PSIA
89	Aug 25, 2010 11:50:01 AM	1329.400	PSIA
90	Aug 25, 2010 11:55:01 AM	1325.400	PSIA
91	Aug 25, 2010 12:00:01 PM	1326.400	PSIA



Report Name: PrTemp1000 Data Table  
 Report Date: Aug 25, 2010 03:10:30 PM MDT  
 File Name: S:\Welinfo\PTC@ Instruments 2.00\Federal 11-4-9-18 ISIP (8-25-10).csv  
 Title: Federal 11-4-9-18 ISIP (8-25-10)  
 Device: PrTemp1000 - Temperature and Pressure Recorder  
 Hardware Revision: REV2C (64K)  
 Serial Number: M75866  
 Device ID: PrTemp  
 Data Start Date: Aug 25, 2010 12:00:13 PM MDT  
 Data End Date: Aug 25, 2010 12:30:14 PM MDT  
 Reading Rate: 2 Seconds  
 Readings: 1 to 31 of 31  
 Last Calibration Date: May 22, 2009  
 Next Calibration Date: May 22, 2010

<u>Reading</u>	<u>Date and Time (MDT)</u>	<u>Absolute Pressure</u>	<u>Annotation</u>
1	Aug 25, 2010 12:00:13 PM	1330.400	PSIA
2	Aug 25, 2010 12:01:14 PM	1282.600	PSIA
3	Aug 25, 2010 12:02:13 PM	1274.000	PSIA
4	Aug 25, 2010 12:03:13 PM	1266.200	PSIA
5	Aug 25, 2010 12:04:14 PM	1258.800	PSIA
6	Aug 25, 2010 12:05:13 PM	1254.000	PSIA
7	Aug 25, 2010 12:06:13 PM	1248.200	PSIA
8	Aug 25, 2010 12:07:14 PM	1245.200	PSIA
9	Aug 25, 2010 12:08:14 PM	1240.600	PSIA
10	Aug 25, 2010 12:09:13 PM	1237.200	PSIA
11	Aug 25, 2010 12:10:14 PM	1233.400	PSIA
12	Aug 25, 2010 12:11:14 PM	1230.200	PSIA
13	Aug 25, 2010 12:12:13 PM	1227.000	PSIA
14	Aug 25, 2010 12:13:14 PM	1224.200	PSIA
15	Aug 25, 2010 12:14:14 PM	1221.400	PSIA
16	Aug 25, 2010 12:15:13 PM	1218.800	PSIA
17	Aug 25, 2010 12:16:13 PM	1216.000	PSIA
18	Aug 25, 2010 12:17:14 PM	1214.400	PSIA
19	Aug 25, 2010 12:18:13 PM	1211.600	PSIA
20	Aug 25, 2010 12:19:13 PM	1209.800	PSIA
21	Aug 25, 2010 12:20:14 PM	1207.600	PSIA
22	Aug 25, 2010 12:21:13 PM	1206.000	PSIA
23	Aug 25, 2010 12:22:13 PM	1204.400	PSIA
24	Aug 25, 2010 12:23:14 PM	1202.800	PSIA
25	Aug 25, 2010 12:24:14 PM	1201.800	PSIA
26	Aug 25, 2010 12:25:13 PM	1199.800	PSIA
27	Aug 25, 2010 12:26:14 PM	1199.000	PSIA
28	Aug 25, 2010 12:27:14 PM	1196.600	PSIA
29	Aug 25, 2010 12:28:13 PM	1196.400	PSIA
30	Aug 25, 2010 12:29:13 PM	1195.000	PSIA
31	Aug 25, 2010 12:30:14 PM	1193.800	PSIA

## Federal 11-4-9-18 Rate Sheet (8-25-10)

<i>Step # 1</i>	Time:	5:05	5:10	5:15	5:20	5:25	5:30
	Rate:	150.8	150.8	150.7	150.7	150.7	150.7
	Time:	5:35	5:40	5:45	5:50	5:55	6:00
	Rate:	150.6	150.6	150.6	150.6	150.5	150.5
<i>Step # 2</i>	Time:	6:05	6:10	6:15	6:20	6:25	6:30
	Rate:	300.5	300.5	300.5	300.5	300.5	300.4
	Time:	6:35	6:40	6:45	6:50	6:55	7:00
	Rate:	300.4	300.4	300.4	300.3	300.3	300.3
<i>Step # 3</i>	Time:	7:05	7:10	7:15	7:20	7:25	7:30
	Rate:	450.5	450.5	450.5	450.5	450.4	450.5
	Time:	7:35	7:40	7:45	7:50	7:55	8:00
	Rate:	450.3	450.3	450.3	450.2	450.2	450.2
<i>Step # 4</i>	Time:	8:05	8:10	8:15	8:20	8:25	8:30
	Rate:	600.4	600.4	600.4	600.3	600.3	600.2
	Time:	8:35	8:40	8:45	8:50	8:55	9:00
	Rate:	600.2	600.2	600.2	600.2	600.2	600.1
<i>Step # 5</i>	Time:	9:05	9:10	9:15	9:20	9:25	9:30
	Rate:	750.5	750.5	750.5	750.5	750.5	750.4
	Time:	9:35	9:40	9:45	9:50	9:55	10:00
	Rate:	750.4	750.4	750.4	750.3	750.3	750.3
<i>Step # 6</i>	Time:	10:05	10:10	10:15	10:20	10:25	10:30
	Rate:	900.6	90.6	900.5	900.5	900.5	900.5
	Time:	10:35	10:40	10:45	10:50	10:55	11:00
	Rate:	900.4	900.4	900.4	900.3	900.3	900.3
<i>Step # 7</i>	Time:	11:05	11:10	11:15	11:20	11:25	11:30
	Rate:	1050.4	1050.4	1050.4	1050.4	1050.3	1050.3
	Time:	11:35	11:40	11:45	11:50	11:55	12:00
	Rate:	1050.3	1050.3	1050.2	1050.2	1050.2	1050.2
	Time:						
	Rate:						
	Time:						
	Rate:						



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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

OCT 07 2010

Ref: 8P-W-GW

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

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

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

RE: Underground Injection Control (UIC)  
Minor Permit Modification  
Authorization to Continue Injection  
EPA UIC Permit UT21239-08409  
Well: Federal 11-4-9-18  
NESW Sec. 4-T9S-R18E  
Uintah County, UT  
API No.: 43-047-32654

Dear Mr. Guinn:

The U.S. Environmental Protection Agency (EPA), Region 8, has received Newfield Production Company's (Newfield) September 1, 2010, letter with enclosures requesting an increase in the Maximum Allowable Injection Pressure (MAIP) for the Federal 11-4-9-18 well. The enclosed Step Rate Test (SRT) and Radioactive Tracer Survey (RTS) results were reviewed and approved by EPA.

Newfield's interpretation of the enclosed Step Rate Test (SRT) data concluded the fracture gradient to be 0.742 psi/ft. However, EPA's analysis of the data determined the fracture gradient to be 0.741 psi/ft., resulting in a calculated MAIP of 1,250 psig. Therefore, the MAIP for UIC Permit UT21239-07092 is hereby increased to 1,250 psig from the 1,080 psig previously authorized.

As of the date of this letter, EPA authorizes continued injection into the Federal 11-4-9-18 well under the terms and conditions of UIC Permit UT21239-08409 at the MAIP of 1,250 psig.

RECEIVED  
OCT 21 2010  
DIV. OF OIL, GAS & MINING

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

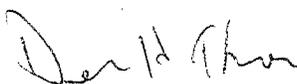
As of this approval, responsibility for Permit compliance and enforcement is transferred to the EPA Region 8 UIC Technical Enforcement Program Office. Therefore, please direct all future notification, reporting, monitoring and compliance correspondence to the following address, referencing the well name and UIC Permit number on all correspondence regarding this well:

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

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

If you have any questions regarding this approval, please call Emmett Schmitz at 303-312-6174 or 800-227-8917 (ext. 312-6174).

Sincerely,



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

cc: Uintah & Ouray Business Committee:

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

Daniel Picard  
BIA - Uintah & Ouray Indian Agency

Mike Natchees  
Environmental Coordinator  
Ute Indian Tribe

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

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

Fluid Minerals Engineering Office  
BLM - Vernal Office

Eric Sundberg, Regulatory Analyst  
Newfield Production Company

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-17424
<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> Water Injection Well		<b>8. WELL NAME and NUMBER:</b> FEDERAL 11-4-9-18
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>9. API NUMBER:</b> 43047326540000
<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> 8 MILE FLAT NORTH
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 1980 FSL 1980 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NESW Section: 04 Township: 09.0S Range: 18.0E Meridian: S		<b>COUNTY:</b> UINTAH
		<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: 3/16/2015  <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"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE <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"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
OTHER: <input style="width: 100px;" type="text" value="5 YR MIT"/>		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
5 YR MIT performed on the above listed well. On 03/16/2015 the casing was pressured up to 1465 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tbg pressure was 1073 psig during the test. There was not an EPA representative available to witness the test. EPA #UT22197-08409		<b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 24, 2015</b>
<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> 3/17/2015

## 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: 03 / 16 / 15  
 Test conducted by: Michael Jensen  
 Others present: \_\_\_\_\_

Well Name: <u>Federal 11-4-9-18</u>	Type: ER SWD	Status: AC TA UC	-08409
Field: <u>Monument Butte</u>			
Location: <u>NE/SW</u> Sec: <u>4</u> T <u>9</u> N <u>18</u> (E) W	County: <u>Uintah</u>	State: <u>Ut</u>	
Operator: <u>Newfield Production</u>			
Last MIT: <u>1</u> / <u>1</u>	Maximum Allowable Pressure: <u>1182</u>		PSIG

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

Pre-test casing/tubing annulus pressure: 0 / 1073 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	1073 psig	psig	psig
End of test pressure	1073 psig	psig	psig
<b>CASING/TUBING ANNULUS PRESSURE</b>			
0 minutes	1465.2 psig	psig	psig
5 minutes	1465.2 psig	psig	psig
10 minutes	1465.0 psig	psig	psig
15 minutes	1464.8 psig	psig	psig
20 minutes	1464.8 psig	psig	psig
25 minutes	1464.8 psig	psig	psig
30 minutes	1464.6 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

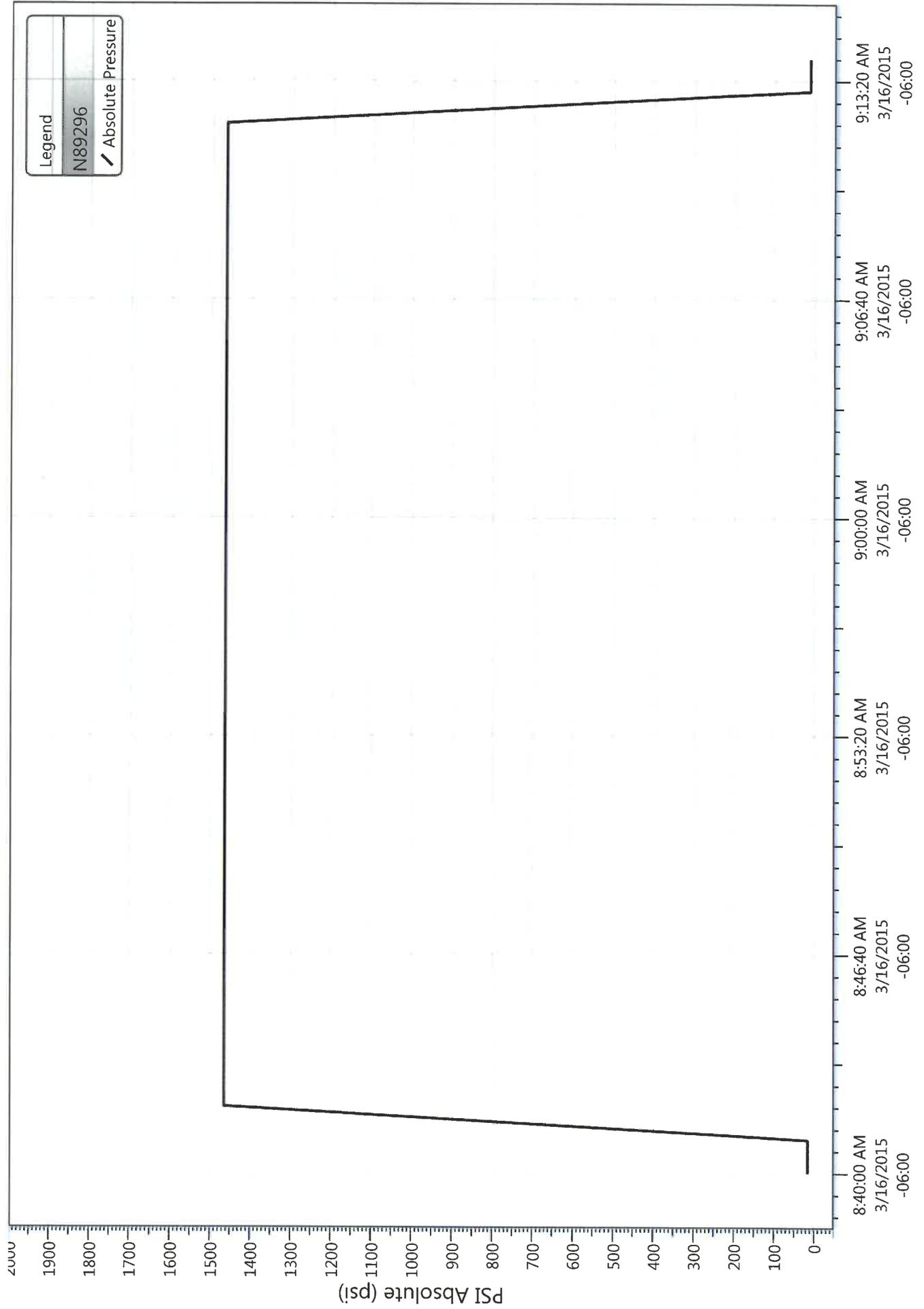
### MECHANICAL INTEGRITY PRESSURE TEST

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: \_\_\_\_\_

### Federal 11-4-9-18 5 Year MIT (3-16-15)

3/16/2015 8:35:46 AM



# Federal 11-4-9-18

(Formerly Federal #4-2)

Spud Date: 5/13/1995  
 Put on Production: 7/24/1995  
 GL: 4969' KB: 4973'

Initial Production: 45 BOPD,  
 26 MCFD, 0 BWPD

## Injection Wellbore Diagram

### SURFACE CASING

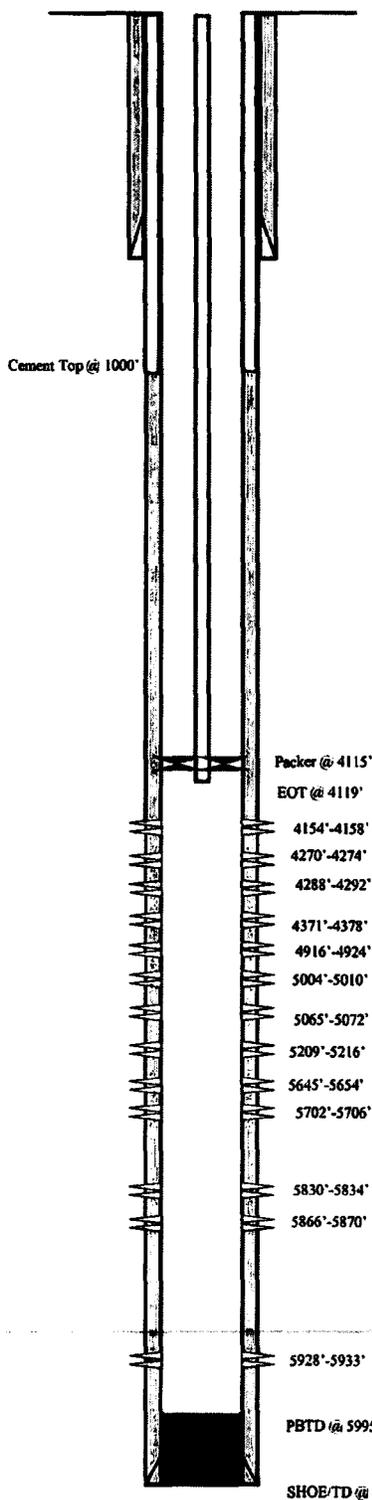
CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 DEPTH LANDED: 300'  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 100 sxs Class "A" cement.

### PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 DEPTH LANDED: 6049'  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 400 sxs Class "A" cement.  
 CEMENT TOP AT: 1000' per CBL

### TUBING

SIZE/GRADE/WT.: 2-7/8" x 5.5# J-55  
 TUBING LENGTH: 132 jts (4098.6')  
 SEATING NIPPLE: 2-7/8" (1.10')  
 SEATING NIPPLE: 4110.6'  
 CE @ 4114.97'  
 TOTAL STRING LENGTH: EOT @ 4119' w/ 12' KB



### FRAC JOB

Date	Depth	Description
6/30/95	4917'-5214'	Frac zone as follows: 18,700# 20/40 sand + 100,440# 16/30 sand in 650 bbls Viking 1-35 frac fluid. Treat at avg. 2600 psi @ 34.8 bpm. ISIP 4500 psi. Calc flush: 4917 gal. Actual flush: 4410 gal.
11/6/96	4154'-4377'	Frac sands as follows: 121,900# 16/30 sand in 688 bbls Viking 1 frac fluid. Treat at avg. 3000 psi @ 35.8 bpm. ISIP 2420 psi. Calc flush: 4154 gal. Actual flush: 4116 gal.
11/7/03	5830'-5933'	Frac CPS sands as follows: 29,719# 20/40 sand in 269 bbls Viking 1-25 fluid. Treat at avg. 3010 psi @ 13.9 bpm. ISIP 1925 psi. Calc flush: 1499 gal. Actual flush: 1386 gal.
11/7/03	5645'-5706'	Frac CP 2 sands as follows: 39,685# 20/40 sand in 333 bbls Viking 1-25 fluid. Treat at avg. 2740 psi @ 14.2 bpm. ISIP 1510 psi. Calc flush: 1470 gal. Actual flush: 1344 gal.
11/7/03	5209'-5216'	Frac A1 sands as follows: 19,583# 20/40 sand in 182 bbls Viking 1-25 fluid. Treat at avg. 4855 psi @ 13.7 bpm. ISIP 3310 psi. Calc flush: 1350 gal. Actual flush: 1239 gal.
11/10/03	5004'-5072'	Frac B.5 sand 2 sands as follows: 27,770# 20/40 sand in 255 bbls Viking 1-25 fluid. Treat at avg. 3215 psi @ 14.5 bpm. ISIP 2300 psi. Calc flush: 1274 gal. Actual flush: 1134 gal.
11/10/03	4916'-4924'	Frac C sands as follows: 19,447# 20/40 sand in 190 bbls Viking 1-25 fluid. Treat at avg. 4015 psi @ 14.5 bpm. ISIP 2550 psi. Calc flush: 1257 gal. Actual flush: 1134 gal.
11/10/03	4371'-4378'	Frac PB7 sands as follows: 25,848# 20/40 sand in 204 bbls Viking 1-25 fluid. Treat at avg. 36585 psi @ 14.4 bpm. ISIP 3000 psi. Calc flush: 1113 gal. Actual flush: 1008 gal.
4/07/04		Tubing Leak.
04/15/05		Pump Change: Update rod detail
12/28/05		Tubing Leaks: Update rod and tubing details.
6-25-07		Tubing Leak: Updated rod and tubing detail.
05/29/08		Parted rods. Updated rod and tubing detail
02/04/10		Pump change. Updated rod detail
03/29/10		Convert well to Injection.
04/08/10		MIT Completed - tbg detail updated

### PERFORATION RECORD

Date	Depth	Perforation Details
11/6/96	4154'-4158'	06 holes
11/6/96	4270'-4274'	06 holes
11/6/96	4288'-4292'	05 holes
11/6/03	4371'-4378'	2ISPF 14 holes
RE-PERF 11/6/96	4372'-4377'	04 holes
RE-PERF 11/6/03	4916'-4924'	2ISPF 16 holes
RE-PERF 6/29/95	4917'-4921'	05 holes
RE-PERF 11/6/03	5004'-5010'	2ISPF 12 holes
RE-PERF 6/29/95	5006'-5010'	05 holes
RE-PERF 11/6/03	5209'-5216'	2ISPF 14 holes
RE-PERF 6/29/95	5210'-5214'	05 holes
11/6/03	5928'-5933'	4ISPF 20 holes
11/6/03	5866'-5870'	4ISPF 16 holes
11/6/03	5830'-5834'	4ISPF 16 holes
11/6/03	5702'-5706'	4ISPF 16 holes
11/6/03	5645'-5654'	4ISPF 36 holes
11/6/03	5065'-5072'	4ISPF 28 holes

**NEWFIELD**

**Federal 11-4-9-18**  
 (Formerly Federal #4-2)

1980' FSL & 1980' FWL  
 NE/SW Section 4-T9S-R18E  
 Uintah Co, Utah  
 API #43-047-32654; Lease #UTU-17424