



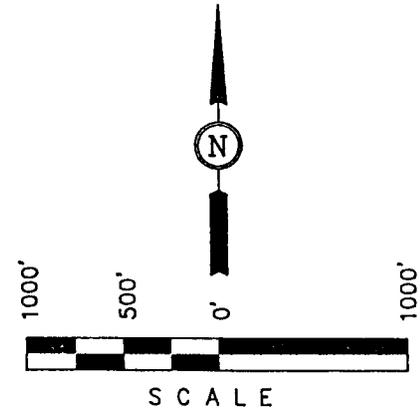
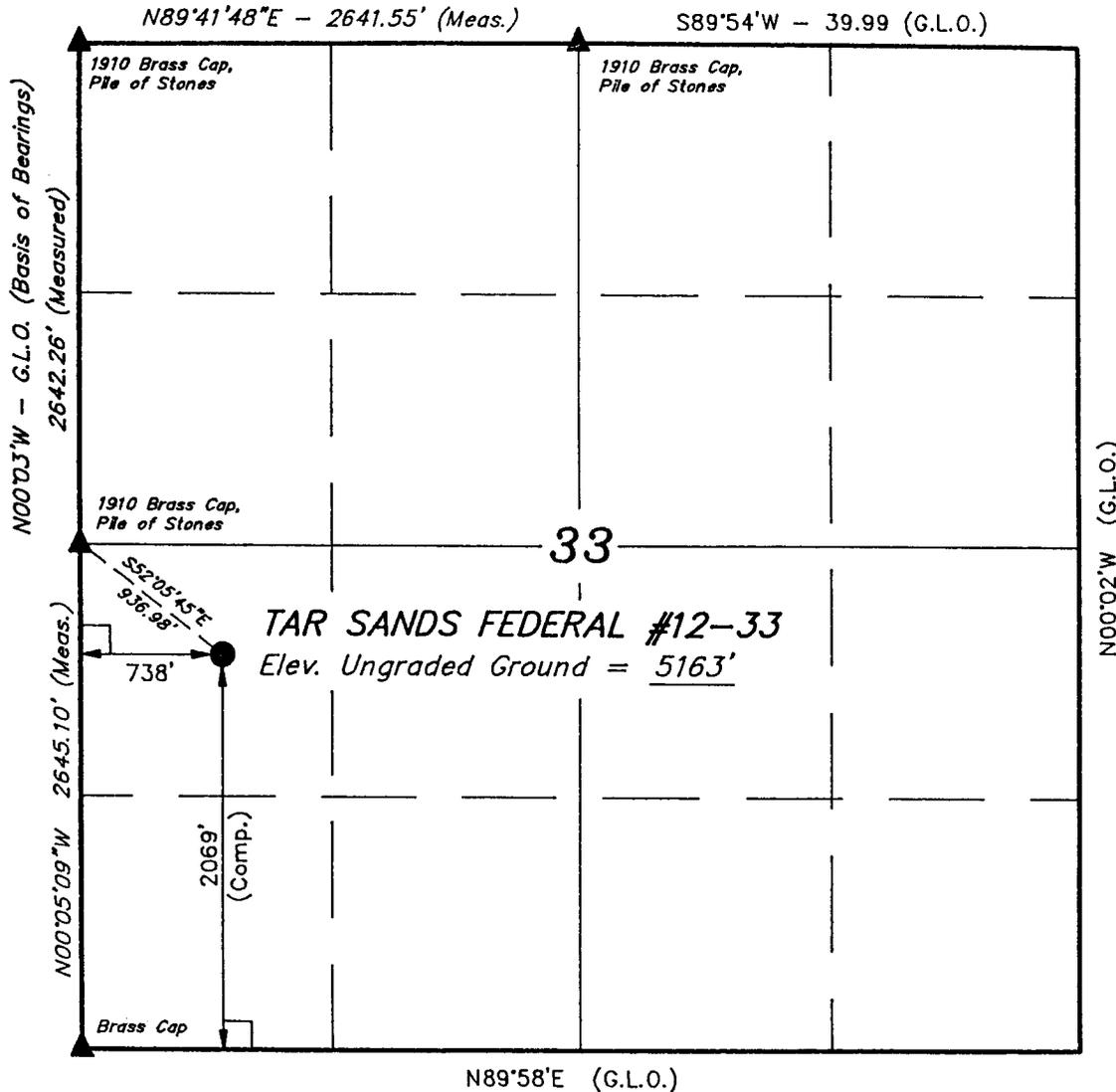
T8S, R17E, S.L.B.&M.

INLAND PRODUCTION CO.

Well location, TAR SAND FEDERAL #12-33, located as shown in the NW 1/4 SW 1/4 of Section 33, T8S, R17E, S.L.B.&M. Duchesne County, Utah.

BASIS OF ELEVATION

SPOT ELEVATION AT THE SOUTHWEST CORNER OF SECTION 33, T8S, R17E, S.L.B.&M. TAKEN FROM THE MYTON SE QUADRANGLE, UTAH, DUCHESNE COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5195 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>UNTAH ENGINEERING &amp; LAND SURVEYING</b>		
85 SOUTH 200 EAST - VERNAL, UTAH 84078		
(801) 789-1017		
SCALE 1" = 1000'	DATE SURVEYED: 10-30-96	DATE DRAWN: 11-14-96
PARTY L.D.T. B.G. C.B.T.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE INLAND PRODUCTION CO.	

LEGEND:

- = 90° SYMBOL
- = PROPOSED WELL HEAD.
- = SECTION CORNERS LOCATED.

**INLAND PRODUCTION COMPANY  
TAR SANDS FEDERAL #12-33  
NW/SW SECTION 33, T8S, R17E  
DUCHESNE COUNTY, UTAH**

**TEN POINT WELL PROGRAM**

1. **GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

2. **ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Uinta	0' - 3050'
Green River	3050'
Wasatch	6600'

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

Green River Formation 3050' - 6600' - Oil

4. **PROPOSED CASING PROGRAM**

8 5/8", J-55, 24# w/ ST&C collars; set at 300' KB (New)  
5 1/2" J-55, 15.5# w/ LT&C collars/ set at TD (New)

5. **MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

The operators minimum specifications for pressure control equipment are as follows:

A 8" Series 900 Annular Bag type BOP and a 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOPS's will be checked daily.

(See Exhibit F)

6. **TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

The well will be drilled with fresh water through the Uinta Formation. From the top of the Green River Formation @ 3050' ±, to TD, a fresh water/polymer system will be utilized. If necessary to control formation fluids, the system will be weighted with the addition of bentonite gel, and if conditions warrant, barite. Clay inhibition will be achieved with additions of 5 lb. - 8 lb. Barrel of DAP (Di-Ammonium Phosphate, commonly known as fertilizer). Typically, this fresh water/polymer system will contain Total Dissolved Solids (TDS) of less than 3000 PPM. Neither potassium chloride or chromates will be utilized in the fluid system. The anticipated mud weight is 8.4 ppg and weighted as necessary for gas control.

7. AUXILIARY SAFETY EQUIPMENT TO BE USED:

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

8. TESTING, LOGGING AND CORING PROGRAMS:

No drill stem testing has been scheduled for this well. It is anticipated at this time that the logging will consist of a Dual Induction Laterolog, Gamma Ray/Caliber from TD to base of surface casing @ 300' ±, and a Compensated Neutron-Formation Density Log. Logs will run from TD to 3500' ±. The cement bond log will be run from PBTD to cement top. An automated mud logging system will be utilized while drilling to monitor and record penetration rate, and relative gas concentration, in the fluid system.

9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:

The anticipated maximum bottom hole pressure is 2000 psi. It is not anticipated that abnormal temperatures will be encountered; nor that any other abnormal hazards such as H<sub>2</sub>S will be encountered in this area.

10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

It is anticipated that the drilling operations will commence the first quarter of 1997, and take approximately six days to drill.

**INLAND PRODUCTION COMPANY  
TAR SANDS FEDERAL #12-33  
NW/SW SECTION 33, T8S, R17E  
DUCHESNE COUNTY, UTAH**

**THIRTEEN POINT WELL PROGRAM**

**1. EXISTING ROADS**

See attached Topographic Map "A"

To reach Inland Production Company well location site Tar Sands Federal #12-33 located in the NW1/4 SW 1/4 Section 33, T8S, R17E, S.L.B. 7 M. Duchesne County, Utah:

Proceed westerly out of Myton, Utah along Highway 40 - 1.5 miles  $\pm$  to the junction of this highway and Utah State Highway 53; proceed southeasterly along Utah State Highway 10.1 miles on an existing two track road to the east. Proceed easterly .7 miles along the two track road, to the beginning of the proposed access road, to be discussed in item #2.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 53 ends, thereafter the roads are constructed with existing materials and gravel. The highways are maintained by Utah State road crews. All other roads are maintained by County Crews.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads required for access during the drilling, completion and production phase will be maintained at the standards required by the BLM or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal.

**2. PLANNED ACCESS ROAD**

See Topographic Map "B".

The planned access road leaves the existing location described in Item #1 in the NW 1/4 SW 1/4 Section 33, T8S, R17E, S.L.B., and proceeds in a southwesterly direction approximately 400'  $\pm$ , to the proposed location site.

The planned access road will be an 18' crown road (9' either side of the centerline) with drainage ditches along either side of the proposed road where is determined necessary in order to handle any run-off from normal meteorological conditions that are prevalent to this area. The maximum grade will be less than 8%.

The existing two track road will be upgraded to the same conditions as the access road.

There will be no culverts required along this access road. There will be no water turnouts constructed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

3. LOCATION OF EXISTING WELLS

There are nine (9) producing, four (4) injection, and one (1) P&A, Inland Production wells, and two (2) P&A, and two (2) producing unknown wells, within a one (1) mile radius of this well. See Exhibit "D".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery the well pad will be surrounded by a dike of sufficient capacity to contain at minimum the entire contents of the largest tank within the facility battery.

Tank batteries will be built to BLM specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted Desert Tan. All facilities will be painted within six months of installation.

5. LOCATION AND TYPE OF WATER SUPPLY

Inland Production Company has purchased a 3" water connection with Johnson Water District to supply the Monument Butte oil field. Johnson Water District has given permission to Inland Production Company to use water from our system for the purpose of drilling and completing the Tar Sands Federal #12-33.

Existing water for this well will be trucked from Inland Production Company's water supply line located at the Gilsonite State #7-32 (SW/NE Sec. 32, T8S, R17E), or the Monument Butte Federal #5-35 (SW/NW Sec. 35, T8S, R16E), or the Travis Federal #15-28 (SW/SE Sec. 28, T8S, R16E). See Exhibit "C".

There will be no water well drilled at this site.

6. SOURCE OF CONSTRUCTION MATERIALS

See Location Layout Sheet - Exhibit "E".

## TAR SANDS FEDERAL #12-33

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

### 7. METHODS FOR HANDLING WASTE DISPOSAL

See Location Layout Sheet - Exhibit "E".

A small reserve pit ( 80 X 30 X 6' deep, or less) will be constructed from native soil and clay materials. A water processing unit will be employed to continuously recycle the drilling fluid as it is used, returning the fluid component to the drilling rig's steel tanks. The reserve pit will primarily receive the processed drill cuttings (wet sand, shale & rock) removed from the wellbore. Any drilling fluids which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed by the water recycling unit and then returned to the steel rig tanks. All drilling fluids will be fresh water based containing DAP (Di-Ammonium Phosphate, commonly known as fertilizer), typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be utilized in the reserve pit.

All completion fluids, frac gels, etc., will be contained in steel tanks and hauled away to approved commercial disposal, as necessary.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

Immediately upon first production, all produced water will be confined in storage tanks. Inland requests temporary approval to transfer the produced water to Inland's nearby waterflood, for reinjection into the waterflood reservoirs via existing approved injection wells. Within 90 days of first production, a water analysis will be submitted to the Authorized Officer, along with an application for approval of this, as a permanent disposal method.

### 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 attached Location Layout Sheet - Exhibit "E".

The reserve pit will be located on the south, between stakes 4 & 5.

No flare pit will be used at this location.

The stockpiled topsoil (first six (6) inches) will be windrowed on the north, between stakes 2 & 8.

Access to the well pad will be from the east, between stakes 2 & 3.

Fencing Requirements

All pits will be fenced according to the following minimum standards:

- a) A 39 inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be cemented and/or braced in such a manner to keep tight at all times.
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

10. PLANS FOR RESTORATION OF SURFACE

- a) *Producing Location*

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

The reserve pit and that portion of the location not needed for production facilities/operations will be re contoured to the approximated natural contours. The reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

When the drilling and completion phase ends, reclamation of unused disturbed areas on the well pad/access road no longer needed for operations, such as cut slopes, and fill areas will be accomplished by grading, leveling and seeding as recommended by the Authorized Officer. The seed mixture will be per B.L.M. and stated in the conditions of approval.

- b) *Dry Hole Abandoned Location*

**TAR SANDS FEDERAL #12-33**

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the B.L.M. will attach the appropriate surface rehabilitation conditions of approval.

11. **SURFACE OWNERSHIP** - Bureau Of Land Management

12. **OTHER ADDITIONAL INFORMATION**

- a) Inland Production Company is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, Inland is to immediately stop work that might further disturb such materials, and contact the Authorized Officer.
- b) Inland Production will control noxious weeds along rights-of-way for roads, pipelines, well sites, or other applicable facilities. On B.L.M. administered land it is required that a Pesticide Use Proposal shall be submitted, and given approval, prior to the application of herbicides or other possible hazardous chemicals.
- c) Drilling rigs and/or equipment used during drilling operations on this well site will not be stacked or stored on Federal Lands after the conclusion of drilling operations or at any other time without B.L.M. authorization. However, if B.L.M. authorization is obtained, it is only a temporary measure to allow time to make arrangements for permanent storage on commercial facilities.

The Archaeological Cultural Resource Survey will be submitted, as soon as it becomes available.

Inland Production Company requests that a pipeline ROW be granted to the Tar Sands Federal #12-33, from the Tar Sands Federal #5-33 (approximately 1500'), for a 3" poly gas line and a 2" poly return line. Both lines will be run on surface, adjacent to road-way. See Exhibit "G".

*Additional Surface Stipulations*

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations. Onshore Oil and Gas Orders, the approved plan of operations, and any applicable Notice to Lessees. Inland Production is fully responsible for the actions of its subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

*Hazardous Material Declaration*

Inland Production Company guarantees that during the drilling and completion of the Tar Sands Federal #12-33, we will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Inland also guarantees that during the drilling and completion of the Tar Sands Federal #12-33, we will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

TAR SANDS FEDERAL #12-33

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Inland Production Company or a contractor employed by Inland Production shall contact the B.L.M. office at (801) 789-1362, 48 hours prior to construction activities.

The B.L.M. office shall be notified upon site completion prior to moving on the drilling rig.

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

Name: Brad Mecham

Address: P.O. Box 1446 Roosevelt, Utah 84066

Telephone: (801) 722-5103

Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of Tar Sands Federal #12-33 NW/SW Section 33, Township 8S, Range 17E: Lease U-74870, Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4488944.

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Brad Mecham  
District Manager

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/06/96

API NO. ASSIGNED: 43-013-31757

WELL NAME: TAR SANDS FEDERAL 12-33  
 OPERATOR: INLAND PRODUCTION COMPANY (N5160)

PROPOSED LOCATION:  
 NSW 33 - T08S - R17E  
 SURFACE: 2069-FSL-0738-FWL  
 BOTTOM: 2069-FSL-1882-FWL  
 DUCHESNE COUNTY  
 MONUMENT BUTTE FIELD (105)

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

LEASE TYPE: FED  
 LEASE NUMBER: U - 74870

PROPOSED PRODUCING FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat

Bond: Federal  State  Fee   
 (Number 4488944)

Potash (Y/N)

Oil shale (Y/N)

Water permit  
 (Number GILSONI-E STATE 7-32)

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

LOCATION AND SITING:

\_\_\_ R649-2-3. Unit: \_\_\_\_\_

R649-3-2. General.

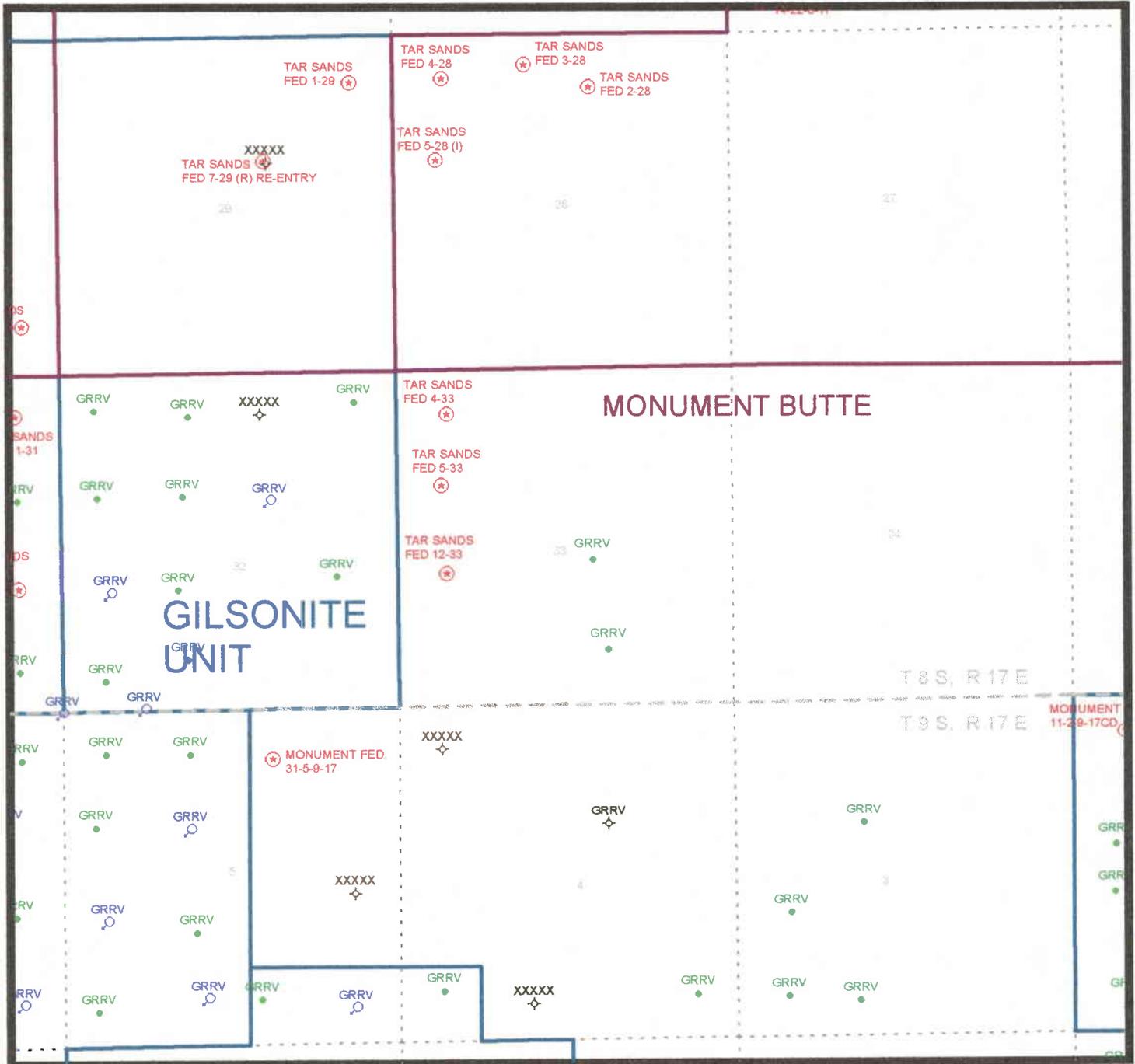
\_\_\_ R649-3-3. Exception.

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

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

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

OPERATOR: INLAND PRODUCTION  
FIELD: MONUMENT BUTTE (105)  
SECTION: 33 T9S R17E  
COUNTY: DUCHESNE  
SPACING: UAC R649-3-2



PREPARED:  
DATE: 4-DEC-96

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

5. LEASE DESIGNATION AND SERIAL NO

**U-74870**

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

6. If Indian, Allottee or Tribe Name

1a. TYPE OF WORK

**DRILL**

**DEEPEN**

1b. TYPE OF WELL

OIL

GAS

SINGLE

MULTIPLE

WELL

WELL

OTHER

ZONE

ZONE

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

**Tar Sands Federal**

2. NAME OF OPERATOR

**Inland Production Company**

9. WELL NO.

**#12-33**

3. ADDRESS OF OPERATOR

**P.O. Box 790233 Vernal, UT 84079**

**Phone: (801) 789-1866**

10. FIELD AND POOL OR WILDCAT

**Monument Butte**

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

At Surface **NW/SW**

At proposed Prod. Zone

**2069' FSL & 738' FWL**

11. SEC., T., R., M., OR BLK.

AND SURVEY OR AREA

**Sec. 33, T8S, R17E**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

**11.6 miles southeast of Myton, Utah**

12. County

**Duchesne**

13. STATE

**UT**

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

**738'**

16. NO. OF ACRES IN LEASE

**2879.94**

17. NO. OF ACRES ASSIGNED TO THIS WELL

**40**

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

**1376'**

19. PROPOSED DEPTH

**6500'**

20. ROTARY OR CABLE TOOLS

**Rotary**

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

**5161.3' GR**

22. APPROX. DATE WORK WILL START\*

**1st quarter of 1997**

**23. PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	SIZE OF CASING	WEIGHT/FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24#	300'	120 sx Class G, 2% CaCl & 2% Gel
7 7/8	5 1/2	15.5#	TD	400 sx Hilift followed by 330 sx
				Class G w/ 10% CaCl

**The actual cement volumes will be calculated off of the open hole logs, plus 15% excess.**

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 **Brad Mechem** *Brad Mechem* TITLE **District Manager** DATE **11/26/96**

(This space for Federal or State office use)

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

Application approval does not warrant or certify that the applicant holds legal or equitable title to the property in the subject lease which would entitle the applicant to conduct operations thereon.

APPROVED BY *Howard B. Channing* TITLE **Assistant Field Manager** DATE **FEB 20 1997**

**NOTICE OF APPROVAL**

**CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY**

**\*See Instructions On Reverse Side**

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

*U4080-712-043*

CONDITIONS OF APPROVAL  
APPLICATION FOR PERMIT TO DRILL

Company/Operator: Inland Production Company

Well Name & Number: Tar Sands Fed. 12-33

API Number: 43-013-31757

Lease Number: U-74870

Location: NWSW Sec. 33 T. 8S R. 17E

**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 **prior to setting the next casing string or requesting plugging orders**. Faxed 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 **2M** 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.

Casing Program and Auxiliary Equipment

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

If conductor pipe is set it will be cemented to surface. If drive pipe is used it will be pulled prior to cementing surface casing.

As a minimum, the usable water shall be isolated and/or protected by having a cement top for the production casing at least 200 ft. above the top of the Mahogany Oil Shale identified at  $\pm$  2069 ft.. If gilsonite is encountered while drilling, it shall be isolated and/or protected via the cementing program.

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.

The Gamma Ray and Induction Logs need to be pulled from TD to the Surface Shoe.

A cement bond log (CBL) will be run from the production casing shoe to  $\pm$  1869 ft. and 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 approval or notification is necessary, please contact one of the following individuals:

Wayne Bankert (801) 789-4170  
Petroleum Engineer

Ed Forsman (801) 789-7077  
Petroleum Engineer

Jerry Kenczka (801) 789-1190  
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, spend 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.

**CONDITIONS OF APPROVAL**  
**FOR THE SURFACE USE PROGRAM OF THE**  
**APPLICATION FOR PERMIT TO DRILL**

-Access roads and surface disturbing activities will conform to standards outlined in the Bureau of Land Management and Forest Service publication: Surface Operating Standards for Oil and Gas Exploration and Development, (1989).

-All vehicle travel will be confined to existing access road rights-of-way.

-A certified archaeologist will need to be present during the construction of the access road to monitor the disturbance to arch. site no. 42DC 1056.



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

1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

February 24, 1997

Inland Production Company  
P.O. Box 790233  
Vernal, Utah 84079

Re: Tar Sands Federal 12-33 Well, 2069' FSL, 738' FWL, NW SW,  
Sec. 33, T. 8 S., R. 17 E., Duchesne County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-31757.

Sincerely,

A handwritten signature in black ink, appearing to read "R. J. Firth".

R. J. Firth  
Associate Director

lwp

Enclosures

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

Operator: Inland Production Company  
Well Name & Number: Tar Sands Federal 12-33  
API Number: 43-013-31757  
Lease: U-74870  
Location: NW SW Sec. 33 T. 8 S. R. 17 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)538-5336.

Notify the Division prior to commencing operations to plug and abandon the well. Contact R. J. Firth (801)538-5274 or Mike Hebertson at (801) 538-5333.

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.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: INLAND PRODUCTION CO.

Well Name: TAR SANDS FEDERAL 12-33

Api No. 43-013-31757

Section: 33 Township: 8S Range: 17E County: DUCHESNE

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

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

SPUDDED:

Date 3/6/97

Time \_\_\_\_\_

How DRY HOLE

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

Reported by D. INGRAM

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

Date: 3/7/97 Signed: JLT

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

OPERATOR Inland Production Company  
 ADDRESS P O Box 790233  
Vernal, UT 84079

OPERATOR ACCT. NO. M 5160

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION				COUNTY	SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG			
A	99999	12086	43-013-31757	Tar Sands Federal 12-33	NWSW	33	8S	17E	Duchesne	3/6/97	3/6/97
WELL 1 COMMENTS: <i>Entity added 3-7-97. Lec</i>											
WELL 2 COMMENTS:											
WELL 3 COMMENTS:											
WELL 4 COMMENTS:											
WELL 5 COMMENTS:											

**RECEIVED**  
**MAR 7 1997**  
 DIV OF OIL, GAS & MINING

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)

*Cheryl Cameron*  
 Signature Cheryl Cameron  
 RCS 3/7/97  
 Title Date  
 Phone No. (801) 789-1866

**Inland Production Co.**

**FOR YOUR INFORMATION**

To: **Lisha Cordova**  
Company:  
Fax number: **+1 (801) 359-3940**  
Business phone:

From: **Cheryl Cameron**  
Fax number: **+1 (801) 789-1877**  
Home phone:  
Business phone: **801-789-1866**

Date & Time: **3/7/97 12:01:48 PM**  
Pages sent: **2**  
Re: **Tar Sands Federal 12-33 Entity Action Form**

---

---

**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 deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

*SUBMIT IN TRIPLICATE*

1. Type of Well  
 Oil Well     Gas well     Other

2. Name of Operator  
**Inland Production Company**

3. Address and Telephone No.  
**P.O. Box 790233 Vernal, UT 84079    Phone No. (801) 789-1866**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**NW/SW                      2069' FSL & 738' FWL  
 Sec. 33, T8S, R17E**

5. Lease Designation and Serial No.  
**U-76241**

6. If Indian, Allottee or Tribe Name

7. If unit or CA, Agreement Designation

8. Well Name and No.  
**Tar Sands Federal #12-33**

9. API Well No.  
**43-013-31757**

10. Field and Pool, or Exploratory Area  
**Monument Butte**

11. County or Parish, State  
**Duchesne, UT**

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

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

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

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

*Drilled 12 1/4" hole w/ Leon Ross Rathole Rig to 305'. Ran 288.38' of 8 5/8" 24# J-55 csg. Cmt w/ 120 sx Prem Class V w/ 2% gel, 2% CaCl & 1/4#/sk flocele mixed @ 14.8 PPG w/ 1.34 ft/sk yiled. Est 5 bbl cmt to surf. Drill mousehole & rathole f/ Caza, Rig #56..*

**SPUD 3/6/97**

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

Signed *Cheryl Cameron* Title Regulatory Compliance Specialist Date 3/10/97  
**Cheryl Cameron**

(This space of Federal or State office use.)

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

Conditions of approval, if any:

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

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Designation and Serial No.

U-76241

6. If Indian, Allottee or Tribe Name

7. If unit or CA, Agreement Designation

8. Well Name and No.

Tar Sands Federal #12-33

9. API Well No.

43-013-31757

10. Field and Pool, or Exploratory Area

Monument Butte

11. County or Parish, State

Duchesne, UT

SUBMIT IN TRIPLICATE

1. Type of Well

[X] Oil Well [ ] Gas well [ ] Other

2. Name of Operator

Inland Production Company

3. Address and Telephone No.

P.O. Box 790233 Vernal, UT 84079 Phone No. (801) 789-1866

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

NW/SW 2069' FSL & 738' FWL Sec. 33, T8S, R17E

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

Table with columns: TYPE OF SUBMISSION, TYPE OF ACTION. Includes checkboxes for Notice of Intent, Subsequent Report, Final Abandonment Notice, Abandonment, Recompletion, Plugging Back, Casing repair, Altering Casing, Other (Weekly Status), Change of Plans, New Construction, Non-Routine Fracturing, Water Shut-off, Conversion to Injection, Dispose Water.

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

WEEKLY STATUS REPORT FOR WEEK OF 4/25/97 - 5/2/97:

Drilled 7 7/8" hole from 305' - 5850' w/ Caza, Rig #56. Run 5865.63' of 5 1/2" 15.5# J-55 csg. Pumped 20 bbls dye wtr & 20 bbls gel. Cmt w/ 355 sx Hibond 65 w/ 3% salt., .3% EX-1, 10% gel, 2% Microbond, 3#/sk silica, 1#/sk granulite (11.0 ppg, 3.0 ft/sk yield.) Followed by 290 sx Thixo w/ 10% CalSeal (14.2 ppg, 1.59 ft/sk yield.) Good returns w/ est 15 bbls dye to surface.

RDMOL

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

Signed Cheryl Cameron Title Regulatory Compliance Specialist Date 5/5/97

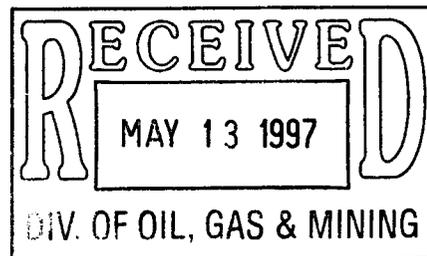
(This space of Federal or State office use.)

Approved by Title Date

Conditions of approval, if any:

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

\*See Instruction on Reverse Side



**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 deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT -" for such proposals

*SUBMIT IN TRIPLICATE*

1. Type of Well  
 Oil Well     Gas well     Other

2. Name of Operator  
**Inland Production Company**

3. Address and Telephone No.  
**P.O. Box 790233 Vernal, UT 84079    Phone No. (801) 789-1866**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**NW/SW    2069' FSL & 738' FWL  
 Sec. 33, T8S, R17E**

5. Lease Designation and Serial No.  
**U-76241**

6. If Indian, Allottee or Tribe Name

7. If unit or CA, Agreement Designation

8. Well Name and No.  
**Tar Sands Federal #12-33**

9. API Well No.  
**43-013-31757**

10. Field and Pool, or Exploratory Area  
**Monument Butte**

11. County or Parish, State  
**Duchesne, UT**

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

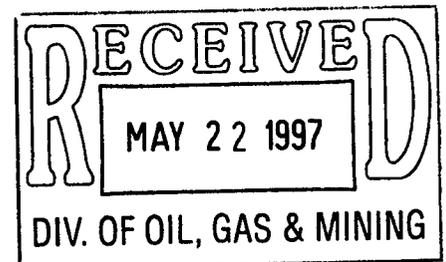
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input type="checkbox"/> Change of Plans
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Casing repair	<input type="checkbox"/> Water Shut-off
	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection
	<input checked="" type="checkbox"/> Other <u>MI Completion Rig</u>	<input type="checkbox"/> Dispose Water

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

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

**MIRU Basin #6 on 5/19/97.**

**Perf A sd @ 5254'-5258', 5305'-5306', 5308'-5310', 5314'-5323'**



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

Signed *Cheryl Cameron* Title Regulatory Compliance Specialist Date 5/21/97  
**Cheryl Cameron**

(This space of Federal or State office use.)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
 Conditions of approval, if any:

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

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

FORM APPROVED

Budget Bureau No. 1004-0135

Expires March 31, 1993

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

*SUBMIT IN TRIPLICATE*

1. Type of Well

Oil Well     Gas well     Other

2. Name of Operator

**Inland Production Company**

3. Address and Telephone No.

**P.O. Box 790233 Vernal, UT 84079    Phone No. (801) 789-1866**

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

**NW/SW                      2069' FSL & 738' FWL  
Sec. 33, T8S, R17E**

5. Lease Designation and Serial No.

**U-76241**

6. If Indian, Allottee or Tribe Name

7. If unit or CA, Agreement Designation

8. Well Name and No.

**Tar Sands Federal #12-33**

9. API Well No.

**43-013-31757**

10. Field and Pool, or Exploratory Area

**Monument Butte**

11. County or Parish, State

**Duchesne, UT**

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

TYPE OF SUBMISSION

TYPE OF ACTION

Notice of Intent

Abandonment

Change of Plans

Subsequent Report

Recompletion

New Construction

Final Abandonment Notice

Plugging Back

Non-Routine Fracturing

Casing repair

Water Shut-off

Altering Casing

Conversion to Injection

Other Weekly Status

Dispose Water

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

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

**WEEKLY STATUS REPORT FOR WEEK OF 5/21/97 - 5/29/97:**

**Perf D sd @ 4864'-4868', 4870'-4876'**

**Perf GB sd @ 4344'-4352', 4354'-4356', 4359'-4363'**

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

Signed *Cheryl Cameron*  
**Cheryl Cameron**

Title **Regulatory Compliance Specialist**

Date **5/30/97**

(This space of Federal or State office use.)

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

Title \_\_\_\_\_

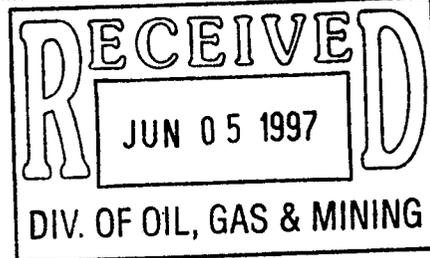
Date \_\_\_\_\_

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly to make to any department of the United States any false, fictitious or fraudulent statements or representations as

to any matter within its jurisdiction.

\*See Instruction on Reverse Side



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED

Budget Bureau No. 1004-0135

Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Designation and Serial No. U-76241
6. If Indian, Allottee or Tribe Name
7. If unit or CA, Agreement Designation
8. Well Name and No. Tar Sands Federal #12-33
9. API Well No. 43-013-31757
10. Field and Pool, or Exploratory Area Monument Butte
11. County or Parish, State Duchesne, UT

SUBMIT IN TRIPLICATE

1. Type of Well [X] Oil Well [ ] Gas well [ ] Other
2. Name of Operator Inland Production Company
3. Address and Telephone No. P.O. Box 790233 Vernal, UT 84079 Phone No. (801) 789-1866
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) NW/SW 2069' FSL & 738' FWL Sec. 33, T8S, R17E

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

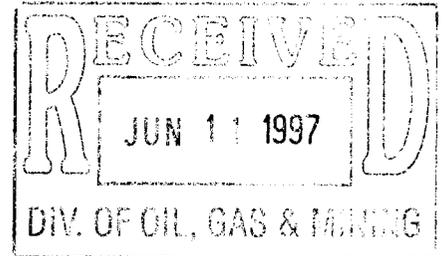
Table with columns TYPE OF SUBMISSION and TYPE OF ACTION. Includes checkboxes for Notice of Intent, Subsequent Report, Final Abandonment Notice, Abandonment, Recompletion, Plugging Back, Casing repair, Altering Casing, Other (On Production), Change of Plans, New Construction, Non-Routine Fracturing, Water Shut-off, Conversion to Injection, Dispose Water.

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

WEEKLY STATUS REPORT FOR WEEK OF 5/30/97 - 5/31/97:

RIH w/ Production String

ON PRODUCTION 5/31/97



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

Signed Cheryl Cameron

Title Regulatory Compliance Specialist

Date 6/05/97

(This space of Federal or State office use.)

Approved by Title Date

Conditions of approval, if any:

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

5. LEASE DESIGNATION AND SERIAL NO.

U-76241

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Tar Sands Federal

9. WELL NO.

#12-33

10. FIELD AND POOL, OR WILDCAT

Monument Butte

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

Sec. 33, T8S R17E

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

2. NAME OF OPERATOR  
Inland Production Company

3. ADDRESS OF OPERATOR  
P.O. Box 790233 Vernal, UT 84079 (801) 789-1866

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

At surface NW/SW  
At top prod. interval reported below 2069' FSL & 738' FWL  
At total depth

14. PERMIT NO. 43-013-31757  
DATE ISSUED 2/21/97

12. COUNTY OR PARISH Duchesne  
13. STATE UT

15. DATE SPUDDED 3/6/97  
16. DATE T.D. REACHED 5/1/97  
17. DATE COMPL. (Ready to prod.) 5/31/97  
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 5161.3' GR  
19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5850'  
21. PLUG, BACK T.D., MD & TVD 5807'  
22. IF MULTIPLE COMPL., HOW MANY\*  
23. INTERVALS DRILLED BY  
ROTARY TOOLS X  
CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* Green River  
5254'-5258', 5305'-5306', 5308'-5310', 5314'-5323', 4864'-4868', 4870'-4876', 4344'-4352', 4354'-4356', 4359'-4363'  
25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN CBL, DLL, CNL 6-20-97  
27. WAS WELL CORED No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	24#	288.38'	12 1/4	120 sx Prem Class V w/ 2% gel 2% CC+1#/sk flocele	
5 1/2	15.5#	5865.63'	7 7/8	355 sx Hibond + Add followed by 290 sx Thixo w/ 10% CalSeal	

29. LINER RECORD					30. TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)  
A 5254'-5258', 5305'-5306', 5308'-5310', 5314'-5323'  
D 4864'-4868', 4870'-4876'  
GB 4344'-4352', 4354'-4356', 4359'-4363'

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.  
DEPTH INTERVAL (MD)  
See Back  
RECEIVED JUN 20 1997

33.\* PRODUCTION  
DATE FIRST PRODUCTION 5/31/97  
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Pumping - 2 1/2 X 1 1/2 X 15' RHAC pump  
WELL STATUS (Producing or Abandoned) Producing

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10 Day Avg	6/97	N/A		113	128	5	1.1
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
Sold & Used for Fuel  
TEST WITNESSED BY

35. LIST OF ATTACHMENTS  
Logs in Item #26

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

SIGNED Cheryl Cameron TITLE Regulatory Compliance Specialist DATE 6/18/97

\*(See Instructions and Spaces for Additional Data on Reverse Side)

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

38. GEOLOGIC MARKERS

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	TOP	
					MEAS. DEPTH	TRUE VERT. DEPTH
Baden Gulch Mkr	4119'					
Poist 3 Mkr	4393'					
X Mkr	4620'					
Y Mkr	4656'					
Douglas Ck Mkr	4785'					
Si carbonate Mkr	5025'					
B Limestone Mkr	5166'					
Ca Peak	5639'					
Basal Carbonate	NDE					
			#32. Perf A sd 5254'-5258', 5305'-5306' 5308'-5310', 5314'-5323' Frac w/ 115,800# 20/40 sd in 536 bbls boragel			
			Perf D sd 4864'-4868', 4870'-4876' Frac w/ 103,600# 20/40 sd in 519 bbls boragel			
			Perf GB sd 4344'-4352', 4354'-4356', 4359'-4363' Frac w/ 106,800# 20/40 sd in 460 bbls boragel			

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

**SUNDRY NOTICES AND REPORTS ON WELLS**

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

5. Lease Designation and Serial No.  
**U-74870**

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

7. If Unit or CA, Agreement Designation  
**NA**

8. Well Name and No.  
**TAR SANDS FED 12-33**

9. API Well No.  
**43-013-31757**

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

11. County or Parish, State  
**DUCHESNE COUNTY, UTAH**

**SUBMIT IN TRIPLICATE**

1. Type of Well  
 Oil Well     Gas Well     Other

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

3. Address and Telephone No.  
**475 17TH STREET, SUITE 1500, DENVER, COLORADO 80202 (303) 292-0900**

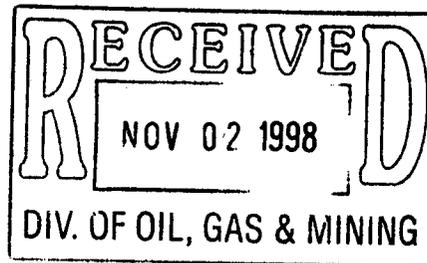
4. Location of Well (Footage, Sec., T., R., m., or Survey Description)  
**2069 FSL 0738 FWL      NW/SW Section 33, T08S R17E**

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

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent <input checked="" type="checkbox"/> Subsequent Report <input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Abandonment <input type="checkbox"/> Recompletion <input type="checkbox"/> Plugging Back <input type="checkbox"/> Casing Repair <input type="checkbox"/> Altering Casing <input checked="" type="checkbox"/> Other <u>Site Security</u>
	<input type="checkbox"/> Change of Plans <input type="checkbox"/> New Construction <input type="checkbox"/> Non-Routine Fracturing <input type="checkbox"/> Water Shut-Off <input type="checkbox"/> Conversion to Injection <input type="checkbox"/> Dispose Water <small>(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)</small>

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

Attached please find the site security diagram for the above referenced well.



14. I hereby certify that the foregoing is true and correct  
Signed Debbie E. Knight Title Manager, Regulatory Compliance Date 10/30/98

(This space for Federal or State office use)  
Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

Conditions of approval, if any:  
**CC: UTAH DOGM**

# Inland Production Company Site Facility Diagram

Tar Sands 12-33

NW/SW Sec. 33, T8S, 17E

Duchesne County

Sept. 17, 1998

Site Security Plan is held at the Roosevelt Office,  
Roosevelt Utah

**Production Phase:**

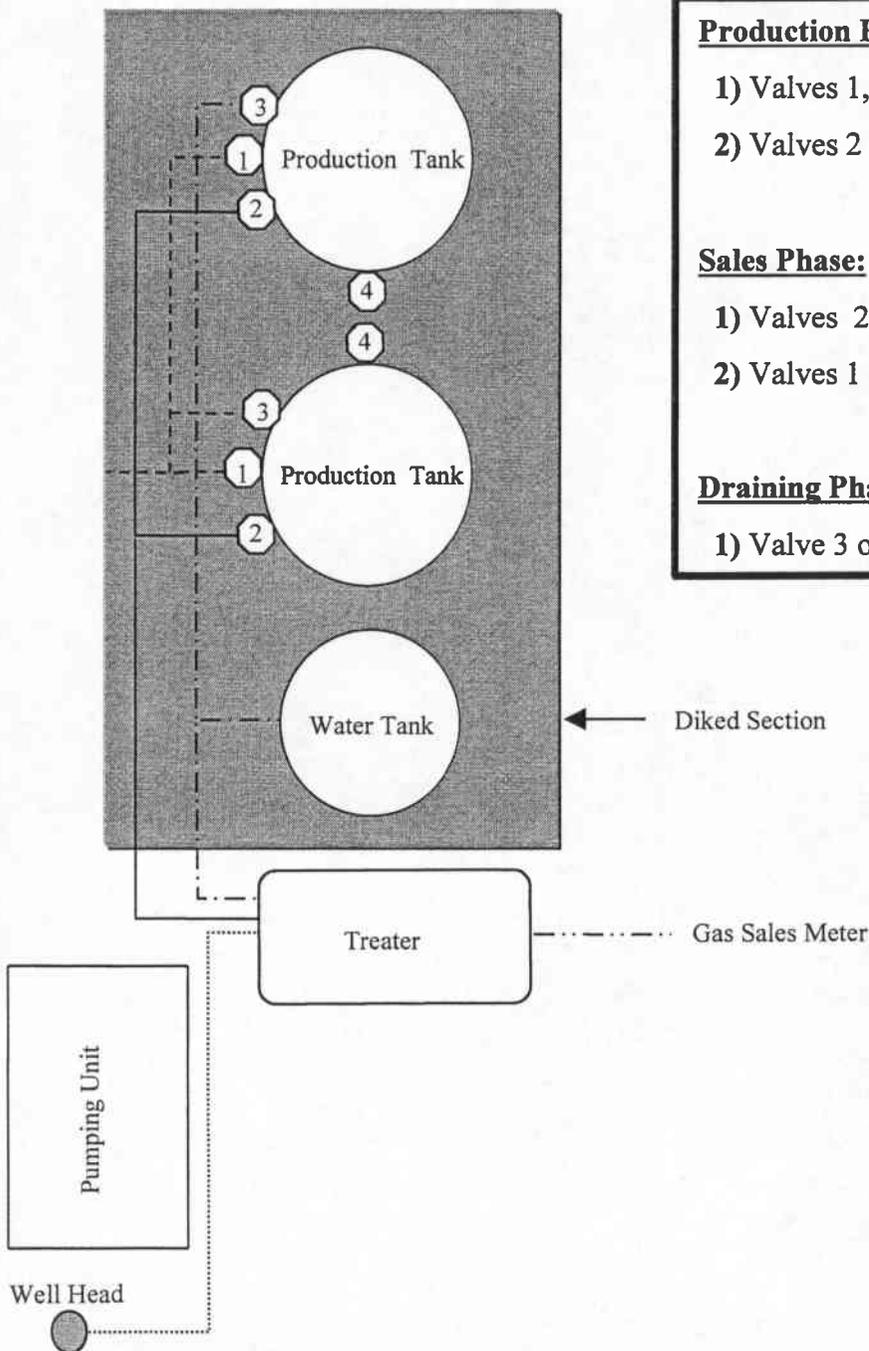
- 1) Valves 1, and 3 sealed closed
- 2) Valves 2 and 4 sealed open

**Sales Phase:**

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

**Draining Phase:**

- 1) Valve 3 open



**Legend**

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

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

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

OPERATOR ACCT. NO. N5160

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	11976	12704	43-013-31664	Tar Sands Federal #4-33	NWNW	33	8S	17E	Duchesne		3/1/2000
WELL 2 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added.</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	11977	12704	43-013-31665	Tar Sands Federal #5-33	SWNW	33	8S	17E	Duchesne		3/1/2000
WELL 2 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added.</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	12099	12704	43-013-31814	Tar Sands Federal #6-33	SENW	33	8S	17E	Duchesne		3/1/2000
WELL 3 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added.</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	12086	12704	43-013-31757	Tar Sands Federal #12-33	NWSW	33	8S	17E	Duchesne		3/1/2000
WELL 4 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added</i>											
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
D	12113	12704	43-013-31860	Tar Sands Federal #7-33	SWNE	33	8S	17E	Duchesne		3/1/2000
WELL 5 COMMENTS: Moved well to BlackJack Unit <i>000514 Entity Added</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 COMMENT section to explain why each Action Code was selected.

**RECEIVED**

MAY 11 2000

DIVISION OF  
 OIL, GAS AND MINING

*Kathleen S. Jones*  
 Signature

Production Clerk  
 Title

May 9, 2000  
 Date



# 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		



## 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

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

**CA No.**

**Unit:**

**BLACKJACK (GR)**

**WELL(S)**

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
TAR SANDS FED 4-33	33	080S	170E	4301331664	12704	Federal	OW	P
TAR SANDS FED 5-33	33	080S	170E	4301331665	12704	Federal	WI	A
TAR SANDS FED 12-33	33	080S	170E	4301331757	12704	Federal	OW	P
TAR SANDS FED 6-33	33	080S	170E	4301331814	12704	Federal	OW	P
TAR SANDS FED 7-33	33	080S	170E	4301331860	12704	Federal	WI	A
TAR SANDS FED 11-33	33	080S	170E	4301331861	12704	Federal	WI	A
TAR SANDS FED 10-33	33	080S	170E	4301331884	12704	Federal	OW	P
TAR SANDS FED 15-33	33	080S	170E	4301331890	12704	Federal	OW	P
FEDERAL 24-3Y	03	090S	170E	4301331397	12704	Federal	WI	A
MON FED 14-3-9-17Y	03	090S	170E	4301331535	12704	Federal	OW	P
PAIUTE FED 32-4R-9-17	04	090S	170E	4301330674	12704	Federal	NA	DRL
FEDERAL 44-4Y	04	090S	170E	4301331452	12704	Federal	WI	A
ALLEN FED 43-5R-9-17	05	090S	170E	4301330720	12704	Federal	NA	DRL
MON FED 31-5-9-17	05	090S	170E	4301331680	12704	Federal	WI	A
FEDERAL 31R-9H	09	090S	170E	4301331107	12704	Federal	WI	A
CASTLE DRAW 10-10-9-17	10	090S	170E	4301330684	12704	Federal	OW	P
CASTLE DRAW 14-10	10	090S	170E	4301330994	12704	Federal	OW	P
FEDERAL 22-10Y	10	090S	170E	4301331395	12704	Federal	WI	A
BALCRON MON FED 12-10-9-17Y	10	090S	170E	4301331536	12704	Federal	OW	P
BALCRON MON FED 21-10-9-17Y	10	090S	170E	4301331537	12704	Federal	OW	P

K  
K

**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: 9/15/2004
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 9/15/2004

3. The new company was checked on the **Department of Commerce, Division of Corporations Database** on: 2/23/2005
4. Is the new operator registered in the State of Utah: YES Business Number: 755627-0143
5. 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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

5. Lease Serial No.

USA UTU-77234

6. If Indian, Allottee or Tribe Name.

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

GMBU

8. Well Name and No.

TAR SANDS FED 12-33

9. API Well No.

4301331757

10. Field and Pool, or Exploratory Area

GREATER MB UNIT

11. County or Parish, State

DUCHESNE, UT

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

1. Type of Well

Oil Well  Gas Well  Other

2. Name of Operator

NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630

Myton, UT 84052

3b. Phone (include are code)

435.646.3721

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

2069 FSL 738 FWL

NWSW Section 33 T8S R17E

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

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

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

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

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

RECEIVED  
DEC 21 2011  
DIV. OF OIL, GAS & MINING

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

Jill Loyle

Signature

Title

Regulatory Technician

Date

11/09/2011

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

Approved by .....

Title

Date

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

Office

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

(Instructions on page 2)

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-74870
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>1. TYPE OF WELL</b> Oil Well		<b>8. WELL NAME and NUMBER:</b> TAR SANDS FED 12-33
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>9. API NUMBER:</b> 43013317570000
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052	<b>PHONE NUMBER:</b> 435 646-4825 Ext	<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2069 FSL 0738 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWSW Section: 33 Township: 08.0S Range: 17.0E Meridian: S		<b>COUNTY:</b> DUCHESNE
		<b>STATE:</b> UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
<b>TYPE OF SUBMISSION</b>	<b>TYPE OF ACTION</b>	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:  <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 10/12/2012  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input checked="" type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input checked="" 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 type="checkbox"/> OTHER	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The subject well has been converted from a producing oil well to an injection well on 10/11/2012. On 10/09/2012 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 10/15/2012 the casing was pressured up to 1645 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 0 psig during the test. There was not an EPA representative available to witness the test. EPA# UT22215-09400</p>		<p><b>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 29, 2012</b></p>
<b>NAME (PLEASE PRINT)</b> Lucy Chavez-Naupoto	<b>PHONE NUMBER</b> 435 646-4874	<b>TITLE</b> Water Services Technician
<b>SIGNATURE</b> N/A		<b>DATE</b> 10/19/2012

# Mechanical Integrity Test

## Casing or Annulus Pressure Mechanical Integrity Test

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

EPA Witness: \_\_\_\_\_ Date: 10/15/12  
 Test conducted by: Chris Walters  
 Others present: \_\_\_\_\_

Well Name: <u>Tar Sands Federal D-33-8-17</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Monument Duffie</u>		
Location: <u>NW/SE</u> Sec: <u>33</u> T: <u>8</u> N: <u>S</u> R: <u>17</u> E: <u>W</u>	County: <u>Duchesne</u>	State: <u>UT</u>
Operator: <u>Newfield</u>		
Last MIT: <u>1</u> / <u>1</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: 1645 psig

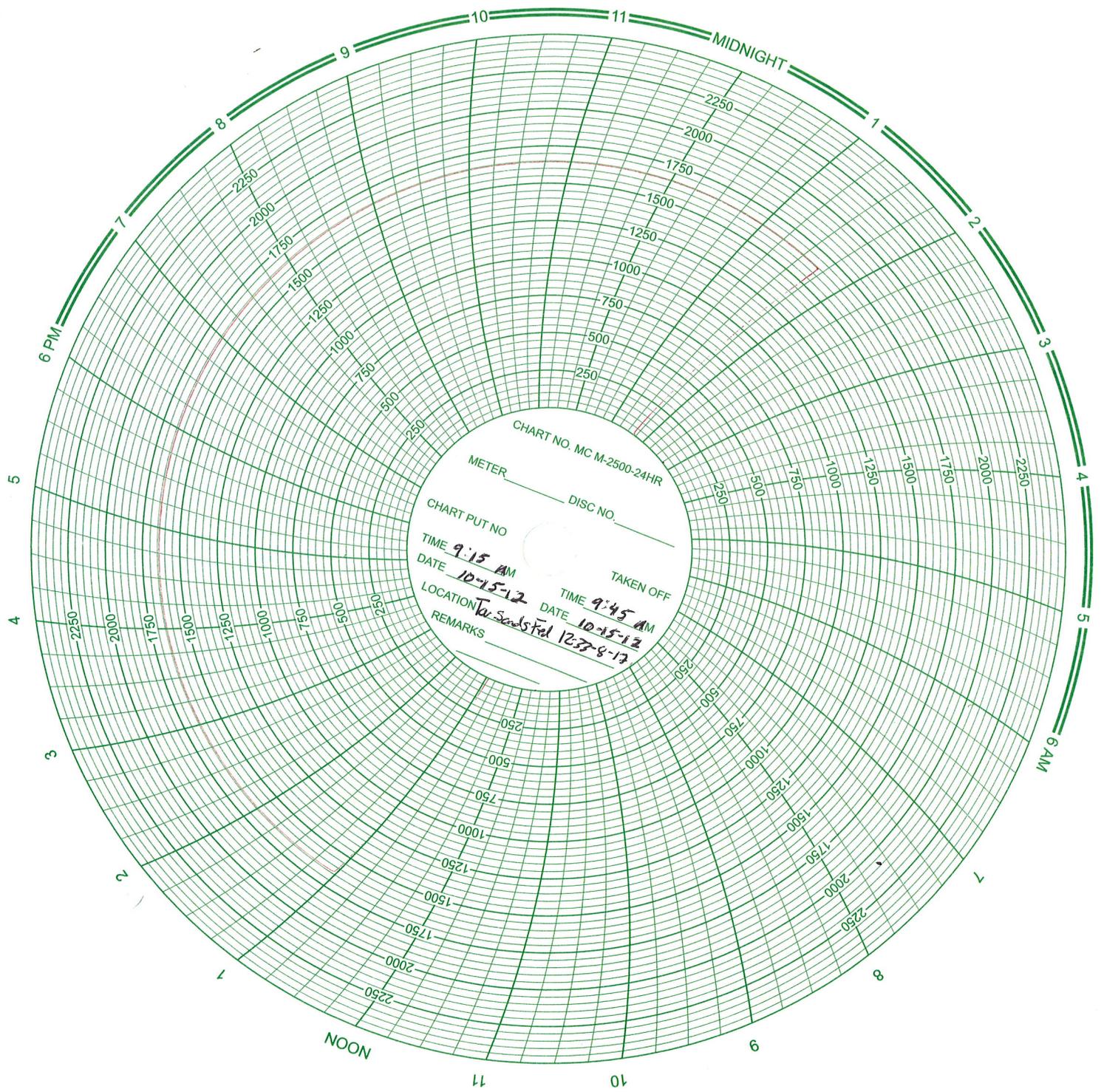
MIT DATA TABLE	Test #1	Test #2	Test #3
<b>TUBING PRESSURE</b>			
Initial Pressure	0 psig	psig	psig
End of test pressure	0 psig	psig	psig
<b>CASING / TUBING ANNULUS PRESSURE</b>			
0 minutes	1645 psig	psig	psig
5 minutes	1645 psig	psig	psig
10 minutes	1645 psig	psig	psig
15 minutes	1645 psig	psig	psig
20 minutes	1645 psig	psig	psig
25 minutes	1645 psig	psig	psig
30 minutes	1645 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: Chris Walters



## Daily Activity Report

Format For Sundry

**TAR SANDS 12-33-8-17**

**8/1/2012 To 12/30/2012**

**10/9/2012 Day: 1**

**Conversion**

NC #2 on 10/9/2012 - MIRUSU,RDPU,US Rod Pmp,PT Tbg, LD Rod String - 5:30AM To 6:00AM C/ Travl; MIRUSU, RDPU, H/ Oiler Pmped 60 BW W/ Biociede Down Csg, US Rod Pmp, LD Polished Rod, H/ Oiler Pmped 40BW Down Tbg, Soft Seat Rod Pmp, Filled Tbg W/ 10BW, PT Tbg To 3000psi, GOOD TEST, LD 2- 2'-6"x3/4" Pony Rods, 164- 3/4" 4per Guided Rods, 60- 3/4" Plain Rods, 3- 1" 4per Guided Rods, 5- 1 1/2" Wt Bars, 4- 1"x4' Stabilizer Subs, LD CDI Rod Pmp (No Signs Of Scale), ND B-1 Adapter, TA Was Not Set, NU Weatherford BOP, RU Workfloor...SWIFN...7:00PM To 7:30PM C/ Travl

**Daily Cost:** \$0

**Cumulative Cost:** \$9,610

---

**10/10/2012 Day: 2**

**Conversion**

NC #2 on 10/10/2012 - Tag Fill, POOH W/ Tbg Breaking Collars, LD Remaining Tbg, MU & RIH W/ XN PKR, Prepared To PT Tbg In Morn - 5:30AM To 6:00AM C/ Travl: OWU @ 6:00AM, H/ Oiler Pmped 40BW Down Tbg, PU 10 Jts Tagged Fill @ 5740', LD 10 Jts, POOH W/ Tbg Breaking & Inspecting Collars, Applied Liquid O- Ring To Pins On 139- Jts, Pmped 40 BW Down Tbg, LD 35- Jts On Trailer, MU & RIH W/ XN Injection PKR, TIH W/ 139- Jts...SWIFN...7:00PM To 7:30PM C/ Travl

**Daily Cost:** \$0

**Cumulative Cost:** \$24,642

---

**10/11/2012 Day: 3**

**Conversion**

NC #2 on 10/11/2012 - PT Tbg, Mech On NC2, ND BOP, NU Injection Tree, PT Csg, Steam On Nc2, RDSU - 5:30AM To 6:00AM C/ Travl: OWU @ 6:00AM, H/ Oiler Pumped 40BW Down Tbg, Dropped Stnd Valv, Seated Stnd Valve, 20 BW To Fill Tbg,, PT Tbg To 3000psi For 60 Min, 250psi Loss, BU Tbg To 3000psi, NO Pressure Loss In 60 Min, GOOD TEST, Retreived Stnd Valv, RD Workfloor, SD To Mech On NC2 For 3.5 Hrs, ND Weatherford BOP, MU Injection Tree, H/ Oiler Pmped 70 Bbls Of Jonhson Wtr W/ PKR Fluid Down Csg, Set XN Arrow Set PKR CE @ 4316' W/ 1500# Tension, NU Injection Tree, 1BW To Fill, PT Csg To 1500psi For 60 Min, NO PRESSURE LOSS, GOOD TEST, RDSU...6:30PM To 7:00 C/ Travl...FINAL REPORT!! READY FOR MIT!!!

**Daily Cost:** \$0

**Cumulative Cost:** \$36,964

---

**10/16/2012 Day: 4**

**Conversion**

Rigless on 10/16/2012 - Conduct initial MIT - On 10/09/2012 Jason Deardorff with the EPA was contacted concerning the initial MIT on the above listed well. On 10/15/2012 the casing was pressured up to 1645 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 0 psig during the test. There was not an EPA representative available to witness the test. EPA# UT22215-09400 **Finalized**

**Daily Cost:** \$0

**Cumulative Cost:** \$115,798

---

**Pertinent Files: [Go to File List](#)**

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		<b>FORM 9</b>
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU-74870
		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>1. TYPE OF WELL</b> Water Injection Well		<b>7. UNIT or CA AGREEMENT NAME:</b> GMBU (GRRV)
<b>2. NAME OF OPERATOR:</b> NEWFIELD PRODUCTION COMPANY		<b>8. WELL NAME and NUMBER:</b> TAR SANDS FED 12-33
<b>3. ADDRESS OF OPERATOR:</b> Rt 3 Box 3630 , Myton, UT, 84052		<b>9. API NUMBER:</b> 43013317570000
<b>PHONE NUMBER:</b> 435 646-4825 Ext		<b>9. FIELD and POOL or WILDCAT:</b> MONUMENT BUTTE
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2069 FSL 0738 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: NWSW Section: 33 Township: 08.0S Range: 17.0E Meridian: S		<b>COUNTY:</b> DUCHESNE
		<b>STATE:</b> UTAH

11.

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 11/13/2012	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="Put on Injection"/>

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

The above reference well was put on injection at 8:15 AM on  
11/13/2012. EPA # UT22215-09400

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

<b>NAME (PLEASE PRINT)</b> Lucy Chavez-Naupoto	<b>PHONE NUMBER</b> 435 646-4874	<b>TITLE</b> Water Services Technician
<b>SIGNATURE</b> N/A	<b>DATE</b> 11/13/2012	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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

NOV 07 2012

Ref: 8P-W-UIC

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

**RECEIVED**

**NOV 19 2012**

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

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

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

**FOR RECORD ONLY**

RE: Underground Injection Control (UIC)  
Authorization to Commence Injection  
EPA UIC Permit UT22215-09400  
Well: Tar Sands Federal 12-33-8-17  
NWSW Sec. 33-T8S-R17E  
Duchesne County, Utah  
API No.: 43-013-31757

Dear Mr. Durfey:

The U.S. Environmental Protection Agency Region 8 has received Newfield Production Company's (Newfield) October 17, 2012, letter with enclosures. The enclosed Part I (internal) Mechanical Integrity test, Well Rework Record (EPA Form 7520-12), schematic diagram and calculated pore pressure were reviewed and approved by the EPA, satisfactorily completing all Prior to Commencing Injection Requirements for UIC Permit UT22215-09400.

As of the date of this letter, Newfield is authorized to commence injection into the Tar Sands Federal 12-33-8-17 well at a Maximum Allowable Injection Pressure (MAIP) of 1,505 psig. You may apply for a higher MAIP at a later date. Your application should be accompanied by the interpreted results of a step rate test that measures the fracture parting pressure and calculates the fracture gradient at this depth and location. Newfield must receive prior authorization from the Director to inject at pressures greater than the permitted MAIP during any test.

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

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

Or, you may reach Ms. Roberts by telephone at (303) 312-6211 or (800) 227-8927, extension 312-6211.

Please remember that it is your responsibility to be aware of and to comply with all conditions of injection well Permit UT22215-09400.

If you have questions regarding the above action, please call Emmett Schmitz at (303) 312-6174 or (800) 227-8917, extension 312-6174.

Sincerely,



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

cc: Uintah & Ouray Business Committee:

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

Johnna Blackhair  
BIA - Uintah & Ouray Indian Agency

Mike Natchees  
Environmental Coordinator  
Ute Indian Tribe

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

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

Fluid Minerals Engineering Office  
BLM - Vernal Office

SEARCHED  
SERIALIZED  
INDEXED  
FILED  
OCT 10 1990  
FBI - DENVER

Eric Sundberg, Regulatory Analyst  
Newfield Production Company



*Printed on Recycled Paper*



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

SEP 21 2012

Ref: 8P-W-UIC

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

**RECEIVED**

**OCT 11 2012**

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

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 UT22215-09400  
Well: Tar Sands Federal 12-33-8-17  
NWSW Sec. 33-T8S-R17E  
Duchesne County, UT  
API No.: 4301331757

Dear Mr. Sundberg:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Program Permit for the proposed Tar Sands Federal 12-33-8-17 injection well. A Statement of Basis that discusses the conditions and requirements of this Environmental Protection Agency (EPA) UIC Permit, is also included.

The public comment period for this permit ended on SEP 06 2012. No comments on the draft permit were received during the public notice period; therefore the effective date for this EPA UIC Permit is the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect as of the Effective Date of this Permit.

Please note that under the terms and conditions of this final permit you are authorized only to construct the proposed injection well. Prior to commencing injection, you first must fulfill all "Prior to Commencing Injection" requirements of the final permit, Part II Section C.1, and obtain written Authorization to Inject from EPA. It is your responsibility to be familiar with and to comply with all provisions of your final permit. The EPA forms referenced in the permit are available at <http://www.epa.gov/safewater/uic/reportingforms.html>. Guidance documents for Cement Bond Logging, Radioactive Tracer Testing, Step Rate Testing, Mechanical Integrity Demonstration, Procedure in the Event of a Mechanical Integrity Loss, and other UIC guidances, are available at [http://www.epa.gov/region8/water/uic/deep\\_injection.html](http://www.epa.gov/region8/water/uic/deep_injection.html). Upon request, hard copies of the EPA forms and guidances can be provided.

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

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

Sincerely,



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



enclosure: Final UIC Permit  
Statement of Basis

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

Johnna Blackhair  
BIA - Uintah & Ouray Indian Agency

cc: All Enclosures:  
  
Reed Durfey  
District Manager  
Newfield Production Company  
Myton, Utah

Mike Natchees  
Environmental Coordinator  
Ute Indian Tribe

Manual Myore  
Director of Energy & Minerals Dept.

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

Fluid Minerals Engineering Office  
BLM - Vernal, Utah Office





**UNDERGROUND INJECTION CONTROL PROGRAM  
PERMIT**

PREPARED: September 2012

**Permit No. UT22215-09400**

Class II Enhanced Oil Recovery Injection Well

**Tar Sands Federal 12-33-8-17  
Duchesne 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:

Tar Sands Federal 12-33-8-17  
2069' FSL & 738' FWL, NWSW S33, T8S, R17E  
Duchesne County, UT

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

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

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

Issue Date: SEP 21 2012

Effective Date SEP 21 2012



for Howard M. Cantor, for  
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 seven calendar days prior to any mechanical integrity test unless the mechanical integrity test is conducted after a well construction, well conversion, or a well rework, in which case any prior notice is sufficient. The Director may allow a shorter notification period if it would be sufficient to enable EPA to witness the mechanical integrity test. Notification may be in the form of a yearly or quarterly schedule of planned mechanical integrity tests, or it may be on an individual basis.

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

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

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

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

## **Section C. WELL OPERATION**

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

Injection is approved under the following conditions:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Monitoring records must include:

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

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

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

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

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

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

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

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

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

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

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

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

**2. Well Plugging Requirements**

Prior to abandonment, the injection well shall be plugged with cement in a manner which isolates the injection zone and prevents the movement of fluids into or between underground sources of drinking water, and in accordance with 40 CFR 146.10 and other applicable Federal, State or local law or regulations. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. Prior to placement of the cement plug(s) the well shall be in a state of static equilibrium with the mud weight equalized top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Director.

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

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

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

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

**5. Plugging and Abandonment Report.**

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

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

**6. Inactive Wells.**

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

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

## PART III. CONDITIONS APPLICABLE TO ALL PERMITS

### Section A. EFFECT OF PERMIT

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

### Section B. CHANGES TO PERMIT CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

### **Section C. SEVERABILITY**

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

### **Section D. CONFIDENTIALITY**

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

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

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

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

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

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

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

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

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

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

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

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

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

## **6. Permit Actions.**

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

## **7. Property Rights.**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## Section F. FINANCIAL RESPONSIBILITY

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

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

### **2. Insolvency.**

In the event of:

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

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

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

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

## APPENDIX A

### WELL CONSTRUCTION REQUIREMENTS

This well was constructed according to BLM requirements and controls for production wells at the time of well completion. The Cement Bond Log (CBL) does show a sufficient interval of continuous 80 percent or greater cement bond index within the Confining Zone. Therefore, further demonstration that well cement is adequate to prevent significant migration of injection fluids behind casing is not required.

Surface Casing: 8-5/8" casing is set at 301 ft. in a 12-1/4" hole using 120 sacks of Premium with additives cemented to the surface

Longstring Casing: 5-1/2" casing is set at 5,848 feet (KB) in a 7-7/8" hole secured with 645 sacks of cement. Total driller depth is 5,900 ft. Plugged back total depth is 5,807 ft. EPA calculates top of cement at 1,720 ft. Estimated CBL top of cement is 1,109 ft.

Perforations: Top perforation: 4,344 ft. Bottom perforation: 5,323 ft.

Spud Date: 4/28/97  
 Put on Production: 5/31/97  
 GL: 5161' KB: 5174'

# Tar Sands Federal #12-33

Initial Production: 113 BOPD,  
 128 MCFPD, 5 BWPD

## SURFACE CASING

CSG SIZE: 8-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7 jts. (288.38')  
 DEPTH LANDED: 301' KB  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 120 sxs Premium W/ additives

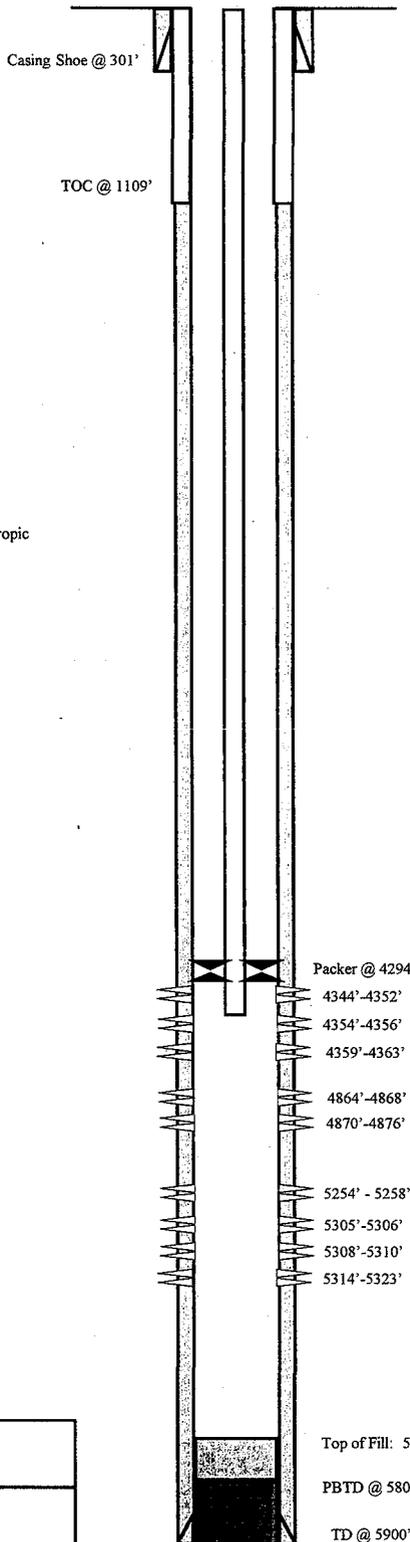
## PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 139 jts. (5865.63')  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 355 sxs Hibond mixed & 290 sxs Thixotropic  
 CEMENT TOP AT: 1109 per CBL  
 DEPTH LANDED: 5848' KB

## TUBING

SIZE/GRADE/WT.: 2-7/8" / M-50 / 6.5#  
 NO. OF JOINTS: 168 jts (5230.03')  
 TUBING ANCHOR: 5243.03'  
 NO. OF JOINTS: 3 jts (93.30')  
 SEATING NIPPLE: 2-7/8" (1.10')  
 SN LANDED AT: 5339.13'  
 NO. OF JOINTS: 3 jts (92.42')  
 TOTAL STRING LENGTH: EOT @ 5433.10' w/13' KB

## Proposed Injection Wellbore Diagram



## FRAC JOB

5/21/97	5254'-5323'	<b>Frac D-1 sand as follows:</b> 115,800# 20/40 sand in 536 bbls of Boragel. Treated @ avg rate 26.3 bpm w/avg press of 2100 psi. ISIP-2793 psi.
5/23/97	4864'-4876'	<b>Frac LoLDC/CP sand as follows:</b> 103,600# of 20/40 sand in 519 bbls of Boragel. Treated @ avg rate 24.5 bpm w/avg press of 2200 psi. ISIP-2534 psi.
5/27/97	4344'-4363'	<b>Frac LoLDC/CP sand as follows:</b> 106,800# of 20/40 sd in 460 bbls Boragel. Treated @ ave rate of 22 bpm w/ave press of 2100 psi. ISIP: 2805 psi.
5/27/97	4344'-4363'	<b>Frac LoLDC/CP sand as follows:</b> 106,800# of 20/40 sd in 460 bbls Boragel. Perfs broke @ 2227 psi.
01/09/03		Pump change. Update tubing and rod detail.
3/11/03		Stuck pump. Update rod detail.
11/22/04		Pump change.
1/15/05		Tubing Leak. Update tubing details
1/30/05		Tubing leak. Update rod and tubing details.

## PERFORATION RECORD

Date	Interval	Tool Joint	Holes
5/21/97	5254' - 5258'	4 JSPF	16 holes
5/21/97	5305' - 5306'	4 JSPF	4 holes
5/21/97	5308' - 5310'	4 JSPF	8 holes
5/21/97	5314' - 5323'	4 JSPF	36 holes
5/22/97	4864' - 4868'	4 JSPF	16 holes
5/22/97	4870' - 4876'	4 JSPF	24 holes
5/24/97	4344' - 4352'	4 JSPF	32 holes
5/24/97	4354' - 4356'	4 JSPF	8 holes
5/24/97	4359' - 4363'	4 JSPF	16 holes

**NEWFIELD**

---

**Tar Sands Federal #12-33**

2069' FSL & 738' FWL  
 NWSW Section 33-T8S-R17E  
 Duchesne Co, Utah  
 API #43-013-31757; Lease #U-74870

## APPENDIX B

### LOGGING AND TESTING REQUIREMENTS

#### Logs.

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

#### NO LOGGING REQUIREMENTS

#### Tests.

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

WELL NAME: Tar Sands Federal 12-33-8-17

TYPE OF TEST	DATE DUE
Pore Pressure	Prior to receiving authorization to inject.
Standard Annulus Pressure	Prior to receiving authorization to inject and at least once within any five year period following the last successful test.

## 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)
Tar Sands Federal 12-33-8-17	1,505

#### INJECTION INTERVAL(S):

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

WELL NAME: Tar Sands Federal 12-33-8-17	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT
	TOP	BOTTOM	(psi/ft)
FORMATION NAME			
Green River	4,119.00	6,250.00	0.787

#### 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.

<b>OBSERVE MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS</b>	
<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)
<b>ANNUALLY</b>	
<b>ANALYZE</b>	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH
<b>ANNUALLY</b>	
<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

At a minimum the following plugs are required:

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

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

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

(4) Isolate Surface Fluid Migration Paths:

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

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

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

## APPENDIX F

### CORRECTIVE ACTION REQUIREMENTS

No corrective action is deemed necessary for this project.

# STATEMENT OF BASIS

**NEWFIELD PRODUCTION CO.  
TAR SANDS FEDERAL 12-33-8-17  
DUCHESNE COUNTY, UT**

**EPA PERMIT NO. UT22215-09400**

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

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

EPA UIC permits regulate the injection of fluids into underground injection wells so that the injection does not endanger underground sources of drinking water. EPA UIC permit conditions are based upon the authorities set forth in regulatory provisions at 40 CFR Parts 144 and 146, and address potential impacts to underground sources of drinking water. Under 40 CFR 144.35 Issuance of this permit does not convey any property rights of any sort or any exclusive privilege, nor authorize injury to persons or property or 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).

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

<b>NEW WELLS</b>		
<b>Well Name</b>	<b>Well Status</b>	<b>Date of Operation</b>
Tar Sands Federal 12-33-8-17	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)**

The proposed Class II enhanced oil recovery injection well is located in the Greater Monument Butte Field, T7-9S and R15-19E, which lies near the center of the broad, gently northward dipping south flank of the Uinta Basin. More than 450 million barrels of oil (63 MT) have been produced from sediments of the Uinta Basin. The Uinta Basin is a topographic and structural trough encompassing an area of more than 9,300 square miles (14,900 km) in northeast Utah. The basin is sharply asymmetrical, with a steep north flank bounded by the east-west-trending Uinta Mountains, and a gently dipping south flank. The Uinta Basin was formed in Paleocene to Eocene time, creating a large area of internal drainage which was filled by the ancestral Lake Uinta. The lacustrine, or fresh water lake-formed, sediments deposited in and around Lake Uinta make up the Uintah and Green River Formations. The southern shore of Lake Uinta was very broad and flat, resulting in large cyclic shifts of the location of the shoreline during the many repeated transgressive and regressive cycles caused by the climatic and tectonic-induced rise and fall of

EPA approved injection interval is from a depth of 4,119 feet, within the Garden Gulch Member of the Green River Formation, to the top of the Wasatch Formation estimated to be 6,250 feet.

**TABLE 2.2**  
**INJECTION ZONES**  
Tar Sands Federal 12-33-8-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River	4,119	6,250	20,337	0.787		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 508-foot (3,611 feet - 4,119 feet) Confining Zone directly overlies the Green River Formation Garden Gulch Member No. 2 Sand. This Confining Zone contains 307 feet (3,812 feet - 4,118 feet) of 80% bond index cement bond.

**TABLE 2.3**  
**CONFINING ZONES**  
Tar Sands Federal 12-33-8-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River	Interbedded sand, shale, evaporite and carbonates	3,611	4,119

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

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

The State of Utah Division of Water Rights website at <http://nrwrt1.nr.state.ut.us/wrinfo/query.asp> identifies no public water supply wells within the one-quarter (1/4) mile Area-of-Review (AOR) around the Tar Sands Federal 12-33-8-17.

### Casing and Cementing (TABLE 3.1)

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

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

### Tubing and Packer

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

### Tubing-Casing Annulus (TCA)

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

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

### Monitoring Devices

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

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

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

TABLE 4.1  
AOR AND CORRECTIVE ACTION

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Blackjack Federal N-33-8-17	Producer	No	6,265	26	No
Tar Sands Federal 11-33-8-17	Injector	No	5,900	0	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.

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

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

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

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

### **Injection Volume Limitation**

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

There will be no restrictions on the cumulative volume of authorized Class II fluid injected into the approved Green River Formation interval.

### **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.

Internal Mechanical Integrity (Part I MI) will be demonstrated prior to beginning injection. A successful Part I Mechanical Integrity Test (MIT) is required prior to receiving authorization to inject and no less than five years after the last successful MIT. A demonstration of Part I MI is also required prior to resuming injection following any workover operation that affects the tubing, packer, or casing. Part I MI is demonstrated by a standard annulus pressure test using the maximum permitted injection pressure or 1000 psi, whichever is less, with a ten percent or less pressure loss over thirty minutes.

Mechanical Integrity (Part II MI) has been demonstrated by the Cement Bond Log (CBL) for Tar Sands Federal 12-33-8-17 which shows a sufficient interval of 80 percent cement bond index through the Confining Zone. No further demonstration of Part II MI is required at the time of Permit issue.

- a. If the depth of the lowermost USDW is above the base of surface casing, perforate the outermost casing string 50 ft. below the base of surface casing and circulate cement to the surface, unless there is existing cement across this interval; OR
- b. If the depth of the lowermost USDW is below the base of surface casing, perforate the outermost casing string 50 ft. below the base of the lowermost USDW and circulate cement to surface; AND
- c. Set a cement plug inside the innermost casing string from 50 ft. below the base of the surface casing to surface.

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

### **Demonstration of Financial Responsibility**

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

A demonstration of Financial Responsibility in the amount of \$42,000 has been reviewed and approved by the EPA on December 21, 2011.

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

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

Spud Date: 4/28/97  
 Put on Production: 5/31/97  
 GL: 5161' KB: 5174'

# Tar Sands Federal 12-33-8-17

Initial Production: 113 BOPD.  
 128 MCFPD, 5 BWPD

## SURFACE CASING

CSG SIZE: 6-5/8"  
 GRADE: J-55  
 WEIGHT: 24#  
 LENGTH: 7 jts (288.38')  
 DEPTH LANDED: 301' KB  
 HOLE SIZE: 12-1/4"  
 CEMENT DATA: 120 sxs Premium W/ additives

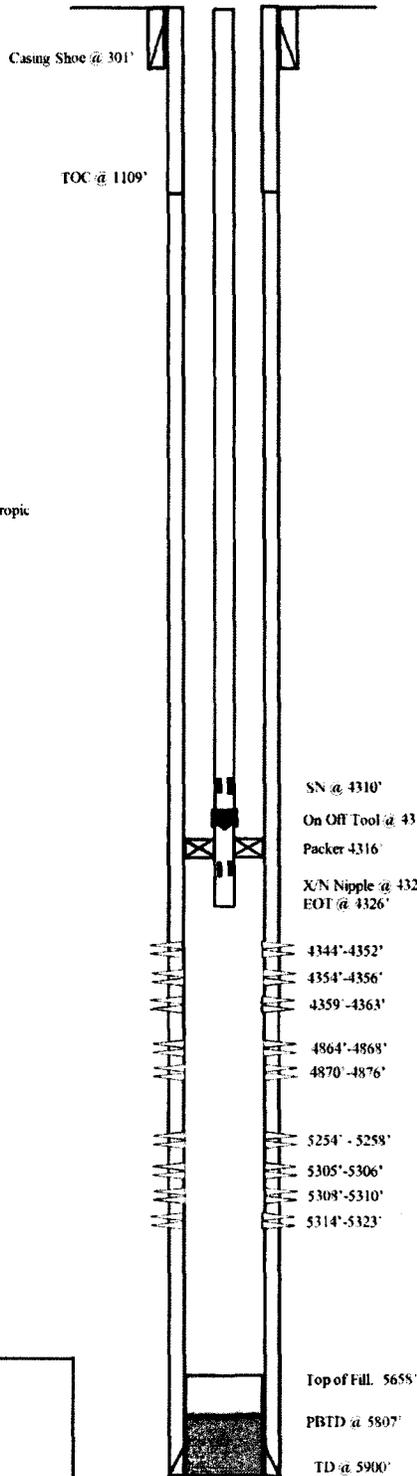
## PRODUCTION CASING

CSG SIZE: 5-1/2"  
 GRADE: J-55  
 WEIGHT: 15.5#  
 LENGTH: 139 jts (5865.63')  
 HOLE SIZE: 7-7/8"  
 CEMENT DATA: 355 sxs Hibond mixed & 290 sxs Thixotropic  
 CEMENT TOP AT: 1109 per CBL  
 DEPTH LANDED: 5848' KB

## TUBING

SIZE/GRADE/WT.: 2-7/8" / J-55 / 6.5#  
 NO. OF JOINTS: 139 jts (4297.3')  
 SEATING NIPPLE: 2-7/8" (1.10')  
 SN LANDED AT: 4310.3  
 ON/OFF TOOL AT: 4311.4'  
 SEAL NIPPLE AT: 4312.9'  
 ARROW #1 PACKER CE AT: 4316.48'  
 XO 2-3/8 x 2-7/8 J-55 AT: 4320.1'  
 TBG PUP 2-3/8 J-55 AT: 4320.6'  
 X/N NIPPLE AT: 4324.6'  
 TOTAL STRING LENGTH: EOT @ 4326'

## Injection Wellbore Diagram



## FRAC JOB

5/21/97 5254'-5323' Frac D-1 sand as follows:  
 115,800# 20/40 sand in 536 bbls of Boragel.  
 Treated @ avg rate 26.3 bpm w/avg press of 2100 psi. ISIP-2793 psi.

5/23/97 4864'-4876' Frac L&LDC/CP sand as follows:  
 103,600# of 20/40 sand in 519 bbls of Boragel. Treated @ avg rate 24.5 bpm w/avg press of 2200 psi. ISIP-2534 psi.

5/27/97 4344'-4363' Frac L&LDC/CP sand as follows:  
 106,800# of 20/40 sd in 460 bbls Boragel.  
 Treated @ ave rate of 22 bpm w/ave press of 2100 psi. ISIP: 2805 psi. Perfs broke @ 2227 psi.

01/09/03 Pump change. Update tubing and rod detail.  
 3/11/03 Stuck pump. Update rod detail  
 11/22/04 Pump change.  
 1/15/05 Tubing Leak. Update tubing details  
 1/30/05 Tubing leak. Update rod and tubing details.  
 10/11/12 Convert to Injection Well  
 10/15/12 Conversion MIT Finalized - update log detail

## PERFORATION RECORD

5/21/97	5254' - 5258'	4 JSPF	16 holes
5/21/97	5305' - 5306'	4 JSPF	4 holes
5/21/97	5308' - 5310'	4 JSPF	8 holes
5/21/97	5314' - 5323'	4 JSPF	36 holes
5/22/97	4864' - 4868'	4 JSPF	16 holes
5/22/97	4870' - 4876'	4 JSPF	24 holes
5/24/97	4344' - 4352'	4 JSPF	32 holes
5/24/97	4354' - 4356'	4 JSPF	8 holes
5/24/97	4359' - 4363'	4 JSPF	16 holes

**NEWFIELD**

**Tar Sands Federal 12-33-8-17**

2069' FSL & 738' FWL

NWSW Section 33-T8S-R17E

Duchesne Co. Utah

API #43-013-31757; Lease #U-74870