

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

ATTENTION: Lisha Cordova

**RE: Odekirk Spring #1-36-8-17
Odekirk Spring #9-36-8-17
Odekirk Spring #15-36-8-17**

**Odekirk Spring #8-36-8-17
Odekirk Spring #10-36-8-17
Odekirk Spring #16-36-8-17**

Dear Lisha,

Enclosed is the original and two copies of the Application For Permit To Drill, for the above referenced locations, and a copy of the Archaeological Survey Report.

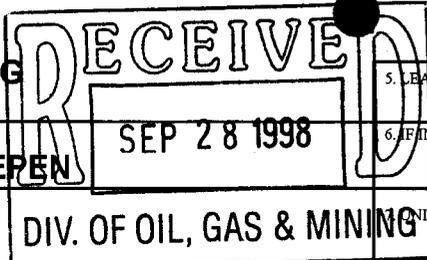
Please do not hesitate to contact me if you have any questions in the Vernal Branch Office, (435) 789-1866.

Sincerely,

Cheryl Cameron
Regulatory Specialist

/cc
Enclosures

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING



5. LEASE DESIGNATION AND SERIAL NO.
ML-44305
6. INDIAN, ALLOTTEE OR TRIBE NAME

APPLICATION FOR PERMIT TO DRILL, DEEPEN

1a. TYPE OF WORK **DRILL** **DEEPEN**
1b. TYPE OF WELL

OIL GAS OTHER SINGLE ZONE MULTIPLE ZONE
8. FARM OR LEASE NAME **Odekirk Spring**

2. NAME OF OPERATOR **Inland Production Company**
9. WELL NO. **#16-36-8-17**

3. ADDRESS AND TELEPHONE NUMBER:
P.O. Box 790233 Vernal, UT 84079 Phone: (801) 789-1866
10. FIELD AND POOL OR WILDCAT **Monument Butte**

4. LOCATION OF WELL (FOOTAGE)
At Surface **SE/SE**
At proposed Producing Zone **668.9' FSL & 586.2' FEL**
11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
SE/SE Sec. 36, T8S, R17E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
15.6 Miles southeast of Myton, Utah
12. County **Uintah** 13. STATE **UT**

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) **586.2'**
16. NO. OF ACRES IN LEASE **640**
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. **6500'**
19. PROPOSED DEPTH **6500'**
20. ROTARY OR CABLE TOOLS **Rotary**

21. ELEVATIONS (Show whether DF, RT, GR, etc.) **4979.4' GR**
22. APPROX. DATE WORK WILL START* **4th Quarter 1998**

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
7 7/8	5 1/2	15.5#	TD	400 sx followed by 330 sx
				See Detail Below

DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give date 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.

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

SURFACE PIPE - Premium Plus Cement, w/ 2% Gel, 2% CaCl₂, 1/4# Flocele/sk
Weight: 14.8 PPG YIELD: 1.37 Cu Ft/sk H2O Req: 6.4 gal/sk

LONG STRING - Lead: Hibond 65 Modified
Weight: 11.0 PPG YIELD: 3.00 Cu Ft/sk H2O Req: 18.08 gal/sk
Tail: Premium Plus Thixotropic
Weight: 14.2 PPG YIELD: 1.59 Cu Ft/sk H2O Req: 7.88 gal/sk

*589792.00
443 5738 36*

24. Name & Signature *Cheryl Cameron* Title: **Regulatory Specialist** Date: **9/23/98**
Cheryl Cameron

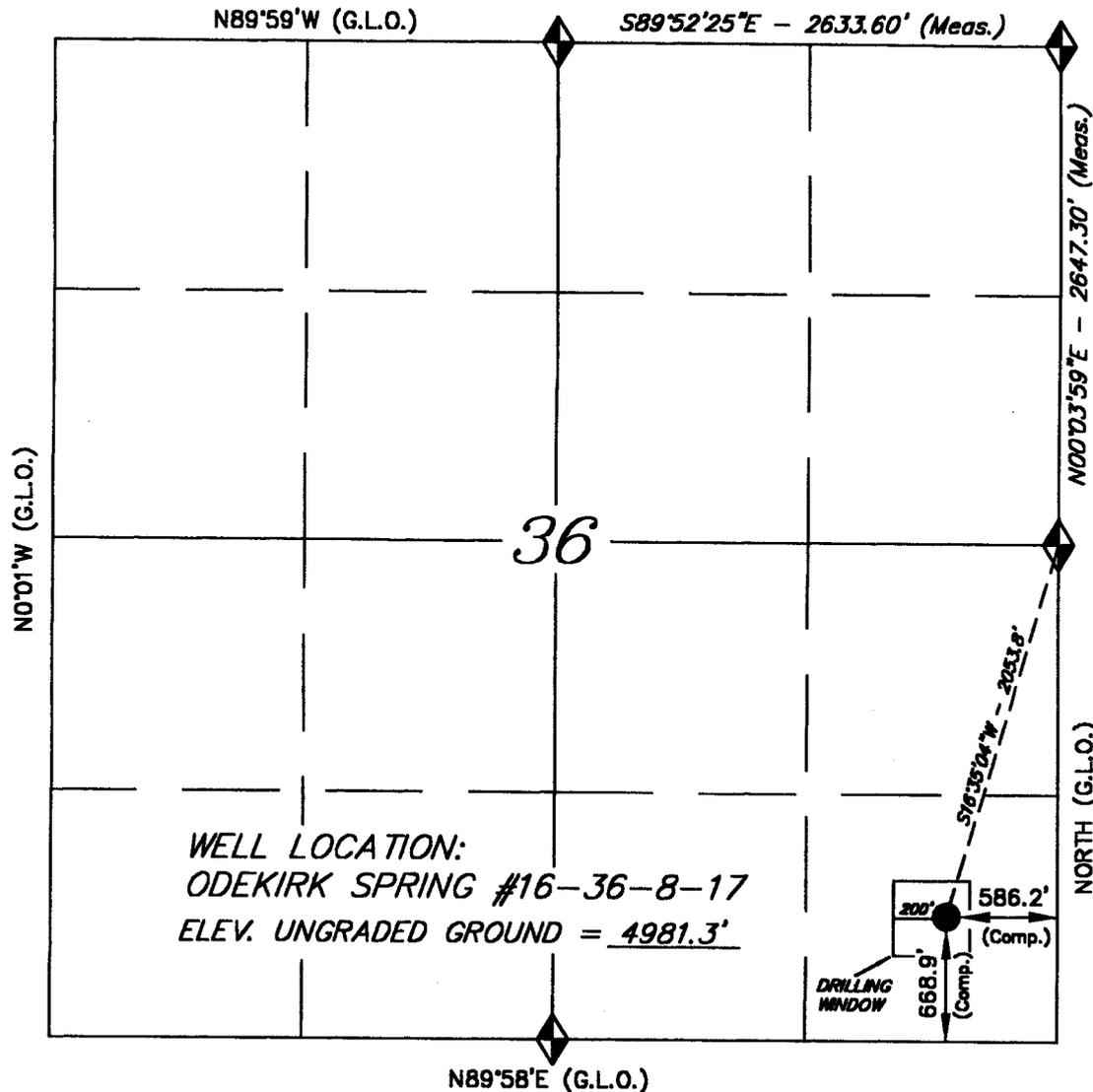
(This space for State use only)

API Number Assigned: 43-047-33200 APPROVAL: *Bradley Hill* 12/1/98

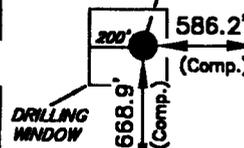
T8S, R17E, S.L.B.&M.

INLAND PRODUCTION COMPANY

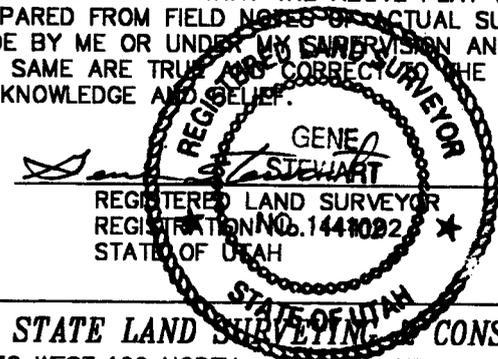
WELL LOCATION, ODEKIRK SPRING
#16-36-8-17, LOCATED AS SHOWN IN THE
SE 1/4 SE 1/4 OF SECTION 36, T8S, R17E,
S.L.B.&M. UINTAH COUNTY, UTAH.



WELL LOCATION:
ODEKIRK SPRING #16-36-8-17
ELEV. UNGRADED GROUND = 4981.3'



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.



TRI STATE LAND SURVEYING & CONSULTING
38 WEST 100 NORTH - VERNAL, UTAH 84078
(801) 781-2501

BASIS OF BEARINGS IS A GLOBAL POSITIONING SATELITE OBSERVATION

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV; U.S.G.S. 7-1/2 min QUAD (PARIETTE DRAW SW)

SCALE: 1" = 1000'

SURVEYED BY: D.S.

DATE: 9-19-98

WEATHER: WARM

REVISIONS:

FILE #

**INLAND PRODUCTION COMPANY
ODEKIRK SPRING #16-36-8-17
SE/SE SECTION 36, T8S, R17E
UINTAH 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' - 1730'
Green River	1730'
Wasatch	6500'

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

Green River Formation 1730' - 6500' - Oil

4. PROPOSED CASING PROGRAM

8 5/8", J-55, 24# w/ ST&C collars; set at 300' (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. per barrel of DAP (Di-Ammonium Phosphate, commonly known as fertilizer). This fresh water system will contain Total Dissolved Solids (TDS) of less than 3000 PPM. Neither potassium chloride or chromate's will be utilized in the fluid system. The anticipated mud weight is 8.4 ppg and weighted as necessary for gas control.

AIR DRILLING

In the event that the proposed location be "Air Drilled", Inland requests a variance to regulations requiring a straight run blooie line. Inland proposes that the flowline will contain two (2) 90 degree turns. Inland also requests a variance to regulations requiring an automatic ignitor or continuous pilot light on the blooie line. Inland requests authorization to ignite as needed, and the flowline at 80'.

Inland Production Company requests that the spark arrest, exhaust, or water cooled exhaust be waived under the Special Drilling Operations of Onshore Order #2.

MUD PROGRAM

MUD TYPE

Surface - 320'	Air
320' - 4200'	Air/Mist & Foam
4200' - TD	The well will be drilled with fresh water through the Green River Formation @ 4200' ±, 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 or by adding 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 H2S 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 forth quarter of 1998, and take approximately six days to drill.

**INLAND PRODUCTION COMPANY
ODEKIRK SPRING 16-36-8-17
SE/SE SECTION 36, T8S, R17E
UINTAH COUNTY, UTAH**

THIRTEEN POINT WELL PROGRAM

1. EXISTING ROADS

See attached Topographic Map "A"

To reach Inland Production Company well location site Odekirk Spring #16-36-8-17 located in the SE ¼ SE ¼ Section 36, T8S, R17E, S.L.B. & M. Uintah County, Utah:

Proceed westerly out of Myton, Utah along Highway 40 - 1.6 miles ± to the junction of this highway and Utah State Highway 53; proceed southerly along Utah State Highway 53 - 12.9 miles to its junction with an existing dirt road to the northeast; proceed northeasterly along this road - 2.6 miles to its junction with a dirt road to the east; proceed easterly 0.3 miles to the proposed #15-36-8-17 location; continue east 0.3 miles to the beginning of the proposed access road. Refer to Item #2.

The highways mentioned in the foregoing paragraph are bituminous surfaced roads to the point where Highway 216 exists to the South, 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 State of Utah, 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

Approximately 0.3 miles of access road is proposed.
See Topographic Map "B".

The proposed access road will be an 18" crown road (9" either side of the centerline) with drainage ditches along either side of the proposed road whether it is 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%.

There will be no culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

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

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

3. **LOCATION OF EXISTING WELLS**

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 State 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**

**(Public Water Source)*

Inland Production Company has purchased a 3" water connection with Johnson Water District to supply the Monument Butte, Travis, and Gilsonite oil fields. Johnson Water District has given permission to Inland Production Company to use water from this system, for the purpose of drilling and completing the Odekirk Spring #16-36-8-17. A temporary line may be used for water transportation from our existing supply line, from Johnson Water District, or 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".

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 (90' X 40' X 8' 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 well bore. Any drilling fluids which do accumulate in the pit as a result of sale-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 chromate's, 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 re-injection 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.

The stockpiled topsoil (first six (6) inches) will be stored on the northwest corner between stakes 1 & 7.

Access to the well pad will be from the west between stakes 7 & 8.

Corner #6 will be rounded to avoid drainage.

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 State of Utah, and stated in the conditions of approval.

- b) *Dry Hole Abandoned Location*

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

11. SURFACE OWNERSHIP – State of Utah

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 State 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 State Lands after the conclusion of drilling operations or at any other time without State authorization. However, if State 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 Report is attached.

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 Odekirk Spring #16-36-8-17, 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 Odekirk Spring #16-36-8-17 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.

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 State office at (801) 722-3417, 48 hours prior to construction activities.

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

13. LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION

Representative

Name: Cheryl Cameron
Address: P.O. Box 790233 Vernal, UT 84079
Telephone: (801) 789-1866

Certification

Please be advised that INLAND PRODUCTION COMPANY is considered to be the operator of Well #16-36-8-17 SE/SE Section 36, Township 8S, Range 17E: Lease #ML-44305 Uintah County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by Hartford Accident #4471291.

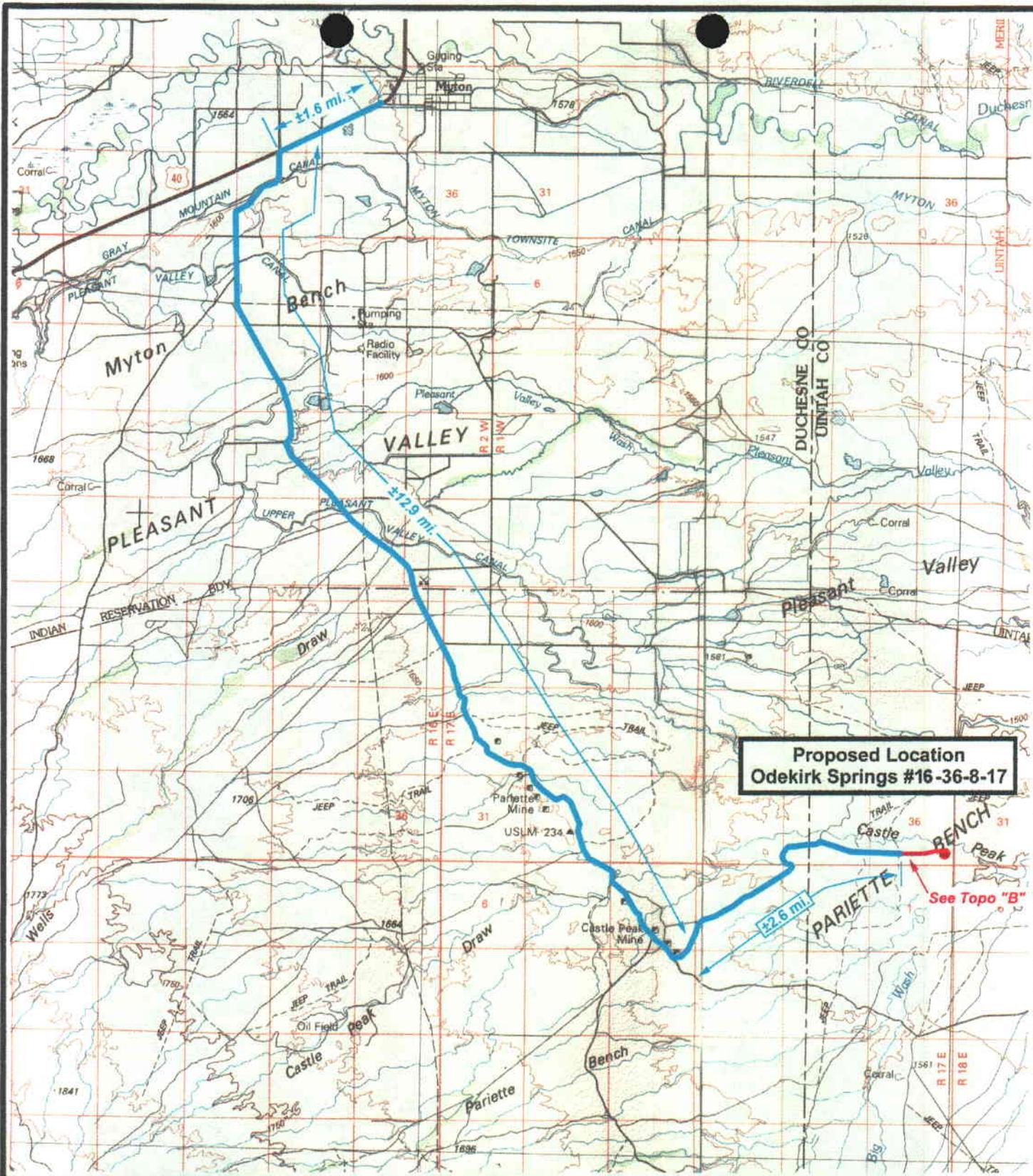
I hereby certify that the proposed drillsite and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by 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.

9/23/98

Date



Cheryl Cameron
Regulatory Specialist



**Proposed Location
Odekirk Springs #16-36-8-17**

See Topo "B"



RESOURCES INC.

**ODEKIRK SPRINGS #16-36-8-17
SEC. 36, T8S, R17E, S.L.B.&M.
TOPOGRAPHIC MAP "A"**



Drawn By: SS

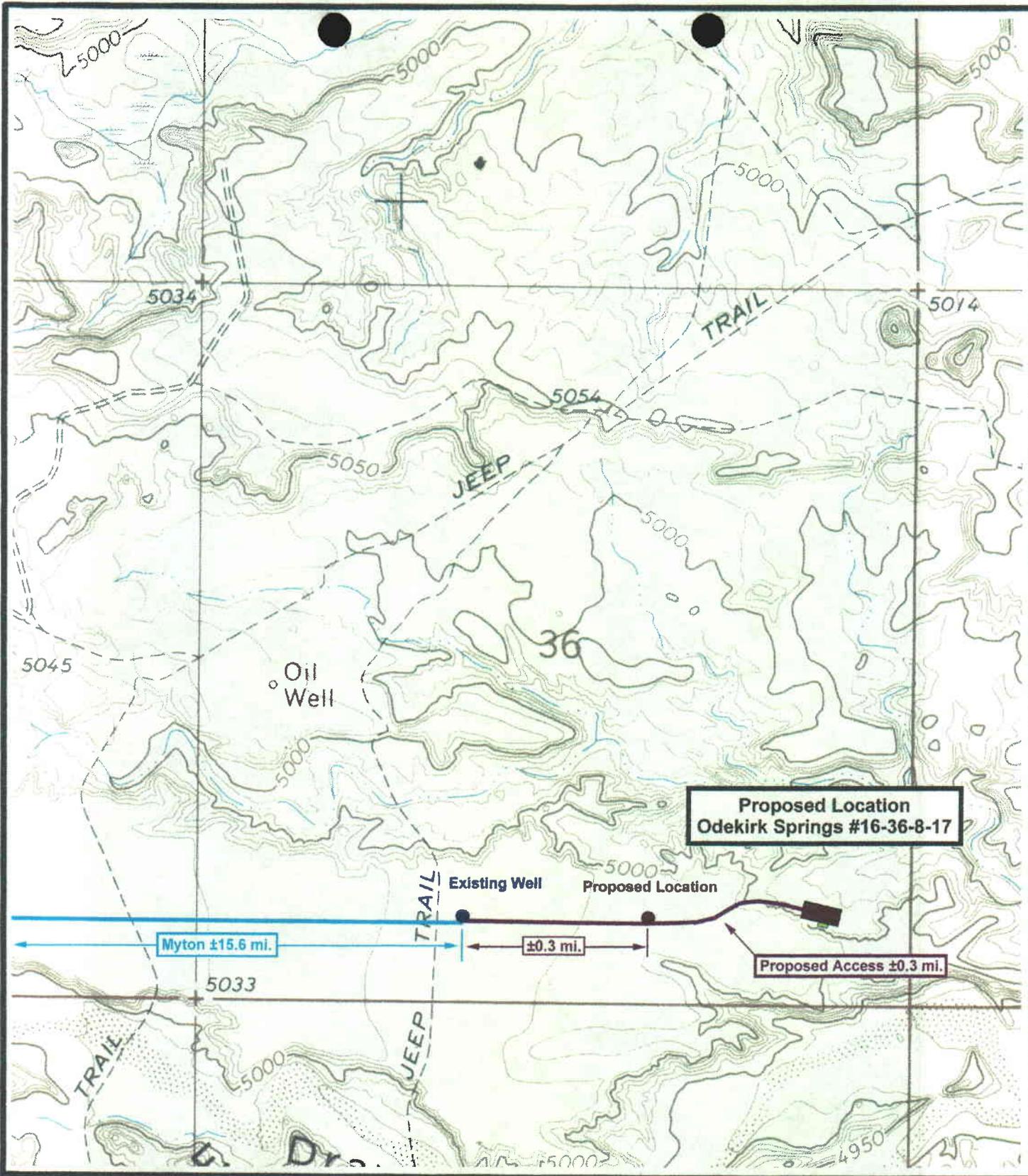
Revision:

Scale: 1 : 100,000

File:

Date: 9/14/98

**Tri-State Land Surveying Inc.
P.O. Box 533, Vernal, UT 84078
435-781-2501 Fax 434-781-2518**



**Proposed Location
Odekirk Springs #16-36-8-17**

Existing Well Proposed Location

Myton ±15.6 mi.

±0.3 mi.

Proposed Access ±0.3 mi.



**ODEKIRK SPRINGS #16-36-8-17
SEC. 36, T8S, R17E, S.L.B.&M.
TOPOGRAPHIC MAP "B"**



Drawn By: SS	Revision:
Scale: 1" = 1000'	File:
Date: 9/17/98	
Tri-State Land Surveying Inc. P.O. Box 533, Vernal, UT 84078 435-781-2501 Fax 434-781-2518	

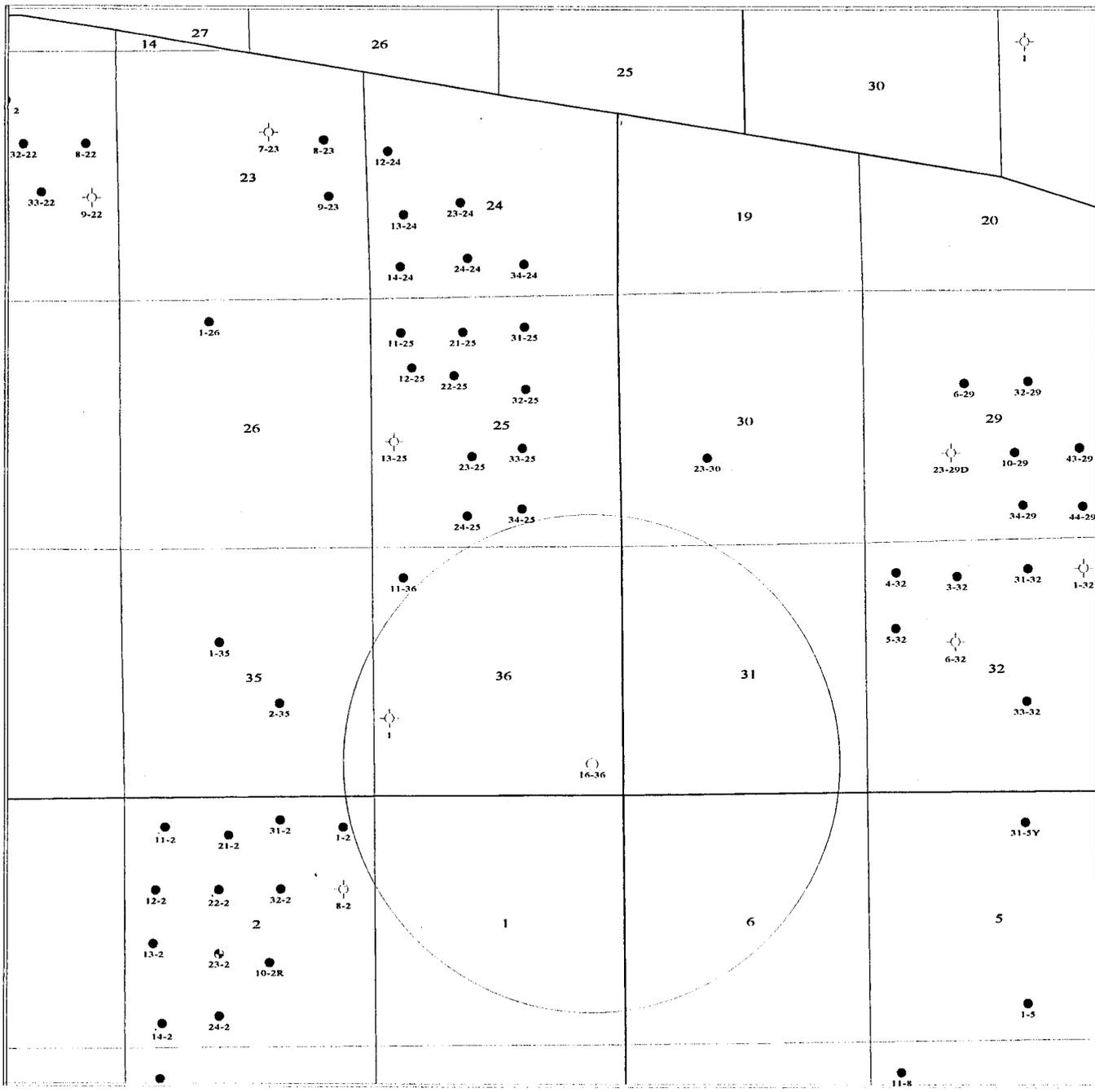


EXHIBIT "D"

INLAND PRODUCTION COMPANY		
ONE MILE RADIUS Odekirk Spring #16-36		
Josh Axelson	Scale 1:4004.37	2/3/1998

INLAND PRODUCTION COMPANY

ODEKIRK SPRING #16-36-8-17
SEC. 36, T8S, R17E, S.L.B.&M.

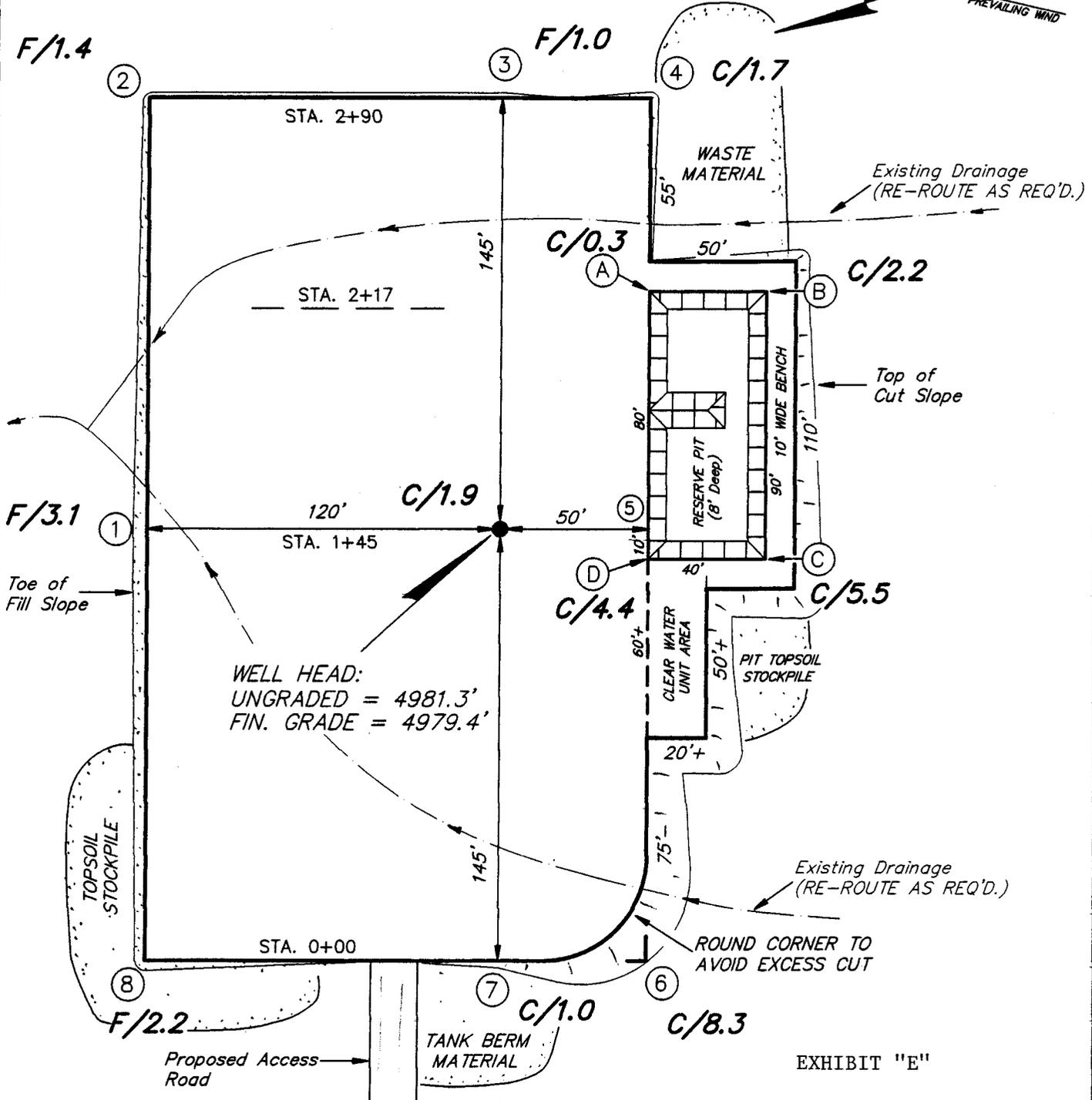


EXHIBIT "E"

REFERENCE POINTS

- 175' NORTHEAST = 4976.2'
- 200' NORTHEAST = 4975.8'
- 175' SOUTHEAST = 4980.5'
- 200' SOUTHEAST = 4982.0'

SURVEYED BY:	G.S.
DRAWN BY:	J.R.S.
DATE:	9-20-98
SCALE:	1" = 50'
FILE:	

Tri State
Land Surveying, Inc.
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078

CROSS SECTIONS

ODEKIRK SPRING #16-36-8-17

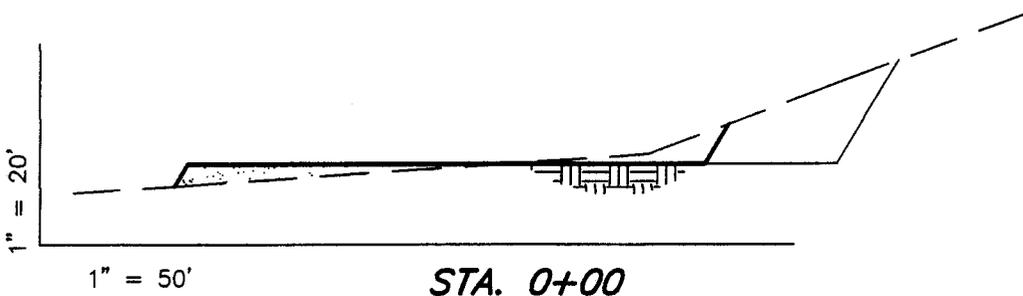
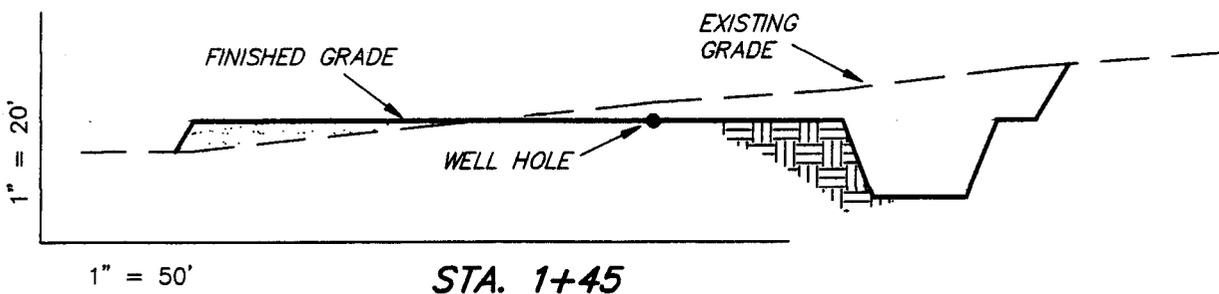
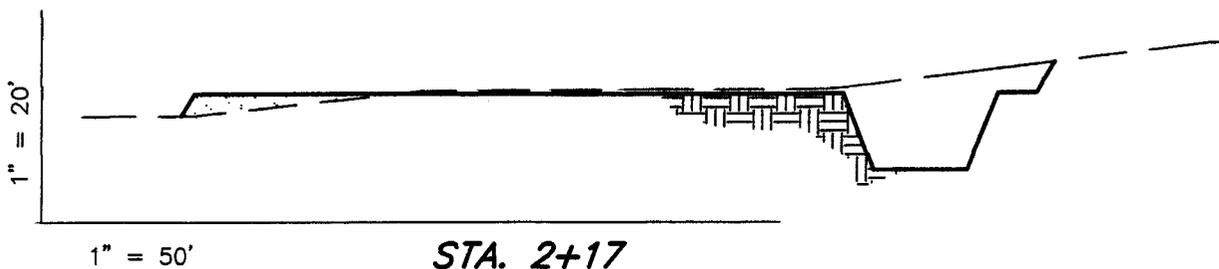
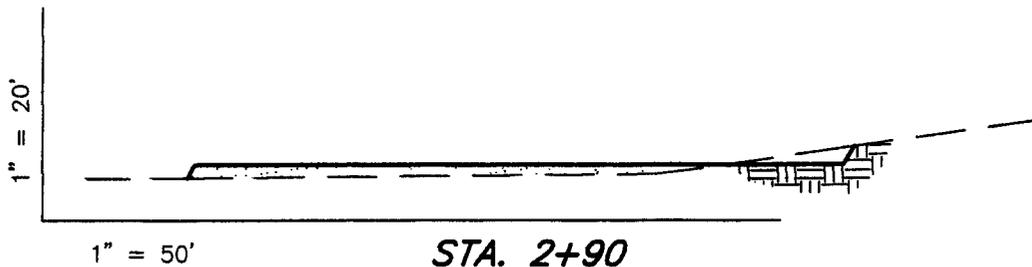


EXHIBIT "E-1"

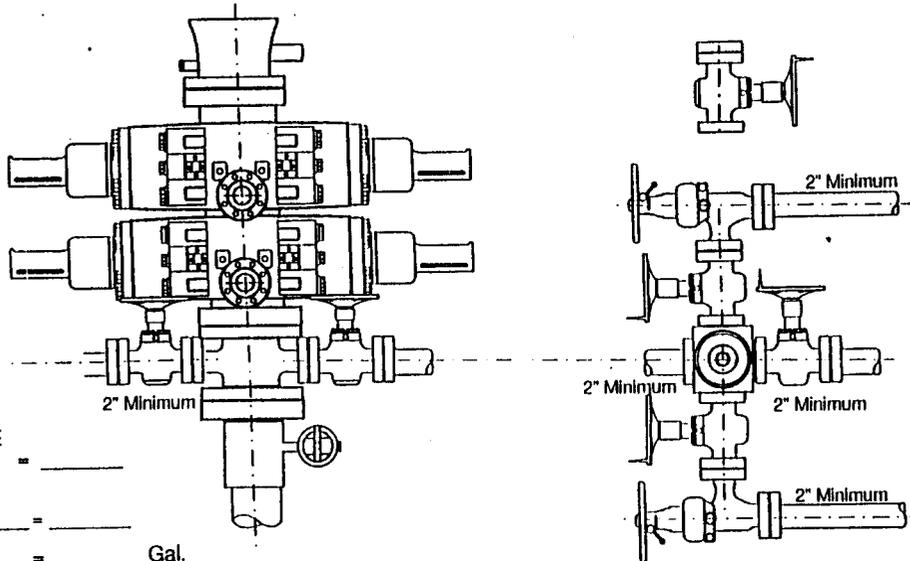
APPROXIMATE YARDAGES

- CUT = 1,740 Cu. Yds.
- FILL = 1,720 Cu. Yds.
- PIT = 920 Cu. Yds.
- 6" TOPSOIL = 1,030 Cu. Yds.

Tri State
Land Surveying, Inc.
(801) 781-2501
38 WEST 100 NORTH VERNAL, UTAH 84078

RAM TYPE B.O.P.
 Make:
 Size:
 Model:

2-M SYSTEM



GAL TO CLOSE
 Annular BOP = _____
 Ramtype BOP
 _____ Rams x _____ = _____
 = _____ Gal.
 _____ x 2 = _____ Total Gal.

Rounding off to the next higher
 increment of 10 gal. would require
 _____ Gal. (total fluid & nitro volume)

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 09/28/98

API NO. ASSIGNED: 43-047-33200

WELL NAME: ODEKIRK SPRING 16-36-8-17
 OPERATOR: INLAND PRODUCTION COMPANY (N5160)
 CONTACT: Cheryl Cameron (435) 789-1846

PROPOSED LOCATION:
 SESE 36 - T08S - R17E
 SURFACE: 0669-FSL-0586-FEL
 BOTTOM: 0669-FSL-0586-FEL
 UINTAH COUNTY
 EIGHT MILE FLAT NORTH FIELD (590)

INSPECT LOCATION BY: / /		
TECH REVIEW	Initials	Date
Engineering	<i>PK</i>	<i>12-1-98</i>
Geology		
Surface		

LEASE TYPE: STA
 LEASE NUMBER: ML-44305
 SURFACE OWNER: State

PROPOSED FORMATION: GRRV

RECEIVED AND/OR REVIEWED:

Plat
 Bond: Federal State Fee
 (No. 4471291)

Potash (Y/N)
 Oil Shale (Y/N) *190-5(B)
 Water Permit
 (No. Johnson Water District)

RDCC Review (Y/N)
 (Date: _____)

N/A St/Fee Surf Agreement (Y/N)

LOCATION AND SITING:

___ R649-2-3. Unit _____

R649-3-2. General

___ R649-3-3. Exception

___ Drilling Unit
 Board Cause No: _____
 Date: _____

COMMENTS: _____

STIPULATIONS: ① STATEMENT OF BASIS

**DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS**

Operator Name: INLAND PRODUCTION CO.

Name & Number: ODEKIRK SPRING 16-36

API Number: 43-047-33200

Location: 1/4, 1/4 SE/SE Sec. 36 T. 8S R. 17E

Geology/Ground Water:

The base of the moderately saline ground water is expected to be near the ground surface at this location. The Uinta Formation should have very limited fresh water resources in the near surface. The proposed casing and cement program should adequately protect any fresh water resources.

Reviewer: Brad Hill

Date: 11/25/98

Surface:

The pre-site investigation of the surface was performed by field personnel on 11/20/98. All applicable surface management agencies have been notified. No other agency personnel chose to attend. This site has less than 5% ground cover from plant life. A liner will not be required for the reserve pit. Two shallow draws cross site and will be re-routed. One to the west and one to the east.

Reviewer: DAVID W. HACKFORD

Date: 11/23/98

Conditions of Approval/Application for Permit to Drill:

1. Reserve pit shall be constructed south of wellbore.
2. Shallow draws which cross site shall be re-routed to the west and east of location.

Well name:

Inland Odekirk 16-36-8-17

Operator: **Inland Production Company**
String type: **Surface**

Project ID:
43-047-33200

Location: **Uintah Co.**

Design parameters:

Collapse

Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 79 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 300 ft

Cement top: 0 ft

Burst

Max anticipated surface pressure: 130 psi
Internal gradient: 0.003 psi/ft
Calculated BHP 131 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on buoyed weight.
Neutral point: 262 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 6,500 ft
Next mud weight: 8.400 ppg
Next setting BHP: 2,836 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 300 ft
Injection pressure 300 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	300	8.625	24.00	J-55	ST&C	300	300	7.972	14.4
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	131	1370	10.47	131	2950	22.55	6	244	38.80 J

Prepared RJK
by: State of Utah

Date: December 1, 1998
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 300 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes.
In addition, burst strength is biaxially adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	Inland Odekirk 16-36-8-17		
Operator:	Inland Production Company		
String type:	Production	Project ID:	43-047-33200
Location:	Uintah Co.		

Design parameters:

Collapse
Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature 166 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 300 ft
Cement top: 391 ft

Burst

Max anticipated surface pressure: 0 psi
Internal gradient: 0.436 psi/ft
Calculated BHP 2,836 psi

No backup mud specified.

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.
Neutral point: 5,674 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	6500	5.5	15.50	J-55	LT&C	6500	6500	4.825	203.8
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2836	4040	1.42	2836	4812	1.70	88	217	2.47 J

Prepared RJK
by: State of Utah

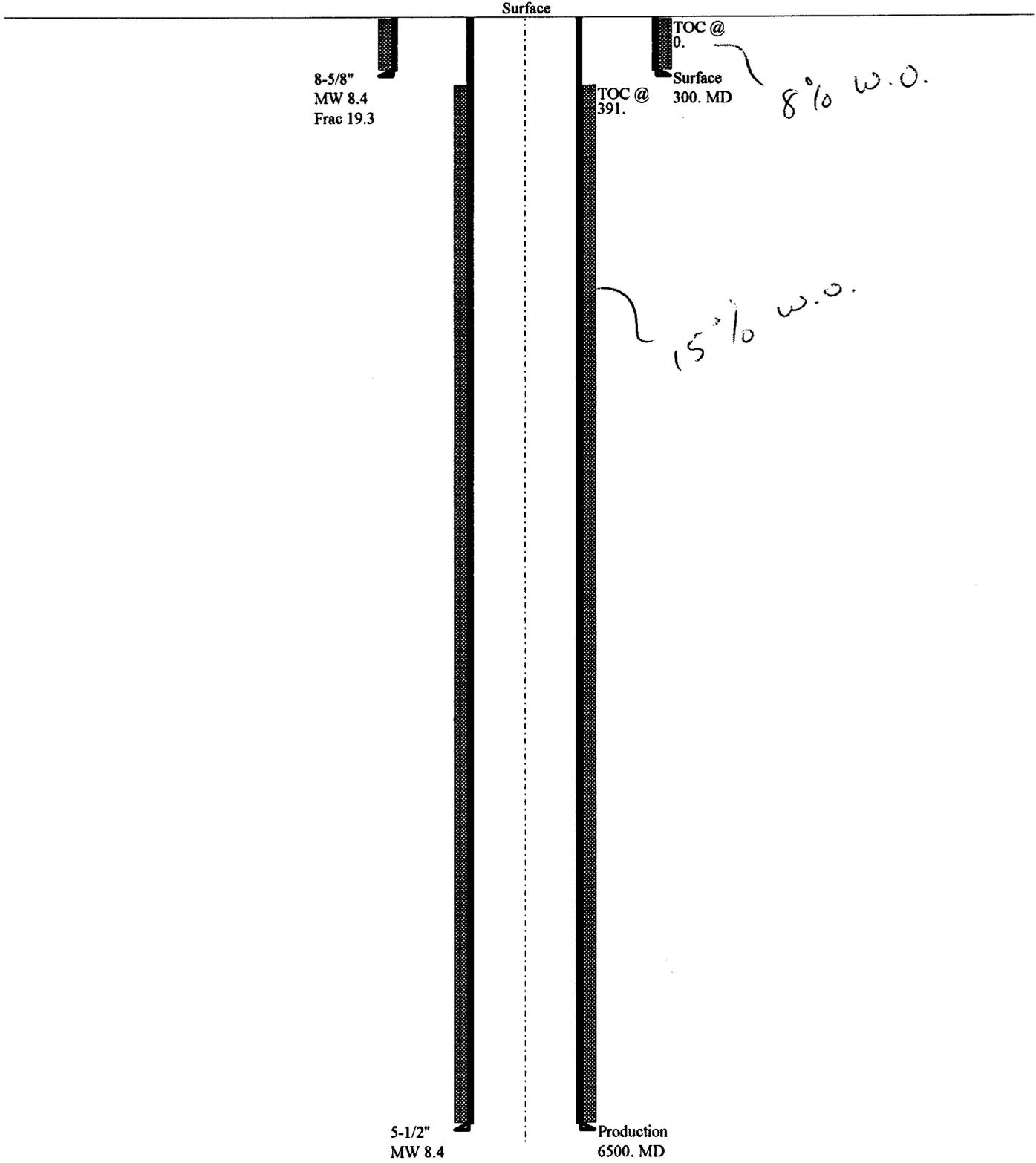
Date: December 1, 1998
Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.
Collapse is based on a vertical depth of 6500 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes.
In addition, burst strength is biaxially adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Inland Odekirk 16-36-8-17

Casing Schematic



ON-SITE PREDRILL EVALUATION

Division of Oil, Gas and Mining

OPERATOR: INLAND PRODUCTION CO.

WELL NAME & NUMBER: ODEKIRK SPRING 16-36

API NUMBER: 43-047-33200

LEASE: ML 44305 FIELD/UNIT: MONUMENT BUTTE

LOCATION: 1/4, 1/4 SE/SE Sec: 36 TWP: 8S RNG: 17E 689' FSL 586' FEL

GPS COORD (UTM) 12589786E 4435724N

SURFACE OWNER: STATE TRUST LANDS

PARTICIPANTS

BRAD MECHAM, (INLAND); DAVID W. HACKFORD (DOGM).

REGIONAL/LOCAL SETTING & TOPOGRAPHY

SITE IS LOCATED IN A SHALLOW BOWL WITH 15' HIGH RIDGES NORTH, WEST, AND SOUTH OF SITE. DRAINAGE IS TO THE NORTHEAST.

SURFACE USE PLAN

CURRENT SURFACE USE: LIVESTOCK AND WILDLIFE GRAZING.

PROPOSED SURFACE DISTURBANCE: LOCATION WILL BE 290' X 210'.
ACCESS ROAD WILL BE 0.3 MILES.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: SEE ATTACHED MAP FROM GIS DATABASE.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: _____
ALL PRODUCTION FACILITIES WILL BE ON LOCATION AND ADDED AFTER DRILLING WELL. IT ISN'T EXPECTED THAT A PIPELINE WILL BE REQUIRED FOR THIS WELL.

SOURCE OF CONSTRUCTION MATERIAL: ALL CONSTRUCTION MATERIAL WILL BE BORROWED FROM THIS SITE DURING CONSTRUCTION AND IS NATIVE.

ANCILLARY FACILITIES: NONE WILL BE REQUIRED.

WASTE MANAGEMENT PLAN:

DRILLED CUTTINGS WILL BE SETTLED INTO RESERVE PIT. LIQUIDS FROM PIT WILL BE ALLOWED TO EVAPORATE. FORMATION WATER WILL BE CONFINED TO STORAGE TANKS. SEWAGE FACILITIES, STORAGE AND DISPOSAL WILL BE HANDLED BY COMMERCIAL CONTRACTOR. TRASH WILL BE CONTAINED IN TRASH BASKETS AND HAULED TO AN APPROVED LAND FILL.

ENVIRONMENTAL PARAMETERS

AFFECTED FLOODPLAINS AND/OR WETLANDS: NONE

**Evaluation Ranking Criteria and Ranking Score
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	<u>0</u>
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	<u>0</u>
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	15	<u>0</u>
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	<u>0</u>
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	<u>10</u>
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	15	
TDS >10000 or Oil Base	20	
Mud Fluid containing high levels of hazardous constituents		<u>5</u>
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	<u>0</u>
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	<u>0</u>
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	<u>0</u>
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	<u>0</u>
Final Score (Level II Sensitivity)		<u>15</u>

FLORA/FAUNA: NATIVE GRASSES, SHADSCALE, SALTBRUSH:
PRONGHORN, RODENTS, COYOTES, SONGBIRDS, RAPTORS.

SOIL TYPE AND CHARACTERISTICS: LIGHT BROWN SANDY CLAY WITH MULTI-
COLORED SHALE ROCKS.

SURFACE FORMATION & CHARACTERISTICS: UINTA FORMATION, SOUTH FLANK OF
THE UINTA MOUNTAINS.

EROSION/SEDIMENTATION/STABILITY: MINOR EROSION, MINOR SEDIMENTATION,
NO STABILITY PROBLEMS ANTICIPATED.

PALEONTOLOGICAL POTENTIAL: NONE OBSERVED.

RESERVE PIT

CHARACTERISTICS: 110' BY 40' AND 8' DEEP.

LINER REQUIREMENTS (Site Ranking Form attached): A LINER WILL NOT BE
REQUIRED.

SURFACE RESTORATION/RECLAMATION PLAN

AS PER STATE LANDS.

SURFACE AGREEMENT: STATE TRUST LANDS.

CULTURAL RESOURCES/ARCHAEOLOGY: A REPORT OF THE ARCHAEOLOGY INVESTIGATION
WAS SUBMITTED WITH THE APD.

OTHER OBSERVATIONS/COMMENTS

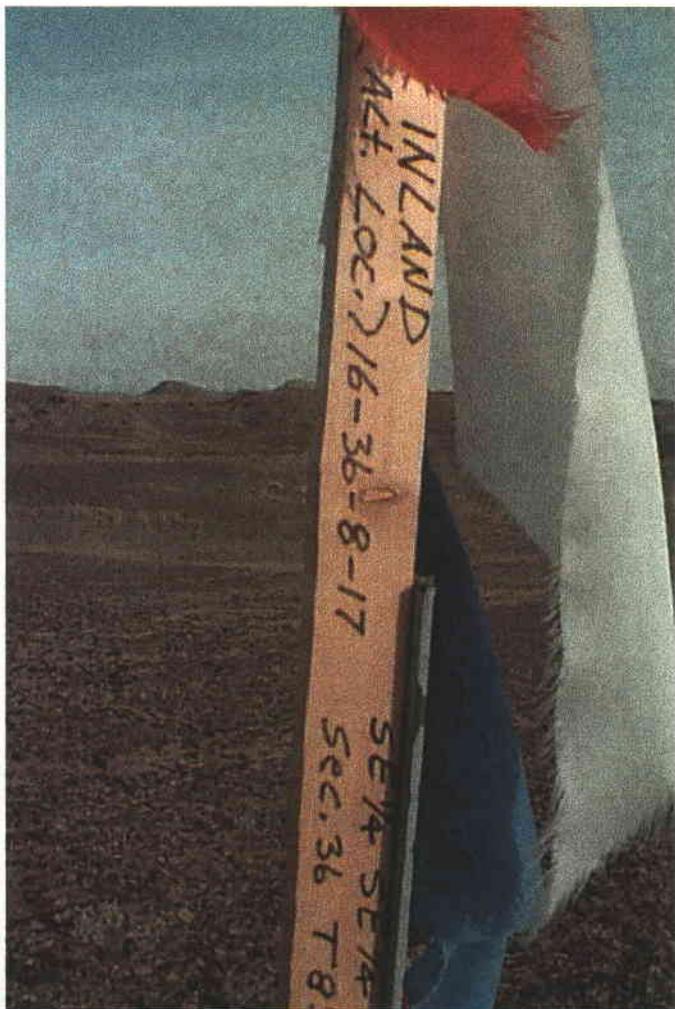
INVESTIGATION WAS DONE ON A COLD DAY WITH NO SNOW COVER.

ATTACHMENTS:

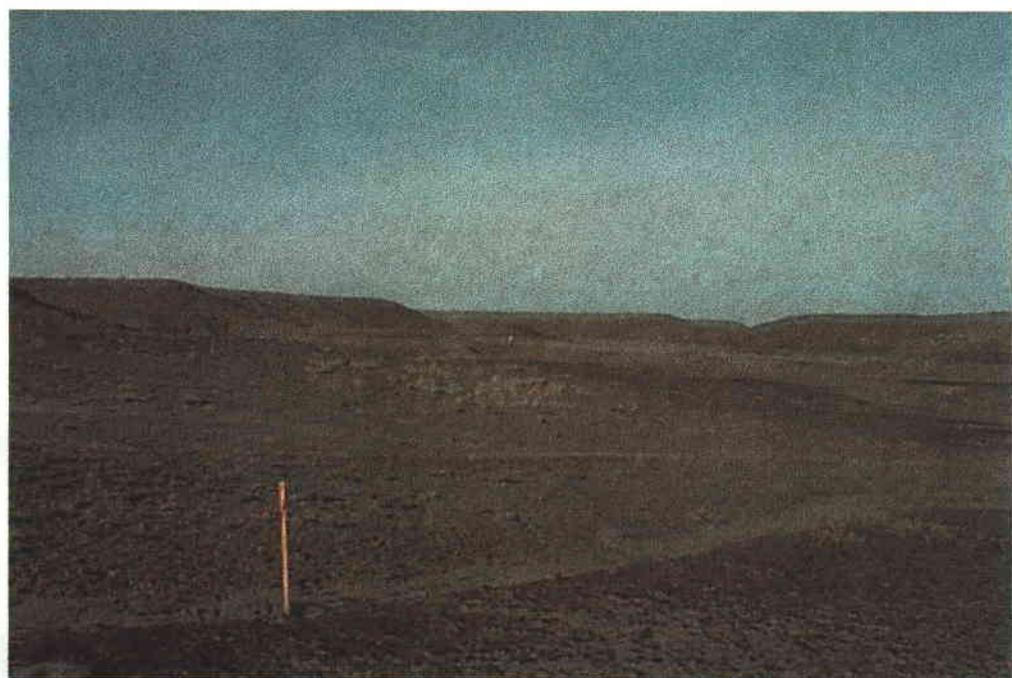
PHOTOS OF PROPOSED SITE WILL BE PLACED ON FILE.

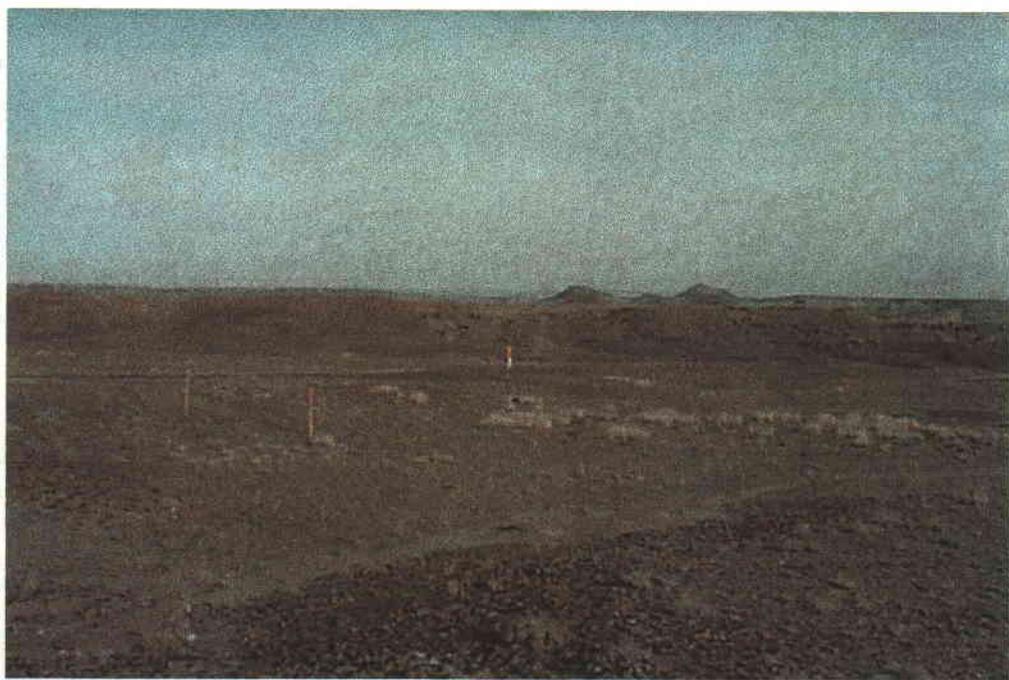
DAVID W. HACKFORD
DOGM REPRESENTATIVE

11/20/98 9:00 AM
DATE/TIME













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

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

Lowell P. Braxton
Division Director

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

December 1, 1998

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

Re: Odekirk Spring 16-36-8-17 Well, 669' FSL, 586' FEL, SE SE, Sec. 36, T. 8 S.,
R. 17 E., Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-33200.

Sincerely,


John R. Baza
Associate Director

lwp

Enclosures

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

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

1. SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals.) OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. <p style="text-align: center;">ML-44305</p> 6. IF INDIAN, ALLOTTEE OR TRIBAL NAME <p style="text-align: center;">N/A</p> 7. UNIT AGREEMENT NAME <p style="text-align: center;">N/A</p>	
2. NAME OF OPERATOR <p style="text-align: center;">INLAND PRODUCTION COMPANY</p>		8. FARM OR LEASE NAME <p style="text-align: center;">Odekirk Spring 16-36-8-17</p>	
3. ADDRESS OF OPERATOR <p style="text-align: center;">410 17TH STREET, SUITE 700, DENVER, COLORADO 80202 (303) 893-0102</p>		9. WELL NO. <p style="text-align: center;">16-36</p>	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface <p style="text-align: center;">SE/SE 669' FSL 586' FEL</p>		10. FIELD AND POOL, OR WILDCAT <p style="text-align: center;">Monument Butte</p> 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA <p style="text-align: center;">SE/SE Sec. 36 T8S R17E</p>	
14. API NUMBER <p style="text-align: center;">43-047-33200</p>	15. ELEVATIONS (Show whether DF, RT, GR, etc.) <p style="text-align: center;">4981.3' GR</p>	12. COUNTY OR PARISH <p style="text-align: center;">Uintah</p>	13. STATE <p style="text-align: center;">UT</p>

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>		(OTHER) _____	<input type="checkbox"/>
(OTHER) <input checked="" type="checkbox"/>	APD Extension	(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Inland Production Company requests that a one year APD extension be granted to the above referenced location

COPY SENT TO OPERATOR
 Date: 2-16-00
 initials: CHD

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

Date: 2/16/00
 By: Bradley G. Hill

RECEIVED
 FEB 14 2000
 DIVISION OF
 OIL, GAS AND MINING

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

SIGNED Jon Holst TITLE Counsel DATE 2/10/99

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

INLAND PRODUCTION COMPANY
GEOLOGIC PROGNOSIS AND LOG DISTRIBUTION LIST

(Updated 8/24/00)

WELL: Odekirk Spring 16-36-8-17

API Number: 43-047-33200

LOCATION: 669' FSL, 586' FEL (SESE)

Section 36, T8S, R17E

Uintah County, Utah

ELEVATION: 4981' Ground

4991' KB

TOPS:

Uinta Formation	surface
Green River Formation	
Garden Gulch Member	3885'
Point Three Marker	4385'
'X' Marker	4605'
'Y' Marker	4642'
Douglas Creek Member	4770'
Bicarbonate	5000'
B Limestone	5110'
Castle Peak Limestone	5595'
Basal Limestones	

ANTICIPATED PAY SANDS:

C	4950'
B-1	5075'
A-1	5245'
A-3	5285'
LODC	5310'
CP.5	5610'
CP-2	5670'
CP-3	5745'

TOTAL DEPTH: 5950'

CORES: None planned

DSTS: None planned

SAMPLES: 30' samples from 3000' to TD

DRILLING:

Union Rig#14: (435) 828 6434

Pusher: (435) 828 6433 Rex Harris

Superintendent: David Gray (435) 828 8031 (cellular)

REPORT WATER FLOWS TO UTAH DIVISION OF OIL, GAS AND MINING: (801) 538 5340

OPEN HOLE LOGGING:

Phoenix Surveys: David Jull (435) 637 4420

DIGL/SP/GR Suite: TD to surface casing

CDL/CNL/GR/CAL Suite logs: TD to 3000'

Gamma Ray scale 0-150

Matrix density 2.68

LAS data floppy required.

DATA DISTRIBUTION:

Inland Production Company (Mail 6 copies)
Route #3 Box 3630
Myton, UT 84052
Attn: Brad Mecham

Inland Production Company (Mail 6 copies,
EXPRESS)
410 17th St., Suite 700
Denver, CO 80202
Fax: 303-382-4455
Attn: Madalyn M. Runge

State of Utah
Division of Oil, Gas and Mining (Mail 1 copy)
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Bureau of Land Management (Mail 1 copy)
170 S. 500 East
Vernal, UT 84078
Attn: Ed Forsman

COMPANY CONTACTS:

Pat Wisener (District Drilling Foreman)
(435) 646 3721 office
(435) 646 3031 office fax
(435) 823 7468 cellular
(435) 646 1270 pager

Brad Mecham (District Manager)
(435) 646 3721 office
(435) 646 3031 office fax
(435) 823 6205 cellular
(435) 353 4211 home

Kevin Weller (Operations Manager)
(303) 382-4436 office
(303) 279-7945 home
(303) 358-3080 cellular

PARTNERS:

Yates Drilling Company
Abo Petroleum Corporation
Myco Industries, Inc.
Attention: Mark Mauritsen
105 South Fourth Street
Artesia, NM 88210
(505) 748 1471
(505) 748 4570 office fax
(Mail 1 field print & 2 copies of the final prints)
(Fax 1 Field print to: (505) 748 4321)

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: INLAND PRODUCTION COMPANY

Well Name: ODEKIRK SPRING 16-36-8-17

Api No. 43-047-33200 LEASE TYPE: STATE

Section 36 Township 08S Range 17E County UINTAH

Drilling Contractor LEON ROSS DRILLING RIG # 14

SPUDDED:

Date 09/30/2000

Time 3:00 PM

How DRY

Drilling will commence _____

Reported by PAT WISENER

Telephone # 1-435-823-7468

Date 10/02/2000 Signed: CHD

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

1 SUNDRY NOTICES AND REPORTS ON WELLS <small>(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals.)</small>		5. LEASE DESIGNATION AND SERIAL NO. <p style="text-align: center;">ML - 44305</p>	
2 NAME OF OPERATOR <p style="text-align: center;">INLAND PRODUCTION COMPANY</p>		6. IF INDIAN, ALLOTTEE OR TRIBAL NAME <p style="text-align: center;">N/A</p>	
3 ADDRESS OF OPERATOR <p style="text-align: center;">Route 3, Box 3630 Myton, Utah 84052 (435) 646-3721</p>		7. UNIT AGREEMENT NAME <p style="text-align: center;">N/A</p>	
4 LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) <small>At surface</small> <p style="text-align: center;">669' FSL & 586' FEL SE/SE</p>		8. FARM OR LEASE NAME <p style="text-align: center;">Odekirk Spring</p>	
14 API NUMBER <p style="text-align: center;">43-047-33200</p>		9. <p style="text-align: center;"># 16-36-8-17</p>	
15 ELEVATIONS (Show whether DF, RT, GR, etc.) <p style="text-align: center;">4981.3' GR</p>		10 FIELD AND POOL OR WILDCAT <p style="text-align: center;">Monument Butte</p>	
12 COUNTY OR PARISH <p style="text-align: center;">Uintah</p>		11 SEC., T., R., M., OR BLK. AND SURVEY OR AREA <p style="text-align: center;">Sec 36, T8s, R17E</p>	
13 STATE <p style="text-align: center;">UT</p>			

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

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	
(OTHER) _____ <input type="checkbox"/>	

WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
(OTHER) <u>Surface Spud</u> <input checked="" type="checkbox"/>	

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

17 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

MIRU Ross rig #14. Spud well @ 3:00pm on 9/29/00. Drill 121/4" hole to a depth of 311'. PU & MU 7 jt's 85/8" J-55 24# csgn set depth of 295.13 G. L. Will cement on 10/2/00.

RECEIVED
OCT 01 2000
DIVISION OF
OIL, GAS AND MINING

18 I hereby certify that the foregoing is true and correct

SIGNED *Pat Wisena* TITLE Drilling Foreman DATE 10/02/2000

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

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

1. SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NO. ML - 44305	
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals.)		6. IF INDIAN, ALLOTTEE OR TRIBAL NAME N/A	
OIL <input type="checkbox"/> GAS <input type="checkbox"/> WELL <input checked="" type="checkbox"/> WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME N/A	
2. NAME OF OPERATOR INLAND PRODUCTION COMPANY		8. FARM OR LEASE NAME Odekirk Spring	
3. ADDRESS OF OPERATOR Route 3, Box 3630 Myton, Utah 84052 (435) 646-3721		9. # 16-36-8-17	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 669' FSL & 586' FEL SE/SE		10. FIELD AND POOL, OR WILDCAT Monument Butte	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 36, T8s, R17E	
14. API NUMBER 43-047-33200	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4981.3' GR	12. COUNTY OR PARISH Uintah	13. STATE UT

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

<p>NOTICE OF INTENTION TO:</p> <p>TEST WATER SHUT-OFF <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/></p> <p>FRACTURE TREAT <input type="checkbox"/> MULTIPLE COMPLETE <input type="checkbox"/></p> <p>SHOOT OR ACIDIZE <input type="checkbox"/> ABANDON* <input type="checkbox"/></p> <p>REPAIR WELL <input type="checkbox"/></p> <p>(OTHER) _____ <input type="checkbox"/></p>	<p>SUBSEQUENT REPORT OF:</p> <p>WATER SHUT-OFF <input type="checkbox"/> REPAIRING WELL <input type="checkbox"/></p> <p>FRACTURE TREATMENT <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>SHOOTING OR ACIDIZING <input type="checkbox"/> ABANDONMENT* <input type="checkbox"/></p> <p>(OTHER) <u>Weekly Status</u> <input checked="" type="checkbox"/></p> <p>(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)</p>
---	--

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Weekly status report for the period of Oct. 2 - Oct. 9, 2000
 MIRU Ross rig #14. Spud well @ 3:00pm on 9/29/00. Drill 121/4" hole to a depth of 311'. PU & MU 7 jt's 85/8" J-55
 24# csgn set depth of 295.13 G. L. Rig up B.J. and cement as follows: Cement with *155 sks class "G" w/ 2% CaCL2 &
 1/4#/sk Cello-flake mixed @ 15.8ppg.>1.17 YLD. Estimated 6 bbls cement to surface. Wait on drilling rig.

RECEIVED

OCT 11 2000

DIVISION OF
OIL, GAS AND MINING

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

SIGNED *Pat Wisen* TITLE Drilling Foreman DATE 10/09/2000

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

INLAND PRODUCTION COMPANY - CASING & CEMENT REPORT

8 5/8 CASING SET AT 305.13

LAST CASING 8 5/8" SET AT 305.13
 DATUM 10' KB
 DATUM TO CUT OFF CASING _____
 DATUM TO BRADENHEAD FLANGE _____
 TD DRILLER 311' LOGGER _____
 HOLE SIZE 12 1/4

OPERATOR Inland Production Company
 WELL Odekirk Springs 16-36-8-17
 FIELD/PROSPECT Monument Butte
 CONTRACTOR & RIG # Union # 14

LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		LANDING JT					3.7
		WHI - 92 csg head			8rd	A	0.95
7	8 5/8"	Maverick ST&C csg	24#	J-55	8rd	A	293.28
		GUIDE shoe			8rd	A	0.9
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING			298.83
TOTAL LENGTH OF STRING		298.83	7	LESS CUT OFF PIECE			3.7
LESS NON CSG. ITEMS		5.55		PLUS DATUM TO T/CUT OFF CSG			10
PLUS FULL JTS. LEFT OUT		0		CASING SET DEPTH			305.13
TOTAL		293.28	7	} COMPARE OCT 11 2000 DIVISION OF OIL, GAS AND MINING			
TOTAL CSG. DEL. (W/O THRDS)		293.28	7				
TIMING		1ST STAGE		GOOD CIRC THRU JOB			YES
BEGIN RUN CSG.		RAT Hole	09/29/2000	Bbls CMT CIRC TO SURFACE			6 BBLs
CSG. IN HOLE				RECIPROCATED PIPE FOR			THRU _____ FT STROKE
BEGIN CIRC				DID BACK PRES. VALVE HOLD ?			N/A
BEGIN PUMP CMT				BUMPED PLUG TO			250 PSI
BEGIN DSPL. CMT							
PLUG DOWN		cemented	10/03/2000				

CEMENT USED		CEMENT COMPANY- BJ	
STAGE	# SX	CEMENT TYPE & ADDITIVES	
1	155	Class "G" w/ 2% CaCL2 + 1/4#/sk Cello-Flake mixed @ 15.8 ppg 1.17 cf/sk yield	
CENTRALIZER & SCRATCHER PLACEMENT		SHOW MAKE & SPACING	
Centralizers - Middle first, top second & third for 3			

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

1. SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NO. ML - 44305	
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals.)		6. IF INDIAN, ALLOTTEE OR TRIBAL NAME N/A	
OIL <input type="checkbox"/> GAS <input type="checkbox"/> WELL <input checked="" type="checkbox"/> WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME N/A	
2. NAME OF OPERATOR INLAND PRODUCTION COMPANY		8. FARM OR LEASE NAME Odekirk Spring	
3. ADDRESS OF OPERATOR Route 3, Box 3630 Myton, Utah 84052 (435) 646-3721		9. # 16-36-8-17	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 669' FSL & 586' FEL SE/SE		10. FIELD AND POOL, OR WILDCAT Monument Butte	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 36, T8s, R17E	
14. API NUMBER 43-047-33200	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4981.3' GR	12. COUNTY OR PARISH Uintah	13. STATE UT

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

NOTICE OF INTENTION TO: TEST WATER SHUT-OFF <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> MULTIPLE COMPLETE <input type="checkbox"/> SHOOT OR ACIDIZE <input type="checkbox"/> ABANDON* <input type="checkbox"/> REPAIR WELL <input type="checkbox"/> <input type="checkbox"/> (OTHER) <input type="checkbox"/>	SUBSEQUENT REPORT OF: WATER SHUT-OFF <input type="checkbox"/> REPAIRING WELL <input type="checkbox"/> FRACTURE TREATMENT <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> SHOOTING OR ACIDIZING <input type="checkbox"/> ABANDONMENT* <input type="checkbox"/> (OTHER) <u>Weekly Status</u> <input checked="" type="checkbox"/> (Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
---	---

17 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Weekly status report for the period of Oct. 16 - Oct. 23, 2000

MIRU Union #14. Set equipment. Nipple up BOP's and test BOP's, Choke manifold, Kelly, TIW, to 2,000 psi. Test 85/8" csgn to 1,500 psi. Roosevelt office of DOGM & Vernal BLM were notified by phone. Drill out cement and shoe. Drill 7 7/8" hole with air mist to a depth of 3160'. NOTE; hit water flow @ 3044' EST @ 12/GPM. TOH with drill string & BHA. PU & MU bit#2, MM, & BHA. Drill 7 7/8" hole with water based mud to a depth of 3408'.

18 I hereby certify that the foregoing is true and correct

SIGNED *Pat W. Jensen* TITLE Drilling Foreman DATE 10/23/2000

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY

* See Instructions On Reverse Side

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

1. SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NO. ML - 44305	
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals.)		6. IF INDIAN, ALLOTTEE OR TRIBAL NAME N/A	
OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		7. UNIT AGREEMENT NAME N/A	
2. NAME OF OPERATOR INLAND PRODUCTION COMPANY		8. FARM OR LEASE NAME Odekirk Spring	
3. ADDRESS OF OPERATOR Route 3, Box 3630 Myton, Utah 84052 (435) 646-3721		9. # 16-36-8-17	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 669' FSL & 586' FEL SE/SE		10. FIELD AND POOL, OR WILDCAT Monument Butte	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 36, T8s, R17E	
14. API NUMBER 43-047-33200	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4981.3' GR	12. COUNTY OR PARISH Uintah	13. STATE UT

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

<p>NOTICE OF INTENTION TO:</p> <p>TEST WATER SHUT-OFF <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/></p> <p>FRACTURE TREAT <input type="checkbox"/> MULTIPLE COMPLETE <input type="checkbox"/></p> <p>SHOOT OR ACIDIZE <input type="checkbox"/> ABANDON* <input type="checkbox"/></p> <p>REPAIR WELL <input type="checkbox"/></p> <p>(OTHER) _____ <input type="checkbox"/></p>	<p>SUBSEQUENT REPORT OF:</p> <p>WATER SHUT-OFF <input type="checkbox"/> REPAIRING WELL <input type="checkbox"/></p> <p>FRACTURE TREATMENT <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>SHOOTING OR ACIDIZING <input type="checkbox"/> ABANDONMENT* <input type="checkbox"/></p> <p>(OTHER) <u>Weekly Status</u> <input checked="" type="checkbox"/></p> <p>(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)</p>
---	--

17 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Weekly status report for the period of Oct. 24 - Oct. 30, 2000

Con't to drill a 77/8" hole with air mist to a depth of 3160'. Hit water flow at 3044' depth estimated @ 12/gpm. TOH with drill string & BHA. PU & MU bit #2, MM, & BHA. Drill 77/8" hole with water based mud to a depth of 5965'. TOH and lay down drill string & BHA. Open hole log well bore. PU & MU 1jt 51/2" csgn. Float collar, 139jt's 51/2" 15.5# J-55 csgn. Set @ 5947/KB. Cement with the following; *410 sks Premlite II w/8% GEL. & 3% KCL mixed to 12.ppg >2.46 YLD. *5450 sks 50/50 POZ w/3% GEL. & 3% KCL mixed to 14.4 ppg. >1.23 YLD. Good returns through out job. Est 6 bbls cement to surface.. Bump plug to 2800 psi. Nipple down BOP's. Drop slips with 76,000#. Release rig @ 12:00am 10/26/00. WOC

18 I hereby certify that the foregoing is true and correct

SIGNED *Pat Wisen* TITLE Drilling Foreman DATE 10/30/2000

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

* See Instructions On Reverse Side

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DIVISION OF
OIL, GAS AND MINING

INLAND PRODUCTION COMPANY - CASING & CEMENT REPORT

5 1/2" CASING SET AT 5947.74

FC@ 5911'

LAST CASING 8 5/8" SET AT 305.13
 DATUM 10' KB
 DATUM TO CUT OFF CASING _____
 DATUM TO BRADENHEAD FLANGE _____
 TD DRILLER 5965' LOGGER 5975'
 HOLE SIZE 7 7/8"

OPERATOR Inland Production Company
 WELL Odekirk Springs 16-36-8-17
 FIELD/PROSPECT Monument Butte
 CONTRACTOR & RIG # Union # 14

LOG OF CASING STRING:							
PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
		LANDING JT					14
139	5 1/2"	Maverick LT&C csg	15.5#	J-55	8rd	A	5901.49
		Float Collar (auto fill)			8rd	A	0.65
1	5 1/2"	Maverick LT&C csg	15.5#	J-55	8rd	A	35
		GUIDE shoe			8rd	A	0.6
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING			5951.74
TOTAL LENGTH OF STRING		5951.74	140	LESS CUT OFF PIECE			14
LESS NON CSG. ITEMS		15.25		PLUS DATUM TO T/CUT OFF CSG			10
PLUS FULL JTS. LEFT OUT		128.42	3	CASING SET DEPTH			5947.74
TOTAL		6064.91	143	} COMPARE			
TOTAL CSG. DEL. (W/O THRDS)		6064.91	143				
TIMING		1ST STAGE	2nd STAGE				
BEGIN RUN CSG.		12:30pm		GOOD CIRC THRU JOB <u>YES</u>			
CSG. IN HOLE		4:00pm		Bbls CMT CIRC TO SURFACE <u>6</u>			
BEGIN CIRC		4:10pm	5:26pm	RECIPROCATED PIPE FOR <u>15</u> mins THRU <u>8'</u> FT STROKE			
BEGIN PUMP CMT		5:34pm	6:05pm	DID BACK PRES. VALVE HOLD ? <u>YES</u>			
BEGIN DSPL. CMT			6:30pm	BUMPED PLUG TO <u>2800</u> PSI			
PLUG DOWN			6:57pm				
CEMENT USED		CEMENT COMPANY- BJ					
STAGE	# SX	CEMENT TYPE & ADDITIVES					
1	410	Prem Lite II w/ .5%SMS, 8% GEL, 3#sk BA90, 5#sk K-seal, & 3% KCL mixed to 12.0 ppg > 2.46 YLD					
2	545	50/50 POZ w/ 2% GEL & 3% KCL mixed to 14.4 ppg > 1.23 YLD					
CENTRALIZER & SCRATCHER PLACEMENT				SHOW MAKE & SPACING			
Centralizers - Middle first, top second & third. Then every third collar for a total of 20.				NOV 6 2000			
				DIVISION OF OIL, GAS AND MINING			

COMPANY REPRESENTATIVE Pat Wisener DATE 10/26/2000

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

REPORT OF WATER ENCOUNTERED DURING DRILLING

Well name and number: Odekirk Springs 16-36

API number: 43-047-33200

Well Location: QQ SE/SE Section 36 Township 8S Range 17E County UINTAH

Well Operator: INLAND PRODUCTION COMPANY

Address: Route 3 Box 3630

Myton, Utah 84052 Phone: 435-646-3721

Drilling Contractor: Union Drilling

Address: Drawer 40

Buckhannon, WV 26201 Phone: 304-472-4610

Water encountered (attach additional pages as needed):

DEPTH		VOLUME (FLOW RATE OR HEAD)	QUALITY (FRESH OR SALTY)
FROM	TO		
3044'	3060'	Estimated @ 9gals/MIN.	TRONA (salty)

Formation Tops: Surface (Uinta)

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DIVISION OF
OIL, GAS AND MINING

If an analysis has been made of the water encountered, please attach a copy of the report to this form. YES

I hereby certify that this report is true and complete to the best of my knowledge. Date: 10/23/00

Name & Signature: *Pat Wiseman* Time: 10:00 AM

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INLAND
PRODUCTION CO.

WATER ANALYSIS REPORT

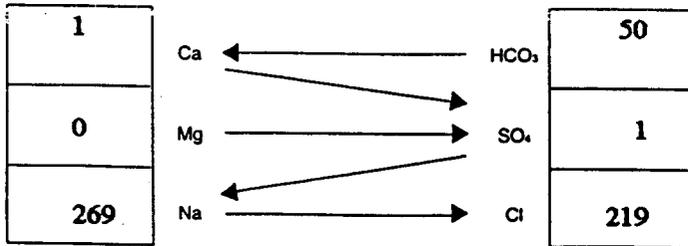
Company Inland Address _____ Date 10/30/00
Source Oderkirk Springs Date Sampled _____ Analysis No. _____

16-36-8-17

	Analysis	mg/l(ppm)	*Meg/l
1. PH	9.7		
2. H ₂ S (Qualitative)	0.0		
3. Specific Gravity	1.015		
4. Dissolved Solids		16,173	
5. Alkalinity (CaCO ₃)		CO ₃ 900	30 CO ₃
6. Bicarbonate (HCO ₃)		HCO ₃ 1,220	61 HCO ₃
7. Hydroxyl (OH)		OH 0	0 OH
8. Chlorides (Cl)		Cl 7,990	35.5 Cl
9. Sulfates (SO ₄)		SO ₄ 50	1 SO ₄
10. Calcium (Ca)		Ca 16	1 Ca
11. Magnesium (Mg)		Mg 0	0 Mg
12. Total Hardness (CaCO ₃)		40	
13. Total Iron (Fe)		1.6	
14. Manganese		0.0	
15. Phosphate Residuals			

*Milli equivalents per liter

PROBABLE MINERAL COMPOSITION



Compound	Eq. Wt.	X	Meg/l	=	Mg/l
Ca(HCO ₃) ₂	81.04		1		81
CaSO ₄	68.07				
CaCl ₂	55.50				
Mg(HCO ₃) ₂	73.17				
MgSO ₄	60.19				
MgCl ₂	47.62				
NaHCO ₃	84.00		49		4,116
Na ₂ SO ₄	71.03		1		71
NaCl	58.46		219		12,803

Saturation Values	Distilled Water 20°C
CaCO ₃	13 Mg/l
CaSO ₄ · 2H ₂ O	2,090 Mg/l
MgCO ₃	103 Mg/l

Complete

REMARKS _____

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NOV 19 2000

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

SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NO. ML-44305	
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals.)		6. IF INDIAN, ALLOTTEE OR TRIBAL NAME N/A	
OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> <input checked="" type="checkbox"/> OIL WELL		7. UNIT AGREEMENT NAME NA	
2. NAME OF OPERATOR INLAND PRODUCTION COMPANY		8. FARM OR LEASE NAME Odekirk Spring 16-36-8-17	
3. ADDRESS OF OPERATOR Route 3, Box 3630 Myton, Utah 84052 (435) 646-3721		9. WELL NO. 16-36-8-17	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 669' FSL & 586' FEL SE/SE		10. FIELD AND POOL, OR WILDCAT Monument Butte	
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 36, T8S, R17E	
14. API NUMBER 43-047-33200	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4981.3' GR	12. COUNTY OR PARISH Uintah	13. STATE UT

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

<p>NOTICE OF INTENTION TO:</p> <p>TEST WATER SHUT-OFF <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/></p> <p>FRACTURE TREAT <input type="checkbox"/> MULTIPLE COMPLETE <input type="checkbox"/></p> <p>SHOOT OR ACIDIZE <input type="checkbox"/> ABANDON* <input type="checkbox"/></p> <p>REPAIR WELL <input type="checkbox"/></p> <p>(OTHER) _____ <input type="checkbox"/></p>	<p>SUBSEQUENT REPORT OF:</p> <p>WATER SHUT-OFF <input type="checkbox"/> REPAIRING WELL <input type="checkbox"/></p> <p>FRACTURE TREATMENT <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>SHOOTING OR ACIDIZING <input type="checkbox"/> ABANDONMENT* <input type="checkbox"/></p> <p>(OTHER) <u>Weekly Status</u> <input checked="" type="checkbox"/></p> <p>(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)</p>
---	--

17 DESCRIBE PROPOSED OR COMPLETED OPERATIONS. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Status report for time period 11/27/00 through 12/3/00.
Subject well had completion procedures initiated on 11/27/00. A total of 4 Green River intervals were perforated and hydraulically fractured. Bridge plugs and sand plugs were removed from wellbore. Zones were swab tested to clean up sand. Production equipment was ran in well. Well began producing on pump on 12/2/00.

18 I hereby certify that the foregoing is true and correct

SIGNED Gary Dietz TITLE Completion Foreman DATE 12/4/00

Gary Dietz

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

* See Instructions On Reverse Side

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MAY 15 2001
DIVISION OF
OIL, GAS AND MINING



December 18, 2000

Mr. Brad Hill

Please find the enclosed Cement Bond Logs for the following Wells:

ODEKIRK SPRING----7-36-8-17

ODEKIRK SPRING----9-36-8-17

ODEKIRK SPRING---11-36-8-17

43-047-33200 **ODEKIRK SPRING---16-36-8-17** *Log filed with log files TOBS R19E Sec. 36*

We have not received the Logs on the Odekirk Spring 13-36-8-17 and the Castle Peak Unit as of yet when we receive them I will forward them on to you.

Thank you,

Cyndee Miller
Operations Secretary

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DEC 19 2000

DIVISION OF
OIL, GAS AND MINING

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WORK
 OIL WELL GAS WELL DRY Other _____
 1b. TYPE OF WELL
 NEW WELL WORK OVER DEEPEN PLUG BACK DIFF RESVR. Other _____

5. LEASE DESIGNATION AND SERIAL NO.
ML-44305
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME
NA
 7. UNIT AGREEMENT NAME
NA
 8. FARM OR LEASE NAME, WELL NO.
ODEKIRK SPRING 16-36-8-17

2. NAME OF OPERATOR
INLAND RESOURCES INC.
 9. API WELL NO.
43-047-33200

3. ADDRESS AND TELEPHONE NO.
410 17th St. Suite 700 Denver, CO 80202
 10. FIELD AND POOL OR WILDCAT
MONUMENT BUTTE

4. LOCATION OF WELL (Report locations clearly and in accordance with any State requirements.)*
 At Surface
SE SE 669' FSL 586' FEL
 At top prod. Interval reported below
 At total depth

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
Section 36, T8S R17E

14. PERMIT NO. 43-047-33200 DATE ISSUED 12/01/98
 12. COUNTY OR PARISH UINTAH 13. STATE UT

15. DATE SPUDDED 9/29/00 16. DATE T.D. REACHED 10/26/00 17. DATE COMPL. (Ready to prod.) 12/03/00
 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* KB 44 GR 19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD 5965 21. PLUG BACK T.D., MD & TVD 5890 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY -----> 24. ROTARY TOOLS X 25. CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*
Green River
 25. WAS DIRECTIONAL SURVEY MADE
No

26. TYPE ELECTRIC AND OTHER LOGS RUN
DIGL/SP/GR/CAL & CN/CD/GR - CBL - 12-12-00
 27. WAS WELL CORED
No

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

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8	24#	306	12-1/4	Prem Lite II w/ 8% Gel & 3% KCL	
5-1/2	15.5#	5948	7-7/8	50/50 POZ 2% Gel & 3% KCL	

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8	EOT @ 6023'	TA @ 5856'

31. PERFORATION RECORD (Interval, size and number)

INTERVAL	SIZE	NUMBER
(B1SDS) 5066-70', 5073-75', 5084-94', 5102-08"	4	176
(D2 SDS) 4856-60', 4863-70'	4	44
(A3 SD) 5298-5308, 5332-36', 5338-42'	4	72
(CP1 SD) 5700-06'	4	24

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5066-70, 5073-75, 5084-94, 5102-08	167,000# 20/40 sd 968 bbls fluid
4856-60, 4863-70	40,000# 20/40 sd in 321 bbls fluid
5298-5308, 5332-36, 5338-42	157,136# 20/40 sd in 1005 bbls fluid
5700-06	25,000# 20/40 in 291 bbls fluid

33.* PRODUCTION
 DATE FIRST PRODUCTION 12/02/00
 PRODUCTION METHOD (Flowing, gas lift, pumping--size and type of pump) 2-1/2" x 1-1/2" x 16' RHAC Pump
 WELL STATUS (Producing or shut-in)

DATE OF TEST 10 day ave
 HOURS TESTED
 CHOKER SIZE
 PROD'N FOR TEST PERIOD
 OIL--BBL. 514.1 GAS--MCF. 135 WATER--BBL. 32.263
 GAS-OIL RATIO
 FLOW. TUBING PRESS. CASING PRESSURE CALCULATED 24-HOUR RATE OIL-BBL. GAS--MCF. WATER--BBL.

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold & Used for Fuel
 TEST WITNESSED BY DEC 21 2000

35. LIST OF ATTACHMENTS
Logs In Item #26
 DIVISION OF OIL, GAS AND MINING

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
 SIGNED Cavin S. Weller TITLE Manager, Development operations DATE 12/19/00

*(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
			ODEKIRK SPRING 16-36-8-17	Garden Gulch Mkr	4028	
				Garden Gulch 2	4193	
				Point 3 Mkr	4396	
				X Mkr	4619	
				Y-Mkr	4655	
				Douglas Creek Mkr	4782	
				BiCarbonate Mkr	5004	
				B Limestone Mkr	5155	
				Castle Peak	5621	
				Basal Carbonate	0	
				Total Depth (LOGGERS)	5975	



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 1st 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

FROM: (Old Operator): N5160-Inland Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721	TO: (New Operator): N2695-Newfield Production Company Route 3 Box 3630 Myton, UT 84052 Phone: 1-(435) 646-3721
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CA No.

Unit:

ODEKIRK SPRING 36

WELL(S)

NAME	SEC	TWN	RNG	API NO	ENTITY NO	LEASE TYPE	WELL TYPE	WELL STATUS
ODEKIRK SPRING 4-36-8-17	36	080S	170E	4304732764	13055	State	OW	P
ODEKIRK SPRING 6-36-8-17	36	080S	170E	4304733013	13055	State	OW	P
ODEKIRK SPRING 5-36-8-17	36	080S	170E	4304733014	13055	State	WI	A
ODEKIRK SPRING 3-36-8-17	36	080S	170E	4304733015	13055	State	WI	A
ODEKIRK SPRING 14-36-8-17	36	080S	170E	4304733075	13055	State	OW	P
ODEKIRK SPRING 11-36-8-17	36	080S	170E	4304733077	13055	State	WI	A
ODEKIRK SPRING 7-36-8-17	36	080S	170E	4304733078	13055	State	WI	A
ODEKIRK SPRING 2-36-8-17	36	080S	170E	4304733079	13055	State	OW	P
ODEKIRK SPRING 1-36-8-17	36	080S	170E	4304733195	13055	State	WI	A
ODEKIRK SPRING 8-36-8-17	36	080S	170E	4304733196	13055	State	OW	P
ODEKIRK SPRING 9-36-8-17	36	080S	170E	4304733197	13055	State	WI	A
ODEKIRK SPRING 10-36-8-17	36	080S	170E	4304733198	13055	State	OW	P
ODEKIRK SPRING 15-36-8-17	36	080S	170E	4304733199	13055	State	OW	P
ODEKIRK SPRING 16-36-8-17	36	080S	170E	4304733200	13055	State	OW	P

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

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

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

SUBMIT IN TRIPLICATE - Other Instructions on page 2

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)
668 FSL 586 FEL
SESE Section 36 T8S R17E

5. Lease Serial No.

UTAH STATE ML-44305

6. If Indian, Allottee or Tribe Name.

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

8. Well Name and No.

ODEKIRK SPRING 16-36-8-17

9. API Well No.

4304733200

10. Field and Pool, or Exploratory Area

GREATER MB UNIT

11. County or Parish, State

UINTAH, UT

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

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

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

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

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

I hereby certify that the foregoing is true and correct (Printed/ Typed) Eric Sundberg	Title Regulatory Analyst
Signature 	Date 04/27/2010

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

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

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

(Instructions on page 2)

RECEIVED
MAY 18 2010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

OCT 29 2010

RECEIVED

NOV 10 2010

Ref: 8P-W-GW

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

DIV. OF OIL, GAS & MINING

Mr. 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 UT22176-08796
Well: Odekirk Spring 16-36-8-17
SESE Sec. 36-T8S-R17E
Uintah County, UT
API No.: 43-047-33200

Dear Mr. Sundberg:

Enclosed is your copy of the FINAL Underground Injection Control (UIC) Permit for the proposed Odekirk Spring 16-36-8-17 injection well. A Statement of Basis that discusses the conditions and requirements of this EPA UIC Permit, is also included.

The Public Comment period for this Permit ended on SEP 30 2010. No comments on the Draft Permit were received during the Public Notice period; therefore the Effective Date for this EPA UIC Permit is the date of issuance. All conditions set forth herein refer to Title 40 Parts 124, 144, 146, and 147 of the Code of Federal Regulations (CFR) and are regulations that are in effect as of the Effective Date of this Permit.

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



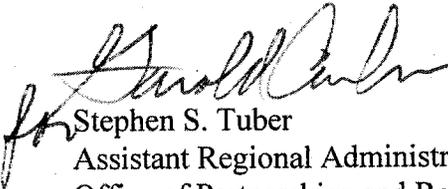
Printed on Recycled Paper

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.

FOR RECORD ONLY

Sincerely,

for 

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

enclosure: Final UIC Permit
Statement of Basis

cc: Letter Only:

Uintah & Ouray Business Committee:
Frances Poowegup, Vice-Chairwoman
Curtis Cesspooch, Councilman
Phillip Chimburas, Councilman
Stewart Pike, Councilman
Irene Cuch, Councilwoman
Richard Jenks, Jr., Councilman

Daniel Picard
BIA - Uintah & Ouray Indian Agency

All Enclosures:

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

Michael Guinn
District Manager
Newfield Production Company
Myton, Utah



**UNDERGROUND INJECTION CONTROL PROGRAM
PERMIT**

PREPARED: September 2010

Permit No. UT22176-08796

Class II Enhanced Oil Recovery Injection Well

**Odekirk Spring 16-36-8-17
Uintah County, UT**

Issued To

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

Part I. AUTHORIZATION TO CONSTRUCT AND OPERATE

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

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

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

Odekirk Spring 16-36-8-17
669' FSL and 586' FEL, SESE S36, T8S, R17E
Uintah County, UT

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

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

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

Issue Date: OCT 29 2010

Effective Date OCT 29 2010



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

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

PART II. SPECIFIC PERMIT CONDITIONS

Section A. WELL CONSTRUCTION REQUIREMENTS

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

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

1. Casing and Cement.

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

2. Injection Tubing and Packer.

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

3. Sampling and Monitoring Devices.

The Permittee shall install and maintain in good operating condition:

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

4. Well Logging and Testing

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

5. Postponement of Construction or Conversion

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

6. Workovers and Alterations

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

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

Section B. MECHANICAL INTEGRITY

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

An injection well has mechanical integrity if:

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

1. Demonstration of Mechanical Integrity (MI).

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

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

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

2. Mechanical Integrity Test Methods and Criteria

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

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

3. Notification Prior to Testing.

The Permittee shall notify the Director at least 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

See Diagram:

Odekirk Spring 16-36-8-17 was drilled to a total depth of 5,965 feet in the Douglas Creek Member. Plug back total depth (PBSD) is 5,899 feet. 80% cement bond across "B" Shale Confining Zone.

Surface casing (8-5/8 inch) was set at a depth of 305 feet in a 12-1/4 inch hole using 155 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5,948 feet in a 7-7/8 inch hole with 955 sacks cement. Well construction and cement bond are considered adequate to protect USDWs.

Cement Bond Log (CBL) identifies top of cement at the surface.

The schematic diagram shows enhanced recovery injection perforations in the Douglas Creek Member of the Green River Formation. Additional perforations may be added at a later time between the depths of 4,140 feet (Top of Garden Gulch Member No. 2) and the top of the Wasatch Formation (Estimated to be 6,162 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

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

UT 22176-08796

Odekirk Spring #16-36-8-17

Spud Date: 9/29/00
 Put on Production: 12/02/00
 GL: 4981.3' KB: 4991.3'

Initial Production: 514 BOPD,
 135 MCFPD, 32.5 BWPD

SURFACE CASING

CSG SIZE: 8-5/8"
 GRADE: J-55
 WEIGHT: 24#
 LENGTH: 7 jts. (298.83')
 DEPTH LANDED: 305.13' KB
 HOLE SIZE: 12-1/4"

CEMENT DATA: 155 sx Class "G" cmt w/2% CaCL2 +
 1/4#/sk Cello-Flake est 6 bbls cmt to surf.

*Estimated lowermost USDW
 per Pub 92 @ 223' bgs/ 233' KB
 Green River Top
 @ 1501'*

PRODUCTION CASING

CSG SIZE: 5-1/2"
 GRADE: J-55
 WEIGHT: 15.5#
 LENGTH: 140 jts. (5951.74')
 DEPTH LANDED: 5947.74' KB
 HOLE SIZE: 7-7/8"

CEMENT DATA: 410 sx Premium lite II plus additives, & 545 sx 50/50
 Poz plus additives. TOC @ Surface per CBL

TUBING

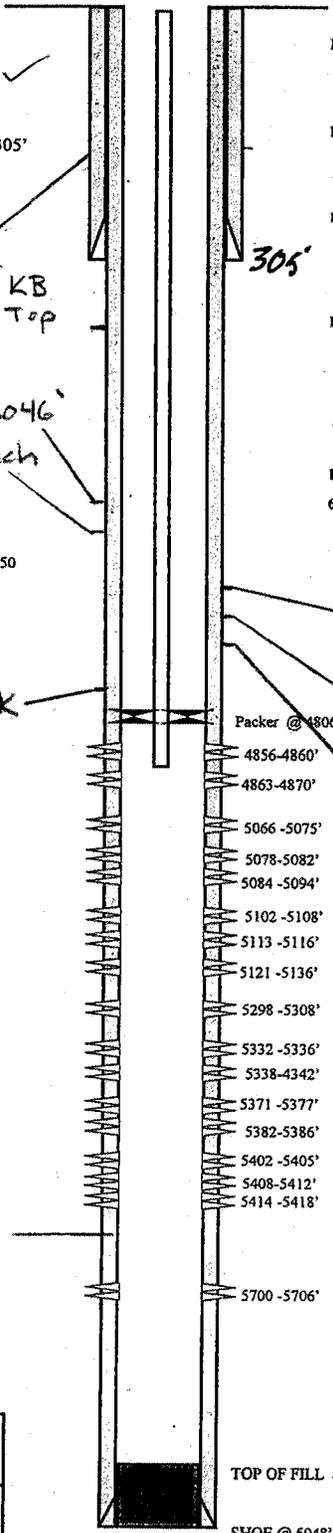
SIZE/GRADE/WT.: 2-7/8" J-55 tbg.
 NO. OF JOINTS: 183 jts. (5657.90')
 TUBING ANCHOR: 5667.90'
 NO. OF JOINTS: 1jt. (31.10')
 SEATING NIPPLE: 2-7/8" (1.10')
 SN LANDED AT: 5701.80'
 NO. OF JOINTS: 2jts. (62.27')
 TOTAL STRING LENGTH: EOT @ 5765.62'

*Injection Zone:
 4140' - ~6,145'*

Proposed Injection

Wellbore Diagram

FRAC JOB



11-27-00 5700-5706' **Frac C1 sands as follows:** 25,000# 20/40 sand in 291 bbls Viking I-25 fluid. Perfs broke down @ 4150 psi. Avg press of 1930 psi w/avg rate of 25.5 BPM. ISIP 1670 psi.

11-27-00 5298-5418' **Frac A/LDC sands as follows:** 157,136# 20/40 sand in 1005 bbls Viking I-25 fluid. Perfs broke @ 3846 psi. Avg press of 1320 psi w/avg rate of 32.2 BPM. ISIP 1380 psi.

11-28-00 4856-4870' **Frac D2 sands as follows:** 40,000# 20/40 sand in 321 bbls Viking I-25 fluid. Perfs broke @ 3784 psi. Avg press of 1780 psi w/avg rate of 30 BPM. ISIP 1960 psi.

11-28-00 5066-5136' **Frac B1 sands as follows:** 167,000# 20/40 sand in 968 bbls Viking I-25 fluid. Perfs broke @ 1880 psi. Avg press of 1250 psi, w/avg rate of 34 BPM. ISIP 1470 psi.

9/19/02 Pump change. Update rod and tubing details.

10/12/04 Stuck pump. Updated rod detail.

6-8-07 Pump Change. Updated rod and tubing detail.

Confining Zones

- ① Administrative Confining Zone: 3670' - 3855'
- ② Shale "A": 3950' - 4030'
- ③ Shale "B": 4060' - 4140'

CBL shows > 80% cement bond index through all 3 confining zones.

PERFORATION RECORD

Date	Depth Range	Perforations	Holes
11-27-00	5700-006'	4 jspf	24 holes
11-27-00	5298-308'	4 jspf	40 holes
11-27-00	5332-336'	4 jspf	16 holes
11-27-00	5338-342'	4 jspf	16 holes
11-27-00	5371-377'	4 jspf	24 holes
11-27-00	5382-386'	4 jspf	16 holes
11-27-00	5402-405'	4 jspf	12 holes
11-27-00	5408-412'	4 jspf	16 holes
11-27-00	5414-418'	4 jspf	16 holes
11-28-00	4856-860'	4 jspf	16 holes
11-28-00	4863-870'	4 jspf	28 holes
11-28-00	5066-070'	4 jspf	16 holes
11-28-00	5073-075'	4 jspf	8 holes
11-28-00	5078-082'	4 jspf	16 holes
11-28-00	5084-094'	4 jspf	40 holes
11-28-00	5102-108'	4 jspf	24 holes
11-28-00	5113-116'	4 jspf	12 holes
11-28-00	5121-136'	4 jspf	60 holes

NEWFIELD

Odekirk Spring #16-36-8-17

669' FSL & 586' FEL
 SE/SE Section 36-T8S-R17E
 Uintah Co, Utah
 API #43-047-33200; Lease #ML-44305

TOP OF WASATCH ESTIMATED @ ~6,162'
TOP OF CARBONATE EST. @ 6,037'

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: Odekirk Spring 16-36-8-17	
TYPE OF TEST	DATE DUE
Standard Annulus Pressure	Prior to receiving authorization to inject and at least once within any five period following the last successful test.
Pore Pressure	Prior to receiving authorization to inject.

APPENDIX C

OPERATING REQUIREMENTS

MAXIMUM ALLOWABLE INJECTION PRESSURE:

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

WELL NAME	MAXIMUM ALLOWED INJECTION PRESSURE (psi)
	ZONE 1 (Upper)
Odekirk Spring 16-36-8-17	1,215

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: Odekirk Spring 16-36-8-17	APPROVED INJECTION INTERVAL (KB, ft)		FRACTURE GRADIENT (psi/ft)
	TOP	BOTTOM	
FORMATION NAME			
Green River: Garden Gulch, Douglas Creek and Basal Carbonate Members.	4,140.00 - 6,162.00		0.690

ANNULUS PRESSURE:

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

MAXIMUM INJECTION VOLUME:

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

APPENDIX D

MONITORING AND REPORTING PARAMETERS

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

OBSERVE MONTHLY AND RECORD AT LEAST ONCE EVERY THIRTY DAYS	
OBSERVE AND RECORD	Injection pressure (psig)
	Annulus pressure(s) (psig)
	Injection rate (bbl/day)
	Fluid volume injected since the well began injecting (bbls)
ANNUALLY	
ANALYZE	Injected fluid total dissolved solids (mg/l)
	Injected fluid specific gravity
	Injected fluid specific conductivity
	Injected fluid pH
ANNUALLY	
REPORT	Each month's maximum and averaged injection pressures (psig)
	Each month's maximum and minimum annulus pressure(s) (psig)
	Each month's injected volume (bbl)
	Fluid volume injected since the well began injecting (bbl)
	Written results of annual injected fluid analysis
	Sources of all fluids injected during the year

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

APPENDIX E

PLUGGING AND ABANDONMENT REQUIREMENTS

See diagram.

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

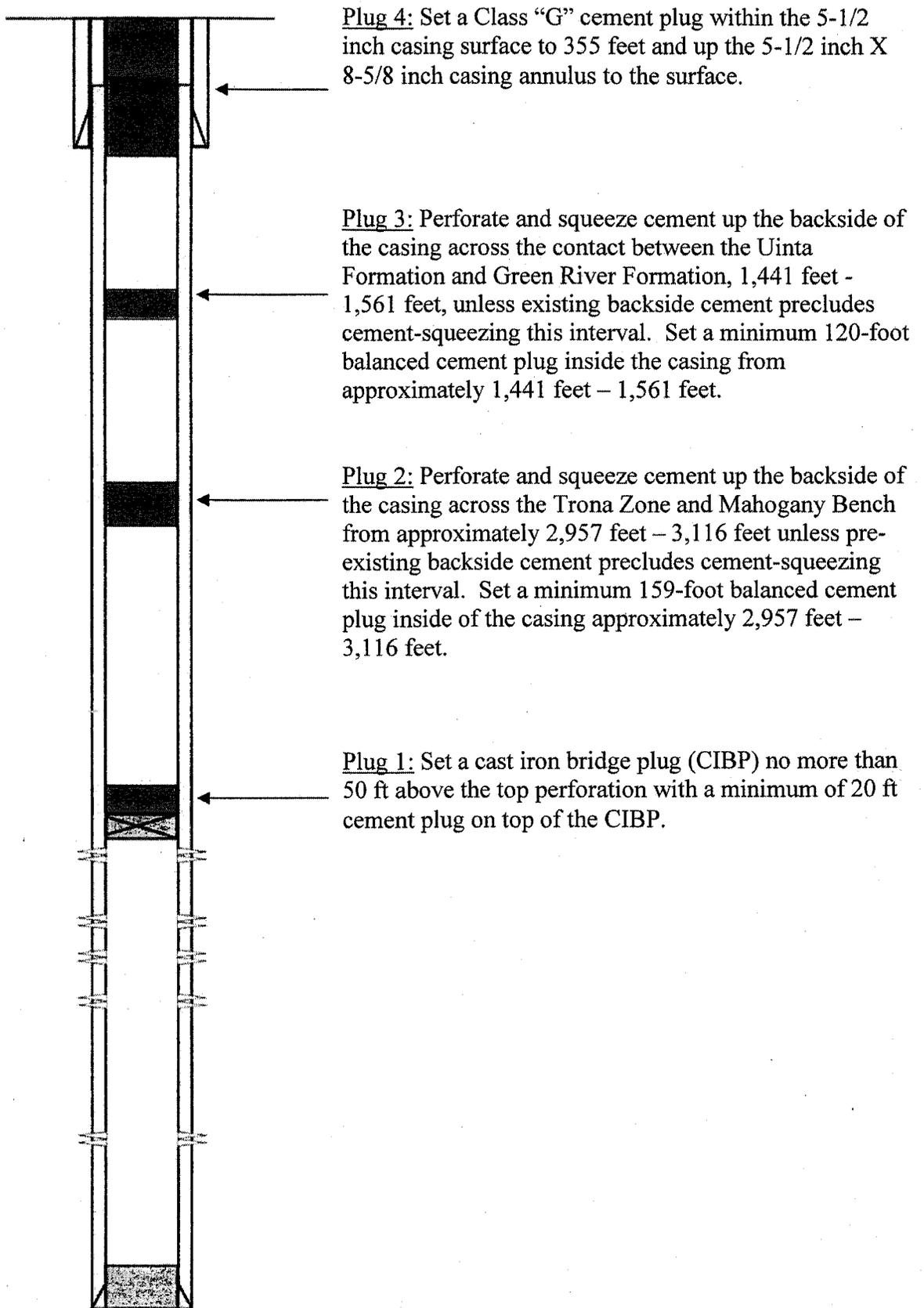
PLUG NO. 1: Set a cast iron bridge plug (CIBP) no more than 50 feet above the top perforation with a minimum 20-foot cement plug on top of the CIBP.

PLUG NO. 2: Perforate and squeeze cement up the backside of the 5-1/2 inch casing across the Trona Zone and the Mahogany Bench from approximately 2,957 feet 3,116 feet unless pre-existing backside cement precludes cement-squeezing this interval. Set a minimum 159-foot balanced cement plug inside the 5-1/2 inch casing from approximately 2,957 feet 3,116 feet.

PLUG NO. 3: Perforate and squeeze cement up the backside of the 5-1/2 inch casing across the contact between the Uinta Formation and Green River Formation (1,501 feet) from approximately 1,441 feet - 1,561 feet unless pre-existing backside cement precludes cement-squeezing this interval. Set a minimum 120-foot cement plug inside the 5-1/2 inch casing from approximately 1,441 feet to 1,561 feet.

PLUG NO. 4: Set a Class "G" cement plug within the 5-1/2 inch casing to 355 feet and up the 5-1/2 inch x 8-5/8 inch casing annulus to the surface.

Plugging and Abandonment Diagram
Odekirk Spring 16-36-8-17



Plug 4: Set a Class "G" cement plug within the 5-1/2 inch casing surface to 355 feet and up the 5-1/2 inch X 8-5/8 inch casing annulus to the surface.

Plug 3: Perforate and squeeze cement up the backside of the casing across the contact between the Uinta Formation and Green River Formation, 1,441 feet - 1,561 feet, unless existing backside cement precludes cement-squeezing this interval. Set a minimum 120-foot balanced cement plug inside the casing from approximately 1,441 feet - 1,561 feet.

Plug 2: Perforate and squeeze cement up the backside of the casing across the Trona Zone and Mahogany Bench from approximately 2,957 feet - 3,116 feet unless pre-existing backside cement precludes cement-squeezing this interval. Set a minimum 159-foot balanced cement plug inside of the casing approximately 2,957 feet - 3,116 feet.

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

APPENDIX F

CORRECTIVE ACTION REQUIREMENTS

S-36-8-17 will be monitored weekly at the surface for evidence of fluid movement out of the injection zone.

Newfield developed a corrective action monitoring program, effective July 10, 2008, entitled "Procedure related to proposed Class II Enhanced Oil Recovery Injection Wells determined by the EPA to have specific Area of Review (AOR) wells with inadequate cement across the Confining Zone".

If possible fluid movement out of the injection zone is identified, either through the weekly monitoring, through Newfield's July 10, 2008 procedure described above, or through any other means (for example, evidence of fluid flow or increased bradenhead annulus pressure readings, tubing-casing annulus pressure readings, or other evidence of a mechanical integrity failure), the Permittee will shut in Odekirk Spring 16-36-8-17 immediately and notify the Director. No injection into Odekirk Spring 16-36-8-17 will be permitted until the Permittee has notified the Director that the situation has been resolved, submitted Rework Records (EPA Form No. 7520-12) and a schematic diagram, and received authorization from the Director to re-commence injection.

NEWFIELD



ROCKY MOUNTAINS

RE: Procedure related to proposed Class II Enhanced Oil Recovery Injection Wells determined by the EPA to have specific Area of Review (AOR) wells with inadequate cement across the confining zone

Effective July 10, 2008 Newfield Production Company will implement the following procedure to address concerns related to protection of Underground Sources of Drinking Water (USDW) in AOR wells where the interval of cement bond index across the confining zone behind pipe has been determined to be inadequate. The procedure is intended to meet the corrective action requirements found in the UIC Class II permit, as well as provide data that could be used to detect and prevent fluid movement out of the proposed injection zone.

- 1) Establish baseline production casing by surface casing annulus pressures prior to water injection in subject well with a calibrated gauge.
- 2) Record the baseline pressure, report findings to Newfield engineering group and keep on file so it is available upon request
- 3) Place injection well in service. Run packer integrity and radioactive tracer logs to verify wellbore integrity and determine zones taking water.
- 4) Construct a geologic cross section showing zones taking water and their geologic equivalent zones in the AOR wells.
- 5) Submit a report of the packer integrity log, radioactive tracer log, and geologic cross section to the Newfield engineering staff for review and keep on file so it is available upon request
- 6) Weekly observations of the site will be made by Newfield during normal well operating activities. Any surface discharge of fluids will be reported immediately.
- 7) After injection well is placed in service, weekly observations of annulus pressure will be made and compared to baseline pressure and will be recorded once monthly. The recorded pressure information will be kept on file and be available upon request.
- 8) If pressure increases by more than 10% above baseline at any time in an AOR well with insufficient cement bond, Newfield will run a temperature survey log in subject well. This log, in concert with the geologic cross section, will enable the determination of water movement in the open hole by production casing annulus through a shift in geothermal gradient.
- 9) If water movement is determined in annulus, Newfield will shut in the injection well and repair the production casing by open hole annulus or leave the injection well out of service.

STATEMENT OF BASIS

**NEWFIELD PRODUCTION CO.
ODEKIRK SPRING 16-36-8-17
UINTAH COUNTY, UT**

EPA PERMIT NO. UT22176-08796

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

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

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

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

PART I. General Information and Description of Facility

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

on

May 14, 2010

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

Odekirk Spring 16-36-8-17
669' FSL and 586' FEL, SESE S36, T8S, R17E
Uintah County, UT

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

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

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

All depths given in the Statement of Basis reference the Kelly Bushing (KB) datum unless otherwise specified.

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

Odekirk Spring 16-36-8-17 is a Green River Formation oil well. It is the intent of the applicant to move the packer from its current depth of 5,668 feet to a depth of 4,806 feet for well conversion from oil production to injection of brine for Class II enhanced recovery.

TABLE 1.1
WELL STATUS / DATE OF OPERATION

NEW WELLS		
Well Name	Well Status	Date of Operation
Odekirk Spring 16-36-8-17	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

water levels of the lake. Distributary-mouth bars, distributary channels, and near-shore bars are the primary oil producing sandstone reservoirs in the area. (Ref: "Reservoir Characterization of the Lower Green River Formation, Southwest Uinta Basin, Utah Biannual Technical Progress Report, 4/1/99-9/30/99", by C. D. Morgan, Program Manager, November 1999, Contract DE-AC26-98BC15103).

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

The geologic dip is about 200 feet per mile, and there are no known surface faults in this area. Veins of gilsonite, a natural resinous hydrocarbon occasionally mined as a resource, occurs in the greater Uintah Basin though it is predominantly found on the eastern margin of the basin near the Colorado border. Vertical veins, generally between 2 feet to 6 feet wide but up to 28 feet wide, may extend many miles in length and occasionally extend as deep as 2,000 feet.

TABLE 2.1
GEOLOGIC SETTING
Odekirk Spring 16-36-8-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Lithology
Uinta USDW	0	233	< 10,000	Lacustrine sand, shale and carbonate with interbedded fluvial sand and shale.
Uinta	233	1,501		Lacustrine sand, shale and carbonate with interbedded fluvial sand and shale.
Green River	1,501	6,162		Interbedded lacustrine sand, shale, carbonate and evaporite with fluvial sand and shale.
Green River: Trona	3,007	3,046		Evaporite, sand, shale.
Green River: Mahogany Bench	3,046	3,066		Oil shale.
Green River: Garden Gulch Member	3,855	4,782		Lacustrine sand, shale and carbonate.
Green River: Garden Gulch Member 2	4,140	4,782	7,933	Interbedded lacustrine sand, shale and carbonate with some fluvial sand and shale.
Green River: Douglas Creek Member	4,782	6,037	7,933	Interbedded lacustrine sand, shale and carbonate with some fluvial sand and shale.
Green River: Basal Carbonate Member	6,037	6,162		Carbonate

Proposed Injection Zone(s) (TABLE 2.2)

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

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

EPA approved injection interval is from a depth of 4,140 feet, within the Garden Gulch Member of the Green River Formation to the top of the Wasatch Formation estimated to be 6,162 feet.

TABLE 2.2
INJECTION ZONES
Odekirk Spring 16-36-8-17

Formation Name	Top (ft)	Base (ft)	TDS (mg/l)	Fracture Gradient (psi/ft)	Porosity	Exempted?*
Green River: Garden Gulch, Douglas Creek and Basal Carbonate Members.	4,140	6,162		0.690		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 80-foot (4,060 feet - 4,140 feet) "B" Shale Confining Zone directly overlies the top of the Garden Gulch No. 2 sand. The Cement Bond Log shows 80% cement bond index across the Confining Zone.

TABLE 2.3
CONFINING ZONES
Odekirk Spring 16-36-8-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)
Green River: Shale "B".	Shale.	4,060	4,140

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.

Enhanced oil recovery operations are ongoing throughout the Greater Monument Butte Field area. Historic water samples of the Green River Formation taken in conjunction with this activity have generally exhibited a Total Dissolved Solids (TDS) content in excess of 10,000 mg/l. More recent water samples from the field show TDS values lower than 10,000 mg/l and these occurrences are often attributable to the introduction of fresh water for the purpose of enhanced oil recovery.

The TDS of water produced from the proposed injection well is less than 10,000 mg/l. EPA has evaluated additional data and information and concluded that the original Green River formation water at this location was saline prior to enhanced oil recovery water flooding. The weight of evidence supports the conclusion that the occasional water sample from this area showing less than 10,000 mg/l is not representative of original Green River formation water, and is attributed to injection of relatively freshwater during enhanced oil recovery operations. Because this freshening effect from water flood operations is considered by EPA to be a temporary, artificial condition, an aquifer exemption is not required for this proposed injection well.

The State of Utah Division of Water Rights website at <http://nrwt1.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 Odekirk Spring 16-36-8-17.

Technical Publication No. 92: State of Utah, Department of Natural Resources, cites the lowermost base of Underground Sources of Drinking Water (USDW) to be approximately 233 feet from the surface. Absent definitive information on the water quality of the Uinta Formation, from the depth of 233 feet to the base of the Uinta Formation at 1,501 feet, EPA will require, during plugging and abandonment, a cement plug at the base of the Uinta Formation to prevent contamination of possible Uinta USDWs

TABLE 2.4
UNDERGROUND SOURCES OF DRINKING WATER (USDW)
Odekirk Spring 16-36-8-17

Formation Name	Formation Lithology	Top (ft)	Base (ft)	TDS (mg/l)
Uinta	Interbedded lacustrine sand, shale and carbonate with fluvial sands and shale.	0	1,501	
Uinta (Public. 92)	Sand and shale.	0	233	< 10,000

PART III. Well Construction (40 CFR 146.22)

Odekirk Spring 16-36-8-17 was drilled to a total depth of 5,965 feet in the Douglas Creek Member. Plug back total depth (PBSD) is 5,899 feet. The 80-foot Confining Zone "B" Shale is covered by 80% cement bond.

Surface casing (8-5/8 inch) was set at a depth of 305 feet in a 12-1/4 inch hole using 155 sacks of Class "G" cement which was circulated to the surface.

Production casing (5-1/2 inch) was set at a depth of 5,948 feet in a 7-7/8 inch hole with 955 sacks cement. Well construction and cement bond are considered adequate to protect USDWs.

Cement Bond Log (CBL) identifies top of cement at the surface.

The schematic diagram shows enhanced recovery injection perforations in the Douglas Creek Member of the Green River Formation. Additional perforations may be added at a later time between the depths of 4,140 feet and the top of the Wasatch Formation (Estimated to be 6,162 feet) provided the operator first notifies the Director and later submits an updated well completion report (EPA Form 7520-12) and schematic diagram.

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

TABLE 3.1
WELL CONSTRUCTION REQUIREMENTS
Odekirk Spring 16-36-8-17

Casing Type	Hole Size (in)	Casing Size (in)	Cased Interval (ft)	Cemented Interval (ft)
Production	7.88	5.50	0 - 5,948	0 - 5,965
Surface	12.25	8.63	0 - 305	0 - 305

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

Casing and Cementing (TABLE 3.1)

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

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

Tubing and Packer

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

Tubing-Casing Annulus (TCA)

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

The TCA must be kept closed to allow any pressure buildup inside the TCA to be detected and for monitoring of the TCA as required by conditions of the Permit.

Monitoring Devices

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

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

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

Well Name	Type	Status (Abandoned Y/N)	Total Depth (ft)	TOC Depth (ft)	CAP Required (Y/N)
Federal 13-31-8-18	Injector	No	6,125	2,250	No
Odekirk Spring 9-36-8-17	Injector	No	5,939	650	No
S-36-8-17	Producer	No	6,261	1,150	Yes

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

Area Of Review

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

Corrective Action Plan

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

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

PART V. Well Operation Requirements (40 CFR 146.23)

TABLE 5.1 INJECTION ZONE PRESSURES Odekirk Spring 16-36-8-17			
Formation Name	Depth Used to Calculate MAIP (ft)	Fracture Gradient (psi/ft)	Initial MAIP (psi)
Green River: Garden Gulch, Douglas Creek and Basal Carbonate Members.	4,856	0.690	1,215

Approved Injection Fluid

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

The injectate is a blend of drinking water from the Johnson Water District pipeline and/or water from the Green River pipeline, as well as produced Green River Formation water from wells proximate to the Odekirk Spring 16-36-8-17, and will be blended at Newfield's relevant injection facility. A January 1, 2010, analysis of the injectate describes total dissolved solids as 7,933 mg/l with a specific gravity (SG) of 1.0050 mg/l. Prior to January 3, 2007, Newfield historically, with EPA concurrence, used a SG 1.005 on most calculations of injection pressure. In anticipation of increased water production vis a vis increased well completions, Newfield, on January 3, 2007, with EPA concurrence, raised the SG to 1.015 on most future Permits, excepting occurrences of TDS and SG exceeding 1.015.

Injection Pressure Limitation

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

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

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

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

FP = formation fracture pressure (measured at surface)

fg = fracture gradient (from submitted data or tests)

sg = specific gravity (of injected fluid)

d = depth to top of injection zone (or top perforation)

The 0.69 psi/ft fracture gradient was selected as having the minimum value from a list of sand/frac fracture gradients cited in the Permit application. The 0.69 psi/ft fracture gradient is consistent with fracture gradients in the general area of Odekirk Spring 16-36-8-17.

Injection Volume Limitation

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

There will be no restrictions on the cumulative volume or daily volume of authorized Class II fluid 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, which ever is less, with a ten percent or less pressure loss over thirty minutes.

External Mechanical Integrity (Part II MI) has been demonstrated by the Cement Bond Log (CBL) for Odekirk Spring 16-36-8-17 which shows a sufficient interval of 80 percent cement bond index through the Confining Zone. This CBL will be held by EPA as a continual demonstration of Part II MI for Odekirk Spring 16-36-8-17 and will fulfill the Federal requirements for the Part II MI demonstration to be repeated no less than once every 5 years. No further demonstration of Part II MI is required at the time of Permit issue.

PART VI. Monitoring, Recordkeeping and Reporting Requirements

Injection Well Monitoring Program

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

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

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

Plugging and Abandonment Plan

Prior to abandonment, the well shall be plugged in a manner that isolates the injection zone and prevents movement of fluid into or between USDWs, and in accordance with any applicable Federal, State or local law or regulation. Tubing, packer and other downhole apparatus shall be removed. Cement with additives such as accelerators and retarders that control or enhance cement properties may be used for plugs; however, volume-extending additives and gel cements are not approved for plug use. Plug placement shall be verified by tagging. Plugging gel of at least 9.2 lb/gal shall be placed between all plugs. A minimum 50 ft surface plug shall be set inside and outside of the surface casing to seal pathways for fluid migration into the subsurface. Within sixty (60) days after plugging the owner or operator shall submit Plugging Record (EPA Form 7520 13) to the Director. The Plugging Record must be certified as accurate and complete by the person responsible for the plugging operation. The plugging and abandonment plan is described in Appendix E of the Permit.

Plug 1: Seal Injection Zone: Set a cast iron bridge plug (CIBP) no more than fifty (50) feet above the top injection perforation. Place at least twenty (20) feet of cement plug on top of the CIBP. Plug No. 1 is required to prevent migration of fluids out of the injection zone. It is believed that there are no USDWs below Plug No. 1.

Plug 2 (2,957 feet to 3,116 feet.): This plug is required to isolate the Trona-Bird's Nest aquifer which is known to contain USDWs in some parts of the Uinta Basin. The Mahogany Bench Oil Shale is included in this plug to fulfill requirements set by the Bureau of Land Management (BLM) to prevent fluid movement into that resource. The Permittee is responsible for being aware of, and

complying with all BLM requirements in addition to EPA requirements described in this Permit.

Plug 3 (1,441 feet to 1,561 feet): This plug is required to prevent fluid movement into or between the Uinta and Green River Formations, both of which are known to contain USDWs.

Plug 4 (Surface to 355 feet): This plug is required to isolate shallow USDWs from surface water runoff into the abandoned well and to prevent fluid movement into or between shallow USDWs and the Uinta Formation. It is set to a depth of 50 feet below the base of surface casing or to 50 feet below the lowermost USDW according to Technical Publication 92, whichever is deeper.

PART VIII. Financial Responsibility (40 CFR 144.52)

Demonstration of Financial Responsibility

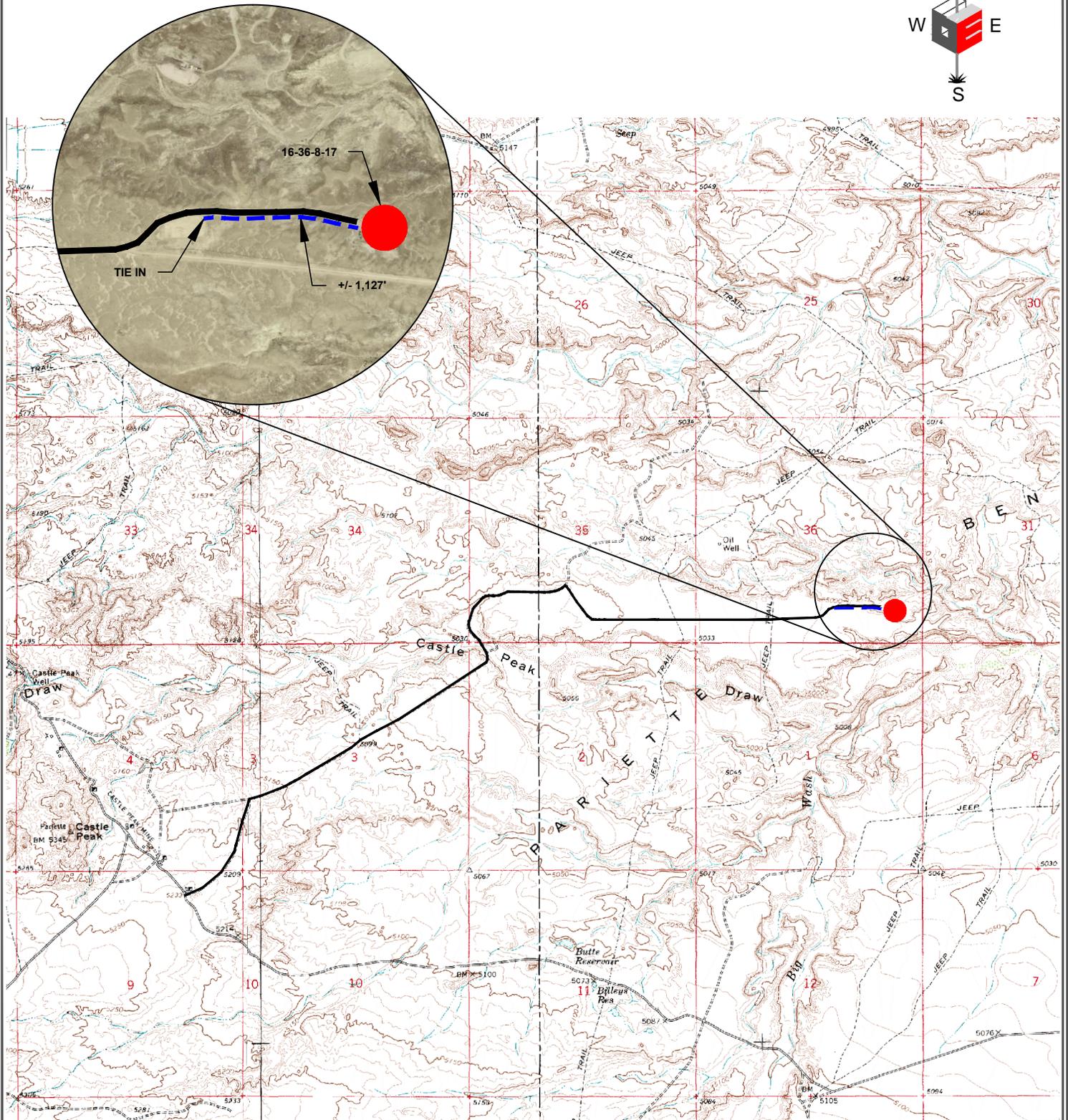
The permittee is required to maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director. The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or 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:

Surety Bond, received September 27, 2010

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-44305
1. TYPE OF WELL Oil Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052		8. WELL NAME and NUMBER: ODEKIRK SPRING 16-36-8-17
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0669 FSL 0586 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 36 Township: 08.0S Range: 17.0E Meridian: S		9. API NUMBER: 43047332000000
PHONE NUMBER: 435 646-4825 Ext		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
COUNTY: UINTAH		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/31/2013 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	
		<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Pipeline Installation"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Newfield would like to install a buried 3" Flex-steel Pipe for purposes of Water Injection to the 16-36-8-17 totaling 1127' feet in length. Reclamation activities would commence after construction activities were complete.		
		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 16, 2013
NAME (PLEASE PRINT) Brian Foote	PHONE NUMBER 435 823-1972	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 10/8/2013	

PROPOSED PIPELINE MAP



LEGEND

 = EXISTING LOCATION

 = EXISTING ROAD

 = PROPOSED APPROXIMATE WATERLINE

NEWFIELD



16-36-8-17
ON S.I.T.L.A. GROUND
SEC. 36, T8S, R17E, S.L.B.&M.
UINTAH COUNTY, UT.

NO BOUNDARY SURVEY HAS BEEN PERFORMED BY OUTLAW ENGINEERING ON THE ABOVE PARCELS OF GROUND. OUTLAW DOES NOT WARRANT ANY PROPERTY PARCEL DATA OR ANY ASSOCIATED INFORMATION.



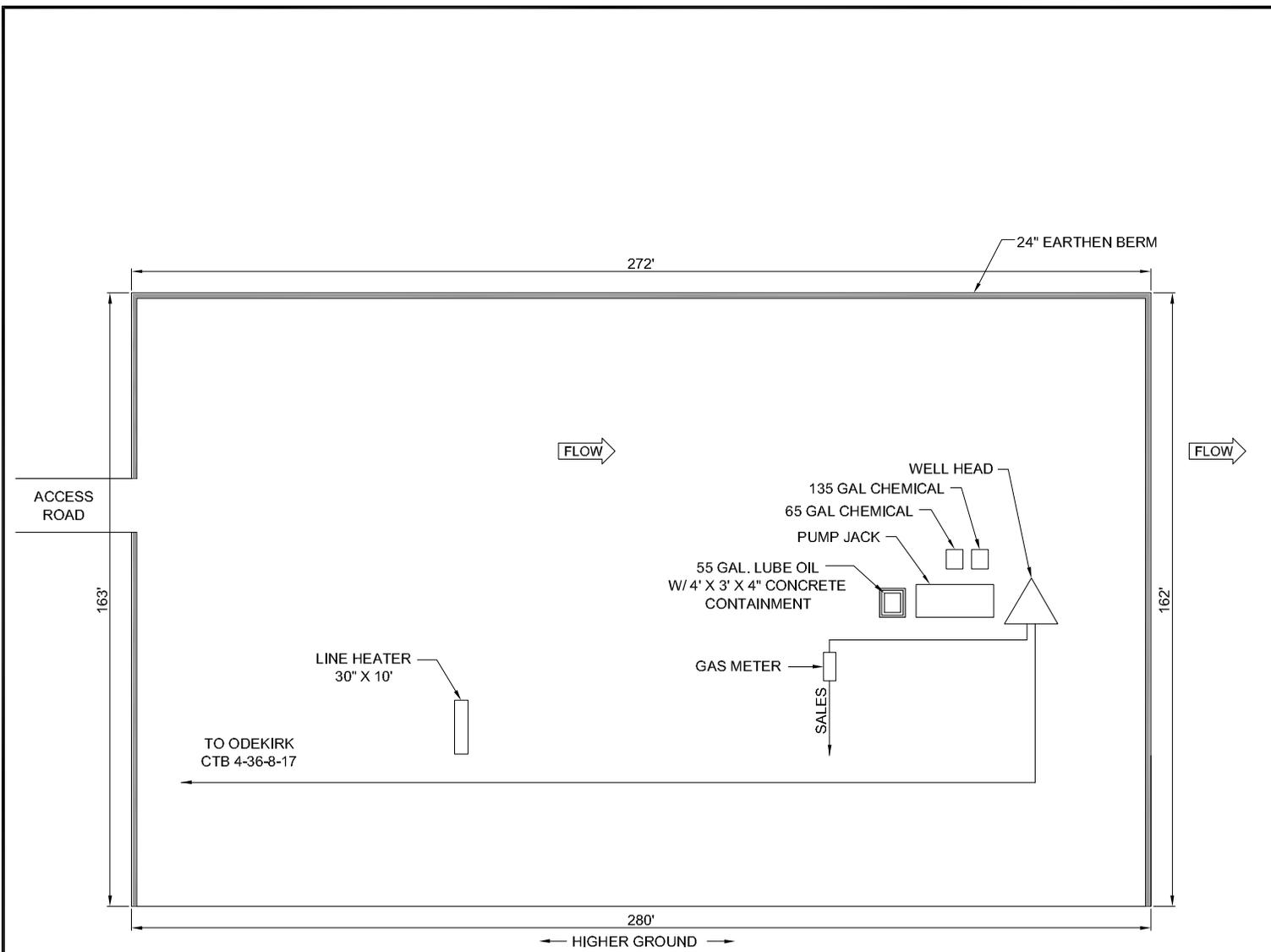
OUTLAW ENGINEERING INC.
 P.O. BOX 1800 ROOSEVELT,
 UTAH 84066
 (435) 232-4321

TOPOGRAPHIC
MAP

DATE SURVEYED: JULY 17, 2013
 SURVEYED BY: DEK
 DRAWN: JULY 18, 2013
 SCALE: N.T.S.
 DRAWN: DEK

SHEET NO.
C

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9	
		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-44305	
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)	
1. TYPE OF WELL Oil Well		8. WELL NAME and NUMBER: ODEKIRK SPRING 16-36-8-17	
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		9. API NUMBER: 43047332000000	
3. ADDRESS OF OPERATOR: 1001 17th Street, Suite 2000 , Denver, CO, 80202	PHONE NUMBER: 303 382-4443 Ext	9. FIELD and POOL or WILDCAT: MONUMENT BUTTE	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0669 FSL 0586 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 36 Township: 08.0S Range: 17.0E Meridian: S		COUNTY: UINTAH	
		STATE: 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 checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 1/23/2014 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text" value="Site Facility/Site Security"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
SEE ATTACHED REVISED SITE FACILITY DIAGRAM			
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 27, 2014			
NAME (PLEASE PRINT) Jill L Loyle	PHONE NUMBER 303 383-4135	TITLE Regulatory Technician	
SIGNATURE N/A		DATE 1/23/2014	



Federal Lease #: UTU-87538X
(ML-44305)

	ODEKIRK SPRING 16-36-8-17
	Newfield Exploration Company SESE Sec 36, T8S, R17E Uintah County, UT
N.T.S.	
M.G.	
FEB 2013	

RECEIVED: Jan. 23, 2014

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-44305
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Oil Well		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		8. WELL NAME and NUMBER: ODEKIRK SPRING 16-36-8-17
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052		9. API NUMBER: 43047332000000
PHONE NUMBER: 435 646-4825 Ext		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0669 FSL 0586 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 36 Township: 08.0S Range: 17.0E Meridian: S		COUNTY: UINTAH
		STATE: 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: 4/2/2014	<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 checked="" type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input checked="" 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 type="checkbox"/> OTHER	OTHER: <input type="text"/>

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

The subject well has been converted from a producing oil well to an injection well on 04/02/2014. Initial MIT on the above listed well. On 04/02/2014 the casing was pressured up to 1577 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 150 psig during the test. There was not an EPA representative available to witness the test. EPA#
UT22197-10331

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
April 16, 2014**

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 4/4/2014	

Mechanical Integrity Test

Casing or Annulus Pressure Mechanical Integrity Test

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

EPA Witness: _____ Date: 4 12 14
 Test conducted by: Brendan Curry
 Others present: _____

Well Name: <u>Odekirk</u>	Type: ER SWD	Status: AC TA UC
Field: <u>Greater Monument Butte</u>		
Location: <u>16</u>	Sec: <u>36 T 4 N 13 R 13 W</u>	County: <u>Uintah</u> State: <u>UT</u>
Operator: <u>NewField Production Company</u>		
Last MIT: <u>1 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: 0/150 psig

MIT DATA TABLE	Test #1	Test #2	Test #3
TUBING PRESSURE			
Initial Pressure	<u>150</u> psig	psig	psig
End of test pressure	<u>150</u> psig	psig	psig
CASING / TUBING ANNULUS PRESSURE			
0 minutes	<u>1564</u> psig	psig	psig
5 minutes	<u>1566</u> psig	psig	psig
10 minutes	<u>1569</u> psig	psig	psig
15 minutes	<u>1571</u> psig	psig	psig
20 minutes	<u>1573</u> psig	psig	psig
25 minutes	<u>1576</u> psig	psig	psig
30 minutes	<u>1577</u> psig	psig	psig
_____ minutes	psig	psig	psig
_____ minutes	psig	psig	psig
RESULT	<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

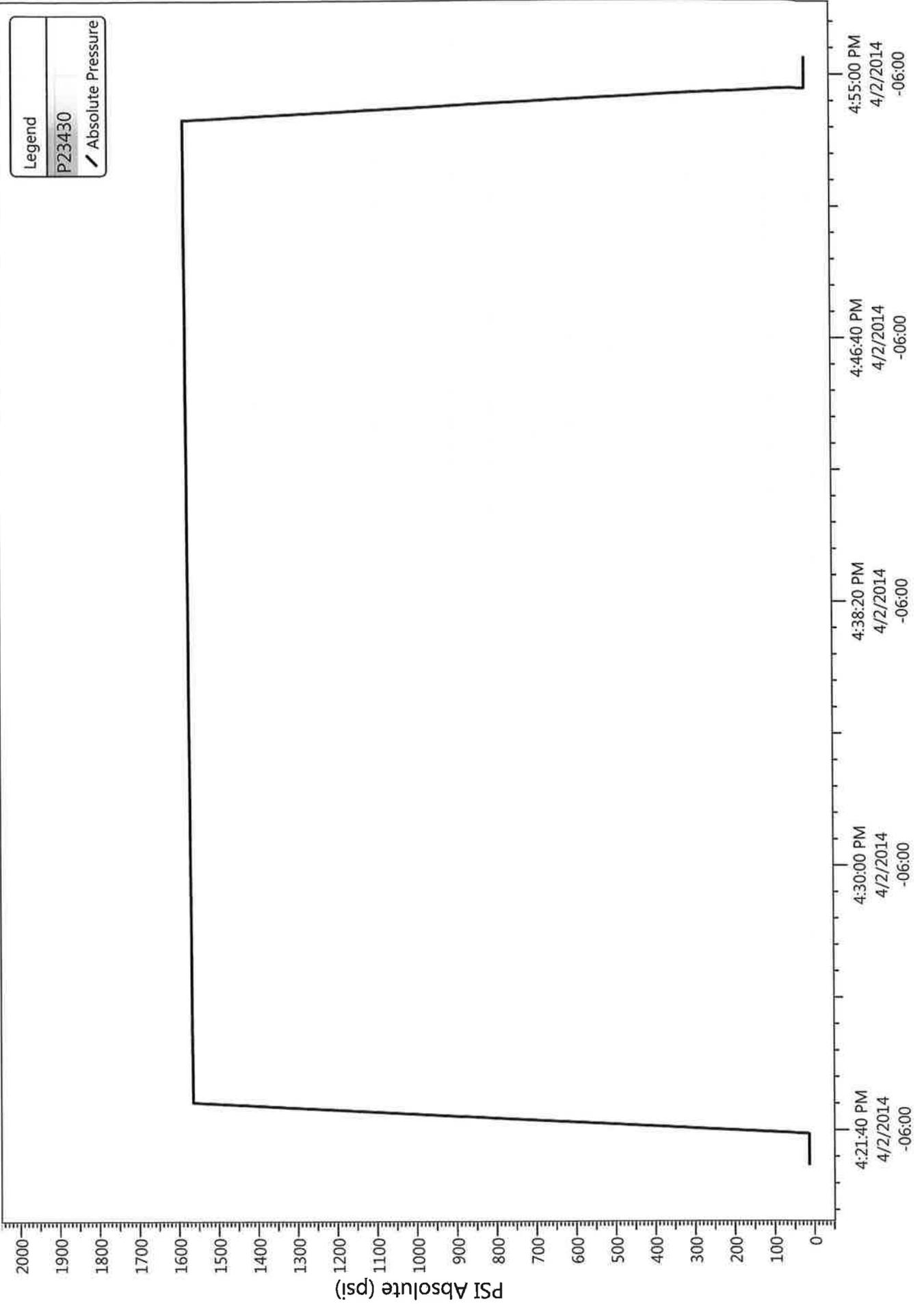
Does the annulus pressure build back up after the test? Yes No

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: _____

16-36-8-17
4/2/2014 4:20:18 PM





Job Detail Summary Report

Well Name: Odekirk 16-36-8-17

Primary Job Type Conversion	Job Start Date 3/31/2014	Job End Date 3/31/2014
--------------------------------	-----------------------------	---------------------------

Daily Operations		
Report Start Date	Report End Date	24hr Activity Summary
3/31/2014	3/31/2014	MIRUSU
Start Time	03:00	End Time
Start Time	05:00	End Time
Report Start Date	4/1/2014	24hr Activity Summary
4/1/2014	4/1/2014	LD RODS, FLUSH, NU BOP, RU WORKFLOOR
Start Time	05:30	End Time
Start Time	06:00	End Time
Start Time	18:30	End Time
Report Start Date	4/2/2014	24hr Activity Summary
4/2/2014	4/2/2014	PU & RIH W/ INJ STRING PRESSURE TEST. CONDUCT INITIAL MIT.
Start Time	05:30	End Time
Start Time	06:00	End Time
Start Time	18:30	End Time
Start Time	19:00	End Time

Comment
Moved From 14-24-8-17: MIRUSU, RDPU, Full Service NC1, SWIFN
CREW TRAVEL
CREW TRAVEL
OWU, BMW H/O Pmpd 60BW d/Csg, LD & Striped Polished Rod, US Rod Pmp, Flushed Rods w/ 40BW, Soft Seat Pmp, 5BW to Fill, Tbg Failed @ 3100psi, LD Rod String, Flushed w/ 60BW During TOOH, LD & Inspect Rod Pmp (Lite Scale on Seat), XO for Tbg, ND B1 Adaptor, Release TAC, NU Weatherford BOP, RU Workfloor, PU 4-Jts Tagged Fill @ 5883' (16' of Fill On PB), LD 4- Jts, TOOH w/ 154- Jts (4769.5) Breaking Collars & Applying Liquid O-Ring to Pins, SWIFN
CREW TRAVEL
CREW TRAVEL
CREW TRAVEL
SICP 0psi SITP 0psi, OWU, LD Remaining 28- Jts & BHA, PU & RIH w/ Weatherford AS-1X Injection PKR Assa. TIH w/ 154- Jts, BMW H/O Pmped 10BW Pad d/Tbg, Drop Stnd Valv, RU & RIH w/ SL to Seat SV, 18BW to Fill, MU Isolation T, PT Tbg to 3000psi, Observ Press, 50psi Loss in 30Min, Bleed Off Press, Repress to 3050psi, NO PRESSURE LOSS IN 60Min GOOD TEST!, Retrieve SV, RD Workfloor, ND BOP, MU 3K Injection Tree, H/O Pmped Fresh 60BW w/ Multi-Chem PKR Fluids, Set AS-1X Injection PKR CE @ 4788' w/ 1500# of Tension, Filled Annulus w/ 35BW, Land Injection Tree, PT Annulus to 1500psi, Observ Press, 50psi Loss in 30Min, Bleed Off Press, Repress to 1450psi, 25psi Loss in 30min, Repress to 1500psi, No Pressure Loss in 45Min, NEWFIELD Rep Performed MIT, MIT Passed, RDSU...FINAL RIG REPORT
CREW TRAVEL
Initial MIT on the above listed well. On 04/02/2014 the casing was pressured up to 1577 psig and charted for 30 minutes with no pressure loss. The well was not injecting during the test. The tubing pressure was 150 psig during the test. There was not an EPA representative available to witness the test.
EPA# UT22197-10331

NEWFIELD

Schematic

Well Name: Odekirk 16-36-8-17

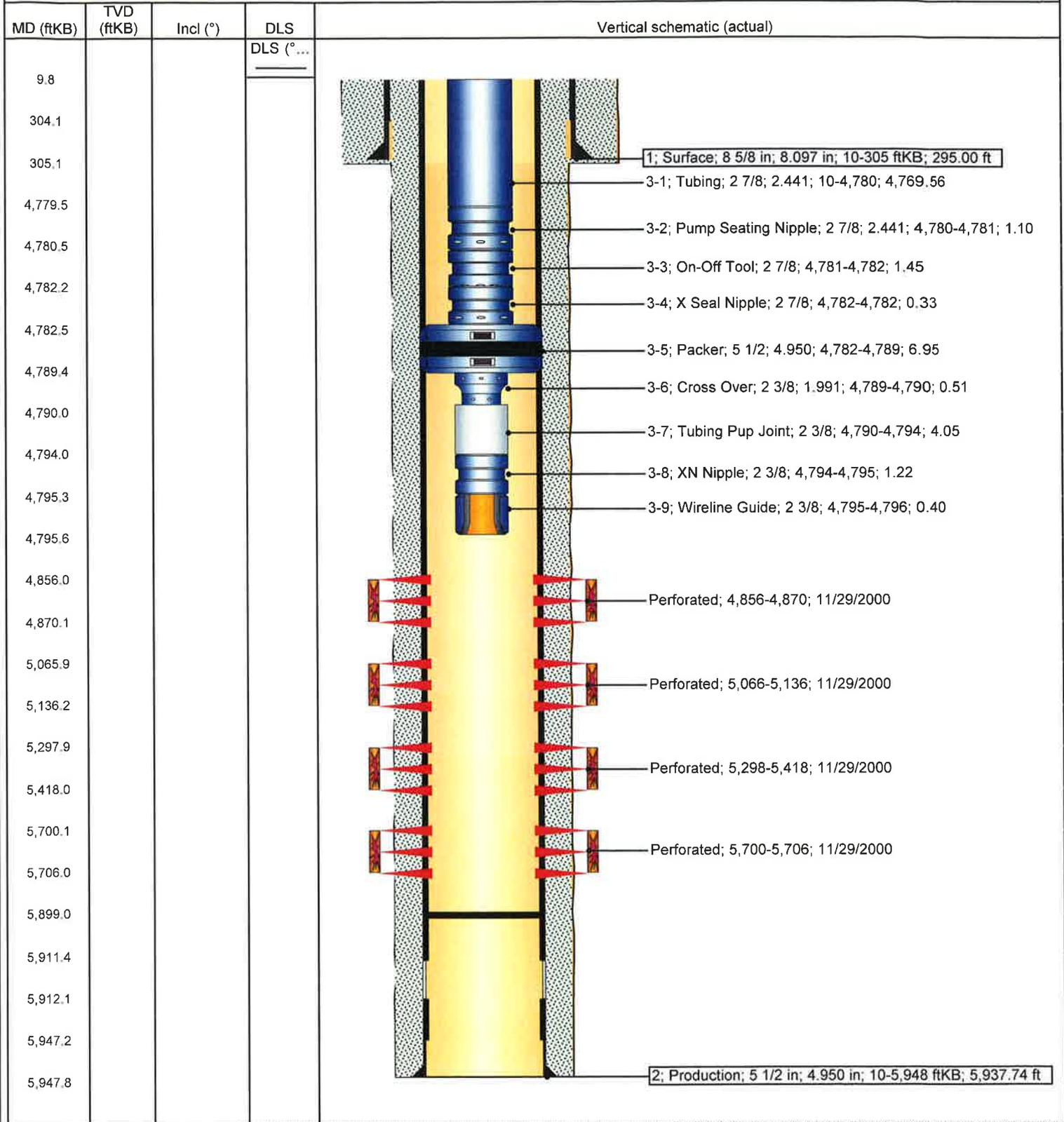
Surface Legal Location 36-8S-17E		API/JWI 43047332000000	Well RC 500151946	Lease	State/Province Utah	Field Name GMBU CTB9	County UINTAH
Spud Date	Rig Release Date	On Production Date 12/3/2000	Original KB Elevation (ft)	Ground Elevation (ft)	Total Depth All (TVD) (ftKB)	PBTD (All) (ftKB) Original Hole - 5,899.0	

Most Recent Job

Job Category Production / Workover	Primary Job Type Conversion	Secondary Job Type Basic	Job Start Date 3/31/2014	Job End Date
---------------------------------------	--------------------------------	-----------------------------	-----------------------------	--------------

TD: 5,947.7

Vertical - Original Hole, 4/4/2014 8:14:26 AM



NEWFIELD**Newfield Wellbore Diagram Data
Odekirk 16-36-8-17**

Surface Legal Location 36-8S-17E		API/UWI 43047332000000		Lease	
County UINTAH		State/Province Utah		Basin	
Well Start Date 9/30/2000		Spud Date		Final Rig Release Date	
Original KB Elevation (ft)		Ground Elevation (ft)		Total Depth (ftKB) 5,947.7	
				Total Depth All (TVD) (ftKB)	
				PBSD (All) (ftKB) Original Hole - 5,899.0	

Casing Strings

Csg Des	Run Date	OD (in)	ID (in)	Wt/Len (lb/ft)	Grade	Set Depth (ftKB)
Surface	9/30/2000	8 5/8	8.097	24.00	J-55	305
Production	10/30/2000	5 1/2	4.950	15.50	J-55	5,948

Cement**String: Surface, 305ftKB 9/30/2000**

Cementing Company BJ Services Company		Top Depth (ftKB) 10.0	Bottom Depth (ftKB) 305.0	Full Return?	Vol Cement Ret (bbl)
Fluid Description		Fluid Type Lead	Amount (sacks) 155	Class G	Estimated Top (ftKB) 10.0

String: Production, 5,948ftKB 10/30/2000

Cementing Company BJ Services Company		Top Depth (ftKB) 10.0	Bottom Depth (ftKB) 5,947.7	Full Return?	Vol Cement Ret (bbl)
Fluid Description		Fluid Type Lead	Amount (sacks) 410	Class PREMLITE II	Estimated Top (ftKB) 12.0
Fluid Description		Fluid Type Tail	Amount (sacks) 545	Class 50/50 POZ	Estimated Top (ftKB) 2,500.0

Tubing Strings

Tubing Description		Run Date		Set Depth (ftKB)				
Tubing		4/2/2014		4,795.6				
Item Des	Jts	OD (in)	ID (in)	Wt (lb/ft)	Grade	Len (ft)	Top (ftKB)	Btm (ftKB)
Tubing	154	2 7/8	2.441	6.50	J-55	4,769.56	10.0	4,779.6
Pump Seating Nipple		2 7/8	2.441			1.10	4,779.6	4,780.7
On-Off Tool		2 7/8				1.45	4,780.7	4,782.1
X Seal Nipple		2 7/8				0.33	4,782.1	4,782.4
Packer		5 1/2	4.950			6.95	4,782.4	4,789.4
Cross Over		2 3/8	1.991			0.51	4,789.4	4,789.9
Tubing Pup Joint		2 3/8				4.05	4,789.9	4,794.0
XN Nipple		2 3/8				1.22	4,794.0	4,795.2
Wireline Guide		2 3/8				0.40	4,795.2	4,795.6

Rod Strings

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

Perforation Intervals

Stage#	Zone	Top (ftKB)	Btm (ftKB)	Shot Dens (shots/ft)	Phasing (°)	Nom Hole Dia (in)	Date
4	D2 SANDS, Original Hole	4,856	4,870	4			11/29/2000
3	B1 SANDS, Original Hole	5,066	5,136	4			11/29/2000
2	LDC & A3 SANDS, Original Hole	5,298	5,418	4			11/29/2000
1	CP1 SANDS, Original Hole	5,700	5,706	4			11/29/2000

Stimulations & Treatments

Stage#	ISIP (psi)	Frac Gradient (psi/ft)	Max Rate (bbl/min)	Max PSI (psi)	Total Clean Vol (bbl)	Total Slurry Vol (bbl)	Vol Recov (bbl)
1							
2							
3							
4							

Proppant

Stage#	Total Prop Vol Pumped (lb)	Total Add Amount
1		Proppant White Sand 25000 lb
2		Proppant White Sand 157136 lb
3		Proppant White Sand 167000 lb
4		Proppant White Sand 40000 lb

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-44305
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Water Injection Well		7. UNIT or CA AGREEMENT NAME: GMBU (GRRV)
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		8. WELL NAME and NUMBER: ODEKIRK SPRING 16-36-8-17
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT, 84052		9. API NUMBER: 43047332000000
PHONE NUMBER: 435 646-4825 Ext		9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0669 FSL 0586 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SESE Section: 36 Township: 08.0S Range: 17.0E Meridian: S		COUNTY: UINTAH
		STATE: 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: 5/7/2014	<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 checked="" type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input checked="" 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 type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The above reference well was put on injection at 9:20 AM on
05/07/2014. EPA # UT22197-10331

**Accepted by the
Utah Division of
Oil, Gas and Mining**
FOR RECORD ONLY
May 08, 2014

NAME (PLEASE PRINT) Lucy Chavez-Naupoto	PHONE NUMBER 435 646-4874	TITLE Water Services Technician
SIGNATURE N/A	DATE 5/8/2014	