QUESTAR

QEP Uinta Basin, Inc.
11002 East 17500 South
Vernal, UT 84078
Tel 435 781 4300 • Fax 435 781 4329

February 4, 2005

Bureau of Land Management
Vernal Field Office
Vernal, Ut

Attn: Kirk Fleetwood

RE: FR 1P-36-14-19 Well
Section 36, T14S, R19E
Uintah County, Ut

Gentlemen:

This letter will reflect our understanding regarding the surface location for the captioned well and the directional drilling of the well through unleased federal minerals. We are unable, due to topography, to drill the well vertically from surface location on the State of Utah Lease overlying the bottom hole target. The federal government is the unleased mineral owner in Section 31, T14S, T20E. We have made arrangements with the surface owner in Section 31, The Ute Tribe, to construct the well site at a surface location therein. We will then drill the well directionally to a bottom hole location on our contiguous State lease. Under no circumstances will the wellbore be completed in an interval which is within 460' of Section 31 boundary. Attached hereto is the directional plan for the drilling of the well. You have indicated you have no objection to the well being logged over intervals within Section 31, but that the Bureau of Land Management will not hold that portion of the logs confidential. Please indicate your agreement with this understanding by signing and dating as indicated below. Please call Jan Nelson at 435-781-4331, if you have questions regarding this matter.

Sincerely,

Jan Nelson

Jan Nelson

AGEEED TO AND ACCEPTED
This 7th day of February, 2005
BUREAU OF LAND MANAGEMENT

By Kirk Fleetwood Pet. Engineer
Name & Title

RECEIVED
FEB 04 2005
BLM VERNAL, UTAH

.002

QUESTAR

QEP Uinta Basin, Inc.
11002 East 17500 South
Vernal, UT 84078
Tel 435 781 4300 • Fax 435 781 4329

February 8, 2005

Ms. Diana Whitney
State of Utah
Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Salt Lake City, Ut 84114-5801

RECEIVED
FEB 09 2005
DIV. OF OIL, GAS & MINING

Re: Directional Drilling R649-3-11
FR 1P-36-14-19: 623'FNL 1249' FWL Section 31, T14S, R20E (surface)
660' FNL 660' FEL Section 36, T14S, R19E (bottom hole)

Dear Ms. Whitney:

Pursuant to the filing of FR 1P-36-14-19 Application for Permit to Drill regarding the above referenced well on January 28, 2005, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the location and drilling of a directional well.

FR 1P-36-14-19 is located in T14S, R19E, Section 36 in the NE/NE.

QEP Uinta Basin, Inc. 11002 East 17500 South, Vernal, Utah 84078, is permitting this well as a directional well due to topographic reasons. Locating the well at the surface location and directionally drilling from this location.

The Federal government is the unleased mineral owner in Section 31, T14S, R20E. Questar has obtained the Federal government's approval for the drilling of this well. (see attachment) We have made arrangements with the surface owner in Section 31, the Ute Indian Tribe, to construct the well site and access roads therein. We will then drill the well directionally to a bottom hole location on our contiguous State lease.

There are no other lease owners within 460' of all points along the intended directional wellbore as shown on the attached plat. Therefore, based on the above stated information, QEP Uinta Basin, Inc. requests the permit be granted pursuant to R649-3-11.

Respectfully,

Jan Nelson

Jan Nelson
Regulatory Affairs Analyst

001

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

FORM 3

## APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: ML-49279
6. SURFACE: TRIBAL

1A. TYPE OF WORK: DRILL ☑ ☐ REENTER ☐ DEEPEN

7. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TRIBE

B. TYPE OF WELL ☐ OIL ☑ GAS OTHER _____ ☑ SINGLE ZONE ☐ MULTIPLE ZONE

8. UNIT or CA AGREEMENT NAME: N/A

2. NAME OF OPERATOR: QEP UINTA BASIN, INC.

9. WELL NAME and NUMBER: FR 1P-36-14-19

3. ADDRESS OF OPERATOR: 11002 E. 17500 S. CITY VERNAL STATE UT ZIP 84078
PHONE NUMBER: (435) 781-4331

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED

4. LOCATION OF WELL (FOOTAGES)
AT SURFACE: 623' FNL 1249' FWL NW NW SECTION 31, T14S, R20E
AT PROPOSED PRODUCING ZONE: 660' FNL 660' FEL SEC. 36, T14S, R19E

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NW NW 31 14S 20E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 53.4 +/- MILES SOUTHWEST OF OURAY, UTAH

12. COUNTY: UINTAH
13. STATE: UTAH

15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE(FEET): 623 + / --
16. NUMBER OF ACRES IN LEASE: 594.49
17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)
19. PROPOSED DEPTH: 12750' TVD 12950' TMD
20. BOND DESCRIPTION: 04127294

21. ELEVATIONS (SHOW WHETHER DF, RT, GR,ETC.): 7203.7 GR
22. APPROXIMATE DATE WORK WILL START: ASAP
23. ESTIMATED DURATION: 10 DAYS

24 **PROPOSED CASING AND CEMENTING PROGRAM**

| SIZE OF HOLE | CASING SIZE, GRADE, AND WEIGHT PER FOOT | | | SETTING DEPTH | CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT |
|---|---|---|---|---|---|
| 17 1/2 | 13 3/8 | M-50 | 48 | 500 | SEE ATTACHED DRILLING PROGRAM |
| 12 1/4 | 9 5/8 | J-55 | 40 | 4000 | SEE ATTACHED CEMENT CALCULATIONS |
| 8 1/2 | 5 1/2 | P-110 | 17 | TD | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

25 **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERATION GENERAL RULES:

☑ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER
☑ EVIDNECE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER
☑ COMPLETE DRILLING PLAN
☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OW

NAME (PLEASE PRINT) Jan Nelson TITLE Regulatory Affairs Analyst

SIGNATURE Jan Nelson DATE 1/28/05

(This space for State use only)

API NUMBER ASSIGNED: 43-047-36300 APPROVAL:

Surf 609558X 39.561363
4379642Y -109.724692

BHL 608976X 39.561261
4379623Y -109.731467

Approved by the Utah Division of Oil, Gas and Mining
Date: 02-16-05
By: [illegible]

RECEIVED
FEB 09 2005
DIV. OF OIL, GAS & MINING

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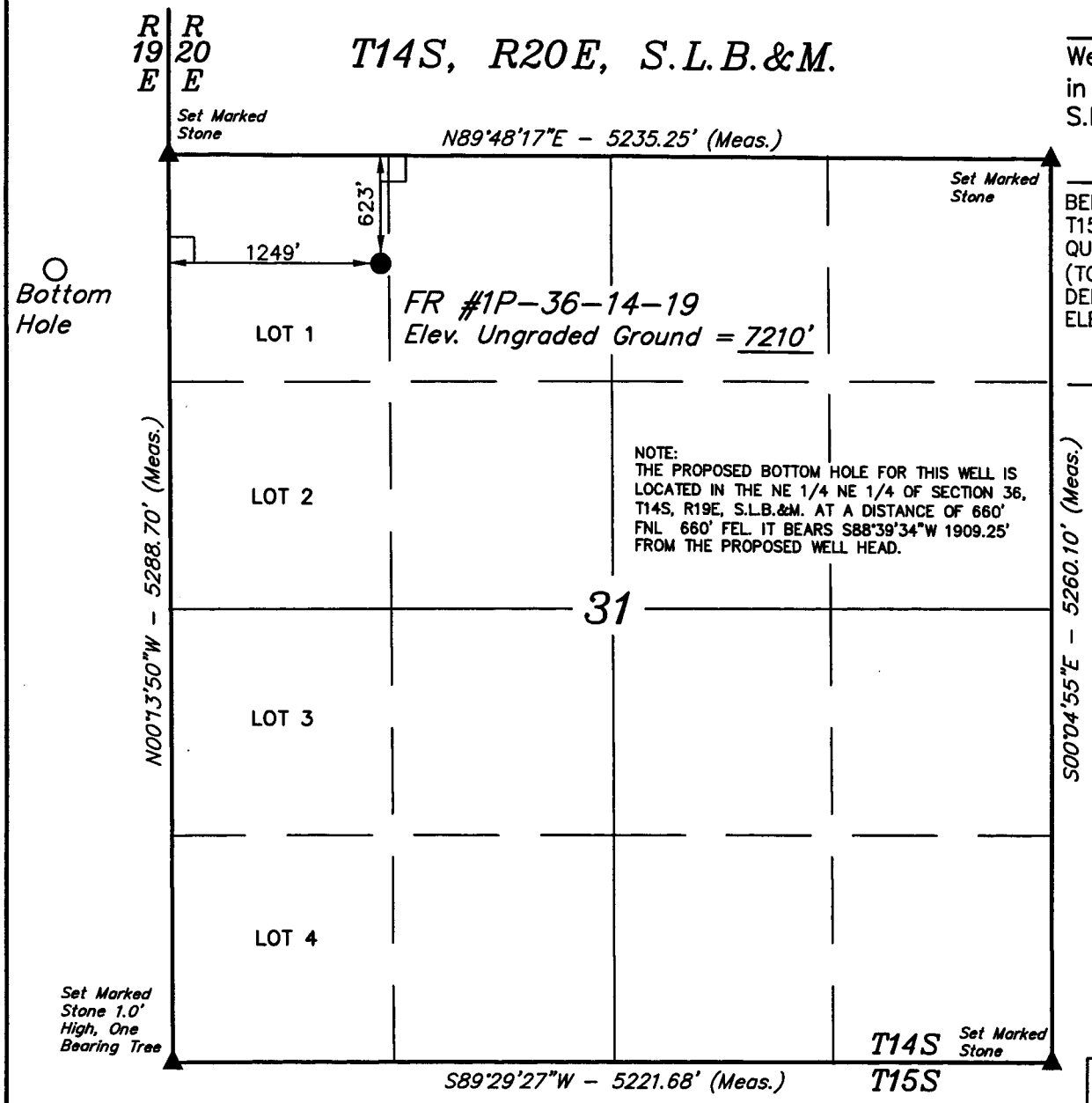



# QUESTAR EXPLR. & PROD.

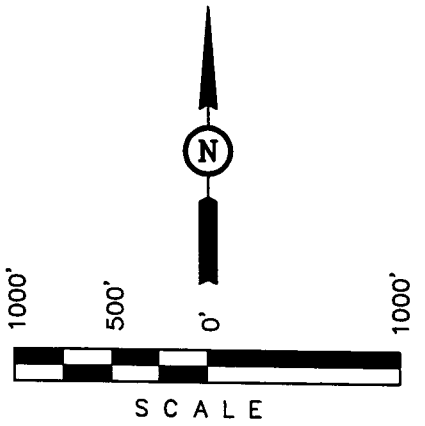
Well location, FR #1P-36-14-19, located as shown in the NW 1/4 NW 1/4 of Section 31, T14S, R20E, S.L.B.&M. Uintah County, Utah.

## BASIS OF ELEVATION

BENCH MARK (59 WF) LOCATED IN THE NW 1/4 OF SECTION 10, T15S, R20E, S.L.B.&M. TAKEN FROM THE FLAT ROCK MESA QUADRANGLE, UTAH, UINTAH COUNTY 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 7449 FEET.

## BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.




## CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

**LEGEND:**

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

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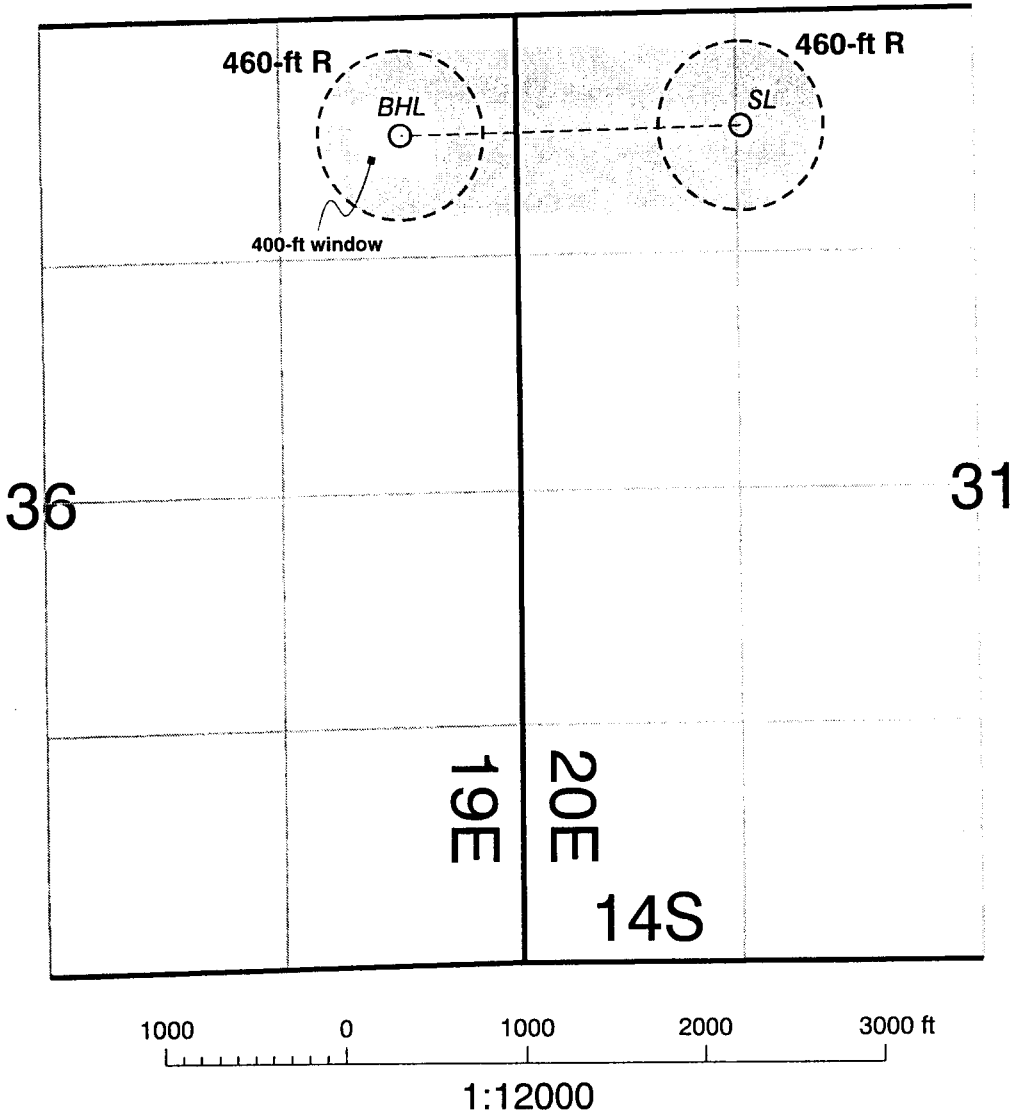
(NAD 83)
LATITUDE = 39°33'41.00" (39.561389)
LONGITUDE = 109°43'32.04" (109.725567)

(NAD 27)
LATITUDE = 39°33'41.13" (39.561425)
LONGITUDE = 109°33'29.55" (109.724875)

**UINTAH ENGINEERING & LAND SURVEYING**
*85 SOUTH 200 EAST - VERNAL, UTAH 84078*
(435) 789-1017

| | | |
|---|---|---|
| SCALE 1" = 1000' | DATE SURVEYED: 10-28-04 | DATE DRAWN: 11-03-04 |
| PARTY D.A. T.A. C.G. | REFERENCES G.L.O. PLAT | |
| WEATHER WARM | FILE QUESTAR EXPLR. & PROD. | |


460-ft R
BHL
400-ft window
460-ft R
SL
36
31
19E
20E
14S
1000
0
1000
2000
3000 ft
1:12000

FR 1P-36-14-19

**Additional Operator Remarks**

QEP, Uinta Basin Inc. proposes to directional drill a well to 12950' to test the Pre-Cambrian. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and State of Utah requirements

See Onshore Order No. 1 attached

Please be advised that QEP, Uinta Basin Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Bond No.04127294. The principal is QEP, Uinta Basin Inc. via surety as consent as provided for the 43 CFR 3104.2.

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ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal Oil and Gas Leases

All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to insure compliance.

1. Formation Tops

The estimated tops of important geologic markers are as follows:

| Formation | TVD | MD | Prod. Phase Anticipated |
|---|---|---|---|
| Uinta | Surface | Surface | |
| Wasatch | 2410 | 2445 | |
| Mesa Verde | 4390 | 4471 | Gas |
| Castle Gate | 6225 | 6349 | |
| Mancos | 6465 | 6595 | |
| Dakota Silt | 10310 | 10510 | |
| Dakota | 10410 | 10610 | |
| Cedar Mountain | 10480 | 10680 | |
| Morrison | 10700 | 10900 | |
| Curtis | 11325 | 11525 | |
| Entrada | 11395 | 11595 | |
| Carmel | 11660 | 11860 | |
| Kayenta | 11740 | 11940 | |
| Wingate | 11860 | 12060 | |
| Chinle | 12140 | 12340 | |
| Shinarumn | 12450 | 12650 | |
| Pre-Cambrian | 12550 | 12750 | |
| TD | 12750 | 12950 | |

2. Anticipated Depths of Oil Gas Water and Other Mineral Bearing Zones

The estimated depths at which the top and bottom of the anticipated water, oil, gas. Or other mineral bearing formations are expected to be encountered are as follows:

| Substance | Formation | TVD Depth | MD Depth |
|---|---|---|---|
| Oil/Gas | Pre-Cambrian | 12750' | 12950' |

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All fresh water and prospectively valuable minerals encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

All water shows and water-bearing sands will be reported to the BLM in Vernal, Utah. Copies of State of Utah form OGC-8-X are acceptable. If no flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Willow Creek water right #49-2183 / Permit# T75500.

All waste water resulting from drilling operations will be disposed of at RNI disposal pit located in NWNE Section 5, T9S, R22E.

3. Operator's Specification for Pressure Control Equipment:

A. 5,000 psi W.P. Double Gate BOP or Single Gate BOP (schematic attached)

B. Functional test daily

C. All casing strings shall be pressure tested (0.2 psi/foot or 1500 psi, or 70 % of burst whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.

D. Ram type preventers and associated equipment shall be tested to approved stack working pressure if isolated by test plug or to 50 percent of internal yield pressure of casing whichever is less. BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc…, for a 5M system and individual components shall be operable as designed.

4. Casing Program

| | Depth | Hole Size | Csg Size | Type | Weight |
|---|---|---|---|---|---|
| Surface | 500' | 17 ½" | 13 3/8" | M-50 | 48lb/ft (new) |
| Intermediate | 4000' | 12 ¼" | 9 5/8" | J-55 | 40lb/ft (new) |
| Production | TD | 8 ½" | 5 ½" | P-110 | 17lb/ft(new) |

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5. Auxiliary Equipment

A. Kelly Cock – yes

B. Float at the bit – no

C. Monitoring equipment on the mud system – visually

D. Full opening safety valve on the rig floor – yes

E. Rotating Head – yes
If drilling with air the following will be used:

F. The blooie line shall be at least 6" in diameter and extend at least 100' from the well bore into the reserve/blooie pit.

G. Blooie line ignition shall be provided by a continuous pilot (ignited when drilling below 500').

H. Compressor shall be tied directly to the blooie line through a manifold.

I. A mister with a continuous stream of water shall be installed near the end of the blooie lines for dust suppression.

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Drilling below surface casing will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. No chromates will be used. It is not intended to use oil in the mud, however, in the event it is used, oil concentration will be less than 4% by volume. Maximum anticipated mud weight is 9.5 ppg.

No minimum quantity of weight material will be required to be kept on location.

PVT/Flow Show will be used from base of surface casing to TD.

Gas detector will be used from surface casing depth to TD.

6. Testing, logging and coring program

A. Cores – none anticipated

B. DST – none anticipated

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Logging – Mud logging – 4500 to TD
GR-SP-Induction
Neutron Density
MRI

CA. Formation and Completion Interval: Pre-Cambrian interval, final determination 0f completion will be made by analysis of logs.
Stimulation – Stimulation will be designed for the particular area of interest as encountered.

7. Cementing Program

| Casing | Volume | Type & Additives |
|---|---|---|
| Surface | 578 sx | Premium Plus single slurry mixed to 15.6 ppg, yield = 1.18 cf/sx. Fill to surface with 344cf (578sx) calculated. Tail plug used. Allowed to set under pressure |

See attached Cementing Recommendation.

*Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

8. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards

No abnormal temperatures or pressures are anticipated. No H2S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 5529 psi. Maximum anticipated bottom hole temperature is 140° F.

9. Surface Owner
The well pad and access road are located on lands owned by the Ute Tribe.

WEATHERFORD DIRECTIONAL DRILLING SERVICES

# QUESTAR

Azimuths to True North
Magnetic North: 0.00°

T/M

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 9/22/2004
Model: igrf2000

## SITE DETAILS

**Flat Rock Drillsite 2**
**31-14S-20E**
**623 FNL & 1249' FWL**

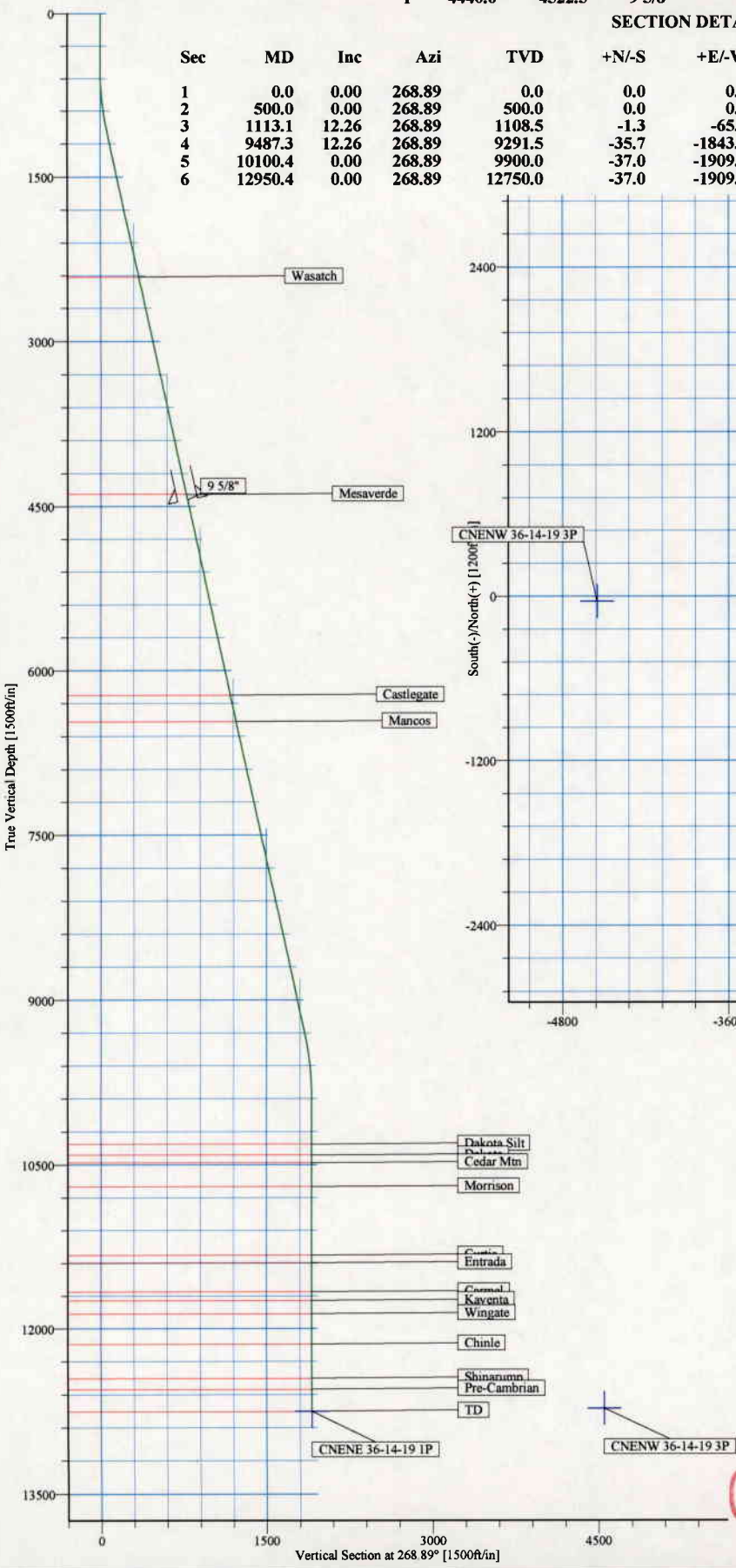
**Water Depth: 0.0**
**Positional Uncertainty: 0.0**
**Convergence: 0.00**

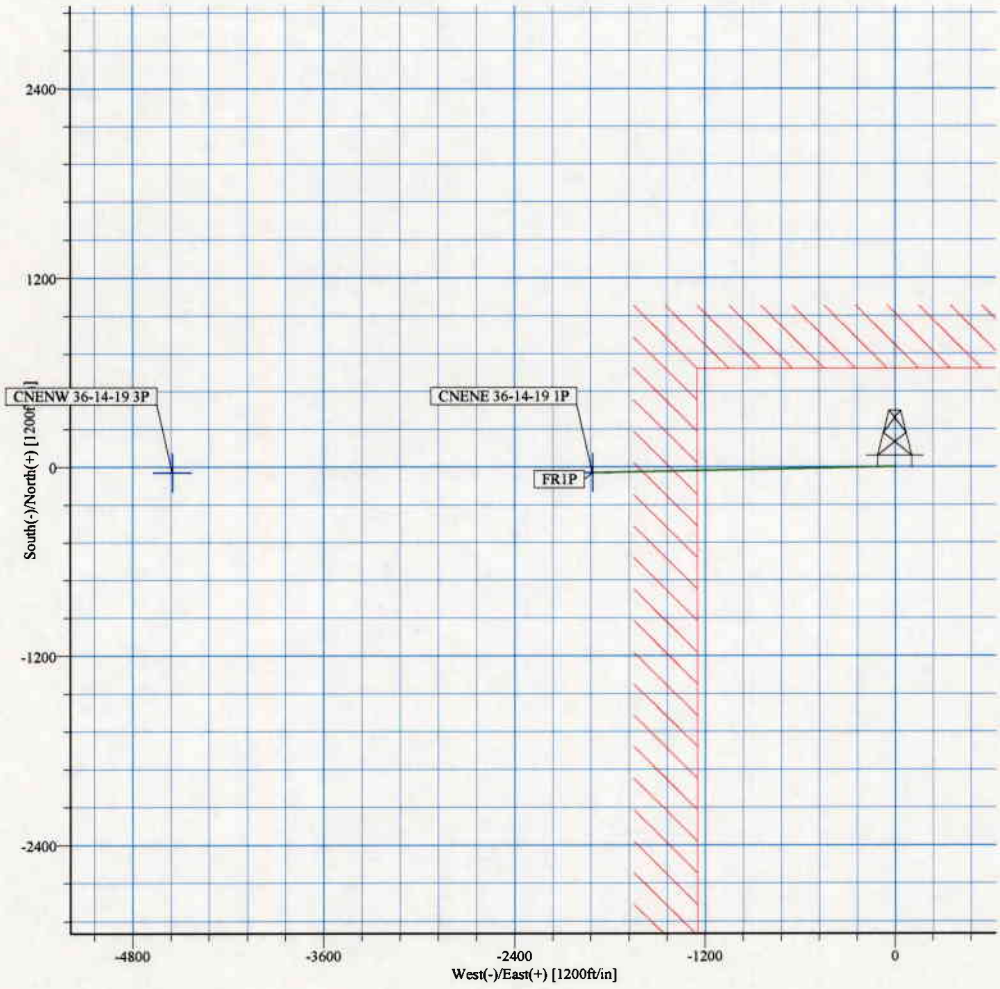
## CASING DETAILS

| No. | TVD | MD | Name | Size |
|---|---|---|---|---|
| 1 | 4440.0 | 4522.5 | 9 5/8" | 9.625 |

## SECTION DETAILS

| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | DLeg | TFace | VSec | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0.0 | 0.00 | 268.89 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 2 | 500.0 | 0.00 | 268.89 | 500.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.0 | |
| 3 | 1113.1 | 12.26 | 268.89 | 1108.5 | -1.3 | -65.4 | 2.00 | 268.89 | 65.4 | |
| 4 | 9487.3 | 12.26 | 268.89 | 9291.5 | -35.7 | -1843.6 | 0.00 | 0.00 | 1844.0 | |
| 5 | 10100.4 | 0.00 | 268.89 | 9900.0 | -37.0 | -1909.0 | 2.00 | 180.00 | 1909.4 | |
| 6 | 12950.4 | 0.00 | 268.89 | 12750.0 | -37.0 | -1909.0 | 0.00 | 0.00 | 1909.4 | CNENE 36-14-19 1P |




## FORMATION TOP DETAILS

| No. | TVDPath | MDPath | Formation |
|---|---|---|---|
| 1 | 2410.0 | 2445.1 | Wasatch |
| 2 | 4390.0 | 4471.3 | Mesaverde |
| 3 | 6225.0 | 6349.1 | Castlegate |
| 4 | 6465.0 | 6594.7 | Mancos |
| 5 | 10310.0 | 10510.4 | Dakota Silt |
| 6 | 10410.0 | 10610.4 | Dakota |
| 7 | 10480.0 | 10680.4 | Cedar Mtn |
| 8 | 10700.0 | 10900.4 | Morrison |
| 9 | 11325.0 | 11525.4 | Curtis |
| 10 | 11395.0 | 11595.4 | Entrada |
| 11 | 11660.0 | 11860.4 | Carmel |
| 12 | 11740.0 | 11940.4 | Kayenta |
| 13 | 11860.0 | 12060.4 | Wingate |
| 14 | 12140.0 | 12340.4 | Chinle |
| 15 | 12450.0 | 12650.4 | Shinarump |
| 16 | 12550.0 | 12750.4 | Pre-Cambrian |
| 17 | 12750.0 | 12950.4 | TD |

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Plan: FR1P (Flat Rock Drillsite 2 36-14-19/1P)

Created By: Steve Schmitz

Date: 12/14/2004

# Weatherford
## Planning Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | Questar | **Date:** 12/14/2004 | **Time:** 10:34:47 | **Page:** | 1 |
| **Field:** | Flat Rock | **Co-ordinate(NE) Reference:** | Well: Flat Rock Drillsite 2 36-14-19 | | |
| **Site:** | Flat Rock Drillsite 2 | **Vertical (TVD) Reference:** | SITE 0.0 | | |
| **Well:** | Flat Rock Drillsite 2 36-14-19 | **Section (VS) Reference:** | Site (0.00N,0.00E,268.89Azi) | | |
| **Wellpath:** | 1P | **Plan:** | FR1P | | |

**Field:** Flat Rock
T14S R20E
Uintah County, Utah

**Map System:** US State Plane Coordinate System 1927 — **Map Zone:** Utah, Northern Zone
**Geo Datum:** NAD27 (Clarke 1866) — **Coordinate System:** Well Centre
**Sys Datum:** Mean Sea Level — **Geomagnetic Model:** igrf2000

**Site:** Flat Rock Drillsite 2
31-14S-20E
623 FNL & 1249' FWL

**Site Position:** — **Northing:** ft — **Latitude:**
**From:** Lease Line — **Easting:** ft — **Longitude:**
**Position Uncertainty:** 0.0 ft — **North Reference:** True
**Ground Level:** 0.0 ft — **Grid Convergence:** 0.00 deg

**Well:** Flat Rock Drillsite 2 36-14-19 — **Slot Name:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Well Position:** | +N/-S | 0.0 ft | **Northing:** | 0.00 ft | **Latitude:** | 40 | 6 | 25.756 | N |
| | +E/-W | 0.0 ft | **Easting :** | 0.00 ft | **Longitude:** | 118 | 39 | 24.074 | W |
| **Position Uncertainty:** | | 0.0 ft | | | | | | | |

**Wellpath:** 1P — **Drilled From:** Surface
**Tie-on Depth:** 0.0 ft
**Current Datum:** SITE — **Height** 0.0 ft — **Above System Datum:** Mean Sea Level
**Magnetic Data:** 9/22/2004 — **Declination:** 0.00 deg
**Field Strength:** 0 nT — **Mag Dip Angle:** 0.00 deg

| **Vertical Section:** | Depth From (TVD) ft | +N/-S ft | +E/-W ft | Direction deg |
|---|---|---|---|---|
| | 0.0 | 0.0 | 0.0 | 268.89 |

**Plan:** FR1P — **Date Composed:** 9/22/2004
**Version:** 1
**Principal:** Yes — **Tied-to:** From Surface

**Plan Section Information**

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg | Target |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 268.89 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 500.0 | 0.00 | 268.89 | 500.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 1113.1 | 12.26 | 268.89 | 1108.5 | -1.3 | -65.4 | 2.00 | 2.00 | 0.00 | 268.89 | |
| 9487.3 | 12.26 | 268.89 | 9291.5 | -35.7 | -1843.6 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 10100.4 | 0.00 | 268.89 | 9900.0 | -37.0 | -1909.0 | 2.00 | -2.00 | 0.00 | 180.00 | |
| 12950.4 | 0.00 | 268.89 | 12750.0 | -37.0 | -1909.0 | 0.00 | 0.00 | 0.00 | 0.00 | CNENE 36-14-19 1P |

**Section** 1 : Start Hold

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 268.89 | 0.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 100.0 | 0.00 | 268.89 | 100.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 268.89 |
| 200.0 | 0.00 | 268.89 | 200.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 268.89 |
| 300.0 | 0.00 | 268.89 | 300.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 268.89 |
| 400.0 | 0.00 | 268.89 | 400.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 268.89 |
| 500.0 | 0.00 | 268.89 | 500.0 | 0.0 | 0.0 | 0.0 | 0.00 | 0.00 | 0.00 | 268.89 |

**Section** 2 : Start Build 2.00

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg |
|---|---|---|---|---|---|---|---|---|---|---|
| 600.0 | 2.00 | 268.89 | 600.0 | 0.0 | -1.7 | 1.7 | 2.00 | 2.00 | 0.00 | 0.00 |
| 700.0 | 4.00 | 268.89 | 699.8 | -0.1 | -7.0 | 7.0 | 2.00 | 2.00 | 0.00 | 0.00 |
| 800.0 | 6.00 | 268.89 | 799.5 | -0.3 | -15.7 | 15.7 | 2.00 | 2.00 | 0.00 | 0.00 |
| 900.0 | 8.00 | 268.89 | 898.7 | -0.5 | -27.9 | 27.9 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1000.0 | 10.00 | 268.89 | 997.5 | -0.8 | -43.5 | 43.5 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1100.0 | 12.00 | 268.89 | 1095.6 | -1.2 | -62.6 | 62.6 | 2.00 | 2.00 | 0.00 | 0.00 |
| 1113.1 | 12.26 | 268.89 | 1108.5 | -1.3 | -65.4 | 65.4 | 2.00 | 2.00 | 0.00 | 0.00 |

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# Weatherford
## Planning Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | Questar | **Date:** 12/14/2004 | **Time:** 10:34:47 | **Page:** | 2 |
| **Field:** | Flat Rock | **Co-ordinate(NE) Reference:** | Well: Flat Rock Drillsite 2 36-14-19 | | |
| **Site:** | Flat Rock Drillsite 2 | **Vertical (TVD) Reference:** | SITE 0.0 | | |
| **Well:** | Flat Rock Drillsite 2 36-14-19 | **Section (VS) Reference:** | Site (0.00N,0.00E,268.89Azi) | | |
| **Wellpath:** | 1P | **Plan:** | FR1P | | |

**Section** 2 : Start Build 2.00

| MD | Incl | Azim | TVD | +N/-S | +E/-W | VS | DLS | Build | Turn | TFO |
|---|---|---|---|---|---|---|---|---|---|---|

**Section** 3 : Start Hold

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg |
|---|---|---|---|---|---|---|---|---|---|---|
| 1200.0 | 12.26 | 268.89 | 1193.3 | -1.6 | -83.8 | 83.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1300.0 | 12.26 | 268.89 | 1291.1 | -2.0 | -105.0 | 105.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1400.0 | 12.26 | 268.89 | 1388.8 | -2.4 | -126.3 | 126.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1500.0 | 12.26 | 268.89 | 1486.5 | -2.9 | -147.5 | 147.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1600.0 | 12.26 | 268.89 | 1584.2 | -3.3 | -168.7 | 168.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1700.0 | 12.26 | 268.89 | 1681.9 | -3.7 | -190.0 | 190.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1800.0 | 12.26 | 268.89 | 1779.7 | -4.1 | -211.2 | 211.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1900.0 | 12.26 | 268.89 | 1877.4 | -4.5 | -232.4 | 232.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2000.0 | 12.26 | 268.89 | 1975.1 | -4.9 | -253.7 | 253.7 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2100.0 | 12.26 | 268.89 | 2072.8 | -5.3 | -274.9 | 275.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2200.0 | 12.26 | 268.89 | 2170.5 | -5.7 | -296.2 | 296.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2300.0 | 12.26 | 268.89 | 2268.2 | -6.2 | -317.4 | 317.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2400.0 | 12.26 | 268.89 | 2366.0 | -6.6 | -338.6 | 338.7 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2445.1 | 12.26 | 268.89 | 2410.0 | -6.7 | -348.2 | 348.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2500.0 | 12.26 | 268.89 | 2463.7 | -7.0 | -359.9 | 359.9 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2600.0 | 12.26 | 268.89 | 2561.4 | -7.4 | -381.1 | 381.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2700.0 | 12.26 | 268.89 | 2659.1 | -7.8 | -402.3 | 402.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2800.0 | 12.26 | 268.89 | 2756.8 | -8.2 | -423.6 | 423.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2900.0 | 12.26 | 268.89 | 2854.6 | -8.6 | -444.8 | 444.9 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3000.0 | 12.26 | 268.89 | 2952.3 | -9.0 | -466.0 | 466.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3100.0 | 12.26 | 268.89 | 3050.0 | -9.4 | -487.3 | 487.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3200.0 | 12.26 | 268.89 | 3147.7 | -9.9 | -508.5 | 508.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3300.0 | 12.26 | 268.89 | 3245.4 | -10.3 | -529.7 | 529.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3400.0 | 12.26 | 268.89 | 3343.2 | -10.7 | -551.0 | 551.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3500.0 | 12.26 | 268.89 | 3440.9 | -11.1 | -572.2 | 572.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3600.0 | 12.26 | 268.89 | 3538.6 | -11.5 | -593.5 | 593.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3700.0 | 12.26 | 268.89 | 3636.3 | -11.9 | -614.7 | 614.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3800.0 | 12.26 | 268.89 | 3734.0 | -12.3 | -635.9 | 636.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3900.0 | 12.26 | 268.89 | 3831.7 | -12.7 | -657.2 | 657.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4000.0 | 12.26 | 268.89 | 3929.5 | -13.1 | -678.4 | 678.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4100.0 | 12.26 | 268.89 | 4027.2 | -13.6 | -699.6 | 699.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4200.0 | 12.26 | 268.89 | 4124.9 | -14.0 | -720.9 | 721.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4300.0 | 12.26 | 268.89 | 4222.6 | -14.4 | -742.1 | 742.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4400.0 | 12.26 | 268.89 | 4320.3 | -14.8 | -763.3 | 763.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4471.3 | 12.26 | 268.89 | 4390.0 | -15.1 | -778.5 | 778.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4500.0 | 12.26 | 268.89 | 4418.1 | -15.2 | -784.6 | 784.7 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4522.5 | 12.26 | 268.89 | 4440.0 | -15.3 | -789.3 | 789.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4600.0 | 12.26 | 268.89 | 4515.8 | -15.6 | -805.8 | 806.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4700.0 | 12.26 | 268.89 | 4613.5 | -16.0 | -827.0 | 827.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4800.0 | 12.26 | 268.89 | 4711.2 | -16.4 | -848.3 | 848.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4900.0 | 12.26 | 268.89 | 4808.9 | -16.9 | -869.5 | 869.7 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5000.0 | 12.26 | 268.89 | 4906.6 | -17.3 | -890.7 | 890.9 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5100.0 | 12.26 | 268.89 | 5004.4 | -17.7 | -912.0 | 912.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5200.0 | 12.26 | 268.89 | 5102.1 | -18.1 | -933.2 | 933.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5300.0 | 12.26 | 268.89 | 5199.8 | -18.5 | -954.5 | 954.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5400.0 | 12.26 | 268.89 | 5297.5 | -18.9 | -975.7 | 975.9 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5500.0 | 12.26 | 268.89 | 5395.2 | -19.3 | -996.9 | 997.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5600.0 | 12.26 | 268.89 | 5493.0 | -19.7 | -1018.2 | 1018.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5700.0 | 12.26 | 268.89 | 5590.7 | -20.1 | -1039.4 | 1039.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5800.0 | 12.26 | 268.89 | 5688.4 | -20.6 | -1060.6 | 1060.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5900.0 | 12.26 | 268.89 | 5786.1 | -21.0 | -1081.9 | 1082.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6000.0 | 12.26 | 268.89 | 5883.8 | -21.4 | -1103.1 | 1103.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6100.0 | 12.26 | 268.89 | 5981.5 | -21.8 | -1124.3 | 1124.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6200.0 | 12.26 | 268.89 | 6079.3 | -22.2 | -1145.6 | 1145.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6300.0 | 12.26 | 268.89 | 6177.0 | -22.6 | -1166.8 | 1167.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6349.1 | 12.26 | 268.89 | 6225.0 | -22.8 | -1177.2 | 1177.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6400.0 | 12.26 | 268.89 | 6274.7 | -23.0 | -1188.0 | 1188.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6500.0 | 12.26 | 268.89 | 6372.4 | -23.4 | -1209.3 | 1209.5 | 0.00 | 0.00 | 0.00 | 0.00 |

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# Weatherford
## Planning Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | Questar | **Date:** 12/14/2004 | **Time:** 10:34:47 | **Page:** | 3 |
| **Field:** | Flat Rock | **Co-ordinate(NE) Reference:** | Well: Flat Rock Drillsite 2 36-14-19 | | |
| **Site:** | Flat Rock Drillsite 2 | **Vertical (TVD) Reference:** | SITE 0.0 | | |
| **Well:** | Flat Rock Drillsite 2 36-14-19 | **Section (VS) Reference:** | Site (0.00N,0.00E,268.89Azi) | | |
| **Wellpath:** | 1P | **Plan:** | FR1P | | |

**Section** 3 : Start Hold

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg |
|---|---|---|---|---|---|---|---|---|---|---|
| 6594.7 | 12.26 | 268.89 | 6465.0 | -23.8 | -1229.4 | 1229.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6600.0 | 12.26 | 268.89 | 6470.1 | -23.8 | -1230.5 | 1230.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6700.0 | 12.26 | 268.89 | 6567.9 | -24.3 | -1251.8 | 1252.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6800.0 | 12.26 | 268.89 | 6665.6 | -24.7 | -1273.0 | 1273.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6900.0 | 12.26 | 268.89 | 6763.3 | -25.1 | -1294.2 | 1294.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7000.0 | 12.26 | 268.89 | 6861.0 | -25.5 | -1315.5 | 1315.7 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7100.0 | 12.26 | 268.89 | 6958.7 | -25.9 | -1336.7 | 1336.9 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7200.0 | 12.26 | 268.89 | 7056.4 | -26.3 | -1357.9 | 1358.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7300.0 | 12.26 | 268.89 | 7154.2 | -26.7 | -1379.2 | 1379.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7400.0 | 12.26 | 268.89 | 7251.9 | -27.1 | -1400.4 | 1400.7 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7500.0 | 12.26 | 268.89 | 7349.6 | -27.6 | -1421.6 | 1421.9 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7600.0 | 12.26 | 268.89 | 7447.3 | -28.0 | -1442.9 | 1443.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7700.0 | 12.26 | 268.89 | 7545.0 | -28.4 | -1464.1 | 1464.4 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7800.0 | 12.26 | 268.89 | 7642.8 | -28.8 | -1485.3 | 1485.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7900.0 | 12.26 | 268.89 | 7740.5 | -29.2 | -1506.6 | 1506.9 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8000.0 | 12.26 | 268.89 | 7838.2 | -29.6 | -1527.8 | 1528.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8100.0 | 12.26 | 268.89 | 7935.9 | -30.0 | -1549.1 | 1549.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8200.0 | 12.26 | 268.89 | 8033.6 | -30.4 | -1570.3 | 1570.6 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8300.0 | 12.26 | 268.89 | 8131.4 | -30.8 | -1591.5 | 1591.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8400.0 | 12.26 | 268.89 | 8229.1 | -31.3 | -1612.8 | 1613.1 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8500.0 | 12.26 | 268.89 | 8326.8 | -31.7 | -1634.0 | 1634.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8600.0 | 12.26 | 268.89 | 8424.5 | -32.1 | -1655.2 | 1655.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8700.0 | 12.26 | 268.89 | 8522.2 | -32.5 | -1676.5 | 1676.8 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8800.0 | 12.26 | 268.89 | 8619.9 | -32.9 | -1697.7 | 1698.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8900.0 | 12.26 | 268.89 | 8717.7 | -33.3 | -1718.9 | 1719.3 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9000.0 | 12.26 | 268.89 | 8815.4 | -33.7 | -1740.2 | 1740.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9100.0 | 12.26 | 268.89 | 8913.1 | -34.1 | -1761.4 | 1761.7 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9200.0 | 12.26 | 268.89 | 9010.8 | -34.6 | -1782.6 | 1783.0 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9300.0 | 12.26 | 268.89 | 9108.5 | -35.0 | -1803.9 | 1804.2 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9400.0 | 12.26 | 268.89 | 9206.3 | -35.4 | -1825.1 | 1825.5 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9487.3 | 12.26 | 268.89 | 9291.5 | -35.7 | -1843.6 | 1844.0 | 0.00 | 0.00 | 0.00 | 0.00 |

**Section** 4 : Start Drop -2.00

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg |
|---|---|---|---|---|---|---|---|---|---|---|
| 9500.0 | 12.01 | 268.89 | 9304.0 | -35.8 | -1846.3 | 1846.7 | 2.00 | -2.00 | 0.00 | 180.00 |
| 9600.0 | 10.01 | 268.89 | 9402.1 | -36.2 | -1865.4 | 1865.8 | 2.00 | -2.00 | 0.00 | 180.00 |
| 9700.0 | 8.01 | 268.89 | 9500.9 | -36.5 | -1881.1 | 1881.4 | 2.00 | -2.00 | 0.00 | 180.00 |
| 9800.0 | 6.01 | 268.89 | 9600.1 | -36.7 | -1893.3 | 1893.6 | 2.00 | -2.00 | 0.00 | 180.00 |
| 9900.0 | 4.01 | 268.89 | 9699.8 | -36.9 | -1902.0 | 1902.4 | 2.00 | -2.00 | 0.00 | 180.00 |
| 10000.0 | 2.01 | 268.89 | 9799.6 | -37.0 | -1907.2 | 1907.6 | 2.00 | -2.00 | 0.00 | 180.00 |
| 10100.4 | 0.00 | 268.89 | 9900.0 | -37.0 | -1909.0 | 1909.4 | 2.00 | -2.00 | 0.00 | 180.00 |

**Section** 5 : Start Hold

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg |
|---|---|---|---|---|---|---|---|---|---|---|
| 10200.0 | 0.00 | 268.89 | 9999.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10300.0 | 0.00 | 268.89 | 10099.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10400.0 | 0.00 | 268.89 | 10199.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10500.0 | 0.00 | 268.89 | 10299.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10510.4 | 0.00 | 268.89 | 10310.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10600.0 | 0.00 | 268.89 | 10399.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10610.4 | 0.00 | 268.89 | 10410.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10680.4 | 0.00 | 268.89 | 10480.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10700.0 | 0.00 | 268.89 | 10499.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10800.0 | 0.00 | 268.89 | 10599.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10900.0 | 0.00 | 268.89 | 10699.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 10900.4 | 0.00 | 268.89 | 10700.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11000.0 | 0.00 | 268.89 | 10799.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11100.0 | 0.00 | 268.89 | 10899.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11200.0 | 0.00 | 268.89 | 10999.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11300.0 | 0.00 | 268.89 | 11099.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |

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# Weatherford
## Planning Report

| | | | | | |
|---|---|---|---|---|---|
| **Company:** | Questar | **Date:** 12/14/2004 | **Time:** 10:34:47 | **Page:** | 4 |
| **Field:** | Flat Rock | **Co-ordinate(NE) Reference:** | Well: Flat Rock Drillsite 2 36-14-19 | | |
| **Site:** | Flat Rock Drillsite 2 | **Vertical (TVD) Reference:** | SITE 0.0 | | |
| **Well:** | Flat Rock Drillsite 2 36-14-19 | **Section (VS) Reference:** | Site (0.00N,0.00E,268.89Azi) | | |
| **Wellpath:** | 1P | **Plan:** | FR1P | | |

**Section** 5 : Start Hold

| MD ft | Incl deg | Azim deg | TVD ft | +N/-S ft | +E/-W ft | VS ft | DLS deg/100ft | Build deg/100ft | Turn deg/100ft | TFO deg |
|---|---|---|---|---|---|---|---|---|---|---|
| 11400.0 | 0.00 | 268.89 | 11199.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11500.0 | 0.00 | 268.89 | 11299.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11525.4 | 0.00 | 268.89 | 11325.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11595.4 | 0.00 | 268.89 | 11395.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11600.0 | 0.00 | 268.89 | 11399.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11700.0 | 0.00 | 268.89 | 11499.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11800.0 | 0.00 | 268.89 | 11599.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11860.4 | 0.00 | 268.89 | 11660.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11900.0 | 0.00 | 268.89 | 11699.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 11940.4 | 0.00 | 268.89 | 11740.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12000.0 | 0.00 | 268.89 | 11799.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12060.4 | 0.00 | 268.89 | 11860.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12100.0 | 0.00 | 268.89 | 11899.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12200.0 | 0.00 | 268.89 | 11999.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12300.0 | 0.00 | 268.89 | 12099.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12340.4 | 0.00 | 268.89 | 12140.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12400.0 | 0.00 | 268.89 | 12199.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12500.0 | 0.00 | 268.89 | 12299.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12600.0 | 0.00 | 268.89 | 12399.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12650.4 | 0.00 | 268.89 | 12450.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12700.0 | 0.00 | 268.89 | 12499.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12750.4 | 0.00 | 268.89 | 12550.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12800.0 | 0.00 | 268.89 | 12599.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12900.0 | 0.00 | 268.89 | 12699.6 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12925.4 | 0.00 | 268.89 | 12725.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |
| 12950.4 | 0.00 | 268.89 | 12750.0 | -37.0 | -1909.0 | 1909.4 | 0.00 | 0.00 | 0.00 | 268.89 |

**Targets**

| Name | Description Dip. | Dir. | TVD ft | +N/-S ft | +E/-W ft | Map Northing ft | Map Easting ft | <-- Latitude --> Deg | Min | Sec | | <-- Longitude --> Deg | Min | Sec | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CNENW 36-14-19 3P | | | 12725.0 | -37.0 | -4549.0 | 337.35 | -4536.62 | 40 | 6 | 25.387 | N | 118 | 40 | 22.609 | W |
| -Plan out by 2640.00 at | | | 12725.0 | -37.0 | -1909.0 | 120.17 | -1905.57 | 40 | 6 | 25.390 | N | 118 | 39 | 48.638 | W |
| CNENE 36-14-19 1P | | | 12750.0 | -37.0 | -1909.0 | 120.17 | -1905.57 | 40 | 6 | 25.390 | N | 118 | 39 | 48.638 | W |
| -Plan hit target | | | | | | | | | | | | | | | |

**Casing Points**

| MD ft | TVD ft | Diameter in | Hole Size in | Name |
|---|---|---|---|---|
| 4522.5 | 4440.0 | 9.625 | 12.250 | 9 5/8" |

**Formations**

| MD ft | TVD ft | Formations | Lithology | Dip Angle deg | Dip Direction deg |
|---|---|---|---|---|---|
| 2445.1 | 2410.0 | Wasatch | | 0.00 | 0.00 |
| 4471.3 | 4390.0 | Mesaverde | | 0.00 | 0.00 |
| 6349.1 | 6225.0 | Castlegate | | 0.00 | 0.00 |
| 6594.7 | 6465.0 | Mancos | | 0.00 | 0.00 |
| 10510.4 | 10310.0 | Dakota Silt | | 0.00 | 0.00 |
| 10610.4 | 10410.0 | Dakota | | 0.00 | 0.00 |
| 10680.4 | 10480.0 | Cedar Mtn | | 0.00 | 0.00 |
| 10900.4 | 10700.0 | Morrison | | 0.00 | 0.00 |
| 11525.4 | 11325.0 | Curtis | | 0.00 | 0.00 |
| 11595.4 | 11395.0 | Entrada | | 0.00 | 0.00 |
| 11860.4 | 11660.0 | Carmel | | 0.00 | 0.00 |
| 11940.4 | 11740.0 | Kayenta | | 0.00 | 0.00 |
| 12060.4 | 11860.0 | Wingate | | 0.00 | 0.00 |
| 12340.4 | 12140.0 | Chinle | | 0.00 | 0.00 |
| 12650.4 | 12450.0 | Shinarump | | 0.00 | 0.00 |
| 12750.4 | 12550.0 | Pre-Cambrian | | 0.00 | 0.00 |
| 12950.4 | 12750.0 | TD | | 0.00 | 0.00 |

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**Questar Exploration And Production**
**11002 East 17500 South**
**Vernal, Utah 84078**

FR 1P-36-14-19
Flat Rock Field
Uintah County, Utah
United States of America

# 9-5/8" Int. & 5-1/2" Prod. Foamed Casing Recommendation

Prepared for: Mr. Kevin O'Connell
December 16 2004
Version: 1

Submitted by:
Rob Kruger
Halliburton Energy Services
Vernal Ut Us
1085 E Main
Vernal, Utah 84078
+435.789.2550

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***Halliburton appreciates the opportunity to present this proposal and looks forward to being of service to you.***

## *Foreword*

Enclosed is our recommended procedure for cementing the casing strings in the referenced well. The information in this proposal includes well data, calculations, materials requirements, and cost estimates. This proposal is based on information from our field personnel and previous cementing services in the area.

Halliburton Energy Services recognizes the importance of meeting society's needs for health, safety, and protection of the environment. It is our intention to proactively work with employees, customers, the public, governments, and others to use natural resources in an environmentally sound manner while protecting the health, safety, and environmental processes while supplying high quality products and services to our customers.

We appreciate the opportunity to present this proposal for your consideration and we look forward to being of service to you. Our Services for your well will be coordinated through the Service Center listed below. If you require any additional information or additional designs, please feel free to contact myself or our field representative listed below.

Prepared by: _____
John Jorgensen
Procedure Analyst

Submitted by: _____
Rob Kruger
Account Leader

SERVICE CENTER: Vernal Utah
SERVICE COORDINATOR: Dale Harrold
OPER. ENGINEER: Rick Curtice
PHONE NUMBER:(800)874-2550

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## *Job Information* — *9-5/8" Foamed Intermediate Casing*

FR 1P-36-14-19

| | |
|---|---|
| 13-3/8" Surface Casing | 0 - 500 ft (MD) |
| | 0 - 500 ft (TVD) |
| Outer Diameter | 13.375 in |
| Inner Diameter | 12.715 in |
| Linear Weight | 48 lbm/ft |
| 12-1/4" Intermediate Hole Section | 500 - 4500 ft (MD) |
| | 500 - 4500 ft (TVD) |
| Inner Diameter | 12.250 in |
| Job Excess | 50 % |
| 9-5/8" Intermediate Casing | 0 - 4500 ft (MD) |
| | 0 - 4500 ft (TVD) |
| Outer Diameter | 9.625 in |
| Inner Diameter | 8.835 in |
| Linear Weight | 40 lbm/ft |
| Casing Grade | J-55 |
| Mud Weight | 8.60 lbm/gal |
| BHST | 145 degF |
| BHCT | 95 degF |

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## Calculations — 9-5/8" Foamed Intermediate Casing

Spacer:

| | |
|---|---|
| Total Spacer | = 56.15 $ft^3$ |
| | = 10.00 bbl |

Spacer:

| | |
|---|---|
| Total Spacer | = 112.29 $ft^3$ |
| | = 20.00 bbl |

Spacer:

| | |
|---|---|
| Total Spacer | = 56.15 $ft^3$ |
| | = 10.00 bbl |

Cement : (4000.00 ft fill)

| | |
|---|---|
| 500.00 ft * 0.3765 $ft^3$/ft * 0 % | = 188.25 $ft^3$ |
| 3500.00 ft * 0.3132 $ft^3$/ft * 50 % | = 1644.24 $ft^3$ |
| Total Lead Cement | = 1832.49 $ft^3$ |
| | = 326.38 bbl |
| Sacks of Cement | = 1247 sks |

Cement : (500.00 ft fill)

| | |
|---|---|
| 500.00 ft * 0.3132 $ft^3$/ft * 50 % | = 234.89 $ft^3$ |
| Tail Cement | = 234.89 $ft^3$ |
| | = 41.84 bbl |

Shoe Joint Volume: (42.00 ft fill)

| | |
|---|---|
| 42.00 ft * 0.4257 $ft^3$/ft | = 17.88 $ft^3$ |
| | = 3.18 bbl |
| Tail plus shoe joint | = 252.77 $ft^3$ |
| | = 45.02 bbl |
| Total Tail | = 172 sks |

Total Pipe Capacity:

| | |
|---|---|
| 4500.00 ft * 0.4257 $ft^3$/ft | = 1915.81 $ft^3$ |
| | = 341.22 bbl |

Displacement Volume to Shoe Joint:

| | |
|---|---|
| Capacity of Pipe - Shoe Joint | = 341.22 bbl - 3.18 bbl |
| | = 338.04 bbl |

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Fluid Instructions

Fluid 1: Water Spacer
FRESH AHEAD

| | |
|---|---|
| Fluid Density: | 8.34 lbm/gal |
| Fluid Volume: | 10 bbl |

Fluid 2: Reactive Spacer
FOAMED SUPER FLUSH
Halliburton Super Flush (Flush/spacer Additive)

| | |
|---|---|
| Fluid Density: | 9.20 lbm/gal |
| Fluid Volume: | 20 bbl |

Fluid 3: Water Spacer
FOAMED FRESH BEHIND

| | |
|---|---|
| Fluid Density: | 8.34 lbm/gal |
| Fluid Volume: | 10 bbl |

Fluid 4: Lead Cement
50/50 Poz Premium AG ( No Gel )

| | | | |
|---|---|---|---|
| | | Fluid Weight | 14.30 lbm/gal |
| 5 lbm/sk | Silicalite Compacted (Cement Material) | Slurry Yield: | 1.47 $ft^3$/sk |
| 20 % | SSA-1 (Cement Material) | Total Mixing Fluid: | 6.39 Gal/sk |
| 0.1 % | Versaset (Thixotropic Additive) | Top of Fluid: | 0 ft |
| 0.1 % | Diacel LWL (Low Fluid Loss Control) | Calculated Fill: | 4000 ft |
| 1.5 % | Zonesealant 2000 (Foamer) | Volume: | 326.38 bbl |
| | | Calculated Sacks: | 1247.44 sks |
| | | Proposed Sacks: | 1250 sks |

Fluid 5: Tail Cement
50/50 Poz Premium AG ( No Gel )

| | | | |
|---|---|---|---|
| | | Fluid Weight | 14.30 lbm/gal |
| 5 lbm/sk | Silicalite Compacted (Cement Material) | Slurry Yield: | 1.47 $ft^3$/sk |
| 20 % | SSA-1 (Cement Material) | Total Mixing Fluid: | 6.39 Gal/sk |
| 0.1 % | Versaset (Thixotropic Additive) | Top of Fluid: | 4000 ft |
| 0.1 % | Diacel LWL (Low Fluid Loss Control) | Calculated Fill: | 500 ft |
| | | Volume: | 45.02 bbl |
| | | Calculated Sacks: | 172.07 sks |
| | | Proposed Sacks: | 175 sks |

Fluid 6: Water Spacer
WATER DISPLACEMENT

| | |
|---|---|
| Fluid Density: | 8.33 lbm/gal |
| Fluid Volume: | 338.04 bbl |

Fluid 7: Top Out Cement
Premium Cement

| | | | |
|---|---|---|---|
| | | Fluid Weight | 14.60 lbm/gal |
| 94 lbm/sk | Premium Cement (Cement-api) | Slurry Yield: | 1.55 $ft^3$/sk |
| 12 % | Cal-Seal 60 (Accelerator) | Total Mixing Fluid: | 7.35 Gal/sk |
| 3 % | Calcium Chloride (Accelerator) | Proposed Sacks: | 50 sks |

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## Detailed Pumping Schedule

| Fluid # | Fluid Type | Fluid Name | Surface Density lbm/gal | Estimated Avg Rate bbl/min | Downhole Volume |
|---|---|---|---|---|---|
| 1 | Spacer | FRESH AHEAD | 8.3 | 5.0 | 10 bbl |
| 2 | Spacer | FOAMED SUPER FLUSH | 9.2 | 5.0 | 20 bbl |
| 3 | Spacer | FOAMED FRESH BEHIND | 8.3 | 5.0 | 10 bbl |
| 4 | Cement | FOAMED LEAD | 14.3 | 5.0 | 1250 sks |
| 5 | Cement | UNFOAMED TAIL | 14.3 | 5.0 | 175 sks |
| 6 | Spacer | WATER DISPLACEMENT | 8.3 | 7.0 | 338.04 bbl |
| 7 | Cement | 12/3 THIXO CAP | 14.6 | 1.5 | 50 sks |

## Foam Output Parameter Summary:

| Fluid # | Fluid Name | Unfoamed Liquid Volume | Beginning Density lbm/gal | Ending Density lbm/gal | Beginning Rate scf/bbl | Ending Rate scf/bbl |
|---|---|---|---|---|---|---|
| **Stage 1** | | | | | | |
| 4 | FOAMED LEAD | 215.39bbl | 11.0 | 11.0 | 10.3 | 253.7 |

## Foam Design Specifications:

Foam Calculation Method: Constant Density
Backpressure: 75 psig
Bottom Hole Circulating Temp: 95 degF
Mud Outlet Temperature: 80 degF

Calculated Gas = scf
Additional Gas = 20000 scf
Total Gas = 20000.0 scf

**MIN N2 RATE 250 scfm**
**MAX N2 RATE 1270 scfm**

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## *Job Information* — *5-1/2" Foamed Production Casing*

FR 1P-36-14-19

| | |
|---|---|
| 9-5/8" Intermediate Casing | 0 - 4500 ft (MD) |
| | 0 - 4500 ft (TVD) |
| Outer Diameter | 9.625 in |
| Inner Diameter | 8.835 in |
| Linear Weight | 40 lbm/ft |
| Casing Grade | J-55 |
| 8-1/2" Production Hole Section | 4500 - 12950 ft (MD) |
| | 4500 - 12950 ft (TVD) |
| Inner Diameter | 8.500 in |
| Job Excess | 25 % |
| 5-1/2" Production Casing | 0 - 12950 ft (MD) |
| | 0 - 12950 ft (TVD) |
| Outer Diameter | 5.500 in |
| Inner Diameter | 4.892 in |
| Linear Weight | 17 lbm/ft |
| Casing Grade | P-110 |
| Mud Type | Water Based Mud |
| Mud Weight | 9.20 lbm/gal |
| BHST | 220 degF |
| BHCT | 180 degF |

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## Calculations — 5-1/2" Foamed Production Casing

Spacer:

| | |
|---|---|
| 215.00 ft * 0.2607 $ft^3$/ft * 0 % | = 56.06 $ft^3$ |
| Total Spacer | = 56.15 $ft^3$ |
| | = 10.00 bbl |

Spacer:

| | |
|---|---|
| 431.00 ft * 0.2607 $ft^3$/ft * 0 % | = 112.38 $ft^3$ |
| Total Spacer | = 112.29 $ft^3$ |
| | = 20.00 bbl |

Spacer:

| | |
|---|---|
| 215.00 ft * 0.2607 $ft^3$/ft * 0 % | = 56.06 $ft^3$ |
| Total Spacer | = 56.15 $ft^3$ |
| | = 10.00 bbl |

Cement : (8400.00 ft fill)

| | |
|---|---|
| 500.00 ft * 0.2607 $ft^3$/ft * 0 % | = 130.37 $ft^3$ |
| 7900.00 ft * 0.2291 $ft^3$/ft * 25 % | = 2262.11 $ft^3$ |
| Total Lead Cement | = 2392.48 $ft^3$ |
| | = 426.12 bbl |
| Sacks of Cement | = 1626 sks |

Cement : (550.00 ft fill)

| | |
|---|---|
| 550.00 ft * 0.2291 $ft^3$/ft * 25 % | = 157.49 $ft^3$ |
| Tail Cement | = 157.49 $ft^3$ |
| | = 28.05 bbl |

Shoe Joint Volume: (42.00 ft fill)

| | |
|---|---|
| 42.00 ft * 0.1305 $ft^3$/ft | = 5.48 $ft^3$ |
| | = 0.98 bbl |
| Tail plus shoe joint | = 162.97 $ft^3$ |
| | = 29.03 bbl |
| Total Tail | = 111 sks |

Total Pipe Capacity:

| | |
|---|---|
| 12950.00 ft * 0.1305 $ft^3$/ft | = 1690.32 $ft^3$ |
| | = 301.06 bbl |

Displacement Volume to Shoe Joint:

| | |
|---|---|
| Capacity of Pipe - Shoe Joint | = 301.06 bbl - 0.98 bbl |
| | = 300.08 bbl |

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Fluid Instructions

Fluid 1: Water Spacer
FRESH AHEAD

| | |
|---|---|
| Fluid Density: | 8.34 lbm/gal |
| Fluid Volume: | 10 bbl |

Fluid 2: Reactive Spacer
FOAMED SUPER FLUSH
Halliburton Super Flush (Flush/spacer Additive)

| | |
|---|---|
| Fluid Density: | 9.20 lbm/gal |
| Fluid Volume: | 20 bbl |

Fluid 3: Water Spacer
FOAMED FRESH BEHIND

| | |
|---|---|
| Fluid Density: | 8.34 lbm/gal |
| Fluid Volume: | 10 bbl |

Fluid 4: Lead Cement
50/50 Poz Premium AG (No Gel )

| | | | |
|---|---|---|---|
| | | Fluid Weight | 14.30 lbm/gal |
| 5 lbm/sk | Silicalite Compacted (Cement Material) | Slurry Yield: | 1.47 $ft^3$/sk |
| 20 % | SSA-1 (Cement Material) | Total Mixing Fluid: | 6.39 Gal/sk |
| 0.2 % | Versaset (Thixotropic Additive) | Top of Fluid: | 4000 ft |
| 0.3 % | Diacel LWL (Low Fluid Loss Control) | Calculated Fill: | 8400 ft |
| 1.5 % | Zonesealant 2000 (Foamer) | Volume: | 426.12 bbl |
| | | Calculated Sacks: | 1626.43 sks |
| | | Proposed Sacks: | 1630 sks |

Fluid 5: Tail Cement
50/50 Poz Premium AG ( No Gel )

| | | | |
|---|---|---|---|
| | | Fluid Weight | 14.30 lbm/gal |
| 5 lbm/sk | Silicalite Compacted (Cement Material) | Slurry Yield: | 1.47 $ft^3$/sk |
| 20 % | SSA-1 (Cement Material) | Total Mixing Fluid: | 6.39 Gal/sk |
| 0.2 % | Versaset (Thixotropic Additive) | Top of Fluid: | 12400 ft |
| 0.3 % | Diacel LWL (Low Fluid Loss Control) | Calculated Fill: | 550 ft |
| | | Volume: | 29.03 bbl |
| | | Calculated Sacks: | 110.79 sks |
| | | Proposed Sacks: | 115 sks |

Fluid 6: Water Spacer
WATER DISPLACEMENT

| | |
|---|---|
| Fluid Density: | 8.33 lbm/gal |
| Fluid Volume: | 300.08 bbl |

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## Detailed Pumping Schedule

| Fluid # | Fluid Type | Fluid Name | Surface Density lbm/gal | Estimated Avg Rate bbl/min | Downhole Volume |
|---|---|---|---|---|---|
| 1 | Spacer | FRESH AHEAD | 8.3 | 5.0 | 10 bbl |
| 2 | Spacer | FOAMED SUPER FLUSH | 9.2 | 5.0 | 20 bbl |
| 3 | Spacer | FOAMED FRESH BEHIND | 8.3 | 5.0 | 10 bbl |
| 4 | Cement | FOAMED LEAD | 14.3 | 5.0 | 1630 sks |
| 5 | Cement | UNFOAMED TAIL | 14.3 | 5.0 | 115 sks |
| 6 | Spacer | WATER DISPLACEMENT | 8.3 | 7.0 | 300.08 bbl |

## Foam Output Parameter Summary:

| Fluid # | Fluid Name | Unfoamed Liquid Volume | Beginning Density lbm/gal | Ending Density lbm/gal | Beginning Rate scf/bbl | Ending Rate scf/bbl |
|---|---|---|---|---|---|---|
| **Stage 1** | | | | | | |
| 3 | Spacer | 6.85bbl | 6.0 | 6.0 | 228.3 | 239.0 |
| 4 | FOAMED LEAD | 322.48bbl | 11.0 | 11.0 | 170.4 | 671.8 |

## Foam Design Specifications:

Foam Calculation Method: Constant Density
Backpressure: 14.70 psig
Bottom Hole Circulating Temp: 180 degF
Mud Outlet Temperature: 120 degF

Calculated Gas = scf
Additional Gas = 20000 scf
Total Gas = 20000.0 scf

**MIN N2 RATE** **1140 scfm**
**MAX N2 RATE** **3360 scfm**

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**Lessee's or Operator's Representative:**

Jan Nelson
Red Wash Rep.
QEP Uinta Basin Inc.
11002 East 17500 South
Vernal, Utah 84078
(435) 781-4331

Certification:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil & Gas Orders, the approved plan of operations, and any applicable Notice to Lessees.

QEP Uinta Basin, Inc. will be fully responsible for the actions of their subcontractors.

A complete copy of the approved Application for Permit to Drill will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by QEP Uinta Basin, Inc. 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.

Jan Nelson
Jan Nelson
Red Wash Representative

28-Jan-05
Date

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# QUESTAR EXPLR. & PROD.

## FR #1P-36-14-19 & 3P-36-14-19

**LOCATED IN UINTAH COUNTY, UTAH**
**SECTION 31, T14S, R20E, S.L.B.&M.**

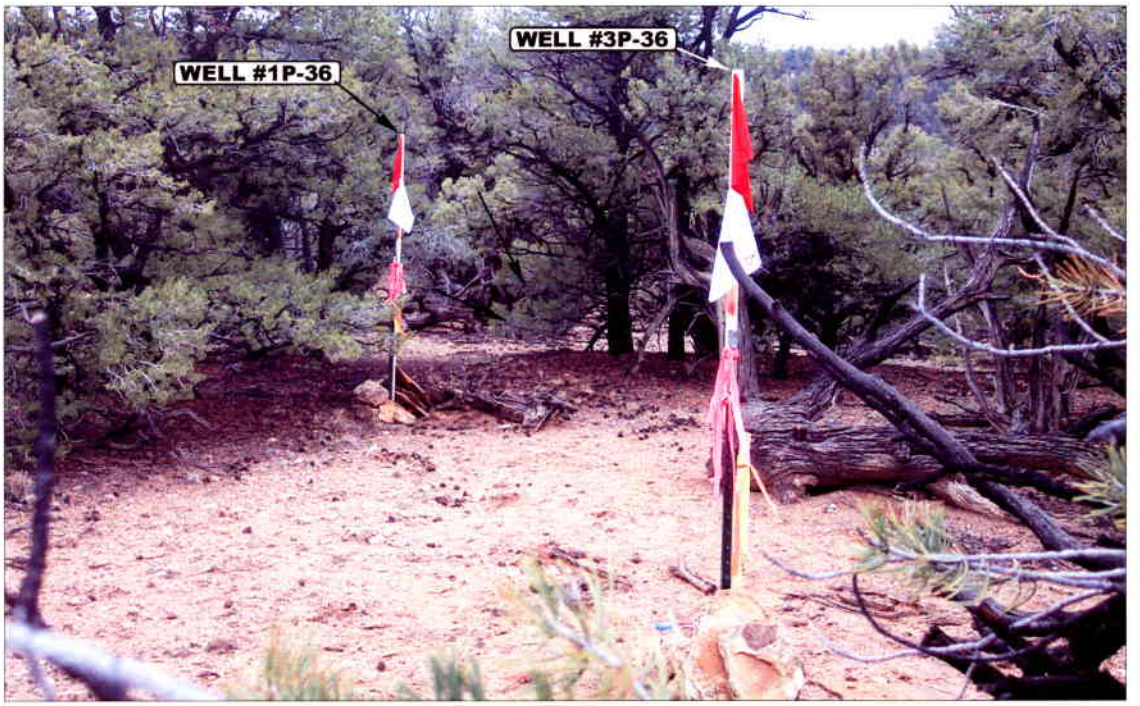


**PHOTO: VIEW OF LOCATION STAKES** **CAMERA ANGLE: SOUTHEASTERLY**

**PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS** **CAMERA ANGLE: WESTERLY**


- Since 1964 -
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
435-789-1017 uels@uelsinc.com


| LOCATION PHOTOS | 11 MONTH | 01 DAY | 04 YEAR | PHOTO |
|---|---|---|---|---|
| TAKEN BY: D.A. | DRAWN BY:L.K. | REVISED: 00-00-00 | | |

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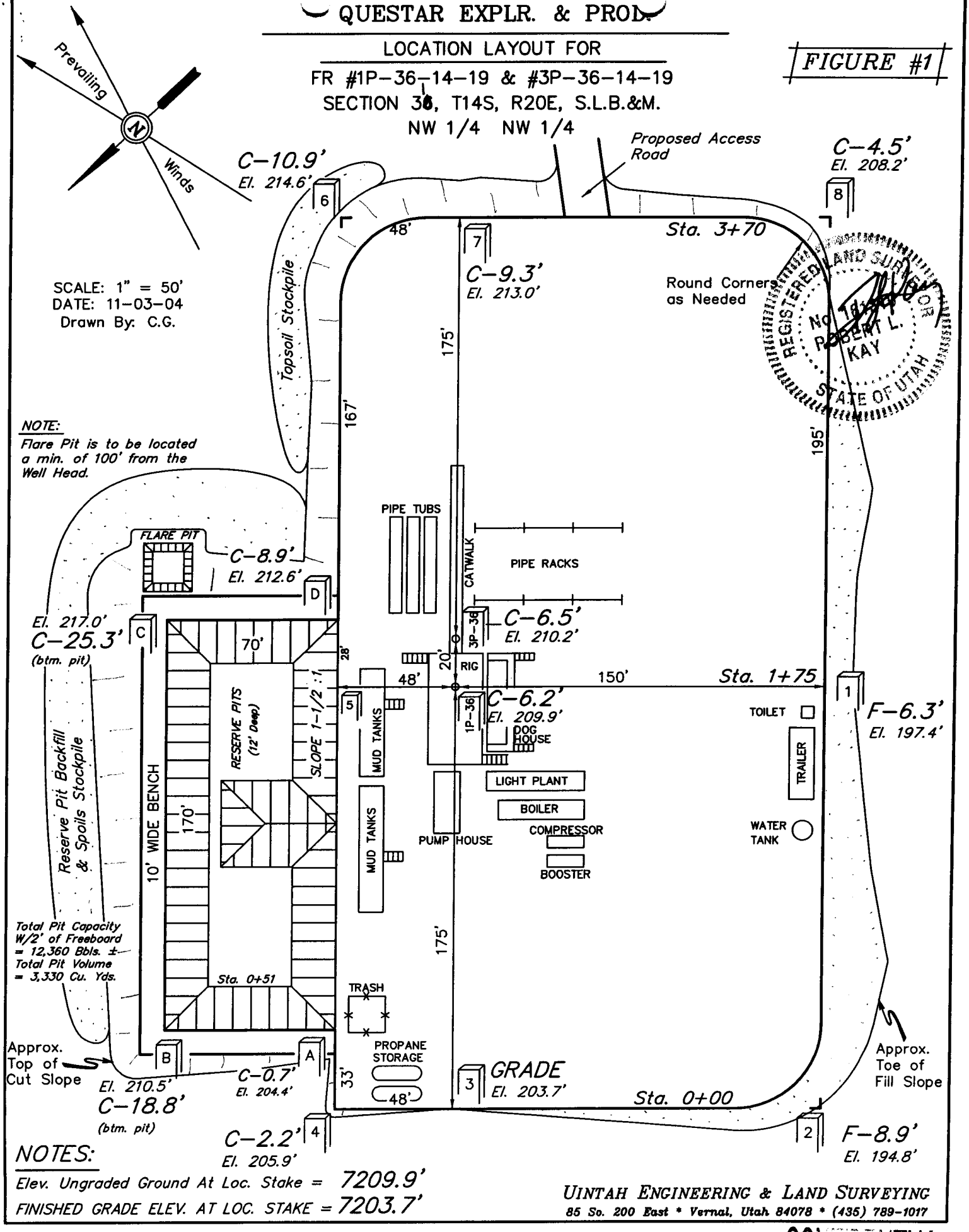
# QUESTAR EXPLR. & PROD.

## LOCATION LAYOUT FOR

FR #1P-36-14-19 & #3P-36-14-19
SECTION 36, T14S, R20E, S.L.B.&M.
NW 1/4 NW 1/4

FIGURE #1




NOTES:

Elev. Ungraded Ground At Loc. Stake = 7209.9'

FINISHED GRADE ELEV. AT LOC. STAKE = 7203.7'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

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# QUESTAR EXPLR. & PROD.

FIGURE #2

TYPICAL CROSS SECTIONS FOR

FR #1P-36-14-19 & #3P-36-14-19

SECTION 36, T14S, R20E, S.L.B.&M.

NW 1/4 NW 1/4

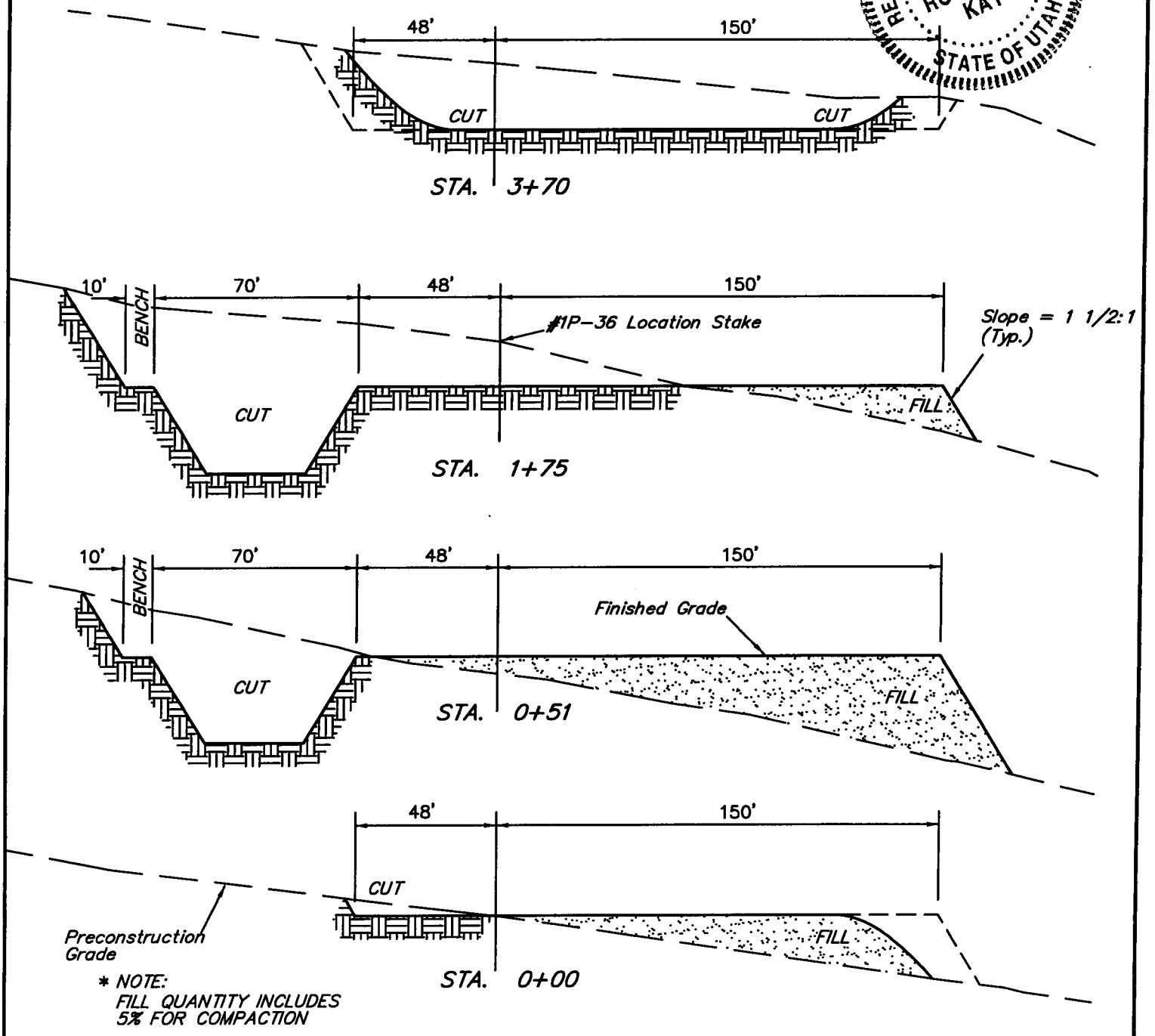
1" = 20' X-Section Scale

1" = 50'

DATE: 11-03-04

Drawn By: C.G.

REGISTERED LAND SURVEYOR No. 161319 ROBERT L. KAY STATE OF UTAH




* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

## APPROXIMATE YARDAGES

CUT

| | | |
|---|---|---|
| (12") Topsoil Stripping | = | 4,000 Cu. Yds. |
| Remaining Location | = | 11,680 Cu. Yds. |
| TOTAL CUT | = | 13,680 CU.YDS. |
| FILL | = | 10,020 CU.YDS. |

| | | |
|---|---|---|
| EXCESS MATERIAL | = | 5,660 Cu. Yds. |
| Topsoil & Pit Backfill (1/2 Pit Vol.) | = | 5,660 Cu. Yds. |
| EXCESS UNBALANCE (After Rehabilitation) | = | 0 Cu. Yds. |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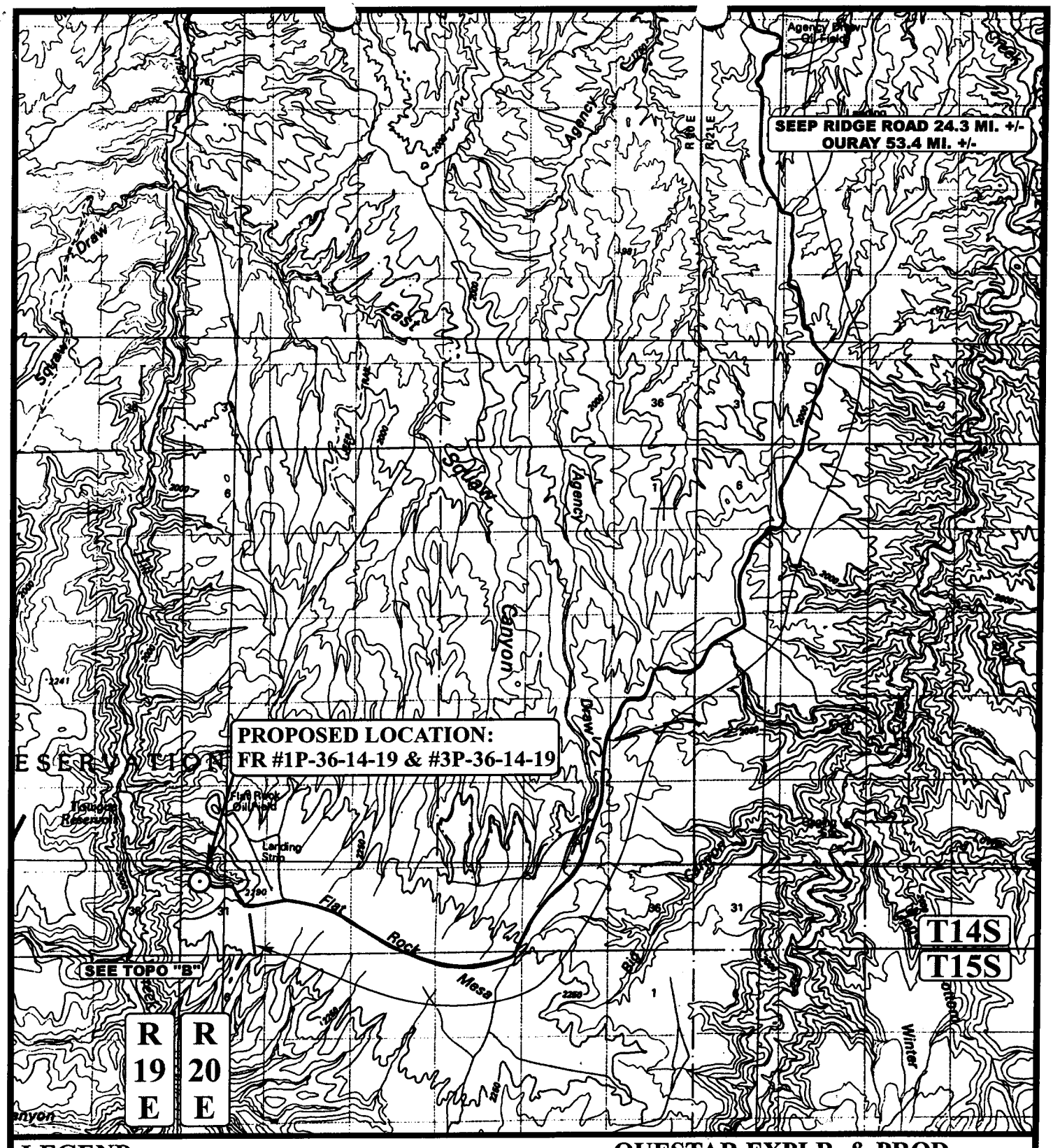


**LEGEND:**

⊙ PROPOSED LOCATION

N

**QUESTAR EXPLR. & PROD.**

FR #1P-36-14-19 & #3P-36-14-19
SECTION 31, T14S, R20E, S.L.B.&M.
NW 1/4 NW 1/4


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 11 MONTH | 01 DAY | 04 YEAR | A TOPO |
|---|---|---|---|---|
| SCALE: 1:100,000 | DRAWN BY: L.K. | REVISED: 00-00-00 | | |

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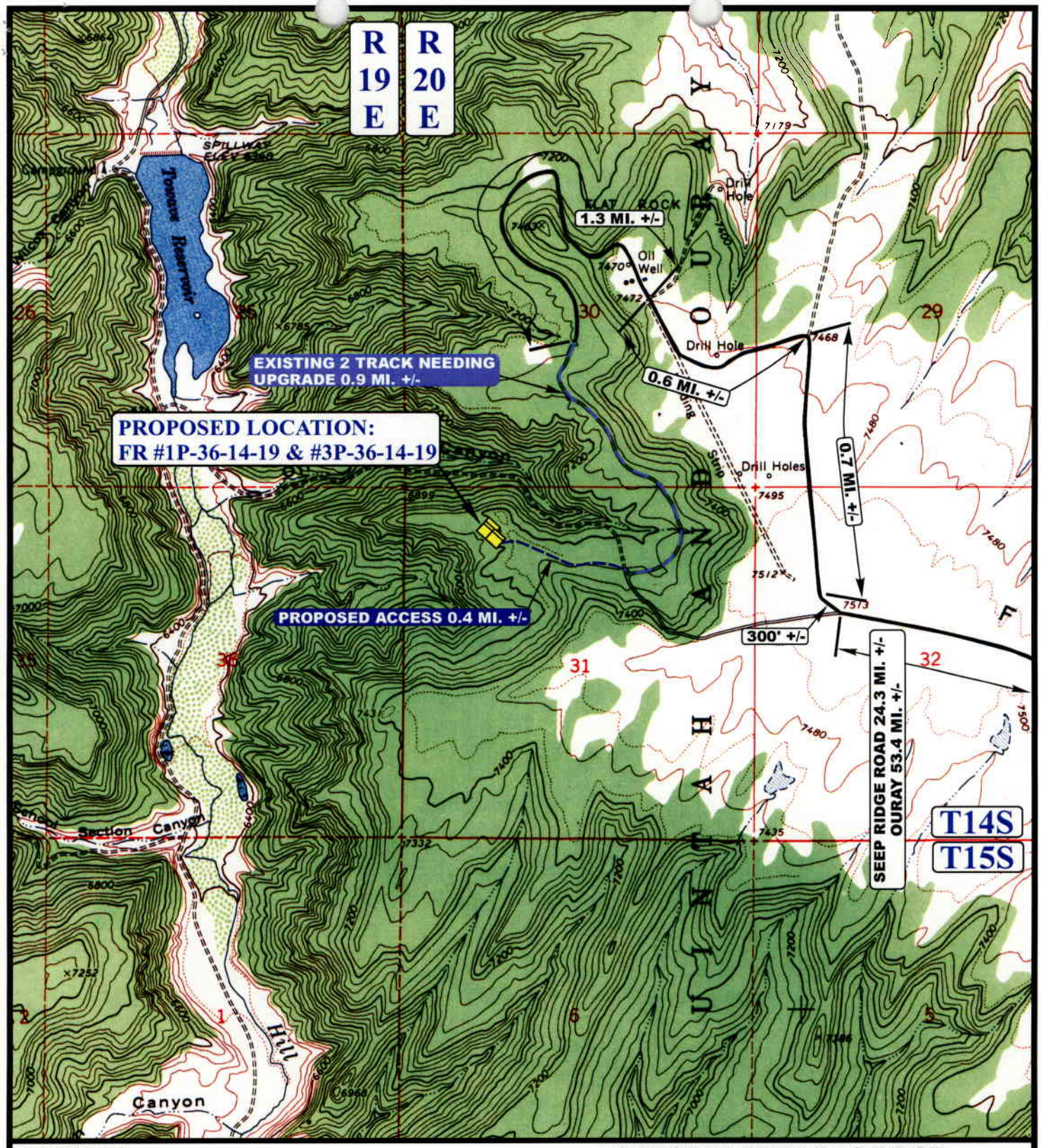



## LEGEND:

EXISTING ROAD
PROPOSED ACCESS ROAD
EXISTING 2 TRAK

N

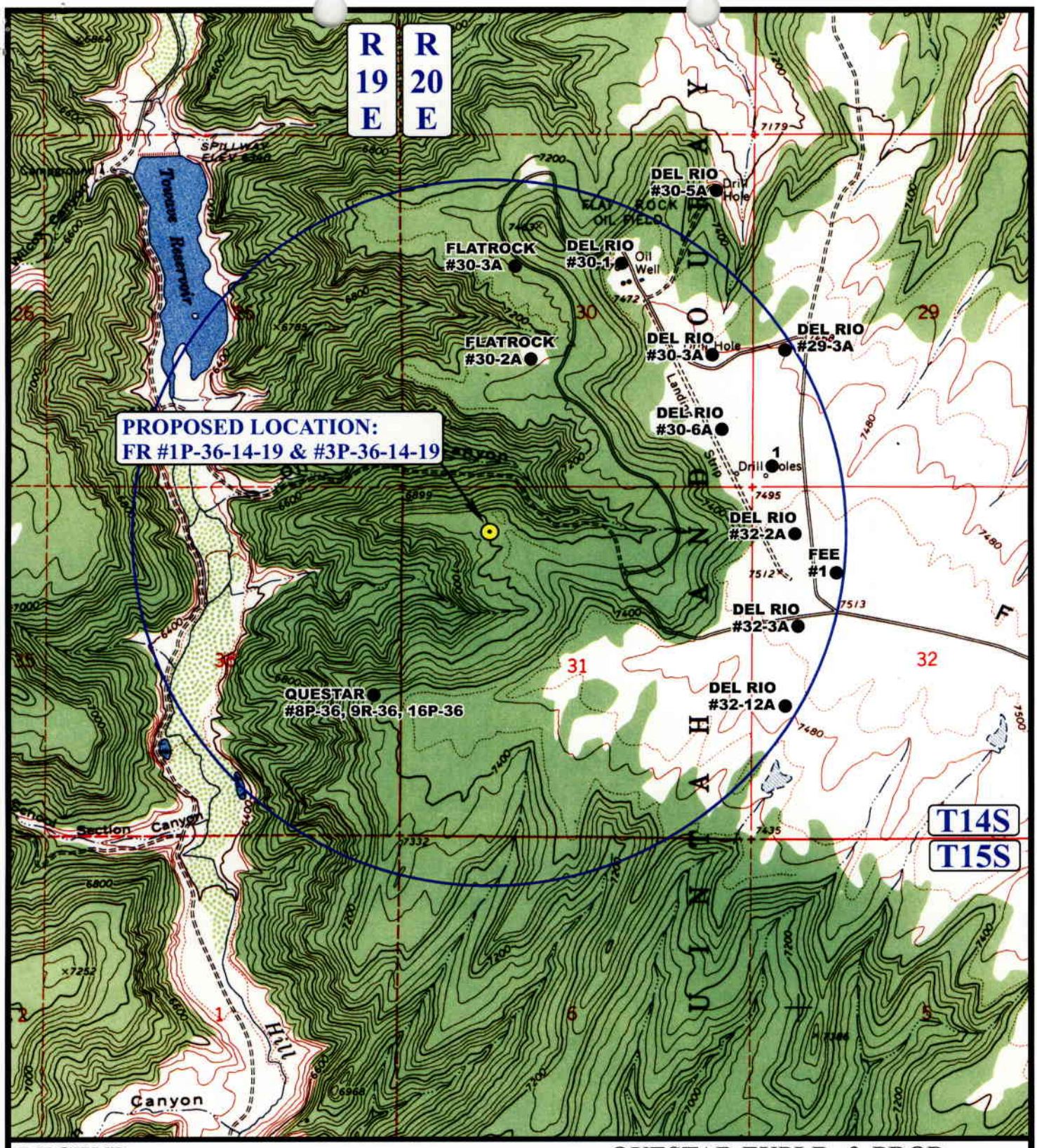
## QUESTAR EXPLR. & PROD.

FR #1P-36-14-19 & #3P-36-14-19
SECTION 31, T14S, R20E, S.L.B.&M.
NW 1/4 NW 1/4


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 11 MONTH | 01 DAY | 04 YEAR | B TOPO |
|---|---|---|---|---|
| SCALE: 1" = 2000' | DRAWN BY: L.K. | REVISED: 00-00-00 | | |

CONFIDENTIAL




## LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

N

## QUESTAR EXPLR. & PROD.

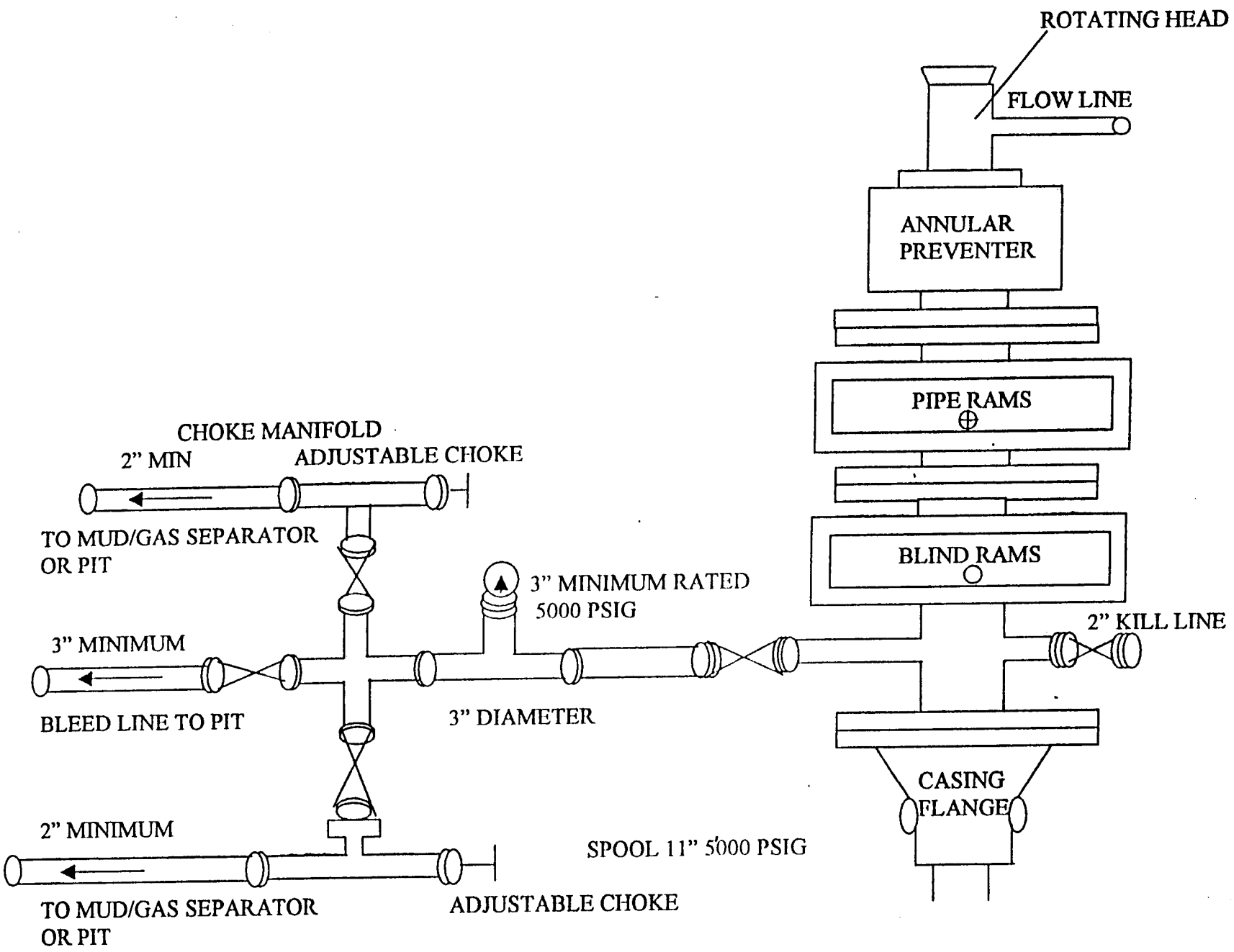
FR #1P-36-14-19 & #3P-36-14-19
SECTION 31, T14S, R20E, S.L.B.&M.
NW 1/4 NW 1/4


Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813


| TOPOGRAPHIC MAP | 11 MONTH | 01 DAY | 04 YEAR | C TOPO |
|---|---|---|---|---|
| SCALE: 1" = 2000' | DRAWN BY: L.K. | REVISED: 00-00-00 | | |

CONFIDENTIAL

5000 PSIG DIAGRAM




CONFIDENTIAL

004

**WORKSHEET**
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 02/09/2005

API NO. ASSIGNED: 43-047-36300

WELL NAME: FR 1P-36-14-19
OPERATOR: QEP UINTA BASIN, INC. ( N2460 )
CONTACT: JAN NELSON

PHONE NUMBER: 435-781-4331

PROPOSED LOCATION:
NWNW 31 140S 200E
SURFACE: 0623 FNL 1249 FWL
Sec 36 BOTTOM: 0660 FNL 0660 FEL R19E NENE
UINTAH
UNDESIGNATED ( 2 )

LEASE TYPE: 3 - State
LEASE NUMBER: ML-49279
SURFACE OWNER: 2 - Indian
PROPOSED FORMATION: PRCAM
COALBED METHANE WELL? NO

INSPECT LOCATN BY: / /

| Tech Review | Initials | Date |
|---|---|---|
| Engineering | DKD | 2/15/05 |
| Geology | | |
| Surface | | |

LATITUDE: 39.56136
LONGITUDE: -109.7247

RECEIVED AND/OR REVIEWED:

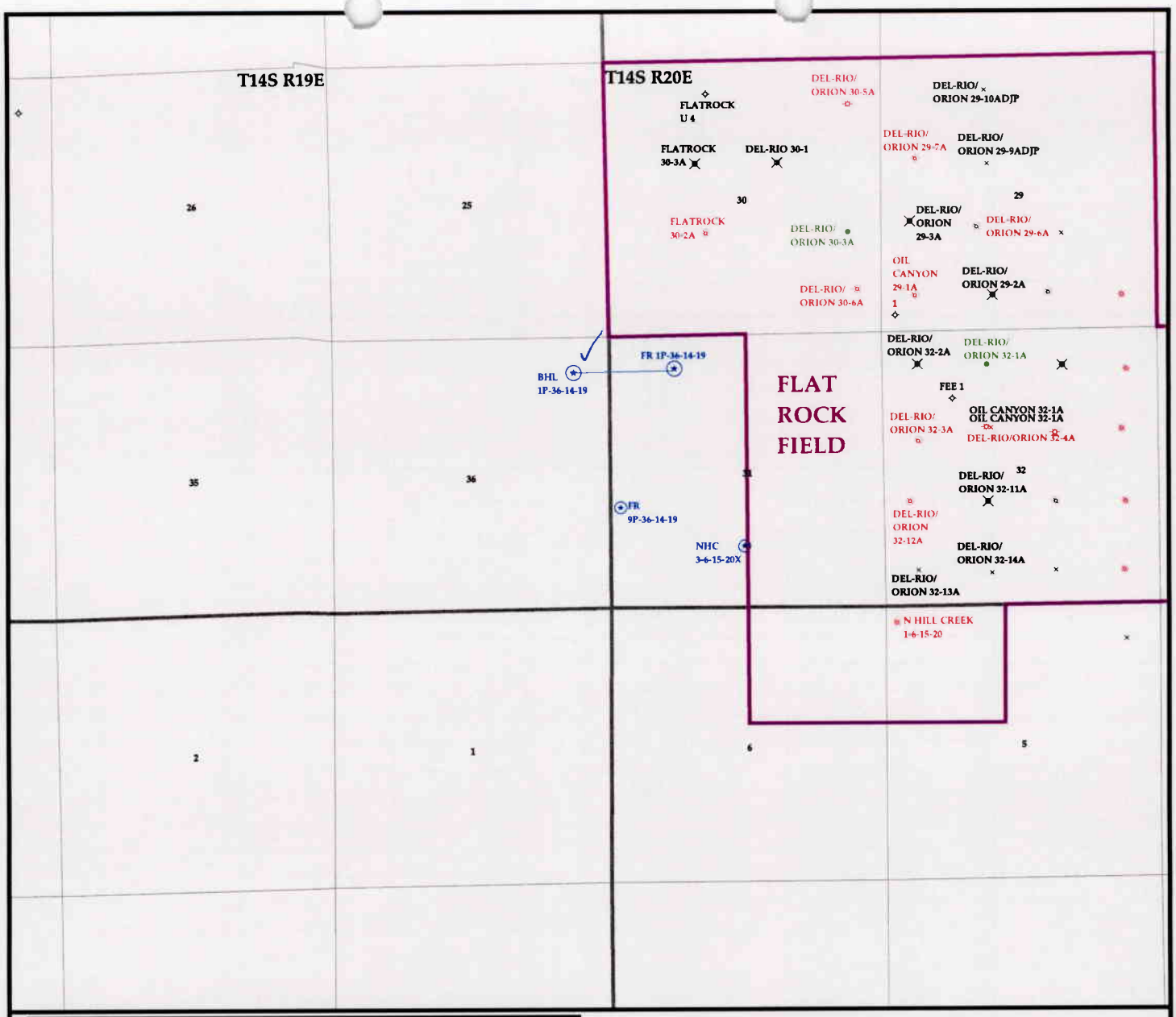
✓ Plat
✓ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 965003033 )
N Potash (Y/N)
N Oil Shale 190-5 (B) or 190-3 or 190-13
✓ Water Permit
(No. 49-2183 )
N RDCC Review (Y/N)
(Date: )
N/A Fee Surf Agreement (Y/N)

LOCATION AND SITING:

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

COMMENTS: ____

STIPULATIONS: 1-Federal Approval
2-Spacing Stip




**OPERATOR: QEP UINTA BASIN INC (N2460)**

**SEC. 31 T.14S R.20E**

**FIELD: UNDESIGNATED (002)**

**COUNTY: UINTAH**

**SPACING: R649-3-11 / DIRECTIONAL DRILLING**

Utah Oil Gas and Mining

**Wells**

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

**Units.shp**

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

**Fields.shp**

- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED

N
W E
S

**PREPARED BY: DIANA WHITNEY**
**DATE: 9-FEBRUARY-2005**

| | |
|---|---|
| Well name: | **02-05 QEP FR 1P-36-14-19** |
| Operator: | **QEP Uinta Basin Inc.** |
| String type: | Surface |
| Project ID: | 43-047-36300 |
| Location: | Uintah County |

## Design parameters:

**Collapse**

Mud weight: 8.400 ppg

Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 440 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 500 psi

No backup mud specified.

## Minimum design factors:

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**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: 438 ft

## Environment:

| | |
|---|---|
| H2S considered? | No |
| Surface temperature: | 75 °F |
| Bottom hole temperature: | 82 °F |
| Temperature gradient: | 1.40 °F/100ft |
| Minimum section length: | 450 ft |

Cement top: Surface

Non-directional string.

**Re subsequent strings:**

| | |
|---|---|
| Next setting depth: | 3,929 ft |
| Next mud weight: | 8.400 ppg |
| Next setting BHP: | 1,715 psi |
| Fracture mud wt: | 19.250 ppg |
| Fracture depth: | 500 ft |
| Injection pressure | 500 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 ($ft^3$) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 500 | 13.375 | 48.00 | H-40 | ST&C | 500 | 500 | 12.59 | 46.9 |

| 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 | 218 | 740 | 3.393 | 500 | 1730 | 3.46 | 21 | 322 | 15.30 J |

Prepared by: Clinton Dworshak, Utah Div. of Oil & Mining
Phone: 810-538-5280
FAX: 801-359-3940

Date: February 10,2005
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 500 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

| | |
|---|---|
| Well name: | **02-05 QEP FR 1P-36-14-19** |
| Operator: | **QEP Uinta Basin Inc.** |
| String type: | Intermediate |
| Location: | Uintah County |
| Project ID: | 43-047-36300 |

**Design parameters:**

**Collapse**

Mud weight: 9.500 ppg

Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 3,520 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 3,992 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**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: 3,435 ft

**Environment:**

| | |
|---|---|
| H2S considered? | No |
| Surface temperature: | 75 °F |
| Bottom hole temperature: | 130 °F |
| Temperature gradient: | 1.40 °F/100ft |
| Minimum section length: | 500 ft |
| Cement top: | 370 ft |

Directional well information:

| | |
|---|---|
| Kick-off point | 0 ft |
| Departure at shoe: | 678 ft |
| Maximum dogleg: | 2 °/100ft |
| Inclination at shoe: | 12.26 ° |

**Re subsequent strings:**

| | |
|---|---|
| Next setting depth: | 12,750 ft |
| Next mud weight: | 9.500 ppg |
| Next setting BHP: | 6,292 psi |
| Fracture mud wt: | 19.250 ppg |
| Fracture depth: | 4,000 ft |
| Injection pressure | 4,000 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 | 4000 | 9.625 | 36.00 | J-55 | LT&C | 3929 | 4000 | 8.796 | 284.8 |

| 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 | 1939 | 2020 | 1.042 | 3992 | 3520 | 0.88 | 122 | 453 | 3.73 J |

TVD = 3,929'

Prepared by: Clinton Dworshak, Utah Div. of Oil & Mining
Phone: 810-538-5280
FAX: 801-359-3940

Date: February 10,2005
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 3929 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

| | |
|---|---|
| Well name: | **02-05 QEP FR 1P-36-14-19** |
| Operator: | **QEP Uinta Basin Inc.** |
| String type: | Production |
| Project ID: | 43-047-36300 |
| Location: | Uintah County |

## Design parameters:

**Collapse**

Mud weight: 9.500 ppg

Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 4,762 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 6,292 psi

No backup mud specified.

## Minimum design factors:

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**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: 11,113 ft

## Environment:

| | |
|---|---|
| H2S considered? | No |
| Surface temperature: | 75 °F |
| Bottom hole temperature: | 253 °F |
| Temperature gradient: | 1.40 °F/100ft |
| Minimum section length: | 1,500 ft |
| Cement top: | 5,748 ft |

Directional well information:

| | |
|---|---|
| Kick-off point | 0 ft |
| Departure at shoe: | 1909 ft |
| Maximum dogleg: | 2 °/100ft |
| Inclination at shoe: | 0 ° |

| 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 | 12950 | 5.5 | 17.00 | P-110 | LT&C | 12750 | 12950 | 4.767 | 446.3 |

| 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 | 6292 | 7480 | 1.189 | 6292 | 10640 | 1.69 | 186 | 445 | 2.40 J |

Prepared by: Clinton Dworshak, Utah Div. of Oil & Mining
Phone: 810-538-5280
FAX: 801-359-3940

Date: February 10,2005
Salt Lake City, Utah

Remarks:

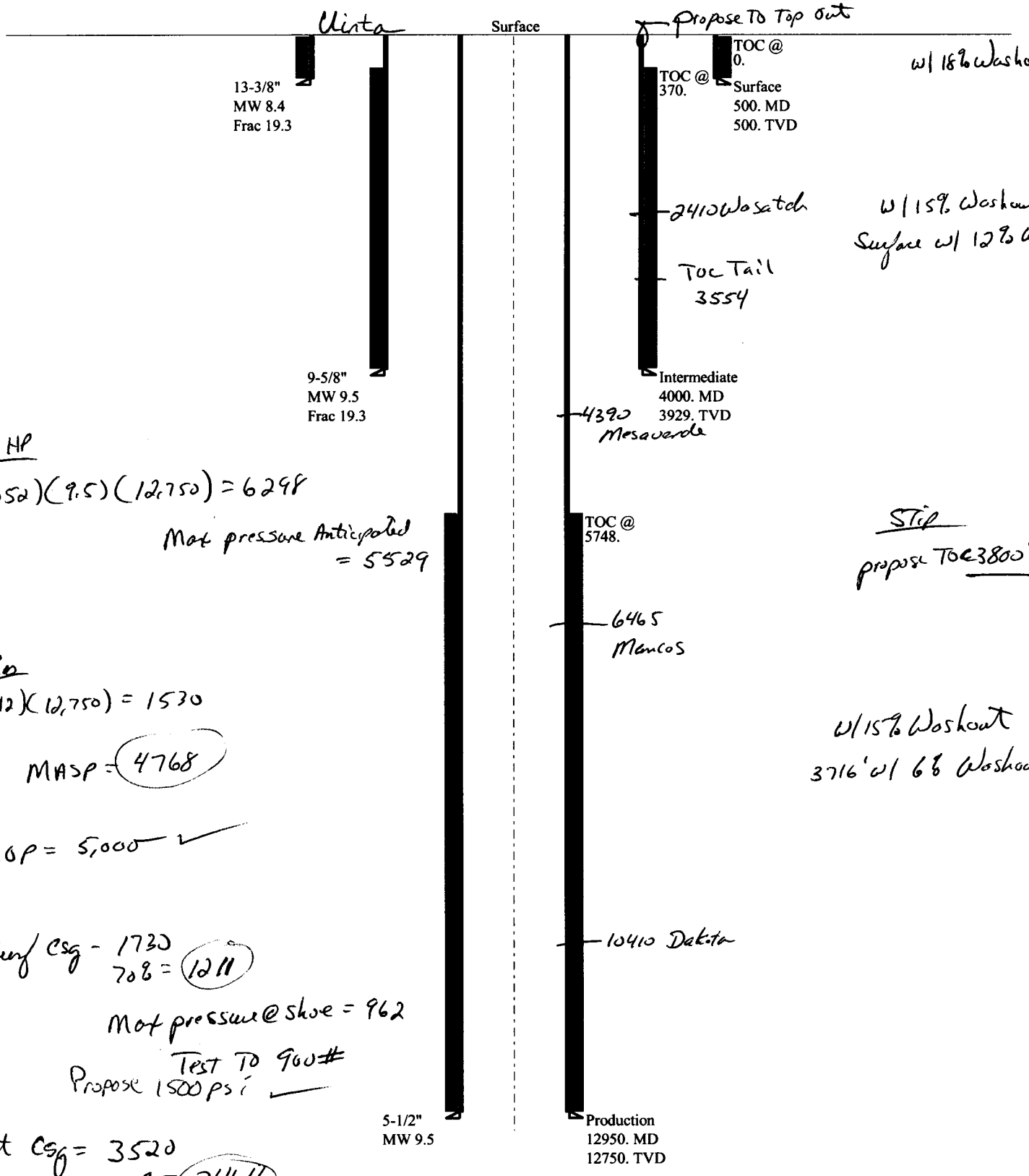
Collapse is based on a vertical depth of 12750 ft, a mud weight of 9.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

# 02-05 QEP FR 1P-36-14-

## Casing Schematic




BHP

(.052)(9.5)(12,750) = 6298

Max pressure Anticipated = 5529

Stip

propose TOC 3800'

Gas

(.12)(12,750) = 1530

MASP = 4768

BOP = 5,000 ✓

Surf Csg - 1730
70% = 1211

Max pressure @ shoe = 962

Test To 900#

Propose 1500 psi ✓

Int Csg = 3520
70% = 2464

Max pressure @ shoe = 3589

Test To 2400#

Propose 70% = 2400# ✓

Adequate DKD 2/15/05

JON M. HUNTSMAN, JR.
*Governor*

GARY R. HERBERT
*Lieutenant Governor*

**State of Utah**

**Department of Natural Resources**

MICHAEL R. STYLER
*Executive Director*

**Division of Oil, Gas & Mining**

MARY ANN WRIGHT
*Acting Division Director*

February 16, 2005

QEP Uinta Basin, Inc
11002 E 17500 S
Vernal, UT 84078

Re: Flat Rock 1P-36-14-19 Well, 623' FNL, 1249' FWL, NW NW, Sec. 31, T. 14 South, R. 20 East, Bottom Location 660' FNL, 660' FEL, NE NE, Sec. 36, T. 14 South, R. 19 East, Uintah County, Utah

Gentlemen:

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

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-36300.

Sincerely,

John R. Baza
Associate Director

pab
Enclosures

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

1594 West North Temple, Suite 1210, PO Box 145801, Salt Lake City, UT 84114-5801
telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • *www.ogm.utah.gov*

**Operator:** QEP Uinta Basin, Inc

**Well Name & Number** Flat Rock 1P-36-14-19

**API Number:** 43-047-36300

**Lease:** ML-49279

| | | | | |
|---|---|---|---|---|
| **Location:** | NW NW | **Sec.** 31 | **T.** 14 South | **R.** 20 East |
| **Bottom Location:** | NE NE | **Sec.** 36 | **T.** 14 South | **R.** 19 East |

**Conditions of Approval**

1. General

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

2. Notification Requirements

   The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

   - 24 hours prior to cementing or testing casing
   - 24 hours prior to testing blowout prevention equipment
   - 24 hours prior to spudding the well
   - within 24 hours of any emergency changes made to the approved drilling program
   - prior to commencing operations to plug and abandon the well

   The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

   - Dan Jarvis at (801) 538-5338
   - Carol Daniels at (801) 538-5284 (spud)

3. Reporting Requirements

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

4. In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

5. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

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

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

State of Utah
Division of Oil, Gas and Mining

ENTITY ACTION FORM - FORM 6

OPERATOR: QEP Uinta Basin, Inc.
ADDRESS: 11002 East 17500 South
Vernal, Utah 84078-8526 (435)781-4300

OPERATOR ACCT. No. N-2460

| Action Code | Current Entity No. | New Entity No. | API Number | Well Name | QQ | SC | TP | RG | County | Spud Date | Effective Date |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 99999 | 14859 | 43-047-36300 | FR 1P 36-14-19 | NWNW | 31 | 14S | 20E | Uintah | 7/13/05 | 8/4/05 |

WELL 1 COMMENTS: **The above information is for the Surface Location. The Bottom Location is NENE, Sec 36-T14S-R19E.** PRCAM

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WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

RECEIVED JUL 29 2005 DIV. OF OIL, GAS & MINING

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

2/18/04
Date

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

(3/89)

Signature

Office Administrator II 7/26/05
Title Date

Phone No. (435)781-4342

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Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

## SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Designation and Serial No.: ML-49279

6. If Indian, Allottee or Tribe Name: UTE TRIBE

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

8. Well Name and No.: FR 1P 36-14-19

9. API Well No.: 43-047-36300

10. Field and Pool, or Exploratory Area: UNDESIGNATED

11. County or Parish, State: UINTAH COUNTY, UTAH

***SUBMIT IN TRIPLICATE***

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

2. Name of Operator
   QEP, UINTA BASIN, INC.

3. Address and Telephone No.
   11002 E. 17500 S. VERNAL, UT 84078-8526
   Contact: dahn.caldwell@questar.com
   435-781-4342 Fax 435-781-4357

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
   SURFACE LOCATION: 623' FNL, 1249' FWL, NWNW, SEC 31-T14S-R20E
   BOTTOM LOCATION: 660' FNL, 660' FEL, NENE SEC 36-T14S-R19E

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

| TYPE OF SUBMISSION | TYPE OF ACTION | |
|---|---|---|
| [ ] Notice of Intent | [ ] Abandonment | [ ] Change of Plans |
| | [ ] Recompletion | [ ] New Construction |
| [X] Subsequent Report | [ ] Plugging Back | [ ] Non-Routine Fracturing |
| | [ ] Casing Repair | [ ] Water Shut-Off |
| [ ] Final Abandonment Notice | [ ] Altering Casing | [ ] Conversion to Injection |
| | [X] Other SPUD | [ ] Dispose Water |

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

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

**On 7-13-05 – Drilled 18' of 24" conductor hole. Ran 1 jt 20' of 20" conductor pipe. Cement with Ready Mix.**

**On 7-13-05 Spud FLAT ROCK 1P 36-14-19. Drilled 535' of 17-1/2" hole. Ran 12 jts of 13-3/8" csg H-40, 48# per ft. 523' cement w/ 500 sxs Premium Cement Type 5 w/ 2% CACL2 ¼# Flocele. Cement to surface fell back. We will 1" later.**

RECEIVED
JUL 29 2005
DIV. OF OIL, GAS & MINING

**3 - BLM, 2- Utah OG&M, 1 – Denver, 1 – file Word file-server**

14. I hereby certify that the foregoing is true and correct.
Signed **Dahn F. Caldwell** Title **Office Administrator II** Date **7/26/2005**

(This space for Federal or State office use)

Approved by: _____ Title _____ Date _____

Conditions of approval, if any

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

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# WEEKLY OPERATIONS REPORT – October 27, 2005

QEP

T14S R20E S-31
43-047-36300

**UINTA BASIN**

**"Drilling Activity – Operated" 10-27-05**

- Patterson 51 – WWT 7ML-24-8-24. Reached TD of 4,365'. Rigging up loggers. Will log and then run 7" casing. Next well: SC 12ML-16-10-23.
- Patterson 52 – SSU 8G-9-8-21. Drilling at 2,469'. This is a grassroots horizontal well.
- True 32 – FR 1P-36-14-19. Rigging up. Anticipate spudding this weekend.
- Caza 24 – GB 16D-28-8-21. Rigging up. Anticipate spudding this weekend

**"Completions & New Wells to Sales" 10-27-05:**

**COY 12ML-24-8-24:** *(25% WI)* Frac'd Qu6 (GR) on 10/18; started PU on 10/25; poss. downhole pump problems; moving WO rig back on today.

**GB 7M-28-8-21:** *(77.5% WI)* 2 LMV fracs. done (150 Mlbs. Econoprop each); went back to sales (all zones) 10/23; currently flowing 1252 mcfpd @ 930 psi FTP & 1810 psi CP on a 24/64" ck. w/ 13 BOPD & 195 BWPD.

**WV 12G-10-8-21:** *(100% WI)* Start flowing to Battery #5 today to deplete water.

**WV 15G-3-8-21:** *(100% WI)* MIRU late Weds.; will have to mill over CIBP first (not the desired plug).

**WV 14M-11-8-21**: *(100% WI)* Firing propellent sticks across Blackhawk & 2 LMV intervals today.

**WF 1P-1-15-19:** *(50% WI)* pipeline should be completed by the end of this week; surface facilities next week (2 crews working on it).

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# WEEKLY OPERATIONS REPORT – November 3, 2005

QEP

T 14S R20E S-31
43-047-36300

## UINTA BASIN

### "Drilling Activity – Operated" 11-3-05

- Ensign 24 – GB 16D-28-8-21 drilling at 1,617 feet. Spud well at 01:30 11/2/05. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,850'.
- Patterson 51 – SC 12ML-16-10-23 drilling at 3,138 feet. Spud well at 22:00 11/2/05. PBTD 7,600'. Next well SC 14ML-16-10-23. PBTD 7,570'.
- Patterson 52 – SSU 8G-9-8-21 drilling at 5,380 feet building angle at 46.7 degrees. PBTD 9,320'. Next well is unknown at this time.
- True 32 – FR 1P-36-14-19 drilling at 3,880 feet. PBTD 13,125'. Next well Wolf Flat Option well.

### "Completions & New Wells to Sales" 11-3-05:

**GB 7M-28-8-21:** *(77.5% WI)* 2 LMV fracs. done (150 Mlbs. Econoprop each); went back to sales (all zones) 10/23; currently flowing 1284 mcfpd @ 701 psi FTP & 1280 psi CP on a 24/64" ck. w/ 25 BOPD & 192 BWPD.

**COY 12ML-24-8-24:** *(25% WI)* Frac'd Qu6 (GR) on 10/18; started PU on 10/25; 20 BOPD; no gas or water currently.

**WV 12G-10-8-21:** *(100% WI)* Start flowing to Battery #5 10/27 to deplete water from reservoir; 44 BOPD; 0 mcf & 423 BWPD currently.

**WV 15G-3-8-21:** *(100% WI)* While washing over/fishing CIBP, it has moved into lateral 365'; cannot push to toe; currently RIH w/ washover shoe/grapple today.

**WF 1P-1-15-19:** *(50% WI)* MIRU Friday.

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# WEEKLY OPERATIONS REPORT – November 10, 2005

QRP

T14S R20E S-31
43-047-36300

## UINTA BASIN

### "Drilling Activity – Operated" 11-10-05

- Ensign 24 – GB 16D-28-8-21 drilling at 5,629 feet. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,850'.
- Patterson 51 – SC 12ML-16-10-23 ran and cemented production casing at 7,640'. Rig released 1300 hours 11/9/05. Reading rig for move to SC 14ML-16-10-23. PBTD 7,570'.
- Patterson 52 – SSU 8G-9-8-21 landed in G-1 Lime, ran and cemented 7" casing at 6,023'. Currently converting rig to slim hole equipment. PBTD 9,320'. Next well is unknown at this time, probably RW 01-36BG grass roots horizontal.
- True 32 – FR 1P-36-14-19 drilling at 5,035 feet. PBTD 13,125'. Next well Wolf Flat Option well.

### "Completions & New Wells to Sales" 11-10-05:

**WV 15G-3-8-21:** *(100% WI)* CIBP pushed to "toe"; acidize w/ 30,000 gal.; TIH w/ prod. tbg.; swabbed/flowed 280 bbls. today; 25% oil cut; 1/3 load left to rec.; sand line parted; will fish and then run rods and pump.

**WF 1P-1-15-19:** *(50% WI)* MIRU last Friday; TIH w/ bit and scraper to PBTD; TIH w/ pkr & RBP to check ability to get thru all zones today; W/L work (CBL and perf'ing Wingate) will be Sat. or Mon.

**SC 12ML-16-10-23:** *(100% WI)* Starting production facilities/flowline.

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# WEEKLY OPERATIONS REPORT – November 17, 2005

QEP

T14S R20E S-31
43-047-36300

**UINTA BASIN**

**"Drilling Activity – Operated" 11-10-05**

- Ensign 24 – GB 16D-28-8-21 drilling at 7,756 feet. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,850'.
- Patterson 51 – SC 14ML-16-10-23 drilling at 6,780'. PBTD 7,625'. Next well is the SC 5ML-16-10-23.
- Patterson 52 – SSU 8G-9-8-21 drilling the horizontal section (2000'+ drilled so far). PBTD 9,000'+/-. The next well is the RW 01-36BG grass roots horizontal.
- True 32 – FR 1P-36-14-19 drilling at 6,482 feet. PBTD 13,125'. Next well Wolf Flat Option well or move to Vermillion.

**"Completions & New Wells to Sales" 11-17-05:**

**WV 15G-3-8-21:** *(100% WI)* Ran rods & pump; crane on location today to set PU.

**WF 1P-1-15-19:** *(50% WI)* Perf'd Wingates and acidized; swabbing load back; should have load recovered by today and then will be able to confirm zones are dry and get a natural rate pre-frac.

**SC 12ML-16-10-23:** *(100% WI)* Production facilities/flowline will be finished 11/21.

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# WEEKLY OPERATIONS REPORT – December 1, 2005

QEP

T14S R20E S-31
43-047-36300

## UINTA BASIN

### "Drilling Activity – Operated" 12-1-05

- Ensign 24 – GB 16D-28-8-21 at ICP, 10,302 feet, ran and cemented intermediate casing. Changing out equipment for slim hole pipe. Should drill out early tomorrow. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,850'.
- Patterson 51 – NBE 14ML-17-9-23 move in, rigging up. PBTD 9,340'. Next well is the NBE 5ML-17-9-23, directional. PTD 9,320'.
- Patterson 52 – RW 01-36BG drilling out 5th cement plug at 3045 feet, set to control loss circulation. PBTD 7,467'+/-. The next well is the GHU 4 re-entry horizontal.
- True 32 – FR 1P-36-14-19 circulating at 9,956 feet waiting on technician to repair brakes. PBTD 13,125'. Next well Wolf Flat Option well or move to Vermillion.

### "Completions & New Wells to Sales" 11-17-05:

**WV 15G-3-8-21:** *(100% WI)* Ran rods & pump; crane on location today to set PU.

**WF 1P-1-15-19:** *(50% WI)* Perf'd Wingates and acidized; swabbing load back; should have load recovered by today and then will be able to confirm zones are dry and get a natural rate pre-frac.

**SC 12ML-16-10-23:** *(100% WI)* Production facilities/flowline will be finished 11/21.

CONFIDENTIAL

FORM 9

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

# 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-49279

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TRIBE

7. UNIT or CA AGREEMENT NAME: N/A

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER _____

8. WELL NAME and NUMBER: FR 1P-36-14-19

2. NAME OF OPERATOR: QEP UINTA BASIN, INC. Jim Davidson

9. API NUMBER: 4304736300

3. ADDRESS OF OPERATOR: 11002 E 17500 S CITY VERRNAL STATE UT ZIP 84078 PHONE NUMBER: (303) 308-3090

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 623' FNL 1249' FWL COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNW 31 14S 20E STATE: UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ☑ NOTICE OF INTENT (Submit in Duplicate) | ☐ ACIDIZE | ☐ DEEPEN | ☐ REPERFORATE CURRENT FORMATION |
| Approximate date work will start: | ☐ ALTER CASING | ☐ FRACTURE TREAT | ☐ SIDETRACK TO REPAIR WELL |
| _____ | ☐ CASING REPAIR | ☐ NEW CONSTRUCTION | ☐ TEMPORARILY ABANDON |
| | ☑ CHANGE TO PREVIOUS PLANS | ☐ OPERATOR CHANGE | ☐ TUBING REPAIR |
| | ☐ CHANGE TUBING | ☐ PLUG AND ABANDON | ☐ VENT OR FLARE |
| ☐ SUBSEQUENT REPORT (Submit Original Form Only) | ☐ CHANGE WELL NAME | ☐ PLUG BACK | ☐ WATER DISPOSAL |
| Date of work completion: | ☐ CHANGE WELL STATUS | ☐ PRODUCTION (START/RESUME) | ☐ WATER SHUT-OFF |
| | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ RECLAMATION OF WELL SITE | ☐ OTHER: _____ |
| _____ | ☐ CONVERT WELL TYPE | ☐ RECOMPLETE - DIFFERENT FORMATION | |

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

QEP Uinta Basin Inc. proposes to change the casing program and cement program to isolate the high pressure interval in the Mancos shale from the lower pressure formations that occurred below the Mancos.

Please refer to the attachment.

COPY SENT TO OPERATOR
Date: 12-5-05
Initials: CHD

NAME (PLEASE PRINT) Jan Nelson TITLE Regulatory Affairs

SIGNATURE Jan Nelson DATE 12/2/2005

(This space for State use only)

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 12/5/05
BY: D. K. Duff
(See Instructions on Reverse Side)

RECEIVED
DEC 05 2005
DIV. OF OIL, GAS & MINING

(5/2000)

# Pipe Changes for Flat Rock 1P-36-14-19

An unanticipated overpressure interval was penetrated at 9477' md in the Mancos shale that required a mud weight of 10.8 ppg to control and stabilize the wellbore. The lower zones listed below are not expected to support the 10.8 ppg mud weight. Therefore, Questar has designed an alternative casing program to isolate the high pressure interval in the Mancos shale from the lower pressure formations that occur below the Mancos.

| PROJECTED FORMATION TOPS: | | | |
|---|---|---|---|
| **FORMATION** | **SUBSEA** | **TVD** | **Est. MD** |
| Green River | | surface | |
| Wasatch | 5,042 | 2,190 | 2,190 |
| Mesaverde | 3,182 | 4,050 | 4,050 |
| Castlegate | 1,217 | 6,015 | 6,098 |
| Mancos | 1,032 | 6,200 | 6,306 |
| Dakota Silt | -2,793 | 10,025 | 10,438 |
| Dakota | -2,893 | 10,125 | 10,538 |
| Cedar Mountain | -2,983 | 10,215 | 10,638 |
| Morrison | -3,183 | 10,415 | 10,828 |
| Curtis | -3,808 | 11,040 | 11,453 |
| Entrada | -3,893 | 11,125 | 11,538 |
| Carmel | -4,143 | 11,375 | 11,788 |
| Kayenta | -4,223 | 11,455 | 11,868 |
| Wingate | -4,343 | 11,575 | 11,988 |
| Chinle | -4,733 | 11,965 | 12,378 |
| **TOTAL DEPTH/FM:** | -4,918 | **12,150** | **12,563** |

Listed below is the original casing design prior to intercepting the high pressure interval at 9477' md.

## *Present design for production hole set at TD of 12,563' md*

| Hole Size | Casing Size | INTERVAL Top | INTERVAL Bottom | Weight | Grade | Thread | Condition |
|---|---|---|---|---|---|---|---|
| 8-1/2" | 5-1/2" | sfc | 12,563' | 17 | P110 | LTC | New |

| Size | Wt., #/ft | Grade | Collapse, Psi. | Burst, Psi. | Jt. Strength | Pipe Body | Wall, In. | I.D., In | Drift, In. |
|---|---|---|---|---|---|---|---|---|---|
| 5-1/2" | 17 | P-110 | 7840 | 10,640 | 445,000 | 546 | 0.304 | 4.892 | 4.767 |

**MINIMUM DESIGN FACTORS:**

COLLAPSE: 1.125
BURST: 1.10
TENSION: 1.80

Area Fracture Gradient: 0.875 psi/foot
Maximum anticipated mud wt.: 16.5 ppg.
Maximum surface treating pressure: 9,000 psi

## ***Replacement Design***

| Hole Size | Casing Size | INTERVAL Top | INTERVAL Bottom | Weight | Grade | Thread | Condition |
|---|---|---|---|---|---|---|---|
| 8-1/2" | 7" | sfc | 10,350' | 29 | HCP-110 | LTC | New |
| 6" | 4-1/2" | 9900 | 12,563' | 15.1 | P110 | LTC | New |

| CASING STRENGTHS: | | | | COLLAPSE | BURST | JNT TENSILE (minimum) |
|---|---|---|---|---|---|---|
| 7" | 29 lb. | HCP-110 | LTC | 9,200 psi | 11,220 psi | 797,000 lb. |
| 4-1/2" | 15.1 lb. | P110 | LTC | 14,350 psi | 14,420 psi | 406,000 lb. |

**MINIMUM DESIGN FACTORS:**

COLLAPSE: 1.125
BURST: 1.10
TENSION: 1.80

Area Fracture Gradient: 0.875 psi/foot
Maximum anticipated mud wt.: 16.5 ppg.
Maximum surface treating pressure: 9,000 psi

Revised cementing plans resulting from casing design changes as follows:

## 7-" Intermediate Casing: sfc-10,400' (MD)

**Lead Slurry:** 3,500' – 9,350'

Halliburton Hi-Fill

| | |
|---|---|
| Fluid Weight | 11 lbm/gal |
| Slurry Yield: | 3.84 $ft^3$/sk |
| Total Mixing Fluid: | 23.15 gl/sk |
| Top of Fluid: | 3500 ft |
| Calculated Fill: | 5850 ft |
| Volume: | 166.14 bbl |
| Calculated Sacks: | 242.66 sks |
| Proposed Sacks: | 250 sks |

**Tail Slurry:** 9,350' – 10,350'

50/50 Poz Premium

| | | | |
|---|---|---|---|
| lbm/gal | | Fluid Weight | 13.50 |
| 0.4 % | Halad(R)-344 (Low Fluid Loss Control) | Slurry Yield: | 1.73 $ft^3$/sk |
| 0.25 % | HR-12 (Retarder) | Total Mixing Fluid: | 8.17 Gal/sk |
| 0.2 % | CFR-3 (Dispersant) | Top of Fluid: | 9350 ft |
| 5 lbm/sk | Silicalite (Light Weight Additive) | Calculated Fill: | 1000 ft |
| 20 % | SSA-1 (Cement Material) | Volume: | 29.79 bbl |
| 0.2 % | Super CBL (Gas Migration Control) | Calculated Sacks: | 96.80 sks |
| 0.25 lbm/sk | Flocele (Lost Circulation Additive) | Proposed Sacks: | 100 sks |

## 4-1/2" Production Liner: 9,900'-12,563' (MD) Lead/Tail:

Foamed Lead Cement **(FOAMED TO 11 PPG)**

50/50 Poz Premium

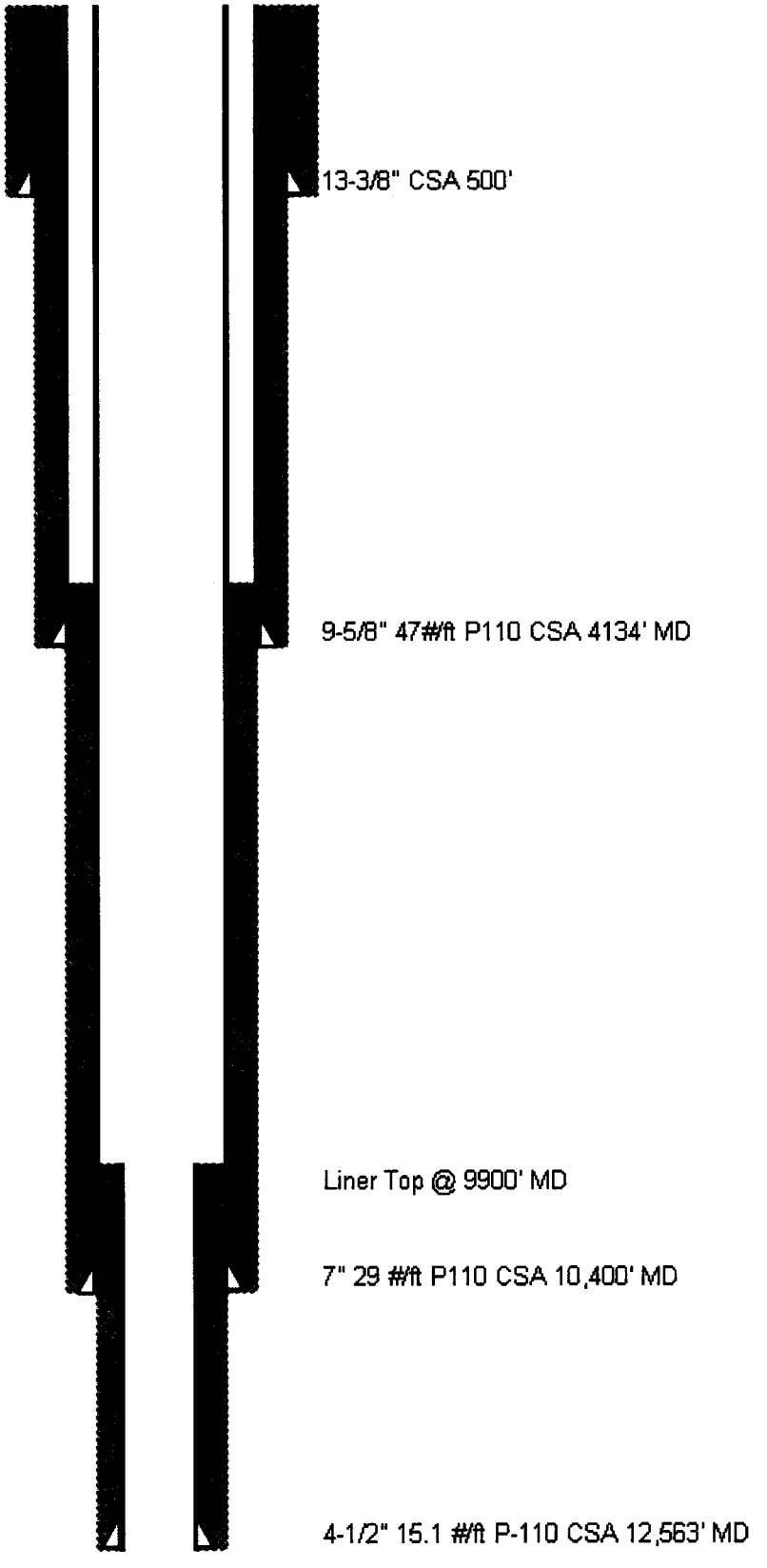
| | | | |
|---|---|---|---|
| lbm/gal | | Fluid Weight | 14.30 |
| 5 lbm/sk | Silicalite Compacted (Light Weight Additive) | Slurry Yield: | 1.47 $ft^3$/sk |
| 20 % | SSA-1 (Cement Material) | Total Mixing Fluid: | 6.39 Gal/sk |
| 0.3 % | Diacel LWL (Low Fluid Loss Control) | Top of Fluid: | 9900 ft |
| 0.2 % | Versaset (Thixotropic Additive) | Calculated Fill: | 2163 ft |
| 1.5 % | Zonesealant 2000 (Foamer) | Volume: | 33.09 bbl |
| | | Calculated Sacks: | 126.411 sks |
| | | Proposed Sacks: | 140 sks |

Tail Cement **(UNFOAMED)**

50/50 Poz Premium

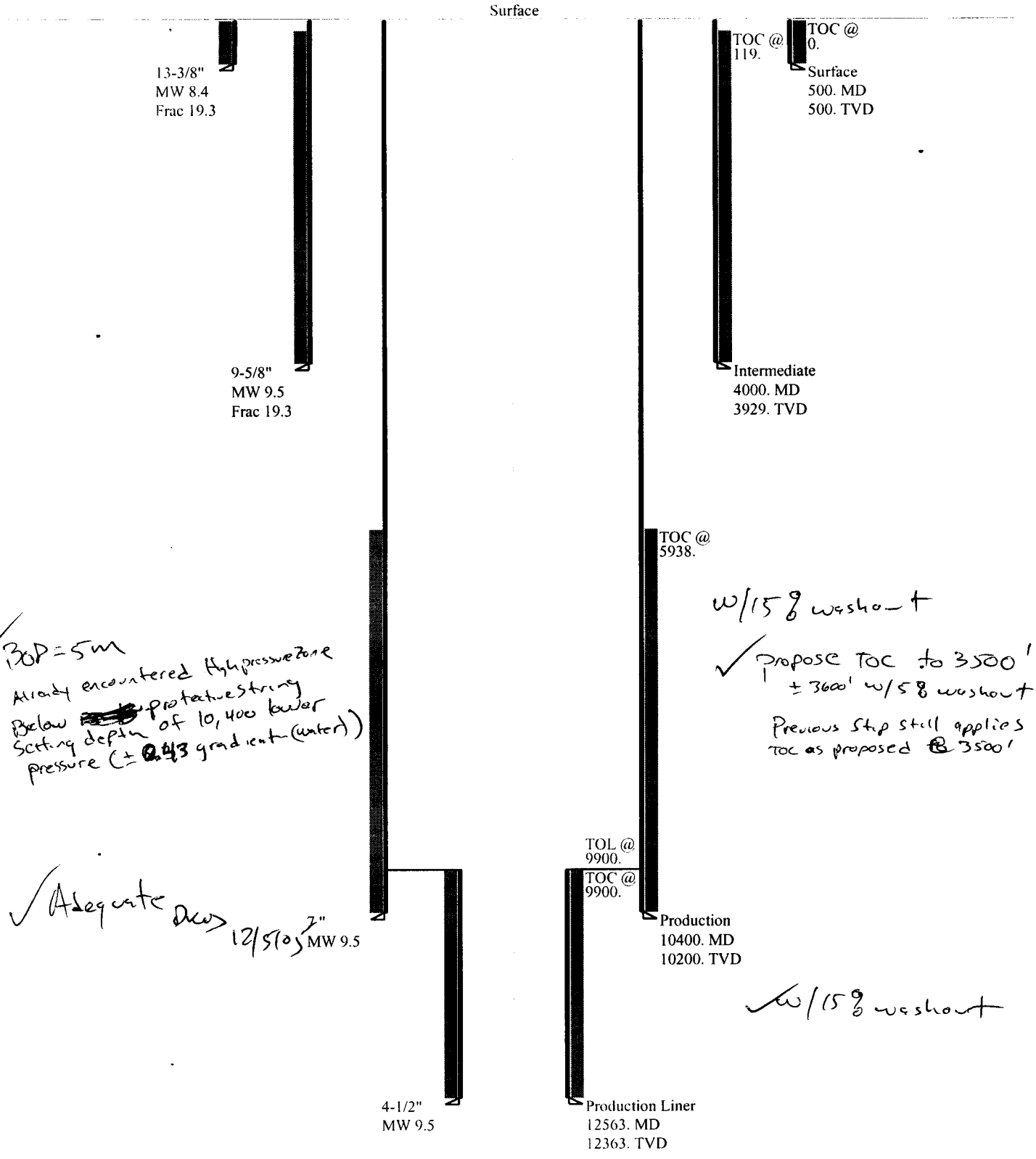
| | | | |
|---|---|---|---|
| lbm/gal | | Fluid Weight | 14.30 |
| 5 lbm/sk | Silicalite Compacted (Light Weight Additive) | Slurry Yield: | 1.47 $ft^3$/sk |
| 20 % | SSA-1 (Cement Material) | Total Mixing Fluid: | 6.39 Gal/sk |
| 0.3 % | Diacel LWL (Low Fluid Loss Control) | Top of Fluid: | 12063 ft |
| 0.2 % | Versaset (Thixotropic Additive) | Calculated Fill: | 500 ft |
| | | Volume: | 7.65 bbl |
| | | Calculated Sacks: | 29 sks |
| | | Proposed Sacks: | 35 sks |

Flat Rock 1P-36-14-19



# 02-05 QEP FR 1P-36-14-

## Casing Schematic



| | |
|---|---|
| Well name: | **02-05 QEP FR 1P-36-14-19** |
| Operator: | **QEP Uinta Basin Inc.** |
| String type: | Production |
| Project ID: | 43-047-36300 |
| Location: | Uintah County |

**Design parameters:**

**Collapse**

Mud weight: 16.500 ppg

Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 7,519 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 8,743 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**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: 7,810 ft

**Environment:**

| | |
|---|---|
| H2S considered? | No |
| Surface temperature: | 75 °F |
| Bottom hole temperature: | 218 °F |
| Temperature gradient: | 1.40 °F/100ft |
| Minimum section length: | 1,500 ft |
| Cement top: | 5,938 ft |

Directional well information:

| | |
|---|---|
| Kick-off point | 0 ft |
| Departure at shoe: | 1909 ft |
| Maximum dogleg: | 2 °/100ft |
| Inclination at shoe: | 0 ° |

| Run Seq | Segment Length | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Internal Capacity (ft³) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 10400 | 7 | 29.00 | HCP-110 | LT&C | 10200 | 10400 | 6.059 | 610.2 |

| 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 | 8713 | 9200 | 1.052 | 8743 | 11220 | 1.28 | 222 | 797 | 3.59 J |

@MA MW → still above 1.0 DF
DF of 1.125 allows pressure of 8178 psi O.K. DRD

Prepared by: Clinton Dworshak, Utah Div. of Oil & Mining

Phone: 810-538-5280
FAX: 801-359-3940

Date: December 5,2005
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10200 ft, a mud weight of 16.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

| | |
|---|---|
| Well name: | **02-05 QEP FR 1P-36-14-19** |
| Operator: | **QEP Uinta Basin Inc.** |
| String type: | Production Liner |
| Location: | Uintah County |
| Project ID: | 43-047-36300 |

## Design parameters:

**Collapse**

Mud weight: 9.500 ppg

Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 4,618 psi

Internal gradient: 0.120 psi/ft

Calculated BHP: 6,101 psi

No backup mud specified.

## Minimum design factors:

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**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: 12,179 ft

## Environment:

| | |
|---|---|
| H2S considered? | No |
| Surface temperature: | 75 °F |
| Bottom hole temperature: | 248 °F |
| Temperature gradient: | 1.40 °F/100ft |
| Minimum section length: | 1,500 ft |
| Cement top: | 9,900 ft |
| Liner top: | 9,900 ft |
| Directional well information: | |
| Kick-off point | 0 ft |
| Departure at shoe: | 1909 ft |
| Maximum dogleg: | 2 °/100ft |
| Inclination at shoe: | 0 ° |

| 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 | 2663 | 4.5 | 15.10 | P-110 | LT&C | 12363 | 12563 | 3.701 | 81.5 |

| 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 | 6101 | 14350 | 2.352 | 6101 | 14420 | 2.36 | 34 | 406 | 11.80 J |


Prepared by: Clinton Dworshak, Utah Div. of Oil & Mining

Phone: 810-538-5280

FAX: 801-359-3940


Date: December 5,2005

Salt Lake City, Utah

Remarks:

For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 12363 ft, a mud weight of 9.5 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

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# WEEKLY OPERATIONS REPORT – December 8, 2005

QEP

T14S R20E S-31

43-047-36300

## UINTA BASIN

### "Drilling Activity – Operated" 12-8-05

- Ensign 24 – GB 16D-28-8-21 fishing parted drill string at 10,760 feet. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,850'.
- Patterson 51 – NBE 14ML-17-9-23 drilling at 8,095 feet. PBTD 9,340'. Next well is the NBE 5ML-17-9-23, directional. PTD 9,320'.
- Patterson 52 – RW 01-36BG building angle at 4,857'. PBTD 7,467'+/-. The next well is the GHU 4 re-entry horizontal.
- True 32 – FR 1P-36-14-19 circulating for intermediate casing at 10,434 feet. PBTD 13,125'. Next well Wolf Flat Option well or move to Vermillion.

### "Completions & New Wells to Sales" 12-8-05:

**WF 1P-1-15-19:** *(50% WI)* Drilled out last frac plug at 12,000'. Continue in hole, tag fill at 12,350' (below perfs). Pull up, land tubing with F-Nipple at 11,762'. Will ND BOPs & NUWH today and pump off bit; and start swabbing/flow testing (3920 BLLTR).

**SC 12ML-16-10-23:** *(100% WI)* Landed tbg, ND BOPs NUWH. Pumped off bit, flow tbg to tank, turn over to flow watch. At 4:00 this AM FTP 1800 psi on 18/64" choke, CP 2325 psi, 15 bfph. 305 BLR, 4016 BLLTR.

**SC 14ML-16-10-23:** *(100% WI)* Tally & rabbit in hole to 3520'. Continue TIH today for bit and scraper run.

**SSU 8G-9-8-21:** *(100% WI)* RIH w/ 2.875" production tbg, PSN @ 5286', TAC @ 4972'. Flow / swab today, PU rods.

...NFIDENTIAL

# WEEKLY OPERATIONS REPORT – December 15, 2005

QEP

T14S R20E S-31
43-047-36300

## UINTA BASIN

### "Drilling Activity – Operated" 12-8-05

- Ensign 24 – GB 16D-28-8-21 drilling at 11,362 feet in Castlegate. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,900'.
- Patterson 51 – NBE 5ML-17-9-23 drilling at 2,203 feet. PBTD 9,320'. Next well is the SC 4ML-16-10-23 (if ROW issues), directional. PTD 8,015'.
- Patterson 52 – RW 01-36BG landed in zone at 5,527 feet, running 7" casing. PBTD 7,467'+/-. The next well is the GHU 4 re-entry horizontal.
- True 32 – FR 1P-36-14-19 drilling at 11,420 feet. PBTD 13,125'. Next well Wolf Flat option well WF 14-29-15-19.

### "Completions & New Wells to Sales" 12-15-05:

**WF 1P-1-15-19:** *(50% WI)* To sales 12/14/05; current rate 1.6 mmcfpd @ 517 psi FTP & 1523 psi CP on a 37/64" choke w/ 30 BWPH.

**SC 14ML-16-10-23:** *(100% WI)* 6 fracs pumped; lubed in comp. BP and TIH to drill plugs today.

**SC 5ML-16-10-23:** *(100% WI)* 1st frac pumped today (350 Mlbs. prop.); 5 more to pump today and Friday.

**SSU 8G-9-8-21:** *(100% WI)* Started PU 1 p.m. 12/14/05; 18 hr. numbers are as follows: 99 BO; 164 BW (half of this is load); 0 mcf.

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# WEEKLY OPERATIONS REPORT – December 22, 2005

QEP

T14S R20E S-31
43-047-36300

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DIV. OF OIL, GAS & MINING

**UINTA BASIN**

**"Drilling Activity – Operated" 12-22-05**

- Ensign 24 – GB 16D-28-8-21 drilling at 12,734 feet in Mancos Shale. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,900'.
- Patterson 51 – NBE 5ML-17-9-23 drilling at 8,595 feet. PBTD 9,320'. Next well is the SC 4ML-16-10-23 (if ROW issues), directional. PTD 8,015'. Otherwise NBE 10ML-17-9-23.
- Patterson 52 – RW 01-36BG TD'd lateral at 7,631 feet, tripping out to run perforated liner. The next well is the GHU 4 re-entry horizontal.
- True 26 – SG 3MU-23-8-22 drilling at 6,443 feet. PBTD 9,154'. Next well GB 2ML-30-8-22. PBTD 10,750'.
- True 32 – **FR 1P-36-14-19** at TD 12,563 feet fishing stuck FMI logging tool. Currently tripping in hole stripping over wireline. Should be over fish this afternoon. Next well Wolf Flat option well WF 14-29-15-19.

**"Completions & New Wells to Sales" 12-22-05:**

**WF 1P-1-15-19:** *(50% WI)* PBTD was 12,354'. P/L analysis showed 440 BWPD out of the Wingate; set CIBP @ 12,200' (over Wingate); TIH w/ prod. tbg.; well kicked off w/ 9 swab runs and flowed stable ON @ 550 psi FTP & 1100 psi CP on a 40/64" w/ 8 BWPH; well died right before going to sales; swabbing in currently.

**SC 14ML-16-10-23:** *(100% WI)* To sales 5:00 PM 12/19/05.

| Tubing psi | Casing psi | Oil | Gas | Water |
|---|---|---|---|---|
| 1533 | 2138 | 12 | 1554 | 260 |

**SC 5ML-16-10-23:** *(100% WI)* To sales 3:00 PM 12/21/05.

| Tubing psi | Casing psi | Oil | Gas | Water |
|---|---|---|---|---|
| 1716 | 2347 | 16 | 1264 | 334 |

**SSU 8G-9-8-21:** *(100% WI)* Started PU 1 p.m. 12/14/05.

| Tubing psi | Casing psi | Oil | Gas | Water |
|---|---|---|---|---|
| 200 | 50 | 87 | 0 | 10 |

# WEEKLY OPERATIONS REPORT – December 29, 2005

QEP

T14S R20E S-31

43-047-36300

**UINTA BASIN**

**"Drilling Activity – Operated" 12-29-05**

- Ensign 24 – GB 16D-28-8-21 drilling at 14,005 feet in Mancos Shale. Core point picked at 15,116'. PBTD 16,600'. Next well GB 4M-28-8-21. PBTD 12,900'.
- Patterson 51 – NBE 10ML-17-9-23 drilling at 3,228 feet. PBTD 9,125'. Next well is the SC 4ML-16-10-23 (if ROW issues). PBTD 8,015'. Otherwise NBE 6ML-17-9-23. PBTD 9,175'
- Patterson 52 – GH 4 tripping in with mills to cut window. The next well is the WV 16G-3-8-21 re-entry horizontal.
- True 26 – SG 3MU-23-8-22 drilling at 8,548 feet. PBTD 9,154'. Next well GB 2ML-30-8-22. PBTD 10,750'.
- True 32 – FR 1P-36-14-19 rigging down for move to WF 14C-29-15-19. Trucks and crane do in today. Location should be ready around January 6, 2006. Will stack rig until then.

**"Completions & New Wells to Sales" 12-30-05:**

**WF 1P-1-15-19:** *(50% WI)* CIBP over Wingate was leaking 24 BWPH. Set 2nd CIBP and returned to sales 12/29/05. Currently flowing 1.5 mmcfpd w/ 449 psi FTP & 1147 psi CP; 20 BWPH.

**WIH 1AMU-21-8-22:** *(43.75% WI)* Frac'd 7 stages (2 MV & 5 Wasatch). Drilling out bridge plugs, 2 remaining. Should land tubing today and start swabbing.

**NBE 14ML-17-9-23:** *(43.75% WI)* Frac'd 4 stages (All MV). 1 MV/Wasatch and 1 Wasatch stage to frac today. Flow overnight and set kill plug tomorrow.

**SC 14ML-16-10-23:** *(100% WI)* To sales 5:00 PM 12/19/05.

| Tubing psi | Casing psi | Oil | Gas | Water |
|---|---|---|---|---|
| 1170 | 1485 | 12 | 1685 | 174 |

**SC 5ML-16-10-23:** *(100% WI)* To sales 3:00 PM 12/21/05.

| Tubing psi | Casing psi | Oil | Gas | Water |
|---|---|---|---|---|
| 1555 | 1842 | 13 | 1680 | 180 |

**SSU 8G-9-8-21:** *(100% WI)* Started PU 1 p.m. 12/14/05.

| Tubing psi | Casing psi | Oil | Gas | Water |
|---|---|---|---|---|
| 180 | 45 | 92 | 0 | 60 |

Form 3160-4
(November 1983)
(formerly 9-330)

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

SUBMIT IN DUPLICATE (See other instructions on reverse side).

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

5. LEASE DESIGNATION AND SERIAL NO.: ML-49279

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TRIBE

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG *

1a. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] DRY [ ] Other CONFIDENTIAL

b TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEP-EN [ ] PLUG BACK [ ] DIFF. RESVR [ ] Other

7. UNIT AGREEMENT NAME: N/A

8. FARM OR LEASE NAME:

2. NAME OF OPERATOR: QEP UINTA BASIN, INC.

9. WELL NO.: FR 1P 36-14-19

3. ADDRESS OF OPERATOR: 11002 E. 17500 S. VERNAL, UT 84078-8526 435-781-4342

10. FIELD AND POOL, OR WILDCAT: UNDESIGNATED

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

At surface: 623' FNL, 1249' FWL, NWNW, SEC 31-T14S-R20E

At top rod. interval reported below: 688 FEL 904 FNL

At total depth: 660' FNL, 660' FEL, NENE, SEC 36-T14S-R19E

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: SEC 31-T14S-R20E; SEC 36-T14S-R19E

| 14. PERMIT NO. | DATE ISSUED | 12. COUNTY OR PARISH | 13. STATE |
|---|---|---|---|
| 43-047-36300 | | UINTAH | UT |

| 15. DATE SPUDDED | 16. DATE T.D. REACHED | 17. DATE COMPL. (*Ready to prod.*) | 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* | 19. ELEV. CASINGHEAD |
|---|---|---|---|---|
| 7/13/05 | 12/19/05 | 2/1/06 | KB | |

| 20. TOTAL DEPTH, MD & TVD | 21. PLUG BACK T.D., MD & TVD | 22. IF MULTIPLE COMPL., HOW MANY* | 23. INTERVALS DRILLED BY | ROTARY TOOLS | CABLE TOOLS |
|---|---|---|---|---|---|
| 12,563' 12169 | 12,428' 12034 | | ——> | X | |

24. PRODUCING INTERVAL(S), OF THIS COMPLETION--TOP, BOTTOM, NAME (MD AND TVD)*: SEE ATTACHMENT PAGE 1

25. WAS DIRECTIONAL SURVEY MADE: YES

26. TYPE ELECTRIC AND OTHER LOGS RUN: GR/CBL, PLATFORM EXP. DENSITY POROSITY/GR, P.E. ARRAY INDUCTION TOOL

27. WAS WELL CORED: NO

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

| CASING SIZE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|---|---|---|---|---|---|
| 13-3/8" | 48# | 523' | 17-1/2" | 500 SXS | |
| 9-5/8" | 47# | 4142' | 12-1/4" | 1053 SXS | |
| 7" | 29# | 10,418' | 8-3/4" | 710 SXS | |
| 4-1/2" | 11.6# | 12,428' | 6-1/2" | 140 SXS | |

29. LINER RECORD

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

30. TUBING RECORD

| SIZE | DEPTH SET (MD) | PACKER SET (MD) |
|---|---|---|
| 2-3/8" | 10,760' | |

31. PERFORATION RECORD (*Interval, size and number*): SEE ATTACHMENT PAGE 1

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

| | |
|---|---|
| SEE ATTACHMENT PG 1 | SEE ATTACHMENT PG 1 |

33.* PRODUCTION

| DATE FIRST PRODUCTION | PRODUCTION METHOD (*Flowing, gas lift, pumping--size and type of pump*) | WELL STATUS (*Producing or shut-in*) |
|---|---|---|
| 2/1/06 | FLOWING | PRODUCING |

| DATE OF TEST | HOURS TESTED | CHOKE SIZE | PROD'N FOR TEST PERIOD | OIL--BBL. | GAS--MCF. | WATER--BBL. | GAS-OIL RATIO |
|---|---|---|---|---|---|---|---|
| 2/3/06 | 24 | 18 | ——> | 0 | 2301 | 10 | |

| FLOW. TUBING PRESS. | CASING PRESSURE | CALCULATED 24-HOUR RATE | OIL--BBL. | GAS--MCF | WATER—BBL | OIL GRAVITY-API (CORR.) |
|---|---|---|---|---|---|---|
| 410 | 1100 | ----------> | | | | |

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

TEST WITNESSED BY:

35. LIST OF ATTACHMENTS: PERFORATION ATTACHMENT PAGE 1 & WELLBORE SCHEMATIC

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

SIGNED JIM SIMONTON Jim Simonton (dbc) TITLE COMPLETION SUPERVISOR DATE 9/25/06

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

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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):

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. |
|---|---|---|---|
| Green River | Surface | | |
| Wasatch | 2208 | | |
| Mesaverde | 4160 | | |
| Sego | 5970 | | |
| Castlegate | 6068 | | |
| Mancos | 6872 | | |
| Dakota | 10550 | | |
| Morrison | 10830 | | |
| Curtis | 11396 | | |
| Entrada | 11548 | | |
| Wingate | 12012 | | |
| Chinle | 12398 | | |
| TD | 12471 | | |

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38. GEOLOGIC MARKERS
**FR 1P 36-14-19**

| | TOP | |
|---|---|---|
| | | TRUE |

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## FR 1P 36-14-19 – ATTACHMENT PAGE 1

PERFORATION DETAIL:

| Open Perfs | Stimulation | | | | | Perf Status |
|---|---|---|---|---|---|---|
| 10455′ – 10459′ | Perfs | Not | Broken | Down | | Open – Dakota |
| 10621′ – 10625′ | | | | | | Open – Dakota |
| | | | | | | |
| 10808′ – 10818′ | Frac w/ | 216,000 | Lbs in | 31,080 | Gals | Open – Cedar Mtn |
| | | | | | | |
| 11478′ – 11480′ | | | | | | Open – Curtis |
| 11502′ – 11478′ | | | | | | Open – Curtis |
| 11520′ – 11522′ | | | | | | Open – Curtis |
| | | | | | | |
| 11578′ – 11580′ | | | | | | Open – Entrada |
| 11628′ – 11630′ | | | | | | Open – Entrada |
| 11642′ – 11644′ | | | | | | Open – Entrada |
| 11665′ – 11667′ | | | | | | Open – Entrada |
| 11747′ – 11749′ | | | | | | Open – Entrada |
| 11776′ – 11778′ | | | | | | Open – Entrada |
| | | | | | | |
| **CIBP @ 11,930′** | | | | | | |
| | | | | | | |
| 12014′ – 12024′ | Frac w/ | 25,000 | Lbs in | 11,298 | Gals | Excluded – Wingate |
| 12371′ – 12384′ | Acidized w/ | HCL | | 1500 | Gals | Excluded – Wingate |

CONFIDENTIAL

# Questar E & P
## Deviation Summary



Well Name: FR 1P-36-14-19
TMD: 11,916.0 (ft) TVD: 11,522.37 (ft)
Closure Distance: 1,938.3 (ft) Closure Direction: 267.61 (°)
Location:
Spud Date: 7/13/2005
Calculation Method: Minimum Curvature

| S/T # | V.S. Azi (°) |
|---|---|
| OH | 268.89 |

| S/T # | TMD (ft) | Angle (°) | Azimuth (°) | CTM | TVD (ft) | N/-S (ft) | E/-W (ft) | Vert. Section (ft) | DLS (°/100ft) | BUR (°/100ft) | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | 0.0 | 0.00 | 0.00 | YNN | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| OH | 907.0 | 0.10 | 159.53 | YNN | 907.00 | -0.74 | 0.28 | -0.26 | 0.01 | 0.01 | MSS |
| OH | 1,424.0 | 0.30 | 226.93 | YNN | 1,424.00 | -2.05 | -0.59 | 0.63 | 0.05 | 0.04 | MSS |
| OH | 1,954.0 | 0.50 | 260.03 | YNN | 1,953.96 | -3.37 | -3.91 | 3.97 | 0.05 | 0.04 | MSS |
| OH | 2,467.0 | 0.90 | 250.93 | YNN | 2,466.94 | -5.07 | -8.92 | 10.02 | 0.08 | 0.08 | MSS |
| OH | 2,971.0 | 0.80 | 224.83 | YNN | 2,970.89 | -6.86 | -16.14 | 16.31 | 0.08 | -0.02 | MSS |
| OH | 3,469.0 | 1.20 | 219.43 | YNN | 3,468.81 | -15.35 | -21.91 | 22.20 | 0.08 | 0.08 | MSS |
| OH | 4,108.0 | 1.40 | 229.13 | YNN | 4,107.85 | -25.83 | -32.06 | 32.55 | 0.05 | 0.03 | MSS |
| OH | 4,167.0 | 1.32 | 243.39 | YNN | 4,166.83 | -26.40 | -33.21 | 33.72 | 0.59 | -0.14 | MWD |
| OH | 4,199.0 | 1.76 | 249.28 | YNN | 4,198.82 | -26.74 | -34.00 | 34.51 | 1.46 | 1.38 | MWD |
| OH | 4,230.0 | 2.11 | 249.81 | YNN | 4,229.80 | -27.11 | -34.98 | 35.50 | 1.13 | 1.13 | MWD |
| OH | 4,261.0 | 2.29 | 250.07 | YNN | 4,260.58 | -27.52 | -36.10 | 36.63 | 0.58 | 0.58 | MWD |
| OH | 4,290.0 | 2.29 | 248.58 | YNN | 4,289.56 | -27.92 | -37.18 | 37.72 | 0.21 | 0.00 | MWD |
| OH | 4,316.0 | 2.37 | 246.64 | YNN | 4,315.54 | -28.33 | -38.16 | 38.70 | 0.43 | 0.31 | MWD |
| OH | 4,346.0 | 2.29 | 244.60 | YNN | 4,347.51 | -28.88 | -39.35 | 39.90 | 0.34 | -0.25 | MWD |
| OH | 4,380.0 | 2.20 | 244.01 | YNN | 4,379.49 | -29.40 | -40.48 | 41.04 | 0.30 | -0.28 | MWD |
| OH | 4,411.0 | 2.11 | 244.60 | YNN | 4,410.48 | -29.91 | -41.53 | 42.10 | 0.31 | -0.29 | MWD |
| OH | 4,443.0 | 2.29 | 246.12 | YNN | 4,442.44 | -30.42 | -42.65 | 43.23 | 0.58 | 0.56 | MWD |
| OH | 4,474.0 | 2.81 | 248.67 | YNN | 4,473.41 | -30.94 | -43.92 | 44.51 | 1.72 | 1.68 | MWD |
| OH | 4,505.0 | 3.34 | 251.13 | YNN | 4,504.37 | -31.51 | -45.48 | 46.08 | 1.76 | 1.71 | MWD |
| OH | 4,599.0 | 4.66 | 251.74 | YNN | 4,598.13 | -33.59 | -51.70 | 52.34 | 1.40 | 1.40 | MWD |
| OH | 4,694.0 | 6.33 | 254.47 | YNN | 4,692.69 | -36.21 | -60.41 | 61.10 | 1.76 | 1.76 | MWD |
| OH | 4,788.0 | 8.00 | 257.81 | YNN | 4,785.96 | -38.98 | -71.80 | 72.54 | 1.83 | 1.78 | MWD |
| OH | 4,882.0 | 10.11 | 259.92 | YNN | 4,878.78 | -41.80 | -86.32 | 87.11 | 2.27 | 2.24 | MWD |
| OH | 4,977.0 | 11.17 | 262.99 | YNN | 4,972.15 | -44.38 | -103.66 | 104.50 | 1.26 | 1.12 | MWD |
| OH | 5,070.0 | 12.66 | 267.21 | YNN | 5,063.14 | -46.98 | -122.78 | 123.65 | 1.85 | 1.60 | MWD |
| OH | 5,163.0 | 14.42 | 266.63 | YNN | 5,153.55 | -47.16 | -144.52 | 145.41 | 1.90 | 1.89 | MWD |
| OH | 5,257.0 | 15.70 | 265.00 | YNN | 5,244.32 | -48.95 | -168.88 | 169.79 | 1.43 | 1.36 | MWD |
| OH | 5,351.0 | 16.80 | 266.68 | YNN | 5,334.57 | -50.85 | -195.11 | 196.08 | 1.27 | 1.17 | MWD |
| OH | 5,447.0 | 18.73 | 268.88 | YNN | 5,425.99 | -51.95 | -224.37 | 225.34 | 2.13 | 2.01 | MWD |
| OH | 5,547.0 | 20.22 | 270.55 | YNN | 5,520.28 | -52.10 | -257.71 | 258.67 | 1.59 | 1.49 | MWD |
| OH | 5,642.0 | 22.25 | 272.22 | YNN | 5,608.81 | -51.25 | -292.10 | 293.04 | 2.23 | 2.14 | MWD |
| OH | 5,737.0 | 23.92 | 272.13 | YNN | 5,696.20 | -49.83 | -329.32 | 330.23 | 1.76 | 1.76 | MWD |



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# Deviation Summary

Well Name: FR 1P-36-14-19
TMD: 11,916.0 (ft) TVD: 11,522.37 (ft)
Closure Distance: 1,938.3 (ft) Closure Direction: 287.61 (°)
Location:
Spud Date: 7/13/2005
Calculation Method: Minimum Curvature

| B/T # | V.S. Azi (°) |
|---|---|
| OH | 288.89 |

| B/T # | TMD (ft) | Angle (°) | Azimuth (°) | CTM | TVD (ft) | N/-S (ft) | E/-W (ft) | Vert. Section (ft) | DLS (°/100ft) | BUR (°/100ft) | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | 5,832.0 | 23.83 | 271.96 | YNN | 5,783.07 | -48.46 | -367.75 | 368.82 | 0.12 | -0.09 | MWD |
| OH | 5,927.0 | 22.42 | 272.13 | YNN | 5,870.43 | -47.13 | -405.03 | 405.87 | 1.49 | -1.48 | MWD |
| OH | 5,959.0 | 22.69 | 272.22 | YNN | 5,899.99 | -46.67 | -417.30 | 418.12 | 0.85 | 0.84 | MWD |
| OH | 5,990.0 | 22.95 | 272.66 | YNN | 5,928.58 | -46.15 | -429.31 | 430.12 | 1.00 | 0.84 | MWD |
| OH | 6,022.0 | 24.27 | 272.57 | YNN | 5,957.88 | -45.57 | -442.11 | 442.91 | 4.13 | 4.13 | MWD |
| OH | 6,054.0 | 24.53 | 271.43 | YNN | 5,987.02 | -45.11 | -455.92 | 456.11 | 1.68 | 0.81 | MWD |
| OH | 6,086.0 | 24.53 | 271.34 | YNN | 6,016.14 | -44.79 | -468.61 | 469.39 | 0.12 | 0.00 | MWD |
| OH | 6,118.0 | 24.89 | 271.61 | YNN | 6,045.21 | -44.44 | -481.98 | 482.75 | 1.18 | 1.13 | MWD |
| OH | 6,150.0 | 25.41 | 271.34 | YNN | 6,074.17 | -44.09 | -495.57 | 496.33 | 1.66 | 1.63 | MWD |
| OH | 6,182.0 | 26.20 | 271.13 | YNN | 6,102.96 | -43.79 | -509.50 | 510.25 | 2.49 | 2.47 | MWD |
| OH | 6,214.0 | 27.87 | 271.43 | YNN | 6,131.46 | -43.47 | -524.04 | 524.78 | 5.24 | 5.22 | MWD |
| OH | 6,246.0 | 28.14 | 271.69 | YNN | 6,159.74 | -43.06 | -539.06 | 539.79 | 0.93 | 0.84 | MWD |
| OH | 6,277.0 | 27.28 | 271.43 | YNN | 6,187.18 | -42.66 | -553.46 | 554.19 | 2.87 | -2.84 | MWD |
| OH | 6,309.0 | 26.03 | 271.58 | YNN | 6,215.78 | -42.29 | -567.81 | 568.52 | 3.85 | -3.84 | MWD |
| OH | 6,336.0 | 24.89 | 271.08 | YNN | 6,241.97 | -42.00 | -580.27 | 580.98 | 4.00 | -3.93 | MWD |
| OH | 6,370.0 | 24.80 | 271.87 | YNN | 6,271.01 | -41.65 | -593.71 | 594.41 | 1.07 | -0.26 | MWD |
| OH | 6,401.0 | 26.15 | 272.22 | YNN | 6,299.11 | -41.16 | -606.79 | 607.48 | 1.23 | 1.13 | MWD |
| OH | 6,434.0 | 25.68 | 272.31 | YNN | 6,328.91 | -40.62 | -620.95 | 621.62 | 1.61 | 1.61 | MWD |
| OH | 6,465.0 | 25.94 | 272.66 | YNN | 6,356.82 | -40.04 | -634.43 | 635.09 | 0.97 | 0.84 | MWD |
| OH | 6,497.0 | 26.03 | 272.57 | YNN | 6,385.59 | -39.40 | -648.44 | 649.08 | 0.31 | 0.28 | MWD |
| OH | 6,527.0 | 26.03 | 272.31 | YNN | 6,412.54 | -38.84 | -661.59 | 662.22 | 0.36 | 0.00 | MWD |
| OH | 6,559.0 | 25.59 | 272.76 | YNN | 6,441.35 | -38.22 | -675.51 | 676.12 | 1.50 | -1.38 | MWD |
| OH | 6,591.0 | 25.68 | 272.92 | YNN | 6,470.20 | -37.54 | -689.34 | 689.93 | 0.36 | 0.28 | MWD |
| OH | 6,622.0 | 25.59 | 272.31 | YNN | 6,498.15 | -36.93 | -702.73 | 703.32 | 0.90 | -0.29 | MWD |
| OH | 6,654.0 | 25.85 | 272.57 | YNN | 6,526.98 | -36.34 | -716.61 | 717.18 | 0.89 | 0.81 | MWD |
| OH | 6,686.0 | 26.12 | 273.36 | YNN | 6,555.54 | -35.57 | -731.48 | 732.04 | 1.29 | 0.79 | MWD |
| OH | 6,717.0 | 26.38 | 274.68 | YNN | 6,583.55 | -34.67 | -744.28 | 744.81 | 2.20 | 0.90 | MWD |
| OH | 6,749.0 | 26.03 | 275.38 | YNN | 6,612.26 | -33.43 | -758.35 | 758.86 | 1.46 | -1.09 | MWD |
| OH | 6,781.0 | 26.38 | 275.56 | YNN | 6,640.97 | -32.06 | -772.42 | 772.90 | 1.12 | 1.09 | MWD |
| OH | 6,813.0 | 26.38 | 275.39 | YNN | 6,669.64 | -30.72 | -786.57 | 787.02 | 0.24 | 0.00 | MWD |
| OH | 6,844.0 | 27.70 | 275.65 | YNN | 6,697.25 | -29.37 | -800.60 | 801.02 | 4.28 | 4.26 | MWD |
| OH | 6,876.0 | 27.70 | 275.47 | YNN | 6,725.58 | -27.93 | -815.41 | 815.79 | 0.26 | 0.00 | MWD |
| OH | 6,907.0 | 27.52 | 275.65 | YNN | 6,753.05 | -26.53 | -829.70 | 830.08 | 0.64 | -0.58 | MWD |



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# Deviation Summary

Well Name: FR 1P-36-14-19
TMD: 11,916.0 (ft) TVD: 11,522.37 (ft)
Closure Distance: 1,938.3 (ft) Closure Direction: 267.61 (°)
Location:
Spud Date: 7/13/2005
Calculation Method: Minimum Curvature

| B/T # | V.S. AZI (°) |
|---|---|
| OH | 268.89 |

| B/T # | TMD (ft) | Angle (°) | Azimuth (°) | CTM | TVD (ft) | N-S (ft) | E-W (ft) | Vert. Section (ft) | DLS (°/100ft) | SUR (°/100ft) | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | 6,936.0 | 27.52 | 275.56 | YNN | 6,780.55 | -25.14 | -843.96 | 844.29 | 0.13 | 0.00 | MWD |
| OH | 6,970.0 | 27.79 | 273.98 | YNN | 6,808.89 | -23.90 | -858.76 | 859.06 | 2.44 | 0.84 | MWD |
| OH | 7,002.0 | 28.49 | 271.87 | YNN | 6,837.11 | -23.13 | -873.63 | 874.11 | 3.80 | 2.19 | MWD |
| OH | 7,033.0 | 28.49 | 270.81 | YNN | 6,864.36 | -22.79 | -888.61 | 888.89 | 1.63 | -0.03 | MWD |
| OH | 7,065.0 | 28.31 | 269.49 | YNN | 6,892.51 | -22.75 | -903.83 | 904.10 | 2.03 | -0.53 | MWD |
| OH | 7,097.0 | 28.05 | 269.41 | YNN | 6,920.71 | -22.89 | -918.94 | 919.21 | 0.82 | -0.81 | MWD |
| OH | 7,128.0 | 27.79 | 269.41 | YNN | 6,948.11 | -23.04 | -933.46 | 933.72 | 0.84 | -0.84 | MWD |
| OH | 7,159.0 | 27.00 | 269.32 | YNN | 6,975.63 | -23.20 | -947.72 | 947.99 | 2.55 | -2.55 | MWD |
| OH | 7,191.0 | 26.91 | 269.58 | YNN | 7,004.15 | -23.34 | -962.22 | 962.49 | 0.46 | -0.28 | MWD |
| OH | 7,223.0 | 26.73 | 269.32 | YNN | 7,032.71 | -23.48 | -976.66 | 976.93 | 0.67 | -0.56 | MWD |
| OH | 7,254.0 | 26.47 | 270.29 | YNN | 7,060.43 | -23.53 | -990.54 | 990.81 | 1.63 | -0.84 | MWD |
| OH | 7,286.0 | 26.82 | 270.81 | YNN | 7,089.03 | -23.39 | -1,004.89 | 1,005.15 | 1.31 | 1.09 | MWD |
| OH | 7,317.0 | 27.26 | 270.90 | YNN | 7,116.64 | -23.18 | -1,018.98 | 1,019.24 | 1.43 | 1.42 | MWD |
| OH | 7,349.0 | 26.82 | 270.99 | YNN | 7,145.14 | -22.94 | -1,033.52 | 1,033.78 | 1.38 | -1.38 | MWD |
| OH | 7,380.0 | 26.47 | 270.81 | YNN | 7,172.85 | -22.72 | -1,047.43 | 1,047.67 | 1.16 | -1.13 | MWD |
| OH | 7,412.0 | 27.00 | 270.55 | YNN | 7,201.43 | -22.56 | -1,061.82 | 1,062.06 | 1.70 | 1.66 | MWD |
| OH | 7,444.0 | 27.52 | 269.76 | YNN | 7,229.88 | -22.51 | -1,076.48 | 1,076.71 | 1.98 | 1.63 | MWD |
| OH | 7,473.0 | 27.79 | 268.97 | YNN | 7,255.56 | -22.66 | -1,089.94 | 1,090.17 | 1.57 | 0.93 | MWD |
| OH | 7,504.0 | 27.61 | 268.78 | YNN | 7,283.01 | -22.94 | -1,104.34 | 1,104.58 | 0.65 | -0.58 | MWD |
| OH | 7,536.0 | 27.26 | 268.79 | YNN | 7,311.41 | -23.25 | -1,119.08 | 1,119.32 | 1.09 | -1.09 | MWD |
| OH | 7,568.0 | 26.38 | 268.97 | YNN | 7,339.97 | -23.54 | -1,133.52 | 1,133.76 | 2.76 | -2.75 | MWD |
| OH | 7,599.0 | 26.03 | 269.23 | YNN | 7,367.78 | -23.75 | -1,147.21 | 1,147.45 | 1.19 | -1.13 | MWD |
| OH | 7,631.0 | 26.20 | 270.29 | YNN | 7,396.52 | -23.81 | -1,161.29 | 1,161.53 | 1.55 | 0.53 | MWD |
| OH | 7,663.0 | 26.64 | 271.17 | YNN | 7,425.17 | -23.63 | -1,175.53 | 1,175.76 | 1.84 | 1.38 | MWD |
| OH | 7,694.0 | 27.17 | 271.69 | YNN | 7,452.82 | -23.28 | -1,189.55 | 1,189.78 | 1.87 | 1.71 | MWD |
| OH | 7,726.0 | 27.61 | 270.99 | YNN | 7,481.23 | -22.93 | -1,204.27 | 1,204.49 | 1.70 | 1.38 | MWD |
| OH | 7,757.0 | 26.14 | 271.17 | YNN | 7,508.63 | -22.66 | -1,218.76 | 1,218.97 | 1.73 | 1.71 | MWD |
| OH | 7,789.0 | 26.14 | 271.25 | YNN | 7,536.85 | -22.34 | -1,233.85 | 1,234.05 | 0.12 | 0.00 | MWD |
| OH | 7,821.0 | 26.14 | 271.52 | YNN | 7,565.07 | -21.98 | -1,248.94 | 1,249.13 | 0.40 | 0.00 | MWD |
| OH | 7,853.0 | 27.87 | 271.61 | YNN | 7,593.32 | -21.57 | -1,263.98 | 1,264.14 | 0.85 | -0.84 | MWD |
| OH | 7,885.0 | 27.96 | 270.73 | YNN | 7,621.60 | -21.28 | -1,278.93 | 1,279.11 | 1.32 | 0.28 | MWD |
| OH | 7,917.0 | 27.96 | 270.73 | YNN | 7,649.88 | -21.07 | -1,293.94 | 1,294.10 | 0.00 | 0.00 | MWD |
| OH | 7,948.0 | 27.96 | 269.14 | YNN | 7,677.25 | -21.09 | -1,308.47 | 1,308.63 | 2.40 | 0.00 | MWD |



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# Questar E & P
## Deviation Summary

Well Name: FR 1P-36-14-19
TMD: 11,916.0 (ft) TVD: 11,522.37 (ft)
Closure Distance: 1,938.3 (ft) Closure Direction: 267.61 (°)
Location:
Spud Date: 7/13/2005
Calculation Method: Minimum Curvature

| S/T # | V.S. Azi (°) |
|---|---|
| OH | 268.69 |

| S/T # | TMD (ft) | Angle (°) | Azimuth (°) | DTM | TVD (ft) | N/-S (ft) | E/-W (ft) | Vert. Section (ft) | DLS (°/100ft) | BUR (°/100ft) | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | 7,960.0 | 27.79 | 268.70 | YNN | 7,705.53 | -21.37 | -1,323.43 | 1,323.59 | 0.83 | -0.53 | MWD |
| OH | 8,012.0 | 27.61 | 269.41 | YNN | 7,733.87 | -21.61 | -1,336.30 | 1,336.47 | 1.17 | -0.56 | MWD |
| OH | 8,043.0 | 27.28 | 269.93 | YNN | 7,761.38 | -21.70 | -1,352.58 | 1,352.75 | 1.37 | -1.13 | MWD |
| OH | 8,075.0 | 26.73 | 270.97 | YNN | 7,789.89 | -21.58 | -1,367.11 | 1,367.27 | 2.22 | -1.66 | MWD |
| OH | 8,106.0 | 26.38 | 271.43 | YNN | 7,817.62 | -21.29 | -1,380.96 | 1,381.12 | 1.31 | -1.13 | MWD |
| OH | 8,138.0 | 25.88 | 272.48 | YNN | 7,846.38 | -20.82 | -1,395.00 | 1,395.14 | 2.62 | -2.19 | MWD |
| OH | 8,170.0 | 26.03 | 272.31 | YNN | 7,875.17 | -20.23 | -1,408.94 | 1,409.07 | 1.12 | 1.09 | MWD |
| OH | 8,202.0 | 26.56 | 270.73 | YNN | 7,903.86 | -19.86 | -1,423.11 | 1,423.23 | 2.74 | 1.66 | MWD |
| OH | 8,233.0 | 27.00 | 269.93 | YNN | 7,931.54 | -19.78 | -1,437.08 | 1,437.19 | 1.83 | 1.42 | MWD |
| OH | 8,265.0 | 26.73 | 269.41 | YNN | 7,960.08 | -19.86 | -1,451.54 | 1,451.65 | 1.12 | -0.84 | MWD |
| OH | 8,297.0 | 26.38 | 268.18 | YNN | 7,988.71 | -20.16 | -1,465.84 | 1,465.95 | 2.04 | -1.09 | MWD |
| OH | 8,329.0 | 26.91 | 266.07 | YNN | 8,017.31 | -20.89 | -1,480.17 | 1,480.30 | 3.39 | 1.66 | MWD |
| OH | 8,361.0 | 27.35 | 264.82 | YNN | 8,045.79 | -22.03 | -1,494.71 | 1,494.86 | 2.14 | 1.38 | MWD |
| OH | 8,392.0 | 27.17 | 264.05 | YNN | 8,073.36 | -23.40 | -1,508.85 | 1,509.02 | 1.41 | -0.58 | MWD |
| OH | 8,424.0 | 27.00 | 264.84 | YNN | 8,101.84 | -24.81 | -1,523.35 | 1,523.54 | 1.24 | -0.53 | MWD |
| OH | 8,456.0 | 27.08 | 265.28 | YNN | 8,130.34 | -26.06 | -1,537.84 | 1,538.06 | 0.67 | 0.25 | MWD |
| OH | 8,488.0 | 25.94 | 266.24 | YNN | 8,158.97 | -27.12 | -1,552.09 | 1,552.32 | 3.81 | -3.56 | MWD |
| OH | 8,532.0 | 24.36 | 265.96 | YNN | 8,198.80 | -28.39 | -1,570.74 | 1,571.00 | 3.60 | -3.59 | MWD |
| OH | 8,564.0 | 24.27 | 266.07 | YNN | 8,227.96 | -29.30 | -1,583.89 | 1,584.16 | 0.30 | -0.28 | MWD |
| OH | 8,596.0 | 25.59 | 264.86 | YNN | 8,256.96 | -30.39 | -1,597.33 | 1,597.62 | 4.52 | 4.13 | MWD |
| OH | 8,627.0 | 26.20 | 263.78 | YNN | 8,284.87 | -31.76 | -1,610.80 | 1,611.11 | 2.33 | 1.97 | MWD |
| OH | 8,659.0 | 26.12 | 262.55 | YNN | 8,313.59 | -33.44 | -1,624.81 | 1,625.15 | 1.71 | -0.25 | MWD |
| OH | 8,690.0 | 26.12 | 261.67 | YNN | 8,341.43 | -35.31 | -1,638.32 | 1,638.70 | 1.25 | 0.00 | MWD |
| OH | 8,722.0 | 26.03 | 261.67 | YNN | 8,370.17 | -37.35 | -1,652.24 | 1,652.65 | 0.28 | -0.28 | MWD |
| OH | 8,753.0 | 25.85 | 260.86 | YNN | 8,398.05 | -39.40 | -1,665.64 | 1,666.09 | 1.26 | -0.58 | MWD |
| OH | 8,785.0 | 25.24 | 261.06 | YNN | 8,426.92 | -41.57 | -1,679.27 | 1,679.76 | 1.92 | -1.91 | MWD |
| OH | 8,817.0 | 24.09 | 261.58 | YNN | 8,456.00 | -43.59 | -1,692.47 | 1,693.00 | 3.66 | -3.59 | MWD |
| OH | 8,848.0 | 23.46 | 260.97 | YNN | 8,484.36 | -45.46 | -1,704.83 | 1,705.39 | 2.12 | -1.97 | MWD |
| OH | 8,879.0 | 23.04 | 258.33 | YNN | 8,512.85 | -47.88 | -1,716.87 | 1,717.47 | 3.65 | -1.42 | MWD |
| OH | 8,911.0 | 23.04 | 258.33 | YNN | 8,542.29 | -50.21 | -1,729.14 | 1,729.78 | 0.00 | 0.00 | MWD |
| OH | 8,942.0 | 22.42 | 258.68 | YNN | 8,570.88 | -52.60 | -1,740.87 | 1,741.57 | 2.05 | -2.00 | MWD |
| OH | 8,974.0 | 21.10 | 261.23 | YNN | 8,600.60 | -54.68 | -1,752.55 | 1,753.28 | 5.07 | -4.13 | MWD |
| OH | 9,006.0 | 19.79 | 262.99 | YNN | 8,630.59 | -56.22 | -1,763.62 | 1,764.38 | 4.52 | -4.09 | MWD |



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# Deviation Summary

Well Name: FR 1P-36-14-19
TMD: 11,916.0 (ft) TVD: 11,522.37 (ft)
Closure Distance: 1,938.3 (ft) Closure Direction: 267.61 (°)

Location:
Spud Date: 7/13/2005
Calculation Method: Minimum Curvature

| B/T # | V.S. AZI (°) |
|---|---|
| OH | 268.89 |

| B/T # | TMD (ft) | Angle (°) | Azimuth (°) | GTM | TVD (ft) | N/-S (ft) | E/-W (ft) | Vert. Section (ft) | DLS (°/100ft) | BUR (°/100ft) | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | 9,037.0 | 18.99 | 261.85 | YNN | 8,659.83 | -57.57 | -1,773.82 | 1,774.60 | 2.85 | -2.58 | MWD |
| OH | 9,068.0 | 18.64 | 260.62 | YNN | 8,689.17 | -59.09 | -1,783.70 | 1,784.51 | 1.71 | -1.13 | MWD |
| OH | 9,100.0 | 17.76 | 261.32 | YNN | 8,719.57 | -60.66 | -1,793.57 | 1,794.41 | 2.83 | -2.75 | MWD |
| OH | 9,132.0 | 16.71 | 263.61 | YNN | 8,750.14 | -61.91 | -1,802.97 | 1,803.83 | 3.91 | -3.28 | MWD |
| OH | 9,164.0 | 15.65 | 264.40 | YNN | 8,780.87 | -62.84 | -1,811.84 | 1,812.71 | 3.38 | -3.31 | MWD |
| OH | 9,196.0 | 14.42 | 265.98 | YNN | 8,811.77 | -63.55 | -1,820.11 | 1,821.00 | 4.05 | -3.84 | MWD |
| OH | 9,228.0 | 13.54 | 267.83 | YNN | 8,842.82 | -63.97 | -1,827.83 | 1,828.72 | 3.08 | -2.75 | MWD |
| OH | 9,259.0 | 12.75 | 267.47 | YNN | 8,873.01 | -64.26 | -1,834.87 | 1,835.77 | 2.56 | -2.55 | MWD |
| OH | 9,291.0 | 12.40 | 266.33 | YNN | 8,904.24 | -64.63 | -1,841.83 | 1,842.73 | 1.34 | -1.09 | MWD |
| OH | 9,323.0 | 11.96 | 266.77 | YNN | 8,935.52 | -65.04 | -1,848.57 | 1,849.48 | 1.41 | -1.38 | MWD |
| OH | 9,354.0 | 11.43 | 270.81 | YNN | 8,965.88 | -65.18 | -1,854.84 | 1,855.76 | 3.15 | -1.71 | MWD |
| OH | 9,386.0 | 10.64 | 274.77 | YNN | 8,997.29 | -64.88 | -1,860.96 | 1,861.87 | 3.42 | -2.47 | MWD |
| OH | 9,417.0 | 10.29 | 273.86 | YNN | 9,027.77 | -64.46 | -1,866.57 | 1,867.47 | 1.25 | -1.13 | MWD |
| OH | 9,449.0 | 10.02 | 273.36 | YNN | 9,059.27 | -64.10 | -1,872.20 | 1,873.09 | 0.89 | -0.84 | MWD |
| OH | 9,480.0 | 9.41 | 272.31 | YNN | 9,089.83 | -63.84 | -1,877.43 | 1,878.31 | 2.05 | -1.97 | MWD |
| OH | 9,511.0 | 8.71 | 273.83 | YNN | 9,120.44 | -63.59 | -1,882.30 | 1,883.18 | 2.36 | -2.26 | MWD |
| OH | 9,543.0 | 8.53 | 272.57 | YNN | 9,152.08 | -63.33 | -1,887.09 | 1,887.98 | 0.75 | -0.56 | MWD |
| OH | 9,575.0 | 8.53 | 271.43 | YNN | 9,183.72 | -63.17 | -1,891.83 | 1,892.70 | 0.53 | 0.00 | MWD |
| OH | 9,606.0 | 8.18 | 273.27 | YNN | 9,214.40 | -62.99 | -1,896.34 | 1,897.20 | 1.42 | -1.13 | MWD |
| OH | 9,638.0 | 7.39 | 275.82 | YNN | 9,246.10 | -62.85 | -1,900.68 | 1,901.51 | 2.69 | -2.47 | MWD |
| OH | 9,669.0 | 6.86 | 276.02 | YNN | 9,276.86 | -62.19 | -1,904.47 | 1,905.32 | 1.92 | -1.71 | MWD |
| OH | 9,701.0 | 6.60 | 277.93 | YNN | 9,308.64 | -61.67 | -1,908.19 | 1,909.02 | 0.81 | -0.81 | MWD |
| OH | 9,730.0 | 6.51 | 276.35 | YNN | 9,337.45 | -61.25 | -1,911.47 | 1,912.30 | 0.70 | -0.31 | MWD |
| OH | 9,761.0 | 6.24 | 275.38 | YNN | 9,368.26 | -60.90 | -1,914.89 | 1,915.71 | 0.94 | -0.87 | MWD |
| OH | 9,793.0 | 5.72 | 277.85 | YNN | 9,400.09 | -60.52 | -1,918.21 | 1,919.02 | 1.81 | -1.63 | MWD |
| OH | 9,824.0 | 4.75 | 281.54 | YNN | 9,430.96 | -60.05 | -1,920.99 | 1,921.80 | 3.31 | -3.13 | MWD |
| OH | 9,856.0 | 3.69 | 283.91 | YNN | 9,462.87 | -59.54 | -1,923.29 | 1,924.06 | 3.36 | -3.31 | MWD |
| OH | 9,888.0 | 2.90 | 287.78 | YNN | 9,494.82 | -59.05 | -1,925.08 | 1,925.84 | 2.56 | -2.47 | MWD |
| OH | 9,982.0 | 2.20 | 309.22 | YNN | 9,588.72 | -57.18 | -1,928.72 | 1,929.47 | 1.25 | -0.74 | MWD |
| OH | 10,077.0 | 0.18 | 196.28 | YNN | 9,683.70 | -56.17 | -1,930.18 | 1,930.90 | 2.40 | -2.13 | MWD |
| OH | 10,108.0 | 0.88 | 158.40 | YNN | 9,714.70 | -56.44 | -1,930.10 | 1,930.84 | 2.41 | 2.26 | MWD |
| OH | 10,140.0 | 1.32 | 160.16 | YNN | 9,746.69 | -57.01 | -1,929.89 | 1,930.63 | 1.38 | 1.38 | MWD |
| OH | 10,172.0 | 1.41 | 108.16 | YNN | 9,778.69 | -57.47 | -1,929.39 | 1,930.14 | 3.86 | 0.28 | MWD |

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# Deviation Summary

Well Name: FR 1P-36-14-19
TMD: 11,916.0 (ft) TVD: 11,522.37 (ft)
Closure Distance: 1,938.3 (ft) Closure Direction: 267.61 (°)

Location:
Spud Date: 7/13/2005
Calculation Method: Minimum Curvature

| B/T # | V.S. AZI (°) |
|---|---|
| OH | 266.89 |

| B/T # | TMD (ft) | Angle (°) | Azimuth (°) | CTM | TVD (ft) | N/-S (ft) | E/-W (ft) | Vert. Section (ft) | DLS (°/100ft) | SUR (°/100ft) | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|
| OH | 10,235.0 | 0.18 | 159.46 | YNN | 9,841.68 | -57.78 | -1,928.61 | 1,929.36 | 2.08 | -1.95 | MWD |
| OH | 10,267.0 | 0.26 | 53.81 | YNN | 9,873.68 | -57.78 | -1,928.53 | 1,929.29 | 1.11 | 0.25 | MWD |
| OH | 10,298.0 | 0.35 | 53.55 | YNN | 9,904.68 | -57.68 | -1,928.40 | 1,929.15 | 0.29 | 0.29 | MWD |
| OH | 10,330.0 | 0.53 | 66.56 | YNN | 9,936.68 | -57.57 | -1,928.18 | 1,928.94 | 0.64 | 0.56 | MWD |
| OH | 10,362.0 | 0.53 | 66.36 | YNN | 9,968.68 | -57.45 | -1,927.91 | 1,928.66 | 0.01 | 0.00 | MWD |
| OH | 10,376.0 | 0.53 | 71.83 | YNN | 9,982.68 | -57.40 | -1,927.79 | 1,928.54 | 0.36 | 0.00 | MWD |
| OH | 10,459.0 | 0.18 | 95.21 | YNN | 10,065.67 | -57.29 | -1,927.30 | 1,928.04 | 0.45 | -0.42 | MWD |
| OH | 10,492.0 | 0.26 | 37.55 | YNN | 10,098.67 | -57.24 | -1,927.20 | 1,927.95 | 0.68 | 0.24 | MWD |
| OH | 10,524.0 | 0.18 | 21.29 | YNN | 10,130.67 | -57.14 | -1,927.14 | 1,927.88 | 0.31 | -0.25 | MWD |
| OH | 10,557.0 | 0.18 | 248.93 | YNN | 10,163.67 | -57.11 | -1,927.17 | 1,927.91 | 1.00 | 0.00 | MWD |
| OH | 10,590.0 | 0.18 | 277.67 | YNN | 10,196.67 | -57.12 | -1,927.27 | 1,928.01 | 0.27 | 0.00 | MWD |
| OH | 10,623.0 | 0.26 | 240.67 | YNN | 10,229.67 | -57.15 | -1,927.38 | 1,928.13 | 0.48 | 0.24 | MWD |
| OH | 10,653.0 | 0.44 | 215.44 | YNN | 10,259.67 | -57.27 | -1,927.51 | 1,928.26 | 0.78 | 0.60 | MWD |
| OH | 10,686.0 | 0.53 | 211.22 | YNN | 10,292.67 | -57.51 | -1,927.66 | 1,928.41 | 0.29 | 0.27 | MWD |
| OH | 10,718.0 | 0.70 | 186.02 | YNN | 10,324.67 | -57.83 | -1,927.76 | 1,928.52 | 0.93 | 0.53 | MWD |
| OH | 10,751.0 | 0.79 | 197.34 | YNN | 10,357.67 | -58.24 | -1,927.86 | 1,928.63 | 0.46 | 0.27 | MWD |
| OH | 10,784.0 | 0.62 | 188.11 | YNN | 10,390.66 | -58.64 | -1,927.95 | 1,928.73 | 0.62 | -0.52 | MWD |
| OH | 10,816.0 | 0.70 | 185.82 | YNN | 10,422.66 | -59.00 | -1,928.00 | 1,928.78 | 0.26 | 0.25 | MWD |
| OH | 10,849.0 | 0.70 | 189.51 | YNN | 10,455.66 | -59.40 | -1,928.05 | 1,928.84 | 0.14 | 0.00 | MWD |
| OH | 10,946.0 | 0.70 | 186.79 | YNN | 10,554.65 | -60.60 | -1,928.22 | 1,929.04 | 0.03 | 0.00 | MWD |
| OH | 11,046.0 | 0.62 | 167.01 | YNN | 10,652.65 | -61.71 | -1,928.17 | 1,929.01 | 0.24 | -0.08 | MWD |
| OH | 11,141.0 | 0.88 | 178.42 | YNN | 10,747.64 | -62.94 | -1,928.01 | 1,928.87 | 0.30 | 0.27 | MWD |
| OH | 11,239.0 | 0.97 | 191.36 | YNN | 10,845.62 | -64.51 | -1,928.13 | 1,929.02 | 0.26 | 0.09 | MWD |
| OH | 11,337.0 | 1.41 | 205.18 | YNN | 10,943.60 | -66.41 | -1,928.61 | 1,929.73 | 0.53 | 0.45 | MWD |
| OH | 11,434.0 | 1.93 | 207.36 | YNN | 11,040.56 | -68.94 | -1,930.06 | 1,931.04 | 0.54 | 0.54 | MWD |
| OH | 11,532.0 | 1.67 | 209.47 | YNN | 11,138.51 | -71.65 | -1,931.53 | 1,932.55 | 0.27 | -0.27 | MWD |
| OH | 11,628.0 | 1.67 | 215.88 | YNN | 11,234.47 | -74.00 | -1,933.03 | 1,934.10 | 0.19 | 0.00 | MWD |
| OH | 11,726.0 | 1.41 | 207.36 | YNN | 11,332.44 | -76.23 | -1,934.42 | 1,935.54 | 0.35 | -0.27 | MWD |
| OH | 11,824.0 | 1.58 | 207.18 | YNN | 11,430.40 | -78.50 | -1,935.60 | 1,936.75 | 0.17 | 0.17 | MWD |
| OH | 11,916.0 | 1.58 | 200.32 | YNN | 11,522.37 | -80.82 | -1,936.62 | 1,937.82 | 0.21 | 0.00 | MWD |



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**QEP UINTA BASIN, INC.**
**11002 EAST 17500 SOUTH**
**VERNAL, UT 84078**
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**No. of Pages:** 7
(including cover sheet)

**Comments:** Deviation Summary for the FR 1P 36 14 19.

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| | | |
|---|---|---|
| **FIELD:** Flat Rock | GL: 7204' KBE: 7227' | Spud Date: 7/13/05 Completion dat 5/24/2006 |
| **Well:** FR 1P-36-14-19 | TD: 12,563' PBTD: 12,428' | Current Well Status: Producing Gas Well |

Location: Surface - 623' FNL, 1249' FWL - NWNW - SEC 31-T14S-R20E
Location: BOTTOM - 660' FNL, 660' FEL
Uintah County, Utah API#: 43-047-36300

**Reason for Pull/Workover:**
Initial Gas Well Completion

## Wellbore Schematic

**Surface Casing**
Size: 13 3/8"
Weight: 48#
Grade: H-40
Set @ 523'
Cmtd w/ 500 sxs
Hole size: 17-1/2"

TOC @ 3100'

OPEN PERFS

**Intermediate Casing**
Size: 9-5/8"
Weight: 47#
Grade: P-110
Set @ 4142'
Cmtd w/ 1053 sxs
Hole size: 12-1/4"

F Nipple @ 10,725.67'
EOT @ 10,759.53'

10,808' - 10,018'

**Intermediate Casing**
Size: 7"
Weight: 29#
Grade: P-110
Set @ 10,418'
Cmtd w/ 710 sxs
Hole size: 8-3/4"

11,478' - 11,480'
11,502' - 11,504'
11,520' - 11,522'

11,578' - 11,580'
11,628' - 11,630'
11,642' - 11,644'
11,665' - 11,667'
11,747' - 11,749'
11,776' - 11,778'

CIBP Set @ 11,930'

EXCLUDED PERFS
12,014' - 12,024' Wingate
12,371' - 12,384' Wingate

**Production Casing**
Size: 4-1/2"
Weight: 11.6#
Grade: P-110
Set @ 12,428'
Cmtd w/ 140 sxs
Hole size: 6-1/2"

PBTD @ 12,428'
TD @ 12,563'

Tubing Landing Detail:

| Description | Size | Footage | Depth |
|---|---|---|---|
| K.B. | | 23.00 | 23.00 |
| 2 3/8" 10 K Hanger | | 1.19 | 24.19 |
| 330-jt's 2 3/8" P-110 4.7# tbg. | | 10,701.48 | 10,725.67 |
| 2 3/8" 1.81 F-Nipple | | 0.91 | 10,726.58 |
| 1-jt 2 3/8" P-110 4.7# tbg. | | 32.55 | 10,759.13 |
| 2 3/8" P-110 reg tbg collar | | 0.40 | 10,759.53 |

Tubing Information:
Condition:
New: X Used: ____ Rerun: ____
Grade: P-110
Weight (#/ft): 4.7#

Sucker Rod Detail:

| Size | #Rods | Rod Type |
|---|---|---|
| | | |

Rod Information
Condition:
New: ____ Used: ____ Rerun:
Grade: ____
Manufacture: ____

Pump Information:
API Designation
Example: 25 x 150 x RHAC X 20 X 6 X 2

Pump SN#: ____ Original Run Date: ____
RERUN ____ NEW RUN ____

**ESP Well**
Cable Size: ____
Pump Intake @ ____
End of Pump @ ____

**Flowing Well**
SN @ ____
PKR @ ____
EOT @ ____

**Wellhead Data** Example: 7-1/16" 3000#
7 1/16 10K

Other: ____
Hanger: Yes X No ____

**SUMMARY**
Perf Wingate intervals 12371' - 12384' & 12014' - 12024'. Acidize w/ 1500 gals of 15% HCL. Load = 128 gals, avg psi = 2000# & avg rate = 3.0 BPM. Turned over to production on 2/1/06. Producing from Wingate from liner top. Frac gross intervals 12014' - 12384' using a 70% CO2 Quality foam & a Purgel HT 2% KCL x-linked gel water system followed by a series of 20/40 Mesh Sand stages & a total of 25,000# of 20/40 Mesh Econoprop Sand and total load = 11,298 Gals. Avg rate = 34.6 BPM, Avg psi = 3397#, ISIP = 2460#. Note: All Wingate Perfs are now covered w/ the CIBP @ 11930' (4/3/06).

Perf Entrada intervals 11776' - 11778', 11747' - 11749', 11665' - 11667', 11642' - 11644', 11628' - 11630' & 11578' - 11580'.

Perf Curtis intervals 11520' - 11522', 11502' - 11504' & 11478' - 11480'. Turn well over to production on 4/7/06. Produce sales from Curtis & Entrada intervals 11478' - 11778'. Note: After perforating all zones tagged CIBP @ 11930'.

Perf Cedar Mtn interval 10808' - 10818'. Frac w/ 40# Purgel 2% KCL x-linked gel system w/ 70% CO2 Quality Foam w/ 20/40 Mesh Econoprop 5,800# of 100 Mesh Sand and 85,000# of 20/40 Mesh pumped w/ 81,000# of Sand, total load = 31,080 Gals. Avg rate = 35 BPM, Avg psi = 4258#. ISIP: N/A. Screened Out. Leaving est 4,000# of sand in csg.

Perf Dakota intervals 10621' - 10625' & 10955' - 10959'. Frac gross intervals 10955' - 10625' w/ 70% CO2 Foam. Would not break down and will need to be Acidized prior to fracing. On 5/17/06 turned gas to production via sales line. Well is producing from the Curtis, Entrada & Cedar Mtn perfs w/ the Dakota perforated, but not broken down.

Note: Fish located @ 11300' - Remnants of CBP & bit cone.

Prepared By: Dahn Caldwell Date: 5/30/06

CONFIDENTIAL

Division of Oil, Gas and Mining

# OPERATOR CHANGE WORKSHEET

| ROUTING |
|---|
| 1. DJJ |
| 2. CDW |

Change of Operator (Well Sold) — **X - Operator Name Change/Merger**

The operator of the well(s) listed below has changed, effective: **1/1/2007**

| **FROM:** (Old Operator): | **TO:** ( New Operator): |
|---|---|
| N2460-QEP Uinta Basin, Inc.<br>1050 17th St, Suite 500<br>Denver, CO 80265 | N5085-Questar E&P Company<br>1050 17th St, Suite 500<br>Denver, CO 80265 |
| Phone: 1 (303) 672-6900 | Phone: 1 (303) 672-6900 |

**CA No.** **Unit:**

| WELL NAME | SEC | TWN | RNG | API NO | ENTITY NO | LEASE TYPE | WELL TYPE | WELL STATUS |
|---|---|---|---|---|---|---|---|---|
| SEE ATTACHED LISTS | | | | * | | | | |

## 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: 4/19/2007
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 4/16/2007
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 1/31/2005

4a. Is the new operator registered in the State of Utah: ____ Business Number: 764611-0143

5a. (R649-9-2)Waste Management Plan has been received on: IN PLACE

5b. Inspections of LA PA state/fee well sites complete on: n/a

5c. Reports current for Production/Disposition & Sundries on: n/a

6. **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 4/23/2007 BIA
7. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: 4/23/2007
8. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on: ____
9. **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: ____

## DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 4/30/2007 and 5/15/2007
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 4/30/2007 and 5/15/2007
3. Bond information entered in RBDMS on: 4/30/2007 and 5/15/2007
4. Fee/State wells attached to bond in RBDMS on: 4/30/2007 and 5/15/2007
5. Injection Projects to new operator in RBDMS on: 4/30/2007 and 5/15/2007
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

## BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: ESB000024
2. Indian well(s) covered by Bond Number: 799446

3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965003033

3b. The **FORMER** operator has requested a release of liability from their bond on: n/a

## LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **NEW** 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: THIS IS A COMPANY NAME CHANGE.**
SOME WELL NAMES HAVE BEEN CHANGED AS REQUESTED

| Original Well Name | Well Name & No. | Q/Q | SEC | TWP | RNG | API | Entity | Lease | Well Type | Status |
|---|---|---|---|---|---|---|---|---|---|---|
| GB 6W-25-8-21 | GB 6W-25-8-21 | SENW | 25 | 080S | 210E | 4304734121 | 13440 | fee | GW | P |
| GB 7W-25-8-21 | GB 7W-25-8-21 | SWNE | 25 | 080S | 210E | 4304734122 | 13436 | fee | GW | P |
| GB 11W-30-8-22 | **OU GB 11W 30 8 22** | NESW | 30 | 080S | 220E | 4304734392 | 13433 | fee | GW | P |
| | | | | | | | | | | |
| UTAH STATE 1 | **STATE 1** | NENE | 36 | 070S | 240E | 4304715128 | 5878 | State | GW | P |
| KAYE STATE 1-16 | KAYE STATE 1-16 | NWNW | 16 | 100S | 230E | 4304730609 | 5395 | State | GW | P |
| TOLL STATION ST 8-36-8-21 | TOLL STATION ST 8-36-8-21 | SENE | 36 | 080S | 210E | 4304732724 | 12361 | State | GW | S |
| GLEN BENCH ST 8A-36-8-21 | **GB 8A 36 8 21** | SENE | 36 | 080S | 210E | 4304733037 | 12377 | State | GW | P |
| GLEN BENCH ST 6-36-8-21 | **GB 6 36 8 21** | SENW | 36 | 080S | 210E | 4304733038 | 12378 | State | GW | P |
| GLEN BENCH ST 2-36-8-21 | **GB 2 36 8 21** | NWNE | 36 | 080S | 210E | 4304733252 | 12527 | State | GW | P |
| GH 1W-32-8-21 | GH 1W-32-8-21 | NENE | 32 | 080S | 210E | 4304733570 | 12797 | State | GW | P |
| GH 3W-32-8-21 | GH 3W-32-8-21 | NENW | 32 | 080S | 210E | 4304733571 | 12796 | State | GW | P |
| GH 5W-32-8-21 | GH 5W-32-8-21 | SWNW | 32 | 080S | 210E | 4304733572 | 12828 | State | GW | P |
| GH 7W-32-8-21 | GH 7W-32-8-21 | SWNE | 32 | 080S | 210E | 4304733573 | 12872 | State | GW | P |
| GH 2W-32-8-21 | GH 2W-32-8-21 | NWNE | 32 | 080S | 210E | 4304733744 | 13029 | State | GW | P |
| GH 4W-32-8-21 | GH 4W-32-8-21 | NWNW | 32 | 080S | 210E | 4304733745 | 13035 | State | GW | P |
| GH 8W-32-8-21 | GH 8W-32-8-21 | SENE | 32 | 080S | 210E | 4304733746 | 13030 | State | GW | P |
| GB 3W-16-8-22 | **OU GB 3W 16 8 22** | NENW | 16 | 080S | 220E | 4304733751 | 13577 | State | GW | P |
| GB 5W-16-8-22 | **OU GB 5W 16 8 22** | SWNW | 16 | 080S | 220E | 4304733752 | 13570 | State | GW | P |
| GH 6W-32-8-21 | GH 6W-32-8-21 | SENW | 32 | 080S | 210E | 4304733753 | 13036 | State | GW | P |
| GB 11W-16-8-22 | **OU GB 11W 16 8 22** | NESW | 16 | 080S | 220E | 4304733754 | 13582 | State | GW | P |
| GH 5G-32-8-21 | GH 5G-32-8-21 | SWNW | 32 | 080S | 210E | 4304733866 | 13037 | State | OW | P |
| GB 1W-36-8-21 | GB 1W-36-8-21 | NENE | 36 | 080S | 210E | 4304733944 | 13439 | State | GW | P |
| WV 7W-36-7-21 | WV 7W-36-7-21 | SWNE | 36 | 070S | 210E | 4304734065 | 13334 | State | GW | TA |
| WV 9W-36-7-21 | WV 9W-36-7-21 | NESE | 36 | 070S | 210E | 4304734066 | 13331 | State | GW | TA |
| WV 9W-16-7-21 | WV 9W-16-7-21 | NESE | 16 | 070S | 210E | 4304734324 | | State | GW | LA |
| OU GB 4W-16-8-22 | OU GB 4W-16-8-22 | NWNW | 16 | 080S | 220E | 4304734598 | 13579 | State | GW | P |
| OU GB 10W-16-8-22 | OU GB 10W-16-8-22 | NWSE | 16 | 080S | 220E | 4304734616 | | State | GW | LA |
| OU GB 12W-16-8-22 | OU GB 12W-16-8-22 | NWSW | 16 | 080S | 220E | 4304734617 | 13697 | State | GW | P |
| OU GB 13W-16-8-22 | OU GB 13W-16-8-22 | SWSW | 16 | 080S | 220E | 4304734618 | 13611 | State | GW | P |
| GB 14MU-16-8-22 | GB 14MU-16-8-22 | SESW | 16 | 080S | 220E | 4304734619 | 14196 | State | GW | P |
| OU GB 15W-16-8-22 | OU GB 15W-16-8-22 | SWSE | 16 | 080S | 220E | 4304734622 | 13595 | State | GW | P |
| OU GB 16W-16-8-22 | OU GB 16W-16-8-22 | SESE | 16 | 080S | 220E | 4304734655 | 13815 | State | GW | P |
| OU GB 2W-16-8-22 | OU GB 2W-16-8-22 | NWNE | 16 | 080S | 220E | 4304734657 | 13721 | State | GW | P |
| OU GB 6W-16-8-22 | OU GB 6W-16-8-22 | SENW | 16 | 080S | 220E | 4304734658 | 13592 | State | GW | P |
| OU GB 8W-16-8-22 | OU GB 8W-16-8-22 | SENE | 16 | 080S | 220E | 4304734660 | 13769 | State | GW | TA |
| OU GB 9W-16-8-22 | OU GB 9W-16-8-22 | NESE | 16 | 080S | 220E | 4304734692 | | State | GW | LA |
| OU GB 15G-16-8-22 | OU GB 15G-16-8-22 | SWSE | 16 | 080S | 220E | 4304734829 | 13777 | State | OW | S |
| GB 7MU-36-8-21 | GB 7MU-36-8-21 | SWNE | 36 | 080S | 210E | 4304734893 | 14591 | State | GW | P |
| GB 3W-36-8-21 | GB 3W-36-8-21 | NENW | 36 | 080S | 210E | 4304734894 | 13791 | State | GW | P |
| NC 8M-32-8-22 | NC 8M-32-8-22 | SENE | 32 | 080S | 220E | 4304734897 | | State | GW | LA |
| NC 3M-32-8-22 | NC 3M-32-8-22 | NENW | 32 | 080S | 220E | 4304734899 | | State | GW | LA |

| Original Well Name | Well Name & No. | Q/Q | SEC | TWP | RNG | API | Entity | Lease | Well Type | Status |
|---|---|---|---|---|---|---|---|---|---|---|
| GB 5W-36-8-21 | GB 5W-36-8-21 | SWNW | 36 | 080S | 210E | 4304734925 | 13808 | State | GW | P |
| GB 4MU-36-8-21 | GB 4MU-36-8-21 | NWNW | 36 | 080S | 210E | 4304734926 | 14589 | State | GW | P |
| NC 11M-32-8-22 | NC 11M-32-8-22 | NESW | 32 | 080S | 220E | 4304735040 | | State | GW | LA |
| GB 5SG-36-8-21 | GB 5SG-36-8-21 | SWNW | 36 | 080S | 210E | 4304735155 | 14015 | State | GW | P |
| SC 13ML-16-10-23 | SC 13ML-16-10-23 | SWSW | 16 | 100S | 230E | 4304735281 | 14036 | State | GW | P |
| SC 3M-16-10-23 | **SC 3ML 16 10 23** | NENW | 16 | 100S | 230E | 4304735282 | 14014 | State | GW | P |
| SC 11ML-16-10-23 | SC 11ML-16-10-23 | NESW | 16 | 100S | 230E | 4304735311 | 14035 | State | GW | P |
| BB E 15G-16-7-21 | **BBE 15G 16 7 21** | SWSE | 16 | 070S | 210E | 4304735408 | 14070 | State | OW | P |
| WH 13G-2-7-24 | WH 13G-2-7-24 | SWSW | 02 | 070S | 240E | 4304735484 | 14176 | State | GW | TA |
| FR 9P-36-14-19 | FR 9P-36-14-19 | NWSW | 31 | 140S | 200E | 4304735880 | 14310 | State | GW | S |
| CB 13G-36-6-20 | CB 13G-36-6-20 | SWSW | 36 | 060S | 200E | 4304735969 | | State | OW | LA |
| WH 2G-2-7-24 | WH 2G-2-7-24 | NWNE | 02 | 070S | 240E | 4304736259 | | State | GW | APD |
| WH 4G-2-7-24 | WH 4G-2-7-24 | NWNW | 02 | 070S | 240E | 4304736261 | | State | GW | APD |
| FR 1P-36-14-19 | FR 1P-36-14-19 | NWNW | 31 | 140S | 200E | 4304736300 | 14859 | State | GW | S |
| WK 3ML-2-9-24 | WK 3ML-2-9-24 | NENW | 02 | 090S | 240E | 4304736723 | | State | GW | APD |
| WK 7ML-2-9-24 | WK 7ML-2-9-24 | SWNE | 02 | 090S | 240E | 4304736724 | | State | GW | APD |
| SC 5ML-16-10-23 | SC 5ML-16-10-23 | SWNW | 16 | 100S | 230E | 4304736877 | 15125 | State | GW | P |
| SC 12ML-16-10-23 | SC 12ML-16-10-23 | NWSW | 16 | 100S | 230E | 4304736878 | 15053 | State | GW | P |
| SC 14ML-16-10-23 | SC 14ML-16-10-23 | SESW | 16 | 100S | 230E | 4304736908 | 15070 | State | GW | P |
| SC 4ML-16-10-23 | SC 4ML-16-10-23 | NWNW | 16 | 100S | 230E | 4304736912 | 15208 | State | GW | P |
| FR 3P-36-14-19 | FR 3P-36-14-19 | NWNW | 36 | 140S | 190E | 4304737376 | 15736 | State | GW | DRL |
| BBE 9W-16-7-21 | BBE 9W-16-7-21 | NESE | 16 | 070S | 210E | 4304737745 | | State | GW | APD |
| GB 10ML-16-8-22 | GB 10ML-16-8-22 | NWSE | 16 | 080S | 220E | 4304737943 | | State | GW | APD |
| GB 9ML-16-8-22 | GB 9ML-16-8-22 | NESE | 16 | 080S | 220E | 4304737944 | 15851 | State | GW | DRL |
| FR 11P-36-14-19 | FR 11P-36-14-19 | NWSW | 36 | 140S | 190E | 4304738349 | | State | GW | DRL |
| GB 4SG-36-8-21 | GB 4SG-36-8-21 | NWNW | 36 | 080S | 210E | 4304738764 | | State | GW | APD |
| GB 7SG-36-8-21 | GB 7SG-36-8-21 | SWNE | 36 | 080S | 210E | 4304738765 | | State | GW | APD |

**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: see attached
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: see attached
7. UNIT or CA AGREEMENT NAME: see attached
8. WELL NAME and NUMBER: see attached
9. API NUMBER: attached
10. FIELD AND POOL, OR WILDCAT:

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER _____

2. NAME OF OPERATOR: QUESTAR EXPLORATION AND PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: 1050 17th Street Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 308-3068

4. LOCATION OF WELL
FOOTAGES AT SURFACE: attached
COUNTY: Uintah
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
STATE: UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ☑ NOTICE OF INTENT (Submit in Duplicate) | ☐ ACIDIZE | ☐ DEEPEN | ☐ REPERFORATE CURRENT FORMATION |
| Approximate date work will start: 1/1/2007 | ☐ ALTER CASING | ☐ FRACTURE TREAT | ☐ SIDETRACK TO REPAIR WELL |
| | ☐ CASING REPAIR | ☐ NEW CONSTRUCTION | ☐ TEMPORARILY ABANDON |
| | ☐ CHANGE TO PREVIOUS PLANS | ☐ OPERATOR CHANGE | ☐ TUBING REPAIR |
| | ☐ CHANGE TUBING | ☐ PLUG AND ABANDON | ☐ VENT OR FLARE |
| ☐ SUBSEQUENT REPORT (Submit Original Form Only) | ☐ CHANGE WELL NAME | ☐ PLUG BACK | ☐ WATER DISPOSAL |
| Date of work completion: | ☐ CHANGE WELL STATUS | ☐ PRODUCTION (START/RESUME) | ☐ WATER SHUT-OFF |
| | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ RECLAMATION OF WELL SITE | ☑ OTHER: Operator Name Change |
| | ☐ CONVERT WELL TYPE | ☐ RECOMPLETE - DIFFERENT FORMATION | |

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

Effective January 1, 2007 operator of record, QEP Uinta Basin, Inc., will hereafter be known as QUESTAR EXPLORATION AND PRODUCTION COMPANY. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:
Federal Bond Number: 965002976 (BLM Reference No. ESB000024)
Utah State Bond Number: 965003033
Fee Land Bond Number: 965003033
Current operator of record, QEP UINTA BASIN, INC., hereby resigns as operator of the properties as described on the attached list.

Jay B. Neese, Executive Vice President, QEP Uinta Basin, Inc.

Successor operator of record, QUESTAR EXPLORATION AND PRODUCTION COMPANY, hereby assumes all rights, duties and obligations as operator of the properties as described on the attached list

Jay B. Neese, Executive Vice President
Questar Exploration and Production Company

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Supervisor, Regulatory Affairs
SIGNATURE _____ DATE 3/16/2007

(This space for State use only)

RECEIVED
APR 19 2007
DIV. OF OIL, GAS & MINING

(5/2000) (See Instructions on Reverse Side)

**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: see attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: see attached

7. UNIT or CA AGREEMENT NAME: see attached

8. WELL NAME and NUMBER: see attached

9. API NUMBER: attached

10. FIELD AND POOL, OR WILDCAT:

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER _____

2. NAME OF OPERATOR: QUESTAR EXPLORATION AND PRODUCTION COMPANY

3. ADDRESS OF OPERATOR: 1050 17th Street Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 308-3068

4. LOCATION OF WELL

FOOTAGES AT SURFACE: attached

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ☑ NOTICE OF INTENT (Submit in Duplicate) | ☐ ACIDIZE | ☐ DEEPEN | ☐ REPERFORATE CURRENT FORMATION |
| Approximate date work will start: | ☐ ALTER CASING | ☐ FRACTURE TREAT | ☐ SIDETRACK TO REPAIR WELL |
| 1/1/2007 | ☐ CASING REPAIR | ☐ NEW CONSTRUCTION | ☐ TEMPORARILY ABANDON |
| | ☐ CHANGE TO PREVIOUS PLANS | ☐ OPERATOR CHANGE | ☐ TUBING REPAIR |
| | ☐ CHANGE TUBING | ☐ PLUG AND ABANDON | ☐ VENT OR FLARE |
| ☐ SUBSEQUENT REPORT (Submit Original Form Only) | ☐ CHANGE WELL NAME | ☐ PLUG BACK | ☐ WATER DISPOSAL |
| Date of work completion: | ☐ CHANGE WELL STATUS | ☐ PRODUCTION (START/RESUME) | ☐ WATER SHUT-OFF |
| | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ RECLAMATION OF WELL SITE | ☑ OTHER: Well Name Changes |
| | ☐ CONVERT WELL TYPE | ☐ RECOMPLETE - DIFFERENT FORMATION | |

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

PER THE ATTACHED LIST OF WELLS, QUESTAR EXPLORATION AND PRODUCTION COMPANY REQUESTS THAT THE INDIVIDUAL WELL NAMES BE UPDATED IN YOUR RECORDS.

NAME (PLEASE PRINT) Debra K. Stanberry TITLE Supervisor, Regulatory Affairs

SIGNATURE _____ DATE 4/17/2007

(This space for State use only)

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APR 19 2007
DIV. OF OIL, GAS & MINING

(5/2000)

(See Instructions on Reverse Side)

Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

## SUNDRY NOTICES AND REPORTS ON WELLS

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

5. Lease Designation and Serial No.: ML-49279

6. If Indian, Allottee or Tribe Name: UTE TRIBE

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

8. Well Name and No.: FR 1P 36 14 19

9. API Well No.: 43-047-36300

10. Field and Pool, or Exploratory Area: UNDESIGNATED

11. County or Parish, State: UINTAH, UT

***SUBMIT IN TRIPLICATE***

1. Type of Well

Oil Well [ ] Gas Well [X] Other [ ] AMENDED REPORT – CHANGE IN WELLBORE

2. Name of Operator
**QUESTAR EXPLORATION & PRODUCTION CO.**

3. Address and Telephone No.
**11002 E. 17500 S. Vernal, UT 84078**
**Contact:** dahn.caldwell@questar.com
**435.781.4342 Fax 435.781.4357**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
**SURFACE: SEC 31-T14S-R20E, 623' FNL, 1249' FWL, NWNW**
**BOTTOM: SEC 36-T14S-R19E, 660' FNL, 660' FEL, NENE**

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

| TYPE OF SUBMISSION | TYPE OF ACTION | |
|---|---|---|
| [ ] Notice of Intent | [ ] Abandonment | [ ] Change of Plans |
| | [ ] Recompletion | [ ] New Construction |
| [X] Subsequent Report | [ ] Plugging Back | [ ] Non-Routine Fracturing |
| | [ ] Casing Repair | [ ] Water Shut-Off |
| [ ] Final Abandonment Notice | [ ] Altering Casing | [ ] Conversion to Injection |
| | [X] Other **Change In Wellbore** | [ ] Dispose Water |

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

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

**Continuation of Completion 8/3/07 – 8/13/07. Clean out well & tag new PBTD @ 11,817' (fill).**

**1 – On 8/3/07 – MIRU Basin Well Service.**
**2 - Tag new PBTD @ 11,817' (fill).**
**3 - Swab.**
**4 – MIRU Cutters WL & perforate the following intervals: Curtis formation f/ 11,475' – 11,543' & Entrada f/ 11,578' – 11,672'.**
**5 - SITP = 300# & SICP= 500#.**
**6 - RDMO Cutters WL.**
**7 - RIH w/ production string & land tbg in hanger. EOT @ 11,441'. 'F'-Nipple @ 11,408'.**
**8 - ND BOP's & NU WH. RDMO Basin Well Service.**
**9 - On 8/13/07 final work on this continuation of original well completion.**

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JAN 31 2008
DIV OF OIL, GAS & MINING

14. I hereby certify that the foregoing is true and correct.
Signed **Jim Simonton** Jim Simonton (dfc) Title **Completion Supervisor** Date **1/18/08**

(This space for Federal or State office use)

Approved by: _____ Title _____ Date _____

Conditions of approval, if any

CONFIDENTIAL

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

| | | |
|---|---|---|
| **FIELD:** **Flat Rock** | GL: 7204' KBE: 7227' | Spud Date: 7/13/05 Completion Date: 8/13/07 |
| **Well:** **FR 1P-36-14-19** | TD: 12,563' PBTD: 11,817' | Current Well Status: Producing Gas Well |

Location: Surface - 623' FNL, 1249' FWL - NWNW - SEC 31-T14S-R20E
Location: Bottom - 660' FNL, 660' FEL
Uintah County, Utah API#: 43-047-36300

**Reason for Pull/Workover:**
Continued Completion - Clean out well & RIH w/ production string

## Wellbore Schematic

**Surface Casing**
Size: 13 3/8"
Weight: 48#
Grade: H-40
Set @ 523'
Cmtd w/ 500 sxs
Hole size: 17-1/2"

TOC @ 3100'

OPEN PERFS

**Intermediate Casing**
Size: 9-5/8"
Weight: 47#
Grade: P-110
Set @ 4142'
Cmtd w/ 1053 sxs
Hole size: 12-1/4"

10,808' - 10,018'

Liner Top @ 10,096'

**Intermediate Casing**
Size: 7"
Weight: 29#
Grade: P-110
Set @ 10,418'
Cmtd w/ 710 sxs
Hole size: 8-3/4"

F Nipple @ 11,408'
EOT @ 11,441'

11,475' - 11,483'
11,502' - 11,509'
11,517' - 11,519'
11,520' - 11,527'
11,540' - 11,543'

11,578' - 11,582'
11,606' - 11,610'
11,616' - 11,626'
11,628' - 11,633'
11,638' - 11,640'
11,642' - 11,646'
11,658' - 11,663'
11,665' - 11,672'
11,747' - 11,749'
11,776' - 11,778'

CIBP Set @ 11,930'

EXCLUDED PERFS
12,014' - 12,024' Wingate
12,371' - 12,384' Wingate

**Production Casing**
Size: 4-1/2"
Weight: 11.6#
Grade: P-110
Set @ 12,428'
Cmtd w/ 140 sxs
Hole size: 6-1/2"

PBTD @ 11,817'
TD @ 12,563'

Tubing Landing Detail:

| Description | Size | Footage | Depth |
|---|---|---|---|
| K.B. | | 23.00 | 23.00 |
| 2 3/8" 10 K Hanger | | 1.19 | 24.19 |
| 351-jt's 2 3/8" P-110 4.7# tbg. | | 11,382.53 | 11,406.72 |
| 2 3/8" 1.81 F-Nipple | | 0.91 | 11,407.63 |
| 1-jt 2 3/8" P-110 4.7# tbg. | | 32.55 | 11,440.18 |
| 2 3/8" P-110 reg tbg collar | | 0.40 | 11,440.58 |
| | | | **11,440.58** |

Tubing Information:
Condition:
New: **X** Used: ____ Rerun: ____
Grade: **P-110**
Weight (#/ft): **4.7#**

Sucker Rod Detail:

| Size | #Rods | Rod Type |
|---|---|---|
| | | |

Rod Information
Condition:
New: ____ Used: ____ Rerun: ____
Grade: ____
Manufacture: ____

Pump Information:
API Designation
Example: 25 x 150 x RHAC X 20 X 6 X 2

Pump SN#: ____ Original Run Date: ____
RERUN ____ NEW RUN ____

| **ESP Well** | | **Flowing Well** | |
|---|---|---|---|
| Cable Size: | | SN @ | |
| Pump Intake @ | | PKR @ | |
| End of Pump @ | | EOT @ | |

**Wellhead Deta** Example: 7-1/16" 3000#
7 1/16 10K

Other:
Hanger: Yes **X** No ____

**SUMMARY**

Perf Wingate intervals 12371' - 12384' & 12014' - 12024'. Acidize w/ 1500 gals of 15% HCL. Load = 128 gals, avg psi = 2000# & avg rate = 3.0 BPM. Turned over to production on 2/1/06. **Producing from Wingate from liner top.** Frac gross intervals 12014' - 12384' using a 70% CO2 Quality foam & a Purgell HT 2% KCL x-linked gel water system followed by a series of 20/40 Mesh Sand stages & a total of 25,000# of 20/40 Mesh Econoprop Sand and total load = 11,298 Gals. Avg rate = 34.6 BPM, Avg psi = 3397#, ISIP = 2460#. Note: **All Wingate Perfs are now covered w/ the CIBP @ 11930' (4/3/06).**

Perf Entrada intervals 11776' - 11778', 11747' - 11749', 11665' - 11667', 11642' - 11644', 11628' - 11630' & 11578' - 11580'.

Perf Curtis intervals 11520' - 11522', 11502' - 11504' & 11478' - 11480'. **Turn well over to production on 4/7/06. Produce sales from Curtis & Entrada intervals 11478' - 11778'.** Note: After perforating all zones tagged CIBP @ 11930'.

Perf Cedar Mtn interval 10808' - 10818. Frac w/ 40# Purgel 2% KCL x-linked gel system w/ 70% CO2 Quality Foam w/ 20/40 Mesh Econoprop 5,000# of 100 Mesh Sand and 85,000# of 20/40 Mesh pumped w/ 81,000# of Sand, total load = 31,080 Gals. Avg rate = 35 BPM, Avg psi = 4258#. ISIP: N/A. Screened Out. **Leaving est 4,000# of sand in csg.**

Perf Dakota intervals 10621' - 10625' & 10455' - 10459'. Frac gross intervals 10455' - 10625' w/ 70% CO2 Foam. Would not break down and will need to be Acidized prior to fracing. On 5/17/06 turned gas to production via sales line. **Well is producing from the Curtis, Entrada & Cedar Mtn perfs w/ the Dakota perforated, but not broken down.**

8/13/07 - 8/13/07 - Continuation of completion. Clean out well & tag PBTD @ 11,817' (fill)
Perf Curtis & Entrada formations 11475' - 11672'
RIH w/ production string. Land tbg in hanger. ND BOP's & NU WH. Turn well over to production.

Note: Fish located @ 11300' - Remnants of CBP & bit cone.

Prepared By: Dahn Caldwell Date: 8/29/07

CONFIDENTIAL

Division of Oil, Gas and Mining

# OPERATOR CHANGE WORKSHEET (for state use only)

**ROUTING**
CDW

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

The operator of the well(s) listed below has changed, effective: **6/14/2010**

| **FROM:** (Old Operator): | **TO:** ( New Operator): |
|---|---|
| N5085-Questar Exploration and Production Company<br>1050 17th St, Suite 500<br>Denver, CO 80265<br><br>Phone: 1 (303) 308-3048 | N3700-QEP Energy Company<br>1050 17th St, Suite 500<br>Denver, CO 80265<br><br>Phone: 1 (303) 308-3048 |

**CA No.** **Unit:**

| WELL NAME | SEC | TWN | RNG | API NO | ENTITY NO | LEASE TYPE | WELL TYPE | WELL STATUS |
|---|---|---|---|---|---|---|---|---|
| SEE ATTACHED | | | | | | | | |
| | | | | | | | | |

## 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: 6/28/2010
2. (R649-8-10) Sundry or legal documentation was received from the **NEW** operator on: 6/28/2010
3. The new company was checked on the **Department of Commerce, Division of Corporations Database on:** 6/24/2010

4a. Is the new operator registered in the State of Utah: Business Number: 764611-0143

5a. (R649-9-2)Waste Management Plan has been received on: Requested

5b. Inspections of LA PA state/fee well sites complete on: n/a

5c. Reports current for Production/Disposition & Sundries on: ok

6. **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 8/16/2010 BIA not yet
7. **Federal and Indian Units:**
   The BLM or BIA has approved the successor of unit operator for wells listed on: 8/16/2010
8. **Federal and Indian Communization Agreements ("CA"):**
   The BLM or BIA has approved the operator for all wells listed within a CA on: N/A
9. **Underground Injection Control ("UIC")** 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: 6/29/2010

## DATA ENTRY:

1. Changes entered in the **Oil and Gas Database on:** 6/30/2010
2. Changes have been entered on the **Monthly Operator Change Spread Sheet on:** 6/30/2010
3. Bond information entered in RBDMS on: 6/30/2010
4. Fee/State wells attached to bond in RBDMS on: 6/30/2010
5. Injection Projects to new operator in RBDMS on: 6/30/2010
6. Receipt of Acceptance of Drilling Procedures for APD/New on: n/a

## BOND VERIFICATION:

1. Federal well(s) covered by Bond Number: ESB000024
2. Indian well(s) covered by Bond Number: 965010693

3a. (R649-3-1) The **NEW** operator of any state/fee well(s) listed covered by Bond Number 965010695

3b. The **FORMER** operator has requested a release of liability from their bond on: n/a

## LEASE INTEREST OWNER NOTIFICATION:

4. (R649-2-10) The **NEW** 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:**

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: See attached

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: See attached

7. UNIT or CA AGREEMENT NAME: See attached

8. WELL NAME and NUMBER: See attached

9. API NUMBER: Attached

10. FIELD AND POOL, OR WILDCAT: See attached

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ OTHER

2. NAME OF OPERATOR: Questar Exploration and Production Company N5085

3. ADDRESS OF OPERATOR: 1050 17th Street, Suite 500 CITY Denver STATE CO ZIP 80265 PHONE NUMBER: (303) 672-6900

4. LOCATION OF WELL

FOOTAGES AT SURFACE: See attached

COUNTY: Attached

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:

STATE: UTAH

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | |
|---|---|---|---|
| ☑ NOTICE OF INTENT (Submit in Duplicate) | ☐ ACIDIZE | ☐ DEEPEN | ☐ REPERFORATE CURRENT FORMATION |
| Approximate date work will start: 6/14/2010 | ☐ ALTER CASING | ☐ FRACTURE TREAT | ☐ SIDETRACK TO REPAIR WELL |
| | ☐ CASING REPAIR | ☐ NEW CONSTRUCTION | ☐ TEMPORARILY ABANDON |
| | ☐ CHANGE TO PREVIOUS PLANS | ☐ OPERATOR CHANGE | ☐ TUBING REPAIR |
| | ☐ CHANGE TUBING | ☐ PLUG AND ABANDON | ☐ VENT OR FLARE |
| ☐ SUBSEQUENT REPORT (Submit Original Form Only) | ☐ CHANGE WELL NAME | ☐ PLUG BACK | ☐ WATER DISPOSAL |
| Date of work completion: | ☐ CHANGE WELL STATUS | ☐ PRODUCTION (START/RESUME) | ☐ WATER SHUT-OFF |
| | ☐ COMMINGLE PRODUCING FORMATIONS | ☐ RECLAMATION OF WELL SITE | ☑ OTHER: Operator Name Change |
| | ☐ CONVERT WELL TYPE | ☐ RECOMPLETE - DIFFERENT FORMATION | |

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

Effective June 14, 2010 Questar Exploration and Production Company changed its name to QEP Energy Company. This name change involves only an internal corporate name change and no third party change of operator is involved. The same employees will continue to be responsible for operations of the properties described on the attached list. All operations will continue to be covered by bond numbers:

Federal Bond Number: 965002976 (BLM Reference No. ESB000024) N3700

Utah State Bond Number: ~~965003033~~ 965010695

Fee Land Bond Number: ~~965003033~~

BIA Bond Number: ~~799446~~ 965010693

The attached document is an all inclusive list of the wells operated by Questar Exploration and Production Company. As of June 14, 2010 QEP Energy Company assumes all rights, duties and obligations as operator of the properties as described on the list

NAME (PLEASE PRINT): Morgan Anderson TITLE: Regulatory Affairs Analyst

SIGNATURE: Morgan Anderson DATE: 6/23/2010

(This space for State use only)

RECEIVED
JUN 28 2010
DIV. OF OIL, GAS & MINING

APPROVED 6/30/2009
Earlene Russell
Division of Oil, Gas and Mining
Earlene Russell, Engineering Technician

(5/2000) (See Instructions on Reverse Side)

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)
effective June 14, 2010

| well_name | sec | twp | rng | api | entity | mineral lease | type | stat | C |
|---|---|---|---|---|---|---|---|---|---|
| Wr 16G-32-10-17 | 32 | 100S | 170E | 4301350370 | | State | OW | NEW | C |
| STATE 1 | 36 | 070S | 240E | 4304715128 | 5878 | State | GW | P | |
| KAYE STATE 1-16 | 16 | 100S | 230E | 4304730609 | 5395 | State | GW | P | |
| TOLL STATION ST 8-36-8-21 | 36 | 080S | 210E | 4304732724 | 12361 | State | GW | S | |
| GB 8A-36-8-21 | 36 | 080S | 210E | 4304733037 | 12377 | State | GW | P | |
| GB 6-36-8-21 | 36 | 080S | 210E | 4304733038 | 12378 | State | GW | P | |
| GB 2-36-8-21 | 36 | 080S | 210E | 4304733252 | 12527 | State | GW | P | |
| GH 1W-32-8-21 | 32 | 080S | 210E | 4304733570 | 12797 | State | GW | P | |
| GH 3W-32-8-21 | 32 | 080S | 210E | 4304733571 | 12796 | State | GW | P | |
| GH 5W-32-8-21 | 32 | 080S | 210E | 4304733572 | 12828 | State | GW | P | |
| GH 7W-32-8-21 | 32 | 080S | 210E | 4304733573 | 12872 | State | GW | P | |
| GH 2W-32-8-21 | 32 | 080S | 210E | 4304733744 | 13029 | State | GW | P | |
| GH 4W-32-8-21 | 32 | 080S | 210E | 4304733745 | 13035 | State | GW | P | |
| GH 8W-32-8-21 | 32 | 080S | 210E | 4304733746 | 13030 | State | GW | P | |
| OU GB 3W-16-8-22 | 16 | 080S | 220E | 4304733751 | 13577 | State | GW | P | |
| OU GB 5W-16-8-22 | 16 | 080S | 220E | 4304733752 | 13570 | State | GW | P | |
| GH 6W-32-8-21 | 32 | 080S | 210E | 4304733753 | 13036 | State | GW | P | |
| OU GB 11W-16-8-22 | 16 | 080S | 220E | 4304733754 | 13582 | State | GW | P | |
| GH 5G-32-8-21 | 32 | 080S | 210E | 4304733866 | 13037 | State | OW | P | |
| GB 1W-36-8-21 | 36 | 080S | 210E | 4304733944 | 13439 | State | GW | P | |
| WV 2W-2-8-21 | 02 | 080S | 210E | 4304734034 | 13678 | State | GW | P | |
| GB 6W-25-8-21 | 25 | 080S | 210E | 4304734121 | 13440 | Fee | GW | P | |
| GB 7W-25-8-21 | 25 | 080S | 210E | 4304734122 | 13436 | Fee | GW | P | |
| WV 9W-16-7-21 | 16 | 070S | 210E | 4304734324 | | State | GW | LA | |
| OU GB 11W-30-8-22 | 30 | 080S | 220E | 4304734392 | 13433 | Fee | GW | P | |
| OU GB 4W-16-8-22 | 16 | 080S | 220E | 4304734598 | 13579 | State | GW | P | |
| OU GB 10W-16-8-22 | 16 | 080S | 220E | 4304734616 | | State | GW | LA | |
| OU GB 12W-16-8-22 | 16 | 080S | 220E | 4304734617 | 13697 | State | GW | P | |
| OU GB 13W-16-8-22 | 16 | 080S | 220E | 4304734618 | 13611 | State | GW | P | |
| GB 14MU-16-8-22 | 16 | 080S | 220E | 4304734619 | 14196 | State | GW | P | |
| OU GB 15W-16-8-22 | 16 | 080S | 220E | 4304734622 | 13595 | State | GW | P | |
| OU GB 16W-16-8-22 | 16 | 080S | 220E | 4304734655 | 13815 | State | GW | P | |
| OU GB 2W-16-8-22 | 16 | 080S | 220E | 4304734657 | 13721 | State | GW | P | |
| OU GB 6W-16-8-22 | 16 | 080S | 220E | 4304734658 | 13592 | State | GW | P | |
| OU GB 8W-16-8-22 | 16 | 080S | 220E | 4304734660 | 13769 | State | GW | TA | |
| OU GB 9W-16-8-22 | 16 | 080S | 220E | 4304734692 | | State | GW | LA | |
| OU GB 15G-16-8-22 | 16 | 080S | 220E | 4304734829 | 13777 | State | OW | S | |
| GB 7MU-36-8-21 | 36 | 080S | 210E | 4304734893 | 14591 | State | GW | P | |
| GB 3W-36-8-21 | 36 | 080S | 210E | 4304734894 | 13791 | State | GW | P | |
| NC 8M-32-8-22 | 32 | 080S | 220E | 4304734897 | | State | GW | LA | |
| NC 3M-32-8-22 | 32 | 080S | 220E | 4304734899 | | State | GW | LA | |
| GB 5W-36-8-21 | 36 | 080S | 210E | 4304734925 | 13808 | State | GW | P | |
| GB 4MU-36-8-21 | 36 | 080S | 210E | 4304734926 | 14589 | State | GW | P | |
| NC 11M-32-8-22 | 32 | 080S | 220E | 4304735040 | | State | GW | LA | |
| GB 5SG-36-8-21 | 36 | 080S | 210E | 4304735155 | 14015 | State | GW | P | |
| SC 13ML-16-10-23 | 16 | 100S | 230E | 4304735281 | 14036 | State | GW | P | |
| SC 3ML-16-10-23 | 16 | 100S | 230E | 4304735282 | 14014 | State | GW | P | |
| SC 11ML-16-10-23 | 16 | 100S | 230E | 4304735311 | 14035 | State | GW | P | |
| WH 13G-2-7-24 | 02 | 070S | 240E | 4304735484 | 14176 | State | D | PA | |
| FR 9P-36-14-19 | 31 | 140S | 200E | 4304735880 | 14310 | State | GW | P | |
| CB 13G-36-6-20 | 36 | 060S | 200E | 4304735969 | | State | OW | LA | |

Bonds: BLM = ESB000024
BIA = 956010693
State = 965010695

Questar Exploration Production Company (N5085) to QEP Energy Company (N3700)
effective June 14, 2010

| well_name | sec | twp | rng | api | entity | mineral lease | type | stat | C |
|---|---|---|---|---|---|---|---|---|---|
| WH 2G-2-7-24 | 02 | 070S | 240E | 4304736259 | | State | GW | LA | |
| WH 4G-2-7-24 | 02 | 070S | 240E | 4304736261 | | State | GW | LA | |
| FR 1P-36-14-19 | 31 | 140S | 200E | 4304736300 | 14859 | State | GW | P | |
| WK 3ML-2-9-24 | 02 | 090S | 240E | 4304736723 | | State | GW | LA | |
| WK 7ML-2-9-24 | 02 | 090S | 240E | 4304736724 | | State | GW | LA | |
| SC 5ML-16-10-23 | 16 | 100S | 230E | 4304736877 | 15125 | State | GW | P | |
| SC 12ML-16-10-23 | 16 | 100S | 230E | 4304736878 | 15053 | State | GW | P | |
| SC 14ML-16-10-23 | 16 | 100S | 230E | 4304736908 | 15070 | State | GW | P | |
| SC 4ML-16-10-23 | 16 | 100S | 230E | 4304736912 | 15208 | State | GW | P | |
| FR 3P-36-14-19 | 36 | 140S | 190E | 4304737376 | 15736 | State | GW | P | |
| BZ 12ML-16-8-24 | 16 | 080S | 240E | 4304737670 | | State | GW | LA | |
| BZ 10D-16-8-24 | 16 | 080S | 240E | 4304737671 | 15979 | State | GW | S | |
| BZ 14ML-16-8-24 | 16 | 080S | 240E | 4304737672 | | State | GW | LA | |
| BBE 9W-16-7-21 | 16 | 070S | 210E | 4304737745 | | State | GW | LA | |
| GB 10ML-16-8-22 | 16 | 080S | 220E | 4304737943 | | State | GW | LA | |
| GB 9ML-16-8-22 | 16 | 080S | 220E | 4304737944 | 15851 | State | GW | P | |
| HR 2MU-2-12-23 | 02 | 120S | 230E | 4304738052 | | State | GW | LA | |
| HR 3MU-2-12-23 | 02 | 120S | 230E | 4304738053 | | State | GW | LA | |
| HR 6MU-2-12-23 | 02 | 120S | 230E | 4304738054 | | State | GW | LA | |
| HR 10MU-2-12-23 | 02 | 120S | 230E | 4304738055 | 15737 | State | GW | S | |
| HR 12MU-2-12-23 | 02 | 120S | 230E | 4304738056 | | State | GW | LA | |
| HR 14MU-2-12-23 | 02 | 120S | 230E | 4304738057 | | State | GW | LA | |
| HR 16MU-2-12-23 | 02 | 120S | 230E | 4304738058 | | State | GW | LA | |
| FR 11P-36-14-19 | 36 | 140S | 190E | 4304738349 | 15899 | State | GW | P | |
| GB 4SG-36-8-21 | 36 | 080S | 210E | 4304738764 | 16142 | State | GW | P | |
| GB 7SG-36-8-21 | 36 | 080S | 210E | 4304738765 | 16144 | State | GW | P | |
| WF 3D-32-15-19 | 32 | 150S | 190E | 4304738877 | | State | GW | APD | C |
| SCS 5C-32-14-19 | 32 | 140S | 190E | 4304738963 | 16759 | State | GW | P | |
| FR 7P-36-14-19 | 31 | 140S | 200E | 4304738992 | 15955 | State | GW | P | |
| SCS 10C-16-15-19 | 16 | 150S | 190E | 4304739683 | 16633 | State | GW | P | |
| FR 6P-16-14-19 | 16 | 140S | 190E | 4304740350 | | State | GW | APD | C |

Bonds: BLM = ESB000024
BIA = 956010693
State = 965010695