Form 3160-3
(July 1992)

FORM APPROVED
OMB NO. 1040-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

TYPE OF WORK DRILL ☑ DEEPEN ☐	5. LEASE DESIGNATION AND SERIAL NO. UTU-02510A
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A
	7. UNIT AGREEMENT NAME N/A
TYPE OF WELL ☐ OIL WELL ☑ GAS WELL ☐ OTHER ☑ SINGLE ZONE ☐ MULTIPLE ZONE	8. FARM OR LEASE NAME, WELL NO. GB 3D-4-8-22
2. NAME OF OPERATOR QUESTAR EXPLORATION & PRODUCTION COMPANY Contact: Jan Nelson E-Mail: jan.nelson@questar.com	9.API NUMBER: 43-047-40126
3. ADDRESS 11002 E. 17500 S. Vernal, Ut 84078 Telphone number Phone 435-781-4331 Fax 435-781-4323	10. FIELD AND POOL, OR WILDCAT White River
4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements*) At Surface 632255X 1380' FNL 2126' FWL, LOT 6, SECTION 4, T8S, R22E At proposed production zone 4446129Y 40.157006 -109.447122	11. SEC.,T, R, M, OR BLK & SURVEY OR AREA SEC.4, T8S, R22E Mer SLB
14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE* 32 + / - SOUTHEAST OF VERNAL, UTAH	12. COUNTY OR PARISH Uintah 13. STATE UT
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (also to nearest drig,unit line if any) 1380' + / -	16.NO.OF ACRES IN LEASE 907.83 17. NO. OF ACRES ASSIGNED TO THIS WELL 40
18.DISTANCE FROM PROPOSED location to nearest well, drilling, completed, applied for, on this lease, ft 680' +/-	19. PROPOSED DEPTH 17,332' 20. BLM/BIA Bond No. on file ESB000024
21. ELEVATIONS (Show whether DF, RT, GR, ect.) 5207.1' GR	22. DATE WORK WILL START ASAP 23. Estimated duration 75 days
24. Attachments	

The following,completed in accordance with the requirments of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A surface Use Plan (if location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an exisiting bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

SIGNED Jan Nelson Name (printed/typed) Jan Nelson DATE 06/05/2008

TITLE Regulatory Affairs

(This space for Federal or State office use)

PERMIT NO. 43-047-40126 APPROVAL DATE

Application approval does not warrant or certify the applicant holds any legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY [signature] TITLE BRADLEY G. HILL ENVIRONMENTAL MANAGER DATE 06-10-08

*See Instructions On Reverse Side

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

Federal Approval of this Action is Necessary

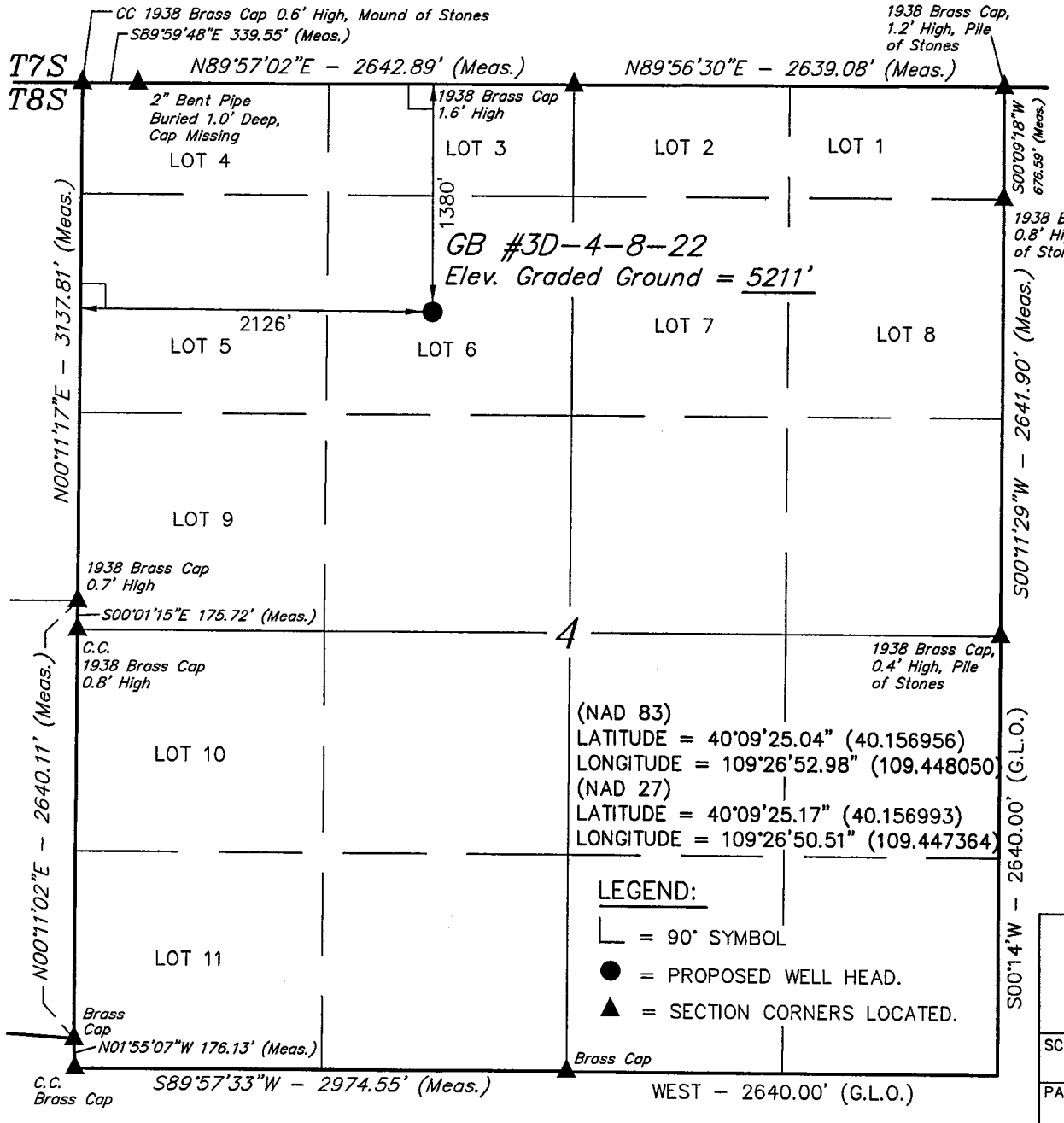
RECEIVED
JUN 09 2008
DIV. OF OIL, GAS & MINING

CONFIDENTIAL

T8S, R22E, S.L.B.&M.

QUESTAR EXPLR. & PROD.

Well location, GB #3D-4-8-22, located as shown in Lot 6 of Section 4, T8S, R22E, S.L.B.&M. Uintah County, Utah.

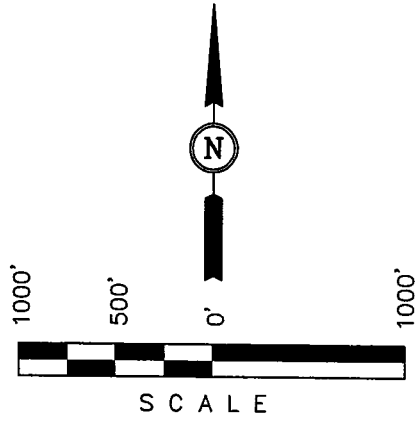


BASIS OF ELEVATION

BENCH MARK 20EAM LOCATED IN THE SE 1/4 OF SECTION 35, T8S, R21E, S.L.B.&M. TAKEN FROM THE OURAY SE, 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 4697 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

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

SCALE: 1" = 1000'	DATE SURVEYED: 11-27-07	DATE DRAWN: 12-11-07
PARTY: D.A. T.M. M.D.	REFERENCES: G.L.O. PLAT	
WEATHER: COLD	FILE: QUESTAR EXPLR. & PROD.	

Additional Operator Remarks

Questar Exploration & Production Company proposes to drill a well to 17,332' to test the Dakota. 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"

Please see Onshore Order No. 1 Drilling Plan

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008
Please be advised that Questar Exploration & Production Company 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.ESB000024. The principal is Questar Exploration & Production Company via surety as consent as provided for the 43 CFR 3104.2.

ONSHORE OIL & GAS ORDER NO. 1
QUESTAR EXPLORATION AND PRODUCTION COMPANY
GB 3D-4-8-22

DRILLING PROGRAM

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	Depth
Uinta	Surface
Green River	3,332'
Wasatch	6,622'
Mesaverde	9,432'
Sego	11,707'
Castlegate	11,882'
Blackhawk	12,167'
Mancos Shale	12,790'
Mancos B	13,138'
Frontier	15,785'
Dakota Silt	16,693'
Dakota	17,132'
TD	17,332'

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	Depth
Gas	Wasatch	6,622'
Gas	Mesaverde	9,432'
Gas	Blackhawk	12,167'
Gas	Mancos Shale	12,790'
Gas	Mancos B	13,138'
Gas	Dakota	17,132'

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 flows are detected, samples will be submitted to the BLM along with any water analyses conducted. Fresh water will be obtained from Wonsits Valley water right # A36125 (which was filed on May 7, 1964,) or Red Wash water right # 49-2153 (which was filed on March 25, 1960). It was determined by the Fish and Wildlife Service that any water right number filed before1989 is not depleting to the Upper Colorado River System, to supply fresh water for drilling purposes. All water resulting from drilling operations will be disposed of at Red Wash Central Battery Disposal Site; SWSE, Section 27, T7S, R23E or Wonsits Valley Disposal Site; SWNW, Section 12, T8S, R21E.

3. Operator's Specification for Pressure Control Equipment:

A. 13-5/8" 5000 psi double gate, 5,000 psi annular BOP (schematic included) from surface hole to 9-5/8" casing point. A 13-5/8" 10,000 psi double and single gate may be substituted based on contractor availability and substructure height of the drilling rig.

B. 11" or 13-5/8" 10,000 psi double gate, 10,000 psi single gate, 10,000 psi annular BOP (schematic included) from 9-5/8" casing point to total depth. The choice of BOP stacks is based on the drilling contractor's availability.

C. Functional test daily

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

E. 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 10M system and individual components shall be operable as designed.

DRILLING PROGRAM

4. Casing Design:

Hole Size	Csg. Size	Top (MD)	Bottom (MD)	Mud Weight	Wt. lb/ft	Grade	Thread	Cond.
26"	20"	sfc	40-60'	N/A	Steel	Cond.	None	Used
17-1/2"	13-3/8"	sfc	500'	N/A	54.5	K-55	STC	New
12-1/4"	9-5/8"	sfc	4,622'	9.2	47	HCP-110	Flush Jnt **	New
8-1/2"	7"	Surface	9,000'		26	HCP-110	LTC	New
8-1/2"	7"	9000'	12,840'	13.5	29 SDrift *	HCP-110	LTC	New
6-1/8"	4-1/2"	sfc	13,000'		15.1	P-110	LTC	New
6-1/8"	4-1/2"	13,000'	15,000'		15.1	Q-125	LTC	New
6-1/8"	4-1/2"	15,000'	17,332'	15.1	16.6	Q-125	LTC	New

Casing Strengths:				Collapse	Burst	Tensile (minimum)
13-3/8"	54.5 lb.	K-55	STC	1,130 psi	2,730 psi	547,000 lb.
9-5/8"	47 lb.	HCP-110	LTC	7,100 psi	9,440 psi	1,213,000 lb.
7"	26 lb.	HCP-110	LTC	7,800 psi	9,950 psi	693,000 lb.
7"	29 lb.*	HCP-110	LTC	9,200 psi	11,220 psi	797,000 lb.
4-1/2"	15.1 lb.	P-110	LTC	14,350 psi	14,420 psi	406,000 lb.
4-1/2"	15.1 lb.	Q-125	LTC	15,840 psi	16,380 psi	438,000 lb.
4-1/2"	16.6 lb.	Q-125	LTC	19,010 psi	18,130 psi	493,000 lb.

*** Special Drift**
**** Flush Jnt – VAM SLIJ II or LT&C based on availability**
MINIMUM DESIGN FACTORS:

COLLAPSE: 1.125
BURST: 1.10
TENSION: 1.80

Area Fracture Gradient: 0.9 psi/foot
Maximum anticipated mud weight: 15.1 ppg
Maximum surface treating pressure: 12,500 psi

5. Cementing Program

20" Conductor:
Cement to surface with construction cement.

13-3/8" Surface Casing: sfc – 500' (MD)
Slurry: 0' – 500'. 610 sxs (731 cu ft) Premium cement + 0.25 lbs/sk Flocele + 2% $CaCl_2$. Slurry wt: 15.6 ppg, slurry yield: 1.20 ft^3/sx, slurry volume: 17-1/2" hole + 100% excess.

9-5/8" Intermediate Casing: sfc – 4,622' (MD)
Lead Slurry: 0' – 4,122'. 1185 sks (310 bbls) Foamed Lead 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset + 1.5 % Zonesealant 2000 (foamer) Slurry wt: 14.3 ppg, (unfoamed) or 11.0 ppg (foamed). Slurry yield: 1.47 ft^3/sk (unfoamed), Slurry volume: 12-1/4" hole + 35% excess.
Tail Slurry: 4,122' – 4,622'. 115 sks (30 bbls) Tail 50/50 Poz cement + 0.1 % FDP-C766-05 (Low Fluid Loss Control) + 5 #/sx Silicate Compacted + 20 % SSA-1 + 0.1 % Versaset. Slurry wt: 14.3 ppg, Slurry yield: 1.47 ft^3/sk, Slurry volume: 12-1/4" hole + 35% excess.

7" Intermediate Casing: sfc - 12,840' (MD)
Foamed Lead Slurry 2: 0' – 12,340'. 1437 sks 2113 cu ft) 0.1% HALAD-766 (Low Fluid Loss Control); Slurry Yield: 1.47 ft^3/sk; 5 lbm/sk Silicalite Compacted (Light Weight; Additive) Total Mixing Fluid: 6.40 Gal/sk; 20 % SSA-1 (Heavy Weight Additive); 0.1 % Versaset (Thixotropic Additive); 1.5 % FDP-C760-04 (Foamer) 35% excess.
Tail Slurry: 12,340' – 12,840'. 60 sks (79.3 cu ft) 0.1% HALAD-766 (Low Fluid Loss Control) Slurry Yield: 1.47 ft^3/sk; 5 lbm/sk Silicalite Compacted (Light Weight Additive) Total Mixing Fluid: 6.40 Gal/sk; 20 % SSA-1 (Heavy Weight Additive); 0.1% Versaset (Thixotropic Additive); 1.5% FDP-C760-04 (Foamer).

4-1/2" Production Casing: sfc - 17,322' (MD)
Lead/Tail Slurry: 6,000' - 17,322'. 966 sks (1439 cu ft) Premium Cement + 17.5% SSA-1, + 4% Microbond HT, + 0.2% Halad 344 + 0.5% Halad 413, + 0.3% CFR-3, + 0.9% HR-12, + 0.2% Super CBL, + 0.2% Suspend HT, 17.5% SSA-2. Slurry wt: 16.2 ppg, Slurry yield: 1.49 ft^3/sk, Slurry volume: 6-1/8" hole + 35% in open hole section.

*Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to the surface on the intermediate strings and 6,000' on the production string. 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.

DRILLING PROGRAM

6. Auxiliary Equipment

A. Kelly Cock – yes

B. Float at the bit – yes

C. Monitoring equipment on the mud system – visually and/or PVT/Flow Show

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

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

F. Request for Variance

Drilling surface hole with air:

A variance from 43 CFR 3160 Onshore Oil and Gas Order #2, Section III Requirements, subsection E. Special Drilling Operations is requested for the specific operation of drilling and setting surface casing on the subject well with a truck mounted air rig. The variance from the following requirements of Order #2 is requested because surface casing depth for this well is 500 feet and high pressures are not expected.

1. **Properly lubricated and maintained rotating head** – A diverter system in place of a rotating head. The diverter system forces the air and cutting returns to the reserve pit and is used to drill the surface casing.
2. **Blooie line discharge 100 feet from wellbore and securely anchored** – the blooie line discharge for this operation will be located 50 to 70 feet from the wellhead. This reduced length is necessary due to the smaller location size to minimize surface disturbance.
3. **Automatic ignitor or continuous pilot light on blooie line** – a diffuser will be used rather than an automatic pilot/ignitor. Water is injected into the compressed air and eliminates the need for a pilot light and the need for dust suppression equipment.
4. **Compressors located in the opposite direction from the blooie line a minimum of 100 feet from the wellbore** – compressors located within 50 feet on the opposite side of the wellbore from the blooie line and is equipped with a 1) emergency kill switch on the driller's console, 2) pressure relief valves on the compressors, 3) spark arrestors on the motors.

DRILLING PROGRAM

G. All other operations and equipment for air/gas drilling shall meet specifications in Onshore Order #2, Section III Requirements, subsection E. Special Drilling Operations and Onshore Order #1.

Surface hole will be drilled with air, air/mist, foam, or mud depending on hole conditions. Intermediate holes will be with water based drilling fluids consisting primarily of fresh water, bentonite, lignite, caustic, lime, soda ash and polymers. The production hole will be drilled with oil base mud (OBM). No chromates will be used. Maximum anticipated mud weight is 15.1 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.

7. Testing, logging and coring program

A. Cores – none anticipated

B. DST – none anticipated

C. Logging – Mud logging – 2500' to TD
GR-SP-Induction, Neutron Density, FMI

D. Formation and Completion Interval: Mancos interval, final determination of completion will be made by analysis of logs.
Stimulation – Stimulation will be designed for the particular area of interest as encountered.

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 12,800 psi. Maximum anticipated bottom hole temperature is 310° F.

DRILLING PROGRAM

9. Additional Information For Oil Base Mud

A. See attached diagram of well pad layout. A reserve pit will be constructed for this location. This pit will be constructed so that a minimum of two vertical feet of freeboard exists above the top of the pit at all times and at least one-half of the holding capacity will be below ground level. The pit will be lined with a synthetic reinforced liner, 30 millimeters thick, with sufficient bedding used to cover any rocks prior to putting any fluids into the pit. The pad will be designed so that runoff from adjacent slopes does not flow into the reserve pit. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. At the beginning of drilling operations this reserve pit will have an open-ended dike placed in the pit that allows the fluids to migrate from one side of the pit to the other during the drilling of the surface and intermediate hole using water based mud. At the time that operations begin to drill the production hole with oil base mud, this dike will be extended, dividing the pit into two distinct, isolated halves allowing no migration of fluids from one side to the other. At that time all fluids will be removed from the end of the pit to be used as a cuttings pit. This cuttings pit will be used for oil based cuttings generated during drilling of the production hole.

B. Oil-base mud will be mixed in the closed circulating system and transferred to four 500-bbl tanks on location for storage prior to and after drilling operations. Drip pans will be installed below the rotary beams on the substructure and can be viewed on site from the cellar area. As the production section of the hole is drilled, the cuttings transported to the surface with the drilling fluid will be mechanically separated from the drilling fluid as waste by two shale-shakers and then cleaned/dried via a mud cleaner and/or centrifuge. These separated cuttings will be transferred to the cuttings pit nearest to the shakers and stored in this cuttings pit for solidification after the rig is released and moved off location.

C. The means to transport the cuttings from the solids control equipment to the OBM cuttings pit will be by 10" PVC pipe or equivalent steel piping. Water will be pumped to the solids control equipment and will convey the OBM cuttings from the solids control equipment to the OBM cuttings pit via the PVC pipe. The water will be recycled multiple times from the cuttings pit to continue to transport the cuttings to the cuttings pit. The conveyance system will be enclosed on the solids control end to prevent spills. The conveyance piping system at the cuttings pit end will be placed on top of pit liner to eliminate absorption of fluids into the soil.

D. Plastic material will underlay the rig, oil base mud/diesel storage tanks and mud pits. All tanks on location will be placed inside of berms. Any oily waste fluids and sediments generated at the work site during drilling operations or when cleaning the fluid containment system after drilling will also be placed into the cuttings half of the pit.

DRILLING PROGRAM

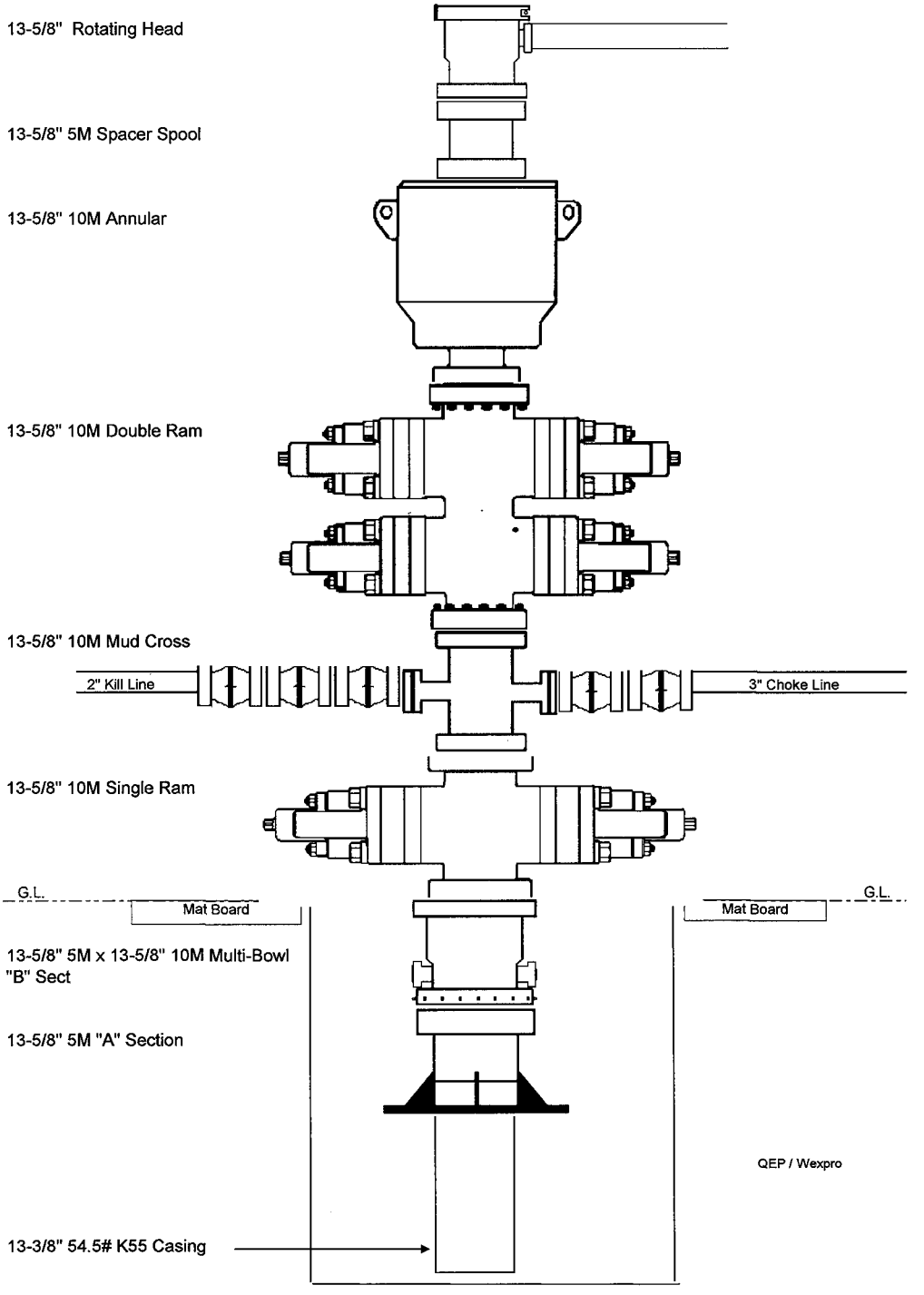
E. All rig ditches will be lined and directed to a lined sump for fluid recovery. A drip pan will be installed on the BOP stack, a mud bucket will be utilized as needed on connections and a vacuum system will be used on the rig floor for fluid recovery in those areas.

F. Once all waste has been placed in the cuttings portion of the pit and all necessary approvals obtained, the oilfield waste management consultant Soli-Bond or a similar company will mobilize equipment and personnel to the site to perform the cement based solidification/stabilization process in-situ for encapsulation. Soil will be backfilled over the processed material used on the cuttings side of the pit and that portion of the pit area will be returned to the existing grade bordering the pit. Please see the attached Soli-Bond Proposal for Processing and Disposal of Drilling Waste for specific details. The half of the reserve pit containing water base materials will be left to evaporate and will be closed and reclaimed at the time that portion of the pit is dry.

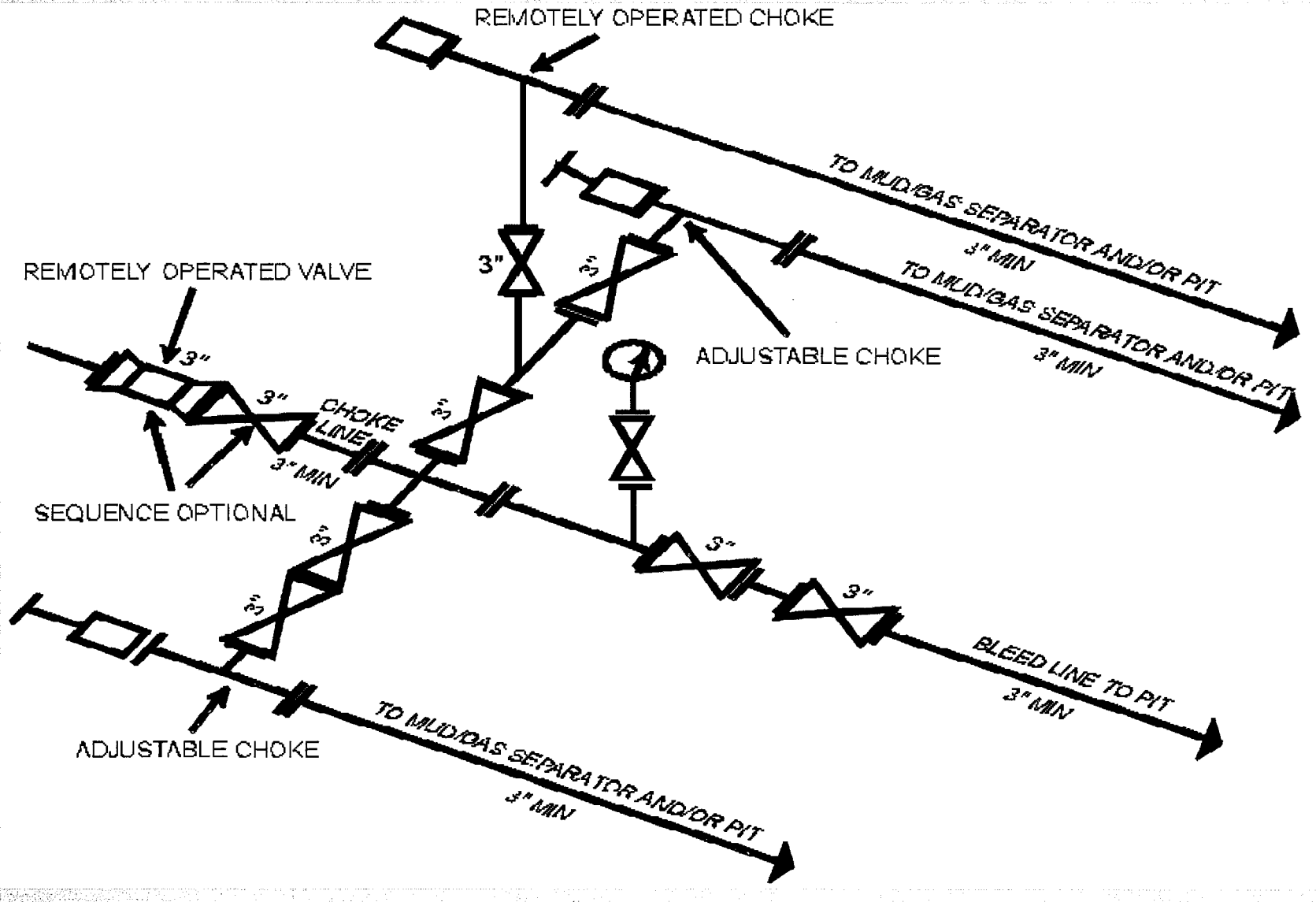
ONSHORE OIL & GAS ORDER NO. 1
QUESTAR EXPLORATION AND PRODUCTION COMPANY
GB 3D-4-8-22

DRILLING PROGRAM

BOP Requirements:



Attachment I. Diagrams of Choke Manifold Equipment

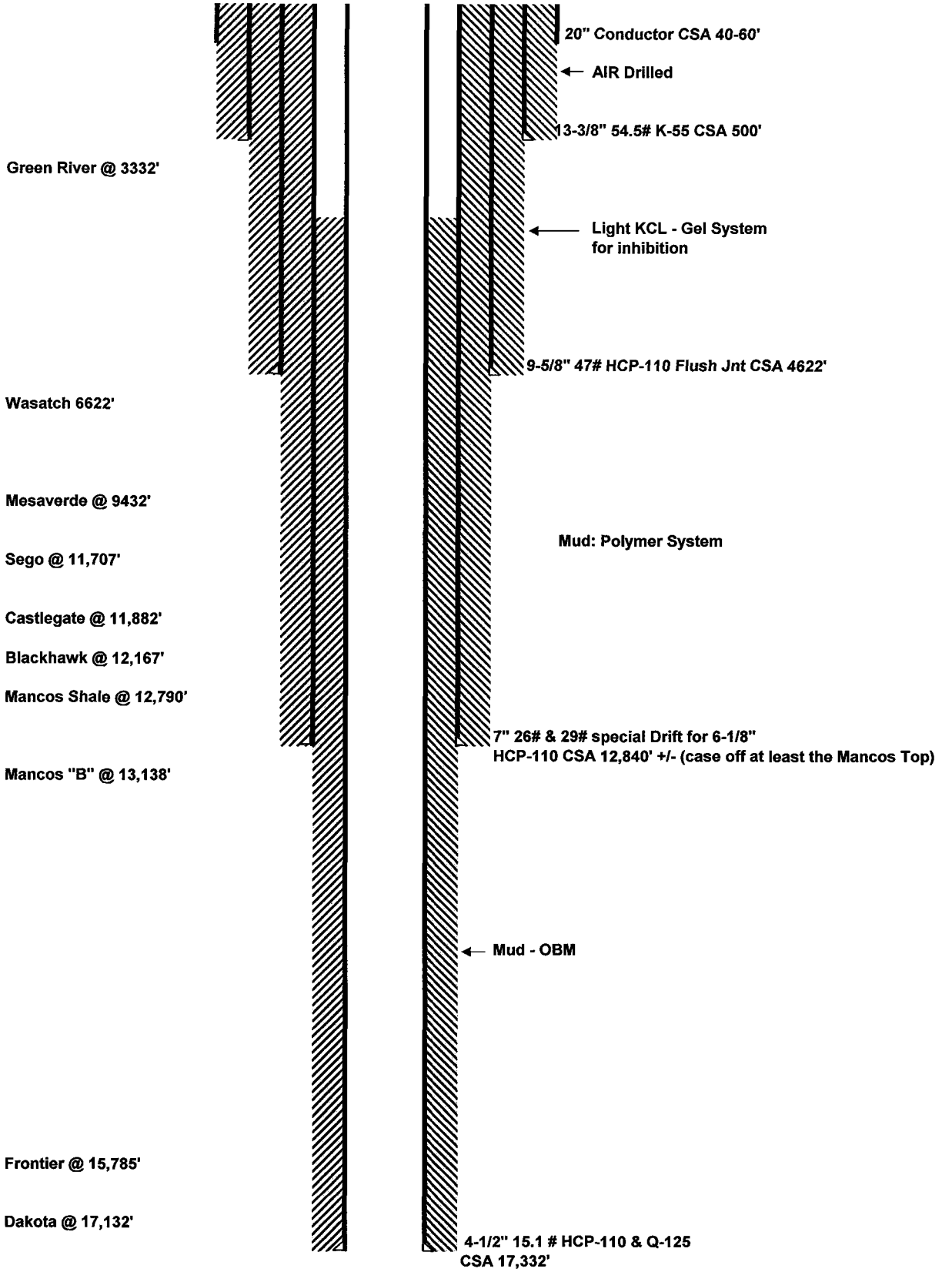


I-4 10M and 15M Choke Manifold Equipment -- Configuration of chokes may vary

[54 FR 39528, Sept. 27, 1989]

Last Updated March 25, 1997 by John Broderick

GB 3D-4-8-22


20" Conductor CSA 40-60'
AIR Drilled
13-3/8" 54.5# K-55 CSA 500'
Green River @ 3332'
Light KCL - Gel System
for inhibition
9-5/8" 47# HCP-110 Flush Jnt CSA 4622'
Wasatch 6622'
Mesaverde @ 9432'
Mud: Polymer System
Sego @ 11,707'
Castlegate @ 11,882'
Blackhawk @ 12,167'
Mancos Shale @ 12,790'
7" 26# & 29# special Drift for 6-1/8"
HCP-110 CSA 12,840' +/- (case off at least the Mancos Top)
Mancos "B" @ 13,138'
Mud - OBM
Frontier @ 15,785'
Dakota @ 17,132'
4-1/2" 15.1 # HCP-110 & Q-125
CSA 17,332'

NEWPARK DRILLING FLUIDS, LLC

Questar
Exploration & Production Company

GB 3D-4-8-22

Sec 4-T8S-R22E
Uintah County, Utah

Drilling Fluids Program

410 17th Street, Suite 460 Denver, CO 80202
(303) 623-2205 (720) 904-7970 Fax

Newpark Drilling Fluids, LP

410 17th Street, Suite 460 ■ Denver, Colorado 80202 ■ (303) 623-2205 ■ FAX (720) 904-7970

May 27, 2008

Mr. Jim Davidson
Questar Exploration & Production
1331 17th Street, Suite 800
Denver, Colorado 80202

RE: GB 3D-4-8-22
Sec 4-T8S-R22E
Uintah Co, Utah

Mr. Davidson:

Newpark Drilling Fluids, LP is pleased to present the enclosed revised recommended drilling fluids program for the GB 3D-4-8-22 well to be drilled in Uintah County, Utah. This program is for drilling with KCL Water/FlexFirm and/or light mud in the 1st intermediate to 4,622 ft, a polymer fluid system in the 2nd intermediate interval to 12,840 ft, then to T.D. at 17,332 ft with OBM.

The Surface Interval will be pre-set at a depth of 500 ft.

For the 1st intermediate Interval, a light KCL /Flex Firm drilling fluid is planned. Lightly mud up before drilling into the Trona/Water flood area and/or before Intermediate T.D.

Brine kill pills may be needed for trips, logs, and casing operations, depending on pressure encountered while drilling.
Trona water flows in this area may require a mud weight of 9.5-9.8 ppg to control.
Water flood area's in the Green River may need 10.2-10.5 ppg mud weight to control.
A mud-up will be is recommended before 1st Intermediate T.D. at 4,622'. Mud-up to a NewPHPA/Polymer system.
Required mud weight at interval T.D. at 4,622' is expected to be in the 8.8-9.0 ppg range.

In the 2nd intermediate interval, drill out with the KCL water from the previous interval..
Mud weight in this interval is expected to be in the 11.5-12.0 ppg range at the 12,840 ft liner interval T.D.
Extreme loses have been encountered in this interval on offset wells.

In the Production interval, displace to a 12.0-12.5 ppg OptiDrill OBM system. Maintain fluid density as low as possible to increase penetration rates and reduce the possibility of lost circulation. Use high weight pills for well control during; trips, logs, and casing operations. Mud weight at T.D. is expected to be at +/-15.5 ppg.

The projected drilling time for this project is 60-65 days with an estimated material and engineering cost of $500,000.00 assuming no unusual delays or problems are encountered. The estimate is based on minimal losses and a 15.0 ppg mud weight at TD. Costs will increase dramatically if severe losses are encountered.

All sack material and bulk barite will be furnished from our Grand Junction, Colorado and Myton, UT facilities with OBM supplied from Newpark's Boulder, WY facility.

If you have any questions following your review of this proposal, please call.

Regards,

Estes Ward
Operations Manager
Newpark Drilling Fluids, LP

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Project Summary

Questar
Exploration & Production
GB 3D-4-8-22
Sec 4-T8S-R22E
Uintah, County Utah

Depth (ft)	Formations	Interval Comments	Mud Weight (ppg)	Mud Properties
500'	Uinta **Surface T.D.**	**Hole size: 17 1/2"/ Casing: 13 3/8"** **AIR DRILLED**	**NA**	NA
3,332' 4,622'	Green River Mahogeny Mahogeny Base **Intermediate T.D.**	**KCL/FlexFirm** **Hole size: 12-1/4"/ Casing: 9 5/8"** **Drill out with KCL water. Maintain K silicate with 1-3 sks per 100 ft.** **Pump pre-hydrated NewGel or Flowzan /New Gel sweeps for increased hole cleaning and for any tight hole and/or torque.** **For trips, spot heavy brine if needed for trona flow, and at intermediate T.D. check hole conditions and spot high viscosity mud if needed.** **If hole conditions dictate a mud-up, convert the system to a KCL/Polymer system.** **Mud weight required at T.D. is expected to be in the 8.8-9.0 ppg range**	**8.4-8.8** **8.8-9.0**	**Vis (sec/qt): 27-36** **PV (cp): 0-8** **YP (#s/100ft²): 0-10** **FL (ml/30 min): NC-20** **LGS %: < 1%-3%** **pH: 10.5-10.8** **Cl (mg/l): 15-20K** **KCL: 3%**
6,622' 9,432' 11,707' 11,882' 12,167' 12,790' 12,840'+/-	Wasatch Mesa Verde Sego Bucktongue Castlegate Blackhawk Mancos **Inter. 2 T.D.**	**NewPHPA/Polymer** **Hole size: 8.5 "/ Liner: 7 "** Mud up as hole conditions dictate to a NewPHPA/ Polymer system. Maintain properties as outlined increasing the PHPA concentration to 1 ppb. Lost circulation may be a problem in this interval. If lost circulation is encountered, pump LCM pills as needed. If LCM pills will not control losses, by-pass the shakers and increase the LCM concentration in the system as needed. If severe lost circulation is encountered, consider a DynaPlug squeeze. Hole instability may be encountered in the Mesa Verde. Monitor torque, pump pressure, connection fill, and trip conditions for indications of hole instability and consider adding Asphalt if hole conditions dictate.	**9.1-9.4** **9.2-9.5** **10.8-11.0** **11.0-11.2** **11.8** **12.0**	**Vis (sec/qt): 40-45** **PV (cp) : 12-20** **YP (#s/100ft²) : 10-12** **FL (ml/30 min): 6-8** **LGS %: 3-5** **pH: 10.0-10.5** **Cl (mg/l): 11-15K** **PHPA: 1.0 ppb**
13,138' 15,785' 16,771' 17,332'	Mancos B Frontier equiv. Dakota Silt Dakota **Total Depth**	**OptiDrill OBM** **Hole size: 6-1/8"/ Casing: 4-1/2"** Drill out with the **OptiDrill** system, treating cement contamination as needed with **OptiWet** to prevent shaker blinding. Maintain hole cleaning during high ROP's with high viscosity sweeps. Use a 1:1 ratio of **OptiVis RM** and **OptiVis.** CO2 in the gas stream while drilling under balanced will require additional Lime, emulsifiers and wetting agent. **Maintain mud weight as needed for well control. Spot high weight ECD pills for trips, logs, and casing operations.**	**14.0** **14.6** **15.0** **15.5**	**PV (cp): 15-25** **YP (lbs/100ft²): 8-10** **HPHT (mls/30 min.) : <20** **O/W : 80:20 - 85:15** **ES: 500+** **Lime: 2-4 ppb** **LGS %: < 6**

Newpark Drilling Fluids, LP
410 17th Street, Suite 460
Denver, CO. 80202
(303) 623-2205 FAX (720) 904-7970

Project Summary

Questar
Exploration & Production
GB 3D-4-8-22
Sec 4-T8S-R22E
Uintah, County Utah

DRILLING FLUID PROPERTIES

Surface Hole: Air Drilled

Hole Size (in)	TVD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft²)	API Fluid Loss (ml/30min)	Total Solids (%)
17-1/2 "	0-500'	NA	NA	NA	NA	NA

1st Intermediate Hole: KCL/FlexFirm

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft²)	API Fluid Loss (ml/30min)	Chloride Mg/l (x1000)	LGS Solids (%)
12-1/4"	500'- 4,100'	8.6-8.8	2-8	0-4	NC-20	15-20	1-3%
12-1/4"	4,100'-4,622'	9.3-9.8	8-12	8-10	10-12	15-20	3-5%

2nd Intermediate Interval: NewPHPA/Polymer

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft²)	API Fluid Loss (ml/30min)	pH	LGS Solids (%)
8-1/2"	4,622' -10,000'	9.3-9.8	6-12	6-10	8-10	10.0-11.0	3-6%
8-1/2 "	10,000'-12,840'	10.8-11.8	12-18	12-15	6-8	10.0-11.0	3-6%

Production Interval: OptiDrill OBM

Hole Size (in)	MD (ft)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft²)	O/W Ratio (%)	HPHT Fluid Loss (ml/30min)	CaCL (mg/l) X 10,000	Electrical Stability (mv)	LGS Solids (%)
6-1/8 "	12,840'-17,332'	15.0-15.5	20-30	8-10	85/15	12-15	250-350	500 +	3-6

- Drilling fluid properties are guidelines only.
- Mud weights for guidelines only, allow hole conditions to dictate actual mud weights.
- Hole conditions should be closely monitored and product mix adjusted accordingly.

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1st Intermediate Interval
12-1/4" Hole (500'- 4,622')

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Uintah, County Utah

1st Intermediate Interval Drilling Fluid Properties									
Depth Interval (TVD)	Mud Weight (ppg)	Viscosity (sec/qt)	Plastic Viscosity (cp)	Yield Point (lb/100ft²)	pH	API Fluid Loss (ml/30min)	KCL (%)	Low Gravity Solids	Chlorides Mg/l (x1000)
500'- 4,622'+/-	9.0-9.5	28-36	2-10	0-8	10.0-11.0	NC-20	3.0	<1.0	15-20

- Drill out with KCL water maintaining KCL % at 3.0.
- Mix FlexFirm at 3 sks per 100 ft drilled for hole stability and reduced bit balling.
- If a water flow is encountered, treat as needed for carbonates.
- Pump pre-hydrated NewGel and/or Flowzan/SaltGel sweeps for increased hole cleaning, along with LCM sweeps for seepage (Paper LCM while drilling with water)
- If water flows are encountered, spot heavy brine pills for trips, logs and casing operations.
- If hole conditions dictate a mud-up, convert the KCL water to a KCL/Polymer system.
- **Offset information indicates the 1st major loss zone to be at +/- 3600 ft.**
- **Shallow gas/overpressure was encountered on some offsets in the area at 3,700-4,000'. A 9.5-9.9 ppg fluid was needed to control pressure.**

Challenges:	*Strategies:*
Gravel/Unconsolidated formation	If encountered, pump sweeps of pre-hydrated NewGel with a viscosity of 150 –300 sec/qt.
Water Flows (Trona)	If water flows become excessive, control hydrostatic as needed with air additions and fluid density.
Lost Circulation	While drilling with water, pump LCM sweeps consisting of paper. If drilling with mud, pump mixed LCM pills in the 20-30% LCM range.
Hole Cleaning	Pump sweeps on a regular basis and for any indications of insufficient hole cleaning. Circulate and pump sweeps before connections and for any anticipated down time.
Increase ROP with PDC Bits	Pump 20-40 bbl. Sweeps with NewEase 203, New100N, DynaDet, and SAPP. (FlexDrill Sweeps)
Hole Instability/Sloughing Shale	Consider a mud-up and Asphalt additions.

1st Intermediate Interval
12-1/4" Hole (500 - 4,622')

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Offset Data:

- Wells in this area have encountered major losses at +/- 3600 ft.
- Gravel/unconsolidated formation has been encountered at 1380 ft.
- Gas/overpressure has been encountered at 3,700'-4,000'.

Fluid Recommendations:

- Drill out cement, float collar and new formation. Test the integrity of the casing seat and squeeze if necessary.
- Drill out with Saltwater, aerating as needed to maintain circulation.
- If water is encountered, control flow with reduced air and fluid density.
- If a Trona Water flow is encountered additions of **Lime** and/or **Calcium Chloride** should be used to adjust alkalinities as needed.
- The use of a premix tank is highly recommended. Pre-Hydrate **NewGel** for use as sweeps and for viscosity when a mud up is needed. Fill premix tank with fresh water. Treat out hardness with **SodaAsh** as needed. Add 0.25-0.5 ppb **Caustic Soda** for a 10.0-10.5 pH. Begin additions of 20-25 ppb **NewGel** allow sufficient circulating time for maximum hydration. Add 1.0-2.0 ppb **CFL II**. Then mix additional **NewGel** (30-40 ppb total) or a 120+ funnel viscosity. The pre-hydrated bentonite can be pumped from the premix to the pill tank and pumped downhole for sweeps or can be added slowly to the **Saltwater** for viscosity and rheology control.
- If penetration rates slow sweeps with **New 100N**, **NewEase 203, SAPP**, and **DynaDet** should be considered. **(1% New 100N, 1% NewEase 203, 0.5-0.75 ppb SAPP, 0.2 % DynaDet).** ***"Flex Sweeps"***
- For trips, an increase in mud weight may be necessary to kill water flows. 9.8-10.0 ppg brine should be considered for this operation.
- Seepage and/or lost circulation may become a problem. For seepage while drilling with water, pump 20-30 bbl pills containing Paper LCM.
- If losses become severe, consider a mud up and LCM sweeps of **Cedar Fiber** and **FiberSeal** should be pumped and incorporated into the system as needed. If losses continue, increase coarse LCM in active system to 15-20%. If losses continue the use of a **New X-Prima** Squeeze is strongly recommended.
- At TD increase funnel viscosity for logs and casing operations as hole conditions dictate. Suggest funnel viscosity be increased to 45-50 sec/qt, before logging operations be attempted.

- At 4,622' (intermediate T.D.) short trip, check hole conditions. If hole conditions dictate, add pre-hydrated **NewGel** from the premix tank to the active system to increase funnel viscosity to 45-50 sec/qt and spot in the open hole for logs and casing operations

DRILL STRING PACK-OFF: Rapid penetration rate during fast drilling often deteriorates to pack-off, a situation which can lead to lost circulation and/or stuck pipe. Pack-off is typically self-induced by exceeding the maximum rate of penetration for a given annular flow rate. The solution to this is to control the penetration rate to a level that the pumps can adequately clean the hole while maintaining rheological properties in line with existing hydraulic parameters.

SOLIDS CONTROL: It is of the utmost importance that the shale shakers and flow line cleaners be equipped with the finest screens possible, and yet handle the flow rate. The desander and desilter units should be evaluated periodically and serviced to maximize performance.

2nd Intermediate Interval
8-1/2" Hole (4,622'- 12,840')

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Uintah, County Utah

2nd Intermediate Interval Drilling Fluid Properties								
Depth Interval (TVD)	**Mud Weight (ppg)**	**Viscosity (sec/qt)**	**Plastic Viscosity (cp)**	**Yield Point (lb/100ft²)**	**pH**	**API Fluid Loss (ml/30min)**	**Hardness Mg/l)**	**Low Gravity Solids**
4,622'-10,000'	9.0-9.5	32-36	6-12	6-10	10.0-11.0	8-10	100+	4-6
10,000'-12,840'	10.5-11.8	45-50	10-18	12-14	10.0-11.0	6-8	100+	4-6

- Drill out with water and or mud as hole conditions dictate. After mud-up , allow the system to revert to a fresh water polymer system.
- As mud weight is increased, seepage losses can become severe. Treat with LCM pills as needed. If pill treatments will not contain the losses at reasonable levels, by-pass the shakers, retaining the pills and allowing the LCM concentration to increase as needed.
- Hole instability can occur in the Mesa Verde in this area. If encountered, consider adding Asphalt, building to a 4-6 ppb concentration.
- High pressure may be encountered in the Castlegate/Blackhawk. Monitor closely for increased pressure while drilling and use caution on trips to minimize possible swabbing.
- Mud weight at Intermediate #2 T.D. is expected to be in the 11.5-12.0 ppg range.

Challenges:	*Strategies:*
Hole Instability/Sloughing Shale	Consider 4-6 ppb Asphalt
Increase in Formation pressure	Monitor well conditions and increase density as needed with **NewBar** as needed.
Seepage/Lost Circulation	As mud weight is increased (10.0ppg +) seepage and losses may become a problem. For seepage pump 50 bbl sweeps with 5-10 ppb **DynaFiber** and 10-20 ppb **NewCarb** as needed. For partial or total losses pump sweeps with 10-15 ppb **FiberSeal** and **Cedar Fiber**. Severity of losses will determine size and quantity of LCM added. If losses are not controlled with sweeps consider 10-15% LCM in active system. For severe losses the use of a **New X-Prima** squeeze should be considered.
Differential Sticking	Maintain mud weight as low as possible. Control Low Gravity Solids below 6%, and control fluid loss at 8-10 mls/30 min.
Increase ROP with PDC Bits	Pump 20-40 bbl. Sweeps with NewEase 203, New100N, DynaDet, and SAPP. (FlexDrill Sweeps)

2nd Intermediate Interval
8-1/2" Hole (4,622'-12,840')

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Sec 4-T8S-R22E
Uintah, County Utah

Offset Data:

Wells in this area have experienced losses as mud weights are increased to control formation pressure. LCM sweeps are strongly recommended for this reason. Mud weights should be keep as low as practical but increases to 11.2 ppg may be required by 2nd Intermediate TD at 12,840'.

- **Loss zones on offset wells were at 9200 ft and 9500 ft.**
- **Losses were encountered at 10,200' on the WV 11AD-14-8-21**

Fluid Recommendations:

- Drill out cement, float collar and new formation with the system from the previous interval. Test the integrity of the casing seat and squeeze if necessary.
- Drill out with water and or mud. If drilling out with water consider a mud up by +/- 7500 ft or as hole conditions dictate.
- Begin additions of 0.5-1.0 ppb **NewPHPA** and maintain throughout the interval.
- Maintain viscosity with PreHydrated **NewGel** until chlorides have dropped below 5000-7000 mg/l. After chlorides have dropped **NewGel** will not need to be pre-hydrated and can be added directly to the system.
- Begin additions of **NewPHPA**. Concentration of **NewPHPA** should be maintained at 0.5-1.0 ppb throughout the interval. As mud weight increases additions of **PHPA** should be switched from **NewPHPA DLMW** to the shorter chain **NewPHPA DSL**.
- If hole conditions dictate, consider 4-6 ppb Asphalt.
- If penetration rates slow sweeps with **New 100N**, **NewEase 203, SAPP**, and **DynaDet** should be considered. **(1% New 100N, 1% NewEase 203, 0.5-0.75 ppb SAPP, 0.2 % DynaDet).** ***"Flex Sweeps"***
- Increase mud weight as needed to control formation pressures as needed. Mud weights should be maintained as low as practical to reduce chance of losses and differential sticking. Increase mud weight as needed with **NewBar**.
- As density increases additions of **NewEdge** and/or **DrillThin** should be added for rheology control.
- As bottom hole temperatures increase and additional fluid loss control is desired supplement the **AquaBlock** with **NewPac** for fluid loss control Lower API filtrate to 6-8 cc's with additions of **NewPAC** and **AquaBlock**.
- As mud weight is increased seepage and/or lost circulation may become a problem. For seepage pump 20-30 bbl pills containing a combination of **NewCarb** and **DynaFiber** mixed at a 2:1 ratio. If partial or total returns are encountered, LCM sweeps with a varied size distribution including **Cedar Fiber** and **Fiber Seal, PhenoSeal** and other assorted sizes should be considered and incorporated into the system as needed. 20-25% LCM in the active system may be required. The type, size and quantity of LCM used will depend on the severity of losses. If losses are severe a **New X-Prima** squeeze should be considered.
- At TD increase funnel viscosity for logs and casing operations as hole conditions dictate. Suggest funnel viscosity be increased to 50-55 sec/qt, before logging or casing operations be attempted.
- While circulating casing it is recommended to reduce Yield Points for cementing operations.

Production Interval
6-1/8" Hole (12,840'-17,332')

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GB 3D-4-8-22
Sec 4-T8S-R22E
Uintah, County Utah

Production Interval Drilling Fluid Properties									
Depth Interval (TVD)	Mud Weight (ppg)	Plastic Viscosity (cp)	Yield Point (lb/100ft²)	O/W Ratio %	HPHT Fluid Loss (ml/30min)	Excess Lime (PPB)	Electrical Stability (MV)	Low Gravity Solids	CaCl Mg/l Water
12,840'-17,332'	15.0-15.5	25-35	8-10	85:15	10-20	2-4	500+	< 6	300K

Drilling Fluid Recommendations: (12,840'-17,332')

- Displace to a OptiDrill OBM after finishing the casing job at 12,840'.
- After displacement, maintain the OptiDrill system within the parameters outlined above.
- Offsets in the area have encountered high rates of seepage in this interval. If indications of seepage are observed, sweeps of **NewCarb C**, **Dynafiber C & M**, **NewSeal**, and **CyberSeal** are recommended. Mixing ratios are recommended to be at 5:1 **NewCarb M** to **DynaFiber** , **NewSeal**, and **CyberSeal**. If losses continue to be a problem, consider trying different sizes and combinations until ssepage is slowed.
- Maintain rheology low to reduce ECD values and reduce surge and swab during connections and trips.
- Drill as underbalanced as possible to help prevent losses and increase penetration rates.
- For pressure control, spot high weight pills with an equivalent mud weight to drilling ECD's. On trips in, stage these pills out and divert to storage for further use. High weight pills in excess of the drilling ECD should be avoided due to possible lost circulation.

Challenges	Strategies
Displacement	• Have 1200-1300 bbls of OBM volume on location along with a pump capable of keeping up with displacement rates. • Pump a 10-20 bbl viscosified OBM spacer ahead of the OpyiDrill (enough for 500 ft + separation) • A steady pump rate for either turbulent or plug flow should be used. Reciprocate and rotate to assist in minimizing channeling. • Do not shut down once displacement commences. • Should any contamination occur, isolate the contaminated fluid for reconditioning.
Seepage/lost Circulation.	Pump LCM sweeps when seepage and/or losses are indicated. Sweeps should be a mixture of , NewCarb, DynaFiber, NewSeal, and CyberSeal. If lost returns are encountered, consider a Di-aseal M or cross linked polymer squeeze.
Maintaining Oil wet solids	For every 1.0 ppg mud weight increase, mix 0.02 gal/bbl OptiWet
Pressure control	• Spot weighted pills calculated to give a bottom hole pressure equal to drilling ECD. • Do not exceed drilling bottom hole pressure with the ECD pill. Lost circulation has been a problem on offset wells. • Stage weighted pills out of the hole and recover for future use.

Maintenance Procedure:

HPHT - Maintain HPHT values within programmed parameters. Additions of **OptiMul** and **OptiPlus**, at recommended concentrations should maintain the HTHP at recommended levels. If hole conditions indicate a need for lower HPHT values, **Opti G** at 2-4 ppb is recommended.

Electrical Stability– Electrical stability should be used as a guide not as an absolute in determining maintenance requirements. Actual values are not critical but should be observed for trends or changes. Decreases in electrical stability should be noted along with other mud properties to determine treatments. To increase electrical stability add emulsifiers and wetting agents **OptiMul** and **OptiPlus** or decrease water content.

Oil/Water Ratio - Maintain the oil/water ratio in the 90:10-80:20 range depending on mud weight and condition.. Higher water content will decrease the amount of **OptiVis** needed for rheology.

Mud weight - Maintain minimum fluid densities with solids equipment. Monitor hole conditions and all drilling parameters closely for indications of increases in formation pressures and adjust fluid densities accordingly. Drilling with a minimum amount of overbalance will reduce the possibility of losing returns and/or of differentially sticking the drill string. Mud weight on offset wells was in the 15.0-15.5 ppg range at T.D.

Rheology - Maintain solids as low as possible. Increase rheology as needed for hole cleaning with a combination of **OptiVis (Bentone 910)** and **Opti Vis RM or Opti Vis PS** and water content.

Lime - Maintain the excess Lime at 2-3 ppb excess.

Hole cleaning - Calculate rheology requirements based on ROP, pump rates and hole conditions. Adjust as needed .

Mud losses downhole—Monitor ECD's with Hy-Calc, maintaining the lowest values possible. If losses are encountered; sweeps containing **NewCarb, DynaFiber, Opti-G, and NewSeal** should be circulated to aid in the prevention of losses. If seepage losses continue and/or become severe, consider spotting a pill with **Magma Fiber (Fine & Regular)** and the above formulation. Keep the hole full at all times, and avoid excessive swabbing and/or surge actions when tripping.

Solids Control - Maintain low gravity solids at 4-6 % by volume. The high performance shakers should be equipped with the finest mesh screens that will handle the circulating volume and not cut barite out.

Water Contamination– Keep all water sources off the mud pits. If contamination occurs, treat with emulsifiers and Calcium Chloride as needed.

Production Interval
6-1/8" Hole (12,840'-17,332')

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Recommended materials for relaxed filtrate OptiDrill system :
(85:15 Oil/Water Ratio)

Product	Function	Concentration
NewBar	Weighting material	As needed
OptiVis	Organophilic Clay / Viscosifier	2-4 ppb
OptiMul	Primary Emulsifier	2.0 ppb
OptiPlus	Secondary Emulsifier	4.0 gal/bbl.
OptiVis RM	Low End Rheology Modifier	0.1-0.2 ppb
Calcium Chloride Water	Internal Phase	10.0%-20.0 % by volume
Calcium Chloride	Salinity/Activity	300,000 - 350,000 mg/l
OptiG	Fluid Loss control Additive	1.0-4.0 ppb
Lime	Alkalinity Additive	5 ppb
NewCarb M	Loss Circulation Material	10.0 ppb
NewCarb F	Loss Circulation Material	As required
DynaFiber	Loss Circulation Material	As required

QUESTAR EXPLORATION AND PRODUCTION COMPANY

WELLSITE CUTTINGS MANAGEMENT PLAN

UINTA BASIN PROJECT AREA

GB 3D-4-8-22

Township: 8 South, Range 22 East

Uintah County, Utah

UINTA BASIN CUTTINGS MANAGEMENT PLAN

Solidifying / Stabilizing Cuttings Pits

1. PROJECT DESCRIPTION

We drill and set conductor, then drill, case and cement surface casing, then drill, run casing, and cement intermediate sections, then finally drill the production holes. This insures that surface water is protected and is not exposed to more saline waters and that treatable water is not exposed to oil based mud (OBM). In addition, water and oil is skimmed off during the various phases for reuse and to minimize the fluid levels in the pit.

The wells to be drilled use oil base drilling fluid during the production section of each well. As the production section of the well is drilled, drill cuttings will be generated and separated from the drilling fluid, then deposited in a single on-site waste pit with synthetic liners (cuttings pit). These oil base mud cuttings (OBMC) are expected to contain elevated levels of adhered entrained hydrocarbons due to their prior contact with the OBM. The OBMC will be collected in a steel catch tank as drilling progresses, moved to the cuttings pit by a wheel loader, and mixed with the water based cuttings generated during drilling of the upper sections of the wellbore.

A state approved contractor will treat the waste placed in the cuttings pit using the solidification/stabilization (S/S) process described below. Prior to beginning the S/S process, the contractor will collect samples of the contents of the cuttings pit for criteria verification. The waste will be treated in place inside the pit and contractor will finish by backfilling the pit constituting final disposal of the drilling waste.

2. GENERAL DESCRIPTION OF THE SOLIDIFICATION/STABILIZATION PROCESS

The S/S process involves the controlled addition of a specially blended Portland-cement-based reagent to the drilled cuttings, OBM and WBM solids and liquids, and makeup water as required followed by through mixing of the reagent with the waste to form homogeneous slurry. Hydrocarbons and chlorides in the waste are broken up into very small droplets or "particles" and these particles are dispersed throughout the reagent/waste mixture during the mixing phase. After the mixing phase, an irreversible chemical reaction occurs between the cementitious reagent and water present in the slurry causing the slurry mixture to rapidly transform into a solid granular material. The previously dispersed and isolated particles are immobilized to a very high degree within the interlocked cementitious lattice of each solidified granule. This waste treatment process prevents the hydrocarbons or chlorides from re-coalescing within the processed waste form and reduces their release to the surrounding environment. Chemical properties imparted by the process also stabilize various metals, if present in the waste, by transforming them into less-soluble forms. This in conjunction with the physical entrapment of metals within each solidified granule greatly reduces their availability to the surrounding environment. In summary S/S rapidly transforms physically unstable waste into a stable solid material and reduces the leaching rate of target constituents to such a degree that they can no longer cause harm to the surrounding environment.

3. ESTIMATED VOLUMES PER WELL

Section	Top	Bottom	Size	Volume, ft3	Swell	Excess	Tot Vol, ft3	Tot Vol, bbl
Surface	60	500	17.5	735.01	1.3	1.7	1624.38	289.29
Intermediate	500	4622	12.25	3374.01	1.3	1.4	6140.69	1093.62
Intermediate	4622	12840	8.5	3238.69	1.3	1.4	5894.42	1049.76
Production	12840	17332	6.125	919.22	1.3	1.3	1553.47	276.67
Additional Volume							1937.03	345.00
Total per Well							17149.99	3054.34

4. PROJECT OBJECTIVES

The S/S objectives are:

1 To permanently reduce the leaching rate of target constituents to at or below prescribed limits for confinement in the soil.

1.1 Leachable Oil and Grease will be less than 10 mg/L.

1.2 Leachable Total Dissolved Solids will be less than 5000 mg/L and/or leachable salts will be below acceptable site-specific guidelines.

1.3 Compliance with the performance criteria will be certified by a third party accredited testing laboratory utilizing the appropriate tests as prescribed. Laboratory test results will be documented in a closure report submitted to the client and to the required regulatory agencies as may be required after completion of the project.

2 To solidify the unconsolidated waste to support backfilling soil cover and resist subsidence.

3 Rapid solidification of the waste to reduce pit closure time.

4 Minimize waste volume increase to maximize depth of native soil cover over processed material.

5. CONTRACTOR ACTIVITIES

1. Contractor will collect samples of the raw waste and bench test to determine S/S reagent formulation and reagent/waste mix ratios necessary to achieve performance criteria.
2. Contractor will deliver equipment and experienced personnel to the site.
3. Contractor supervisor will conduct a job site safety assessment with crew discussing relevant site safety hazards, required PPE, and accident avoidance. Contractor safety meetings will be held prior to each day's work throughout the project.
4. Contractor and client representative will determine the final actual volume of contents to treat in each pit at the subject site prior to commencing operations.
5. Contractor will construct proper storm drainage protection, if necessary, to surround the pit areas during the project.
6. Contractor will perform preliminary admixing of each pit's contents prior to S/S reagent introduction and prepare the site to facilitate waste processing. Care will be taken to maintain waste containment throughout all processing phases.
7. Contractor will prepare and deliver S/S reagents to the site. Reagents will be added to the pit waste utilizing a special filter-equipped discharge hopper.
8. Contractor will perform the S/S on the waste in-situ in order to chemically solidify the waste and immobilize target constituents of concern within the processed material.
9. After processing all the waste, contractor will collect a composite sample of the processed pit material and submit the sample to a certified third party laboratory for analysis to verify the processed material complies with criteria indicated in the Project Objectives, Section 4.
10. Contractor will place a minimum of three feet (3') of native spoil over the S/S material in the pit in order to backfill to the adjacent grade constituting final disposal of the processed material. Spoil for backfilling will be taken from existing excavated spoils at the site.
11. Contractor will then promptly demobilize equipment and personnel concluding site operations.

QUESTAR EXPLORATION & PRODUCTION COMPANY
GB 3D-4-8-22
1380' FNL 2126' FWL
LOT 6, SECTION 4, T8S, R22E
UINTAH COUNTY, UTAH
LEASE # UTU-02510A

ONSHORE ORDER NO. 1

MULTI – POINT SURFACE USE & OPERATIONS PLAN

An onsite inspection was conducted for the GB 3D-4-8-22 on April 1, 2008. Weather conditions were cold at the time of the onsite. In attendance at the inspection were the following individuals:

Holly Villa	Bureau of Land Management
Amy Torres	Bureau of Land Management
Don Allred	Uintah Engineering & Land Surveying
Jan Nelson	Questar Exploration & Production Company
Raymond Pallesen	Questar Exploration & Production Company

1. **Existing Roads:**

The proposed well site is approximately 32 miles southeast of Vernal, Utah.

Refer to Topo Maps A and B for location of access roads within a 2 – mile radius.

There will be no improvements made to existing roads.

2. **Planned Access Roads:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Refer to Topo Map B for the location of the proposed access road.

The proposed access road will be ammended under Right-Of-Way UTU-79055.

3. **Location of Existing Wells Within a 1 – Mile Radius:**

Please refer to Topo Map C.

4. **Location of Existing & Proposed Facilities:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Refer to TOPO D for the location of the proposed pipeline.

The pipeline will require a Right-Of-Way that will connect to our existing pipeline that is located in the NENE of Section 5 , T8S, R22E. The pipeline will be a 30' wide, 4" inside diameter, welded schedule # 20 or greater surface pipeline.

5. **Location and Type of Water Supply:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

6. **Source of Construction Materials:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

7. **Methods of Handling Waste Materials:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

An enhanced evaporation system will be used for evaporating fluids from reserve pit after drilling and completion are completed for this well. The system will be monitored regularly to ensure that operation is being done in a safe and environmentally protective manner. The system will be controlled during daylight hours by our lease operators and the pump will only be operated when wind direction and velocity are favorable to eliminate over - spray on vegetation. The evaporation system is structured on a fifth wheel portable trailer that runs on diesel fuel only.

8. **Ancillary Facilities:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Facilities will be painted Carlsbad Canyon

9. **Well Site Layout:** (See Location Layout Diagram)

The attached Location Layout Diagram describes drill pad cross-sections, cuts and fills and locations of the mud tanks, reserve pit, flare pit, pipe racks, trailer parking, spoil dirt stockpile(s), and surface material stockpile(s).

Please see the attached diagram to describe rig orientation, parking areas, and access roads.

A pit liner is required. A felt pit liner will be required if bedrock is encountered.

10. **Plans for Reclamation of the Surface:**

Please refer to Questar Exploration & Production Company Greater Deadmen Bench EIS UT-080-2003-0369V Record of Decision dated March 31, 2008.

Interim Reclamation

Please see attached Interim Reclamation plan.

Once the well is put onto production, QEP will reclaim as much of the well pad as possible that will allow for operations to continue in a safe and reasonable manner. Reseeding will be done in the spring or fall of every year to allow winter precipitation to aid in the succuss of reclamation.

Seed Mix:

Interim Reclamation:
6 lbs Hycrest Crested Wheatgrass
6 lbs Needle & Threadgrass
Final Reclamation:
Seed Mix # 6 3 lbs. Wyoming Big Sage Bruch, 4 lbs. Hycrest Crested Wheat Grass, 3 lbs. Shadscale
3 lbs. Indian Rice Grass

11. Surface Ownership:

Bureau of Land Management
170 South 500 East
Vernal, Utah 84078
(435) 781-4400

12. Other Information

A Class III archaeological survey was conducted by Montgomery Archaeology Consultants. A copy of this report was submitted directly to the appropriate agencies by Montgomery Archaeology Consultants. Cultural resource clearance was recommended for this location.

A class III paleontological survey was conducted by Intermountain Paleo Consulting. A copy of this report was submitted directly to the appropriate agencies by Stephen D. Sandau. The inspection resulted in the location of no fossil resources. However, if vertebrate fossil(s) are found during construction a paleontologist should be immediately notified. QEP will provide paleo monitor if needed.

There is a Burrowing Owl Stipulation from March 1st to August 31st. No construction or drilling will commence during this period unless otherwise determined by a wildlife biologist that the site is inactive.

Round Corner # 8 as much as possible.

Rock and Gravel, Culvert as needed

Lessee's or Operator's Representative:

Jan Nelson
Red Wash Rep.
Questar Exploration & Production Company
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.

Questar Exploration & Production Company 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 Questar Exploration & Production Compamy it's 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
Red Wash Representative

05-Jun-08
Date

QUESTAR EXPLR. & PROD.

GB #3D-4-8-22

LOCATED IN UINTAH COUNTY, UTAH
SECTION 4, T8S, R22E, S.L.B.&M.

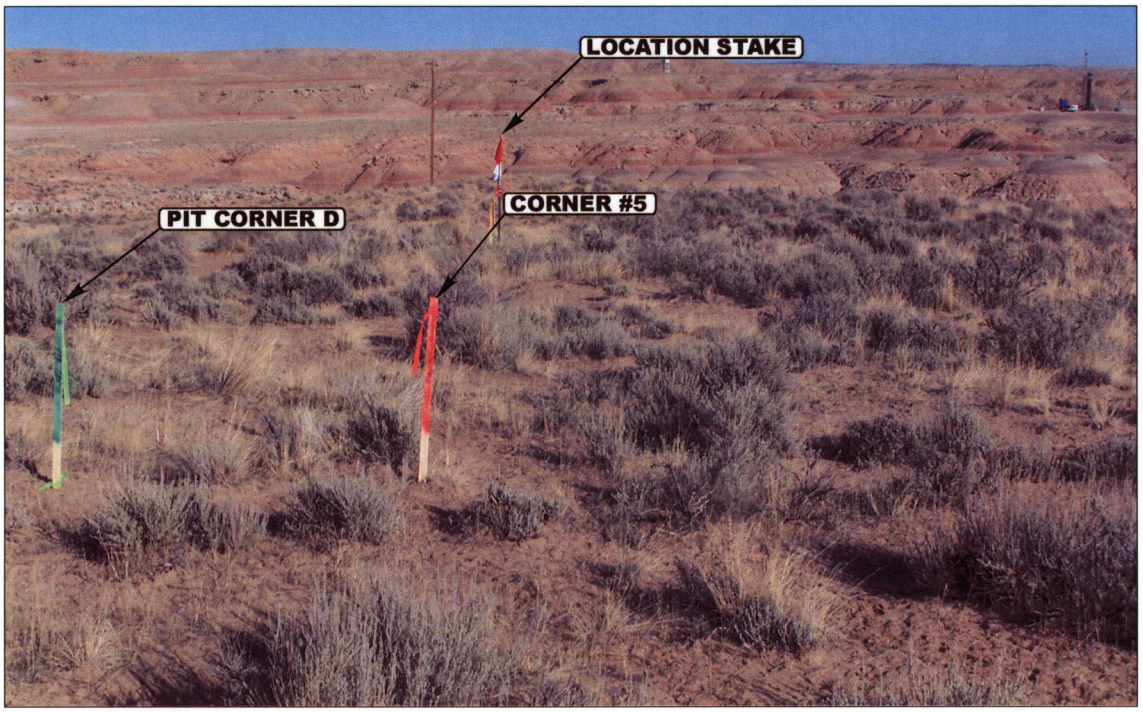


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE **CAMERA ANGLE: NORTHEASTERLY**

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

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

LOCATION PHOTOS	12 MONTH	07 DAY	07 YEAR	PHOTO
TAKEN BY: D.A.	DRAWN BY: Z.L.	REVISED: 00-00-00		

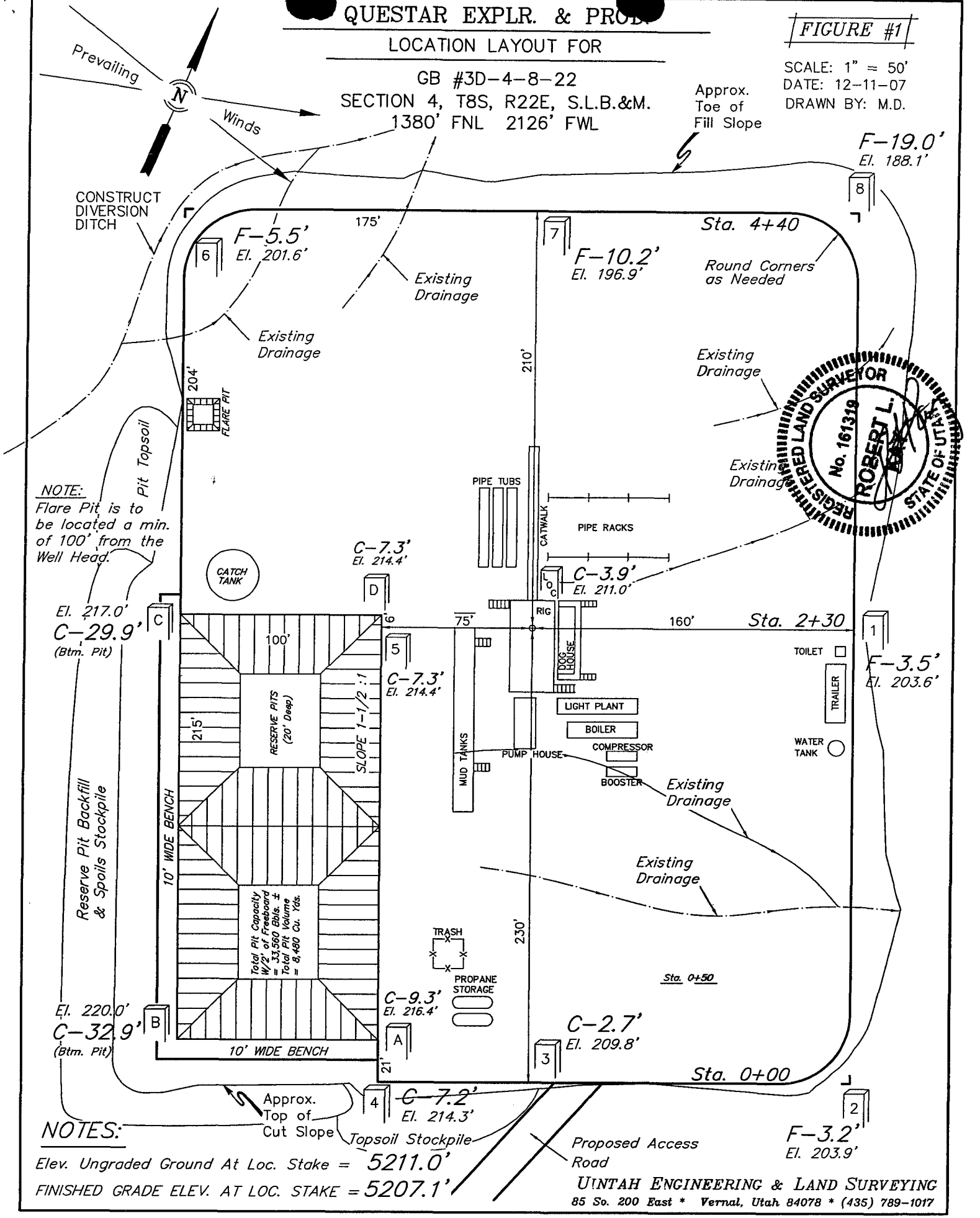
QUESTAR EXPLR. & PROD.

LOCATION LAYOUT FOR

GB #3D-4-8-22
SECTION 4, T8S, R22E, S.L.B.&M.
1380' FNL 2126' FWL

FIGURE #1

SCALE: 1" = 50'
DATE: 12-11-07
DRAWN BY: M.D.



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

NOTES:

Elev. Ungraded Ground At Loc. Stake = 5211.0'

FINISHED GRADE ELEV. AT LOC. STAKE = 5207.1'

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

QUESTAR EXPLR. & PROD.

TYPICAL CROSS SECTIONS FOR

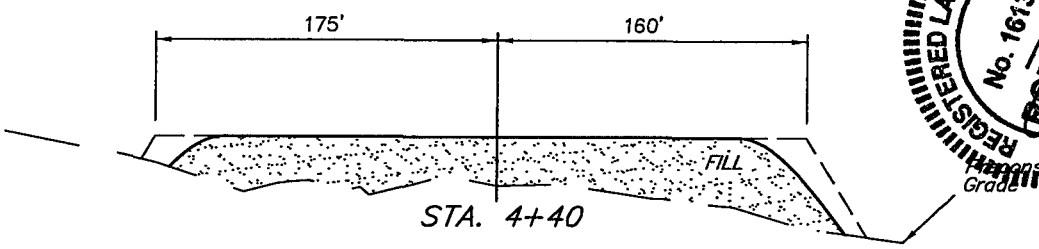
GB #3D-4-8-22
SECTION 4, T8S, R22E, S.L.B.&M.
1380' FNL 2126' FWL

FIGURE #2

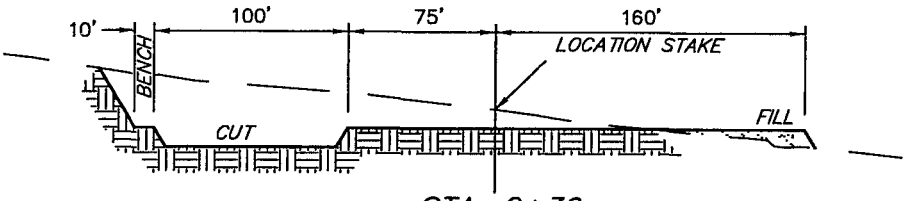
DATE: 12-11-07
DRAWN BY: M.D.

1" = 40'
X-Section Scale
1" = 100'

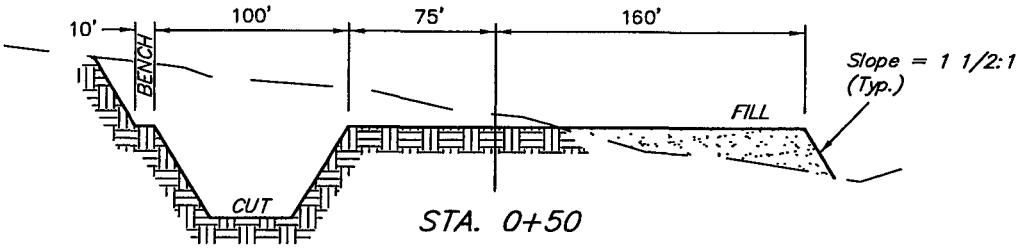
REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH



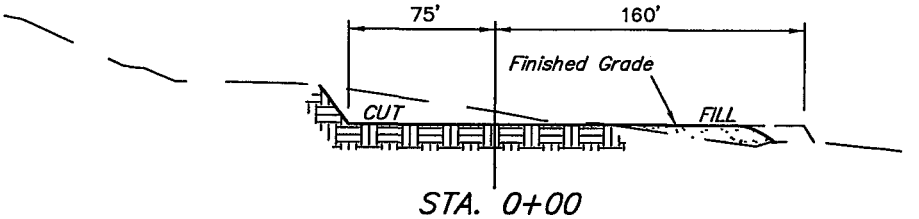
STA. 4+40



STA. 2+30



STA. 0+50



STA. 0+00

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ± 3.934 ACRES
ACCESS ROAD DISTURBANCE = ± 2.594 ACRES
PIPELINE DISTURBANCE = ± 2.618 ACRES
TOTAL = ± 9.146 ACRES

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

APPROXIMATE YARDAGES

CUT
(6") Topsoil Stripping = 3,340 Cu. Yds.
Remaining Location = 25,100 Cu. Yds.

TOTAL CUT = 28,440 CU.YDS.
FILL = 20,860 CU.YDS.

EXCESS MATERIAL = 7,580 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 7,580 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation) = 0 Cu. Yds.

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

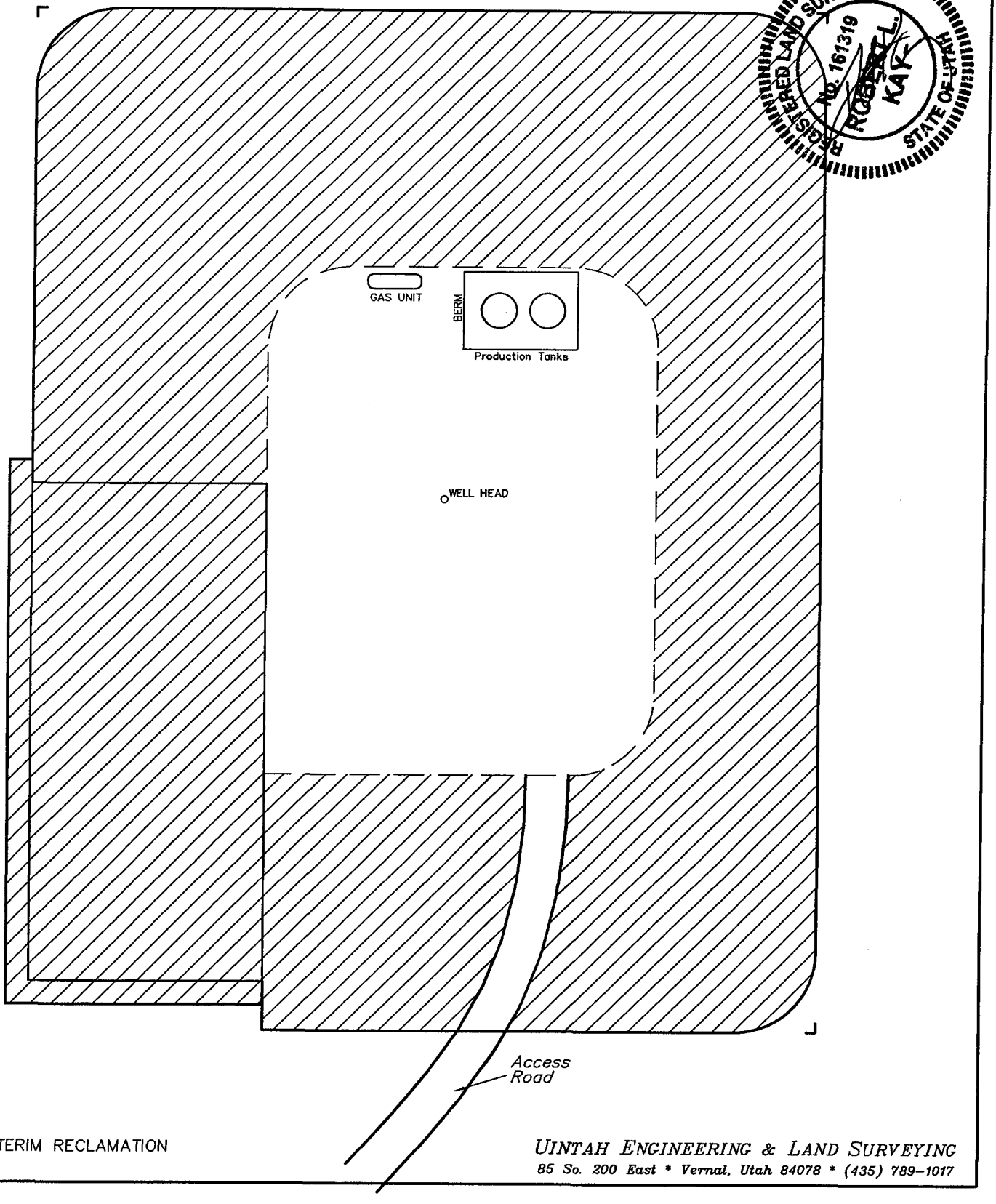
QUESTAR EXPLR. & PROD.

INTERIM RECLAMATION PLAN FOR

GB #3D-4-8-22
SECTION 4, T8S, R22E, S.L.B.&M.
1380' FNL 2126' FWL

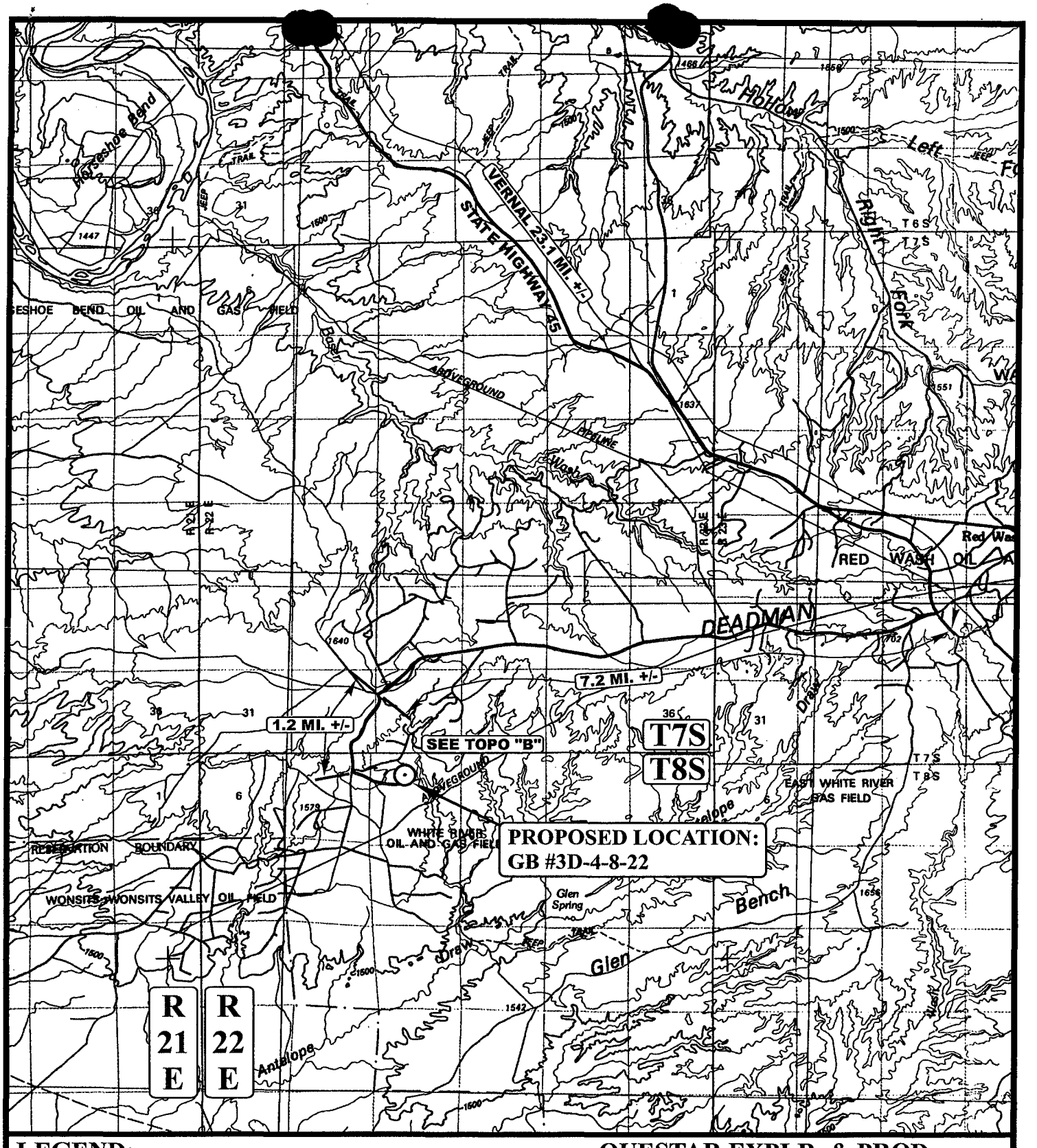
FIGURE #3

DATE: 12-11-07
DRAWN BY: M.D.



INTERIM RECLAMATION

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



LEGEND:

⊙ PROPOSED LOCATION

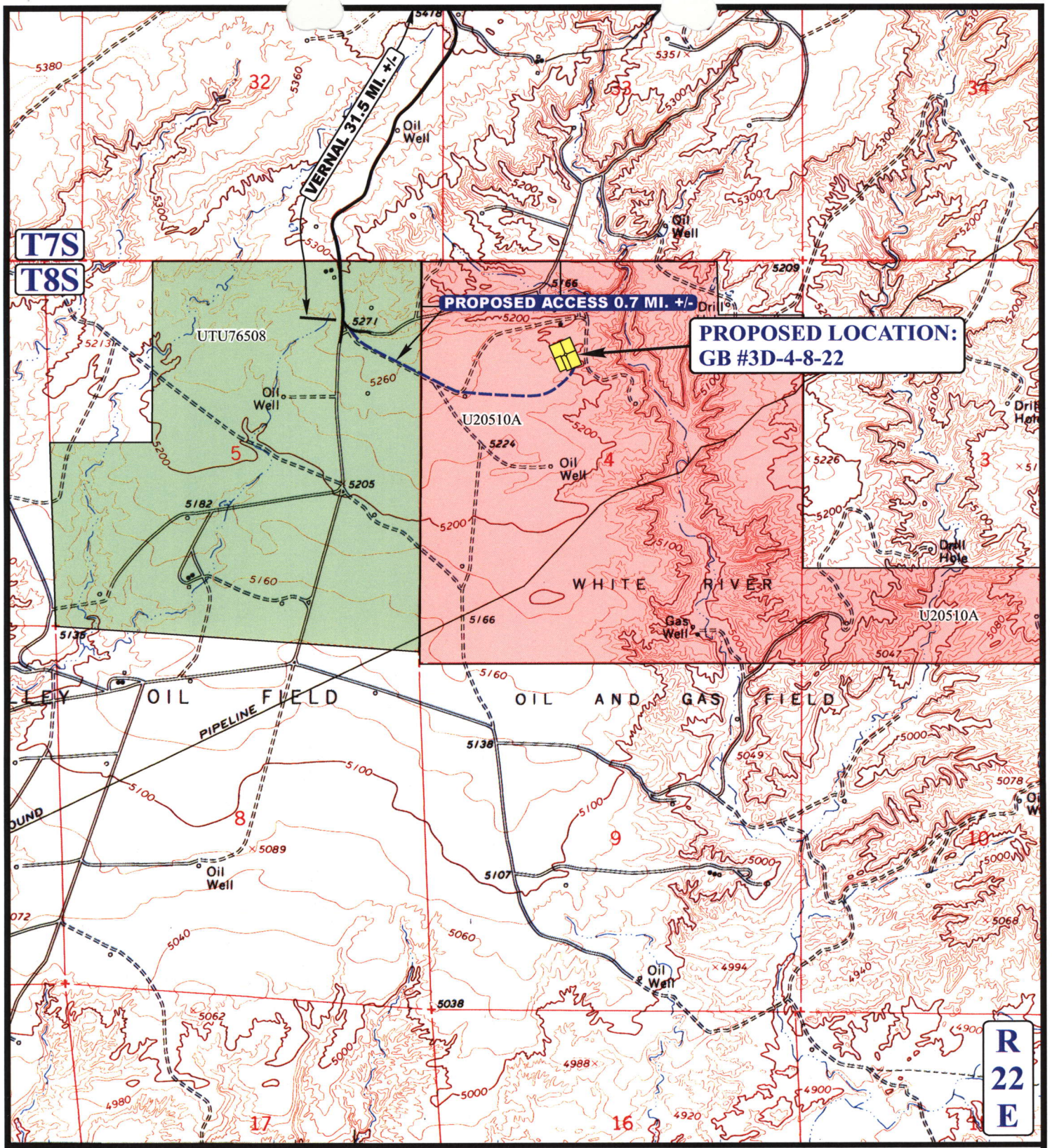
N

QUESTAR EXPLR. & PROD.

GB #3D-4-8-22
SECTION 4, T8S, R22E, S.L.B.&M.
1380' FNL 2126' FWL

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

TOPOGRAPHIC MAP	12 MONTH	07 DAY	07 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: Z.L.	REVISED: 00-00-00		



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

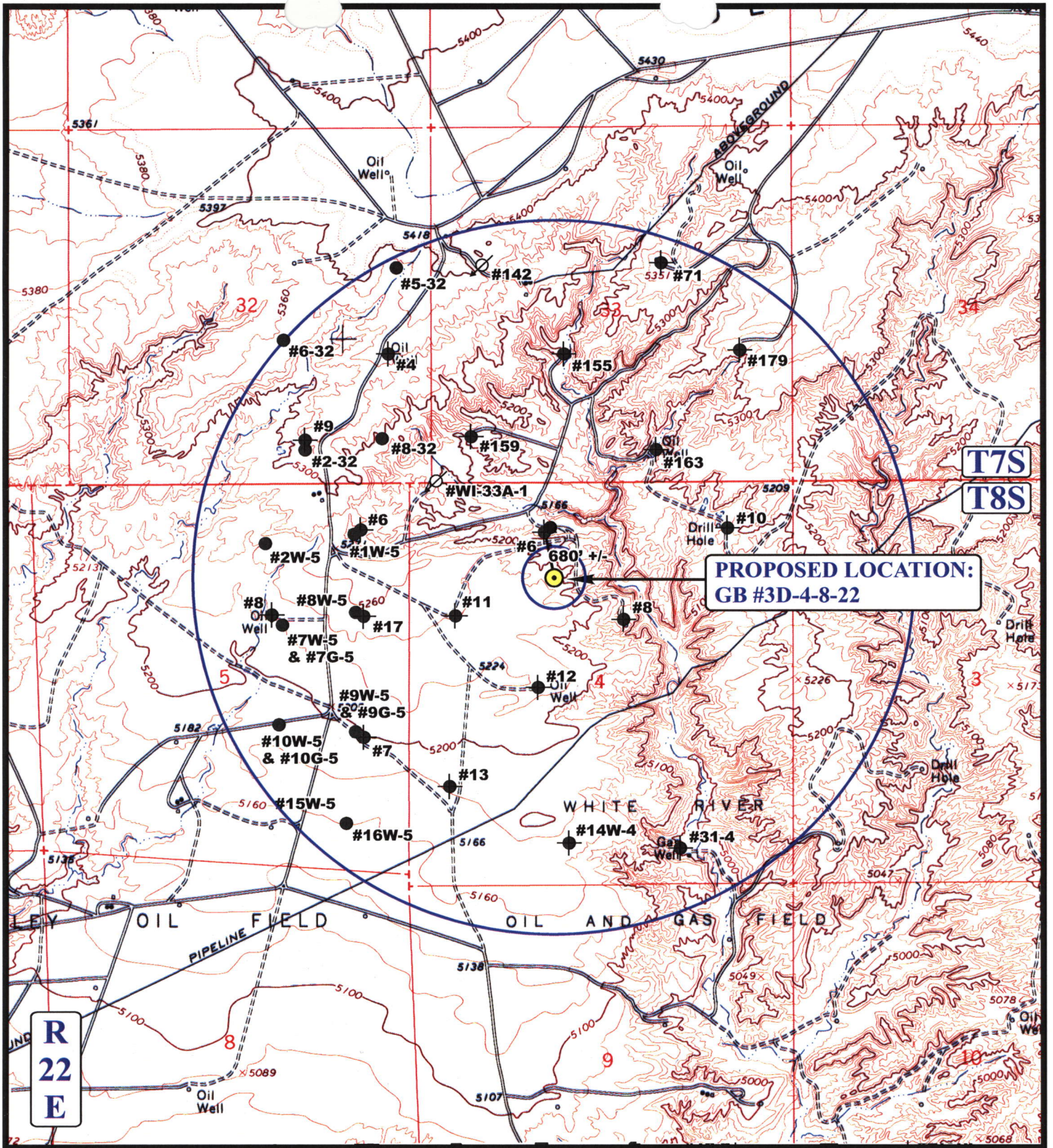
N

QUESTAR EXPLR. & PROD.

GB #3D-4-8-22
SECTION 4, T8S, R22E, S.L.B.&M.
1380' FNL 2126' FWL

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

TOPOGRAPHIC MAP	12 MONTH	07 DAY	07 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: Z.L.	REVISED: 00-00-00		



LEGEND:

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

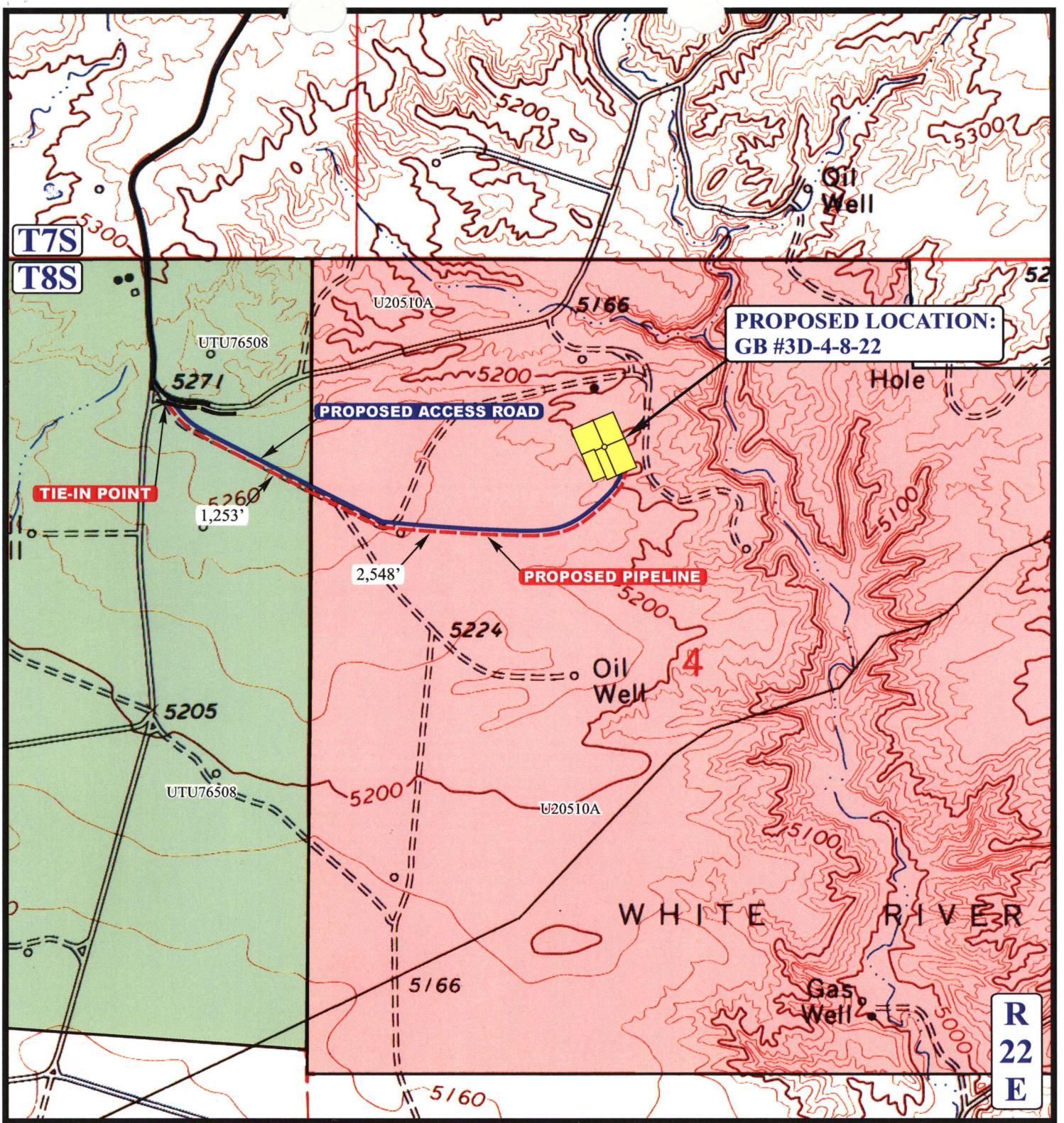
N

QUESTAR EXPLR. & PROD.

GB #3D-4-8-22
SECTION 4, T8S, R22E, S.L.B.&M.
1380' FNL 2126' FWL

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

TOPOGRAPHIC MAP	12 MONTH	07 DAY	07 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: Z.L.	REVISED: 00-00-00		



APPROXIMATE TOTAL PIPELINE DISTANCE = 3,801' +/-

LEGEND:

PROPOSED ACCESS ROAD
EXISTING PIPELINE
PROPOSED PIPELINE

N

QUESTAR EXPLR. & PROD.

GB #3D-4-8-22
SECTION 4, T8S, R22E, S.L.B.&M.
1380' FNL 2126' FWL

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

TOPOGRAPHIC MAP	12 MONTH	07 DAY	07 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: Z.L.	REVISED: 00-00-00		

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 06/09/2008

API NO. ASSIGNED: 43-047-40126

WELL NAME: GB 3D-4-8-22

OPERATOR: QUESTAR EXPLORATION & (N5085)

PHONE NUMBER: 435-781-4331

CONTACT: JAN NELSON

PROPOSED LOCATION:

LOT6 04 080S 220E

SURFACE: 1380 FNL 2126 FWL

BOTTOM: 1380 FNL 2126 FWL

COUNTY: UINTAH

LATITUDE: 40.15701 LONGITUDE: -109.4471

UTM SURF EASTINGS: 632255 NORTHINGS: 4446129

FIELD NAME: WHITE RIVER (705)

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-02510A

PROPOSED FORMATION: DKTA

SURFACE OWNER: 1 - Federal

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. ESB000024)

N Potash (Y/N)

N Oil Shale 190-5 (B) or 190-3 or 190-13

✓ Water Permit
(No. 49-2153)

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

N/A Fee Surf Agreement (Y/N)

N/A Intent to Commingle (Y/N)

LOCATION AND SITING:

___ R649-2-3.

Unit: WHITE RIVER * NON PA

___ R649-3-2. General

Siting: 460 From Qtr/Qtr & 920' Between Wells

___ R649-3-3. Exception

✓ Drilling Unit

Board Cause No: 187-08

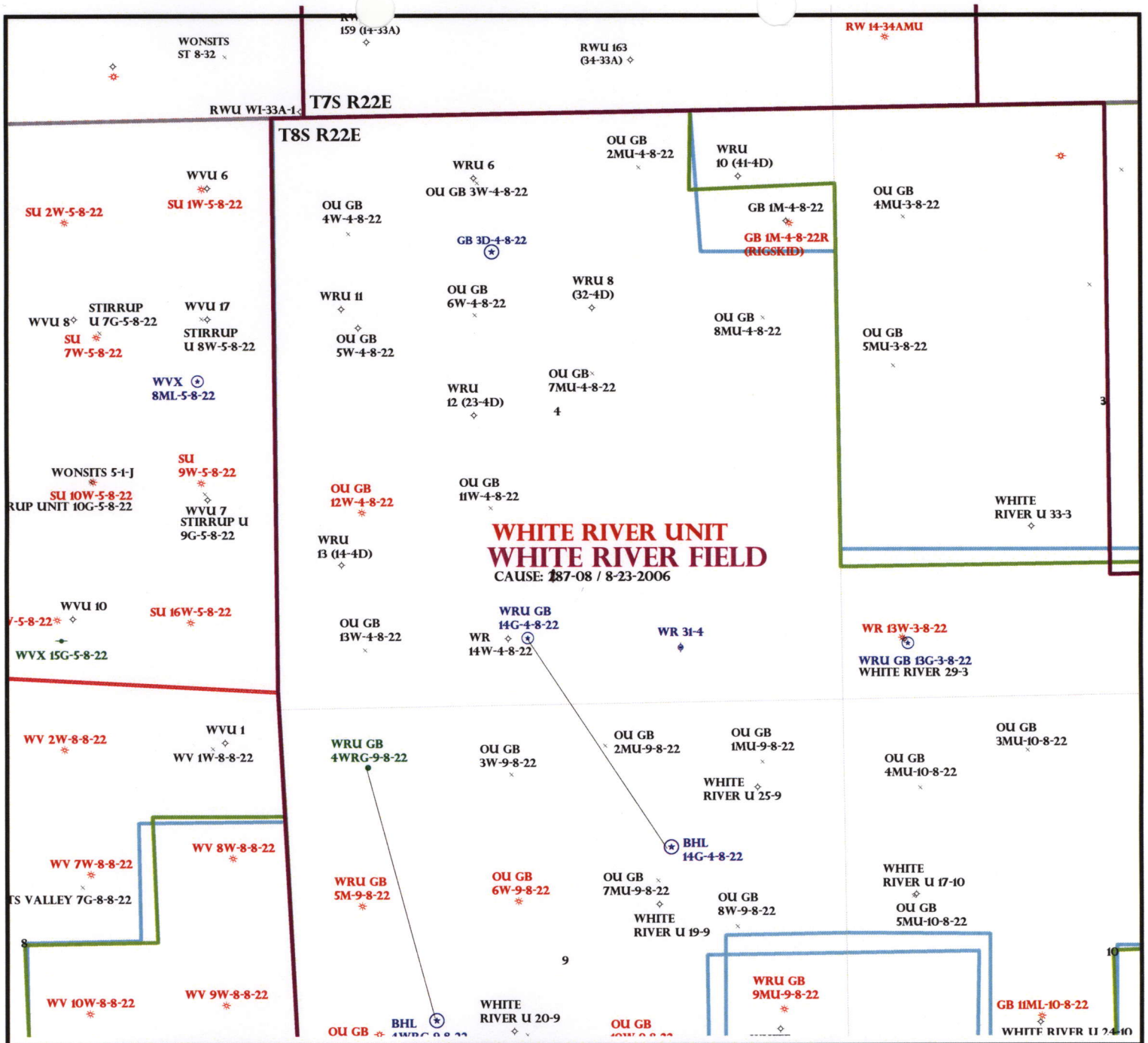
Eff Date: 8-23-2006

Siting: 460' fr unit boundary

___ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS: 1- Federal Approval



OPERATOR: QUESTAR EXPL & PROD (N5085)

SEC: 4 T.8S R. 22E

FIELD: WHITE RIVER (705)

COUNTY: UINTAH

CAUSE: 187-08 / 8-23-2006

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

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

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

UTAH DNR
OIL, GAS & MINING

N
W E
S

PREPARED BY: DIANA MASON
DATE: 10-JUNE-2008

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 and Mining

JOHN R. BAZA
Division Director

June 10, 2008

Questar Exploration & Production Company
11002 E 17500 S
Vernal, UT 84078

Re: GB 3D-4-8-22 Well, 1380' FNL, 2126' FWL, NE NW, Sec. 4, T. 8 South, R. 22 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 43-047-40126.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

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

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*

UTAH DNR OIL, GAS & MINING

Operator: Questar Exploration & Production Company

Well Name & Number GB 3D-4-8-22

API Number: 43-047-40126

Lease: UTU-02510A

Location: NE NW **Sec.** 4 **T.** 8 South **R.** 22 East

Conditions of Approval

1. General

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

2. Notification Requirements

   Notify the Division with 24 hours of spudding the well.

   - Contact Carol Daniels at (801) 538-5284.

   Notify the Division prior to commencing operations to plug and abandon the well.

   - Contact Dustin Doucet at (801) 538-5281 office (801) 733-0983 home

3. Reporting Requirements

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

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

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Vernal Field Office
170 South 500 East
Vernal, UT 84078
(435) 781-4400 Fax: (435) 781-4410
http://www.blm.gov/ut/st/en/fo/vernal/html

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
3160
UT-08300

June 30, 2008

Jan Nelson
Questar Uinta Basin, Inc.
11002 E 17500 S
Vernal, Utah 84078

43-047-40124 8S 22E 4

This letter provides written notification that the submitted Application for Permit to Drill (APD) is complete or contains deficiencies that need to be corrected. Any retained APD which is deficient must be brought to an acceptable level of completion within 45 days of the date of this notice or the APD will be returned unapproved.

NOTICE OF COMPLETENESS OR DEFICIENCIES FOR AN APD

Lease No.: **UTU-02510A** Well No.: GB 3D-4-8-22 APD Received Date: **06/06/08**

☐ I. APD IS COMPLETE AS SUBMITTED.

☒ II. APD IS DEFICIENT IN THE FOLLOWING AREA(S) [as marked]:

RECEIVED
AUG 0 5 2008
DIV. OF OIL, GAS & MINING

- ☐ A. Designation of Operator.
- ☐ B. Designation of Agent under _____ Unit Agreement.
- ☐ C. Bonding.
- ☐ D. Form 3160-3 is Incomplete.
- ☐ E. In conformance with CFR Onshore Order #1: Drilling Plan is Complete. **OR,**
- ☐ Drilling Plan is Deficient in the Following Area(s)
  - ☐ 1. Names and estimated tops of all geologic groups.
  - ☐ 2. Estimated depths at which the top and the bottom of anticipated water, oil, gas or other miner-bearing formations are expected to be encountered and the lessee's or operator's plans for protecting such resources.
  - ☒ 3. Blowout prevention equipment.
  - ☐ 4. Proposed Casing Program including size, grade, weight, type of thread and coupling.
  - ☐ 5. Estimated amount and type(s) of cement expected to be used.
  - ☐ 6. Type and Characteristics of the proposed circulation mediums for each wellbore section.
    - a) Air/gas drilling. Length of blooie line, compressor equipment location, mud/kill medium.
  - ☐ 7. Testing, logging, and coring procedures proposed.
  - ☐ 8. Expected bottom hole pressure. Any abnormal conditions.
  - ☐ 9. Other facets of the proposed operation.
    - a. For directional wells, proposed directional design, plan view, and vertical section in true vertical and measured depths.

☐ F. Surface Use and Operations Plan is Complete. **OR,**
☐ Surface Use and Operations Plan is Deficient in the Following Area(s)

- ☐ 1. Existing Roads.
- ☐ 2. Planned Access Road.
- ☐ 3. Location of Existing Wells.
- ☐ 4. Location of Existing and/or Proposed Facilities.
- ☐ 5. Location and Type of Water Supply.
- ☐ 6. Source of Construction Materials.
- ☐ 7. Methods for Handling Waste Disposal.
- ☐ 8. Ancillary Facilities.
- ☐ 9. Well Site Layout.
- ☐ 10. Plans for Restoration of Surface.
- ☐ 11. Surface Ownership
- ☐ 12. Other Additional Information.

☐ G. Operator Certification.

☐ H. Onsite Inspection.

☒ I. Other:

- ☒ 1. **Wrong lease # on maps**
- ☒ 2. **No field and pool on facepage**

☒ III. Other Information Needed:

- ☒ 1. **ROW's for Access and Pipeline needed**
- ☐ 2. _____

☐ IV. APD is retained. Processing will start upon receipt of further information as noted above.

☒ VI. APD is being processed. Final action is pending receipt of further information as noted above.

☐ VII. APD is being returned for the following reasons:

Please send a copy of this letter along with the corrected information to my attention.

If you have any questions regarding the processing of this APD, please contact me at (435) 781- 4429
.

Sincerely,

Johnetta Magee

Johnetta Magee
Legal Instruments Examiner

bcc: Well File
Reading File
Branch Chief, Lands & Surface Compliance

Form 3160-3
(July 1992)

RECEIVED
VERNAL FIELD OFFICE
2008 JUN 6 AM 10 45

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*

DEPT OF THE INTERIOR
BUREAU OF LAND MGMT

FORM APPROVED
OMB NO. 1040-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: UTU-02510A

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A

TYPE OF WORK: DRILL ☑ DEEPEN ☐

7. UNIT AGREEMENT NAME: N/A

TYPE OF WELL: ☐ OIL WELL ☑ GAS WELL ☐ OTHER — SINGLE ZONE ☑ MULTIPLE ZONE ☐

8. FARM OR LEASE NAME, WELL NO.: GB 3D-4-8-22

2. NAME OF OPERATOR: QUESTAR EXPLORATION & PRODUCTION COMPANY
Contact: Jan Nelson
E-Mail: jan.nelson@questar.com

9. API NUMBER: 43-047-40126

3. ADDRESS: 11002 E. 17500 S. Vernal, Ut 84078
Telphone number: Phone 435-781-4331 Fax 435-781-4323

10. FIELD AND POOL, OR WILDCAT: White River Field

4. LOCATION OF WELL (Report location clearly and in accordance with and State requirements*)
At Surface: 1380' FNL 2126' FWL, LOT 6, SECTION 4, T8S, R22E
At proposed production zone:

11. SEC.,T, R, M, OR BLK & SURVEY OR AREA: SEC.4, T8S, R22E Mer SLB

14. DISTANCE IN MILES FROM NEAREST TOWN OR POSTOFFICE*: 32 + / - SOUTHEAST OF VERNAL, UTAH

12. COUNTY OR PARISH: Uintah

13. STATE: UT

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (also to nearest drig,unit line if any): 1380' + / -

16. NO.OF ACRES IN LEASE: 907.83

17. NO. OF ACRES ASSIGNED TO THIS WELL: 40

18. DISTANCE FROM PROPOSED location to nearest well, drilling, completed, applied for, on this lease, ft: 680' +/-

19. PROPOSED DEPTH: 17,332'

20. BLM/BIA Bond No. on file: ESB000024

21. ELEVATIONS (Show whether DF, RT, GR, ect.): 5207.1' GR

22. DATE WORK WILL START: ASAP

23. Estimated duration: 75 days

24. Attachments

The following,completed in accordance with the requirments of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan
3. A surface Use Plan (if location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an exisiting bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

SIGNED Jan Nelson Name (printed/typed) Jan Nelson DATE 06/05/2008

TITLE Regulatory Affairs

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

RECEIVED
AUG 21 2008
DIV. OF OIL, GAS & MINING

Application approval does not warrant or certify the applicant holds any legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY _____ TITLE Assistant Field Manager Lands & Mineral Resources DATE AUG 13 2008

*See Instructions On Reverse Side

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

VERNAL FIELD OFFICE

NOTICE OF APPROVAL

CONFIDENTIAL
CONDITIONS OF APPROVAL ATTACHED

08PP0551A UDOGM NOS 3/10/08

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE
170 South 500 East VERNAL, UT 84078 (435) 781-4400

CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company:	**Questar Exploration & Production Co.**	**Location:**	**Lot 6, Sec. 4, T8S, R22E**
Well No:	**GB 3D-4-8-22**	**Lease No:**	**UTU-02510A**
API No:	**43-047-40126**	**Agreement:**	**N/A**

Title	Name	Office Phone Number	Cell Phone Number
Petroleum Engineer:	Matt Baker	(435) 781-4490	(435) 828-4470
Petroleum Engineer:	Michael Lee	(435) 781-4432	(435) 828-7875
Petroleum Engineer:	James Ashley	(435) 781-4470	(435) 828-7874
Petroleum Engineer:	Ryan Angus	(435) 781-4430	(435) 828-7368
Supervisory Petroleum Technician:	Jamie Sparger	(435) 781-4502	(435) 828-3913
NRS/Enviro Scientist:	Paul Buhler	(435) 781-4475	(435) 828-4029
NRS/Enviro Scientist:	Karl Wright	(435) 781-4484	(435) 828-7381
NRS/Enviro Scientist:	Holly Villa	(435) 781-4404	
NRS/Enviro Scientist:		(435) 781-4476	
NRS/Enviro Scientist:	Chuck Macdonald	(435) 781-4441	(435) 828-7481
NRS/Enviro Scientist:	Jannice Cutler	(435) 781-3400	(435) 828-3544
NRS/Enviro Scientist:	Michael Cutler	(435) 781-3401	(435) 828-3546
NRS/Enviro Scientist:	Anna Figueroa	(435) 781-3407	(435) 828-3548
NRS/Enviro Scientist:	Verlyn Pindell	(435) 781-3402	(435) 828-3547
NRS/Enviro Scientist:	Darren Williams	(435) 781-4447	
NRS/Enviro Scientist:	Nathan Packer	(435) 781-3405	(435) 828-3545
		Fax: (435) 781-3420	

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.

- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

- During operations, if any vertebrate paleontological resources are discovered, all operations affecting such sites shall be immediately suspended, and all discoveries shall be left intact until authorized to proceed by the Authorized Officer. The appropriate Authorized Officer of the Vernal BLM office shall be notified within 48 hrs of the discovery, and a decision as to the preferred alternative/course of action will be rendered.

SITE SPECIFIC CONDITIONS OF APPROVAL

- As in the APD the applicant has committed not construct or drill from March 1 to August 31 in order to help protect burrowing owls while they are nesting.

- As in the APD the applicant has committed to round corner 8 of the location as much as possible.

DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- A formation integrity test shall be performed before drilling more than twenty feet below the casing shoe on the 9 5/8" intermediate casing and 7" intermediate casing.
- The top of the 9 5/8" intermediate casing cement shall extend a minimum of 200 feet above the surface casing shoe.
- The top of the 7" intermediate casing cement shall extend a minimum of 200 feet above the 9 5/8" intermediate casing shoe.
- The top of the production casing cement shall extend a minimum of 500 feet above the 7" casing shoe.
- Logging program: run Gamma Ray to surface.
- Variances Granted:
    - Air Drilling:
- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 50' to 70' from the well bore.
- Automatic igniter or continuous pilot light on the blooie line and dust suppression equipment. Variance granted for water injected into the compressed air to substitute for the pilot light and dust suppression equipment.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck mounted air compressor located within 50 feet from the well bore on the opposite side from the blooie line.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.

- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.

- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.

- No aggressive/fresh hard-banded drill pipe shall be used within casing.

- **Cement baskets shall not be run on surface casing.**

- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.

- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

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

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

- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.

- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:

    - Operator name, address, and telephone number.

    - Well name and number.

    - Well location (¼¼, Sec., Twn, Rng, and P.M.).

    - Date well was placed in a producing status (date of first production for which royalty will be paid).

    - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).

    - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.

    - Unit agreement and/or participating area name and number, if applicable.

    - Communitization agreement number, if applicable.

- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.

- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.

- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.

- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.

- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.

- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.

- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

CONFIDENTIAL

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **QUESTAR EXPL & PROD COMPANY**

Well Name: **GB 3D-4-8-22**

Api No: **43-047-40126** Lease Type: **FEDERAL**

Section **04** Township **08S** Range **22E** County **UINTAH**

Drilling Contractor **PETE MARTIN DRLG** RIG # **RATHOLE**

SPUDDED:

Date **08/28/08**

Time **10:00 AM**

How **DRY**

Drilling will Commence:

Reported by **KERRY SALES**

Telephone # **(435) 828-0339**

Date **08/28/08** **Signed** **CHD**

p+A

CONFIDENTIAL

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or reenter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other Instructions on reverse side

5. Lease Serial No.
UTU-02510A

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
N/A

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
GB 3D-4-8-22

2. Name of Operator
QUESTAR EXPLORATION & PRODUCTION COMPANY

9. API Well No.
43-047-40126

3a. Address
11002 East 17500 South, Vernal, UT 84078

3b. Phone No. *(include area code)*
435-781-4331

10. Field and Pool, or Exploratory Area
WHITE RIVER

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
1380' FNL 2126' FWL, LOT 6, SECTION 4, T8S, R22E

11. County or Parish, State
Uintah, Utah

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☒ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☑ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

On August 29, 2008, Questar Exploration & Production (QEP) drilled to the depth of 40 feet with a dry hole bucket rig. The core barrel got stuck in the hole. After numerous tries to free the stuck barrel it was determined to pull off core barrel and abandon the hole.

On August 30, 2008, QEP poured 10 feet of cement on top of the abandoned core barrel then filled the rest of hole with gravel.

QEP has filed for a new APD for the replacement well.

RECEIVED
SEP 03 2008
DIV. OF OIL, GAS & MINING

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

Name *(Printed/Typed)*	Title
Jan Nelson	Regulatory Affairs
Signature: Jan Nelson	Date: September 3, 2008

THIS SPACE FOR FEDERAL OR STATE USE

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

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

(Instructions on reverse)

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.: UTU-02510A

6. If Indian, Allottee or Tribe Name: N/A

SUBMIT IN TRIPLICATE

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

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

8. Well Name and No.: GB 3D 4 8 22

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

9. API Well No.: 43-047-40126

3. Address and Telephone No.: 11002 EAST 17500 SOUTH - VERNAL, UT 84078
Contact: Dahn.Caldwell@questar.com
435-781-4342 Fax 435-781-4357

10. Field and Pool, or Exploratory Area: WHITE RIVER

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1380' FNL, 2126' FWL, LOT 6, SEC 4-T8S-R22E

11. County or Parish, State: UINTAH

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 8/29/08 - Drilled 40' of 26" conductor hole. Set 40' of 20" conductor pipe.

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 Administator II Date 9/2/08

(This space for Federal or State office use)

Approved by: Title Date

Conditions of approval, if any

CONFIDENTIAL

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RECEIVED
SEP 09 2008
DIV. OF OIL, GAS & MINING

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

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SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
UTU-02510A

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA/Agreement, Name and/or No.
N/A

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
GB 3D-4-8-22

2. Name of Operator
QUESTAR EXPLORATION & PRODUCTION COMPANY

9. API Well No.
43-047-40126

3a. Address
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3b. Phone No. *(include area code)*
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10. Field and Pool, or Exploratory Area
WHITE RIVER

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
1380' FNL 2126' FWL, LOT 6, SECTION 4, T8S, R22E

11. County or Parish, State
Uintah, Utah

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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

On August 29, 2008, Questar Exploration & Production (QEP) drilled to the depth of 40 feet with a dry hole bucket rig. The core barrel got stuck in the hole. After numerous tries to free the stuck barrel it was determined to pull off core barrel and abandon the hole.

On August 30, 2008, QEP poured 10 feet of cement on top of the abandoned core barrel then filled the rest of hole with gravel.

QEP has filed for a new APD for the replacement well.

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

Name *(Printed/Typed)*
Jan Nelson

Title
Regulatory Affairs

Signature
Jan Nelson

Date
September 3, 2008

THIS SPACE FOR FEDERAL OR STATE USE

Approved by

Title

Date

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

Office

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

(Instructions on reverse)

RECEIVED
SEP 09 2008
DIV. OF OIL, GAS & MINING

State of Utah
Division of Oil, Gas and Mining

ENTITY ACTION FORM - FORM 6

OPERATOR ACCT. No. N-5085

OPERATOR: **Questar Exploration & Production Co.**
ADDRESS: **11002 East 17500 South**
Vernal, Utah 84078 (435)781-4342

Action Code	Current Entity No.	New Entity No.	API Number	Well Name	QQ	SC	TP	RG	County	Spud Date	Effective Date
A	99999	17099	43-047-40126	GB 3D 4 8 22	NENW	4	8S	22	Uintah	8/29/08	9/25/08

WELL 1 COMMENTS: DKTA PA rigskid to 43-047-40345

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WELL 2 COMMENTS:

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

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

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

(3/89)

Signature

Office Administrator II 9/2/08
Title Date

Phone No. (435)781-4342

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