KerrMcGee

Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80127

November 20, 2008

Mrs. Diana Mason
Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11
NBU 1022-2A3S
T10S R22E
Section 2: NENE
NENE, 206' FNL, 857' FEL (surface)
NENE, 680' FNL, 820' FEL (bottom hole)
Uintah County, Utah

Dear Mrs. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-2A3S is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore (State lease UT ST ML 22651, and Federal Lease USA Utu 010954-a).

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

James C. Colligan III
Landman

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

FORM 3

AMENDED REPORT ☐
(highlight changes)

APPLICATION FOR PERMIT TO DRILL

5. MINERAL LEASE NO: ST ML 22651	6. SURFACE: State
1A. TYPE OF WORK: DRILL ☑ REENTER ☐ DEEPEN ☐	7. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
B. TYPE OF WELL: OIL ☐ GAS ☑ OTHER _____ SINGLE ZONE ☐ MULTIPLE ZONE ☑	8. UNIT or CA AGREEMENT NAME: UTU-63047A
2. NAME OF OPERATOR: Kerr-McGee Oil & Gas Onshore, LP	9. WELL NAME and NUMBER: NBU 1022-2A3S
3. ADDRESS OF OPERATOR: P.O. Box 173779 CITY Denver STATE CO ZIP 80217-3779 PHONE NUMBER: (720) 929-6226	10. FIELD AND POOL, OR WILDCAT: Natural Buttes Field
4. LOCATION OF WELL (FOOTAGES) 636603X 4427070Y 39.984658 -109.400117 AT SURFACE: 206' FNL & 857' FEL LAT 39.984719 LON -109.400086 (NAD 27) AT PROPOSED PRODUCING ZONE: NENE 680' FNL & 820' FEL, Sec. 2, T10S, R22E 636616X 4426926Y 39.983361 -109.399988	11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 2 10S 22E
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 24.6 miles southwest of Ouray, Utah	12. COUNTY: Uintah / 13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET): 207'	16. NUMBER OF ACRES IN LEASE: 620.25 / 17. NUMBER OF ACRES ASSIGNED TO THIS WELL: Unit Well
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET): 20'	19. PROPOSED DEPTH: 8,661 / 20. BOND DESCRIPTION: 22013542
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 4974' GR	22. APPROXIMATE DATE WORK WILL START: / 23. ESTIMATED DURATION: 10 days

24. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT			
12.25	9.625 J-55 36#	1900 ~~4,700~~	Premium Cement	215	1.18	15.6
			Premium Cement	50	1.18	15.6
7.875	4.5 I-80 11.6#	8,661	Premium Lite II	350	3.38	11.0
			50/50 Poz G	1220	1.31	14.3

25. ATTACHMENTS

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

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

NAME (PLEASE PRINT) Kevin McIntyre TITLE Regulatory Analyst

SIGNATURE [signature] DATE 11/6/2008

(This space for State use only)

API NUMBER ASSIGNED: 43-047-40432

Approved by the
Utah Division of
Oil, Gas and Mining

APPROVAL:

Date: 02-02-09

By: [signature]

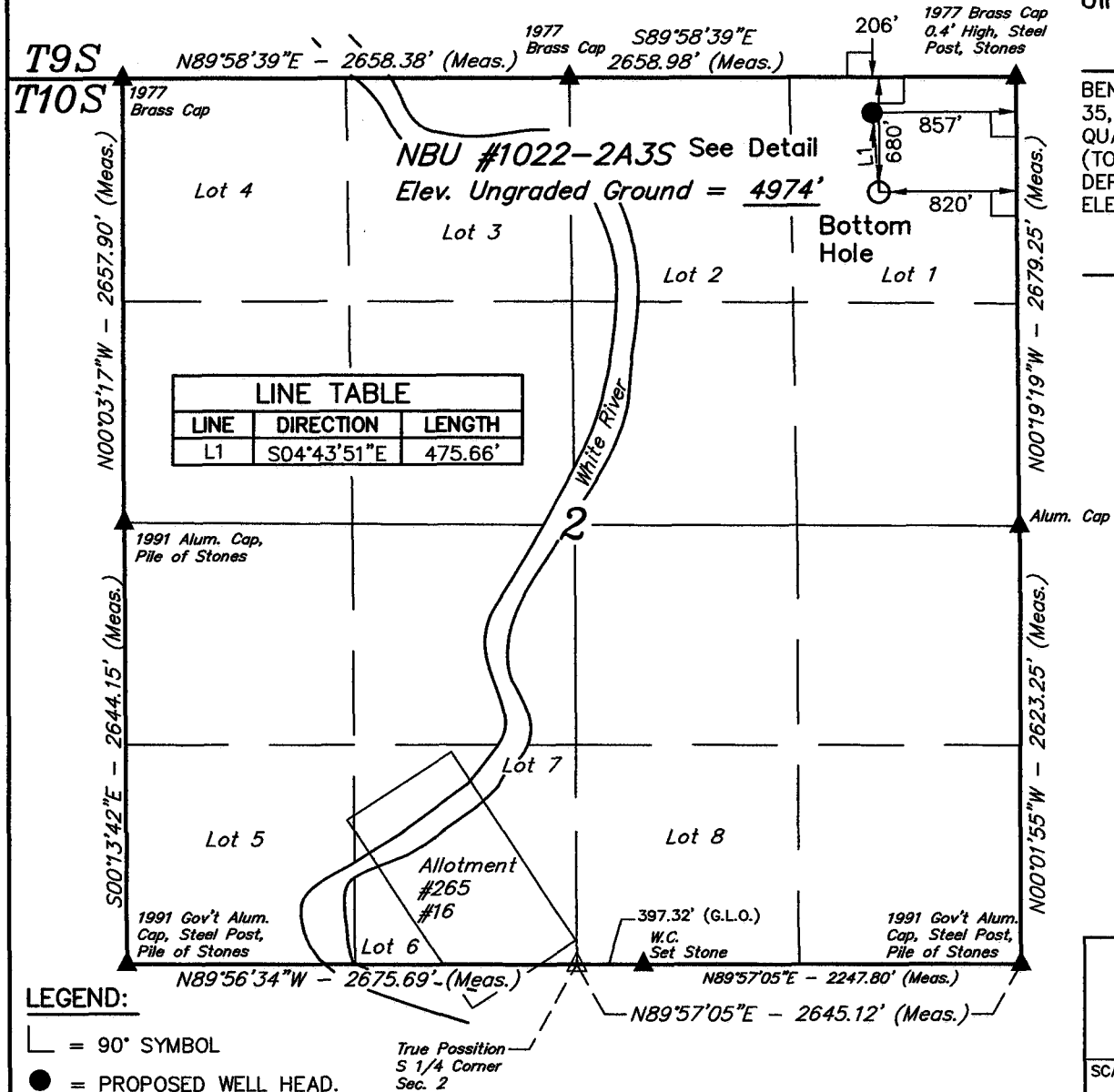
RECEIVED
DEC 01 2008
DIV. OF OIL, GAS & MINING

(11/2001) (See Instructions on Reverse Side)

T10S, R22E, S.L.B.&M.

Kerr-McGee Oil & Gas Onshore LP

Well location, NBU #1022-2A3S, located as shown in Lot 1 of Section 2, T10S, R22E, S.L.B.&M., Uintah County, Utah.



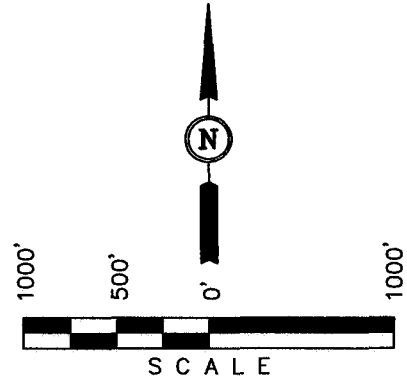
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S04°43'51"E	475.66'

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 SERIES (TOPOGRAPHICAL 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
No. 161319
ROBERT L. KAY
REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH
STATE OF UTAH

LEGEND:

- └ = 90° SYMBOL
- ● = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground.)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 39°59'00.18" (39.983383)	LATITUDE = 39°59'04.67" (39.984686)
LONGITUDE = 109°24'02.26" (109.400628)	LONGITUDE = 109°24'02.76" (109.400767)
NAD 27 (TARGET BOTTOM HOLE)	**NAD 27 (SURFACE LOCATION)**
LATITUDE = 39°59'00.30" (39.983417)	LATITUDE = 39°59'04.99" (39.984719)
LONGITUDE = 109°23'59.81" (109.399947)	LONGITUDE = 109°24'00.31" (109.400086)

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

SCALE: 1" = 1000'	DATE SURVEYED: 06-13-08	DATE DRAWN: 07-10-08
PARTY: L.K. D.D. C.H.	REFERENCES: G.L.O. PLAT	
WEATHER: HOT	FILE: Kerr-McGee Oil & Gas Onshore LP	

NBU 1022-2A3S
Twin to CIGE #67D
NENE Sec. 2, T10S,R22E
UINTAH COUNTY, UTAH
ST ML 22651

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. **Estimated Tops of Important Geologic Markers:**

Formation	Depth
Uinta	0- Surface
Green River	1127'
Birds Nest	1364'
Mahogany	1878'
Wasatch	4179'
Mesaverde	6470'
MVU2	7371'
MVL1	7962'
TVD	8600'
TD	8661'

2. **Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:**

Substance	Formation	Depth
	Green River	1127'
Water	Birds Nest	1364'
Water	Mahogany	1878'
Gas	Wasatch	4179'
Gas	Mesaverde	6470'
Gas	MVU2	7371'
Gas	MVL1	7962'
Water	N/A	
Other Minerals	N/A	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program.

6. **Evaluation Program:**

Please refer to the attached Drilling Program.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 8661' TD, approximately equals 5370 psi (calculated at 0.62 psi/foot). psi 5332 @ 8600 TVD

Maximum anticipated surface pressure equals approximately 3465 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please refer to the attached Drilling Program.
Onshore Order #2 – Air Drilling Variance
Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background
In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement

conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements
The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements
Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements
Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the

air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

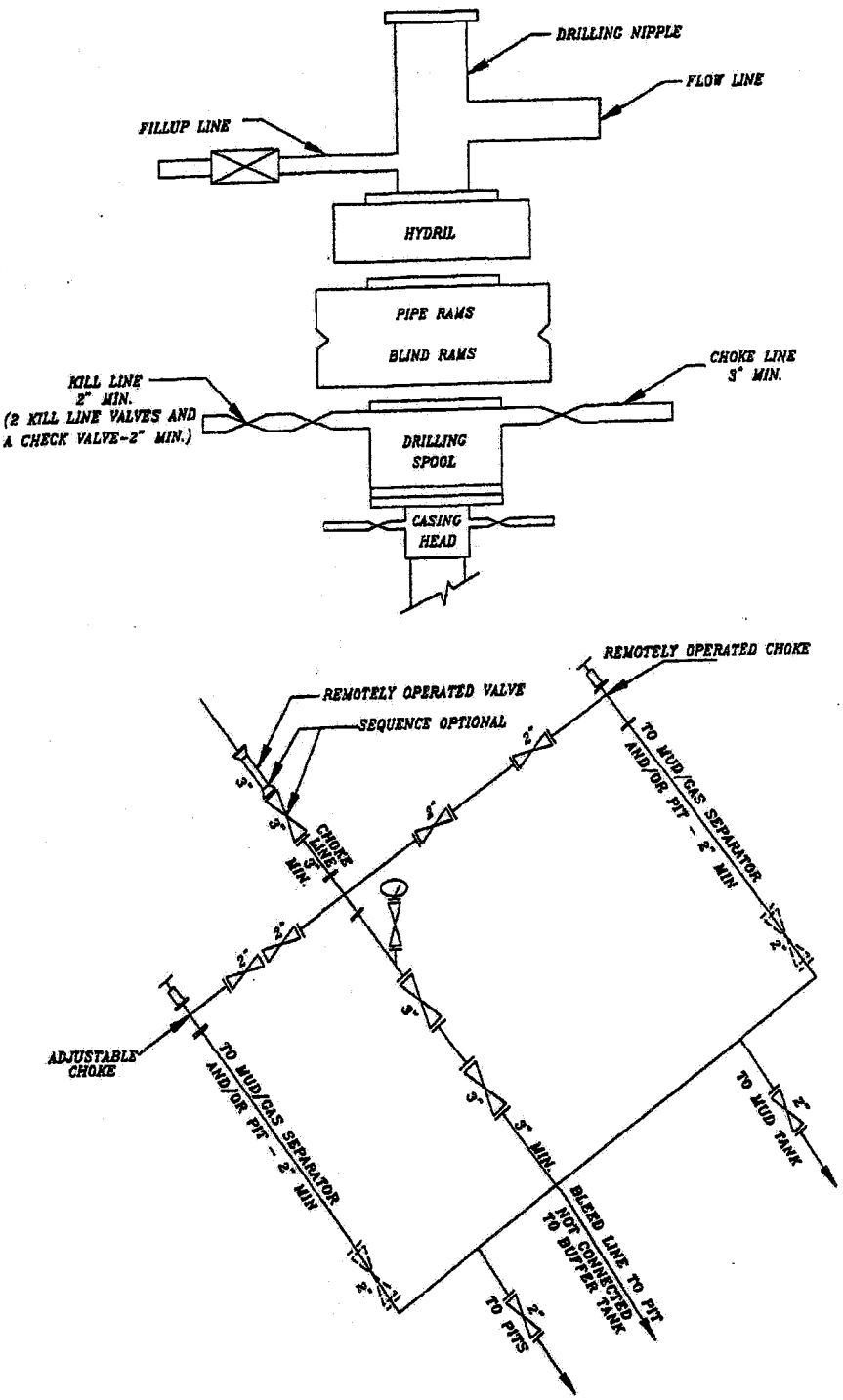
Conclusion
The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.

NBU 1022-2A3S

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

NBU 1022-2A3S
Twin to CIGE #67D
NENE SEC. 2, T10S, R22E
UINTAH COUNTY, UTAH
ST ML 22651

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

Directional Drilling:

In accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. **Existing Roads:**

Refer to Topo Map A for directions to the location.

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

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

All existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.

2. **Planned Access Roads:**

Approximately 0.1 mi. +/- of access road is proposed. Refer to Topo Map B.

The upgraded and new portions of the access road will be crowned and ditched with a running surface of 18 feet and a maximum disturbed width of 30 feet. Appropriate water control will be installed to control erosion.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site.

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

Surface disturbance and vehicular traffic will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

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

Please refer to Topo Map C.

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

The following guidelines will apply if the well is productive.

All production facilities will be located on the disturbed portion of the well pad and at a minimum of 25 feet from the toe of the back slope or the top of the fill slope.

A dike will be constructed completely around those production facilities which contain fluids (i.e., production tanks, produced water tanks, and/or heater/treater). These dikes will be constructed of compacted subsoil, be impervious, hold 100% of the capacity of the largest tank, and be independent of the back cut.

All permanent (on-site six months or longer) above the ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earthtone color to match one of the standard environmental colors, as determined by the five state Rocky Mountain Inter-Agency Committee.

All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded. The required color is Shadow Gray, a non-reflective earthtone.

Any necessary pits will be properly fenced to protect livestock and prevent wildlife entry.

No new pipeline utilizing the existing CIGE #67D pipeline. No TOPO D attached.

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

Water for drilling purposes will be obtained from Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32, T4S, R3E, Water User Claim #43-8496, Application #53617.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

6. **Source of Construction Materials:**

Surface and subsoil materials in the immediate area will be utilized.

Any gravel will be obtained from a commercial source.

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

Drill cuttings will be contained and buried in the reserve pit.

Drilling fluids, including salts and chemicals, will be contained in the reserve pit. Upon termination of drilling and completion operations, the liquid contents of the reserve pit will be removed and disposed of at an approved waste disposal facility within 120 days after drilling is terminated.

The reserve pit will be constructed on the location and will not be located within natural drainage, where a flood hazard exists or surface runoff will destroy or damage the pit walls. The reserve pit will be constructed so that it will not leak, break, or allow discharge of liquids.

A plastic reinforced liner and felt will be used, it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with

dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit.

Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

A chemical porta-toilet will be furnished with the drilling rig.

Garbage, trash, and other waste materials will be collected in a portable, self-contained, fully enclosed trash cage during operations. No trash will be burned on location.

All debris and other waste material not contained in the trash cage will be cleaned up and removed from the location immediately after removal of the drilling rig.

Any open pits will be fenced during the operations. The fencing will be maintained until such time as the pits are backfilled.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling of this well.

Any produced water from the proposed well will be contained in a water tank and will then be hauled By truck to one of the pre-approved disposal sites: RNI, Sec. 5, T9S, R22E, NBU #159, Sec. 35, T9S, R21E, Ace Oilfield, Sec. 2, T6S, R20E, MC&MC, Sec. 12, T6S, R19E, Pipeline Facility, Sec. 36, T9S, R20E, Goat Pasture Evaporation Pond, SW/4 Sec. 16, T10S, R22E, Bonanza Evaporation Pond, Sec. 2, T10S, R23E.

8. **Ancillary Facilities:**

None are anticipated.

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.

The reserve pit will be lined, and when the reserve pit is closed, the pit liner will be buried below plow depth.

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

39 inch net wire will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.

The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.

Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance

between any 2 fence posts shall be no greater than 16 feet.

All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

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

Location size may change prior to the drilling of the well due to current rig availability. If the proposed location is not large enough to accommodate the drilling rig the location will be re-surveyed and a Form 9 shall be submitted.

10. Plans for Reclamation of the Surface:

Producing Location:

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

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

A plastic, nylon reinforced liner will be used, it shall be torn and perforated before backfilling of the reserve pit.

Before any dirt work associated with location restoration takes place, the reserve pit shall be as dry as possible. All debris in it will be removed. Other waste and spoil materials will be disposed of immediately upon completion of operations.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximate natural contours. The reserve pit will be reclaimed within 90 days from the date of well completion, weather permitting.

To prevent surface water (s) from standing (ponding) on the reclaimed reserve pit area, final reclamation of the reserve pit will consist of "mounding" the surface three feet above surrounding ground surface to allow the reclaimed pit area to drain effectively.

Upon completion of backfilling, leveling, and recontouring, the stockpiled topsoil will be spread evenly over the reclaimed area(s).

Dry Hole/Abandoned Location:

Abandoned well sites, roads, and other disturbed areas will be restored as near as practical to their original condition. Where applicable, these conditions include the re-establishment of irrigation systems, the re-establishment of appropriate soil conditions, and re-establishment of vegetation as specified.

All disturbed surfaces will be recontoured to the approximate natural contours, with reclamation of the well pad and access road to be performed as soon as practical after final abandonment. Reseeding operations will be performed after completion of other reclamation operations.

11. Surface/Mineral Ownership:

SITLA
675 East 500 South, Suite 500
Salt Lake City, UT 84102

12. Other Information:

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, the approved Plan of Operations, and any applicable Notice of Lessees. The Operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

The Operator will control noxious weeds along Rights-Of-Way for roads, pipelines, well sites, or other applicable facilities.

A Class III archaeological survey will be submitted when report becomes available.

This location is not within 460' from the boundary of the Natural Buttes Unit, nor is it within 460' of any non-committed tract lying within the boundaries of the Unit.

13. Lessee's or Operators's Representative & Certification:

Kevin McIntyre
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
P.O. Box 173779
Denver, CO 80217-3779
(720) 929-6226

Randy Bayne
Drilling Manager
Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, UT 84078
(435)781-7018

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 and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its 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.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by State Surety Bond 22013542.

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

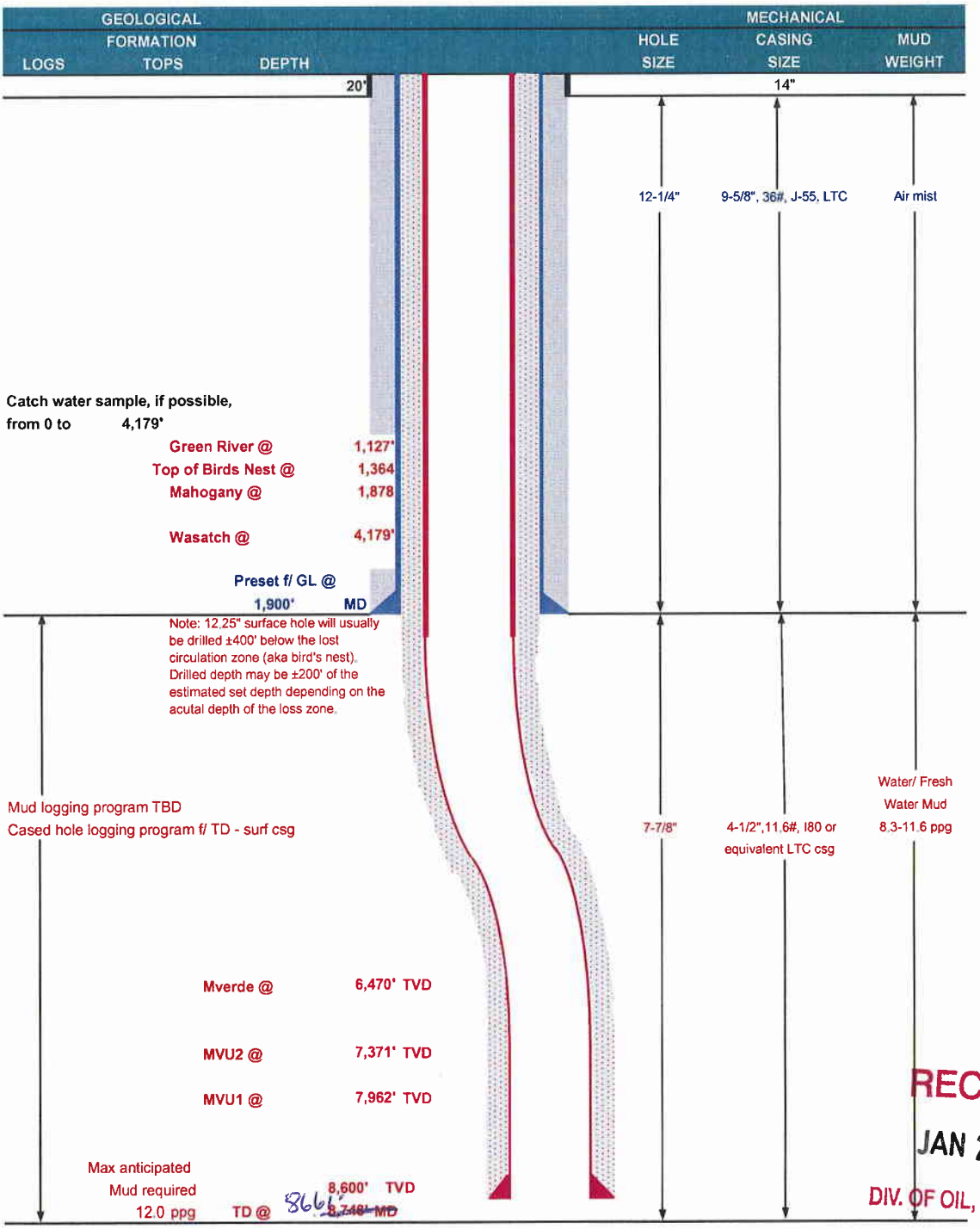
Kevin McIntyre

11/06/2008
Date

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	January 22, 2009
WELL NAME	**NBU 1022-2A3S**	TD	8,600' TVD 8,661' MD
FIELD	Natural Buttes	COUNTY Uintah STATE Utah	ELEVATION 4,974' GL KB 4,989'
SURFACE LOCATION	NENE 206' FNL & 857' FEL, Sec. 2, T 10S R 22E (Lot 1)		
	Latitude: 39.984719 Longitude: -109.400086		NAD 27
BTM HOLE LOCATION	NENE 680' FNL & 820' FEL, Sec. 2, T 10S R 22E (Lot 1)		
	Latitude: 39.983417 Longitude: -109.399947		NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde		
ADDITIONAL INFO	Regulatory Agencies: UDOGM (Minerals & Surface), BLM, Tri-County Health Dept.		



RECEIVED
JAN 22 2009
DIV. OF OIL, GAS & MINING

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL			WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'								
								3520	2020	453000
SURFACE	9-5/8"	0	to	1900	36.00	J-55	LTC	1.01	2.27	8.43
								7780	6350	201000
PRODUCTION	4-1/2"	0	to	8661	11.60	I-80	LTC	2.22	1.17	2.29

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)

2) MASP (Prod Casing) = Pore Pressure at TD - (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.0 ppg) .22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3465 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2	LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite	360	35%	12.60	1.81
			+.25 pps Flocele + 3% salt BWOW				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ .25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,671'	Premium Lite II + 3% KCl + 0.25 pps	350	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	4,990'	50/50 Poz/G + 10% salt + 2% gel	1220	40%	14.30	1.31
			+.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint to top of tail cement with bow spring centralizers.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder & tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper & lower kelly valves.

Drop Totco surveys every 2000'. Maximum allowable hole angle is 5 degrees.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ DATE: _____

Brad Laney

DRILLING SUPERINTENDENT: _____ DATE: _____

Randy Bayne

Kerr McGee Oil And Gas Company, L.P.

NBU #1022-2A2T, #1022-2B2S, #1022-2A3S, #1022-2A4S

LOCATED IN UINTAH COUNTY, UTAH
SECTION 2, T10S, R22E, S.L.B.&M.

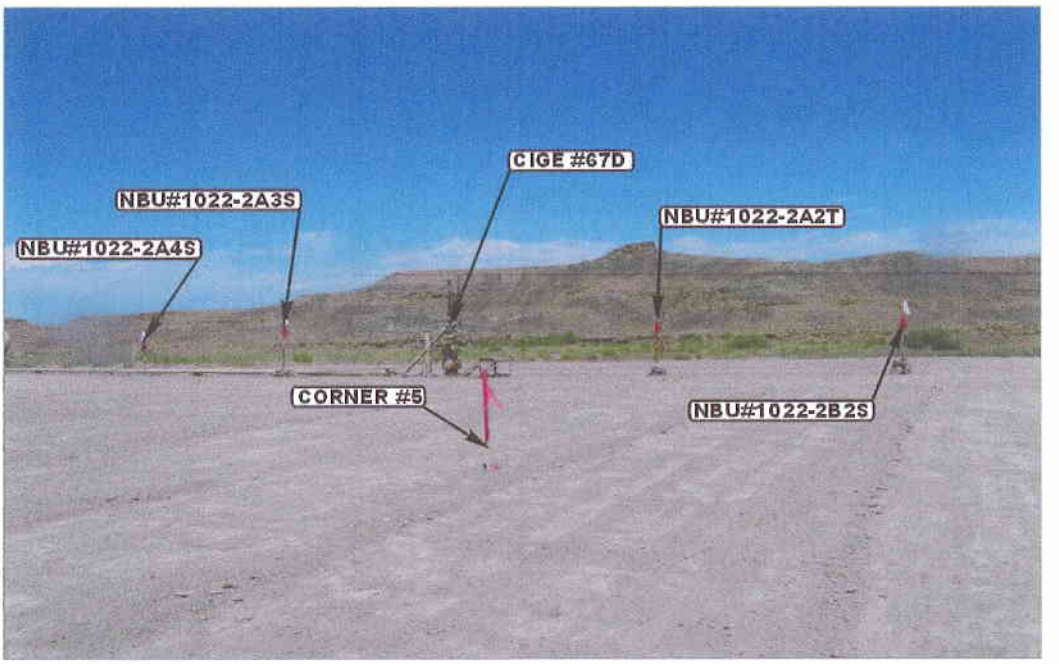


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES — CAMERA ANGLE: NORTHERLY

PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS — CAMERA ANGLE: NORTHWESTERLY

- Since 1964 -

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

LOCATION PHOTOS	07 MONTH	17 DAY	08 YEAR	PHOTO
TAKEN BY: L.K.	DRAWN BY: J.C.	REV: 09-17-08 J.J.		

Kerr-McGee Oil & Gas Onshore LP

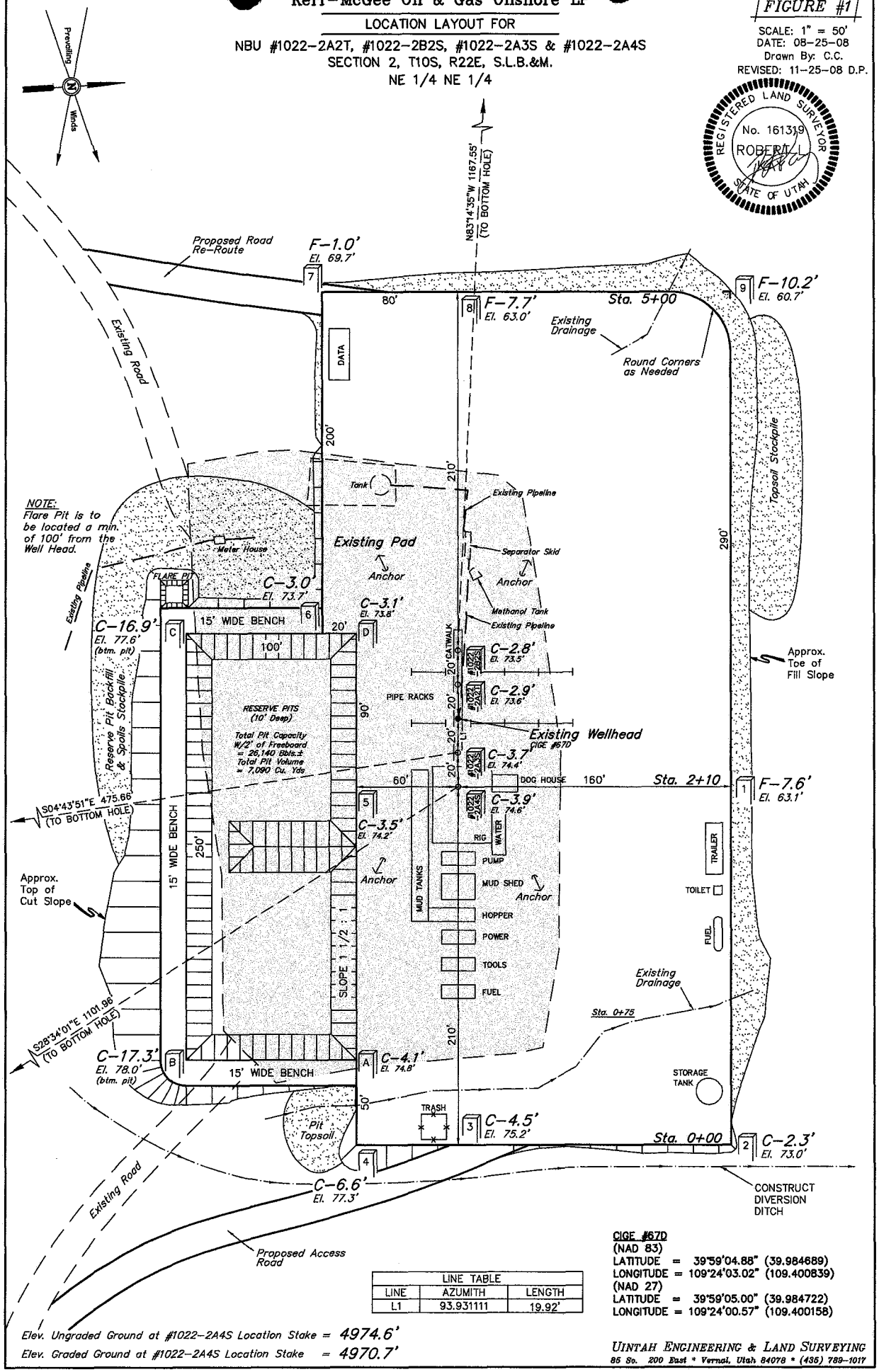
LOCATION LAYOUT FOR

NBU #1022-2A2T, #1022-2B2S, #1022-2A3S & #1022-2A4S
SECTION 2, T10S, R22E, S.L.B.&M.
NE 1/4 NE 1/4

FIGURE #1

SCALE: 1" = 50'
DATE: 08-25-08
Drawn By: C.C.
REVISED: 11-25-08 D.P.

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



LINE TABLE		
LINE	AZUMITH	LENGTH
L1	93.931111	19.92'

Elev. Ungraded Ground at #1022-2A4S Location Stake = 4974.6'
Elev. Graded Ground at #1022-2A4S Location Stake = 4970.7'

CIGE #67D
(NAD 83)
LATITUDE = 39°59'04.88" (39.984689)
LONGITUDE = 109°24'03.02" (109.400839)
(NAD 27)
LATITUDE = 39°59'05.00" (39.984722)
LONGITUDE = 109°24'00.57" (109.400158)

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Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

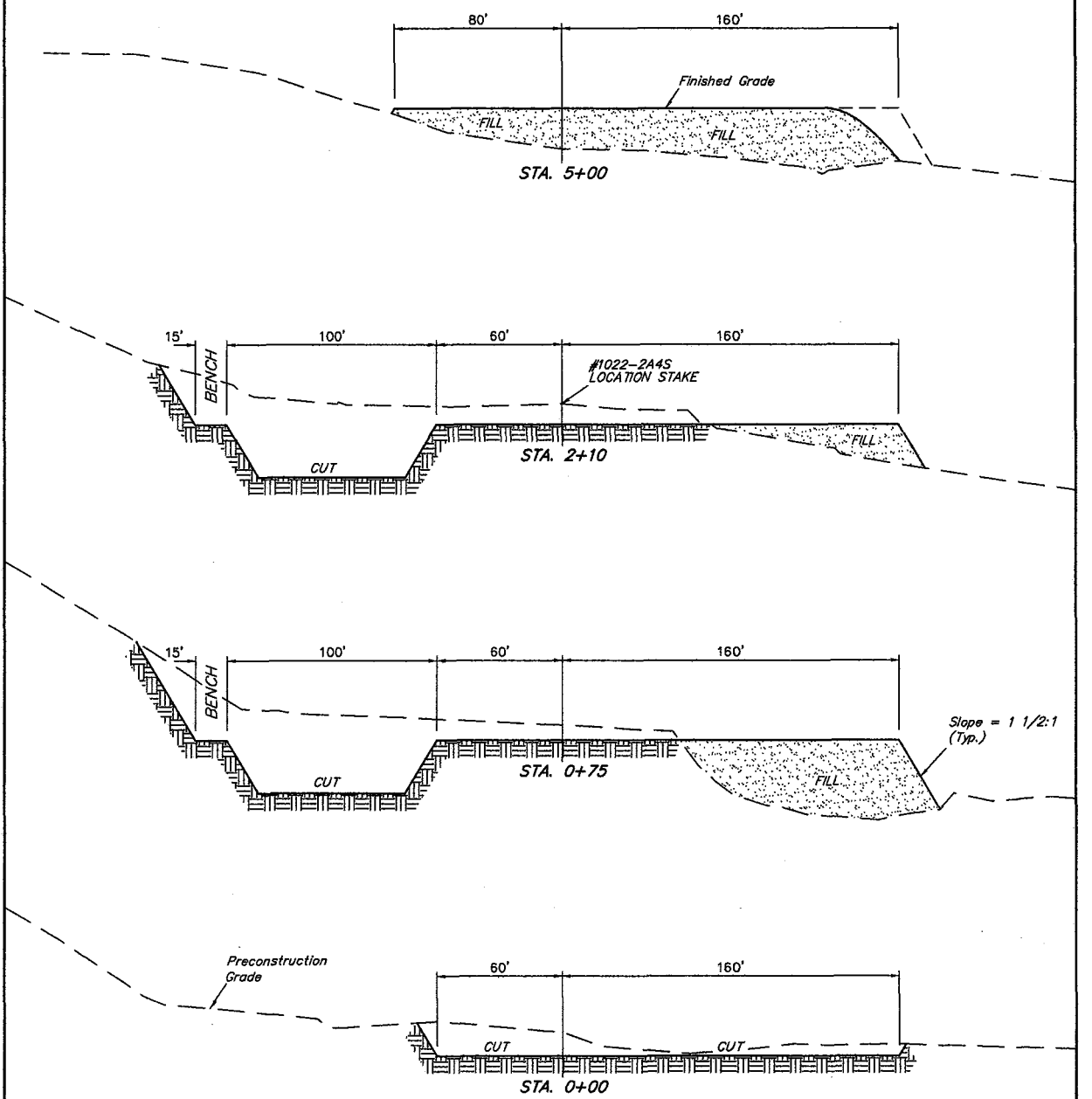
TYPICAL CROSS SECTIONS FOR

NBU #1022-2A2T, #1022-2B2S, #1022-2A3S & #1022-2A4S
SECTION 2, T10S, R22E, S.L.B.&M.
NE 1/4 NE 1/4

1" = 20'
X-Section Scale
1" = 50'

DATE: 08-25-08
Drawn By: C.C.
REVISED: 11-25-08 D.P.

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



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

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE YARDAGES

(6") Topsoil Stripping (New Construction Only)	= 1,520 Cu. Yds.	EXCESS MATERIAL	= 5,070 Cu. Yds.
Remaining Location	= 19,470 Cu. Yds.	Topsoil & Pit Backfill (1/2 Pit Vol.)	= 5,070 Cu. Yds.
TOTAL CUT	= 20,990 CU.YDS.	EXCESS UNBALANCE (After Interim Rehabilitation)	= 0 Cu. Yds.
FILL	= 15,920 CU.YDS.		

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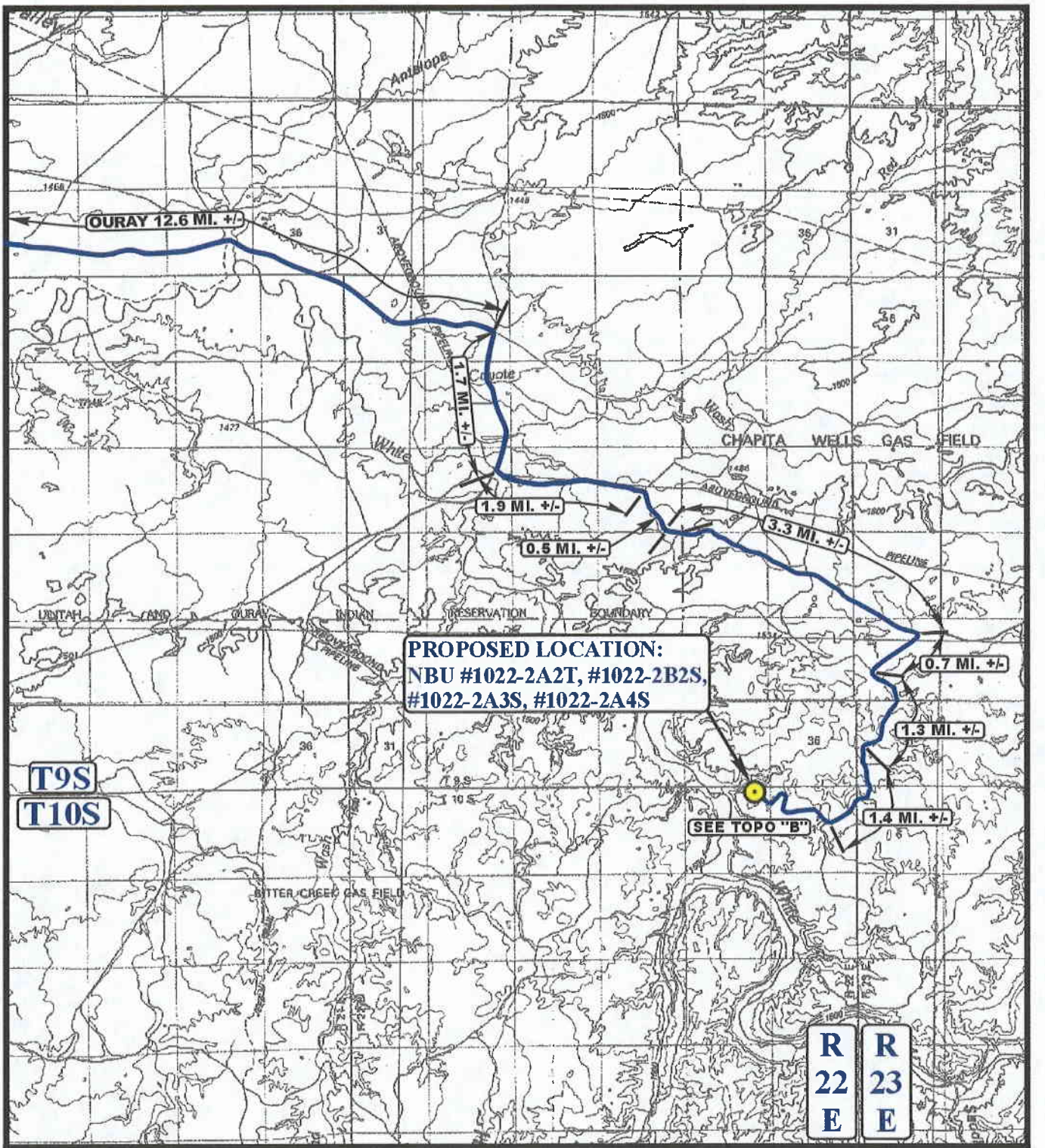
Kerr McGee Oil & Gas Onshore LP.
NBU #1022-2A2T, #1022-2B2S, #1022-2A3S, #1022-2A4S
SECTION 2, T10S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.3 MILES ON THE SEEP RIDGE ROAD TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN A EASTERLY DIRECTION APPROXIMATELY 12.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 1.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY DIRECTION APPROXIMATELY 1.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 0.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFTT AND PROCEED IN A SOUTHEASTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 1.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT AND PROCEED IN A WESTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.2 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTH; FOLLOW ROAD FLAGS IN A NORTHERLY DIRECTION APPROXIMATELY 0.1 MILE TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 55.7 MILES.



LEGEND:

PROPOSED LOCATION

N

Kerr McGee Oil And Gas Company, L.P.

NBU #1022-2A2T, #1022-2B2S,
#1022-2A3S, #1022-2A4S
SECTION 2, T10S, R22E, S.L.B.&M.
NE 1/4 NE 1/4

Uintah Engineering & Land Surveying
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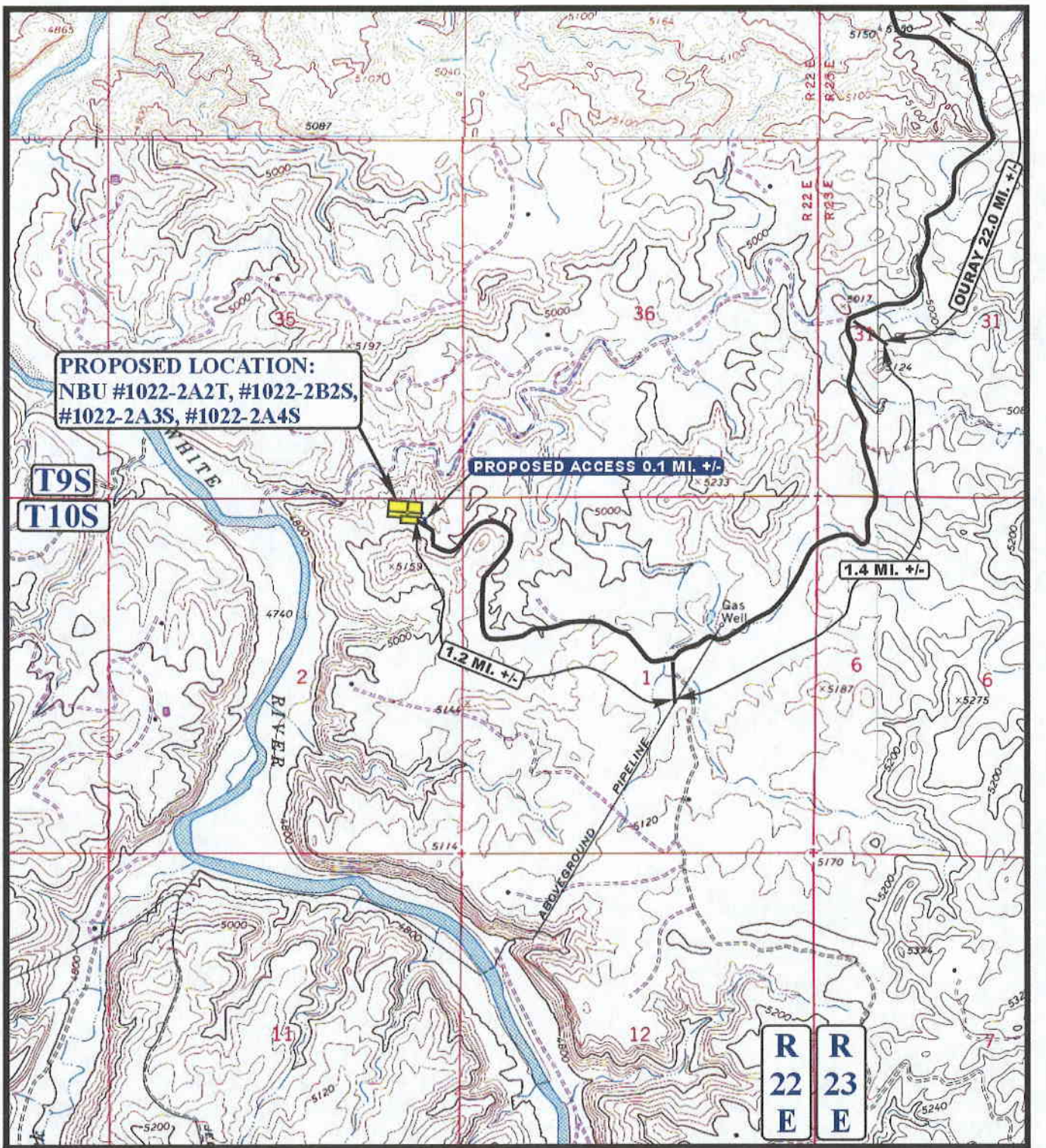
TOPOGRAPHIC MAP	07 MONTH	17 DAY	08 YEAR	A TOPO
SCALE: 1:100,000	DRAWN BY: J.C.	REV: 09-17-08 J.J.		



LEGEND:

EXISTING ROAD

PROPOSED ACCESS ROAD

N

Kerr McGee Oil And Gas Company, L.P.

NBU #1022-2A2T, #1022-2B2S,
#1022-2A3S, #1022-2A4S
SECTION 2, T10S, R22E, S.L.B.&M.
NE 1/4 NE 1/4

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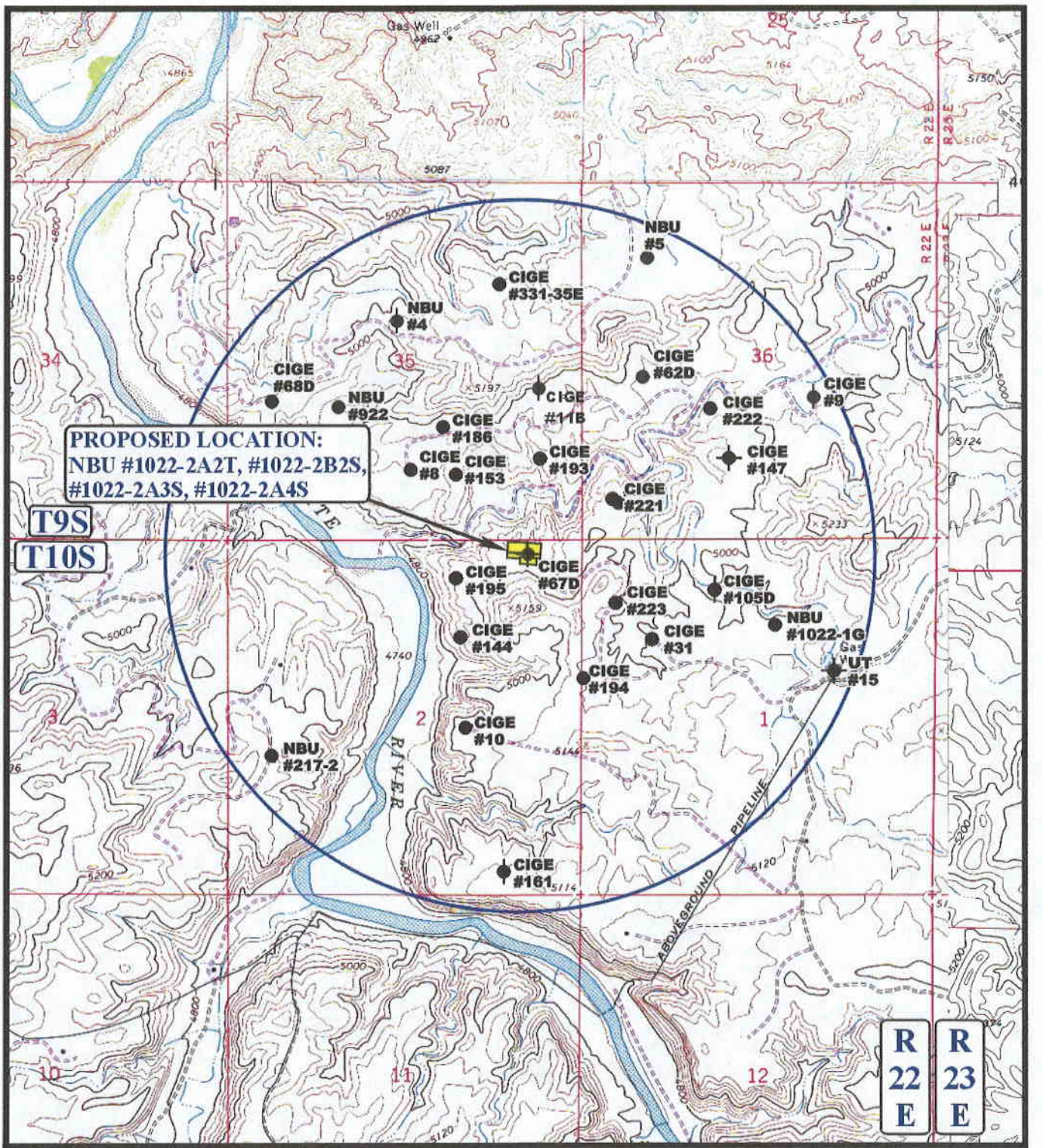
TOPOGRAPHIC MAP	07 MONTH	17 DAY	08 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: J.C.	REV: 09-17-08 J.J.		



LEGEND:

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

N

Kerr McGee Oil And Gas Company, L.P.

NBU #1022-2A2T, #1022-2B2S,
#1022-2A3S, #1022-2A4S
SECTION 2, T10S, R22E, S.L.B.&M.
NE 1/4 NE 1/4

Uintah Engineering & Land Surveying
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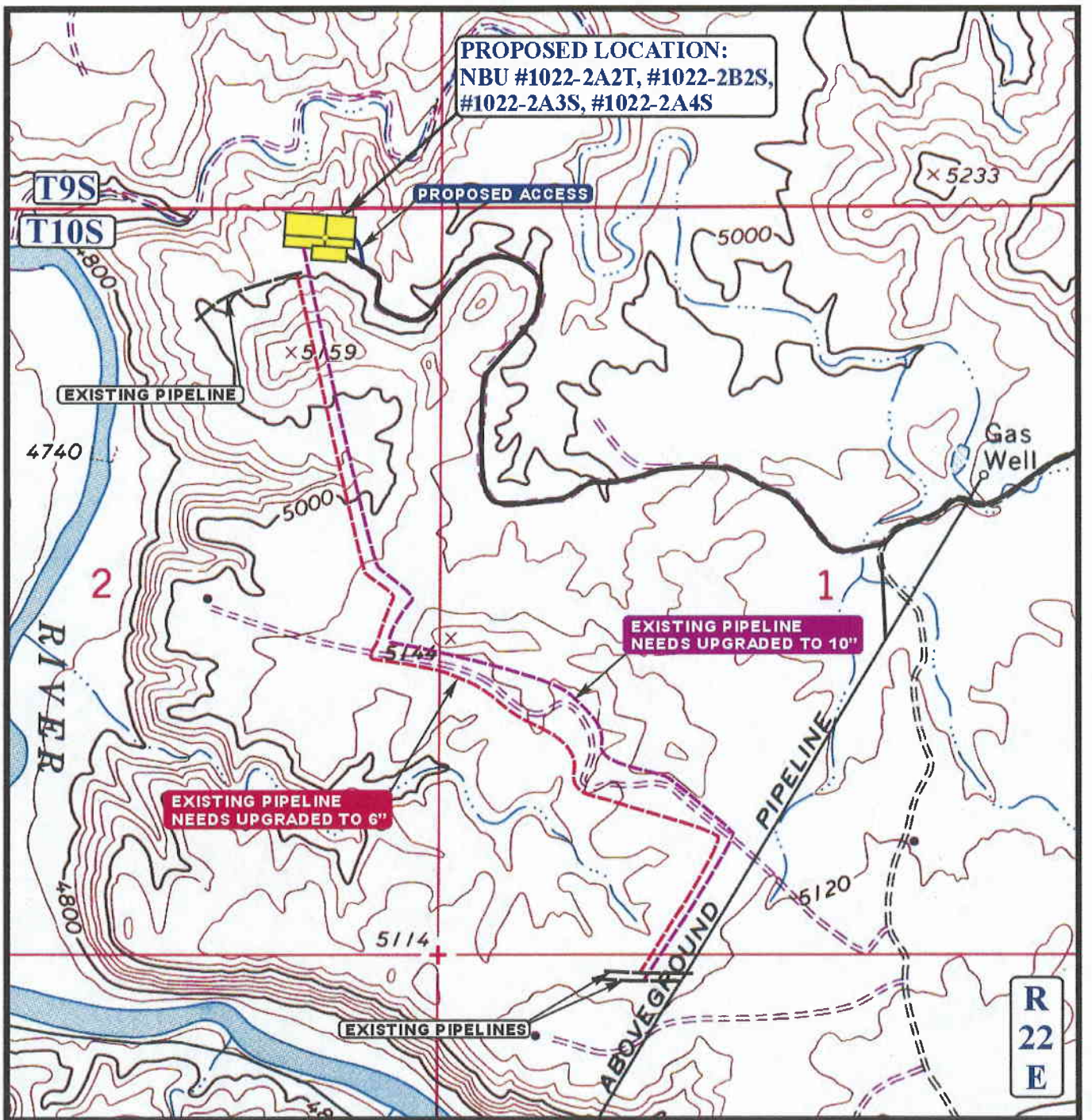
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	07 MONTH	17 DAY	08 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: J.C.	REV: 09-17-08 J.J.		



APPROXIMATE TOTAL PIPELINE DISTANCE = 14,400' +/-

APPROXIMATE TOTAL PIPELINE DISTANCE = 13,400' +/-

LEGEND:

PROPOSED ACCESS ROAD
EXISTING PIPELINE
EXISTING PIPELINE UPGRADE TO 6"
EXISTING PIPELINE UPGRADE TO 10"

N

Kerr McGee Oil And Gas Company, L.P.

NBU #1022-2A2T, #1022-2B2S,
#1022-2A3S, #1022-2A4S
SECTION 2, T10S, R22E, S.L.B.&M.
NE 1/4 NE 1/4

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TOPOGRAPHIC MAP	11 MONTH	25 DAY	08 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: D.P.	REVISED: 00-00-00		

Scientific Drilling
Rocky Mountain Operations

Project: Uintah County, UT NAD27
Site: NBU 1022-2A Pad
Well: NBU 1022-2A3S
Wellbore: OH
Design: Plan #1

K McGee Oil and Gas Onshore LP

T M

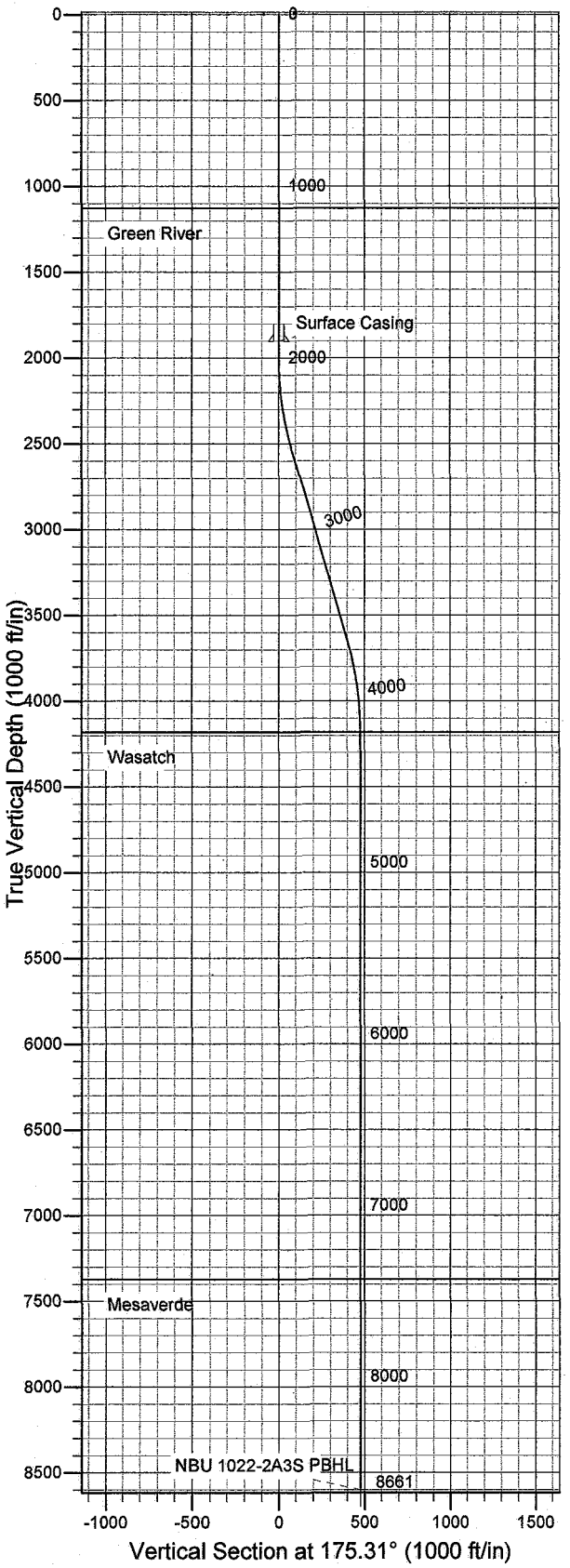
Azimuths to True North
Magnetic North: 11.35°

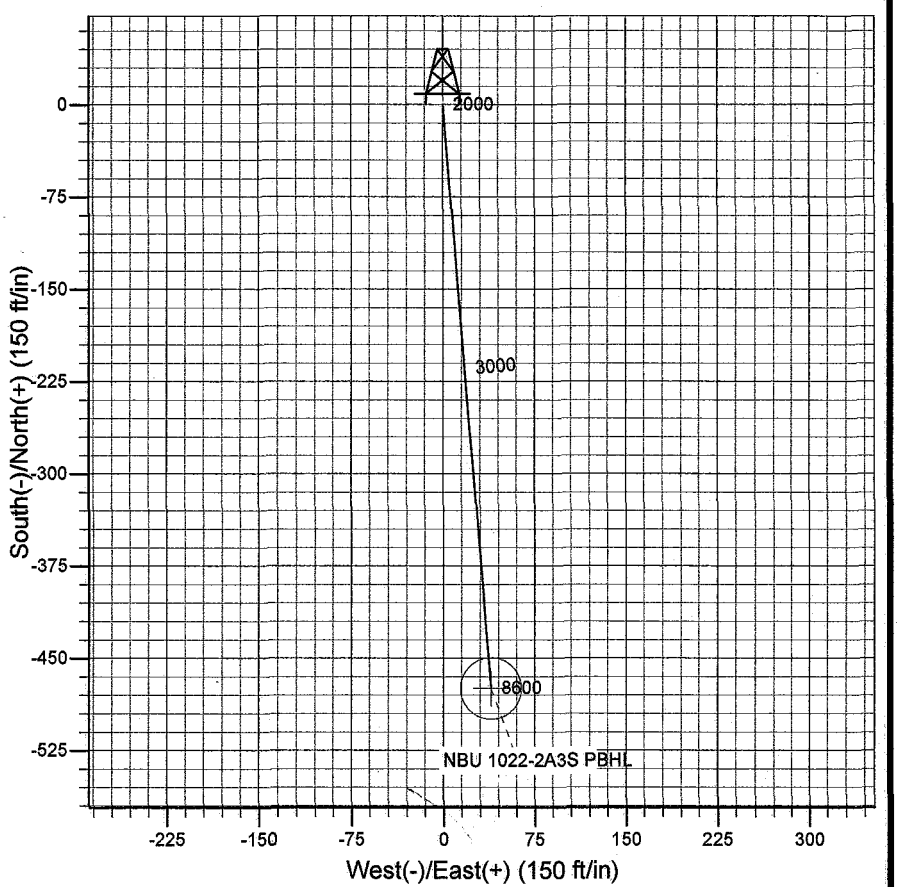
Magnetic Field
Strength: 52620.6snT
Dip Angle: 65.95°
Date: 10/30/2008
Model: IGRF2005-10

WELL DETAILS: NBU 1022-2A3S

GL 4974' & RKB 18' @ 4992.00ft 4974.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	608387.46	2588358.36	39° 59' 4.990 N	109° 24' 0.310 W





Plan: Plan #1 (NBU 1022-2A3S/OH)

Created By: Julie Cruse Date: 2008-10-31

PROJECT DETAILS: Uintah County, UT NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Utah Central 4302
Location: SEc.2 T10S R22E
System Datum: Mean Sea Level
Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
2541.58	16.25	175.31	2534.35	-76.02	6.23	3.00	175.31	76.27	
3698.07	16.25	175.31	3644.65	-398.50	32.68	0.00	0.00	399.84	
4239.65	0.00	0.00	4179.00	-474.52	38.92	3.00	180.00	476.12	
8660.65	0.00	0.00	8600.00	-474.52	38.92	0.00	0.00	476.12	NBU 1022-2A3S PBHL

Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore LP

Uintah County, UT NAD27
NBU 1022-2A Pad
NBU 1022-2A3S
OH

Plan: Plan #1

Standard Planning Report

31 October, 2008

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 1022-2A3S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Site:	NBU 1022-2A Pad	**North Reference:**	True
Well:	NBU 1022-2A3S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Uintah County, UT NAD27		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Utah Central 4302		

Site	NBU 1022-2A Pad, SEc 2 T10S R22E				
Site Position:		**Northing:**	608,388.56 ft	**Latitude:**	39° 59' 5.010 N
From:	Lat/Long	**Easting:**	2,568,318.63 ft	**Longitude:**	109° 24' 0.820 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	in	**Grid Convergence:**	1.35 °

Well	NBU 1022-2A3S, 206' FNL 857' FEL					
Well Position	**+N/-S**	0.00 ft	**Northing:**	608,387.46 ft	**Latitude:**	39° 59' 4.990 N
	+E/-W	0.00 ft	**Easting:**	2,588,358.36 ft	**Longitude:**	109° 24' 0.310 W
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	4,974.00 ft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2005-10	10/30/2008	11.35	65.95	52,621

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**	
	0.00	0.00	0.00	175.31	

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,541.58	16.25	175.31	2,534.35	-76.02	6.23	3.00	3.00	0.00	175.31	
3,698.07	16.25	175.31	3,644.65	-398.50	32.68	0.00	0.00	0.00	0.00	
4,239.65	0.00	0.00	4,179.00	-474.52	38.92	3.00	-3.00	0.00	180.00	
8,660.65	0.00	0.00	8,600.00	-474.52	38.92	0.00	0.00	0.00	0.00	NBU 1022-2A3S PBH

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 1022-2A3S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Site:	NBU 1022-2A Pad	**North Reference:**	True
Well:	NBU 1022-2A3S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,127.00	0.00	0.00	1,127.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	3.00	175.31	2,099.95	-2.61	0.21	2.62	3.00	3.00	0.00
2,200.00	6.00	175.31	2,199.63	-10.43	0.86	10.46	3.00	3.00	0.00
2,300.00	9.00	175.31	2,298.77	-23.43	1.92	23.51	3.00	3.00	0.00
2,400.00	12.00	175.31	2,397.08	-41.60	3.41	41.74	3.00	3.00	0.00
2,500.00	15.00	175.31	2,494.31	-64.86	5.32	65.08	3.00	3.00	0.00
2,541.58	16.25	175.31	2,534.35	-76.02	6.23	76.27	3.00	3.00	0.00
2,600.00	16.25	175.31	2,590.44	-92.31	7.57	92.62	0.00	0.00	0.00
2,700.00	16.25	175.31	2,686.44	-120.19	9.86	120.60	0.00	0.00	0.00
2,800.00	16.25	175.31	2,782.45	-148.08	12.14	148.58	0.00	0.00	0.00
2,900.00	16.25	175.31	2,878.46	-175.96	14.43	176.56	0.00	0.00	0.00
3,000.00	16.25	175.31	2,974.46	-203.85	16.72	204.53	0.00	0.00	0.00
3,100.00	16.25	175.31	3,070.47	-231.73	19.01	232.51	0.00	0.00	0.00
3,200.00	16.25	175.31	3,166.48	-259.62	21.29	260.49	0.00	0.00	0.00
3,300.00	16.25	175.31	3,262.48	-287.50	23.58	288.47	0.00	0.00	0.00
3,400.00	16.25	175.31	3,358.49	-315.39	25.87	316.45	0.00	0.00	0.00
3,500.00	16.25	175.31	3,454.49	-343.27	28.15	344.43	0.00	0.00	0.00
3,600.00	16.25	175.31	3,550.50	-371.16	30.44	372.41	0.00	0.00	0.00
3,698.07	16.25	175.31	3,644.65	-398.50	32.68	399.84	0.00	0.00	0.00
3,700.00	16.19	175.31	3,646.51	-399.04	32.73	400.38	3.00	-3.00	0.00
3,800.00	13.19	175.31	3,743.23	-424.31	34.80	425.74	3.00	-3.00	0.00
3,900.00	10.19	175.31	3,841.14	-444.50	36.46	446.00	3.00	-3.00	0.00
4,000.00	7.19	175.31	3,939.98	-459.56	37.69	461.10	3.00	-3.00	0.00
4,100.00	4.19	175.31	4,039.48	-469.44	38.50	471.01	3.00	-3.00	0.00
4,200.00	1.19	175.31	4,139.36	-474.11	38.88	475.71	3.00	-3.00	0.00
4,239.65	0.00	0.00	4,179.00	-474.52	38.92	476.12	3.00	-3.00	-442.20
Wasatch									
4,300.00	0.00	0.00	4,239.35	-474.52	38.92	476.12	0.00	0.00	0.00
4,400.00	0.00	0.00	4,339.35	-474.52	38.92	476.12	0.00	0.00	0.00
4,500.00	0.00	0.00	4,439.35	-474.52	38.92	476.12	0.00	0.00	0.00

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 1022-2A3S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Site:	NBU 1022-2A Pad	**North Reference:**	True
Well:	NBU 1022-2A3S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,600.00	0.00	0.00	4,539.35	-474.52	38.92	476.12	0.00	0.00	0.00
4,700.00	0.00	0.00	4,639.35	-474.52	38.92	476.12	0.00	0.00	0.00
4,800.00	0.00	0.00	4,739.35	-474.52	38.92	476.12	0.00	0.00	0.00
4,900.00	0.00	0.00	4,839.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,000.00	0.00	0.00	4,939.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,100.00	0.00	0.00	5,039.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,200.00	0.00	0.00	5,139.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,300.00	0.00	0.00	5,239.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,400.00	0.00	0.00	5,339.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,500.00	0.00	0.00	5,439.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,600.00	0.00	0.00	5,539.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,700.00	0.00	0.00	5,639.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,800.00	0.00	0.00	5,739.35	-474.52	38.92	476.12	0.00	0.00	0.00
5,900.00	0.00	0.00	5,839.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,000.00	0.00	0.00	5,939.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,100.00	0.00	0.00	6,039.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,200.00	0.00	0.00	6,139.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,300.00	0.00	0.00	6,239.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,400.00	0.00	0.00	6,339.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,500.00	0.00	0.00	6,439.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,600.00	0.00	0.00	6,539.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,700.00	0.00	0.00	6,639.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,800.00	0.00	0.00	6,739.35	-474.52	38.92	476.12	0.00	0.00	0.00
6,900.00	0.00	0.00	6,839.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,000.00	0.00	0.00	6,939.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,100.00	0.00	0.00	7,039.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,200.00	0.00	0.00	7,139.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,300.00	0.00	0.00	7,239.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,400.00	0.00	0.00	7,339.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,431.65	0.00	0.00	7,371.00	-474.52	38.92	476.12	0.00	0.00	0.00
Mesaverde									
7,500.00	0.00	0.00	7,439.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,600.00	0.00	0.00	7,539.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,700.00	0.00	0.00	7,639.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,800.00	0.00	0.00	7,739.35	-474.52	38.92	476.12	0.00	0.00	0.00
7,900.00	0.00	0.00	7,839.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,000.00	0.00	0.00	7,939.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,100.00	0.00	0.00	8,039.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,200.00	0.00	0.00	8,139.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,300.00	0.00	0.00	8,239.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,400.00	0.00	0.00	8,339.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,500.00	0.00	0.00	8,439.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,600.00	0.00	0.00	8,539.35	-474.52	38.92	476.12	0.00	0.00	0.00
8,660.65	0.00	0.00	8,600.00	-474.52	38.92	476.12	0.00	0.00	0.00

Database:	EDM 2003.16 Multi User DB	**Local Co-ordinate Reference:**	Well NBU 1022-2A3S
Company:	Kerr McGee Oil and Gas Onshore LP	**TVD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Project:	Uintah County, UT NAD27	**MD Reference:**	GL 4974' & RKB 18' @ 4992.00ft
Site:	NBU 1022-2A Pad	**North Reference:**	True
Well:	NBU 1022-2A3S	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
NBU 1022-2A3S PBHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	8,600.00	-474.52	38.92	607,913.98	2,588,408.41	39° 59' 0.300 N	109° 23' 59.810 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,900.00	1,900.00	Surface Casing	9.625	13.500

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,127.00	1,127.00	Green River		0.00	
4,239.65	4,179.00	Wasatch		0.00	
7,431.65	7,371.00	Mesaverde		0.00	

IPC #08-147

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Twin Wells "NBU #922-32AT, #922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT" (Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T & #1022-2JIT" (Sec. 2, T 10 S, R 22 E)

Archy Bench
Topographic Quadrangle
Uintah County, Utah

July 25, 2008

Prepared by Stephen D. Sandau
Paleontologist for
Intermountain Paleo-Consulting
P. O. Box 1125
Vernal, Utah 84078

INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by the BLM Vernal Field Office and James Kirkland of the Office of the State Paleontologist, a paleontological reconnaissance survey of Kerr McGee's proposed twin wells "NBU #922-32AT, #922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT" (Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T & #1022-2JIT" (Sec. 2 , T 10 S, R 22 E) was conducted by Stephen D. Sandau Jason Klimek and Arica Scheetz on July 22 and 23, 2008. The reconnaissance survey was conducted under the Utah BLM Paleontological Resources Use Permit #UT08-006C and Utah Paleontological Investigations Permit #07-356. This survey to locate, identify, and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

As mandated by the Federal and State government, paleontologically sensitive geologic formations on State lands that are considered for exchange or may be impacted due to ground disturbance require paleontological evaluation. This requirement complies with:

1) The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321.et. Seq., P.L. 91-190);
2) The Federal Land Policy and Management Act (FLPMA) of 1976 (90 Stat. 2743, 43 U.S.C. § 1701-1785, et. Seq., P.L. 94-579);
3) The National Historic Preservation Act.16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320; and
4) The Utah Geological Survey. S. C. A.: 63-73-1. (1-21) and U.C.A.: 53B-17-603

The new Potential Fossil Yield Classification (PFYC) System (October, 2007) replaces the Condition Classification System from Handbook H-8270-1. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- ***Class 1*** **– Very Low**. Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- ***Class 2*** **– Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc…)
- ***Class 3*** **– Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.
    - ***Class 3a*** **– Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.

- *Class 3b* – **Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.

- *Class 4* – **High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
  - *Class 4a* – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - *Class 4b* – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- *Class 5* – **Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
  - *Class 5a* - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
  - *Class 5b* - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

It should be noted that many fossils, though common and unimpressive in and of themselves, can be important paleo-environmental, depositional, and chronostratigraphic indicators.

LOCATION

Kerr McGee's proposed twin wells "NBU #922-32AT, #922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT" (Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T & #1022-2JIT" (Sec. 2 , T 10 S, R 22 E) are on lands managed by the BLM and the State of Utah Trust Lands Administration (SITLA), in and slightly northeast of Sand Wash, south of Coyote Wash and on the East Bench, just 16 miles south and east of Ouray, Utah, and 12-16 miles west of Bonanza, Utah. The project area can be found on the Archy Bench 7.5 minute U. S. Geological Survey Quadrangle Map, Uintah County, Utah.

PREVIOUS WORK

The basins of western North America have long produced some of the richest fossil collections in the world. Early Cenozoic sediments are especially well represented throughout the western interior. Paleontologists started field work in Utah's Uinta Basin as early as 1870 (Betts, 1871; Marsh, 1871, 1875a, 1875b). The Uinta Basin is located in the northeastern corner of Utah and covers approximately 31,000 sq. km (12,000 sq. miles) ranging in elevation from 1,465 to 2,130 m (4,800 to 7,000 ft) (Marsell, 1964; Hamblin et al., 1987). Middle to late Eocene time marked a period of dramatic change in the climate, flora, (Stucky, 1992) and fauna (Black and Dawson, 1966) of North America.

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

Early in the geologic history of Utah, some 1,000 to 600 Ma, an east-west trending basin developed creating accommodation for 25,000 feet of siliclastics. Uplift of that filled-basin during the early Cenozoic formed the Uinta Mountains (Rasmussen et al., 1999). With the rise of the Uinta Mountains the asymmetrical synclinal Uinta Basin is thought to have formed through the effects of down warping in connection with the uplift. Throughout the Paleozoic and Mesozoic deposition fluctuated between marine and non-marine environments laying down a thick succession of sediments in the area now occupied by the Uinta Basin. Portions of these beds crop out on the margins of the basin due to tectonic events during the late Mesozoic.

Early Tertiary Uinta Basin sediments were deposited in alternating lacustrine and fluvial environments. Large shallow lakes periodically covered most of the basin and surrounding areas during early to mid Eocene time (Abbott, 1957). These lacustrine sediments show up in the western part of the basin, dipping 2-3 degrees to the northeast and are lost in the subsurface on the east side. The increase of cross-bedded, coarse-grained sandstone and conglomerates preserved in paleo-channels indicates a transition to a fluvial environment toward the end of the epoch.

Four Eocene formations are recognized in the Uinta Basin: the Wasatch, Green River, Uinta and Duchesne River, respectively (Wood, 1941). The Uinta Formation is subdivided into two lithostratigraphic units namely: the Wagonhound Member (Wood, 1934), formerly known as Uinta A and B (Osborn, 1895, 1929) and the Myton Member previously regarded as the Uinta C.

Within the Uinta Basin in northeast Utah, the Uinta Formation in the western part of the basin is composed primarily of lacustrine sediments inter-fingering with over-bank deposits of silt and mudstone and westward flowing channel sands and fluvial clays, muds, and sands in the east (Bryant et al, 1990; Ryder et al, 1976). Stratigraphic work done by early geologists and paleontologists within the Uinta Formation focused on the definition of rock units and attempted to define a distinction between early and late Uintan faunas (Riggs, 1912; Peterson and Kay, 1931; Kay 1934). More recent work focused on magnetostratigraphy, radioscopic chronology, and continental biostratigraphy (Flynn, 1986; Prothero, 1996). Well-known for its fossiliferous nature and distinctive mammalian fauna of mid-Eocene Age, the Uinta Formation is the type formation for the Uintan Land Mammal Age (Wood et al, 1941).

The Duchesne River Formation of the Uinta Basin in northeastern Utah is composed of a succession of fluvial and flood plain deposits composed of mud, silt, and sandstone. The source area for these late Eocene deposits is from the Uinta Mountains indicated by paleocurrent data (Anderson and Picard, 1972). In Peterson's (1931c) paper, the name "Duchesne Formation" was applied to the formation and it was later changed to the "Duchesne River Formation" by Kay (1934). The formation is divided up into four members: the Brennan Basin, Dry Gulch Creek, LaPoint, and Starr Flat (Anderson and Picard, 1972). Debates concerning the Duchesne River Formation, as to whether its age was late Eocene or early Oligocene, have surfaced throughout the literature of the last century (Wood et al., 1941; Scott 1945). Recent paleo-magnetostratigraphic work (Prothero, 1996) shows that the Duchesne River Formation is late Eocene in time.

FIELD METHODS

In order to determine if the proposed project area contained any paleontological resources, a reconnaissance survey was performed. An on-site observation of the proposed areas undergoing surficial disturbance is necessary because judgments made from topographic maps alone are often unreliable. Areas of low relief have potential to be erosional surfaces with the possibility of bearing fossil materials rather than surfaces covered by unconsolidated sediment or soils.

When found within the proposed construction areas, outcrops and erosional surfaces were checked to determine if fossils were present and to assess needs. Careful effort is made during surveys to identify and evaluate significant fossil materials or fossil horizons when they are found. Microvertebrates, although rare, are occasionally found in anthills or upon erosional surfaces and are of particular importance.

PROJECT AREA

The project area is situated in the Wagonhound Member (Uinta A & B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

NBU #922-32AT

The proposed twin is located on the existing well "NBU #190" in the NE/NE quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located on a colluvium-covered hill derived from underlying sandstones which outcrop along the perimeter. No fossils were found.

NBU #922-32IT

The proposed twin is located on the existing well "NBU #282" in the NE/SE quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located on a colluvium-covered hill of inter-bedded brown/tan sandstones.
No fossils were found.

NBU #922-32MT
The proposed twin is located on the existing well "NBU #281" in the SW/SW quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located among hills of inter-bedded tan sandstones and variegated green siltstone.
No fossils were found.

NBU #922-32OIT
The proposed twin is located on the existing well "NBU #404" in the SW/SE quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed twin is located among hills of inter-bedded gray sandstones and variegated mudstones. No fossils were found.

NBU #922-35IT
The proposed twin is located on the existing well "CIGE #118" in the NE/SE quarter-quarter section of Sec. 35, T 9 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones which outcrop along the perimeter. No fossils were found.

NBU #922-36NT
The proposed twin is located on a previously existing well "CIGE #147" in the SE/SW quarter-quarter section of Sec. 36, T 9 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones. No fossils were found.

NBU #1022-2JIT (multi-well also included: 2J25, 2J3S & 2O2S)
The proposed twin is located on the existing well "CIGE #10" in the NW/SE quarter-quarter section of Sec. 2, T 10 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones. No fossils were found.

NBU #1022-2A2T (multi-well also included: 2B2S, 2A3S & 2A4S)
The proposed twin is located on the existing well "CIGE #67A" in the NE/NE quarter-quarter section of Sec. 2, T 10 S, R 22 E (Figure 2). The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones. No fossils were found.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
"NBU #922-32AT" (Sec. 32, T 9 S, R 22 E)	The proposed twin is located on a colluvium-covered hill derived from underlying sandstones which outcrop along the perimeter.	No fossils were found. **Class 3a**
"NBU #922-32IT" (Sec. 32, T 9 S, R 22 E)	The proposed twin is located on a colluvium-covered hill of inter-bedded brown/tan sandstones.	No fossils were found. **Class 3a**
"NBU #922-32MT" (Sec. 32, T 9 S, R 22 E)	The proposed twin is located among hills of inter-bedded tan sandstones and variegated green siltstone.	No fossils were found. **Class 3a**
"NBU #922-32OIT" (Sec. 32, T 9 S, R 22 E)	The proposed twin is located among hills of inter-bedded gray sandstones and variegated mudstones.	No fossils were found. **Class 3a**
"NBU #922-35IT" (Sec. 35, T 9 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones which outcrop along the perimeter.	No fossils were found. **Class 3a**
"NBU #922-36NT" (Sec. 36, T 9 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones.	No fossils were found **Class 3a**
"NBU #1022-2A2T" (Sec. 2, T 10 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones.	No fossils were found. **Class 3a**
"NBU #1022-2JIT" (Sec. 2, T 10 S, R 22 E)	The proposed twin is located on colluvium-covered hills derived from underlying tan sandstones.	No fossils were found. **Class 3a**

RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed twin wells "NBU #922-32AT, #922-32IT, #922-32MT, #922-32OIT, #922-35IT, #922-36NT" (Sec. 32, 35 & 36, T 9 S, R 22 E) & "NBU #1022-2A2T & #1022-2JIT" (Sec. 2 , T 10 S, R 22 E). The twin wells covered in this report showed no signs of vertebrate fossils. Therefore, we recommend that no paleontological restrictions should be placed on the development of the projects included in this report.

Buried pipeline will encounter Uinta formational sediments along most of the staked pipeline corridors yet indications from surface fossils predict that little if any vertebrate fossils will be disturbed.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, Operator (Lease Holder) will report all occurrences of paleontological resources discovered to a geologist with the Vernal Field Office of the BLM and the Office of the State Paleontologist. The operator is responsible for informing all persons in the areas who are associated with this project of the requirements for protecting paleontological resources. Paleontological resources found on the public lands are recognized by the BLM and State as constituting a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage. These resources are afforded protection under 43 CFR 3802 and 3809, and penalties possible for the collection of vertebrate fossils are under 43 CFR 8365.1-5.

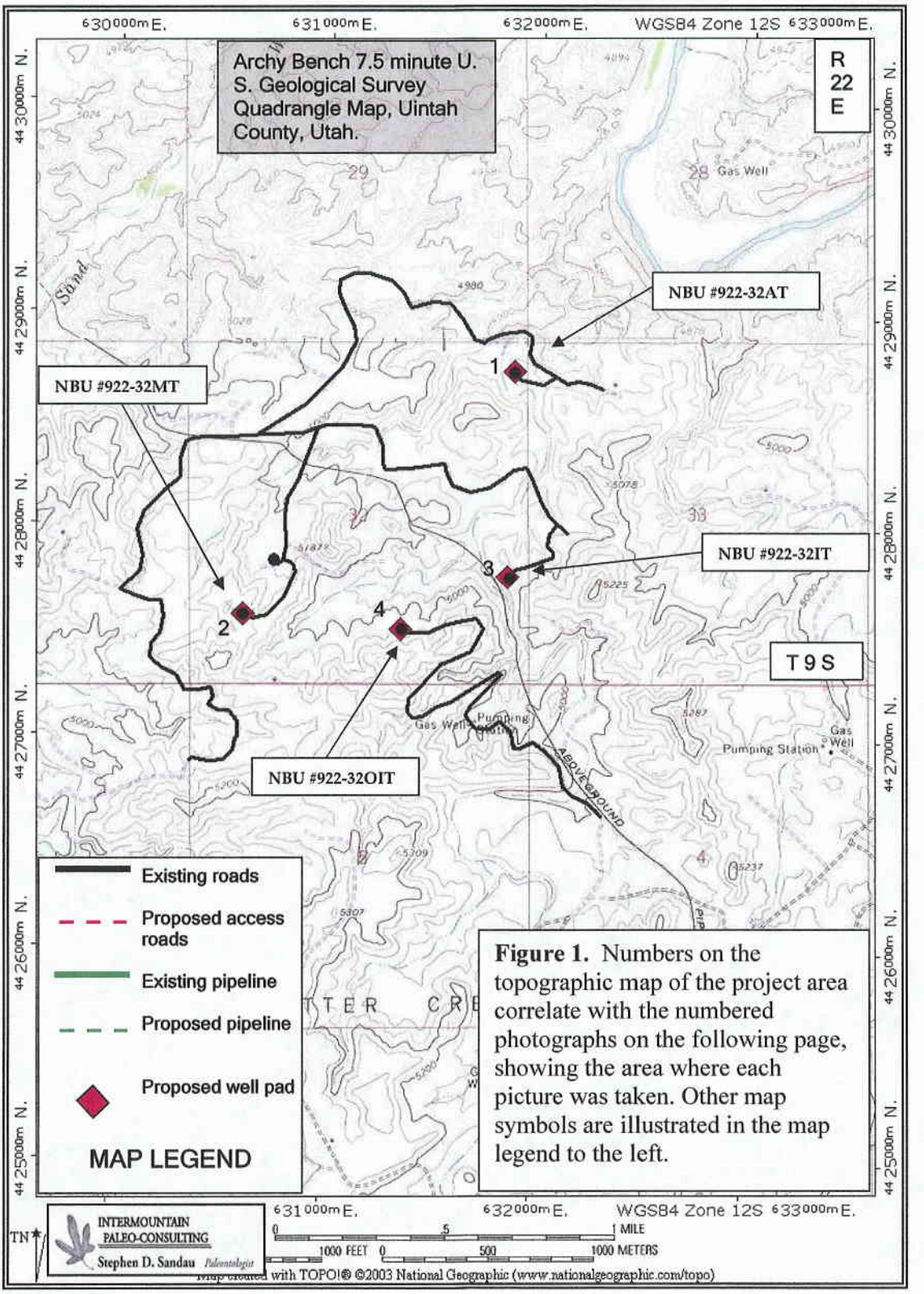
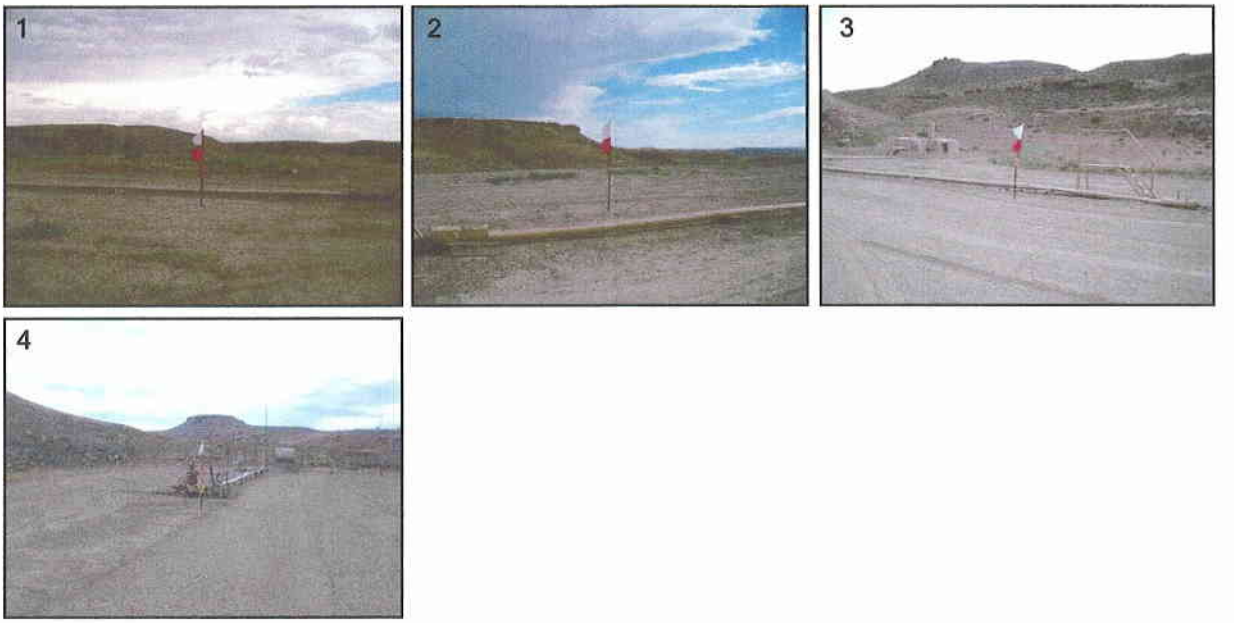


Figure 1. Numbers on the topographic map of the project area correlate with the numbered photographs on the following page, showing the area where each picture was taken. Other map symbols are illustrated in the map legend to the left.

Figure 1. *continued. . .*



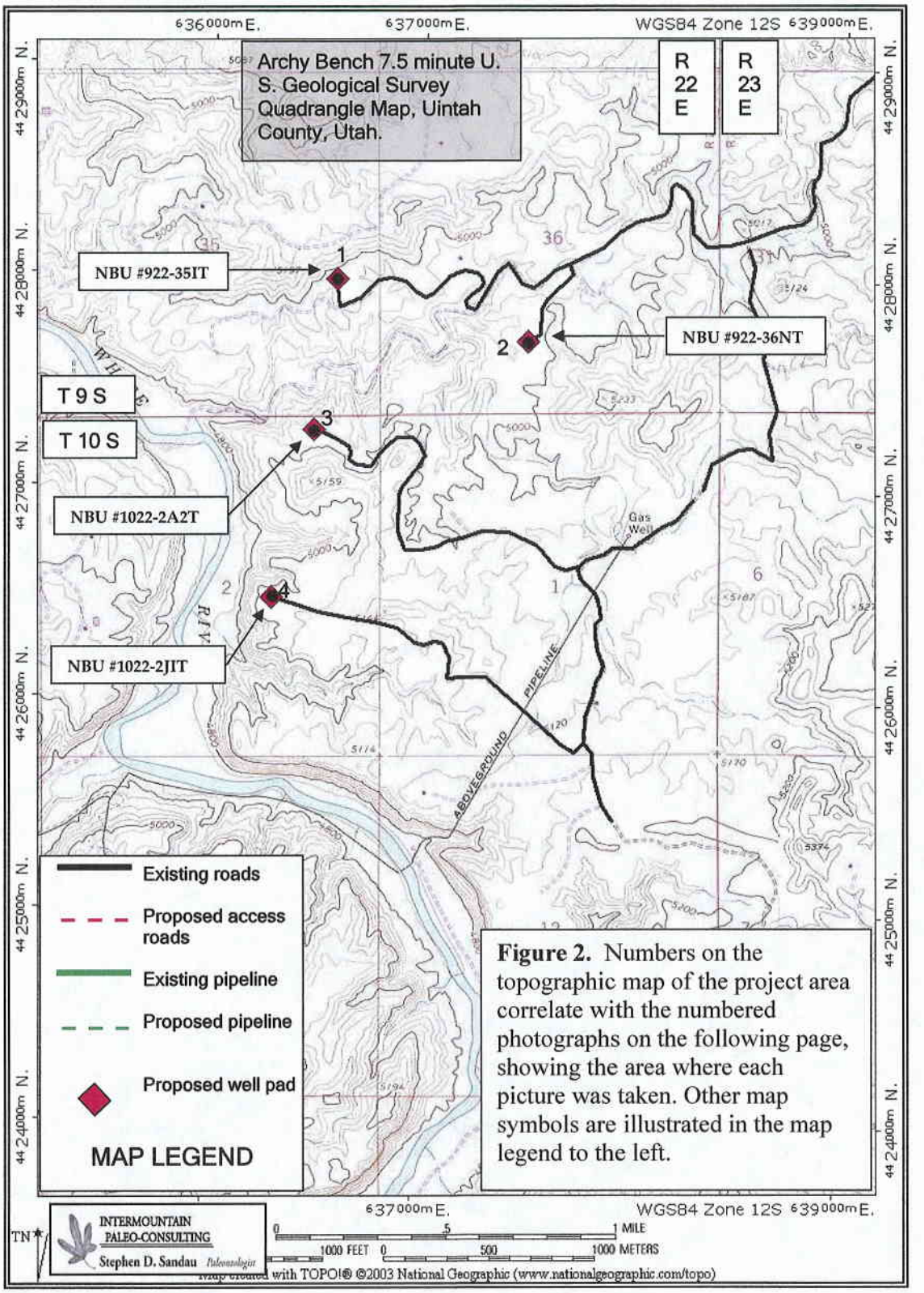


Figure 2. Numbers on the topographic map of the project area correlate with the numbered photographs on the following page, showing the area where each picture was taken. Other map symbols are illustrated in the map legend to the left.

Figure 2. *continued. . .*

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CLASS I REVIEW OF KERR-MCGEE OIL AND GAS
ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS
IN TOWNSHIP 10S, RANGE 22E
UINTAH COUNTY, UTAH

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS ONSHORE LP'S 73 PROPOSED NBU WELL LOCATIONS IN TOWNSHIP 10S, RANGE 22E UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Bureau of Land Management
Vernal Field Office
and
School and Institutional
Trust Lands Administration

Prepared Under Contract With:

Kerr-McGee Oil and Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 08-268

October 16, 2008

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

INTRODUCTION

A Class I literature review was completed by Montgomery Archaeological Consultants, Inc. (MOAC) in October 2008 of Kerr-McGee Onshore's 73 proposed NBU well locations in Township 10S, Range 22E. The project area is situated south of the White River and southeast of the Ouray, Uintah County, Utah. The wells are designated NBU 1022-1I, 1022-1J, 1022-1N, 1022-1P, 1022-2A2T,1022-2A3S, 1022-2A4S, 1022-2B2S, 1022-2D, 1022-2F, 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-2O2S, 1022-03A2T, 1022-03A3S, 1022-03B2S, 1022-03B4T, 1022-03C1S, 1022-04H2CS, 1022-04H3BS, 1022-O3H2T, 1022-03L4BS, 1022-03L3DS, 1022-03M1DS, 1022-03M2DS, 1022-03J3T, 1022-03L2T, 1022-O3N4T, 1022-03P4T, 1022-03O3T, 1022-04K3S, 1022-04M1S, 1022-05H2BS, 1022-05H2CS, 1022-05E4S, 1022-05F2S, 1022-05K1S, 1022-05L1S, 1022-05IT, 1022-06DT, 1022-06ET, 1022-06FT, 1022-06I3AS, 1022-06J4CS, 1022-06O1BS, 1022-06P1CS, 1022-7AT, 1022-7A4BS, 1022-7A4CS, 1022-7B2DS, 1022-08GT, 1022-08IT, 1022-09AT, 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S, 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S, 1022-13H, 1022-24O, 1022-24O2S, 1022-24P2S, 1022-24P4S, 1022-25H, 1022-32B3S, 1022-32D1S, 1022-32D4AS, 1022-32D4DS, and 1022-35M.

The purpose of this Class I review is to identify, classify, and evaluate the previously conducted cultural resource inventories and archaeological sites in the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventory was implemented to attain compliance with a number of federal and state mandates, including the National Environmental Policy Act of 1969, the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978, and the Utah State Antiquities Act of 1973 (amended 1990).

The project area in which Kerr-McGee Onshore's 73 proposed NBU well locations occur was previously inventoried by MOAC in 2007 for the Class III inventory of Township 10 South, Range 22 East (Montgomery 2008; U-07-MQ-1438b,s,p). A file search was completed by consulting MOAC's Class I existing data review of 459 square miles (293,805 acres) covering the Greater NBU study area between Bonanza and Ouray in Uintah County, northeastern Utah (Patterson et al. 2008). Kerr-McGee Oil & Gas Onshore LP proposes to explore and develop oil and natural gas resources throughout the area. Record searches were performed for this Class I project by Marty Thomas at the Utah State Historic Preservation Office (SHPO) on various dates between June 14, 2006 and January 27, 2007. The results of this Class I data review and Class III inventory indicated that no previously recorded sites occur in the current project area.

DESCRIPTION OF THE PROJECT AREA

The project area is situated west of the White River and both sides of Bitter Creek in the Uinta Basin. The legal description is Township 10S, Range 22E, Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 24, 25, 32, 36; Township 11S, Range 22E, Sections 1 and 2 (Figures 1, 2 and 3; Table 1). Land status is public land administered by the Bureau of Land Management (BLM) Vernal Field Office and School and Institutional Trust Lands Administration (SITLA) property.

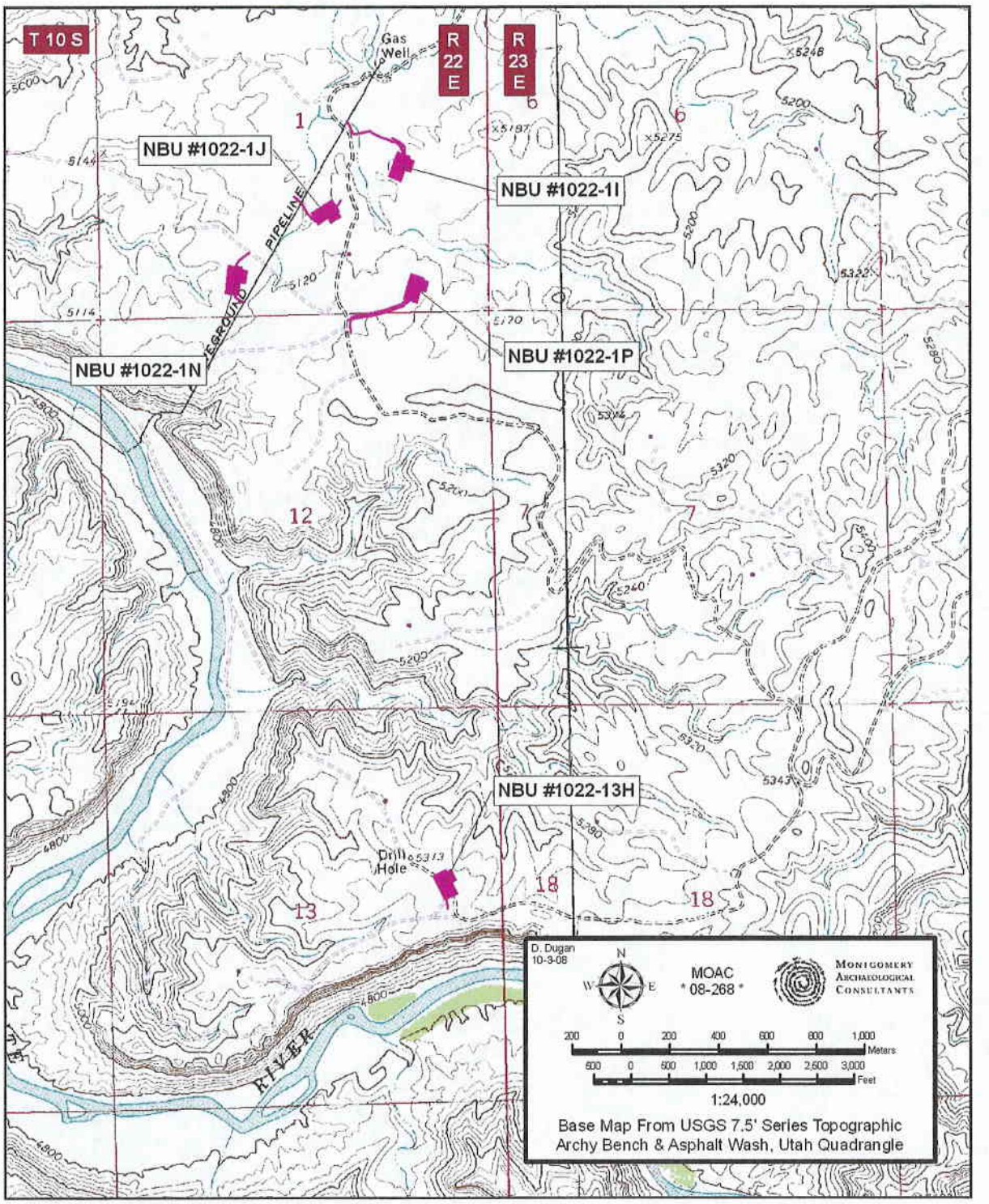
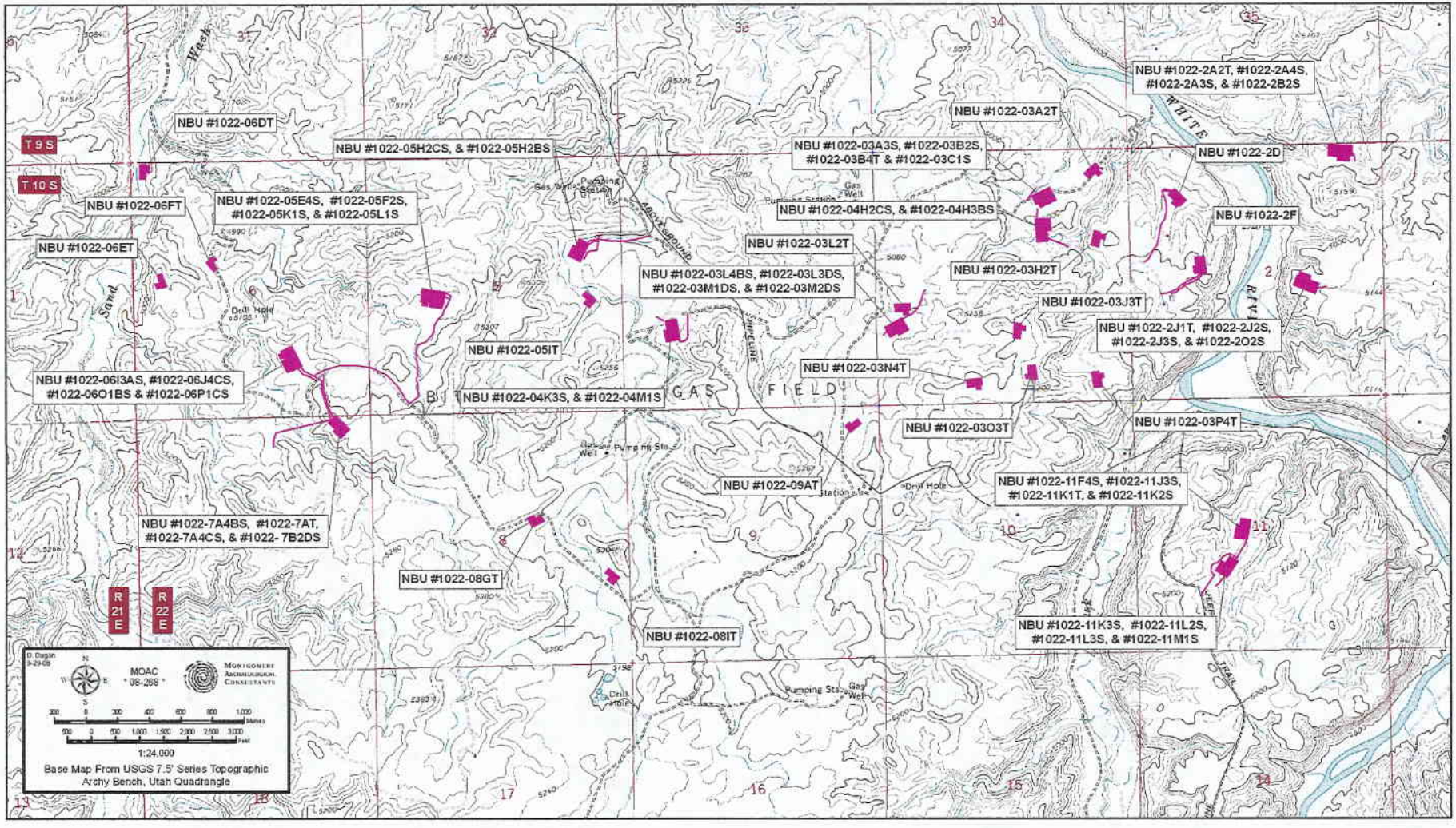


Figure 1. Location of Kerr-McGee Onshore's Well Pads in T10S, R22E.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NBU #1022-05H2CS, & #1022-05H2BS
NBU #1022-06FT
NBU #1022-05E4S, #1022-05F2S, #1022-05K1S, & #1022-05L1S
NBU #1022-06ET
NBU #1022-05IT
NBU #1022-06I3AS, #1022-06J4CS, #1022-06O1BS & #1022-06P1CS
NBU #1022-04K3S, & #1022-04M1S
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NBU #1022-08GT
NBU #1022-08IT
NBU #1022-09AT
NBU #1022-03L4BS, #1022-03L3DS, #1022-03M1DS, & #1022-03M2DS
NBU #1022-03L2T
NBU #1022-03A3S, #1022-03B2S, #1022-03B4T & #1022-03C1S
NBU #1022-03A2T
NBU #1022-04H2CS, & #1022-04H3BS
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NBU #1022-03N4T
NBU #1022-03O3T
NBU #1022-03J3T
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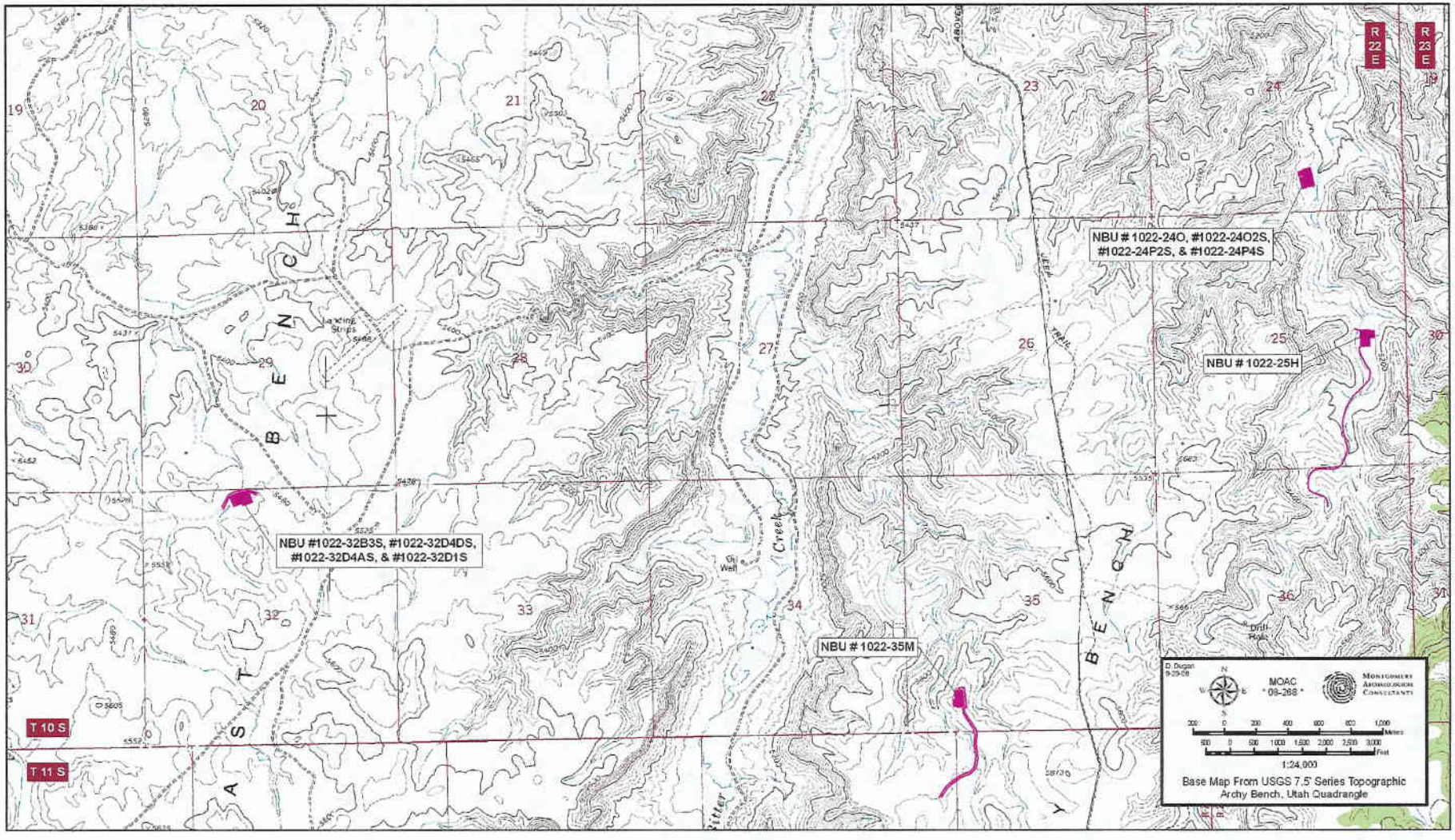
NBU #1022-2D
NBU #1022-2F
NBU #1022-2J1T, #1022-2J2S, #1022-2J3S, & #1022-2O2S
NBU #1022-03P4T
NBU #1022-11F4S, #1022-11J3S, #1022-11K1T, & #1022-11K2S
NBU #1022-11K3S, #1022-11L2S, #1022-11L3S, & #1022-11M1S
T 9 S
T 10 S
R 21 E
R 22 E
GAS FIELD
WHITE
RIVER
Wash
Sand
PIPELINE
ABOVE GROUND
Drill Hole
Gas Well
Pumping Station
MOAC
* 06-268 *
1:24,000
Base Map From USGS 7.5' Series Topographic
Archy Bench, Utah Quadrangle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#1022-24P2S, & #1022-24P4S
NBU # 1022-25H
NBU # 1022-35M
R 22 E
R 23 E
T 10 S
T 11 S
MOAC
09-268
1:24,000
Base Map From USGS 7.5' Series Topographic
Archy Bench, Utah Quadrangle

Table 1. Kerr-McGee Onshore's 73 NBU Well Locations.

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-1I	T10S, R22E, Sec. 1 NE/SE	Pipeline: 1000 ft Access: 200 ft	None
NBU 1022-1J	T10S, R22E, Sec. 1 NW/SE	Pipeline: 400 ft Access: 50 ft	None
NBU 1022-1N	T10S, R22E, Sec. 1 SE/SW	Pipeline: 150 ft Access: 200 ft	None
NBU 1022-1P	T10S, R22E, Sec. 1 SE/SE	Pipeline: 1050 ft Access: 1000 ft	None
NBU 1022-2A2T, 1022-2A4S 1022-243S, 1022-2B2S	T10S, R22E, Sec. 2 NE/NE	Access: 200 ft	None
NBU 1022-2D	T10S, R22E, Sec. 2 NW/NW	Pipeline: 1600 ft	None
NBU 1022-2F	T10S, R22E, Sec. 2 SE/NW	Pipeline: 800 ft Access: 1000 ft	None
NBU 1022-2J1T, 1022-2J2S, 1022-2J3S, 1022-202S	T10S, R22E, Sec. 2 NW/SE	Pipeline: 200 ft	None
NBU 1022-03A2T	T10S, R22E, Sec. 3 NE/NE	None	None
NBU1022-03A3S, 1022-03B2S 1022-03B4T, 1022-03C1S	T10S, R22E, Sec. 3 NW/NE	None	None
NBU 1022-04H2CS 1022-04H3BS	T10S, R22E, Sec. 3 SW/NE	Pipeline: 450 ft Access: 200 ft	None
NBU 1022-03H2T	T10S, R22E, Sec. 3 SE/NE	None	None
NBU 1022-03J3T	T10S, R22E, Sec. 3 NW/SE	None	None
NBU 1022-03L2T	T10S, R22E, Sec. 3 NW/SW	None	None
NBU 1022-03L4BS, 1022-03L3DS 1022-03M1DS, 1022-03M2DS	T10S, R22E, Sec. 3 NW/SW	Pipeline: 800 ft Access: 100 ft	None
NBU 1022-03N4T	T10S, R22E, Sec. 3 SE/SW	None	None
NBU 1022-03O3T	T10S, R22E, Sec. 3 SW/SE	None	None
NBU 1022-03P4T	T10S, R22E, Sec. 3 SE/SE	None	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-04K3S, 1022-04M1S	T10S, R22E, Sec. 4 NW/SW	Pipeline: 200 ft Access: 600 ft	None
NBU 1022-05H2CS, 1022-05H2BS	T10S, R22E, Sec. 5 SE/NE	Pipeline: 800 ft Access: 1200 ft	None
NBU 1022-05E4S, 1022-05F2S 1022-05K1S, 1022-05L1S	T10S, R22E Sec. 5 NE/SW	Pipeline: 4800 ft Access: 100 ft	None
NBU 1022-05IT	T10S, R22E, Sec. 5 NE/SE	None	None
NBU 1022-06DT	T10S, R22E, Sec. 6 NW/NW	None	None
NBU 1022-06ET	T10S, R22E, Sec. 6 SW/NW	None	None
NBU 1022-06FT	T10S, R22E, Sec. 6 SE/NW	None	None
NBU 1022-06I3AS, 1022-06J4CS 1022-06O1BS, 1022-06P1CS	T10S, R22E, Sec. 6 SW/SE	Pipeline: 1400 ft Access: 450 ft	None
NBU 1022-7A4BS, 1022-7AT 1022-7A4CS, 1022-7B2DS	T10S, R22E, Sec. 7 NE/NE	Pipeline: 1300 ft Access: 1000 ft	None
NBU 1022-08GT	T10SS, R22E, Sec. 8 SW/NE	None	None
NBU 1022-08IT	T10S, R22E, Sec. 8 NE/SE	None	None
NBU 1022-09AT	T10S, R22E, Sec. 9 NE/NE	None	None
NBU 1022-11F4S, 1022-11J3S, 1022-11K1T, 1022-11K2S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 1600 ft	None
NBU 1022-11K3S, 1022-11L2S, 1022-11L3S, 1022-11M1S	T10S, R22E, Sec. 11 NE/SW	Pipeline: 500 ft Access: 250 ft	None
NBU 1022-13H	T10S, R22E, Sec. 13 SE/NE	Pipeline: 100 ft	
NBU 1022-24O, 1022-24O2S 1022-24P2S, 1022-24P4S	T10S, R22E, Sec. 24 SW/SE	None	None
NBU 1022-25H	T10S, R22E, Sec. 25 SE/NE	Pipeline: 4000 ft	None

Well Designation	Legal Description	Access/Pipeline Corridor	Cultural Resources
NBU 1022-32B3S, 1022-32D4DS 1022-3-2D4AS, 1022-32D1S	T10S, R22E, Sec. 32 NE/NW	Pipeline: 900 ft Access: 800 ft	None
NBU 1022-35M	T10S, R22E, Sec. 35 SW/SW	Pipeline: 2750 ft Access: 2200 ft	None

Environmental Setting

The study area lies within the Uinta Basin physiographic unit, a distinctly bowl-shaped geologic structure (Stokes 1986:231). The Uinta Basin ecosystem is within the Green River drainage, considered to be the northernmost extension of the Colorado Plateau. The geology is comprised of Tertiary age deposits, which include Paleocene age deposits and Eocene age fluvial and lacustrine sedimentary rocks. The Uinta Formation, which is predominate in the project area, occurs as eroded outcrops (formed by fluvial deposited, stream laid interbedded sandstone and mudstone), and is known for its prolific paleontological localities. Specifically, the inventory area is situated south of the White River and on both sides of Cottonwood Wash. Elevation ranges from 5080 to 5680 ft asl. The project occurs within the Upper Sonoran Desert Shrub Association which includes sagebrush, shadscale, greasewood, mat saltbush, snakeweed, rabbitbrush, and prickly pear cactus. Modern disturbances include livestock grazing, roads, and oil/gas development.

CLASS I RESULTS AND RECOMMENDATIONS

The Class I literature review of Kerr-McGee Onshore's 73 proposed NBU well locations and associated pipeline/access corridors in Township 10S, Range 22E resulted in the location of no cultural resources. Based on the findings, a determination of "no adverse impact" is recommended for the undertaking pursuant to Section 106, CFR 800.

REFERENCES CITED

Montgomery, J. A.
2007 Cultural Resource Management Report for Kerr-McGee Oil and Gas Onshore LP's Greater NBU Blocks in Township 10 South, Range 22 East, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah. Report No. U-07-MQ-1438bsp.

Patterson, J. J., J. Fritz, K. Lower-Eskelson, R. Stash and A. Thomas
2008 NBU Class I Existing Data Review for Kerr-McGee Oil & Gas Onshore LP, Uintah County, Utah. Montgomery Archaeological Consultants, Moab, Utah.

Stokes, W. L.
1986 *Geology of Utah*. Utah Museum of Natural History and Utah Geological and Mineral Survey, Salt Lake City.

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/01/2008

API NO. ASSIGNED: 43-047-40432

WELL NAME: NBU 1022-2A3S

OPERATOR: KERR-MCGEE OIL & GAS (N2995)

PHONE NUMBER: 720-929-6226

CONTACT: KEVIN MCINTYRE

PROPOSED LOCATION:

NENE 02 100S 220E

SURFACE: 0206 FNL 0857 FEL

BOTTOM: 0680 FNL 0820 FEL

COUNTY: UINTAH

LATITUDE: 39.98466 LONGITUDE: -109.4001

UTM SURF EASTINGS: 636603 NORTHINGS: 4427070

FIELD NAME: NATURAL BUTTES (630)

INSPECT LOCATN BY: / /		
Tech Review	**Initials**	**Date**
Engineering	DKD	2/2/09
Geology		
Surface		

LEASE TYPE: 3 - State

LEASE NUMBER: ST ML 22651

SURFACE OWNER: 3 - State

PROPOSED FORMATION: WSMVD

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[] Fee[]
(No. 22013542)

N Potash (Y/N)

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

✓ Water Permit
(No. 43-8496)

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: NATURAL BUTTES

___ R649-2-2. General

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

___ R649-3-3. Exception

✓ Drilling Unit

Board Cause No: 173-14

Eff Date: 12-21-1999

Siting: 460' Sr Ubdry & Uncomm. Tracts

✓ R649-3-11. Directional Drill

COMMENTS: Need Presite (11-18-08)

STIPULATIONS: 1- STATEMENT OF BASIS

2- OIL SHALE

3- Surface Csg Cmt Stip

API Number: 4304740432

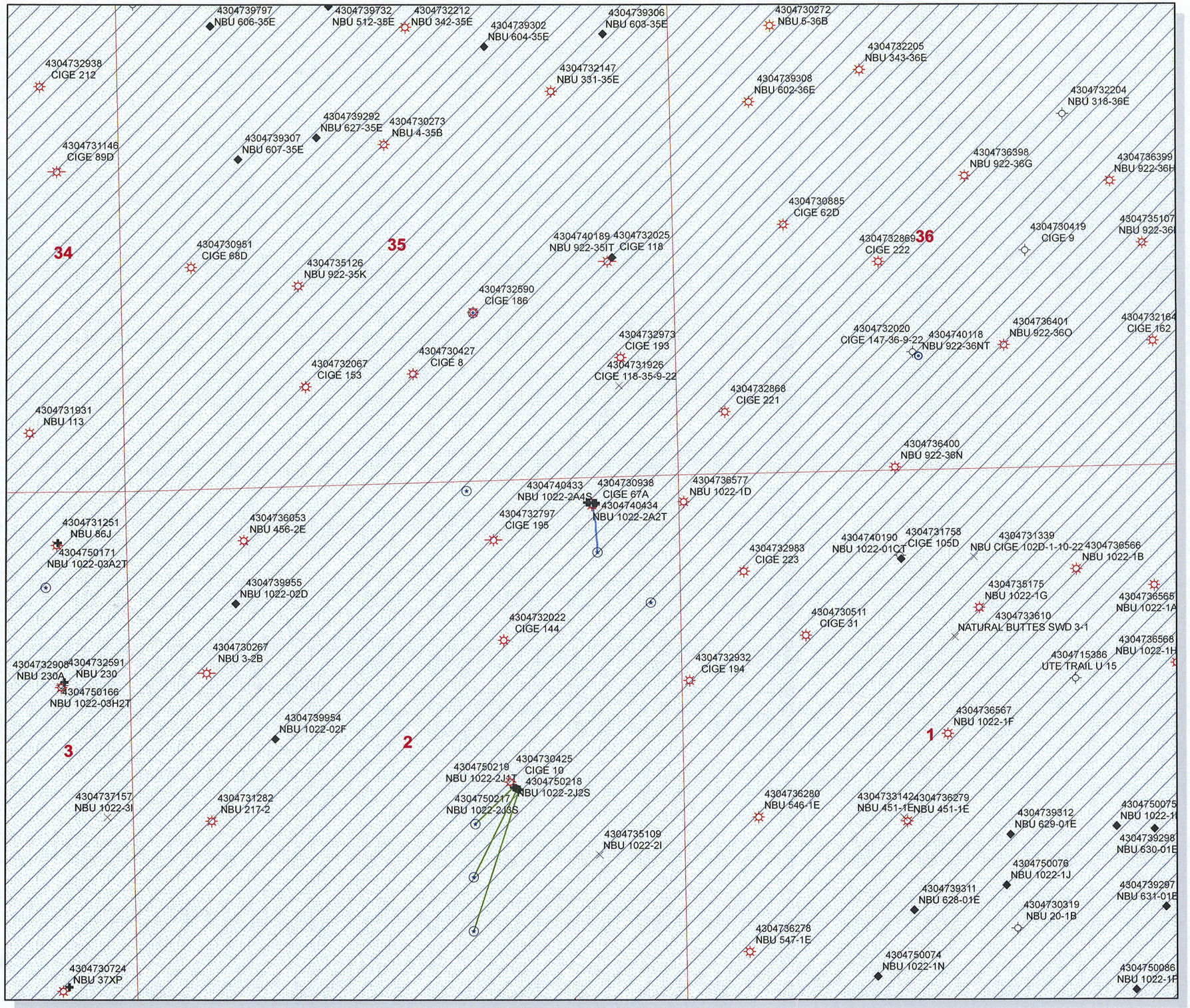
Well Name: NBU 1022-2A3S

Township 10.0 S Range 22.0 E Section 02

Meridian: SLBM

Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
Map Produced by Diana Mason



Units

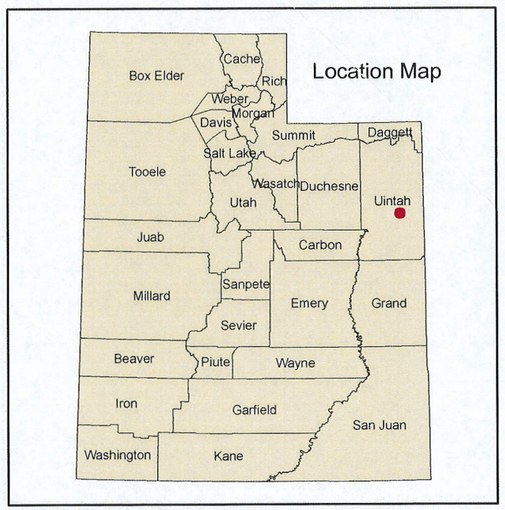
STATUS
- ACTIVE
- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

Fields

STATUS
- ACTIVE
- COMBINED
- Sections

Wells Query Events
- <all other values>

GIS_STAT_TYPE
- <Null>
- APD
- DRL
- GI
- GS
- LA
- NEW
- OPS
- PA
- PGW
- POW
- RET
- SGW
- SOW
- TA
- TW
- WD
- WI
- WS



1,300 650 0 1,300 Feet

1:11,759

Application for Permit to Drill
Statement of Basis

APD No	API WellNo	Status	Well Type	Surf Ownr	CBM
1222	43-047-40432-00-00		GW	S	No

Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.	**Surface Owner-APD**	
Well Name	NBU 1022-2A3S	**Unit**	NATURAL BUTTES
Field	NATURAL BUTTES	**Type of Work**	
Location	NENE 2 10S 22E S 206 FNL 857 FEL	GPS Coord (UTM)	636603E 4427070N

Geologic Statement of Basis

Kerr McGee proposes to set 1,900' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,500'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of Section 2. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought to above the base of the moderately saline groundwater in order to isolate it from fresher waters uphole.

Brad Hill	1/13/2009
APD Evaluator	**Date / Time**

Surface Statement of Basis

The general area is in the southeast end of the Natural Buttes Unit, which contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Ouray, Utah is approximately 24.7 road miles following Utah State, Uintah County and oilfield development roads to the location.

The proposed pad encompasses a pad of the CIGE 67D gas well that will be significantly enlarged on three sides. The site begins at the edge of a steep north slope that leads away from a high knoll or ridge to the south. The slope continues to the north beyond the location toward a deep draw which runs to the west joining a major wash which meets the White River. The White River is about 1 mile south of the location. A drainage on the east side of the pad shows light flows which have either continued down the shallow bottom or onto the edge of the existing pad. This drainage needs to be diverted along the east side of the new pad or accept occasional light flows onto the pad. No other drainage concerns exist. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad, drilling and operating the planned wells and is the best location in the immediate area. A new Figure #1 (cut-sheet) was prepared following the pre-site visit. It lowered the surface of the existing pad approximately 2.7 feet to obtain fill material for the enlarged pad.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA reviewed the site and had no concerns regarding the proposal.

Pat Rainbolt of the Utah Division of Wildlife Resources also attended the pre-site. Mr. Rainbolt stated no wildlife values would be significantly affected by drilling and operating the wells at this location. He provided Jim Davis of SITLA and Ramie Hoopes of Kerr McGee a written wildlife evaluation and a copy of a recommended seed mix to be used for re-vegetating the disturbed area.

Floyd Bartlett	11/18/2008
Onsite Evaluator	**Date / Time**

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A double synthetic liner each with a minimum thickness of 20 mils and an appropriate thickness of felt sub-liner to cushion the liners shall be properly installed and maintained in the reserve pit.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 1022-2A3S
API Number 43-047-40432-0 **APD No** 1222 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NENE **Sec** 2 **Tw** 10S **Rng** 22E 206 FNL 857 FEL
GPS Coord (UTM) 636608 4427080 **Surface Owner**

Participants

Floyd Bartlett (DOGM), Jim Davis (SITLA), Ramie Hoopes, Griz Oleen and Tony Kzneck (Kerr McGee), Pat Rainbolt (UDWR) and David Kay (Uintah Engineering and Land Surveying).

Regional/Local Setting & Topography

The general area is in the southeast end of the Natural Buttes Unit, which contains the White River and short rugged drainages that drain into the White River. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River varies from ¼ mile to 2 miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43 air miles to the northwest. Access from Ouray, Utah is approximately 24.7 road miles following Utah State, Uintah County and oilfield development roads to the location.

The proposed pad encompasses a pad of the CIGE 67D gas well that will be significantly enlarged on three sides. The site begins at the edge of a steep north slope that leads away from a high knoll or ridge to the south. The slope continues to the north beyond the location toward a deep draw which runs to the west joining a major wash which meets the White River. The White River is about 1 mile south of the location. A drainage on the east side of the pad shows light flows which have either continued down the shallow bottom or onto the edge of the existing pad. This drainage needs to be diverted along the east side of the new pad or accept occasional light flows onto the pad. No other drainage concerns exist. The existing pad shows no stability problems and the site has no apparent concerns for constructing an enlarged pad, drilling and operating the planned wells and is the best location in the immediate area. A new Figure #1 (cut-sheet) was prepared following the pre-site visit. It lowered the surface of the existing pad approximately 2.7 feet to obtain fill material for the enlarged pad.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA reviewed the site and had no concerns regarding the proposal.

Surface Use Plan

Current Surface Use
Wildlfe Habitat
Existing Well Pad

New Road Miles	Well Pad		Src Const Material	Surface Formation
0	**Width** 355	**Length** 420	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetland N

Flora / Fauna

Poorly vegetated with greasewood, cheatgrass, black sagebrush, broom snakeweed, shadscale, rabbitbrush, pepper weed, halogeton and annuals.

Sheep, deer, antelope, coyote, and other small mammals and birds.

Soil Type and Characteristics

Shallow rocky sandy loam.

Erosion Issues N

Sedimentation Issues Y

Adrainage needs to be diverted along the east side of the new pad or accept occasional light flows onto the pad.

Site Stability Issues N

Drainage Diverson Required Y

Berm Required? N

Erosion Sedimentation Control Required? Y

. A drainage on the east side of the pad shows light flows which have either continued down the shallow bottom or onto the edge of the existing pad.

Paleo Survey Run? **Paleo Potental Observed?** N **Cultural Survey Run?** **Cultural Resources?** N

Reserve Pit

Site-Specific Factors		Site Ranking
Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)	<300	20
Native Soil Type	Mod permeability	10
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)	<10	0
Affected Populations	<10	0
Presence Nearby Utility Conduits	Not Present	0
	Final Score	35 1 **Sensitivity Level**

Characteristics / Requirements

The reserve pit is planned in an area of cut in the southeast corner of the location. Dimensions are 100' x 250' x 10' deep with 2' of freeboard. Because the length of time the reserve pit will be used and the roughness of the terrain, Kerr McGee committed to line it with a double 20-mil.liner and an appropriate thickness of felt sub-liner to cushion the rock.

Closed Loop Mud Required? N **Liner Required?** **Liner Thickness** 40 **Pit Underlayment Required?** Y

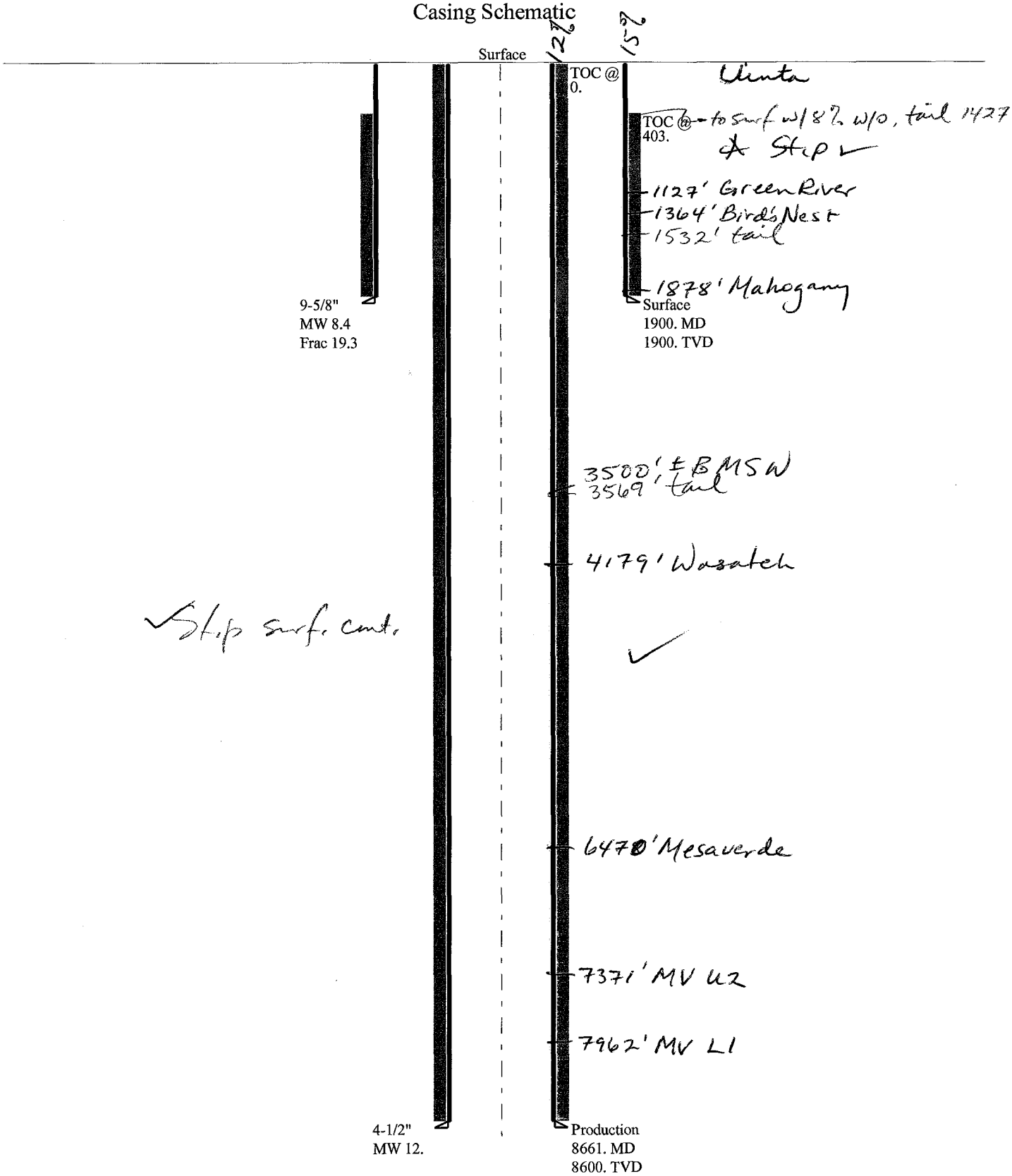
Other Observations / Comments

Floyd Bartlett
Evaluator

11/18/2008
Date / Time

43047404320000 NBU 1022-2A3S

Casing Schematic



Well name:	**43047404320000 NBU 1022-2A3S**
Operator:	**Kerr McGee Oil & Gas Onshore L.P.**
String type:	Surface
Project ID:	43-047-40432-0000
Location:	Uintah County, Utah

Design parameters:

Collapse

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

Burst

Max anticipated surface pressure: 1,672 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 1,900 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on buoyed weight.
Neutral point: 1,664 ft

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 102 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,300 ft

Cement top: 403 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 8,600 ft
Next mud weight: 12.000 ppg
Next setting BHP: 5,361 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 1,900 ft
Injection pressure: 1,900 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	1900	9.625	36.00	J-55	LT&C	1900	1900	8.796	824.7

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	829	2020	2.437	1900	3520	1.85	60	453	7.56 J

Prepared by: Helen Sadik-Macdonald
Div of Oil,Gas & Mining
Phone: (801) 538-5357
FAX: (801) 359-3940
Date: January 22,2009
Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 1900 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

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

Well name:	**43047404320000 NBU 1022-2A3S**
Operator:	**Kerr McGee Oil & Gas Onshore L.P.**
String type:	Production
Project ID:	43-047-40432-0000
Location:	Uintah County, Utah

Design parameters:

Collapse

Mud weight:	12.000 ppg
Internal fluid density:	2.300 ppg

Burst

Max anticipated surface pressure:	3,469 psi
Internal gradient:	0.220 psi/ft
Calculated BHP	5,361 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor	1.125

Burst:

Design factor	1.00

Tension:

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

Tension is based on buoyed weight.
Neutral point: 7,118 ft

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature:	195 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	1,500 ft
Cement top:	Surface

Directional Info - Build & Drop

Kick-off point	2100 ft
Departure at shoe:	476 ft
Maximum dogleg:	3 °/100ft
Inclination at shoe:	0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	8661	4.5	11.60	I-80	LT&C	8600	8661	3.875	755.8

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	4334	6360	1.468	5361	7780	1.45	82	212	2.59 J

Prepared by:	Helen Sadik-Macdonald Div of Oil,Gas & Mining	Phone: (801) 538-5357 FAX: (801) 359-3940	Date: January 22,2009 Salt Lake City, Utah

Remarks:
Collapse is based on a vertical depth of 8600 ft, a mud weight of 12 ppg An internal gradient of .119 psi/ft was used for collapse from TD to
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

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

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

BOPE REVIEW — Kerr-McGee NBU 1022-2A3S — API 43-047-40432-0000

INPUT

Well Name	Kerr-McGee NBU 1022-2A3S API 43-047-40432-0000			
	String 1	String 2		
Casing Size (")	9 5/8	4 1/2		
Setting Depth (TVD)	1900	8600		
Previous Shoe Setting Depth (TVD)	40	1900		
Max Mud Weight (ppg)	8.4	12	✓	
BOPE Proposed (psi)	500	5000		
Casing Internal Yield (psi)	3520	7780		
Operators Max Anticipated Pressure (psi)	5332	11.9 ppg	✓	

Calculations	String 1	9 5/8 "	
Max BHP [psi]	.052*Setting Depth*MW =	830	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	602	NO OK Air Drill to surface shoe with diverter
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	412	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	421	← NO Reasonable depth in area
Required Casing/BOPE Test Pressure		1900 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		40 psi	*Assumes 1psi/ft frac gradient

Calculations	String 2	4 1/2 "	
Max BHP [psi]	.052*Setting Depth*MW =	5366	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) [psi]	Max BHP-(0.12*Setting Depth) =	4334	YES ✓
MASP (Gas/Mud) [psi]	Max BHP-(0.22*Setting Depth) =	3474	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth) =	3892	← NO Reasonable
Required Casing/BOPE Test Pressure		5000 psi	
*Max Pressure Allowed @ Previous Casing Shoe =		1900 psi	*Assumes 1psi/ft frac gradient

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

December 5, 2008

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2008 Plan of Development Natural Buttes Unit Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ Wasatch/MesaVerde)		
43-047-40444	NBU 921-10G4S	Sec 10 T09S R21E 1937 FNL 1931 FWL
	BHL	Sec 10 T09S R21E 2158 FNL 1441 FEL
43-047-40445	NBU 921-10F2S	Sec 10 T09S R21E 1877 FNL 1927 FWL
	BHL	Sec 10 T09S R21E 1373 FNL 1959 FEL
43-047-40446	NBU 921-10E3S	Sec 10 T09S R21E 1917 FNL 1929 FWL
	BHL	Sec 10 T09S R21E 2080 FNL 0406 FWL
43-047-40447	NBU 921-10F3T	Sec 10 T09S R21E 1897 FNL 1928 FWL
43-047-40448	NBU 922-29D1T	Sec 29 T09S R22E 0571 FNL 1009 FWL
43-047-40423	NBU 921-10CT	Sec 10 T09S R21E 0811 FNL 1792 FWL
43-047-40428	NBU 921-13CT	Sec 13 T09S R21E 0655 FNL 1920 FWL
43-047-40435	NBU 1022-3B4T	Sec 03 T10S R22E 1022 FNL 1751 FEL
43-047-40434	NBU 1022-2A2T	Sec 02 T10S R22E 0203 FNL 0896 FEL
43-047-40424	NBU 921-10G2S	Sec 10 T09S R21E 0835 FNL 1824 FWL
	BHL	Sec 10 T09S R21E 1340 FNL 2462 FEL
43-047-40425	NBU 921-10D2S	Sec 10 T09S R21E 0799 FNL 1776 FWL

BHL Sec 10 T09S R21E 0543 FNL 0648 FWL

43-047-40426	NBU 921-10B4S	Sec 10 T09S R21E	0823 FNL 1808 FWL
	BHL	Sec 10 T09S R21E	0705 FNL 1929 FEL
43-047-40427	NBU 921-13G2S	Sec 13 T09S R21E	0655 FNL 1940 FWL
	BHL	Sec 13 T09S R21E	1372 FNL 2523 FEL
43-047-40429	NBU 921-13B2S	Sec 13 T09S R21E	0655 FNL 1960 FWL
	BHL	Sec 13 T09S R21E	0488 FNL 2541 FEL
43-047-40430	NBU 921-13D4S	Sec 13 T09S R21E	0655 FNL 1900 FWL
	BHL	Sec 13 T09S R21E	0682 FNL 0912 FWL
43-047-40431	NBU 1022-2B2S	Sec 02 T10S R22E	0202 FNL 0916 FEL
	BHL	Sec 02 T10S R22E	0065 FNL 2075 FEL
43-047-40432	NBU 1022-2A3S	Sec 02 T10S R22E	0206 FNL 0857 FEL
	BHL	Sec 02 T10S R22E	0680 FNL 0820 FEL
43-047-40433	NBU 1022-2A4S	Sec 02 T10S R22E	0207 FNL 0836 FEL
	BHL	Sec 02 T10S R22E	1175 FNL 0315 FEL
43-047-40436	NBU 1022-3A3S	Sec 03 T10S R22E	1013 FNL 1734 FEL
	BHL	Sec 03 T10S R22E	0904 FNL 0822 FEL
43-047-40437	NBU 1022-3C1S	Sec 03 T10S R22E	1040 FNL 1787 FEL
	BHL	Sec 03 T10S R22E	0380 FNL 2354 FWL
43-047-40438	NBU 1022-3B2S	Sec 03 T10S R22E	1031 FNL 1769 FEL
	BHL	Sec 03 T10S R22E	0048 FNL 2516 FEL
43-047-40439	NBU 1022-24O2S	Sec 24 T10S R22E	0684 FSL 2016 FEL
	BHL	Sec 24 T10S R22E	0830 FSL 0690 FEL
43-047-40440	NBU 1022-24P4S	Sec 24 T10S R22E	0625 FSL 2002 FEL
	BHL	Sec 24 T10S R22E	0400 FSL 0635 FEL
43-047-40441	NBU 1022-25G2S	Sec 25 T10S R22E	1768 FNL 1502 FEL
	BHL	Sec 25 T10S R22E	1900 FNL 2025 FEL
43-047-40442	NBU 1022-25G4S	Sec 25 T10S R22E	1758 FNL 1443 FEL
	BHL	Sec 25 T10S R22E	2615 FNL 1955 FEL
43-047-40443	NBU 1022-25G3S	Sec 25 T10S R22E	1765 FNL 1482 FEL
	BHL	Sec 25 T10S R22E	2250 FNL 2065 FEL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File – Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:12-5-08

From: Jim Davis
To: Bonner, Ed; Mason, Diana
Date: 12/30/2008 1:00 PM
Subject: SITLA well approvals (4 KMG, 2 Newfield)

CC: Garrison, LaVonne

The following wells have been approved by SITLA including arch and paleo clearance.

4304740431	NBU 1022-2B2S	Kerr-McGee Oil & Gas	Natural Buttes
4304740432	NBU 1022-2A3S	Kerr-McGee Oil & Gas	Natural Buttes
4304740433	NBU 1022-2A4S	Kerr-McGee Oil & Gas	Natural Buttes
4304740434	NBU 1022-2A2T	Kerr-McGee Oil & Gas	Natural Buttes

4304740420	STATE 1-36-6-20	Newfield Production Co.	Undesignated
4301334146	W DRAW ST N-32-8-16	Newfield Production Co.	Monument Butte

-Jim

Jim Davis
Utah Trust Lands Administration
jimdavis1@utah.gov
Phone: (801) 538-5156

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

February 2, 2009

Kerr-McGee Oil & Gas Onshore, LP
P O Box 173779
Denver, CO 80217-3779

Re: NBU 1022-2A3S Well, 206' FNL, 857' FEL, NE NE, Sec. 2, T. 10 South, R. 22 East, Bottom Location 680' FNL, 820' FEL, NE NE, Sec. 2, T. 10 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 43-047-40432.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Uintah County Assessor
SITLA
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: Kerr-McGee Oil & Gas Onshore, LP

Well Name & Number NBU 1022-2A3S

API Number: 43-047-40432

Lease: ST ML 22651

Location:	NE NE	**Sec.** 2	**T.** 10 South	**R.** 22 East
Bottom Location:	NE NE	**Sec.** 2	**T.** 10 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**

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

   - 24 hours prior to cementing or testing casing – contact Dan Jarvis
   - 24 hours prior to testing blowout prevention equipment – contact Dan Jarvis
   - 24 hours prior to spudding the well – contact Carol Daniels
   - Within 24 hours of any emergency changes made to the approved drilling program – contact Dustin Doucet
   - Prior to commencing operations to plug and abandon the well – contact Dan Jarvis

   The operator is required to get approval from the Division of Oil, Gas and Mining before performing any of the following actions during the drilling of this well:

   - Plugging and abandonment or significant plug back of this well – contact Dustin Doucet
   - Any changes to the approved drilling plan – contact Dustin Doucet

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

   - Dan Jarvis at: (801) 538-5338 office (801) 942-0871 home
   - Carol Daniels at: (801) 538-5284 office
   - 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. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

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

7. In accordance with Order in Cause No. 190-5(b) dated October 28, 1982, the Operator shall comply with requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operator shall ensure that the surface and/or production casing is properly cemented over the entire oil shale interval as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the Division.

8. Surface casing shall be cemented to the surface.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: **Kerr-McGee Oil & Gas Onshore, LP**

Well Name: **NBU 1022-2A3S**

API No: **43-047-40432** Lease Type: **State**

Section **02** Township **10S** Range **22E** County **Uintah**

Drilling Contractor **Pete Martin Drilling** Rig # **Bucket**

SPUDDED:

Date **04/10/09**

Time **02:00 PM**

How **Dry**

Drilling will Commence:

Reported by **Lew Weldon**

Telephone # **435-781-7060**

Date 04/14/2009 **Signed RM**

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

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP
Operator Account Number: N 2995
Address: 1368 SOUTH 1200 EAST
city VERNAL
state UT zip 84078
Phone Number: (435) 781-7024

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740432	NBU 1022-2A3S		NENE	2	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	4/10/2009			4/16/09	

Comments: MIRU PETE MARTIN BUCKET RIG WSMVD
SPUD WELL LOCATION ON 04/10/2009 AT 1400 HRS BHL = NENE

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740433	NBU 1022-2A4S		NENE	2	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	4/10/2009			4/16/09	

Comments: MIRU PETE MARTIN BUCKET RIG WSMVD
SPUD WELL LOCATION ON 04/10/2009 AT 0800 HRS BHL = NENE

Well 3 043-40431

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304~~74031~~	NBU 1022-2B2S		NENE	2	10S	22E	UINTAH
Action Code	**Current Entity Number**	**New Entity Number**	**Spud Date**			**Entity Assignment Effective Date**	
B	99999	2900	4/10/2009			4/16/09	

Comments: MIRU PETE MARTIN BUCKET RIG. WSMVD
SPUD WELL LOCATION ON 04/10/2009 AT 1200 HRS BHL = NWNE

ACTION CODES:
- 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)

SHEILA UPCHEGO
Name (Please Print)
Signature
REGULATORY ANALYST
Title
4/14/2009
Date

RECEIVED
APR 14 2009
DIV. OF OIL, GAS & MINING

(5/2000)

FORM 9

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

5. LEASE DESIGNATION AND SERIAL NUMBER: ST ML-22651

SUNDRY NOTICES AND REPORTS ON WELLS

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

7. UNIT or CA AGREEMENT NAME: UNIT #891008900A

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

8. WELL NAME and NUMBER: NBU 1022-2A3S

2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP

9. API NUMBER: 4304740432

3. ADDRESS OF OPERATOR: 1368 SOUTH 1200 EAST CITY VERNAL STATE UT ZIP 84078

PHONE NUMBER: (435) 781-7024

10. FIELD AND POOL, OR WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 206'FNL, 857'FEL

COUNTY: UINTAH

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NENE 2 10S 22E

STATE: UTAH

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

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

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

MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEUDLE 10 PIPE. CMT W/28 SX READY MIX.

SPUD WELL LOCATION ON 04/10/2009 AT 1400 HRS.

NAME (PLEASE PRINT) SHEILA UPCHEGO TITLE REGULATORY ANALYST

SIGNATURE DATE 4/14/2009

(This space for State use only)

RECEIVED
APR 20 2009
DIV. OF OIL, GAS & MINING

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

API Well No: 43047404320000

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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

5.LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22651

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-2A3S

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047404320000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6587 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0206 FNL 0857 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 02 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 5/16/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Kerr-McGee Oil & Gas Onshore LP respectfully requests to change the surface casing for this well from 1,900' to 2,080'. Please see the attached drilling diagram for additional details. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: May 18, 2009

By: Dustin Doucet

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		5/13/2009

RECEIVED May 13, 2009

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047404320000

Surface casing shall be cemented from setting depth back to surface.

Approved by the
Utah Division of
Oil, Gas and Mining

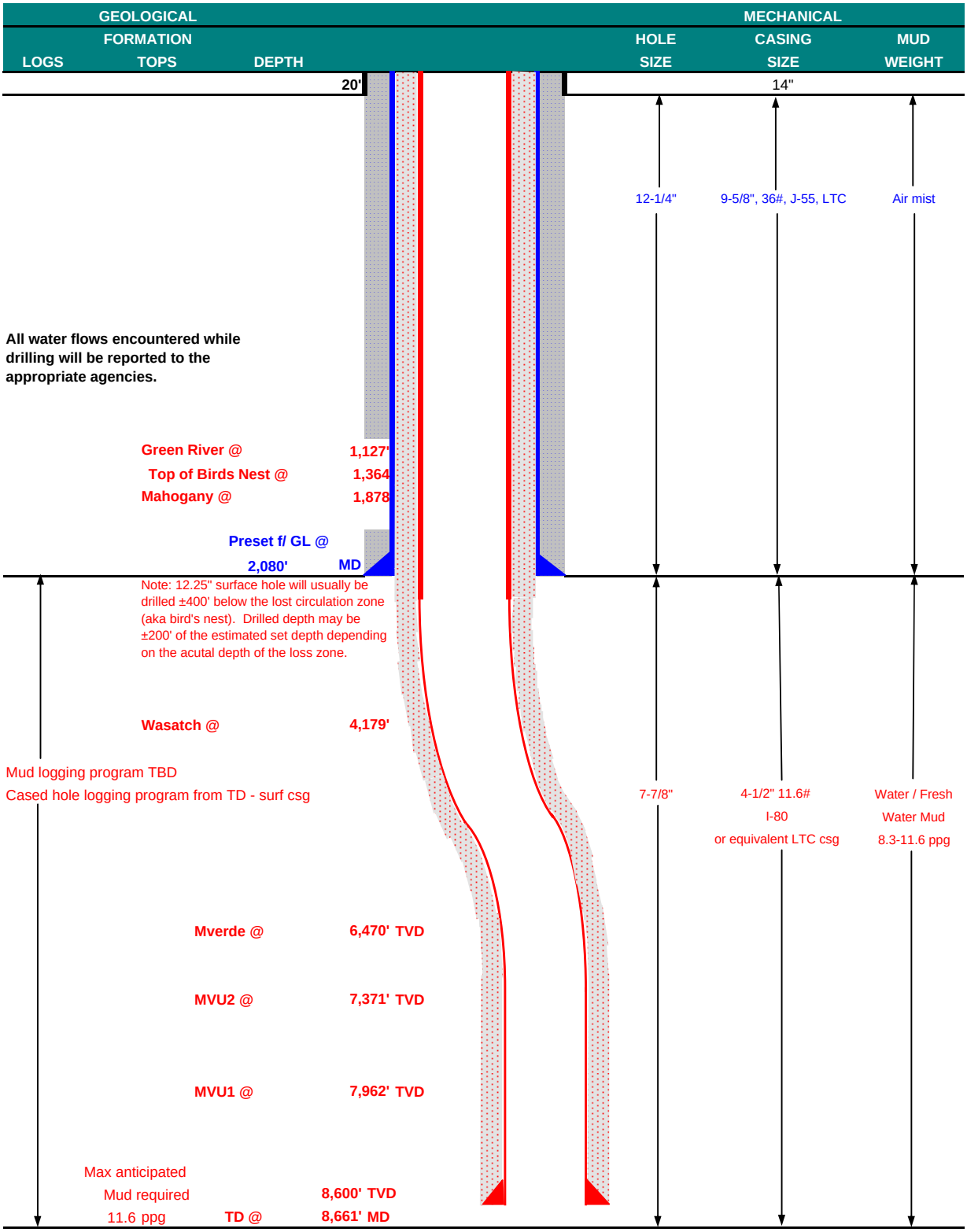
Date: May 18, 2009

By:

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	May 13, 2009		
WELL NAME	**NBU 1022-2A3S**			TD	8,600'	TVD	8,661' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	4,974' GL KB 4,989'
SURFACE LOCATION	NE/4 NE/4	206' FNL	857' FEL	Sec 2	T 10S	R 22E	Lot 1
	Latitude:	39.984719	Longitude:	-109.400086			NAD 27
BTM HOLE LOCATION	NE/4 NE/4	680' FNL	820' FEL	Sec 2	T 10S	R 22E	Lot 1
	Latitude:	39.983417	Longitude:	-109.399947			NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.						



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3520	2020	453000
SURFACE	9-5/8"	0 to 2,080	36.00	J-55	LTC	1.06	2.08	7.70
						7,780	6,350	201,000
PRODUCTION	4-1/2"	0 to 8,661	11.60	I-80	LTC	2.36	1.22	2.29

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,198 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,090 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite	360	35%	12.60	1.81
			+.25 pps Flocele + 3% salt BWOW				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,671'	Premium Lite II + 3% KCl + 0.25 pps	350	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	4,990'	50/50 Poz/G + 10% salt + 2% gel	1220	40%	14.30	1.31
			+.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Grant Schluender

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young

API Well No: 43047404320000

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

FORM 9

5.LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22651

SUNDRY NOTICES AND REPORTS ON WELLS

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6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-2A3S

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047404320000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6007 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0206 FNL 0857 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 02 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

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☐ NOTICE OF INTENT Approximate date work will start:	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
☐ SPUD REPORT Date of Spud:	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
✓ DRILLING REPORT Report Date: 10/8/2009	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	✓ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 10/8/2009 AT 12:00 P.M. PLEASE REFER TO THE ATTACHED CHRONOLOGICAL WELL HISTORY.

Accepted by the Utah Division of Oil, Gas and Mining
FOR RECORD ONLY
October 12, 2009

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Andy Lytle	720 929-6100	Regulatory Analyst
SIGNATURE N/A		**DATE** 10/12/2009

RECEIVED October 12, 2009

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 4/15/2009	End Date: 7/3/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/15/2009	20:00 - 0:00	4.00	DRLSUR	02		P		MOVE IN AND RIG UP AIR RIG SPUD WELL @ 2000 HR 4/15/09 DA 450'
4/16/2009	0:00 - 12:00	12.00	DRLSUR	02	A	P		RIG DRILL TO 810' W/ AIR MIST HIT TRONA WATER PREP FOR TRIP
	12:00 - 14:00	2.00	DRLSUR	06	A	P		TRIP DP OUT OF HOLE LAY DOWN HAMMER RIH W/ TRI CONE
	14:00 - 0:00	10.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING W/ FLUID 1050' NO RETURNS
4/17/2009	0:00 - 12:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING WITH FLUID NO RETURNS 1230'
	12:00 - 0:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING WITH FLUID NO RETURNS 1440'
4/18/2009	0:00 - 12:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING WITH FLUID NO RETURNS 1590'
	12:00 - 0:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING WITH FLUID NO RETURNS 1650'
4/19/2009	0:00 - 12:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD WITH FLUID NO RETURNS 1880'
	12:00 - 0:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD WITH FLUID NO RETURNS 1980'
4/20/2009	0:00 - 12:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING WITH FLUID NO RETURNS 2100'
	12:00 - 0:00	12.00	DRLSUR	02	A	P		RIG DRILLING AHEAD DRILLING WITH FLUID NO RETURNS 2280'
4/21/2009	0:00 - 4:00	4.00	DRLSUR	02	A	P		DRILL 2280'-2355', DRILL WITH WATER NO RETURNS. TD SURFACE 04:00.
	4:00 - 5:00	1.00	DRLSUR	05	C	P		CIRC AND CONDITION HOLE.
	5:00 - 5:30	0.50	DRLSUR	10	A	P		SURVEY 2355' 1 DEGREE.
	5:30 - 10:30	5.00	CSG	06	D	P		LAY DOWN DRILL STRING
	10:30 - 13:30	3.00	CSG	12	C	P		RUN 53 JTS OF 9 5/8" 36# J-55 8RD CSG TO 2318'. FLOAT SET @ 2271'. RIG DOWN AIR RIG
	13:30 - 15:00	1.50	CSG	12	E	P		SAFETY MEETING, RIG UP PRO-PETRO CEMENTERS PUMP 165 BBLS OF 8.3 H20 @ 7 BBLS/MIN, PUMP 20 BBLS OF GEL WATER @ 7 BBLS/MIN, PUMP 350 SX (71.6 BBLS) OF 15.8#, 1.15 YD, 5 GAL/SK, OF PREMIUM CEMENT. DISPLACE W/ 173 BBLS OF8.3# H20. LIFT 320 PSI/ BUMP PLUG 800 PSI. FLOAT HELD. NO CIRC. THROUGH OUT.
	15:00 - 17:00	2.00	CSG	12	E	P		INITIAL TOP OUT 100 SX (20 BBL) OF 4% CAL 15.8#, 1.15 YD, 5 GAL/SK, OF PREMIUM CEMENT. WAIT 1.5 HRS
	17:00 - 18:00	1.00	CSG	12	E	P		TOP OUT 150 SX (30 BBL) OF 4% CAL 15.8#, 1.15 YD, 5 GAL/SK, OF PREMIUM CEMENT. WAIT 1 HR
	18:00 - 18:30	0.50	CSG	12	E	P		TOP OUT 100 SX (20 BBL) OF 4% CAL 15.8#, 1.15 YD, 5 GAL/SK, OF PREMIUM CEMENT. CEMENT TO SURFACE AND STAYED. RIG DOWN PRO-PETRO
6/23/2009	13:00 - 14:00	1.00	DRLPRO	01	C	P		PREP TO WALK RIG
	14:00 - 18:00	4.00	DRLPRO	01	C	P		WALK RIG
	18:00 - 20:30	2.50	DRLPRO	01	B	P		LEVEL RIG, SET CATWALK, NU BOP
	20:30 - 0:00	3.50	DRLPRO	15	A	P		BOP TEST
6/24/2009	0:00 - 2:30	2.50	DRLPRO	15	A	P		TEST BOP, LOW-250, HIGH 5000
	2:30 - 3:00	0.50	DRLPRO	06	A	P		SET WEAR BUSHING

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 4/15/2009	End Date: 7/3/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	3:00 - 3:30	0.50	DRLPRO	06	A	P		MAKE UP BIT, PU MOTOR, DIR WORK
	3:30 - 5:00	1.50	DRLPRO	06	A	P		MU MWD, ORIENT TOOLS
	5:00 - 8:00	3.00	DRLPRO	06	A	P		TIH W/ BHA
	8:00 - 9:00	1.00	DRLPRO	02	F	P		DRILL SHOE TRACK.
	9:00 - 11:30	2.50	DRLPRO	02	D	P		DRILL/SLIDE 2368'- 2665' 297" (118.8"/HR.) 10-17K WOB, 150 BIT RPM. PP 1150-1550, 460 GPM, DIFF 200-350.
	11:30 - 12:00	0.50	DRLPRO	07	A	P		SERVICE RIG
	12:00 - 0:00	12.00	DRLPRO	02	D	P		DRILL/SLIDE 2665'- 3838' 1173" (97.7'/HR.) 10-17K WOB, 150 BIT RPM. PP 1150-1550,460 GPM, DIFF 200-350.
6/25/2009	0:00 - 16:00	16.00	DRLPRO	02	D	P		DRILL/SLIDE 3838'-5425' (1587') 99.2'/HR. 12-18K WOB, 145 BIT RPM. PP 1450-1750,460 GPM, DIFF 200-350.
	16:00 - 16:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	16:30 - 0:00	7.50	DRLPRO	02	D	P		DRILL/SLIDE 5425'-5892' (467') 62.2'/HR. 18-22K WOB, 145 BIT RPM. PP 1900-2200,460 GPM, DIFF 200-350.
6/26/2009	0:00 - 10:00	10.00	DRLPRO	02	D	P		DRILL 5892'-6452' (560') 56'/HR. 18-22K WOB, 145 BIT RPM. PP 1900-2200,460 GPM, DIFF 200-350. BGG 30, CG 140, HG 1590
	10:00 - 10:30	0.50	DRLPRO	07	A	P		SERVICE RIG, FUNCTION PIPE RAMS, CHECK COM.
	10:30 - 0:00	13.50	DRLPRO	02	D	P		DRILL/SLIDE 6452'-7077' (625') 46.3'/HR. 18-22K WOB, 145 BIT RPM. PP 2200-2500,460 GPM, DIFF 200-350. BGG 115, CG 140, HG 700.
6/27/2009	0:00 - 11:30	11.50	DRLPRO	02	D	P		DRILL/SLIDE 7077'-7574' (497') 43.22'/HR. 18-22K WOB, 145 BIT RPM. PP 2200-2500,460 GPM, DIFF 200-350. BGG 115, CG 140, HG 700.
	11:30 - 12:00	0.50	DRLPRO	07	A	P		SERVICE RIG.
	12:00 - 21:30	9.50	DRLPRO	02	D	P		DRILL/SLIDE 7574'-7849' (275') 28.9'/HR. 18-22K WOB, 145 BIT RPM. PP 2550-2850,460 GPM, DIFF 200-300.
	21:30 - 22:00	0.50	DRLPRO	05	C	P		CIRCULATE AND BUILD A SLUG.
	22:00 - 0:00	2.00	DRLPRO	06	A	P		POOH, ROTATE AND PUMP OUT FIRS 5 STANDS, PULL STAND #6 W/O PUMP. PUMP SLUG AND CONTINUE POOH WITH OUT ROTATING.
6/28/2009	0:00 - 5:00	5.00	DRLPRO	06	A	P		FINISH POOH. LAY DOWN MOTOR AND BIT. FUNCTION BLIND RAMS.
	5:00 - 12:30	7.50	DRLPRO	06	A	P		PU NEW 7/8 LOBE, 3.3 STAGE, 1.5 DEG. BH MOTOR ON A HTC Q506X PDC. ORIENT MWD TOOLS. WASH AND REAM 65' TO BOTTOM, PRECAUTIONARY ONLY. NO FILL.
	12:30 - 13:00	0.50	DRLPRO	02	D	P		DRILL 7849'-7862' (13')
	13:00 - 13:30	0.50	DRLPRO	07	A	P		SERVICE RIG.
	13:30 - 19:00	5.50	DRLPRO	02	D	P		DRILL/SLIDE 7862'-8142' (280') 50.9'/HR. 12-14K WOB, 105 BIT RPM. PP 2550-2750,460 GPM, DIFF 200-250.
	19:00 - 20:00	1.00	DRLPRO	08	A	Z		RECALIBRATE PASON / PICO STRING WEIGHT. STRING WEIGHT IS FLUCTUATING 30K. CALLED OUT PASON SERVICE PERSONAL.
	20:00 - 0:00	4.00	DRLPRO	02	D	P		DRILL 8142'-8271' (129') 32.2'/HR. 12-16K WOB, 105 BIT RPM. PP 2550-2750,460 GPM, DIFF 200-250.
6/29/2009	0:00 - 11:30	11.50	DRLPRO	02	D	P		DRILL 8271'- 8703' (432') 37.5'/HR. 12-16K WOB, 105 BIT RPM. PP 2550-2750,460 GPM, DIFF 200-250.
	11:30 - 12:00	0.50	DRLPRO	07	A	P		SERVICE RIG

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 4/15/2009	End Date: 7/3/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	12:00 - 12:30	0.50	DRLPRO	02	D	P		DRILL 8703'-8752' (49') 90'/HR. 16-18K WOB, 105 BIT RPM. PP 2550-2750,460 GPM, DIFF 200-250. BGG 250-400, CG 2100-3500 UNITS. HIGH GAS 5090.
	12:30 - 13:30	1.00	DRLPRO	05	C	P		CIRCULATE BOTTOMS UP.
	13:30 - 16:30	3.00	DRLPRO	06	E	P		SHORT TRIP 20 STANDS. TIH
	16:30 - 19:00	2.50	DRLPRO	05	C	P		CRICULATE BOTTOMS U P, TRIP GAS 2340 UNITS WITH A 5' TO 10' FLARE. CIRCULATE GOOD MUD PROPERTIES TO 12.5 IN/OUT, 46 VIS.
	19:00 - 21:00	2.00	DRLPRO	06	B	P		PUMP SLUG, POOH, ROTATE OUT 6 STANDS, THEN JUST STRAIGHT PULL. RESLUG PIPE. CONTINUE POOH. MAX PULL 70K OVER STRING.
	21:00 - 23:00	2.00	DRLPRO	08	A	Z		SCR POWER FAILURE. TROUBLE SHOOT SAME. RESTORE POWER TO THE WOODWARD PANEL. RESTART SCR'S. RECALIBRATE BLOCKS.
	23:00 - 0:00	1.00	DRLPRO	06	B	P		SLACK OFF 65K BELOW STRING WT. TO BREAK STRING FREE. CONTINUE POOH.
6/30/2009	0:00 - 0:30	0.50	DRLPRO	06	B	P		CONTINUE POOH TO LOG.
	0:30 - 1:30	1.00	DRLPRO	08	A	Z		RIG REPAIR, NO DRAW WORKS FUNCTION. REBOOT COMPUTER AND RESET PARAMETERS.
	1:30 - 6:30	5.00	DRLPRO	06	B	P		FINISH POOH TO LOG. LAY DOWN MOTOR. PULL THE WEAR BUSHING.
	6:30 - 7:30	1.00	DRLPRO	11	D	P		HELD SAFETY MEETING WITH HALLIBURTON. RIG UP SAME.
	7:30 - 12:30	5.00	DRLPRO	11	D	P		RIH WIITH TRIPLE COMBO, UNABLE TO GET BELOW 6188', LOG OUT. RD HALLIBURTON.
	12:30 - 13:30	1.00	DRLPRO	12	A	P		HELD SAFETY MEETING W/ FRANKS, RU SAME.
	13:30 - 18:30	5.00	DRLPRO	12	C	P		RUN CSG. TO 5301'. VFD DOWN, UNABLE TO MOVE THE BLOCKS. HOOK UP SWAGE AND HOSE, CIRCULATE CASING INTERMITTENTLY TO KEEP THE MUD MOVING AND FLOATS FREE.
	18:30 - 0:00	5.50	DRLPRO	08	A	Z		WAIT ON ELECTRICIAN, TROUBLE SHOOT VFD.
7/1/2009	0:00 - 1:00	1.00	DRLPRO	08	A	Z		REPAIR VFD
	1:00 - 1:30	0.50	DRLPRO	22	A	Z		WORK STUCK PIPE FROM 150K WOB 30K, PIPE CAME FREE AFTER 25 MINUTES.
	1:30 - 4:00	2.50	DRLPRO	12	C	P		CONTINUE RUNNING CASING TO 8009' AND STUCK PIPE WHILE FILLING.
	4:00 - 7:00	3.00	DRLPRO	22	A	X		WORK STUCK PIPE FROM 150K TO 30K WHILE CIRCULATING.
	7:00 - 9:00	2.00	DRLPRO	22	A	X		PUMP 80 BBL WATER AND SPOT AT SHOE. WHEN WATER CLEARED CASING SHOE AT 8009' WE LOST FULL RETURNS AND SLOWLY REGAINED CIRCULATION WITH A TOTAL LOSS OF 69 BBLS. TOP OF THE WATER WAS AT 6324'. REGAINED FULL RETURNS. CIRCULATE BOTTOMS UP AND DUMPED A TOTAL OF 26 BBLS WATER TO RESERVE. CONTINUE CIIRC AND CUTTING MW TO 12.4 PPG. ADD 2% LCM TO SYSTEM.
	9:00 - 16:00	7.00	DRLPRO	22	A	X		PUMP 120 BBL WATER, LOST FULL RETURNS WITH 80 BBLS WATER OUT OF THE CASING. TOP OF WATER @ 6250'. CONTINUE PUMPING, LOST 122 BBLS THEN GOT FULL RETURNS BACK. CIRCULATE, WORK PIPE, TORQUE PIPE TO 2200 FT/LB AND CUT MW TO 12.0 PPG.
	16:00 - 0:00	8.00	DRLPRO	22	A	X		BUILD 150 BBLS 9.3 PPG MUD WITH 15 % LCM. SPOT PILL FROM 6200' TO 2900'. FULL RETURNS. SHUT DOWN, NO FLOW. WORKED PIPE 150K TO 30K WITH 2100 FT/LBS TORQUE APPLIED. NO MOVEMENT.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 4/15/2009	End Date: 7/3/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
7/2/2009	0:00 - 2:00	2.00	DRLPRO	22	A	X		WORK STUCK PIPE. CIRCULATE OUT 153 BLS. 9.3 PPG PILL.
	2:00 - 4:00	2.00	DRLPRO	22	A	X		BUILD 40 BBL PIPE FREE PILL WITH 12 BBLS MUD, 1300 GAL DIESEL. PILL CLABBERED UP. WRONG CEMICAL. DUMP PILL AND CLEAN PILL TANK. ORDER OUT MORE DIESEL. CONTINUE CIRCULATING AND WORKING STUCK PIPE 30K TO 150K W/ 2100 FT/LB TORQUE.
	4:00 - 12:00	8.00	DRLPRO	22	A	X		CONTINUE WORKING STUCK CSG. FROM 150K TO 30K WITH 2100 FT/LBS TORQUE APPLIED. BUILD 100 BBLS 10 PG MUD.
	12:00 - 15:00	3.00	DRLPRO	22	A	X		PUMP 100 BBLS 10 PPG MUD, 356 BBLS 12 PPG MUD, 100 BBLS DIESEL/PIPE FREE, DISPLACE WITH 114 BBLS 12 PPG MUD TO PLACE PILL FROM 6750' TO 5000' SHUT DOWN PUMP.
	15:00 - 16:00	1.00	DRLPRO	22	A	X		WORK STUCK PIPE FROM 100K TO 30K WITH 2100 FT/LBS TORQUE. PIPE CAME FREE.
	16:00 - 17:00	1.00	DRLPRO	12	C	P		FINISH IN THE HOLE WITH THE CASING, LAND MANDREL HANGER. PICK UP TO CIRCULATE. RD CASING CREW. TOTAL CSG. RUN AS FOLLOWS: FLOAT SHOE, 1 JT. CSG. FLOAT COLLAR, 96 JTS. CSG. 1 MARKER JTS. SET AT 4388' MD, 97 JTS. 4 1/2" 11.6 PPF I-80 CSG. OVER ALL LENGTH 8743.11 SET AT 8743.1. CENTRALIZED WITH 15 BOW SPRINGS, 1 ON FIRST 2 JTS. THEN EVERY 3RD JT. SPACE OUT, INSTALL HANGER, LAND AND PU TO CIRC.
	17:00 - 21:30	4.50	DRLPRO	05	D	P		CIRCULATE BOTTOMS UP, 20-25' FLARE. DUMPED 40 BBLS DIESEL RETURNS TO THE PIT. CIRCULATE WHILE WAITING ON BJ. MRU BJ WHILE WORKING ON MW TO 12.2 PPG, MUD CUT TO 11.4 PPG.
	21:30 - 23:30	2.00	DRLPRO	12	E	P		HELD SAFETY MEETING: SWITCH TO BJ, TEST LINES TO 5000 PSI AND CEMENT 4 1/2" AS FOLLOWS: 40 BBLS WATER, LEAD W/ 610 SKS PL2 MIXED @ 12.6 PPG, TAIL W/ 1220 SKS 50:50 POZ MIXED @ 14.3 PPG, WASH LINES, DROP PLUG & DISPLACE W/ 135 BBLS WATER W/ .1 GAL/BBL CLAYFIX & .01 GAL/BBL ALDACIDE G TO BUMP PLUG WITH 3050 PSI. FINAL LIFT PSI 2650 PSI. HAD FULL RETURNS THOUGH OUT JOB WITH 35 BBLS CEMENT CIRCULATED TO SURFACE. RELEASE PSI AND FLOATS HELD.
	23:30 - 0:00	0.50	DRLPRO	12	A	P		WASH STACK, LAND CASING WITH 80K (50K W/O BLOCKS) RIG DOWN BJ.
7/3/2009	0:00 - 1:00	1.00	DRLPRO	12	E	P		FINISH RIGGING DOWN BJ, CLEAR FLOOR, REMOVE ROTATING HEAD, REMOVE LANDING JOINT.
	1:00 - 6:00	5.00	DRLPRO					ND BOP'S, CLEAN MUD TANKS. RELEASE THE RIG TO THE NBU 1022-2A2T.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/24/2009	End Date: 10/6/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/24/2009	-							
9/25/2009	7:00 - 7:15	0.25	COMP	48		P		HSM, REVIEW R/U WIRE LINE
	7:15 - 15:00	7.75	COMP	37	B			MIRU SCHLUMBERGER WIRE LINE, P/U PERF GUN RIH, PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE, 8636'-8640' 4 SPF, 90* PH, 16 HOLES. 8586'-8588' 4 SPF, 90* PH, 8 HOLES. 8506'-8508' 4 SPF, 90* PH, 8 HOLES. 8487'-8480' 4 SPF, 90* PH, 8 HOLES. [40 HOLES] SWI PREP TO FRAC MON.
9/28/2009	7:00 - 7:15	0.25	COMP	48		P		DIDN'T PUMP ANY STG ON THIS WELL, THIS DAY.
9/29/2009	7:00 - 7:15	0.25	COMP	48		P		HSM, FRACING & WORKING W/ WIRE LINE
	7:15 - 17:00	9.75	COMP	36		P		FRAC MESAVERDE 8478'-8640' [40 HOLES] STG #1] WHP= 1651#, BRK DN PERFS @ 3252 #, INJ PSI= 5300#, INJ RT=32, ISIP= 2821#, FG=.76, PUMP'D 1544 BBLS SLK WTR W/ 54,388 # 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP= 2650#, FG= .74, 24/40 CALC PERFS OPEN W/ 103 GAL CHEMICAL SLUG IN 2# TLC STG. (((WHILE FRACING LOST PUMP #3. HIGH PSI SIDE ON FLUID END STARTED LEAKING. SD FRAC. SWI. SHUT IN PUMP #3. OPEN WELL, CONT T/ FRAC.))) STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 8412' PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 90 & 120 DEG PHASING. PERF F/ 8738'-82', 3 SPF, 12 HOLES. 8326'-28', 4 SPF, 8 HOLES. 8268'-70', 4 SPF, 8 HOLES. 8220'-22', 4 SPF, 8 HOLES. 8184'-86', 4 SPF, 8 HOLES. POOH. WHP= 2250#, BRK DN PERFS @ 3888 #, INJ PSI= 4800#, INJ RT=50, ISIP=2647#, FG=..75, PUMP'D 1475 BBLS SLK WTR W/ 55,009 # 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP= 2929#, FG=.79, AR=50, AP= 4737#, MR=50.5, MP= 5787#, NPI=#, 44/44 CALC PERFS OPEN W/ 126 GAL CHEMICAL SLUG IN LAST 2# STG. STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 8120' PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE. 90 & 120 DEG PHASING. PERF F/ 8086'-90', 4 SPF, 16 HOLES. 8030'-34', 4 SPF, 16 HOLES. 8002'-04', 3 SPF, 6 HOLES. 7898'-00', 3 SPF, 6 HOLES. POOH. SWI.FN.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009	
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD		Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/24/2009		End Date: 10/6/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/30/2009	7:00 - 18:00	11.00	COMP	36	B	P		STG 3)OPEN WELL 2230#. BEG PUMPING, BRK @ 3857# @ 3.1 BPM. SD ISIP 2660# FG .77. BEG FRACING, EST INJT RT @ 51 BPM @ 4900# = 100% PERF'S OPEN. PUMP 45,846# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. PUMP 127 GAL PILL OF SCALE INHIB IN LAST PART OF 2# STG. SD ISIP 2843# FG .79. 10:20 SWI. X-OVER T/ RED. STG 4)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 7774' P/U PERF F/ 7740'-44', 4 SPF, 16 HOLES. 7603'-06', 3 SPF, 9 HOLES. 7553'-56', 3 SPF, 9 HOLES. 7495'-97', 4 SPF, 8 HOLES. POOH. 13:42 OPEN WELL 2115#. BEG PUMPING, BRK @ 5211# @ 5 BPM. SD ISIP 3600# FG .90. BEG FRAC, EST INJT RT @ 40 BPM @ 6200# = 60% PERF'S OPEN. PUMP 74,370# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. PUMP 140 GAL SCALE INHIB PILL ON THE LAST 2# STG. SD ISIP 2608# FG .78. 14:33 SWI. X-OVER T/ RED. STG 5)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN. 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 7413' P/U PERF F/ 7381'-83', 3 SPF, 6 HOLES. 7342'-46', 3 SPF, 12 HOLES. 7277'-82', 4 SPF, 20 HOLES. 7246'-48', 3 SPF, 6 HOLES. POOH. 16:03 OPEN WELL 1460#. BEG PUMPING, BRK @ 5202# @ 5.5 BPM. SD ISIP 3458# FG .90. BEG FRACING, EST INJT RT @ 45 BPM @ 3800# = 100% PERF'S OPEN. PUMP 61,788# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. PUMP 127 GAL PILL OF SCALE INHIB IN THE LAST OF THE 2# STG. SD ISIP 2128# FG .72. 17:44 SWI FN.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/24/2009	End Date: 10/6/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
10/1/2009	7:00 - 18:00	11.00	COMP	36	B	P		STG 6) PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 7184' P/U PERF F/ 7150'-54', 4 SPF, 16 HOLES. 7112'-14', 4 SPF, 8 HOLES. 7032'-36', 4 SPF, 16 HOLES. POOH. 8:55 OPEN WELL 200#. BEG PUMPING, BRK @ 2687# @ 4.7 BPM. SD ISIP 1524# FG .65. BEG FRACING, EST INJT RT @ 50 BPM @ 3900# = 100% PERF'S OPEN. PUMP 55,723# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. PUMP 129 GAL PILL OF SCALE INHIB IN LAST PART OF 2# STG. SD ISIP 2210# FG .75. 9:27 SWI. X-OVER T/ RED WELL. STG 7)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN. 23 GM, .36 HOLE SIZE. 90 & 120 DEG PHASING. RIH SET CBP @ 6916' P/U PERF F/ 6882'-86', 4 SPF, 16 HOLES. 6844'-46', 4 SPF, 8 HOLES. 6746'-48', 3 SPF, 6 HOLES. 6698'-00', 3 SPF, 6 HOLES. 6670'-72', 4 SPF, 8 HOLES. POOH. 12:42 OPEN WELL 324#. BEG PUMPING, BRK @ 2548# @ 4.7 BPM. SD ISIP 1417# FG .64. BEG FRACING, EST INJT RT @ 55 BPM @ 4000# = 100% PERF'S OPEN. PUMP 99,753# 30/50 WHITE & TAIL IN W/ 5,000# 20/40 TLC. PUMP 165 GAL SCALE INHIB SLUG IN THE LAST 79 BBL'S OF 2# STG. SD ISIP 1740# FG .69. 13:46 SWI. X-OVER FOR WL. PU 4 1/2 8K HAL CBP. OPEN WELL RIH SET KILL PLUG @ 6620'. POOH. RDMO SCHLUMBERGER WL & SUPERIOR FRAC CREW.
10/5/2009	6:30 - 7:00	0.50	COMP	48		P		JSA- ROADING EQUIPMENT.
	7:00 - 18:00	11.00	COMP	31	I	P		ROAD RIG AND EQUIP FROM NBU 922-18J PAD TO LOCATION. RUSU. ND FRAC VALVES. NU BOP. RU FLOOR AND TBG EQUIP. MU 3-7/8" MILL, POBS, 1.87" XN NIPPLE AND RIH AS MEAS AND PU 208- JTS 2-3/8" L-80 TBG. TAG AT 6574'. RU PWR SWIVEL. P-TEST TO 3000#, GOOD. EST CIRC. CBP #1- C/O 46' SAND TO PLUG AT 6620'. D/O IN 7 MIN. VAC. RIH. CBP #2- C/O 50' SAND TO PLUG AT 6912'. C/O IN 5 MIN. 200# INC. RIH. CBP #3- C/O ' SAND TO PLUG AT 7184'. D/O IN MIN. # INC. CIRC CLEAN. SHUT WELL IN. SDFN.
10/6/2009	6:30 - 7:00	0.50	COMP	48		P		JSA- COLD WEATHER PRECAUTIONS.

US ROCKIES REGION

Operation Summary Report

Well: NBU 1022-2A3S [BLUE]	Spud Conductor: 4/10/2009	Spud Date: 4/15/2009
Project: UTAH-UINTAH	Site: NBU 1022-2A PAD	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 9/24/2009	End Date: 10/6/2009
Active Datum: RKB @4,988.00ft (above Mean Sea Level)	UWI: 0/10/S/22/E/2/0/NENE/6/PM/N/206.00/E/0/857.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 13:00	6.00	COMP	44	C	P		SITP 0. SICP 2350. OPEN CSG TO PIT. EST CIRC AND CONT D/O CBP'S #4- C/O 60' SAND TO CBP AT 7409'. D/O IN 7 MIN. 50# INC. RIH. #5- C/O 25' SAND TO CBP AT 7770'. D/O IN 9 MIN. -100#. RIH. #6- C/O 30' SAND TO CBP AT 8120'. D/O IN 13 MIN. -50#. RIH. #7- C/O 40' SAND TO CBP AT 8412'. D.O IN 7 MIN. -50#. RIH. PBTD- C/O 50' SAND TO PBTD AT 8698' W/ 275-JTS IN. (58' RATHOLE) CIRC CLEAN. RD PWR SWIVEL. POOH AS LD 18-JTS. PU 7" 5K CAMERON HANGER. LUB IN AND LAND 257-JTS 2-3/8" L-80 TBG W/ EOT AT 8149.81'. DROP BALL. RD FLOOR. ND BOP. NU WH. PUMP DOWN TBG AND RELEASE BIT SUB AT 2350#. TURN WELL OVER TO FLOW BACK CREW. RDSU. TBG DETAIL KB 13.00 316 JTS DELIVERED 7" 5K CAMERON HANGER 1.00 59-JTS RETURNED 257-JTS 2-3/8" L-80 TBG 8133.61 9,526 BBL PMP 1.87" XN (FE) 2.20 2300 BBL RCVR EOT 8149.81 7226 BBL LTR
10/7/2009	7:00 -			33	A			7 AM FLBK REPORT: CP 2800#, TP 1900#, 20/64" CK, 44 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 3127 BBLS LEFT TO RECOVER: 6399
10/8/2009	7:00 -			33	A			7 AM FLBK REPORT: CP 2850#, TP 2000#, 20/64" CK, 38 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 4095 BBLS LEFT TO RECOVER: 5431
	12:00 -		PROD	50				WELL TURNED TO SALE @ 1200 HR ON 10/8/09 - FTP 1600#, CP 2950#, 2400 MCFD, 38 BWPD, 22/64 CK
10/9/2009	7:00 -			33	A			7 AM FLBK REPORT: CP 2700#, TP 1850#, 20/64" CK, 32 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 4929 BBLS LEFT TO RECOVER: 4597
10/10/2009	7:00 -			33	A			7 AM FLBK REPORT: CP2450#, TP1650#, 22/64" CK, 25 BWPH, LIGHT SAND,- GAS TTL BBLS RECOVERED: 5598 BBLS LEFT TO RECOVER:3928

API Well No: 43047404320000

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

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

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

5.LEASE DESIGNATION AND SERIAL NUMBER: ST ML 22651

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES

1. TYPE OF WELL Gas Well

8. WELL NAME and NUMBER: NBU 1022-2A3S

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.

9. API NUMBER: 43047404320000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779

PHONE NUMBER: 720 929-6587 Ext

9. FIELD and POOL or WILDCAT: NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 0206 FNL 0857 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 02 Township: 10.0S Range: 22.0E Meridian: S

COUNTY: UINTAH

STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
✓ NOTICE OF INTENT Approximate date work will start: 5/16/2009	☐ ACIDIZE	☐ ALTER CASING	☐ CASING REPAIR
	✓ CHANGE TO PREVIOUS PLANS	☐ CHANGE TUBING	☐ CHANGE WELL NAME
	☐ CHANGE WELL STATUS	☐ COMMINGLE PRODUCING FORMATIONS	☐ CONVERT WELL TYPE
☐ SUBSEQUENT REPORT Date of Work Completion:	☐ DEEPEN	☐ FRACTURE TREAT	☐ NEW CONSTRUCTION
	☐ OPERATOR CHANGE	☐ PLUG AND ABANDON	☐ PLUG BACK
	☐ PRODUCTION START OR RESUME	☐ RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION
☐ SPUD REPORT Date of Spud:	☐ REPERFORATE CURRENT FORMATION	☐ SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
	☐ TUBING REPAIR	☐ VENT OR FLARE	☐ WATER DISPOSAL
☐ DRILLING REPORT Report Date:	☐ WATER SHUTOFF	☐ SI TA STATUS EXTENSION	☐ APD EXTENSION
	☐ WILDCAT WELL DETERMINATION	☐ OTHER	OTHER:

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

Kerr-McGee Oil & Gas Onshore LP respectfully requests to change the surface casing for this well from 1,900' to 2,080'. Please see the attached drilling diagram for additional details. Thank you.

Approved by the Utah Division of Oil, Gas and Mining

Date: May 18, 2009

By: Dustin Doucet

NAME (PLEASE PRINT)	PHONE NUMBER	TITLE
Danielle Piernot	720 929-6156	Regulatory Analyst
SIGNATURE		**DATE**
N/A		5/13/2009

RECEIVED May 13, 2009

The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047404320000

Surface casing shall be cemented from setting depth back to surface.

Approved by the
Utah Division of
Oil, Gas and Mining

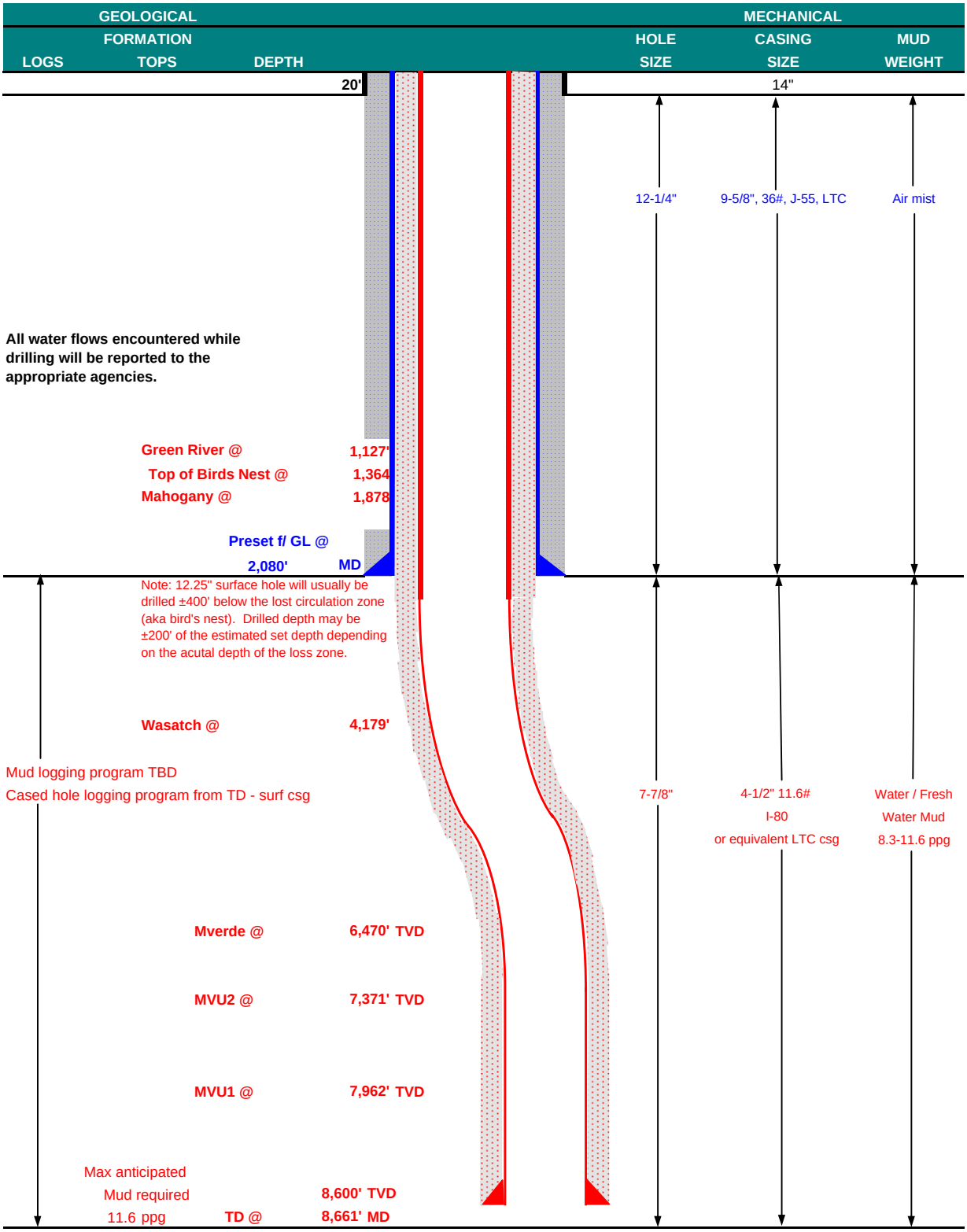
Date: May 18, 2009

By:

KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	May 13, 2009		
WELL NAME	**NBU 1022-2A3S**			TD	8,600'	TVD	8,661' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	4,974' GL KB 4,989'
SURFACE LOCATION	NE/4 NE/4	206' FNL	857' FEL	Sec 2	T 10S	R 22E	Lot 1
	Latitude:	39.984719	Longitude:	-109.400086			NAD 27
BTM HOLE LOCATION	NE/4 NE/4	680' FNL	820' FEL	Sec 2	T 10S	R 22E	Lot 1
	Latitude:	39.983417	Longitude:	-109.399947			NAD 27
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.						



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
						3520	2020	453000
SURFACE	9-5/8"	0 to 2,080	36.00	J-55	LTC	1.06	2.08	7.70
						7,780	6,350	201,000
PRODUCTION	4-1/2"	0 to 8,661	11.60	I-80	LTC	2.36	1.22	2.29

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
(Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,198 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
(Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient
(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,090 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl	215	60%	15.60	1.18
Option 1			+ 0.25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE			**NOTE: If well will circulate water to surface, option 2 will be utilized**				
Option 2	LEAD	1500	65/35 Poz + 6% Gel + 10 pps gilsonite	360	35%	12.60	1.81
			+.25 pps Flocele + 3% salt BWOW				
	TAIL	500	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	3,671'	Premium Lite II + 3% KCl + 0.25 pps	350	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	4,990'	50/50 Poz/G + 10% salt + 2% gel	1220	40%	14.30	1.31
			+.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
John Huycke / Grant Schluender

DRILLING SUPERINTENDENT: _____ **DATE:** _____
John Merkel / Lovel Young