

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER NBU 920-24AT	
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT NATURAL BUTTES	
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES	
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.						7. OPERATOR PHONE 720 929-6587	
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217						9. OPERATOR E-MAIL mary.mondragon@anadarko.com	
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU-0579			11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
13. NAME OF SURFACE OWNER (if box 12 = 'fee')						14. SURFACE OWNER PHONE (if box 12 = 'fee')	
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')						16. SURFACE OWNER E-MAIL (if box 12 = 'fee')	
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') Ute			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>	
20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN	
LOCATION AT SURFACE	709 FNL 704 FEL	NENE	24	9.0 S	20.0 E	S	
Top of Uppermost Producing Zone	709 FNL 704 FEL	NENE	24	9.0 S	20.0 E	S	
At Total Depth	709 FNL 704 FEL	NENE	24	9.0 S	20.0 E	S	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 704		23. NUMBER OF ACRES IN DRILLING UNIT 1920		
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 20		26. PROPOSED DEPTH MD: 10400 TVD:		
27. ELEVATION - GROUND LEVEL 4771			28. BOND NUMBER WYB000291		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		
ATTACHMENTS							
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORCANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES							
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER				<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN			
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)				<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER			
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)				<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP			
NAME Kevin McIntyre			TITLE Regulatory Analyst I			PHONE 720 929-6226	
SIGNATURE			DATE 10/21/2008			EMAIL Kevin.McIntyre@anadarko.com	
API NUMBER ASSIGNED 43047501610000			APPROVAL  Permit Manager				

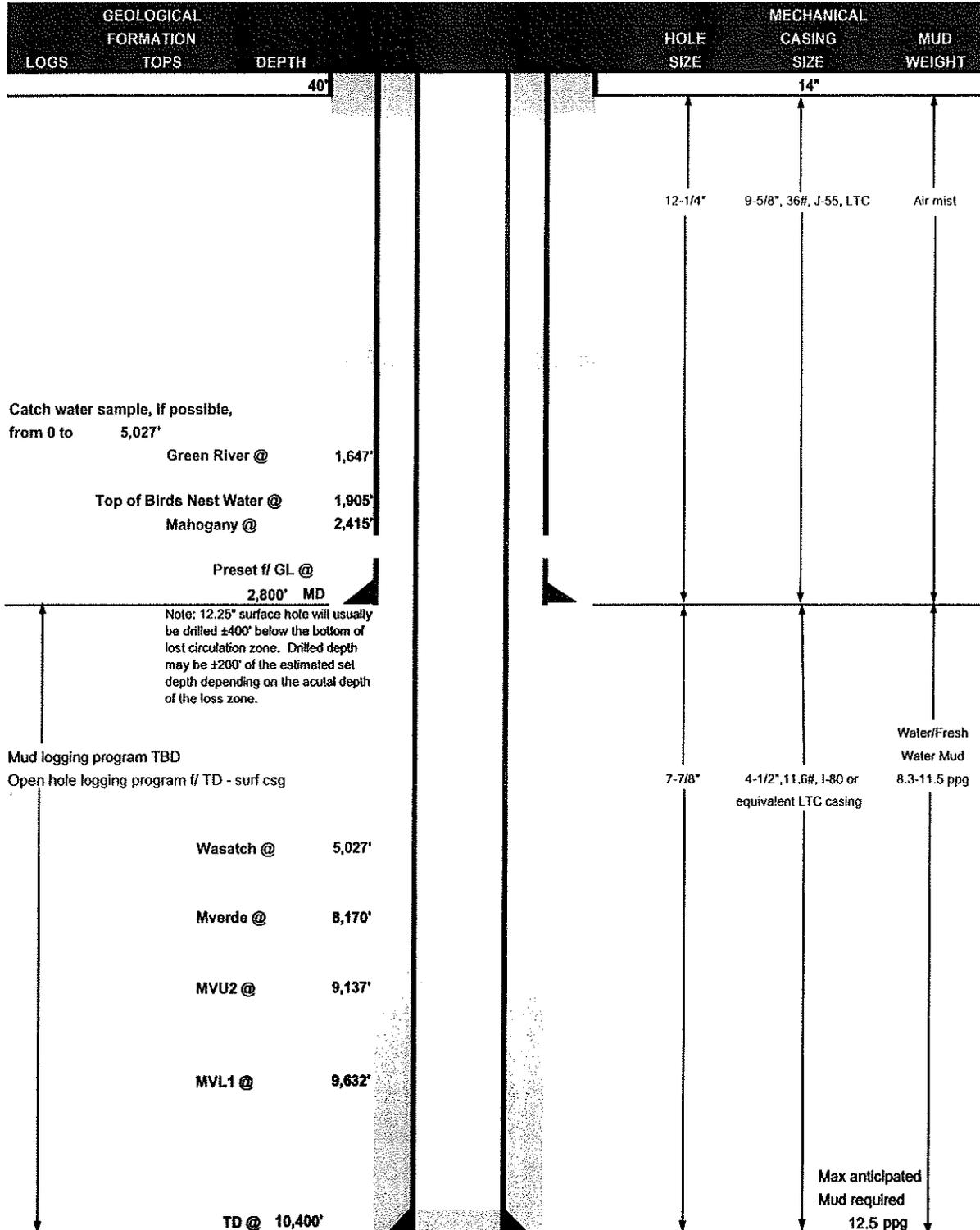
Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2800		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2800	36.0			
	Cement Interval	Top (MD)	Bottom (MD)			
		0	2800			
		Cement Description	Class	Sacks	Yield	Weight
			Premium Foamed Cement	315	1.18	15.6

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	10400		
Pipe	Grade	Length	Weight			
	Grade I-80 LT&C	10400	11.6			
	Cement Interval	Top (MD)	Bottom (MD)			
		0	10400			
		Cement Description	Class	Sacks	Yield	Weight
			Premium Lite High Strength	490	3.38	11.0
			Pozzuolanic Cement	1640	1.31	14.3



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	September 25, 2008	
WELL NAME	NBU 920-24AT		TD	10,400' MD/TVD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
SURFACE LOCATION	NENE 709' FNL & 704' FEL, Sec. 24, T 9S R 20E			ELEVATION	4,771' GL KB 4,786'
	Latitude:	40.026530	Longitude:	-109.607320	NAD 27
OBJECTIVE ZONE(S)	Mesaverde/Wasatch				
ADDITIONAL INFO	Regulatory Agencies: BLM (MINERALS), BIA (SURFACE), UDOGM, Tri-County Health Dept.				



DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'						
SURFACE	9-5/8"	0 to 2,800'	36.00	J-55	LTC	3520	2020	453000
						0.79	1.54	5.13
PRODUCTION	4-1/2"	0 to 10400	11.60	I-80	LTC	7780	6350	201000
						1.74	0.94	1.91

- 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 = 12.5 ppg) .22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoys.Fact. of water)
- MASP 4160 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500	Premium cmt + 2% CaCl + .25 pps flocele	215	60%	15.60	1.18
	TOP OUT CMT (1)	250	20 gals sodium silicate + Premium cmt + 2% CaCl + .25 pps flocele	100		15.60	1.18
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
SURFACE Option 2	NOTE: If well will circulate water to surface, option 2 will be utilized						
	LEAD	2000	Prem cmt + 16% Gel + 10 pps gilsonite + .25 pps flocele + 3% salt BWOC	230	35%	11.00	3.82
	TAIL	500	Premium cmt + 2% CaCl + .25 pps flocele	180	35%	15.60	1.18
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,520'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	490	60%	11.00	3.38
	TAIL	5,880'	50/50 Poz/G + 10% salt + 2% gel +.1% R-3	1640	60%	14.30	1.31

*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 Systems for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ DATE: _____
 Brad Laney

DRILLING SUPERINTENDENT: _____ DATE: _____
 Randy Bayne

**NBU 920-24AT
Twin to NBU #2
NENE Sec. 24, T9S,R20E
UINTAH COUNTY, UTAH
UTU-0579**

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. Estimated Tops of Important Geologic Markers:

<u>Formation</u>	<u>Depth</u>
Uinta	0- Surface
Green River	1647'
Bird's Nest	1905'
Mahogany	2415'
Wasatch	5027'
Mesaverde	8170'
MVU2	9137'
MVL1	9632'
TD	10,400'

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

<u>Substance</u>	<u>Formation</u>	<u>Depth</u>
	Green River	1647'
	Bird's Nest	1905'
	Mahogany	2415'
Gas	Wasatch	5027'
Gas	Mesaverde	8170'
Gas	MVU2	9137'
Gas	MVL1	9632'
Water	N/A	
Other Minerals	N/A	

3. Pressure Control Equipment (Schematic Attached)

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

4. Proposed Casing & Cementing Program:

Please see the Natural Buttes Unit SOP. See attached drilling diagram.

5. Drilling Fluids Program:

Please see the Natural Buttes Unit SOP.

6. **Evaluation Program:**

Please see the Natural Buttes Unit SOP.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 10,400' TD, approximately equals 6448 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4160 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 see Natural Buttes Unit SOP 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 blowie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

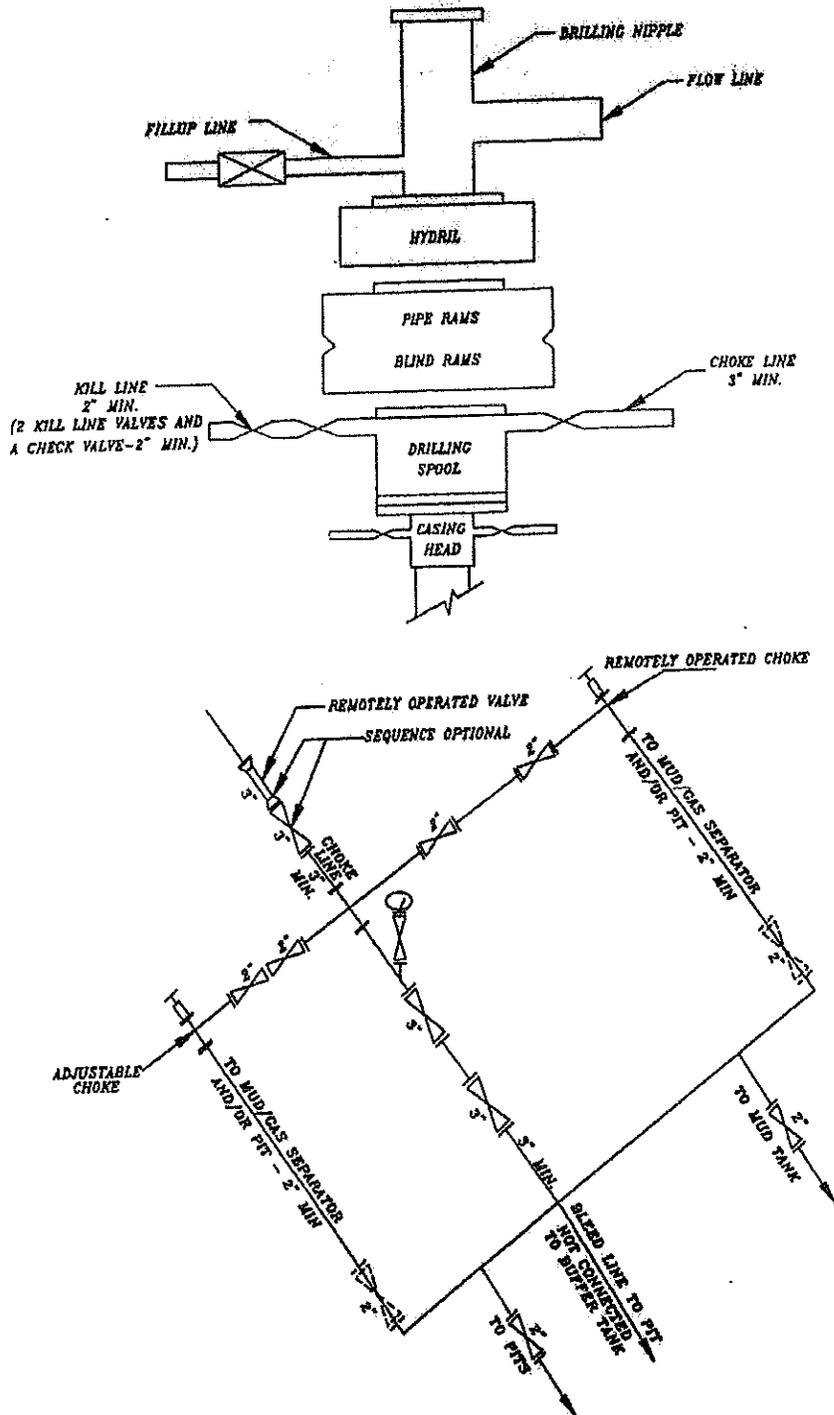
Conclusion

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 see Natural Buttes Unit SOP.

EXHIBIT A



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

**NBU 920-24AT
Twin to NBU #2
NENE Sec. 24 ,T9S,R20E
UINTAH COUNTY, UTAH
UTU-0579**

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

1. Existing Roads:

Refer to the attached location directions.

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

2. Planned Access Roads:

Approximately 15' +/- of new access road is proposed. Refer to Topo Map B.

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.

Please see the Natural Buttes Unit Standard Operating Procedure (SOP).

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

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

Please see the Natural Buttes Unit SOP.

Refer to Topo Map D for the location of the proposed pipelines.

A right-of-way is required for the pipeline. The pipeline is approximately 20' in length and 30' in width. A 4" surface steel pipeline will be constructed utilizing existing disturbance where possible. The pipeline will be butt-welded together and pulled into place with a rubber tired tractor.

Variations to Best Management Practices (BMPs) Requested:

Approximately 20' of 4" steel pipeline will be installed on surface within the access corridor for the well location. As a Best Management Practice (BMP), the pipeline would be buried within the access road corridor if possible. The construction of pipelines requires the corridor of 30 feet.

This exception to the BMP should be granted by the BLM Authorized Officer because indurated bedrock, such as sandstone, is at or within 2 feet of the surface and the soil has a poor history for successful rehabilitation.

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 requested color is Shadow gray (2.5Y 6/2), a non-reflective earthtone.

Interim Surface Reclamation Plan:

This exception is requested due to the current twin and multi-well program. If determined that this well will not be a candidate for either twinning &/or multi-well the operator shall spread the topsoil pile on the location up to the rig anchor points. The location will be reshaped to the original contour to the extent possible. The operator will reseed the area using the BLM recommended seed mixture and reclamation methods.

5. Location and Type of Water Supply:

Please see the Natural Buttes SOP.

6. Source of Construction Materials:

Please see the Natural Buttes SOP.

7. Methods of Handling Waste Materials:

Please see the Natural Buttes SOP.

A plastic reinforced liner is to be used as discussed during on-site inspection. It will be a minimum of 20 mil thick and felt, 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 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 (*Request is in lieu of filing Form 3160-5, after initial production*).

8. Ancillary Facilities:

Please see the Natural Buttes SOP.

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.

Location size may change prior to the drilling of the well due to the 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 3160-5 will be submitted.

10. Plans for Reclamation of the Surface:

Please see the Natural Buttes SOP.

upon reclamation of the pit the following seed mixture will be used. A total of 12 lbs/acre will be used if the seeds are drilled (24 lbs/acre if the seeds are broadcast). The per acre requirements for *drilled* seed are:

Crested Wheatgrass 12 lbs.

Operator shall call the BLM for the seed mixture when final reclamation occurs.

11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe
P.O. Box 70
Fort Duchesne, Utah 84026
(435) 722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
(435)781-4400

12. Stipulations/Notices/Mitigation:

There are no stipulations or notices for this location.

13. Other Information:

A Class III archaeological survey and a paleontological survey (report IPC #08-152 dated 7/8/2008) have been performed and will be submitted.

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.

14. Lessee's or Operator'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

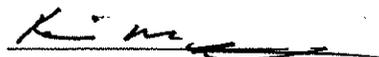
Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

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 the terms and conditions of the lease for the operations conducted upon leased lands.

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.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond #WYB000291.

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

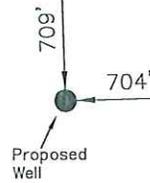
9/25/2008
Date

T9S, R20E, S.L.B.&M.

S88°26'W 81.58' (G.L.O.)
S88°26'58"W - 2692.14' (Meas.)

Found 1968
Brass Cap.
Pile of Stones.

Found 1968
Brass Cap.
Pile of Stones.



N01°01'10"W - 2626.33' (Meas.)
N1°02'W 39.79' (G.L.O.)

WELL LOCATION: NBU 920-24AT

ELEV. UNGRADED GROUND = 4770.5'

24

Found 1968
Brass Cap.
Pile of Stones.

Found 1968
Brass Cap.
Pile of Stones.

NBU 920-24AT (Proposed Well Head)	
NAD 83 LATITUDE	= 40.02650' (40° 01' 35.39")
LONGITUDE	= 109.60801' (109° 36' 28.85")
NAD 27 LATITUDE	= 40.02653' (40° 01' 35.52")
LONGITUDE	= 109.60732' (109° 36' 26.36")

N2°48'W 81.08' (G.L.O.)
N01°51'20"W - 2674.48' (Meas.)

N00°54'16"W (Basis of Bearings)
2736.99' (Measured)
N0°54'W 41.47' (G.L.O.)

Found 1968
Brass Cap.
Pile of Stones.
Cap is on a
Fence Line.

Found 1968
Brass Cap.
Galvanised Pipe
& Cap.
Pile of Stones.
Cap is on a
Fence Line.

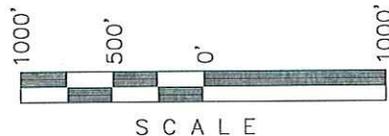
Found 1968
Brass Cap.
Pile of Stones.
Cap is on a
Fence Line.

S88°08'02"W - 2662.15' (Meas.)
S88°07'W 40.35' (G.L.O.)

S89°04'00"W - 2551.20' (Meas.)
S89°04'W 38.60' (G.L.O.)

NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
- 3. Bearings are based on Global Positioning Satellite observations.
- 4. Basis of elevation is the Northwest Corner of Section 12, T9S, R20E, S.L.B.&M. The elevation of this Section Corner is shown on the Ouray SE 7.5 Min. Quadrangle as being 4676'.



SURVEYOR'S 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.

John R. Slough
REGISTERED LAND SURVEYOR
REGISTRATION No. 6028691
STATE OF UTAH

Kerr-McGee
Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

NBU 920-24AT
WELL PLAT
709' FNL, 704' FEL
NE 1/4 NE 1/4 OF SECTION 24, T9S, R20E,
S.L.B.&M. UTAH COUNTY, UTAH.

CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

TIMBERLINE (435) 789-1365
ENGINEERING & LAND SURVEYING, INC.
38 WEST 100 NORTH - VERNAL, UTAH 84078

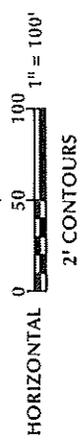
DATE SURVEYED: 06-27-08	SURVEYED BY: M.S.B.	SHEET 1 OF 9
DATE DRAWN: 07-03-08	DRAWN BY: B.R.B.	
SCALE: 1" = 1000'	Date Last Revised:	

WELL PAD LEGEND

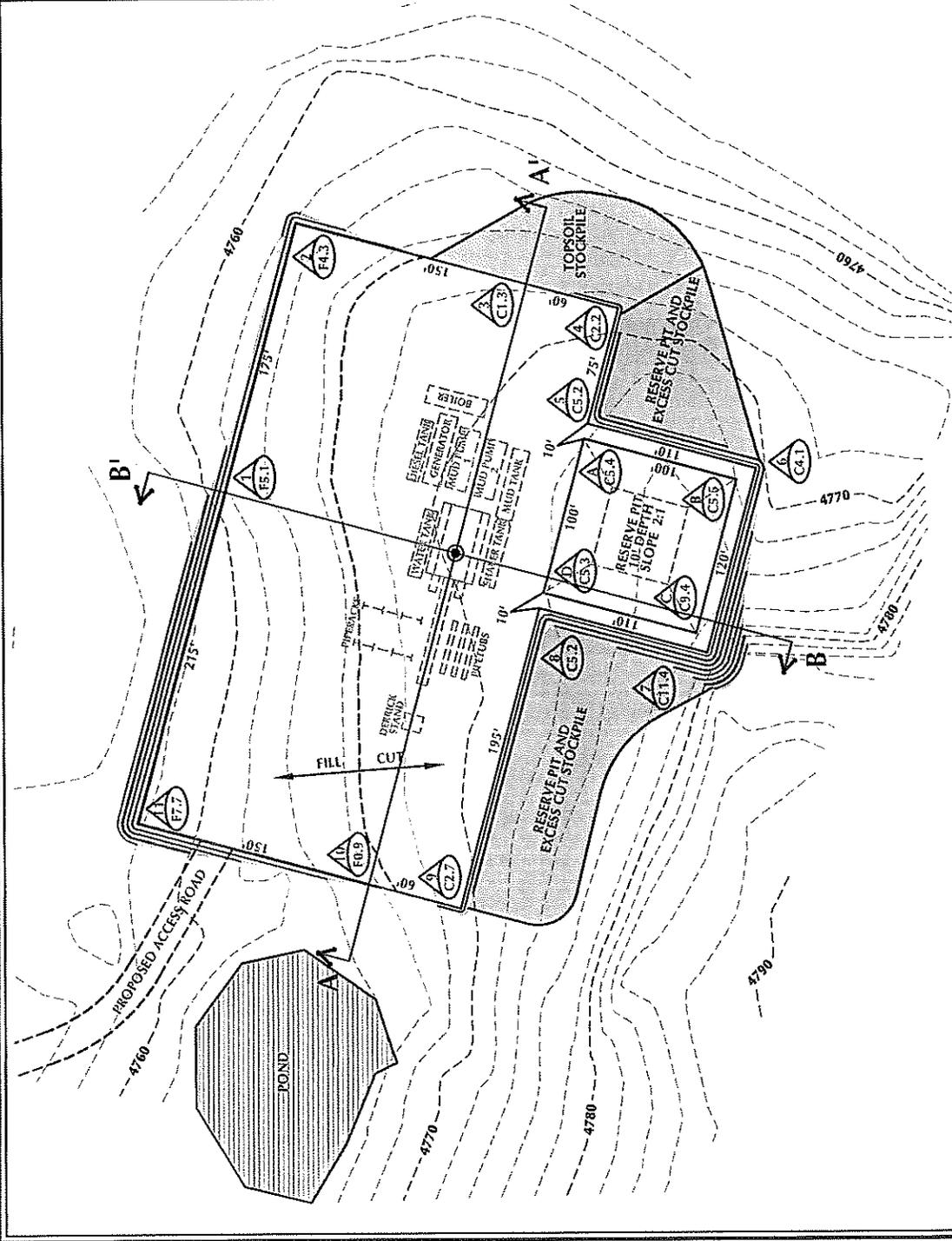
- WELL LOCATION
- - - EXISTING CONTOURS (2' INTERVAL)
- - - PROPOSED CONTOURS (2' INTERVAL)

WELL PAD NBU 920-24AT QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4,770.5'
 FINISHED GRADE ELEVATION = 4,766.5'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1
 TOTAL CUT FOR WELL PAD = 7,539 C.Y.
 TOTAL FILL FOR WELL PAD = 6,186 C.Y.
 TOPSOIL @ 6" DEPTH = 1,977 C.Y.
 TOTAL DISTURBANCE = 2.45 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 8,700 BARRELS
 RESERVE PIT VOLUME
 +/- 2,520 CY



Timberline
 Engineering & Land Surveying, Inc.
 38 WEST 100 NORTH
 VERNAL, UTAH 84078
 (435) 789-1365

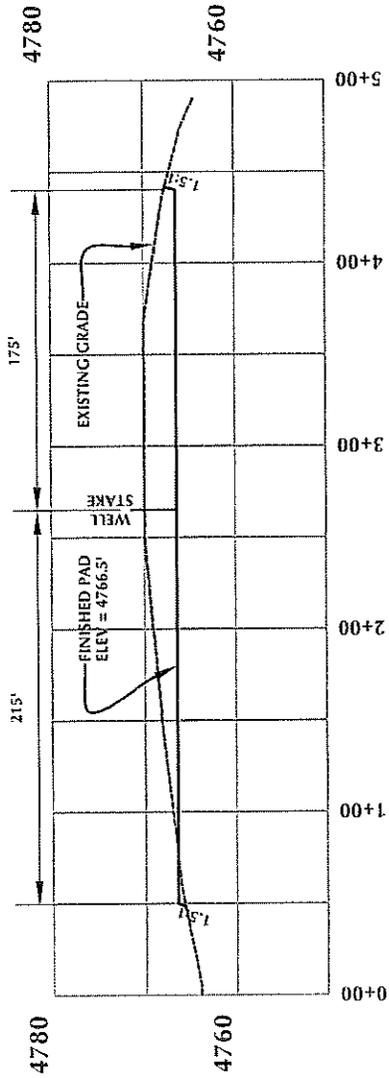


CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

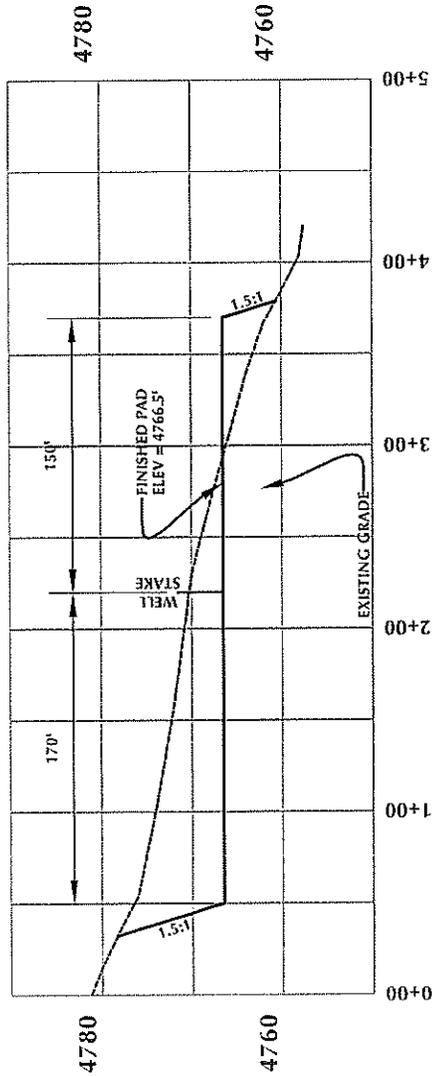
KERR-MCGEE OIL & GAS
ONSHORE L.P.
 1099 18th Street - Denver, Colorado 80202

NBU 920-24AT
WELL PAD - LOCATION LAYOUT
 709' FNL, 704' FEL
 NET/4NE1/4, SECTION 24, T.9S., R.20E,
 S.L.B.&M., UINTAH COUNTY, UTAH

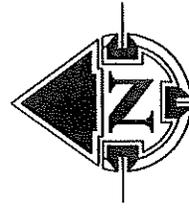
Scale: 1"=100'	Date: 9/9/08	SHEET NO:
REVISID:	BY DATE	2
		2 OF 9



CROSS SECTION A-A'

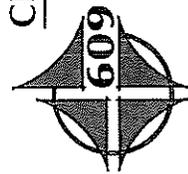


CROSS SECTION B-B'



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 Engineering & Land Surveying, Inc.
 38 WEST 100 NORTH
 VERNAL, UTAH 84078
 (435) 789-1365

Scale: 1"=100'	Date: 9/9/08	SHEET NO:
REVISIONS:	BY DATE	3 3 OF 9



609 CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

KERR-MCGEE OIL & GAS
ONSHORE L.P.
 1099 18th Street - Denver, Colorado 80202

NBU 920-24AT
WELL PAD - CROSS SECTIONS
709' FNL, 704' FEL
NE1/4NE1/4, SECTION 24, T.9S., R.20E.
S.L.B.&M., UINTAH COUNTY, UTAH

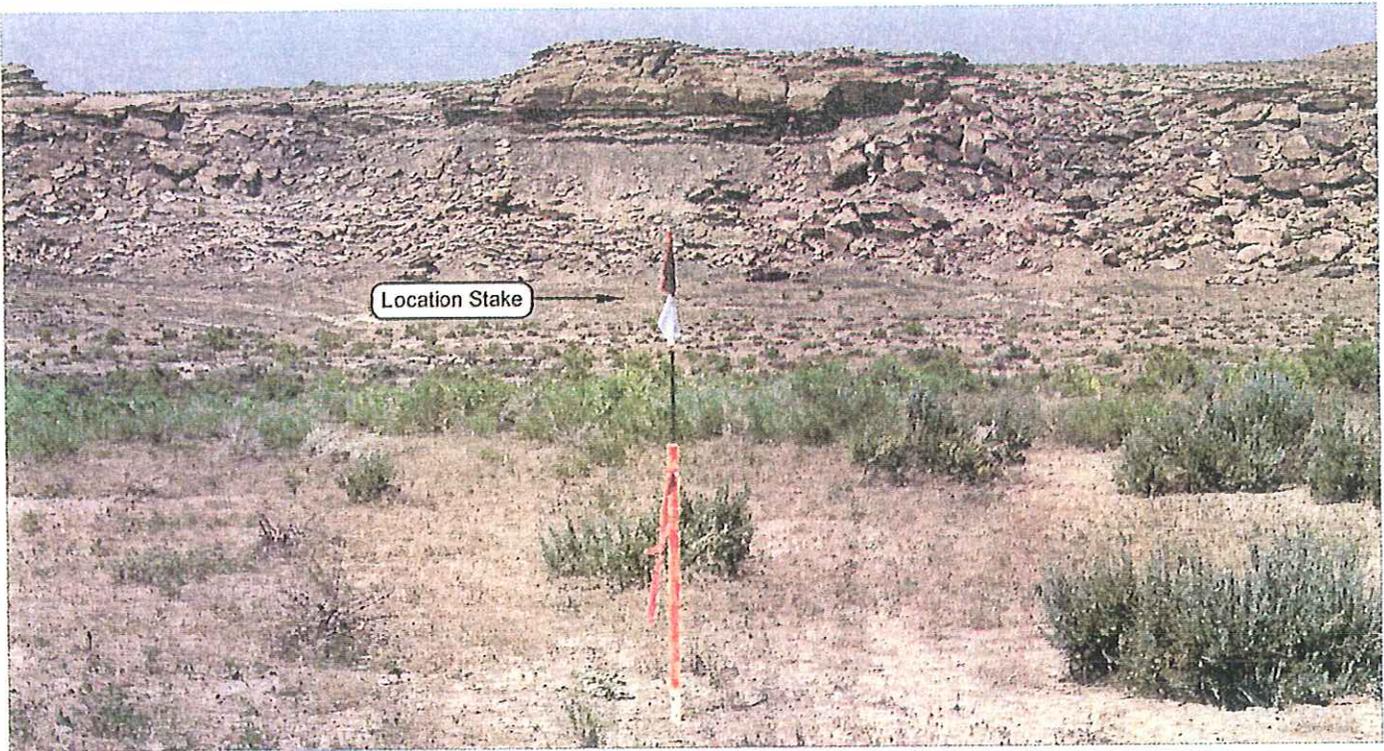


PHOTO VIEW: TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

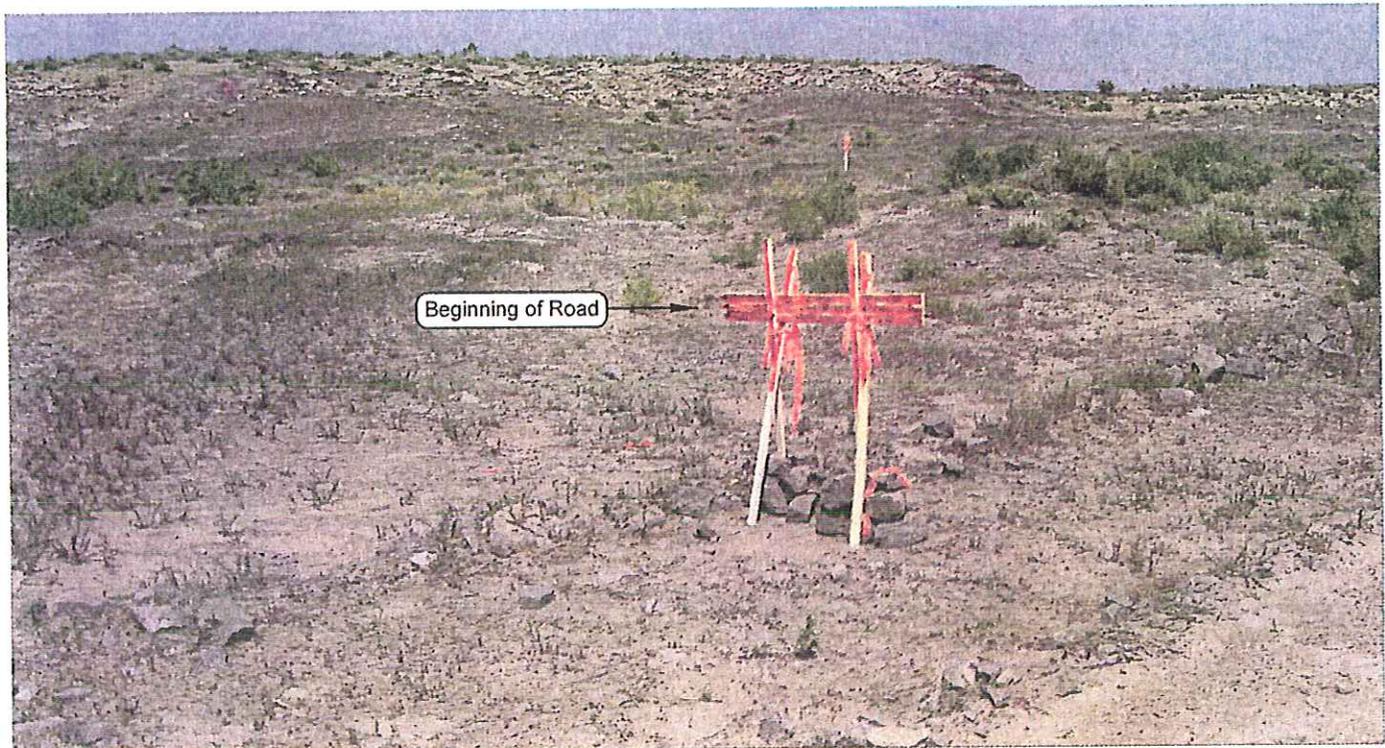


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee
Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

NBU 920-24AT
 709' FNL, 704' FEL
 NE ¼ NE ¼ OF SECTION 24, T9S, R20E,
 S.L.B.&M. UINTAH COUNTY, UTAH.



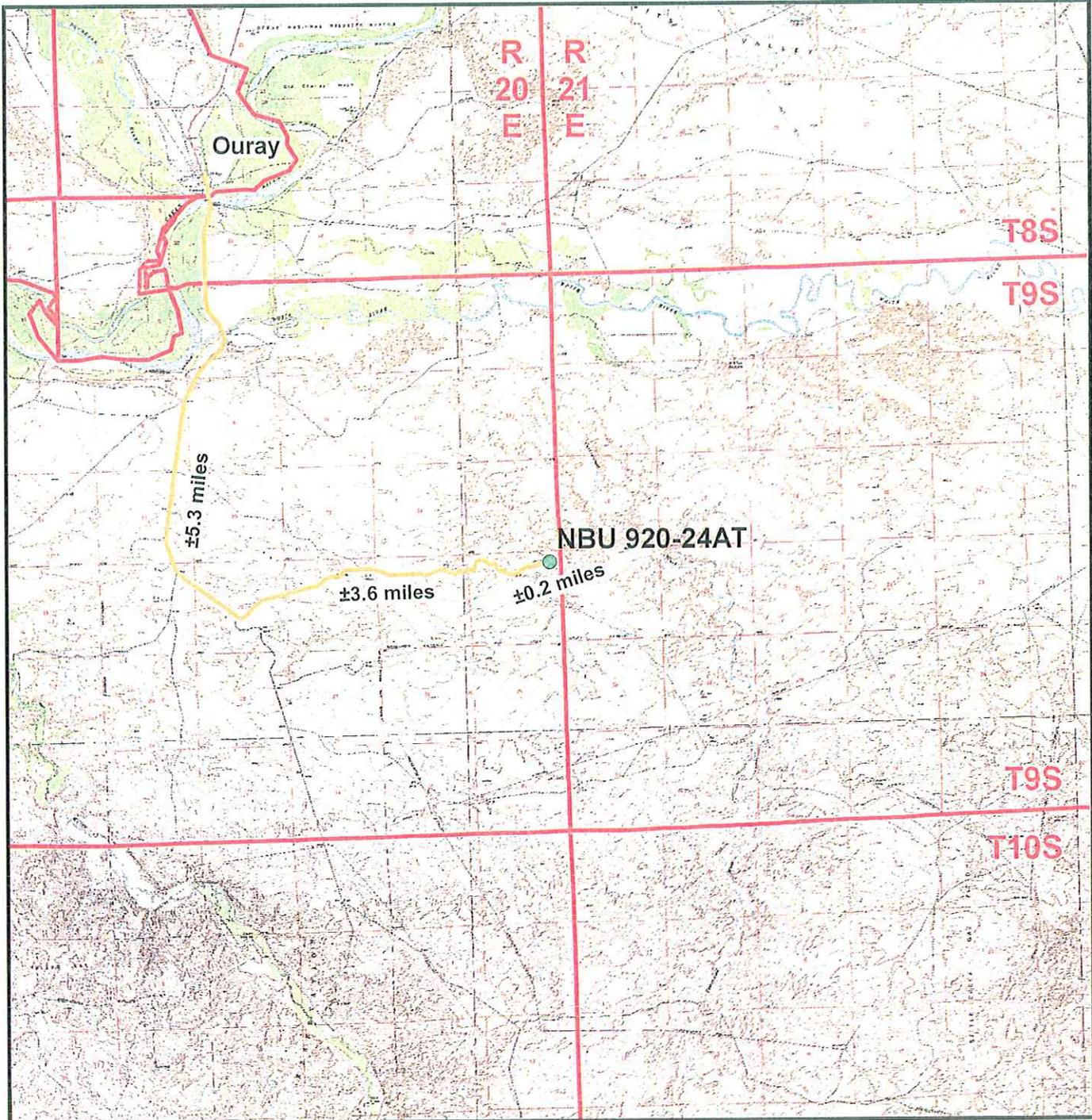
CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

LOCATION PHOTOS		DATE TAKEN: 06-27-08
		DATE DRAWN: 08-26-08
TAKEN BY: M.S.B.	DRAWN BY: E.M.S.	REVISED:
Timberline Engineering & Land Surveying, Inc. 38 WEST 100 NORTH VERNAL, UTAH 84078		(435) 789-1365 SHEET 4 OF 9

Kerr-McGee Oil & Gas Onshore, LP
NBU 920-24AT
Section 24, T9S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 5.3 MILES TO THE INTERSECTION OF AN EXISTING ROAD TO THE EAST. EXIT LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG EXISTING ROAD APPROXIMATELY 3.6 MILES TO THE PROPOSED ACCESS ROAD FOR 920-13J. FOLLOW 920-13J ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 840 FEET TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A SOUTHEASTERLY DIRECTION APPROXIMATELY 15 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 39.8 MILES IN A SOUTHERLY DIRECTION.



Legend

-  Proposed NBU 920-24AT Well Location
-  Access Route - Proposed

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

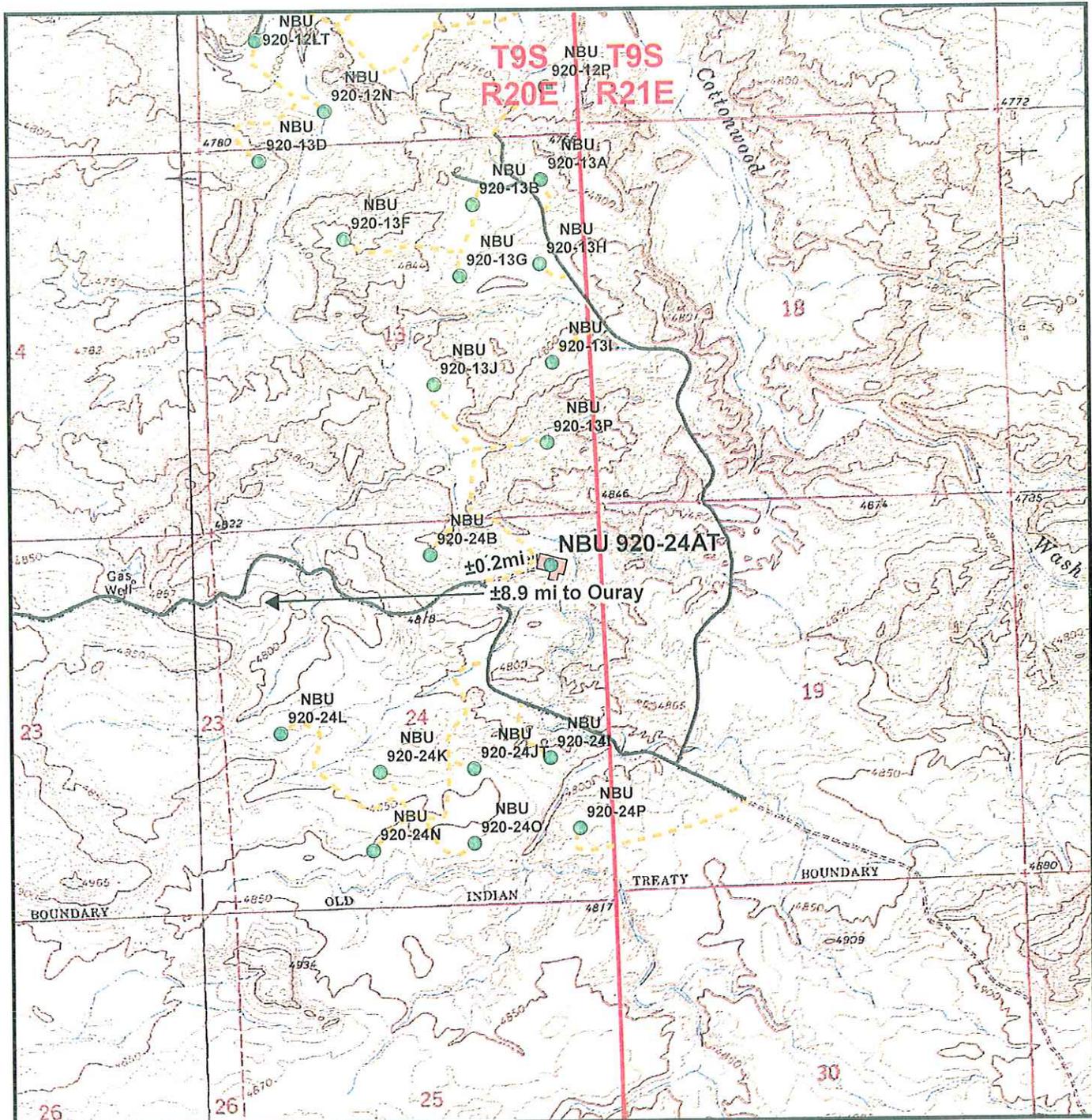
NBU 920-24AT
 Topo A
 709' FNL, 704' FEL
 NE¼ NE¼, Section 24, T9S, R20E
 S.L.B.&M., Uintah County, Utah



CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan, WY 82801
 Phone (307) 674-0609
 Fax (307) 674-0182



Scale: 1:100,000	NAD83 USP Centra	Sheet No:
Drawn: JELo	Date: 8 Sept 2008	5
Revised:	Date:	



Legend

- Well - Proposed
- Well Pad
- Road - Proposed
- Road - Existing

Total Proposed Road Length = ±15 ft

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

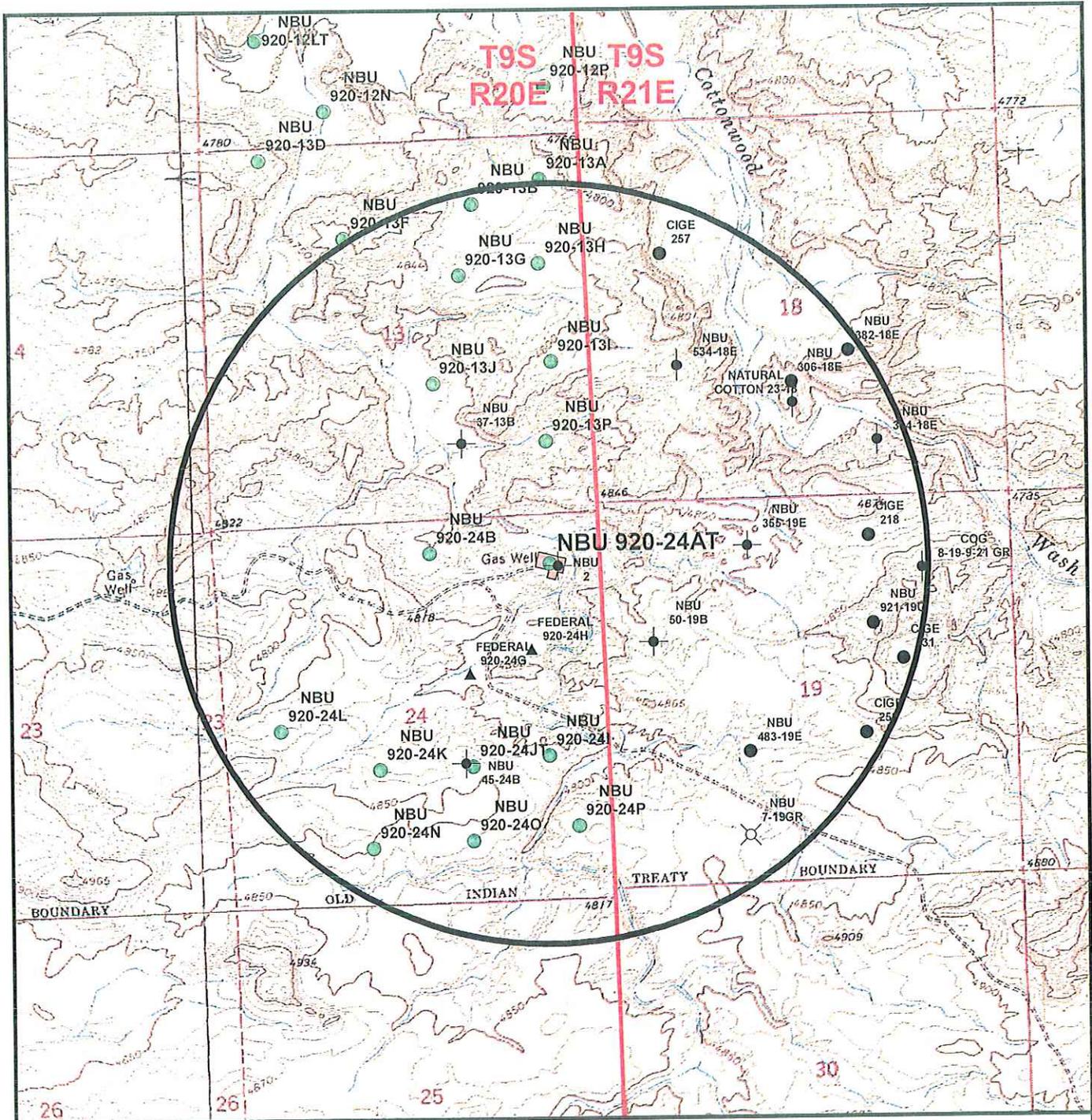
NBU 920-24AT
 Topo B
 709' FNL, 704' FEL
 NE¼ NE¼, Section 24, T9S, R20E
 S.L.B.&M., Uintah County, Utah



CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan, WY 82801
 Phone (307) 674-0609
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Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 8 Sept 2008	6
Revised:	Date:	



Legend

- Well - Proposed
- ◻ Well - 1 Mile Radius
- Producing
- ⊗ Location Abandoned
- ⊙ Shut-In
- Well Pad
- ▲ Approved permit (APD); not yet spudded
- Temporarily-Abandoned
- Spudded (Drilling commenced: Not yet comple
- ⊖ Plugged and Abandoned

Well locations derived from State of Utah, Dept. of Natural Resources, Division of Oil, Gas and Mining

Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street, Denver, Colorado 80202

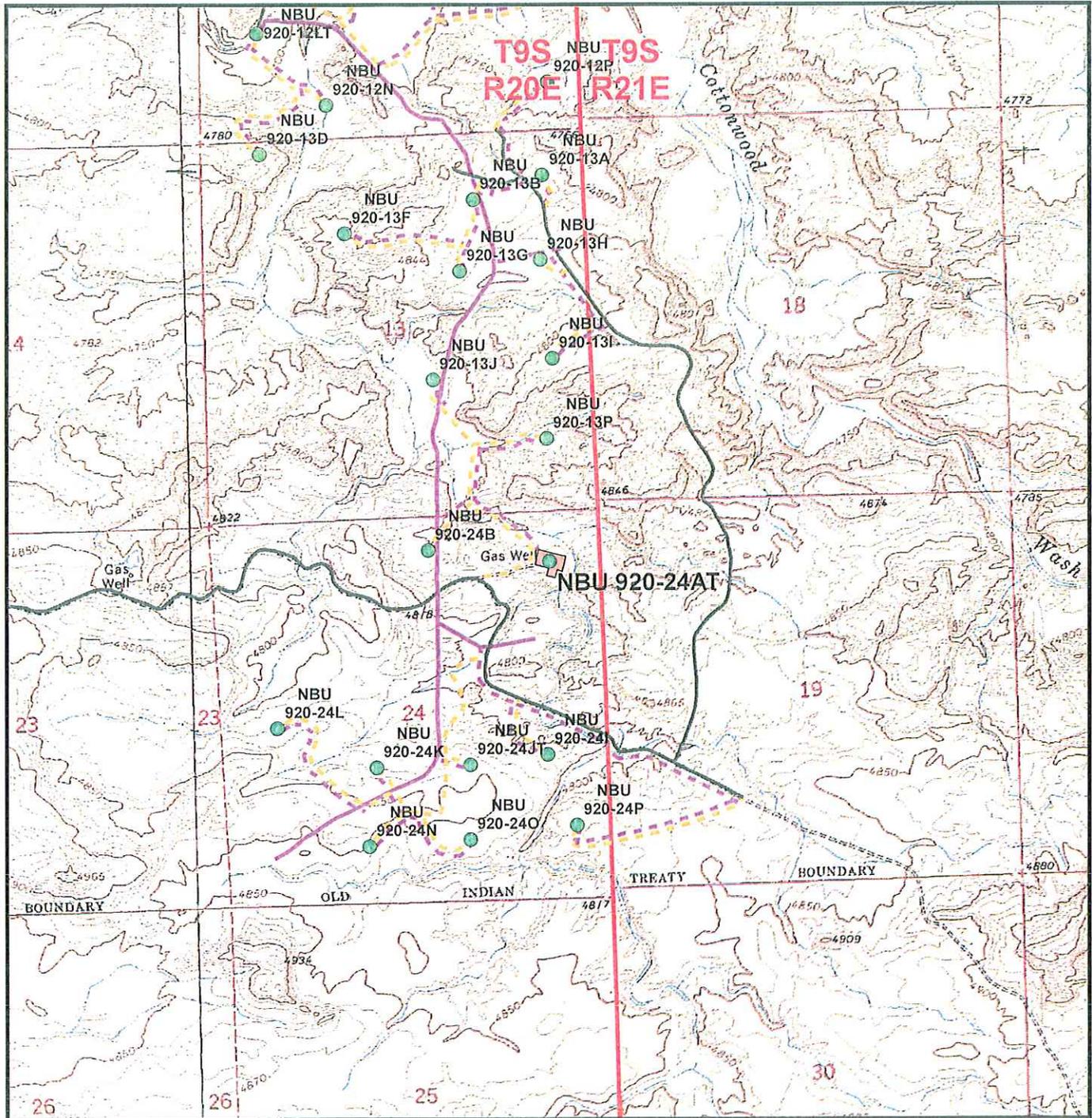
NBU 920-24AT
Topo C
709' FNL, 704' FEL
NE¼ NE¼, Section 24, T9S, R20E
S.L.B.&M., Uintah County, Utah



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Sheridan, WY 82801
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Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELo	Date: 8 Sept 2008	7
Revised:	Date:	7 of 9



Legend

Total Proposed Pipeline Length: ±20ft

- Well - Proposed
- Well Pad
- - - Pipeline - Proposed
- - - Road - Proposed
- Pipeline - Existing
- Road - Existing

Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

NBU 920-24AT
 Topo D
 709' FNL, 704' FEL
 NE¼ NE¼, Section 24, T9S, R20E
 S.L.B.&M., Uintah County, Utah

CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan, WY 82801
 Phone (307) 674-0609
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Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:	
Drawn: JELO	Date: 8 Sept 2008	8	8 of 9
Revised:	Date:		

IPC #08-152

Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Well Pads, Access Roads, and
Pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J,
24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E)**

Ouray SE
Topographic Quadrangle
Uintah County, Utah

July 8, 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 Bruce Pargeets of the Ute Indian Tribe and by Lynn Becker, EMD Land Division Manager of the Ute Indian Tribe's Energy and Minerals Department, a paleontological reconnaissance survey of Kerr McGee's proposed well pads, access roads, and pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J, 24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E) was conducted by Stephen Sandau and Daniel Burk on July 1, 2008. The survey was conducted under the Ute Indian Tribe Business License FY 2008, #A08-1308 and the accompanying Access Permit (effective 3/26/2008 through 9/30/2008). 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) and
- 3) The National Historic Preservation Act. 16 U.S.C. § 470-1, P.L. 102-575 in conjunction with 42 U.S.C. § 5320

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 well pads, access roads, and pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J, 24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E) are located on Ute Indian Reservation land some 2.5 miles south of the White River and 5 miles southeast of Ouray, Utah. The project area can be found on the Ouray SE 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 #920-12LT

The proposed twin is located on the pad of existing well "NBU #920-12L" in the NW/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E (Figure 1). The proposed twin is located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. No fossils were found.

NBU #920-12N

The proposed pipeline and access road begin at existing well "NBU #920-12L" in the NW/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E, then travel southeast for approximately 0.2 miles where they enter the proposed well pad in the SE/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located on muddy colluvium among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. Scattered, unidentifiable bone fragments and turtle shell fragments were found weathering out of the outcrops directly to the east of the staked area, but no other fossils were found.

NBU #920-13D

The proposed pipeline and access road begin near the proposed well "NBU #920-12N" in the SW/SW quarter-quarter section of Sec. 12, T 9 S, R 20 E and travel southwest for approximately 0.3 miles where they enter the proposed well pad in the NW/NW quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located on hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine

to medium-grained, and 1 to 2 meters thick. The siltstones are green and purple and 3 to 4 meters thick. Scattered, isolated turtle shell fragments were found on the well pad. Very dense concentrations of turtle shell and limb fragments (*Echmatemys sp.?*) were found just to the north of the proposed access road weathering out of green siltstone.

NBU #920-13F

The proposed access road begins at an existing road in the SE/NE quarter-quarter section of Sec. 13, T 9 S, R 20 E and travels west approximately 0.1 miles. The proposed pipeline begins here and travels with the access road west approximately 0.4 miles where they enter the well pad in the NE/NW quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located among rolling hills with outcrops of gray-green and tan sandstone. Dense concentrations of weathered turtle shell fragments were found all along the staked access road, especially where the road crosses sandstone outcrops.

NBU #920-13G

The proposed pipeline and access road begin at the proposed access road for "NBU #920-13F" and travel south >0.1 miles where they enter the proposed well pad in the SW/NE quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located on rolling hills of sandy colluvium derived from underlying sandstone. A few small, tan, sandstone outcrops are located within the staked area. Scattered turtle shell fragments were found on the proposed well pad.

NBU #920-13J

The proposed access road begins at an existing road in the NW/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E and travels in a generally northward direction for approximately 0.8 miles where it meets the proposed pipeline tie-in. Together the proposed access road and pipeline travel north for >0.1 miles where they enter the proposed well pad in the NW/SE quarter-quarter section of Sec. 13, T 9 S, R 20 E (Figure 1). The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road is located on an abandoned access road for the first 0.5 miles. Scattered turtle shell fragments were found all along the staked area with greater concentrations on the actual outcrops.

NBU #920-24AT

The proposed access road begins at the proposed road for "NBU #920-13J" and travels east >0.1 miles to the well pad in the NE/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E (Figure 1). The proposed pipeline begins near the proposed well pad "NBU #920-24B" in the NW/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E and travels in a generally eastern direction approximately 0.4 miles where it enters the well pad in the NE/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E. The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. Scattered turtle shell fragments were found on the well pad.

NBU #920-24B

The proposed access road begins along the proposed access road for "NBU #920-13J" in the SW/SE quarter-quarter section of Sec. 13, T 9 S, R 20 E and travels SW approximately 0.2 miles to where it is joined by the proposed pipeline (Figure 1). The proposed access road and pipeline then travel southwest together for >0.1 miles where they enter the proposed well pad in the NW/NE quarter-quarter section of Sec. 24, T 9 S, R 20 E. The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road crosses a significant drainage near its start. Scattered turtle shell fragments were found over a wide area on the well pad.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
"NBU #920-12LT" (Sec. 12, T 9 S, R 20 E)	The proposed twin is located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick.	No fossils were found. Class 3a
"NBU #920-12N" (Sec. 12, T 9 S, R 20 E)	The proposed pipeline, access road, and well pad are located on muddy colluvium among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick.	Scattered, unidentifiable bone fragments and turtle shell fragments were found weathering out of the outcrops directly to the east of the staked area, but no other fossils were found. Class 3a
"NBU #920-13D" (Sec. 12 & 13, T 9 S, R 20 E)	The proposed pipeline, access road, and well pad are located on hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium grained, and 1 to 2 meters thick. The siltstones are green and purple and 3-4 meters thick.	Scattered and isolated turtle shell fragments were found on the well pad. Very dense concentrations of turtle shell and limb fragments (<i>Echmatemys sp.?</i>) were found just to the north of the proposed access road weathering out of green siltstone. Class 4a
"NBU #920-13F" (Sec. 13, T 9 S, R 20 E)	The proposed pipeline, access road, and well pad are located among rolling hills with outcrops of gray-green and tan sandstone.	Dense concentrations of weathered turtle shell fragments were found all along the staked access road especially where the road crosses sandstone outcrops. Class 4a

<p>“NBU #920-13G” (Sec. 13, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located on rolling hills of sandy colluvium derived from underlying sandstone. A few small tan sandstone outcrops are located within the staked area.</p>	<p>Scattered turtle shell fragments were found on the proposed well pad. Class 4b</p>
<p>“NBU #920-13J” (Sec. 13, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road is located on an abandoned access road for the first 0.5 miles.</p>	<p>Scattered turtle shell fragments were found all along the staked area with greater concentrations on the actual outcrops. Class 4a</p>
<p>“NBU #920-24AT” (Sec. 24, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick.</p>	<p>Scattered turtle shell fragments were found on the well pad. Class 3a</p>
<p>“NBU #920-24B” (Sec. 24, T 9 S, R 20 E)</p>	<p>The proposed pipeline, access road, and well pad are located among hills with outcrops of inter-bedded sand and siltstones. The sandstones are tan and maroon, fine to medium-grained, and 3 to 4 meters thick. The siltstones are green and purple and 2 to 3 meters thick. The proposed access road crosses a significant drainage near its start.</p>	<p>Scattered turtle shell fragments were found over a wide area on the well pad. Class 3a</p>

RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed well pads, access roads, and pipelines for "NBU #920-12LT, 12N, 13D, 13F, 13G, 13J, 24AT & 24B" (Sec. 12, 13 & 24, T 9 S, R 20 E). The proposed well pads and the associated access roads and pipelines covered in this report showed some signs of vertebrate fossils, therefore, we advise the following recommendations.

We recommend that due to the number of vertebrate fossils found, that the proposed access roads, pipelines and well pads for "NBU #920-13D" and "NBU #920-13F" be monitored during the construction process.

We recommend that no other paleontological restrictions should be placed on the development of the remainder of the projects included in this report.

Nevertheless, if any vertebrate fossil(s) are found during construction within the project area, recommendations are that a paleontologist is immediately notified in order to collect fossil materials in danger of being destroyed. Any vertebrate fossils found should be carefully moved outside of the construction areas to be check by a permitted paleontologist.

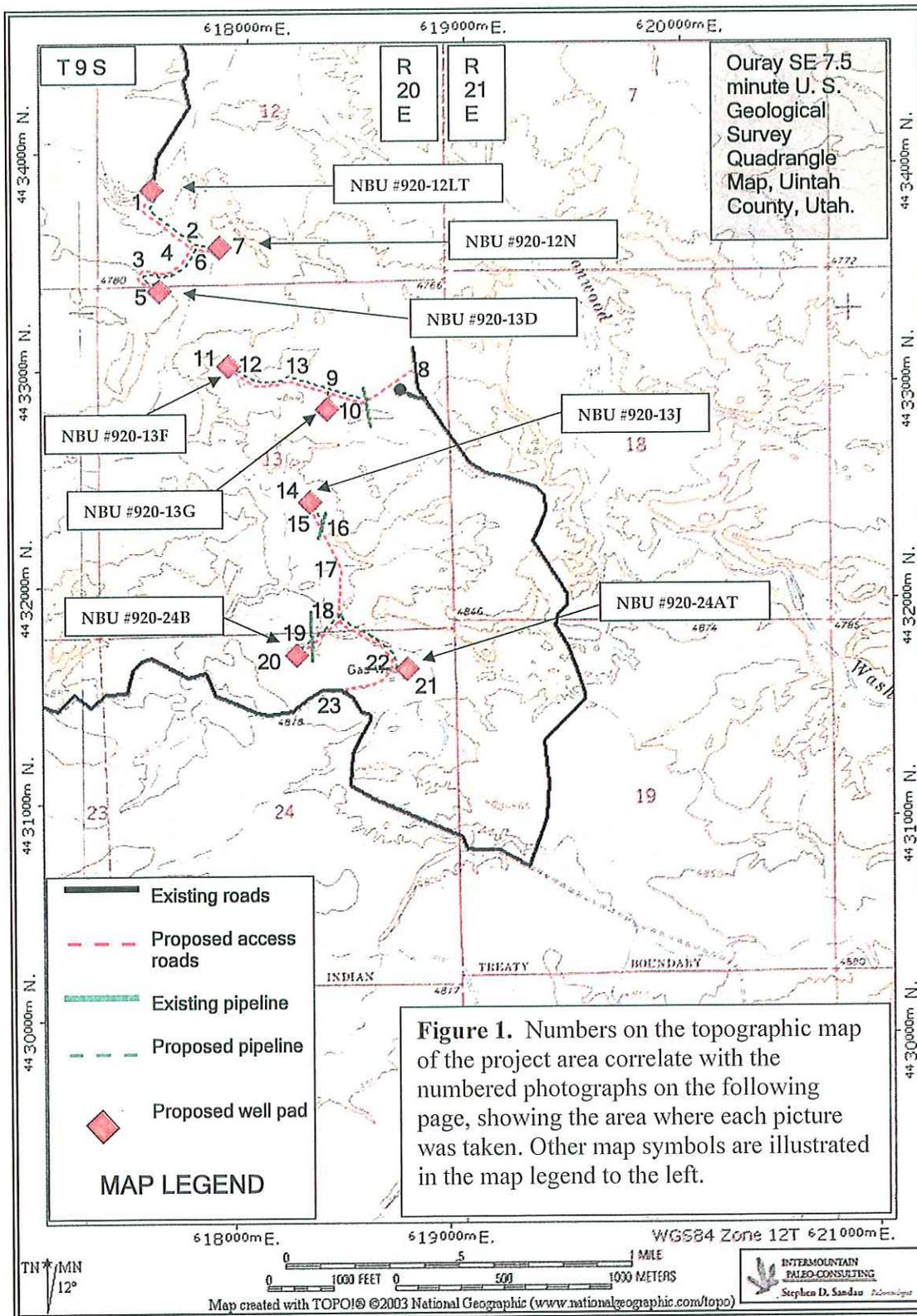


Figure 1. *continued.* . .

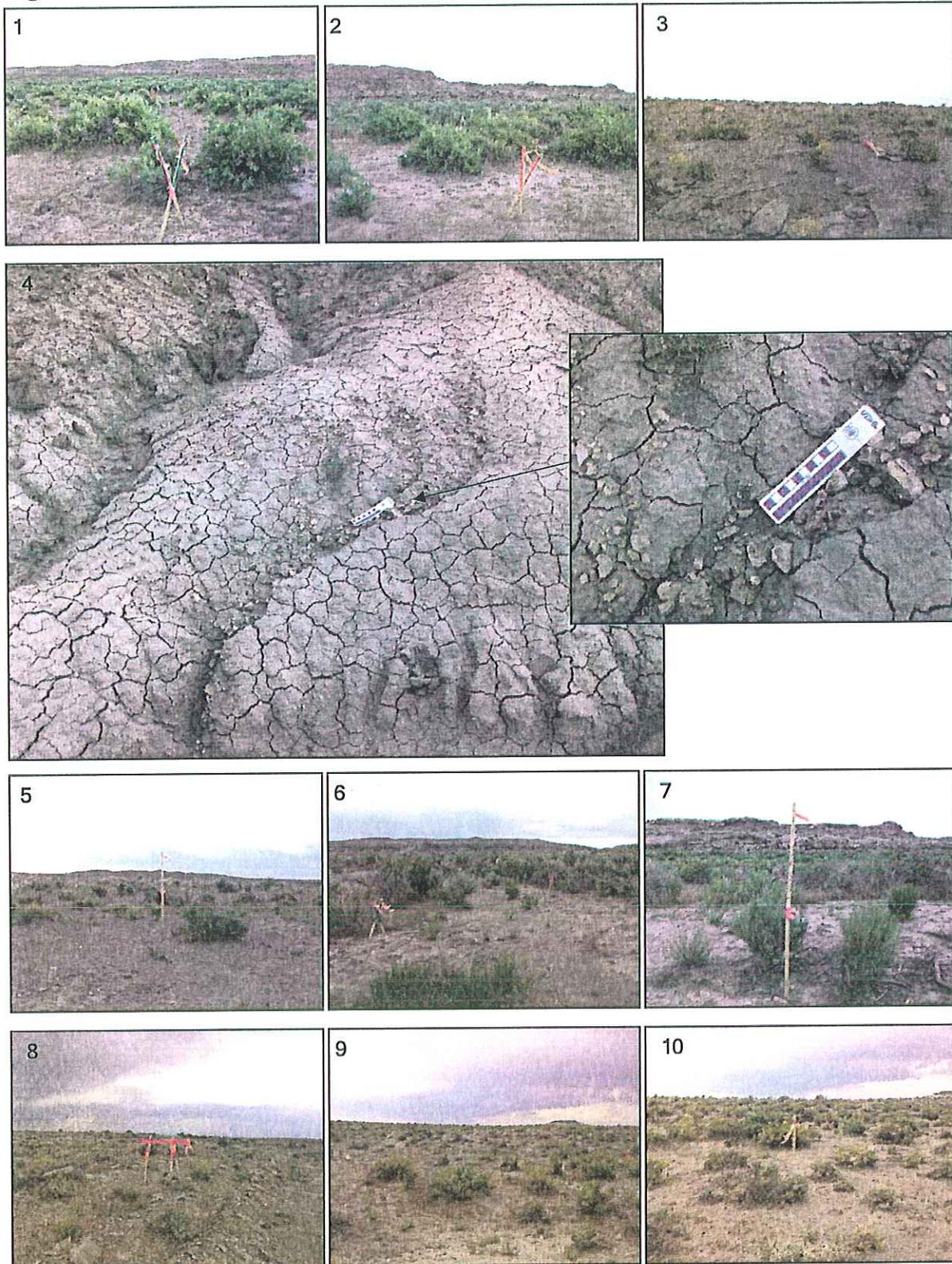


Figure 1. *continued...*

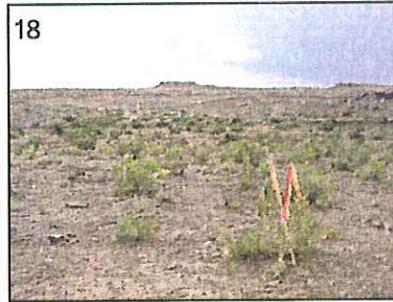
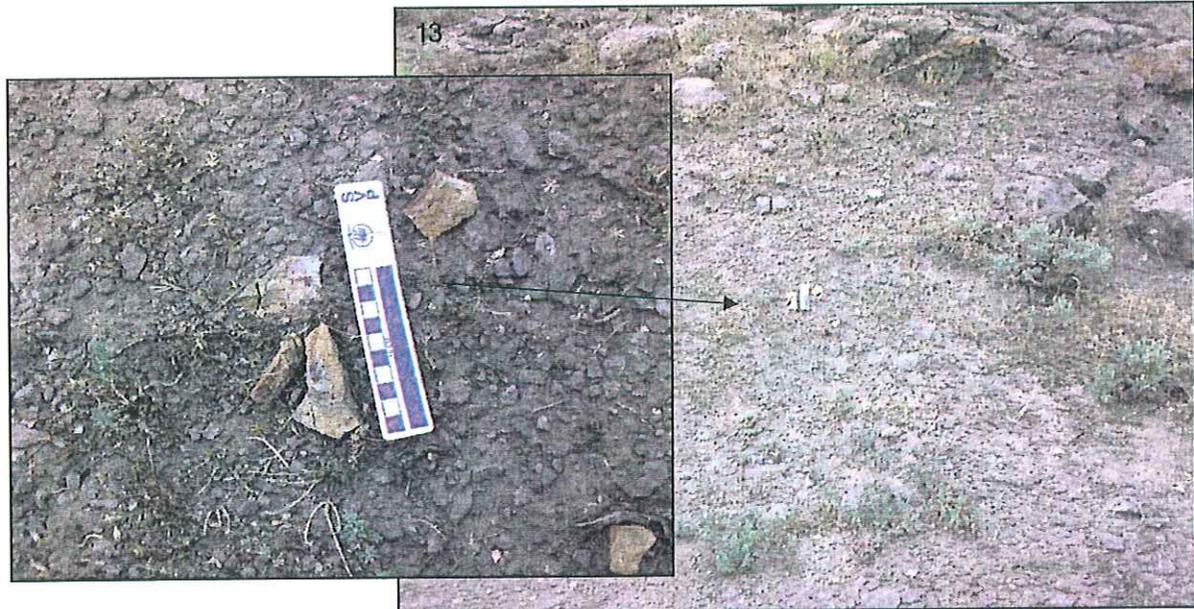
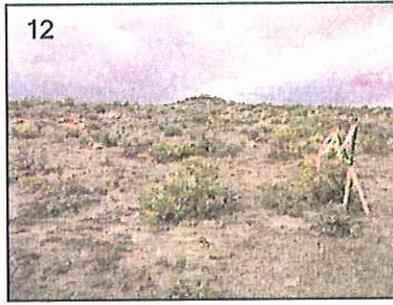
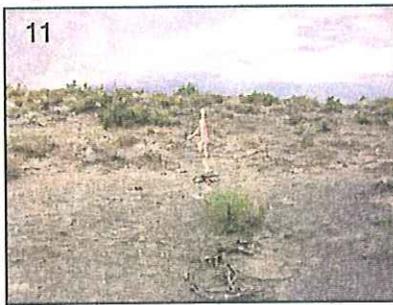
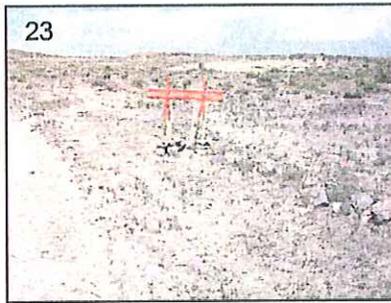
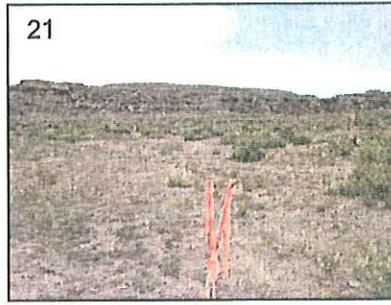
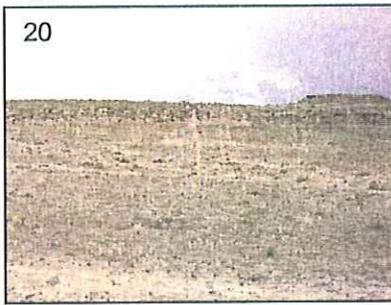


Figure 1. *continued...*



REFERENCES CITED

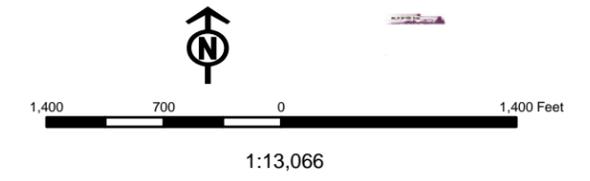
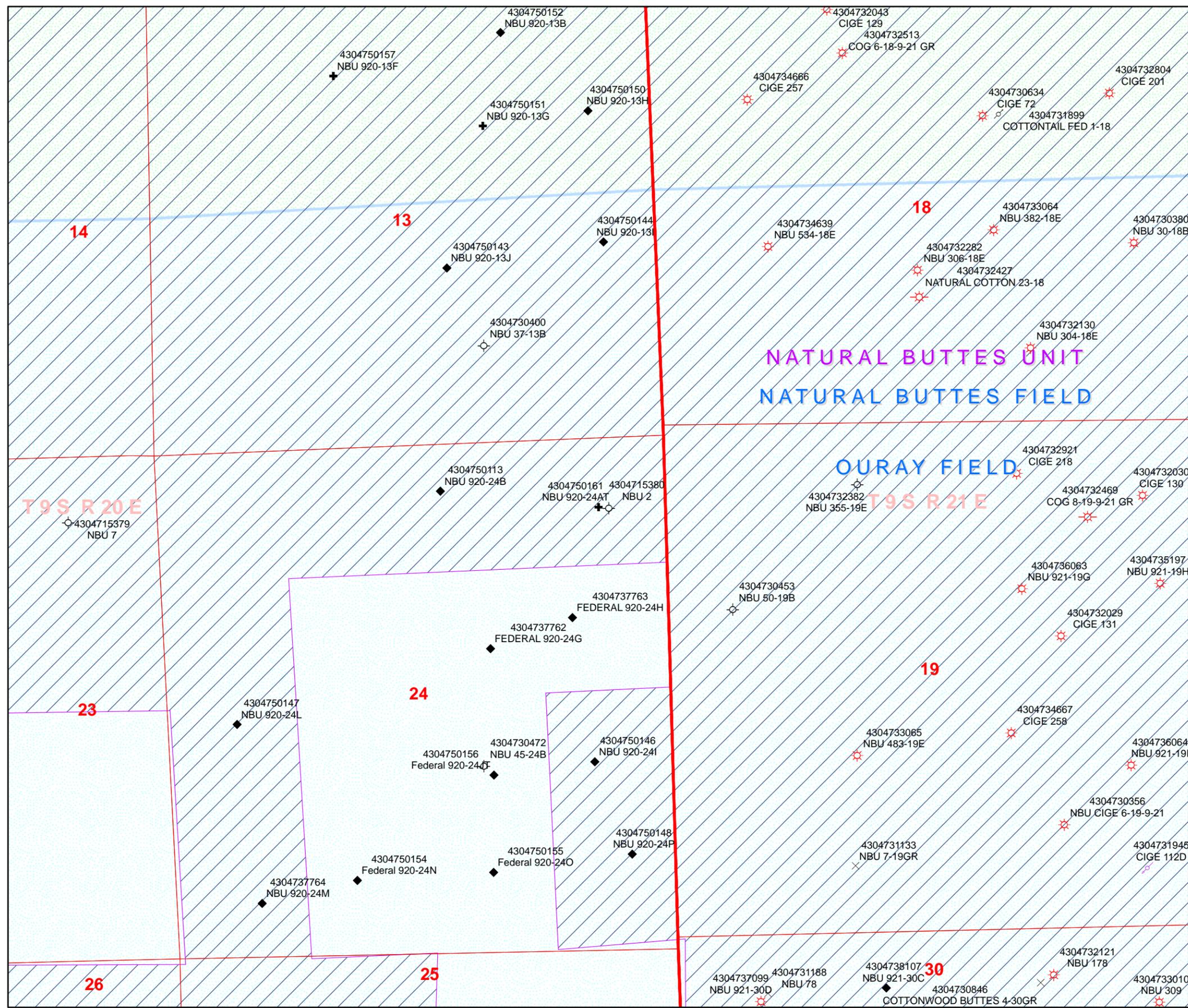
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API Number: 4304750161
Well Name: NBU 920-24AT
Township 09.0 S Range 20.0 E Section 24
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

Units	Wells Query Events
STATUS	✕ <all other values>
ACTIVE	
EXPLORATORY	GIS_STAT_TYPE
GAS STORAGE	◆ <Null>
NF PP OIL	◆ APD
NF SECONDARY	○ DRL
PI OIL	○ GI
PP GAS	⊙ GS
PP GEOTHERML	⊗ LA
PP OIL	⊕ NEW
SECONDARY	⊕ OPS
TERMINATED	⊕ PA
Fields	⊕ PGW
STATUS	⊕ POW
ACTIVE	⊕ RET
COMBINED	⊕ SGW
Sections	⊕ SOW
Township	⊕ TA
	⊕ TW
	⊕ WD
	⊕ WI
	⊕ WS
	⊕ Bottom Hole Location



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)

October 14, 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)

43-047-50179 NBU 920-12H Sec 12 T09S R20E 2170 FNL 0279 FEL
43-047-50180 NBU 920-12G Sec 12 T09S R20E 2151 FNL 2191 FEL
43-047-50181 NBU 920-12F Sec 12 T09S R20E 1957 FNL 1922 FWL
43-047-50185 NBU 920-29A Sec 29 T09S R20E 0616 FNL 0927 FEL
43-047-50174 NBU 920-12B Sec 12 T09S R20E 0627 FNL 1964 FEL
43-047-50186 NBU 920-29D Sec 29 T09S R20E 0552 FNL 0859 FWL

(Proposed PZ MESAVERDE)

43-047-50162 NBU 920-12LT Sec 12 T09S R20E 1538 FSL 0792 FWL
43-047-50161 NBU 920-24AT Sec 24 T09S R20E 0709 FNL 0704 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:10-14-08

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 10/1/2008

API NO. ASSIGNED: 43047501610000

WELL NAME: NBU 920-24AT

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6226

CONTACT: Kevin McIntyre

PROPOSED LOCATION: NENE 24 090S 200E

Permit Tech Review:

SURFACE: 0709 FNL 0704 FEL

Engineering Review:

BOTTOM: 0709 FNL 0704 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.02649

LONGITUDE: -109.60727

UTM SURF EASTINGS: 618842.00

NORTHINGS: 4431416.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-0579

PROPOSED FORMATION: WSMVD

SURFACE OWNER: 2 - Indian

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT**
- Bond:** FEDERAL - WYB000291
- Potash**
- Oil Shale 190-5**
- Oil Shale 190-3**
- Oil Shale 190-13**
- Water Permit:** Permit #43-8496
- RDCC Review:**
- Fee Surface Agreement**
- Intent to Commingle**

LOCATION AND SITING:

- R649-2-3.**
Unit: NATURAL BUTTES
 - R649-3-2. General**
 - R649-3-3. Exception**
 - Drilling Unit**
Board Cause No: 173-14
Effective Date: 12/2/1999
Siting: 460' fr u bdry & uncomm. tract
 - R649-3-11. Directional Drill**
-

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason
17 - Oil Shale 190-5(b) - dmason



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

Permit To Drill

Well Name: NBU 920-24AT
API Well Number: 43047501610000
Lease Number: UTU-0579
Surface Owner: INDIAN
Approval Date: 10/21/2008

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P. , P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of 173-14.

Duration:

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

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.

Conditions of Approval:

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

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

Notification Requirements:

Notify the Division with 24 hours of spudding the well.

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

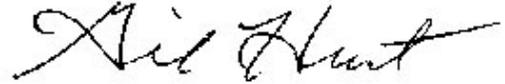
Notify the Division prior to commencing operations to plug and abandon the well.

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

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.

Approved By:

A handwritten signature in black ink, appearing to read "Gil Hunt". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Gil Hunt
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-24AT
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047501610000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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

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

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

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

Date: October 08, 2009
By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 10/6/2009



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047501610000

API: 43047501610000

Well Name: NBU 920-24AT

Location: 0709 FNL 0704 FEL QTR NENE SEC 24 TWP 090S RNG 200E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 10/21/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No

- Has the approved source of water for drilling changed? Yes No

- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

- Is bonding still in place, which covers this proposed well? Yes No

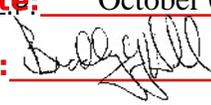
**Approved by the
Utah Division of
Oil, Gas and Mining**

Signature: Danielle Piernot

Date: 10/6/2009

Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: October 08, 2009

By: 

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-24AT
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047501610000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/20/2010 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>

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

Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.

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

Date: October 25, 2010
 By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 10/19/2010



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047501610000

API: 43047501610000

Well Name: NBU 920-24AT

Location: 0709 FNL 0704 FEL QTR NENE SEC 24 TWP 090S RNG 200E MER S

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Date Original Permit Issued: 10/21/2008

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- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No
- Has the approved source of water for drilling changed? Yes No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No
- Is bonding still in place, which covers this proposed well? Yes No

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

Signature: Danielle Piernot

Date: 10/19/2010

Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: October 25, 2010

By: 

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED
VERNAL FIELD OFFICE

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-0579
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Ute
2. Name of Operator Kerr-McGee Oil & Gas Onshore, LP		7. If Unit or CA Agreement, Name and No. 891008900A
3a. Address P.O. Box 173779, Denver, CO 80217-3779	3b. Phone No. (include area code) 720.929.6226	8. Lease Name and Well No. NBU 920-24AT
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NENE 709' FNL & 704' FEL LAT 40.02653 LON -109.60732 (NAD 27) At proposed prod. zone N/A		9. API Well No. 43 DA7 50161
14. Distance in miles and direction from nearest town or post office* 8.9 miles east of Ouray, Utah		10. Field and Pool, or Exploratory Natural Buttes Field
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 704'		11. Sec., T. R. M. or Blk. and Survey or Area Sec. 24, T 9S, R 20E
16. No. of acres in lease 1920	17. Spacing Unit dedicated to this well Unit Well	12. County or Parish Uintah
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 20'	19. Proposed Depth 10,400'	13. State UT
20. BLM/BIA Bond No. on file WYB000291	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4770.5' GL	22. Approximate date work will start*
23. Estimated duration 10 days	24. Attachments	

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

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

25. Signature 	Name (Printed/Typed) Kevin McIntyre	Date 09/25/2008
-------------------	--	--------------------

Title
Regulatory Analyst I

Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date APR 29 2011
-----------------------------	---------------------------------------	---------------------

Title
Assistant Field Manager
Lands & Mineral Resources

Office
VERNAL FIELD OFFICE

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

Conditions of approval, if any, are attached. **CONDITIONS OF APPROVAL ATTACHED**

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

(Continued on page 2)

*(Instructions on page 2)

NOTICE OF APPROVAL

RECEIVED

MAY 04 2011

DIV. OF OIL, GAS & MINING

UDOGM



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Kerr McGee Oil & Gas Onshore, LP Location: NENE, Sec. 24, T9S, R20E
Well No: NBU 920-24AT Lease No: UTU-0579
API No: 43-047-50161 Agreement: Natural Buttes Unit

OFFICE NUMBER: (435) 781-4400
OFFICE FAX NUMBER: (435) 781-3420

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

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

NOTIFICATION REQUIREMENTS

Construction Activity
(Notify Ute Tribe Energy & Minerals Dept.
and BLM Environmental Scientist)

- The Ute Tribe Energy & Minerals Dept. and BLM Environmental Scientist shall be notified at least 48 hours in advance of any construction activity. The Ute Tribal office is open Monday through Thursday.

Construction Completion
(Notify Ute Tribe Energy & Minerals Dept.
and BLM Environmental Scientist)

- Upon completion of the pertinent APD/ROW construction, notify the Ute Tribe Energy & Minerals Dept. for a Tribal Technician to verify the Affidavit of Completion. Notify the BLM Environmental Scientist prior to moving on the drilling rig.

Spud Notice
(Notify BLM Petroleum Engineer)

- Twenty-Four (24) hours prior to spudding the well.

Casing String & Cementing
(Notify BLM Supv. Petroleum Tech.)

- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov.

BOP & Related Equipment Tests
(Notify BLM Supv. Petroleum Tech.)

- Twenty-Four (24) hours prior to initiating pressure tests.

First Production Notice
(Notify BLM Petroleum Engineer)

- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

**SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

Site-Specific Conditions of Approval:

1. Paint old and new facilities "Shadow Gray."
2. Move the existing pipeline off the damage area of the well pad.
3. Monitor constructions operations by a permitted paleontologist.
4. Monitor constructions operations by a permitted archaeologist.
5. In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002, a raptor survey shall be conducted prior to expansion of the well pad or pipeline upgrade if construction will take place during raptor nesting season (January 01 through September 30). If active raptor nests are identified during a new survey, KMG shall conduct its operations according to the seasonal restrictions detailed in the Uintah Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (see Appendix D).
6. If project construction operations are not initiated before November 3, 2010, KMG shall conduct additional biological surveys in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus (See Appendix D) and conduct its operation according to its specifications.

BIA Standard Conditions of Approval:

1. Soil erosion will be mitigated by reseeding all disturbed areas.
2. The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
3. An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.
4. The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
5. A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
6. Major low water crossings will be armored with pit run material to protect them from erosion.
7. All personnel shall refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.

8. If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
9. Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.
10. Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.
11. If project construction operations are scheduled to occur after December 31, 2009, KMG shall conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix E) and conduct its operations according to applicable seasonal restrictions and spatial offsets.
12. USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix E).
13. All personnel shall refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
14. If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COAs:

- Surface casing cement shall be brought up and into the surface. Top of Cmnt is to reach surf.
- Production casing cement shall be brought up and into the surface casing. Production casing minimum cement top is 1600 ft. The minimum cement top is approximately 0700 ft above the surface casing shoe.
- Cmnt Top (TOC) standard will place cmnt behind casing across formation lost circulation zone, Birds Nest Zone.
COA specification fulfills operators performance standard stated in APD (where operators toc is calc'd with an excess to reach surface).
- Operator is to notify BLM Vernal Field Office and active gilsonite mining operator (or lease holder) located within a 2 mile radius, 48 hours prior to pad explosives blasting. Well is not close to gilsonite vein, but on trend to gilsonite vein deposits.
- A copy of Kerr McGee's Standard Operating Practices (SOP version: dated 7/17/08 and approved 7/28/08) shall be on location.
- Drilling plan specifics and practices are referenced in the Kerr McGee Oil & Gas Standard Operating Procedures (SOP version: July 28, 2008). The operators drilling plan items 3 to 9 reference the SOP. Kerr McGee shall adhere to the referenced requirements in the SOP.
- Kerr McGee and their contractors shall adhere to all Oil and Gas rules and requirements listed in the Code of Federal Regulations and all Federal Onshore Oil and Gas Orders except where variances have been granted.
- Covering air/gas drilling operations, requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.
- A Gamma Ray well Log shall be run from the well Total Depth to the surface.
- A copy of the Gamma Ray well Log shall be submitted to the BLM Vernal Field Office.
- Conductor casing shall be set into competent formation.
- A variance is granted for Onshore Order #2 Drilling Operations III. E. "Blooie line discharge 100 feet from well bore and securely anchored" Blooie line can be 45 feet.
- All requirements will be adhered to covering air/gas drilling operations as described in Onshore Order #2 III. E. 1. Drilling Operations, Special Drilling Operations, air/gas drilling.

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

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.

- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.

- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Wellogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

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

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.

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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579
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.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute
		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-24AT	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047501610000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S	COUNTY: UINTAH	
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 10/21/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.</p>		
		<p>Approved by the Utah Division of Oil, Gas and Mining</p> <p>Date: <u>09/27/2011</u></p> <p>By: <u></u></p>
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 9/20/2011	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047501610000

API: 43047501610000

Well Name: NBU 920-24AT

Location: 0709 FNL 0704 FEL QTR NENE SEC 24 TWP 090S RNG 200E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 10/21/2008

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes No

- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? Yes No

- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No

- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? Yes No

- Has the approved source of water for drilling changed? Yes No

- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? Yes No

- Is bonding still in place, which covers this proposed well? Yes No

Signature: Danielle Piernot

Date: 9/20/2011

Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579	
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.	
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-24AT
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: Uintah
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 1/18/2012	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU TRIPPLE A BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'.
 RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD
 WELL ON 01/18/2012 AT 0730 HRS.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 January 19, 2012**

NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 1/18/2012	

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By SHEILA WOPSOCK Phone Number 435.781.7024
Well Name/Number NBU 920-24AT
Qtr/Qtr NE/NE Section 24 Township 9S Range 20E
Lease Serial Number UTU-0579
API Number ~~4304750146~~ 43-047-50161

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 01/18/2012 0700 HRS AM PM

Casing – Please report time casing run starts, not cementing times.

- Surface Casing
- Intermediate Casing
- Production Casing
- Liner
- Other

Date/Time 01/22/2012 0800 HRS AM PM

BOPE

- Initial BOPE test at surface casing point
- BOPE test at intermediate casing point
- 30 day BOPE test
- Other

RECEIVED
JAN 16 2012
DIV. OF OIL, GAS & MINING

Date/Time _____ AM PM

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT
LOVEL YOUNG AT 435.781.7051 FOR MORE

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9	
		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579	
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute	
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: NATURAL BUTTES	
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 920-24AT	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047501610000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: NATURAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S		COUNTY: UINTAH	
		STATE: UTAH	
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 2/1/2012	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER		<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
<p>MIRU AIR RIG ON JAN. 29, 2012. DRILLED SURFACE HOLE TO 2915'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.</p>			
<p>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY February 02, 2012</p>			
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst	
SIGNATURE N/A		DATE 2/2/2012	

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
4304750161	NBU 920-24AT		NENE	24	9S	20E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
A	99999	2900	1/18/2012			1/31/12	
Comments: MIRU TRIPPLE A BUCKET RIG. <i>WSMVD</i> SPUD WELL ON 01/18/2012 AT 0730 HRS.							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750113	NBU 920-24B		NWNE	24	9S	20E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
A	99999	2900	1/17/2012			1/31/12	
Comments: MIRU TRIPPLE A BUCKET RIG. <i>WSMVD</i> SPUD WELL ON 01/17/2012 AT 1130 HRS.							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

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 WOPSOCK

Name (Please Print)

Signature

REGULATORY ANALYST

1/18/2012

Title

Date

RECEIVED

JAN 18 2012

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579
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.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-24AT
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047501610000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6514 9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S	COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 2/1/2012 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>

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

The operator requests approval for changes in the drilling plan. Specifically, the Operator requests approval to deepen to the Blackhawk formation (part of the Mesaverde Group), FIT Waiver, closed loop drilling option, surface casing size change, and a production casing change. All other aspects of the previously approved drilling plan will not change. These proposals do not deviate from previously submitted and approved plans. Please see attachments. Thank you.

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

Date: February 16, 2012

By: *Derek Quist*

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 2/1/2012	

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 920-24AT
Surface: 709 FNL / 704 FEL NENE

Section 14 T9S R20E

Unitah County, Utah
Mineral Lease: UTU-0579

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,625'	
Birds Nest	1,897'	Water
Mahogany	2,411'	Water
Wasatch	5,046'	Gas
Mesaverde	8,169'	Gas
Sego	10,410'	Gas
Castlegate	10,536'	Gas
Blackhawk	10,849'	Gas
TVD	11,449'	
TD	11,449'	

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 bottom hole pressure calculated at 11449' TVD, approximately equals

$$\frac{7,556 \text{ psi}}{(0.66 \text{ psi/ft} = \text{actual bottomhole gradient})}$$

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 5,090 psi (bottom hole pressure
 minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-
 (0.22 psi/ft-partial evac gradient x TVD of next csg point))

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 for the first 200 feet, then will drill a 11 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 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 8-5/8 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 bloop 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.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

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.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

						DESIGN FACTORS				
						LTC	DQX			
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'					3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,860	28.00	IJ-55	LTC	1.88	1.40	4.96	N/A
PRODUCTION	4-1/2"	0	to 5,000	11.60	HCP-110	DQX	1.19	1.12	279,000	367,000
	4-1/2"	5,000	to 11,449'	11.60	HCP-110	LTC	1.19	1.12	4.65	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe
 Fracture at surface shoe with 0.1 psi/ft gas gradient above
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
Option 1	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	2,360'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	220	35%	11.00	3.82
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,539'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	360	35%	12.00	3.38
	TAIL	6,910'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,630	35%	14.30	1.31

*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. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

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.

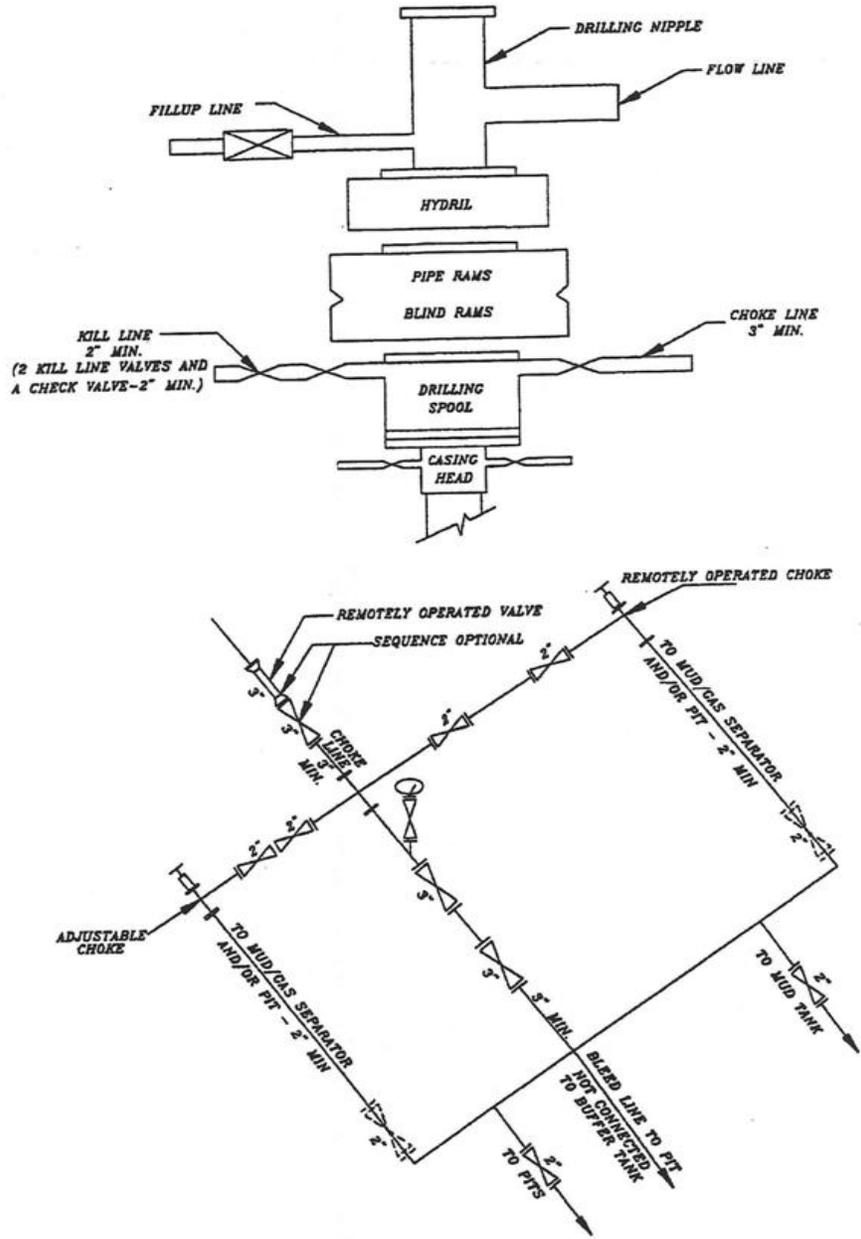
DRILLING ENGINEER: _____
 Nick Spence / Danny Showers / Chad Loesel

DATE: _____

DRILLING SUPERINTENDENT: _____
 Kenny Gathings / Lovel Young

DATE: _____

EXHIBIT A NBU 920-24AT



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

State of Utah - Notification Form

Operator Anadarko Petroleum Rig Name/# PIONEER 54
Submitted By STUART NEILSON Phone Number 435-790-2921
Well Name/Number NBU 920-24AT
Qtr/Qtr NE/4 NE/4 Section 24 Township 9S Range 20E
Lease Serial Number UTU-0579
API Number 4304750161

Casing – Time casing run starts, not cementing times.

- Production Casing
- Other

Date/Time _ _____ AM PM

BOPE

- Initial BOPE test at surface casing point
- Other

Date/Time 3/1/12 10 AM PM

Rig Move

Location To: _____

Date/Time _ _____ AM PM

Remarks

RECEIVED
FEB 29 2012
DIV. OF OIL, GAS & MINING

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.	
1. TYPE OF WELL Gas Well	5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S	8. WELL NAME and NUMBER: NBU 920-24AT
PHONE NUMBER: 720 929-6511	9. API NUMBER: 43047501610000
9. FIELD and POOL or WILDCAT: NATURAL BUTTES	COUNTY: UINTAH
	STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 3/9/2012	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

MIRU ROTARY RIG. FINISHED DRILLING FROM 2,915' TO 11,450' ON MARCH 7, 2012. RAN 4-1/2" 11.6# P-110 PRODUCING CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER 54 RIG ON MARCH 9, 2012 @ 06:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 March 12, 2012**

NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 3/12/2012	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU-0579
SUNDRY NOTICES AND REPORTS ON WELLS		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Ute
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: NATURAL BUTTES
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 920-24AT
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		9. API NUMBER: 43047501610000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0709 FNL 0704 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NENE Section: 24 Township: 09.0S Range: 20.0E Meridian: S		COUNTY: UINTAH
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 3/29/2012	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input checked="" type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input type="checkbox"/> OTHER	
	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
THE SUBJECT WELL WAS PLACED ON PRODUCTION ON MARCH 29, 2012 AT 5:30 P.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 02, 2012		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 4/2/2012

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. UTU0579

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No. UTU63047A

8. Lease Name and Well No. NBU 920-24AT

9. API Well No. 43-047-50161

10. Field and Pool, or Exploratory NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey or Area Sec 24 T9S R20E Mer SLB

12. County or Parish UINTAH 13. State UT

14. Date Spudded 01/18/2012 15. Date T.D. Reached 03/07/2012 16. Date Completed 03/29/2012 D & A Ready to Prod.

17. Elevations (DF, KB, RT, GL)* 4767 GL

18. Total Depth: MD 11450 TVD 11445 19. Plug Back T.D.: MD 11397 TVD 11392 20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each) HDIL/ZDL/CNGR-SYNCOMBO-CBL/CM/GR/CCL-RSL/SM/GR/CC 22. Was well cored? No Yes (Submit analysis) Was DST run? No Yes (Submit analysis) Directional Survey? No Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
11.000	8.625 IJ-55	28.0	0	2900		715		0	
7.875	4.500 P-110	11.6	0	11440		2307		280	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	10889							

25. Producing Intervals 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WASATCH	8216	8281	8216 TO 8281	0.360	15	OPEN
B) MESAVERDE	8314	11234	8314 TO 11234	0.360	201	OPEN
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
8216 TO 11234	PUMP 17,603 BBLs SLICK H2O & 177,099 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
03/29/2012	04/05/2012	24	→	0.0	3711.0	576.0			FLows FROM WELL
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
20/64	2747 SI	3658.0	→	0	3711	576		PGW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

RECEIVED
MAY 15 2012

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GREEN RIVER	1743
				BIRD'S NEST	1866
				MAHOGANY	2290
				WASATCH	5033
				MESAVERDE	8307

32. Additional remarks (include plugging procedure):

The first 210? of the surface hole was drilled with a 12 ?? bit. The remainder of surface hole was drilled with an 11? bit.DQX csg was run from surface to 5046?; LTC csg was run from 5046? to 11,440?. Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

**Electronic Submission #137347 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal**

Name (please print) CARA MAHLER Title AUTHORIZED REPRESENTATIVE

Signature _____ (Electronic Submission) Date 05/10/2012

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

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

Rig Name No: PROPETRO 12/12, PIONEER 54/54

Event: DRILLING

Start Date: 1/21/2012

End Date: 3/10/2012

Active Datum: RKB @4,786.00usft (above Mean Sea Level)

UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
1/29/2012	21:00 - 0:00	3.00	MIRU	01	A	P		MOVE RIG AND CAMPS 23 MILES WITH 3 J D FIELD SERVICE TRUCKS. MOVE RIG WITH 3 CDL DRIVER. RIG UP CAMPS W/ 2 MOUNTAIN WEST SWAMPERS. ENTIRE RIG IS NOT CURRENTLY ON LOCATION. (JD TRUCKS HAULED CAMPS, FRAC TANKS, PUMP, C-CANS, FUEL TANK. AND FORKLIFT.)
1/30/2012	0:00 - 5:30	5.50	MIRU	01	A	P		MOVE RIG AND CAMPS 23 MILES WITH 3 J D FIELD SERVICE TRUCKS. MOVE RIG WITH 3 CDL DRIVER. RIG UP CAMPS W/ 2 MOUNTAIN WEST SWAMPERS. ENTIRE RIG ON LOCATION @ 05:30. (JD TRUCKS HAULED CAMPS, FRAC TANKS, PUMP, C-CANS, FUEL TANK. AND FORKLIFT.)
	5:30 - 13:00	7.50	MIRU	01	B	P		DRESS CONDUCTORS ON 1 WELL. INSTALL DIVERTOR HEAD AND BOWIE LINE. BUILD DITCH. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PIT PUMP. RIG UP PUMP. PRIME PUMP. INSPECT RIG. READY
	13:00 - 13:30	0.50	PRSPD	01	B	P		HELD PRE-SPUD SAFETY MEETING. TALKED ABOUT DESIGNATED SMOKING AREA. P/U 8" 1.83 BEND .17 RPG MUD MOTOR (2ND RUN) (SN 800-3017). M/U QD507 12.25" BIT (2ND RUN) (SN 7137066). TRIP IN TO SPUD.
	13:30 - 15:00	1.50	DRLSUR	02	D	P		SPUD 01/30/2012 13:30. DRILL 12.25" HOLE 44'-210'. (166', 83'/HR) GPM 400. DH RPM 68 RPM=45, WOB 5-15K. PSI ON/OFF 600/400. UP/DOWN/ ROT 20/20/20 K. DRAG 0 K. CIRC RESERVE W. 8.3# WATER. DRILL DOWN TO 210' W/ 6" COLLARS.
	15:00 - 17:00	2.00	DRLSUR	06	A	P		TRIP OUT. LAY DOWN 6" DRILL COLLARS, 12 1/4 BIT. CHECK BIT AND MOTOR. PICK UP Q506 11" BIT (4TH RUN) (SN 7019741) SCRIBE MOTOR. P/U 8" DIRECTIONAL ASSEMBLY AND SCRIBE. INSTALL EM TOOL. TRIP IN TO 210' TO DRILL AHEAD.
	17:00 - 0:00	7.00	DRLSUR	02	D	P		DRILL 11" HOLE ROTATE/SLIDE 210'-1,150' (940', 134'/HR) GPM 491. DH RPM 86 RPM=55, WOB 15-20K. PSI ON/OFF 1,300/1,024. UP/DOWN/ ROT 52/50/51 K. DRAG 2 K. CIRC RESERVE W. 8.4# WATER. NO LOSSES.
1/31/2012	0:00 - 4:30	4.50	DRLSUR	02	D	P		DRILL 11" HOLE ROTATE/SLIDE 1,150'-1,600' (450', 100'/HR) GPM 491. DH RPM 86 RPM=55, WOB 15-20K. PSI ON/OFF 1,427/1,172. UP/DOWN/ ROT 61/57/59 K. DRAG 2 K. CIRC RESERVE W. 8.4# WATER. NO LOSSES.
	4:30 - 11:00	6.50	DRLSUR	02	D	P		DRILL 11" HOLE ROTATE/SLIDE 1,600'-2,080' (480', 74'/HR) GPM 491. DH RPM 86 RPM=55, WOB 15-20K. PSI ON/OFF 1,530/1,310. UP/DOWN/ ROT 65/59/62 K. DRAG 3 K. CIRC RESERVE W. 8.4# WATER. NO LOSSES.
	11:00 - 13:30	2.50	DRLSUR	08	A	Z		WAIT ON MECHANIC TO FIX BROKEN COOLANT HOSE ON THE FLOOR MOTOR FOR THE DRAWWORKS, REPLACE HOSE.

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

Rig Name No: PROPETRO 12/12, PIONEER 54/54

Event: DRILLING

Start Date: 1/21/2012

End Date: 3/10/2012

Active Datum: RKB @4,786.00usft (above Mean Sea Level)

UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:30 - 0:00	10.50	DRLSUR	02	D	P		DRILL 11" HOLE ROTATE/SLIDE 2,080'-2,915' (835', 80'/HR) TD @ 01/31/2012 23:59 GPM 491. DH RPM 86 RPM=55, WOB 15-20K. PSI ON/OFF 1,820/1,636. UP/DOWN/ ROT 81/73/78 K. DRAG 3 K. CIRC RESERVE W. 8.4# WATER. NO LOSSES. LAST SURVEY @ 2,864' INC-.26 AZ-241.84 APPROXIMATLY 1.23' LOW 1.19' RIGHT OF THE LINE.
2/1/2012	0:00 - 3:00	3.00	CSG	05	A	P		CIRCULATE AND CONDITION HOLE FOR CASING
	3:00 - 6:30	3.50	DRLSUR	06	D	P		LDDS , NO PROBLEMS WITH HOLE CONDITION. LAY DOWN DIRECTIONAL TOOLS. PULL MOTOR AND BREAK BIT. LAY DOWN MOTOR.
	6:30 - 7:30	1.00	DRLSUR	12	A	P		MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. AND MOVE CSG INTO POSITION TO P/U.
	7:30 - 10:30	3.00	DRLSUR	12	C	P		HOLD SAFETY MEETING. RUN 65 JNT'S OF 8-5/8" 28# J-55 LTC CSG. LAND FLOAT SHOE @ 2885' KB. LAND BAFFLE PLATE @ 2839' KB. MADE FLOAT SHOE UP WITH THREAD LOCK. RAN 5 TOTAL CENTRALIZERS.
	10:30 - 11:00	0.50	DRLSUR	12	B	P		HOLD SAFETY MEETING, RUN 200' OF 1". RIG DOWN RIG MOVE OFF WELL, REBUILD DITCH. RIG UP CEMENT TRUCK, 2" HARD LINES, CEMENT HEAD, LOAD PLUG.
	11:00 - 11:00	0.00	DRLSUR	12	E	P		PRESSURE TEST LINES TO 2500 PSI. PUMP 170 BBLs OF WATER AHEAD. MIX AND PUMP 30 BBLs OF 8.3# GEL WATER AHEAD. MIX AND PUMP (240 SX) 149.6 BBLs OF 11# 3.82 YD 23 GAL/SK HI FILL LEAD CEMENT. MIX AND PUMP (200 SX) 41 BBLs OF 15.8# 1.15 YD 5 GAL/SK PREMIUM CEMENT W/ 2% CALC. DROP PLUG ON FLY. DISPLACE W/ 177 BBLs OF H2O. FULL CIRCULATION THROUGH OUT. FINAL LIFT OF 600 PSI AT 4 BBL/MIN. BUMP PLUG AT DISPLACEMENT VOLUME. LAND THE PLUG WITH 1000 PSI. SHUT DOWN HELD 900 PSI FOR 5 MIN. TESTED FLOAT AND FLOAT HELD. ABOUT 40 BBLs TO SURFACE BEFORE FALL BACK.
	11:00 - 11:00	0.00	DRLSUR	12	E	P		MIX AND PUMP (150 SX) 31 BBLs OF SAME TAIL CEMENT WITH 4% CALC DOWN 1" PIPE. SHUT DOWN AND CLEAN TRUCK. 5 BBL'S CEMENT TO SURFACE. CEMENT FELL BACK. WAIT 2.0 HOUR, MIX AND PUMP (125 SX) 26 BBLs OF SAME TAIL CEMENT DOWN THE BACK SIDE WITH 5 BBLs CEMENT TO SURFACE. CEMENT HELD AT SURFACE. SHUT DOWN CLEAN TRUCK AND RIG DOWN CEMENT CREW. RELEASE RIG @ 02/1/2012 1100 hrs. BLM INSPECTOR ON LOCATION FOR FULL JOB. RIG DOWN ROTORY TOOL
2/29/2012	0:00 - 7:00	7.00	DRLPRO	01	E	P		
	7:00 - 19:00	12.00	DRLPRO	01	A	P		MOVE RIG 1/2 MILE'S TO THE NBU 920-24AT WITH JONE'S TRUCKING, 6-BED & 1- HAUL TRUCKS, 2- FORKLIFTS, 2-PUSHER'S, & 3-SWAMPER'S, 10 EXTRA RIG HANDS, TRUCKS RELEASED @ 18:30. 1- CRANE (VALLEY CREST) WITH 3 OILER'S, RAISED DERRICK @ 18:00, CRANE TO COME BACK IN A. M. TO SET BAR HOPPER & BACK WINDWALL'S

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

Rig Name No: PROPETRO 12/12, PIONEER 54/54

Event: DRILLING

Start Date: 1/21/2012

End Date: 3/10/2012

Active Datum: RKB @4,786.00usft (above Mean Sea Level)

UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/1/2012	19:00 - 0:00	5.00	DRLPRO	01	B	P		RIG UP ROTARY TOOL
	0:00 - 0:30	0.50	DRLPRO	01	B	P		RIGUP RIG
	0:30 - 2:30	2.00	DRLPRO	14	A	P		NIPPLE UP BOPE
	2:30 - 4:30	2.00	DRLPRO	14	A	P		NIPPLE UP STRATA MPD
	4:30 - 8:30	4.00	DRLPRO	15	A	P		TEST RIG BOPE, RAMS & ALL VALVES 250 LOW 5000, ANN 250- 2500, SURFACE CASING 3000 PSI FOR 30 MIN
	8:30 - 11:30	3.00	DRLPRO	15	A	P		TEST STRATA MPD TO 3000#
	11:30 - 15:30	4.00	DRLPRO	06	A	P		PICK UP 6.5" 7:8 6.4 STAGE .23 REV/GAL 1.5 BEND SCIENTIFIC MUD MOTOR AND 7 7/8 SECURITY BIT PICK UP DIRECTIONAL BHA SCRIBE MOTOR AND ORIENT PICK UP 4.5" DRILL PIPE WITH KIMSEY CASING TO 2880' RIG DOWN KIMSEY CASING CUT 100' OF DRILL LINE
	15:30 - 16:00	0.50	DRLPRO	07	C	P		DRILL CEMENT AND SHOE TRACK BAFFLE AT 2780' SHOE AT 2904'
	16:00 - 17:30	1.50	DRLPRO	02	F	P		DRILL 7 7/8 HOLE F/ 2930' - 3872' WOB 18-25 ROT 55-65 DHR 138 GPM 600 LAST SURVEY 3843 0.79 190.95 19.61'SOUTH / 15.83 WEST ROP 144 FT HR MW 8.3-8.5 VIS 26 - 28 NO LOSSES 5' FLARE NOT ON STRATA
	17:30 - 0:00	6.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 3872' TO 6269', 2397' @ 141' PH WOB / 22-24, RPM TOP DRIVE 55-60, MOTOR-115 SPM 170 - GPM 500 MW 8.6 VIS 28 TRQ ON/OFF = 7000-4000 K PSI ON /OFF 1600-1200, DIFF 250-500 PU/SO/RT = 150-140-145 SLIDE = 225' IN 3.59 HRS = 62.7' PH ROT = 2172' IN 13.41 HRS = 161.9' PH STRATA - OFF LINE NOV- 2 DEWATERING 13.67 S & 33.87 W OF TARGET CENTER
3/2/2012	0:00 - 17:00	17.00	DRLPRO	02	B	P		0-5' FLARE DRILLING, 10' CONN FLARE SERVICE RIG, F/T ANN & HCR VALVE
	17:00 - 17:30	0.50	DRLPRO	07	A	P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

Rig Name No: PROPETRO 12/12, PIONEER 54/54

Event: DRILLING

Start Date: 1/21/2012

End Date: 3/10/2012

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UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	17:30 - 0:00	6.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 6269 TO 7015', 746' @ 114.7' PH WOB / 22-24, RPM TOP DRIVE 55-60, MOTOR-115 SPM 170 - GPM 500 MW 8.5 VIS 28 TRQ ON/OFF = 8000-4000 K PSI ON /OFF 1600-1300, DIFF 250-500 PU/SO/RT = 175-160-165 SLIDE = 55' IN 1.17 HRS = 47' PH ROT = 691' IN 5.33 HRS = 129.6' PH STRATA - OFF LINE NOV- 2 DEWATERING 36.84 N & 45.92 W OF TARGET CENTER 5-10" FLARE DRILLING, 10'-15' CONN FLARE
3/3/2012	0:00 - 15:30	15.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 7015' TO 8356', 1341' @ 86.5' PH WOB / 22-24, RPM TOP DRIVE 55-60, MOTOR-115 SPM 170 - GPM 500 MW 8.7 VIS 28 TRQ ON/OFF = 8000-4000 K PSI ON /OFF 1800-1400, DIFF 250-500 PU/SO/RT = 180-170-175 SLIDE = 30' IN .92 HRS = 32.6 ROT = 1311' IN 14.58 HRS = 89.9' PH STRATA - ON LINE @ 7500' ANN PSI DRILLING 90, CONN 200 NOV- 2 DEWATERING 62.37' N & 44.41' W OF TARGET CENTER 5-10" FLARE DRILLING, 10'-15' CONN FLARE
	15:30 - 16:00	0.50	DRLPRO	07	A	P		SERVICE RIG, F/T ANN & HCR VALVE, BOP DRILL 77 SEC
	16:00 - 0:00	8.00	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 8356' TO 9021', 665' @ 83.1' PH WOB / 18-24, RPM TOP DRIVE 55-60, MOTOR-115 SPM 170 - GPM 498 MW 8.8 VIS 33 TRQ ON/OFF = 11,000-5000 K PSI ON /OFF 1800-1400, DIFF 250-500 PU/SO/RT = 190-170-180 SLIDE = 0 ROT = 100% STRATA - ON LINE ANN PSI DRILLING 90, CONN 200 NOV- 2 DEWATERING 60' N & 26' W OF TARGET CENTER 5-10" FLARE DRILLING, 15'-20' CONN FLARE

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

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UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/4/2012	0:00 - 15:00	15.00	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 9021' TO 9655', 634' @ 42.3' PH WOB / 18-24, RPM TOP DRIVE 55-60, MOTOR-115 SPM 170 - GPM 498 MW 8.9 VIS 37 TRQ ON/OFF = 11,000-5000 K PSI ON /OFF 1800-1400, DIFF 250-500 PU/SO/RT = 200-175-185 SLIDE = 0 ROT = 100% STRATA - ON LINE ANN PSI DRILLING 90, CONN 200 @ 9500' HIT GAS, 400 ON ANN, 45' FLARE NOV- 2 DEWATERING OF TARGET CENTER
	15:00 - 16:00	1.00	DRLPRO	05	C	P		5-10" FLARE DRILLING, 15'-20' CONN FLARE CIRC & COND HOLE FOR TRIP, MIX & SPOT 70 BBL 12.5 PPG PILL ON BOTTOM
	16:00 - 18:30	2.50	DRLPRO	06	A	P		TRIP FOR NEW BIT & MUD MOTOR, PULL 20 STANDS, 12.5 PPG PUMP DRY JOB, TRIP OUT
	18:30 - 19:00	0.50	DRLPRO	05	B	P		CIRC OUT GAS @ 4500', PUMP 70 BBL 12.5 MUD TO CONTROL FLOW
	19:00 - 21:00	2.00	DRLPRO	06	A	P		PULL OUT OF HOLE, LAYDOWN BIT #1 & MUD MOTOR, TIGHT @ 4500'
	21:00 - 22:00	1.00	DRLPRO	06	A	P		PICKUP SMITH MDSI 616 WITH 6X15'S JETS, MUD MOTOR 6.5,7.8,3.3,1.5 BEND, .14 RPG, 700 MAX FLOW, TRIP IN HOLE 3100'
	22:00 - 22:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	22:30 - 23:00	0.50	DRLPRO	05	A	P		CIRC OUT GAS
	23:00 - 23:30	0.50	DRLPRO	06	A	P		TRIP IN HOLE TO 4633'
	23:30 - 0:00	0.50	DRLPRO	05	A	P		CIRC OUT GAS
3/5/2012	0:00 - 0:30	0.50	DRLPRO	06	A	P		TRIP IN TO 5309'
	0:30 - 1:00	0.50	DRLPRO	05	A	P		CIRC OUT GAS
	1:00 - 2:00	1.00	DRLPRO	06	A	P		TRIP IN TO 8817'
	2:00 - 3:00	1.00	DRLPRO	05	A	P		CIRC OUT GAS
	3:00 - 3:30	0.50	DRLPRO	06	A	P		TRIP IN TO 9592'
	3:30 - 4:00	0.50	DRLPRO	03	E	P		WASH & REAM FROM 9592 TO 9655', 10' FILL
	4:00 - 15:30	11.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 9655' TO 10,351', 696' @ 60.5' PH WOB / 20, RPM TOP DRIVE 55-60, MOTOR-82 SPM 200 - GPM 586 MW 9.0 VIS 37 TRQ ON/OFF = 8000-5000 K PSI ON /OFF 2400-2100, DIFF 250-500 PU/SO/RT = 125-198-185 SLIDE = 0 ROT = 100% STRATA - ON LINE ANN PSI DRILLING 90, CONN 200 NOV- 1 DEWATER, 1 CONVENTIONAL 18.38 N & 4.80 W OF TARGET CENTER 5-10" FLARE DRILLING, 15'-20' CONN FLARE

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

Rig Name No: PROPETRO 12/12, PIONEER 54/54

Event: DRILLING

Start Date: 1/21/2012

End Date: 3/10/2012

Active Datum: RKB @4,786.00usft (above Mean Sea Level)

UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	15:30 - 16:00	0.50	DRLPRO	07	A	P		SERVICE RIG, F/T ANN & HCR VALVE, BOP DRILL 75 SEC
	16:00 - 0:00	8.00	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 10,351 PH 10,675', 324' @ 40.5' PH WOB / 20-22 RPM TOP DRIVE 55-60, MOTOR-82 SPM 200 - GPM 586 MW 9.0 VIS 37 TRQ ON/OFF = 9000-6000 K PSI ON /OFF 2500-2200, DIFF 250-500 PU/SO/RT =225-185- 198 SLIDE = 0 ROT = 100% STRATA - ON LINE ANN PSI DRILLING 110, CONN 250 NOV- 2 CONVENTIONAL 1' N & 4.4' W OF TARGET CENTER 5-10" FLARE DRILLING, 15'-20' CONN FLARE
3/6/2012	0:00 - 13:00	13.00	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 10,675' TO 11,010', 335' @ 25.8' PH WOB / 20-22 RPM TOP DRIVE 55-60, MOTOR-82 SPM 180 - GPM 528 MW 9.0 VIS 37 TRQ ON/OFF = 9000-6000 K PSI ON /OFF 2200-1900, DIFF 250-500 PU/SO/RT =235-185-200 SLIDE = 0 ROT = 100% STRATA - ON LINE ANN PSI DRILLING 110, CONN 250 NOV- 1 DEWATER, 1- CONVENTIONAL 1.52' N & 4.4 E OF TARGET CENTER 5-10" FLARE DRILLING, 15'-20' CONN FLARE
	13:00 - 13:30	0.50	DRLPRO	07	A	P		SERVICE RIG, F/T ANN & HCR VALVE, BOP DRILL 88 SEC
	13:30 - 14:00	0.50	DRLPRO	08	B	P		GO THOUGH PUMP & REPLACE WORN VALVES
	14:00 - 0:00	10.00	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 11,010' TO 11,330', 320' @ 32' PH WOB / 20-22 RPM TOP DRIVE 55-60, MOTOR-82 SPM 180 - GPM 528 MW 9.0 VIS 37 TRQ ON/OFF = 9000-6000 K PSI ON /OFF 2500-2200, DIFF 250-500 PU/SO/RT =235-185-200 SLIDE = 0 ROT = 100% STRATA - ON LINE ANN PSI DRILLING 110, CONN 250 NOV- 1 DEWATER, 1- CONVENTIONAL 1.52' N & 4.4 E OF TARGET CENTER 5-10" FLARE DRILLING, 15'-20' CONN FLARE

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-24AT		Spud Date: 1/30/2012	
Project: UTAH-UINTAH		Site: NBU 920-24AT	Rig Name No: PROPETRO 12/12, PIONEER 54/54
Event: DRILLING		Start Date: 1/21/2012	End Date: 3/10/2012
Active Datum: RKB @4,786.00usft (above Mean Sea Level)		UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/7/2012	0:00 - 2:30	2.50	DRLPRO	02	B	P		CLOSED LOOP SYSTEM DRILL F/ 11,330 TO TD 11,450. 120' @ 48' PH WOB / 25 RPM TOP DRIVE 55-60, MOTOR-82 SPM - GPM 586 MW 9.0 VIS 37 TRQ ON/OFF = 9000-6000 K PSI ON /OFF 2700-2400, DIFF 250-500 PU/SO/RT =235-185-200 SLIDE = 0 ROT = 100% STRATA - ON LINE ANN PSI DRILLING 110, CONN 250 NOV- 1 DEWATER, 1- CONVENTIONAL 30.22 S & 22.91 E OF TARGET CENTER 5-10" FLARE DRILLING, 15'-20' CONN FLARE
	2:30 - 8:00	5.50	DRLPRO	05	G	P		TD @ 02:30 3/7/12, DISPLACE MUD WITH 11 PPG MUD & RAISE TO 11.4PPG, VIS TO 45
	8:00 - 13:30	5.50	DRLPRO	06	E	P		PUMP 20 STANDS OFF BOTTOM, PUMP PILL & TRIP OUT TO SHOE, WORK TIGHT SPOTS @ 8885, 4925, 4000'
	13:30 - 17:30	4.00	DRLPRO	06	E	P		TRIP IN HOLE, WASH & REAM TIGHT HOLE @ 4725,6340,7125, WASH & REAM 60' TO BOTTOM 5' FILL
	17:30 - 18:00	0.50	DRLPRO	03	D	P		PUMP 2 HIGH VIS SWEEPS, RAISE MUD TO 11.4
	18:00 - 20:30	2.50	DRLPRO	05	F	P		HPJSM W/ RIG & LAYDOWN CREWS, RIGUP & LAYDOWNM DRILL PIPE & BHA
	20:30 - 0:00	3.50	DRLPRO	06	B	P		LAYDOWN DRILL STRING & BHA
3/8/2012	0:00 - 5:00	5.00	DRLPRO	06	B	P		HOLD SAFTEY MEETING WITH RIG & LOGGING CREWS, RIGUP & RUN TRIPLE COMBO TO 5543'
	5:00 - 10:00	5.00	DRLPRO	11	C	P		BRIDGE OUT, LOG OUT, RIG DOWN PULL WEAR BUSHING
	10:00 - 10:30	0.50	DRLPRO	14	B	P		HELD SAFTEY MEETING WITH RIG, CASING CREW & TSI, R/U & RUN
	10:30 - 11:30	1.00	DRLPRO	12	C	P		CHANGE OUT CASING TONGS
	11:30 - 12:30	1.00	DRLPRO	21	D	Z		RUN PROD CASING, 6370' P-110 LTC, 5068' P-110 DQX, SHOE @ 11439', FLOAT @ 11397', B/H MARKER @ 10847', MESA MARKER @ 8167', X/O @ 5068', TSI ON LOC
	12:30 - 21:00	8.50	DRLPRO	12	C	P		CIRC OUT GAS
	21:00 - 22:00	1.00	DRLPRO	05	A	P		CEMENT PROD CASING WITH BJ, TEST LINES TO 5700 PSI, PUMP 25 BBL WATER SPACER, LEAD 543 SACKS 12 PPG 2.26 YLD, TAIL 1764 SACK S 14.3 PPG 1.31 YLD, DROP PLUG & DISPLACE WITH 177 BBLs CLAYTREAT WATER, FULL RETURN
	22:00 - 0:00	2.00	DRLPRO	12	E	P		THOUGHPUT JOB WITH 25 BBLs CEMENT TO PIT, 2 BBLs BACK TO TRUCK, BUMP PLUG @ 3800, 400 OVER FINAL LIFT OF 3400 PSI, FLOATS HELD
3/9/2012	0:00 - 1:30	1.50	DRLPRO	12	E	P		FINISH CEMENTING PROD CASING
	1:30 - 2:30	1.00	DRLPRO	14	B	P		FLUSH STACK & SET C-22 SLIPS WITH 120K
	2:30 - 6:00	3.50	DRLPRO	01	E	P		CLEAN PITS, WINTERIZE RIG & PREPARE TO MOVE TO THE NBU 920-24I RELEASE RIG TO THE NBU 920-24I @ 06:00 3/9/12

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 920-24AT	Wellbore No.	OH
Well Name	NBU 920-24AT	Wellbore Name	NBU 920-24AT
Report No.	1	Report Date	3/20/2012
Project	UTAH-UJINTAH	Site	NBU 920-24AT
Rig Name/No.		Event	COMPLETION
Start Date	3/20/2012	End Date	3/29/2012
Spud Date	1/30/2012	Active Datum	RKB @4,786.00usft (above Mean Sea Level)
UWI	NE/NE/O9/S/20/E/14/O/O/26/PM/N/709/E/O/704/O/O		

1.3 General

Contractor		Job Method	PERFORATE	Supervisor	
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

Fluid Type	KCL WATER	Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	8,216.0 (usft)-11,234.0 (us)	Start Date/Time	3/26/2012 12:00AM
No. of Intervals	46	End Date/Time	3/26/2012 12:00AM
Total Shots	216	Net Perforation Interval	69.00 (usft)
Avg Shot Density	3.13 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
3/26/2012 12:00AM	MESAVERDE/			8,216.0	8,218.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	N

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
3/26/2012 12:00AM	MESAVERDE/			8,239.0	8,240.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	WASATCH/			8,250.0	8,251.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	WASATCH/			8,280.0	8,281.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	WASATCH/			8,314.0	8,315.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	WASATCH/			8,342.0	8,344.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,461.0	8,462.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,540.0	8,542.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,594.0	8,595.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,614.0	8,616.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,690.0	8,691.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,702.0	8,703.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,932.0	8,933.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			8,956.0	8,958.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,080.0	9,081.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,166.0	9,170.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,229.0	9,230.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,259.0	9,260.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,354.0	9,355.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,383.0	9,384.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,428.0	9,430.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,502.0	9,503.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

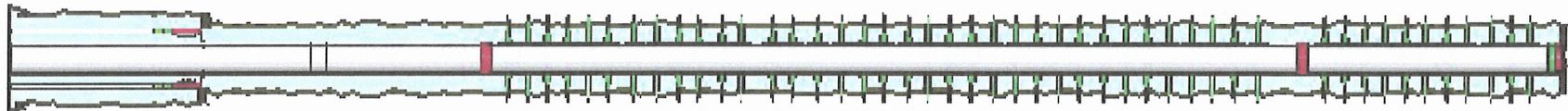
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
3/26/2012 12:00AM	MESAVERDE/			9,552.0	9,554.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,630.0	9,631.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,671.0	9,672.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,714.0	9,715.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,742.0	9,743.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,846.0	9,848.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,906.0	9,908.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			9,944.0	9,946.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,004.0	10,006.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,068.0	10,070.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,105.0	10,107.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,164.0	10,166.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,252.0	10,254.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,918.0	10,919.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,942.0	10,944.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,971.0	10,972.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	MESAVERDE/			10,985.0	10,986.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	BLACKHAWK/			11,016.0	11,018.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	BLACKHAWK/			11,037.0	11,038.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	BLACKHAWK/			11,089.0	11,090.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	BLACKHAWK/			11,100.0	11,102.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
3/26/2012 12:00AM	BLACKHAWK/			11,206.0	11,207.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	BLACKHAWK/			11,220.0	11,222.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
3/26/2012 12:00AM	BLACKHAWK/			11,232.0	11,234.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

Rig Name No: ROYAL WELL SERVICE 2/2

Event: COMPLETION

Start Date: 3/20/2012

End Date: 3/29/2012

Active Datum: RKB @4,786.00usft (above Mean Sea Level)

UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
3/20/2012	10:30 - 13:00	2.50	COMP	33		P		HELD SAFETY MEETING: HIGH PRESSURE FILL SURFACE CSG. MIRU B&C QUICK TEST. PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 9 PSI. PSI TEST T/ 3500 PSI. HELD FOR 15 MIN LOST 28 PSI. 1ST PSI TEST T/ 9000 PSI. HELD FOR 30 MIN LOST 89 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. SWIFN
3/23/2012	10:00 - 15:00	5.00	COMP	30	A	P		ROAD RIG FROM NBU 69N2, MIRU, NDWH, NU FRAC VALVES, R/U B&C QUICK TEST, PRESS TEST FRAC VALVES, 9000 PSI FOR 10 MIN, LOST 0 PSI IN 10 MIN, R/D B&C, SWIFWE, FRAC ON MONDAY.
3/26/2012	6:45 - 7:00	0.25	COMP	48		P		HSM & JSA W/ROYAL WELL SERVICE
	7:00 - 9:00	2.00	COMP	37	B	P		WHP 0 PSI. MIRU CASED HOLE SOLUTIONS WIRELINE. R/U LUBRICATOR & FLANGE TO FRAC VALVES. PERF STG 1) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG. PERF LOWER MV AS PER PERF DESIGN. POOH & HANG BACK LUB. R/D FLANGE. SWI - SDFD. PREP TO MIRU FRAC CREW TO FRAC IN AM.
3/27/2012	6:45 - 7:00	0.25	COMP	48		P		HSM & JSA W/ROYAL WELL SERVICE & SUPERIOR WELL SERVICE.
	7:00 - 8:40	1.67	COMP	36	E			MIRU SUPERIOR WELL SERVICE. P/T PUMP & LINES TO 9406 PSI. FRAC STG 1) WHP 1040 PSI. BRK DWN PERF 3.3 BPM @ 3890 PSI. ISIP 3556 PSI. FG 0.76. EST INJ RATE 50.6 BPM @ 6229 PSI. 24/24 PERFS OPEN - 100%. MP 8606 PSI, MR 52.4 BPM, AP 6000 PSI, AR 50.5 BPM. ISIP 3483 PSI, F.G. 0.75, NPI (-73) PSI. PMP'D 4176 BBLs SLK WTR, 94,898 LBS 30/50 TLC SND. X-OVER FOR WL.
	9:00 - 10:40	1.67	COMP	37	B	P		PERF STG 2) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG, PERF LOWER MV AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. X-OVER FOR FRAC
	10:48 - 12:53	2.08	COMP	36	E	P		FRAC STG 2) WHP 1177 PSI. BRK DWN PERF 3.5 BPM @ 4523 PSI. ISIP 3560 PSI. FG 0.76. EST INJ RATE 50.1 BPM @ 5874 PSI. 24/24 PERFS OPEN - 100%. MP 8411 PSI, MR 51.4 BPM, AP 6018 PSI, AR 50.4 BPM. ISIP 3375 PSI, F.G. 0.75, NPI (-181) PSI. PMP'D 5771 BBLs SLK WTR, 140,352 LBS 30/50 TLC SND. X-OVER FOR WL.

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-24AT

Spud Date: 1/30/2012

Project: UTAH-UINTAH

Site: NBU 920-24AT

Rig Name No: ROYAL WELL SERVICE 2/2

Event: COMPLETION

Start Date: 3/20/2012

End Date: 3/29/2012

Active Datum: RKB @4,786.00usft (above Mean Sea Level)

UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:00 - 14:00	1.00	COMP	37	B	P		PERF STG 3) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG, PERF LOWER MV AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. X-OVER FOR FRAC
	14:13 - 14:28	0.25	COMP	36	E	P		FRAC STG 3) WHP 1695 PSI. BRK DWN PERF 3.3 BPM @ 3483 PSI. ISIP 2763 PSI. F.G. 0.71. EST INJ RATE 47.7 BPM @ 6347 PSI. 17/24 PERFS OPEN - 72%. MP 7658 PSI, MR 51.2 BPM, AP 5597 PSI, AR 49.2 BPM. ISIP 3137 PSI, FG 0.75, NPI 374 PSI. PMP'D 648 BBLS SLK WTR, 10,551 LBS 30/50 OTTOWA SND. X-OVER FOR WL.
	14:33 - 15:33	1.00	COMP	37	B	P		PERF STG 4) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG, PERF M.V. AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. X-OVER FOR FRAC
	15:38 - 15:58	0.33	COMP	36	E	P		FRAC STG 4) WHP 1498 PSI. BRK DWN PERF 3.2 BPM @ 3475 PSI. ISIP 2822 PSI. F.G. 0.72. EST INJ RATE 50.1 BPM @ 6748 PSI. 17/24 PERFS OPEN - 71%. MP 7435 PSI, MR 51.1 BPM, AP 5919 PSI, AR 49.1 BPM. ISIP 3407 PSI, F.G. 0.78, NPI 585 PSI. PMP'D 635 BBLS SLK WTR, 10,607 LBS 30/50 OTTOWA SND. X-OVER FOR WL
	16:04 - 16:56	0.87	COMP	37	B	P		PERF STG 5) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 & 120 DEG PHSG, PERF M.V. AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. X-OVER FOR FRAC
	17:03 - 17:27	0.40	COMP	36	E	P		FRAC STG 5) WHP 1702 PSI. BRK DWN PERF 3.3 BPM @ 3593 PSI. ISIP 2721 PSI. FG 0.72. EST INJ RATE 50.3 @ 5290 PSI. 24/24 PERFS OPEN - 100%. MP 6489 PSI, MR 51.1 BPM, AP 4992 PSI, AR 50.3 BPM. ISIP 3020 PSI, F.G. 0.75, NPI 299 PSI. PMP'D 1065 BBLS SLK WTR, 22,580 LBS 30/50 OTTOWA SND. X-OVER FOR WL
	17:32 - 18:30	0.97	COMP	37	B	P		PERF STG 6) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 90 DEG PHSG, PERF M.V. AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. SWI - SDFN. PREP TO CONT TO FRAC STGS 6 THRU 9 IN AM.
3/28/2012	6:30 - 6:45	0.25	COMP	48		P		HSM & JSA W/ROYAL WELL SERVICE & SUPERIOR WELL SERVICE.
	6:45 - 7:14	0.48	COMP	36	E	P		P/T PUMPS & LINES TO 9000 PSI. FRAC STG 6) WHP 2409 PSI. BRK DWN PERF 3.2 BPM @ 3518 PSI. ISIP 2805 PSI. FG 0.74. EST INJ RATE 50.6 BPM @ 5067 PSI. 24/24 PERFS OPEN - 100%. MP 6790 PSI, MR 51.4 BPM, AP 4954 PSI, AR 49.5 BPM. ISIP 2954 PSI, F.G. 0.76, NPI 149 PSI. PMP'D 870 BBLS SLK WTR, 16,953 LBS 30/50 OTTOWA SND. X-OVER FOR WL

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-24AT		Spud Date: 1/30/2012	
Project: UTAH-UINTAH		Site: NBU 920-24AT	Rig Name No: ROYAL WELL SERVICE 2/2
Event: COMPLETION		Start Date: 3/20/2012	End Date: 3/29/2012
Active Datum: RKB @4,786.00usft (above Mean Sea Level)		UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:27 - 8:18	0.85	COMP	37	B	P		PERF STG 7) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG, PERF M.V. AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. X-OVER FOR FRAC
	8:23 - 8:53	0.50	COMP	36	E	P		FRAC STG 7) WHP 2409 PSI. BRK DWN PERF 3.2 BPM @ 3119 PSI. ISIP 2585 PSI. FG 0.72. EST INJ RATE 50.3 BPM @ 4916 PSI. 24/24 PERFS OPEN - 100%. MP 6499 PSI, MR 51.6 BPM, AP 4811 PSI, AR 50.7 BPM. ISIP 3075 PSI, F.G. 0.78, NPI 490 PSI. PMP'D 1430 BBLS SLK WTR, 31,160 LBS 30/50 OTTOWA SND. X-OVER FOR WL
	8:58 - 9:48	0.83	COMP	37	B	P		PERF STG 8) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG, PERF M.V. AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. X-OVER FOR FRAC
	9:53 - 9:53	0.00	COMP	36	E	P		FRAC STG 8) WHP 1214 PSI. BRK DWN PERF 3.3 BPM @ 2910 PSI. ISIP 2021 PSI. FG 0.67. EST INJ RATE 50.7 BPM @ 4424 PSI. 24/24 PERFS OPEN - 100%. MP 5984 PSI, MR 51.7 BPM, AP 4339 PSI, AR 50.9 BPM. ISIP 2788 PSI, F.G. 0.76, NPI 767 PSI. PMP'D 1319 BBLS SLK WTR, 28,645 LBS 30/50 OTTOWA SND. X-OVER FOR WL
	10:30 - 11:15	0.75	COMP	37	B	P		PERF STG 9) P/U 3 1/8" EXP GNS, 23 GRM, 0.36 HOLE, 120 DEG PHSG, PERF M.V. AS PER PERF DESIGN, 24 TOTAL HOLES. POOH & HANG BACK LUB. X-OVER FOR FRAC
	11:18 - 11:57	0.65	COMP	36	E	P		FRAC STG 9) WHP 1626 PSI. BRK DWN PERF 3.2 BPM @ 2530 PSI. ISIP 2084 PSI. FG 0.69. EST INJ RATE 50.4 BPM @ 4490 PSI. 24/24 PERFS OPEN - 100%. MP 6233 PSI, MR 51.1 BPM, AP 4448 PSI, AR 51 BPM. ISIP 2997 PSI, F.G. 0.80, NPI 913 PSI. PMP'D 1689 BBLS SLK WTR, 56,603 LBS 30/50 TLC SND. X-OVER FOR WL
	11:57 - 14:30	2.55	COMP	34	I	P		KILL PLUG) P/U HALCO 8K CBP, RIH & SET @ 0000'. POOH & L/D TOOLS. RDMO WIRELINE & FRAC CREW.
	14:30 - 18:00	3.50	COMP	31	I	P		P/U 3 7/8" BIT, POBS & XN NIPPLE. RIH ON 258 JTS 2 3/8" TBG. TAG FILL @ 8158'. L/D 1 JT. EOT @ 8154'. SWM - SDFN. FREEZE PROTECT WH & SURFACE EQUIP. PREP TO D/O CBPs IN AM.
								TOTAL WATER 17,603 BBLS TOTAL 30/50 SAND 177,099 LBS TOTAL 30/50 TLC 235,250 LBS
3/29/2012	6:45 - 7:00	0.25	COMP	48		P		HSM & JSA W/ROYAL WELL SERVICE.

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-24AT Spud Date: 1/30/2012
 Project: UTAH-UINTAH Site: NBU 920-24AT Rig Name No: ROYAL WELL SERVICE 2/2
 Event: COMPLETION Start Date: 3/20/2012 End Date: 3/29/2012
 Active Datum: RKB @4,786.00usft (above Mean Sea Level) UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 7:00	0.00	COMP	44	C	P		<p>WHP 0 PSI. EST CIRC W/WTR. P/T CSG & BOPs TO 3000 PSI & HOLD 15 MIN. (0 PSI LOSS) R/D TBG EQUIP. R/U PWR SWWL & PUMP. RIH TAG FILL @ 8185'. C/O SND & D/O CBPs.</p> <p>HALCO CBP @ PSI C/O FILL D/O CBP DIFF FCP</p> <p>CBP #1 @ 8185' 0 FT 10 MIN 1600 PSI 200 PSI</p> <p>CBP #2 @ 8394' 51 FT 05 MIN 1500 PSI 400 PSI</p> <p>CBP #3 @ 8740' 26 FT 06 MIN 100 PSI 400 PSI</p> <p>CBP #4 @ 9200' 24 FT 06 MIN 600 PSI 500 PSI</p> <p>CBP #5 @ 9460' 30 FT 05 MIN 600 PSI 600 PSI</p> <p>CBP #6 @ 9793' 27 FT 04 MIN 400 PSI 650 PSI</p> <p>CBP #7 @ 10036' 17 FT 03 MIN 200 PSI 650 PSI</p> <p>CBP #8 @ 10304' 0 FT 09 MIN 600 PSI 650 PSI</p> <p>CBP #9 @ 11068' 32 FT 02 MIN 400 PSI 900 PSI</p> <p>RIH & TAG FILL @ 11,257'. C/O TO 11,397'. (BTM PERF @ 11,234' - PBTD @ 11,397'). FCP = 750 PSI. PMP 20 BBLS TMAC & CIRC WELL CLEAN. ND PWR SWWL, NU TBG EQUIP. LD 16 JTS ON FLOAT, (20 TOTAL ON FLOAT). LND TBG ON HNGR W/353 JTS NEW 2 3/8" 4.7# L80 TBG @ 10,889.17'. RD FLOOR & TBG EQUIP. ND BOPs, DROP BALL, NUWH. PMP OFF BIT W/20 BBLS TMAC @ 3200 PSI. WAIT 30 MIN FOR BIT TO FALL TO BTM. TURN WELL TO F.B.C. RDMO LOC.</p> <p>KB 14' HANGER 0.83' XN NIPPLE 1.33' TBG 353 JTS = 10,866.96' XN NIPPLE @ 10,886.79' EOT @ 10,889.17' (363 JTS DLVRD - 20 JTS RTND)</p> <p>TWTR = 17,803 BBLS TWR = 2840 BBLS TWLTR = 14,963 SICP = 1650 PSI, SITP = 0 PSI.</p> <p>WELL TURNED TO SALES AT 1730 HR ON 3/29/2012 - 900 MCFD, 1680 BWPD, FCP 2700#, FTP 2700#, 18/64 CK</p>
	17:30 -		PROD	50				
3/30/2012	-							

US ROCKIES REGION
Operation Summary Report

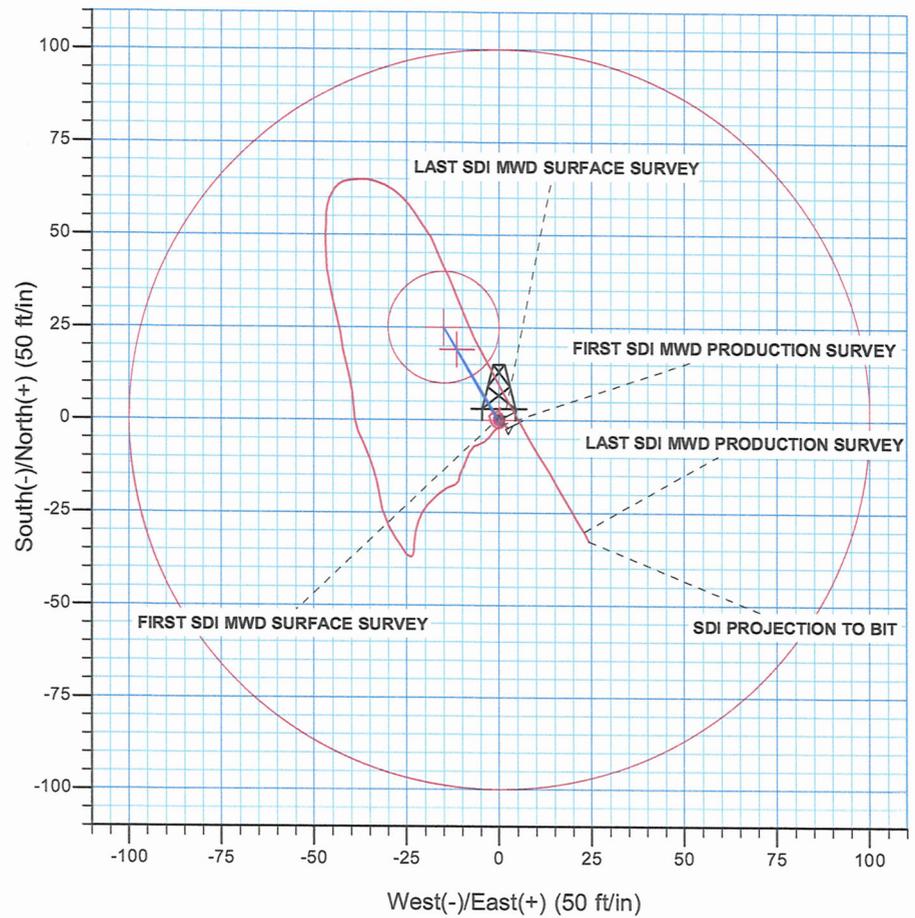
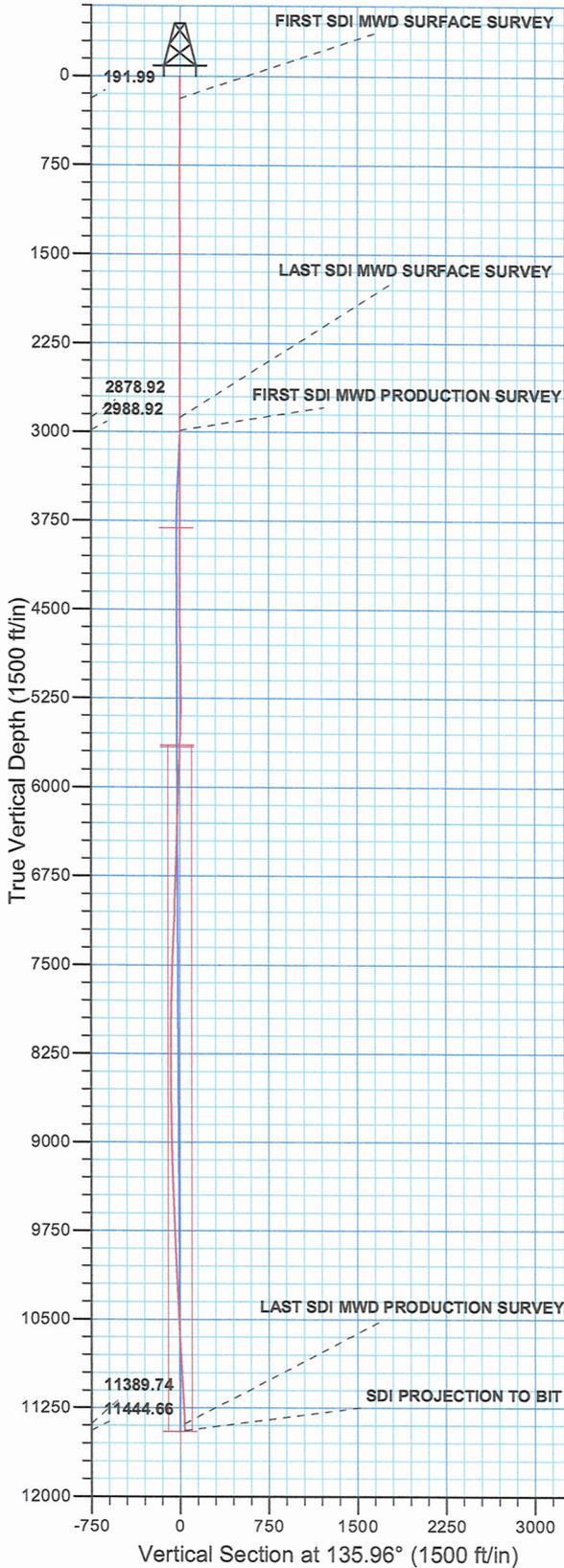
Well: NBU 920-24AT		Spud Date: 1/30/2012						
Project: UTAH-UINTAH			Site: NBU 920-24AT			Rig Name No: ROYAL WELL SERVICE 2/2		
Event: COMPLETION			Start Date: 3/20/2012		End Date: 3/29/2012			
Active Datum: RKB @4,786.00usft (above Mean Sea Level)				UWI: NE/NE/0/9/S/20/E/14/0/0/26/PM/N/709/E/0/704/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/5/2012	7:00 -		PROD	50				WELL IP'D ON 4/5/12 - 3711 MCFD, 0 BOPD, 576 BWPD, CP 3658#, FTP 2747#, CK 20/64", LP 288#, 24 HRS

WELL DETAILS: NBU 920-24AT						
GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	14538752.71	2030304.01	40.026530	-109.607320	



Azimuths to True North
Magnetic North: 11.04°

Magnetic Field
Strength: 52268.0snT
Dip Angle: 65.85°
Date: 01/29/2012
Model: IGRF2010



PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N
Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 12N (114 W to 108 W)
Location: SECTION 24 T9S R20E
System Datum: Mean Sea Level

Design: OH (NBU 920-24AT/OH)
Created By: Gabe Kendall Date: 13:22, March 07 2012



Scientific Drilling
Rocky Mountain Operations

11/11/11 10:00 AM C:\Users\jdoyle\Documents\920-24AT\920-24AT.dwg

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

NBU 920-24AT

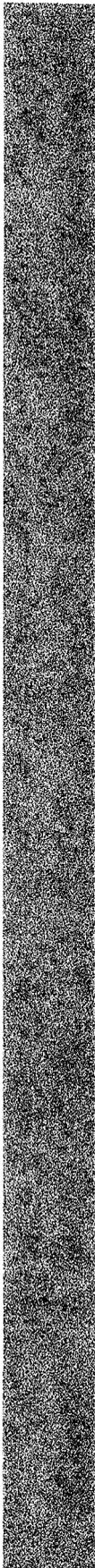
NBU 920-24AT

OH

Design: OH

Standard Survey Report

07 March, 2012



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 920-24AT
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Site:	NBU 920-24AT	MD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Well:	NBU 920-24AT	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 920-24AT, SECTION 24 T9S R20E				
Site Position:		Northing:	14,538,752.71 usft	Latitude:	40.026530
From:	Lat/Long	Easting:	2,030,304.00 usft	Longitude:	-109.607320
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.90 °

Well	NBU 920-24AT, 709 FNL 704 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,538,752.71 usft	Latitude:	40.026530
	+E/-W	0.00 ft	Easting:	2,030,304.00 usft	Longitude:	-109.607320
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,767.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	01/29/12	11.04	65.85	52,268

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	135.96	

Survey Program	Date	03/07/12			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
15.00	2,879.00	Survey #1 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
2,989.00	11,450.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

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	
15.00	0.00	0.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	
192.00	0.88	25.73	191.99	1.22	0.59	-0.47	0.50	0.50	0.00	
FIRST SDI MWD SURFACE SURVEY										
278.00	0.05	246.00	277.99	1.80	0.84	-0.71	1.07	-0.97	-162.48	
359.00	0.26	274.28	358.99	1.80	0.63	-0.86	0.27	0.26	34.91	
449.00	0.26	301.52	448.99	1.93	0.25	-1.21	0.14	0.00	30.27	
539.00	0.18	355.66	538.99	2.17	0.06	-1.52	0.24	-0.09	60.16	
719.00	0.18	18.16	718.99	2.72	0.13	-1.87	0.04	0.00	12.50	
809.00	0.44	20.80	808.99	3.18	0.30	-2.08	0.29	0.29	2.93	

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 920-24AT
Well: NBU 920-24AT
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 920-24AT
TVD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
MD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)	
899.00	0.26	210.82	898.99	3.33	0.32	-2.17	0.78	-0.20	-188.87	
989.00	0.26	203.00	988.98	2.97	0.13	-2.04	0.04	0.00	-8.69	
1,079.00	0.35	201.59	1,078.98	2.52	-0.05	-1.85	0.10	0.10	-1.57	
1,169.00	0.44	269.53	1,168.98	2.26	-0.50	-1.97	0.50	0.10	75.49	
1,259.00	0.44	255.56	1,258.98	2.17	-1.18	-2.38	0.12	0.00	-15.52	
1,349.00	0.53	225.59	1,348.98	1.80	-1.81	-2.55	0.29	0.10	-33.30	
1,439.00	0.44	226.64	1,438.97	1.27	-2.36	-2.55	0.10	-0.10	1.17	
1,529.00	0.09	280.17	1,528.97	1.04	-2.68	-2.61	0.44	-0.39	59.48	
1,619.00	0.53	154.83	1,618.97	0.68	-2.57	-2.27	0.65	0.49	-139.27	
1,709.00	0.79	160.46	1,708.96	-0.28	-2.19	-1.32	0.30	0.29	6.26	
1,799.00	1.05	148.30	1,798.95	-1.57	-1.54	0.05	0.36	0.29	-13.51	
1,889.00	0.79	86.28	1,888.94	-2.23	-0.49	1.26	1.08	-0.29	-68.91	
1,979.00	0.44	67.03	1,978.94	-2.05	0.45	1.79	0.45	-0.39	-21.39	
2,069.00	0.53	53.67	2,068.93	-1.67	1.10	1.97	0.16	0.10	-14.84	
2,159.00	0.35	41.54	2,158.93	-1.22	1.62	2.00	0.22	-0.20	-13.48	
2,249.00	0.09	225.32	2,248.93	-1.06	1.75	1.98	0.49	-0.29	-195.80	
2,339.00	0.09	128.38	2,338.93	-1.16	1.75	2.05	0.15	0.00	-107.71	
2,429.00	0.35	188.76	2,428.93	-1.47	1.77	2.29	0.35	0.29	67.09	
2,519.00	0.44	129.08	2,518.93	-1.96	1.99	2.80	0.45	0.10	-66.31	
2,609.00	0.18	352.32	2,608.93	-2.04	2.24	3.03	0.65	-0.29	-151.96	
2,699.00	0.44	327.19	2,698.93	-1.61	2.04	2.57	0.32	0.29	-27.92	
2,789.00	0.33	291.41	2,788.92	-1.23	1.61	2.00	0.29	-0.12	-39.76	
2,879.00	0.26	241.84	2,878.92	-1.23	1.19	1.71	0.28	-0.08	-55.08	
LAST SDI MWD SURFACE SURVEY										
2,989.00	0.62	250.27	2,988.92	-1.55	0.41	1.39	0.33	0.33	7.66	
FIRST SDI MWD PRODUCTION SURVEY										
3,084.00	0.79	232.43	3,083.91	-2.12	-0.60	1.11	0.29	0.18	-18.78	
3,179.00	0.98	217.40	3,178.90	-3.16	-1.61	1.16	0.31	0.20	-15.82	
3,273.00	1.06	208.96	3,272.89	-4.56	-2.52	1.53	0.18	0.09	-8.98	
3,368.00	1.23	237.88	3,367.87	-5.87	-3.81	1.58	0.63	0.18	30.44	
3,463.00	0.88	261.70	3,462.85	-6.52	-5.39	0.94	0.58	-0.37	25.07	
3,558.00	1.06	229.36	3,557.84	-7.20	-6.78	0.46	0.60	0.19	-34.04	
3,653.00	1.41	206.06	3,652.82	-8.82	-7.96	0.81	0.64	0.37	-24.53	
3,748.00	1.46	204.02	3,747.79	-10.98	-8.97	1.66	0.08	0.05	-2.15	
3,843.00	0.79	190.95	3,842.77	-12.73	-9.58	2.49	0.75	-0.71	-13.76	
3,938.00	0.44	228.21	3,937.76	-13.61	-9.98	2.85	0.54	-0.37	39.22	
4,033.00	0.62	198.95	4,032.76	-14.34	-10.42	3.07	0.34	0.19	-30.80	
4,127.00	0.97	192.88	4,126.75	-15.60	-10.76	3.73	0.38	0.37	-6.46	
4,222.00	0.44	191.39	4,221.74	-16.74	-11.01	4.38	0.56	-0.56	-1.57	
4,317.00	1.14	243.86	4,316.74	-17.51	-11.93	4.29	0.99	0.74	55.23	
4,412.00	1.41	247.11	4,411.71	-18.38	-13.86	3.58	0.29	0.28	3.42	
4,507.00	1.43	229.07	4,506.68	-19.61	-15.83	3.10	0.47	0.02	-18.99	
4,602.00	1.49	226.37	4,601.65	-21.24	-17.62	3.02	0.10	0.06	-2.84	

Company: US ROCKIES REGION PLANNING
 Project: UTAH - UTM (feet), NAD27, Zone 12N
 Site: NBU 920-24AT
 Well: NBU 920-24AT
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well NBU 920-24AT
 TVD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
 MD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
 North Reference: True
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Single User Db

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)	
4,697.00	1.67	219.86	4,696.62	-23.16	-19.40	3.16	0.27	0.19	-6.85	
4,792.00	1.45	209.67	4,791.58	-25.27	-20.88	3.65	0.37	-0.23	-10.73	
4,887.00	1.58	199.56	4,886.55	-27.54	-21.92	4.57	0.31	0.14	-10.64	
4,982.00	1.67	189.80	4,981.51	-30.14	-22.59	5.97	0.31	0.09	-10.27	
5,076.00	1.66	184.09	5,075.47	-32.85	-22.92	7.68	0.18	-0.01	-6.07	
5,171.00	1.58	183.65	5,170.43	-35.53	-23.10	9.48	0.09	-0.08	-0.46	
5,266.00	0.44	232.52	5,265.42	-37.06	-23.48	10.32	1.40	-1.20	51.44	
5,361.00	0.50	303.99	5,360.41	-37.05	-24.11	9.88	0.58	0.06	75.23	
5,456.00	0.90	317.13	5,455.41	-36.27	-24.96	8.72	0.45	0.42	13.83	
5,550.00	1.85	326.61	5,549.38	-34.46	-26.30	6.50	1.04	1.01	10.09	
5,645.00	1.88	323.67	5,644.33	-31.93	-28.07	3.44	0.11	0.03	-3.09	
5,739.00	2.79	336.41	5,738.25	-28.59	-29.90	-0.23	1.11	0.97	13.55	
5,834.00	2.73	343.70	5,833.14	-24.30	-31.46	-4.40	0.37	-0.06	7.67	
5,929.00	2.22	349.22	5,928.05	-20.32	-32.43	-7.94	0.59	-0.54	5.81	
6,024.00	2.03	349.24	6,022.99	-16.86	-33.09	-10.88	0.20	-0.20	0.02	
6,119.00	1.93	343.00	6,117.93	-13.67	-33.87	-13.72	0.25	-0.11	-6.57	
6,214.00	2.29	340.19	6,212.87	-10.36	-34.99	-16.87	0.39	0.38	-2.96	
6,309.00	2.46	334.74	6,307.78	-6.73	-36.50	-20.53	0.30	0.18	-5.74	
6,403.00	2.02	336.14	6,401.71	-3.39	-38.03	-24.00	0.47	-0.47	1.49	
6,498.00	2.46	352.23	6,496.64	0.16	-38.98	-27.21	0.80	0.46	16.94	
6,593.00	2.20	355.57	6,591.56	4.00	-39.40	-30.26	0.31	-0.27	3.52	
6,688.00	2.02	356.18	6,686.50	7.49	-39.65	-32.94	0.19	-0.19	0.64	
6,783.00	2.64	343.96	6,781.42	11.26	-40.37	-36.16	0.83	0.65	-12.86	
6,878.00	2.46	346.78	6,876.32	15.35	-41.44	-39.84	0.23	-0.19	2.97	
6,973.00	2.07	351.63	6,971.25	19.03	-42.15	-42.98	0.46	-0.41	5.11	
7,068.00	2.90	348.27	7,066.16	23.08	-42.89	-46.41	0.89	0.87	-3.54	
7,162.00	2.99	346.95	7,160.04	27.80	-43.93	-50.52	0.12	0.10	-1.40	
7,257.00	2.73	346.60	7,254.92	32.41	-45.01	-54.59	0.27	-0.27	-0.37	
7,352.00	2.73	350.29	7,349.81	36.84	-45.92	-58.41	0.18	0.00	3.88	
7,447.00	2.11	354.86	7,444.72	40.81	-46.46	-61.63	0.68	-0.65	4.81	
7,542.00	2.11	356.71	7,539.66	44.30	-46.71	-64.32	0.07	0.00	1.95	
7,637.00	1.80	359.59	7,634.60	47.54	-46.83	-66.73	0.34	-0.33	3.03	
7,732.00	1.52	1.02	7,729.56	50.29	-46.81	-68.70	0.30	-0.29	1.51	
7,827.00	1.67	0.84	7,824.53	52.94	-46.77	-70.57	0.16	0.16	-0.19	
7,922.00	1.49	2.42	7,919.49	55.55	-46.70	-72.40	0.19	-0.19	1.66	
8,017.00	1.23	12.62	8,014.47	57.78	-46.42	-73.81	0.37	-0.27	10.74	
8,112.00	1.06	21.93	8,109.45	59.59	-45.87	-74.73	0.26	-0.18	9.80	
8,206.00	0.89	29.93	8,203.43	61.03	-45.18	-75.28	0.23	-0.18	8.51	
8,301.00	0.97	30.44	8,298.42	62.37	-44.41	-75.70	0.08	0.08	0.54	
8,396.00	0.88	56.39	8,393.41	63.46	-43.39	-75.79	0.45	-0.09	27.32	
8,491.00	1.23	67.11	8,488.39	64.26	-41.85	-75.29	0.42	0.37	11.28	
8,586.00	1.24	87.89	8,583.37	64.70	-39.88	-74.23	0.47	0.01	21.87	
8,681.00	1.32	87.24	8,678.35	64.79	-37.76	-72.82	0.09	0.08	-0.68	
8,776.00	1.41	93.12	8,773.32	64.78	-35.50	-71.24	0.18	0.09	6.19	

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 920-24AT
Well: NBU 920-24AT
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 920-24AT
TVD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
MD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)	
8,870.00	1.32	108.24	8,867.29	64.38	-33.32	-69.44	0.39	-0.10	16.09	
8,966.00	1.58	115.98	8,963.26	63.45	-31.08	-67.22	0.34	0.27	8.06	
9,061.00	1.85	124.77	9,058.22	62.00	-28.64	-64.48	0.40	0.28	9.25	
9,155.00	1.76	135.75	9,152.17	60.10	-26.39	-61.55	0.38	-0.10	11.68	
9,250.00	1.80	138.80	9,247.13	57.93	-24.39	-58.60	0.11	0.04	3.21	
9,345.00	1.93	146.74	9,342.08	55.47	-22.53	-55.54	0.30	0.14	8.36	
9,439.00	2.20	146.30	9,436.02	52.65	-20.66	-52.21	0.29	0.29	-0.47	
9,534.00	2.37	149.20	9,530.94	49.45	-18.64	-48.50	0.22	0.18	3.05	
9,631.00	2.55	160.27	9,627.85	45.69	-16.88	-44.58	0.52	0.19	11.41	
9,726.00	2.29	152.80	9,722.77	42.01	-15.30	-40.84	0.43	-0.27	-7.86	
9,821.00	2.55	156.05	9,817.68	38.39	-13.58	-37.04	0.31	0.27	3.42	
9,916.00	2.37	157.37	9,912.60	34.65	-11.96	-33.23	0.20	-0.19	1.39	
10,011.00	2.46	159.31	10,007.51	30.93	-10.49	-29.53	0.13	0.09	2.04	
10,106.00	2.87	157.52	10,102.41	26.82	-8.86	-25.44	0.44	0.43	-1.88	
10,201.00	2.73	155.09	10,197.29	22.58	-6.99	-21.09	0.19	-0.15	-2.56	
10,296.00	2.99	149.90	10,292.18	18.38	-4.80	-16.55	0.39	0.27	-5.46	
10,391.00	3.23	151.21	10,387.04	13.89	-2.27	-11.56	0.26	0.25	1.38	
10,486.00	2.92	154.47	10,481.90	9.36	0.06	-6.69	0.37	-0.33	3.43	
10,581.00	2.73	148.32	10,576.78	5.25	2.30	-2.18	0.38	-0.20	-6.47	
10,676.00	2.45	153.08	10,671.69	1.52	4.40	1.97	0.37	-0.29	5.01	
10,771.00	2.55	148.23	10,766.60	-2.09	6.43	5.98	0.25	0.11	-5.11	
10,866.00	2.90	151.84	10,861.49	-6.01	8.68	10.35	0.41	0.37	3.80	
10,961.00	2.90	147.09	10,956.37	-10.14	11.12	15.02	0.25	0.00	-5.00	
11,055.00	2.87	149.95	11,050.25	-14.18	13.59	19.64	0.16	-0.03	3.04	
11,150.00	3.34	150.17	11,145.11	-18.63	16.16	24.63	0.49	0.49	0.23	
11,245.00	3.17	148.67	11,239.96	-23.28	18.90	29.87	0.20	-0.18	-1.58	
11,341.00	2.99	150.52	11,335.82	-27.73	21.51	34.89	0.21	-0.19	1.93	
11,395.00	3.08	151.04	11,389.74	-30.22	22.91	37.65	0.17	0.17	0.96	
LAST SDI MWD PRODUCTION SURVEY										
11,450.00	3.08	151.04	11,444.66	-32.81	24.34	40.50	0.00	0.00	0.00	
SDI PROJECTION TO BIT										

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
192.00	191.99	1.22	0.59	FIRST SDI MWD SURFACE SURVEY
2,879.00	2,878.92	-1.23	1.19	LAST SDI MWD SURFACE SURVEY
2,989.00	2,988.92	-1.55	0.41	FIRST SDI MWD PRODUCTION SURVEY
11,395.00	11,389.74	-30.22	22.91	LAST SDI MWD PRODUCTION SURVEY
11,450.00	11,444.66	-32.81	24.34	SDI PROJECTION TO BIT

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 920-24AT
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Site:	NBU 920-24AT	MD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Well:	NBU 920-24AT	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

NBU 920-24AT

NBU 920-24AT

OH

Design: OH

Survey Report - Geographic

07 March, 2012

Anadarko 
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 920-24AT
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Site:	NBU 920-24AT	MD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Well:	NBU 920-24AT	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 920-24AT, SECTION 24 T9S R20E				
Site Position:		Northing:	14,538,752.71 usft	Latitude:	40.026530
From:	Lat/Long	Easting:	2,030,304.00 usft	Longitude:	-109.607320
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.90 °

Well	NBU 920-24AT, 709 FNL 704 FEL					
Well Position	+N/-S	0.00 ft	Northing:	14,538,752.71 usft	Latitude:	40.026530
	+E/-W	0.00 ft	Easting:	2,030,304.00 usft	Longitude:	-109.607320
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,767.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	01/29/12	(°)	(°)	(nT)
			11.04	65.85	52,268

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	135.96	

Survey Program	Date	03/07/12			
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
15.00	2,879.00	Survey #1 SDI MWD SURFACE (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	
2,989.00	11,450.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,538,752.71	2,030,304.00	40.026530	-109.607320
15.00	0.00	0.00	15.00	0.00	0.00	14,538,752.71	2,030,304.00	40.026530	-109.607320
192.00	0.88	25.73	191.99	1.22	0.59	14,538,753.95	2,030,304.57	40.026533	-109.607318
FIRST SDI MWD SURFACE SURVEY									
278.00	0.05	246.00	277.99	1.80	0.84	14,538,754.53	2,030,304.81	40.026535	-109.607317
359.00	0.26	274.28	358.99	1.80	0.63	14,538,754.53	2,030,304.60	40.026535	-109.607318
449.00	0.26	301.52	448.99	1.93	0.25	14,538,754.64	2,030,304.22	40.026535	-109.607319
539.00	0.18	355.66	538.99	2.17	0.06	14,538,754.89	2,030,304.03	40.026536	-109.607320
719.00	0.18	18.16	718.99	2.72	0.13	14,538,755.44	2,030,304.09	40.026538	-109.607320
809.00	0.44	20.80	808.99	3.18	0.30	14,538,755.90	2,030,304.25	40.026539	-109.607319
899.00	0.26	210.82	898.99	3.33	0.32	14,538,756.05	2,030,304.26	40.026539	-109.607319

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 920-24AT
Well: NBU 920-24AT
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 920-24AT
TVD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
MD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
989.00	0.26	203.00	988.98	2.97	0.13	14,538,755.68	2,030,304.09	40.026538	-109.607320
1,079.00	0.35	201.59	1,078.98	2.52	-0.05	14,538,755.23	2,030,303.91	40.026537	-109.607320
1,169.00	0.44	269.53	1,168.98	2.26	-0.50	14,538,754.97	2,030,302.79	40.026536	-109.607322
1,259.00	0.44	255.56	1,258.98	2.17	-1.18	14,538,754.87	2,030,302.79	40.026536	-109.607324
1,349.00	0.53	225.59	1,348.98	1.80	-1.81	14,538,754.48	2,030,302.16	40.026535	-109.607327
1,439.00	0.44	226.64	1,438.97	1.27	-2.36	14,538,753.94	2,030,301.62	40.026534	-109.607329
1,529.00	0.09	280.17	1,528.97	1.04	-2.68	14,538,753.71	2,030,301.31	40.026533	-109.607330
1,619.00	0.53	154.83	1,618.97	0.68	-2.57	14,538,753.35	2,030,301.42	40.026532	-109.607329
1,709.00	0.79	160.46	1,708.96	-0.28	-2.19	14,538,752.40	2,030,301.82	40.026529	-109.607328
1,799.00	1.05	148.30	1,798.95	-1.57	-1.54	14,538,751.12	2,030,302.48	40.026526	-109.607326
1,889.00	0.79	86.28	1,888.94	-2.23	-0.49	14,538,750.47	2,030,303.54	40.026524	-109.607322
1,979.00	0.44	67.03	1,978.94	-2.05	0.45	14,538,750.66	2,030,304.48	40.026524	-109.607319
2,069.00	0.53	53.67	2,068.93	-1.67	1.10	14,538,751.06	2,030,305.13	40.026526	-109.607316
2,159.00	0.35	41.54	2,158.93	-1.22	1.62	14,538,751.52	2,030,305.64	40.026527	-109.607315
2,249.00	0.09	225.32	2,248.93	-1.06	1.75	14,538,751.67	2,030,305.77	40.026527	-109.607314
2,339.00	0.09	128.38	2,338.93	-1.16	1.75	14,538,751.58	2,030,305.77	40.026527	-109.607314
2,429.00	0.35	188.76	2,428.93	-1.47	1.77	14,538,751.27	2,030,305.79	40.026526	-109.607314
2,519.00	0.44	129.08	2,518.93	-1.96	1.99	14,538,750.78	2,030,306.02	40.026525	-109.607313
2,609.00	0.18	352.32	2,608.93	-2.04	2.24	14,538,750.71	2,030,306.27	40.026524	-109.607312
2,699.00	0.44	327.19	2,698.93	-1.61	2.04	14,538,751.13	2,030,306.06	40.026526	-109.607313
2,789.00	0.33	291.41	2,788.92	-1.23	1.61	14,538,751.51	2,030,305.63	40.026527	-109.607315
2,879.00	0.26	241.84	2,878.92	-1.23	1.19	14,538,751.50	2,030,305.21	40.026527	-109.607316
LAST SDI MWD SURFACE SURVEY									
2,989.00	0.62	250.27	2,988.92	-1.55	0.41	14,538,751.17	2,030,304.43	40.026526	-109.607319
FIRST SDI MWD PRODUCTION SURVEY									
3,084.00	0.79	232.43	3,083.91	-2.12	-0.60	14,538,750.58	2,030,303.44	40.026524	-109.607322
3,179.00	0.98	217.40	3,178.90	-3.16	-1.61	14,538,749.52	2,030,302.44	40.026521	-109.607326
3,273.00	1.06	208.96	3,272.89	-4.56	-2.52	14,538,748.11	2,030,301.55	40.026518	-109.607329
3,368.00	1.23	237.88	3,367.87	-5.87	-3.81	14,538,746.78	2,030,300.29	40.026514	-109.607334
3,463.00	0.88	261.70	3,462.85	-6.52	-5.39	14,538,746.11	2,030,298.71	40.026512	-109.607340
3,558.00	1.06	229.36	3,557.84	-7.20	-6.78	14,538,745.41	2,030,297.33	40.026510	-109.607344
3,653.00	1.41	206.06	3,652.82	-8.82	-7.96	14,538,743.77	2,030,296.18	40.026506	-109.607349
3,748.00	1.46	204.02	3,747.79	-10.98	-8.97	14,538,741.60	2,030,295.21	40.026500	-109.607352
3,843.00	0.79	190.95	3,842.77	-12.73	-9.58	14,538,739.84	2,030,294.62	40.026495	-109.607355
3,938.00	0.44	228.21	3,937.76	-13.61	-9.98	14,538,738.95	2,030,294.23	40.026493	-109.607356
4,033.00	0.62	198.95	4,032.76	-14.34	-10.42	14,538,738.21	2,030,293.81	40.026491	-109.607357
4,127.00	0.97	192.88	4,126.75	-15.60	-10.76	14,538,736.95	2,030,293.48	40.026487	-109.607359
4,222.00	0.44	191.39	4,221.74	-16.74	-11.01	14,538,735.80	2,030,293.25	40.026484	-109.607360
4,317.00	1.14	243.86	4,316.74	-17.51	-11.93	14,538,735.02	2,030,292.34	40.026482	-109.607363
4,412.00	1.41	247.11	4,411.71	-18.38	-13.86	14,538,734.11	2,030,290.43	40.026480	-109.607370
4,507.00	1.43	229.07	4,506.68	-19.61	-15.83	14,538,732.85	2,030,288.48	40.026476	-109.607377
4,602.00	1.49	226.37	4,601.65	-21.24	-17.62	14,538,731.20	2,030,286.71	40.026472	-109.607383
4,697.00	1.67	219.86	4,696.62	-23.16	-19.40	14,538,729.25	2,030,284.96	40.026467	-109.607390
4,792.00	1.45	209.67	4,791.58	-25.27	-20.88	14,538,727.12	2,030,283.51	40.026461	-109.607395
4,887.00	1.58	199.56	4,886.55	-27.54	-21.92	14,538,724.83	2,030,282.52	40.026454	-109.607399
4,982.00	1.67	189.80	4,981.51	-30.14	-22.59	14,538,722.22	2,030,281.88	40.026447	-109.607401
5,076.00	1.66	184.09	5,075.47	-32.85	-22.92	14,538,719.51	2,030,281.59	40.026440	-109.607402
5,171.00	1.58	183.65	5,170.43	-35.53	-23.10	14,538,716.83	2,030,281.45	40.026433	-109.607403
5,266.00	0.44	232.52	5,265.42	-37.06	-23.48	14,538,715.29	2,030,281.11	40.026428	-109.607404
5,361.00	0.50	303.99	5,360.41	-37.05	-24.11	14,538,715.29	2,030,280.47	40.026428	-109.607406
5,456.00	0.90	317.13	5,455.41	-36.27	-24.96	14,538,716.06	2,030,279.61	40.026431	-109.607409
5,550.00	1.85	326.61	5,549.38	-34.46	-26.30	14,538,717.84	2,030,278.24	40.026435	-109.607414
5,645.00	1.88	323.67	5,644.33	-31.93	-28.07	14,538,720.35	2,030,276.44	40.026442	-109.607421
5,739.00	2.79	336.41	5,738.25	-28.59	-29.90	14,538,723.66	2,030,274.56	40.026452	-109.607427
5,834.00	2.73	343.70	5,833.14	-24.30	-31.46	14,538,727.93	2,030,272.93	40.026463	-109.607433

Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: NBU 920-24AT
Well: NBU 920-24AT
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well NBU 920-24AT
TVD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
MD Reference: GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,929.00	2.22	349.22	5,928.05	-20.32	-32.43	14,538,731.89	2,030,271.89	40.026474	-109.607436
6,024.00	2.03	349.24	6,022.99	-16.86	-33.09	14,538,735.34	2,030,271.18	40.026484	-109.607438
6,119.00	1.93	343.00	6,117.93	-13.67	-33.87	14,538,738.51	2,030,270.34	40.026493	-109.607441
6,214.00	2.29	340.19	6,212.87	-10.36	-34.99	14,538,741.81	2,030,269.18	40.026502	-109.607445
6,309.00	2.46	334.74	6,307.78	-6.73	-36.50	14,538,745.41	2,030,267.61	40.026512	-109.607451
6,403.00	2.02	336.14	6,401.71	-3.39	-38.03	14,538,748.73	2,030,266.03	40.026521	-109.607456
6,498.00	2.46	352.23	6,496.64	0.16	-38.98	14,538,752.26	2,030,265.02	40.026531	-109.607460
6,593.00	2.20	355.57	6,591.56	4.00	-39.40	14,538,756.09	2,030,264.54	40.026541	-109.607461
6,688.00	2.02	356.18	6,686.50	7.49	-39.65	14,538,759.58	2,030,264.24	40.026551	-109.607462
6,783.00	2.64	343.96	6,781.42	11.26	-40.37	14,538,763.34	2,030,263.46	40.026561	-109.607464
6,878.00	2.46	346.78	6,876.32	15.35	-41.44	14,538,767.41	2,030,262.33	40.026572	-109.607468
6,973.00	2.07	351.63	6,971.25	19.03	-42.15	14,538,771.08	2,030,261.55	40.026582	-109.607471
7,068.00	2.90	348.27	7,066.16	23.08	-42.89	14,538,775.12	2,030,260.75	40.026593	-109.607473
7,162.00	2.99	346.95	7,160.04	27.80	-43.93	14,538,779.82	2,030,259.64	40.026606	-109.607477
7,257.00	2.73	346.60	7,254.92	32.41	-45.01	14,538,784.42	2,030,258.49	40.026619	-109.607481
7,352.00	2.73	350.29	7,349.81	36.84	-45.92	14,538,788.83	2,030,257.51	40.026631	-109.607484
7,447.00	2.11	354.86	7,444.72	40.81	-46.46	14,538,792.80	2,030,256.91	40.026642	-109.607486
7,542.00	2.11	356.71	7,539.66	44.30	-46.71	14,538,796.28	2,030,256.60	40.026652	-109.607487
7,637.00	1.80	359.59	7,634.60	47.54	-46.83	14,538,799.51	2,030,256.44	40.026661	-109.607488
7,732.00	1.52	1.02	7,729.56	50.29	-46.81	14,538,802.27	2,030,256.41	40.026668	-109.607487
7,827.00	1.67	0.84	7,824.53	52.94	-46.77	14,538,804.91	2,030,256.41	40.026675	-109.607487
7,922.00	1.49	2.42	7,919.49	55.55	-46.70	14,538,807.53	2,030,256.44	40.026683	-109.607487
8,017.00	1.23	12.62	8,014.47	57.78	-46.42	14,538,809.76	2,030,256.68	40.026689	-109.607486
8,112.00	1.06	21.93	8,109.45	59.59	-45.87	14,538,811.58	2,030,257.20	40.026694	-109.607484
8,206.00	0.89	29.93	8,203.43	61.03	-45.18	14,538,813.03	2,030,257.87	40.026698	-109.607482
8,301.00	0.97	30.44	8,298.42	62.37	-44.41	14,538,814.38	2,030,258.62	40.026701	-109.607479
8,396.00	0.88	56.39	8,393.41	63.46	-43.39	14,538,815.49	2,030,259.62	40.026704	-109.607475
8,491.00	1.23	67.11	8,488.39	64.26	-41.85	14,538,816.31	2,030,261.15	40.026707	-109.607470
8,586.00	1.24	87.89	8,583.37	64.70	-39.88	14,538,816.78	2,030,263.11	40.026708	-109.607463
8,681.00	1.32	87.24	8,678.35	64.79	-37.76	14,538,816.90	2,030,265.23	40.026708	-109.607455
8,776.00	1.41	93.12	8,773.32	64.78	-35.50	14,538,816.93	2,030,267.49	40.026708	-109.607447
8,870.00	1.32	108.24	8,867.29	64.38	-33.32	14,538,816.56	2,030,269.68	40.026707	-109.607439
8,966.00	1.58	115.98	8,963.26	63.45	-31.08	14,538,815.67	2,030,271.94	40.026704	-109.607431
9,061.00	1.85	124.77	9,058.22	62.00	-28.64	14,538,814.26	2,030,274.40	40.026700	-109.607423
9,155.00	1.76	135.75	9,152.17	60.10	-26.39	14,538,812.39	2,030,276.68	40.026695	-109.607415
9,250.00	1.80	138.80	9,247.13	57.93	-24.39	14,538,810.26	2,030,278.71	40.026689	-109.607407
9,345.00	1.93	146.74	9,342.08	55.47	-22.53	14,538,807.83	2,030,280.61	40.026682	-109.607401
9,439.00	2.20	146.30	9,436.02	52.65	-20.66	14,538,805.03	2,030,282.52	40.026675	-109.607394
9,534.00	2.37	149.20	9,530.94	49.45	-18.64	14,538,801.86	2,030,284.59	40.026666	-109.607387
9,631.00	2.55	160.27	9,627.85	45.69	-16.88	14,538,798.13	2,030,286.41	40.026656	-109.607381
9,726.00	2.29	152.80	9,722.77	42.01	-15.30	14,538,794.48	2,030,288.04	40.026645	-109.607375
9,821.00	2.55	156.05	9,817.68	38.39	-13.58	14,538,790.89	2,030,289.83	40.026636	-109.607369
9,916.00	2.37	157.37	9,912.60	34.65	-11.96	14,538,787.17	2,030,291.50	40.026625	-109.607363
10,011.00	2.46	159.31	10,007.51	30.93	-10.49	14,538,783.47	2,030,293.03	40.026615	-109.607358
10,106.00	2.87	157.52	10,102.41	26.82	-8.86	14,538,779.39	2,030,294.73	40.026604	-109.607352
10,201.00	2.73	155.09	10,197.29	22.58	-6.99	14,538,775.18	2,030,296.65	40.026592	-109.607345
10,296.00	2.99	149.90	10,292.18	18.38	-4.80	14,538,771.01	2,030,298.91	40.026581	-109.607337
10,391.00	3.23	151.21	10,387.04	13.89	-2.27	14,538,766.57	2,030,301.52	40.026568	-109.607328
10,486.00	2.92	154.47	10,481.90	9.36	0.06	14,538,762.07	2,030,303.92	40.026556	-109.607320
10,581.00	2.73	148.32	10,576.78	5.25	2.30	14,538,758.00	2,030,306.21	40.026545	-109.607312
10,676.00	2.45	153.08	10,671.69	1.52	4.40	14,538,754.30	2,030,308.38	40.026534	-109.607305
10,771.00	2.55	148.23	10,766.60	-2.09	6.43	14,538,750.72	2,030,310.47	40.026524	-109.607297
10,866.00	2.90	151.84	10,861.49	-6.01	8.68	14,538,746.84	2,030,312.77	40.026514	-109.607289
10,961.00	2.90	147.09	10,956.37	-10.14	11.12	14,538,742.75	2,030,315.28	40.026502	-109.607281
11,055.00	2.87	149.95	11,050.25	-14.18	13.59	14,538,738.75	2,030,317.81	40.026491	-109.607272

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 920-24AT
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Site:	NBU 920-24AT	MD Reference:	GL 4767 & KB 19 @ 4786.00ft (PIONEER 54)
Well:	NBU 920-24AT	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
11,150.00	3.34	150.17	11,145.11	-18.63	16.16	14,538,734.33	2,030,320.45	40.026479	-109.607263	
11,245.00	3.17	148.67	11,239.96	-23.28	18.90	14,538,729.73	2,030,323.26	40.026466	-109.607253	
11,341.00	2.99	150.52	11,335.82	-27.73	21.51	14,538,725.33	2,030,325.95	40.026454	-109.607243	
11,395.00	3.08	151.04	11,389.74	-30.22	22.91	14,538,722.85	2,030,327.38	40.026447	-109.607238	
LAST SDI MWD PRODUCTION SURVEY										
11,450.00	3.08	151.04	11,444.66	-32.81	24.34	14,538,720.29	2,030,328.85	40.026440	-109.607233	
SDI PROJECTION TO BIT										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
192.00	191.99	1.22	0.59	FIRST SDI MWD SURFACE SURVEY	
2,879.00	2,878.92	-1.23	1.19	LAST SDI MWD SURFACE SURVEY	
2,989.00	2,988.92	-1.55	0.41	FIRST SDI MWD PRODUCTION SURVEY	
11,395.00	11,389.74	-30.22	22.91	LAST SDI MWD PRODUCTION SURVEY	
11,450.00	11,444.66	-32.81	24.34	SDI PROJECTION TO BIT	

Checked By: _____	Approved By: _____	Date: _____
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