

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

FORM 3

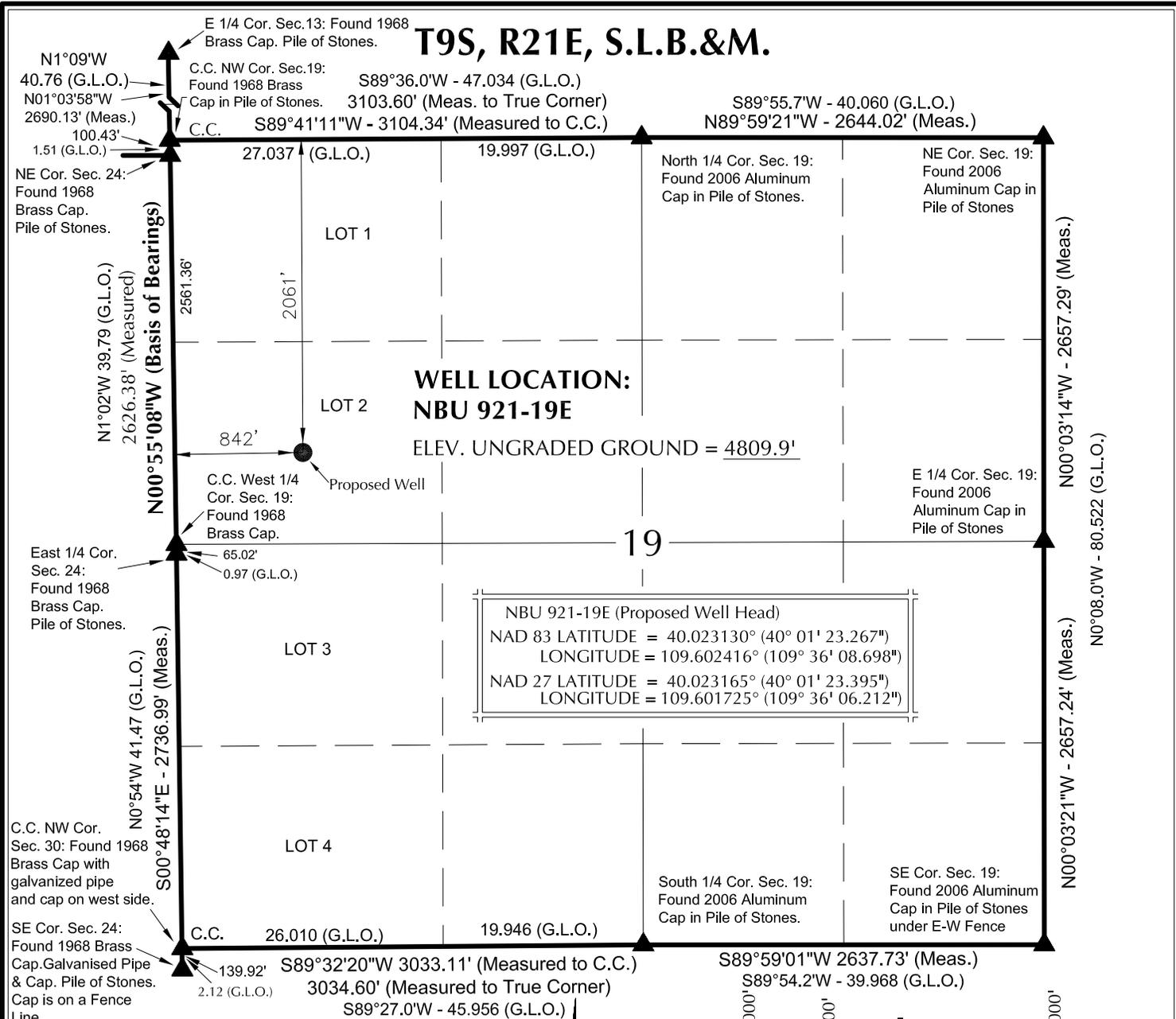
AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER NBU 921-19E	
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 0581			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 Tribe			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input 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	2061 FNL 842 FWL	SWNW	19	9.0 S	21.0 E	S	
Top of Uppermost Producing Zone	2061 FNL 842 FWL	SWNW	19	9.0 S	21.0 E	S	
At Total Depth	2061 FNL 842 FWL	SWNW	19	9.0 S	21.0 E	S	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 842			23. NUMBER OF ACRES IN DRILLING UNIT 2400	
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 800			26. PROPOSED DEPTH MD: 10400 TVD: 10400	
27. ELEVATION - GROUND LEVEL 4810			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 ACCORDANCE 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 Danielle Piernot			TITLE Regulatory Analyst			PHONE 720 929-6156	
SIGNATURE			DATE 08/27/2009			EMAIL danielle.piernot@anadarko.com	
API NUMBER ASSIGNED 43047507040000			APPROVAL  Permit Manager				

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 HCP-110 LT&C	800	11.6			
	Grade I-80 Buttress	9600	11.6			

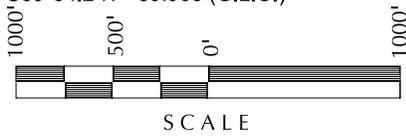
Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2620		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2620	36.0			

T9S, R21E, S.L.B.&M.



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 Tri-Sta "Two Water" located in the NW 1/4 of Section 1, T9S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



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.

REGISTERED LAND SURVEYOR
 No. 362251
 KOLBY R. KAY
 STATE OF UTAH

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

WELL PAD - NBU 921-19E

**NBU 921-19E
 WELL PLAT
 2061' FNL, 842' FWL
 LOT 2 OF SECTION 19, T9S, R21E,
 S.L.B.&M., UINTAH COUNTY, UTAH.**



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

TIMBERLINE (435) 789-1365
 ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078

DATE SURVEYED: 04-09-09	SURVEYED BY: B.J.S.	SHEET NO: 1
DATE DRAWN: 04-10-09	DRAWN BY: K.K.O.	
SCALE: 1" = 1000'	Date Last Revised:	1 OF 9

NBU 921-19E

Surface: 2,061' FNL 842' FWL (SW/4NW/4) Lot 2
Sec. 19 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0581

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	1,654'	
Birds Nest	1,909'	Water
Mahogany	2,420'	Water
Wasatch	5,027'	Gas
Mesaverde	8,127'	Gas
MVU2	9,094'	Gas
MVL1	9,599'	Gas
TD	10,400'	

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

Please refer to the attached Drilling Program.

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

Please refer to the attached Drilling Program.

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program.

6. **Evaluation Program:**

Please refer to the attached Drilling Program.

7. Abnormal Conditions:

Maximum anticipated bottomhole pressure calculated at 10,400' TD, approximately equals 6,479 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4,191 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

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

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

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

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

Background

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

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found

competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see

attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

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)). The air rig operation utilizes a 5M BOPE when drilling. 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

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2620	36.00	J-55	LTC	0.82*	1.65	4.80
PRODUCTION	4-1/2"	0 to 9600	11.60	I-80	BTC	1.81	1.04	2.83
		9600 to 10400	11.60	HCP-110	LTC	2.48	1.31	36.95

*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.13

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 12.2 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 4,191 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 12.2 ppg) 0.62 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 6,479 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	215	60%	15.60	1.18
Option 1						
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	380	0%	15.60	1.18
		Premium cmt + 2% CaCl				
NOTE: If well will circulate water to surface, option 2 will be utilized						
SURFACE LEAD	2,120'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	240	35%	11.00	3.82
Option 2						
TAIL	500	Premium cmt + 2% CaCl + 0.25 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 + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 1% Retarder	430	40%	11.00	3.38
TAIL	5,880'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1440	40%	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

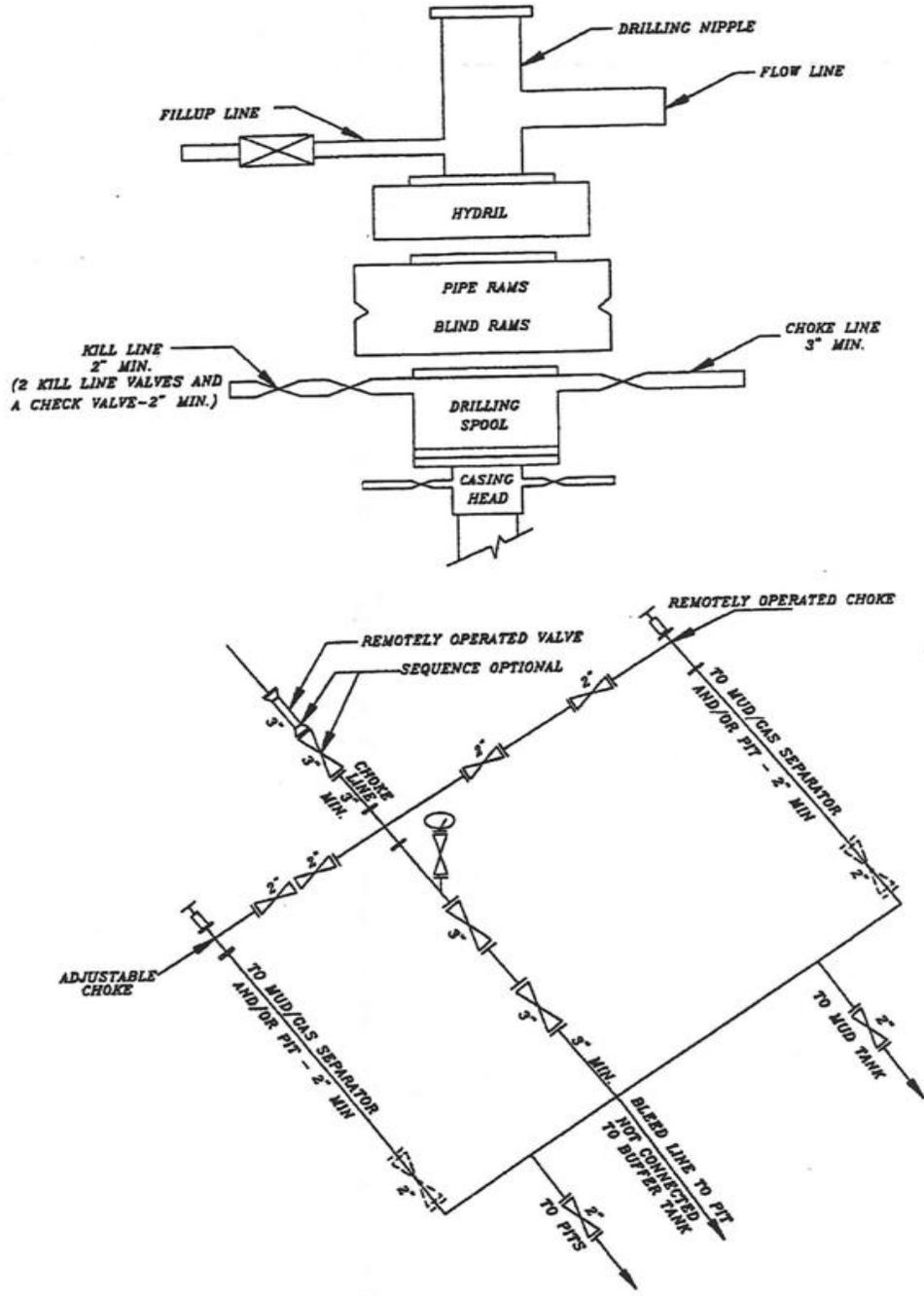
SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe.
PRODUCTION	Float shoe, 1 jt, float collar. Centralize first 3 joints & every third joint for a total of 15 bow spring centralizers.

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. 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.
 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.

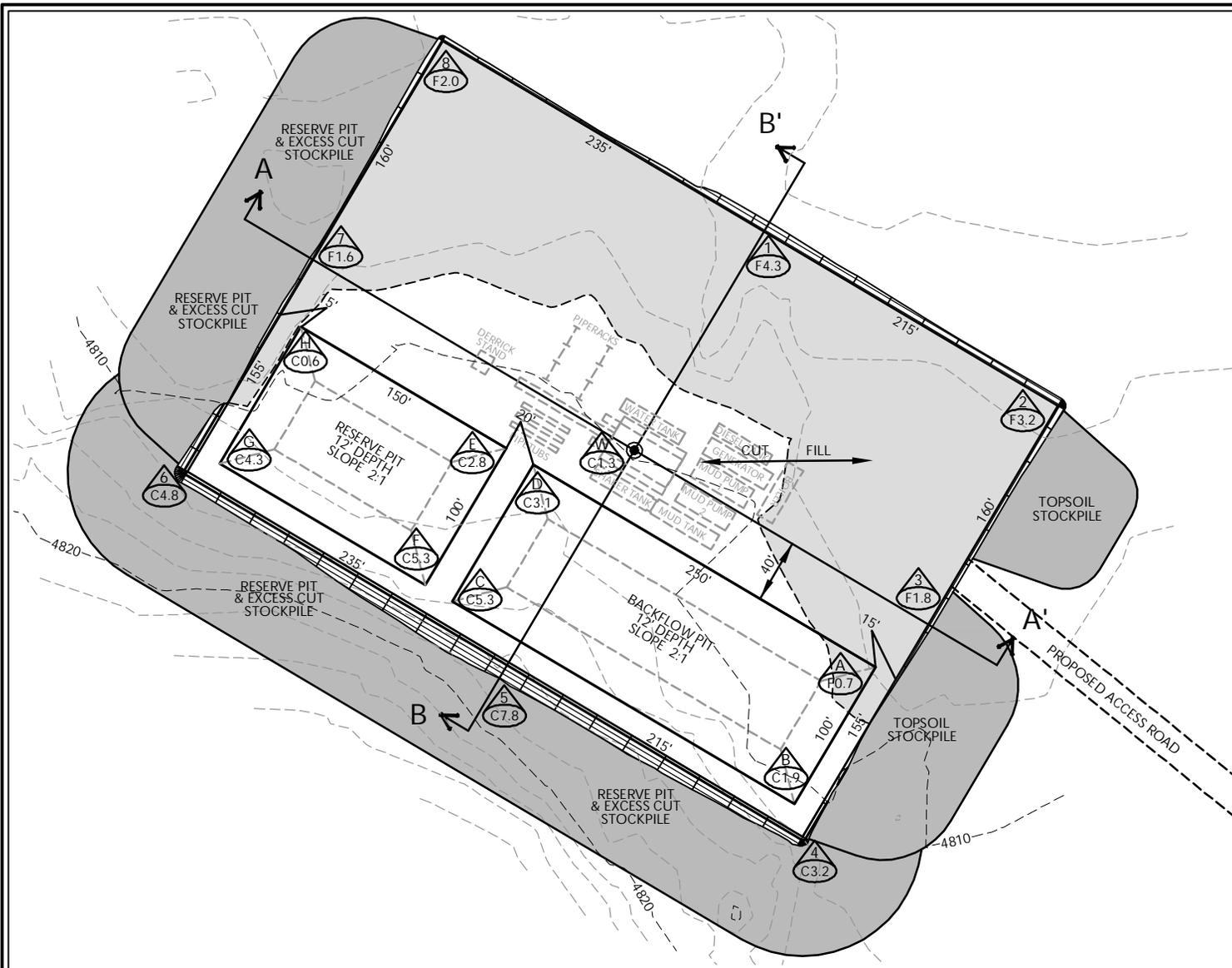
DRILLING ENGINEER: _____ **DATE:** _____
 John Huycke / Emile Goodwin
DRILLING SUPERINTENDENT: _____ **DATE:** _____
 John Merkel / Lovel Young

EXHIBIT A NBU 921-19E



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

'APIWellNo:43047507040000'



WELL PAD LEGEND

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

WELL PAD NBU 921-19E QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4,809.9'
 FINISHED GRADE ELEVATION = 4808.6'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 5,913 C.Y.
 TOTAL FILL FOR WELL PAD = 5,140 C.Y.
 TOPSOIL @ 6" DEPTH = 2,777 C.Y.
 EXCESS MATERIAL = 773 C.Y.
 TOTAL DISTURBANCE = 3.44 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 28,730 BARRELS
 RESERVE PIT VOLUME
 +/- 7,720 CY
 BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
 +/- 15,900 BARRELS
 BACKFLOW PIT VOLUME
 +/- 4,350 CY

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

WELL PAD - NBU 921-19E

WELL PAD - LOCATION LAYOUT
 NBU 921-19E
 2061' FNL, 842' FWL
 LOT 2 OF SECTION 19, T9S, R21E,
 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'

Date: 4/14/09

SHEET NO:

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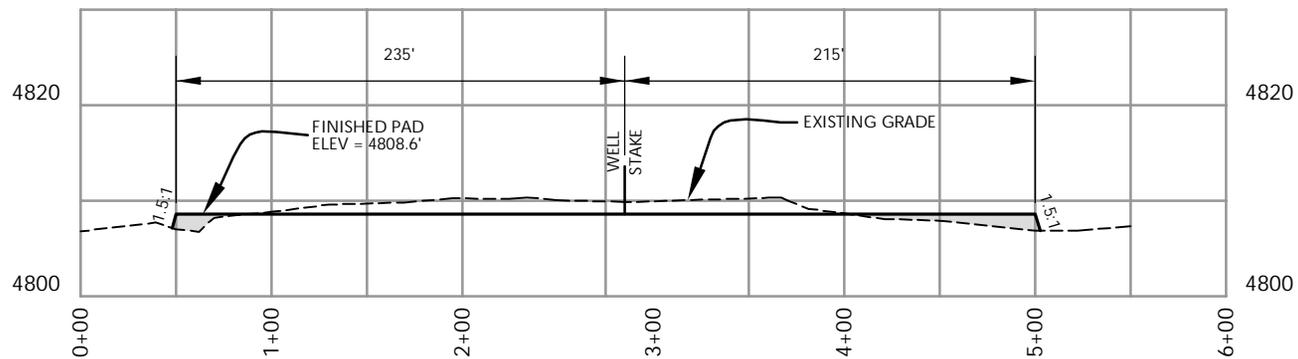
2 OF 9

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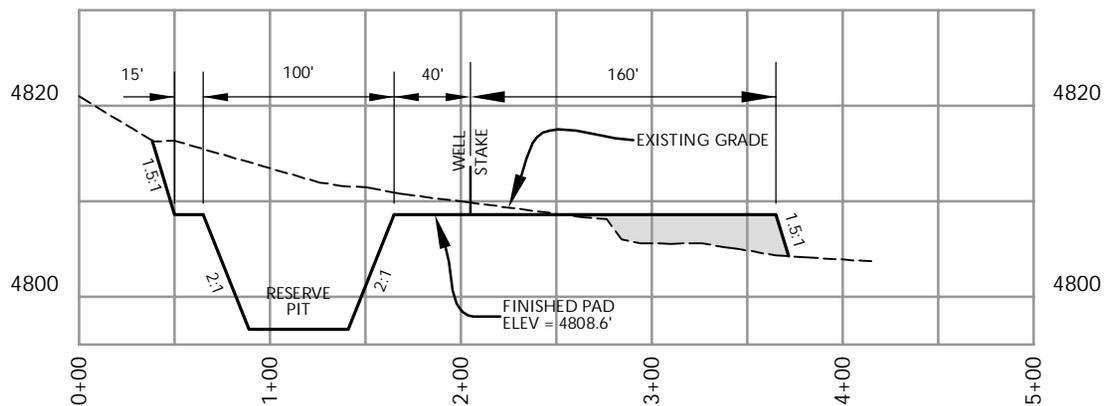


HORIZONTAL 0 50 100 1" = 100'
 2' CONTOURS

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ENGINEERING & LAND SURVEYING, INC.
 209 NORTH 300 WEST - VERNAL, UTAH 84078



CROSS SECTION A-A'



CROSS SECTION B-B'

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

WELL PAD - NBU 921-19E

WELL PAD - LOCATION LAYOUT

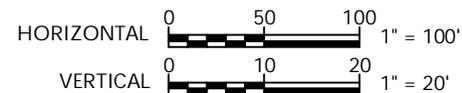
NBU 921-19E

2061' FNL, 842' FWL

LOT 2 OF SECTION 19, T9S, R21E,
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Scale: 1"=100'

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SHEET NO:

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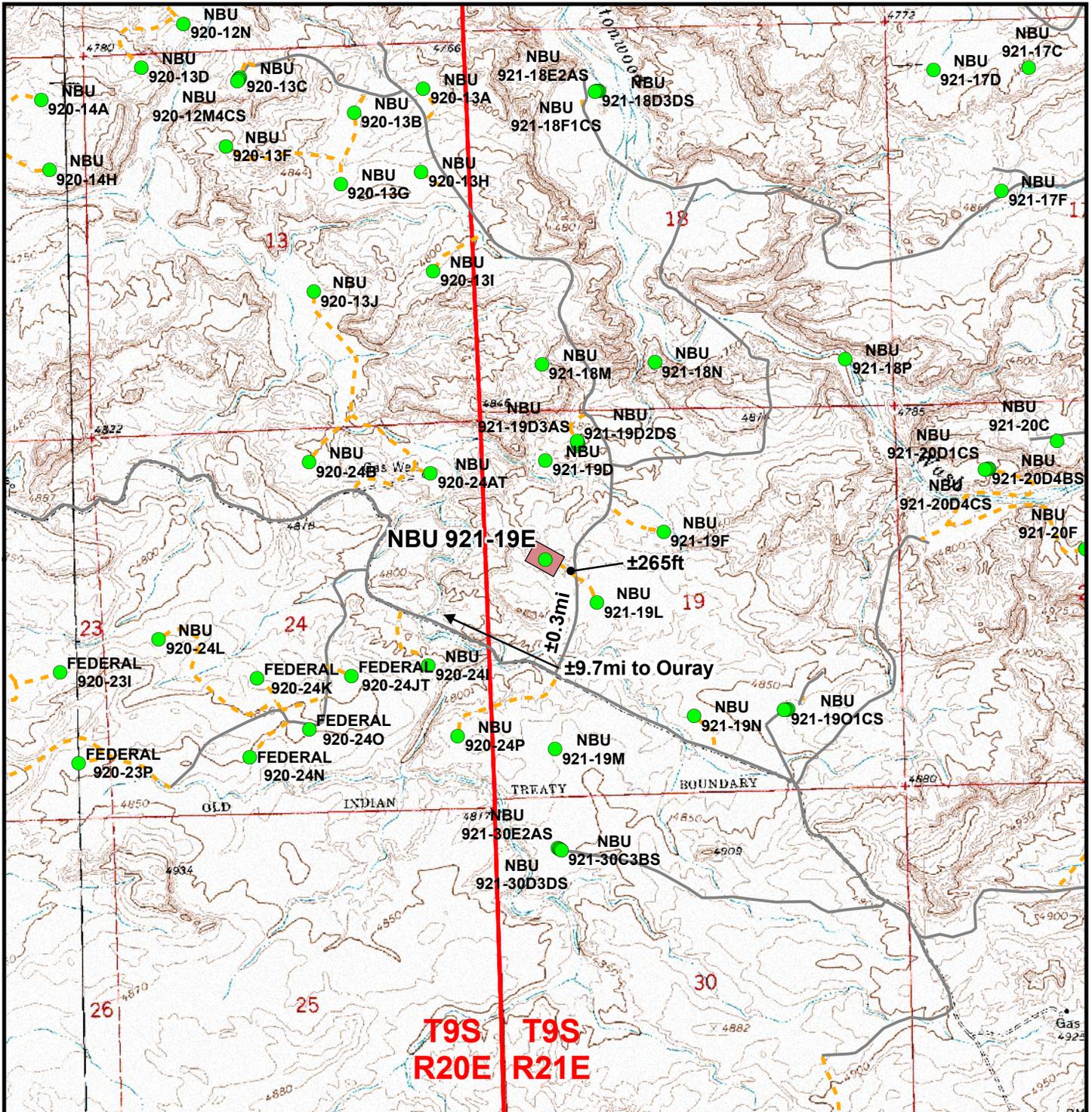
3 OF 9

REVISED:

TIMBERLINE
ENGINEERING & LAND SURVEYING, INC.
209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365





Legend

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

Total Proposed Road Length: ±265ft

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

Well Pad - NBU 921-19E
NBU 921-19E

Topo B
2061' FNL, 842' FWL
Lot 2 of Section 19, T9S, R21E
S.L.B.&M., Uintah County, Utah

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



Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 13 April 2009	6
Revised:	Date:	





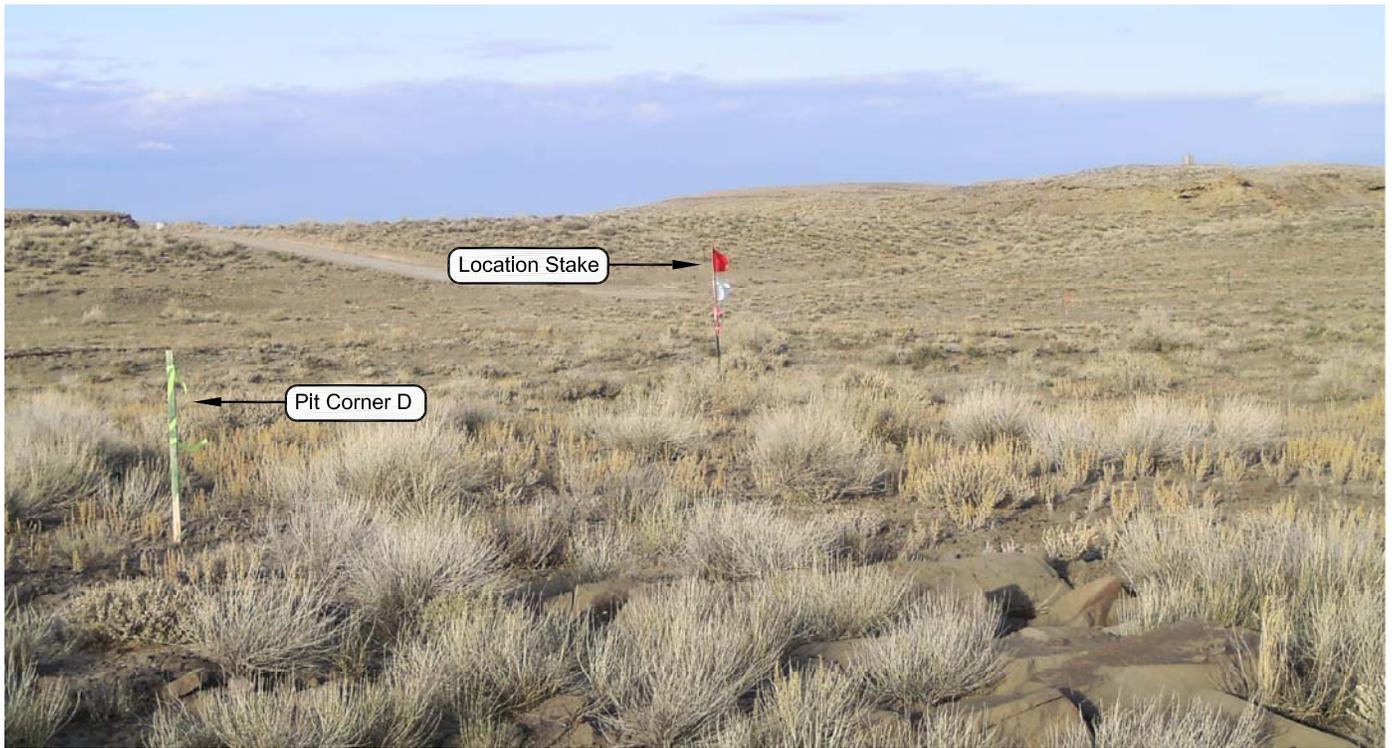


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: NORTHWESTERLY

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

Well Pad - NBU 921-19E

**NBU 921-19E
 LOCATION PHOTOS
 2061' FNL, 842' FWL
 LOT 2 OF SECTION 19, T9S, R21E,
 S.L.B.&M., Uintah County, Utah.**



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DATE PHOTOS TAKEN: 04-09-09	PHOTOS TAKEN BY: B.J.S.	SHEET NO: 4 4 OF 9
DATE DRAWN: 04-10-09	DRAWN BY: K.K.O.	
Date Last Revised:		

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 921-19E
WELL – NBU 921-19E
Section 19, T9S, R21E, 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 A SERVICE ROAD TO THE NORTHEAST. EXIT LEFT AND PROCEED IN A NORTHEASTERLY THEN SOUTHEASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 4.4 MILES TO A SECOND SERVICE ROAD TO THE NORTH. EXIT LEFT AND PROCEED NORTHERLY ALONG THE SECOND SERVICE ROAD APPROXIMATELY 0.3 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN A NORTHWESTERLY DIRECTION APPROXIMATELY 265 FEET TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 40.7 MILES IN A SOUTHERLY DIRECTION.

NBU 921-19E

Surface: 2,061' FNL 842' FWL (SW/4NW/4) Lot 2
Sec. 19 T9S R21E

Uintah, Utah
Mineral Lease: UTU 0581

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

***MULTI-POINT SURFACE USE & OPERATIONS PLAN
SUBMITTED WITH SITE-SPECIFIC INFORMATION***

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. An NOS was submitted showing the surface location in SW/4 NW/4 of Section 19 T9S R21E.

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting is scheduled for September 1-3, 2009. Please contact Raleen White at 720-929-6666 for any questions.

A. Existing Roads:

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

B. Planned Access Roads:

See MDP for additional details on road construction.

Approximately $\pm 265'$ (± 0.05 miles) of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

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 and are typically shown on the attached Exhibits and Topo maps.

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

Please refer to Topo Map C.

D. Location of Existing and Proposed Facilities:

See MDP for additional details on Existing and Proposed Facilities.

The following guidelines will apply if the well is productive.

Approximately ±1,685' (±0.32 miles) of pipeline is proposed. Refer to Topo D for the existing pipeline. Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

E. Location and Type of Water Supply:

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

No water well is to be drilled on this lease.

F. Source of Construction Materials:

See MDP for additional details on Source of Construction Materials.

G. Methods of Handling Waste Materials:

See MDP for additional details on Methods of Handling Waste Materials.

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 in Sec. 5 T9S R22E
- NBU #159 in Sec. 35 T9S R21E
- Ace Oilfield in Sec. 2 T6S R20E
- MC&MC in Sec. 12 T6S R19E
- Pipeline Facility in Sec. 36 T9S R20E
- Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
- Bonanza Evaporation Pond in Sec. 2 T10S R23E

H. Ancillary Facilities:

See MDP for additional details on Ancillary Facilities.

None are anticipated.

I. Well Site Layout: (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

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

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

J. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

K. Surface/Mineral Ownership:

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

Ute Indian Tribe
PO 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

L. Other Information:

See MDP for additional details on Other Information.

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

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724

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

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

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

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by 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 I have full knowledge of the State and Federal laws applicable to this operation; 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 in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.



Kathy Schneebeck Dulnoan

August 27, 2009

Date

CLASS I REVIEW OF KERR-MCGEE OIL & GAS
ONSHORE LP'S 51 PROPOSED WELL LOCATIONS
(T9S, R21E, SECTIONS 7, 8, 10, 11, 12,
17, 18, 19, 20, 23, 25, AND 30)
IN UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

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

Prepared By:

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

MOAC Report No. 09-39

May 11, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A09-363

IPC #09-76

Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Well Pads, Access Roads,
Pipelines and Pipeline Re-Routes for "NBU #921-19E,
L, M & N" (Sec. 19, T 9 S, R 21 E)**

Ouray SE
Topographic Quadrangle
Uintah County, Utah

May 13, 2009

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



Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237

(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report #: GCI #64

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: NBU 921-19F, NBU 921-19E, NBU 921-19L, NBU 921-19M, NBU 921-19N

Pipelines: Associated pipelines to proposed well pads

Access Roads: Associated access roads to proposed well pads

Location: Section 19, Township 9 South, Range 21 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*) and nesting raptors

Date: 06/23/2009

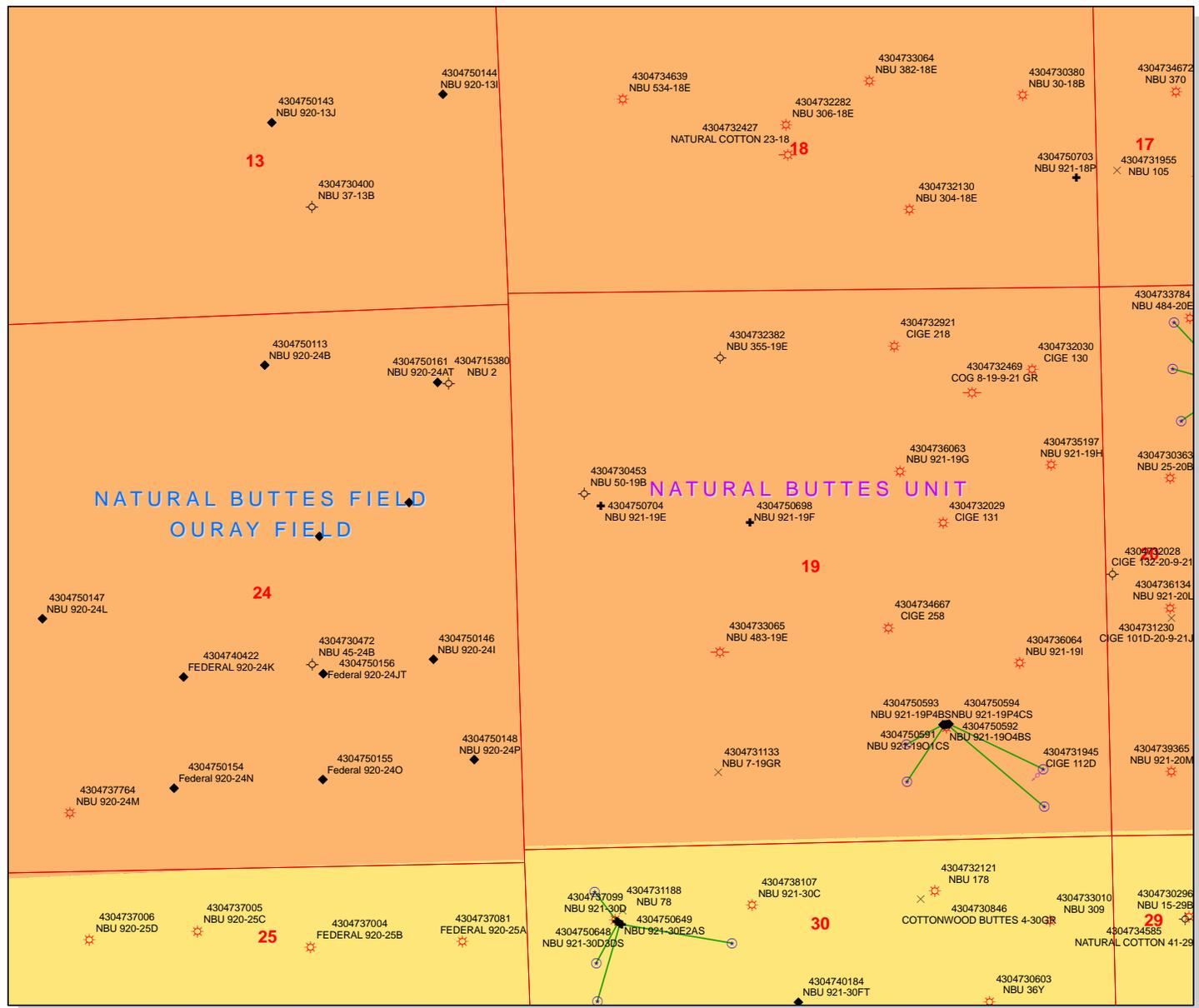
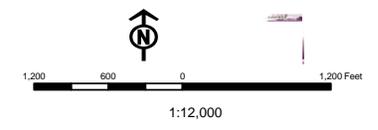
Observer(s): Grasslands Consulting, Inc. Biologists: Dan Hamilton, Jay Slocum, Matt Kelahan, and Jonathan Sexauer. Technicians: Chad Johnson

Weather: Partly cloudy, 75-90°F, 0-15 mph winds with no precipitation.

API Number: 4304750704
Well Name: NBU 921-19E
Township 09.0 S Range 21.0 E Section 19
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

Units	Wells Query Events
STATUS	X <all other values>
ACTIVE	◆ <Nub>
EXPLORATORY	◆ APD
GAS STORAGE	○ DRL
NF PP OIL	○ GI
NF SECONDARY	○ GS
PI OIL	○ LA
PP GAS	○ NEW
PP GEOTHERM	○ OPS
PP OIL	○ PA
SECONDARY	○ PGW
TERMINATED	○ POW
Fields	○ RET
ACTIVE	○ SGW
COMBINED	○ SOW
Sections	○ TA
	○ TW
	○ WT
	○ WS



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)**

August 28, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2009 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 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50640	NBU 1022-8B1DS	Sec 08 T10S R22E 0931 FNL 1709 FEL
	BHL	Sec 08 T10S R22E 0367 FNL 1518 FEL
43-047-50641	NBU 1022-8B4AS	Sec 08 T10S R22E 0919 FNL 1693 FEL
	BHL	Sec 08 T10S R22E 0744 FNL 1518 FEL
43-047-50642	NBU 1022-8C1AS	Sec 08 T10S R22E 0943 FNL 1725 FEL
	BHL	Sec 08 T10S R22E 0102 FNL 2415 FWL
43-047-50643	NBU 1022-8C1CS	Sec 08 T10S R22E 0955 FNL 1742 FEL
	BHL	Sec 08 T10S R22E 0418 FNL 2252 FWL
43-047-50644	NBU 922-30C3S	Sec 30 T09S R22E 1253 FNL 0663 FWL
	BHL	Sec 30 T09S R22E 1238 FNL 1154 FWL
43-047-50645	NBU 922-30D3AS	Sec 30 T09S R22E 1232 FNL 0607 FWL
	BHL	Sec 30 T09S R22E 0680 FNL 0382 FWL
43-047-50646	NBU 921-30C3CS	Sec 30 T09S R21E 0783 FNL 0920 FWL
	BHL	Sec 30 T09S R21E 0993 FNL 1985 FWL
43-047-50647	NBU 921-30D2DS	Sec 30 T09S R21E 0747 FNL 0871 FWL
	BHL	Sec 30 T09S R21E 0460 FNL 0665 FWL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50648	NBU 921-30D3DS	Sec 30 T09S R21E 0759 FNL 0887 FWL BHL Sec 30 T09S R21E 1152 FNL 0665 FWL
43-047-50649	NBU 921-30E2AS	Sec 30 T09S R21E 0771 FNL 0903 FWL BHL Sec 30 T09S R21E 1522 FNL 0665 FWL
43-047-50650	NBU 1022-7N1S	Sec 07 T10S R22E 0089 FSL 1920 FEL BHL Sec 07 T10S R22E 0895 FSL 1870 FWL
43-047-50651	NBU 1022-7N4S	Sec 07 T10S R22E 0097 FSL 1938 FEL BHL Sec 07 T10S R22E 0595 FSL 1740 FWL
43-047-50652	NBU 1022-7O4AS	Sec 07 T10S R22E 0081 FSL 1902 FEL BHL Sec 07 T10S R22E 0550 FSL 1560 FEL
43-047-50653	NBU 1022-7O4DS	Sec 07 T10S R22E 0074 FSL 1883 FEL BHL Sec 07 T10S R22E 0230 FSL 1650 FEL
43-047-50655	NBU 922-30D3DS	Sec 30 T09S R22E 1226 FNL 0588 FWL BHL Sec 30 T09S R22E 1314 FNL 0352 FWL
43-047-50656	NBU 922-30E2AS	Sec 30 T09S R22E 1246 FNL 0645 FWL BHL Sec 30 T09S R22E 1636 FNL 0352 FWL
43-047-50678	NBU 922-31G4BS	Sec 31 T09S R22E 2317 FSL 0188 FEL BHL Sec 31 T09S R22E 1994 FNL 1808 FEL
43-047-50679	NBU 922-31G4CS	Sec 31 T09S R22E 2316 FSL 0198 FEL BHL Sec 31 T09S R22E 2353 FNL 1796 FEL
43-047-50680	NBU 922-31I1AS	Sec 31 T09S R22E 2317 FSL 0178 FEL BHL Sec 31 T09S R22E 2483 FSL 0243 FEL
43-047-50681	NBU 922-31I1DS	Sec 31 T09S R22E 2317 FSL 0168 FEL BHL Sec 31 T09S R22E 2137 FSL 0264 FEL
43-047-50682	NBU 921-12J	Sec 12 T09S R21E 1959 FSL 2051 FEL
43-047-50684	NBU 1022-6I3AS	Sec 06 T10S R22E 1160 FSL 1584 FEL BHL Sec 06 T10S R22E 1684 FSL 1167 FEL
43-047-50685	NBU 1022-6J4CS	Sec 06 T10S R22E 1178 FSL 1593 FEL BHL Sec 06 T10S R22E 1535 FSL 1760 FEL
43-047-50686	NBU 1022-6O1BS	Sec 06 T10S R22E 1124 FSL 1567 FEL BHL Sec 06 T10S R22E 1197 FSL 1811 FEL

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50687	NBU 1022-6P1CS	Sec 06 T10S R22E 1142 FSL 1575 FEL BHL Sec 06 T10S R22E 0989 FSL 0541 FEL
43-047-50691	NBU 921-29A3AS	Sec 29 T09S R21E 0299 FNL 2630 FEL BHL Sec 29 T09S R21E 0700 FNL 0885 FEL
43-047-50692	NBU 921-29A3DS	Sec 29 T09S R21E 0303 FNL 2628 FWL BHL Sec 29 T09S R21E 1193 FNL 0885 FEL
43-047-50694	NBU 921-29A2AS	Sec 29 T09S R21E 0296 FNL 2611 FEL BHL Sec 29 T09S R21E 0209 FNL 0885 FEL
43-047-50693	NBU 921-29B2CS	Sec 29 T09S R21E 0307 FNL 2608 FWL BHL Sec 29 T09S R21E 0443 FNL 2635 FEL
43-047-50695	NBU 921-12N	Sec 12 T09S R21E 0441 FSL 2236 FWL
43-047-50698	NBU 921-19F	Sec 19 T09S R21E 2236 FNL 2285 FWL
43-047-50699	NBU 921-17C	Sec 17 T09S R21E 0656 FNL 2004 FWL
43-047-50700	NBU 921-17D	Sec 17 T09S R21E 0985 FNL 0418 FWL
43-047-50701	NBU 921-17G	Sec 17 T09S R21E 1500 FNL 2262 FEL
43-047-50702	NBU 921-17H	Sec 17 T09S R21E 2100 FNL 0553 FEL
43-047-50703	NBU 921-18P	Sec 18 T09S R21E 1080 FSL 0197 FEL
43-047-50704	NBU 921-19E	Sec 19 T09S R21E 2061 FNL 0842 FWL

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:8-28-09

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 8/27/2009

API NO. ASSIGNED: 43047507040000

WELL NAME: NBU 921-19E

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

PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: SWNW 19 090S 210E

Permit Tech Review:

SURFACE: 2061 FNL 0842 FWL

Engineering Review:

BOTTOM: 2061 FNL 0842 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.02313

LONGITUDE: -109.60168

UTM SURF EASTINGS: 619325.00

NORTHINGS: 4431050.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0581

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

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**

Commingle Approved

LOCATION AND SITING:

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

Comments: Presite Completed

Stipulations: 3 - Commingle - ddoucet
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 921-19E
API Well Number: 43047507040000
Lease Number: UTU 0581
Surface Owner: INDIAN
Approval Date: 9/1/2009

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 Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

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

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

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:

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

- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

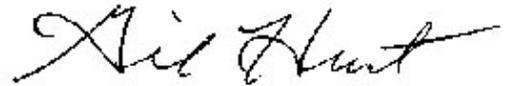
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <https://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

A handwritten signature in black ink, appearing to read "Gil Hunt". The signature is written in a cursive, flowing style.

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 0581
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 Tr
1. TYPE OF WELL Gas Well	7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	8. WELL NAME and NUMBER: NBU 921-19E
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. API NUMBER: 43047507040000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
	COUNTY: UINTAH
	STATE: UTAH

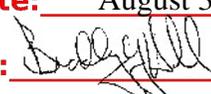
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/31/2010	<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: <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: August 31, 2010
 By: 

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/31/2010	



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 43047507040000

API: 43047507040000

Well Name: NBU 921-19E

Location: 2061 FNL 0842 FWL QTR SWNW SEC 19 TWNP 090S RNG 210E MER S

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

Date Original Permit Issued: 9/1/2009

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: 8/31/2010

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

Date: August 31, 2010

By: 

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR **AUG 27 2009**
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU0581
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
2. Name of Operator KERRMCGEE OIL&GAS ONSHORE LP Contact: DANIELLE E PIERNOT Email: Danielle.Piernot@anadarko.com		7. If Unit or CA Agreement, Name and No. 891008900A
3a. Address PO BOX 173779 DENVER, CO 80202-3779		8. Lease Name and Well No. NBU 921-19E
3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156		9. API Well No. 43-047-50704
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWNW Lot 2 2061FNL 842FWL 40.02313 N Lat, 109.60242 W Lon At proposed prod. zone SWNW Lot 2 2061FNL 842FWL 40.02313 N Lat, 109.60242 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 10 MILES SOUTHEAST OF OURAY, UTAH		11. Sec., T., R., M., or Blk. and Survey or Area Sec 19 T9S R21E Mer SLB
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 842 FEET	16. No. of Acres in Lease 2399.60	12. County or Parish UINTAH
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 800 FEET	19. Proposed Depth 10400 MD 10400 TVD	13. State UT
21. Elevations (Show whether DF, KB, RT, GL, etc.) 4810 GL	22. Approximate date work will start 09/14/2009	17. Spacing Unit dedicated to this well.
20. BLM/BIA Bond No. on file WYB000291		23. Estimated duration 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall 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 shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) DANIELLE E PIERNOT Ph: 720-929-6156	Date 08/27/2009
Title REGULATORY ANALYST		
Approved by (Signature) 	Name (Printed/Typed) Jerry Kenczka	Date JUN 21 2009
Title Assistant Field Manager Lands & Mineral Resources		

Application approval does not warrant or certify 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.

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 a false statement to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

RECEIVED
JUL 11 2011

Additional Operator Remarks (see next page)

DIV OF OIL GAS & MINING
Electronic Submission #73728 verified by the BLM Well Information System
For KERRMCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by ROBIN R. HANSEN on 08/28/2009 ()

UDOGM

**CONDITIONS OF APPROVAL ATTACHED
NOTICE OF APPROVAL**

NOS APP POSTED 9-3-09

AFMSS#

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

09RRH0218AE



**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:	LOT 2, SEC. 19, T9S R21E
Well No:	NBU 921-19E	Lease No:	UTU-0581
API No:	43-047-50704	Agreement:	NATURAL BUTTES

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)***

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.

SITE SPECIFIC CONDITIONS OF APPROVAL:

- Pain new and old (existing) facilities "Shadow Gray."
- Monitor by a permitted archaeologist during construction operations.
- Divert storm water runoff on pad fro the southwest to the northeast by constructing a diversion ditch.
- Use pit run or gravel for well pas and access road support.
- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix D), a raptor survey would take place during raptor nesting season (January 1 through September 30) and conduct is operations according to specifications in the guidelines. The BLM and USFWS recommend a 1/4-mile avoidance buffer from active great horned owl nests from February 1 to September 30.
- Conduct a new biological survey in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus and the 2008 BLM RMP ROD, in include a 300-foot buffer from the proposed construction operations (See Appendix D) and construct operation according to agency specification and the requirements of the BO issued as a result of Section 7 USFWS consultation.

BIA Standard Conditions of Approval

- Soil erosion will be mitigated by reseeding all disturbed areas.
- 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.
- 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.

- 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.
- 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.
- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel should refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.
- 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.
- 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.
- 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.
- If project construction operations are scheduled to occur after December 31, 2009, KMG should 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. If active raptor nest are indentified during a new survey, KMG should conduct its operations according to the seasonal restrictions detailed in the Uinta basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines (See Appendix D).
- 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 D).
- All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- 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:

- Gamma Ray Log shall be run from Total Depth to Surface.

Variances Granted:

Air Drilling

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- Mud Material Requirements. In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.
- FIT test. Variance granted due to well know geology and problems that can occur with FIT test.

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_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- 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 0581
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 Tr
		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 921-19E	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047507040000	
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: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E 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: 8/22/2011 <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>08/22/2011</u></p> <p>By: <u></u></p>
NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/22/2011	



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 43047507040000

API: 43047507040000

Well Name: NBU 921-19E

Location: 2061 FNL 0842 FWL QTR SWNW SEC 19 TWNP 090S RNG 210E MER S

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

Date Original Permit Issued: 9/1/2009

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: Andy Lytle

Date: 8/22/2011

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 0581
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 921-19E
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E 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: 10/20/2011 <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 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 checked="" type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 50px;" 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 operations for this well. Changes include deepening to the Blackhawk formation, which is part of the Mesaverde formation, closed loop drilling options and casing changes. Please see attachment for details. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 11/10/2011

By: *Danielle Piernot*

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 10/20/2011	

NBU 921-19E

Drilling Program
1 of 7**Kerr-McGee Oil & Gas Onshore. L.P.****NBU 921-19E**

Surface: 2061 FNL / 842 FWL SWNW

Section 19 T9S R21E

Unitah County, Utah
Mineral Lease: UTU 0581**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	1,638'	
Birds Nest	1,907'	Water
Mahogany	2,405'	Water
Wasatch	5,019'	Gas
Mesaverde	8,149'	Gas
Sego	10,391'	Gas
Castlegate	10,497'	Gas
MN5	10,817'	Gas
TD	11,417'	

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 11417' TVD, approximately equals
7,535 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 5,075 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 blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

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

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

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	DQX
								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
						10,690	8,650	279,000	367,000
PRODUCTION	4-1/2"	0 to 5,000	11.60	HCP-110	DQX	1.19	1.12		3.46
	4-1/2"	5,000 to 11,417'	11.60	HCP-110	LTC	1.19	1.12	4.68	

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
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,360'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	220	35%	11.00	3.82
Option 2	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	4,517'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	350	35%	11.00	3.38
	TAIL	6,900'	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. No centralizers will be used.

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Emile Goodwin / Chad Loesel

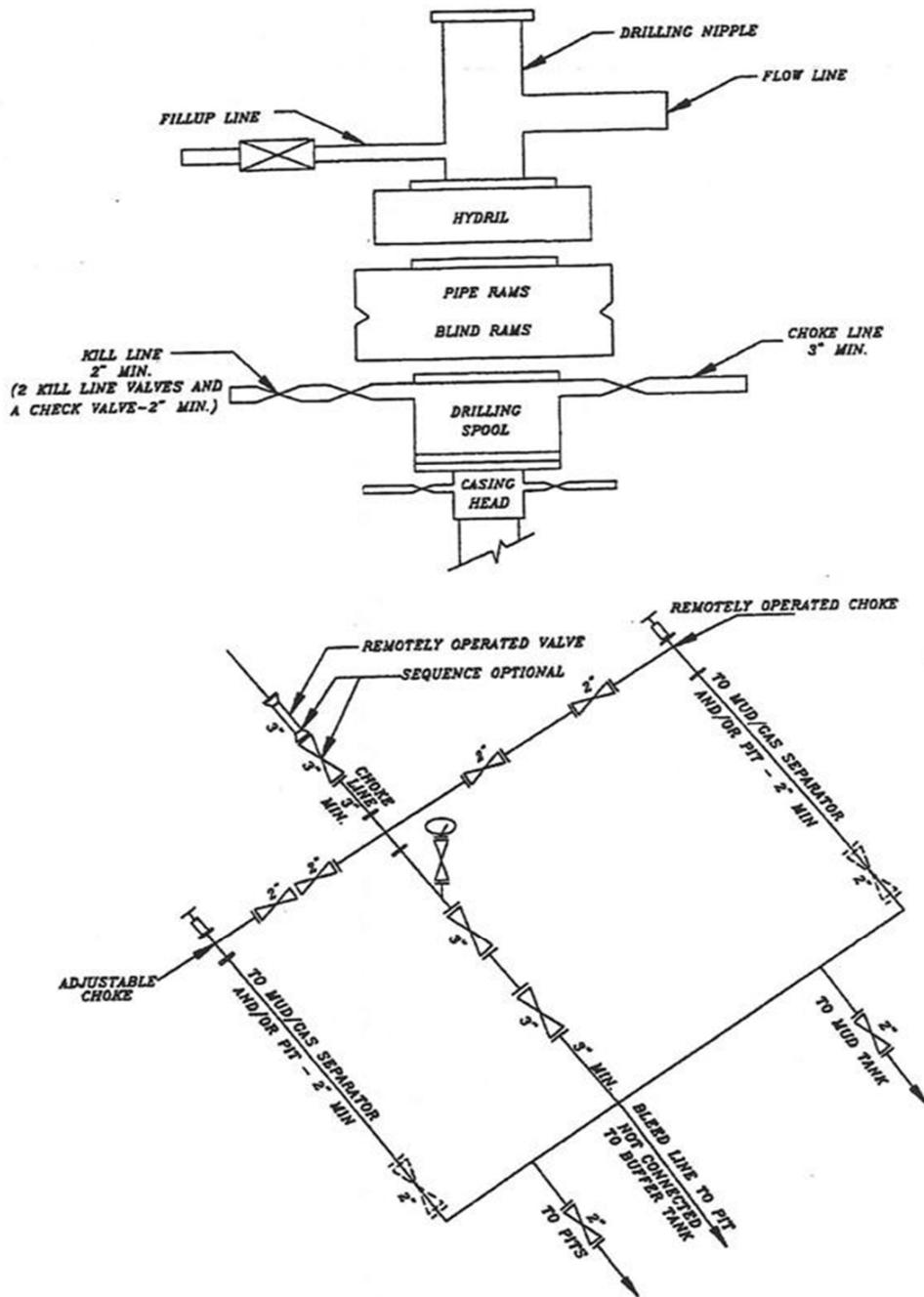
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A NBU 921-19E



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 DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581
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 921-19E
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047507040000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E 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: 10/20/2011	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" 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 type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

The operator requests approval for changes in the drilling operations for this well. Changes include deepening to the Blackhawk formation, which is part of the Mesaverde formation, closed loop drilling options and casing changes. Please see attachment for details. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 11/10/2011

By: *Derek Quist*

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 10/20/2011	

NBU 921-19E

Drilling Program
1 of 7**Kerr-McGee Oil & Gas Onshore. L.P.****NBU 921-19E**

Surface: 2061 FNL / 842 FWL SWNW

Section 19 T9S R21E

Unitah County, Utah
Mineral Lease: UTU 0581**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	1,638'	
Birds Nest	1,907'	Water
Mahogany	2,405'	Water
Wasatch	5,019'	Gas
Mesaverde	8,149'	Gas
Sego	10,391'	Gas
Castlegate	10,497'	Gas
MN5	10,817'	Gas
TD	11,417'	

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

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7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 11417' TVD, approximately equals
7,535 psi (0.66 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 5,075 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
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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

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Conclusion

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10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	DQX
								TENSION	
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PRODUCTION	4-1/2"	0 to 5,000	11.60	HCP-110	DQX	1.19	1.12		3.46
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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)

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(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
NOTE: If well will circulate water to surface, option 2 will be utilized							
SURFACE	LEAD	2,360'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	220	35%	11.00	3.82
Option 2	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	4,517'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	350	35%	11.00	3.38
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*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained
*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

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

ADDITIONAL INFORMATION

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

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

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

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

DRILLING ENGINEER:

Nick Spence / Emile Goodwin / Chad Loesel

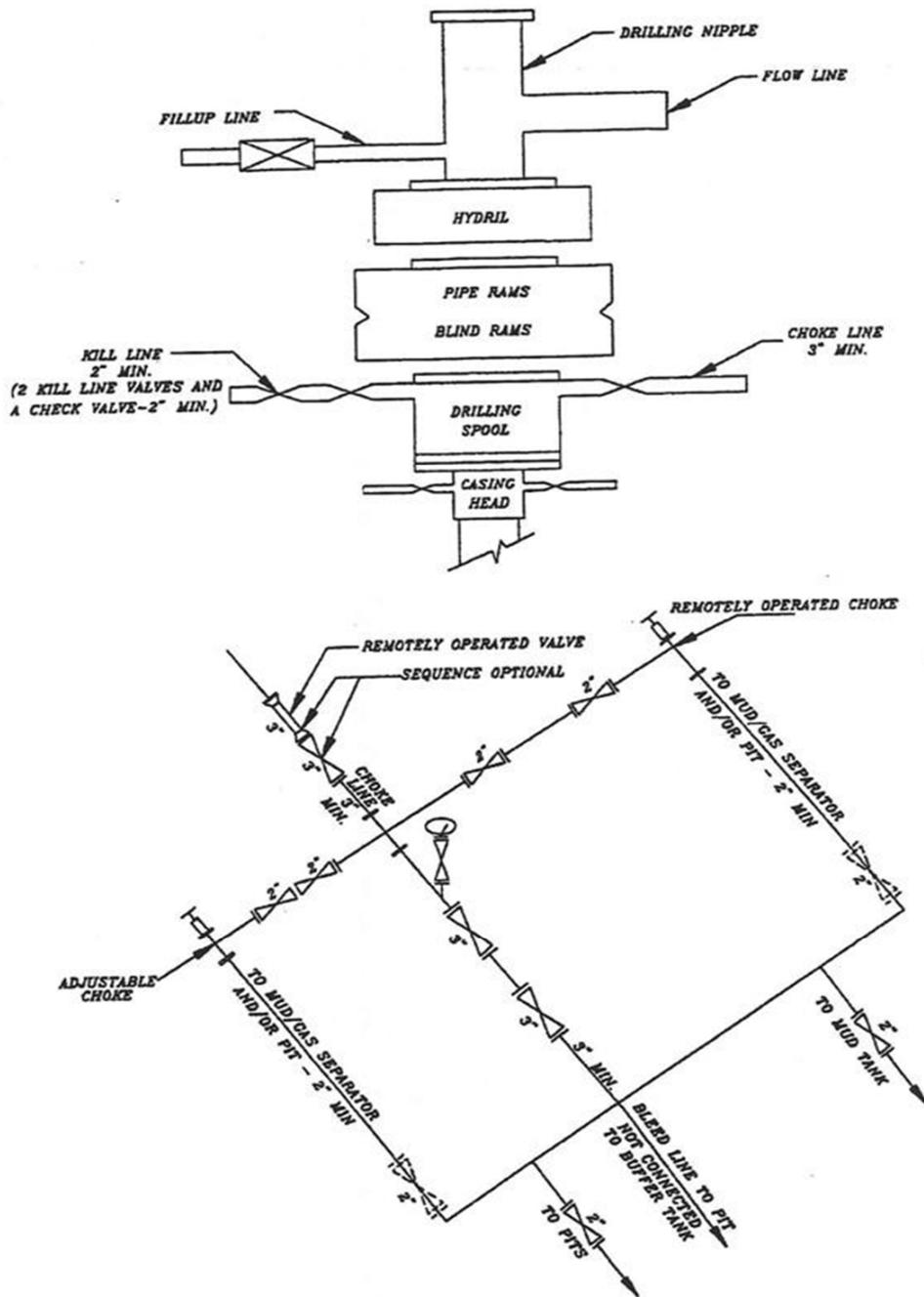
DATE:

DRILLING SUPERINTENDENT:

Kenny Gathings / Lovel Young

DATE:

EXHIBIT A NBU 921-19E



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.

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 921-19E
Qtr/Qtr SWNW Section 19 Township 9S Range 21E
Lease Serial Number UTU-0581
API Number 4304750704

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

Date/Time 11/21/2011 0800 HRS AM PM

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

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

RECEIVED
NOV 22 2011
DIV. OF OIL, GAS & MINING

Date/Time 11/30/2011 0800 HRS AM PM

BOPE

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

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
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581
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 921-19E	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047507040000	
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: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E 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: 11/29/2011	<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 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 style="width: 100px;" type="text"/>		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU AIR RIG ON NOV. 26, 2011. DRILLED SURFACE HOLE TO 2696'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.		
Accepted by the Utah Division of Oil, Gas and Mining		FOR RECORD ONLY
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/30/2011	

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 0581
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 921-19E	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047507040000	
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: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E 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 checked="" type="checkbox"/> SPUD REPORT Date of Spud: 11/21/2011 <input type="checkbox"/> DRILLING REPORT Report Date:	<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 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.		
MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 11/21/2011 AT 0800 HRS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/21/2011	

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
4304750704	NBU 921-19E		SWNW	19	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	11/21/2011			11/30/11	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>BLKHK = MVRD = WSMVD</i> SPUD WELL ON 11/21/2011 AT 0800 HRS.							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750612	NBU 921-21B1CS		NENE	21	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	11/17/2011			11/30/11	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>WSMVD</i> SPUD WELL ON 11/17/2011 AT 0930 HRS. <i>BHL = N WNE</i>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750609	NBU 921-21A2DS		NENE	21	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
B	99999	2900	11/17/2011			11/30/11	
Comments: MIRU PETE MARTIN BUCKET RIG. <i>BLKHK = MVRD = WSMVD</i> SPUD WELL ON 11/17/2011 AT 1330 HRS. <i>BHL = NENE</i>							

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

Title

11/21/2011

Date

(5/2000)

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NOV 21 2011

DIV. OF OIL, GAS & MINING

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 921-19E
Qtr/Qtr SE/4 NW/4 Section 19 Township 9S Range 21 E
Lease Serial Number UTU 0581
API Number 4304750704

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 1/4/11 8:00 AM PM

Rig Move

Location To:

Date/Time _ _ AM PM

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JAN 04 2012

DIV. OF OIL, GAS & MINING

Remarks

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9	
		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581	
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 921-19E		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 4304750704000		
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: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E 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: 1/14/2012	<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 type="text"/>
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.			
<p>MIRU ROTARY RIG. FINISHED DRILLING FROM 2696' TO 11,420' ON JAN. 11, 2012. RAN 4-1/2" 11.6# P-110 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED PIONEER RIG 54 ON JAN. 14, 2012 @ 06:00 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.</p>			
<p>Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 17, 2012</p>			
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst	
SIGNATURE N/A	DATE 1/17/2012		

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 921-19E
Qtr/Qtr SE/4 NW/4 Section 19 Township 9S Range 21E
Lease Serial Number UTU 0581
API Number 4304750704

Casing – Time casing run starts, not cementing times.

- Production Casing
 Other

Date/Time 1/13/12 8 AM PM

BOPE

- Initial BOPE test at surface casing point
 Other

Date/Time _ _ AM PM

RECEIVED
JAN 11 2012
DIV. OF OIL, GAS & MINING

Rig Move

Location To: NBU 921-19N

Date/Time 1/14/12 7 AM PM

Remarks

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0581	
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 921-19E	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	
9. API NUMBER: 43047507040000	
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: 2061 FNL 0842 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 19 Township: 09.0S Range: 21.0E Meridian: S	
COUNTY: Uintah	
STATE: UTAH	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input 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: 2/6/2012	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 02/06/2012 AT 1800 HRS. THE CHONROLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 February 08, 2012**

NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 2/7/2012	

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.
UTU0581

1a. Type of Well Oil Well Gas Well Dry Other
 b. Type of Completion New Well Work Over Deepen Plug Back Diff. Resvr.
 Other _____

2. Name of Operator **KERR MCGEE OIL & GAS ONSHORE** Contact: JAIME L. SCHARNOWSKE
 Mail: JAIME.SCHARNOWSKE@ANADARKO.COM

3. Address **PO BOX 173779 DENVER, CO 80217** 3a. Phone No. (include area code)
 Ph: 720-929-6304

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface **SWNW 2061FNL 842FWL 40.023130 N Lat, 109.602416 W Lon**
 At top prod interval reported below **SWNW 2061FNL 842FWL 40.023130 N Lat, 109.602416 W Lon**
 At total depth **SWNW 2061FNL 842FWL 40.023130 N Lat, 109.602416 W Lon**

6. If Indian, Allottee or Tribe Name _____
 7. Unit or CA Agreement Name and No.
UTU63047A

8. Lease Name and Well No.
NBU 921-19E

9. API Well No.
43-047-50704

10. Field and Pool, or Exploratory
NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey
 or Area **Sec 19 T9S R21E Mer SLB**

12. County or Parish
UINTAH 13. State
UT

14. Date Spudded
11/21/2011 15. Date T.D. Reached
01/11/2012 16. Date Completed
 D & A Ready to Prod.
02/06/2012

17. Elevations (DF, KB, RT, GL)*
4809 GL

18. Total Depth: MD **11420** TVD **11415** 19. Plug Back T.D.: MD **11363** TVD **11358** 20. Depth Bridge Plug Set: MD **MD** TVD **TVD**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
HDIL/ZDL/CNGR-CBL/GR/COLLARS

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	2667		555		0	
7.875	4.500 P-110	11.6	0	11407		2262		2230	

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	10931							

25. Producing Intervals 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	8540	11271	8540 TO 11271	0.360	183	OPEN
B) WSMVD						
C)						
D)						

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

Depth Interval	Amount and Type of Material
8540 TO 11271	PUMP 18,124 BBLs SLICK H2O & 388,900 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
02/06/2012	02/16/2012	24	→	0.0	3364.0	480.0			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	SI 2850	3775.0	→	0	3364	480		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	
	SI		→						

(See Instructions and spaces for additional data on reverse side)
 ELECTRONIC SUBMISSION #132739 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

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MAR 20 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	1677
				BIRD'S NEST	1905
				MAHOGANY	2424
				WASATCH	5038
				MESAVERDE	8157

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 5029' LTC csg was run from 5029' to 8162'. DQX csg was run from 8162' to 10,790'; LTC csg was run from 10,790'-11,407'. 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 #132739 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal**

Name (please print) JAIME L. SCHARNOWSKE Title REGULATORY ANALYST

Signature (Electronic Submission) Date 03/12/2012

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 921-19E		Spud Date: 11/27/2011	
Project: UTAH-UINTAH		Site: NBU 921-19E	Rig Name No: PROPETRO 11/11, PIONEER 54/54
Event: DRILLING		Start Date: 11/10/2011	End Date: 1/14/2012
Active Datum: RKB @4,828.00usft (above Mean Sea Level)		UWI: SW/NW0/9/S/21/E/19/0/0/26/PM/N/2061/NW0/842/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/26/2011	21:30 - 0:00	2.50	DRLSUR	01	A	P		MOVE TO NBU 921-19E
11/27/2011	0:00 - 6:00	6.00	DRLSUR	01	B	P		RU UP ON NBU 921-19E
	6:00 - 15:30	9.50	DRLSUR	08	A	Z		REPAIR MUFFLERS, HYRDAULIC PUMP DISENGAGE SWITCH, SERVICE BOBCAT HEATER
	15:30 - 16:00	0.50	DRLSUR	02	D	P		PU 12.25" BHA, SPUD
	16:00 - 18:30	2.50	DRLSUR	02	D	P		DRILL 12.25" T/210'
	18:30 - 19:30	1.00	DRLSUR	05	F	P		CIRC FOR 1 HOUR
	19:30 - 20:30	1.00	DRLSUR	06	A	P		POOH, LDDS 12.25". PU 11.00" BHA, TIH
	20:30 - 0:00	3.50	DRLSUR	02	D	P		DRILL F/210' TO 670'. RPM 40, WOB 27 ON BTM 1400 OFF BTM 1150, UP/DOWN/ROTA 60/57/60
11/28/2011	0:00 - 10:00	10.00	DRLSUR	02	D	P		DRILL F670' T/1840 RPM 37, WOB 25 ON BTM 1450 OFF BTM 1200, UP/DOWN/ROTA 65/55/60
	10:00 - 16:00	6.00	DRLSUR	02	D	P		DRILL F/1840' T/2200, INTERMITTENT SIGNAL PROBLEMS WITH MWD EQUIPMENT
	16:00 - 23:30	7.50	DRLSUR	02	D	P		DRILL F/2200' T/2696', TD. SIGNAL FAILURE RESOLVED
11/29/2011	23:30 - 0:00	0.50	DRLSUR	05	C	P		START CIRC FOR 2 HOURS PRIOR TO POOH.
	0:00 - 1:30	1.50	DRLSUR	05	C	P		CIRC PRIOR TO POOH, FOR CSG AND CMT
	1:30 - 6:00	4.50	DRLSUR	06	D	P		POOH, LDDS, DIR TOOLS. MOVE PIPE RACKS AND CATWALK. PULL DIVERTER HEAD. RIG UP TO RUN CSG. AND MOVE CSG INTO POSITION TO P/U.
	6:00 - 10:30	4.50	DRLSUR	12	C	P		RUN 60 JTS 8 5/8, 28# CSNG. LAND CSNG @ 10:30, SHOE SET @2652', BAFFLE SET @ 2605'
	10:30 - 11:00	0.50	DRLSUR	13	A	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 - 14:00	3.00	DRLSUR	13	A	P		PRESSURE TEST LINES TO 2500 PSI. PUMP 50 BBLs OF WATER AHEAD. PUMP 20 BBLs OF 8.3# GEL WATER AHEAD. PUMP (230 SX) 156.4 BBLs OF 11.0# 3.82 YD 23 GAL/SK PREMIUM CEMENT WITH 16% GEL, 3% SALT. 3# PER SX GR3, .25# ER SC FLOCELE, 10# PER SX GILSONITE. PUMP 200 SX TAIL, 2% CACL, .25# PER SX FLOCELE. DROP PLUG ON FLY. DISPLACE WITH 160 BBLs OF H2O. FULL CIRC THROUGHOUT. FINAL LIFT 600PSI AT 4 BBLs MIN. BUMP PLUG WITH 1000 PSI HELD FOR 5 MIN. FLOAT HELD. PUMP 125 SX (26.6 BBLs) OF SAME TAIL CEMENT WITH 2% CACL DOWN 1". SHUT DOWN AND CLEAN TRUCK. CEMENT TO SURFACE.
1/2/2012	14:00 - 14:30	0.50	DRLSUR	01	A	P		RELEASE RIG
	0:00 - 7:00	7.00	DRLPRO	01	E	P		RDRT
	7:00 - 18:00	11.00	DRLPRO	01	A	P		MOVE RIG TO NBU 921-19E, 50 % MOVED, 50 % RIGGED UP, 3 BED, 5 HAUL TRUCKS, 2 FORKLIFTS, CRAIN ON LOC 14:00 TO 17:30
1/3/2012	18:00 - 0:00	6.00	DRLPRO	21	C	P		WAITING FOR DAYLIGHT
	0:00 - 7:00	7.00	DRLPRO	21	C	P		WAITING FOR DAYLIGHT

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: PROPETRO 11/11, PIONEER 54/54

Event: DRILLING

Start Date: 11/10/2011

End Date: 1/14/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00 - 18:00	11.00	DRLPRO	01	B	P		MOVE DERRICK & SUBS TO LOC, DERRICK RAISES @ 17:00 RURT, W/ WESTROC & J & C CRANE, 2 BED & 4 HAUL TRUCKS, 1 CRANE W/ 4 OILERS, TRUCKS RELEASED @ 18:00, CRANE @ 18:00
	18:00 - 0:00	6.00	DRLPRO	01	B	P		RURT
1/4/2012	0:00 - 4:00	4.00	DRLPRO	01	B	P		R/U FLOW LINE, GEN HOUSE, TOP DRIVE
	4:00 - 7:00	3.00	DRLPRO	14	A	P		N/U BOPE & STRATA MPD
	7:00 - 14:00	7.00	DRLPRO	15	A	P		TEST BOPE, RAMS & ALL VALVES 250 LOW-5000 HIGH, ANN 2500, SURFACE CASING 1500 F/ 30 MIN, & STRATA MPD
	14:00 - 14:30	0.50	DRLPRO	14	B	P		INSTALL WEAR BUSHING
	14:30 - 20:30	6.00	DRLPRO	06	A	P		P/U BIT #1, MM, DIR BHA & SCRIBE, P/U 50 JTS D/P, INSTALL ROT RUBBER
	20:30 - 22:00	1.50	DRLPRO	09	A	P		CUT DRLG LINE
	22:00 - 0:00	2.00	DRLPRO	02	F	P		DRLG CEMENT, F/E & OPEN HOLE TO 2711, CEMENT TOP 2592, FLOAT @ 2619, SHOE @ 2667'
1/5/2012	0:00 - 10:00	10.00	DRLPRO	02	B	P		DRLG F/ 2711 TO 4270', 1559' @ 155.9' PH WOB / 20-22, RPM 60 SPM 200- GPM 586 MW 8.6, VIS 30, TRQ ON/OFF = 5-6 K PSI ON /OFF = 1800-2100 , DIFF 250-500 PU/SO/RT = 115-105-110 SLIDE = ROT = 100 % STRATA - OFF LINE NOV 1- CONVENTIONAL, 1 DEWATER 0 CONN FLARE, 0 B/G FLARE 21 S & 15 W OF TARGET CENTER
	10:00 - 10:30	0.50	DRLPRO	07	A	P		SERVICE RIG, BOPE DRILL 77 SEC, F/T ANN & HCR
	10:30 - 18:30	8.00	DRLPRO	02	B	P		DRLG F/ 4270 TO 5004', 734' @ 91.7 WOB / 20-22, RPM 60 SPM 200- GPM 586 MW 8.7, VIS 38, TRQ ON/OFF = 6/7 K PSI ON /OFF = 1800-2100 , DIFF 250-500 PU/SO/RT = 120-110-115 SLIDE = 110' IN 1.83 HRS = 60.1' PH ROT = 624 IN 6.17 HRS = 101.1' PH STRATA - OFF LINE NOV 1- CONVENTIONAL, 1 DEWATER 0 CONN FLARE, 0 B/G FLARE 3' N & 10' W OF TARGET CENTER
	18:30 - 19:30	1.00	DRLPRO	22	O	Z		GO THROUGH PUMPS & CLEAN SCREENS & D/P SCREEN OF PAC MIXED TO FAST

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: PROPETRO 11/11, PIONEER 54/54

Event: DRILLING

Start Date: 11/10/2011

End Date: 1/14/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW09/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	19:30 - 0:00	4.50	DRLPRO	02	B	P		DRLG F/ 5004 TO 5337', 333' @ 74' PH WOB / 20-22, RPM 60 SPM 200- GPM 586 MW 8.8, VIS 40, TRQ ON/OFF = 8/7 K PSI ON /OFF =1800-2100 , DIFF 250-500 PU/SO/RT = 125-115-120 SLIDE = 56' IN .92 HRS = 60.8' PH ROT = 277' IN 3.58 HRS = 77.4' PH STRATA - OFF LINE NOV 2- DEWATER 0 CONN FLARE, 0 B/G FLARE 5' N & 13.3' W OF TARGET CENTER
1/6/2012	0:00 - 14:00	14.00	DRLPRO	02	B	P		DRLG F/ 5337 TO 6737', 1400' @ 100' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 8.9, VIS 45, TRQ ON/OFF = 8/7 K PSI ON /OFF =1800-2100 , DIFF 250-500 PU/SO/RT = 150-145-140 SLIDE = 124' IN 2.74 HRS = 45.3' PH ROT = 1276' IN 11.26 HRS = 113.3' PH STRATA - OFF LINE NOV 2- DEWATERING 0 CONN FLARE, 0 B/G FLARE 48' N & 24' W OF TARGET CENTER
	14:00 - 14:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	14:30 - 0:00	9.50	DRLPRO	02	B	P		DRLG F/ 6737' TO 7306', 569' @ 59.8' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 9.0, VIS 42, TRQ ON/OFF = 8/7 K PSI ON /OFF = 2600-2200 , DIFF 250-500 PU/SO/RT = 165-157-160 SLIDE = 66' IN 2.25 HRS = 29.3' PH ROT = 503' IN 7.25 HRS = 69.4' PH STRATA - OFF LINE NOV 2- DEWATERING 0 CONN FLARE, 0 B/G FLARE 73' N & 29.5' W OF TARGET CENTER
1/7/2012	0:00 - 16:00	16.00	DRLPRO	02	B	P		2DRLG F/ 7306' TO 8158', 852' @ 53.3' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 9.1, VIS 37, TRQ ON/OFF = 8/7 K PSI ON /OFF = 2500-2300, DIFF 250-500 PU/SO/RT = SLIDE = 10' IN .33 HRS = 30.3 ROT = 842' IN 15.67 HRS = 53.73' PH STRATA - OFF LINE NOV 2- DEWATERING 0 CONN FLARE, 0 B/G FLARE 85' N & 31.5' W OF TARGET CENTER
	16:00 - 16:30	0.50	DRLPRO	07	A	P		SERVICE RIG

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: PROPETRO 11/11, PIONEER 54/54

Event: DRILLING

Start Date: 11/10/2011

End Date: 1/14/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	16:30 - 0:00	7.50	DRLPRO	02	B	P		DRLG F/ 8158' TO 8573', 415' @ 55.3' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 9.1, VIS 37, TRQ ON/OFF = 8/7 K PSI ON /OFF = 2600-2300, DIFF 250-500 PU/SO/RT = 179-172-175 SLIDE = ROT = 100% STRATA - ON LINE @ 8158' ANN PSI DRILLING 90 , CONN 180 NOV 2- CONVENTIONAL 10 CONN FLARE, 5 B/G FLARE 86 N & 28.5 W OF TARGET CENTER
1/8/2012	0:00 - 15:30	15.50	DRLPRO	02	B	P		DRLG F/ 8573' TO 9486', 913' @ 58.9' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 9.2, VIS 37, TRQ ON/OFF = 8/7 K PSI ON /OFF = 2600-2300, DIFF 250-500 PU/SO/RT = 195-175-185 SLIDE = 0 ROT = 100% STRATA - ON LINE @ 8158' ANN PSI DRILLING 90 , CONN 180 NOV 2- CONVENTIONAL 10 CONN FLARE, 5 B/G FLARE 72' N & 24.5' W OF TARGET CENTER
	15:30 - 16:00	0.50	DRLPRO	07	A	P		SERVICE RIG
	16:00 - 0:00	8.00	DRLPRO	02	B	P		DRLG F/ 9486' TO 9859', 373' @ 46.6' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 9.4, VIS 37, TRQ ON/OFF = 8/7 K PSI ON /OFF = 2600-2300, DIFF 250-500 PU/SO/RT = 199-175-185 SLIDE = 0 ROT = 100% STRATA - ON LINE @ 8158' ANN PSI DRILLING 90 , CONN 180 NOV 2- CONVENTIONAL 10 CONN FLARE, 5 B/G FLARE 57' N & 16.7 W OF TARGET CENTER

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: PROPETRO 11/11, PIONEER 54/54

Event: DRILLING

Start Date: 11/10/2011

End Date: 1/14/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2081/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
1/9/2012	0:00 - 17:00	17.00	DRLPRO	02	B	P		DRLG F/ 9859' TO 10,530', 671' @ 39.5' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 9.9, VIS 37, TRQ ON/OFF = 8/7 K PSI ON /OFF , DIFF 250-500 PU/SO/RT = 220-185-200 SLIDE = 0 ROT = 100% STRATA - ON LINE @ 8158' ANN PSI DRILLING 90 , CONN 180 NOV 2- CONVENTIONAL 10 CONN FLARE, 5 B/G FLARE 42' N & 8' W OF TARGET CENTER
	17:00 - 17:30	0.50	DRLPRO	07	A	P		SERVICE RIG
	17:30 - 0:00	6.50	DRLPRO	02	B	P		DRLG F/10,530 TO 10,700', 170' @ 26.1' PH WOB / 22-24, RPM 60 SPM 200- GPM 586 MW 9.9, VIS 37, TRQ ON/OFF = 8/7 K PSI ON /OFF , DIFF 250-500 PU/SO/RT = 220-185-200 SLIDE = 0 ROT = 100% STRATA - ON LINE @ 8158' ANN PSI DRILLING 110 , CONN 220 NOV 2- CONVENTIONAL 10 CONN FLARE, 5 B/G FLARE 31' N & 4' W OF TARGET CENTER
1/10/2012	0:00 - 4:00	4.00	DRLPRO	02	B	P		DRLG F/10,700' TO 10770', 70' @ 17.5' PH WOB / 24-25, RPM 60 SPM 200- GPM 586 MW 9.9, VIS 37, TRQ ON/OFF = 9/7 K PSI ON /OFF 3100-2800 , DIFF 250-500 PU/SO/RT = 220-185-200 SLIDE = 0 ROT = 100% STRATA - ON LINE @ 8158' ANN PSI DRILLING 110 , CONN 220 NOV 2- BYPASS 10 CONN FLARE, 5 B/G FLARE 31' N & 4' W OF TARGET CENTER
	4:00 - 5:00	1.00	DRLPRO	05	C	P		MIX & SPOT 12# PILL ON BOTTOM
	5:00 - 17:00	12.00	DRLPRO	06	A	P		TFNB, C/O BIT & MM TIH, WATER FLOW @ 10,000', MUD CUT TO WATER ABOUT 100 BBLs, SET TO RESERVE PIT, UNLOADED @ 20 YARDS OF CUTTINGS, W @ 40' FLARE
	17:00 - 17:30	0.50	DRLPRO	07	A	P		SERVICE RIG, AJUST BRAKES, BOP DRILL 94 SEC, F/T ANN & HCR
	17:30 - 18:00	0.50	DRLPRO	03	A	X		WASH & REAM TIGHT HOLE, 50' TO BOTTOM 5' FILL

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: PROPETRO 11/11, PIONEER 54/54

Event: DRILLING

Start Date: 11/10/2011

End Date: 1/14/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	18:00 - 0:00	6.00	DRLPRO	02	B	P		DRLG F/10770' TO 11,120', 350' @ 58.3' PH WOB / 18-20, RPM 60 SPM 200- GPM 586 MW 10.5, VIS 45, TRQ ON/OFF = 9/7 K PSI ON /OFF3100-2800 , DIFF 250-500 PU/SO/RT = 220-185-200 SLIDE = 0 ROT = 100% STRATA - ON LINE @ 8158' ANN PSI DRILLING 110 , CONN 220 NOV 2- BYPASS 10 CONN FLARE, 5 B/G FLARE 7' N & 7' E OF TARGET CENTER
1/11/2012	0:00 - 4:00	4.00	DRLPRO	02	B	P		DRLG F/11,120' TO 11420', 300' @ 75' PH WOB / 18-20, RPM 60 SPM 200- GPM 586 MW 10.8, VIS 45, TRQ ON/OFF = 9/7 K PSI ON /OFF3100-2800 , DIFF 250-500 PU/SO/RT = 225-210-190 SLIDE = 0 ROT = 100% STRATA - OFF LINE @ TD 11,420 ANN PSI DRILLING 110 , CONN 220 NOV 2- BYPASS 10 CONN FLARE, 5 B/G FLARE 7' N & 7' E OF TARGET CENTER
	4:00 - 6:30	2.50	DRLPRO	05	C	P		CIRC & COND HOLE F/ SHORT TRIP, RAISE MW TO 11
	6:30 - 13:30	7.00	DRLPRO	06	E			SHORT TRIP TO SHOE, WASH TIGHT HOLE @ 9000' GOING IN
	13:30 - 15:30	2.00	DRLPRO	05	C	P		CIRC & COND HOLE, RAISE MW TO 11.3, VIS 47
	15:30 - 21:00	5.50	DRLPRO	06	B	P		POOH F/ OPEN HOLE LOGS
	21:00 - 0:00	3.00	DRLPRO	11	C	P		HPJSM W RIG & LOGGING CREWS, R/U & RUN TO 4000' HIT BRIDGE, TRY TO WORK THOUGH NO LUCK, POOH & R/D
1/12/2012	0:00 - 1:30	1.50	DRLPRO	06	E	X		TIH TO SHOE
	1:30 - 2:00	0.50	DRLPRO	09	A	P		CUT DRLG LINE (19 WRAPS)
	2:00 - 3:30	1.50	DRLPRO	06	E	X		TIH TO 7287'
	3:30 - 4:30	1.00	DRLPRO	22	L	Z		STRATA RUBBER CAN OFF POOH WITH RUBBER ON TOOL JT, REPLACE ROT RUBBER
	4:30 - 6:30	2.00	DRLPRO	06	E	X		TIH, WASH 60' TO BOTTOM, 5' FILL
	6:30 - 8:30	2.00	DRLPRO	05	C	P		CIRC & RAISE MW TO 11.5, 15' FLARE ON BOTTOMS UP FOR 5 MIN ON BUSTER
	8:30 - 12:30	4.00	DRLPRO	06	E	P		POOH, TIGHT SPOT @ 5300' WIPED CLEAN,
	12:30 - 18:00	5.50	DRLPRO	11	C	P		HPJSM W/ RIG & LOGGERS, R/U & RUN TRIPLE COMBO F/ 11,420', R/D
	18:00 - 22:30	4.50	DRLPRO	06	E	P		TIH TO LDDDS
	22:30 - 0:00	1.50	DRLPRO	05	C	P		CIRC FOR LDDP
1/13/2012	0:00 - 0:30	0.50	DRLPRO	05	C	P		CIRC TO LDDDS
	0:30 - 7:30	7.00	DRLPRO	06	A	P		HPJSM W/ RIG & L/D CREW, R/U & LDDDS/ KIMZEY
	7:30 - 8:00	0.50	DRLPRO	14	B	P		PULL WEAR BUSHING

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: PROPETRO 11/11, PIONEER 54/54

Event: DRILLING

Start Date: 11/10/2011

End Date: 1/14/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	8:00 - 14:00	6.00	DRLPRO	12	C	P		HPJSM W/ RIG & CASING CREWS, R/U & RUN 6,399.57' 4.5" P-110 + 2 MARKERS, B/H @ 10,810, MASA @ 8,161', 5,007.8' DQX 4.5" P-110 W/ X/O, SHOE @ 11,406.67', FLOAT @ 11,362.78', WASH DOWN LAST 2 JTS AS PER PROGRAM
	14:00 - 14:30	0.50	DRLPRO	22	L	Z		REPAIR CASING TONGS
	14:30 - 19:00	4.50	DRLPRO	12	C	P		FINISH RUNNING PROD CASING
	19:00 - 21:00	2.00	DRLPRO	05	D	P		CIRC & COND HOLE, CIRC OUT GAS & CLEAN HOLE TO CEMENT
	21:00 - 0:00	3.00	DRLPRO	12	E	P		HPJSM W/ RIG & CEMENTING CREWS, PSI TEST LINES TO 5000 PSI, PUMP 25 BBLS WATER SPACER, LEAD 512 SKS 12 PPG 2.26 YLD, TAIL 1750 SKS 14.3 PPG 1.31 YLD, DROP PLUG & DISPLACE W/ 176 BBLS CLAYCARE WATER, LOST RETURNS 130 BBLS AWAY, SLOWED RATE NEVER DID GET RETURNS BACK, USED BOTH TOP & BOTTOM PLUG, BUMPED PLUG W/ 4100 PSI 600 PSI OVER FINAL LIFT OF 3500 PSI, FLOATS HELD W/ 2 BBLS BACK TO TRUCK
1/14/2012	0:00 - 0:30	0.50	DRLPRO	14	B	P		EST TOP OF TAIL 4200', PLUG BACK TO 11,362'
	0:30 - 6:00	5.50	DRLPRO	14	A	P		SET C-22 CASING SLIPS W/ 120K N/D STRATA & BOP, MAKE ROUGH CUT, N/D CLEAN PITS & RELEASE RIG TO THE NBU 921-19N

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-19E	Wellbore No.	OH
Well Name	NBU 921-19E	Wellbore Name	NBU 921-19E
Report No.	1	Report Date	1/31/2012
Project	UTAH-UINTAH	Site	NBU 921-19E
Rig Name/No.	GWS 1/1	Event	COMPLETION
Start Date	1/31/2012	End Date	2/6/2012
Spud Date	11/27/2011	Active Datum	RKB @4,828.00usft (above Mean Sea Level)
UWI	SW/NW/0/9/S/21/E/19/0/0/26/PM/N2061/W/0/842/0/0		

1.3 General

Contractor	SUPERIOR WELL	Job Method	PERFORATE	Supervisor	ED GUDAC
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

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

1.5 Summary

Gross Interval	8,306.0 (usft)-11,271.0 (us)	Start Date/Time	1/23/2012 12:00AM
No. of Intervals	50	End Date/Time	1/23/2012 12:00AM
Total Shots	207	Net Perforation Interval	64.00 (usft)
Avg Shot Density	3.23 (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
1/23/2012 12:00AM	MESA VERDE/			8,306.0	8,307.0	3.00		0.360	EXP/	3.375	90.00		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
1/23/2012 12:00AM	MESA VERDE/			8,326.0	8,327.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,370.0	8,372.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,389.0	8,390.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,411.0	8,412.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,465.0	8,466.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,488.0	8,489.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,540.0	8,541.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,690.0	8,692.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,784.0	8,786.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,810.0	8,812.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,858.0	8,859.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,892.0	8,893.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,903.0	8,904.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,940.0	8,941.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,960.0	8,961.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			8,990.0	8,991.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,042.0	9,043.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,444.0	9,445.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,478.0	9,479.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,520.0	9,521.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,539.0	9,540.0	4.00		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
1/23/2012 12:00AM	MESA VERDE/			11,051.0	11,053.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			11,074.0	11,075.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			11,159.0	11,160.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			11,170.0	11,171.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			11,184.0	11,186.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			11,194.0	11,196.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			11,270.0	11,271.0	4.00		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 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: GWS 1/1

Event: COMPLETION

Start Date: 1/31/2012

End Date: 2/6/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
1/19/2012	-							
1/31/2012	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, RIG MOVE, PU TBG
	7:15 - 17:00	9.75	COMP	31	I	P		ROAD RIG FROM NBU 921-18P, MIRU, SPOT EQUIP, (NOTE CSG PRESS 400 PSI BLED DOWN) ND WH, NU BOP, RU FLOOR & TBG EQUIP, RU HTR & HOSES & TARPS, SPOT TBG TRAILER INSTAL HAND RAILS ON TRAILER, P/U TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT 277 JTS L-80 TBG, SW, SDFN.
2/1/2012	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, TRIPPING, PRESS TESTING
	7:15 - 13:00	5.75	COMP	31	I	P		CSG PRESS 200 PSI, FINISH PU TBG, POOH, ND BOP, NU FRAC VALVE.
	13:00 -		COMP	33	C	P		MIRU B & C QUICK TEST, PRESS TEST 4 1/2" CSG & FRAC VALVE'S, SURFACE CSG VALVE OPEN & LOCKED. FILL SURFACE CSG & 4 1/2" CSG. PRESS TEST CSG & FRAC VALVE'S TO 1,000 PSI. HELD FOR 15 MIN LOST 25 PSI. PRESS TEST CSG & FRAC VALVE'S TO 3,500 PSI. HELD FOR 15 MIN LOST 38 PSI. PRESS TEST CSG & FRAC VALVE'S TO 9,000 PSI. HELD FOR 30 MIN LOST 63 PSI. NO COMMUNICATION WITH SURFACE CSG, RDMO B & C QUICK TEST. MIRU JW WIRELINE, PERF STG 1) PU 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE, 90 & 120 DEG PHASING, RIH PERF AS PER DESIGN, POOH, PREP TO FRAC IN AM, DRAIN & WINTERIZE EQUIP, SW, SDFN.
2/2/2012	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, WIRELINE, PRESS

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-19E		Spud Date: 11/27/2011	
Project: UTAH-UINTAH		Site: NBU 921-19E	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 1/31/2012	End Date: 2/6/2012
Active Datum: RKB @4,828.00usft (above Mean Sea Level)		UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 19:30	12.25	COMP	36	E	P		<p>MIRU HALLIBURTON, PRIME UP PUMPS & PRESS TEST LINES TO 9,500 PSI, LOST 250 PSI, NO VISIBLE LEAKS, MANUAL POPOFF SET @ 9,000 PSI.</p> <p>FRAC STG 1) WHP 540 PSI, BRK 4,266 PSI @ 4.8 BPM, ISIP 3,742 PSI, FG .77. CALC PERFS OPEN INJ RATE 49.2 BPM @ 7,885 PSI = 15/24 HOLES OPEN 63%. ISIP 4,012 PSI, FG .79, NPI 270 PSI. MP 7,960 PSI, MR 54.3 BPM, AP 6,569 PSI, AR 50.6 BPM, PUMPED 30/50 LTC SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 2) PU 4 1/2" 10K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 120 DEG PHASING, RIH SET 10K CBP @ 11,105' P/U PERF AS PER DESIGN, POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 2) WHP 3,062 PSI, BRK 5,182 PSI @ 4.8 BPM, ISIP 4,252 PSI, FG .82. CALC PERFS OPEN INJ RATE 57.1 BPM @ 7,350 PSI = 24/24 HOLES OPEN 100%. ISIP 3,827 PSI, FG .76, NPI -625 PSI. MP 7,935 PSI, MR 58.1 BPM, AP 7,252 PSI, AR 57 BPM, PUMPED 30/50 LTC SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 3) PU 4 1/2" 10K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 120 DEG PHASING, RIH SET 10K CBP @ 10,935' MISS RUN PLUG DIDN'T SET, POOH @ 100' PER MIN, LINE WAS HIGH STRANDED HAD TO REHEAD, P/U NEW SETTING TOOL & RIH TO SET 10K CBP @ 10,925', STACKED OUT @ 10,829', POOH, WILL BLOW WELL IN AM TO SEE IF WE CAN UNLOAD SAND & REFLUSH STAGE 2, SWI, DRAIN & WINTERIZE EQUIP, SDFN. HSM, SLIPS, TRIPS & FALLS, PERF & FRAC</p>
2/3/2012	6:00 - 6:15	0.25	COMP	48		P		

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-19E		Spud Date: 11/27/2011	
Project: UTAH-UINTAH		Site: NBU 921-19E	Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 1/31/2012	End Date: 2/6/2012
Active Datum: RKB @4,828.00usft (above Mean Sea Level)		UWI: SW/NW0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:15 - 20:00	13.75	COMP	36	E	P		<p>WHP 2,800 PSI, OPEN WELL TO FB TANK FLOWED BACK 250 BBLS, REFLUSH WELL, ISIP 3,529 PSI, FG .75.</p> <p>MP 7,143 PSI, MR 38.9 BPM, AP 5,338 PSI, AR 26.5 BPM, X-OVER FOR WL.</p> <p>PERF STG 3) PU 4 1/2" 10K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 120 DEG PHASING, RIH SET 10K CBP @ 10,925' P/U PERF AS PER DESIGN, POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 3) WHP 2,698 PSI, BRK 5,515 PSI @ 10 BPM, ISIP 3,780 PSI, FG .78. CALC PERFS OPEN INJ RATE 59 BPM @ 7,417 PSI = 22/24 HOLES OPEN 91%. ISIP 3,735 PSI, FG .78, NPI -45 PSI. MP 7,517 PSI, MR 62.7 BPM, AP 7,207 PSI, AR 59.8 BPM, PUMPED 30/50 LTC SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 4) PU 4 1/2" 8K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 120 DEG PHASING, RIH SET 8K CBP @ 10,187' P/U PERF AS PER DESIGN, POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 4) WHP 1,955 PSI, BRK 4,136 PSI @ 10 BPM, ISIP 3,224 PSI, FG .75. CALC PERFS OPEN INJ RATE 58.8 BPM @ 7,594 PSI = 18/21 HOLES OPEN 86%. ISIP 3,286 PSI, FG .76, NPI 62 PSI. MP 7,790 PSI, MR 58.8 BPM, AP 7,149 PSI, AR 51.7 BPM, PUMPED 30/50 OTTAWA SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 5) PU 4 1/2" 8K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 90 DEG PHASING, RIH SET 8K CBP @ 9,881' P/U PERF AS PER DESIGN, POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 5) WHP 2,730 PSI, BRK 5,025 PSI @ 9.9 BPM, ISIP 3,213 PSI, FG .76. CALC PERFS OPEN INJ RATE 57.2 BPM @ 5,970 PSI = 24/24 HOLES OPEN 100%. ISIP 3,295 PSI, FG .77, NPI 62 PSI. MP 6,691 PSI, MR 63.9 BPM, AP 6,342 PSI, AR 59.9 BPM, PUMPED 30/50 OTTAWA SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 6) PU 4 1/2" 8K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 90 DEG PHASING, RIH SET 8K CBP @ 9,645' P/U PERF AS PER DESIGN, POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 6) WHP 2,295 PSI, BRK 4,437 PSI @ 9.7</p>

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UJINTAH

Site: NBU 921-19E

Rig Name No: GWS 1/1

Event: COMPLETION

Start Date: 1/31/2012

End Date: 2/6/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
2/6/2012	6:00 - 6:15	0.25	COMP	48		P		<p>BPM, ISIP 3,004 PSI, FG .75. CALC PERFS OPEN INJ RATE 58.1 BPM @ 6,350 PSI = 22/24 HOLES OPEN 92%. ISIP 2,831 PSI, FG .73, NPI -173 PSI. MP 7,095 PSI, MR 60.1 BPM, AP 6,232 PSI, AR 59.1 BPM, PUMPED 30/50 OTTAWA SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 7) PU 4 1/2" 8K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 120 DEG PHASING, RIH SET 8K CBP @ 9,073' P/U PERF AS PER DESIGN, POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 7) WHP 1,508 PSI, BRK 4,633 PSI @ 9.7 BPM, ISIP 2,839 PSI, FG .75. CALC PERFS OPEN INJ RATE 60 BPM @ 6,530 PSI = 21/21 HOLES OPEN 100%. ISIP 2,977 PSI, FG .77, NPI 138 PSI. MP 7,201 PSI, MR 63.9 BPM, AP 6,190 PSI, AR 59.1 BPM, PUMPED 30/50 OTTAWA SAND. SWI, X-OVER FOR WL.</p> <p>PERF STG 8) PU 4 1/2" 8K HAL CBP & 3 1/8 EXP GUN, 23 GRM, .36 HOLE SIZE. 120 DEG PHASING, RIH SET 8K CBP @ 8,842' P/U PERF AS PER DESIGN, POOH, X-OVER FOR FRAC CREW.</p> <p>FRAC STG 8) WHP 2,235 PSI, BRK 5,220 PSI @ 9.8 BPM, ISIP 2,883 PSI, FG .77. CALC PERFS OPEN INJ RATE 54.3 BPM @ 6,777 PSI = 18/21 HOLES OPEN 80%. ISIP 2,985 PSI, FG .78, NPI 102 PSI. MP 7,254 PSI, MR 54.7 BPM, AP 5,913 PSI, AR 54.4 BPM, PUMPED 30/50 OTTAWA SAND. SWI, X-OVER FOR WL.</p> <p>NOTE: DID NOT PERF OR FRAC STAGE #9</p> <p>PU 4 1/2" 8K HAL CBP, RIH & SET TOP KILL @ 8,500', POOH, RDMO HALLIBURTON & JW WIRELINE.</p> <p>TOTAL SAND = 388,900 LBS TOTAL CLFL = 18,124 BBLS BIOCIDE = 376 GALLONS SCALE = 908 GALLONS</p> <p>DRAIN & WINTERIZE EQUIP, SWI, SDFWE. HSM, SLIPS, TRIPS & FALLS, TRIPPING, D/O PLUGS</p>

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 921-19E Spud Date: 11/27/2011
 Project: UTAH-UJINTAH Site: NBU 921-19E Rig Name No: GWS 1/1
 Event: COMPLETION Start Date: 1/31/2012 End Date: 2/6/2012
 Active Datum: RKB @4,828.00usft (above Mean Sea Level) UWI: SW/NW/0/9/S/21/E/19/0/0/26/PM/N/2061/W/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	6:15 - 18:00	11.75	COMP	44	C	P		<p>ND FRAC VALVE, NU BOP, RU FLOOR & TBG EQUIP, PU 3 7/8" BIT, POBS, 1.875" XN S/N, RIH W/ TBG TO KILL PLUG, RU P/S, FILL TBG BREAK CIRC, P/T BOP TO 4,500 PSI FOR 15 MIN, LOST 0 PSI, D/O PLUGS, SURFACE CSG VALVE OPEN & LOCKED.</p> <p>C/O 15' SAND, TAG 1ST PLUG @ 8,504' DRL PLUG IN 9 MIN. 1,000 PSI INCREASE RIH, CSG PRESS 200 PSI.</p> <p>C/O 15' SAND, TAG 2ND PLUG @ 8,842' DRL PLUG IN 10 MIN. 1,500 PSI INCREASE RIH, CSG PRESS 500 PSI.</p> <p>C/O 25' SAND, TAG 3RD PLUG @ 9,073' DRL PLUG IN 12 MIN. 500 PSI INCREASE RIH, CSG PRESS 700 PSI.</p> <p>C/O 15' SAND, TAG 4TH PLUG @ 9,645' DRL PLUG IN 11 MIN. 600 PSI INCREASE RIH, CSG PRESS 800 PSI.</p> <p>C/O 10' SAND, TAG 5TH PLUG @ 9,881' DRL PLUG IN 10 MIN. 800 PSI INCREASE RIH, CSG PRESS 1,000 PSI.</p> <p>C/O 25' SAND, TAG 6TH PLUG @ 10,187' DRL PLUG IN 11 MIN. 600 PSI INCREASE RIH, CSG PRESS 1,300 PSI.</p> <p>C/O 15' SAND, TAG 7TH PLUG @ 10,925' DRL PLUG IN 10 MIN. 1,200 PSI INCREASE RIH, CSG PRESS 600 PSI.</p> <p>C/O 35' SAND, TAG 8TH PLUG @ 11,091' DRL PLUG IN 9 MIN. 300 PSI INCREASE RIH, CSG PRESS 700 PSI.</p> <p>PBTD @ 11,361', BTM PERF @ 11,271', RIH TAGGED @ 11,290', C/O TO 11,361', 90' PAST BTM PERF W/ 357 JTS 2 3/8" L-80 TBG, LD 13 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 344 JTS 2 3/8" L-80, EOT 10,931.10'.</p> <p>RD POWER SWVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 3,800 PSI, LET BIT FALL FOR 20 MIN. MIRU B&C QUICK TEST, P/T FLOW LINE FROM WH TO HAL 9000 TO 4,500 PSI, LOST 180 PSI IN 15 MIN, NO VISIBLE LEAKS.</p> <p>TURN OVER TO FLOW BACK CREW. WILL RD & MOVE TO NBU 921-19M IN AM, SDFN.</p> <p>KB= 19' 4 1/16" WEATHERFORD HANGER= .83' TBG</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-19E

Spud Date: 11/27/2011

Project: UTAH-UINTAH

Site: NBU 921-19E

Rig Name No: GWS 1/1

Event: COMPLETION

Start Date: 1/31/2012

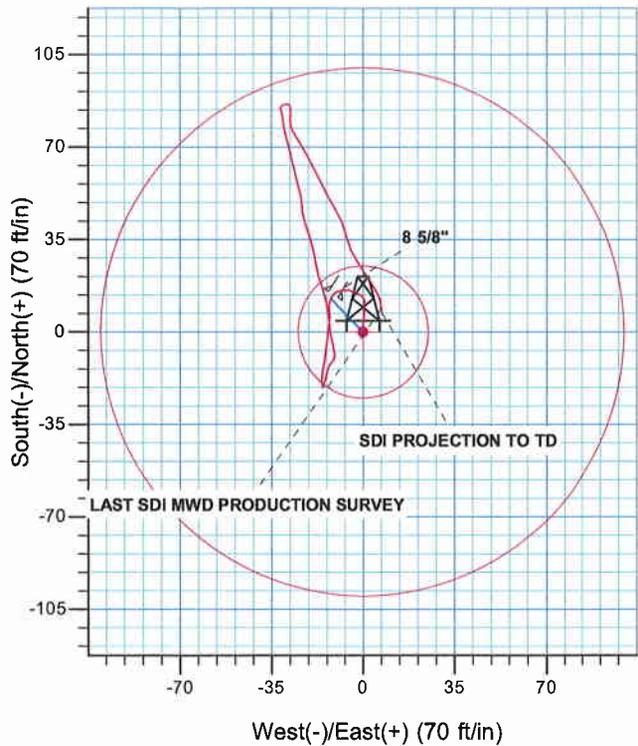
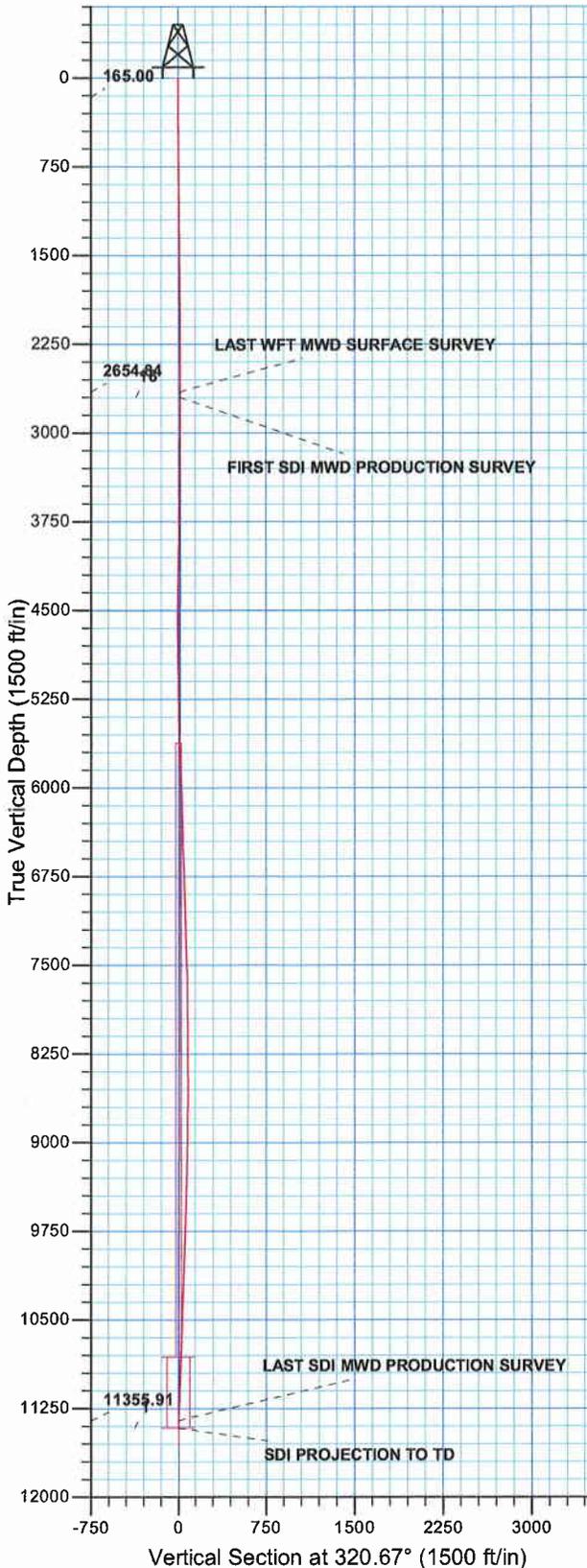
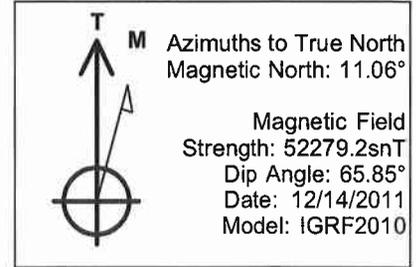
End Date: 2/6/2012

Active Datum: RKB @4,828.00usft (above Mean Sea Level)

UWI: SW/NW0/9/S/21/E/19/0/0/26/PM/N/2061/NW/0/842/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								DELIVERED 367 JTS 344 JTS 2 3/8" L-80 = 10,909.07' TBG USED 344 JTS POBS= 2.20' TBG RETURNED 23 JTS EOT @ 10,931.10' TWTR= 18,124 BBLS TWR= 2,000 BBLS TWLTR= 16,124 BBLS

WELL DETAILS: NBU 921-19E					
GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	14537551.87	2031889.64	40.023165	-109.601725



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 19 T9S R21E
System Datum: Mean Sea Level



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

NBU 921-19E PAD

NBU 921-19E

OH

Design: OH

Standard Survey Report

28 February, 2012

Anadarko 
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

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 921-19E PAD, SECTION 19 T9S R21E				
Site Position:		Northing:	14,537,551.87 usft	Latitude:	40.023165
From:	Lat/Long	Easting:	2,031,889.64 usft	Longitude:	-109.601725
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.90 °

Well	NBU 921-19E, 2061 FNL 842 FWL					
Well Position	+N-S	0.00 ft	Northing:	14,537,551.87 usft	Latitude:	40.023165
	+E-W	0.00 ft	Easting:	2,031,889.64 usft	Longitude:	-109.601725
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,809.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	12/14/11	(°)	(°)	(nT)
			11.06	65.85	52,279

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	320.67	

Survey Program	Date	02/28/12			
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
15.00	2,655.00	Survey #1 WFT MWD SURVEY (OH)	MWD	MWD - Standard	
2,699.00	11,420.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Survey										
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(ft)	(ft)	Section	Rate	Rate	Rate	
(ft)			(ft)			(ft)	(°/100ft)	(°/100ft)	(°/100ft)	
0.00	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	0.00
165.00	0.30	6.12	165.00	0.39	0.04	0.28	0.20	0.20	0.00	
FIRST WFT MWD SURFACE SURVEY										
273.00	0.76	347.95	272.99	1.37	-0.08	1.11	0.45	0.43	-16.82	
355.00	0.84	8.53	354.99	2.50	-0.10	2.00	0.36	0.10	25.10	
655.00	1.06	3.23	654.95	7.44	0.38	5.52	0.08	0.07	-1.77	
955.00	0.19	344.23	954.92	10.69	0.40	8.02	0.29	-0.29	-6.33	
1,255.00	0.25	33.10	1,254.92	11.72	0.62	8.67	0.06	0.02	16.29	
1,555.00	0.50	309.23	1,554.92	13.10	-0.03	10.15	0.18	0.08	-27.96	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

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)	
1,705.00	0.44	312.23	1,704.91	13.90	-0.97	11.36	0.04	-0.04	2.00	
2,155.00	0.75	285.73	2,154.89	15.86	-5.08	15.49	0.09	0.07	-5.89	
2,455.00	0.88	250.60	2,454.86	15.62	-9.14	17.88	0.17	0.04	-11.71	
2,555.00	0.94	241.10	2,554.85	14.97	-10.59	18.29	0.16	0.06	-9.50	
2,655.00	0.60	211.25	2,654.84	14.13	-11.58	18.26	0.52	-0.34	-29.85	
LAST WFT MWD SURFACE SURVEY										
2,699.00	0.79	210.92	2,698.84	13.67	-11.85	18.09	0.43	0.43	-0.75	
FIRST SDI MWD PRODUCTION SURVEY										
2,794.00	0.70	203.89	2,793.83	12.58	-12.42	17.60	0.13	-0.09	-7.40	
2,889.00	0.62	190.00	2,888.82	11.54	-12.75	17.01	0.19	-0.08	-14.62	
2,983.00	0.62	188.15	2,982.82	10.54	-12.91	16.33	0.02	0.00	-1.97	
3,078.00	0.84	183.16	3,077.81	9.33	-13.02	15.47	0.24	0.23	-5.25	
3,173.00	0.67	178.79	3,172.80	8.08	-13.04	14.52	0.19	-0.18	-4.60	
3,268.00	0.70	176.46	3,267.79	6.95	-13.00	13.61	0.04	0.03	-2.45	
3,363.00	0.76	176.46	3,362.79	5.74	-12.92	12.63	0.06	0.06	0.00	
3,457.00	0.88	191.32	3,456.78	4.41	-13.03	11.67	0.26	0.13	15.81	
3,552.00	1.03	184.97	3,551.76	2.84	-13.24	10.59	0.19	0.16	-6.68	
3,647.00	0.97	184.55	3,646.75	1.19	-13.38	9.40	0.06	-0.06	-0.44	
3,741.00	1.14	180.86	3,740.73	-0.54	-13.46	8.11	0.19	0.18	-3.93	
3,836.00	1.41	192.99	3,835.71	-2.62	-13.73	6.68	0.40	0.28	12.77	
3,931.00	1.67	187.71	3,930.67	-5.13	-14.18	5.02	0.31	0.27	-5.56	
4,025.00	1.76	187.63	4,024.63	-7.92	-14.56	3.10	0.10	0.10	-0.09	
4,120.00	2.02	188.59	4,119.58	-11.02	-15.00	0.98	0.28	0.27	1.01	
4,215.00	2.81	192.90	4,214.50	-14.95	-15.77	-1.57	0.85	0.83	4.54	
4,310.00	1.93	173.04	4,309.41	-18.80	-16.10	-4.34	1.25	-0.93	-20.91	
4,405.00	0.79	153.26	4,404.39	-20.98	-15.61	-6.33	1.28	-1.20	-20.82	
4,499.00	0.35	356.99	4,498.38	-21.27	-15.33	-6.73	1.19	-0.47	-166.24	
4,594.00	0.44	343.89	4,593.38	-20.63	-15.45	-6.17	0.13	0.09	-13.79	
4,689.00	1.06	20.72	4,688.37	-19.46	-15.24	-5.39	0.80	0.65	38.77	
4,783.00	1.58	16.24	4,782.35	-17.40	-14.57	-4.22	0.56	0.55	-4.77	
4,878.00	1.32	12.37	4,877.32	-15.07	-13.97	-2.81	0.29	-0.27	-4.07	
4,973.00	1.07	26.37	4,972.30	-13.21	-13.34	-1.76	0.40	-0.26	14.74	
5,068.00	1.06	42.78	5,067.28	-11.77	-12.35	-1.28	0.32	-0.01	17.27	
5,163.00	0.79	40.58	5,162.27	-10.63	-11.33	-1.04	0.29	-0.28	-2.32	
5,257.00	1.19	357.66	5,256.26	-9.16	-10.95	-0.15	0.87	0.43	-45.66	
5,353.00	1.95	344.54	5,352.22	-6.59	-11.42	2.14	0.87	0.79	-13.67	
5,448.00	2.73	351.89	5,447.14	-2.79	-12.17	5.55	0.88	0.82	7.74	
5,542.00	1.93	349.70	5,541.06	0.98	-12.77	8.85	0.86	-0.85	-2.33	
5,638.00	2.90	354.24	5,636.98	4.99	-13.30	12.29	1.03	1.01	4.73	
5,733.00	2.73	348.20	5,731.86	9.59	-14.01	16.30	0.36	-0.18	-6.36	
5,828.00	2.40	346.62	5,826.77	13.74	-14.93	20.09	0.36	-0.35	-1.66	
5,922.00	1.78	335.62	5,920.70	16.99	-15.99	23.27	0.78	-0.66	-11.70	
6,017.00	2.64	348.03	6,015.63	20.47	-17.05	26.64	1.03	0.91	13.06	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

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)	
6,112.00	2.55	348.99	6,110.53	24.69	-17.91	30.45	0.11	-0.09	1.01	
6,207.00	2.29	347.59	6,205.45	28.62	-18.72	34.00	0.28	-0.27	-1.47	
6,301.00	2.29	346.44	6,299.37	32.28	-19.56	37.37	0.05	0.00	-1.22	
6,396.00	2.02	343.63	6,394.31	35.73	-20.48	40.82	0.31	-0.28	-2.96	
6,491.00	1.58	339.76	6,489.26	38.56	-21.41	43.40	0.48	-0.46	-4.07	
6,586.00	2.37	341.87	6,584.20	41.66	-22.47	46.46	0.83	0.83	2.22	
6,682.00	2.11	349.87	6,680.13	45.28	-23.40	49.86	0.42	-0.27	8.33	
6,776.00	1.49	0.42	6,774.08	48.21	-23.69	52.31	0.75	-0.66	11.22	
6,871.00	2.20	353.56	6,869.03	51.26	-23.89	54.79	0.78	0.75	-7.22	
6,966.00	2.03	341.41	6,963.97	54.66	-24.63	57.89	0.50	-0.18	-12.79	
7,061.00	2.20	345.65	7,058.90	58.03	-25.62	61.12	0.24	0.18	4.46	
7,156.00	2.73	347.76	7,153.82	62.00	-26.55	64.79	0.57	0.56	2.22	
7,251.00	2.49	346.39	7,248.72	66.22	-27.52	68.66	0.26	-0.25	-1.44	
7,346.00	2.20	341.70	7,343.64	69.96	-28.57	72.22	0.37	-0.31	-4.94	
7,440.00	2.11	348.55	7,437.57	73.37	-29.48	75.44	0.29	-0.10	7.29	
7,535.00	1.85	347.50	7,532.52	76.58	-30.16	78.35	0.28	-0.27	-1.11	
7,630.00	1.67	352.95	7,627.47	79.45	-30.66	80.89	0.26	-0.19	5.74	
7,725.00	1.41	350.22	7,722.44	81.97	-31.03	83.08	0.28	-0.27	-2.87	
7,819.00	0.53	344.33	7,816.42	83.53	-31.35	84.48	0.94	-0.94	-6.27	
7,914.00	0.26	347.94	7,911.42	84.17	-31.51	85.07	0.29	-0.28	3.80	
8,008.00	0.26	335.63	8,005.42	84.57	-31.64	85.47	0.06	0.00	-13.10	
8,103.00	0.18	22.92	8,100.42	84.90	-31.67	85.75	0.20	-0.08	49.78	
8,199.00	0.44	58.25	8,196.42	85.23	-31.30	85.77	0.32	0.27	36.80	
8,294.00	0.31	32.59	8,291.41	85.64	-30.85	85.80	0.22	-0.14	-27.01	
8,388.00	0.51	78.61	8,385.41	85.94	-30.31	85.88	0.39	0.21	48.96	
8,483.00	0.35	72.14	8,480.41	86.11	-29.62	85.38	0.18	-0.17	-6.81	
8,578.00	0.35	90.81	8,575.41	86.20	-29.05	85.09	0.12	0.00	19.65	
8,673.00	0.53	130.50	8,670.40	85.91	-28.42	84.47	0.36	0.19	41.78	
8,767.00	0.65	176.56	8,764.40	85.09	-28.06	83.61	0.50	0.13	49.00	
8,862.00	0.88	164.77	8,859.39	83.85	-27.84	82.50	0.29	0.24	-12.41	
8,957.00	0.97	187.71	8,954.38	82.35	-27.75	81.29	0.40	0.09	24.15	
9,052.00	1.23	184.14	9,049.36	80.54	-27.94	80.00	0.28	0.27	-3.76	
9,147.00	1.41	168.64	9,144.34	78.37	-27.78	78.23	0.42	0.19	-16.32	
9,242.00	1.41	159.32	9,239.31	76.13	-27.14	76.09	0.24	0.00	-9.81	
9,336.00	1.49	142.10	9,333.28	74.09	-25.98	73.77	0.47	0.09	-18.32	
9,431.00	1.67	147.99	9,428.24	71.94	-24.48	71.17	0.25	0.19	6.20	
9,526.00	2.02	151.24	9,523.19	69.30	-22.95	68.15	0.38	0.37	3.42	
9,621.00	1.93	150.80	9,618.14	66.43	-21.36	64.93	0.10	-0.09	-0.46	
9,716.00	2.11	153.35	9,713.08	63.47	-19.79	61.64	0.21	0.19	2.68	
9,811.00	2.11	153.88	9,808.01	60.34	-18.24	58.24	0.02	0.00	0.56	
9,906.00	2.15	153.39	9,902.96	57.18	-16.67	54.79	0.05	0.04	-0.52	
10,001.00	2.29	153.08	9,997.88	53.89	-15.01	51.20	0.15	0.15	-0.33	
10,096.00	2.11	148.25	10,092.81	50.71	-13.23	47.62	0.27	-0.19	-5.08	
10,191.00	1.93	151.06	10,187.75	47.83	-11.54	44.31	0.22	-0.19	2.96	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

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)	
10,285.00	1.76	144.56	10,281.70	45.26	-9.94	41.31	0.29	-0.18	-6.91	
10,380.00	2.34	160.52	10,376.64	42.25	-8.44	38.03	0.85	0.61	16.80	
10,475.00	2.55	163.19	10,471.55	38.40	-7.19	34.26	0.25	0.22	2.81	
10,570.00	2.46	162.22	10,566.46	34.43	-5.95	30.41	0.10	-0.09	-1.02	
10,665.00	1.93	154.75	10,661.39	31.04	-4.65	26.96	0.63	-0.56	-7.86	
10,759.00	2.20	148.60	10,755.33	28.07	-3.03	23.64	0.37	0.29	-6.54	
10,854.00	2.37	147.99	10,850.25	24.85	-1.04	19.88	0.18	0.18	-0.64	
10,949.00	2.37	145.44	10,945.17	21.57	1.11	15.98	0.11	0.00	-2.68	
11,048.00	2.46	145.53	11,044.09	18.13	3.48	11.82	0.09	0.09	0.09	
11,143.00	1.93	152.29	11,139.02	15.03	5.38	8.22	0.62	-0.56	7.12	
11,238.00	1.76	166.36	11,233.97	12.20	6.46	5.34	0.51	-0.18	14.81	
11,333.00	1.67	172.86	11,328.92	9.41	6.98	2.85	0.23	-0.09	6.84	
11,360.00	1.41	173.83	11,355.91	8.69	7.06	2.24	0.97	-0.96	3.59	
LAST SDI MWD PRODUCTION SURVEY										
11,420.00	1.41	173.83	11,415.90	7.22	7.22	1.01	0.00	0.00	0.00	
SDI PROJECTION TO TD										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
165.00	165.00	0.39	0.04	FIRST WFT MWD SURFACE SURVEY	
2,655.00	2,654.84	14.13	-11.58	LAST WFT MWD SURFACE SURVEY	
2,699.00	2,698.84	13.67	-11.85	FIRST SDI MWD PRODUCTION SURVEY	
11,360.00	11,355.91	8.69	7.06	LAST SDI MWD PRODUCTION SURVEY	
11,420.00	11,415.90	7.22	7.22	SDI PROJECTION TO TD	

Checked By: _____ Approved By: _____ Date: _____



Scientific Drilling
Rocky Mountain Operations

US ROCKIES REGION PLANNING

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

NBU 921-19E PAD

NBU 921-19E

OH

Design: OH

Survey Report - Geographic

28 February, 2012

Anadarko 
Petroleum Corporation

Company:	US ROCKIES REGION PLANNING	Local Co-ordinates Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

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 921-19E PAD, SECTION 19 T9S R21E				
Site Position:		Northing:	14,537,551.87 usft	Latitude:	40.023165
From:	Lat/Long	Easting:	2,031,889.64 usft	Longitude:	-109.601725
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.90 °

Well	NBU 921-19E, 2061 FNL 842 FWL					
Well Position	+N/-S	0.00 ft	Northing:	14,537,551.87 usft	Latitude:	40.023165
	+E/-W	0.00 ft	Easting:	2,031,889.64 usft	Longitude:	-109.601725
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,809.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/14/11	11.06	65.85	52,279

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	320.67	

Survey Program	Date	02/28/12			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
15.00	2,655.00	Survey #1 WFT MWD SURVEY (OH)	MWD	MWD - Standard	
2,699.00	11,420.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

Survey										
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	14,537,551.87	2,031,889.64	40.023165	-109.601725	
15.00	0.00	0.00	15.00	0.00	0.00	14,537,551.87	2,031,889.64	40.023165	-109.601725	
165.00	0.30	6.12	165.00	0.39	0.04	14,537,552.26	2,031,889.67	40.023166	-109.601725	
FIRST WFT MWD SURFACE SURVEY										
273.00	0.76	347.95	272.99	1.37	-0.08	14,537,553.24	2,031,889.54	40.023169	-109.601726	
355.00	0.84	8.53	354.99	2.50	-0.10	14,537,554.37	2,031,889.50	40.023172	-109.601726	
655.00	1.06	3.23	654.95	7.44	0.38	14,537,559.32	2,031,889.90	40.023186	-109.601724	
955.00	0.19	344.23	954.92	10.69	0.40	14,537,562.57	2,031,889.87	40.023194	-109.601724	
1,255.00	0.25	33.10	1,254.92	11.72	0.62	14,537,563.60	2,031,890.08	40.023197	-109.601723	
1,555.00	0.50	309.23	1,554.92	13.10	-0.03	14,537,564.97	2,031,889.40	40.023201	-109.601725	
1,705.00	0.44	312.23	1,704.91	13.90	-0.97	14,537,565.75	2,031,888.45	40.023203	-109.601729	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
2,155.00	0.75	285.73	2,154.89	15.86	-5.08	14,537,567.65	2,031,884.31	40.023209	-109.601743	
2,455.00	0.88	250.60	2,454.86	15.62	-9.14	14,537,567.35	2,031,880.25	40.023208	-109.601758	
2,555.00	0.94	241.10	2,554.85	14.97	-10.59	14,537,566.68	2,031,878.82	40.023206	-109.601763	
2,655.00	0.60	211.25	2,654.84	14.13	-11.58	14,537,565.82	2,031,877.84	40.023204	-109.601767	
LAST WFT MWD SURFACE SURVEY										
2,699.00	0.79	210.92	2,698.84	13.67	-11.85	14,537,565.36	2,031,877.57	40.023203	-109.601768	
FIRST SDI MWD PRODUCTION SURVEY										
2,794.00	0.70	203.89	2,793.83	12.58	-12.42	14,537,564.26	2,031,877.02	40.023200	-109.601770	
2,889.00	0.62	190.00	2,888.82	11.54	-12.75	14,537,563.21	2,031,876.71	40.023197	-109.601771	
2,983.00	0.62	188.15	2,982.82	10.54	-12.91	14,537,562.21	2,031,876.57	40.023194	-109.601771	
3,078.00	0.84	183.16	3,077.81	9.33	-13.02	14,537,561.00	2,031,876.47	40.023191	-109.601772	
3,173.00	0.67	178.79	3,172.80	8.08	-13.04	14,537,559.75	2,031,876.47	40.023187	-109.601772	
3,268.00	0.70	176.46	3,267.79	6.95	-13.00	14,537,558.62	2,031,876.53	40.023184	-109.601772	
3,363.00	0.76	176.46	3,362.79	5.74	-12.92	14,537,557.41	2,031,876.63	40.023181	-109.601771	
3,457.00	0.88	191.32	3,456.78	4.41	-13.03	14,537,556.08	2,031,876.54	40.023177	-109.601772	
3,552.00	1.03	184.97	3,551.76	2.84	-13.24	14,537,554.51	2,031,876.35	40.023173	-109.601773	
3,647.00	0.97	184.55	3,646.75	1.19	-13.38	14,537,552.86	2,031,876.24	40.023168	-109.601773	
3,741.00	1.14	180.86	3,740.73	-0.54	-13.46	14,537,551.13	2,031,876.19	40.023164	-109.601773	
3,836.00	1.41	192.99	3,835.71	-2.62	-13.73	14,537,549.04	2,031,875.95	40.023158	-109.601774	
3,931.00	1.67	187.71	3,930.67	-5.13	-14.18	14,537,546.52	2,031,875.54	40.023151	-109.601776	
4,025.00	1.76	187.63	4,024.63	-7.92	-14.56	14,537,543.73	2,031,875.21	40.023143	-109.601777	
4,120.00	2.02	188.59	4,119.58	-11.02	-15.00	14,537,540.62	2,031,874.81	40.023135	-109.601779	
4,215.00	2.81	192.90	4,214.50	-14.95	-15.77	14,537,536.68	2,031,874.10	40.023124	-109.601782	
4,310.00	1.93	173.04	4,309.41	-18.80	-16.10	14,537,532.82	2,031,873.84	40.023113	-109.601783	
4,405.00	0.79	153.26	4,404.39	-20.98	-15.61	14,537,530.65	2,031,874.36	40.023108	-109.601781	
4,499.00	0.35	356.99	4,498.38	-21.27	-15.33	14,537,530.37	2,031,874.64	40.023107	-109.601780	
4,594.00	0.44	343.89	4,593.38	-20.63	-15.45	14,537,531.01	2,031,874.51	40.023108	-109.601780	
4,689.00	1.06	20.72	4,688.37	-19.46	-15.24	14,537,532.18	2,031,874.71	40.023112	-109.601780	
4,783.00	1.58	16.24	4,782.35	-17.40	-14.57	14,537,534.25	2,031,875.34	40.023117	-109.601777	
4,878.00	1.32	12.37	4,877.32	-15.07	-13.97	14,537,536.58	2,031,875.91	40.023124	-109.601775	
4,973.00	1.07	26.37	4,972.30	-13.21	-13.34	14,537,538.46	2,031,876.51	40.023129	-109.601773	
5,068.00	1.06	42.78	5,067.28	-11.77	-12.35	14,537,539.91	2,031,877.47	40.023133	-109.601769	
5,163.00	0.79	40.58	5,162.27	-10.63	-11.33	14,537,541.07	2,031,878.48	40.023136	-109.601766	
5,257.00	1.19	357.66	5,256.26	-9.16	-10.95	14,537,542.54	2,031,878.84	40.023140	-109.601764	
5,353.00	1.95	344.54	5,352.22	-6.59	-11.42	14,537,545.11	2,031,878.32	40.023147	-109.601766	
5,448.00	2.73	351.89	5,447.14	-2.79	-12.17	14,537,548.89	2,031,877.51	40.023157	-109.601769	
5,542.00	1.93	349.70	5,541.06	0.98	-12.77	14,537,552.66	2,031,876.85	40.023166	-109.601771	
5,638.00	2.90	354.24	5,636.98	4.99	-13.30	14,537,556.65	2,031,876.26	40.023179	-109.601773	
5,733.00	2.73	348.20	5,731.86	9.59	-14.01	14,537,561.25	2,031,875.48	40.023191	-109.601775	
5,828.00	2.40	346.62	5,826.77	13.74	-14.93	14,537,565.38	2,031,874.49	40.023203	-109.601779	
5,922.00	1.78	335.62	5,920.70	16.99	-15.99	14,537,568.61	2,031,873.38	40.023212	-109.601782	
6,017.00	2.64	348.03	6,015.63	20.47	-17.05	14,537,572.08	2,031,872.27	40.023221	-109.601786	
6,112.00	2.55	348.99	6,110.53	24.69	-17.91	14,537,576.28	2,031,871.34	40.023233	-109.601789	
6,207.00	2.29	347.59	6,205.45	28.62	-18.72	14,537,580.19	2,031,870.47	40.023244	-109.601792	
6,301.00	2.29	346.44	6,299.37	32.28	-19.56	14,537,583.84	2,031,869.57	40.023254	-109.601795	
6,396.00	2.02	343.63	6,394.31	35.73	-20.48	14,537,587.27	2,031,868.60	40.023263	-109.601798	
6,491.00	1.58	339.76	6,489.26	38.56	-21.41	14,537,590.10	2,031,867.63	40.023271	-109.601802	
6,586.00	2.37	341.87	6,584.20	41.66	-22.47	14,537,593.17	2,031,866.52	40.023279	-109.601806	
6,682.00	2.11	349.87	6,680.13	45.28	-23.40	14,537,596.78	2,031,865.53	40.023289	-109.601809	
6,776.00	1.49	0.42	6,774.08	48.21	-23.69	14,537,599.71	2,031,865.19	40.023297	-109.601810	
6,871.00	2.20	353.56	6,869.03	51.26	-23.89	14,537,602.75	2,031,864.95	40.023306	-109.601811	
6,966.00	2.03	341.41	6,963.97	54.66	-24.63	14,537,606.14	2,031,864.15	40.023315	-109.601813	
7,061.00	2.20	345.65	7,058.90	58.03	-25.62	14,537,609.49	2,031,863.11	40.023324	-109.601817	
7,156.00	2.73	347.76	7,153.82	62.00	-26.55	14,537,613.45	2,031,862.12	40.023335	-109.601820	
7,251.00	2.49	346.39	7,248.72	66.22	-27.52	14,537,617.65	2,031,861.09	40.023347	-109.601824	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
7,346.00	2.20	341.70	7,343.64	69.96	-28.57	14,537,621.37	2,031,859.97	40.023357	-109.601827	
7,440.00	2.11	348.55	7,437.57	73.37	-29.48	14,537,624.77	2,031,859.01	40.023367	-109.601831	
7,535.00	1.85	347.50	7,532.52	76.58	-30.16	14,537,627.97	2,031,858.28	40.023375	-109.601833	
7,630.00	1.67	352.95	7,627.47	79.45	-30.66	14,537,630.83	2,031,857.73	40.023383	-109.601835	
7,725.00	1.41	350.22	7,722.44	81.97	-31.03	14,537,633.35	2,031,857.32	40.023390	-109.601836	
7,819.00	0.53	344.33	7,816.42	83.53	-31.35	14,537,634.90	2,031,856.98	40.023394	-109.601837	
7,914.00	0.26	347.94	7,911.42	84.17	-31.51	14,537,635.53	2,031,856.81	40.023396	-109.601838	
8,008.00	0.26	335.63	8,005.42	84.57	-31.64	14,537,635.93	2,031,856.67	40.023397	-109.601838	
8,103.00	0.18	22.92	8,100.42	84.90	-31.67	14,537,636.27	2,031,856.64	40.023398	-109.601838	
8,199.00	0.44	58.25	8,196.42	85.23	-31.30	14,537,636.61	2,031,857.00	40.023399	-109.601837	
8,294.00	0.31	32.59	8,291.41	85.64	-30.85	14,537,637.02	2,031,857.44	40.023400	-109.601835	
8,388.00	0.51	78.61	8,385.41	85.94	-30.31	14,537,637.33	2,031,857.99	40.023401	-109.601834	
8,483.00	0.35	72.14	8,480.41	86.11	-29.62	14,537,637.51	2,031,858.67	40.023402	-109.601831	
8,578.00	0.35	90.81	8,575.41	86.20	-29.05	14,537,637.60	2,031,859.24	40.023402	-109.601829	
8,673.00	0.53	130.50	8,670.40	85.91	-28.42	14,537,637.32	2,031,859.87	40.023401	-109.601827	
8,767.00	0.65	176.56	8,764.40	85.09	-28.06	14,537,636.52	2,031,860.24	40.023399	-109.601825	
8,862.00	0.88	164.77	8,859.39	83.85	-27.84	14,537,635.28	2,031,860.49	40.023395	-109.601825	
8,957.00	0.97	187.71	8,954.38	82.35	-27.75	14,537,633.78	2,031,860.59	40.023391	-109.601824	
9,052.00	1.23	184.14	9,049.36	80.54	-27.94	14,537,631.96	2,031,860.44	40.023386	-109.601825	
9,147.00	1.41	168.64	9,144.34	78.37	-27.78	14,537,629.80	2,031,860.63	40.023380	-109.601824	
9,242.00	1.41	159.32	9,239.31	76.13	-27.14	14,537,627.57	2,031,861.31	40.023374	-109.601822	
9,336.00	1.49	142.10	9,333.28	74.09	-25.98	14,537,625.54	2,031,862.50	40.023369	-109.601818	
9,431.00	1.67	147.99	9,428.24	71.94	-24.48	14,537,623.42	2,031,864.03	40.023363	-109.601813	
9,526.00	2.02	151.24	9,523.19	69.30	-22.95	14,537,620.80	2,031,865.61	40.023355	-109.601807	
9,621.00	1.93	150.80	9,618.14	66.43	-21.36	14,537,617.96	2,031,867.24	40.023348	-109.601802	
9,716.00	2.11	153.35	9,713.08	63.47	-19.79	14,537,615.03	2,031,868.85	40.023339	-109.601796	
9,811.00	2.11	153.88	9,808.01	60.34	-18.24	14,537,611.92	2,031,870.45	40.023331	-109.601790	
9,906.00	2.15	153.39	9,902.95	57.18	-16.67	14,537,608.78	2,031,872.07	40.023322	-109.601785	
10,001.00	2.29	153.08	9,997.88	53.89	-15.01	14,537,605.52	2,031,873.78	40.023313	-109.601779	
10,096.00	2.11	148.25	10,092.81	50.71	-13.23	14,537,602.37	2,031,875.61	40.023304	-109.601773	
10,191.00	1.93	151.06	10,187.75	47.83	-11.54	14,537,599.51	2,031,877.35	40.023296	-109.601766	
10,285.00	1.76	144.56	10,281.70	45.26	-9.94	14,537,596.98	2,031,878.99	40.023289	-109.601761	
10,380.00	2.34	160.52	10,376.64	42.25	-8.44	14,537,593.98	2,031,880.53	40.023281	-109.601755	
10,475.00	2.55	163.19	10,471.55	38.40	-7.19	14,537,590.15	2,031,881.85	40.023271	-109.601751	
10,570.00	2.46	162.22	10,566.46	34.43	-5.95	14,537,586.21	2,031,883.14	40.023260	-109.601747	
10,665.00	1.93	154.75	10,661.39	31.04	-4.65	14,537,582.84	2,031,884.50	40.023250	-109.601742	
10,759.00	2.20	148.60	10,755.33	28.07	-3.03	14,537,579.89	2,031,886.16	40.023242	-109.601736	
10,854.00	2.37	147.99	10,850.25	24.85	-1.04	14,537,576.70	2,031,888.21	40.023233	-109.601729	
10,949.00	2.37	145.44	10,945.17	21.57	1.11	14,537,573.45	2,031,890.41	40.023224	-109.601721	
11,048.00	2.46	145.53	11,044.09	18.13	3.48	14,537,570.05	2,031,892.83	40.023215	-109.601713	
11,143.00	1.93	152.29	11,139.02	15.03	5.38	14,537,566.99	2,031,894.78	40.023206	-109.601706	
11,238.00	1.76	166.36	11,233.97	12.20	6.46	14,537,564.17	2,031,895.91	40.023199	-109.601702	
11,333.00	1.67	172.86	11,328.92	9.41	6.98	14,537,561.39	2,031,896.47	40.023191	-109.601700	
11,360.00	1.41	173.83	11,355.91	8.69	7.06	14,537,560.67	2,031,896.56	40.023189	-109.601700	
LAST SDI MWD PRODUCTION SURVEY										
11,420.00	1.41	173.83	11,415.90	7.22	7.22	14,537,559.20	2,031,896.75	40.023185	-109.601699	
SDI PROJECTION TO D										

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-19E
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Site:	NBU 921-19E PAD	MD Reference:	GL 4809 & KB 19 @ 4828.00ft (PIONEER 54)
Well:	NBU 921-19E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM5000-RobertS-Local

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
165.00	165.00	0.39	0.04	FIRST WFT MWD SURFACE SURVEY	
2,655.00	2,654.84	14.13	-11.58	LAST WFT MWD SURFACE SURVEY	
2,699.00	2,698.84	13.67	-11.85	FIRST SDI MWD PRODUCTION SURVEY	
11,360.00	11,355.91	8.69	7.06	LAST SDI MWD PRODUCTION SURVEY	
11,420.00	11,415.90	7.22	7.22	SDI PROJECTION TO TD	

Checked By: _____ Approved By: _____ Date: _____

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
1/23/2012 12:00AM	MESA VERDE/			9,587.0	9,588.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,614.0	9,615.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,693.0	9,694.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,706.0	9,707.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,723.0	9,724.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,750.0	9,751.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,807.0	9,808.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,867.0	9,868.0	4.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,898.0	9,900.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,974.0	9,975.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,982.0	9,983.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			9,995.0	9,996.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,108.0	10,109.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,156.0	10,157.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,874.0	10,876.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,894.0	10,898.0	3.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,912.0	10,914.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,945.0	10,946.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,958.0	10,960.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,977.0	10,978.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
1/23/2012 12:00AM	MESA VERDE/			10,987.0	10,988.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	