

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER NBU 920-23M	
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 0577A			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	510 FSL 821 FWL	SWSW	23	9.0 S	20.0 E	S	
Top of Uppermost Producing Zone	510 FSL 821 FWL	SWSW	23	9.0 S	20.0 E	S	
At Total Depth	510 FSL 821 FWL	SWSW	23	9.0 S	20.0 E	S	
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 510		23. NUMBER OF ACRES IN DRILLING UNIT 2091		
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 940		26. PROPOSED DEPTH MD: 10447 TVD: 10447		
27. ELEVATION - GROUND LEVEL 4852			28. BOND NUMBER		29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		
ATTACHMENTS							
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORCANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES							
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER				<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN			
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)				<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER			
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)				<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP			
NAME Kathy Schneebeck-Dulnoan			TITLE Staff Regulatory Analyst			PHONE 720 929-6007	
SIGNATURE			DATE 08/11/2009			EMAIL Kathy.SchneebeckDulnoan@anadarko.com	
API NUMBER ASSIGNED 43047505550000			APPROVAL  Permit Manager				

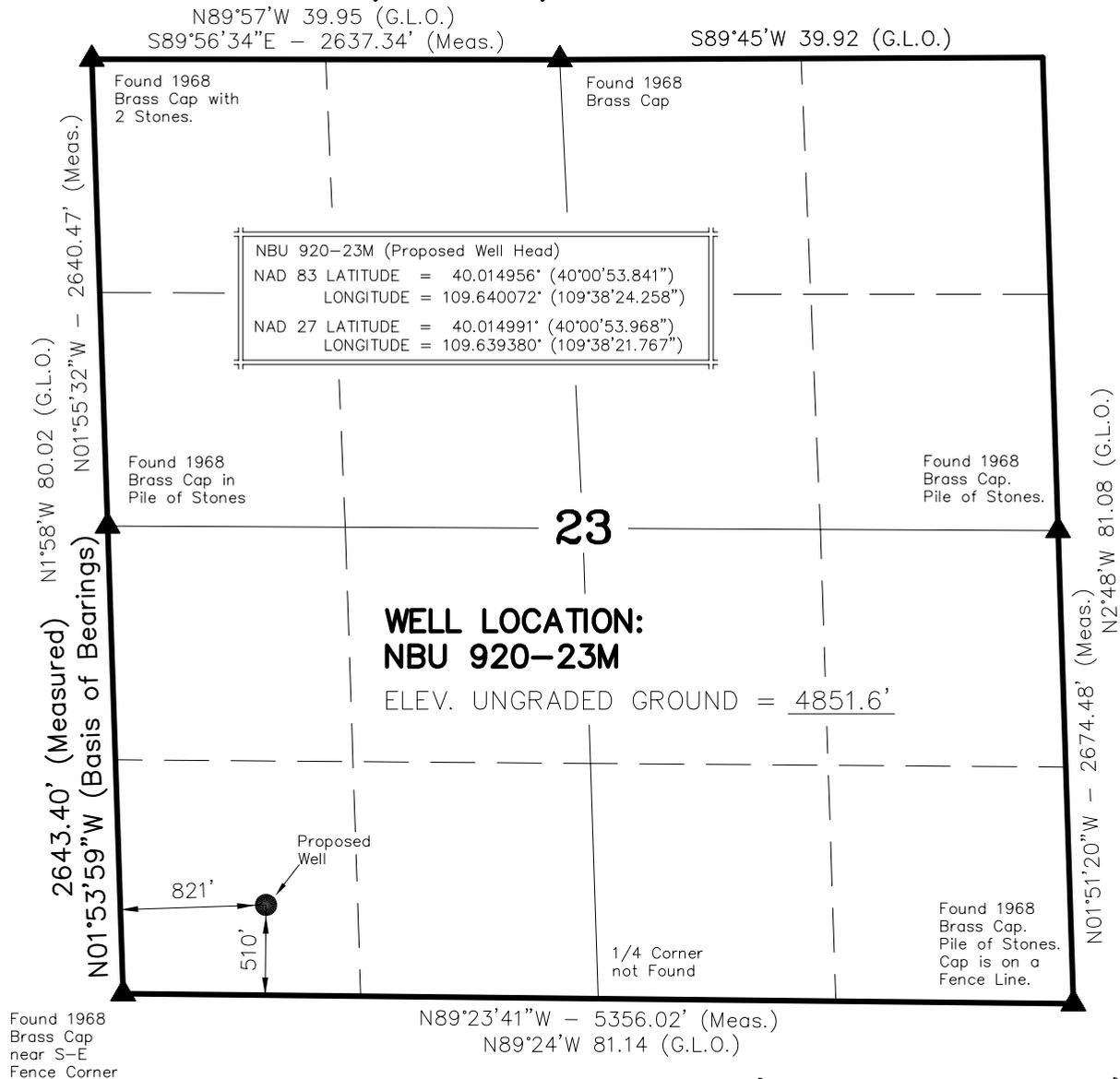
Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	10678		
Pipe	Grade	Length	Weight			
	Grade I-80 LT&C	9600	11.6			
	Grade HCP-110 LT&C	847	11.6			

Proposed Hole, Casing, and Cement

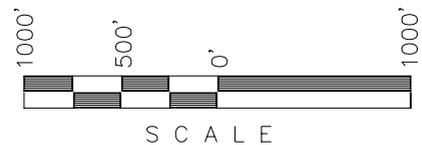
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2635		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2635	36.0			

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



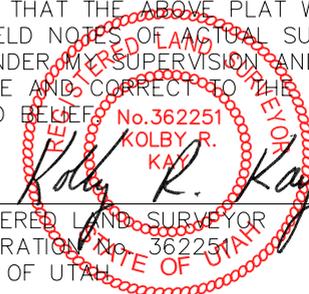
NOTES:

- ▲ = 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 the Northwest Corner of Section 12, T9S, R20E, S.L.B.&M. The elevation of this Section Corner is shown on the Ouray SE 7.5 Min. Quadrangle as being 4676'.



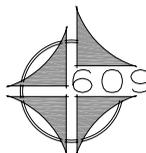
SURVEYOR'S CERTIFICATE

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



REGISTERED LAND SURVEYOR
REGISTRATION No. 362251
STATE OF UTAH

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



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

**NBU 920-23M
WELL PLAT
510' FSL, 821' FWL**
SW ¼ SW ¼ OF SECTION 23, T9S, R20E,
S.L.B.&M. UTAH COUNTY, UTAH.

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

DATE SURVEYED: 12-15-08	SURVEYED BY: D.J.S.	SHEET 1 OF 9
DATE DRAWN: 01-28-09	DRAWN BY: K.K.O.	
SCALE: 1" = 1000'		Date Last Revised:

NBU 920-23M

Surface: 510' FSL, 821' FWL (SW/4SW/4)
Sec. 23 T9S R20E

Uintah, Utah
Mineral Lease: UTU 0577A

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	1,687'	
Birds Nest	1,929'	Water
Mahogany	2,435'	Water
Wasatch	5,056'	Gas
Mesaverde	8,319'	Gas
MVU2	9,254'	Gas
MVL1	9,601'	Gas
TD	10,447'	

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 10,447' TD, approximately equals 6,509 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 4,210 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. Anticipated Starting Dates:

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

9. Variances:

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

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

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

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

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

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

Background

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

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

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

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

Variance for BOPE Requirements

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

Variance for Mud Material Requirements

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

Variance for Special Drilling Operation (surface equipment placement) Requirements

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

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

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

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

Conclusion

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

10. Other Information:

Please refer to the attached Drilling Program.



**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 2635	36.00	J-55	LTC	0.81*	1.64	4.78
PRODUCTION	4-1/2"	0 to 9600	11.60	I-80	LTC	7,780	6,350	201,000
		9600 to 10447	11.60	HCP-110	LTC	1.80	1.04	2.04
						10,690	8,650	279,000
						2.47	1.31	34.90

*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.12

- 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))
(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 4,210 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 6,509 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 Premium cmt + 2% CaCl	380	0%	15.60	1.18
NOTE: If well will circulate water to surface, option 2 will be utilized						
SURFACE LEAD	2,135'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	240	35%	11.00	3.82
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	4,547'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel ' + 1% Retarder	440	40%	11.00	3.38
TAIL	5,900'	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.

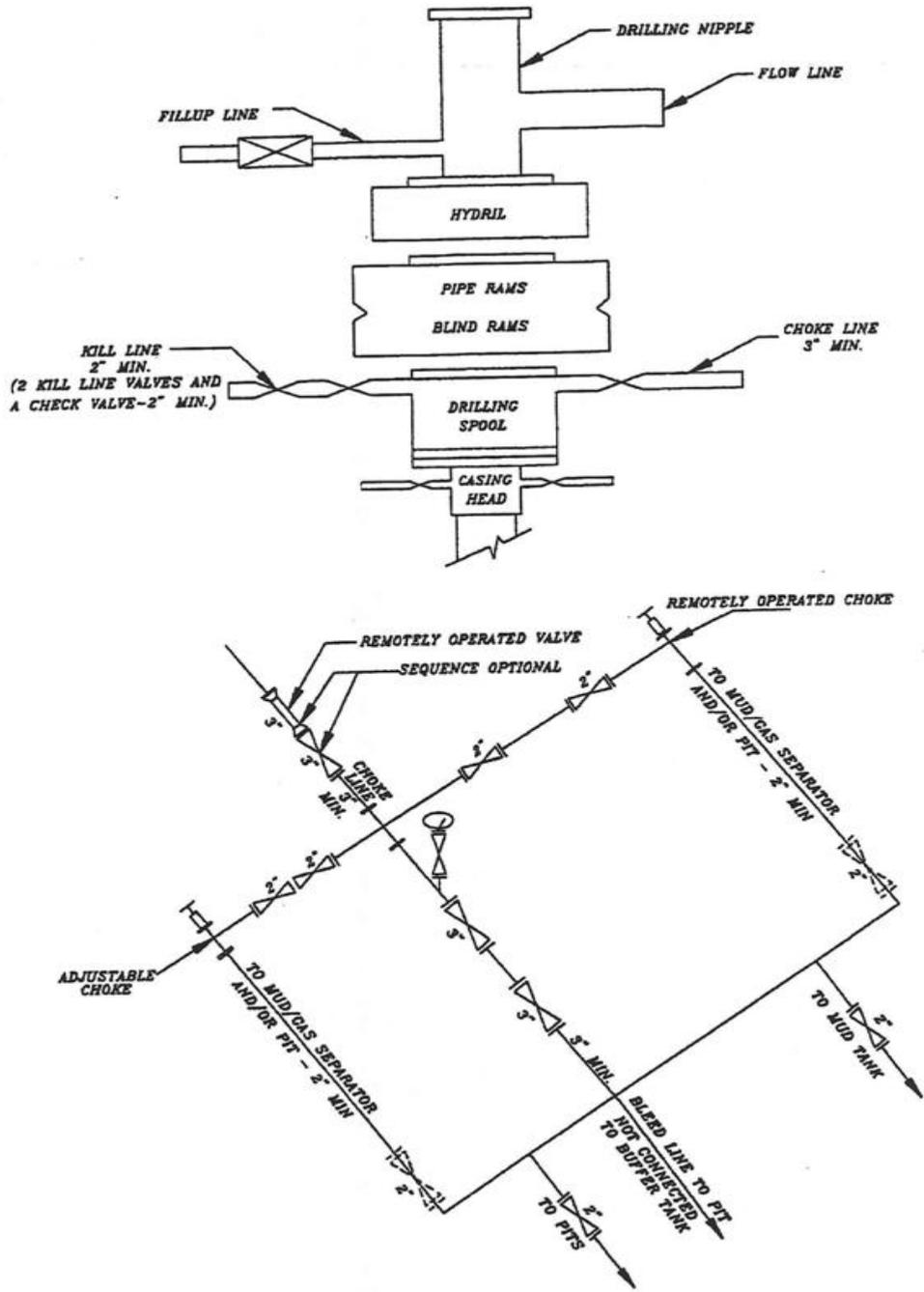
ADDITIONAL INFORMATION

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

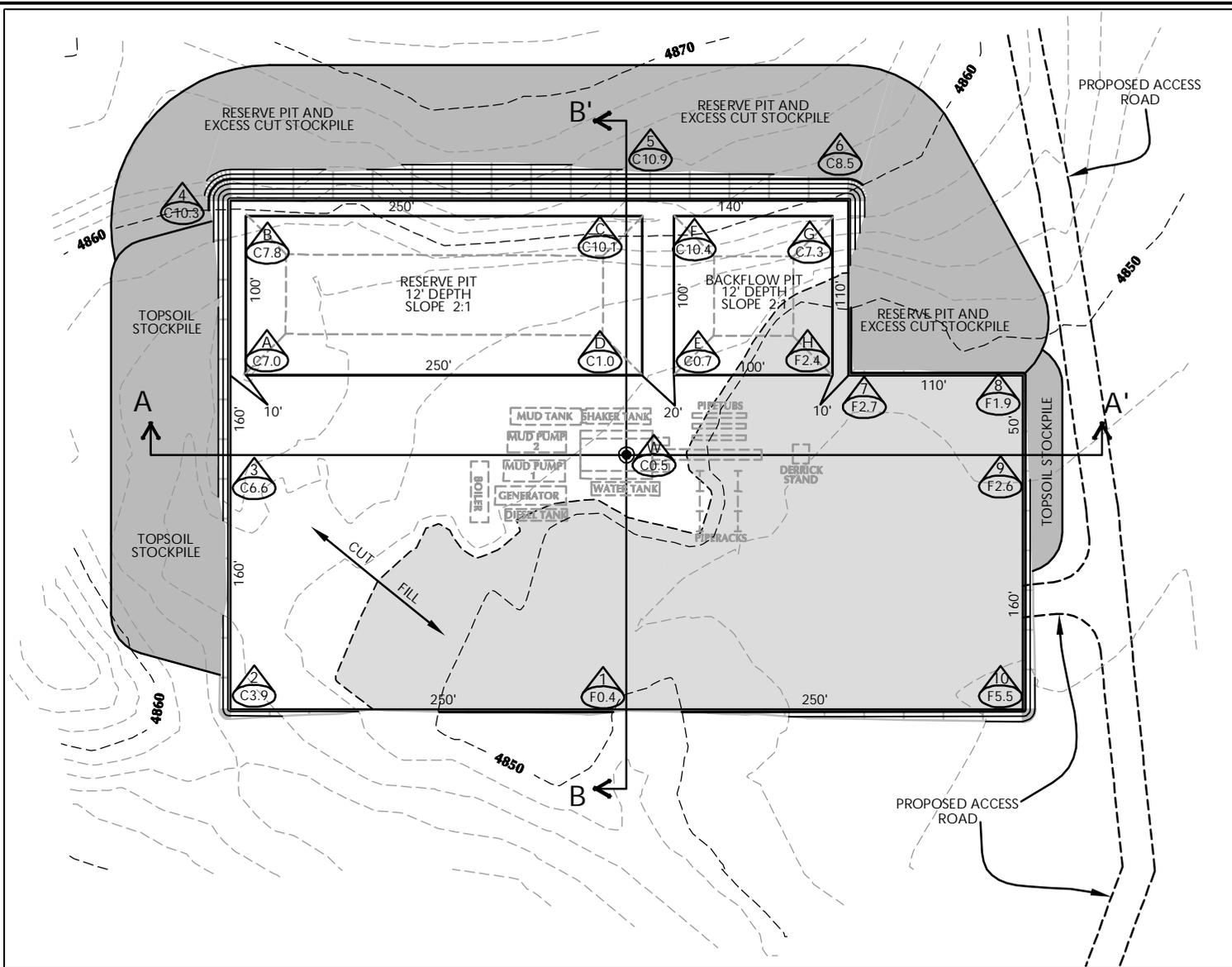
DRILLING SUPERINTENDENT: _____ DATE: _____
John Merkel / Lovel Young

EXHIBIT A NBU 920-23M



SCHMATIC DIAGRAM OF 5,000 PSI BOP STACK

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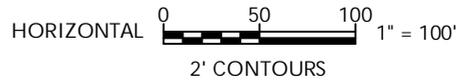
WELL PAD LEGEND

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

WELL PAD NBU 920-23M QUANTITIES

EXISTING GRADE @ LOC. STAKE = 4851.6'
 FINISHED GRADE ELEVATION = 4851.1'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 11,317 C.Y.
 TOTAL FILL FOR WELL PAD = 9,143 C.Y.
 TOPSOIL @ 6" DEPTH = 3,007 C.Y.
 EXCESS MATERIAL = 2,174 C.Y.
 TOTAL DISTURBANCE = 3.73 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)
 +/- 9,490 BARRELS
 BACKFLOW PIT VOLUME
 +/- 2,660 CY



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

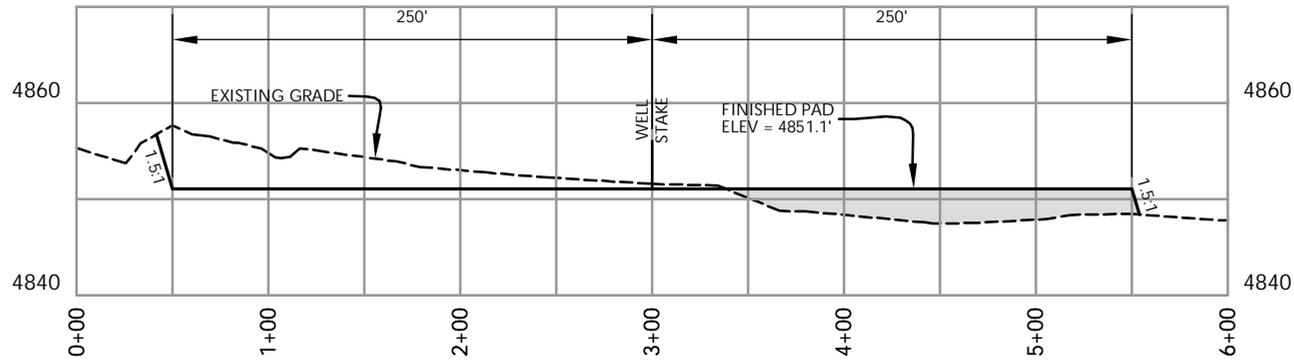


CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

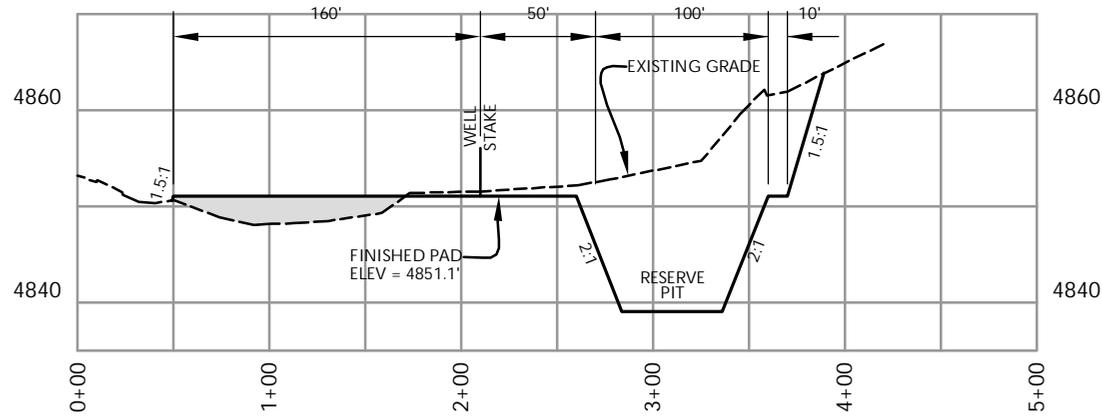
NBU 920-23M
WELL PAD - LOCATION LAYOUT
 510' FSL, 821' FWL
 SW1/4 SW1/4, SECTION 23, T9S, R20E,
 S.L.B.&M., UINTAH COUNTY, UTAH

Scale: 1"=100'	Date: 2/18/09	SHEET NO:
REVISED:	BY DATE	2 2 OF 9

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



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS
MAXIMUM RESERVE PIT DEPTH.

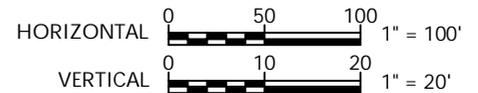
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ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202



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

NBU 920-23M
WELL PAD - CROSS SECTIONS
510' FSL, 821' FWL
SW1/4 SW1/4, SECTION 23, T9S, R20E,
S.L.B.&M., UINTAH COUNTY, UTAH

Scale: 1"=100'	Date: 2/18/09	SHEET NO:
REVISID:	BY DATE	3 3 OF 9



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38 WEST 100 NORTH VERNAL, UTAH 84078

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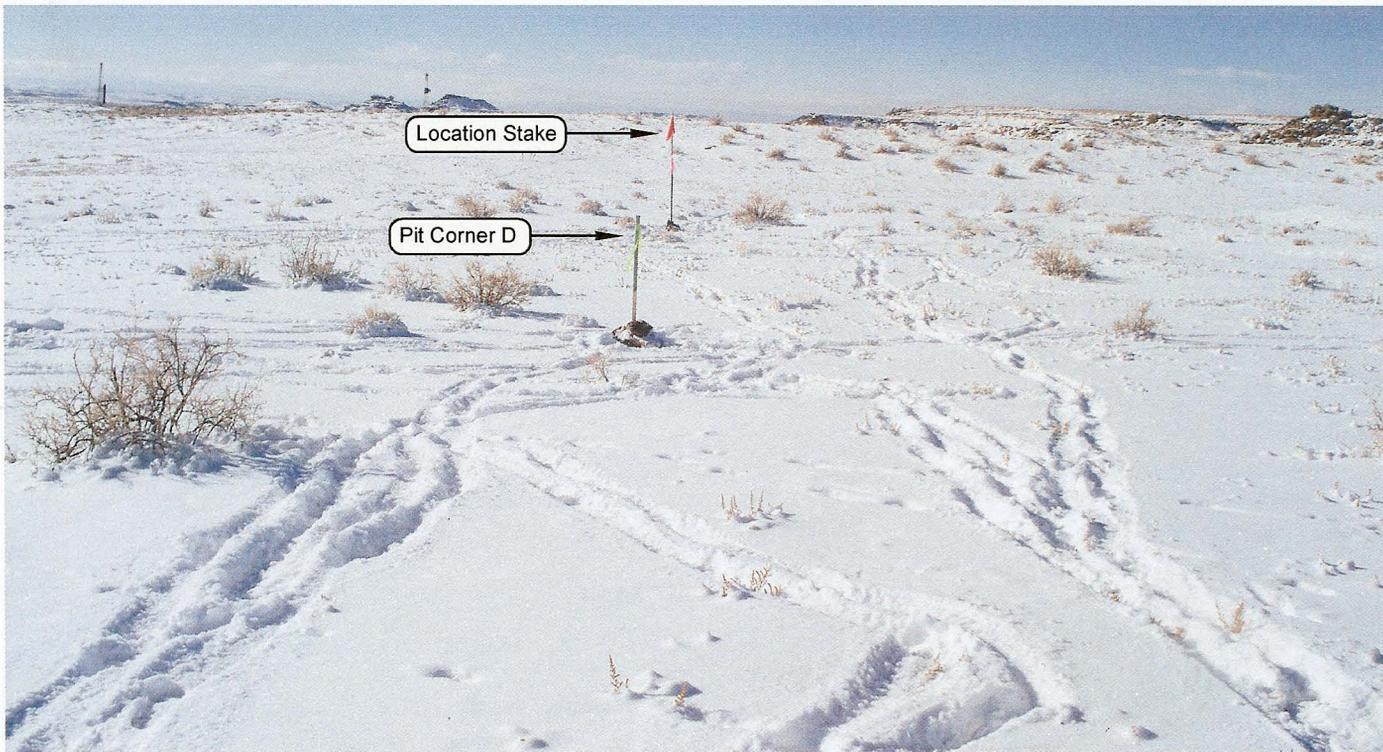


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: WESTERLY



PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: EASTERLY

**Kerr-McGee
Oil & Gas Onshore, LP**

1099 18th Street - Denver, Colorado 80202

NBU 920-23M
510' FSL, 821' FWL

SW $\frac{1}{4}$ SW $\frac{1}{4}$ OF SECTION 23, T9S, R20E,
S.L.B.&M. Uintah County, Utah.



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

LOCATION PHOTOS		DATE TAKEN: 12-15-08
		DATE DRAWN: 01-29-09
TAKEN BY: D.J.S.	DRAWN BY: K.K.O.	REVISED:

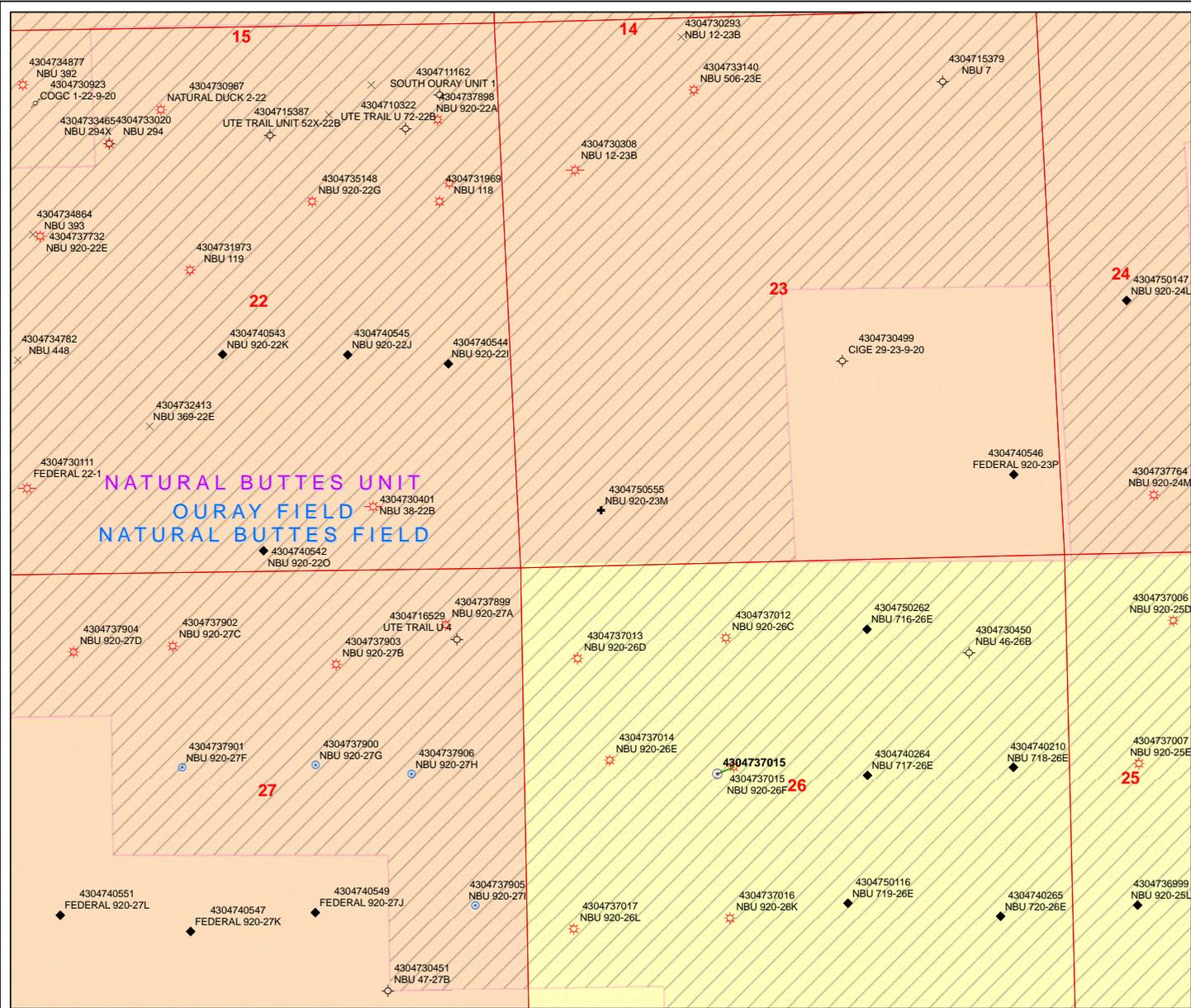
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209 NORTH 300 WEST VERNAL, UTAH 84078

**SHEET
4
OF 9**

Kerr-McGee Oil & Gas Onshore, LP
NBU 920-23M
Section 23, T9S, R20E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 6.2 MILES TO THE INTERSECTION OF A CLASS D COUNTY ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EAST BY NORTHEAST DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 0.4 MILES TO A SERVICE ROAD TO THE NORTHEAST. EXIT LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 0.7 MILES TO THE PROPOSED ACCESS ROAD. FOLLOW ROAD FLAGS IN AN EASTERLY DIRECTION APPROXIMATELY 2460 FEET TO THE PROPOSED LOCATION.

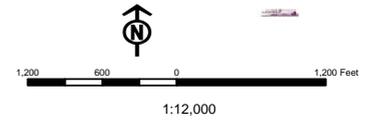
TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 38.5 MILES IN A SOUTHERLY DIRECTION.



API Number: 4304750555
Well Name: NBU 920-23M
Township 09.0 S Range 20.0 E Section 23
Meridian: SLBM
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:
 Map Produced by Diana Mason

Units	Wells Query Events
STATUS	<call other values>
ACTIVE	EXPLORATORY
GAS STORAGE	NF PP OIL
NF SECONDARY	PI OIL
PP GAS	PP GEOTHERM
PP OIL	SECONDARY
TERMINATED	
Fields	
ACTIVE	COMBINED
Sections	
	APD
	DRL
	GI
	GS
	LA
	NEW
	OPS
	PA
	PGW
	POW
	RET
	SGW
	SOW
	TA
	TW
	WI
	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)**

July 17, 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)		
43-047-50555	NBU 920-23M	Sec 23 T09S R20E 0510 FSL 0821 FWL
43-047-50560	NBU 920-22N	Sec 22 T09S R20E 1206 FSL 2411 FWL
43-047-50562	NBU 920-20G3CS	Sec 20 T09S R20E 2011 FSL 0794 FEL
	BHL	Sec 20 T09S R20E 2580 FNL 2660 FEL
43-047-50563	NBU 920-23N	Sec 23 T09S R20E 0837 FSL 1702 FWL
43-047-50566	NBU 920-20H4CS	Sec 20 T09S R20E 1993 FSL 0786 FEL
	BHL	Sec 20 T09S R20E 2410 FNL 0650 FEL
43-047-50567	NBU 920-20I2AS	Sec 20 T09S R20E 2029 FSL 0803 FEL
	BHL	Sec 20 T09S R20E 2415 FSL 0925 FEL
43-047-50568	NBU 920-20L4CS	Sec 20 T09S R20E 0660 FSL 0849 FWL
	BHL	Sec 20 T09S R20E 1470 FSL 0675 FWL
43-047-50569	NBU 920-20M2AS	Sec 20 T09S R20E 0656 FSL 0829 FWL
	BHL	Sec 20 T09S R20E 1205 FSL 0650 FWL
43-047-50570	NBU 920-20M3AS	Sec 20 T09S R20E 0652 FSL 0810 FWL
	BHL	Sec 20 T09S R20E 0545 FSL 0660 FWL
43-047-50571	NBU 920-23F	Sec 23 T09S R20E 1988 FNL 2118 FWL
43-047-50572	NBU 920-23K	Sec 23 T09S R20E 1996 FSL 1939 FWL
43-047-50573	NBU 920-23L	Sec 23 T09S R20E 1491 FSL 0517 FWL
43-047-50574	NBU 920-23D	Sec 23 T09S R20E 0429 FNL 0967 FWL
43-047-50575	NBU 920-15I	Sec 15 T09S R20E 2071 FSL 0562 FEL
43-047-50576	NBU 920-14F	Sec 14 T09S R20E 2335 FNL 2412 FWL
43-047-50577	NBU 920-14C	Sec 14 T09S R20E 0477 FNL 1890 FWL
43-047-50578	NBU 920-14B	Sec 14 T09S R20E 0981 FNL 2071 FEL
43-047-50579	NBU 920-14A	Sec 14 T09S R20E 0589 FNL 0593 FEL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:7-17-09

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/14/2009

API NO. ASSIGNED: 43047505550000

WELL NAME: NBU 920-23M

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

PHONE NUMBER: 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: SWSW 23 090S 200E

Permit Tech Review:

SURFACE: 0510 FSL 0821 FWL

Engineering Review:

BOTTOM: 0510 FSL 0821 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.01495

LONGITUDE: -109.63947

UTM SURF EASTINGS: 616114.00

NORTHINGS: 4430093.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0577A

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 920-23M
API Well Number: 43047505550000
Lease Number: UTU 0577A
Surface Owner: INDIAN
Approval Date: 8/11/2009

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 Cause No. 173-14 commingling 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:

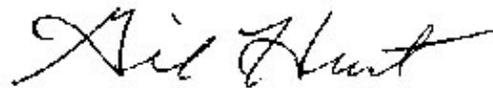
- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
- OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>

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:



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 0577A
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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 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
--	--

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-23M
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505550000
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
---	--	--

4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	COUNTY: Uintah STATE: Utah
---	---

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/19/2009 <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 checked="" 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:

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

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests to change the surface casing size for this well. The surface casing size is changing FROM: 9-5/8" TO: 8-5/8". Please see the attached drilling program for additional details. If you have any questions, please contact the undersigned. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

Date: November 23, 2009

By: *Danielle Piernot*

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 11/18/2009



**KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM**

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,390	1,880	437,000
SURFACE	8-5/8"	0 to 2635	28.00	J-55	LTC	0.78*	1.52	5.92
PRODUCTION	4-1/2"	0 to 9600	11.60	I-80	BTC	7,780	6,350	278,000
		9600 to 10447	11.60	HCP-110	LTC	1.80	1.04	2.82
						10,690	8,650	279,000
						2.47	1.31	34.90

*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.04

- 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))
 (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 4,210 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 6,509 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 Premium cmt + 2% CaCl	260	0%	15.60	1.18
NOTE: If well will circulate water to surface, option 2 will be utilized						
SURFACE LEAD	2,135'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	200	35%	11.00	3.82
TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.60	1.18
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION LEAD	4,547'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel ' + 1% Retarder	370	40%	11.00	3.38
TAIL	5,900'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,450	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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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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 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
--	--

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-23M
------------------------------------	--

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505550000
---	---

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
---	--	--

4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	COUNTY: Uintah STATE: Utah
---	---

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 11/30/2009 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER:

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

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests to change the grade of surface drilling pipe for this well. The surface pipe grade is changing FROM: J-55 LT&C TO: IJ-55 LT&C. Please see the attached drilling program for additional details. If you have any questions, please contact the undersigned. Thank you.

Accepted by the Utah Division of Oil, Gas and Mining

Date: November 25, 2009

By: *Danielle Piernot*

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/24/2009	



**KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM**

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,390	1,880	348,000
SURFACE	8-5/8"	0 to 2635	28.00	IJ-55	LTC	0.78*	1.52	4.72
PRODUCTION	4-1/2"	0 to 9600	11.60	I-80	BTC	7,780	6,350	278,000
		9600 to 10447	11.60	HCP-110	LTC	1.80	1.04	2.82
						10,690	8,650	279,000
						2.47	1.31	34.90

*Burst on surface casing is controlled by fracture gradient as shoe with gas gradient above. D.F. = 2.04

- 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))
 (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 4,210 psi
- 3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
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MABHP 6,509 psi

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
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NOTE: If well will circulate water to surface, option 2 will be utilized						
SURFACE LEAD	2,135'	Prem cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC	200	35%	11.00	3.82
TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.60	1.18
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION LEAD	4,547'	Premium Lite II + 0.25 pps celloflake + 5 pps gilsonite + 10% gel ' + 1% Retarder	370	40%	11.00	3.38
TAIL	5,900'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,450	40%	14.30	1.31

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ADDITIONAL INFORMATION

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 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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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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 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
--	--

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-23M
------------------------------------	--

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505550000
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	COUNTY: UINTAH STATE: UTAH
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11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 11/24/2009	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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 CONDUCTOR PIPE. CMT W/28 SX READY MIX
 SPUD WELL LOCATION ON 11/24/2009 AT 14:30 HRS.

Accepted by the
 Utah Division of
 Oil, Gas and Mining
FOR RECORD ONLY
 November 30, 2009

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 11/30/2009	

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUL 22 2009

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU0577A
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 KERR MCGEE OIL & GAS ONSHORE Contact: KATHY SCHNEEBECK DULNOAN Email: kathy.schneebeckdulnoan@anadarko.com		7. If Unit or CA Agreement, Name and No. UTU63047A
3a. Address 1368 SOUTH 1200 EAST VERNAL, UT 84078		8. Lease Name and Well No. NBU 920-23M
3b. Phone No. (include area code) Ph: 720-929-6007 Fx: 720-929-7007		9. API Well No. 43-047-50555-00-X1
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSW 510FSL 821FWL 40.01496 N Lat, 109.64007 W Lon At proposed prod. zone SWSW 510FSL 821FWL 40.01496 N Lat, 109.64007 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 8 MILES SOUTHEAST OF OURAY, UT		11. Sec., T., R., M., or Blk. and Survey or Area Sec 23 T9S R20E Mer SLB SME: BIA
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) APPROXIMATELY 510' TO LEASE LINE	16. No. of Acres in Lease	12. County or Parish UINTAH
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 940'	19. Proposed Depth 0 MD	13. State UT
21. Elevations (Show whether DF, KB, RT, GL, etc.) 4852 GL	22. Approximate date work will start 08/17/2009	17. Spacing Unit dedicated to this well
		20. BLM/BLA Bond No. on file
		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:

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

25. Signature (Electronic Submission)	Name (Printed/Typed) KATHY SCHNEEBECK DULNOAN Ph: 720-929-6007	Date 07/15/2009
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Title
STAFF REGULATORY ANALYST

Approved by (Signature) <i>Stephanie J Howard</i>	Name (Printed/Typed) <i>Stephanie J Howard</i>	Date 10/16/09
Title <i>Active</i> Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

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

Additional Operator Remarks (see next page)

Electronic Submission #72215 verified by the BLM Well Information System
For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal
Committed to AFMSS for processing by GAIL JENKINS on 07/17/2009 (09GXJ5376AE)

RECEIVED

NOV 23 2009

DIV. OF OIL, GAS & MINING

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED

UDGM ** BLM REVISED **

09GXJ5376AE

No MAS



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
Well No: NBU 920-23M
API No: 43-047-50555

Location: SWSW, Sec. 23, T9S R20E
Lease No: UTU-0577A
Agreement: Natural Buttes Unit

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

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

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

NOTIFICATION REQUIREMENTS

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

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

- 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.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

SITE SPECIFIC CONDITIONS OF APPROVAL

Site-Specific Conditions of Approval:

- Paint facilities "shadow gray."
- Utilize pit-run/gravel for well pad and access road support.
- Re-route drainages around well pad.
- Monitoring by a permitted paleontologist during the construction process.
- Monitor location by a permitted archaeologist during the construction process.
- If project construction operations are scheduled to occur after December 31, 2009, KMG will conduct additional raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection for Human and Land Use Disturbances, 2002 and conduct its operations according to applicable seasonal restrictions and spatial offsets.
- If project construction operation are scheduled to occur after June 16, 2010, KMG will conduct additional biological surveys in accordance with the guidelines specified I the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus and conduct its operation according to its specifications.

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 (See Appendix E) and conduct its operations according to applicable seasonal restrictions and spatial offsets.
- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix E).
- 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:

- A Gama Ray Log shall be run from TD to surface.

Variations Granted:

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' 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.
- 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.

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.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location ($\frac{1}{4}$, 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.

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

Name of Company: KERR-McGEE OIL & GAS ONSHORE, L.P.

Well Name: NBU 920-23M

Api No: 43-047-50555 Lease Type: FEDERAL

Section 23 Township 09S Range 20E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

SPUDDED:

Date 11/24/2009

Time 2:30 PM

How DRY

Drilling will Commence: _____

Reported by JAMES GOBER

Telephone # (435) 828-7024

Date 11/24/2009 Signed CHD

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

FORM 6

ENTITY ACTION FORM

Operator: KERR MCGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
 Address: P.O. Box 173779
city DENVER
state CO zip 80217 Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304740542	NBU 920-200 <u>220</u>		SWSE	22	9S	20E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	11/24/2009		<u>11/30/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 11/24/2009 AT 11:30 HRS.							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750555	NBU 920-23M		SWSW	23	9S	20E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	11/24/2009		<u>11/30/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 11/24/2009 AT 14:30 HRS.							

Well 3

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

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

ANDY LYTLE

Name (Please Print)

Signature

REGULATORY ANALYST

Title

11/30/2009

Date

RECEIVED

NOV 30 2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-23M
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505550000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input 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: 12/11/2009	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

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

MIRU PROPETRO AIR RIG ON 12/8/2009. DRILLED 11" SURFACE HOLE TO 2655'. RAN 8-5/8" 28# J-55 SURFACE CSG. PUMP 130 BBLS OF H2O, PUMP 20 BBLS OF GEL WATER. LEAD CMT W/210 SX CLASS G HI FILL @ 11.0 PPG, 3.82 YIELD. TAILED CMT W/200 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. DROP PLUG ON FLY AND DISPLACE W/170 BBLS OF 8.3# H2O, 15 BBLS OF LEAD TO SURFACE W/500 PSI OF LIFT @ 5 BBLS/MIN. LAND PLUG 1000 PSI AND CHECK FLOAT. FLOAT HELD. TOP OUT W/125 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD DOWN 1" BACKSIDE, 2 BBLS OF CMT TO SURFACE. CMT FELL BACK APPROX 200'. WAIT 2 HRS AND PUMP 2ND TOP OUT W/125 SX SAME CMT. CMT TO SURFACE AND STAYED. WORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 December 14, 2009

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 12/11/2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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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 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
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1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-23M
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505550000
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	COUNTY: UINTAH STATE: UTAH
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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: 2/23/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

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

FINISHED DRILLING FROM 2655' TO 10541' ON 2/18/2010. RAN 4 1/2" 11.6 I-80 PRODUCTION CSG. LEAD CMNT W/ 600 SX CLASS G PREMIUM LITE @ 12.6 PPG, 1.93 YIELD. TAILED CMNT W/ 1,310 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.31 YIELD. DISPLACED W/ 163 BBLS WATER, BUMPED PLUG FLOATS HELD. RETURNED 10 BBLS TO SURFACE. NIPPLE DOWN BO RELEASED ENSIGN 145 RIG ON 2/18/2010 @ 22:00 HOURS.

Accepted by the
 Utah Division of
 Oil, Gas and Mining
FOR RECORD ONLY
 February 24, 2010

NAME (PLEASE PRINT) Laura Gianakos	PHONE NUMBER 307 752-1169	TITLE Regulatory Affairs Supervisor
SIGNATURE N/A	DATE 2/23/2010	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 920-23M
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047505550000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 3/18/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
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	<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: _____

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 3/18/2010. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 March 23, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 3/22/2010

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6007 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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TYPE OF SUBMISSION	TYPE OF ACTION		
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<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 3/18/2010	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
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	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: _____

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 3/18/2010. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 March 23, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 3/22/2010

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0577A
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2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	8. WELL NAME and NUMBER: NBU 920-23M
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	9. API NUMBER: 43047505550000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0510 FSL 0821 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 23 Township: 09.0S Range: 20.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH
PHONE NUMBER: 720 929-6515 Ext	

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: 7/12/2011 <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 checked="" type="checkbox"/> OTHER	<input checked="" 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" value="Wellhead Repair"/>

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

The operator requests approval to conduct wellhead/casing repair operations on the subject well location. Please find the attached procedure for the proposed repair work on the subject well location.

Accepted by the Utah Division of Oil, Gas and Mining

Date: 07/20/2011

By: *Derek Quist*

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 7/12/2011	

WORKORDER #: 88119387

Name: **NBU 920-23M** 7/11/2011
 Surface Location: SWSW Sec. 23, T9S, R20E
 Uintah County, UT

API: 4304750555 LEASE#: UTU-0577A

ELEVATIONS: 4851' GL 4865' KB

TOTAL DEPTH: 10,541' PBD: 10,477'

SURFACE CASING: 8 5/8", 28# J-55 @ 2639'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 @ 10,522'
 TOC @ 222' per CBL (with min 50' isolation)

PERFORATIONS: Mesaverde 8694' - 10,449'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.0155
8.625" 28# J-55	8.097	1370	2950	2.6223	0.3505	0.0624
Annular Capacities						
2.375" tbg. X 4 1/2" 11.6# csg				0.4227	0.0565	0.01

GEOLOGICAL TOPS:

1707' Green River
 2412' Mahogany
 5149' Wasatch
 8330' Mesaverde

NBU 920-23M – WELLHEAD REPAIR PROCEDURE

PREP-WORK PRIOR TO MIRU:

1. Dig out down to the 2" surface casing valve or to the valve on the riser off the surface casing.
2. Install a tee with 2 valves, with a pressure gauge and sensor on one valve.
3. Open casing valve and record pressures.
4. Install nipple and steel hose on the other valve, the relief valve,. Do not use hammer unions. No impact equipment or tools to be used for any of this installation. Extend hose and hard piping to a downwind location at least 100' from the wellhead. Consider installing a manifold so that vent area could be in two locations approx. 90 degrees apart from the wellhead.
5. Open the relief valve and blow well down to the atmosphere.
6. Make a determination of amount of gas flow, either by installation of a choke nipple, bucket test or other.
7. Shut well in. Observe for rate of build-up by utilizing sensor data. Do not build-up for more than 24 hours. Vent gas through the vent line and leave open to the atmosphere.

WORKOVER PROCEDURE:

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure).
3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. POOH w/ tubing laying down extra tubing.
5. Rig up wireline service. RIH and set CBP @ ~8644'. Dump bail 4 sx cement on top of plug. POOH and RD wireline service. TIH w/ tubing and seating nipple. Land tubing ±60' above cement. RDMO.
6. Monitor well pressures. If surface casing is dead. MIRU. ND WH and NU BOP. POOH w/ tubing.
7. Depending on conditions at wellsite, continue with either CUT/PATCH Procedure or BACK-OFF Procedure.

CUT/PATCH PROCEDURE:

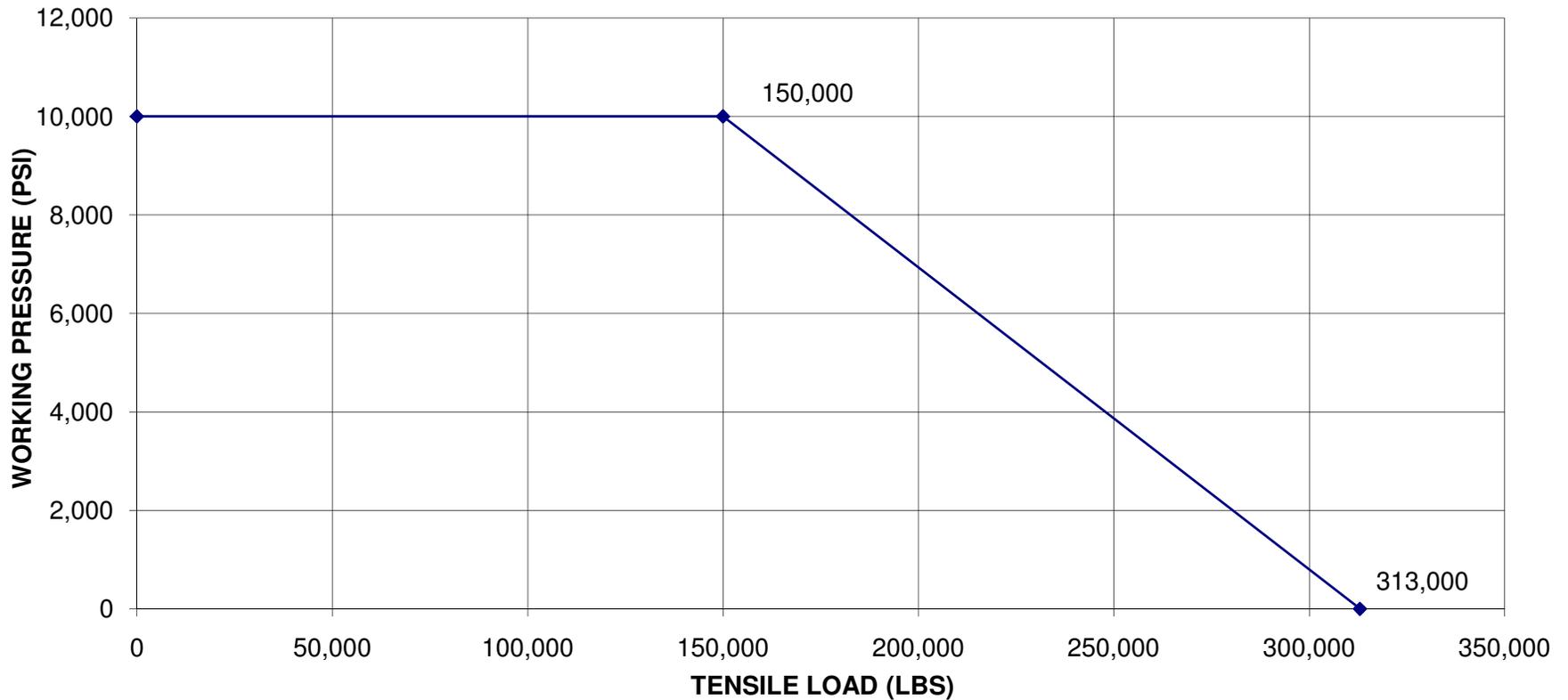
1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshoot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' utilize >7000 ft-lb torque pipe as needed. Pull a minimum of 10,000# to keep grapple engaged if cement top is high (<~900'). If cement top is low (>~900'), more weight will be required to put casing in neutral. Torque casing string to ±7000 ft-lbs, count number of turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ±7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out, release overshoot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOO H.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.
9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~8594'. Clean out to PBSD (10,477).
10. POOH, land tbg and pump off POBS.
11. NUWH, RDMO. Turn well over to production ops.

BACK-OFF PROCEDURE:

1. PU internal casing cutters and RIH. Cut casing at +/- 6' from surface.
2. POOH, LD cutters and casing.
3. PU 4 1/2" overshoot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.

6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ± 7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ± 7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~8594'. Clean out to PBTD (10,477).
11. POOH, land tbg and pump off POBS.
12. NUWH, RDMO. Turn well over to production ops.

**STRENGTH DATA FOR LOGAN 5.88" OD "L" TYPE CSG PATCH
4-1/2 CASING, 10K PSI MAX WP 125K YIELD MAT'L
LOGAN ASSEMBLY NO. 510L-005 -000**



COLLAPSE PRESSURE:
11,222 PSI @ 0 TENSILE
8,634 PSI @ 220K TENSILE

Tensile Strength @ Yield:
Tensile Strength w/ 0 Int. Press.= 472,791lbs.
Tensile Strength w/ 10K Int. Press.= 313,748lbs.

DATA BY SLS 11/16/2009

RECEIVED Jul. 12, 2011

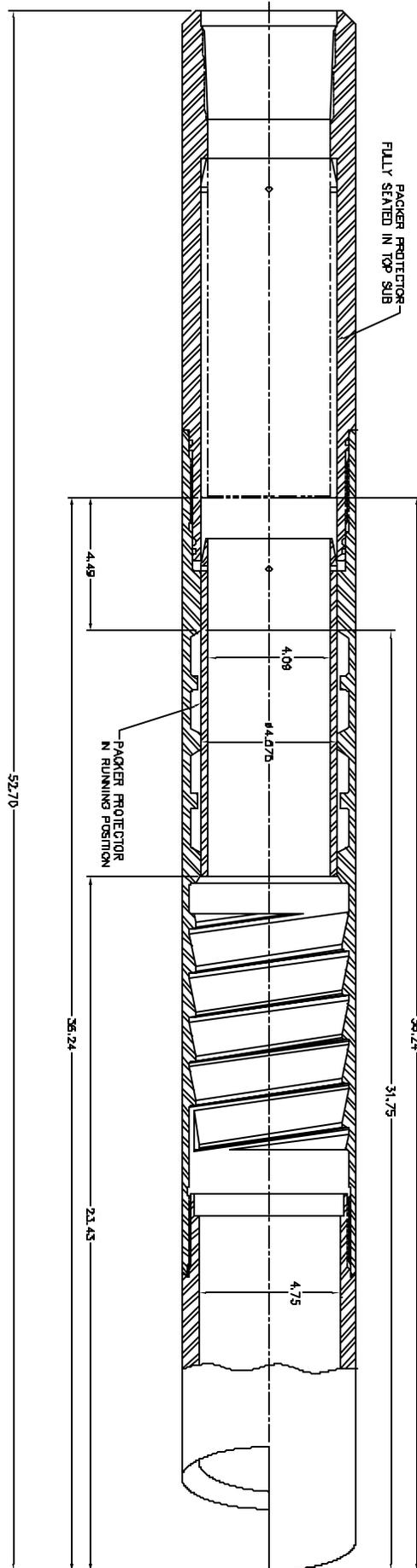


Logan High Pressure Casing Patches Assembly Procedure

All parts should be thoroughly greased before being assembled.

1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector through the four Type "L" Packers.
3. Align Shear Pin Holes in Packer Protector so that the holes have just passed into the counter bore at the Top Sub end, refer to diagram. The Packer Protector is provided with four Shear Pin Holes. Use only two holes, 180 degrees apart and install the pins.
4. Screw the Basket Grapple in from the lower end of the Bowl, using left-hand rotation. The Tang Slot in the Basket Grapple must land in line with the slot in the Bowl.
5. Insert the Basket Grapple Control into the end of the Bowl. Align Tang on the Basket Grapple Control with the Tang Slot of the Bowl and Basket Grapple. This secures the Bowl and the Basket Grapple together.
6. Install the Cutlipped Guide into the lower end of the Bowl.
7. Install O-Rings on the two five-foot long Extensions. Screw the first Extension into the top end of the Bowl. Screw the second Extension into the top end of the first Extension.
8. Install O-Ring on Top Sub. Screw Top Sub into top end of second Extension.

Follow recommended Make-Up Torque as provided in chart.



510L-005-001 4-1/2" LOGAN HP CASING PATCH

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 0577A
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		COUNTY: UINTAH
		STATE: UTAH
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<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 10/12/2011		
<input type="checkbox"/> SPUD REPORT Date of Spud:		
<input type="checkbox"/> DRILLING REPORT Report Date:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. The operator has concluded the wellhead/casing repairs on the subject well location. Please see the attached chronological history for the details of the operations.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 27, 2012		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regularatory Analyst
SIGNATURE N/A	DATE 1/24/2012	

US ROCKIES REGION
Operation Summary Report

US ROCKIES REGION								
Operation Summary Report								
Well: NBU 920-23M			Spud Conductor: 11/24/2009			Spud Date: 12/8/2009		
Project: UTAH-UINTAH			Site: NBU 920-23M			Rig Name No: LEED 698/698		
Event: WELL WORK EXPENSE			Start Date: 10/7/2011			End Date: 10/12/2011		
Active Datum: RKB @4,865.01ft (above Mean Sea Level)			UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0					
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
10/7/2011	7:00 - 7:15	0.25	ALL	48		P		HSM, REVIEW TRIPPING TBG, RU, RD, ND, W/H, NU, BOPS
	7:15 - 14:00	6.75	ALL	31	I	P		BLEW TBG, DWN, CONTROL TBG, W/ 10 BBLS, ACCUMILATOR NOT WORKING CALLED WEATHERFORD TO BRING OUT ANOTHER ONE, POOH, 312 JTS. 2-3/8 L-80 TBG.
	14:00 - 17:00	3.00	ALL	34	I	P		MIRU, CASD HOLE, RIH & SET BAKER 4 1/2 10K, CIBP, @ 8644', POOH RD, CASD HOLE FILL 4 1/2 CSG, W T-MAC, TO SURFACE PSI TEST TO 3000# FOR 5 MINS LOST 0 PSI IN 5 MINS TEST GOOD, SWI, SDFWD,
10/10/2011	7:00 - 7:15	0.25	ALL	48		P		HSM. REVIEW BACKOFF PROCEDURE
	7:15 - 7:30	0.25	ALL	47	A	P		RD, FLOOR, ND, BOPS W/ CSG BOWL, NU PWR SWVL
	7:30 - 10:30	3.00	ALL	47	A	P		PU INTERNAL CUTTER & RIH CUT 4 1/2 CSG 4 F/ SURFACE, POOH LD INTERNAL CUTTER & MANDRAL, PU 4 1/2 OVERSHOT, RIH & LATCH ON FISH, MIRU CSG CREW & CASED HOLE SOLUTIONS, RIH STRING SHOT COLLAR (1 SHOT), BACKOFF 4 1/2 CSG, PU NEW CSG JNT, TAG CSG TOP, THREAD INTO CSG TORQUE TO 7000#, W/ 17 ROTATIONS, PU 4 1/2 CSG TO 100,000 TENSION
	10:30 - 12:00	1.50	ALL	33	C	P		RU, B&C QUICK TEST, PT. 4 1/2 CSG TO 1000 PIS FOR 15 MINS. LOST 13 IN 15 MINS PT. 4 1/2 TO 3500 PSI FOR 30 MINS LOST 25 IN 30 MINS. RD B&C QUICK TEST
	12:00 - 14:00	2.00	ALL	30	A	P		MIRU, WEATHERFORD TECHNICIAN, INSTALL C-21 SLIPS, LD CSG W/ TENSION, CUT OFF & DRESS 4 1/2 CSG STUB, RD WEATHERFORD TECH. NU, W/H/ CSG BOWL. RU FLOOR & TBG EQUIPMENT.
	14:00 - 17:00	3.00	ALL	31	I	P		RU FLOOR & TBG EQUIPMENT, PU 3-7/8 MILL, W/ 1.875 XN & RIH W/ 273 JTS. 2 3/8 L-80 TBG, TAG CIBP @ 8466' RU, PWR SWVL, SWI, SDFN, D/O IN THE AM.
10/11/2011	7:00 - 7:30	0.50	ALL	48		P		HSM, REVIEW AIR FOAM UNIT & D/O CIBP.
	7:30 - 8:10	0.67	ALL	31	N	P		RU TECH FOAM, EST CIRC 40 MINS,
	8:10 - 9:50	1.67	ALL	44	C	P		D/O CIBP @ 8644' IN 1HR 27 MINS, HAD 100 PSI. INCREASE KILL TBG, LD PWR SWVL,
	9:50 - 10:55	1.08	ALL	31	I	P		RIH TBG F/ DERRICK, PU 15 JTS. TAG SCALE @ 10,415', INSTALL TSF, RU PWR SWVL, EST CIRC IN 15 MINS.
	10:55 - 12:00	1.08	ALL	44	D	P		C/O F/ 10,415 TO 10451' TAG OLD POBS, CIRC WELL CLEAN.
	12:00 - 17:30	5.50	ALL	31	I	P		RD PWR SWVL, KILL TBG W/ 15 BBLS, REMOVE TSF, RD TECH FOAM, POOH LD 16 JTS. ON TRAILER, POOH 314 JTS. 2-3/8 L-80 TBG, LD 9 JTS. GUALDED THREADS, LD MILL, PU 1.875 XN HALF POBS, PU 9 JTS. F/ TRAILER, RIH 57 JTS. 2-3/8 L-80 TBG, EOT @ 2092', SWI, SDFN. TOO WINDY.
10/12/2011	7:00 - 7:30	0.50	ALL	48		P		HSM, REVIEW TRIPPING TBG & BROACHING TBG.

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 12/8/2009
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: LEED 698/698
Event: WELL WORK EXPENSE	Start Date: 10/7/2011	End Date: 10/12/2011
Active Datum: RKB @4,865.01ft (above Mean Sea Level)		UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:30 - 12:00	4.50	ALL	31	I	P		BLEW TBG DWN, CONTROL TBG W/ 10 BBLS, RIH 156 JTS. EOT @ 4944', RU SWAB EQUIPMENT, BROACH TBG TO 4944' W/ 1.9 BROACH, POOH & LD SWAB EQUIPMENT, RIH 158 JTS. EOT @ 5007' RU SWAB EQUIPMENT, BROACH TBG TO 5007' W/ 1.9 BROACH, POOH & RD SWAB EQUIPMENT, LAND TBG, RD FLOOR & TBG EQUIPMENT, ND BOP'S, NU WH, RDMO. MOVE TO NBU 920-23D. TBG DETAIL KB-----13' HANGER-----83" 314 JTS. 2-3/8 L-80 TBG@-----9952.89' 1.875 XN HALF POBS-----2.20' EOT @----- 9968.92' TOP PERF @ 8694' BTM PERF @ 10,449' PBTD @ 10,477' WLTR. 80 BBLS. API# 4304750555-00-S1

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.
UTU0577A

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

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
UTU63047A

2. Name of Operator
KERR-MCGEE OIL&GAS ONSHORE
Contact: ANDY LYTLE
Email: andrew.lytle@anadarko.com

8. Lease Name and Well No.
NBU 920-23M

3. Address P.O. BOX 173779
DENVER, CO 80217

3a. Phone No. (include area code)
Ph: 720-929-6100

9. API Well No.
43-047-50555

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface SWSW 510FSL 821FWL 40.01499 N Lat, 109.63938 W Lon
At top prod interval reported below SWSW 510FSL 821FWL 40.01499 N Lat, 109.63938 W Lon
At total depth SWSW 510FSL 821FWL 40.01499 N Lat, 109.63938 W Lon

10. Field and Pool, or Exploratory
NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey
or Area Sec 23 T9S R20E Mer SLB

12. County or Parish
UINTAH

13. State
UT

14. Date Spudded
11/24/2009

15. Date T.D. Reached
02/18/2010

16. Date Completed
 D & A Ready to Prod.
03/18/2010

17. Elevations (DF, KB, RT, GL)*
4852 GL

18. Total Depth: MD 10541
TVD 10540

19. Plug Back T.D.: MD 10477
TVD 10476

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
ACOUSTIC CBL-BHV-SD/DSN/ACTR-CCL-GR

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 STEEL	36.7		40		28			
11.000	8.625 IJ-55	28.0		2639		660			
7.875	4.500 I-80	11.6		10522		1910			

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	9968							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	8694	10449	8694 TO 10449	0.360	276	OPEN
B) WSMUD						
C)						
D)						

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

Depth Interval	Amount and Type of Material
8694 TO 10449	PMP 8,700 BBLs SLICK H2O & 319,259 LBS 30/50 SD.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
03/18/2010	03/21/2010	24	→	0.0	2464.0	250.0			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	1628 SI	2608.0	→	0	2464	250		PGW	

28a. Production - Interval B

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

RECEIVED

APR 26 2010

DIV. OF OIL, GAS & MINING

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #85084 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

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	1707				
MAHOGANY	2412				
WASATCH	5149	8319			
MESAVERDE	8330	10541			

32. Additional remarks (include plugging procedure):

ATTACHED TO THIS WELL COMPLETION REPORT IS THE CHRONOLOGICAL WELL HISTORY AND 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 #85084 Verified by the BLM Well Information System.
For KERR-MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

Name (please print) ANDY LYTLE Title REGULATORY ANALYST

Signature  (Electronic Submission) Date 04/20/2010

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

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

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
12/8/2009	10:00 - 13:00	3.00	MIRU	01	A	P		MOVE RIG
	13:00 - 17:30	4.50	MIRU	01	B	P		RIG TO SPUD 11 " HOLE
	17:30 - 22:00	4.50	DRLSUR	02	B	P		DRILL SURVEY F/ 44 TO 570 12-18 K RPM 60 MM RPM 104 650 GPM PUMP PSI 1000 OFF 800 PSI SURVEY @ 510' 1 DEG
	22:00 - 22:30	0.50	DRLSUR	10	A	P		DRILL F/ 570 TO 750' 20-25 K RPM 60 PUMP PSI ON BOTTOM 1350 OFF 1100 650 GPM MM RPM 104 ROP 120
	22:30 - 0:00	1.50	DRLSUR	02	B	P		DRILL F/ 750 TO 1080 20-25 K RPM 60 PUMP PSI ON BOTTOM 1350 OFF 1100 650 GPM MM RPM 104 ROP 110
12/9/2009	0:00 - 3:00	3.00	DRLSUR	02	B	P		DRILL F/ 750 TO 1080 20-25 K RPM 60 PUMP PSI ON BOTTOM 1350 OFF 1100 650 GPM MM RPM 104 ROP 110
	3:00 - 3:30	0.50	DRLSUR	10	A	P		SURVEY @ 1020' 1 DEG
	3:30 - 9:30	6.00	DRLSUR	02	B	P		DRILL F/ 1080 TO 1620' (540',90'/HR), 20-25 K RPM 45 DH RPM=104 ON/OFF PSI= 1350/1000 650 GPM UP/DOWN/ROT= 60/58/59
	9:30 - 10:00	0.50	DRLSUR	10	A	P		WIRELINE SURVEY 1550'= .25 DEG INC ONLY.
	10:00 - 14:00	4.00	DRLSUR	02	B	P		DRILL 1620'-2130' (128/HR), 20-25 K RPM 45 DH RPM=104 ON/OFF PSI= 1400/1100 650 GPM UP/DOWN/ROT= 65/64/65
	14:00 - 14:30	0.50	DRLSUR	10	A	P		WIRELINE SURVEY 2060'= .75 DEGREE INC. ONLY
	14:30 - 21:30	7.00	DRLSUR	02	B	P		DRILL 2130'- 2655' (525', 75'/HR) TD 12/9/2009 21:30 20-25K RPM 45, DH RPM 104, ON/OFF PSI 1600/1300 GPM 650, UP/DOWN ROT 73/71/72. DRAG 1 K. FULL CIRC NO LOSSES OR GAINS THROUGH OUT WELL.
12/10/2009	21:30 - 23:00	1.50	CSG	05	C	P		CIRC AND CONDITION HOLE, CIRC HOLE CLEAN W/ AERATED WATER, CIRC LAST CIRC W/ JUST WATER. DROP MULTISHOT TOOL, AIR OUT DRILL PIPE. BLOW DOWN RIG.
	23:00 - 0:00	1.00	CSG	06	D	P		LAY DOWN DRILL STRING. 2000' @ MIDNIGHT.
	0:00 - 4:30	4.50	CSG	06	D	P		LDDS, LD BHA. CHECK MOTOR AND BIT. BLOW OUT MOTOR. RETRIEVE MULTISHOT TOOL. .6 DEG, 190.1 CORRECTED AZI. LD MOTOR.
	4:30 - 10:00	5.50	CSG	12	C	P		HOLD SAFETY MEETING. RUN 60 JTS OF 8-5/8" 28# IJ-55 W/ LTC 8 RD THREADS. LAND FLOAT SHOE @ 2630' KB, BAFFLE PLATE RAN IN TOP OF SHOE JT @ 2584' KB. FILL PIPE 1000' AND 2000'. RUN 200' OF 1" DOWN BACK SIDE.
	10:00 - 11:00	1.00	RDMO	01	E	P		RIG DOWN RIG , READY RIG TO ROAD. RELEASE RIG 12/10/2009 11:00
11:00 - 14:00	3.00	CSG	12	E	P		HOLD SAFETY MEETING W/ CEMENTERS, RIG UP CEMENTERS , PRESSURE TEST TO 2000 PSI. PUMP 130 BBLs OF H2O , PUMP 20 BBLs OF GEL WATER. PUMP 210 (142.8 BBLs) SX OF 11#, 3.82 YD, 23 GAL SX HI FILL LEAD CEMENT. PUMP 200 SX (41.2 BBLs) OF 15.8#, 1.15 YD, 5 GAL/SK 2% CALC TAIL CEMENT, DROP PLUG ON FLY AND DISPLACE W/ 170 BBLs OF 8.3# H2O, 15 BBLs OF LEAD TO SURFACE W/ 500 PSI OF LIFT @ 5 BBLs/MIN. LAND PLUG 1000 PSI AND CHECK FLOAT. FLOAT HELD. PUMP 125 SX (25.6 BBLs) OF 4% CALC 15.8# 1.15 YD, 5 GAL/SK CEMENT DOWN 1" 2 BBLs OF CEMENT TO SURFACE. CEMENT FELL BACK APPROX 200'. WAIT 2 HR AND PUMP 125 SX (25.6 BBLs) OF SAME CEMENT. CEMENT TO SUFACE AND STAYED.	

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub-Code	P/U	MD From (ft)	Operation
2/8/2010	15:00 - 0:00	9.00	MIRU	01	A	P		RIG DOWN PREPARE TO MOVE TO NBU 920-23M
2/9/2010	0:00 - 6:00	6.00	RDMO	01	A	P		RIG DOWN BACK YARD AND ALL MISC. RIG EQUIPMENT
	6:00 - 22:00	16.00	MIRU	01	A	P		MOVE RIG TO NBU 920-23M TRUCKS OFF OLD LOCATION 1130 2-9-2010 TRUCKS OFF NEW LOCATION 1500 2-9-2010 RAISE DERRICK AT 1400 2-9-2010
	22:00 - 0:00	2.00	MIRU	14	A	P		NIPPLE UP BOP
2/10/2010	0:00 - 1:30	1.50	PRPSPD	14	A	P		NIPPLE UP BOP
	1:30 - 7:30	6.00	PRPSPD	15	A	P		PRESSURE TEST BOP ANNULAR 250 LOW 2500 HIGH PIPE RAMS BLIND RAMS, INSIDE/OUTSIDE MANUAL VALVES, HCR VALVE, CHOKE LINE, UPRIGHT GUAGE VALVE, KILL LINE CHECK VALVE, SUPER CHOKE, IMSIDE/MIDDLE MANIFOLD VALVES 250 LOW 5000 HIGH CASING 1500 PSI FOR 30 MIN. FILLED CHOKE WITH METHANOL, RIG DOWN TESTER
	7:30 - 8:00	0.50	PRPSPD	01	A	P		INSTALL WEAR BUSHING
	8:00 - 11:30	3.50	PRPSPD	06	A	P		PICK UP MUD PULSE TOOL, 7.875 DRILL BIT, .21 RPG 1.5 BEND 7/8 HUNTING MUD MOTOR, 7 3/8 STABILIZER, 2 MONEL DRILL COLLARS, HANG OFF SUB. ORIENT MWD TOOL. PICK UP 6 DRILL COLLARS
	11:30 - 12:00	0.50	PRPSPD	06	A	P		SHALLOW TEST MWD TOOL TEST FAILED
	12:00 - 13:00	1.00	PRPSPD	06	H	Z		TOOH FOR MWD TOOL FAILURE, RECIEVED NO SURVEY INFORMATION FROM TOOL
	13:00 - 14:00	1.00	PRPSPD	06	A	Z		INSTALL NEW MUD PULSE TOOL RE ORIENT MUD MOTOR SHALLOW TEST TOOL / TOOL OK
	14:00 - 16:30	2.50	PRPSPD	06	A	P		PICK UP 18 HWDP AND DRILL PIPE INSTALL ROT RUBBER
	16:30 - 18:00	1.50	PRPSPD	02	F	P		DRILL CEMENT AND FLOAT EQUIPMENT TAG CEMENT AT 2530' BAFFLE PLATE AT 2593 SHOE AT 2638'; SPUD WELL 1630 2-10-2010
	18:00 - 21:00	3.00	DRLIN1	02	B	P		DRILL 2638 TO 2829, WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 RIG SERVICE
	21:00 - 21:30	0.50	DRLPRO	07	A	P		
	21:30 - 0:00	2.50	DRLPRO	02	B	P		DRILL 2829 TO 3140, WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/11/2010	0:00 - 10:00	10.00	DRLPRO	02	B	P		DRILL 3140' - 4187', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	10:00 - 10:30	0.50	DRLPRO	08	A	Z		WORK ON AIR COMPRESSOR
	10:30 - 15:00	4.50	DRLPRO	02	B	P		DRILL 4187' - 4596', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:30 - 0:00	8.50	DRLPRO	02	B	P		DRILL 4596' - 5265, WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 12/6/2009	End Date: 2/20/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Level) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
2/12/2010	0:00 - 13:30	13.50	DRLPRO	02	B	P		DRILL 5265' - 6182', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.7, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	13:30 - 14:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	14:00 - 0:00	10.00	DRLPRO	02	B	P		DRILL 6182' - 6835', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.7, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/13/2010	0:00 - 4:00	4.00	DRLPRO	02	B	P		DRILL 6835' - 7067', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	4:00 - 4:30	0.50	DRLPRO	22	C	X		DRILLER SAW AN 8 BBL GAIN AND SHUT WELL IN. 20 PSI ON CASING AND NO FLARE. NO LOSS IN DRILL PIPE PRESSURE. OPEN CHOKE AND KICKED PUMPS ON (NO FLARE, OR PIT GAIN) SHUT DOWN PUMPS AND OPENED BOP. NO PIT GAIN. KICKED ON PUMPS AND WENT BACK TO DRILLING NO FLARE, PIT GAIN, OR LOSS IN DRILL PIPE PRESSURE
	4:30 - 5:00	0.50	DRLPRO	02	B	P		DRILL 7067' - 7088', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	5:00 - 5:30	0.50	DRLPRO	22	C	X		BLOW DOWN CHOLE AND WINTERIZE
	5:30 - 13:00	7.50	DRLPRO	02	B	P		DRILL 7088' - 7405', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	13:00 - 13:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	13:30 - 0:00	10.50	DRLPRO	02	B	P		DRILL 7405' - 7790', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.2, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/14/2010	0:00 - 9:30	9.50	DRLPRO	02	B	P		DRILL 7790' - 8129', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
	9:30 - 10:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	10:00 - 0:00	14.00	DRLPRO	02	B	P		DRILL 8129' - 8650', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/15/2010	0:00 - 16:00	16.00	DRLPRO	02	B	P		DRILL 8650' - 9171', WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
	16:00 - 16:30	0.50	DRLPRO	07	A	P		RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:30 - 0:00	7.50	DRLPRO	02	B	P		DRILL 9171' - 9322', WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS AT 9200' LOST 30 BBLS MUD PUMPED HIGH CONCENTRATE LCM SWEEPS GAINED CIRCULATION BROUGHT LCM PERCENTAGE TO 4% CURRENTLY HAVE FULL RETURNS AND BUILDING VOLUME.
2/16/2010	0:00 - 1:30	1.50	DRLPRO	02	B	P		DRILL 9322' - 9329, WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12.4, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
	1:30 - 3:00	1.50	DRLPRO	05	C	P		CIRCULATE AND CONDITION MUD, MIX DRY PILL, KEEP A MUD WEIGHT OF 12.4 40 VIS
	3:00 - 12:00	9.00	DRLPRO	06	A	P		TOOH FILLING HOLE EVERY 5 STANDS CHECKING FOR FLOW, NO FLOW, LAY DOWN STABILIZER, MWD TOOL, HANG OFF SUB AND 2 MONEL DRILL COLLARS, BREAK BIT AND LAY DOWN MUD MOTOR
	12:00 - 13:30	1.50	DRLPRO	06	A	P		PICK UP .16 REV/GAL HUNTING MUD MOTOR AND 506 HUGHES PDC BIT. TIH TO 2300'
	13:30 - 14:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	14:00 - 18:00	4.00	DRLPRO	06	A	P		TIH WITH BIT AND MUD MOTOR #2 RUN #2 TP 9275'
	18:00 - 18:30	0.50	DRLPRO	03	D	P		WASH AND REAM 60' TO BOTTOM
	18:30 - 0:00	5.50	DRLPRO	02	B	P		DRILL 9329' - 9483, WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12.4, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/17/2010	0:00 - 12:30	12.50	DRLPRO	02	B	P		DRILL 9483 TO 9920, SPP-2720, SPM#1-60, SPM#2-60, GPM-460, ROTARY RPM-40-50, MOTOR RPM-74, WOB- 18-20, DIF-200-450, MW-12.4, VIS-42 LUBRICATE RIG
	12:30 - 13:00	0.50	DRLPRO	07	A	P		
	13:00 - 0:00	11.00	DRLPRO	02	B	P		DRILL 9920 TO 10221, SPP-2888, SPM#1-60, SPM#2- 60, GPM-460, ROTARY RPM-40-50, MOTOR RPM-74, WOB- 18-22, DIF-200-420, MW-12.4, VIS-42
2/18/2010	0:00 - 12:30	12.50	DRLPRO	02	B	P		DRILL 10221 TO 10541, TD AT 12:30, SPP-2888, SPM#1-60, SPM#2- 60, GPM-460, ROTARY RPM-40-50, MOTOR RPM-74, WOB- 18, DIF-200-450, MW-12.4, VIS-42 LUBRICATE RIG
	12:30 - 13:00	0.50	DRLPRO	07	A	P		
	13:00 - 15:00	2.00	DRLPRO	05	F	P		PUMP SWEEPS, CIRC HOLE 2 BOTTOMS UP
	15:00 - 16:30	1.50	DRLPRO	06	E	P		WIPER TRIP TO 9300, PUMP SWEEP, CIRC 1 BOTTOM UP, MIX LCM, LOST 20 BBLS DURING TRIP, BUILD VOLUME AND LCM TO 5%
	16:30 - 19:30	3.00	DRLPRO	05	F	P		PUMP SWEEP, CIRC 1 BOTTOM UP, MIX LCM, LOST 20 BBLS DURING TRIP, BUILD VOLUME AND LCM UP TO 5%
	19:30 - 0:00	4.50	DRLPRO	06	A	P		DROP SURVEY, POOH & LD DRILL PIPE
2/19/2010	0:00 - 2:30	2.50	DRLPRO	06	A	P		POOH & LD DRILL PIPE & BHA
	2:30 - 4:00	1.50	DRLPRO	06	A	P		PULL WEAR BUSHING
	4:00 - 5:00	1.00	DRLPRO	11	D	P		HOLD SAFETY MEETING, RU LOGGERS
	5:00 - 10:00	5.00	DRLPRO	11	D	P		RUN OH TRIPLE COMBO, BRIDGED OUT AT 9314, LOGGED OUT, RD LOGGERS
	10:00 - 11:00	1.00	DRLPRO	12	A	P		HOLD SAFETY MEETING, RU CSG CREW
	11:00 - 17:30	6.50	DRLPRO	12	C	P		RUN 20 JTS 4 1/2 P-110, 232 JTS 4 1/2 I-80 CSG, LAND SHOE AT 10522.79

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 12/6/2009	End Date: 2/20/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Leve UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	17:30 - 19:00	1.50	DRLPRO	05	D	P		CIRCULATE OUT TRIP GAS, HOLD SAFETY MEETING, RU CEMENTERS.
	19:00 - 22:00	3.00	DRLPRO	12	E	P		PUMP 40 BBLs SPACER, 600 SX LEAD, 206 BBLs, 1310 SX , 306 BBLSTAIL, DIPLACED W/163 BBLs WATER, BUMPED PLUG, FLOATS HELD, RETURNED 10 BBLs TO SURFACE
	22:00 - 0:00	2.00	DRLPRO	01	E	P		ND BOP, SET PACKOFF, RD CEMENTERS
2/20/2010	0:00 - 4:00	4.00	DRLPRO	01	E	P		TRANSFER MUD TO 400 TANK, CLEAN PITS, RELEASE RIG AT 04:00

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	4:00 - 4:00	0.00	DRLPRO					<p>CONDUCTOR CASING: Cond. Depth set: Cement sx used:</p> <p>SPUD DATE/TIME: 2/10/2010/18:00</p> <p>SURFACE HOLE: Surface From depth:9' Surface To depth: 2664' Total SURFACE hours: 26.00 Surface Casing size:8 5/8, 28# # of casing joints ran: 62 Casing set MD:2,639.5 # sx of cement:660 Cement blend (ppg):LEAD-11PPG, TAIL-15.8PPG. Cement yield (ft3/sk): LEAD- 3.82, TAIL- 1.15 # of bbls to surface: 0 Describe cement issues: Describe hole issues: TOP OUT</p> <p>PRODUCTION: Rig Move/Skid start date/time: 2/8/2010 15:00 Rig Move/Skid finish date/time:2/9/2010 15:00 Total MOVE hours: 24.0 Prod Rig Spud date/time: 2/10/2010 16:30 Rig Release date/time: 2/20/2010 4:00 Total SPUD to RR hours:227.5 Planned depth MD 10,541 Planned depth TVD 10,541 Actual MD: 10,541 Actual TVD: 10,540 Open Wells \$: \$855,068 AFE \$: \$1,075,547 Open wells \$/ft:\$81.12</p> <p>PRODUCTION HOLE: Prod. From depth: 2,664 Prod. To depth:10,541 Total PROD hours: 164.5 Production Casing size: 4.5,I-80, 11.6# # of casing joints ran: 232 JTS I-80, 20 JTS P-110 Casing set MD:10,522.8 # sx of cement:600-LEAD, 1310 TAIL Cement blend (ppg):LEAD-12.6, TAIL- 14.3 Cement yield (ft3/sk): LEAD-1.93, TAIL-1.31 Est. TOC (Lead & Tail) or 2 Stage : TAIL-4000, LEAD - SURFACE Describe cement issues: Describe hole issues:</p> <p>DIRECTIONAL INFO: KOP: 4,984 Max angle: 1.50 Departure: 21.00 Max dogleg MD: 1.10</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/8/2010	End Date: 3/17/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Level) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/8/2010	7:00 - 7:30	0.50	COMP	48		P		HSM. RIGGING DOWN & ROADING RIG
	7:30 - 11:00	3.50	COMP	30	A	P		RD RIG & ROAD RIG FROM THE NBU 920-27F TO THE NBU 920-23M. ROADS VERY MUDDY.
	11:00 - 15:00	4.00	COMP	31	I	P		ND WELL HEAD NU BOP'S. DO SOME RIG REPAIRS. SWI SDFN
3/9/2010	7:00 - 7:30	0.50	COMP	48		P		HSM. PICKING UP TUBING OFF OF TRAILER.
	7:30 - 15:00	7.50	COMP	31	I	P		WHP 0 PSI. PU 3 7/8" BIT & SUB. DRIFT & TALLY 270 JTS OF 2 3/8" L-80 TBG. EOT @ 8,560'. POOH STAND BACK 135 STANDS. ND BOP NU FRAC VALVES. SWI SDFN
3/10/2010	7:00 - 7:30	0.50	COMP	48		P		HSM. PRESSURE TESTING CASING
	7:30 - 7:30	0.00	COMP	37	C	P		WHP 0 PSI. MIRU B&C QUICK TEST. FILL CASING W/ TMAC WATER. PRESSURE TEST CASING & BOTH FRAC VALVES TO 7,000 PSI. GOOD TEST. RDMO B&C QUICK TEST. MIRU CASIED HOLE SOLUTIONS. TO PERFORATE. PU 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING. RIH PERF 10,446'-49' 4SPF, 10,398'-02' 4SPF, 10,319'-22 4SPF, 40 HOLES. POOH W / WIRE LINE. RDMO CASIED HOLE SOLUTION. WINTERIZE WELL HEAD. SWI SDFWE JSA FRAC SAFETY
3/11/2010	7:00 - 7:15	0.25		48				

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: GWS 1/1
 Event: COMPLETION Start Date: 3/8/2010 End Date: 3/17/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Level) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 7:15	0.00	COMP	30		P		<p>MIRU SUPERIOR FRAC EQUIP, FRAC STAGE #1 MESAVERDE 10319'-10449' [40 HOLES]</p> <p>STAGE #1] WHP=1193# , BREAK DWN PERFS @ 3919# , INJ RT= 46.8 , INJ PSI= 5819# , ISIP= 3116# FG= .74 , MP= 5867# , MR= 50.9 , AP= 5040# , AR= 40.8 , FG= .77 , ISIP= 3410# , PUMPED 1838.4 BBLS SLK WTR, W/ 65732 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= 294# , W/ 27/40 CALC PERFS OPEN 67%.</p> <p>STAGE #2] P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @10227' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>10194'-10197' 4 SPF, 90* PH, 12 HOLES 10072'-10074' 4 SPF, 90* PH, 8 HOLES 10036'-10038' 4 SPF, 90* PH, 8 HOLES 10003'-10004 4 SPF, 90* PH, 4 HOLES 9983'-9984' 4 SPF, 90* PH, 4 HOLES</p> <p>WHP= 2100 , BREAK DWN PERFS @ 3773# , INJ RT= 45.5 , INJ PSI= 5224# , ISIP= 3117# , FG= .75 , MP= 5841# , MR= 45.8 , AP= 5184# , AR= 40.1 , FG=.77 , ISIP= 3344# , PUMPED 792 BBLS SLK WTR, W/ 21840 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= 227 , W/ 29/36 CALC PERFS OPEN.81%.</p> <p>STAGE #3]P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ 9973' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>9938'-9943' 4 SPF, 90* PH, 20 HOLES 9883'-9886' 4 SPF, 90* PH, 12 HOLES 9828'-9830' 4 SPF, 90* PH, 8 HOLES</p> <p>WHP=2850 , BREAK DWN PERFS @4988# , INJ RT= 42.9 , INJ PSI= 3306# , ISIP= 3287# , FG= .77 , MP=6169# , MR=43.1 , AP= 4919# , AR= 35.3 , FG= .77 , ISIP= 3287# , PUMPED 900.7 BBLS SLK WTR, W/ # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI=-19 , W/ 32/40 CALC PERFS OPEN 79%.</p> <p>STAGE #4]P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ 9818' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>9784'-9788' 4SPF, 90* PH, 16 HOLES 9744'-9747' 4 SPF, 90* PH 12 HOLES 9704'-9706' 4 SPF, 90* PH, 8 HOLES 9670'-9672' 4 SPF, 90* PH, 8 HOLES</p> <p>WHP= 1485' , BREAK DWN PERFS @3890# , INJ RT= 43 , INJ PSI= 5143# , ISIP= 3293# , FG= .78 , MP= 5820# , MR= 49.1 , AP= 5168# , AR=42.1 , FG= .76 , ISIP= 3142# , PUMPED 1615 BBLS SLK WTR, W/ 64250 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= -150 , W/ 30/44 CALC PERFS OPEN 68%</p> <p>STAGE #5]P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ ' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>9552'-9555' 4 SPF, 90* PH, 12 HOLES 9514'-9517' 4 SPF, 90* PH, 12 HOLES 9418'-9420' 4 SPF, 90* PH, 8 HOLES 9338'-9340' 4 SPF, 90* PH, 8 HOLES</p>

Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/8/2010	End Date: 3/17/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Leve UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								<p>WHP= 1670#, BREAK DWN PERFS @3783# , INJ RT= 42.6 , INJ PSI= 5480# , ISIP= 3078# , FG= .76 , MP=5730 # , MR=50.7 , AP= 5132# , AR= 45 , FG=.77 , ISIP=3097# , PUMPED 981.1 BBLS SLK WTR, W/ 34301 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= 19# , W/ 27/40 CALC PERFS OPEN 68%</p> <p>STAGE #6] P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @9232' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE. 9198'-9202' 4 SPF, 90* PH, 16 HOLES 9093'-9096' 4 SPF, 90* PH, 12 HOLES 9014'-9016' 4 SPF, 90* PH, 8 HOLES</p> <p>SWIFN PREP TO COMPLETE REMAINING STAGES IN MORNING SDFN. JSA FRAC & PERF</p> <p>STAGE #6] WHP=1900 #, BREAK DOWN PERFS @ 3275 #, INJ RATE=44.2 , INJ PRESS4713 #, ISIP= 2485#, FG=.71 , MP=5460 #, MR=49.4 , AP=4827 #, AR=43.7 , FG=.76 , PUMPED 790 BBLS SLK WTR, W/25155 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, ISIP=2959 #, NPI=474 #, W/ 27/36 CALC PERFS OPEN 75%</p> <p>STAGE #7] P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ , 8965' PERF MESAVERDE USING 3-3/8" EXPEND, 23 GRAM, 0.36" HOLE 8924'-8930' 4 SPF, 90* PH, 24 HOLES 8694'-8698' 4 SPF, 90* PH, 16 HOLES WHP=1450 #, BREAK DOWN PERFS @ 2876 #, INJ RATE 44.4 , INJ PRESS 5320#, ISIP=2851 #, FG=.76 MP=5745 #, MR=49 , AP=4966 #, AR= 45.1, FG=.80 , PUMPED 1782.1 BBLS SLK WTR, W/70812 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, ISIP= 3209# NPI=358 #, W/ 27/40 CALC PERFS OPEN 67%</p> <p>P/U RIH W/ HALLI 8K CBP, SET FOR KILL PLUG @ 8644' RDMO SUPERIOR FRAC & CASED HOLE FRAC EQUIP PU 3-7/8" SEALED BIT , POBS PKG, RIH TAG KILL PLUG PU PWR SWWL PREP TO DRILL IN AM SWIFN. JSA DRILL PLUGS</p>
3/16/2010	7:00 - 7:15 7:15 - 15:00	0.25 7.75	COMP	48 30		P		
3/17/2010	7:00 - 7:15	0.25		48				

US ROCKIES REGION

Operation Summary Report

Well: NBU 920-23M		Spud Conductor: 11/24/2009		Spud Date: 2/10/2010	
Project: UTAH-UINTAH		Site: NBU 920-23M		Rig Name No: GWS 1/1	
Event: COMPLETION		Start Date: 3/8/2010		End Date: 3/17/2010	
Active Datum: RKB @4,865.00ft (above Mean Sea Leve		UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 17:00	9.75	COMP	30		P		<p>OPEN WELL 0# SICP, NU REG PUMP EST CIRC</p> <p>PLUG#1] DRILL THRU HALLI 8K CBP @8644' IN 8 MIN W/ 1200# INSREASE.</p> <p>PLUG#2]CONTINUE TO RIH TAG SAND @8935' [30 FILL] C/O & DRILL THRU HALLI8K CBP @8965' IN 7 MIN W/ 1500 # INCREASE.</p> <p>PLUG#3]CONTINUE TO RIH TAG SAND @ 9207' [25' FILL] C/O & DRILL THRU HALLI8K CBP @ 9232' IN 6 MIN W/ 1100 # INCREASE.</p> <p>PLUG#4]CONTINUE TO RIH TAG SAND @ 9555' [30' FILL] C/O & DRILL THRU HALLI 8K CBP @9585' IN 2 MIN W/ 1000 # INCREASE.</p> <p>PLUG#5]CONTINUE TO RIH TAG SAND @9788' [30' FILL] C/O & DRILL THRU HALLI 8K CBP @ 9818' IN 5 MIN W/ 600 # INCREASE.</p> <p>PLUG#6]CONTINUE TO RIH TAG SAND @ 9943' [30' FILL] C/O & DRILL THRU HALLI8K CBP @ 9973' IN 4 MIN W/ 500 # INCREASE.</p> <p>PLUG#7]CONTINUE TO RIH TAG SAND @ 10197' [30' FILL] C/O & DRILL THRU HALLI8K CBP @ 10227 IN 9 MIN W/ 700 # INCREASE.</p> <p>CONTINUE TO RIH TAG SAND @ 10459' [20' FILL] C/O TO PBD @ 10479' CIRC CLEAN POOH LD JNTS LAND TUBING ON HANGER RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD PUMP OFF BIT SUB TURN WELL OVER TO FBC @ W/ 8699.6 BBLS PUMPED RIG REC 2000 BBLS W/ 6700 BBLS LEFT TO REC RIG DOWN RIG MOVE TO NBU 920-14C</p>
3/18/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2200#, TP 2425#, 20/64" CK, 65 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 3440 BBLS LEFT TO RECOVER: 5260</p>
	13:45 -		PROD	50				<p>WELL TURNED TO SALES @ 1345 HR ON 3/18/2010 - 1900 MCFD, 1320 BWPD, CP 2550#, FTF 2200#, CK 20/64"</p>
3/19/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2650#, TP 2425#, 20/64" CK, 40 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 4635 BBLS LEFT TO RECOVER: 4065</p>
3/20/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 3075#, TP 2150#, 20/64" CK, 30 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 5494 BBLS LEFT TO RECOVER: 3206</p>
3/21/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2650#, TP 1850#, 20/64" CK, 20 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 6019 BBLS LEFT TO RECOVER: 2681</p>

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 920-23M	Wellbore No.	OH
Well Name	NBU 920-23M	Common Name	NBU 920-23M
Project	UTAH-UINTAH	Site	NBU 920-23M
Vertical Section Azimuth		North Reference	True
Origin N/S		Origin E/W	
Spud Date	2/10/2010	UWI	SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/8 21.00/0/0
Active Datum	RKB @4,865.00ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	TOTCO
Started	12/8/2009	Ended	
Tool Name	INC	Engineer	Anadarko

2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
9.00	0.00	0.00	9.00	0.00	0.00

2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
12/8/2009	Tie On	9.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/8/2009	NORMAL	509.00	1.00		508.97	4.36	0.00	4.36	0.20	0.20	0.00	0.00
12/9/2009	NORMAL	1,629.00	0.25		1,628.90	16.58	0.00	16.58	0.07	-0.07	0.00	180.00
	NORMAL	2,069.00	0.75		2,068.88	20.42	0.00	20.42	0.11	0.11	0.00	0.00
	NORMAL	2,604.00	0.60	190.10	2,603.87	21.16	-0.49	21.16	0.25	-0.03	-31.76	-175.51

2.2 Survey Name: Survey #2

Survey Name	Survey #2	Company	EXTREME ENG.
Started	2/10/2010	Ended	
Tool Name	MWD	Engineer	Anadarko

2.2.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
2,604.00	0.60	190.10	2,603.87	21.16	-0.49

2.2.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/10/2010	Tie On	2,604.00	0.60	190.10	2,603.87	21.16	-0.49	21.16	0.25	-0.03	-31.76	184.49
2/10/2010	NORMAL	2,654.00	0.53	247.68	2,653.87	20.82	-0.75	20.82	1.10	-0.14	115.15	125.22
2/10/2010	NORMAL	2,945.00	0.88	162.42	2,944.85	18.18	-1.32	18.18	0.34	0.12	-29.30	242.46
2/11/2010	NORMAL	4,052.00	0.53	241.00	4,051.79	7.59	-3.23	7.59	0.08	-0.03	7.10	146.17
	NORMAL	4,551.00	1.41	160.58	4,550.73	0.68	-3.21	0.68	0.28	0.18	-16.12	258.01
	NORMAL	4,984.00	1.14	179.30	4,983.62	-8.65	-1.39	-8.65	0.11	-0.06	4.32	132.08
2/12/2010	NORMAL	6,000.00	0.97	105.82	5,999.49	-21.10	7.01	-21.10	0.12	-0.02	-7.23	227.10
	NORMAL	6,479.00	0.53	135.88	6,478.45	-23.80	12.46	-23.80	0.12	-0.09	6.28	152.56
2/13/2010	NORMAL	7,540.00	0.62	119.18	7,539.39	-30.12	20.88	-30.12	0.02	0.01	-1.57	289.72
2/14/2010	NORMAL	8,030.00	0.44	88.33	8,029.37	-31.36	25.08	-31.36	0.07	-0.04	-6.30	222.97
	NORMAL	8,472.00	0.70	128.88	8,471.35	-33.00	28.88	-33.00	0.11	0.06	9.17	78.58
2/15/2010	NORMAL	9,035.00	1.14	126.30	9,034.28	-38.48	36.07	-38.48	0.08	0.08	-0.46	353.33
2/19/2010	NORMAL	10,521.00	1.50		10,520.09	-27.78	47.98	-27.78	0.16	0.02	-8.50	210.81
2/20/2010	NORMAL	10,541.00	1.50		10,540.08	-27.25	47.98	-27.25	0.00	0.00	0.00	0.00

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.
UTU0577A

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

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
UTU63047A

2. Name of Operator **KERR-MCGEE OIL&GAS ONSHORE** Contact: ANDY LYTLE
 Email: andrew.lytle@anadarko.com

8. Lease Name and Well No.
NBU 920-23M

3. Address **P.O. BOX 173779 DENVER, CO 80217** 3a. Phone No. (include area code)
 Ph: 720-929-6100

9. API Well No. **43-047-50555**

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
 At surface **SWSW 510FSL 821FWL 40.01499 N Lat, 109.63938 W Lon**
 At top prod interval reported below **SWSW 510FSL 821FWL 40.01499 N Lat, 109.63938 W Lon**
 At total depth **SWSW 510FSL 821FWL 40.01499 N Lat, 109.63938 W Lon**

10. Field and Pool, or Exploratory
NATURAL BUTTES

11. Sec., T., R., M., or Block and Survey
or Area **Sec 23 T9S R20E Mer SLB**

12. County or Parish **UINTAH** 13. State **UT**

14. Date Spudded **11/24/2009** 15. Date T.D. Reached **02/18/2010** 16. Date Completed
 D & A Ready to Prod. **03/18/2010**

17. Elevations (DF, KB, RT, GL)*
4852 GL

18. Total Depth: MD **10541** TVD **10540** 19. Plug Back T.D.: MD **10477** TVD **10476** 20. Depth Bridge Plug Set: MD **10477** TVD **10476**

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
ACOUSTIC CBL-BHV-SD/DSN/ACTR-CCL-GR 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 STEEL	36.7		40		28			
11.000	8.625 IJ-55	28.0		2639		660			
7.875	4.500 I-80	11.6		10522		1910			

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	9968							

25. Producing Intervals

26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	8694	10449	8694 TO 10449	0.360	276	OPEN
B) WSMUD						
C)						
D)						

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

Depth Interval	Amount and Type of Material
8694 TO 10449	PMP 8,700 BBLs SLICK H2O & 319,259 LBS 30/50 SD.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
03/18/2010	03/21/2010	24	→	0.0	2464.0	250.0			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	1628 SI	2608.0	→	0	2464	250		PGW	

28a. Production - Interval B

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

RECEIVED

APR 26 2010

DIV. OF OIL, GAS & MINING

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #85084 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

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	1707				
MAHOGANY	2412				
WASATCH	5149	8319			
MESAVERDE	8330	10541			

32. Additional remarks (include plugging procedure):

ATTACHED TO THIS WELL COMPLETION REPORT IS THE CHRONOLOGICAL WELL HISTORY AND 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 #85084 Verified by the BLM Well Information System.
For KERR-MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

Name (please print) ANDY LYTLE Title REGULATORY ANALYST

Signature  (Electronic Submission) Date 04/20/2010

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

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

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
12/8/2009	10:00 - 13:00	3.00	MIRU	01	A	P		MOVE RIG
	13:00 - 17:30	4.50	MIRU	01	B	P		RIG TO SPUD 11 " HOLE
	17:30 - 22:00	4.50	DRLSUR	02	B	P		DRILL SURVEY F/ 44 TO 570 12-18 K RPM 60 MM RPM 104 650 GPM PUMP PSI 1000 OFF 800 PSI SURVEY @ 510' 1 DEG
	22:00 - 22:30	0.50	DRLSUR	10	A	P		DRILL F/ 570 TO 750' 20-25 K RPM 60 PUMP PSI ON BOTTOM 1350 OFF 1100 650 GPM MM RPM 104 ROP 120
	22:30 - 0:00	1.50	DRLSUR	02	B	P		DRILL, F/ 750 TO 1080 20-25 K RPM 60 PUMP PSI ON BOTTOM 1350 OFF 1100 650 GPM MM RPM 104 ROP 110
12/9/2009	0:00 - 3:00	3.00	DRLSUR	02	B	P		DRILL, F/ 750 TO 1080 20-25 K RPM 60 PUMP PSI ON BOTTOM 1350 OFF 1100 650 GPM MM RPM 104 ROP 110
	3:00 - 3:30	0.50	DRLSUR	10	A	P		SURVEY @ 1020' 1 DEG
	3:30 - 9:30	6.00	DRLSUR	02	B	P		DRILL F/ 1080 TO 1620' (540',90'/HR), 20-25 K RPM 45 DH RPM=104 ON/OFF PSI= 1350/1000 650 GPM UP/DOWN/ROT= 60/58/59
	9:30 - 10:00	0.50	DRLSUR	10	A	P		WIRELINE SURVEY 1550'= .25 DEG INC ONLY.
	10:00 - 14:00	4.00	DRLSUR	02	B	P		DRILL 1620'-2130' (128/HR), 20-25 K RPM 45 DH RPM=104 ON/OFF PSI= 1400/1100 650 GPM UP/DOWN/ROT= 65/64/65
	14:00 - 14:30	0.50	DRLSUR	10	A	P		WIRELINE SURVEY 2060'= .75 DEGREE INC. ONLY
	14:30 - 21:30	7.00	DRLSUR	02	B	P		DRILL 2130'- 2655' (525', 75'/HR) TD 12/9/2009 21:30 20-25K RPM 45, DH RPM 104, ON/OFF PSI 1600/1300 GPM 650, UP/DOWN ROT 73/71/72. DRAG 1 K. FULL CIRC NO LOSSES OR GAINS THROUGH OUT WELL.
	21:30 - 23:00	1.50	CSG	05	C	P		CIRC AND CONDITION HOLE, CIRC HOLE CLEAN W/ AERATED WATER, CIRC LAST CIRC W/ JUST WATER. DROP MULTISHOT TOOL, AIR OUT DRILL PIPE. BLOW DOWN RIG.
12/10/2009	23:00 - 0:00	1.00	CSG	06	D	P		LAY DOWN DRILL STRING. 2000' @ MIDNIGHT.
	0:00 - 4:30	4.50	CSG	06	D	P		LDDS, LD BHA. CHECK MOTOR AND BIT. BLOW OUT MOTOR. RETRIEVE MULTISHOT TOOL. .6 DEG, 190.1 CORRECTED AZI. LD MOTOR.
	4:30 - 10:00	5.50	CSG	12	C	P		HOLD SAFETY MEETING. RUN 60 JTS OF 8-5/8" 28# IJ-55 W/ LTC 8 RD THREADS. LAND FLOAT SHOE @ 2630' KB, BAFFLE PLATE RAN IN TOP OF SHOE JT @ 2584' KB. FILL PIPE 1000' AND 2000'. RUN 200' OF 1" DOWN BACK SIDE.
	10:00 - 11:00	1.00	RDMO	01	E	P		RIG DOWN RIG , READY RIG TO ROAD. RELEASE RIG 12/10/2009 11:00
	11:00 - 14:00	3.00	CSG	12	E	P		HOLD SAFETY MEETING W/ CEMENTERS, RIG UP CEMENTERS , PRESSURE TEST TO 2000 PSI. PUMP 130 BBLs OF H2O , PUMP 20 BBLs OF GEL WATER. PUMP 210 (142.8 BBLs) SX OF 11#, 3.82 YD, 23 GAL SX HI FILL LEAD CEMENT. PUMP 200 SX (41.2 BBLs) OF 15.8#, 1.15 YD, 5 GAL/SK 2% CALC TAIL CEMENT, DROP PLUG ON FLY AND DISPLACE W/ 170 BBLs OF 8.3# H2O, 15 BBLs OF LEAD TO SURFACE W/ 500 PSI OF LIFT @ 5 BBLs/MIN. LAND PLUG 1000 PSI AND CHECK FLOAT. FLOAT HELD. PUMP 125 SX (25.6 BBLs) OF 4% CALC 15.8# 1.15 YD, 5 GAL/SK CEMENT DOWN 1" 2 BBLs OF CEMENT TO SURFACE. CEMENT FELL BACK APPROX 200'. WAIT 2 HR AND PUMP 125 SX (25.6 BBLs) OF SAME CEMENT. CEMENT TO SUFACE AND STAYED.

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub-Code	P/U	MD From (ft)	Operation
2/8/2010	15:00 - 0:00	9.00	MIRU	01	A	P		RIG DOWN PREPARE TO MOVE TO NBU 920-23M
2/9/2010	0:00 - 6:00	6.00	RDMO	01	A	P		RIG DOWN BACK YARD AND ALL MISC. RIG EQUIPMENT
	6:00 - 22:00	16.00	MIRU	01	A	P		MOVE RIG TO NBU 920-23M TRUCKS OFF OLD LOCATION 1130 2-9-2010 TRUCKS OFF NEW LOCATION 1500 2-9-2010 RAISE DERRICK AT 1400 2-9-2010
	22:00 - 0:00	2.00	MIRU	14	A	P		NIPPLE UP BOP
2/10/2010	0:00 - 1:30	1.50	PRPSPD	14	A	P		NIPPLE UP BOP
	1:30 - 7:30	6.00	PRPSPD	15	A	P		PRESSURE TEST BOP ANNULAR 250 LOW 2500 HIGH PIPE RAMS BLIND RAMS, INSIDE/OUTSIDE MANUAL VALVES, HCR VALVE, CHOKE LINE, UPRIGHT GUAGE VALVE, KILL LINE CHECK VALVE, SUPER CHOKE, IMSIDE/MIDDLE MANIFOLD VALVES 250 LOW 5000 HIGH CASING 1500 PSI FOR 30 MIN. FILLED CHOKE WITH METHANOL, RIG DOWN TESTER
	7:30 - 8:00	0.50	PRPSPD	01	A	P		INSTALL WEAR BUSHING
	8:00 - 11:30	3.50	PRPSPD	06	A	P		PICK UP MUD PULSE TOOL, 7.875 DRILL BIT, .21 RPG 1.5 BEND 7/8 HUNTING MUD MOTOR, 7 3/8 STABILIZER, 2 MONEL DRILL COLLARS, HANG OFF SUB. ORIENT MWD TOOL. PICK UP 6 DRILL COLLARS
	11:30 - 12:00	0.50	PRPSPD	06	A	P		SHALLOW TEST MWD TOOL TEST FAILED
	12:00 - 13:00	1.00	PRPSPD	06	H	Z		TOOH FOR MWD TOOL FAILURE, RECIEVED NO SURVEY INFORMATION FROM TOOL
	13:00 - 14:00	1.00	PRPSPD	06	A	Z		INSTALL NEW MUD PULSE TOOL RE ORIENT MUD MOTOR SHALLOW TEST TOOL / TOOL OK
	14:00 - 16:30	2.50	PRPSPD	06	A	P		PICK UP 18 HWDP AND DRILL PIPE INSTALL ROT RUBBER
	16:30 - 18:00	1.50	PRPSPD	02	F	P		DRILL CEMENT AND FLOAT EQUIPMENT TAG CEMENT AT 2530' BAFFLE PLATE AT 2593 SHOE AT 2638'; SPUD WELL 1630 2-10-2010
	18:00 - 21:00	3.00	DRLIN1	02	B	P		DRILL 2638 TO 2829, WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 RIG SERVICE
	21:00 - 21:30	0.50	DRLPRO	07	A	P		
	21:30 - 0:00	2.50	DRLPRO	02	B	P		DRILL 2829 TO 3140, WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/11/2010	0:00 - 10:00	10.00	DRLPRO	02	B	P		DRILL 3140' - 4187', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	10:00 - 10:30	0.50	DRLPRO	08	A	Z		WORK ON AIR COMPRESSOR
	10:30 - 15:00	4.50	DRLPRO	02	B	P		DRILL 4187' - 4596', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	15:00 - 15:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	15:30 - 0:00	8.50	DRLPRO	02	B	P		DRILL 4596' - 5265, WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.0, VIS-32. BGG 0 , CG 0 PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 12/6/2009	End Date: 2/20/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Level) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
2/12/2010	0:00 - 13:30	13.50	DRLPRO	02	B	P		DRILL 5265' - 6182', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.7, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	13:30 - 14:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	14:00 - 0:00	10.00	DRLPRO	02	B	P		DRILL 6182' - 6835', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-10.7, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/13/2010	0:00 - 4:00	4.00	DRLPRO	02	B	P		DRILL 6835' - 7067', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	4:00 - 4:30	0.50	DRLPRO	22	C	X		DRILLER SAW AN 8 BBL GAIN AND SHUT WELL IN. 20 PSI ON CASING AND NO FLARE. NO LOSS IN DRILL PIPE PRESSURE. OPEN CHOKE AND KICKED PUMPS ON (NO FLARE, OR PIT GAIN) SHUT DOWN PUMPS AND OPENED BOP. NO PIT GAIN. KICKED ON PUMPS AND WENT BACK TO DRILLING NO FLARE, PIT GAIN, OR LOSS IN DRILL PIPE PRESSURE
	4:30 - 5:00	0.50	DRLPRO	02	B	P		DRILL 7067' - 7088', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	5:00 - 5:30	0.50	DRLPRO	22	C	X		BLOW DOWN CHOLE AND WINTERIZE
	5:30 - 13:00	7.50	DRLPRO	02	B	P		DRILL 7088' - 7405', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
	13:00 - 13:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	13:30 - 0:00	10.50	DRLPRO	02	B	P		DRILL 7405' - 7790', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.2, VIS-39. PUMPING HIGH VIS SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/14/2010	0:00 - 9:30	9.50	DRLPRO	02	B	P		DRILL 7790' - 8129', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
	9:30 - 10:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	10:00 - 0:00	14.00	DRLPRO	02	B	P		DRILL 8129' - 8650', WOB-12-24, SPP 1560/1458, GPM- 460, ROTARY RPM-40-50, MOTOR RPM-95, DIF PSI-325-475, MW-11.1, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/15/2010	0:00 - 16:00	16.00	DRLPRO	02	B	P		DRILL 8650' - 9171', WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
	16:00 - 16:30	0.50	DRLPRO	07	A	P		RIG SERVICE

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:30 - 0:00	7.50	DRLPRO	02	B	P		DRILL 9171' - 9322', WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS AT 9200' LOST 30 BBLS MUD PUMPED HIGH CONCENTRATE LCM SWEEPS GAINED CIRCULATION BROUGHT LCM PERCENTAGE TO 4% CURRENTLY HAVE FULL RETURNS AND BUILDING VOLUME.
2/16/2010	0:00 - 1:30	1.50	DRLPRO	02	B	P		DRILL 9322' - 9329, WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12.4, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
	1:30 - 3:00	1.50	DRLPRO	05	C	P		CIRCULATE AND CONDITION MUD, MIX DRY PILL, KEEP A MUD WEIGHT OF 12.4 40 VIS
	3:00 - 12:00	9.00	DRLPRO	06	A	P		TOOH FILLING HOLE EVERY 5 STANDS CHECKING FOR FLOW, NO FLOW, LAY DOWN STABILIZER, MWD TOOL, HANG OFF SUB AND 2 MONEL DRILL COLLARS, BREAK BIT AND LAY DOWN MUD MOTOR
	12:00 - 13:30	1.50	DRLPRO	06	A	P		PICK UP .16 REV/GAL HUNTING MUD MOTOR AND 506 HUGHES PDC BIT. TIH TO 2300'
	13:30 - 14:00	0.50	DRLPRO	07	A	P		RIG SERVICE
	14:00 - 18:00	4.00	DRLPRO	06	A	P		TIH WITH BIT AND MUD MOTOR #2 RUN #2 TP 9275'
	18:00 - 18:30	0.50	DRLPRO	03	D	P		WASH AND REAM 60' TO BOTTOM
	18:30 - 0:00	5.50	DRLPRO	02	B	P		DRILL 9329' - 9483, WOB-12-24, SPP 1560/1458, GPM- 420, ROTARY RPM-40-50, MOTOR RPM-88, DIF PSI-325-475, MW-12.4, VIS-39. PUMPING NUT HULL SWEEPS AS NEEDED FOR HOLE CONDITIONS
2/17/2010	0:00 - 12:30	12.50	DRLPRO	02	B	P		DRILL 9483 TO 9920, SPP-2720, SPM#1-60, SPM#2-60, GPM-460, ROTARY RPM-40-50, MOTOR RPM-74, WOB- 18-20, DIF-200-450, MW-12.4, VIS-42 LUBRICATE RIG
	12:30 - 13:00	0.50	DRLPRO	07	A	P		
	13:00 - 0:00	11.00	DRLPRO	02	B	P		DRILL 9920 TO 10221, SPP-2888, SPM#1-60, SPM#2- 60, GPM-460, ROTARY RPM-40-50, MOTOR RPM-74, WOB- 18-22, DIF-200-420, MW-12.4, VIS-42
2/18/2010	0:00 - 12:30	12.50	DRLPRO	02	B	P		DRILL 10221 TO 10541, TD AT 12:30, SPP-2888, SPM#1-60, SPM#2- 60, GPM-460, ROTARY RPM-40-50, MOTOR RPM-74, WOB- 18, DIF-200-450, MW-12.4, VIS-42 LUBRICATE RIG
	12:30 - 13:00	0.50	DRLPRO	07	A	P		
	13:00 - 15:00	2.00	DRLPRO	05	F	P		PUMP SWEEPS, CIRC HOLE 2 BOTTOMS UP
	15:00 - 16:30	1.50	DRLPRO	06	E	P		WIPER TRIP TO 9300, PUMP SWEEP, CIRC 1 BOTTOM UP, MIX LCM, LOST 20 BBLS DURING TRIP, BUILD VOLUME AND LCM TO 5%
	16:30 - 19:30	3.00	DRLPRO	05	F	P		PUMP SWEEP, CIRC 1 BOTTOM UP, MIX LCM, LOST 20 BBLS DURING TRIP, BUILD VOLUME AND LCM UP TO 5%
	19:30 - 0:00	4.50	DRLPRO	06	A	P		DROP SURVEY, POOH & LD DRILL PIPE
2/19/2010	0:00 - 2:30	2.50	DRLPRO	06	A	P		POOH & LD DRILL PIPE & BHA
	2:30 - 4:00	1.50	DRLPRO	06	A	P		PULL WEAR BUSHING
	4:00 - 5:00	1.00	DRLPRO	11	D	P		HOLD SAFETY MEETING, RU LOGGERS
	5:00 - 10:00	5.00	DRLPRO	11	D	P		RUN OH TRIPLE COMBO, BRIDGED OUT AT 9314, LOGGED OUT, RD LOGGERS
	10:00 - 11:00	1.00	DRLPRO	12	A	P		HOLD SAFETY MEETING, RU CSG CREW
	11:00 - 17:30	6.50	DRLPRO	12	C	P		RUN 20 JTS 4 1/2 P-110, 232 JTS 4 1/2 I-80 CSG, LAND SHOE AT 10522.79

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: PROPETRO/, ENSIGN 145/145
Event: DRILLING	Start Date: 12/6/2009	End Date: 2/20/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Leve		
UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	17:30 - 19:00	1.50	DRLPRO	05	D	P		CIRCULATE OUT TRIP GAS, HOLD SAFETY MEETING, RU CEMENTERS.
	19:00 - 22:00	3.00	DRLPRO	12	E	P		PUMP 40 BBLs SPACER, 600 SX LEAD, 206 BBLs, 1310 SX , 306 BBLSTAIL, DIPLACED W/163 BBLs WATER, BUMPED PLUG, FLOATS HELD, RETURNED 10 BBLs TO SURFACE
	22:00 - 0:00	2.00	DRLPRO	01	E	P		ND BOP, SET PACKOFF, RD CEMENTERS
2/20/2010	0:00 - 4:00	4.00	DRLPRO	01	E	P		TRANSFER MUD TO 400 TANK, CLEAN PITS, RELEASE RIG AT 04:00

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: PROPETRO/, ENSIGN 145/145
 Event: DRILLING Start Date: 12/6/2009 End Date: 2/20/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Leve) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	4:00 - 4:00	0.00	DRLPRO					<p>CONDUCTOR CASING: Cond. Depth set: Cement sx used:</p> <p>SPUD DATE/TIME: 2/10/2010/18:00</p> <p>SURFACE HOLE: Surface From depth:9' Surface To depth: 2664' Total SURFACE hours: 26.00 Surface Casing size:8 5/8, 28# # of casing joints ran: 62 Casing set MD:2,639.5 # sx of cement:660 Cement blend (ppg):LEAD-11PPG, TAIL-15.8PPG. Cement yield (ft3/sk): LEAD- 3.82, TAIL- 1.15 # of bbls to surface: 0 Describe cement issues: Describe hole issues: TOP OUT</p> <p>PRODUCTION: Rig Move/Skid start date/time: 2/8/2010 15:00 Rig Move/Skid finish date/time:2/9/2010 15:00 Total MOVE hours: 24.0 Prod Rig Spud date/time: 2/10/2010 16:30 Rig Release date/time: 2/20/2010 4:00 Total SPUD to RR hours:227.5 Planned depth MD 10,541 Planned depth TVD 10,541 Actual MD: 10,541 Actual TVD: 10,540 Open Wells \$: \$855,068 AFE \$: \$1,075,547 Open wells \$/ft:\$81.12</p> <p>PRODUCTION HOLE: Prod. From depth: 2,664 Prod. To depth:10,541 Total PROD hours: 164.5 Production Casing size: 4.5,I-80, 11.6# # of casing joints ran: 232 JTS I-80, 20 JTS P-110 Casing set MD:10,522.8 # sx of cement:600-LEAD, 1310 TAIL Cement blend (ppg):LEAD-12.6, TAIL- 14.3 Cement yield (ft3/sk): LEAD-1.93, TAIL-1.31 Est. TOC (Lead & Tail) or 2 Stage : TAIL-4000, LEAD - SURFACE Describe cement issues: Describe hole issues:</p> <p>DIRECTIONAL INFO: KOP: 4,984 Max angle: 1.50 Departure: 21.00 Max dogleg MD: 1.10</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/8/2010	End Date: 3/17/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Level) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/8/2010	7:00 - 7:30	0.50	COMP	48		P		HSM. RIGGING DOWN & ROADING RIG
	7:30 - 11:00	3.50	COMP	30	A	P		RD RIG & ROAD RIG FROM THE NBU 920-27F TO THE NBU 920-23M. ROADS VERY MUDDY.
	11:00 - 15:00	4.00	COMP	31	I	P		ND WELL HEAD NU BOP'S. DO SOME RIG REPAIRS. SWI SDFN
3/9/2010	7:00 - 7:30	0.50	COMP	48		P		HSM. PICKING UP TUBING OFF OF TRAILER.
	7:30 - 15:00	7.50	COMP	31	I	P		WHP 0 PSI. PU 3 7/8" BIT & SUB. DRIFT & TALLY 270 JTS OF 2 3/8" L-80 TBG. EOT @ 8,560'. POOH STAND BACK 135 STANDS. ND BOP NU FRAC VALVES. SWI SDFN
3/10/2010	7:00 - 7:30	0.50	COMP	48		P		HSM. PRESSURE TESTING CASING
	7:30 - 7:30	0.00	COMP	37	C	P		WHP 0 PSI. MIRU B&C QUICK TEST. FILL CASING W/ TMAC WATER. PRESSURE TEST CASING & BOTH FRAC VALVES TO 7,000 PSI. GOOD TEST. RDMO B&C QUICK TEST. MIRU CASIED HOLE SOLUTIONS. TO PERFORATE. PU 3 1/8" EXP GNS, 23 GRM, .36 HOLES, 90 DEG PHASING. RIH PERF 10,446'-49' 4SPF, 10,398'-02' 4SPF, 10,319'-22 4SPF, 40 HOLES. POOH W / WIRE LINE. RDMO CASIED HOLE SOLUTION. WINTERIZE WELL HEAD. SWI SDFWE JSA FRAC SAFETY
3/11/2010	7:00 - 7:15	0.25		48				

US ROCKIES REGION
Operation Summary Report

Well: NBU 920-23M Spud Conductor: 11/24/2009 Spud Date: 2/10/2010
 Project: UTAH-UINTAH Site: NBU 920-23M Rig Name No: GWS 1/1
 Event: COMPLETION Start Date: 3/8/2010 End Date: 3/17/2010
 Active Datum: RKB @4,865.00ft (above Mean Sea Level) UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 7:15	0.00	COMP	30		P		<p>MIRU SUPERIOR FRAC EQUIP, FRAC STAGE #1 MESAVERDE 10319'-10449' [40 HOLES]</p> <p>STAGE #1] WHP=1193# , BREAK DWN PERFS @ 3919# , INJ RT= 46.8 , INJ PSI= 5819# , ISIP= 3116# FG= .74 , MP= 5867# , MR= 50.9 , AP= 5040# , AR= 40.8 , FG= .77 , ISIP= 3410# , PUMPED 1838.4 BBLS SLK WTR, W/ 65732 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= 294# , W/ 27/40 CALC PERFS OPEN 67%.</p> <p>STAGE #2] P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @10227' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>10194'-10197' 4 SPF, 90* PH, 12 HOLES 10072'-10074' 4 SPF, 90* PH, 8 HOLES 10036'-10038' 4 SPF, 90* PH, 8 HOLES 10003'-10004 4 SPF, 90* PH, 4 HOLES 9983'-9984' 4 SPF, 90* PH, 4 HOLES</p> <p>WHP= 2100 , BREAK DWN PERFS @ 3773# , INJ RT= 45.5 , INJ PSI= 5224# , ISIP= 3117# , FG= .75 , MP= 5841# , MR= 45.8 , AP= 5184# , AR= 40.1 , FG=.77 , ISIP= 3344# , PUMPED 792 BBLS SLK WTR, W/ 21840 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= 227 , W/ 29/36 CALC PERFS OPEN.81%.</p> <p>STAGE #3]P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ 9973' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>9938'-9943' 4 SPF, 90* PH, 20 HOLES 9883'-9886' 4 SPF, 90* PH, 12 HOLES 9828'-9830' 4 SPF, 90* PH, 8 HOLES</p> <p>WHP=2850 , BREAK DWN PERFS @4988# , INJ RT= 42.9 , INJ PSI= 3306# , ISIP= 3287# , FG= .77 , MP=6169# , MR=43.1 , AP= 4919# , AR= 35.3 , FG= .77 , ISIP= 3287# , PUMPED 900.7 BBLS SLK WTR, W/ # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI=-19 , W/ 32/40 CALC PERFS OPEN 79%.</p> <p>STAGE #4]P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ 9818' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>9784'-9788' 4SPF, 90* PH, 16 HOLES 9744'-9747' 4 SPF, 90* PH 12 HOLES 9704'-9706' 4 SPF, 90* PH, 8 HOLES 9670'-9672' 4 SPF, 90* PH, 8 HOLES</p> <p>WHP= 1485' , BREAK DWN PERFS @3890# , INJ RT= 43 , INJ PSI= 5143# , ISIP= 3293# , FG= .78 , MP= 5820# , MR= 49.1 , AP= 5168# , AR=42.1 , FG= .76 , ISIP= 3142# , PUMPED 1615 BBLS SLK WTR, W/ 64250 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= -150 , W/ 30/44 CALC PERFS OPEN 68%</p> <p>STAGE #5]P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ ' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE.</p> <p>9552'-9555' 4 SPF, 90* PH, 12 HOLES 9514'-9517' 4 SPF, 90* PH, 12 HOLES 9418'-9420' 4 SPF, 90* PH, 8 HOLES 9338'-9340' 4 SPF, 90* PH, 8 HOLES</p>

Operation Summary Report

Well: NBU 920-23M	Spud Conductor: 11/24/2009	Spud Date: 2/10/2010
Project: UTAH-UINTAH	Site: NBU 920-23M	Rig Name No: GWS 1/1
Event: COMPLETION	Start Date: 3/8/2010	End Date: 3/17/2010
Active Datum: RKB @4,865.00ft (above Mean Sea Leve UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
								<p>WHP= 1670#, BREAK DWN PERFS @3783# , INJ RT= 42.6 , INJ PSI= 5480# , ISIP= 3078# , FG= .76 , MP=5730 # , MR=50.7 , AP= 5132# , AR= 45 , FG=.77 , ISIP=3097# , PUMPED 981.1 BBLS SLK WTR, W/ 34301 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, NPI= 19# , W/ 27/40 CALC PERFS OPEN 68%</p> <p>STAGE #6] P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @9232' , PERF MESA VERDE USING 3-3/8" EXPEND, 23 GRAM, .036" HOLE. 9198'-9202' 4 SPF, 90* PH, 16 HOLES 9093'-9096' 4 SPF, 90* PH, 12 HOLES 9014'-9016' 4 SPF, 90* PH, 8 HOLES</p> <p>SWIFN PREP TO COMPLETE REMAINING STAGES IN MORNING SDFN. JSA FRAC & PERF</p> <p>STAGE #6] WHP=1900 #, BREAK DOWN PERFS @ 3275 #, INJ RATE=44.2 , INJ PRESS4713 #, ISIP= 2485#, FG=.71 , MP=5460 #, MR=49.4 , AP=4827 #, AR=43.7 , FG=.76 , PUMPED 790 BBLS SLK WTR, W/25155 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, ISIP=2959 #, NPI=474 #, W/ 27/36 CALC PERFS OPEN 75%</p> <p>STAGE #7] P/U RIH W/ HALLI 8K CBP & PERF GUN, SET CBP @ , 8965' PERF MESAVERDE USING 3-3/8" EXPEND, 23 GRAM, 0.36" HOLE 8924'-8930' 4 SPF, 90* PH, 24 HOLES 8694'-8698' 4 SPF, 90* PH, 16 HOLES WHP=1450 #, BREAK DOWN PERFS @ 2876 #, INJ RATE 44.4 , INJ PRESS 5320#, ISIP=2851 #, FG=.76 MP=5745 #, MR=49 , AP=4966 #, AR= 45.1, FG=.80 , PUMPED 1782.1 BBLS SLK WTR, W/70812 # 30/50 MESH, W/ 5000# RESIN COAT IN TAIL, ISIP= 3209# NPI=358 #, W/ 27/40 CALC PERFS OPEN 67%</p> <p>P/U RIH W/ HALLI 8K CBP, SET FOR KILL PLUG @ 8644' RDMO SUPERIOR FRAC & CASED HOLE FRAC EQUIP PU 3-7/8" SEALED BIT , POBS PKG, RIH TAG KILL PLUG PU PWR SWWL PREP TO DRILL IN AM SWIFN. JSA DRILL PLUGS</p>
3/16/2010	7:00 - 7:15 7:15 - 15:00	0.25 7.75	COMP	48 30		P		
3/17/2010	7:00 - 7:15	0.25		48				

US ROCKIES REGION

Operation Summary Report

Well: NBU 920-23M		Spud Conductor: 11/24/2009		Spud Date: 2/10/2010	
Project: UTAH-UINTAH		Site: NBU 920-23M		Rig Name No: GWS 1/1	
Event: COMPLETION		Start Date: 3/8/2010		End Date: 3/17/2010	
Active Datum: RKB @4,865.00ft (above Mean Sea Leve		UWI: SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/821.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 17:00	9.75	COMP	30		P		<p>OPEN WELL 0# SICP, NU REG PUMP EST CIRC</p> <p>PLUG#1] DRILL THRU HALLI 8K CBP @8644' IN 8 MIN W/ 1200# INSREASE.</p> <p>PLUG#2]CONTINUE TO RIH TAG SAND @8935' [30 FILL] C/O & DRILL THRU HALLI8K CBP @8965' IN 7 MIN W/ 1500 # INCREASE.</p> <p>PLUG#3]CONTINUE TO RIH TAG SAND @ 9207' [25' FILL] C/O & DRILL THRU HALLI8K CBP @ 9232' IN 6 MIN W/ 1100 # INCREASE.</p> <p>PLUG#4]CONTINUE TO RIH TAG SAND @ 9555' [30' FILL] C/O & DRILL THRU HALLI 8K CBP @9585' IN 2 MIN W/ 1000 # INCREASE.</p> <p>PLUG#5]CONTINUE TO RIH TAG SAND @9788' [30' FILL] C/O & DRILL THRU HALLI 8K CBP @ 9818' IN 5 MIN W/ 600 # INCREASE.</p> <p>PLUG#6]CONTINUE TO RIH TAG SAND @ 9943' [30' FILL] C/O & DRILL THRU HALLI8K CBP @ 9973' IN 4 MIN W/ 500 # INCREASE.</p> <p>PLUG#7]CONTINUE TO RIH TAG SAND @ 10197' [30' FILL] C/O & DRILL THRU HALLI8K CBP @ 10227 IN 9 MIN W/ 700 # INCREASE.</p> <p>CONTINUE TO RIH TAG SAND @ 10459' [20' FILL] C/O TO PBD @ 10479' CIRC CLEAN POOH LD JNTS LAND TUBING ON HANGER RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD PUMP OFF BIT SUB TURN WELL OVER TO FBC @ W/ 8699.6 BBLS PUMPED RIG REC 2000 BBLS W/ 6700 BBLS LEFT TO REC RIG DOWN RIG MOVE TO NBU 920-14C</p>
3/18/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2200#, TP 2425#, 20/64" CK, 65 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 3440 BBLS LEFT TO RECOVER: 5260</p>
	13:45 -		PROD	50				<p>WELL TURNED TO SALES @ 1345 HR ON 3/18/2010 - 1900 MCFD, 1320 BWPD, CP 2550#, FTF 2200#, CK 20/64"</p>
3/19/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2650#, TP 2425#, 20/64" CK, 40 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 4635 BBLS LEFT TO RECOVER: 4065</p>
3/20/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 3075#, TP 2150#, 20/64" CK, 30 BWPH, MEDIUM SAND, - GAS TTL BBLS RECOVERED: 5494 BBLS LEFT TO RECOVER: 3206</p>
3/21/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2650#, TP 1850#, 20/64" CK, 20 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 6019 BBLS LEFT TO RECOVER: 2681</p>

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well Information

Well	NBU 920-23M	Wellbore No.	OH
Well Name	NBU 920-23M	Common Name	NBU 920-23M
Project	UTAH-UINTAH	Site	NBU 920-23M
Vertical Section Azimuth		North Reference	True
Origin N/S		Origin E/W	
Spud Date	2/10/2010	UWI	SW/SW/0/9/S/20/E/23/0/0/6/PM/S/510.00/W/0/8 21.00/0/0
Active Datum	RKB @4,865.00ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	TOTCO
Started	12/8/2009	Ended	
Tool Name	INC	Engineer	Anadarko

2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
9.00	0.00	0.00	9.00	0.00	0.00

2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
12/8/2009	Tie On	9.00	0.00	0.00	9.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/8/2009	NORMAL	509.00	1.00		508.97	4.36	0.00	4.36	0.20	0.20	0.00	0.00
12/9/2009	NORMAL	1,629.00	0.25		1,628.90	16.58	0.00	16.58	0.07	-0.07	0.00	180.00
	NORMAL	2,069.00	0.75		2,068.88	20.42	0.00	20.42	0.11	0.11	0.00	0.00
	NORMAL	2,604.00	0.60	190.10	2,603.87	21.16	-0.49	21.16	0.25	-0.03	-31.76	-175.51

2.2 Survey Name: Survey #2

Survey Name	Survey #2	Company	EXTREME ENG.
Started	2/10/2010	Ended	
Tool Name	MWD	Engineer	Anadarko

2.2.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
2,604.00	0.60	190.10	2,603.87	21.16	-0.49

2.2.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
2/10/2010	Tie On	2,604.00	0.60	190.10	2,603.87	21.16	-0.49	21.16	0.25	-0.03	-31.76	184.49
2/10/2010	NORMAL	2,654.00	0.53	247.68	2,653.87	20.82	-0.75	20.82	1.10	-0.14	115.15	125.22
2/10/2010	NORMAL	2,945.00	0.88	162.42	2,944.85	18.18	-1.32	18.18	0.34	0.12	-29.30	242.46
2/11/2010	NORMAL	4,052.00	0.53	241.00	4,051.79	7.59	-3.23	7.59	0.08	-0.03	7.10	146.17
	NORMAL	4,551.00	1.41	160.58	4,550.73	0.68	-3.21	0.68	0.28	0.18	-16.12	258.01
	NORMAL	4,984.00	1.14	179.30	4,983.62	-8.65	-1.39	-8.65	0.11	-0.06	4.32	132.08
2/12/2010	NORMAL	6,000.00	0.97	105.82	5,999.49	-21.10	7.01	-21.10	0.12	-0.02	-7.23	227.10
	NORMAL	6,479.00	0.53	135.88	6,478.45	-23.80	12.46	-23.80	0.12	-0.09	6.28	152.56
2/13/2010	NORMAL	7,540.00	0.62	119.18	7,539.39	-30.12	20.88	-30.12	0.02	0.01	-1.57	289.72
2/14/2010	NORMAL	8,030.00	0.44	88.33	8,029.37	-31.36	25.08	-31.36	0.07	-0.04	-6.30	222.97
	NORMAL	8,472.00	0.70	128.88	8,471.35	-33.00	28.88	-33.00	0.11	0.06	9.17	78.58
2/15/2010	NORMAL	9,035.00	1.14	126.30	9,034.28	-38.48	36.07	-38.48	0.08	0.08	-0.46	353.33
2/19/2010	NORMAL	10,521.00	1.50		10,520.09	-27.78	47.98	-27.78	0.16	0.02	-8.50	210.81
2/20/2010	NORMAL	10,541.00	1.50		10,540.08	-27.25	47.98	-27.25	0.00	0.00	0.00	0.00