

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

FORM 3

AMENDED REPORT **APPLICATION FOR PERMIT TO DRILL**

2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>				1. WELL NAME and NUMBER NBU 922-3114AS			
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO				3. FIELD OR WILDCAT NATURAL BUTTES			
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.				5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES			
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217				7. OPERATOR PHONE 720 929-6587			
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UO 1530A		11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>		9. OPERATOR E-MAIL mary.mondragon@anadarko.com			
13. NAME OF SURFACE OWNER (if box 12 = 'fee')				12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>			
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')				14. SURFACE OWNER PHONE (if box 12 = 'fee')			
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')		18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')			
20. LOCATION OF WELL		FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE		1743 FSL 153 FEL	NESE	31	9.0 S	22.0 E	S
Top of Uppermost Producing Zone		2315 FSL 88 FEL	NESE	31	9.0 S	22.0 E	S
At Total Depth		1743 FSL 153 FEL	NESE	31	9.0 S	22.0 E	S
21. COUNTY UINTAH		22. DISTANCE TO NEAREST LEASE LINE (Feet) 153		23. NUMBER OF ACRES IN DRILLING UNIT 203			
		25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 450		26. PROPOSED DEPTH MD: 9385 TVD: 9300			
27. ELEVATION - GROUND LEVEL 5035		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 checked="" 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 07/08/2009	EMAIL Kathy.SchneebeckDulnoan@anadarko.com
API NUMBER ASSIGNED 43047503970000	APPROVAL  Permit Manager	

Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	9385		
Pipe	Grade	Length	Weight			
	Grade I-80 LT&C	9385	11.6			

Proposed Hole, Casing, and Cement

String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2300		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2300	36.0			

R
21
E

R
22
E

T9S, R22E, S.L.B.&M.

S89°48'53"W - 2234.34' (Meas.) S89°49'17"W - 2629.89' (Meas.)

1977 Brass Cap,
0.5' High, Pile of
Stones, Steel
Post

1977 Brass Cap,
0.5' High, Pile of
Stones

1977 Brass Cap,
0.4' High, Pile of
Stones

Lot 1

LINE TABLE		
LINE	BEARING	LENGTH
L1	S06°30'55"W	575.73'

Lot 2

1977 Brass Cap,
2.0' High, Pile of
Stones, Steel Post

1977 Brass Cap,
1.0' High, Large
Pile of Stones

31
NBU #922-3114AS
Elev. Ungraded Ground = 5035'

Lot 3

Bottom
Hole

Lot 4

1977 Brass Cap,
Set Stone, Pile
of Stones

52.80' (G.L.O.)
True Corner

T9S
T10S

S89°52'11"E - 2293.55' (Meas.) W.C. N89°51'50"W - 2579.48' (Meas.)

1977 Brass Cap,
Flush w/Top of
Pile of Stones

1977 Brass
Cap 2.0'
High, Pile
of Stones

Kerr-McGee Oil & Gas Onshore LP

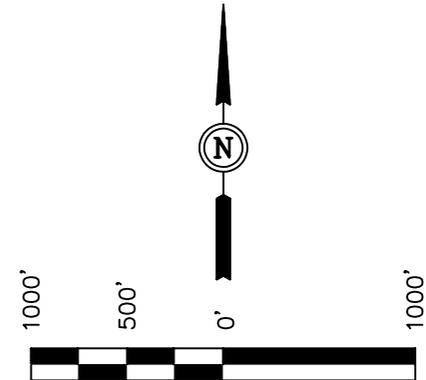
Well location, NBU #922-3114AS, located as shown in the NE 1/4 SE 1/4 of Section 31, T9S, R22E, S.L.B.&M., Uintah County, Utah.

BASIS OF ELEVATION

TWO WATER TRIANGULATION STATION LOCATED IN THE NW 1/4 OF SECTION 1, T10S, R21E, S.L.B.&M. TAKEN FROM THE BIG PACK MTN NE QUADRANGLE, UTAH, UTAH COUNTY, 7.5 MINUTE SERIES (TOPOGRAPHICAL MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5238 FEET.

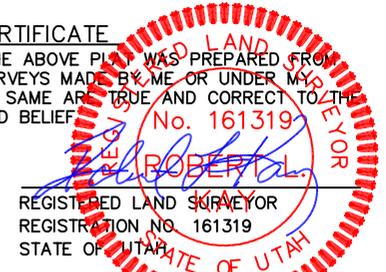
BASIS OF BEARINGS

BASIS OF BEARINGS IS A G.P.S. OBSERVATION.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAN 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.



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

LEGEND:

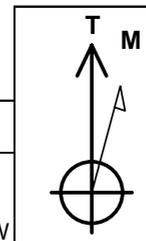
- └─┘ = 90° SYMBOL
- = PROPOSED WELL HEAD.
- ▲ = SECTION CORNERS LOCATED.
- △ = SECTION CORNERS RE-ESTABLISHED. (Not Set on Ground)

NAD 83 (TARGET BOTTOM HOLE)	NAD 83 (SURFACE LOCATION)
LATITUDE = 39°59'24.12" (39.990033)	LATITUDE = 39°59'29.78" (39.991606)
LONGITUDE = 109°28'25.77" (109.473825)	LONGITUDE = 109°28'24.94" (109.473594)
NAD 27 (TARGET BOTTOM HOLE)	NAD 27 (SURFACE LOCATION)
LATITUDE = 39°59'24.25" (39.990069)	LATITUDE = 39°59'29.91" (39.991642)
LONGITUDE = 109°28'23.30" (109.473139)	LONGITUDE = 109°28'22.47" (109.472908)

SCALE 1" = 1000'	DATE SURVEYED: 11-05-08	DATE DRAWN: 11-11-08
PARTY L.K. C.K. D.P.	REFERENCES G.L.O. PLAT	
WEATHER COOL	FILE Kerr-McGee Oil & Gas Onshore LP	



Site: NBU 922-311 Pad
 Well: NBU 922-3114AS
 Wellbore: OH
 Design: Plan #1

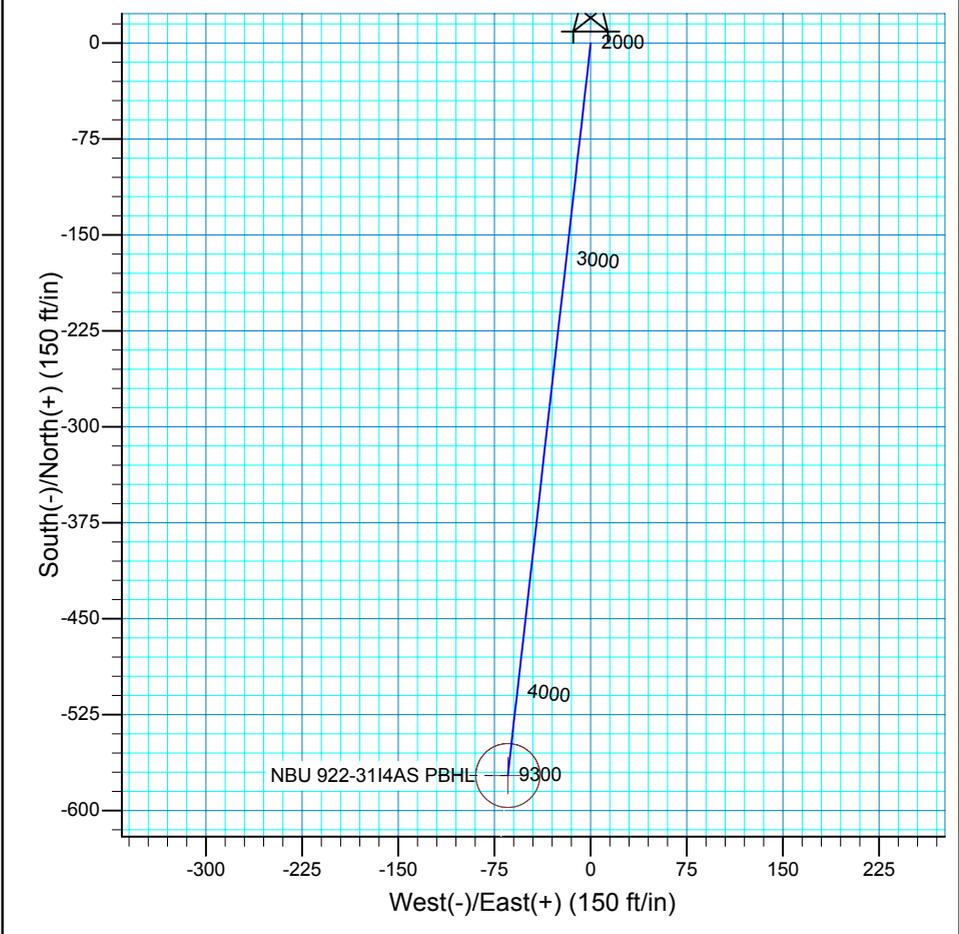
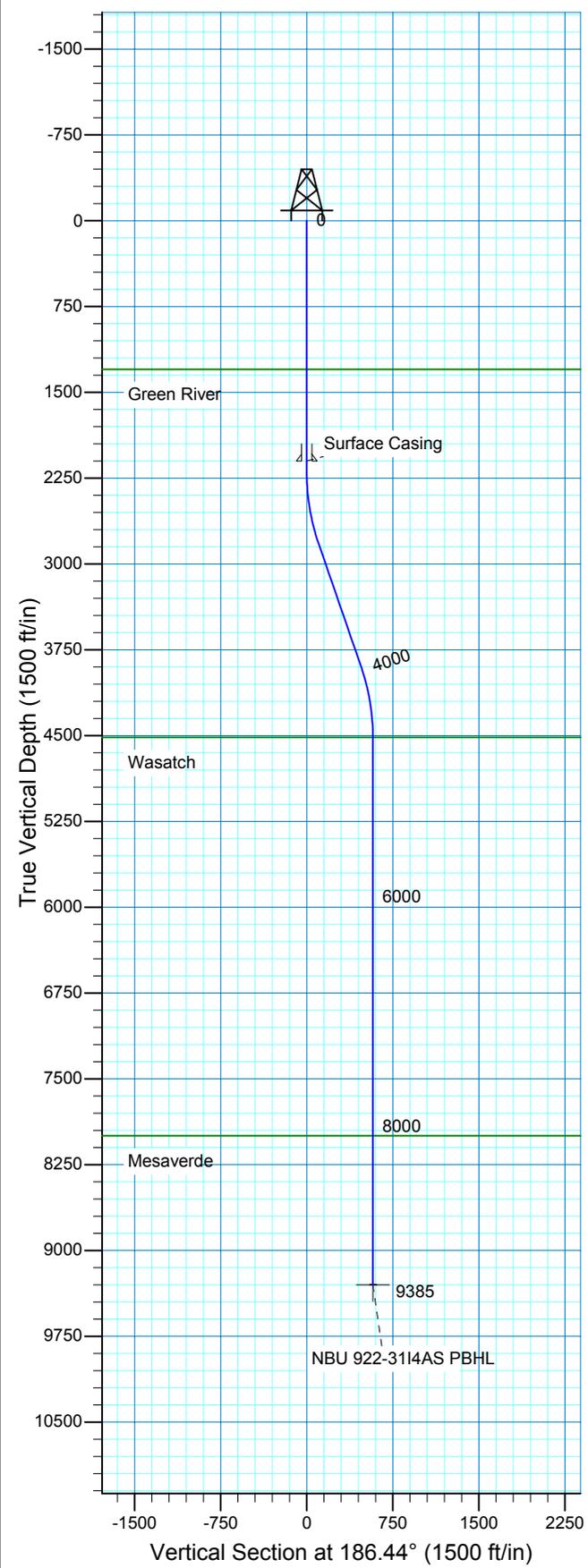


Azimuths to True North
 Magnetic North: 11.33°

Magnetic Field
 Strength: 52572.1snT
 Dip Angle: 65.93°
 Date: 2009-04-07
 Model: IGRF200510

WELL DETAILS: NBU 922-3114AS

GL 5034' & RKB 18' @ 5052.00ft 5034.00
 +N/-S 0.00 +E/-W 0.00 Northing 610437.49 Easting 2567901.43 Latitude 39° 59' 29.910 N Longitude 109° 28' 22.470 W



FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1298.00	1298.00	Green River
4514.00	4598.64	Wasatch
7997.00	8081.64	Mesaverde

Plan: Plan #1 (NBU 922-3114AS/OH)

Created By: Julie Cruse Date: 2009-04-07
 PROJECT DETAILS: Uintah County, UT NAD27
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: Utah Central 4302
 Location: Sec 31 T9S R22E
 System Datum: Mean Sea Level
 Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	
2832.74	18.98	186.44	2821.22	-103.20	-11.64	3.00	186.44	103.86	
3965.91	18.98	186.44	3892.78	-469.47	-52.96	0.00	0.00	472.45	
4598.64	0.00	0.00	4514.00	-572.67	-64.60	3.00	180.00	576.30	
9384.64	0.00	0.00	9300.00	-572.67	-64.60	0.00	0.00	576.30	NBU 922-3114AS PBHL



Scientific Drilling
Rocky Mountain Operations

Kerr McGee Oil and Gas Onshore

LP

Uintah County, UT NAD27

NBU 922-311 Pad

NBU 922-3114AS

OH

Plan: Plan #1

Standard Planning Report

07 April, 2009



Scientific Drilling Planning Report

Database: EDM 2003.16 Multi User Db	Local Co-ordinate Reference: Well NBU 922-3114AS
Company: Kerr McGee Oil and Gas Onshore LP	TVD Reference: GL 5034' & RKB 18' @ 5052.00ft
Project: Uintah County, UT NAD27	MD Reference: GL 5034' & RKB 18' @ 5052.00ft
Site: NBU 922-311 Pad	North Reference: True
Well: NBU 922-3114AS	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: Plan #1	

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

Site NBU 922-311 Pad, Sec 31 T9S R22E					
Site Position:		Northing:	610,432.97 ft	Latitude:	39° 59' 29.879 N
From:	Lat/Long	Easting:	2,567,841.59 ft	Longitude:	109° 28' 23.240 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	1.30 °

Well NBU 922-3114AS, 2315' FSL 88' FEL					
Well Position	+N/-S	0.00 ft	Northing:	610,437.49 ft	Latitude: 39° 59' 29.910 N
	+E/-W	0.00 ft	Easting:	2,567,901.43 ft	Longitude: 109° 28' 22.470 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level: 5,034.00 ft

Wellbore OH					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2009-04-07	11.33	65.93	52,572

Design Plan #1				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	186.44

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,832.74	18.98	186.44	2,821.22	-103.20	-11.64	3.00	3.00	0.00	186.44	
3,965.91	18.98	186.44	3,892.78	-469.47	-52.96	0.00	0.00	0.00	0.00	
4,598.64	0.00	0.00	4,514.00	-572.67	-64.60	3.00	-3.00	0.00	180.00	
9,384.64	0.00	0.00	9,300.00	-572.67	-64.60	0.00	0.00	0.00	0.00	NBU 922-3114AS PBF

Scientific Drilling

Planning Report



Database:	EDM 2003.16 Multi User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5034' & RKB 18' @ 5052.00ft
Project:	Uintah County, UT NAD27	MD Reference:	GL 5034' & RKB 18' @ 5052.00ft
Site:	NBU 922-311 Pad	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,298.00	0.00	0.00	1,298.00	0.00	0.00	0.00	0.00	0.00	0.00
Green River									
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Surface Casing									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	3.00	186.44	2,299.95	-2.60	-0.29	2.62	3.00	3.00	0.00
2,400.00	6.00	186.44	2,399.63	-10.40	-1.17	10.46	3.00	3.00	0.00
2,500.00	9.00	186.44	2,498.77	-23.37	-2.64	23.51	3.00	3.00	0.00
2,600.00	12.00	186.44	2,597.08	-41.47	-4.68	41.74	3.00	3.00	0.00
2,700.00	15.00	186.44	2,694.31	-64.67	-7.29	65.08	3.00	3.00	0.00
2,800.00	18.00	186.44	2,790.18	-92.89	-10.48	93.48	3.00	3.00	0.00
2,832.74	18.98	186.44	2,821.22	-103.20	-11.64	103.86	3.00	3.00	0.00
2,900.00	18.98	186.44	2,884.83	-124.94	-14.09	125.74	0.00	0.00	0.00
3,000.00	18.98	186.44	2,979.39	-157.27	-17.74	158.26	0.00	0.00	0.00
3,100.00	18.98	186.44	3,073.95	-189.59	-21.39	190.79	0.00	0.00	0.00
3,200.00	18.98	186.44	3,168.52	-221.91	-25.03	223.32	0.00	0.00	0.00
3,300.00	18.98	186.44	3,263.08	-254.23	-28.68	255.85	0.00	0.00	0.00
3,400.00	18.98	186.44	3,357.64	-286.56	-32.32	288.37	0.00	0.00	0.00
3,500.00	18.98	186.44	3,452.20	-318.88	-35.97	320.90	0.00	0.00	0.00
3,600.00	18.98	186.44	3,546.76	-351.20	-39.62	353.43	0.00	0.00	0.00
3,700.00	18.98	186.44	3,641.33	-383.52	-43.26	385.95	0.00	0.00	0.00
3,800.00	18.98	186.44	3,735.89	-415.84	-46.91	418.48	0.00	0.00	0.00
3,900.00	18.98	186.44	3,830.45	-448.17	-50.55	451.01	0.00	0.00	0.00
3,965.91	18.98	186.44	3,892.78	-469.47	-52.96	472.45	0.00	0.00	0.00
4,000.00	17.96	186.44	3,925.11	-480.20	-54.17	483.25	3.00	-3.00	0.00
4,100.00	14.96	186.44	4,021.00	-508.35	-57.34	511.58	3.00	-3.00	0.00
4,200.00	11.96	186.44	4,118.24	-531.48	-59.95	534.85	3.00	-3.00	0.00
4,300.00	8.96	186.44	4,216.57	-549.52	-61.99	553.00	3.00	-3.00	0.00
4,400.00	5.96	186.44	4,315.71	-562.42	-63.44	565.98	3.00	-3.00	0.00
4,500.00	2.96	186.44	4,415.40	-570.14	-64.31	573.76	3.00	-3.00	0.00
4,598.64	0.00	0.00	4,514.00	-572.67	-64.60	576.30	3.00	-3.00	0.00
Wasatch									



Scientific Drilling Planning Report

Database: EDM 2003.16 Multi User Db	Local Co-ordinate Reference: Well NBU 922-3114AS
Company: Kerr McGee Oil and Gas Onshore LP	TVD Reference: GL 5034' & RKB 18' @ 5052.00ft
Project: Uintah County, UT NAD27	MD Reference: GL 5034' & RKB 18' @ 5052.00ft
Site: NBU 922-311 Pad	North Reference: True
Well: NBU 922-3114AS	Survey Calculation Method: Minimum Curvature
Wellbore: OH	
Design: Plan #1	

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,600.00	0.00	0.00	4,515.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,615.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,715.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,815.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,915.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,015.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,115.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,215.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,315.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,415.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,515.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,615.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,715.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,815.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,915.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,015.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,115.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,215.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,315.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,415.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,515.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,615.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,715.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,815.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,915.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,015.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,115.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,215.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,315.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,415.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,515.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,615.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,715.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,815.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,915.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,081.64	0.00	0.00	7,997.00	-572.67	-64.60	576.30	0.00	0.00	0.00	
Mesaverde										
8,100.00	0.00	0.00	8,015.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,115.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,215.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,315.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,415.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,515.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,615.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,715.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,815.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,915.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,015.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,115.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,215.36	-572.67	-64.60	576.30	0.00	0.00	0.00	
9,384.64	0.00	0.00	9,300.00	-572.67	-64.60	576.30	0.00	0.00	0.00	



Scientific Drilling
Planning Report

Database:	EDM 2003.16 Multi User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	Kerr McGee Oil and Gas Onshore LP	TVD Reference:	GL 5034' & RKB 18' @ 5052.00ft
Project:	Uintah County, UT NAD27	MD Reference:	GL 5034' & RKB 18' @ 5052.00ft
Site:	NBU 922-311 Pad	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
NBU 922-3114AS PBHL - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,300.00	-572.67	-64.60	609,863.50	2,567,849.83	39° 59' 24.250 N	109° 28' 23.300 W

Casing Points					
Measured Depth	Vertical Depth	Name	Casing Diameter	Hole Diameter	
(ft)	(ft)		(in)	(in)	
2,100.00	2,100.00	Surface Casing	9.625	13.500	

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
1,298.00	1,298.00	Green River		0.00		
4,598.64	4,514.00	Wasatch		0.00		
8,081.64	7,997.00	Mesaverde		0.00		

NBU 922-31I4AS

Pad: NBU 922-31I

Surface: 2,315' FSL, 88' FEL (NE/4SE/4)

BHL: 1,743' FSL 153' FEL (NE/4SE/4)

Sec. 31 T9S R22E

Uintah, Utah

Mineral Lease: UO 1530A

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	1,298'	
Birds Nest	1,617'	Water
Mahogany	2,097'	Water
Wasatch	4,514'	Gas
Mesaverde	7,076'	Gas
MVU2	7,997'	Gas
MVL1	8,591'	Gas
TVD	9,300'	
TD	9,385'	

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 9,385' TD, approximately equals 5,603 psi (calculated at 0.60 psi/foot).

Maximum anticipated surface pressure equals approximately 3,507 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. Variations:

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.

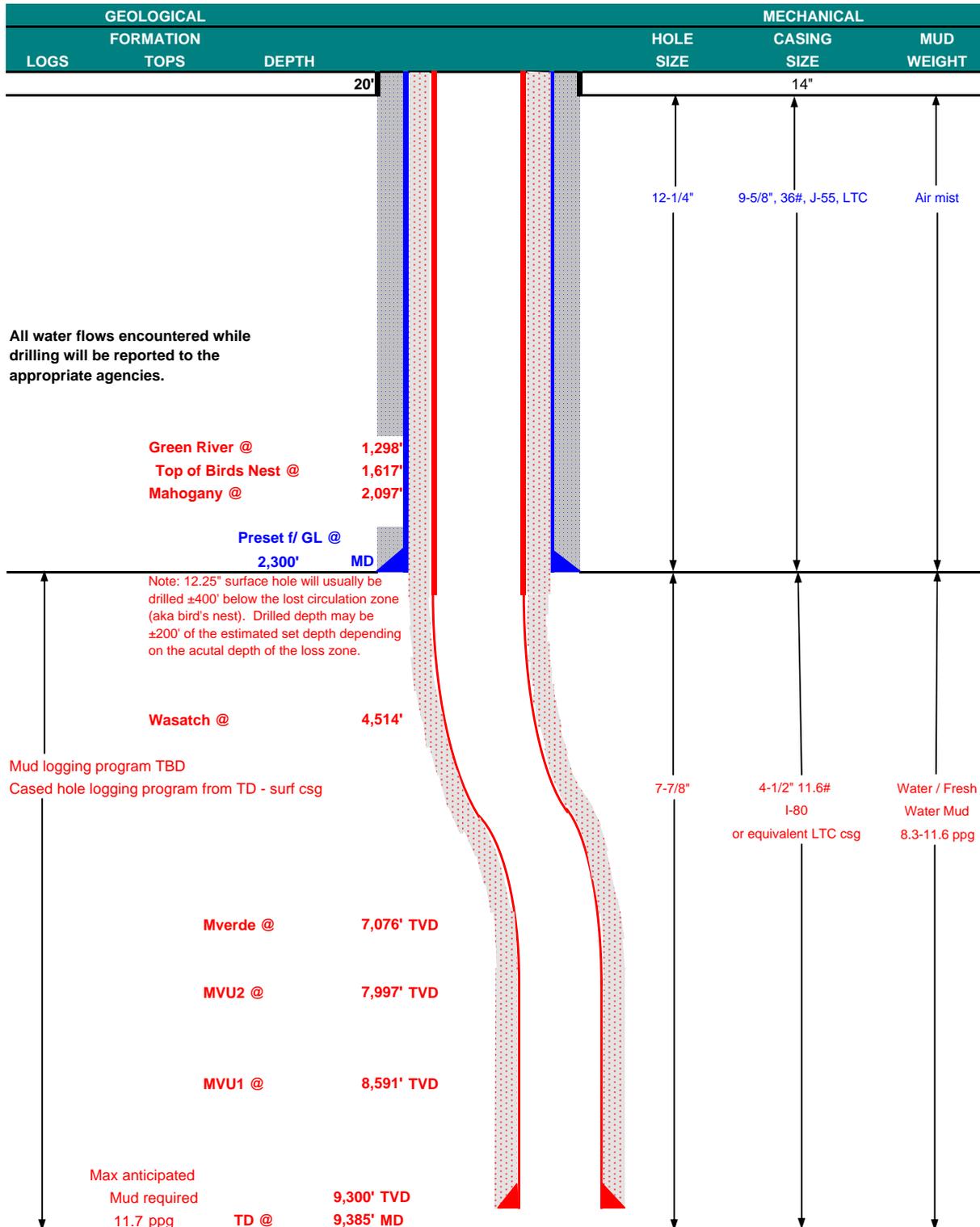
10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	June 17, 2009			
WELL NAME	NBU 921-3114AS		TD	9,300' TVD	9,385' MD		
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	5,035' GL KB 5,050'
SURFACE LOCATION	NE/4 SE/4	2,315' FSL	88' FEL	Sec 31	T 9S	R 22E	
	Latitude:	39.991642	Longitude:	-109.472908		NAD 27	
BTM HOLE LOCATION	NE/4 SE/4	1,743' FSL	153' FEL	Sec 31	T 9S	R 22E	
	Latitude:	39.990069	Longitude:	-109.473139		NAD 27	
OBJECTIVE ZONE(S)	Wasatch/Mesaverde						
ADDITIONAL INFO	Regulatory Agencies: SITLA (Minerals), UDOGM (Surface), Tri-County Health Dept.						





KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2,300	36.00	J-55	LTC	0.97	1.88	6.96
PRODUCTION	4-1/2"	0 to 9,385	11.60	I-80	LTC	2.15	1.12	2.12

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 11.7 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,507 psi
- 3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 11.7 ppg) 0.60 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,603 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
SURFACE		NOTE: If well will circulate water to surface, option 2 will be utilized					
Option 2	LEAD	1,800'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	430	35%	12.60	1.81
	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	4,005'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	380	40%	11.00	3.38
	TAIL	5,380'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,320	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. No centralizers will be used.

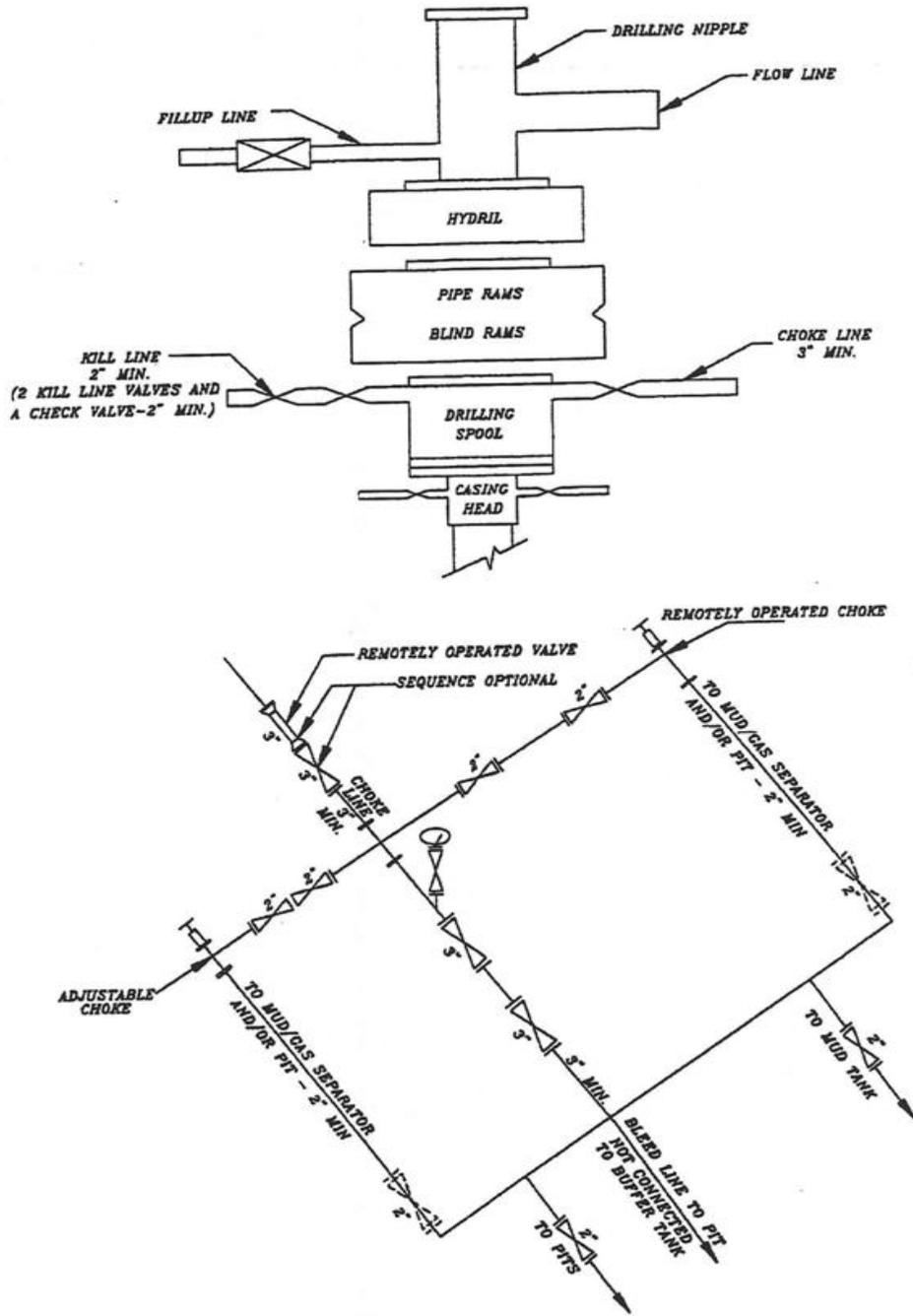
ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.
 BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.
 Surveys will be taken at 1,000' minimum intervals.
 Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER: _____ **DATE:** _____
 John Huycke / Emile Goodwin

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

EXHIBIT A NBU 921-31I4AS



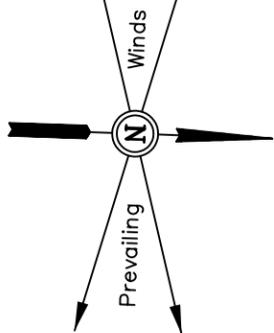
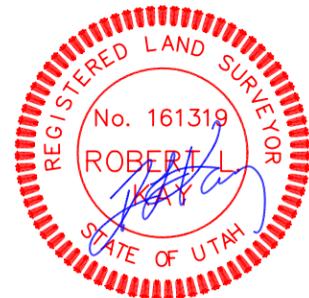
SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Kerr-McGee Oil & Gas Onshore LP

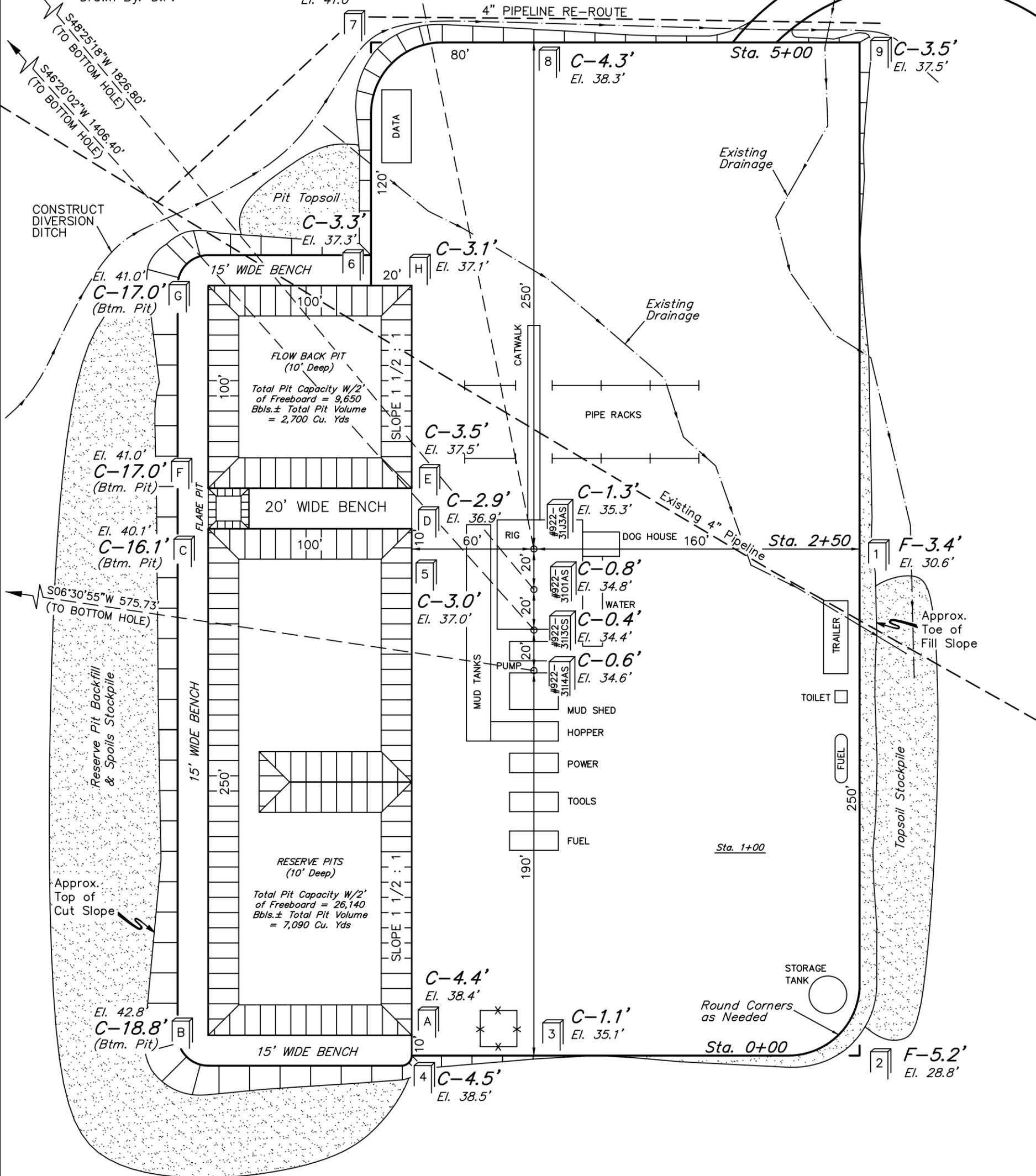
LOCATION LAYOUT FOR

NBU #922-31J3AS, #922-31I3CS, #922-31O1AS & #922-31I4AS
SECTION 31, T9S, R22E, S.L.B.&M.
NE 1/4 SE 1/4

FIGURE #1



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



NOTES:

Elev. Ungraded Ground At #922-31J3AS At Loc. Stake = 5035.3'
FINISHED GRADE ELEV. AT #922-31J3AS LOC. STAKE = 5034.0'

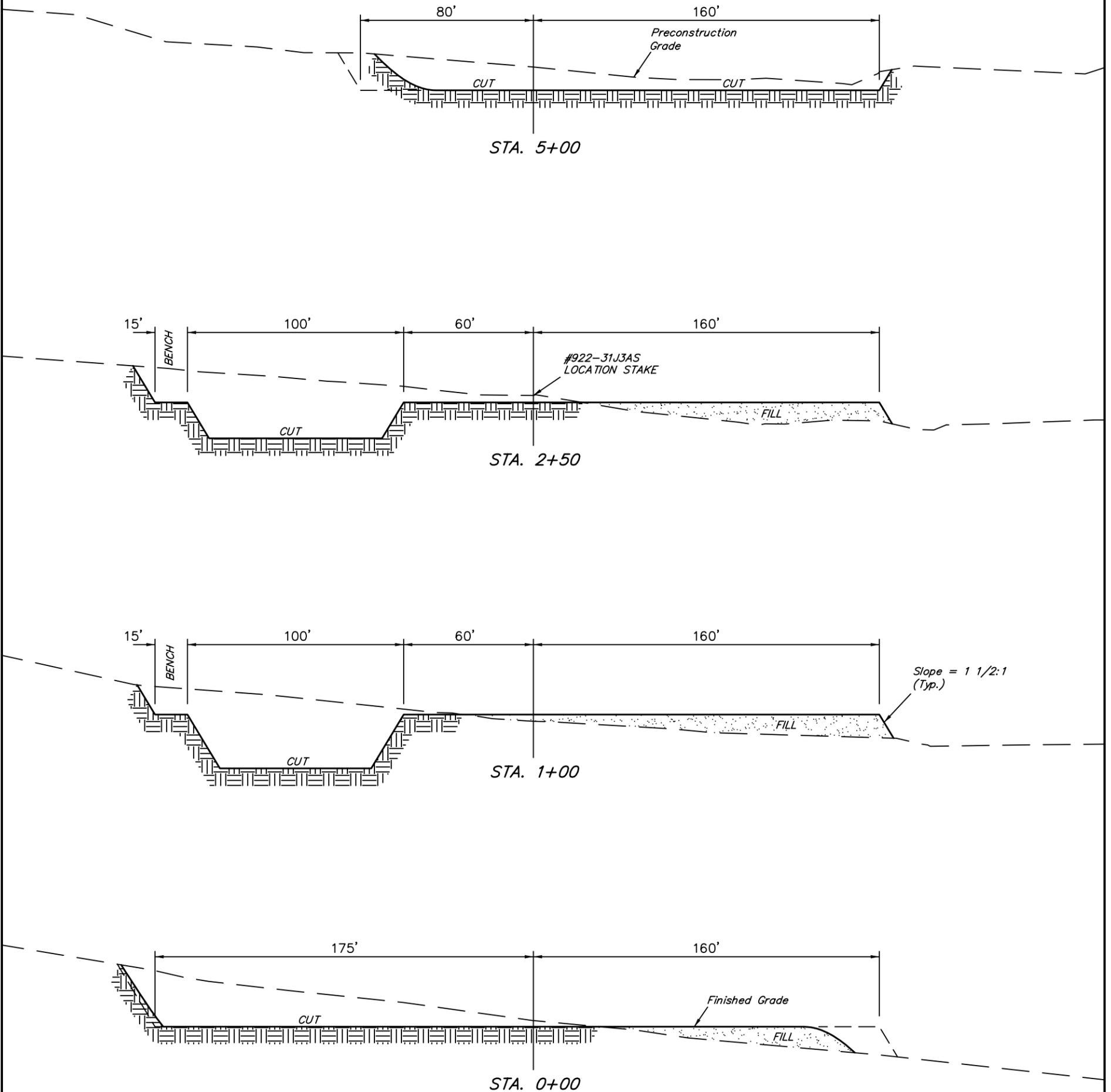
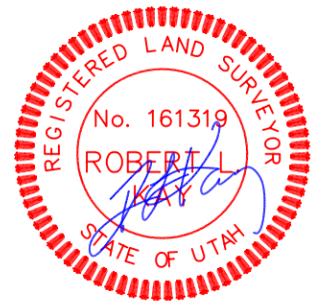
Kerr-McGee Oil & Gas Onshore LP

FIGURE #2

TYPICAL CROSS SECTIONS FOR

NBU #922-31J3AS, #922-31I3CS, #922-31O1AS & #922-31I4AS
SECTION 31, T9S, R22E, S.L.B.&M.
NE 1/4 SE 1/4

1" = 20'
X-Section Scale
1" = 50'
DATE: 11-11-08
Drawn By: D.P.



NOTE:

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

* NOTE:
FILL QUANTITY INCLUDES 5% FOR COMPACTION

APPROXIMATE ACREAGES

WELL SITE DISTURBANCE = ± 4.649 ACRES
ACCESS ROAD DISTURBANCE = ± 0.419 ACRES
PIPELINE DISTURBANCE = ± 0.344 ACRES
TOTAL = ± 5.412 ACRES

APPROXIMATE YARDAGES

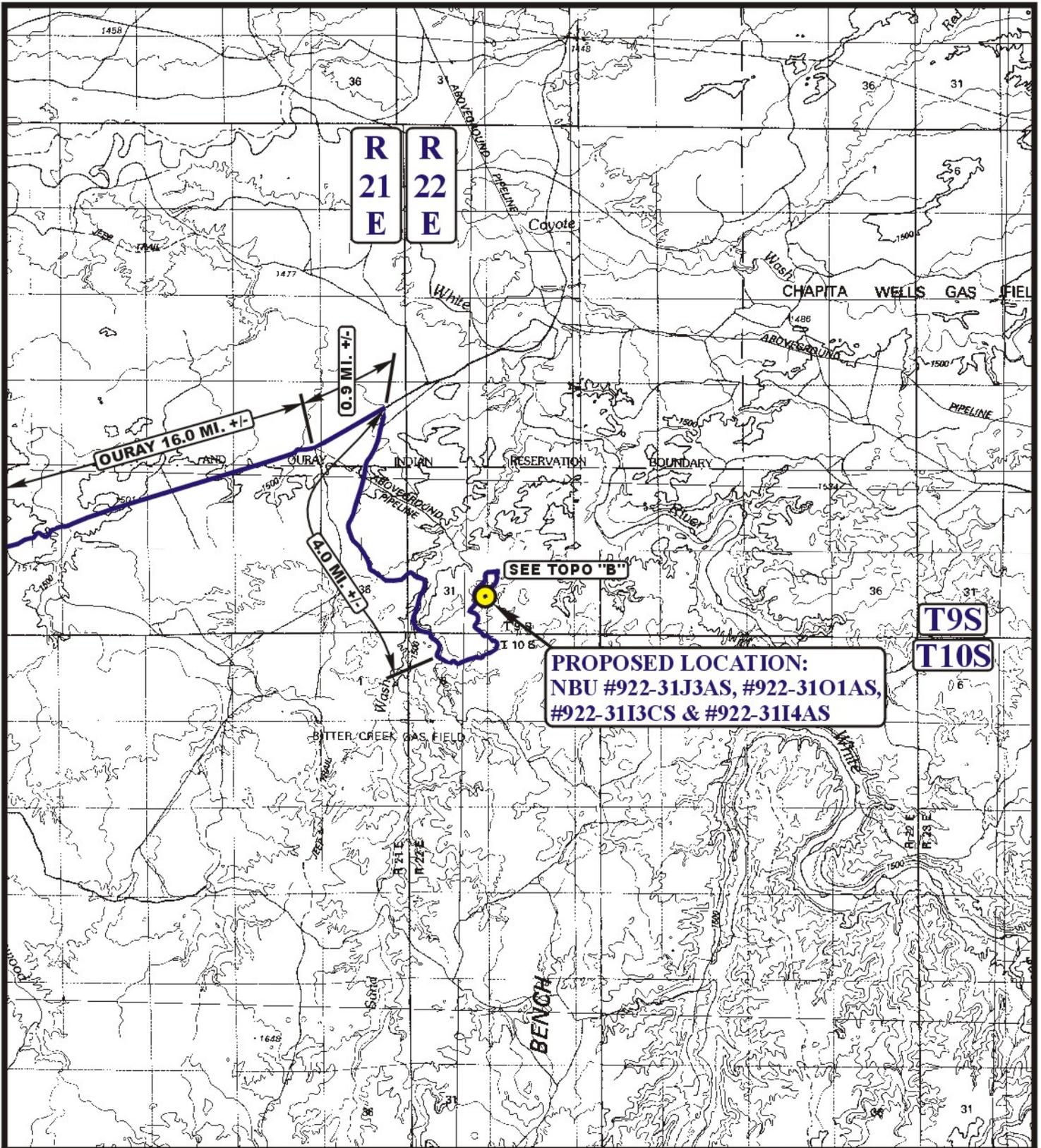
(6") Topsoil Stripping = 3,240 Cu. Yds.
Remaining Location = 20,190 Cu. Yds.
TOTAL CUT = 23,430 CU.YDS.
FILL = 6,980 CU.YDS.

EXCESS MATERIAL = 16,450 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.) = 8,140 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation) = 8,310 Cu. Yds.

Kerr-McGee Oil & Gas Onshore LP
NBU #922-31J3AS, #922-31O1AS, #922-31I3CS &
#922-31I4AS
SECTION 31, T9S, R22E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 4.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY, THEN NORTHWESTERLY DIRECTION APPROXIMATELY 1.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 0.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 250' TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE BEGINNING OF THE PROPOSED ROAD TO THE SOUTHWEST; FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 0.1 TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 54.4 MILES.



**R
21
E**

**R
22
E**

T9S

T10S

**PROPOSED LOCATION:
NBU #922-31J3AS, #922-31O1AS,
#922-31I3CS & #922-31I4AS**

LEGEND:

 **PROPOSED LOCATION**

Kerr-McGee Oil & Gas Onshore LP

**NBU #922-31J3AS, #922-31I1AS, #922-31I3CS & #922-31I4AS
SECTION 31, T9S, R22E, S.L.B.&M.
NE 1/4 SE 1/4**

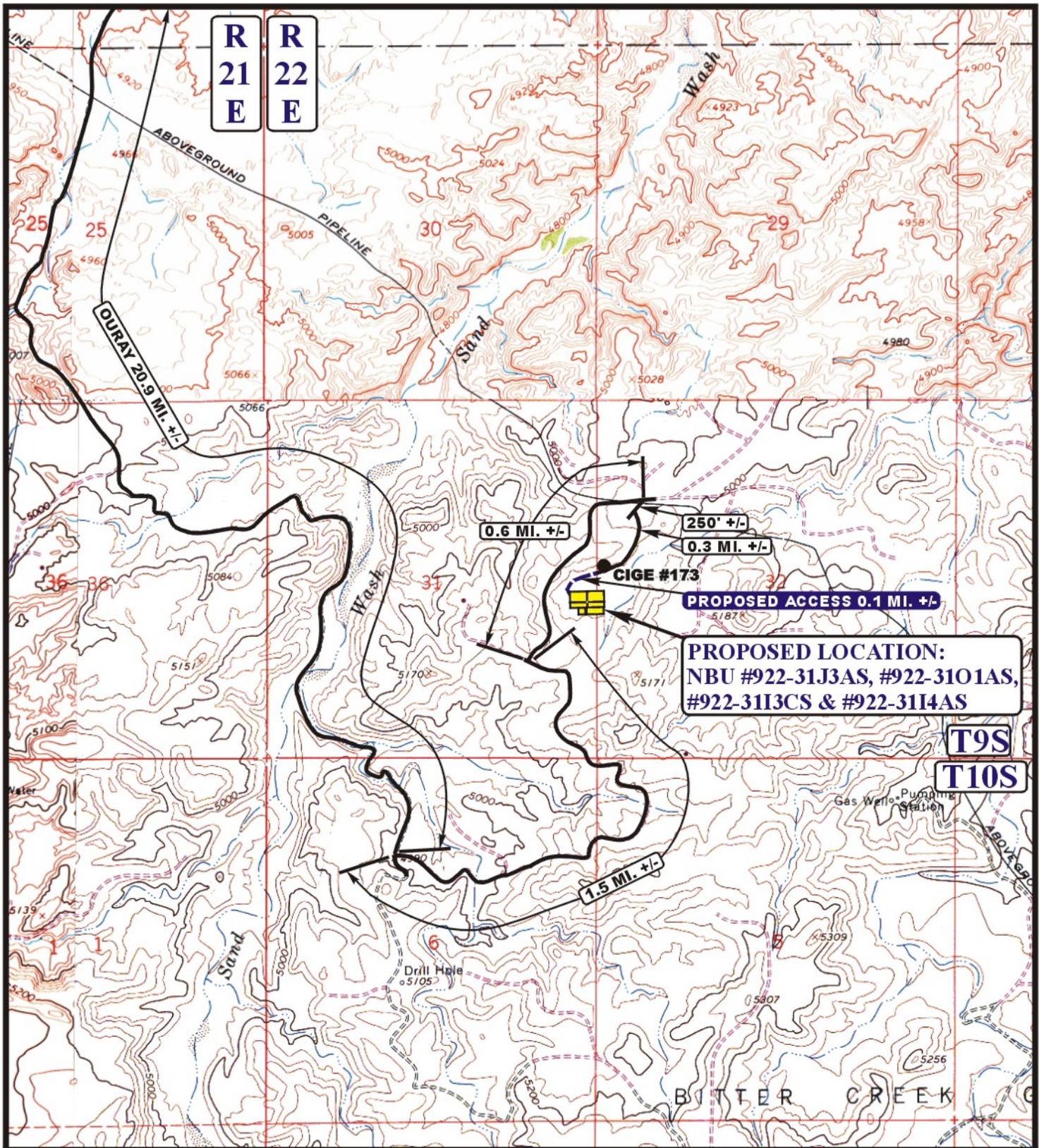


Utah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

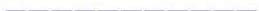


TOPOGRAPHIC **11 11 08**
MAP MONTH DAY YEAR
SCALE: 1:100,000 DRAWN BY: J.J. REVISED: 00-00-00





LEGEND:

-  EXISTING ROAD
-  PROPOSED ACCESS ROAD

Kerr-McGee Oil & Gas Onshore LP

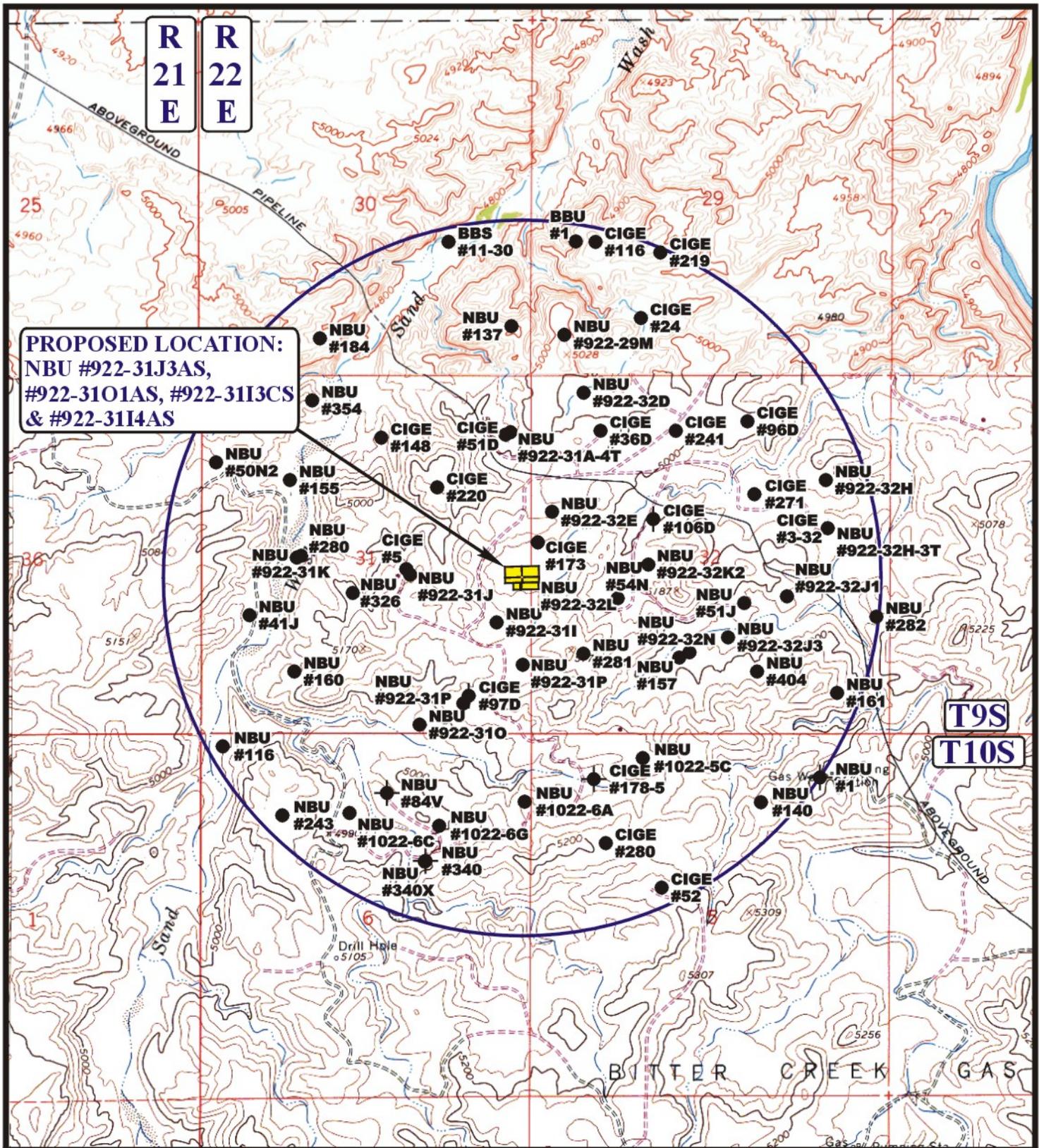
NBU #922-31J3AS, #922-31I1AS, #922-31I3CS & #922-31I4AS
SECTION 31, T9S, R22E, S.L.B.&M.
NE 1/4 SE 1/4

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



TOPOGRAPHIC MAP 11 11 08
MONTH DAY YEAR
SCALE: 1" = 2000' DRAWN BY: J.J. REVISED: 00-00-00

B
TOPO



LEGEND:

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

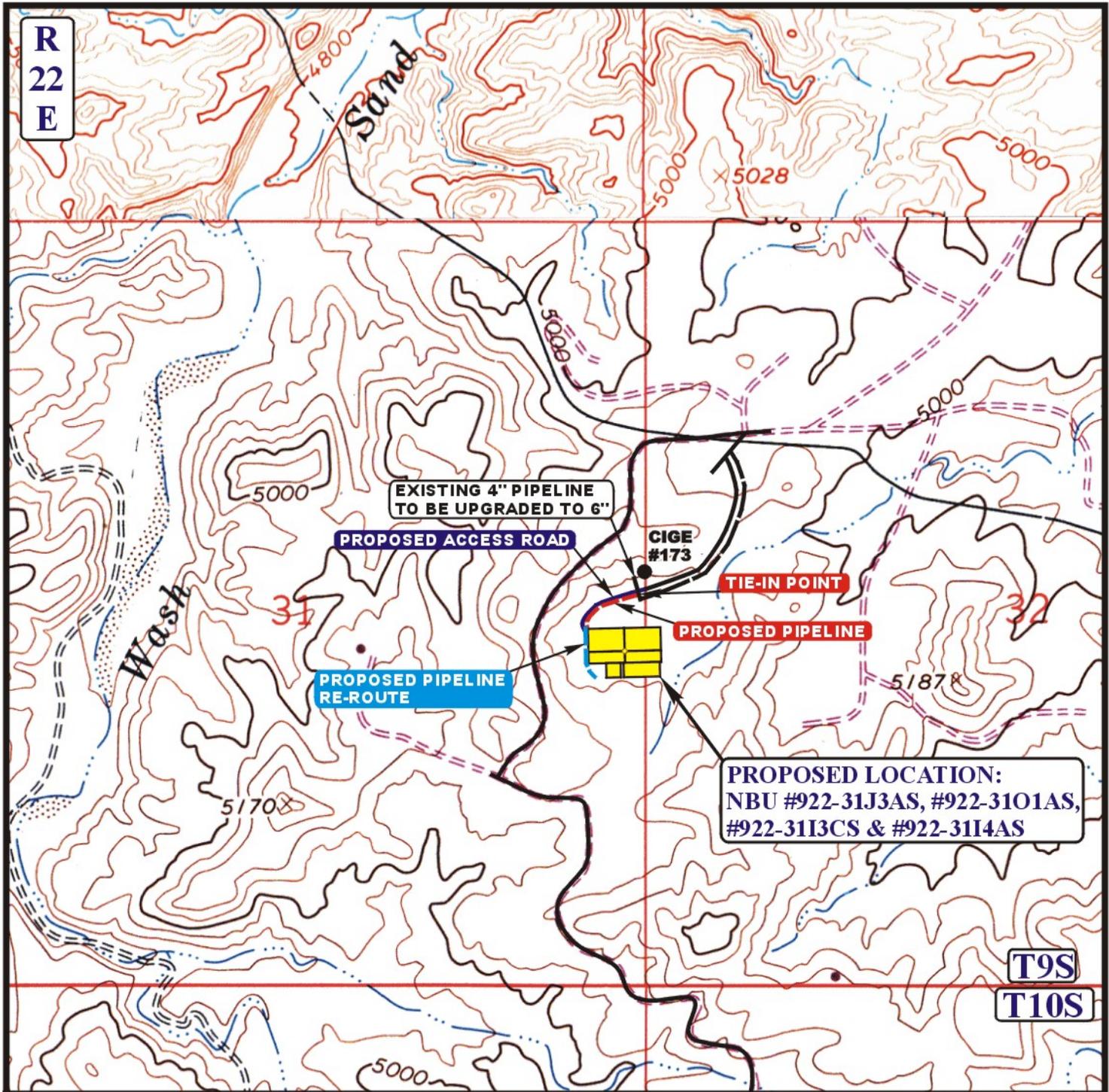
Kerr-McGee Oil & Gas Onshore LP

NBU #922-31J3AS, #922-31I1AS, #922-31I3CS & #922-31I4AS
SECTION 31, T9S, R22E, S.L.B.&M.
NE 1/4 SE 1/4

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

TOPOGRAPHIC MAP 11 11 08
MONTH DAY YEAR
SCALE: 1" = 2000' DRAWN BY: J.J. REVISED: 00-00-00

C TOPO



APPROXIMATE TOTAL PIPELINE RE-ROUTE DISTANCE = 392' +/-

APPROXIMATE TOTAL PIPELINE UPGRADE DISTANCE = 1,870' +/-

APPROXIMATE TOTAL PIPELINE DISTANCE = 500' +/-

LEGEND:

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED PIPELINE RE-ROUTE

Kerr-McGee Oil & Gas Onshore LP

NBU #922-31J3AS, #922-31I1AS, #922-31I3CS & #922-31I4AS
SECTION 31, T9S, R22E, S.L.B.&M.
NE 1/4 SE 1/4

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



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

Kerr-McGee Oil & Gas Onshore LP

NBU #922-31J3AS, #922-31O1AS, #922-31I3CS & #922-31I4AS
LOCATED IN UINTAH COUNTY, UTAH
SECTION 31, T9S, R22E, S.L.B.&M.



PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKES

CAMERA ANGLE: NORTHERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: WESTERLY



- Since 1964 -

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

LOCATION PHOTOS	11	11	08	PHOTO
	MONTH	DAY	YEAR	
TAKEN BY: L.K.	DRAWN BY: J.J.		REVISED: 00-00-00	

Kerr-McGee Oil & Gas Onshore LP

NBU 922-31I3CS

Surface: 2,314' FSL, 108' FEL (NE/4SE/4)

BHL: 1,341' FSL 1,125' FEL (NE/4SE/4)

Minerals: State – UO 1530A

NBU 922-31I4AS

Surface: 2,315' FSL, 88' FEL (NE/4SE/4)

BHL: 1,743' FSL 153' FEL (NE/4SE/4)

Minerals: State – UO 1530A

NBU 922-31J3AS

Surface: 2,313' FSL, 148' FEL (NE/4SE/4)

BHL: 1,871' FSL 1,973' FEL (NW/4SE/4)

Minerals: State – UO 1207A

NBU 922-31O1AS

Surface: 2,314' FSL, 128' FEL (NE/4SE/4)

BHL: 1,098' FSL 1,494' FEL (SW/4SE/4)

Minerals: State – UO 1207A

Section 31 Township 9 South Range 22 East

Pad: NBU 922-31I

Uintah, Utah

Surface: State

ONSHORE ORDER NO. 1

MULTI-POINT SURFACE USE & OPERATIONS PLAN

Directional Drilling:

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

1. Existing Roads:

Refer to Topo Map A for directions to the location.

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

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

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

2. Planned Access Roads:

Approximately ± 0.1 mi. of new access road is proposed. Please refer to the attached Topo Map B.

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

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

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

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

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

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

The following guidelines will apply if the well is productive.

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

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

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

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

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

5. Location and Type of Water Supply:

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

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

No water well is to be drilled on this lease.

6. Source of Construction Materials:

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

Any gravel will be obtained from a commercial source.

7. Methods of Handling Waste Materials:

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

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

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

A plastic reinforced liner and felt will be used; it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit. Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

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

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

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

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

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

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

8. Ancillary Facilities:

None are anticipated.

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

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

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

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

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

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

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

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

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

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

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

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

10. Plans for Reclamation of the Surface:

Producing Location:

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

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

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

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

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

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

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

Dry Hole/Abandoned Location:

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

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

11. Surface/Mineral Ownership:

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

12. Other Information:

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

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

A Class III archaeological survey report and paleontological survey report is attached.

Kerr-McGee Oil & Gas Onshore LP
NBU 922-31I3CS/ 31I4AS/ 31J3AS/ 31O1AS

Page 7
Surface Use and Operations Plan

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

Kathy Schneebeck Dulnoan
Staff Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6226

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

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

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

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

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

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Kathy Schneebeck Dulnoan

April 20, 2009
Date

IPC #08-305

Paleontological Reconnaissance Survey Report

**Survey of Kerr McGee's Proposed Directional & Multi-Well Pads,
Access Roads & Pipelines for "NBU #922-31J3AS, 31I3CS,
31O1AS & 31I4AS" (Sec. 31 & 32, T 9 S, R 22 E), "NBU
#1022-4E3, 4E2S, 5I2S & 5H4" & "NBU
#1022-7O4AS, 7O4DS, 7N1S &
7N4S" (Sec. 4, 5, 7, 17 & 18,
T 10 S, R 22 E)**

Archy Bench
Topographic Quadrangle
Uintah County, Utah

March 6, 2009

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

INTRODUCTION

At the request of Raleen White of Kerr McGee Onshore LP and authorized by the BLM Vernal Field Office and James Kirkland of the Office of the State Paleontologist, a paleontological reconnaissance survey of Kerr McGee's proposed directional & multi-well pads, access roads & pipelines for "NBU #922-31J3AS, 31I3CS, 31O1AS & 31I4AS" (Sec. 31 & 32, T 9 S, R 22 E), "NBU #1022-4E3, 4E2S, 5I2S & 5H4" and "NBU #1022-7O4AS, 7O4DS, 7N1S & 7N4S" (Sec. 4, 5, 7, 17 & 18, T 10 S, R 22 E) was conducted by Stephen Sandau, Simon Masters, and Tom Temme on November 12 & 13, 2008. The reconnaissance survey was conducted under the Utah BLM Paleontological Resources Use Permit #UT08-006C and Utah Paleontological Investigations Permit #07-356. This survey to locate, identify and evaluate paleontological resources was done to meet requirements of the National Environmental Policy Act of 1969 and other State and Federal laws and regulations that protect paleontological resources.

FEDERAL AND STATE REQUIREMENTS

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

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

BLM, 2008: BLM IM 2009-011 Assessment and Mitigation of Potential Impacts to Paleontological Resources. USDI – BLM Washington Office directive, October 29, 2008 replaces the Condition Classification System from Handbook H-8270-1. The following section outlines the new Potential Fossil Yield Classification (PFYC) System. Geologic units are classified based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential.

- **Class 1 – Very Low.** Geologic units (igneous, metamorphic, or Precambrian) not likely to contain recognizable fossil remains.
- **Class 2 – Low.** Sedimentary geologic units not likely to contain vertebrate fossils or scientifically significant non-vertebrate fossils. (Including modern eolian, fluvial, and colluvial deposits etc...)
- **Class 3 – Moderate or Unknown.** Fossiliferous sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence; or sedimentary units of unknown fossil potential.

- **Class 3a – Moderate Potential.** The potential for a project to be sited on or impact a significant fossil locality is low, but is somewhat higher for common fossils.
- **Class 3b – Unknown Potential.** Units exhibit geologic features and preservational conditions that suggest significant fossils could be present, but little information about the paleontological resources of the unit or the area is known.
- **Class 4 – High.** Geologic units containing a high occurrence of vertebrate fossils or scientifically significant invertebrate or plant fossils, but may vary in abundance and predictability.
 - **Class 4a** – Outcrop areas with high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
 - **Class 4b** – Areas underlain by geologic units with high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.
- **Class 5 – Very High.** Highly fossiliferous geologic units that consistently and predictably produce vertebrate fossils or scientifically significant invertebrate or plant fossils.
 - **Class 5a** - Outcrop areas with very high potential are extensive (greater than two acres) and paleontological resources may be susceptible to adverse impacts from surface disturbing actions.
 - **Class 5b** - Areas underlain by geologic units with very high potential but have lowered risks of disturbance due to moderating circumstances such as a protective layer of soil or alluvial material; or outcrop areas are smaller than two contiguous acres.

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

LOCATION

Kerr McGee's proposed directional & multi-well pads, access roads & pipelines for "NBU #922-31J3AS, 31I3CS, 31O1AS & 31I4AS" (Sec. 31 & 32, T 9 S, R 22 E), "NBU #1022-4E3, 4E2S, 5I2S & 5H4" and "NBU #1022-7O4AS, 7O4DS, 7N1S & 7N4S" (Sec. 4, 5, 7, 17 & 18, T 10 S, R 22 E) are on lands managed by the BLM and the State of Utah Trust Lands Administration (SITLA), in the Sand Wash area, approximately 2-3 miles west of the White River, and about 18-22 miles west of Bonanza, UT. The project area can be found on the Archy Bench 7.5 minute U. S. Geological Survey Quadrangle Map, Uintah County, Utah.

PREVIOUS WORK

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

GEOLOGICAL AND PALEONTOLOGICAL OVERVIEW

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

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

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

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

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

FIELD METHODS

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

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

PROJECT AREA

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

NBU #922-31J3AS, 31I3CS, 31O1AS & 31I4AS

The proposed multi well pad is located in the NE/SE quarter-quarter section of Sec. 31 and the NW/SW quarter-quarter section of Sec. 32, T 9 S, R 22 E (Figure 1). The proposed access road and pipeline begin at an existing well pad in the NE/SE quarter-quarter section of Sec. 31 and travel a few hundred feet southwest to the proposed well pad.

The proposed construction site sits in a low area surrounded by hills. Green sandstone outcrops were observed along the proposed access road and pipeline. The proposed well pad consists of sandstone colluvium over green and gray siltstone/mudstone. No fossils were found.

NBU #1022-4E3, 4E2S, 5I2S & 5H4

The proposed pipeline upgrade begins in the SW/NW quarter-quarter section of Sec. 4, T 10 S, R 22 E and travels west for about a quarter of a mile to where it ties in to the proposed pipeline in the SE/NE quarter-quarter section of Sec. 5. The proposed pipeline heads southwest from the tie in for about a tenth of a mile then turns northeast and travels a few hundred feet before tying in to the proposed well pad in the SE/NE quarter-quarter section of Sec. 5. The proposed well pad is located in the SE/NE quarter-quarter section of Sec. 5 and the SW/NW quarter-quarter section of Sec. 4 (Figure 2).

The proposed pipeline and road travel through outcrops of green siltstone/mudstone. The lithology of the proposed well pad consists of a thin sandstone colluvium over a massive coarse-grained, sandstone outcrop with large (10-50 cm) dark concretions. A few unidentifiable bone fragments were found along the pipeline and access road but no other fossils were found.

NBU #1022-7O4AS, 7O4DS, 7N1S & 7N4S

The proposed multi wells are located on an existing well pad in the SW/SE quarter-quarter section of Sec. 7 and the NW/NE quarter-quarter section of Sec. 18, T 10 S, R 22 E (Figure 2). The proposed pipeline ties in to the well pad on its northeast corner in the SW/SE quarter-quarter section of Sec. 7 and heads southwest for about a mile and a half to where it ties in to an existing pipeline in the SE/SW quarter-quarter section of Sec. 17.

The proposed well pad is staked on an existing well pad and over previously disturbed sediments with some outcrops of yellow and green, medium-grained sandstone and maroon and purple mudstone/ siltstone. The proposed pipeline parallels an existing road for a majority of the way. The pipeline passes through hills and slopes over soil and tan to green siltstones and sandstones. As it continues southeast, the pipeline route traverses a thick layer of brown to tan, fluvial sandstone and coarse-grained, yellow sandstone with desert varnished concretions. Farther southeast the route is covered in a thin colluvium overlying purple, green, and gray sandstones, siltstones, and mudstones.

A possible fragmented crocodylian (limb bone?) along with scattered turtle fragments (*Echmatemys* sp. and *Apalone* sp.) were found in a red siltstone/mudstone on the slope of a prominent rise in the NE/SW quarter-quarter section of Sec. 17, T 10 S, R 22 E (Figure 2). The area where these fossils were found in was previously referred to vertebrate fossils locality "42Un1876V" (Sandau, 2005).

A few small crocodylian jaw fragments and turtle shell fragments (*Echmatemys* sp.) were found in a small knoll of gray-green mudstone/siltstone overlain by weathered tan sandstone fragments just east of the proposed pipeline corridor in the SW/NW quarter-quarter section of Sec. 17, T 10 S, R 22 E (Figure 2). Across the road in the same area, ichnofossils of burrowing mud-loving beetles (*Planolites*) were observed in the upturned boulders excavated during the construction of the existing road. The area where these fossils were discovered is designated as the new vertebrate fossils locality "42Un2527V"

Finally, a 75% complete turtle carapace and plastron (*Echmatemys?*) was discovered during the survey on the northwest end of the well pad preserved on the end of a rat-hole drilling core composed of green siltstone and medium-grained sandstone. The area where these fossils were discovered is designated as the new vertebrate fossils locality "42Un2528V"

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
<p>"NBU #922-31J3AS, 31I3CS, 31O1AS & 31I4AS" (Sec. 31 & 32, T 9 S, R 22 E)</p>	<p>The proposed construction site sits in a low area surrounded by hills. A green sandstone outcrops along the proposed access road and pipeline. The proposed well pad consists of sandstone colluvium over green and gray siltstone/mudstone.</p>	<p>No fossils were found. Class 3a</p>
<p>"NBU #1022-4E3, 4E2S, 5I2S & 5H4" (Sec. 4 & 5, T 10 S, R 22 E)</p>	<p>The proposed pipeline and road travel through outcrops of green siltstone/mudstone. The lithology of the proposed well pad consists of a thin sandstone colluvium over a massive coarse-grained, sandstone outcrop with large (10-50 cm) dark concretions. A few bone fragments were found along the pipeline and access road but no other fossils were found.</p>	<p>A few unidentifiable bone fragments were found along the pipeline and access road but no other fossils were found. Class 3a</p>

<p>“NBU #470, #1022-7O4AS, 7O4DS, 7N1S & 7N4S” (Sec. 7, 17 & 18, T 10 S, R 22 E)</p>	<p>The proposed staked well pad is over previously disturbed sediments with some outcrops of yellow and green, medium-grained sandstone and maroon and purple mudstone/ siltstone. For the most part the proposed pipeline parallels an existing road. The pipeline passes through some hills and slopes over soil and some tan to green siltstones and sandstones. As it continues southeast the pipeline route traverses a thick layer of brown to tan, fluvial sandstone and coarse-grained, yellow sandstone with desert varnished concretions. Farther southeast the route is covered in a thin colluvium overlying purple, green, and gray sandstones, siltstones, and mudstones.</p>	<p>A possible fragmented crocodylian (limb bone?) along with scattered turtle fragments (<i>Echmatemys</i> sp. and <i>Apalone</i> sp.) were found in a red siltstone/mudstone on the slope of a prominent rise in the NE/SW quarter-quarter section of Sec. 17, T 10 S, R 22 E (Figure 2). The area where these fossils were found in was previously referred to vertebrate fossils locality “42Un1876V” (Sandau, 2005).</p> <p>A few small crocodylian jaw fragments and turtle shell fragments (<i>Echmatemys</i> sp.) were found in a small knoll of gray-green mudstone/siltstone overlain by weathered tan sandstone fragments just east of the proposed pipeline corridor in the SW/NW quarter-quarter section of Sec. 17, T 10 S, R 22 E (Figure 2). Across the road in the same area, ichnofossils of burrowing mud-loving beetles (<i>Planolites</i>) were observed in the upturned boulders excavated during the construction of the existing road. The area where these fossils were discovered is designated as the new vertebrate fossils locality “42Un2527V”</p> <p>Finally, a 75% complete turtle carapace and plastron (<i>Echmatemys</i>?) was discovered during the survey on the northwest end of the well pad preserved on the end of a rat-hole drilling core composed of green siltstone and medium-grained sandstone. The area where these fossils were discovered is designated as the new vertebrate fossils locality “42Un2528V”</p> <p>Class 5a</p>
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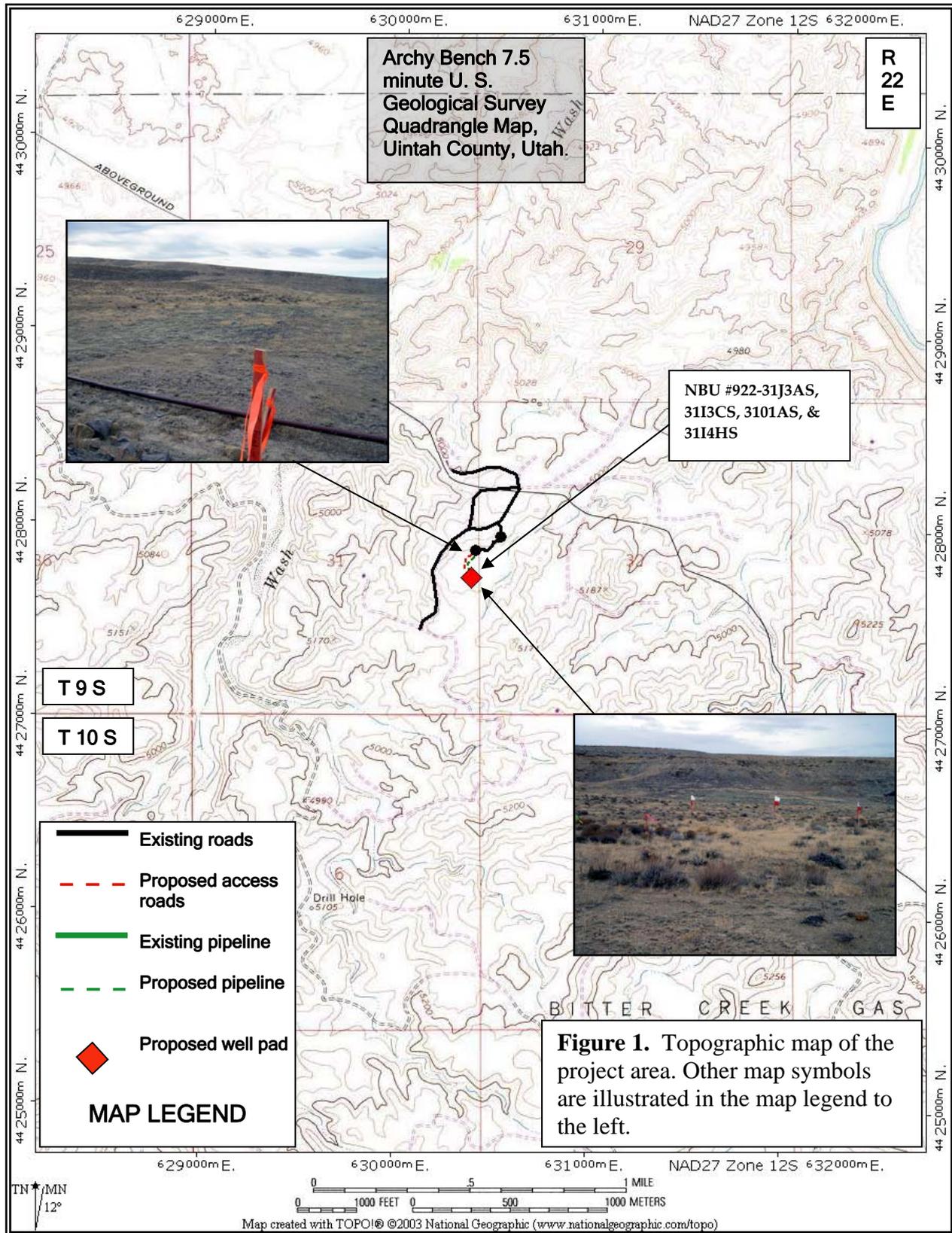
RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed directional & multi-well pads, access roads & pipelines for "NBU #922-31J3AS, 31I3CS, 31O1AS & 31I4AS" (Sec. 31 & 32, T 9 S, R 22 E), "NBU #1022-4E3, 4E2S, 5I2S & 5H4" and "NBU #1022-7O4AS, 7O4DS, 7N1S & 7N4S" (Sec. 4, 5, 7, 17 & 18, T 10 S, R 22 E). The directional and multi-well pads and the associated access roads and pipelines covered in this report showed some signs of vertebrate fossils, therefore, we advise the following recommendations.

Due to the amount of exposed fossiliferous Wagonhound Member of the Uinta Formation and the occurrence of vertebrate along the proposed pipeline corridor and on the well pad for "#1022-7O4AS, 7O4DS, 7N1S & 7N4S" (Sec. 4, 5, 7, 17 & 18, T 10 S, R 22 E), we recommend that a permitted paleontologist be present to monitor the construction process.

Furthermore, we recommend that no other paleontological restrictions should be placed on the development of the remaining projects included in this report.

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



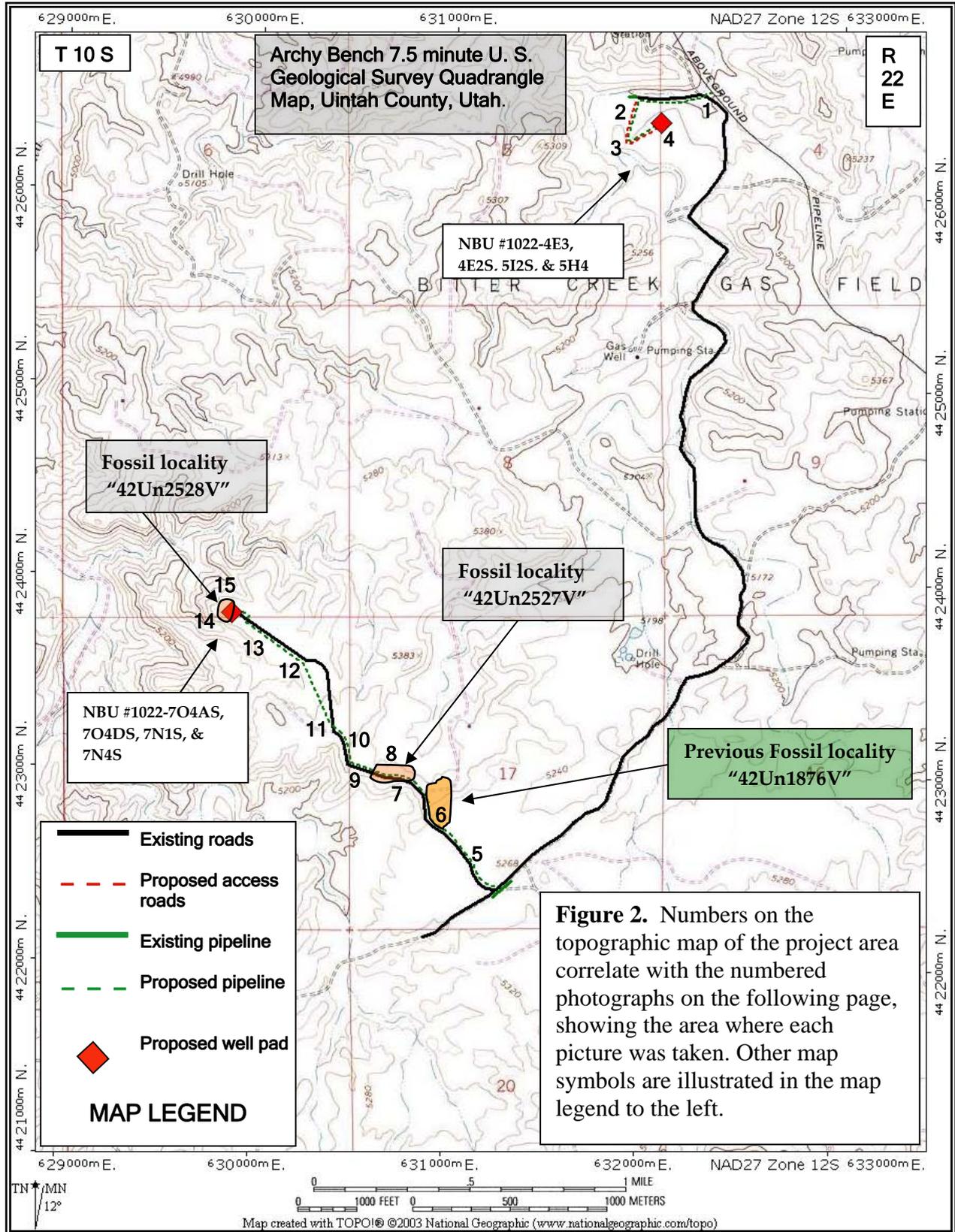


Figure 2. *continued...*

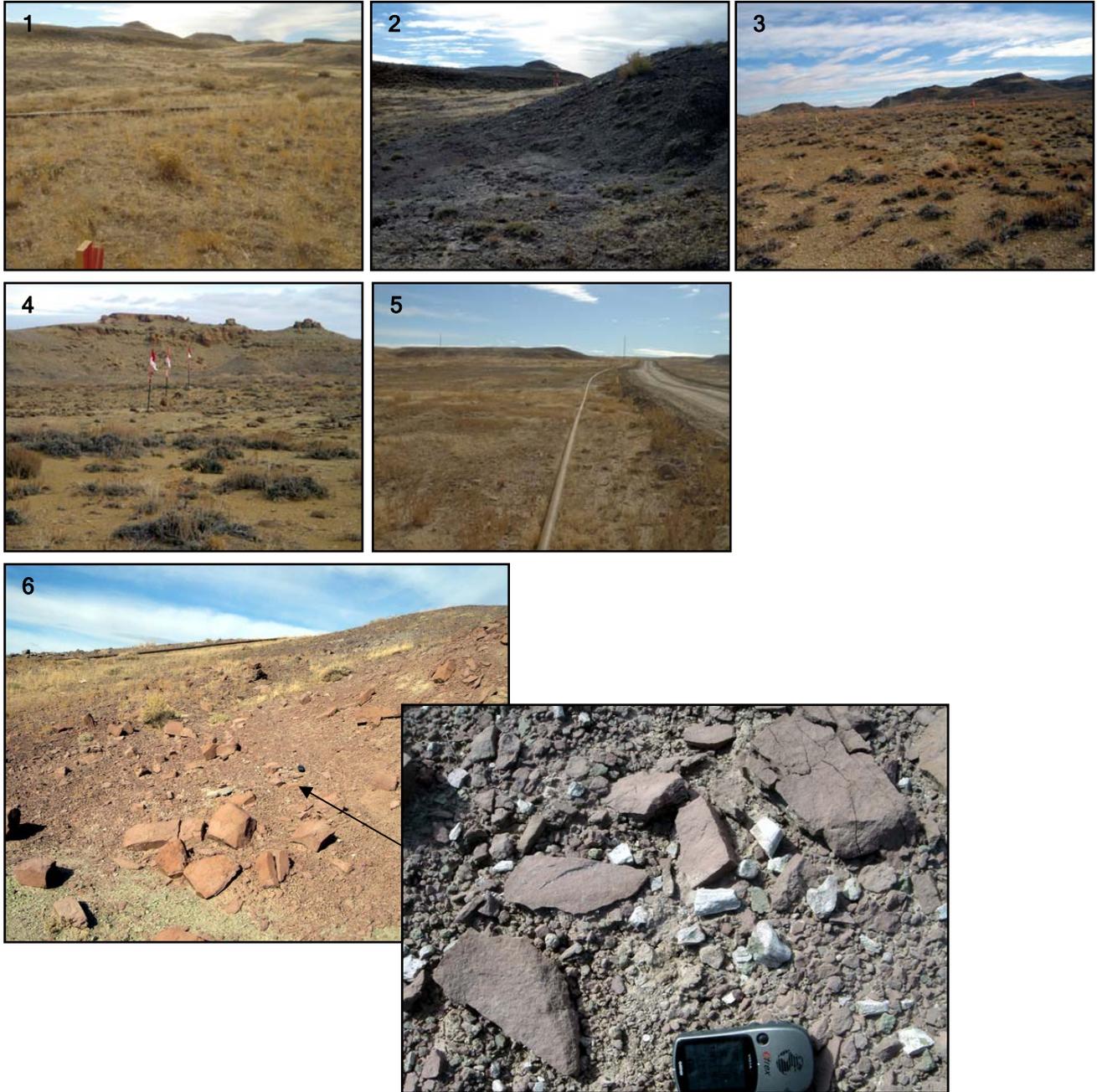


Figure 2. continued...

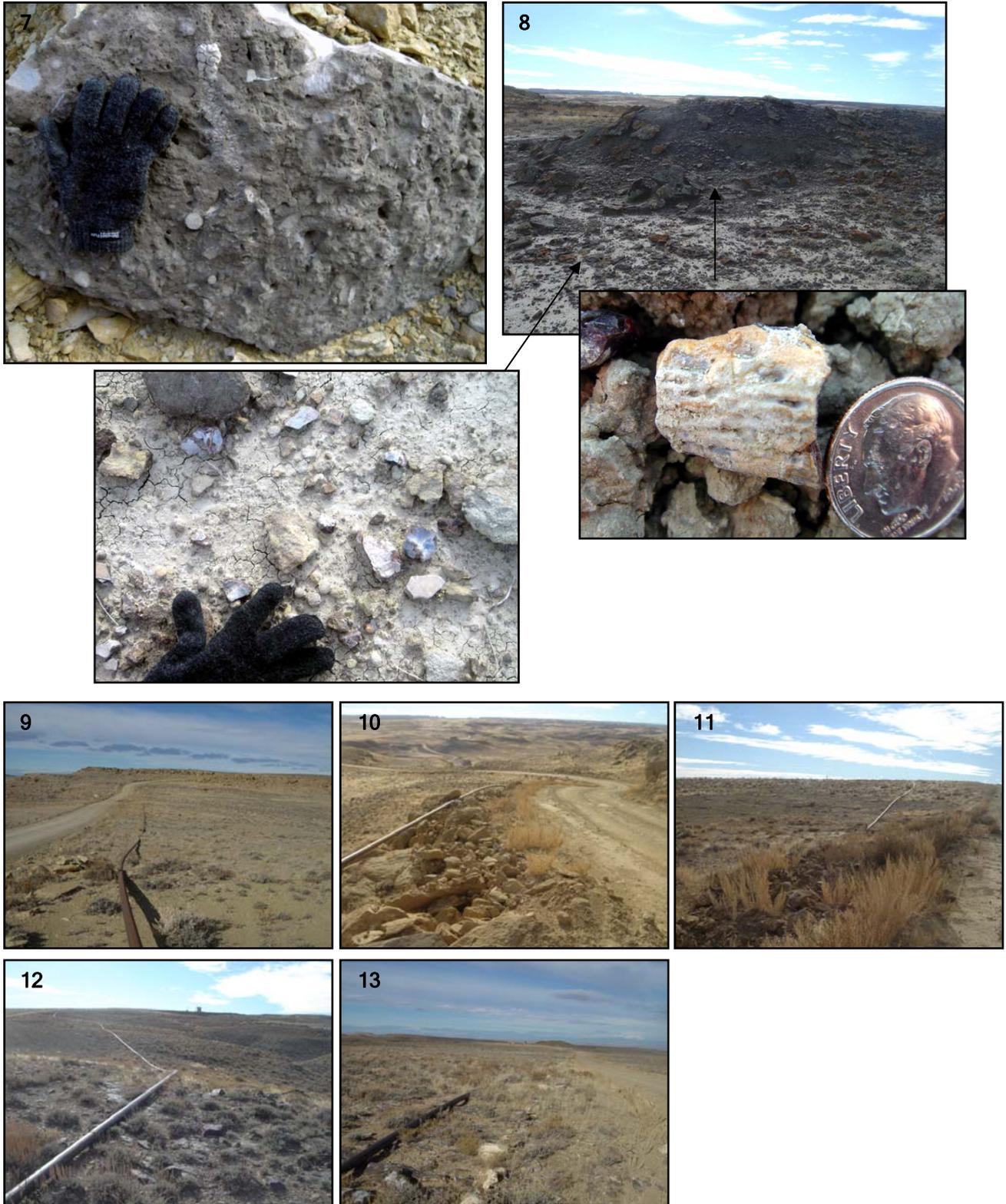
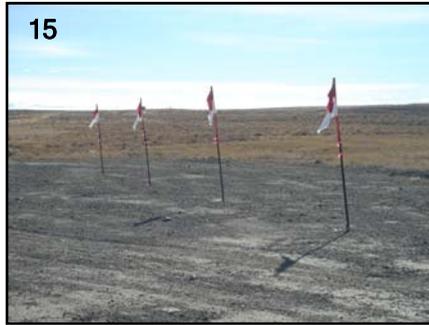
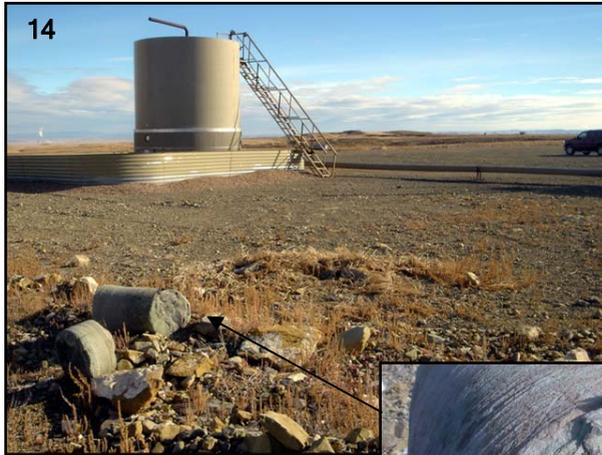


Figure 2. continued...



REFERENCES CITED

- Abbott, W., 1957, Tertiary of the Uinta Basin: Intermountain Assoc. Petroleum Geologists Guidebook, Eighth Ann. Field Conf., p. 102-109.
- Anderson, D. W., and Picard, M. D., 1972, Stratigraphy of the Duchesne River Formation (Eocene-Oligocene?), northern Uinta Basin, northeastern Utah: Utah Geological and Mineralogical Survey Bulletin 97, p. 1-28.
- Betts, C. W., 1871, The Yale College expedition of 1870: Harper's New Monthly Magazine, v. 43, p. 663-671.
- Black, C. C. and Dawson, M. R., 1966, A Review of Late Eocene Mammalian Faunas from North America: American Journal of Science, v. 264, p. 321-349.
- Bryant, B., Naeser C. W., Marvin R. F., Mahnert H. H., 1989, Cretaceous and Paleogene Sedimentary Rocks and Isotopic Ages of Paleogene Tuffs, Uinta basin, Utah. And Ages of Late Paleogene and Neogene Tuffs and the Beginning of Rapid Regional Extension, Eastern Boundary of the Basin and Range Province near Salt lake City, Utah: In: Evolution of Sedimentary basins-Uinta and Piceance Basins. U. S. Geological Survey Bulletin 1787-J, K.
- Flynn, J. J., 1986, Correlation and geochronology of middle Eocene strata from the western United States: Palaeogeographic, Palaeoclimatology, Palaeoecology, v. 55, p. 335-406.
- Hamblin, A. H. and Miller, W. E., 1987, Paleogeography and Paleoecology of the Myton Pocket, Uinta Basin, Utah (Uinta Formation-Upper Eocene): Brigham Young University Geology Studies, v. 34, p 33-60.
- Kay, J. L., 1934, Tertiary formations of the Uinta Basin, Utah: Annals of Carnegie Museum, v. 23, p. 357-371.
- Marsell, R. E., 1964, Geomorphology of the Uinta Basin-A Brief Sketch: Thirteenth annual Field Conference. Association of Petroleum Geologists, p. 34-46.
- Marsh, O. C., 1871, on the geology of the Eastern Uintah Mountains: American Journal of Science and Arts, v. 1, p. 1-8.
- _____ 1875a, Ancient lake basins of the Rocky Mountain region: American Journal of Science and Arts, v. 9, p. 49-52.
- _____ 1875b, Notice of new Tertiary mammals, IV: American Journal of Science and Arts, Third Series, v. 9, p. 239-250.

- Osborn, H. F., 1895, Fossil mammals of the Uinta beds, expedition of 1894: American Museum of Natural History Bulletin, v. 7, p. 71-106.
- _____ 1929, The Titanotheres of Ancient Wyoming, Dakota and Nebraska: Monograph of the U. S. Geological Survey, v. 55, p. 1-953.
- Peterson, O. A., 1931c, new species from the Oligocene of the Uinta: Annals of Carnegie Museum, v. 21, p. 61-78.
- Peterson, O. A. and Kay, J. L., 1931, The Upper Uinta Formation of Northeastern Utah: Annals of the Carnegie Museum, v. 20, p. 293-306.
- Prothero, D. R., 1996, Magnetic Stratigraphy and biostratigraphy of the middle Eocene Uinta Formation, Uinta Basin, Utah, *in* Prothero, D. R., and Emry, R. J. editors, The Terrestrial Eocene-Oligocene Transition in North America, p. 3-24.
- Rasmussen, D. T., Conroy, G. C., Friscia, A. R., Townsend, K. E. and Kinkel, M. D., 1999, Mammals of the middle Eocene Uinta Formation: Vertebrate Paleontology of Utah, p. 401-420.
- Riggs, E. S., 1912. New or Little Known Titanotheres from the Lower Uintah Formations: Field Museum of Natural History Geological Series, v. 159, p. 17-41.
- Ryder, R. T., Fouch, T. D., Elison, J. H., 1976, Early Tertiary sedimentation in the western Uinta Basin, Utah: Geological Society of America Bulletin v. 87, p. 496-512.
- Sandau, S. D., 2005, Westport's Proposed Well Pads, Pipelines, and Access Roads for "NBU #1021-13A, C, G, I, K, & O" (Sec. 13, T 10 S, R 21 E); "NBU #1022-17D, F, H, J, L, N, & P" (Sec. 17, T 10 S, R 22 E); & "NBU #1022-18B, D, E, G, H, I, J, N, O, & P" (Sec. 18-19, T 10 S, R 22 E), an unpublished paleontological reconnaissance report prepared by Intermountain Paleo-Consulting, 37 p.
- Scott, W. B., 1945, The Mammalia of the Duchesne River Oligocene: Transactions of the American Philosophical Society, v. 34, p. 209-253.
- Stucky, R. K., 1992, Mammalian faunas in North America of Bridgerian to early Arikareean "age" (Eocene and Oligocene), *in* Prothero, D. R., and Berggren, W. A., eds., Eocene-Oligocene climatic and biotic evolution: Princeton University Press, p. 464-493.
- Wood, H. E., 1934, Revision of the Hyrachyidae: American Museum of Natural History Bulletin, v. 67, p. 181-295.
- _____ and others, 1941, Nomenclature and Correlation of the North America Continental Tertiary: Geol. Soc. Amer. Bull., v. 52, no. 1, Jan. 1, p. 1-48. 52, no. 1, Jan. 1, p. 1-48.

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)

May 8, 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)		
43-047-50383	NBU 921-25M3DS	Sec 25 T09S R21E 1855 FSL 0231 FWL
	BHL	Sec 25 T09S R21E 0244 FSL 0587 FWL
43-047-50384	NBU 921-25M2DS	Sec 25 T09S R21E 1860 FSL 0251 FWL
	BHL	Sec 25 T09S R21E 0740 FSL 0623 FWL
43-047-50385	NBU 921-25M2AS	Sec 25 T09S R21E 1865 FSL 0270 FWL
	BHL	Sec 25 T09S R21E 1245 FSL 0643 FWL
43-047-50386	NBU 921-25L4BS	Sec 25 T09S R21E 1870 FSL 0290 FWL
	BHL	Sec 25 T09S R21E 1733 FSL 0677 FWL
43-047-50387	NBU 1022-14F4S	Sec 14 T10S R22E 1435 FNL 1470 FWL
	BHL	Sec 14 T10S R22E 2035 FNL 2255 FWL
43-047-50388	NBU 1022-14F2T	Sec 14 T10S R22E 1407 FNL 1417 FWL
43-047-50389	NBU 1022-14D3S	Sec 14 T10S R22E 1397 FNL 1400 FWL
	BHL	Sec 14 T10S R22E 0900 FNL 0410 FWL
43-047-50390	NBU 1022-14C4S	Sec 14 T10S R22E 1426 FNL 1453 FWL
	BHL	Sec 14 T10S R22E 1290 FNL 1975 FWL

Page 2

43-047-50391 NBU 922-36H2DS Sec 36 T09S R22E 1846 FNL 1491 FEL
BHL Sec 36 T09S R22E 1720 FNL 0795 FEL

43-047-50392 NBU 922-36H2AS Sec 36 T09S R22E 1829 FNL 1501 FEL
BHL Sec 36 T09S R22E 1360 FNL 0700 FEL

43-047-50393 NBU 922-36G1T Sec 36 T09S R22E 1812 FNL 1512 FEL

43-047-50394 NBU 922-36A4BS Sec 36 T09S R22E 1795 FNL 1522 FEL
BHL Sec 36 T09S R22E 0980 FNL 0630 FEL

43-047-50395 NBU 922-31O1AS Sec 31 T09S R22E 2314 FSL 0128 FEL
BHL Sec 31 T09S R22E 1098 FSL 1494 FEL

43-047-50396 NBU 922-31J3AS Sec 31 T09S R22E 2313 FSL 0148 FEL
BHL Sec 31 T09S R22E 1871 FSL 1973 FEL

43-047-50397 NBU 922-31I4AS Sec 31 T09S R22E 2315 FSL 0088 FEL
BHL Sec 31 T09S R22E 1743 FSL 0153 FEL

43-047-50398 NBU 922-31I3CS Sec 31 T09S R22E 2314 FSL 0108 FEL
BHL Sec 31 T09S R22E 1341 FSL 1125 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:5-8-09



Kerr-McGee Oil & Gas Onshore LP

1099 18th Street, Suite 1800
Denver, CO 80202-1918
P.O. Box 173779
Denver, CO 80217-3779
720-929-6000

May 20, 2009

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

Re: Directional Drilling R649-3-11
NBU 922-3114AS
T9S-R22E
Section 31: NESE/NESE
Surface: 2315' FSL, 88' FEL
Bottom Hole: 1743' FSL, 153' FEL
Uintah County, Utah

Dear Mrs. Mason:

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

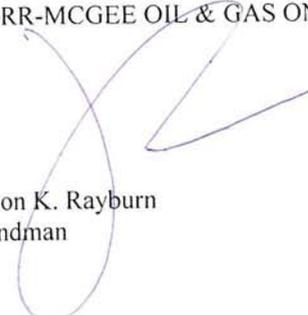
- Kerr-McGee's NBU 922-3114AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jason K. Rayburn
Landman



From: Jim Davis
To: Bonner, Ed; Mason, Diana
Date: 6/1/2009 2:12 PM
Subject: Kerr McGee Approvals (16)

CC: Garrison, LaVonne

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

NBU 922-36A4BS (4304750394)
NBU 922-36G1T (4304750393)
NBU 922-36H2AS (4304750392)
NBU 922-36H2DS (4304750391)

NBU 921-25M3DS (4304750383)
NBU 921-25M2DS (4304750384)
NBU 921-25M2AS (4304750385)
NBU 921-25L4BS (4304750386)

NBU 922-31O1AS (4304750395)
NBU 922-31J3AS (4304750396)
NBU 922-31I3CS (4304750398)
NBU 922-31I4AS (4304750397)

NBU 1022-19P1AS (4304750418)
NBU 1022-20M4CS (4304750422)
NBU 1022-20M1DS (4304750421)
NBU 1022-20M4DS (4304750423)

-Jim

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

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 922-3114AS 43047503970		
String	Surf	Prod	
Casing Size(")	9.625	4.500	
Setting Depth (TVD)	2300	9300	
Previous Shoe Setting Depth (TVD)	20	2300	
Max Mud Weight (ppg)	8.4	11.7	
BOPE Proposed (psi)	500	5000	
Casing Internal Yield (psi)	3520	7780	
Operators Max Anticipated Pressure (psi)	5603	11.6	

Calculations	Surf String	9.625	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	1005	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	729	NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	499	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	503	NO Reasonable depth in area
Required Casing/BOPE Test Pressure=		2300	psi
*Max Pressure Allowed @ Previous Casing Shoe=		20	psi *Assumes 1psi/ft frac gradient

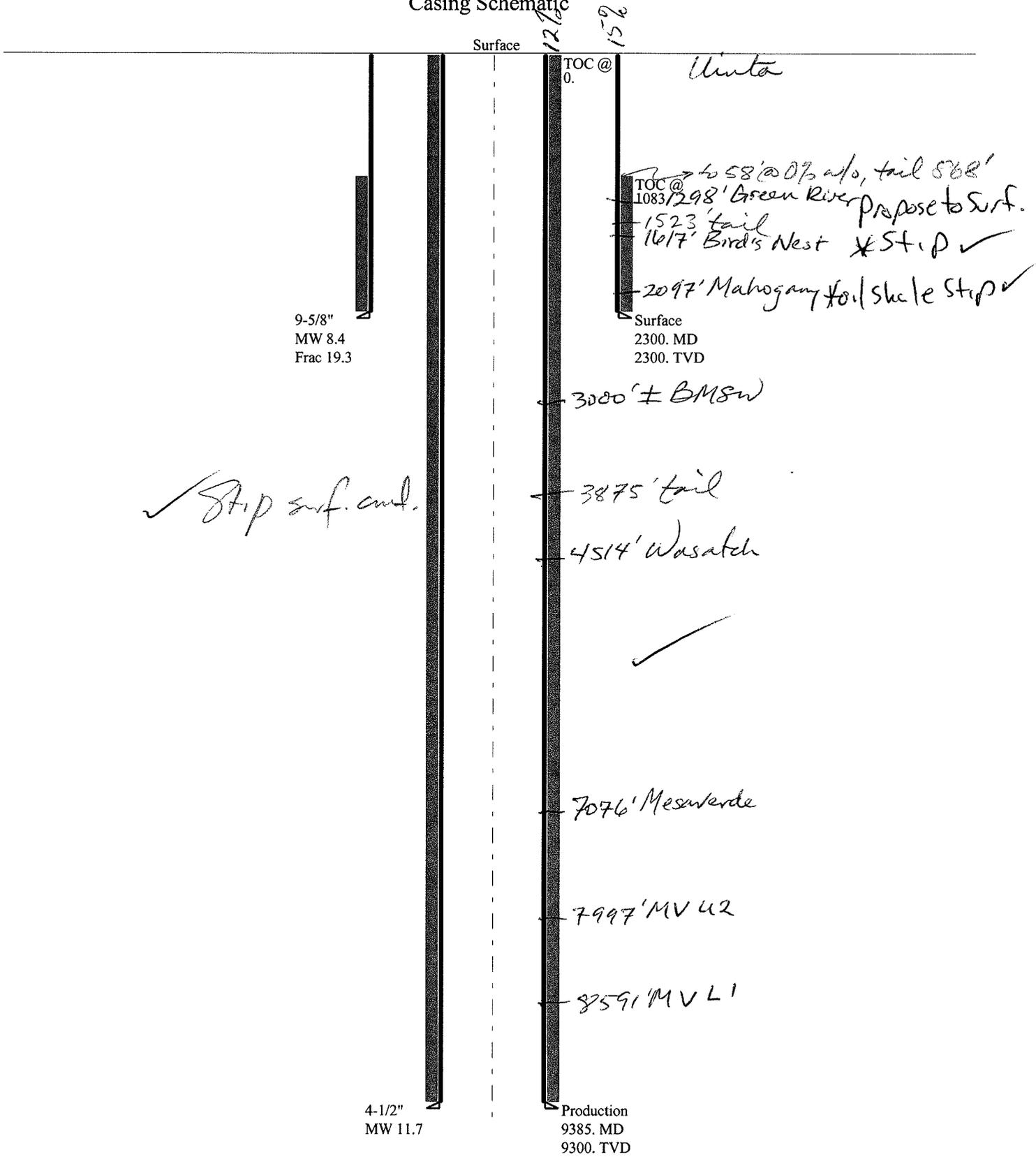
Calculations	Prod String	4.500	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	5658	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	4542	YES
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	3612	YES OK
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	4118	NO Reasonable, note max allowed pressure
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2300	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$		NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$		NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

43047503970000 NBU 922-3114AS

Casing Schematic



9-5/8"
MW 8.4
Frac 19.3

✓ Strip surf. cont.

4-1/2"
MW 11.7

Production
9385. MD
9300. TVD

Surface
2300. MD
2300. TVD

3000' ± BMSW

3875' tail

4514' Wasatch

7076' Mesaverde

7997' MV U2

8759' MV L1

TOC @ 0.

Uinta

TOC @ 1083/1298' Green River propose to surf.

1523' tail

1617' Bird's Nest *Strip ✓

2097' Mahogany foil shale strip ✓

Well name:	43047503970000 NBU 922-3114AS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-50397
Location:	UINTAH	COUNTY	

Design parameters:

Collapse

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

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 106 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft
Cement top: 1,083 ft

Burst

Max anticipated surface pressure: 2,024 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,300 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J)
8 Round LTC: 1.70 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.50 (B)

Tension is based on air weight.
Neutral point: 2,014 ft

Directional Info - Build & Drop

Kick-off point 2200 ft
Departure at shoe: 3 ft
Maximum dogleg: 3 °/100ft
Inclination at shoe: 3 °

Re subsequent strings:

Next setting depth: 9,300 ft
Next mud weight: 11.700 ppg
Next setting BHP: 5,653 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,300 ft
Injection pressure: 2,300 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	2300	9.625	36.00	J-55	LT&C	2300	2300	8.796	18807
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	1004	1948	1.941	2300	3520	1.53	82.8	453	5.47 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: June 17, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2300 ft, a mud weight of 8.4 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:	43047503970000 NBU 922-3114AS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-50397
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 11.700 ppg
Design is based on evacuated pipe.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 74 °F
Bottom hole temperature: 204 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft

Cement top: Surface

Burst

Max anticipated surface pressure: 3,607 psi
Internal gradient: 0.220 psi/ft
Calculated BHP 5,653 psi

No backup mud specified.

Tension:

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

Tension is based on air weight.
Neutral point: 7,758 ft

Directional Info - Build & Drop

Kick-off point 2200 ft
Departure at shoe: 576 ft
Maximum dogleg: 3 °/100ft
Inclination at shoe: 0 °

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	9385	4.5	11.60	I-80	LT&C	9300	9385	3.875	123882
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5653	6360	1.125	5653	7780	1.38	107.9	212	1.97 J

Prepared by: Helen Sadik-Macdonald
Div of Oil, Gas & Mining

Phone: 801 538-5357
FAX: 801-359-3940

Date: June 17, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9300 ft, a mud weight of 11.7 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.
Well Name NBU 922-3114AS
API Number 43047503970000 **APD No** 1488 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 NESE **Sec** 31 **Tw** 9.0S **Rng** 22.0E 2315 FSL 88 FEL
GPS Coord (UTM) **Surface Owner**

Participants

Floyd Bartlett (DOGM), Jim Davis (SITLA), Raleen White, Griz Oleen, Clay Einerson, Charles Chase and Tony Kzneck (Kerr McGee), Ben Williams (UDWR) and Kolby Kay (Timberline Engineering and Land Surveying).

Regional/Local Setting & Topography

The general area is the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 34 air miles and 54 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads to within 0.1 miles of the site where new construction will be required. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

Four directional wells will be drilled from the proposed pad. They are the NBU 922-3101AS; J3AS; I3CS; I4AS. The location is in the south side of a bowl or basin that extends north to a shallow, wide drainage. A portion of the pad will cover existing drainages on the southwest and northwest corners. A diversion ditch will be constructed beginning on the southwest corner of the reserve pit spoils stockpile extending along the west side of the location to the north. The site is surrounded by medium hills, which have exposed sandstone ledges or cliffs. The White River is approximately 3 miles down drainage. A Backflow Pit is included on the Location Layout Sheet. If it is to be constructed Kerr McGee will request it under a separate application.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location. The selected location appears to be a suitable site for drilling and operating additional wells.

Surface Use Plan

Current Surface Use
 Grazing
 Recreational
 Wildlife Habitat

New Road Miles	Well Pad	Src Const Material	Surface Formation
0.1	Width 335 Length 440	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation is a fair desert shrub type, which includes curly mesquite grass, prickly pear, black sage brush, bud sage, horsebrush, cheatgrass, shadscale, halogeton and spring annuals.

Antelope, sheep during the winter, rabbits, coyotes, and small mammals, birds and raptors.

Soil Type and Characteristics

Deep sandy loam.

Erosion Issues N

Sedimentation Issues Y

A portion of the pad will cover existing drainages on the southwest and northwest corners.

Site Stability Issues N

Drainage Diversion Required? Y

A diversion ditch will be constructed beginning on the southwest corner of the reserve pit spoils stockpile extending along the west side of the location to the north.

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y **Paleo Potential Observed?** N **Cultural Survey Run?** Y **Cultural Resources?**

Reserve Pit

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

Characteristics / Requirements

The proposed reserve pit is 100' x 250' x 12' deep located in a cut on the southeast corner of the location. Kerr McGee plans a 30-mil liner with a double felt sub-liner. A Backflow Pit is included on the Location Layout Sheet. If it is to be constructed Kerr McGee will request it under a separate application.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 30 **Pit Underlayment Required?** Y

Other Observations / Comments

Floyd Bartlett
Evaluator

5/20/2009
Date / Time

Application for Permit to Drill Statement of Basis

6/25/2009

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
1488	43047503970000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 922-31I4AS		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	NESE 31 9S 22E S 2315 FSL 88 FEL		GPS Coord (UTM)	630383E	4427736N

Geologic Statement of Basis

Kerr McGee proposes to set 2,300' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 3,000'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the center of section 31. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. Production casing cement should be brought to above the base of the moderately saline groundwater in order to isolate it from fresher waters uphole.

Brad Hill
APD Evaluator

6/3/2009
Date / Time

Surface Statement of Basis

The general area is the Natural Buttes Unit in the lower portion of the Sand Wash Drainage of Uintah, County, approximately 34 air miles and 54 road miles south of Vernal, Utah. Access is by State of Utah Highways, Uintah County and existing oilfield development roads to within 0.1 miles of the site where new construction will be required. Topography of the Sand Wash area is characterized by broad open flats dissected by numerous sub-drainages, which often become steep with ridges and draws with exposed sandstone layers. No perennial streams occur in the drainage. Individual draws or washes are ephemeral with spring runoff or flows from sometimes-intense summer rainstorms. No springs exist in the area. An occasional constructed pond occurs furnishing water for antelope or livestock.

Four directional wells will be drilled from the proposed pad. They are the NBU 922-31O1AS; J3AS; I3CS; I4AS. The location is in the south side of a bowl or basin that extends north to a shallow, wide drainage. A portion of the pad will cover existing drainages on the southwest and northwest corners. A diversion ditch will be constructed beginning on the southwest corner of the reserve pit spoils stockpile extending along the west side of the location to the north. The site is surrounded by medium hills, which have exposed sandstone ledges or cliffs. The White River is approximately 3 miles down drainage. A Backflow Pit is included on the Location Layout Sheet. If it is to be constructed Kerr McGee will request it under a separate application.

Both the surface and minerals are owned by SITLA. Jim Davis represented SITLA at the pre-site investigation. Mr. Davis had no concerns pertaining to this location. The selected location appears to be a suitable site for drilling and operating additional wells.

Ben Williams of the Utah Division of Wildlife Resources also attended the pre-site. Mr. Williams stated no wildlife values would be significantly affected by drilling and operating the wells at this location.

Floyd Bartlett
Onsite Evaluator

5/20/2009
Date / Time

Application for Permit to Drill Statement of Basis

6/25/2009

Utah Division of Oil, Gas and Mining

Page 2

Category	Condition
Pits	A synthetic liner with a minimum thickness of 30mils with a felt subliner shall be properly installed and maintained in the reserve pit.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 5/3/2009

API NO. ASSIGNED: 43047503970000

WELL NAME: NBU 922-31I4AS

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

PHONE NUMBER: 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: NESE 31 090S 220E

Permit Tech Review:

SURFACE: 2315 FSL 0088 FEL

Engineering Review:

BOTTOM: 1743 FSL 0153 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 39.99164

LONGITUDE: -109.47280

UTM SURF EASTINGS: 630383.00

NORTHINGS: 4427736.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: UO 1530A

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 3 - State

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - 22013542
- 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
5 - Statement of Basis - bhill
15 - Directional - dmason
17 - Oil Shale 190-5(b) - dmason
25 - Surface Casing - hmacdonald



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 922-3114AS
API Well Number: 43047503970000
Lease Number: UO 1530A
Surface Owner: STATE
Approval Date: 7/8/2009

Issued to:

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

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, completion into and commingling of production from the Wasatch and Mesaverde formations 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:

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

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.

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

Additional Approvals:

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

- Any changes to the approved drilling plan – contact Dustin Doucet
- Significant plug back of the well – contact Dustin Doucet
- Plug and abandonment of the well – contact Dustin Doucet

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
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing – contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program – contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well – contact Dan Jarvis

Contact Information:

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

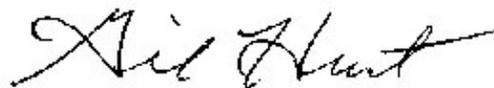
- Carol Daniels 801-538-5284 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-942-0871 - after office hours

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

<p>STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING</p>	<p>FORM 9</p>
<p>SUNDRY NOTICES AND REPORTS ON WELLS</p> <p>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.</p>	<p>5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A</p>
<p>1. TYPE OF WELL Gas Well</p>	<p>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</p>
<p>2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.</p>	<p>7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES</p>
<p>3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779</p>	<p>8. WELL NAME and NUMBER: NBU 922-3114AS</p>
<p>4. LOCATION OF WELL FOOTAGES AT SURFACE: 2315 FSL 0088 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E Meridian: S</p>	<p>9. API NUMBER: 43047503970000</p>
<p>PHONE NUMBER: 720 929-6007 Ext</p>	<p>9. FIELD and POOL or WILDCAT: NATURAL BUTTES</p>
	<p>COUNTY: UINTAH</p>
	<p>STATE: UTAH</p>

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

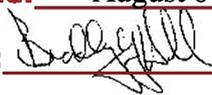
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 7/31/2009	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests to change the surface location of this well due to a new rig configuration. The surface location is changing FROM: 2315' FSL 88' FEL TO: 2319' FSL 128' FEL. All other information as originally submitted remains the same. No additional surface disturbance from that amount approved in the original APD is anticipated. If you have any questions, please contact the undersigned.
Thank you.

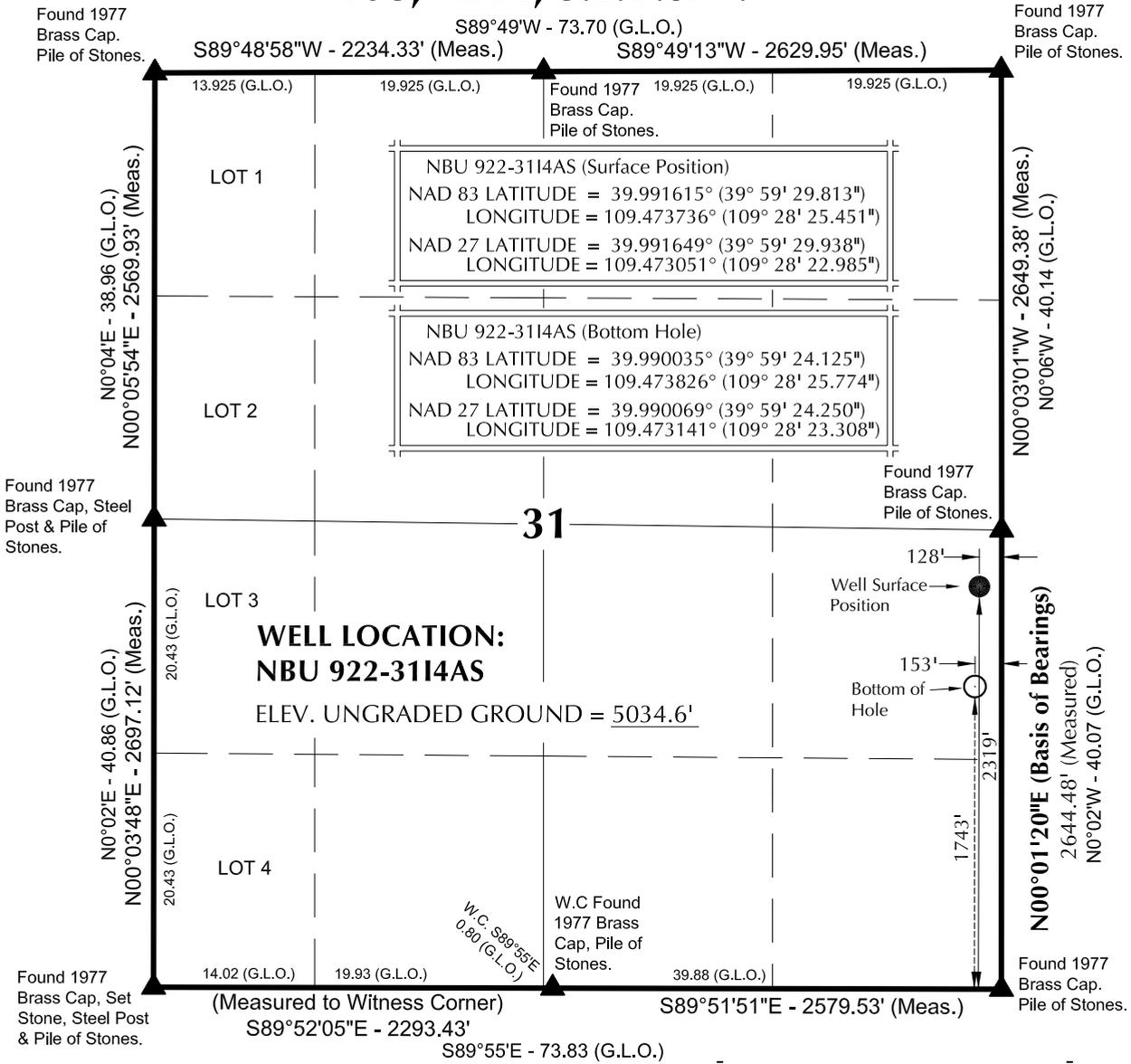
**Approved by the
Utah Division of
Oil, Gas and Mining**

Date: August 04, 2009

By: 

<p>NAME (PLEASE PRINT) Danielle Piernot</p>	<p>PHONE NUMBER 720 929-6156</p>	<p>TITLE Regulatory Analyst</p>
<p>SIGNATURE N/A</p>	<p>DATE 7/27/2009</p>	

T9S, R22E, 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. The Bottom of hole bears S02°30'36"W 576.28' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

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

Date: August 04, 2009

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

By: *Kolby R. Ray*
 No. 362251
 KOLBY R. RAY
 REGISTERED LAND SURVEYOR
 REGISTRATION No. 362251
 STATE OF UTAH

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

WELL PAD - NBU 922-311

**NBU 922-3114AS
 WELL PLAT**

1743' FSL, 153' FEL (Bottom Hole)

**NE ¼ SE ¼ OF SECTION 31, T9S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH.**

609

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

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

DATE SURVEYED: 07-16-09	SURVEYED BY: M.S.B.	SHEET NO: 4
DATE DRAWN: 07-17-09	DRAWN BY: M.W.W.	
SCALE: 1" = 1000'		4 OF 13

NBU 922-31I4AS

Pad: NBU 922-31I

Surface: 2,319' FSL, 128' FEL (NE/4SE/4)

BHL: 1,743' FSL 153' FEL (NE/4SE/4)

Sec. 31 T9S R22E

Uintah, Utah

Mineral Lease: UO 1530A

ONSHORE ORDER NO. 1

DRILLING PROGRAM REVISED

- 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	1,298'	
Birds Nest	1,617'	Water
Mahogany	2,097'	Water
Wasatch	4,514'	Gas
Mesaverde	7,076'	Gas
MVU2	7,997'	Gas
MVL1	8,591'	Gas
TVD	9,300'	
TD	9,375'	

- 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 9,375' TD, approximately equals 5,549 psi (calculated at 0.59 psi/foot).

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

Date: August 04, 2009

By: 

Maximum anticipated surface pressure equals approximately 3,458 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. Variations:

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.

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

Date: August 04, 2009

By:

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 associated standard air drilling equipment, wellbore, and reserve pit. The safety distances for drill the surface holes are not typical of an air rig used to drill a productive well in most 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.

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Utah Division of
Oil, Gas and Mining

Date: August 04, 2009

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.

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

Date: August 04, 2009

By: 



**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 2,300	36.00	J-55	LTC	0.93	1.88	6.96
PRODUCTION	4-1/2"	0 to 9,375	11.60	I-80	LTC	2.07	1.09	2.12

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,652 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,743 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
SURFACE	Option 2	NOTE: If well will circulate water to surface, option 2 will be utilized					
	LEAD	1,800'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	430	35%	12.60	1.81
	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	4,005'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	380	40%	11.00	3.38
	TAIL	5,370'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,320	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

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

FLOAT EQUIPMENT & CENTRALIZERS

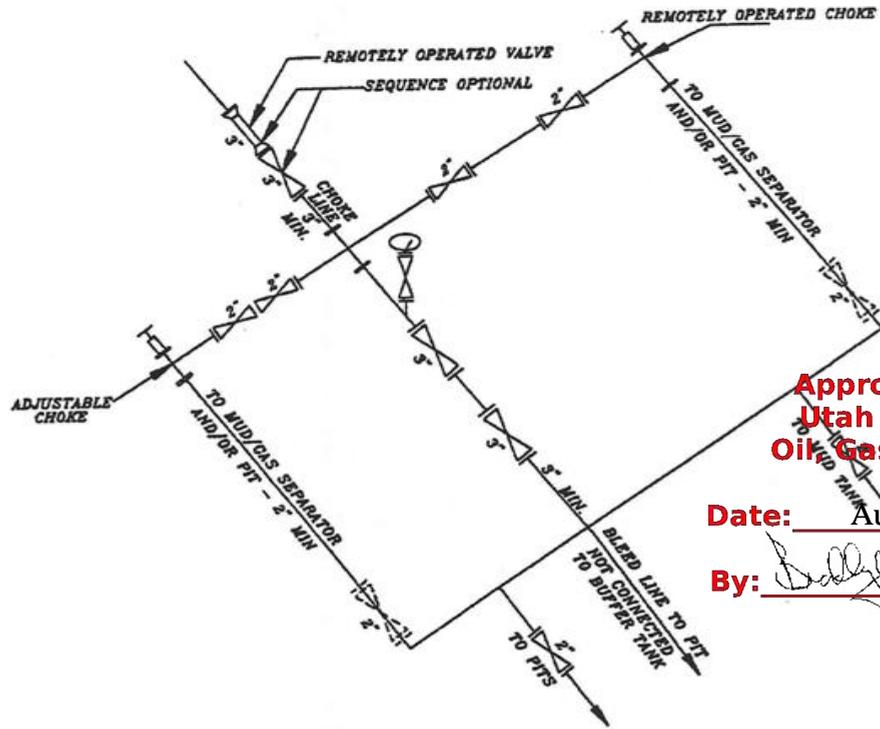
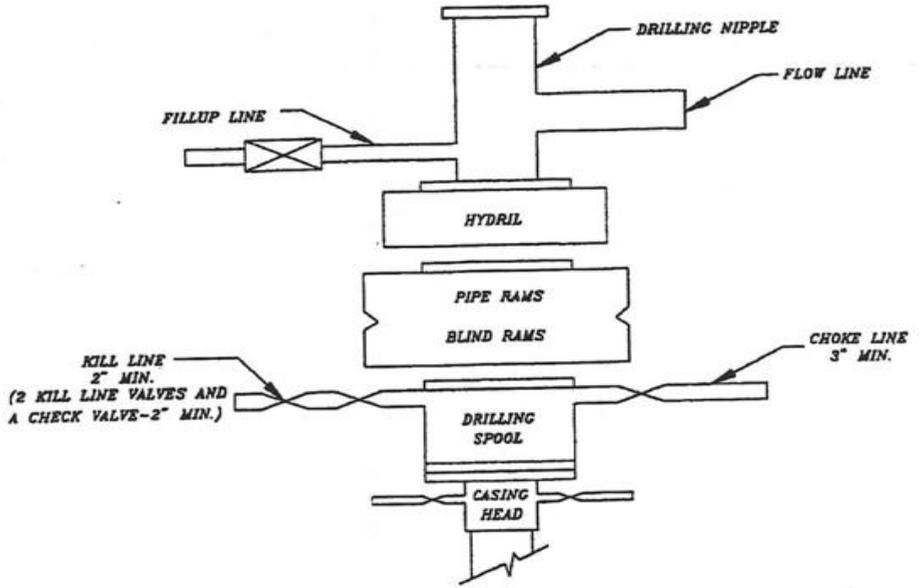
SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe	Date: August 04, 2009
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.	By: <i>[Signature]</i>

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.
 BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.
 Surveys will be taken at 1,000' minimum intervals.
 Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

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

EXHIBIT A
NBU 922-3114AS



Approved by the
Utah Division of
Oil, Gas and Mining

Date: August 04, 2009

By: *[Signature]*

SCHMATIC DIAGRAM OF 5,000 PSI BOP STACK

Kerr-McGee Oil & Gas Onshore LP

NBU 922-31I3CS

Surface: 2,318' FSL, 138' FEL (NE/4SE/4)

BHL: 1,341' FSL 1,125' FEL (NE/4SE/4)

Minerals: State – UO 1530A

NBU 922-31I4AS

Surface: 2,319' FSL, 128' FEL (NE/4SE/4)

BHL: 1,743' FSL 153' FEL (NE/4SE/4)

Minerals: State – UO 1530A

NBU 922-31J4BS

(FKA NBU 922-31J3AS)

Surface: 2,318' FSL, 158' FEL (NE/4SE/4)

BHL: 1,871' FSL 1,973' FEL (NW/4SE/4)

Minerals: State – UO 1207A

NBU 922-31O1AS

Surface: 2,318' FSL, 148' FEL (NE/4SE/4)

BHL: 1,098' FSL 1,494' FEL (SW/4SE/4)

Minerals: State – UO 1207A

Section 31 Township 9 South Range 22 East

Pad: NBU 922-31I

Uintah, Utah

Surface: State

ONSHORE ORDER NO. 1

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

MULTI-POINT SURFACE USE & OPERATIONS PLAN REVISED **Date:** August 04, 2009

By: 

Directional Drilling:

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

RECEIVED July 27, 2009

1. Existing Roads:

Refer to Topo Map A for directions to the location.

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

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

2. Planned Access Roads:

Approximately ±0.1 mi. of new access road is proposed. Please refer to the attached Topo Map B.

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

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

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

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

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

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

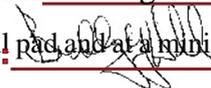
The following guidelines will apply if the well is productive.

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

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

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Oil, Gas and Mining**

Date: August 04, 2009

By: 

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

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

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

5. Location and Type of Water Supply:

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

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

No water well is to be drilled on this lease.

6. Source of Construction Materials:

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

Any gravel will be obtained from a commercial source.

7. Methods of Handling Waste Materials:

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

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

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

Date: August 04, 2009
By: [Signature]

A plastic reinforced liner and felt will be used; it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit. Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

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

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

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

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

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

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

8. Ancillary Facilities:

None are anticipated.

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

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

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

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

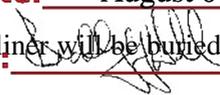
All pits will be fenced according to the following minimum standards:

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

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

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Date: August 04, 2009

By: 

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

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

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

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

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

10. Plans for Reclamation of the Surface:

Producing Location:

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

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

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

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

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

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Oil, Gas and Mining**

Date: August 04, 2009

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

By: [Signature]

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

Dry Hole/Abandoned Location:

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

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

11. Surface/Mineral Ownership:

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

12. Other Information:

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

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

A Class III archaeological survey report and paleontological survey report was attached with the originally submitted APD.

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

Date: August 04, 2009

By: 

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

Kathy Schneebeck Dulnoan
Staff Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6226

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

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

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

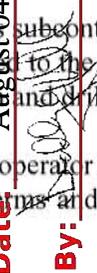
Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

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

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.


Kathy Schneebeck Dulnoan

July 27, 2009
Date

Approved by the
Utah Division of
Oil, Gas and Mining
Date: August 04, 2009
By: 

RECEIVED July 27, 2009



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)

NBU 922-311 PAD

NBU 922-3114AS

NBU 922-3114AS

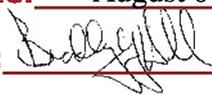
Plan: Design #1

Standard Planning Report

24 July, 2009

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

Date: August 04, 2009

By: 



Weatherford®

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WELL DETAILS: NBU 922-3114AS								
+N/-S	+E/-W	Northing	Easting	Ground Level:	5035.00	Latitude	Longitude	Slot
0.00	0.00	14526666.65	2068112.42			39° 59' 29.936 N	109° 28' 22.984 W	

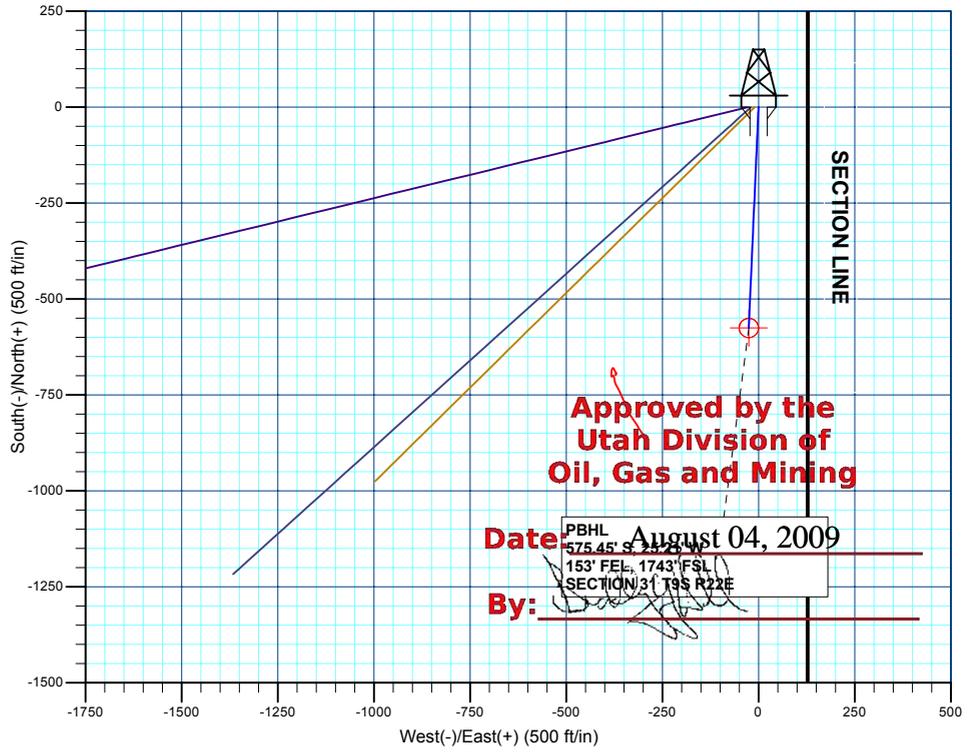
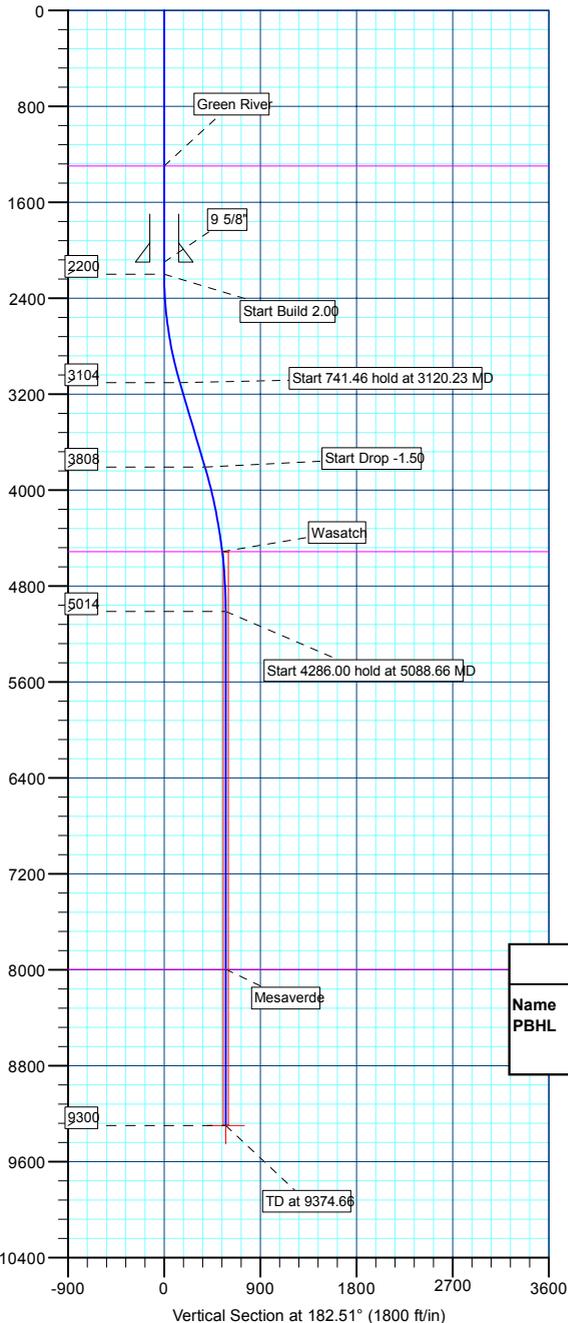
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1298.00	1298.00	Green River
4514.00	4587.22	Wasatch
7997.00	8071.66	Mesaverde

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00		
3120.23	18.40	182.51	3104.48	-146.39	-6.41	2.00	182.51	146.53		
3861.69	18.40	182.51	3808.02	-380.26	-16.66	0.00	0.00	380.63		
5088.66	0.00	0.00	5014.00	-575.45	-25.21	1.50	180.00	576.00		
9374.66	0.00	0.00	9300.00	-575.45	-25.21	0.00	0.00	576.00		PBHL_NBU 922-3114AS

CASING DETAILS			
TVD	MD	Name	Size
2100.00	2100.00	9 5/8"	9.62



KB ELEV: WELL @ 5061.00ft (Original Well Elev)
 GRD ELEV: 5035.00



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL	9300.00	-575.45	-25.21	14526090.85	2068097.07	39° 59' 24.248 N	109° 28' 23.308 W	Circle (Radius: 25.00)	

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Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Project	UINTAH COUNTY, UTAH (nad 27),		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 922-311 PAD, SECTION 31 T9S R22E				
Site Position:		Northing:	14,526,666.65 ft	Latitude:	39° 59' 29.936 N
From:	Lat/Long	Easting:	2,068,112.42 ft	Longitude:	109° 28' 22.984 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.98 °

Well	NBU 922-3114AS					
Well Position	+N/-S	0.00 ft	Northing:	14,526,666.65 ft	Latitude:	39° 59' 29.936 N
	+E/-W	0.00 ft	Easting:	2,068,112.42 ft	Longitude:	109° 28' 22.984 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,035.00 ft

Wellbore	NBU 922-3114AS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	7/23/2009	11.34	65.94	52,525

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	182.51

Plan Sections									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,120.23	18.40	182.51	3,104.48	-146.39	-6.41	2.00	2.00	0.00	0.00
3,861.69	18.40	182.51	3,808.02	-380.26	-16.66	0.00	0.00	0.00	0.00
5,088.66	0.00	0.00	5,014.00	-575.45	-25.21	1.50	-1.50	0.00	180.00
9,374.66	0.00	0.00	9,300.00	-575.45	-25.21	0.00	0.00	0.00	0.00

Approved by the Utah Division of Oil, Gas and Mining

Date: August 04, 2009

By:

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Start Build 2.00									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	2.00	182.51	2,299.98	-1.74	-0.08	1.75	2.00	2.00	0.00
2,400.00	4.00	182.51	2,399.84	-6.97	-0.31	6.98	2.00	2.00	0.00
2,500.00	6.00	182.51	2,499.45	-15.68	-0.69	15.69	2.00	2.00	0.00
2,600.00	8.00	182.51	2,598.70	-27.85	-1.22	27.88	2.00	2.00	0.00
2,700.00	10.00	182.51	2,697.47	-43.48	-1.91	43.52	2.00	2.00	0.00
2,800.00	12.00	182.51	2,795.62	-62.54	-2.74	62.60	2.00	2.00	0.00
2,900.00	14.00	182.51	2,893.06	-85.01	-3.73	85.10	2.00	2.00	0.00
3,000.00	16.00	182.51	2,989.64	-110.87	-4.86	110.98	2.00	2.00	0.00
3,100.00	18.00	182.51	3,085.27	-140.08	-6.14	140.21	2.00	2.00	0.00
Start 741.46 hold at 3120.23 MD									
3,120.23	18.40	182.51	3,104.48	-146.39	-6.41	146.53	2.00	2.00	0.00
3,200.00	18.40	182.51	3,180.18	-171.55	-7.52	171.72	0.00	0.00	0.00
3,300.00	18.40	182.51	3,275.06	-203.09	-8.90	203.29	0.00	0.00	0.00
3,400.00	18.40	182.51	3,369.95	-234.64	-10.28	234.86	0.00	0.00	0.00
3,500.00	18.40	182.51	3,464.83	-266.18	-11.66	266.43	0.00	0.00	0.00
3,600.00	18.40	182.51	3,559.72	-297.72	-13.05	298.01	0.00	0.00	0.00
3,700.00	18.40	182.51	3,654.60	-329.26	-14.43	329.58	0.00	0.00	0.00
3,800.00	18.40	182.51	3,749.49	-360.81	-15.81	361.15	0.00	0.00	0.00
Start Drop -1.50									
3,861.69	18.40	182.51	3,808.02	-380.26	-16.66	380.63	0.00	0.00	0.00
3,900.00	17.83	182.51	3,844.43	-392.17	-17.18	392.54	1.50	-1.50	0.00
4,000.00	16.33	182.51	3,940.02	-421.51	-18.47	421.91	1.50	-1.50	0.00
4,100.00	14.83	182.51	4,036.34	-448.34	-19.65	448.77	1.50	-1.50	0.00
4,200.00	13.33	182.51	4,133.33	-472.64	-20.71	473.10	1.50	-1.50	0.00
4,300.00	11.83	182.51	4,230.93	-494.40	-21.66	494.88	1.50	-1.50	0.00
4,400.00	10.33	182.51	4,329.06	-513.60	-22.50	514.09	1.50	-1.50	0.00
4,500.00	8.83	182.51	4,427.67	-530.23	-23.23	530.73	1.50	-1.50	0.00
Wasatch									
4,587.22	7.52	182.51	4,514.00	-542.62	-23.78	543.14	1.50	-1.50	0.00
4,600.00	7.33	182.51	4,526.67	-544.27	-23.85	544.79	1.50	-1.50	0.00
4,700.00	5.83	182.51	4,626.01	-555.71	-24.35	556.25	1.50	-1.50	0.00
4,800.00	4.33	182.51	4,725.61	-564.56	-24.74	565.10	1.50	-1.50	0.00
4,900.00	2.83	182.51	4,825.42	-570.80	-25.01	571.35	1.50	-1.50	0.00
5,000.00	1.33	182.51	4,925.35	-574.42	-25.17	574.98	1.50	-1.50	0.00
Start 4286.00 hold at 5088.66 MD									
5,088.66	0.00	0.00	5,014.00	-575.45	-25.21	576.00	1.50	-1.50	0.00
5,100.00	0.00	0.00	5,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: August 04, 2009
By: *[Signature]*

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,600.00	0.00	0.00	6,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,000.00	0.00	0.00	6,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,000.00	0.00	0.00	7,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00
Mesaverde									
8,071.66	0.00	0.00	7,997.00	-575.45	-25.21	576.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00
9,000.00	0.00	0.00	8,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00
PBHL_NBU 922-3114AS									
9,374.66	0.00	0.00	9,300.00	-575.45	-25.21	576.00	0.00	0.00	0.00

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

Design Targets

Date: August 04, 2009

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Eastin (ft)	Latitude	Longitude
PBHL_NBU 922-3114, - hit/miss target - Shape - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,300.00	-575.45	-25.21	14,526,090.85	2,068,097.07	39° 59' 24.248 N	109° 28' 23.308 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
2,100.00	2,100.00	9 5/8"	9.62	12.25

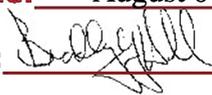
Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,298.00	1,298.00	Green River			
4,587.22	4,514.00	Wasatch			
8,071.66	7,997.00	Mesaverde			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,200.00	2,200.00	0.00	0.00	Start Build 2.00	
3,120.23	3,104.48	-146.39	-6.41	Start 741.46 hold at 3120.23 MD	
3,861.69	3,808.02	-380.26	-16.66	Start Drop -1.50	
5,088.66	5,014.00	-575.45	-25.21	Start 4286.00 hold at 5088.66 MD	
9,374.66	9,300.00	-575.45	-25.21	TD at 9374.66	

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

Date: August 04, 2009

By: 

ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)
NBU 922-311 PAD
NBU 922-3114AS

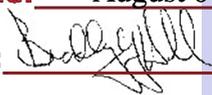
NBU 922-3114AS
Design #1

Anticollision Report

24 July, 2009

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

Date: August 04, 2009

By: 



Weatherford[®]

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 7/24/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	9,374.66	Design #1 (NBU 922-3114AS)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NBU 922-311 PAD						
NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET W	6,577.98	1,442.33	364.16	346.75	20.912	CC
NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET W	6,600.00	1,463.22	364.19	346.71	20.836	ES
NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET W	9,374.66	4,241.26	375.70	353.57	16.971	SF
NBU 922-3113CS - NBU 922-3113CS - Design #1	2,200.00	2,200.00	10.09	0.48	1.050	Level 2, CC, ES, SF
NBU 922-311J4BS - NBU 922-311J4BS - Design #1	2,200.00	2,200.00	29.99	20.38	3.121	CC, ES, SF
NBU 922-3101AS - NBU 922-3101AS - Design #1	300.00	300.00	20.17	19.11	18.936	CC, ES
NBU 922-3101AS - NBU 922-3101AS - Design #1	400.00	399.12	22.20	20.70	14.847	SF

Offset Design											NBU 922-311 PAD - NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET WELL - NBU 922-311 OFFSE		Offset Site Error:	0.00 ft		
Survey Program: 100-Gyrodata RGS_WB													Offset Well Error:	0.00 ft		
Reference				Offset				Semi Major Axis				Distance			Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.00	0.00	0.00	0.00	0.00	0.00	-152.00	-698.22	-371.18	5,122.40							
100.00	100.00	0.00	0.00	0.08	0.00	-152.00	-698.22	-371.18	5,023.63	5,023.54						
200.00	200.00	0.00	0.00	0.31	0.00	-152.00	-698.22	-371.18	4,924.90	4,924.59	0.31	N/A				
300.00	300.00	0.00	0.00	0.53	0.00	-152.00	-698.22	-371.18	4,826.22	4,825.69	0.53	9,096.599				
400.00	400.00	0.00	0.00	0.76	0.00	-152.00	-698.22	-371.18	4,727.60	4,726.84	0.76	8,239.727				
500.00	500.00	0.00	0.00	0.98	0.00	-152.00	-698.22	-371.18	4,629.04	4,628.06	0.98	4,711.839				
600.00	600.00	0.00	0.00	1.21	0.00	-152.00	-698.22	-371.18	4,530.54	4,529.34	1.21	3,752.954				
700.00	700.00	0.00	0.00	1.43	0.00	-152.00	-698.22	-371.18	4,432.11	4,430.68	1.43	3,095.137				
800.00	800.00	0.00	0.00	1.66	0.00	-152.00	-698.22	-371.18	4,333.75	4,332.10	1.66	2,615.854				
900.00	900.00	0.00	0.00	1.88	0.00	-152.00	-698.22	-371.18	4,235.47	4,233.59	1.88	2,251.124				
1,000.00	1,000.00	0.00	0.00	2.11	0.00	-152.00	-698.22	-371.18	4,137.27	4,135.17	2.11	1,964.276				
1,100.00	1,100.00	0.00	0.00	2.33	0.00	-152.00	-698.22	-371.18	4,039.16	4,036.83	2.33	1,732.784				
1,200.00	1,200.00	0.00	0.00	2.56	0.00	-152.00	-698.22	-371.18	3,941.14	3,938.59	2.56	1,542.045				
1,300.00	1,300.00	0.00	0.00	2.78	0.00	-152.00	-698.22	-371.18	3,843.23	3,840.45	2.78	1,382.180				
1,400.00	1,400.00	0.00	0.00	3.01	0.00	-152.00	-698.22	-371.18	3,745.43	3,742.42	3.01	1,246.265				
1,500.00	1,500.00	0.00	0.00	3.23	0.00	-152.00	-698.22	-371.18	3,647.74	3,644.51	3.23	1,129.301				
1,600.00	1,600.00	0.00	0.00	3.45	0.00	-152.00	-698.22	-371.18	3,550.19	3,546.73	3.45	1,027.593				
1,700.00	1,700.00	0.00	0.00	3.68	0.00	-152.00	-698.22	-371.18	3,452.77	3,449.09	3.68	938.349				
1,800.00	1,800.00	0.00	0.00	3.90	0.00	-152.00	-698.22	-371.18	3,355.51	3,351.60	3.90	859.419				
1,900.00	1,900.00	0.00	0.00	4.13	0.00	-152.00	-698.22	-371.18	3,258.41	3,254.28	4.13	789.123				
2,000.00	2,000.00	0.00	0.00	4.35	0.00	-152.00	-698.22	-371.18	3,161.49	3,157.14	4.35	726.125				

Approved by the Utah Division of Oil, Gas and Mining

Date: August 04, 2009

By: [Signature]

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 100-Gyrodata RGS_WB													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,100.00	2,100.00	0.00	0.00	4.58	0.00	-152.00	-698.22	-371.18	3,064.77	3,060.19	4.58	669.356		
2,200.00	2,200.00	0.00	0.00	4.80	0.00	-152.00	-698.22	-371.18	2,968.27	2,963.46	4.80	617.945		
2,300.00	2,299.98	0.00	0.00	5.00	0.00	28.94	-698.22	-371.18	2,871.59	2,866.59	5.00	574.653		
2,400.00	2,399.84	0.00	0.00	5.17	0.00	33.23	-698.22	-371.18	2,774.38	2,769.22	5.16	537.529		
2,500.00	2,499.45	0.00	0.00	5.35	0.00	38.58	-698.22	-371.18	2,676.69	2,671.36	5.33	502.314		
2,600.00	2,598.70	0.00	0.00	5.53	0.00	45.31	-698.22	-371.18	2,578.60	2,573.10	5.51	468.385		
2,700.00	2,697.47	0.00	0.00	5.74	0.00	53.73	-698.22	-371.18	2,480.19	2,474.49	5.70	434.927		
2,800.00	2,795.62	0.00	0.00	5.97	0.00	64.00	-698.22	-371.18	2,381.55	2,375.61	5.94	401.165		
2,900.00	2,893.06	0.00	0.00	6.24	0.00	75.89	-698.22	-371.18	2,282.77	2,276.55	6.22	367.032		
3,000.00	2,989.64	0.00	0.00	6.54	0.00	88.56	-698.22	-371.18	2,183.96	2,177.42	6.54	333.740		
3,100.00	3,085.27	0.00	0.00	6.90	0.00	100.82	-698.22	-371.18	2,085.26	2,078.38	6.88	303.054		
3,120.23	3,104.48	0.00	0.00	6.98	0.00	103.14	-698.22	-371.18	2,065.32	2,058.37	6.95	297.264		
3,200.00	3,180.18	0.00	0.00	7.31	0.00	103.14	-698.22	-371.18	1,986.74	1,979.47	7.27	273.348		
3,300.00	3,275.06	0.00	0.00	7.75	0.00	103.14	-698.22	-371.18	1,888.38	1,880.68	7.70	245.351		
3,400.00	3,369.95	0.00	0.00	8.21	0.00	103.14	-698.22	-371.18	1,790.20	1,782.05	8.15	219.641		
3,500.00	3,464.83	0.00	0.00	8.70	0.00	103.14	-698.22	-371.18	1,692.24	1,683.61	8.63	196.180		
3,600.00	3,559.72	0.00	0.00	9.20	0.00	103.14	-698.22	-371.18	1,594.53	1,585.41	9.12	174.850		
3,700.00	3,654.60	0.00	0.00	9.72	0.00	103.14	-698.22	-371.18	1,497.12	1,487.49	9.63	155.494		
3,800.00	3,749.49	0.00	0.00	10.25	0.00	103.14	-698.22	-371.18	1,400.07	1,389.93	10.15	137.940		
3,861.69	3,808.02	0.00	0.00	10.59	0.00	103.14	-698.22	-371.18	1,340.43	1,329.95	10.48	127.935		
3,900.00	3,844.43	0.00	0.00	10.78	0.00	101.09	-698.22	-371.18	1,303.47	1,292.77	10.70	121.862		
4,000.00	3,940.02	0.00	0.00	11.21	0.00	95.88	-698.22	-371.18	1,207.30	1,196.11	11.19	107.884		
4,100.00	4,036.34	0.00	0.00	11.64	0.00	91.02	-698.22	-371.18	1,111.73	1,100.09	11.64	95.514		
4,200.00	4,133.33	0.00	0.00	12.05	0.00	86.58	-698.22	-371.18	1,017.00	1,004.96	12.04	84.471		
4,300.00	4,230.93	0.00	0.00	12.44	0.00	82.61	-698.22	-371.18	923.43	911.04	12.39	74.513		
4,400.00	4,329.06	0.00	0.00	12.80	0.00	79.15	-698.22	-371.18	831.50	818.80	12.70	65.452		
4,500.00	4,427.67	0.00	0.00	13.14	0.00	76.18	-698.22	-371.18	741.89	728.91	12.98	57.161		
4,600.00	4,526.67	0.00	0.00	13.45	0.00	73.71	-698.22	-371.18	655.63	642.41	13.22	49.579		
4,700.00	4,626.01	0.00	0.00	13.74	0.00	71.70	-698.22	-371.18	574.30	560.86	13.44	42.710		
4,800.00	4,725.61	0.00	0.00	13.99	0.00	70.13	-698.22	-371.18	500.37	486.73	13.64	36.675		
4,900.00	4,825.42	0.00	0.00	14.22	0.00	68.99	-698.22	-371.18	437.69	423.86	13.80	31.655		
5,000.00	4,925.35	0.00	0.00	14.41	0.00	68.27	-698.22	-371.18	391.73	377.74	13.99	27.994		
5,088.66	5,014.00	0.00	0.00	14.56	0.00	-109.54	-698.22	-371.18	370.10	355.98	14.13	26.202		
5,100.00	5,025.34	0.00	0.00	14.57	0.00	-109.54	-698.22	-371.18	368.84	354.69	14.14	26.202		
5,152.38	5,077.72	16.90	16.90	14.66	0.02	-109.54	-698.22	-371.18	367.10	352.86	14.24	25.772		
5,200.00	5,125.34	65.04	65.04	14.73	0.07	-109.53	-698.14	-371.15	367.05	352.67	14.37	25.539		
5,300.00	5,225.34	164.77	164.76	14.89	0.17	-109.48	-697.76	-371.05	366.83	352.19	14.63	25.066		
5,400.00	5,325.34	264.37	264.36	15.05	0.18	-109.42	-697.43	-371.13	366.80	351.99	14.81	24.768		
5,451.78	5,377.12	316.12	316.12	15.13	0.16	-109.42	-697.40	-371.14	366.79	351.91	14.88	24.647		
5,500.00	5,425.34	364.34	364.34	15.21	0.16	-109.42	-697.40	-371.14	366.79	351.83	14.96	24.515		
5,506.70	5,432.04	371.04	371.04	15.22	0.16	-109.42	-697.40	-371.14	366.79	351.82	14.97	24.497		
5,600.00	5,525.34	464.22	464.22	15.37	0.28	-109.41	-697.32	-371.18	366.80	351.56	15.25	24.057		
5,700.00	5,625.34	564.27	564.27	15.54	0.36	-109.36	-697.04	-371.32	366.84	351.35	15.49	23.676		
5,800.00	5,725.34	664.57	664.57	15.70	0.37	-109.34	-696.92	-371.34	366.83	351.15	15.68	23.401		
5,900.00	5,825.34	765.18	765.17	15.87	0.39	-109.28	-696.52	-371.34	366.69	350.82	15.87	23.103		
6,000.00	5,925.34	864.73	864.72	16.04	0.31	-109.24	-696.20	-371.22	366.47	350.51	15.96	22.955		
6,100.00	6,025.34	964.74	964.74	16.21	0.26	-109.22	-696.09	-371.20	366.42	350.33	16.09	22.775		
6,200.00	6,125.34	1,065.60	1,065.60	16.38	0.29	-109.18	-695.74	-371.10	366.20	349.91	16.29	22.473		
6,300.00	6,225.34	1,165.91	1,165.90	16.55	0.33	-109.17	-695.56	-370.72	365.79	349.27	16.51	22.151		
6,400.00	6,325.34	1,266.85	1,266.85	16.73	0.45	-109.15	-695.25	-370.28	365.27	348.46	16.82	21.719		
6,500.00	6,425.34	1,366.88	1,366.86	16.90	0.62	-109.07	-694.55	-369.72	364.52	347.36	17.17	21.236		
6,577.98	6,503.32	1,442.33	1,442.32	17.04	0.72	-108.92	-693.54	-369.70	364.16	346.75	17.41	20.912 CC		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Dated: August 04, 2009
By: [Signature]

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 100-Gyrodata RGS_WB													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
6,600.00	6,525.34	1,463.22	1,463.20	17.08	0.75	-108.86	-693.19	-369.85	364.19	346.71	17.48	20.836	ES		
6,700.00	6,625.34	1,561.72	1,561.67	17.25	0.85	-108.49	-691.18	-371.28	364.91	347.13	17.78	20.528			
6,800.00	6,725.34	1,661.91	1,661.82	17.43	0.99	-108.08	-688.91	-372.74	365.59	347.48	18.11	20.191			
6,900.00	6,825.34	1,762.98	1,762.85	17.61	1.17	-107.60	-686.18	-374.27	366.20	347.72	18.48	19.814			
7,000.00	6,925.34	1,863.69	1,863.50	17.79	1.24	-107.10	-683.20	-375.48	366.47	347.72	18.75	19.546			
7,100.00	7,025.34	1,962.25	1,962.03	17.97	1.12	-106.77	-681.29	-376.43	366.82	348.00	18.82	19.489			
7,200.00	7,125.34	2,061.14	2,060.91	18.16	0.93	-106.55	-680.16	-377.64	367.66	348.84	18.82	19.535			
7,300.00	7,225.34	2,161.34	2,161.11	18.34	0.74	-106.44	-679.75	-378.73	368.60	349.78	18.82	19.589			
7,400.00	7,325.34	2,261.16	2,260.92	18.52	0.56	-106.50	-680.41	-379.44	369.46	350.64	18.82	19.629			
7,500.00	7,425.34	2,360.01	2,359.76	18.71	0.45	-106.70	-681.92	-380.07	370.51	351.62	18.89	19.613			
7,600.00	7,525.34	2,460.21	2,459.94	18.90	0.42	-106.88	-683.39	-380.99	371.82	352.77	19.05	19.523			
7,700.00	7,625.34	2,560.40	2,560.12	19.08	0.41	-107.08	-685.00	-381.65	372.91	353.69	19.22	19.399			
7,800.00	7,725.34	2,661.01	2,660.71	19.27	0.38	-107.32	-686.78	-382.27	374.02	354.65	19.37	19.307			
7,900.00	7,825.34	2,761.29	2,760.96	19.46	0.31	-107.68	-689.33	-382.39	374.90	355.42	19.48	19.242			
8,000.00	7,925.34	2,862.23	2,861.86	19.65	0.28	-108.06	-691.96	-382.44	375.75	356.12	19.64	19.134			
8,100.00	8,025.34	2,960.56	2,960.16	19.84	0.29	-108.44	-694.50	-382.34	376.47	356.64	19.83	18.983			
8,200.00	8,125.34	3,060.36	3,059.92	20.03	0.29	-108.77	-697.01	-382.90	377.80	357.77	20.02	18.866			
8,300.00	8,225.34	3,162.58	3,162.11	20.22	0.29	-109.14	-699.61	-382.95	378.68	358.46	20.21	18.733			
8,400.00	8,325.34	3,267.89	3,267.40	20.41	0.38	-109.48	-701.73	-382.25	378.72	358.23	20.49	18.482			
8,500.00	8,425.34	3,374.99	3,374.48	20.61	0.52	-109.49	-701.18	-380.45	376.97	356.14	20.83	18.100			
8,600.00	8,525.34	3,472.30	3,471.75	20.80	0.56	-109.37	-699.59	-378.29	374.33	353.27	21.06	17.773			
8,700.00	8,625.34	3,566.67	3,566.10	20.99	0.56	-109.58	-700.51	-376.73	373.10	351.85	21.26	17.552			
8,735.07	8,660.41	3,600.00	3,599.41	21.06	0.57	-109.74	-701.45	-376.33	373.03	351.71	21.32	17.494			
8,800.00	8,725.34	3,663.99	3,663.37	21.19	0.50	-110.08	-703.53	-375.68	373.14	351.76	21.38	17.454			
8,900.00	8,825.34	3,762.97	3,762.29	21.38	0.41	-110.56	-706.65	-374.96	373.55	352.08	21.46	17.403			
9,000.00	8,925.34	3,862.29	3,861.57	21.58	0.35	-111.02	-709.70	-374.50	374.21	352.62	21.59	17.330			
9,100.00	9,025.34	3,961.81	3,961.03	21.77	0.32	-111.51	-712.96	-374.10	375.02	353.27	21.75	17.246			
9,200.00	9,125.34	4,063.28	4,062.44	21.97	0.28	-112.03	-716.42	-373.58	375.81	353.93	21.88	17.173			
9,300.00	9,225.34	4,165.98	4,165.08	22.17	0.23	-112.57	-719.72	-372.40	375.97	353.95	22.01	17.100			
9,374.66	9,300.00	4,241.26	4,240.31	22.32	0.22	-112.96	-722.02	-371.15	375.70	353.57	22.14	16.971	SF		

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

Date: August 04, 2009

By: 

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-10.09	10.09					
100.00	100.00	100.00	100.00	0.08	0.08	-90.00	0.00	-10.09	10.09	9.92	0.17	60.636		
200.00	200.00	200.00	200.00	0.31	0.31	-90.00	0.00	-10.09	10.09	9.47	0.62	16.376		
300.00	300.00	300.00	300.00	0.53	0.53	-90.00	0.00	-10.09	10.09	9.02	1.07	9.466		
400.00	400.00	400.00	400.00	0.76	0.76	-90.00	0.00	-10.09	10.09	8.57	1.51	6.657		
500.00	500.00	500.00	500.00	0.98	0.98	-90.00	0.00	-10.09	10.09	8.12	1.96	5.134		
600.00	600.00	600.00	600.00	1.21	1.21	-90.00	0.00	-10.09	10.09	7.67	2.41	4.178		
700.00	700.00	700.00	700.00	1.43	1.43	-90.00	0.00	-10.09	10.09	7.22	2.86	3.522		
800.00	800.00	800.00	800.00	1.66	1.66	-90.00	0.00	-10.09	10.09	6.77	3.31	3.044		
900.00	900.00	900.00	900.00	1.88	1.88	-90.00	0.00	-10.09	10.09	6.32	3.76	2.680		
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	-90.00	0.00	-10.09	10.09	5.87	4.21	2.394		
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	-90.00	0.00	-10.09	10.09	5.42	4.66	2.163		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-90.00	0.00	-10.09	10.09	4.97	5.11	1.973		
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-90.00	0.00	-10.09	10.09	4.52	5.56	1.814		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-90.00	0.00	-10.09	10.09	4.08	6.01	1.678		
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-90.00	0.00	-10.09	10.09	3.63	6.46	1.561		
1,600.00	1,600.00	1,600.00	1,600.00	3.45	3.45	-90.00	0.00	-10.09	10.09	3.18	6.91	1.460	Level 3	
1,700.00	1,700.00	1,700.00	1,700.00	3.68	3.68	-90.00	0.00	-10.09	10.09	2.73	7.36	1.371	Level 3	
1,800.00	1,800.00	1,800.00	1,800.00	3.90	3.90	-90.00	0.00	-10.09	10.09	2.28	7.81	1.292	Level 3	
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	-90.00	0.00	-10.09	10.09	1.83	8.26	1.221	Level 2	
2,000.00	2,000.00	2,000.00	2,000.00	4.35	4.35	-90.00	0.00	-10.09	10.09	1.38	8.71	1.158	Level 2	
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	-90.00	0.00	-10.09	10.09	0.93	9.16	1.101	Level 2	
2,200.00	2,200.00	2,200.00	2,200.00	4.80	4.80	-90.00	0.00	-10.09	10.09	0.48	9.61	1.050	Level 2, CC, ES, SF	
2,300.00	2,299.98	2,299.58	2,299.54	5.00	5.00	87.03	-1.82	-11.93	11.86	1.86	10.00	1.186	Level 2	
2,400.00	2,399.84	2,398.90	2,398.54	5.17	5.19	86.19	-7.27	-17.45	17.19	6.85	10.35	1.662		
2,500.00	2,499.45	2,497.70	2,496.49	5.35	5.38	85.51	-16.27	-26.56	26.04	15.34	10.71	2.433		
2,600.00	2,598.70	2,595.73	2,592.90	5.53	5.59	85.02	-28.71	-39.14	38.37	27.29	11.09	3.461		
2,700.00	2,697.47	2,692.76	2,687.31	5.74	5.84	84.63	-44.43	-55.05	54.12	42.61	11.51	4.703		
2,800.00	2,795.62	2,788.58	2,779.31	5.97	6.14	84.28	-63.24	-74.09	73.19	61.22	11.97	6.388		
2,900.00	2,893.06	2,883.01	2,868.54	6.24	6.49	83.95	-84.93	-96.04	95.51	83.01	12.50	7.638		
3,000.00	2,989.64	2,978.39	2,957.34	6.54	6.92	83.91	-109.40	-120.80	120.37	107.25	13.11	8.178		
3,100.00	3,085.27	3,075.18	3,047.31	6.90	7.40	85.01	-134.48	-146.19	145.21	131.39	13.82	10.506		
3,120.23	3,104.48	3,094.75	3,065.51	6.98	7.50	85.33	-139.55	-151.32	150.21	136.24	13.98	10.748		
3,200.00	3,180.18	3,171.92	3,137.24	7.31	7.92	86.87	-159.55	-171.56	169.99	155.37	14.63	11.493		
3,300.00	3,275.06	3,268.66	3,227.16	7.75	8.48	88.35	-184.62	-196.93	194.92	179.42	15.50	12.578		
3,400.00	3,369.95	3,365.39	3,317.08	8.21	9.05	89.50	-209.69	-222.30	219.93	203.52	16.42	13.997		
3,500.00	3,464.83	3,462.13	3,407.00	8.70	9.65	90.42	-234.76	-247.68	245.02	227.64	17.38	14.999		
3,600.00	3,559.72	3,558.87	3,496.92	9.20	10.26	91.16	-259.83	-273.05	270.15	251.77	18.38	14.701		
3,700.00	3,654.60	3,655.60	3,586.84	9.72	10.89	91.78	-284.90	-298.42	295.32	275.91	19.40	15.219		
3,800.00	3,749.49	3,752.34	3,676.76	10.25	11.53	92.30	-309.97	-323.79	320.51	300.05	20.46	15.666		
3,861.69	3,808.02	3,812.02	3,732.23	10.59	11.93	92.58	-325.43	-339.44	336.06	314.94	21.12	15.912		
3,900.00	3,844.43	3,849.08	3,766.69	10.78	12.19	92.86	-335.04	-349.16	345.71	324.19	21.52	16.064		
4,000.00	3,940.02	3,945.87	3,856.66	11.21	12.85	93.27	-360.12	-374.55	370.82	348.32	22.50	16.479		
4,100.00	4,036.34	4,042.67	3,946.64	11.64	13.51	93.28	-385.21	-399.94	395.80	372.34	23.46	16.870		
4,200.00	4,133.33	4,139.41	4,036.56	12.05	14.19	92.97	-410.27	-425.31	420.66	396.27	24.39	17.249		
4,300.00	4,230.93	4,236.02	4,126.36	12.44	14.86	92.39	-435.31	-450.65	445.48	420.21	25.27	17.627		
4,400.00	4,329.06	4,332.43	4,215.99	12.80	15.54	91.58	-460.30	-475.94	470.35	444.24	26.11	18.014		
4,500.00	4,427.67	4,428.59	4,305.37	13.14	16.23	90.60	-485.22	-501.16	495.37	468.48	26.89	18.420		
4,600.00	4,526.67	4,524.42	4,394.44	13.45	16.91	89.46	-510.05	-526.29	520.67	493.06	27.62	18.853		
4,700.00	4,626.01	4,619.86	4,483.16	13.74	17.60	88.19	-534.78	-551.32	546.39	518.11	28.28	19.320		
4,800.00	4,725.61	4,714.84	4,571.45	13.99	18.28	86.83	-559.40	-576.23	572.66	543.78	28.88	19.830		
4,900.00	4,825.42	4,809.30	4,659.25	14.22	18.96	85.38	-583.88	-601.01	599.63	570.22	29.41	20.389		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: **August 04, 2009**
By: *[Signature]*

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

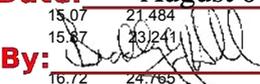
Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design NBU 922-311 PAD - NBU 922-3113CS - NBU 922-3113CS - Design #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,925.35	4,903.17	4,746.51	14.41	19.64	83.88	-608.20	-625.63	627.43	597.56	29.87	21.003		
5,088.66	5,014.00	4,985.85	4,823.37	14.56	20.24	-94.98	-629.63	-647.31	652.90	622.68	30.23	21.600		
5,100.00	5,025.34	4,996.39	4,833.16	14.57	20.32	-95.20	-632.36	-650.08	656.22	625.96	30.26	21.686		
5,200.00	5,125.34	5,089.35	4,919.57	14.73	21.00	-97.11	-656.45	-674.46	685.87	655.31	30.56	22.440		
5,300.00	5,225.34	5,182.30	5,005.97	14.89	21.68	-98.87	-680.54	-698.84	716.19	685.32	30.87	23.202		
5,400.00	5,325.34	5,275.26	5,092.38	15.05	22.36	-100.48	-704.63	-723.22	747.10	715.93	31.17	23.967		
5,500.00	5,425.34	5,368.21	5,178.78	15.21	23.04	-101.98	-728.72	-747.60	778.53	747.05	31.48	24.732		
5,600.00	5,525.34	5,461.16	5,265.19	15.37	23.72	-103.36	-752.81	-771.98	810.42	778.63	31.79	25.492		
5,700.00	5,625.34	5,554.12	5,351.60	15.54	24.41	-104.64	-776.90	-796.36	842.72	810.61	32.11	26.245		
5,800.00	5,725.34	5,647.07	5,438.00	15.70	25.09	-105.83	-800.99	-820.74	875.38	842.94	32.43	26.990		
5,900.00	5,825.34	5,740.03	5,524.41	15.87	25.78	-106.93	-825.08	-845.12	908.36	875.59	32.76	27.725		
6,000.00	5,925.34	5,832.98	5,610.81	16.04	26.46	-107.96	-849.16	-869.50	941.62	908.52	33.10	28.447		
6,100.00	6,025.34	5,954.76	5,724.44	16.21	27.23	-109.18	-879.93	-900.64	974.48	941.03	33.46	29.128		
6,200.00	6,125.34	6,112.06	5,874.17	16.38	27.99	-110.40	-913.75	-934.86	1,002.49	968.64	33.85	29.619		
6,300.00	6,225.34	6,275.74	6,033.09	16.55	28.64	-111.31	-941.19	-962.63	1,024.43	990.17	34.26	29.899		
6,400.00	6,325.34	6,444.42	6,199.34	16.73	29.16	-111.93	-961.05	-982.73	1,039.90	1,005.21	34.70	29.972		
6,500.00	6,425.34	6,616.44	6,370.57	16.90	29.52	-112.28	-972.40	-994.22	1,048.59	1,013.45	35.13	29.848		
6,600.00	6,525.34	6,771.28	6,525.34	17.08	29.71	-112.35	-974.97	-996.82	1,050.54	1,015.00	35.54	29.562		
6,700.00	6,625.34	6,871.28	6,625.34	17.25	29.80	-112.35	-974.97	-996.82	1,050.54	1,014.67	35.86	29.293		
6,800.00	6,725.34	6,971.28	6,725.34	17.43	29.90	-112.35	-974.97	-996.82	1,050.54	1,014.34	36.19	29.026		
6,900.00	6,825.34	7,071.28	6,825.34	17.61	30.00	-112.35	-974.97	-996.82	1,050.54	1,014.01	36.52	28.763		
7,000.00	6,925.34	7,171.28	6,925.34	17.79	30.10	-112.35	-974.97	-996.82	1,050.54	1,013.68	36.86	28.502		
7,100.00	7,025.34	7,271.28	7,025.34	17.97	30.20	-112.35	-974.97	-996.82	1,050.54	1,013.34	37.19	28.244		
7,200.00	7,125.34	7,371.28	7,125.34	18.16	30.30	-112.35	-974.97	-996.82	1,050.54	1,013.00	37.53	27.989		
7,300.00	7,225.34	7,471.28	7,225.34	18.34	30.41	-112.35	-974.97	-996.82	1,050.54	1,012.66	37.87	27.737		
7,400.00	7,325.34	7,571.28	7,325.34	18.52	30.51	-112.35	-974.97	-996.82	1,050.54	1,012.32	38.22	27.488		
7,500.00	7,425.34	7,671.28	7,425.34	18.71	30.62	-112.35	-974.97	-996.82	1,050.54	1,011.97	38.56	27.242		
7,600.00	7,525.34	7,771.28	7,525.34	18.90	30.73	-112.35	-974.97	-996.82	1,050.54	1,011.63	38.91	26.999		
7,700.00	7,625.34	7,871.28	7,625.34	19.08	30.83	-112.35	-974.97	-996.82	1,050.54	1,011.28	39.26	26.760		
7,800.00	7,725.34	7,971.28	7,725.34	19.27	30.94	-112.35	-974.97	-996.82	1,050.54	1,010.93	39.61	26.521		
7,900.00	7,825.34	8,071.28	7,825.34	19.46	31.06	-112.35	-974.97	-996.82	1,050.54	1,010.57	39.96	26.287		
8,000.00	7,925.34	8,171.28	7,925.34	19.65	31.17	-112.35	-974.97	-996.82	1,050.54	1,010.22	40.32	26.055		
8,100.00	8,025.34	8,271.28	8,025.34	19.84	31.28	-112.35	-974.97	-996.82	1,050.54	1,009.86	40.68	25.827		
8,200.00	8,125.34	8,371.28	8,125.34	20.03	31.40	-112.35	-974.97	-996.82	1,050.54	1,009.50	41.03	25.603		
8,300.00	8,225.34	8,471.28	8,225.34	20.22	31.51	-112.35	-974.97	-996.82	1,050.54	1,009.14	41.40	25.378		
8,400.00	8,325.34	8,571.28	8,325.34	20.41	31.63	-112.35	-974.97	-996.82	1,050.54	1,008.78	41.76	25.158		
8,500.00	8,425.34	8,671.28	8,425.34	20.61	31.75	-112.35	-974.97	-996.82	1,050.54	1,008.42	42.12	24.941		
8,600.00	8,525.34	8,771.28	8,525.34	20.80	31.87	-112.35	-974.97	-996.82	1,050.54	1,008.05	42.49	24.726		
8,700.00	8,625.34	8,871.28	8,625.34	20.99	31.99	-112.35	-974.97	-996.82	1,050.54	1,007.68	42.85	24.515		
8,800.00	8,725.34	8,971.28	8,725.34	21.19	32.11	-112.35	-974.97	-996.82	1,050.54	1,007.31	43.22	24.306		
8,900.00	8,825.34	9,071.28	8,825.34	21.38	32.23	-112.35	-974.97	-996.82	1,050.54	1,006.94	43.59	24.099		
9,000.00	8,925.34	9,171.28	8,925.34	21.58	32.36	-112.35	-974.97	-996.82	1,050.54	1,006.57	43.96	23.896		
9,100.00	9,025.34	9,271.28	9,025.34	21.77	32.48	-112.35	-974.97	-996.82	1,050.54	1,006.20	44.34	23.695		
9,200.00	9,125.34	9,371.28	9,125.34	21.97	32.61	-112.35	-974.97	-996.82	1,050.54	1,005.83	44.71	23.496		
9,300.00	9,225.34	9,471.28	9,225.34	22.17	32.74	-112.35	-974.97	-996.82	1,050.54	1,005.45	45.09	23.301		
9,374.66	9,300.00	9,545.94	9,300.00	22.32	32.83	-112.35	-974.97	-996.82	1,050.54	1,005.17	45.37	23.156		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: **August 04, 2009**
By: *[Signature]*

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-91.39	-0.73	-29.98	29.99				
100.00	100.00	100.00	100.00	0.08	0.08	-91.39	-0.73	-29.98	29.99	29.82	0.17	180.278	
200.00	200.00	200.00	200.00	0.31	0.31	-91.39	-0.73	-29.98	29.99	29.37	0.62	48.688	
300.00	300.00	300.00	300.00	0.53	0.53	-91.39	-0.73	-29.98	29.99	28.92	1.07	28.145	
400.00	400.00	400.00	400.00	0.76	0.76	-91.39	-0.73	-29.98	29.99	28.47	1.51	19.793	
500.00	500.00	500.00	500.00	0.98	0.98	-91.39	-0.73	-29.98	29.99	28.02	1.96	15.264	
600.00	600.00	600.00	600.00	1.21	1.21	-91.39	-0.73	-29.98	29.99	27.57	2.41	12.421	
700.00	700.00	700.00	700.00	1.43	1.43	-91.39	-0.73	-29.98	29.99	27.12	2.86	10.471	
800.00	800.00	800.00	800.00	1.66	1.66	-91.39	-0.73	-29.98	29.99	26.67	3.31	9.051	
900.00	900.00	900.00	900.00	1.88	1.88	-91.39	-0.73	-29.98	29.99	26.22	3.76	7.969	
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	-91.39	-0.73	-29.98	29.99	25.77	4.21	7.119	
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	-91.39	-0.73	-29.98	29.99	25.32	4.66	6.432	
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-91.39	-0.73	-29.98	29.99	24.87	5.11	5.867	
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-91.39	-0.73	-29.98	29.99	24.42	5.56	5.392	
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-91.39	-0.73	-29.98	29.99	23.97	6.01	4.989	
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-91.39	-0.73	-29.98	29.99	23.53	6.46	4.642	
1,600.00	1,600.00	1,600.00	1,600.00	3.45	3.45	-91.39	-0.73	-29.98	29.99	23.08	6.91	4.340	
1,700.00	1,700.00	1,700.00	1,700.00	3.68	3.68	-91.39	-0.73	-29.98	29.99	22.63	7.36	4.075	
1,800.00	1,800.00	1,800.00	1,800.00	3.90	3.90	-91.39	-0.73	-29.98	29.99	22.18	7.81	3.840	
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	-91.39	-0.73	-29.98	29.99	21.73	8.26	3.631	
2,000.00	2,000.00	2,000.00	2,000.00	4.35	4.35	-91.39	-0.73	-29.98	29.99	21.28	8.71	3.444	
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	-91.39	-0.73	-29.98	29.99	20.83	9.16	3.275	
2,200.00	2,200.00	2,200.00	2,200.00	4.80	4.80	-91.39	-0.73	-29.98	29.99	20.38	9.61	3.121	CC, ES, SF
2,300.00	2,299.98	2,298.41	2,298.36	5.00	5.01	88.13	-1.33	-32.44	32.41	22.40	10.01	3.239	
2,400.00	2,399.84	2,396.32	2,395.98	5.17	5.20	92.67	-3.12	-39.77	39.84	29.48	10.36	3.844	
2,500.00	2,499.45	2,493.27	2,492.12	5.35	5.41	97.27	-6.05	-51.81	52.53	41.80	10.73	4.895	
2,600.00	2,598.70	2,588.80	2,586.12	5.53	5.64	100.80	-10.07	-68.29	70.52	59.40	11.12	6.343	
2,700.00	2,697.47	2,682.51	2,677.39	5.74	5.89	103.21	-15.09	-88.88	93.66	82.14	11.53	8.124	
2,800.00	2,795.62	2,774.03	2,765.42	5.97	6.19	104.78	-21.01	-113.16	121.77	109.80	11.98	10.693	
2,900.00	2,893.06	2,863.06	2,849.82	6.24	6.54	105.74	-27.73	-140.68	154.62	142.16	12.47	12.404	
3,000.00	2,989.64	2,949.36	2,930.28	6.54	6.94	106.27	-35.11	-170.98	191.99	178.97	13.01	14.755	
3,100.00	3,085.27	3,032.74	3,006.60	6.90	7.40	106.49	-43.06	-203.58	233.63	220.01	13.61	17.160	
3,120.23	3,104.48	3,049.24	3,021.53	6.98	7.50	106.50	-44.73	-210.41	242.55	228.81	13.74	17.647	
3,200.00	3,180.18	3,118.62	3,083.93	7.31	7.94	107.17	-51.92	-239.88	278.51	264.20	14.31	19.941	
3,300.00	3,275.06	3,207.78	3,164.06	7.75	8.55	107.81	-61.17	-277.84	323.72	308.65	15.07	21.484	
3,400.00	3,369.95	3,296.93	3,244.20	8.21	9.20	108.29	-70.43	-315.80	368.94	353.07	15.87	23.241	
3,500.00	3,464.83	3,386.08	3,324.33	8.70	9.88	108.67	-79.69	-353.76	414.18	397.46	16.72	24.765	
3,600.00	3,559.72	3,475.23	3,404.47	9.20	10.59	108.97	-88.94	-391.71	459.43	441.82	17.61	26.089	
3,700.00	3,654.60	3,564.38	3,484.60	9.72	11.31	109.22	-98.20	-429.67	504.69	486.17	18.53	27.242	
3,800.00	3,749.49	3,653.53	3,564.74	10.25	12.05	109.42	-107.46	-467.63	549.96	530.49	19.47	28.249	
3,861.69	3,808.02	3,708.53	3,614.17	10.59	12.51	109.53	-113.17	-491.04	577.89	557.83	20.06	28.808	
3,900.00	3,844.43	3,742.72	3,644.90	10.78	12.80	109.85	-116.72	-505.60	595.18	574.74	20.44	29.125	
4,000.00	3,940.02	3,832.23	3,725.36	11.21	13.56	110.49	-126.01	-543.71	639.75	618.37	21.37	29.934	
4,100.00	4,036.34	3,922.10	3,806.14	11.64	14.34	110.88	-135.34	-581.97	683.50	661.19	22.31	30.639	
4,200.00	4,133.33	4,012.26	3,887.18	12.05	15.13	111.08	-144.70	-620.36	726.44	703.21	23.23	31.267	
4,300.00	4,230.93	4,102.65	3,968.43	12.44	15.92	111.12	-154.09	-658.84	768.58	744.44	24.14	31.836	
4,400.00	4,329.06	4,193.21	4,049.83	12.80	16.73	111.02	-163.49	-697.40	809.96	784.93	25.03	32.365	
4,500.00	4,427.67	4,283.87	4,131.32	13.14	17.53	110.80	-172.91	-736.00	850.61	824.73	25.88	32.869	
4,600.00	4,526.67	4,374.58	4,212.86	13.45	18.35	110.48	-182.32	-774.62	890.59	863.89	26.70	33.359	
4,700.00	4,626.01	4,465.28	4,294.38	13.74	19.17	110.07	-191.74	-813.24	929.95	902.47	27.48	33.846	
4,800.00	4,725.61	4,555.89	4,375.83	13.99	19.99	109.58	-201.15	-851.82	968.75	940.54	28.21	34.338	
4,900.00	4,825.42	4,646.36	4,457.15	14.22	20.81	109.02	-210.54	-890.34	1,007.07	978.17	28.90	34.844	

Approved by the
Utah Division of
Oil, Gas and Mining
Date: August 04, 2009
By: 

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design NBU 922-311 PAD - NBU 922-31J4BS - NBU 922-31J4BS - Design #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,925.35	4,736.63	4,538.29	14.41	21.63	108.40	-219.92	-928.77	1,044.98	1,015.44	29.54	35.370		
5,088.66	5,014.00	4,816.44	4,610.03	14.56	22.36	-69.68	-228.20	-962.75	1,078.31	1,048.24	30.07	35.864		
5,100.00	5,025.34	4,826.64	4,619.19	14.57	22.45	-69.82	-229.26	-967.09	1,082.56	1,052.44	30.12	35.943		
5,200.00	5,125.34	4,916.52	4,699.98	14.73	23.27	-71.03	-238.59	-1,005.36	1,120.31	1,089.72	30.58	36.630		
5,300.00	5,225.34	5,006.41	4,780.78	14.89	24.10	-72.17	-247.93	-1,043.63	1,158.48	1,127.44	31.04	37.321		
5,400.00	5,325.34	5,096.29	4,861.57	15.05	24.92	-73.24	-257.26	-1,081.90	1,197.04	1,165.55	31.49	38.011		
5,500.00	5,425.34	5,186.18	4,942.37	15.21	25.75	-74.25	-266.59	-1,120.17	1,235.95	1,204.02	31.94	38.699		
5,600.00	5,525.34	5,276.07	5,023.16	15.37	26.58	-75.19	-275.92	-1,158.44	1,275.19	1,242.81	32.38	39.382		
5,700.00	5,625.34	5,365.95	5,103.96	15.54	27.41	-76.09	-285.26	-1,196.71	1,314.71	1,281.89	32.82	40.060		
5,800.00	5,725.34	5,455.84	5,184.75	15.70	28.24	-76.93	-294.59	-1,234.98	1,354.49	1,321.24	33.26	40.730		
5,900.00	5,825.34	5,545.72	5,265.55	15.87	29.08	-77.73	-303.92	-1,273.25	1,394.52	1,360.83	33.69	41.392		
6,000.00	5,925.34	5,635.61	5,346.34	16.04	29.91	-78.48	-313.26	-1,311.52	1,434.77	1,400.65	34.12	42.045		
6,100.00	6,025.34	5,725.49	5,427.14	16.21	30.75	-79.19	-322.59	-1,349.79	1,475.22	1,440.67	34.56	42.688		
6,200.00	6,125.34	5,815.38	5,507.93	16.38	31.58	-79.87	-331.92	-1,388.06	1,515.87	1,480.87	34.99	43.320		
6,300.00	6,225.34	5,905.27	5,588.73	16.55	32.42	-80.51	-341.25	-1,426.33	1,556.68	1,521.25	35.43	43.941		
6,400.00	6,325.34	5,995.15	5,669.52	16.73	33.25	-81.12	-350.59	-1,464.60	1,597.65	1,561.79	35.86	44.551		
6,500.00	6,425.34	6,085.04	5,750.31	16.90	34.09	-81.70	-359.92	-1,502.87	1,638.77	1,602.48	36.30	45.150		
6,600.00	6,525.34	6,174.92	5,831.11	17.08	34.93	-82.25	-369.25	-1,541.14	1,680.03	1,643.30	36.73	45.737		
6,700.00	6,625.34	6,264.81	5,911.90	17.25	35.77	-82.78	-378.59	-1,579.41	1,721.42	1,684.25	37.17	46.312		
6,800.00	6,725.34	6,354.70	5,992.70	17.43	36.61	-83.28	-387.92	-1,617.68	1,762.92	1,725.31	37.61	46.875		
6,900.00	6,825.34	6,444.59	6,073.49	17.61	37.45	-83.77	-397.25	-1,655.95	1,804.42	1,768.20	38.04	47.438		
7,000.00	6,925.34	6,534.48	6,154.28	17.79	38.29	-84.25	-406.58	-1,694.22	1,845.92	1,813.09	38.47	48.001		
7,100.00	7,025.34	6,624.37	6,235.07	17.97	39.13	-84.73	-415.91	-1,732.99	1,887.42	1,861.98	38.89	48.564		
7,200.00	7,125.34	6,714.26	6,315.86	18.15	39.97	-85.21	-425.24	-1,771.76	1,928.92	1,910.87	39.31	49.127		
7,300.00	7,225.34	6,804.15	6,396.65	18.33	40.81	-85.69	-434.57	-1,810.53	1,970.42	1,959.76	39.73	49.690		
7,400.00	7,325.34	6,894.04	6,477.44	18.51	41.65	-86.17	-443.90	-1,849.30	2,011.92	2,008.65	40.15	50.253		
7,500.00	7,425.34	6,983.93	6,558.23	18.69	42.49	-86.65	-453.23	-1,888.07	2,053.42	2,057.54	40.57	50.816		
7,600.00	7,525.34	7,073.82	6,639.02	18.87	43.33	-87.13	-462.56	-1,926.84	2,094.92	2,106.43	40.99	51.379		
7,700.00	7,625.34	7,163.71	6,719.81	19.05	44.17	-87.61	-471.89	-1,965.61	2,136.42	2,155.32	41.41	51.942		
7,800.00	7,725.34	7,253.60	6,800.60	19.23	45.01	-88.09	-481.22	-1,004.38	2,177.92	2,204.21	41.83	52.505		
7,900.00	7,825.34	7,343.49	6,881.39	19.41	45.85	-88.57	-490.55	-1,043.15	2,219.42	2,253.10	42.25	53.068		
8,000.00	7,925.34	7,433.38	6,962.18	19.59	46.69	-89.05	-499.88	-1,081.92	2,260.92	2,302.00	42.67	53.631		
8,100.00	8,025.34	7,523.27	7,042.97	19.77	47.53	-89.53	-509.21	-1,120.69	2,302.42	2,350.89	43.09	54.194		
8,200.00	8,125.34	7,613.16	7,123.76	19.95	48.37	-90.01	-518.54	-1,159.46	2,343.92	2,399.78	43.51	54.757		
8,300.00	8,225.34	7,703.05	7,204.55	20.13	49.21	-90.49	-527.87	-1,198.23	2,385.42	2,448.67	43.93	55.320		
8,400.00	8,325.34	7,792.94	7,285.34	20.31	50.05	-90.97	-537.20	-1,237.00	2,426.92	2,497.56	44.35	55.883		
8,500.00	8,425.34	7,882.83	7,366.13	20.49	50.89	-91.45	-546.53	-1,275.77	2,468.42	2,546.45	44.77	56.446		
8,600.00	8,525.34	7,972.72	7,446.92	20.67	51.73	-91.93	-555.86	-1,314.54	2,509.92	2,595.34	45.19	57.009		
8,700.00	8,625.34	8,062.61	7,527.71	20.85	52.57	-92.41	-565.19	-1,353.31	2,551.42	2,644.23	45.61	57.572		
8,800.00	8,725.34	8,152.50	7,608.50	21.03	53.41	-92.89	-574.52	-1,392.08	2,592.92	2,693.12	46.03	58.135		
8,900.00	8,825.34	8,242.39	7,689.29	21.21	54.25	-93.37	-583.85	-1,430.85	2,634.42	2,742.01	46.45	58.698		
9,000.00	8,925.34	8,332.28	7,770.08	21.39	55.09	-93.85	-593.18	-1,469.62	2,675.92	2,790.90	46.87	59.261		
9,100.00	9,025.34	8,422.17	7,850.87	21.57	55.93	-94.33	-602.51	-1,508.39	2,717.42	2,839.79	47.29	59.824		
9,200.00	9,125.34	8,512.06	7,931.66	21.75	56.77	-94.81	-611.84	-1,547.16	2,758.92	2,888.68	47.71	60.387		
9,300.00	9,225.34	8,601.95	8,012.45	21.93	57.61	-95.29	-621.17	-1,585.93	2,800.42	2,937.57	48.13	60.950		
9,374.66	9,300.00	8,691.84	8,093.24	22.11	58.45	-95.77	-630.50	-1,624.70	2,841.92	2,986.46	48.55	61.513		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: August 04, 2009
By: *[Signature]*

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference				Offset			Semi Major Axis			Distance			Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-91.03	-0.36	-20.17	20.17					
100.00	100.00	100.00	100.00	0.08	0.08	-91.03	-0.36	-20.17	20.17	20.01	0.17	121.292		
200.00	200.00	200.00	200.00	0.31	0.31	-91.03	-0.36	-20.17	20.17	19.56	0.62	32.758		
300.00	300.00	300.00	300.00	0.53	0.53	-91.03	-0.36	-20.17	20.17	19.11	1.07	18.936 CC, ES		
400.00	400.00	399.12	399.08	0.76	0.74	-95.40	-2.09	-22.08	22.20	20.70	1.49	14.847 SF		
500.00	500.00	497.71	497.36	0.98	0.96	-104.58	-7.22	-27.76	28.80	26.87	1.94	14.882		
600.00	600.00	595.26	594.08	1.21	1.21	-112.87	-15.64	-37.07	40.66	38.27	2.40	16.970		
700.00	700.00	691.27	688.54	1.43	1.54	-118.60	-27.15	-49.80	57.86	55.00	2.87	20.188		
800.00	800.00	785.33	780.12	1.66	1.94	-122.29	-41.49	-65.67	80.18	76.84	3.34	23.991		
900.00	900.00	877.04	868.30	1.88	2.41	-124.69	-58.38	-84.35	107.37	103.54	3.82	28.084		
1,000.00	1,000.00	966.08	952.66	2.11	2.95	-126.30	-77.47	-105.47	139.16	134.85	4.31	32.310		
1,100.00	1,100.00	1,052.21	1,032.91	2.33	3.54	-127.42	-98.42	-128.65	175.32	170.53	4.79	36.583		
1,200.00	1,200.00	1,135.23	1,108.86	2.56	4.18	-128.22	-120.90	-153.51	215.61	210.33	5.28	40.857		
1,300.00	1,300.00	1,218.26	1,183.37	2.78	4.88	-128.84	-145.45	-180.67	259.61	253.83	5.78	44.927		
1,400.00	1,400.00	1,307.57	1,263.14	3.01	5.67	-129.32	-172.39	-210.47	304.54	298.28	6.27	48.608		
1,500.00	1,500.00	1,396.88	1,342.91	3.23	6.47	-129.68	-199.33	-240.27	349.49	342.73	6.76	51.690		
1,600.00	1,600.00	1,486.19	1,422.67	3.45	7.27	-129.96	-226.27	-270.08	394.44	387.18	7.26	54.296		
1,700.00	1,700.00	1,575.51	1,502.44	3.68	8.08	-130.18	-253.21	-299.88	439.40	431.63	7.77	56.531		
1,800.00	1,800.00	1,664.82	1,582.21	3.90	8.89	-130.36	-280.15	-329.68	484.36	476.08	8.28	58.464		
1,900.00	1,900.00	1,754.13	1,661.97	4.13	9.71	-130.51	-307.09	-359.48	529.33	520.53	8.80	60.150		
2,000.00	2,000.00	1,843.44	1,741.74	4.35	10.52	-130.63	-334.03	-389.28	574.30	564.98	9.32	61.632		
2,100.00	2,100.00	1,932.76	1,821.51	4.58	11.34	-130.74	-360.97	-419.09	619.27	609.43	9.84	62.942		
2,200.00	2,200.00	2,022.07	1,901.27	4.80	12.15	-130.83	-387.91	-448.89	664.24	653.88	10.36	64.109		
2,300.00	2,299.98	2,111.91	1,981.52	5.00	12.98	45.98	-415.02	-478.87	708.13	697.24	10.90	64.978		
2,400.00	2,399.84	2,202.75	2,062.65	5.17	13.81	45.57	-442.42	-509.18	749.84	738.43	11.41	65.697		
2,500.00	2,499.45	2,294.47	2,144.57	5.35	14.65	45.37	-470.08	-539.79	789.34	777.40	11.94	66.094		
2,600.00	2,598.70	2,386.97	2,227.17	5.53	15.50	45.36	-497.98	-570.65	826.62	814.14	12.49	66.204		
2,700.00	2,697.47	2,480.12	2,310.37	5.74	16.35	45.51	-526.08	-601.73	861.71	848.66	13.05	66.052		
2,800.00	2,795.62	2,573.81	2,394.05	5.97	17.21	45.81	-554.34	-633.00	894.62	881.00	13.63	65.910		
2,900.00	2,893.06	2,667.94	2,478.11	6.24	18.08	46.25	-582.74	-664.40	925.42	911.18	14.24	64.990		
3,000.00	2,989.64	2,762.38	2,562.46	6.54	18.95	46.82	-611.22	-695.92	954.15	939.26	14.89	64.064		
3,100.00	3,085.27	2,857.02	2,646.99	6.90	19.82	47.50	-639.77	-727.50	980.89	965.30	15.59	62.925		
3,120.23	3,104.48	2,876.18	2,664.10	6.98	19.99	47.66	-645.55	-733.89	986.06	970.33	15.74	62.661		
3,200.00	3,180.18	2,951.74	2,731.59	7.31	20.69	48.56	-668.34	-759.10	1,006.44	990.10	16.34	61.904		
3,300.00	3,275.06	3,046.46	2,816.18	7.75	21.56	49.64	-696.92	-790.71	1,032.31	1,015.18	17.13	60.261		
3,400.00	3,369.95	3,141.18	2,900.78	8.21	22.43	50.67	-725.49	-822.32	1,058.52	1,040.55	17.86	58.925		
3,500.00	3,464.83	3,235.90	2,985.37	8.70	23.30	51.65	-754.06	-853.92	1,085.04	1,066.20	18.83	57.640		
3,600.00	3,559.72	3,330.62	3,069.97	9.20	24.18	52.59	-782.63	-885.53	1,111.85	1,092.11	19.74	56.329		
3,700.00	3,654.60	3,425.34	3,154.57	9.72	25.05	53.48	-811.20	-917.14	1,138.94	1,118.27	20.67	55.090		
3,800.00	3,749.49	3,520.06	3,239.16	10.25	25.92	54.33	-839.77	-948.74	1,166.28	1,144.64	21.64	53.900		
3,861.69	3,808.02	3,578.49	3,291.35	10.59	26.46	54.84	-857.40	-968.24	1,183.26	1,161.02	22.25	53.191		
3,900.00	3,844.43	3,614.77	3,323.75	10.78	26.79	55.28	-868.34	-980.35	1,193.96	1,171.34	22.62	52.794		
4,000.00	3,940.02	3,709.42	3,408.29	11.21	27.67	56.34	-896.89	-1,011.93	1,222.99	1,199.44	23.54	51.949		
4,100.00	4,036.34	3,803.94	3,492.70	11.64	28.54	57.30	-925.40	-1,043.47	1,253.54	1,229.08	24.46	51.255		
4,200.00	4,133.33	3,898.25	3,576.93	12.05	29.41	58.16	-953.85	-1,074.94	1,285.51	1,260.16	25.35	50.706		
4,300.00	4,230.93	3,992.30	3,660.93	12.44	30.27	58.92	-982.22	-1,106.32	1,318.85	1,292.62	26.22	50.294		
4,400.00	4,329.06	4,086.01	3,744.63	12.80	31.13	59.59	-1,010.49	-1,137.59	1,353.47	1,326.41	27.06	50.012		
4,500.00	4,427.67	4,179.34	3,827.98	13.14	31.99	60.17	-1,038.64	-1,168.73	1,389.35	1,361.48	27.87	49.853		
4,600.00	4,526.67	4,271.55	3,913.13	13.45	32.87	60.65	-1,065.79	-1,200.89	1,425.30	1,396.43	28.86	49.381		
4,700.00	4,626.01	4,363.66	4,000.41	13.74	33.74	61.05	-1,093.04	-1,233.04	1,457.28	1,429.33	29.95	48.559		
4,800.00	4,725.61	4,455.94	4,088.35	13.99	34.61	61.39	-1,120.29	-1,265.19	1,489.25	1,461.26	31.14	47.743		
4,900.00	4,825.42	4,549.30	4,177.89	14.22	35.48	61.68	-1,147.54	-1,297.34	1,521.22	1,493.19	32.43	46.960		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: August 04, 2009
By: *[Signature]*

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

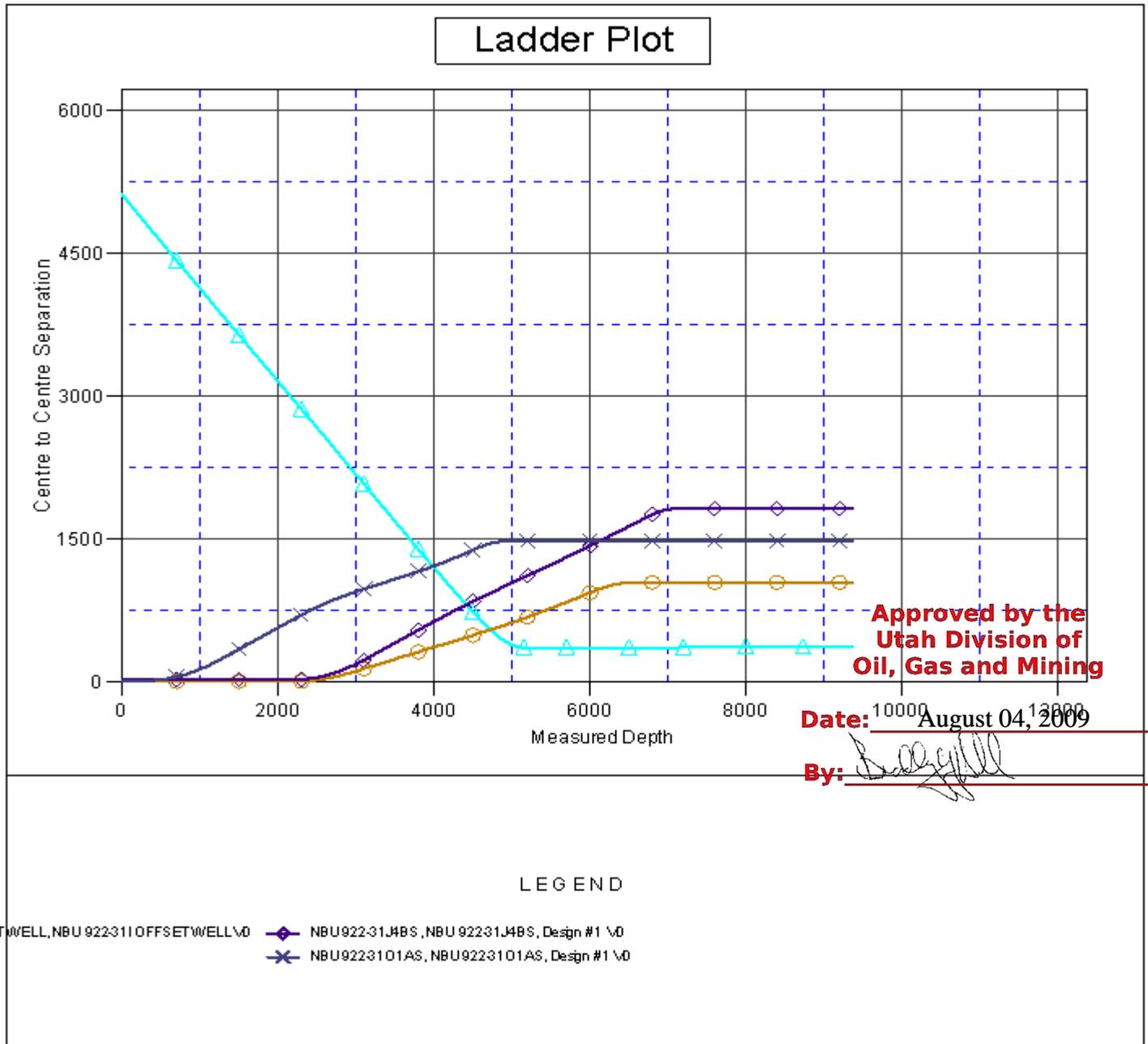
Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design NBU 922-311 PAD - NBU 922-3101AS - NBU 922-3101AS - Design #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,925.35	5,320.00	4,925.35	14.41	36.56	61.90	-1,216.79	-1,365.81	1,486.58	1,454.48	32.11	46.299		
5,088.66	5,014.00	5,408.65	5,014.00	14.56	36.61	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.81	32.30	46.016		
5,100.00	5,025.34	5,419.99	5,025.34	14.57	36.61	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.78	32.32	45.974		
5,200.00	5,125.34	5,519.99	5,125.34	14.73	36.67	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.51	32.59	45.597		
5,300.00	5,225.34	5,619.99	5,225.34	14.89	36.73	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.24	32.86	45.221		
5,400.00	5,325.34	5,719.99	5,325.34	15.05	36.79	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.96	33.14	44.845		
5,500.00	5,425.34	5,819.99	5,425.34	15.21	36.85	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.68	33.42	44.471		
5,600.00	5,525.34	5,919.99	5,525.34	15.37	36.91	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.40	33.70	44.099		
5,700.00	5,625.34	6,019.99	5,625.34	15.54	36.97	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.12	33.98	43.728		
5,800.00	5,725.34	6,119.99	5,725.34	15.70	37.04	-115.57	-1,216.79	-1,365.81	1,486.10	1,451.83	34.27	43.359		
5,900.00	5,825.34	6,219.99	5,825.34	15.87	37.10	-115.57	-1,216.79	-1,365.81	1,486.10	1,451.53	34.57	42.993		
6,000.00	5,925.34	6,319.99	5,925.34	16.04	37.17	-115.57	-1,216.79	-1,365.81	1,486.10	1,451.24	34.86	42.628		
6,100.00	6,025.34	6,419.99	6,025.34	16.21	37.24	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.94	35.16	42.266		
6,200.00	6,125.34	6,519.99	6,125.34	16.38	37.31	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.64	35.46	41.907		
6,300.00	6,225.34	6,619.99	6,225.34	16.55	37.38	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.33	35.77	41.550		
6,400.00	6,325.34	6,719.99	6,325.34	16.73	37.45	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.03	36.07	41.196		
6,500.00	6,425.34	6,819.99	6,425.34	16.90	37.52	-115.57	-1,216.79	-1,365.81	1,486.10	1,449.72	36.38	40.845		
6,600.00	6,525.34	6,919.99	6,525.34	17.08	37.60	-115.57	-1,216.79	-1,365.81	1,486.10	1,449.40	36.70	40.496		
6,700.00	6,625.34	7,019.99	6,625.34	17.25	37.67	-115.57	-1,216.79	-1,365.81	1,486.10	1,449.09	37.01	40.151		
6,800.00	6,725.34	7,119.99	6,725.34	17.43	37.75	-115.57	-1,216.79	-1,365.81	1,486.10	1,448.77	37.33	39.809		
6,900.00	6,825.34	7,219.99	6,825.34	17.61	37.83	-115.57	-1,216.79	-1,365.81	1,486.10	1,448.45	37.65	39.469		
7,000.00	6,925.34	7,319.99	6,925.34	17.79	37.90	-115.57	-1,216.79	-1,365.81	1,486.10	1,448.12	37.98	39.133		
7,100.00	7,025.34	7,419.99	7,025.34	17.97	37.98	-115.57	-1,216.79	-1,365.81	1,486.10	1,447.80	38.30	38.801		
7,200.00	7,125.34	7,519.99	7,125.34	18.16	38.07	-115.57	-1,216.79	-1,365.81	1,486.10	1,447.47	38.63	38.471		
7,300.00	7,225.34	7,619.99	7,225.34	18.34	38.15	-115.57	-1,216.79	-1,365.81	1,486.10	1,447.14	38.96	38.145		
7,400.00	7,325.34	7,719.99	7,325.34	18.52	38.23	-115.57	-1,216.79	-1,365.81	1,486.10	1,446.81	39.29	37.822		
7,500.00	7,425.34	7,819.99	7,425.34	18.71	38.32	-115.57	-1,216.79	-1,365.81	1,486.10	1,446.47	39.63	37.502		
7,600.00	7,525.34	7,919.99	7,525.34	18.90	38.40	-115.57	-1,216.79	-1,365.81	1,486.10	1,446.14	39.96	37.186		
7,700.00	7,625.34	8,019.99	7,625.34	19.08	38.49	-115.57	-1,216.79	-1,365.81	1,486.10	1,445.80	40.30	36.870		
7,800.00	7,725.34	8,119.99	7,725.34	19.27	38.58	-115.57	-1,216.79	-1,365.81	1,486.10	1,445.46	40.64	36.563		
7,900.00	7,825.34	8,219.99	7,825.34	19.46	38.67	-115.57	-1,216.79	-1,365.81	1,486.10	1,445.11	40.99	36.257		
8,000.00	7,925.34	8,319.99	7,925.34	19.65	38.76	-115.57	-1,216.79	-1,365.81	1,486.10	1,444.77	41.33	35.954		
8,100.00	8,025.34	8,419.99	8,025.34	19.84	38.85	-115.57	-1,216.79	-1,365.81	1,486.10	1,444.42	41.68	35.655		
8,200.00	8,125.34	8,519.99	8,125.34	20.03	38.94	-115.57	-1,216.79	-1,365.81	1,486.10	1,444.07	42.03	35.363		
8,300.00	8,225.34	8,619.99	8,225.34	20.22	39.03	-115.57	-1,216.79	-1,365.81	1,486.10	1,443.72	42.38	35.077		
8,400.00	8,325.34	8,719.99	8,325.34	20.41	39.13	-115.57	-1,216.79	-1,365.81	1,486.10	1,443.37	42.73	34.797		
8,500.00	8,425.34	8,819.99	8,425.34	20.61	39.22	-115.57	-1,216.79	-1,365.81	1,486.10	1,443.01	43.09	34.521		
8,600.00	8,525.34	8,919.99	8,525.34	20.80	39.32	-115.57	-1,216.79	-1,365.81	1,486.10	1,442.66	43.44	34.249		
8,700.00	8,625.34	9,019.99	8,625.34	20.99	39.42	-115.57	-1,216.79	-1,365.81	1,486.10	1,442.30	43.80	33.980		
8,800.00	8,725.34	9,119.99	8,725.34	21.19	39.52	-115.57	-1,216.79	-1,365.81	1,486.10	1,441.94	44.16	33.714		
8,900.00	8,825.34	9,219.99	8,825.34	21.38	39.62	-115.57	-1,216.79	-1,365.81	1,486.10	1,441.58	44.52	33.451		
9,000.00	8,925.34	9,319.99	8,925.34	21.58	39.72	-115.57	-1,216.79	-1,365.81	1,486.10	1,441.22	44.88	33.192		
9,100.00	9,025.34	9,419.99	9,025.34	21.77	39.82	-115.57	-1,216.79	-1,365.81	1,486.10	1,440.85	45.25	32.938		
9,200.00	9,125.34	9,519.99	9,125.34	21.97	39.92	-115.57	-1,216.79	-1,365.81	1,486.10	1,440.49	45.61	32.688		
9,300.00	9,225.34	9,619.99	9,225.34	22.17	40.03	-115.57	-1,216.79	-1,365.81	1,486.10	1,440.12	45.98	32.442		
9,374.66	9,300.00	9,694.65	9,300.00	22.32	40.11	-115.57	-1,216.79	-1,365.81	1,486.10	1,439.85	46.25	32.199		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: **August 04, 2009**
By: *[Signature]*

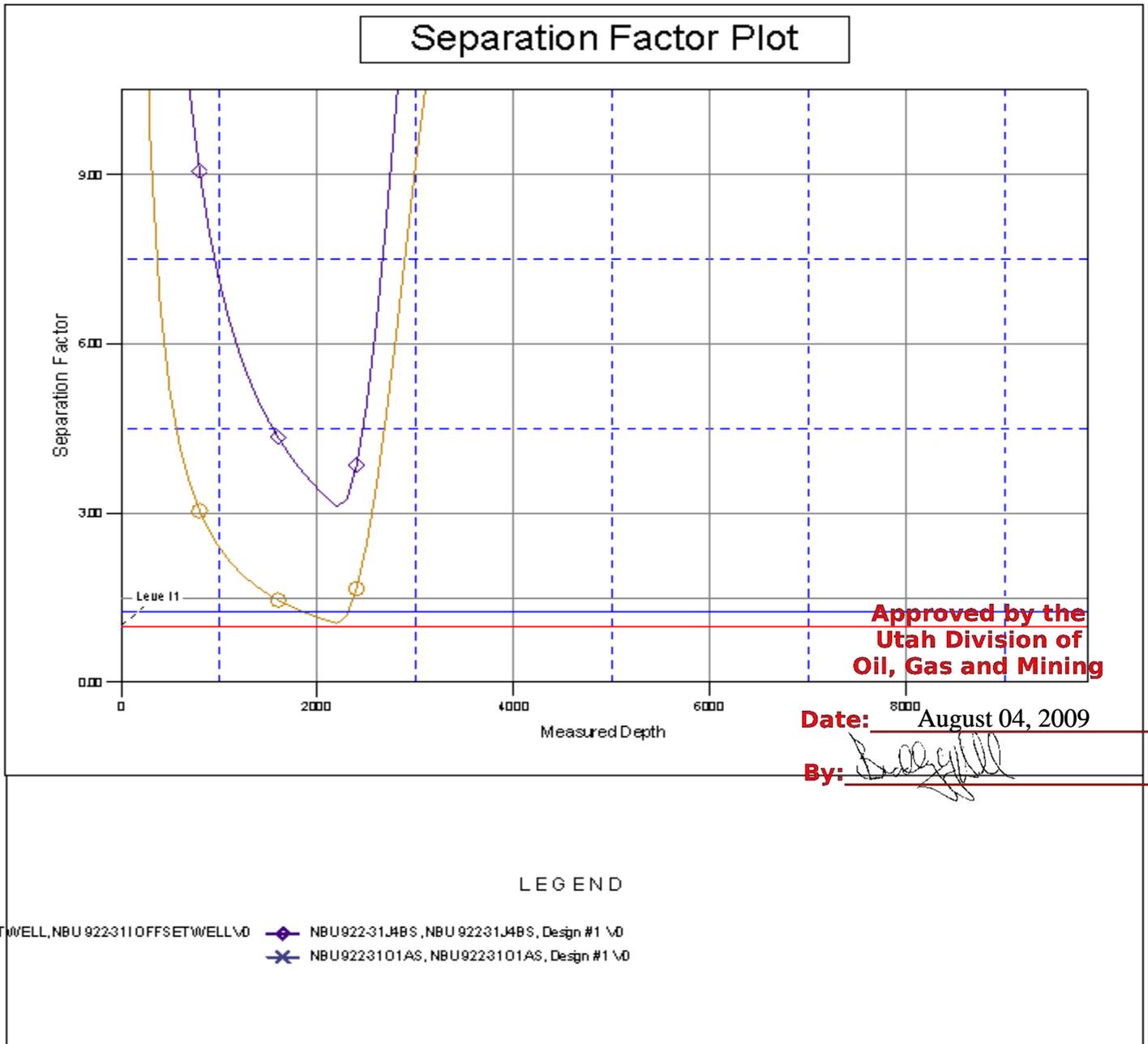
Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5061.00ft (Original Well Elev) Coordinates are relative to: NBU 922-3114AS
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 0.98°



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5061.00ft (Original Well Elev) Coordinates are relative to: NBU 922-3114AS
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 0.98°





July 27, 2009

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

Re: Directional Drilling R649-3-11
NBU 922-3114AS
T9S-R22E
Section 31: NESE (Surf), NESE (Bottom)
Surface: 2319' FSL, 128' FEL
Bottom Hole: 1743' FSL, 153' FEL
Uintah County, Utah

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

Date: August 04, 2009

By:

Dear Ms. Mason:

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

- Kerr-McGee's NBU 922-3114AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Jason Rayburn
Landman

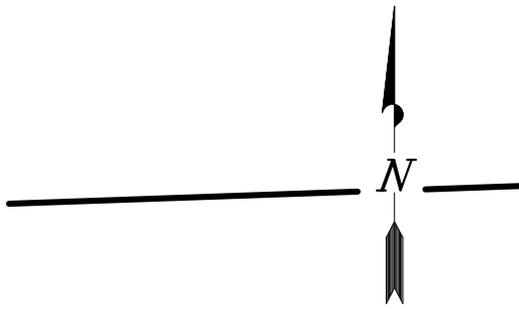
RECEIVED July 27, 2009

LATITUDE & LONGITUDE		
Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'29.802" 39.991612°	109°28'25.836" 109.473843°
NBU 922-31O1AS	39°59'29.806" 39.991613°	109°28'25.708" 109.473808°
NBU 922-31I3CS	39°59'29.809" 39.991614°	109°28'25.579" 109.473772°
NBU 922-31I4AS	39°59'29.813" 39.991615°	109°28'25.451" 109.473736°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'25.429" 39.990397°	109°28'49.151" 109.480320°
NBU 922-31O1AS	39°59'17.782" 39.988273°	109°28'43.001" 109.478611°
NBU 922-31I3CS	39°59'20.174" 39.988937°	109°28'38.260" 109.477295°
NBU 922-31I4AS	39°59'24.125" 39.990035°	109°28'25.774" 109.473826°

LATITUDE & LONGITUDE		
Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'29.928" 39.991647°	109°28'23.370" 109.473158°
NBU 922-31O1AS	39°59'29.931" 39.991648°	109°28'23.242" 109.473123°
NBU 922-31I3CS	39°59'29.935" 39.991649°	109°28'23.113" 109.473087°
NBU 922-31I4AS	39°59'29.938" 39.991649°	109°28'22.985" 109.473051°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'25.555" 39.990432°	109°28'46.684" 109.479634°
NBU 922-31O1AS	39°59'17.907" 39.988308°	109°28'40.534" 109.477926°
NBU 922-31I3CS	39°59'20.300" 39.988972°	109°28'35.794" 109.476609°
NBU 922-31I4AS	39°59'24.250" 39.990069°	109°28'23.308" 109.473141°

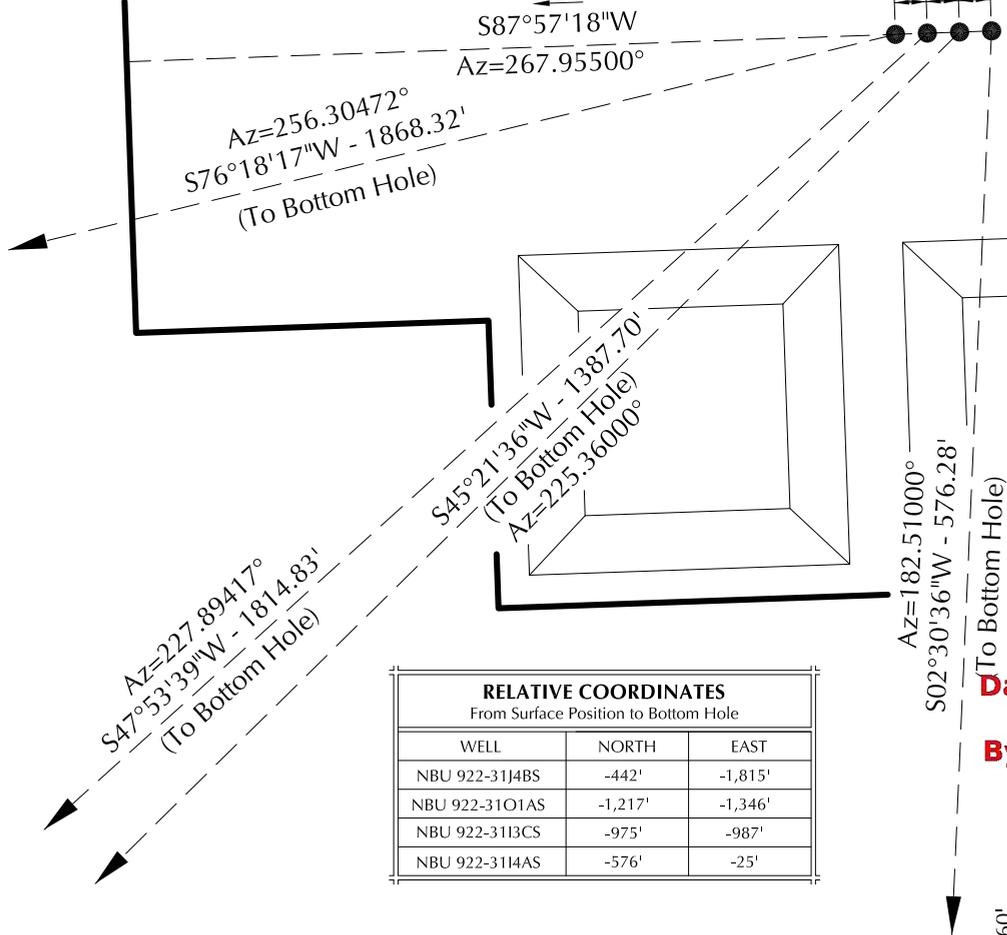


BASIS OF BEARINGS IS THE EAST LINE OF THE SE 1/4 OF SECTION 31, T9S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°01'20"E.

NBU 922-31J4BS
NBU 922-31O1AS
NBU 922-31I3CS
NBU 922-31I4AS

SURFACE POSITION FOOTAGES:

- NBU 922-31J4BS
2318' FSL & 158' FEL
- NBU 922-31O1AS
2318' FSL & 148' FEL
- NBU 922-31I3CS
2318' FSL & 138' FEL
- NBU 922-31I4AS
2319' FSL & 128' FEL



RELATIVE COORDINATES		
From Surface Position to Bottom Hole		
WELL	NORTH	EAST
NBU 922-31J4BS	-442'	-1,815'
NBU 922-31O1AS	-1,217'	-1,346'
NBU 922-31I3CS	-975'	-987'
NBU 922-31I4AS	-576'	-25'

Approved by the
Utah Division of Oil, Gas and Mining

Date: August 04, 2009

By: [Signature]
NBU 922-31I3CS
1743' FSL & 1125' FEL



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

WELL PAD - NBU 922-311

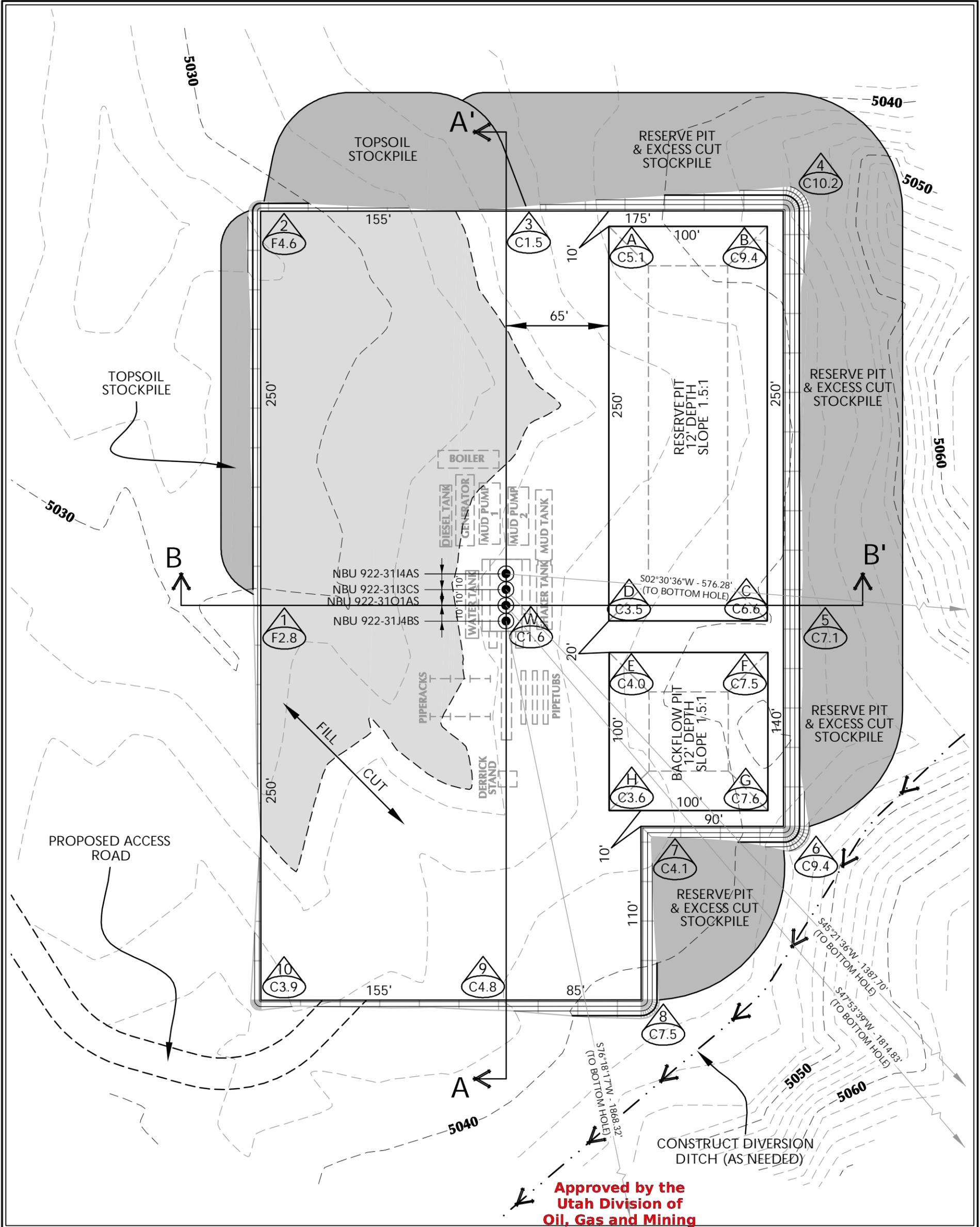
WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-31J4BS, NBU 922-31O1AS,
NBU 922-31I3CS & NBU 922-31I4AS
LOCATED IN SECTION 31, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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

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

DATE SURVEYED: 07-16-09	SURVEYED BY: M.S.B.	SHEET NO: 5
DATE DRAWN: 07-17-09	DRAWN BY: M.W.W.	
SCALE: 1" = 60'		5 OF 13



Approved by the Utah Division of Oil, Gas and Mining

WELL PAD NBU 922-311 QUANTITIES
 Date: August 04, 2009
 By: [Signature]

WELL PAD LEGEND
 ○ EXISTING WELL LOCATION
 ⊙ PROPOSED WELL LOCATION
 ⊗ PROPOSED BOTTOM HOLE LOCATION
 - - - EXISTING CONTOURS (2' INTERVAL)
 ——— PROPOSED CONTOURS (2' INTERVAL)

TOTAL CUT FOR WELL PAD = 12,634 C.Y.
 TOTAL FILL FOR WELL PAD = 5,537 C.Y.
 TOPSOIL @ 6" DEPTH = 3,116 C.Y.
 EXCESS MATERIAL = 7,097 C.Y.
 TOTAL DISTURBANCE = 3.86 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 32,370 BARRELS
 RESERVE PIT VOLUME
 +/- 8,510 CY
 BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
 +/- 11,260 BARRELS
 BACKFLOW PIT VOLUME
 +/- 3,040 CY



HORIZONTAL 0 30 60 1" = 60'
 2' CONTOURS

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



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

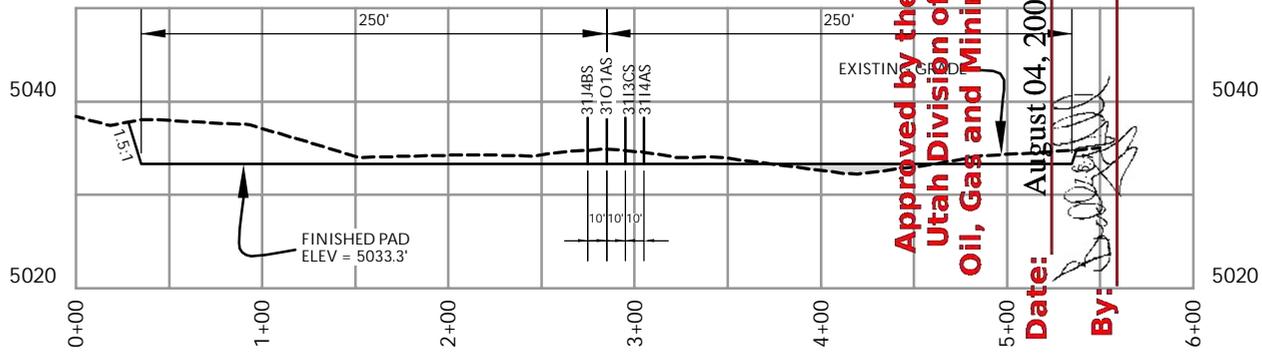
Scale: 1"=60' Date: 7/21/09 SHEET NO: 6 OF 13

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

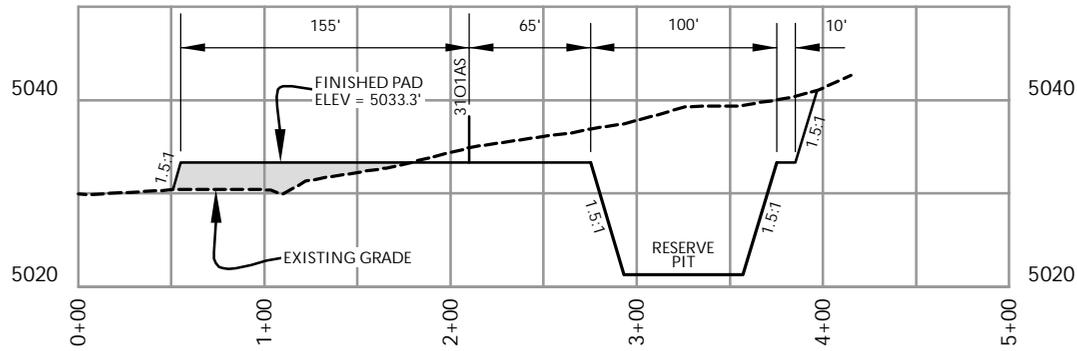
WELL PAD - NBU 922-311
 WELL PAD - LOCATION LAYOUT
 NBU 922-31J4BS, NBU 922-31O1AS,
 NBU 922-31I3CS & NBU 922-31I4AS
 LOCATED IN SECTION 31, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH

RECEIVED July 27, 2009

K:\ADARKOV009_11_NBU_Directional_UELS_Edits\DWGS\NBU 922-311\922-311.dwg, 7/21/2009 5:26:07 PM, PDF-XChange for AcadPlot Pro



CROSS SECTION A-A'



CROSS SECTION B-B'

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

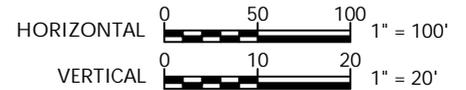
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-311

WELL PAD - CROSS SECTIONS
NBU 922-314BS, NBU 922-3101AS,
NBU 922-3113CS & NBU 922-3114AS
LOCATED IN SECTION 31, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



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



Scale: 1"=100'

Date: 7/21/09

SHEET NO:

7

7 OF 13

REVISED:

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

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

Date: August 04, 2009

By: 



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Utah Division of
Oil, Gas and Mining**

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By: 



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Utah Division of
Oil, Gas and Mining**

Date: August 04, 2009

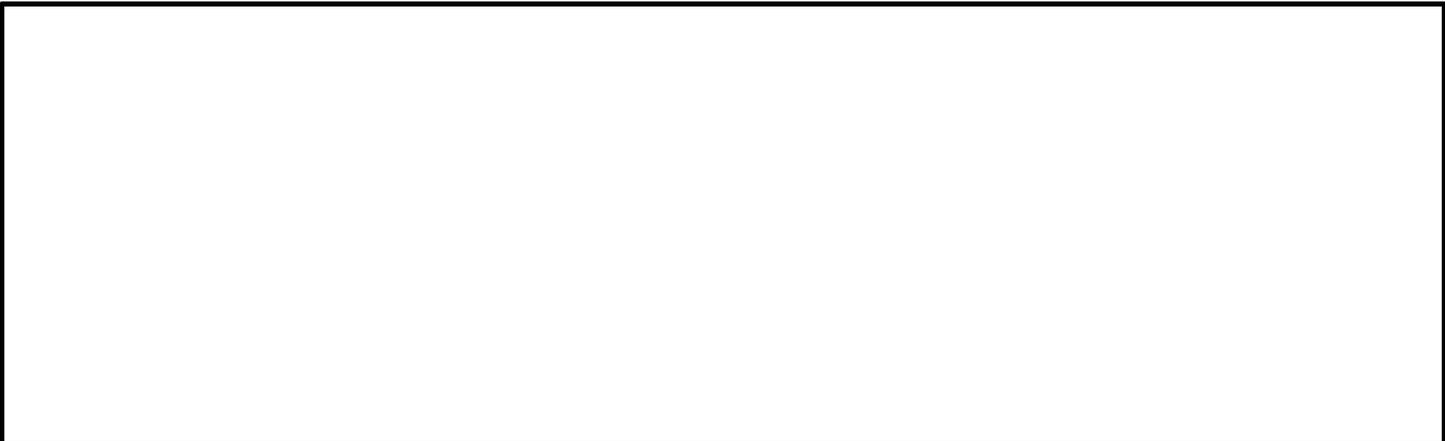
By: 



**Approved by the
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Date: August 04, 2009

By: 



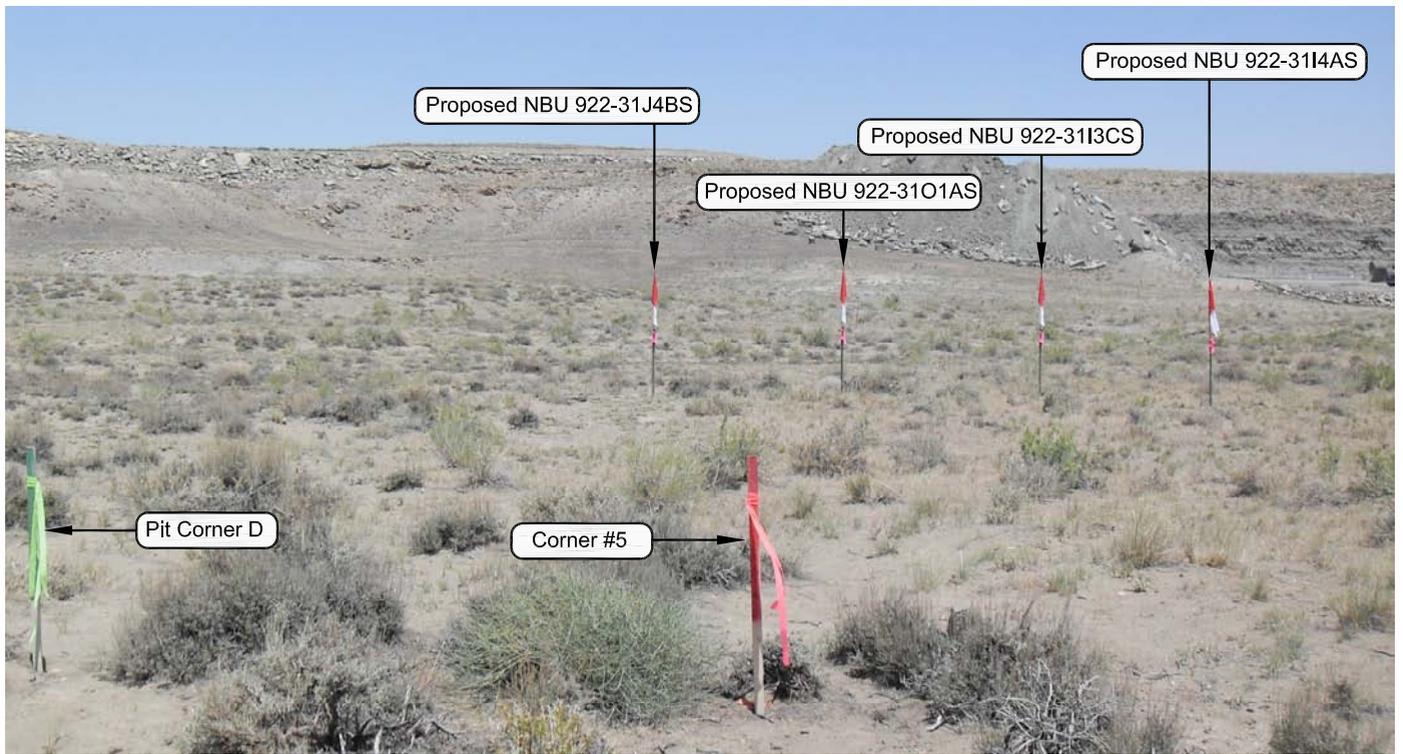


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

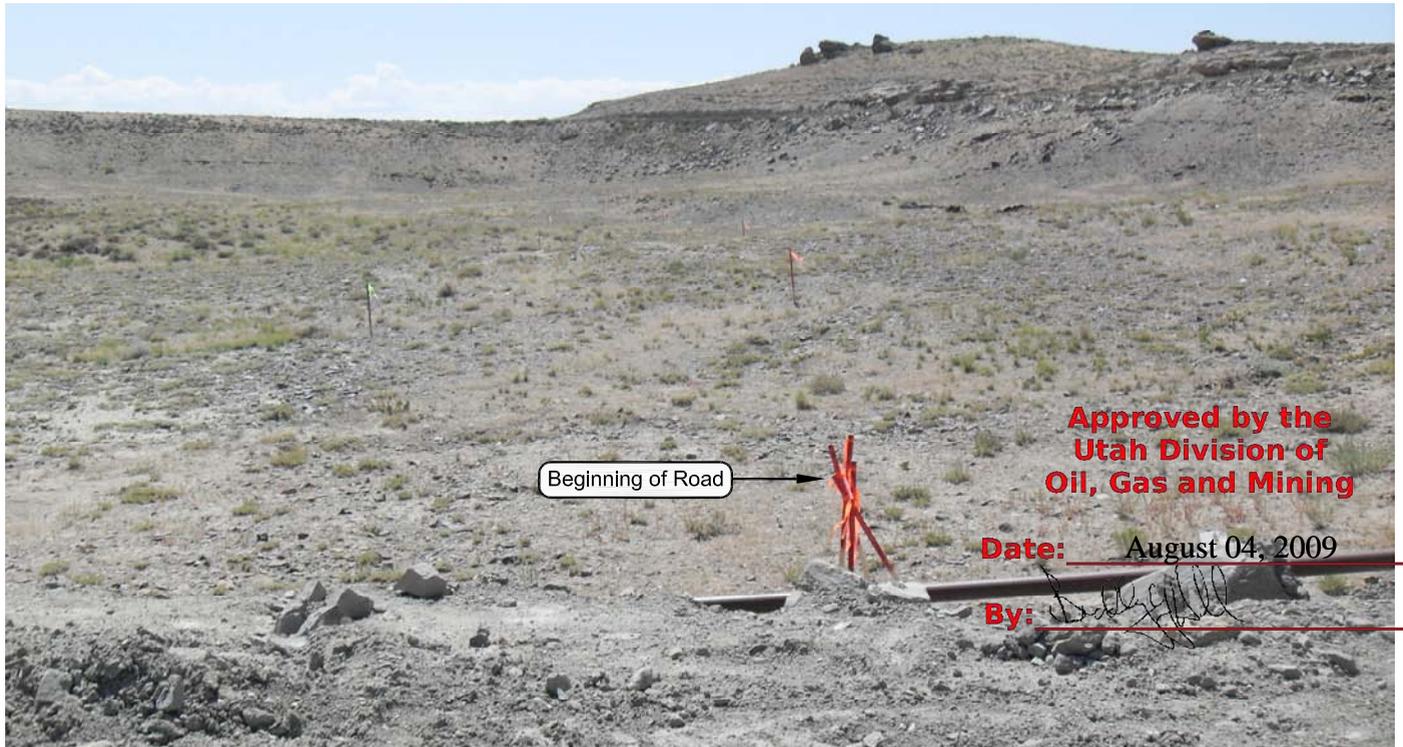


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: WESTERLY

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

Well Pad - NBU 922-311

**NBU 922-31J4BS, NBU 922-31O1AS,
 NBU 922-31I3CS & NBU 922-31I4AS
 LOCATION PHOTOS
 LOCATED IN SECTION 31, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH.**



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

TIMBERLINE

(435) 789-1365

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

DATE PHOTOS TAKEN: 07-16-09	PHOTOS TAKEN BY: M.S.B.	SHEET NO: 8
DATE DRAWN: 07-17-09	DRAWN BY: M.W.W.	
Date Last Revised:		8 OF 13

RECEIVED July 27, 2009

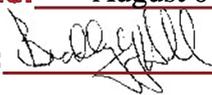
Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 922-31I
WELLS – NBU 922-31J4BS, NBU 922-31O1AS, NBU 922-31I3CS
& NBU 922-31I4AS
Section 31, T9S, R22E, S.L.B.&M.

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 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 10.4 MILES TO A CLASS D COUNTY ROAD TO THE NORTHEAST. EXIT RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 0.1 MILES TO A SECOND CLASS D COUNTY ROAD TO THE SOUTHEAST. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 2.6 MILES TO A THIRD CLASS D COUNTY ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EASTERLY, THEN NORTHWESTERLY DIRECTION ALONG THE THIRD CLASS D COUNTY ROAD APPROXIMATELY 1.8 MILES TO A SERVICE ROAD TO THE EAST. EXIT RIGHT AND PROCEED IN AN EASTERLY, THEN SOUTHWESTERLY DIRECTION ALONG THE SERVICE ROAD, CROSSING THE NBU 922-32E AND CIGE 173 WELL PADS, APPROXIMATELY 0.3 MILES TO THE PROPOSED ACCESS ROAD (AT THE WESTERN END OF THE CIGE 173 WELL PAD). FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 640 FEET TO THE PROPOSED WELL LOCATION

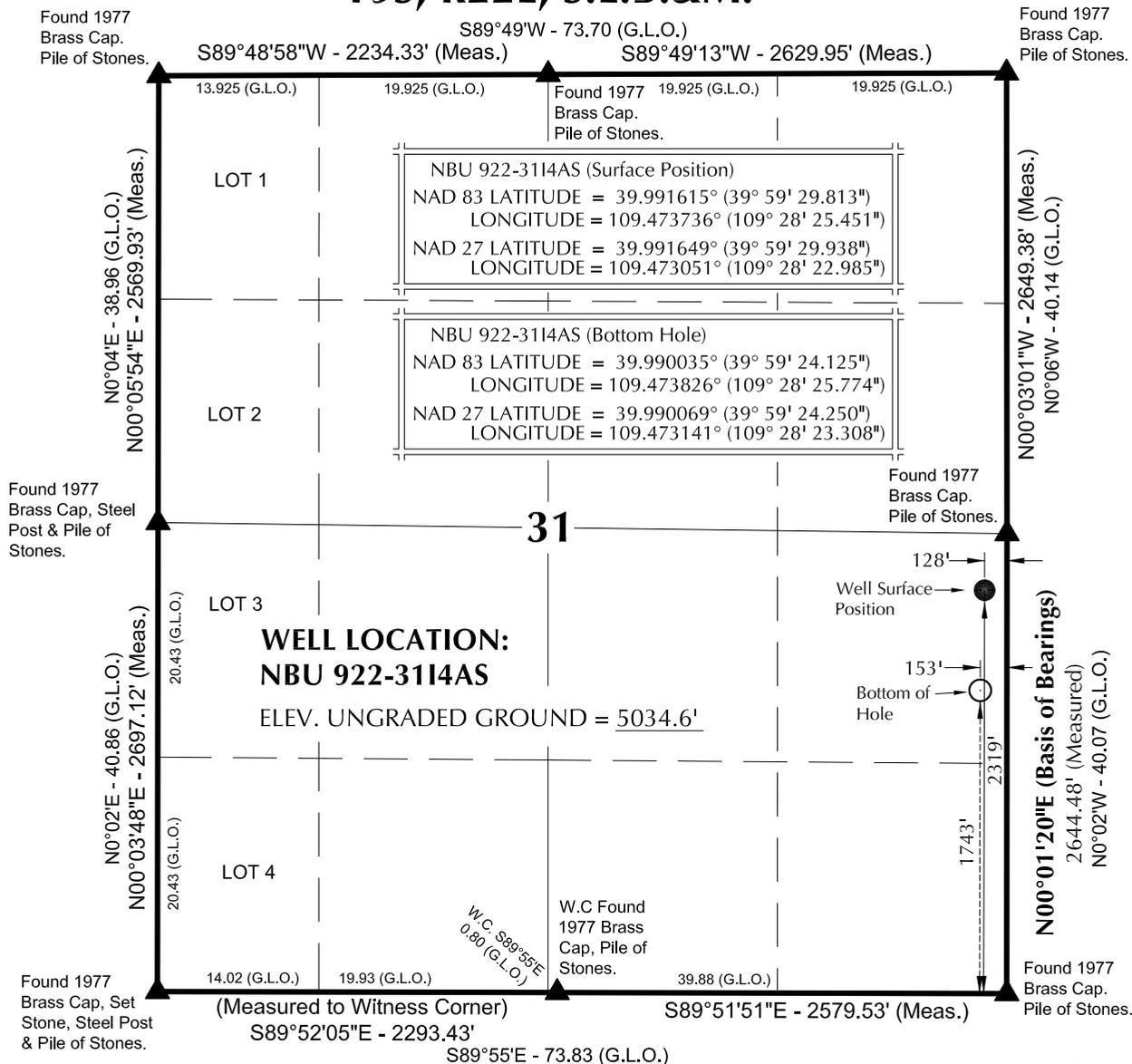
TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 57.2 MILES IN A SOUTHERLY DIRECTION.

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

Date: August 04, 2009

By: 

T9S, R22E, 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. The Bottom of hole bears S02°30'36"W 576.28' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.



Date: August 04, 2009

SURVEYOR'S CERTIFICATE

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

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

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

WELL PAD - NBU 922-311

**NBU 922-3114AS
 WELL PLAT**

**1743' FSL, 153' FEL (Bottom Hole)
 NE ¼ SE ¼ OF SECTION 31, T9S, R22E,
 S.L.B.&M., UTAH COUNTY, UTAH.**



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

TIMBERLINE

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

DATE SURVEYED: 07-16-09	SURVEYED BY: M.S.B.	SHEET NO: 4
DATE DRAWN: 07-17-09	DRAWN BY: M.W.W.	
SCALE: 1" = 1000'		4 OF 13

RECEIVED July 27, 2009

NBU 922-31I4AS

Pad: NBU 922-31I

Surface: 2,319' FSL, 128' FEL (NE/4SE/4)

BHL: 1,743' FSL 153' FEL (NE/4SE/4)

Sec. 31 T9S R22E

Uintah, Utah

Mineral Lease: UO 1530A

ONSHORE ORDER NO. 1

DRILLING PROGRAM REVISED

- 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	1,298'	
Birds Nest	1,617'	Water
Mahogany	2,097'	Water
Wasatch	4,514'	Gas
Mesaverde	7,076'	Gas
MVU2	7,997'	Gas
MVL1	8,591'	Gas
TVD	9,300'	
TD	9,375'	

- 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 9,375' TD, approximately equals 5,549 psi (calculated at 0.59 psi/foot).

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

Date: August 04, 2009

By: _____

Maximum anticipated surface pressure equals approximately 3,458 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. Variations:

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.

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

Date: August 04, 2009

By:

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 associated standard air drilling equipment, wellbore, and reserve pit. The safety distances for drill the surface holes are not typical of an air rig used to drill a productive well in most 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. **Approved by the Utah Division of Oil, Gas and Mining**
Date: August 04, 2009

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.

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

Date: August 04, 2009

By: _____



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 2,300	36.00	J-55	LTC	0.93	1.88	6.96
PRODUCTION	4-1/2"	0 to 9,375	11.60	I-80	LTC	2.07	1.09	2.12

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 12.0 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MASP 3,652 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 12.0 ppg) 0.61 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)
MABHP 5,743 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
SURFACE	Option 2	NOTE: If well will circulate water to surface, option 2 will be utilized					
	LEAD	1,800'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	430	35%	12.60	1.81
	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	4,005'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	380	40%	11.00	3.38
	TAIL	5,370'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,320	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

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

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe	Date: August 04, 2009
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.	By: _____

ADDITIONAL INFORMATION

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

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

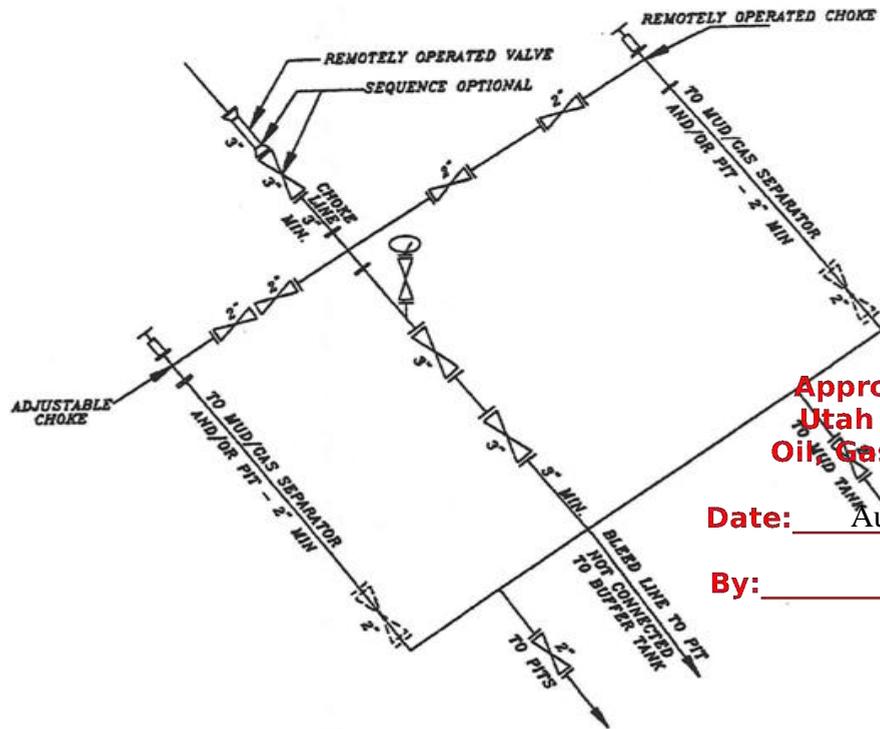
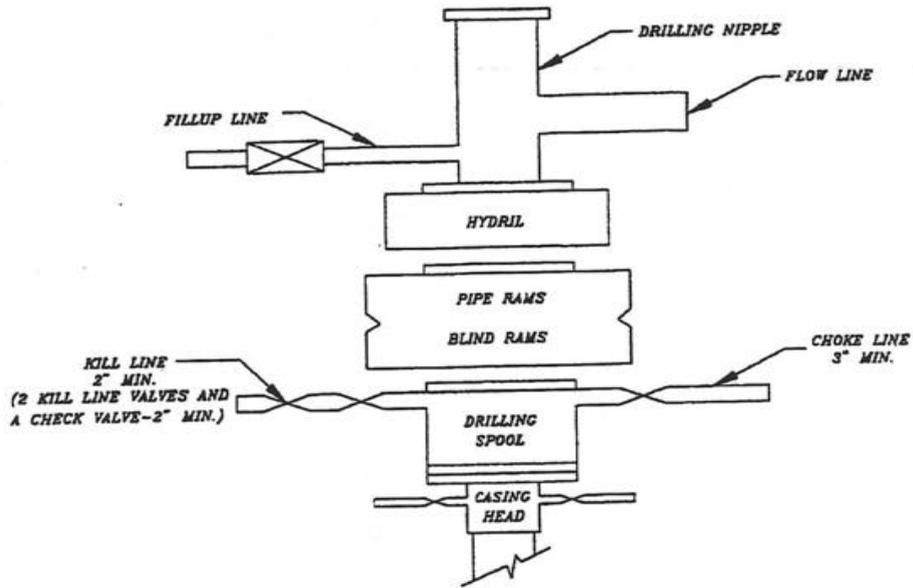
Surveys will be taken at 1,000' minimum intervals.

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

DRILLING ENGINEER: _____ **DATE:** _____
 John Huycke / Emile Goodwin

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

EXHIBIT A
NBU 922-3114AS



Approved by the
Utah Division of
Oil, Gas and Mining

Date: August 04, 2009

By: _____

SCHMATIC DIAGRAM OF 5,000 PSI BOP STACK

Kerr-McGee Oil & Gas Onshore LP

NBU 922-31I3CS

Surface: 2,318' FSL, 138' FEL (NE/4SE/4)
BHL: 1,341' FSL 1,125' FEL (NE/4SE/4)
Minerals: State – UO 1530A

NBU 922-31I4AS

Surface: 2,319' FSL, 128' FEL (NE/4SE/4)
BHL: 1,743' FSL 153' FEL (NE/4SE/4)
Minerals: State – UO 1530A

NBU 922-31J4BS

(FKA NBU 922-31J3AS)
Surface: 2,318' FSL, 158' FEL (NE/4SE/4)
BHL: 1,871' FSL 1,973' FEL (NW/4SE/4)
Minerals: State – UO 1207A

NBU 922-31O1AS

Surface: 2,318' FSL, 148' FEL (NE/4SE/4)
BHL: 1,098' FSL 1,494' FEL (SW/4SE/4)
Minerals: State – UO 1207A

Section 31 Township 9 South Range 22 East
Pad: NBU 922-31I
Uintah, Utah
Surface: State

ONSHORE ORDER NO. 1

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

MULTI-POINT SURFACE USE & OPERATIONS PLAN REVISED

Date: August 04, 2009

By: _____

Directional Drilling:

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

RECEIVED July 27, 2009

1. Existing Roads:

Refer to Topo Map A for directions to the location.

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

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

2. Planned Access Roads:

Approximately ±0.1 mi. of new access road is proposed. Please refer to the attached Topo Map B.

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

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

The access road was centerline flagged during time of staking.

Surfacing material may be necessary, depending upon weather conditions.

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

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

Please refer to Topo Map C.

4. Location of Existing & Proposed Facilities:

The following guidelines will apply if the well is productive.

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

Date: August 04, 2009

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

By: _____

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

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

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

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

5. Location and Type of Water Supply:

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

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

No water well is to be drilled on this lease.

6. Source of Construction Materials:

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

Any gravel will be obtained from a commercial source.

7. Methods of Handling Waste Materials:

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

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

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

A plastic reinforced liner and felt will be used; it will be a minimum of 20 mil thick, with sufficient bedding used to cover any rocks. The liner will overlap the pit walls and be covered with dirt and/or rocks to hold it in place. No trash or scrap that could puncture the liner will be disposed of in the pit. Any spills of oil, gas, salt water, or other noxious fluids will be immediately cleaned up and removed to an approved disposal site.

Approved by the
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Oil, Gas and Mining

Date: August 04, 2009
By: _____

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

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

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

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

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

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

8. Ancillary Facilities:

None are anticipated.

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

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

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

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

Date: August 04, 2009

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

By: _____

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

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

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

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

Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

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

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

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

10. Plans for Reclamation of the Surface:

Producing Location:

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

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

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

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

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

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

Date: August 04, 2009

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

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

Dry Hole/Abandoned Location:

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

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

11. Surface/Mineral Ownership:

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

12. Other Information:

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

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

A Class III archaeological survey report and paleontological survey report was attached with the originally submitted APD.

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

Date: August 04, 2009

By: _____

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

Kathy Schneebeck Dulnoan
Staff Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6226

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

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

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

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

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

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.


Kathy Schneebeck Dulnoan

July 27, 2009
Date

Approved by the
Utah Division of
Oil, Gas and Mining
Date: August 04, 2009
By:

RECEIVED July 27, 2009

ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)

NBU 922-311 PAD

NBU 922-3114AS

NBU 922-3114AS

Plan: Design #1

Standard Planning Report

24 July, 2009

Approved by the
Utah Division of
Oil, Gas and Mining

Date: August 04, 2009

By: _____



Weatherford[®]

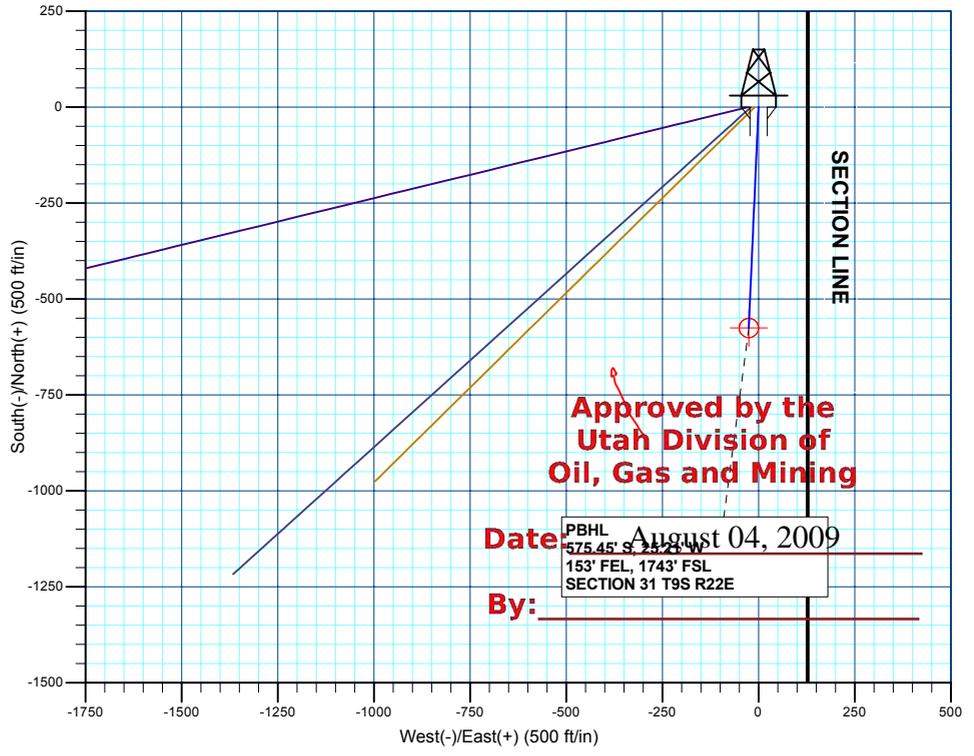
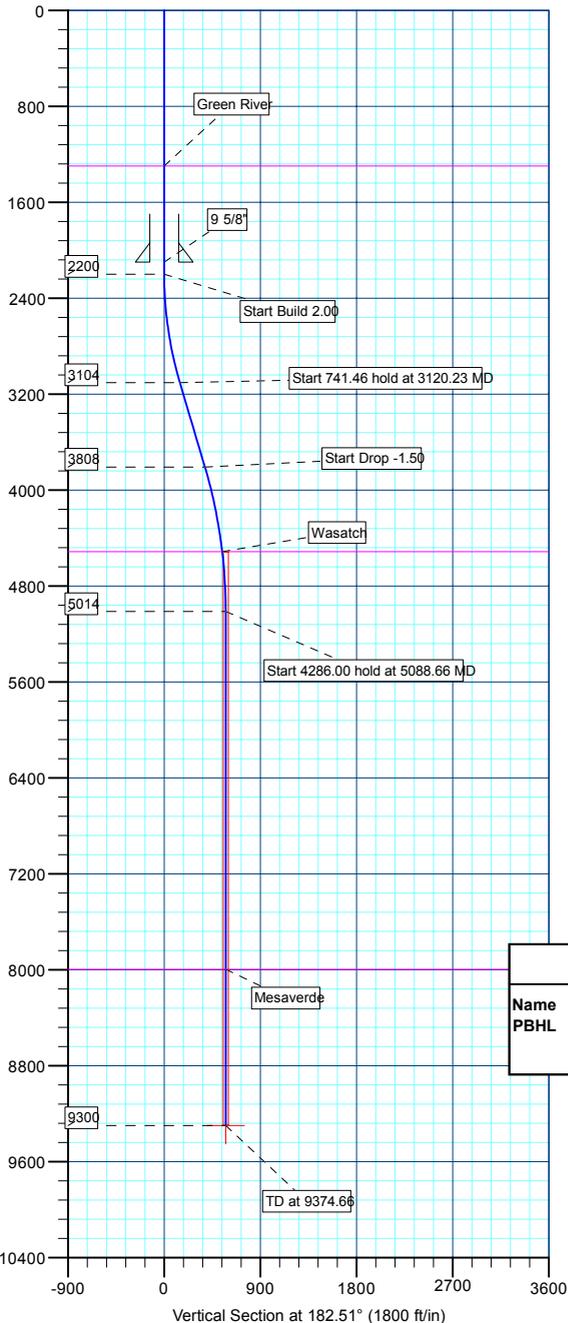


WELL DETAILS: NBU 922-3114AS								
		Ground Level:		5035.00				Slot
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
0.00	0.00	14526666.65	2068112.42	39° 59' 29.936 N	109° 28' 22.984 W			

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1298.00	1298.00	Green River
4514.00	4587.22	Wasatch
7997.00	8071.66	Mesaverde

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3120.23	18.40	182.51	3104.48	-146.39	-6.41	2.00	182.51	146.53		
3861.69	18.40	182.51	3808.02	-380.26	-16.66	0.00	0.00	380.63		
5088.66	0.00	0.00	5014.00	-575.45	-25.21	1.50	180.00	576.00		
9374.66	0.00	0.00	9300.00	-575.45	-25.21	0.00	0.00	576.00		PBHL_NBU 922-3114AS

CASING DETAILS			
TVD	MD	Name	Size
2100.00	2100.00	9 5/8"	9.62



WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
PBHL	9300.00	-575.45	-25.21	14526090.85	2068097.07	39° 59' 24.248 N	109° 28' 23.308 W	Circle (Radius: 25.00)	

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Project	UINTAH COUNTY, UTAH (nad 27),		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 - Western US		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 922-311 PAD, SECTION 31 T9S R22E				
Site Position:		Northing:	14,526,666.65 ft	Latitude:	39° 59' 29.936 N
From:	Lat/Long	Easting:	2,068,112.42 ft	Longitude:	109° 28' 22.984 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.98 °

Well	NBU 922-3114AS					
Well Position	+N/-S	0.00 ft	Northing:	14,526,666.65 ft	Latitude:	39° 59' 29.936 N
	+E/-W	0.00 ft	Easting:	2,068,112.42 ft	Longitude:	109° 28' 22.984 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,035.00 ft

Wellbore	NBU 922-3114AS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	7/23/2009	11.34	65.94	52,525

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	182.51

Plan Sections									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,120.23	18.40	182.51	3,104.48	-146.39	-6.41	2.00	2.00	0.00	182.51
3,861.69	18.40	182.51	3,808.02	-380.26	-16.66	0.00	0.00	0.00	0.00
5,088.66	0.00	0.00	5,014.00	-575.45	-25.21	1.50	-1.50	0.00	180.00
9,374.66	0.00	0.00	9,300.00	-575.45	-25.21	0.00	0.00	0.00	0.00

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

Date: August 04, 2009
 By:

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
Start Build 2.00										
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	2.00	182.51	2,299.98	-1.74	-0.08	1.75	2.00	2.00	0.00	0.00
2,400.00	4.00	182.51	2,399.84	-6.97	-0.31	6.98	2.00	2.00	0.00	0.00
2,500.00	6.00	182.51	2,499.45	-15.68	-0.69	15.69	2.00	2.00	0.00	0.00
2,600.00	8.00	182.51	2,598.70	-27.85	-1.22	27.88	2.00	2.00	0.00	0.00
2,700.00	10.00	182.51	2,697.47	-43.48	-1.91	43.52	2.00	2.00	0.00	0.00
2,800.00	12.00	182.51	2,795.62	-62.54	-2.74	62.60	2.00	2.00	0.00	0.00
2,900.00	14.00	182.51	2,893.06	-85.01	-3.73	85.10	2.00	2.00	0.00	0.00
3,000.00	16.00	182.51	2,989.64	-110.87	-4.86	110.98	2.00	2.00	0.00	0.00
3,100.00	18.00	182.51	3,085.27	-140.08	-6.14	140.21	2.00	2.00	0.00	0.00
Start 741.46 hold at 3120.23 MD										
3,120.23	18.40	182.51	3,104.48	-146.39	-6.41	146.53	2.00	2.00	0.00	0.00
3,200.00	18.40	182.51	3,180.18	-171.55	-7.52	171.72	0.00	0.00	0.00	0.00
3,300.00	18.40	182.51	3,275.06	-203.09	-8.90	203.29	0.00	0.00	0.00	0.00
3,400.00	18.40	182.51	3,369.95	-234.64	-10.28	234.86	0.00	0.00	0.00	0.00
3,500.00	18.40	182.51	3,464.83	-266.18	-11.66	266.43	0.00	0.00	0.00	0.00
3,600.00	18.40	182.51	3,559.72	-297.72	-13.05	298.01	0.00	0.00	0.00	0.00
3,700.00	18.40	182.51	3,654.60	-329.26	-14.43	329.58	0.00	0.00	0.00	0.00
3,800.00	18.40	182.51	3,749.49	-360.81	-15.81	361.15	0.00	0.00	0.00	0.00
Start Drop -1.50										
3,861.69	18.40	182.51	3,808.02	-380.26	-16.66	380.63	0.00	0.00	0.00	0.00
3,900.00	17.83	182.51	3,844.43	-392.17	-17.18	392.54	1.50	-1.50	0.00	0.00
4,000.00	16.33	182.51	3,940.02	-421.51	-18.47	421.91	1.50	-1.50	0.00	0.00
4,100.00	14.83	182.51	4,036.34	-448.34	-19.65	448.77	1.50	-1.50	0.00	0.00
4,200.00	13.33	182.51	4,133.33	-472.64	-20.71	473.10	1.50	-1.50	0.00	0.00
4,300.00	11.83	182.51	4,230.93	-494.40	-21.66	494.88	1.50	-1.50	0.00	0.00
4,400.00	10.33	182.51	4,329.06	-513.60	-22.50	514.09	1.50	-1.50	0.00	0.00
4,500.00	8.83	182.51	4,427.67	-530.23	-23.23	530.73	1.50	-1.50	0.00	0.00
Wasatch										
4,587.22	7.52	182.51	4,514.00	-542.62	-23.78	543.14	1.50	-1.50	0.00	0.00
4,600.00	7.33	182.51	4,526.67	-544.27	-23.85	544.79	1.50	-1.50	0.00	0.00
4,700.00	5.83	182.51	4,626.01	-555.71	-24.35	556.25	1.50	-1.50	0.00	0.00
4,800.00	4.33	182.51	4,725.61	-564.56	-24.74	565.10	1.50	-1.50	0.00	0.00
4,900.00	2.83	182.51	4,825.42	-570.80	-25.01	571.35	1.50	-1.50	0.00	0.00
5,000.00	1.33	182.51	4,925.35	-574.42	-25.17	574.98	1.50	-1.50	0.00	0.00
Start 4286.00 hold at 5088.66 MD										
5,088.66	0.00	0.00	5,014.00	-575.45	-25.21	576.00	1.50	-1.50	0.00	0.00
5,100.00	0.00	0.00	5,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00	0.00

**Approved by the
Utah Division of
Oil, Gas and Mining
Date: August 04, 2009**

By:

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
6,600.00	0.00	0.00	6,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
Mesaverde										
8,071.66	0.00	0.00	7,997.00	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,325.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,425.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,525.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,625.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,725.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,825.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,925.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,025.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,125.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,225.34	-575.45	-25.21	576.00	0.00	0.00	0.00	
PBHL_NBU 922-3114AS										
9,374.66	0.00	0.00	9,300.00	-575.45	-25.21	576.00	0.00	0.00	0.00	

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

Design Targets								Date: August 04, 2009		
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
PBHL_NBU 922-3114, - hit/miss target - Shape - plan hits target center - Circle (radius 25.00)	0.00	0.00	9,300.00	-575.45	-25.21	14,526,090.85	2,068,097.07	39° 59' 24.248 N	109° 28' 23.308 W	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,100.00	2,100.00	9 5/8"	9.62	12.25	

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-3114AS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	North Reference:	True
Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-3114AS		
Design:	Design #1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,298.00	1,298.00	Green River			
4,587.22	4,514.00	Wasatch			
8,071.66	7,997.00	Mesaverde			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,200.00	2,200.00	0.00	0.00	Start Build 2.00	
3,120.23	3,104.48	-146.39	-6.41	Start 741.46 hold at 3120.23 MD	
3,861.69	3,808.02	-380.26	-16.66	Start Drop -1.50	
5,088.66	5,014.00	-575.45	-25.21	Start 4286.00 hold at 5088.66 MD	
9,374.66	9,300.00	-575.45	-25.21	TD at 9374.66	

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

Date: August 04, 2009

By: _____

ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)
NBU 922-311 PAD
NBU 922-3114AS

NBU 922-3114AS
Design #1

Anticollision Report

24 July, 2009

Approved by the
Utah Division of
Oil, Gas and Mining

Date: August 04, 2009

By: _____



Weatherford[®]

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	0.00 to 20,000.00ft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date 7/24/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	9,374.66	Design #1 (NBU 922-3114AS)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NBU 922-311 PAD						
NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET W	6,577.98	1,442.33	364.16	346.75	20.912	CC
NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET W	6,600.00	1,463.22	364.19	346.71	20.836	ES
NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET W	9,374.66	4,241.26	375.70	353.57	16.971	SF
NBU 922-3113CS - NBU 922-3113CS - Design #1	2,200.00	2,200.00	10.09	0.48	1.050	Level 2, CC, ES, SF
NBU 922-311J4BS - NBU 922-311J4BS - Design #1	2,200.00	2,200.00	29.99	20.38	3.121	CC, ES, SF
NBU 922-3101AS - NBU 922-3101AS - Design #1	300.00	300.00	20.17	19.11	18.936	CC, ES
NBU 922-3101AS - NBU 922-3101AS - Design #1	400.00	399.12	22.20	20.70	14.847	SF

Offset Design											NBU 922-311 PAD - NBU 922-311 OFFSET WELL - NBU 922-311 OFFSET WELL - NBU 922-311 OFFSE		Offset Site Error:	0.00 ft
Survey Program: 100-Gyrodata RGS_WB													Offset Well Error:	0.00 ft
Reference				Semi Major Axis				Distance				Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-152.00	-698.22	-371.18	5,122.40					
100.00	100.00	0.00	0.00	0.08	0.00	-152.00	-698.22	-371.18	5,023.63	5,023.54	0.08			
200.00	200.00	0.00	0.00	0.31	0.00	-152.00	-698.22	-371.18	4,924.90	4,924.59	0.31	N/A		
300.00	300.00	0.00	0.00	0.53	0.00	-152.00	-698.22	-371.18	4,826.22	4,825.69	0.53	9,056.599		
400.00	400.00	0.00	0.00	0.76	0.00	-152.00	-698.22	-371.18	4,727.60	4,726.84	0.76	6,239.727		
500.00	500.00	0.00	0.00	0.98	0.00	-152.00	-698.22	-371.18	4,629.04	4,628.06	0.98	4,711.839		
600.00	600.00	0.00	0.00	1.21	0.00	-152.00	-698.22	-371.18	4,530.54	4,529.34	1.21	3,752.954		
700.00	700.00	0.00	0.00	1.43	0.00	-152.00	-698.22	-371.18	4,432.11	4,430.68	1.43	3,095.137		
800.00	800.00	0.00	0.00	1.66	0.00	-152.00	-698.22	-371.18	4,333.75	4,332.10	1.66	2,615.854		
900.00	900.00	0.00	0.00	1.88	0.00	-152.00	-698.22	-371.18	4,235.47	4,233.59	1.88	2,251.124		
1,000.00	1,000.00	0.00	0.00	2.11	0.00	-152.00	-698.22	-371.18	4,137.27	4,135.17	2.11	1,964.276		
1,100.00	1,100.00	0.00	0.00	2.33	0.00	-152.00	-698.22	-371.18	4,039.16	4,036.83	2.33	1,732.784		
1,200.00	1,200.00	0.00	0.00	2.56	0.00	-152.00	-698.22	-371.18	3,941.14	3,938.59	2.56	1,542.045		
1,300.00	1,300.00	0.00	0.00	2.78	0.00	-152.00	-698.22	-371.18	3,843.23	3,840.45	2.78	1,382.180		
1,400.00	1,400.00	0.00	0.00	3.01	0.00	-152.00	-698.22	-371.18	3,745.43	3,742.42	3.01	1,246.265		
1,500.00	1,500.00	0.00	0.00	3.23	0.00	-152.00	-698.22	-371.18	3,647.74	3,644.51	3.23	1,129.301		
1,600.00	1,600.00	0.00	0.00	3.45	0.00	-152.00	-698.22	-371.18	3,550.19	3,546.73	3.45	1,027.593		
1,700.00	1,700.00	0.00	0.00	3.68	0.00	-152.00	-698.22	-371.18	3,452.77	3,449.09	3.68	938.349		
1,800.00	1,800.00	0.00	0.00	3.90	0.00	-152.00	-698.22	-371.18	3,355.51	3,351.60	3.90	859.419		
1,900.00	1,900.00	0.00	0.00	4.13	0.00	-152.00	-698.22	-371.18	3,258.41	3,254.28	4.13	789.123		
2,000.00	2,000.00	0.00	0.00	4.35	0.00	-152.00	-698.22	-371.18	3,161.49	3,157.14	4.35	726.125		

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CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 100-Gyrodata RGS_WB													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,100.00	2,100.00	0.00	0.00	4.58	0.00	-152.00	-698.22	-371.18	3,064.77	3,060.19	4.58	669.356		
2,200.00	2,200.00	0.00	0.00	4.80	0.00	-152.00	-698.22	-371.18	2,968.27	2,963.46	4.80	617.945		
2,300.00	2,299.98	0.00	0.00	5.00	0.00	28.94	-698.22	-371.18	2,871.59	2,866.59	5.00	574.653		
2,400.00	2,399.84	0.00	0.00	5.17	0.00	33.23	-698.22	-371.18	2,774.38	2,769.22	5.16	537.529		
2,500.00	2,499.45	0.00	0.00	5.35	0.00	38.58	-698.22	-371.18	2,676.69	2,671.36	5.33	502.314		
2,600.00	2,598.70	0.00	0.00	5.53	0.00	45.31	-698.22	-371.18	2,578.60	2,573.10	5.51	468.385		
2,700.00	2,697.47	0.00	0.00	5.74	0.00	53.73	-698.22	-371.18	2,480.19	2,474.49	5.70	434.927		
2,800.00	2,795.62	0.00	0.00	5.97	0.00	64.00	-698.22	-371.18	2,381.55	2,375.61	5.94	401.165		
2,900.00	2,893.06	0.00	0.00	6.24	0.00	75.89	-698.22	-371.18	2,282.77	2,276.55	6.22	367.032		
3,000.00	2,989.64	0.00	0.00	6.54	0.00	88.56	-698.22	-371.18	2,183.96	2,177.42	6.54	333.740		
3,100.00	3,085.27	0.00	0.00	6.90	0.00	100.82	-698.22	-371.18	2,085.26	2,078.38	6.88	303.054		
3,120.23	3,104.48	0.00	0.00	6.98	0.00	103.14	-698.22	-371.18	2,065.32	2,058.37	6.95	297.264		
3,200.00	3,180.18	0.00	0.00	7.31	0.00	103.14	-698.22	-371.18	1,986.74	1,979.47	7.27	273.348		
3,300.00	3,275.06	0.00	0.00	7.75	0.00	103.14	-698.22	-371.18	1,888.38	1,880.68	7.70	245.351		
3,400.00	3,369.95	0.00	0.00	8.21	0.00	103.14	-698.22	-371.18	1,790.20	1,782.05	8.15	219.641		
3,500.00	3,464.83	0.00	0.00	8.70	0.00	103.14	-698.22	-371.18	1,692.24	1,683.61	8.63	196.180		
3,600.00	3,559.72	0.00	0.00	9.20	0.00	103.14	-698.22	-371.18	1,594.53	1,585.41	9.12	174.850		
3,700.00	3,654.60	0.00	0.00	9.72	0.00	103.14	-698.22	-371.18	1,497.12	1,487.49	9.63	155.494		
3,800.00	3,749.49	0.00	0.00	10.25	0.00	103.14	-698.22	-371.18	1,400.07	1,389.93	10.15	137.940		
3,861.69	3,808.02	0.00	0.00	10.59	0.00	103.14	-698.22	-371.18	1,340.43	1,329.95	10.48	127.935		
3,900.00	3,844.43	0.00	0.00	10.78	0.00	101.09	-698.22	-371.18	1,303.47	1,292.77	10.70	121.862		
4,000.00	3,940.02	0.00	0.00	11.21	0.00	95.88	-698.22	-371.18	1,207.30	1,196.11	11.19	107.884		
4,100.00	4,036.34	0.00	0.00	11.64	0.00	91.02	-698.22	-371.18	1,111.73	1,100.09	11.64	95.514		
4,200.00	4,133.33	0.00	0.00	12.05	0.00	86.58	-698.22	-371.18	1,017.00	1,004.96	12.04	84.471		
4,300.00	4,230.93	0.00	0.00	12.44	0.00	82.61	-698.22	-371.18	923.43	911.04	12.39	74.513		
4,400.00	4,329.06	0.00	0.00	12.80	0.00	79.15	-698.22	-371.18	831.50	818.80	12.70	65.452		
4,500.00	4,427.67	0.00	0.00	13.14	0.00	76.18	-698.22	-371.18	741.89	728.91	12.98	57.161		
4,600.00	4,526.67	0.00	0.00	13.45	0.00	73.71	-698.22	-371.18	655.63	642.41	13.22	49.579		
4,700.00	4,626.01	0.00	0.00	13.74	0.00	71.70	-698.22	-371.18	574.30	560.86	13.44	42.910		
4,800.00	4,725.61	0.00	0.00	13.99	0.00	70.13	-698.22	-371.18	500.37	486.73	13.64	36.675		
4,900.00	4,825.42	0.00	0.00	14.22	0.00	68.99	-698.22	-371.18	437.69	423.86	13.81	30.655		
5,000.00	4,925.35	0.00	0.00	14.41	0.00	68.27	-698.22	-371.18	391.73	377.74	13.99	27.994		
5,088.66	5,014.00	0.00	0.00	14.56	0.00	-109.54	-698.22	-371.18	370.10	355.98	14.13	26.202		
5,100.00	5,025.34	0.00	0.00	14.57	0.00	-109.54	-698.22	-371.18	368.84	354.69	14.14	26.202		
5,152.38	5,077.72	16.90	16.90	14.66	0.02	-109.54	-698.22	-371.18	367.10	352.86	14.24	25.772		
5,200.00	5,125.34	65.04	65.04	14.73	0.07	-109.53	-698.14	-371.15	367.05	352.67	14.37	25.539		
5,300.00	5,225.34	164.77	164.76	14.89	0.17	-109.48	-697.76	-371.05	366.83	352.19	14.63	25.066		
5,400.00	5,325.34	264.37	264.36	15.05	0.18	-109.42	-697.43	-371.13	366.80	351.99	14.81	24.768		
5,451.78	5,377.12	316.12	316.12	15.13	0.16	-109.42	-697.40	-371.14	366.79	351.91	14.88	24.647		
5,500.00	5,425.34	364.34	364.34	15.21	0.16	-109.42	-697.40	-371.14	366.79	351.83	14.96	24.515		
5,506.70	5,432.04	371.04	371.04	15.22	0.16	-109.42	-697.40	-371.14	366.79	351.82	14.97	24.497		
5,600.00	5,525.34	464.22	464.22	15.37	0.28	-109.41	-697.32	-371.18	366.80	351.56	15.25	24.057		
5,700.00	5,625.34	564.27	564.27	15.54	0.36	-109.36	-697.04	-371.32	366.84	351.35	15.49	23.676		
5,800.00	5,725.34	664.57	664.57	15.70	0.37	-109.34	-696.92	-371.34	366.83	351.15	15.68	23.401		
5,900.00	5,825.34	765.18	765.17	15.87	0.39	-109.28	-696.52	-371.34	366.69	350.82	15.87	23.103		
6,000.00	5,925.34	864.73	864.72	16.04	0.31	-109.24	-696.20	-371.22	366.47	350.51	15.96	22.955		
6,100.00	6,025.34	964.74	964.74	16.21	0.26	-109.22	-696.09	-371.20	366.42	350.33	16.09	22.775		
6,200.00	6,125.34	1,065.60	1,065.60	16.38	0.29	-109.18	-695.74	-371.10	366.20	349.91	16.29	22.473		
6,300.00	6,225.34	1,165.91	1,165.90	16.55	0.33	-109.17	-695.56	-370.72	365.79	349.27	16.51	22.151		
6,400.00	6,325.34	1,266.85	1,266.85	16.73	0.45	-109.15	-695.25	-370.28	365.27	348.46	16.82	21.719		
6,500.00	6,425.34	1,366.88	1,366.86	16.90	0.62	-109.07	-694.55	-369.72	364.52	347.36	17.17	21.236		
6,577.98	6,503.32	1,442.33	1,442.32	17.04	0.72	-108.92	-693.54	-369.70	364.16	346.75	17.41	20.912 CC		

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Offset Design													Offset Site Error:	0.00 ft	
Survey Program: 100-Gyrodata RGS_WB													Offset Well Error:		0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
6,600.00	6,525.34	1,463.22	1,463.20	17.08	0.75	-108.86	-693.19	-369.85	364.19	346.71	17.48	20.836	ES		
6,700.00	6,625.34	1,561.72	1,561.67	17.25	0.85	-108.49	-691.18	-371.28	364.91	347.13	17.78	20.528			
6,800.00	6,725.34	1,661.91	1,661.82	17.43	0.99	-108.08	-688.91	-372.74	365.59	347.48	18.11	20.191			
6,900.00	6,825.34	1,762.98	1,762.85	17.61	1.17	-107.60	-686.18	-374.27	366.20	347.72	18.48	19.814			
7,000.00	6,925.34	1,863.69	1,863.50	17.79	1.24	-107.10	-683.20	-375.48	366.47	347.72	18.75	19.546			
7,100.00	7,025.34	1,962.25	1,962.03	17.97	1.12	-106.77	-681.29	-376.43	366.82	348.00	18.82	19.489			
7,200.00	7,125.34	2,061.14	2,060.91	18.16	0.93	-106.55	-680.16	-377.64	367.66	348.84	18.82	19.535			
7,300.00	7,225.34	2,161.34	2,161.11	18.34	0.74	-106.44	-679.75	-378.73	368.60	349.78	18.82	19.589			
7,400.00	7,325.34	2,261.16	2,260.92	18.52	0.56	-106.50	-680.41	-379.44	369.46	350.64	18.82	19.629			
7,500.00	7,425.34	2,360.01	2,359.76	18.71	0.45	-106.70	-681.92	-380.07	370.51	351.62	18.89	19.613			
7,600.00	7,525.34	2,460.21	2,459.94	18.90	0.42	-106.88	-683.39	-380.99	371.82	352.77	19.05	19.523			
7,700.00	7,625.34	2,560.40	2,560.12	19.08	0.41	-107.08	-685.00	-381.65	372.91	353.69	19.22	19.399			
7,800.00	7,725.34	2,661.01	2,660.71	19.27	0.38	-107.32	-686.78	-382.27	374.02	354.65	19.37	19.307			
7,900.00	7,825.34	2,761.29	2,760.96	19.46	0.31	-107.68	-689.33	-382.39	374.90	355.42	19.48	19.242			
8,000.00	7,925.34	2,862.23	2,861.86	19.65	0.28	-108.06	-691.96	-382.44	375.75	356.12	19.64	19.134			
8,100.00	8,025.34	2,960.56	2,960.16	19.84	0.29	-108.44	-694.50	-382.34	376.47	356.64	19.83	18.983			
8,200.00	8,125.34	3,060.36	3,059.92	20.03	0.29	-108.77	-697.01	-382.90	377.80	357.77	20.02	18.866			
8,300.00	8,225.34	3,162.58	3,162.11	20.22	0.29	-109.14	-699.61	-382.95	378.68	358.46	20.21	18.733			
8,400.00	8,325.34	3,267.89	3,267.40	20.41	0.38	-109.48	-701.73	-382.25	378.72	358.23	20.49	18.482			
8,500.00	8,425.34	3,374.99	3,374.48	20.61	0.52	-109.49	-701.18	-380.45	376.97	356.14	20.83	18.100			
8,600.00	8,525.34	3,472.30	3,471.75	20.80	0.56	-109.37	-699.59	-378.29	374.33	353.27	21.06	17.773			
8,700.00	8,625.34	3,566.67	3,566.10	20.99	0.56	-109.58	-700.51	-376.73	373.10	351.85	21.26	17.552			
8,735.07	8,660.41	3,600.00	3,599.41	21.06	0.57	-109.74	-701.45	-376.33	373.03	351.71	21.32	17.494			
8,800.00	8,725.34	3,663.99	3,663.37	21.19	0.50	-110.08	-703.53	-375.68	373.14	351.76	21.38	17.454			
8,900.00	8,825.34	3,762.97	3,762.29	21.38	0.41	-110.56	-706.65	-374.96	373.55	352.08	21.46	17.403			
9,000.00	8,925.34	3,862.29	3,861.57	21.58	0.35	-111.02	-709.70	-374.50	374.21	352.62	21.59	17.330			
9,100.00	9,025.34	3,961.81	3,961.03	21.77	0.32	-111.51	-712.96	-374.10	375.02	353.27	21.75	17.246			
9,200.00	9,125.34	4,063.28	4,062.44	21.97	0.28	-112.03	-716.42	-373.58	375.81	353.93	21.88	17.173			
9,300.00	9,225.34	4,165.98	4,165.08	22.17	0.23	-112.57	-719.72	-372.40	375.97	353.95	22.01	17.100			
9,374.66	9,300.00	4,241.26	4,240.31	22.32	0.22	-112.96	-722.02	-371.15	375.70	353.57	22.14	16.971	SF		

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

Date: August 04, 2009

By: _____

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-10.09	10.09					
100.00	100.00	100.00	100.00	0.08	0.08	-90.00	0.00	-10.09	10.09	9.92	0.17	60.636		
200.00	200.00	200.00	200.00	0.31	0.31	-90.00	0.00	-10.09	10.09	9.47	0.62	16.376		
300.00	300.00	300.00	300.00	0.53	0.53	-90.00	0.00	-10.09	10.09	9.02	1.07	9.466		
400.00	400.00	400.00	400.00	0.76	0.76	-90.00	0.00	-10.09	10.09	8.57	1.51	6.657		
500.00	500.00	500.00	500.00	0.98	0.98	-90.00	0.00	-10.09	10.09	8.12	1.96	5.134		
600.00	600.00	600.00	600.00	1.21	1.21	-90.00	0.00	-10.09	10.09	7.67	2.41	4.178		
700.00	700.00	700.00	700.00	1.43	1.43	-90.00	0.00	-10.09	10.09	7.22	2.86	3.522		
800.00	800.00	800.00	800.00	1.66	1.66	-90.00	0.00	-10.09	10.09	6.77	3.31	3.044		
900.00	900.00	900.00	900.00	1.88	1.88	-90.00	0.00	-10.09	10.09	6.32	3.76	2.680		
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	-90.00	0.00	-10.09	10.09	5.87	4.21	2.394		
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	-90.00	0.00	-10.09	10.09	5.42	4.66	2.163		
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-90.00	0.00	-10.09	10.09	4.97	5.11	1.973		
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-90.00	0.00	-10.09	10.09	4.52	5.56	1.814		
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-90.00	0.00	-10.09	10.09	4.08	6.01	1.678		
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-90.00	0.00	-10.09	10.09	3.63	6.46	1.561		
1,600.00	1,600.00	1,600.00	1,600.00	3.45	3.45	-90.00	0.00	-10.09	10.09	3.18	6.91	1.460	Level 3	
1,700.00	1,700.00	1,700.00	1,700.00	3.68	3.68	-90.00	0.00	-10.09	10.09	2.73	7.36	1.371	Level 3	
1,800.00	1,800.00	1,800.00	1,800.00	3.90	3.90	-90.00	0.00	-10.09	10.09	2.28	7.81	1.292	Level 3	
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	-90.00	0.00	-10.09	10.09	1.83	8.26	1.221	Level 2	
2,000.00	2,000.00	2,000.00	2,000.00	4.35	4.35	-90.00	0.00	-10.09	10.09	1.38	8.71	1.158	Level 2	
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	-90.00	0.00	-10.09	10.09	0.93	9.16	1.101	Level 2	
2,200.00	2,200.00	2,200.00	2,200.00	4.80	4.80	-90.00	0.00	-10.09	10.09	0.48	9.61	1.050	Level 2, CC, ES, SF	
2,300.00	2,299.98	2,299.58	2,299.54	5.00	5.00	87.03	-1.82	-11.93	11.86	1.86	10.00	1.186	Level 2	
2,400.00	2,399.84	2,398.90	2,398.54	5.17	5.19	86.19	-7.27	-17.45	17.19	6.85	10.35	1.662		
2,500.00	2,499.45	2,497.70	2,496.49	5.35	5.38	85.51	-16.27	-26.56	26.04	15.34	10.71	2.433		
2,600.00	2,598.70	2,595.73	2,592.90	5.53	5.59	85.02	-28.71	-39.14	38.37	27.29	11.09	3.461		
2,700.00	2,697.47	2,692.76	2,687.31	5.74	5.84	84.63	-44.43	-55.05	54.12	42.61	11.51	4.703		
2,800.00	2,795.62	2,788.58	2,779.31	5.97	6.14	84.28	-63.24	-74.09	73.19	61.22	11.97	6.170		
2,900.00	2,893.06	2,883.01	2,868.54	6.24	6.49	83.95	-84.93	-96.04	95.51	83.01	12.50	7.638		
3,000.00	2,989.64	2,978.39	2,957.34	6.54	6.92	83.91	-109.40	-120.80	120.37	107.25	13.11	9.178		
3,100.00	3,085.27	3,075.18	3,047.31	6.90	7.40	85.01	-134.48	-146.19	145.21	131.39	13.82	10.506		
3,120.23	3,104.48	3,094.75	3,065.51	6.98	7.50	85.33	-139.55	-151.32	150.21	136.24	13.98	10.748		
3,200.00	3,180.18	3,171.92	3,137.24	7.31	7.92	86.87	-159.55	-171.56	169.99	155.37	14.63	11.923		
3,300.00	3,275.06	3,268.66	3,227.16	7.75	8.48	88.35	-184.62	-196.93	194.92	179.42	15.50	12.578		
3,400.00	3,369.95	3,365.39	3,317.08	8.21	9.05	89.50	-209.69	-222.30	219.93	203.52	16.42	13.397		
3,500.00	3,464.83	3,462.13	3,407.00	8.70	9.65	90.42	-234.76	-247.68	245.02	227.64	17.38	14.099		
3,600.00	3,559.72	3,558.87	3,496.92	9.20	10.26	91.16	-259.83	-273.05	270.15	251.77	18.38	14.701		
3,700.00	3,654.60	3,655.60	3,586.84	9.72	10.89	91.78	-284.90	-298.42	295.32	275.91	19.40	15.219		
3,800.00	3,749.49	3,752.34	3,676.76	10.25	11.53	92.30	-309.97	-323.79	320.51	300.05	20.46	15.666		
3,861.69	3,808.02	3,812.02	3,732.23	10.59	11.93	92.58	-325.43	-339.44	336.06	314.94	21.12	15.912		
3,900.00	3,844.43	3,849.08	3,766.69	10.78	12.19	92.86	-335.04	-349.16	345.71	324.19	21.52	16.064		
4,000.00	3,940.02	3,945.87	3,856.66	11.21	12.85	93.27	-360.12	-374.55	370.82	348.32	22.50	16.479		
4,100.00	4,036.34	4,042.67	3,946.64	11.64	13.51	93.28	-385.21	-399.94	395.80	372.34	23.46	16.870		
4,200.00	4,133.33	4,139.41	4,036.56	12.05	14.19	92.97	-410.27	-425.31	420.66	396.27	24.39	17.249		
4,300.00	4,230.93	4,236.02	4,126.36	12.44	14.86	92.39	-435.31	-450.65	445.48	420.21	25.27	17.627		
4,400.00	4,329.06	4,332.43	4,215.99	12.80	15.54	91.58	-460.30	-475.94	470.35	444.24	26.11	18.014		
4,500.00	4,427.67	4,428.59	4,305.37	13.14	16.23	90.60	-485.22	-501.16	495.37	468.48	26.89	18.420		
4,600.00	4,526.67	4,524.42	4,394.44	13.45	16.91	89.46	-510.05	-526.29	520.67	493.06	27.62	18.853		
4,700.00	4,626.01	4,619.86	4,483.16	13.74	17.60	88.19	-534.78	-551.32	546.39	518.11	28.28	19.320		
4,800.00	4,725.61	4,714.84	4,571.45	13.99	18.28	86.83	-559.40	-576.23	572.66	543.78	28.88	19.830		
4,900.00	4,825.42	4,809.30	4,659.25	14.22	18.96	85.38	-583.88	-601.01	599.63	570.22	29.41	20.389		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: August 04, 2009
By: _____

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design NBU 922-311 PAD - NBU 922-3113CS - NBU 922-3113CS - Design #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,925.35	4,903.17	4,746.51	14.41	19.64	83.88	-608.20	-625.63	627.43	597.56	29.87	21.003		
5,088.66	5,014.00	4,985.85	4,823.37	14.56	20.24	-94.98	-629.63	-647.31	652.90	622.68	30.23	21.600		
5,100.00	5,025.34	4,996.39	4,833.16	14.57	20.32	-95.20	-632.36	-650.08	656.22	625.96	30.26	21.686		
5,200.00	5,125.34	5,089.35	4,919.57	14.73	21.00	-97.11	-656.45	-674.46	685.87	655.31	30.56	22.440		
5,300.00	5,225.34	5,182.30	5,005.97	14.89	21.68	-98.87	-680.54	-698.84	716.19	685.32	30.87	23.202		
5,400.00	5,325.34	5,275.26	5,092.38	15.05	22.36	-100.48	-704.63	-723.22	747.10	715.93	31.17	23.967		
5,500.00	5,425.34	5,368.21	5,178.78	15.21	23.04	-101.98	-728.72	-747.60	778.53	747.05	31.48	24.732		
5,600.00	5,525.34	5,461.16	5,265.19	15.37	23.72	-103.36	-752.81	-771.98	810.42	778.63	31.79	25.492		
5,700.00	5,625.34	5,554.12	5,351.60	15.54	24.41	-104.64	-776.90	-796.36	842.72	810.61	32.11	26.245		
5,800.00	5,725.34	5,647.07	5,438.00	15.70	25.09	-105.83	-800.99	-820.74	875.38	842.94	32.43	26.990		
5,900.00	5,825.34	5,740.03	5,524.41	15.87	25.78	-106.93	-825.08	-845.12	908.36	875.59	32.76	27.725		
6,000.00	5,925.34	5,832.98	5,610.81	16.04	26.46	-107.96	-849.16	-869.50	941.62	908.52	33.10	28.447		
6,100.00	6,025.34	5,954.76	5,724.44	16.21	27.23	-109.18	-879.93	-900.64	974.48	941.03	33.46	29.128		
6,200.00	6,125.34	6,112.06	5,874.17	16.38	27.99	-110.40	-913.75	-934.86	1,002.49	968.64	33.85	29.619		
6,300.00	6,225.34	6,275.74	6,033.09	16.55	28.64	-111.31	-941.19	-962.63	1,024.43	990.17	34.26	29.899		
6,400.00	6,325.34	6,444.42	6,199.34	16.73	29.16	-111.93	-961.05	-982.73	1,039.90	1,005.21	34.70	29.972		
6,500.00	6,425.34	6,616.44	6,370.57	16.90	29.52	-112.28	-972.40	-994.22	1,048.59	1,013.45	35.13	29.848		
6,600.00	6,525.34	6,771.28	6,525.34	17.08	29.71	-112.35	-974.97	-996.82	1,050.54	1,015.00	35.54	29.562		
6,700.00	6,625.34	6,871.28	6,625.34	17.25	29.80	-112.35	-974.97	-996.82	1,050.54	1,014.67	35.86	29.293		
6,800.00	6,725.34	6,971.28	6,725.34	17.43	29.90	-112.35	-974.97	-996.82	1,050.54	1,014.34	36.19	29.026		
6,900.00	6,825.34	7,071.28	6,825.34	17.61	30.00	-112.35	-974.97	-996.82	1,050.54	1,014.01	36.52	28.763		
7,000.00	6,925.34	7,171.28	6,925.34	17.79	30.10	-112.35	-974.97	-996.82	1,050.54	1,013.68	36.86	28.502		
7,100.00	7,025.34	7,271.28	7,025.34	17.97	30.20	-112.35	-974.97	-996.82	1,050.54	1,013.34	37.19	28.244		
7,200.00	7,125.34	7,371.28	7,125.34	18.16	30.30	-112.35	-974.97	-996.82	1,050.54	1,013.00	37.53	27.989		
7,300.00	7,225.34	7,471.28	7,225.34	18.34	30.41	-112.35	-974.97	-996.82	1,050.54	1,012.66	37.87	27.737		
7,400.00	7,325.34	7,571.28	7,325.34	18.52	30.51	-112.35	-974.97	-996.82	1,050.54	1,012.32	38.22	27.488		
7,500.00	7,425.34	7,671.28	7,425.34	18.71	30.62	-112.35	-974.97	-996.82	1,050.54	1,011.97	38.56	27.242		
7,600.00	7,525.34	7,771.28	7,525.34	18.90	30.73	-112.35	-974.97	-996.82	1,050.54	1,011.63	38.91	26.999		
7,700.00	7,625.34	7,871.28	7,625.34	19.08	30.83	-112.35	-974.97	-996.82	1,050.54	1,011.28	39.26	26.759		
7,800.00	7,725.34	7,971.28	7,725.34	19.27	30.94	-112.35	-974.97	-996.82	1,050.54	1,010.93	39.61	26.521		
7,900.00	7,825.34	8,071.28	7,825.34	19.46	31.06	-112.35	-974.97	-996.82	1,050.54	1,010.57	39.96	26.287		
8,000.00	7,925.34	8,171.28	7,925.34	19.65	31.17	-112.35	-974.97	-996.82	1,050.54	1,010.22	40.32	26.055		
8,100.00	8,025.34	8,271.28	8,025.34	19.84	31.28	-112.35	-974.97	-996.82	1,050.54	1,009.86	40.68	25.827		
8,200.00	8,125.34	8,371.28	8,125.34	20.03	31.40	-112.35	-974.97	-996.82	1,050.54	1,009.50	41.03	25.603		
8,300.00	8,225.34	8,471.28	8,225.34	20.22	31.51	-112.35	-974.97	-996.82	1,050.54	1,009.14	41.40	25.378		
8,400.00	8,325.34	8,571.28	8,325.34	20.41	31.63	-112.35	-974.97	-996.82	1,050.54	1,008.78	41.76	25.158		
8,500.00	8,425.34	8,671.28	8,425.34	20.61	31.75	-112.35	-974.97	-996.82	1,050.54	1,008.42	42.12	24.941		
8,600.00	8,525.34	8,771.28	8,525.34	20.80	31.87	-112.35	-974.97	-996.82	1,050.54	1,008.05	42.49	24.726		
8,700.00	8,625.34	8,871.28	8,625.34	20.99	31.99	-112.35	-974.97	-996.82	1,050.54	1,007.68	42.85	24.515		
8,800.00	8,725.34	8,971.28	8,725.34	21.19	32.11	-112.35	-974.97	-996.82	1,050.54	1,007.31	43.22	24.306		
8,900.00	8,825.34	9,071.28	8,825.34	21.38	32.23	-112.35	-974.97	-996.82	1,050.54	1,006.94	43.59	24.099		
9,000.00	8,925.34	9,171.28	8,925.34	21.58	32.36	-112.35	-974.97	-996.82	1,050.54	1,006.57	43.96	23.896		
9,100.00	9,025.34	9,271.28	9,025.34	21.77	32.48	-112.35	-974.97	-996.82	1,050.54	1,006.20	44.34	23.695		
9,200.00	9,125.34	9,371.28	9,125.34	21.97	32.61	-112.35	-974.97	-996.82	1,050.54	1,005.83	44.71	23.496		
9,300.00	9,225.34	9,471.28	9,225.34	22.17	32.74	-112.35	-974.97	-996.82	1,050.54	1,005.45	45.09	23.301		
9,374.66	9,300.00	9,545.94	9,300.00	22.32	32.83	-112.35	-974.97	-996.82	1,050.54	1,005.17	45.37	23.156		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: August 04, 2009
By: _____

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
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Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-91.39	-0.73	-29.98	29.99				
100.00	100.00	100.00	100.00	0.08	0.08	-91.39	-0.73	-29.98	29.99	29.82	0.17	180.278	
200.00	200.00	200.00	200.00	0.31	0.31	-91.39	-0.73	-29.98	29.99	29.37	0.62	48.688	
300.00	300.00	300.00	300.00	0.53	0.53	-91.39	-0.73	-29.98	29.99	28.92	1.07	28.145	
400.00	400.00	400.00	400.00	0.76	0.76	-91.39	-0.73	-29.98	29.99	28.47	1.51	19.793	
500.00	500.00	500.00	500.00	0.98	0.98	-91.39	-0.73	-29.98	29.99	28.02	1.96	15.264	
600.00	600.00	600.00	600.00	1.21	1.21	-91.39	-0.73	-29.98	29.99	27.57	2.41	12.421	
700.00	700.00	700.00	700.00	1.43	1.43	-91.39	-0.73	-29.98	29.99	27.12	2.86	10.471	
800.00	800.00	800.00	800.00	1.66	1.66	-91.39	-0.73	-29.98	29.99	26.67	3.31	9.051	
900.00	900.00	900.00	900.00	1.88	1.88	-91.39	-0.73	-29.98	29.99	26.22	3.76	7.969	
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	-91.39	-0.73	-29.98	29.99	25.77	4.21	7.119	
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	-91.39	-0.73	-29.98	29.99	25.32	4.66	6.432	
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-91.39	-0.73	-29.98	29.99	24.87	5.11	5.867	
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-91.39	-0.73	-29.98	29.99	24.42	5.56	5.392	
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-91.39	-0.73	-29.98	29.99	23.97	6.01	4.989	
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-91.39	-0.73	-29.98	29.99	23.53	6.46	4.642	
1,600.00	1,600.00	1,600.00	1,600.00	3.45	3.45	-91.39	-0.73	-29.98	29.99	23.08	6.91	4.340	
1,700.00	1,700.00	1,700.00	1,700.00	3.68	3.68	-91.39	-0.73	-29.98	29.99	22.63	7.36	4.075	
1,800.00	1,800.00	1,800.00	1,800.00	3.90	3.90	-91.39	-0.73	-29.98	29.99	22.18	7.81	3.840	
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	-91.39	-0.73	-29.98	29.99	21.73	8.26	3.631	
2,000.00	2,000.00	2,000.00	2,000.00	4.35	4.35	-91.39	-0.73	-29.98	29.99	21.28	8.71	3.444	
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	-91.39	-0.73	-29.98	29.99	20.83	9.16	3.275	
2,200.00	2,200.00	2,200.00	2,200.00	4.80	4.80	-91.39	-0.73	-29.98	29.99	20.38	9.61	3.121	CC, ES, SF
2,300.00	2,299.98	2,298.41	2,298.36	5.00	5.01	88.13	-1.33	-32.44	32.41	22.40	10.01	3.239	
2,400.00	2,399.84	2,396.32	2,395.98	5.17	5.20	92.67	-3.12	-39.77	39.84	29.48	10.36	3.844	
2,500.00	2,499.45	2,493.27	2,492.12	5.35	5.41	97.27	-6.05	-51.81	52.53	41.80	10.73	4.895	
2,600.00	2,598.70	2,588.80	2,586.12	5.53	5.64	100.80	-10.07	-68.29	70.52	59.40	11.12	6.343	
2,700.00	2,697.47	2,682.51	2,677.39	5.74	5.89	103.21	-15.09	-88.88	93.66	82.14	11.53	8.124	
2,800.00	2,795.62	2,774.03	2,765.42	5.97	6.19	104.78	-21.01	-113.16	121.77	109.80	11.98	10.193	
2,900.00	2,893.06	2,863.06	2,849.82	6.24	6.54	105.74	-27.73	-140.68	154.62	142.16	12.47	12.404	
3,000.00	2,989.64	2,949.36	2,930.28	6.54	6.94	106.27	-35.11	-170.98	191.99	178.97	13.01	14.755	
3,100.00	3,085.27	3,032.74	3,006.60	6.90	7.40	106.49	-43.06	-203.58	233.63	220.01	13.61	17.160	
3,120.23	3,104.48	3,049.24	3,021.53	6.98	7.50	106.50	-44.73	-210.41	242.55	228.81	13.74	17.647	
3,200.00	3,180.18	3,118.62	3,083.93	7.31	7.94	107.17	-51.92	-239.88	278.51	264.20	14.11	19.193	
3,300.00	3,275.06	3,207.78	3,164.06	7.75	8.55	107.81	-61.17	-277.84	323.72	308.65	15.07	21.484	
3,400.00	3,369.95	3,296.93	3,244.20	8.21	9.20	108.29	-70.43	-315.80	368.94	353.07	15.87	23.241	
3,500.00	3,464.83	3,386.08	3,324.33	8.70	9.88	108.67	-79.69	-353.76	414.18	397.46	16.72	24.765	
3,600.00	3,559.72	3,475.23	3,404.47	9.20	10.59	108.97	-88.94	-391.71	459.43	441.82	17.61	26.089	
3,700.00	3,654.60	3,564.38	3,484.60	9.72	11.31	109.22	-98.20	-429.67	504.69	486.17	18.53	27.242	
3,800.00	3,749.49	3,653.53	3,564.74	10.25	12.05	109.42	-107.46	-467.63	549.96	530.49	19.47	28.249	
3,861.69	3,808.02	3,708.53	3,614.17	10.59	12.51	109.53	-113.17	-491.04	577.89	557.83	20.06	28.808	
3,900.00	3,844.43	3,742.72	3,644.90	10.78	12.80	109.85	-116.72	-505.60	595.18	574.74	20.44	29.125	
4,000.00	3,940.02	3,832.23	3,725.36	11.21	13.56	110.49	-126.01	-543.71	639.75	618.37	21.37	29.934	
4,100.00	4,036.34	3,922.10	3,806.14	11.64	14.34	110.88	-135.34	-581.97	683.50	661.19	22.31	30.639	
4,200.00	4,133.33	4,012.26	3,887.18	12.05	15.13	111.08	-144.70	-620.36	726.44	703.21	23.23	31.267	
4,300.00	4,230.93	4,102.65	3,968.43	12.44	15.92	111.12	-154.09	-658.84	768.58	744.44	24.14	31.836	
4,400.00	4,329.06	4,193.21	4,049.83	12.80	16.73	111.02	-163.49	-697.40	809.96	784.93	25.03	32.365	
4,500.00	4,427.67	4,283.87	4,131.32	13.14	17.53	110.80	-172.91	-736.00	850.61	824.73	25.88	32.869	
4,600.00	4,526.67	4,374.58	4,212.86	13.45	18.35	110.48	-182.32	-774.62	890.59	863.89	26.70	33.359	
4,700.00	4,626.01	4,465.28	4,294.38	13.74	19.17	110.07	-191.74	-813.24	929.95	902.47	27.48	33.846	
4,800.00	4,725.61	4,555.89	4,375.83	13.99	19.99	109.58	-201.15	-851.82	968.75	940.54	28.21	34.338	
4,900.00	4,825.42	4,646.36	4,457.15	14.22	20.81	109.02	-210.54	-890.34	1,007.07	978.17	28.90	34.844	

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

Date: August 04, 2009

By: _____

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design NBU 922-311 PAD - NBU 922-31J4BS - NBU 922-31J4BS - Design #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,925.35	4,736.63	4,538.29	14.41	21.63	108.40	-219.92	-928.77	1,044.98	1,015.44	29.54	35.370		
5,088.66	5,014.00	4,816.44	4,610.03	14.56	22.36	-69.68	-228.20	-962.75	1,078.31	1,048.24	30.07	35.864		
5,100.00	5,025.34	4,826.64	4,619.19	14.57	22.45	-69.82	-229.26	-967.09	1,082.56	1,052.44	30.12	35.943		
5,200.00	5,125.34	4,916.52	4,699.98	14.73	23.27	-71.03	-238.59	-1,005.36	1,120.31	1,089.72	30.58	36.630		
5,300.00	5,225.34	5,006.41	4,780.78	14.89	24.10	-72.17	-247.93	-1,043.63	1,158.48	1,127.44	31.04	37.321		
5,400.00	5,325.34	5,096.29	4,861.57	15.05	24.92	-73.24	-257.26	-1,081.90	1,197.04	1,165.55	31.49	38.011		
5,500.00	5,425.34	5,186.18	4,942.37	15.21	25.75	-74.25	-266.59	-1,120.17	1,235.95	1,204.02	31.94	38.699		
5,600.00	5,525.34	5,276.07	5,023.16	15.37	26.58	-75.19	-275.92	-1,158.44	1,275.19	1,242.81	32.38	39.382		
5,700.00	5,625.34	5,365.95	5,103.96	15.54	27.41	-76.09	-285.26	-1,196.71	1,314.71	1,281.89	32.82	40.060		
5,800.00	5,725.34	5,455.84	5,184.75	15.70	28.24	-76.93	-294.59	-1,234.98	1,354.49	1,321.24	33.26	40.730		
5,900.00	5,825.34	5,545.72	5,265.55	15.87	29.08	-77.73	-303.92	-1,273.25	1,394.52	1,360.83	33.69	41.392		
6,000.00	5,925.34	5,635.61	5,346.34	16.04	29.91	-78.48	-313.26	-1,311.52	1,434.77	1,400.65	34.12	42.045		
6,100.00	6,025.34	5,725.49	5,427.14	16.21	30.75	-79.19	-322.59	-1,349.79	1,475.22	1,440.67	34.56	42.688		
6,200.00	6,125.34	5,815.38	5,507.93	16.38	31.58	-79.87	-331.92	-1,388.06	1,515.87	1,480.87	34.99	43.320		
6,300.00	6,225.34	5,905.27	5,588.73	16.55	32.42	-80.51	-341.25	-1,426.33	1,556.68	1,521.25	35.43	43.941		
6,400.00	6,325.34	5,995.15	5,669.52	16.73	33.25	-81.12	-350.59	-1,464.60	1,597.65	1,561.79	35.86	44.551		
6,500.00	6,425.34	6,085.04	5,750.31	16.90	34.09	-81.70	-359.92	-1,502.87	1,638.77	1,602.48	36.30	45.150		
6,600.00	6,525.34	6,174.92	5,831.11	17.08	34.93	-82.25	-369.25	-1,541.14	1,680.03	1,643.30	36.73	45.737		
6,700.00	6,625.34	6,264.81	5,911.90	17.25	35.77	-82.78	-378.59	-1,579.41	1,721.42	1,684.25	37.17	46.312		
6,800.00	6,725.34	6,354.70	5,992.70	17.43	36.61	-83.28	-387.92	-1,617.68	1,762.92	1,725.31	37.61	46.875		
6,900.00	6,825.34	6,444.59	6,073.49	17.61	37.45	-83.77	-397.25	-1,655.95	1,804.42	1,768.25	38.04	47.437		
7,000.00	6,925.34	6,534.48	6,154.28	17.79	38.29	-84.25	-406.58	-1,694.22	1,845.92	1,810.19	38.47	48.000		
7,100.00	7,025.34	6,624.37	6,235.07	17.97	39.13	-84.73	-415.91	-1,733.00	1,887.42	1,851.13	38.89	48.563		
7,200.00	7,125.34	6,714.26	6,315.86	18.15	39.97	-85.21	-425.24	-1,771.27	1,928.92	1,892.07	39.31	49.126		
7,300.00	7,225.34	6,804.15	6,396.65	18.33	40.81	-85.69	-434.57	-1,809.15	1,970.42	1,933.01	39.73	49.689		
7,400.00	7,325.34	6,894.04	6,477.44	18.51	41.65	-86.17	-443.90	-1,847.03	2,011.92	1,973.95	40.15	50.252		
7,500.00	7,425.34	6,983.93	6,558.23	18.69	42.49	-86.65	-453.23	-1,884.91	2,053.42	2,014.89	40.57	50.815		
7,600.00	7,525.34	7,073.82	6,639.02	18.87	43.33	-87.13	-462.56	-1,922.79	2,094.92	2,055.83	40.99	51.378		
7,700.00	7,625.34	7,163.71	6,719.81	19.05	44.17	-87.61	-471.89	-1,961.17	2,136.42	2,096.77	41.41	51.941		
7,800.00	7,725.34	7,253.60	6,800.60	19.23	45.01	-88.09	-481.22	-1,999.55	2,177.92	2,137.71	41.83	52.504		
7,900.00	7,825.34	7,343.49	6,881.39	19.41	45.85	-88.57	-490.55	-2,037.93	2,219.42	2,178.65	42.25	53.067		
8,000.00	7,925.34	7,433.38	6,962.18	19.59	46.69	-89.05	-500.00	-2,076.31	2,260.92	2,219.59	42.67	53.630		
8,100.00	8,025.34	7,523.27	7,042.97	19.77	47.53	-89.53	-509.45	-2,114.69	2,302.42	2,260.53	43.09	54.193		
8,200.00	8,125.34	7,613.16	7,123.76	19.95	48.37	-90.01	-518.90	-2,153.07	2,343.92	2,301.47	43.51	54.756		
8,300.00	8,225.34	7,703.05	7,204.55	20.13	49.21	-90.49	-528.35	-2,191.45	2,385.42	2,342.41	43.93	55.319		
8,400.00	8,325.34	7,792.94	7,285.34	20.31	50.05	-90.97	-537.80	-2,229.83	2,426.92	2,383.35	44.35	55.882		
8,500.00	8,425.34	7,882.83	7,366.13	20.49	50.89	-91.45	-547.25	-2,268.21	2,468.42	2,424.29	44.77	56.445		
8,600.00	8,525.34	7,972.72	7,446.92	20.67	51.73	-91.93	-556.70	-2,306.59	2,509.92	2,465.23	45.19	57.008		
8,700.00	8,625.34	8,062.61	7,527.71	20.85	52.57	-92.41	-566.15	-2,344.97	2,551.42	2,506.17	45.61	57.571		
8,800.00	8,725.34	8,152.50	7,608.50	21.03	53.41	-92.89	-575.60	-2,383.35	2,592.92	2,547.11	46.03	58.134		
8,900.00	8,825.34	8,242.39	7,689.29	21.21	54.25	-93.37	-585.05	-2,421.73	2,634.42	2,588.05	46.45	58.697		
9,000.00	8,925.34	8,332.28	7,770.08	21.39	55.09	-93.85	-594.50	-2,460.11	2,675.92	2,628.99	46.87	59.260		
9,100.00	9,025.34	8,422.17	7,850.87	21.57	55.93	-94.33	-603.95	-2,498.49	2,717.42	2,669.93	47.29	59.823		
9,200.00	9,125.34	8,512.06	7,931.66	21.75	56.77	-94.81	-613.40	-2,536.87	2,758.92	2,710.87	47.71	60.386		
9,300.00	9,225.34	8,601.95	8,012.45	21.93	57.61	-95.29	-622.85	-2,575.25	2,800.42	2,751.81	48.13	60.949		
9,374.66	9,300.00	8,691.84	8,093.24	22.11	58.45	-95.77	-632.30	-2,613.63	2,841.92	2,792.75	48.55	61.512		

**Approved by the
Utah Division of
Oil, Gas and Mining**
Date: August 04, 2009
By: _____

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design NBU 922-311 PAD - NBU 922-3101AS - NBU 922-3101AS - Design #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-91.03	-0.36	-20.17	20.17					
100.00	100.00	100.00	100.00	0.08	0.08	-91.03	-0.36	-20.17	20.17	20.01	0.17	121.292		
200.00	200.00	200.00	200.00	0.31	0.31	-91.03	-0.36	-20.17	20.17	19.56	0.62	32.758		
300.00	300.00	300.00	300.00	0.53	0.53	-91.03	-0.36	-20.17	20.17	19.11	1.07	18.936 CC, ES		
400.00	400.00	399.12	399.08	0.76	0.74	-95.40	-2.09	-22.08	22.20	20.70	1.49	14.847 SF		
500.00	500.00	497.71	497.36	0.98	0.96	-104.58	-7.22	-27.76	28.80	26.87	1.94	14.882		
600.00	600.00	595.26	594.08	1.21	1.21	-112.87	-15.64	-37.07	40.66	38.27	2.40	16.970		
700.00	700.00	691.27	688.54	1.43	1.54	-118.60	-27.15	-49.80	57.86	55.00	2.87	20.188		
800.00	800.00	785.33	780.12	1.66	1.94	-122.29	-41.49	-65.67	80.18	76.84	3.34	23.991		
900.00	900.00	877.04	868.30	1.88	2.41	-124.69	-58.38	-84.35	107.37	103.54	3.82	28.084		
1,000.00	1,000.00	966.08	952.66	2.11	2.95	-126.30	-77.47	-105.47	139.16	134.85	4.31	32.310		
1,100.00	1,100.00	1,052.21	1,032.91	2.33	3.54	-127.42	-98.42	-128.65	175.32	170.53	4.79	36.583		
1,200.00	1,200.00	1,135.23	1,108.86	2.56	4.18	-128.22	-120.90	-153.51	215.61	210.33	5.28	40.857		
1,300.00	1,300.00	1,218.26	1,183.37	2.78	4.88	-128.84	-145.45	-180.67	259.61	253.83	5.78	44.927		
1,400.00	1,400.00	1,307.57	1,263.14	3.01	5.67	-129.32	-172.39	-210.47	304.54	298.28	6.27	48.608		
1,500.00	1,500.00	1,396.88	1,342.91	3.23	6.47	-129.68	-199.33	-240.27	349.49	342.73	6.76	51.690		
1,600.00	1,600.00	1,486.19	1,422.67	3.45	7.27	-129.96	-226.27	-270.08	394.44	387.18	7.26	54.296		
1,700.00	1,700.00	1,575.51	1,502.44	3.68	8.08	-130.18	-253.21	-299.88	439.40	431.63	7.77	56.531		
1,800.00	1,800.00	1,664.82	1,582.21	3.90	8.89	-130.36	-280.15	-329.68	484.36	476.08	8.28	58.464		
1,900.00	1,900.00	1,754.13	1,661.97	4.13	9.71	-130.51	-307.09	-359.48	529.33	520.53	8.80	60.150		
2,000.00	2,000.00	1,843.44	1,741.74	4.35	10.52	-130.63	-334.03	-389.28	574.30	564.98	9.32	61.632		
2,100.00	2,100.00	1,932.76	1,821.51	4.58	11.34	-130.74	-360.97	-419.09	619.27	609.43	9.84	62.942		
2,200.00	2,200.00	2,022.07	1,901.27	4.80	12.15	-130.83	-387.91	-448.89	664.24	653.88	10.36	64.109		
2,300.00	2,299.98	2,111.91	1,981.52	5.00	12.98	45.98	-415.02	-478.87	708.13	697.24	10.90	64.978		
2,400.00	2,399.84	2,202.75	2,062.65	5.17	13.81	45.57	-442.42	-509.18	749.84	738.43	11.41	65.697		
2,500.00	2,499.45	2,294.47	2,144.57	5.35	14.65	45.37	-470.08	-539.79	789.34	777.40	11.94	66.094		
2,600.00	2,598.70	2,386.97	2,227.17	5.53	15.50	45.36	-497.98	-570.65	826.62	814.14	12.49	66.204		
2,700.00	2,697.47	2,480.12	2,310.37	5.74	16.35	45.51	-526.08	-601.73	861.71	848.66	13.05	66.052		
2,800.00	2,795.62	2,573.81	2,394.05	5.97	17.21	45.81	-554.34	-633.00	894.62	881.00	13.63	65.910		
2,900.00	2,893.06	2,667.94	2,478.11	6.24	18.08	46.25	-582.74	-664.40	925.42	911.18	14.24	64.990		
3,000.00	2,889.64	2,762.38	2,562.46	6.54	18.95	46.82	-611.22	-695.92	954.15	939.26	14.89	64.084		
3,100.00	3,085.27	2,857.02	2,646.99	6.90	19.82	47.50	-639.77	-727.50	980.89	965.30	15.59	62.925		
3,120.23	3,104.48	2,876.18	2,664.10	6.98	19.99	47.66	-645.55	-733.89	986.06	970.33	15.74	62.661		
3,200.00	3,180.18	2,951.74	2,731.59	7.31	20.69	48.56	-668.34	-759.10	1,006.44	990.10	16.44	61.984		
3,300.00	3,275.06	3,046.46	2,816.18	7.75	21.56	49.64	-696.92	-790.71	1,032.31	1,015.18	17.13	60.261		
3,400.00	3,369.95	3,141.18	2,900.78	8.21	22.43	50.67	-725.49	-822.32	1,058.52	1,040.55	17.96	58.925		
3,500.00	3,464.83	3,235.90	2,985.37	8.70	23.30	51.65	-754.06	-853.92	1,085.04	1,066.20	18.83	57.610		
3,600.00	3,559.72	3,330.62	3,069.97	9.20	24.18	52.59	-782.63	-885.53	1,111.85	1,092.11	19.74	56.329		
3,700.00	3,654.60	3,425.34	3,154.57	9.72	25.05	53.48	-811.20	-917.14	1,138.94	1,118.27	20.67	55.090		
3,800.00	3,749.49	3,520.06	3,239.16	10.25	25.92	54.33	-839.77	-948.74	1,166.28	1,144.64	21.64	53.900		
3,861.69	3,808.02	3,578.49	3,291.35	10.59	26.46	54.84	-857.40	-968.24	1,183.26	1,161.02	22.25	53.191		
3,900.00	3,844.43	3,614.77	3,323.75	10.78	26.79	55.28	-868.34	-980.35	1,193.96	1,171.34	22.62	52.794		
4,000.00	3,940.02	3,709.42	3,408.29	11.21	27.67	56.34	-896.89	-1,011.93	1,222.99	1,199.44	23.54	51.949		
4,100.00	4,036.34	3,803.94	3,492.70	11.64	28.54	57.30	-925.40	-1,043.47	1,253.54	1,229.08	24.46	51.255		
4,200.00	4,133.33	3,898.25	3,576.93	12.05	29.41	58.16	-953.85	-1,074.94	1,285.51	1,260.16	25.35	50.706		
4,300.00	4,230.93	3,992.30	3,660.93	12.44	30.27	58.92	-982.22	-1,106.32	1,318.85	1,292.62	26.22	50.294		
4,400.00	4,329.06	4,086.01	3,744.63	12.80	31.13	59.59	-1,010.49	-1,137.59	1,353.47	1,326.41	27.06	50.012		
4,500.00	4,427.67	4,179.34	3,827.98	13.14	31.99	60.17	-1,038.64	-1,168.73	1,389.35	1,361.48	27.87	49.853		
4,600.00	4,526.67	4,341.55	3,974.13	13.45	33.27	60.65	-1,085.79	-1,220.89	1,425.30	1,396.43	28.86	49.381		
4,700.00	4,626.01	4,582.66	4,199.41	13.74	34.63	61.05	-1,143.22	-1,284.42	1,454.28	1,424.33	29.95	48.559		
4,800.00	4,725.61	4,835.94	4,444.35	13.99	35.66	61.39	-1,186.11	-1,331.87	1,474.45	1,443.57	30.88	47.743		
4,900.00	4,825.42	5,097.30	4,702.89	14.22	36.32	61.68	-1,211.09	-1,359.51	1,485.22	1,453.59	31.63	46.960		

Approved by the
Utah Division of
Oil, Gas and Mining
 Date: August 04, 2009
 By: _____

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

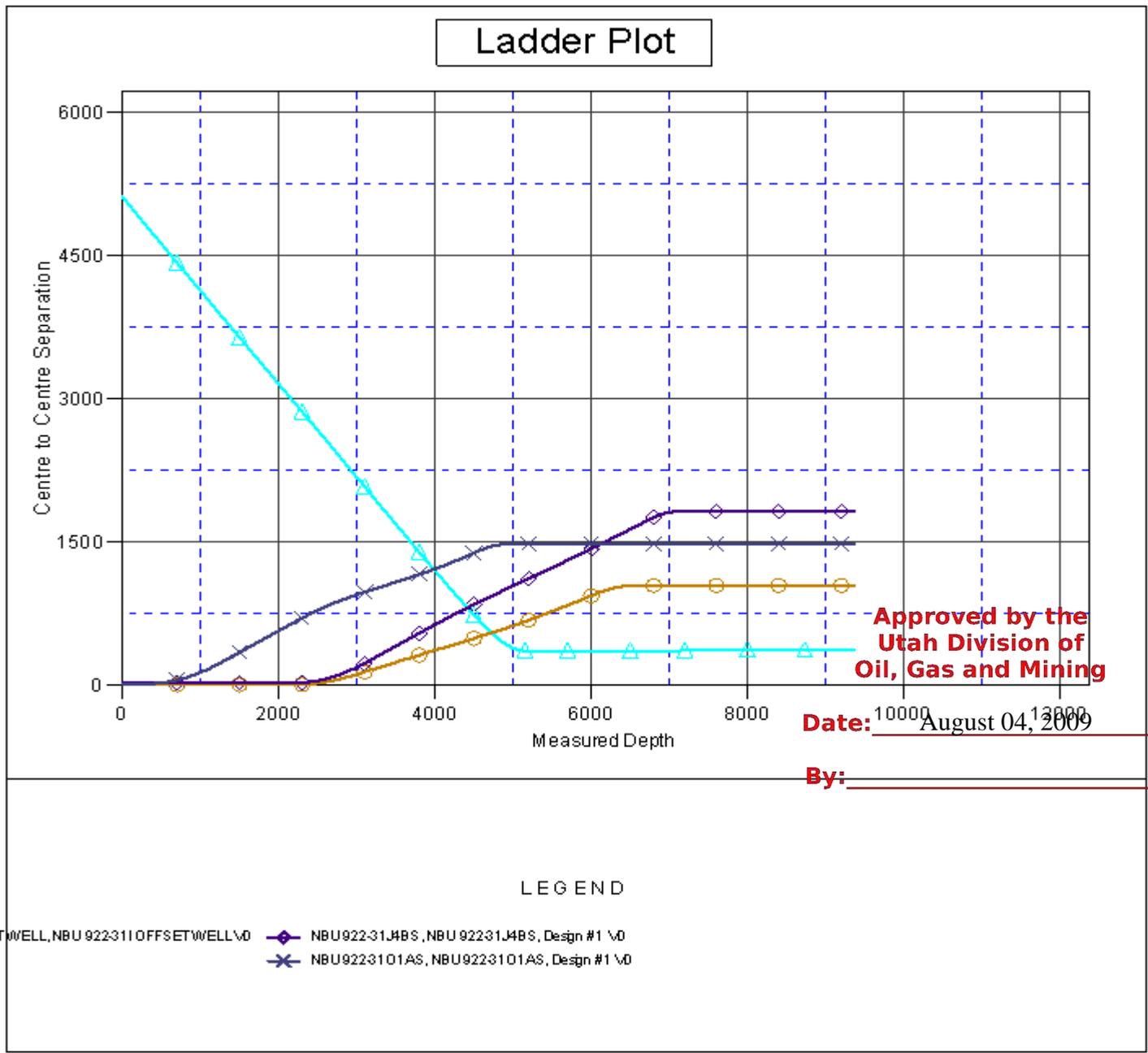
Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design NBU 922-311 PAD - NBU 922-3101AS - NBU 922-3101AS - Design #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,925.35	5,320.00	4,925.35	14.41	36.56	61.90	-1,216.79	-1,365.81	1,486.58	1,454.48	32.11	46.299		
5,088.66	5,014.00	5,408.65	5,014.00	14.56	36.61	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.81	32.30	46.016		
5,100.00	5,025.34	5,419.99	5,025.34	14.57	36.61	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.78	32.32	45.974		
5,200.00	5,125.34	5,519.99	5,125.34	14.73	36.67	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.51	32.59	45.597		
5,300.00	5,225.34	5,619.99	5,225.34	14.89	36.73	-115.57	-1,216.79	-1,365.81	1,486.10	1,453.24	32.86	45.221		
5,400.00	5,325.34	5,719.99	5,325.34	15.05	36.79	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.96	33.14	44.845		
5,500.00	5,425.34	5,819.99	5,425.34	15.21	36.85	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.68	33.42	44.471		
5,600.00	5,525.34	5,919.99	5,525.34	15.37	36.91	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.40	33.70	44.099		
5,700.00	5,625.34	6,019.99	5,625.34	15.54	36.97	-115.57	-1,216.79	-1,365.81	1,486.10	1,452.12	33.98	43.728		
5,800.00	5,725.34	6,119.99	5,725.34	15.70	37.04	-115.57	-1,216.79	-1,365.81	1,486.10	1,451.83	34.27	43.359		
5,900.00	5,825.34	6,219.99	5,825.34	15.87	37.10	-115.57	-1,216.79	-1,365.81	1,486.10	1,451.53	34.57	42.993		
6,000.00	5,925.34	6,319.99	5,925.34	16.04	37.17	-115.57	-1,216.79	-1,365.81	1,486.10	1,451.24	34.86	42.628		
6,100.00	6,025.34	6,419.99	6,025.34	16.21	37.24	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.94	35.16	42.266		
6,200.00	6,125.34	6,519.99	6,125.34	16.38	37.31	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.64	35.46	41.907		
6,300.00	6,225.34	6,619.99	6,225.34	16.55	37.38	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.33	35.77	41.550		
6,400.00	6,325.34	6,719.99	6,325.34	16.73	37.45	-115.57	-1,216.79	-1,365.81	1,486.10	1,450.03	36.07	41.196		
6,500.00	6,425.34	6,819.99	6,425.34	16.90	37.52	-115.57	-1,216.79	-1,365.81	1,486.10	1,449.72	36.38	40.845		
6,600.00	6,525.34	6,919.99	6,525.34	17.08	37.60	-115.57	-1,216.79	-1,365.81	1,486.10	1,449.40	36.70	40.496		
6,700.00	6,625.34	7,019.99	6,625.34	17.25	37.67	-115.57	-1,216.79	-1,365.81	1,486.10	1,449.09	37.01	40.151		
6,800.00	6,725.34	7,119.99	6,725.34	17.43	37.75	-115.57	-1,216.79	-1,365.81	1,486.10	1,448.77	37.33	39.809		
6,900.00	6,825.34	7,219.99	6,825.34	17.61	37.83	-115.57	-1,216.79	-1,365.81	1,486.10	1,448.45	37.65	39.469		
7,000.00	6,925.34	7,319.99	6,925.34	17.79	37.90	-115.57	-1,216.79	-1,365.81	1,486.10	1,448.12	37.98	39.133		
7,100.00	7,025.34	7,419.99	7,025.34	17.97	37.98	-115.57	-1,216.79	-1,365.81	1,486.10	1,447.80	38.30	38.801		
7,200.00	7,125.34	7,519.99	7,125.34	18.16	38.07	-115.57	-1,216.79	-1,365.81	1,486.10	1,447.47	38.63	38.471		
7,300.00	7,225.34	7,619.99	7,225.34	18.34	38.15	-115.57	-1,216.79	-1,365.81	1,486.10	1,447.14	38.96	38.145		
7,400.00	7,325.34	7,719.99	7,325.34	18.52	38.23	-115.57	-1,216.79	-1,365.81	1,486.10	1,446.81	39.29	37.822		
7,500.00	7,425.34	7,819.99	7,425.34	18.71	38.32	-115.57	-1,216.79	-1,365.81	1,486.10	1,446.47	39.63	37.502		
7,600.00	7,525.34	7,919.99	7,525.34	18.90	38.40	-115.57	-1,216.79	-1,365.81	1,486.10	1,446.14	39.96	37.186		
7,700.00	7,625.34	8,019.99	7,625.34	19.08	38.49	-115.57	-1,216.79	-1,365.81	1,486.10	1,445.80	40.30	36.870		
7,800.00	7,725.34	8,119.99	7,725.34	19.27	38.58	-115.57	-1,216.79	-1,365.81	1,486.10	1,445.46	40.64	36.553		
7,900.00	7,825.34	8,219.99	7,825.34	19.46	38.67	-115.57	-1,216.79	-1,365.81	1,486.10	1,445.11	40.99	36.237		
8,000.00	7,925.34	8,319.99	7,925.34	19.65	38.76	-115.57	-1,216.79	-1,365.81	1,486.10	1,444.77	41.33	35.924		
8,100.00	8,025.34	8,419.99	8,025.34	19.84	38.85	-115.57	-1,216.79	-1,365.81	1,486.10	1,444.42	41.68	35.615		
8,200.00	8,125.34	8,519.99	8,125.34	20.03	38.94	-115.57	-1,216.79	-1,365.81	1,486.10	1,444.07	42.03	35.309		
8,300.00	8,225.34	8,619.99	8,225.34	20.22	39.03	-115.57	-1,216.79	-1,365.81	1,486.10	1,443.72	42.38	35.007		
8,400.00	8,325.34	8,719.99	8,325.34	20.41	39.13	-115.57	-1,216.79	-1,365.81	1,486.10	1,443.37	42.73	34.777		
8,500.00	8,425.34	8,819.99	8,425.34	20.61	39.22	-115.57	-1,216.79	-1,365.81	1,486.10	1,443.01	43.09	34.491		
8,600.00	8,525.34	8,919.99	8,525.34	20.80	39.32	-115.57	-1,216.79	-1,365.81	1,486.10	1,442.66	43.44	34.209		
8,700.00	8,625.34	9,019.99	8,625.34	20.99	39.42	-115.57	-1,216.79	-1,365.81	1,486.10	1,442.30	43.80	33.930		
8,800.00	8,725.34	9,119.99	8,725.34	21.19	39.52	-115.57	-1,216.79	-1,365.81	1,486.10	1,441.94	44.16	33.654		
8,900.00	8,825.34	9,219.99	8,825.34	21.38	39.62	-115.57	-1,216.79	-1,365.81	1,486.10	1,441.58	44.52	33.381		
9,000.00	8,925.34	9,319.99	8,925.34	21.58	39.72	-115.57	-1,216.79	-1,365.81	1,486.10	1,441.22	44.88	33.112		
9,100.00	9,025.34	9,419.99	9,025.34	21.77	39.82	-115.57	-1,216.79	-1,365.81	1,486.10	1,440.85	45.25	32.845		
9,200.00	9,125.34	9,519.99	9,125.34	21.97	39.92	-115.57	-1,216.79	-1,365.81	1,486.10	1,440.49	45.61	32.582		
9,300.00	9,225.34	9,619.99	9,225.34	22.17	40.03	-115.57	-1,216.79	-1,365.81	1,486.10	1,440.12	45.98	32.322		
9,374.66	9,300.00	9,694.65	9,300.00	22.32	40.11	-115.57	-1,216.79	-1,365.81	1,486.10	1,439.85	46.25	32.131		

Approved by the
Utah Division of
Oil, Gas and Mining
 Date: August 04, 2009
 By: _____

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

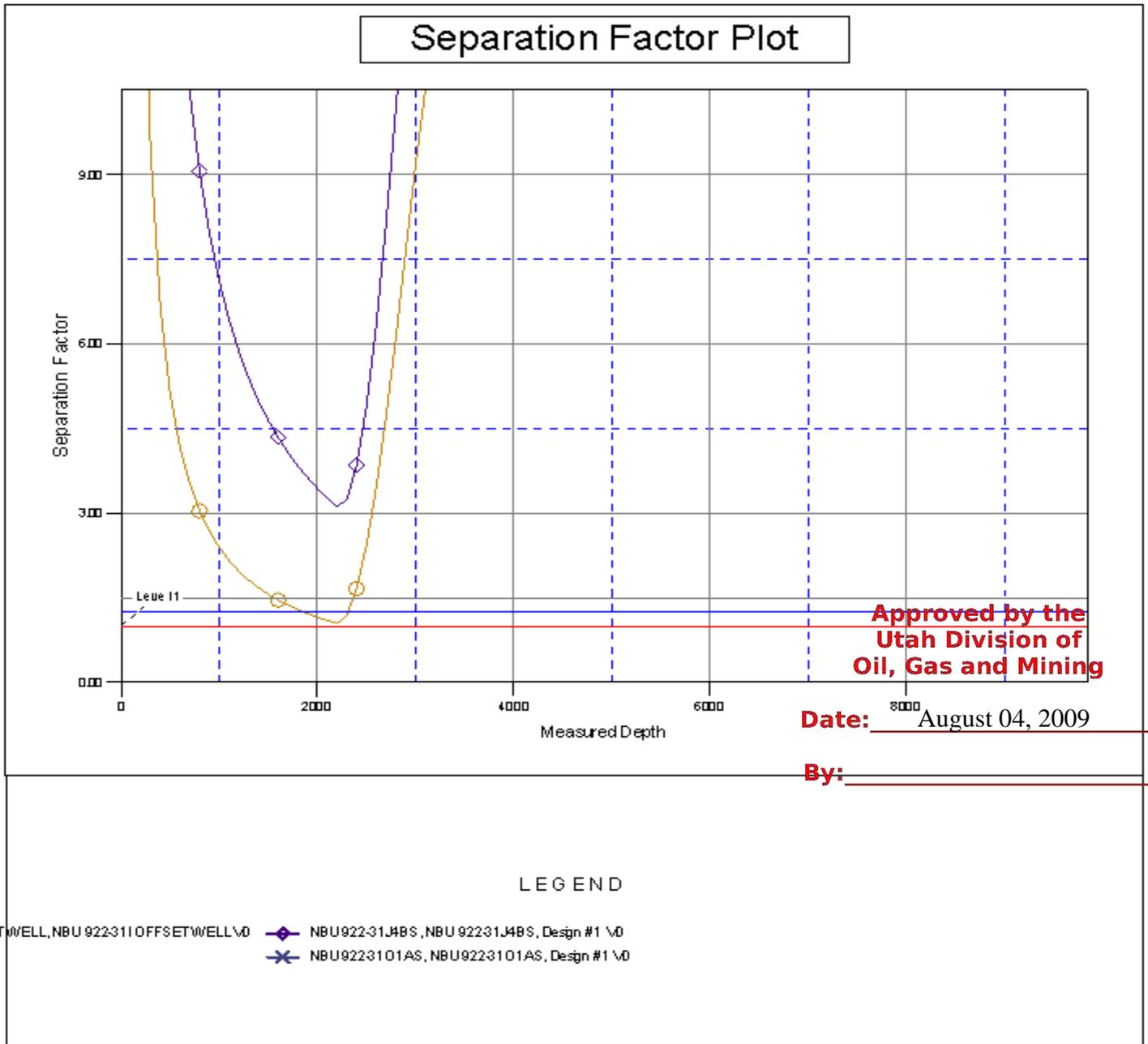
Reference Depths are relative to WELL @ 5061.00ft (Original Well Elev) Coordinates are relative to: NBU 922-3114AS
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 0.98°



RECEIVED July 27, 2009

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Reference Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5061.00ft (Original Well Elev) Coordinates are relative to: NBU 922-3114AS
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 0.98°



RECEIVED July 27, 2009



July 27, 2009

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

Re: Directional Drilling R649-3-11
NBU 922-3114AS
T9S-R22E
Section 31: NESE (Surf), NESE (Bottom)
Surface: 2319' FSL, 128' FEL
Bottom Hole: 1743' FSL, 153' FEL
Uintah County, Utah

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

Date: August 04, 2009

By:

Dear Ms. Mason:

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

- Kerr-McGee's NBU 922-3114AS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

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

Sincerely,

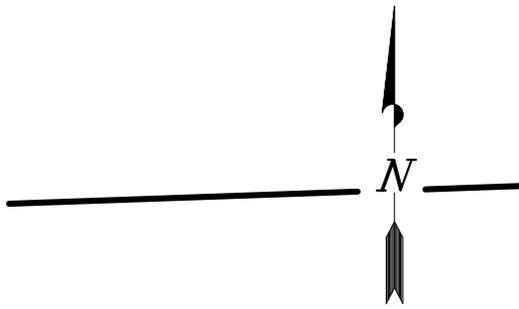
KERR-McGEE OIL & GAS ONSHORE LP

Jason Rayburn
Landman

RECEIVED July 27, 2009

LATITUDE & LONGITUDE		
Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'29.802" 39.991612°	109°28'25.836" 109.473843°
NBU 922-31O1AS	39°59'29.806" 39.991613°	109°28'25.708" 109.473808°
NBU 922-31I3CS	39°59'29.809" 39.991614°	109°28'25.579" 109.473772°
NBU 922-31I4AS	39°59'29.813" 39.991615°	109°28'25.451" 109.473736°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'25.429" 39.990397°	109°28'49.151" 109.480320°
NBU 922-31O1AS	39°59'17.782" 39.988273°	109°28'43.001" 109.478611°
NBU 922-31I3CS	39°59'20.174" 39.988937°	109°28'38.260" 109.477295°
NBU 922-31I4AS	39°59'24.125" 39.990035°	109°28'25.774" 109.473826°



LATITUDE & LONGITUDE		
Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'29.928" 39.991647°	109°28'23.370" 109.473158°
NBU 922-31O1AS	39°59'29.931" 39.991648°	109°28'23.242" 109.473123°
NBU 922-31I3CS	39°59'29.935" 39.991649°	109°28'23.113" 109.473087°
NBU 922-31I4AS	39°59'29.938" 39.991649°	109°28'22.985" 109.473051°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
NBU 922-31J4BS	39°59'25.555" 39.990432°	109°28'46.684" 109.479634°
NBU 922-31O1AS	39°59'17.907" 39.988308°	109°28'40.534" 109.477926°
NBU 922-31I3CS	39°59'20.300" 39.988972°	109°28'35.794" 109.476609°
NBU 922-31I4AS	39°59'24.250" 39.990069°	109°28'23.308" 109.473141°

BASIS OF BEARINGS IS THE EAST LINE OF THE SE 1/4 OF SECTION 31, T9S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°01'20"E.

NBU 922-31J4BS
NBU 922-31O1AS
NBU 922-31I3CS
NBU 922-31I4AS

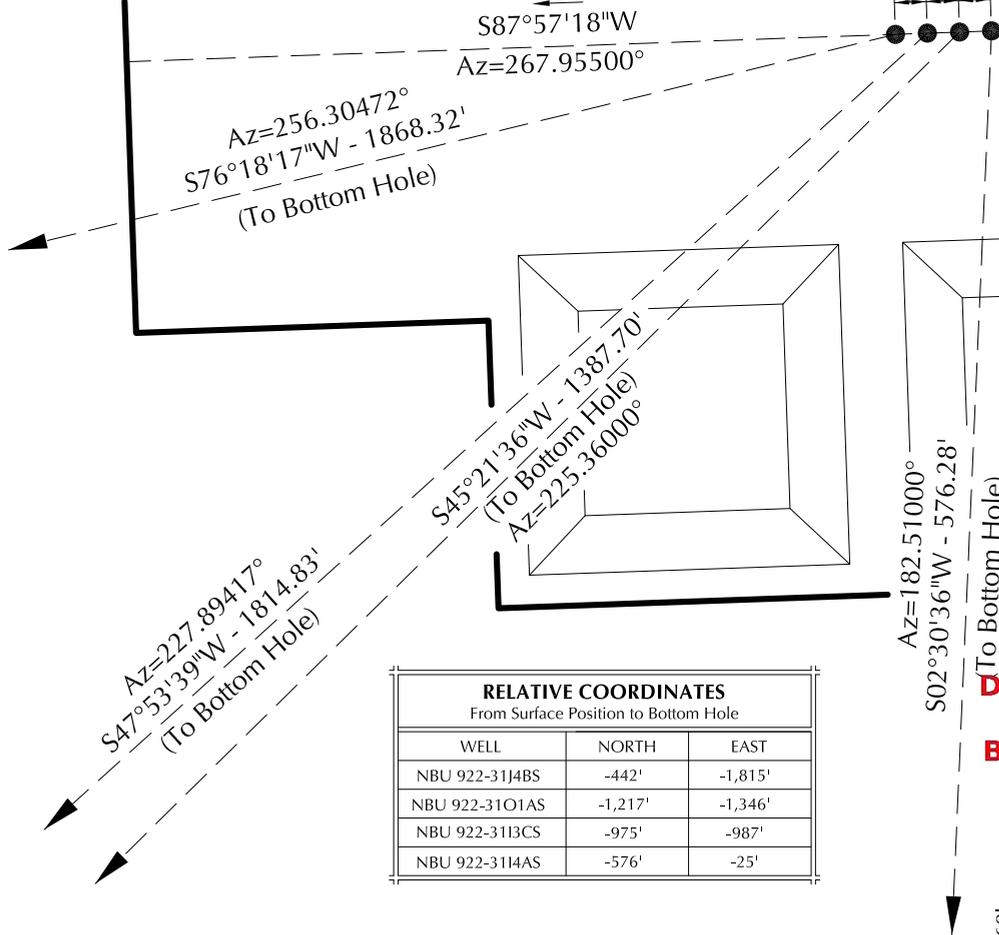
SURFACE POSITION FOOTAGES:

- NBU 922-31J4BS
2318' FSL & 158' FEL
- NBU 922-31O1AS
2318' FSL & 148' FEL
- NBU 922-31I3CS
2318' FSL & 138' FEL
- NBU 922-31I4AS
2319' FSL & 128' FEL

Approved by the
Utah Division of Oil, Gas and Mining

Date: August 04, 2009

By: _____
NBU 922-31O1AS
1098' FSL & 112' FEL
NBU 922-31I3CS
1341' FSL & 1125' FEL
NBU 922-31I4AS
1743' FSL & 153' FEL



RELATIVE COORDINATES		
From Surface Position to Bottom Hole		
WELL	NORTH	EAST
NBU 922-31J4BS	-442'	-1,815'
NBU 922-31O1AS	-1,217'	-1,346'
NBU 922-31I3CS	-975'	-987'
NBU 922-31I4AS	-576'	-25'



SCALE

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

WELL PAD - NBU 922-311

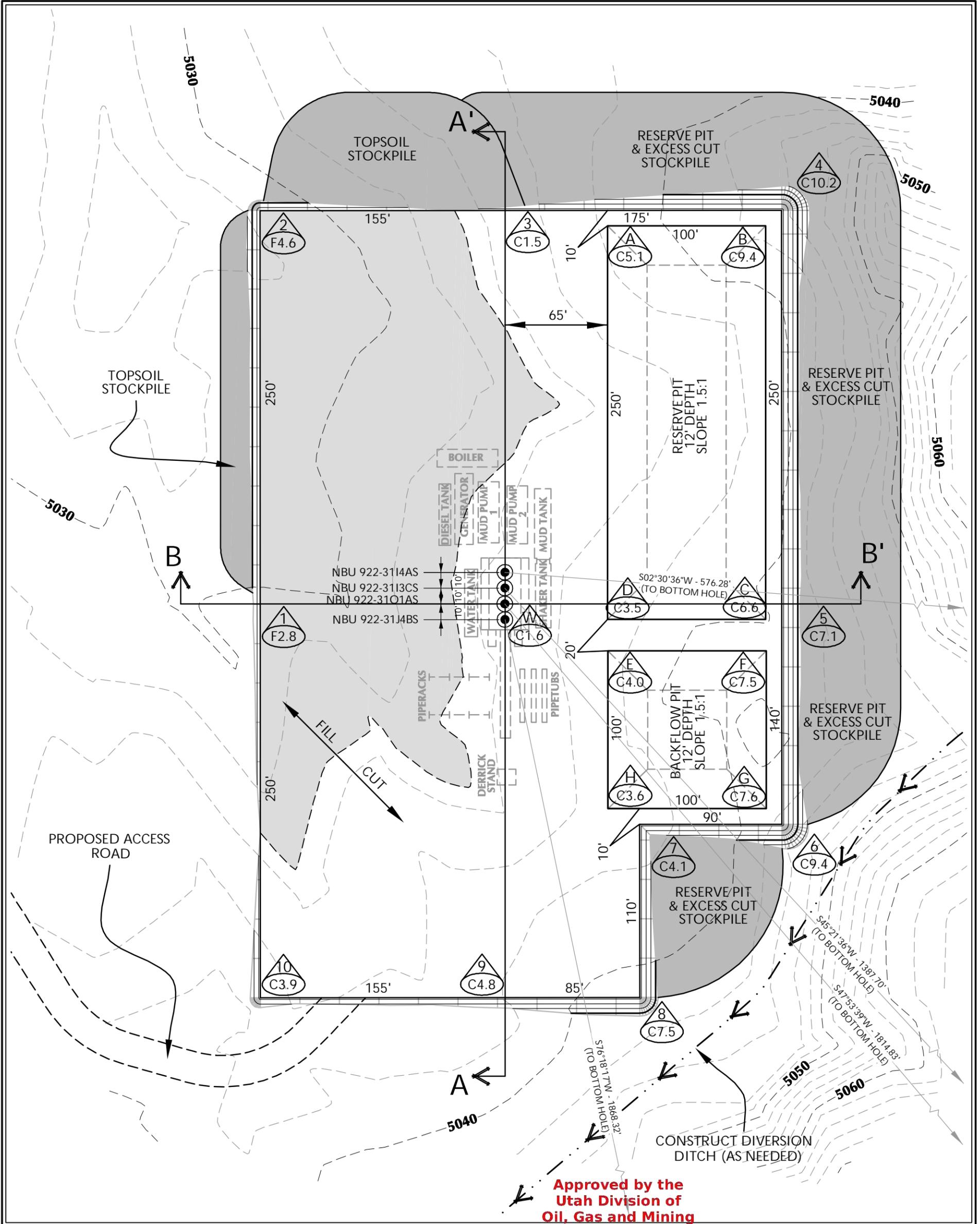
WELL PAD INTERFERENCE PLAT
WELLS - NBU 922-31J4BS, NBU 922-31O1AS,
NBU 922-31I3CS & NBU 922-31I4AS
LOCATED IN SECTION 31, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.



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

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

DATE SURVEYED: 07-16-09	SURVEYED BY: M.S.B.	SHEET NO: 5
DATE DRAWN: 07-17-09	DRAWN BY: M.W.W.	
SCALE: 1" = 60'		5 OF 13



Approved by the Utah Division of Oil, Gas and Mining

WELL PAD NBU 922-311 QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 5034.9'
 FINISHED GRADE ELEVATION = 5033.3'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 12,634 C.Y.
 TOTAL FILL FOR WELL PAD = 5,537 C.Y.
 TOPSOIL @ 6" DEPTH = 3,116 C.Y.
 EXCESS MATERIAL = 7,097 C.Y.
 TOTAL DISTURBANCE = 3.86 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 32,370 BARRELS
 RESERVE PIT VOLUME
 +/- 8,510 CY
 BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
 +/- 11,260 BARRELS
 BACKFLOW PIT VOLUME
 +/- 3,040 CY

WELL PAD LEGEND

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



HORIZONTAL 0 30 60 1" = 60'
 2' CONTOURS

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

WELL PAD - NBU 922-311

WELL PAD - LOCATION LAYOUT
 NBU 922-31J4BS, NBU 922-31O1AS,
 NBU 922-31I3CS & NBU 922-31I4AS
 LOCATED IN SECTION 31, T9S, R22E,
 S.L.B.&M., Uintah County, UTAH



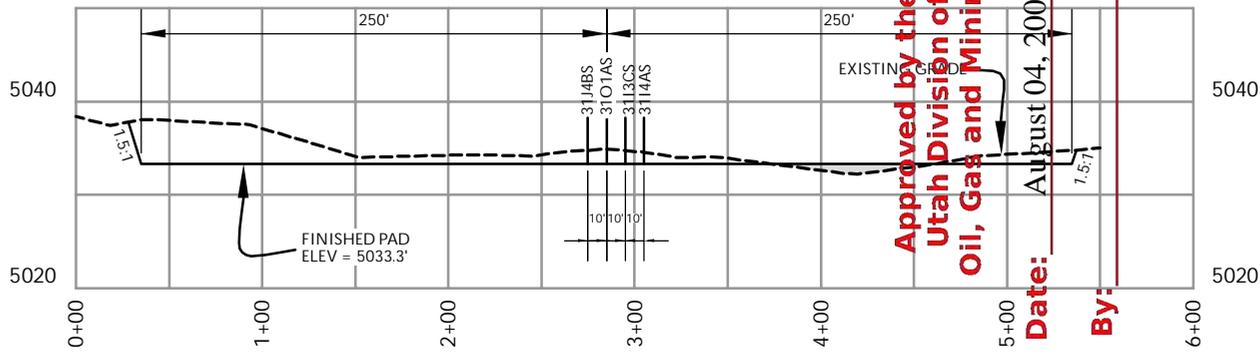
CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

Scale: 1"=60'	Date: 7/21/09	SHEET NO: 6 OF 13
REVISED:		

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

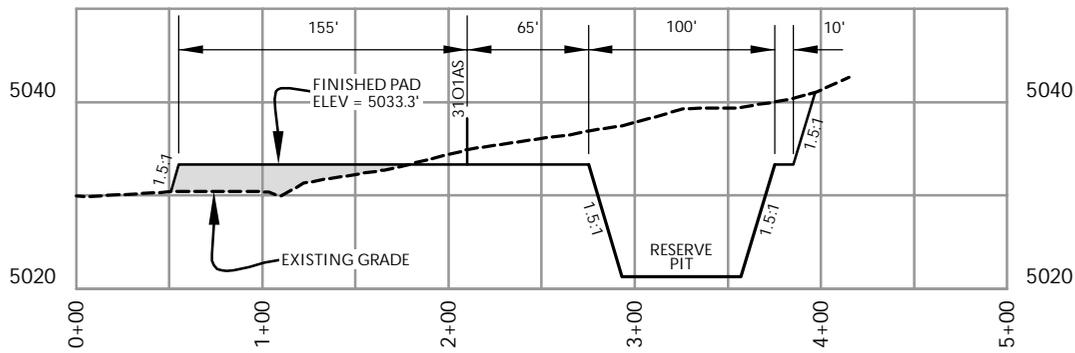
RECEIVED July 27, 2009

K:\ADAR\0909_11_NBU_Directional_UELS_Edits\DWGS\NBU 922-311\922-311.dwg, 7/21/2009 5:26:07 PM, PDF-XChange for AcadPlot Pro



CROSS SECTION A-A'

Approved by the
Utah Division of
Oil, Gas and Mining
Date: August 04, 2009
By:



CROSS SECTION B-B'

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

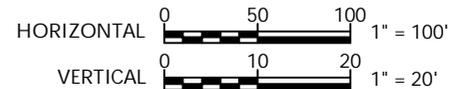
Kerr-McGee Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

WELL PAD - NBU 922-311

WELL PAD - CROSS SECTIONS
NBU 922-3114BS, NBU 922-3101AS,
NBU 922-3113CS & NBU 922-3114AS
LOCATED IN SECTION 31, T9S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH



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



Scale: 1"=100'	Date: 7/21/09	SHEET NO:
REVISED:	7	7 OF 13

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

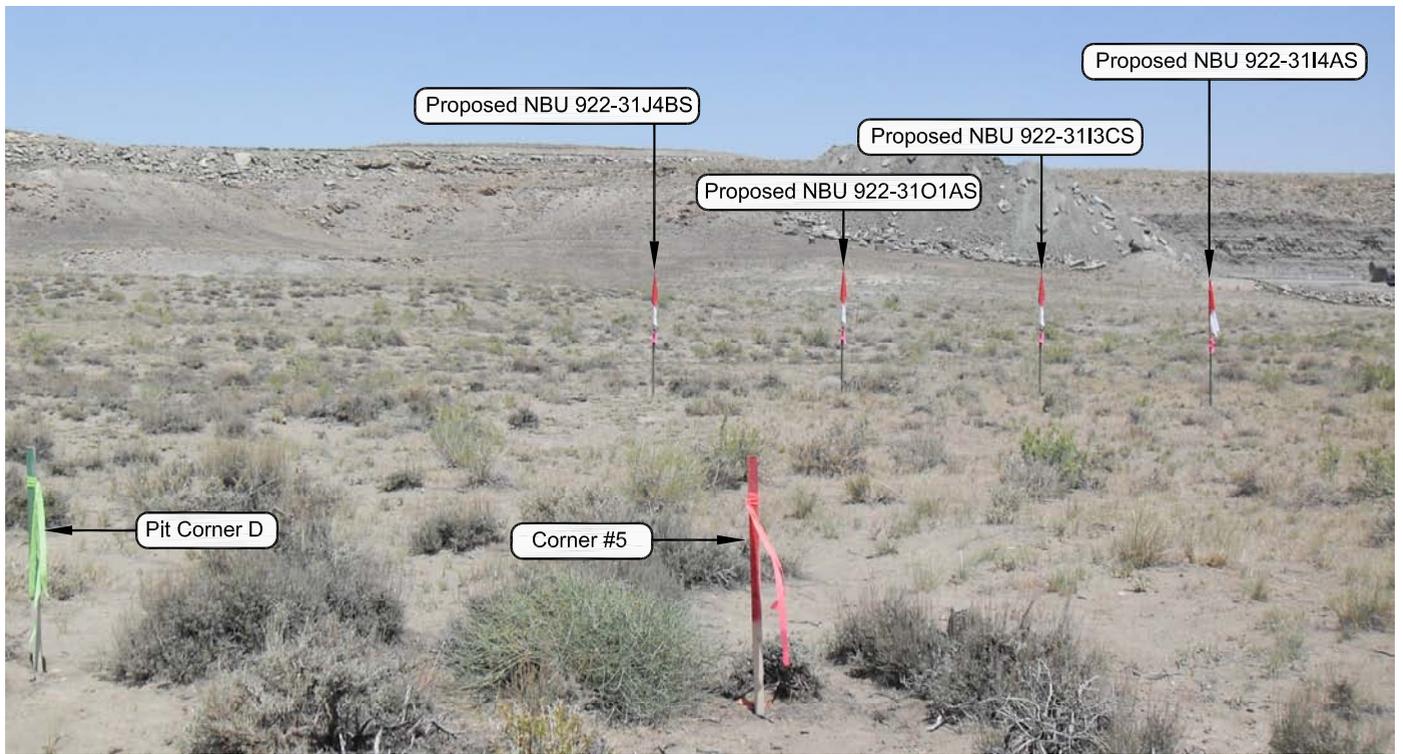


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY

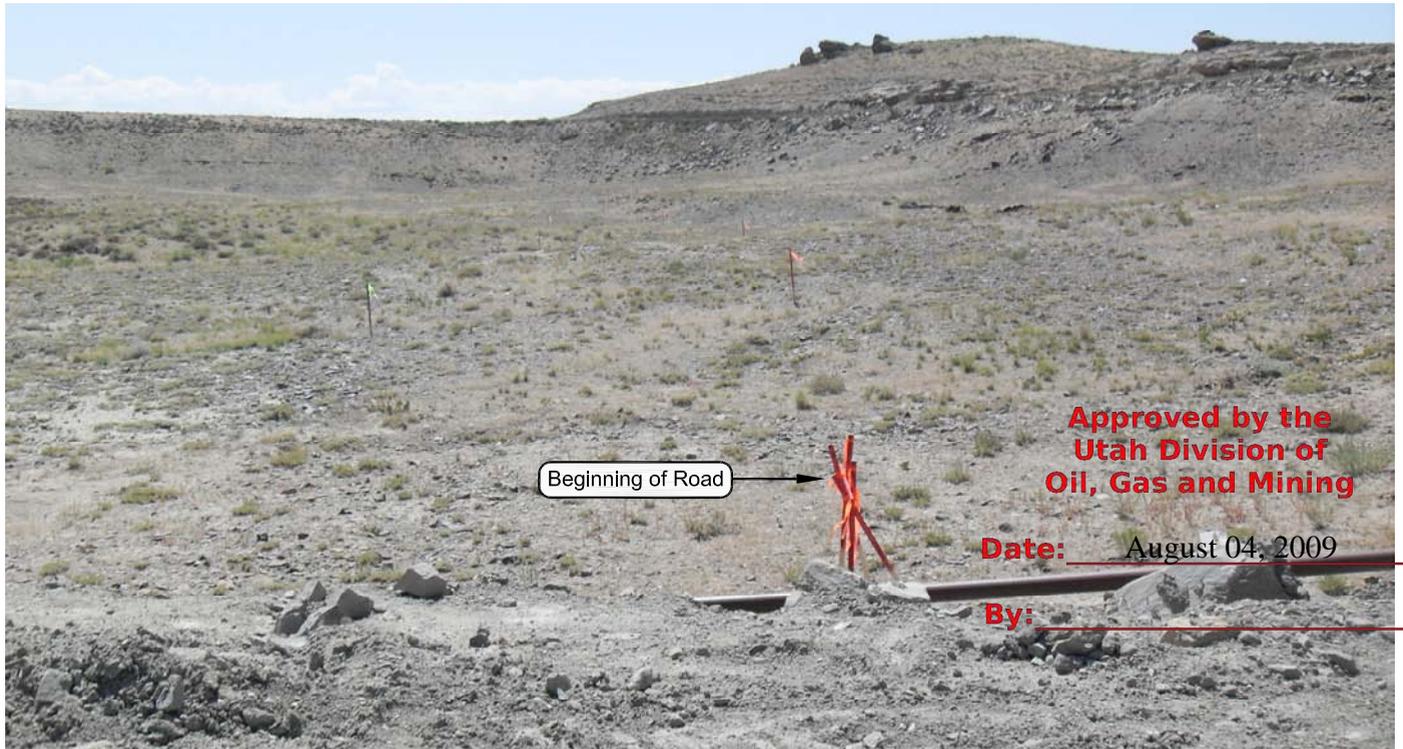


PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

CAMERA ANGLE: WESTERLY

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

Well Pad - NBU 922-311

**NBU 922-31J4BS, NBU 922-31O1AS,
 NBU 922-31I3CS & NBU 922-31I4AS
 LOCATION PHOTOS
 LOCATED IN SECTION 31, T9S, R22E,
 S.L.B.&M., UINTAH COUNTY, UTAH.**



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

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

DATE PHOTOS TAKEN: 07-16-09	PHOTOS TAKEN BY: M.S.B.	SHEET NO: 8 8 OF 13
DATE DRAWN: 07-17-09	DRAWN BY: M.W.W.	
Date Last Revised:		

RECEIVED July 27, 2009

Kerr-McGee Oil & Gas Onshore, LP
WELL PAD - NBU 922-31I
WELLS – NBU 922-31J4BS, NBU 922-31O1AS, NBU 922-31I3CS
& NBU 922-31I4AS
Section 31, T9S, R22E, 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 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 10.4 MILES TO A CLASS D COUNTY ROAD TO THE NORTHEAST. EXIT RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 0.1 MILES TO A SECOND CLASS D COUNTY ROAD TO THE SOUTHEAST. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 2.6 MILES TO A THIRD CLASS D COUNTY ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EASTERLY, THEN NORTHWESTERLY DIRECTION ALONG THE THIRD CLASS D COUNTY ROAD APPROXIMATELY 1.8 MILES TO A SERVICE ROAD TO THE EAST. EXIT RIGHT AND PROCEED IN AN EASTERLY, THEN SOUTHWESTERLY DIRECTION ALONG THE SERVICE ROAD, CROSSING THE NBU 922-32E AND CIGE 173 WELL PADS, APPROXIMATELY 0.3 MILES TO THE PROPOSED ACCESS ROAD (AT THE WESTERN END OF THE CIGE 173 WELL PAD). FOLLOW ROAD FLAGS IN A SOUTHWESTERLY DIRECTION APPROXIMATELY 640 FEET TO THE PROPOSED WELL LOCATION

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 57.2 MILES IN A SOUTHERLY DIRECTION.

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

Date: August 04, 2009

By: _____

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A
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: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-3114AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503970000
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: 2319 FSL 0128 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 8/14/2009	<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 PIPE. CMT W/28 SX READY MIX. SPUD WELL LOCATION ON 08/14/2009 AT 07:00 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 August 17, 2009

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/17/2009	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A
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: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-3114AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503970000
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: 2319 FSL 0128 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E 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: 8/17/2009	<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 08/15/2009. DRILLED 12-1/4" SURFACE HOLE TO 2310'. RAN 9-5/8" 36# J-55 SURFACE CSG. CMT W/350 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. TOP OUT W/ 300 SX CLASS G PREM LITE @ 15.8 PPG, 1.15 YIELD. WORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 August 18, 2009

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/18/2009	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A
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: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-3114AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503970000
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: 2319 FSL 0128 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES COUNTY: UINTAH STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 9/14/2009	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: Frac Factory Pit Refurb

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

Kerr-McGee Oil & Gas Onshore, LP is requesting to refurb the existing pit on this pad for completion operations. The refurb pit will be relined per the requirements in the COA of the APD. Upon completion of the wells on this pad KMG is also requesting to utilize this pit as a staging pit to be utilized for other completion operations in the area. There will be 2 - 400 bbl upright skim tanks placed on location. The trucks will unload water into these tank before the water is placed into the refurbished pit. The purpose of the skim tanks is to collect any hydro-carbons that may have been associated with the other completion operations before releasing into the pit. We plan to keep this pit open for 1 year. During this time the attached well location completion fluids will be recycled in this pit and utilized for other frac jobs in the area.

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

Date: September 22, 2009

By: 

NAME (PLEASE PRINT) Raleen White	PHONE NUMBER 720 929-6666	TITLE Sr. Regulatory Analyst
SIGNATURE N/A	DATE 9/14/2009	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047503970000

A synthetic liner with a minimum thickness of 30 mils shall be properly installed and maintained in the pit.

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

Date: September 22, 2009

By: 

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A
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: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-3114AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503970000
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: 2319 FSL 0128 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E 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: 4/13/2010	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 4/13/2010 AT 12:00 P.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 April 15, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/14/2010	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A
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: 7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-3114AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503970000
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: 2319 FSL 0128 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E 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: 4/13/2010	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 4/13/2010 AT 12:00 P.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 April 15, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/14/2010	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A
---	---

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

1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-3114AS
------------------------------------	---

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503970000
---	---

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: 2319 FSL 0128 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E Meridian: S	COUNTY: UINTAH STATE: UTAH
---	---

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<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: 4/14/2010	<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 checked="" type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER:

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

PLEASE DISREGARD THE DATE AND TIME ON THE SUNDRY FOR PRODUCTION START-UP SUBMITTED 4/14/2010. THIS WELL WAS PLACED ON PRODUCTION ON 4/14/2010 AT 12:00 P.M. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT

Accepted by the
 Utah Division of
 Oil, Gas and Mining
FOR RECORD ONLY
 April 19, 2010

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 4/15/2010	

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

AMENDED REPORT FORM 8
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: UO 1530A
b. TYPE OF WORK: NEW WELL <input checked="" type="checkbox"/> HORIZ. LATS. <input type="checkbox"/> DEEP-EN <input type="checkbox"/> RE-ENTRY <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> OTHER _____		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR: KERR McGEE OIL & GAS ONSHORE LP		7. UNIT or CA AGREEMENT NAME UTU63047A
3. ADDRESS OF OPERATOR: P.O. BOX 173779 CITY DENVER STATE CO ZIP 80217		8. WELL NAME and NUMBER: NBU 922-3114AS
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: NESE 2319 FSL & 128 FEL AT TOP PRODUCING INTERVAL REPORTED BELOW: NESE 1809 FSL & 176 FEL SEC.31-9S-22E AT TOTAL DEPTH: NESE 1723 FSL & 162 FEL SEC.31-9S-22E		9. API NUMBER: 4304750397
		10. FIELD AND POOL, OR WILDCAT NATURAL BUTTES
		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NESE 31 9S 22E
		12. COUNTY UINTAH
		13. STATE UTAH

14. DATE SPURRED: 8/14/2009	15. DATE T.D. REACHED: 10/19/2009	16. DATE COMPLETED: 4/13/2010	ABANDONED <input type="checkbox"/> READY TO PRODUCE <input checked="" type="checkbox"/>	17. ELEVATIONS (DF, RKB, RT, GL): 5035' GL
18. TOTAL DEPTH: MD 9,344 TVD 9,295	19. PLUG BACK T.D.: MD 9,288 TVD 9,139	20. IF MULTIPLE COMPLETIONS, HOW MANY? *		21. DEPTH BRIDGE MD PLUG SET: TVD
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) ACTR/DSN/SDL-BHV-GR/CBL			23. WAS WELL CORED? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit analysis) WAS DST RUN? NO <input checked="" type="checkbox"/> YES <input type="checkbox"/> (Submit report) DIRECTIONAL SURVEY? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (Submit copy)	

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#		40		28			
12 1/4"	9 5/8 J-55	36#		2,308		650			
7 7/8"	4 1/2 I-80	11.6#		9,334		1787		232	

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	8,798							

26. PRODUCING INTERVALS					27. PERFORATION RECORD				
FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS	
(A) WASATCH	6,130	7,148			6,130 7,148	0.36	64	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(B) MESAVERDE	7,194	9,242			7,194 9,242	0.36	296	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/>	Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL
6,130-7,198	PMP 2,527 BBLs SLICK H2O & 113,929 LBS 30/50 SD.
7,262-9,242	PMP 7,641 BBLs SLICK H2O & 284,220 LBS 30/50 SD.

29. ENCLOSED ATTACHMENTS: <input type="checkbox"/> ELECTRICAL/MECHANICAL LOGS <input type="checkbox"/> SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION	<input type="checkbox"/> GEOLOGIC REPORT <input type="checkbox"/> CORE ANALYSIS	<input type="checkbox"/> DST REPORT <input type="checkbox"/> OTHER: _____	<input checked="" type="checkbox"/> DIRECTIONAL SURVEY	30. WELL STATUS: PROD RECEIVED
---	--	--	--	--

31. INITIAL PRODUCTION

INTERVAL A (As shown in Item #26)

DATE FIRST PRODUCED: 4/13/2010		TEST DATE: 4/19/2010		HOURS TESTED: 24		TEST PRODUCTION RATES: →	OIL – BBL: 40	GAS – MCF: 1,981	WATER – BBL: 332	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,551	CSG. PRESS. 1,374	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL: 40	GAS – MCF: 1,981	WATER – BBL: 332	INTERVAL STATUS: PROD

INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTED:		TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

SOLD

33. 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.

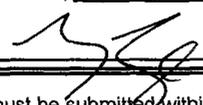
34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
GREEN RIVER	1,306		(TD)		
MAHOGANY	2,111				
WASATCH	4,588	7,189			
MESAVERDE	7,189	9,344			

35. ADDITIONAL REMARKS (Include plugging procedure)

ATTACHED IS THE CHRONOLOGICAL WELL HISTORY AND FINAL SURVEY.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) ANDY LYTLETITLE REGULATORY ANALYSTSIGNATURE DATE 5/13/2010

This report must be submitted within 30 days of

- completing or plugging a new well
- reentering a previously plugged and abandoned well
- drilling horizontal laterals from an existing well bore
- significantly deepening an existing well bore below the previous bottom-hole depth
- recompleting to a different producing formation
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

** ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining
1594 West North Temple, Suite 1210
Box 145801
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)

NBU 922-311 PAD

NBU 922-3114AS

NBU 922-3114AS

Survey: Survey #1

Standard Survey Report

22 October, 2009



Weatherford®



WELL DETAILS: NBU 922-314AS								
+N/-S	+E/-W	Northing	Easting	Ground Level:	5035.00	Latitude	Longitude	Slot
0.00	0.00	14526666.65	2068112.42	39° 59' 29.936 N	109° 28' 22.984 W			

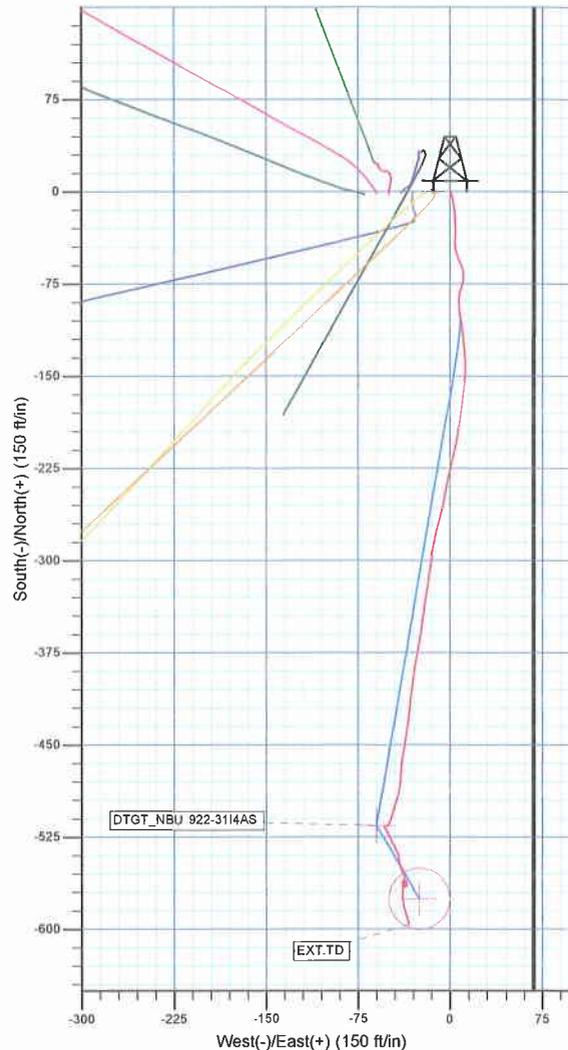
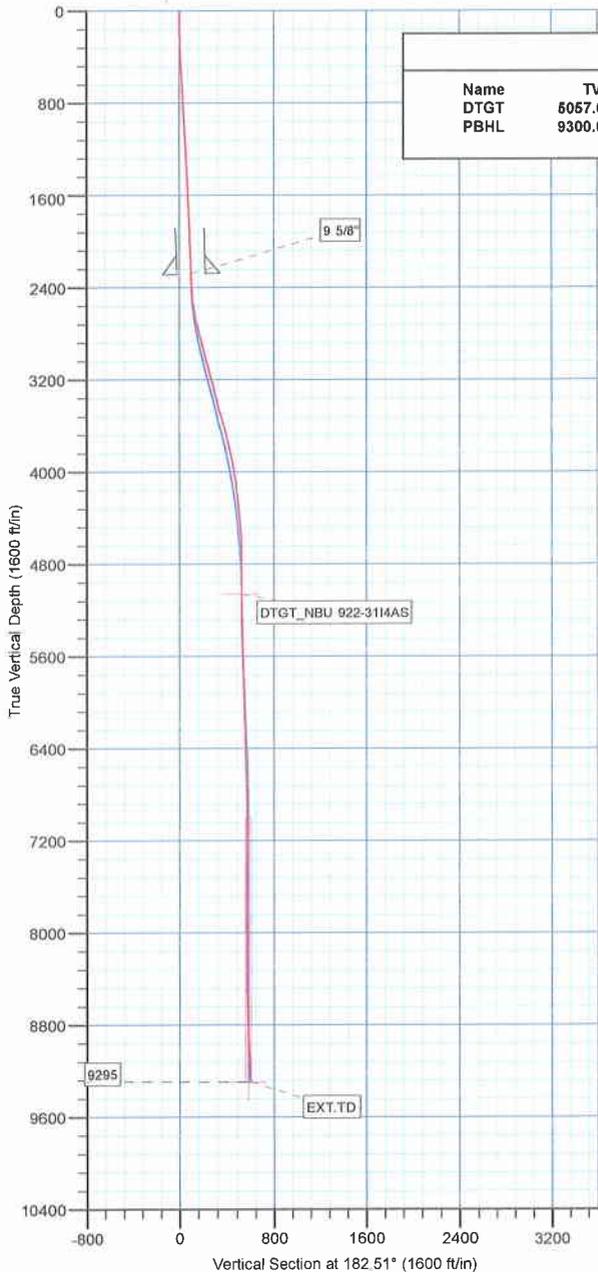
FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4514.00	4556.49	Wasatch
7997.00	8041.83	Mesaverde

SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
2277.00	1.81	169.71	2274.53	-97.18	7.48	0.00	0.00	96.76		
2379.52	1.81	169.71	2377.00	-100.37	8.06	0.00	0.00	99.92		
2978.96	13.67	189.78	2969.96	-179.79	-2.33	2.00	22.99	179.72		
3733.00	13.67	189.78	3702.63	-365.44	-32.62	0.00	0.00	356.52		
5100.31	0.00	0.00	5057.00	-515.45	-60.21	1.00	180.00	517.59		
5686.50	2.93	149.75	5642.94	-528.40	-52.66	0.50	149.75	530.20		
6458.63	2.93	149.75	6414.06	-562.50	-32.77	0.00	0.00	563.40		
7044.83	0.00	0.00	7000.00	-575.45	-25.21	0.50	180.00	576.00		
9344.83	0.00	0.00	9300.00	-575.45	-25.21	0.00	0.00	576.00		PBHL_NBU 922-314AS

CASING DETAILS			
TVD	MD	Name	Size
2281.53	2284.00	9 5/8"	9.62

OB ELEV: WELL @ 5061.00ft (Original Well Elev)
 IRD ELEV: 5035.00

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
DTGT	5057.00	-515.45	-60.21	14526160.24	2068061.0539	59° 24.841	109° 28' 23.757 W	Point
PBHL	9300.00	-575.45	-25.21	14526090.85	2068097.0739	59° 24.248	109° 28' 23.308 W	Circle (Radius: 25.00)



Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-311 PAD
Well: NBU 922-3114AS
Wellbore: NBU 922-3114AS
Design: NBU 922-3114AS

Local Co-ordinate Reference: Well NBU 922-3114AS
TVD Reference: WELL @ 5061.00ft (Original Well Elev)
MD Reference: WELL @ 5061.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.21 Single User Db

Project	UINTAH COUNTY, UTAH (nad 27),		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 922-311 PAD, SECTION 31 T9S R22E				
Site Position:		Northing:	14,526,666.65 ft	Latitude:	39° 59' 29.936 N
From:	Lat/Long	Easting:	2,068,112.42 ft	Longitude:	109° 28' 22.984 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.98 °

Well	NBU 922-3114AS					
Well Position	+N/-S	0.00 ft	Northing:	14,526,666.65 ft	Latitude:	39° 59' 29.936 N
	+E/-W	0.00 ft	Easting:	2,068,112.42 ft	Longitude:	109° 28' 22.984 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	5,035.00 ft

Wellbore	NBU 922-3114AS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	10/6/2009	11.31	65.93	52,547

Design	NBU 922-3114AS				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	182.51	

Survey Program	Date 10/22/2009				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
297.00	9,344.00	Survey #1 (NBU 922-3114AS)	MWD	MWD - Standard	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
297.00	1.17	160.02	296.98	-2.85	1.04	2.80	0.39	0.39	0.00
387.00	2.50	167.37	386.93	-5.63	1.78	5.55	1.50	1.48	8.17
477.00	3.24	170.41	476.82	-10.05	2.63	9.93	0.84	0.82	3.38
567.00	3.73	172.04	566.65	-15.46	3.46	15.29	0.56	0.54	1.81
657.00	3.88	178.96	656.45	-21.40	3.92	21.21	0.54	0.17	7.69
747.00	3.06	180.71	746.29	-26.85	3.95	26.65	0.92	-0.91	1.94
837.00	2.63	172.83	836.18	-31.30	4.18	31.09	0.64	-0.48	-8.76
927.00	2.88	186.21	926.07	-35.60	4.19	35.38	0.76	0.28	14.87
1,017.00	3.06	184.21	1,015.95	-40.24	3.77	40.04	0.23	0.20	-2.22
1,107.00	3.06	170.33	1,105.83	-45.00	3.99	44.79	0.82	0.00	-15.42
1,197.00	3.44	166.08	1,195.68	-49.99	5.05	49.72	0.50	0.42	-4.72
1,287.00	3.44	155.30	1,285.52	-55.07	6.83	54.72	0.72	0.00	-11.98

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-311 PAD
Well: NBU 922-3114AS
Wellbore: NBU 922-3114AS
Design: NBU 922-3114AS

Local Co-ordinate Reference: Well NBU 922-3114AS
TVD Reference: WELL @ 5061.00ft (Original Well Elev)
MD Reference: WELL @ 5061.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,377.00	3.31	158.83	1,375.36	-59.94	8.89	59.50	0.27	-0.14	3.92
1,467.00	3.19	167.96	1,465.22	-64.81	10.35	64.30	0.59	-0.13	10.14
1,557.00	3.00	182.46	1,555.09	-69.62	10.77	69.08	0.89	-0.21	16.11
1,647.00	2.69	196.21	1,644.98	-74.00	10.08	73.49	0.83	-0.34	15.28
1,737.00	2.31	195.33	1,734.89	-77.78	9.01	77.31	0.42	-0.42	-0.98
1,827.00	1.94	195.58	1,824.83	-80.99	8.13	80.56	0.41	-0.41	0.28
1,917.00	2.00	194.58	1,914.78	-83.98	7.32	83.58	0.08	0.07	-1.11
2,007.00	2.44	176.46	2,004.71	-87.41	7.04	87.02	0.91	0.49	-20.13
2,097.00	2.13	184.58	2,094.64	-90.99	7.03	90.60	0.50	-0.34	9.02
2,187.00	2.00	173.96	2,184.58	-94.22	7.06	93.82	0.45	-0.14	-11.80
2,277.00	1.81	169.71	2,274.53	-97.18	7.48	96.76	0.26	-0.21	-4.72
2,382.00	1.97	167.76	2,379.48	-100.58	8.16	100.12	0.16	0.15	-1.86
2,477.00	5.51	173.48	2,474.26	-106.70	9.02	106.21	3.74	3.73	6.02
2,572.00	9.20	173.32	2,568.46	-118.78	10.42	118.21	3.88	3.88	-0.17
2,666.00	10.19	174.56	2,661.12	-134.52	12.09	133.87	1.08	1.05	1.32
2,761.00	14.44	187.06	2,753.93	-154.66	11.43	154.01	5.26	4.47	13.16
2,856.00	13.81	186.31	2,846.05	-177.68	8.73	177.13	0.69	-0.66	-0.79
2,951.00	14.31	189.81	2,938.21	-200.52	5.48	200.09	1.04	0.53	3.68
3,046.00	14.50	194.19	3,030.22	-223.62	0.56	223.38	1.16	0.20	4.61
3,140.00	13.19	188.94	3,121.50	-245.63	-3.99	245.57	1.93	-1.39	-5.59
3,235.00	14.63	194.56	3,213.71	-267.95	-8.69	268.07	2.08	1.52	5.92
3,330.00	13.00	189.69	3,305.96	-290.09	-13.50	290.41	2.11	-1.72	-5.13
3,425.00	13.56	188.81	3,398.42	-311.63	-17.01	312.08	0.63	0.59	-0.93
3,519.00	16.06	187.69	3,489.29	-335.41	-20.44	335.98	2.68	2.66	-1.19
3,613.00	14.81	189.31	3,579.90	-360.15	-24.12	360.86	1.41	-1.33	1.72
3,708.00	14.94	190.19	3,671.72	-384.19	-28.25	385.06	0.27	0.14	0.93
3,803.00	12.44	187.06	3,764.01	-406.40	-31.68	407.40	2.74	-2.63	-3.29
3,898.00	11.50	185.69	3,856.95	-425.98	-33.87	427.05	1.03	-0.99	-1.44
3,993.00	11.19	189.56	3,950.09	-444.49	-36.34	445.66	0.87	-0.33	4.07
4,087.00	8.00	190.56	4,042.76	-459.92	-39.06	461.19	3.40	-3.39	1.06
4,182.00	6.50	180.31	4,137.01	-471.80	-40.30	473.11	2.08	-1.58	-10.79
4,277.00	7.19	187.81	4,231.33	-483.06	-41.13	484.40	1.19	0.73	7.89
4,371.00	6.75	199.31	4,324.64	-494.11	-43.76	495.55	1.55	-0.47	12.23
4,466.00	4.81	194.56	4,419.15	-503.23	-46.61	504.79	2.10	-2.04	-5.00
4,560.00	3.94	195.94	4,512.88	-510.15	-48.49	511.78	0.93	-0.93	1.47
4,654.00	2.56	214.81	4,606.73	-514.98	-50.57	516.70	1.84	-1.47	20.07
4,749.00	1.06	309.06	4,701.69	-516.17	-52.47	517.97	2.99	-1.58	99.21
4,844.00	0.50	240.19	4,796.68	-515.82	-53.51	517.67	1.05	-0.59	-72.49
4,938.00	0.38	187.31	4,890.68	-516.33	-53.90	518.20	0.43	-0.13	-56.26
5,036.00	0.88	150.56	4,988.67	-517.31	-53.57	519.16	0.63	0.51	-37.50
5,128.00	1.13	151.94	5,080.66	-518.73	-52.80	520.54	0.27	0.27	1.50
5,223.00	1.25	151.94	5,175.64	-520.47	-51.87	522.24	0.13	0.13	0.00
5,317.00	1.31	150.94	5,269.62	-522.31	-50.87	524.04	0.07	0.06	-1.06
5,412.00	1.56	152.69	5,364.59	-524.41	-49.75	526.09	0.27	0.26	1.84
5,507.00	1.50	159.69	5,459.55	-526.73	-48.72	528.35	0.21	-0.06	7.37
5,606.00	1.56	154.44	5,558.52	-529.16	-47.69	530.74	0.15	0.06	-5.30
5,697.00	1.44	146.81	5,649.49	-531.23	-46.53	532.76	0.26	-0.13	-8.38
5,792.00	1.38	160.56	5,744.46	-533.31	-45.50	534.79	0.36	-0.06	14.47
5,886.00	1.38	153.69	5,838.43	-535.39	-44.62	536.83	0.18	0.00	-7.31
5,981.00	1.50	154.81	5,933.40	-537.54	-43.58	538.93	0.13	0.13	1.18
6,076.00	2.00	166.56	6,028.36	-540.28	-42.67	541.63	0.65	0.53	12.37
6,171.00	2.06	172.69	6,123.30	-543.59	-42.07	544.91	0.24	0.06	6.45
6,265.00	1.56	171.44	6,217.25	-546.53	-41.66	547.83	0.53	-0.53	-1.33
6,358.00	1.44	152.81	6,310.22	-548.82	-40.94	550.08	0.54	-0.13	-20.03

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-311 PAD
Well: NBU 922-3114AS
Wellbore: NBU 922-3114AS
Design: NBU 922-3114AS

Local Co-ordinate Reference: Well NBU 922-3114AS
TVD Reference: WELL @ 5061.00ft (Original Well Elev)
MD Reference: WELL @ 5061.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,453.00	1.56	161.06	6,405.19	-551.10	-39.97	552.32	0.26	0.13	8.68
6,549.00	1.75	165.56	6,501.15	-553.76	-39.18	554.94	0.24	0.20	4.69
6,643.00	1.81	158.31	6,595.10	-556.53	-38.28	557.67	0.25	0.06	-7.71
6,737.00	1.69	154.31	6,689.06	-559.16	-37.13	560.25	0.18	-0.13	-4.26
6,834.00	2.06	158.56	6,786.00	-562.07	-35.87	563.10	0.41	0.38	4.38
6,927.00	1.38	203.69	6,878.97	-564.65	-35.71	565.67	1.57	-0.73	48.53
7,021.00	0.50	321.31	6,972.96	-565.37	-36.42	566.42	1.78	-0.94	125.13
7,116.00	0.38	300.31	7,067.95	-564.88	-36.95	565.96	0.21	-0.13	-22.11
7,211.00	0.56	244.19	7,162.95	-564.93	-37.64	566.03	0.49	0.19	-59.07
7,306.00	0.69	257.81	7,257.95	-565.25	-38.62	566.40	0.21	0.14	14.34
7,401.00	0.94	8.69	7,352.94	-564.60	-39.06	565.77	1.42	0.26	116.72
7,495.00	0.69	358.31	7,446.93	-563.27	-38.96	564.44	0.31	-0.27	-11.04
7,590.00	0.75	341.19	7,541.92	-562.11	-39.18	563.29	0.23	0.06	-18.02
7,685.00	0.63	23.06	7,636.92	-561.04	-39.17	562.22	0.53	-0.13	44.07
7,783.00	0.38	98.31	7,734.91	-560.59	-38.64	561.75	0.66	-0.26	76.79
7,875.00	0.81	150.81	7,826.91	-561.21	-38.02	562.33	0.71	0.47	57.07
7,970.00	1.06	179.06	7,921.90	-562.67	-37.68	563.78	0.54	0.26	29.74
8,064.00	0.56	164.19	8,015.89	-563.98	-37.54	565.08	0.57	-0.53	-15.82
8,159.00	0.75	138.19	8,110.88	-564.89	-37.00	565.97	0.37	0.20	-27.37
8,254.00	0.38	254.44	8,205.88	-565.44	-36.89	566.51	1.03	-0.39	122.37
8,348.00	0.19	271.06	8,299.88	-565.52	-37.34	566.61	0.22	-0.20	17.68
8,443.00	0.38	245.44	8,394.88	-565.65	-37.79	566.76	0.24	0.20	-26.97
8,538.00	0.63	206.56	8,489.87	-566.25	-38.31	567.38	0.43	0.26	-40.93
8,619.00	1.13	201.31	8,570.86	-567.39	-38.80	568.54	0.62	0.62	-6.48
9,288.00	3.50	162.16	9,239.30	-592.98	-34.94	593.94	0.41	0.35	-5.85
EXT.TD									
9,344.00	3.50	162.16	9,295.20	-596.23	-33.89	597.14	0.00	0.00	0.00

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,344.00	9,295.20	-596.23	-33.89	EXT.TD

Checked By: _____ Approved By: _____ Date: _____



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)

NBU 922-311 PAD

NBU 922-3114AS

NBU 922-3114AS

Survey: Survey #1

Survey Report - Geographic

22 October, 2009



Weatherford®

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-3114AS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5061.00ft (Original Well Elev)
Site:	NBU 922-311 PAD	MD Reference:	WELL @ 5061.00ft (Original Well Elev)
Well:	NBU 922-3114AS	North Reference:	True
Wellbore:	NBU 922-3114AS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 922-3114AS	Database:	EDM 2003.21 Single User Db

Project	UINTAH COUNTY, UTAH (nad 27),		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	NBU 922-311 PAD, SECTION 31 T9S R22E				
Site Position:		Northing:	14,526,666.65ft	Latitude:	39° 59' 29.936 N
From:	Lat/Long	Easting:	2,068,112.42ft	Longitude:	109° 28' 22.984 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.98 °

Well	NBU 922-3114AS					
Well Position	+N/-S	0.00 ft	Northing:	14,526,666.65 ft	Latitude:	39° 59' 29.936 N
	+E/-W	0.00 ft	Easting:	2,068,112.42 ft	Longitude:	109° 28' 22.984 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	5,035.00 ft

Wellbore	NBU 922-3114AS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	10/6/2009	11.31	65.93	52,547

Design	NBU 922-3114AS				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	182.51	

Survey Program	Date	10/22/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
297.00	9,344.00	Survey #1 (NBU 922-3114AS)	MWD	MWD - Standard	

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-311 PAD
Well: NBU 922-3114AS
Wellbore: NBU 922-3114AS
Design: NBU 922-3114AS

Local Co-ordinate Reference: Well NBU 922-3114AS
TVD Reference: WELL @ 5061.00ft (Original Well Elev)
MD Reference: WELL @ 5061.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,526,666.65	2,068,112.42	39° 59' 29.936 N	109° 28' 22.984 W
297.00	1.17	160.02	296.98	-2.85	1.04	14,526,663.82	2,068,113.51	39° 59' 29.908 N	109° 28' 22.970 W
387.00	2.50	167.37	386.93	-5.63	1.78	14,526,661.05	2,068,114.30	39° 59' 29.881 N	109° 28' 22.961 W
477.00	3.24	170.41	476.82	-10.05	2.63	14,526,656.64	2,068,115.22	39° 59' 29.837 N	109° 28' 22.950 W
567.00	3.73	172.04	566.65	-15.46	3.46	14,526,651.25	2,068,116.15	39° 59' 29.784 N	109° 28' 22.939 W
657.00	3.88	178.96	656.45	-21.40	3.92	14,526,645.32	2,068,116.71	39° 59' 29.725 N	109° 28' 22.933 W
747.00	3.06	180.71	746.29	-26.85	3.95	14,526,639.87	2,068,116.83	39° 59' 29.671 N	109° 28' 22.933 W
837.00	2.63	172.83	836.18	-31.30	4.18	14,526,635.42	2,068,117.13	39° 59' 29.627 N	109° 28' 22.930 W
927.00	2.88	186.21	926.07	-35.60	4.19	14,526,631.13	2,068,117.22	39° 59' 29.585 N	109° 28' 22.930 W
1,017.00	3.06	184.21	1,015.95	-40.24	3.77	14,526,626.48	2,068,116.88	39° 59' 29.539 N	109° 28' 22.935 W
1,107.00	3.06	170.33	1,105.83	-45.00	3.99	14,526,621.72	2,068,117.19	39° 59' 29.492 N	109° 28' 22.932 W
1,197.00	3.44	166.08	1,195.68	-49.99	5.05	14,526,616.75	2,068,118.32	39° 59' 29.442 N	109° 28' 22.919 W
1,287.00	3.44	155.30	1,285.52	-55.07	6.83	14,526,611.71	2,068,120.19	39° 59' 29.392 N	109° 28' 22.896 W
1,377.00	3.31	158.83	1,375.36	-59.94	8.89	14,526,606.87	2,068,122.34	39° 59' 29.344 N	109° 28' 22.869 W
1,467.00	3.19	167.96	1,465.22	-64.81	10.35	14,526,602.02	2,068,123.88	39° 59' 29.296 N	109° 28' 22.851 W
1,557.00	3.00	182.46	1,555.09	-69.62	10.77	14,526,597.23	2,068,124.39	39° 59' 29.248 N	109° 28' 22.845 W
1,647.00	2.69	196.21	1,644.98	-74.00	10.08	14,526,592.83	2,068,123.77	39° 59' 29.205 N	109° 28' 22.854 W
1,737.00	2.31	195.33	1,734.89	-77.78	9.01	14,526,589.04	2,068,122.77	39° 59' 29.168 N	109° 28' 22.868 W
1,827.00	1.94	195.58	1,824.83	-80.99	8.13	14,526,585.81	2,068,121.93	39° 59' 29.136 N	109° 28' 22.879 W
1,917.00	2.00	194.58	1,914.78	-83.98	7.32	14,526,582.81	2,068,121.18	39° 59' 29.106 N	109° 28' 22.890 W
2,007.00	2.44	176.46	2,004.71	-87.41	7.04	14,526,579.37	2,068,120.96	39° 59' 29.072 N	109° 28' 22.893 W
2,097.00	2.13	184.58	2,094.64	-90.99	7.03	14,526,575.79	2,068,121.01	39° 59' 29.037 N	109° 28' 22.893 W
2,187.00	2.00	173.96	2,184.58	-94.22	7.06	14,526,572.56	2,068,121.09	39° 59' 29.005 N	109° 28' 22.893 W
2,277.00	1.81	169.71	2,274.53	-97.18	7.48	14,526,569.61	2,068,121.56	39° 59' 28.976 N	109° 28' 22.887 W
2,362.00	1.97	167.76	2,379.48	-100.58	8.16	14,526,566.23	2,068,122.30	39° 59' 28.942 N	109° 28' 22.879 W
2,477.00	5.51	173.48	2,474.26	-106.70	9.02	14,526,560.11	2,068,123.27	39° 59' 28.882 N	109° 28' 22.868 W
2,572.00	9.20	173.32	2,568.46	-118.78	10.42	14,526,548.06	2,068,124.88	39° 59' 28.762 N	109° 28' 22.850 W
2,666.00	10.19	174.56	2,661.12	-134.52	12.09	14,526,532.35	2,068,126.81	39° 59' 28.607 N	109° 28' 22.828 W
2,761.00	14.44	187.06	2,753.93	-154.66	11.43	14,526,512.21	2,068,126.50	39° 59' 28.408 N	109° 28' 22.837 W
2,856.00	13.81	186.31	2,846.05	-177.68	8.73	14,526,489.14	2,068,124.19	39° 59' 28.180 N	109° 28' 22.871 W
2,951.00	14.31	189.81	2,938.21	-200.52	5.48	14,526,466.25	2,068,121.33	39° 59' 27.954 N	109° 28' 22.913 W
3,046.00	14.50	194.19	3,030.22	-223.62	0.56	14,526,443.07	2,068,116.81	39° 59' 27.726 N	109° 28' 22.976 W
3,140.00	13.19	188.94	3,121.50	-245.63	-3.99	14,526,420.99	2,068,112.64	39° 59' 27.509 N	109° 28' 23.035 W
3,235.00	14.63	194.56	3,213.71	-267.95	-8.69	14,526,398.59	2,068,108.32	39° 59' 27.288 N	109° 28' 23.095 W
3,330.00	13.00	189.69	3,305.96	-290.09	-13.50	14,526,376.37	2,068,103.89	39° 59' 27.069 N	109° 28' 23.157 W
3,425.00	13.56	188.81	3,398.42	-311.63	-17.01	14,526,354.77	2,068,100.75	39° 59' 26.856 N	109° 28' 23.202 W
3,519.00	16.06	187.69	3,489.29	-335.41	-20.44	14,526,330.94	2,068,097.73	39° 59' 26.621 N	109° 28' 23.246 W
3,613.00	14.81	189.31	3,579.90	-360.15	-24.12	14,526,306.13	2,068,094.47	39° 59' 26.376 N	109° 28' 23.294 W
3,708.00	14.94	190.19	3,671.72	-384.19	-28.25	14,526,282.03	2,068,090.75	39° 59' 26.139 N	109° 28' 23.347 W
3,803.00	12.44	187.06	3,764.01	-406.40	-31.68	14,526,259.77	2,068,087.71	39° 59' 25.919 N	109° 28' 23.391 W
3,898.00	11.50	185.69	3,856.95	-425.98	-33.87	14,526,240.15	2,068,085.85	39° 59' 25.726 N	109° 28' 23.419 W
3,993.00	11.19	189.56	3,950.09	-444.49	-36.34	14,526,221.60	2,068,083.70	39° 59' 25.543 N	109° 28' 23.451 W
4,087.00	8.00	190.56	4,042.76	-459.92	-39.06	14,526,206.13	2,068,081.25	39° 59' 25.390 N	109° 28' 23.485 W
4,182.00	6.50	180.31	4,137.01	-471.80	-40.30	14,526,194.23	2,068,080.21	39° 59' 25.273 N	109° 28' 23.501 W
4,277.00	7.19	187.81	4,231.33	-483.06	-41.13	14,526,182.95	2,068,079.57	39° 59' 25.162 N	109° 28' 23.512 W
4,371.00	6.75	199.31	4,324.64	-494.11	-43.76	14,526,171.87	2,068,077.13	39° 59' 25.052 N	109° 28' 23.546 W
4,466.00	4.81	194.56	4,419.15	-503.23	-46.61	14,526,162.69	2,068,074.44	39° 59' 24.962 N	109° 28' 23.583 W
4,560.00	3.94	195.94	4,512.88	-510.15	-48.49	14,526,155.74	2,068,072.68	39° 59' 24.894 N	109° 28' 23.607 W
4,654.00	2.56	214.81	4,606.73	-514.98	-50.57	14,526,150.88	2,068,070.68	39° 59' 24.846 N	109° 28' 23.633 W
4,749.00	1.06	309.06	4,701.69	-516.17	-52.47	14,526,149.66	2,068,068.81	39° 59' 24.834 N	109° 28' 23.658 W
4,844.00	0.50	240.19	4,796.68	-515.82	-53.51	14,526,149.99	2,068,067.76	39° 59' 24.838 N	109° 28' 23.671 W
4,938.00	0.38	187.31	4,890.68	-516.33	-53.90	14,526,149.47	2,068,067.37	39° 59' 24.833 N	109° 28' 23.676 W
5,036.00	0.88	150.56	4,988.67	-517.31	-53.57	14,526,148.49	2,068,067.72	39° 59' 24.823 N	109° 28' 23.672 W
5,128.00	1.13	151.94	5,080.66	-518.73	-52.80	14,526,147.09	2,068,068.51	39° 59' 24.809 N	109° 28' 23.662 W
5,223.00	1.25	151.94	5,175.64	-520.47	-51.87	14,526,145.37	2,068,069.47	39° 59' 24.792 N	109° 28' 23.650 W

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-311 PAD
Well: NBU 922-3114AS
Wellbore: NBU 922-3114AS
Design: NBU 922-3114AS

Local Co-ordinate Reference: Well NBU 922-3114AS
TVD Reference: WELL @ 5061.00ft (Original Well Elev)
MD Reference: WELL @ 5061.00ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.21 Single User Db

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
5,317.00	1.31	150.94	5,269.62	-522.31	-50.87	14,526,143.54	2,068,070.51	39° 59' 24.774 N	109° 28' 23.637 W
5,412.00	1.56	152.69	5,364.59	-524.41	-49.75	14,526,141.46	2,068,071.66	39° 59' 24.753 N	109° 28' 23.623 W
5,507.00	1.50	159.69	5,459.55	-526.73	-48.72	14,526,139.17	2,068,072.73	39° 59' 24.730 N	109° 28' 23.610 W
5,606.00	1.56	154.44	5,558.52	-529.16	-47.69	14,526,136.75	2,068,073.80	39° 59' 24.706 N	109° 28' 23.596 W
5,697.00	1.44	146.81	5,649.49	-531.23	-46.53	14,526,134.70	2,068,075.00	39° 59' 24.685 N	109° 28' 23.582 W
5,792.00	1.38	160.56	5,744.46	-533.31	-45.50	14,526,132.64	2,068,076.07	39° 59' 24.665 N	109° 28' 23.568 W
5,886.00	1.38	153.69	5,838.43	-535.39	-44.62	14,526,130.57	2,068,076.98	39° 59' 24.644 N	109° 28' 23.557 W
5,981.00	1.50	154.81	5,933.40	-537.54	-43.58	14,526,128.44	2,068,078.05	39° 59' 24.623 N	109° 28' 23.544 W
6,076.00	2.00	166.56	6,028.36	-540.28	-42.67	14,526,125.72	2,068,079.01	39° 59' 24.596 N	109° 28' 23.532 W
6,171.00	2.06	172.69	6,123.30	-543.59	-42.07	14,526,122.42	2,068,079.67	39° 59' 24.563 N	109° 28' 23.524 W
6,265.00	1.56	171.44	6,217.25	-546.53	-41.66	14,526,119.49	2,068,080.13	39° 59' 24.534 N	109° 28' 23.519 W
6,358.00	1.44	152.81	6,310.22	-548.82	-40.94	14,526,117.21	2,068,080.89	39° 59' 24.512 N	109° 28' 23.510 W
6,453.00	1.56	161.06	6,405.19	-551.10	-39.97	14,526,114.94	2,068,081.90	39° 59' 24.489 N	109° 28' 23.497 W
6,549.00	1.75	165.56	6,501.15	-553.76	-39.18	14,526,112.30	2,068,082.73	39° 59' 24.463 N	109° 28' 23.487 W
6,643.00	1.81	158.31	6,595.10	-556.53	-38.28	14,526,109.55	2,068,083.68	39° 59' 24.435 N	109° 28' 23.475 W
6,737.00	1.69	154.31	6,689.06	-559.16	-37.13	14,526,106.94	2,068,084.88	39° 59' 24.409 N	109° 28' 23.461 W
6,834.00	2.06	158.56	6,786.00	-562.07	-35.87	14,526,104.05	2,068,086.19	39° 59' 24.381 N	109° 28' 23.445 W
6,927.00	1.38	203.69	6,878.97	-564.65	-35.71	14,526,101.47	2,068,086.39	39° 59' 24.355 N	109° 28' 23.442 W
7,021.00	0.50	321.31	6,972.96	-565.37	-36.42	14,526,100.74	2,068,085.69	39° 59' 24.348 N	109° 28' 23.452 W
7,116.00	0.38	300.31	7,067.95	-564.88	-36.95	14,526,101.22	2,068,085.15	39° 59' 24.353 N	109° 28' 23.458 W
7,211.00	0.56	244.19	7,162.95	-564.93	-37.64	14,526,101.16	2,068,084.46	39° 59' 24.352 N	109° 28' 23.467 W
7,306.00	0.69	257.81	7,257.95	-565.25	-38.62	14,526,100.82	2,068,083.49	39° 59' 24.349 N	109° 28' 23.480 W
7,401.00	0.94	8.69	7,352.94	-564.60	-39.06	14,526,101.46	2,068,083.04	39° 59' 24.356 N	109° 28' 23.485 W
7,495.00	0.69	358.31	7,446.93	-563.27	-38.96	14,526,102.79	2,068,083.12	39° 59' 24.369 N	109° 28' 23.484 W
7,590.00	0.75	341.19	7,541.92	-562.11	-39.18	14,526,103.95	2,068,082.88	39° 59' 24.380 N	109° 28' 23.487 W
7,685.00	0.63	23.06	7,636.92	-561.04	-39.17	14,526,105.02	2,068,082.87	39° 59' 24.391 N	109° 28' 23.487 W
7,783.00	0.38	98.31	7,734.91	-560.59	-38.64	14,526,105.48	2,068,083.39	39° 59' 24.395 N	109° 28' 23.480 W
7,875.00	0.81	150.81	7,826.91	-561.21	-38.02	14,526,104.87	2,068,084.02	39° 59' 24.389 N	109° 28' 23.472 W
7,970.00	1.06	179.06	7,921.90	-562.67	-37.68	14,526,103.42	2,068,084.39	39° 59' 24.375 N	109° 28' 23.468 W
8,064.00	0.56	164.19	8,015.89	-563.98	-37.54	14,526,102.11	2,068,084.55	39° 59' 24.362 N	109° 28' 23.466 W
8,159.00	0.75	138.19	8,110.88	-564.89	-37.00	14,526,101.21	2,068,085.10	39° 59' 24.353 N	109° 28' 23.459 W
8,254.00	0.38	254.44	8,205.88	-565.44	-36.89	14,526,100.66	2,068,085.23	39° 59' 24.347 N	109° 28' 23.458 W
8,348.00	0.19	271.06	8,299.88	-565.52	-37.34	14,526,100.57	2,068,084.77	39° 59' 24.347 N	109° 28' 23.463 W
8,443.00	0.38	245.44	8,394.88	-565.65	-37.79	14,526,100.44	2,068,084.33	39° 59' 24.345 N	109° 28' 23.469 W
8,538.00	0.63	206.56	8,489.87	-566.25	-38.31	14,526,099.83	2,068,083.82	39° 59' 24.339 N	109° 28' 23.476 W
8,619.00	1.13	201.31	8,570.86	-567.39	-38.80	14,526,098.68	2,068,083.35	39° 59' 24.328 N	109° 28' 23.482 W
9,288.00	3.50	162.16	9,239.30	-592.98	-34.94	14,526,073.16	2,068,087.65	39° 59' 24.075 N	109° 28' 23.433 W
EXT.TD									
9,344.00	3.50	162.16	9,295.20	-596.23	-33.89	14,526,069.92	2,068,088.75	39° 59' 24.043 N	109° 28' 23.419 W

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-3114AS GREEN Spud Conductor: 8/14/2009 Spud Date: 8/15/2009
 Project: UTAH-UINTAH Site: NBU 922-311 PAD Rig Name No: PROPETRO/, H&P 298/298
 Event: DRILLING Start Date: 7/21/2009 End Date: 10/21/2009
 Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/15/2009	6:00 - 15:00	9.00	MIRU	01	A	P		MIRU
	15:00 - 16:00	1.00	DRLSUR	02	A	P		HAMMER DRILL F/40 TO 180'
	16:00 - 17:00	1.00	DRLSUR	06	A	P		POOH L/D HAMMER
	17:00 - 22:30	5.50	DRLSUR	06	A	P		P/U PDC BIT,MUD MTR & DIR TOOLS,ORIENTATE WEATHERFORD,TIH
	22:30 - 0:00	1.50	DRLSUR	02	D	P		DIR DRILL F/180 TO 350
8/16/2009	0:00 - 0:00	24.00	DRLSUR	02	D	P		DIR DRILL F/350 TO 2125
8/17/2009	0:00 - 1:00	1.00	DRLSUR	08	B	Z		REPLACE STANDPIPE VALVE
	1:00 - 6:00	5.00	DRLSUR	06	A	X		POOH W/PLUGGED BIT & MTR
	6:00 - 10:00	4.00	DRLSUR	21	D	Z		WAIT ON MUD MTR,COULD NOT BREAK ELEVATOR SUB OUT OF WEATHERFORD MTR
	10:00 - 14:00	4.00	DRLSUR	06	A	P		TIH ,P/U DIR TOOLS,MUD MTR,TIH,30'FILL
	14:00 - 17:00	3.00	DRLSUR	02	D	P		DRILL F/2125 TO TD 2310,
10/12/2009	17:00 - 17:30	0.50	DRLSUR	05	C	P		CIRC HOLE CLEAN F/LDDP & CSG
	17:30 - 21:30	4.00	DRLSUR	06	A	P		LDDP & BHA
	21:30 - 0:00	2.50	CSG	12	C	P		RUN 52 JTS #36 J55 9.625 CSG TO 2284
	9:00 - 19:00	10.00	RDMO	01	E	P		RIG DOWN,PREP RIG F/TRUCKS,SKID RIG BACK TO LOAD OUT POSITION,MOVE CAMPS TO NEW LOC & RIG UP, HSM W/ JONES TRUCKIJNG,J&C CRANE,5 BED TRUCKS ON LOCATION @ 12:00 , CRANE @ 13:30 MOVE FRAC TANKS,CMT SILOS,JUNK RACK,SET OUT BACK END & HAUL TO NEW LOCATION (1 MILE) & SET IN PLACE,PUMPS ,PITS,GENERATORS,MCC & VFD HOUSES,SHAKERS,WATER TANK, DERRICK DOWN @ 17:30,RIG 90% RIGGED DOWN,50% MOVED,10% RIGGED UP,
	19:00 - 0:00	5.00	RDMO	21	C	P		WAIT ON DAYLIGHT
10/13/2009	0:00 - 6:00	6.00	MIRU	01	B	P		WAIT ON DAYLIGHT TO MOVE IN EQUIPMENT & RIG UP
	6:00 - 0:00	18.00	MIRU	01	B	P		SAFETY MEETING / MOVE IN AND SET SKID PACKAGE + DRAW-WORKS / SET AND RAISE SHAKERS & SUBSTRUCTOR INSTALL B.O.P.E. HANDLER + FLOW LINE WALK WAY SYSTEM GAS BUSTER EQUIPMENT RAISED DOG HOUSE / INSPECT & RAISE DERRICK TO FLOOR & PIN,RAISE DERRICK. UP@19:00,SET IN FRAC TANKS,CMT SILOS, BOILER UTILIZED 5 BED TRUCKS 1 HAUL TRUCK,2 FORKLIFTS,1 CRANE ALL LEFT @ 1900 HRS, RIG UP LIGHTS,ELECTICAL CORDS
10/14/2009	0:00 - 6:00	6.00	MIRU	01	B	P		RIG UP HYDRAULIC WINCHES / ELECTRICAL LINES / WATER LINES / AIR LINES / POWER UP ELECTRONICS
	6:00 - 13:00	7.00	MIRU	01	B	P		RIG UP POWER LINES / WATER LINES / MUD LINES / RE-STRING LOAD SYSTEM W/ NEW SPOOL OF DRILL LINE / HOOK UP YELLOW DOG & FILL PITS FROM RESERVE PIT / POWER UP ELECTRONICS & CALIBRATE SYSTEMS / CHANGE OUT SAVER SUB ON TOP DRIVE / RIG BACK ON DAY WORK @ 13:00 HOURS
	13:00 - 18:00	5.00	PRSPD	14	A	P		NIPPLE UP B.O.P.E. / INSTALL FLARE LINES / INSTALL FLOW LINE & FILL UP LINES / FUNCTION TEST RAMS, ANNULAR & HCR VALVES

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN	Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH	Site: NBU 922-311 PAD	Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING	Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Leve) UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:00 - 22:00	4.00	PRPSPD	15	A	P		PRESSURE TEST PIPE RAMS, BLIND RAMS, IBOP, FLOOR VALVE, KILL LINES & KILL LINE VALVES, BOP WING VALVES, HCR VALVE + CHOKE LINE; INNER AND OUTER CHOKE VALVES & MANIFOLD TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @ 10 MINUTES / TEST ANNULAR TO 250 PSI LOW @ 5 MINUTES + 2500 PSI HIGH @ 10 MINUTES / TEST SUPER CHOKE + SURFACE CASING TO 1500 PSI @ 30 MINUTES - MAKE REPAIRS AS NEEDED / FUNCTION TEST CLOSING UNIT - PASSED
	22:00 - 22:30	0.50	PRPSPD	14	B	P		INSTALL WEAR BUSHING / VISUAL INSPECTION ON B.O.P.E.
	22:30 - 0:00	1.50	PRPSPD	06	A	P		SAFETY MEETING / M.I.R.U. WEATHERFORD EQUIPMENT / PICK UP DIRECTIONAL TOOLS + ORIENTATE & SHALLOW TEST SAME
10/15/2009	0:00 - 2:30	2.50	PRPSPD	06	A	P		PICK UP DRILL STRING & T.I.H. / TAG CEMENT @ 2212'
	2:30 - 3:00	0.50	PRPSPD	06	A	P		RIG DOWN WEATHERFORD EQUIPMENT / BREAK CIRCULATION / TEST PUMPS, LINES, KELLY HOSE & TOP DRIVE TO 2500 PSI - ALL GOOD
	3:00 - 3:30	0.50	PRPSPD	14	B	P		INSTALL WEAR BUSHING / CONDUCT PRE-SPUD INSPECTION
	3:30 - 4:00	0.50	PRPSPD	02	F	P		DRILL FLOAT TRAC F/ 2212' - T/ 2332'
	4:00 - 6:00	2.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 2332' - T/ 2527' = 195' @ 97.5 FPH / H2O + POLYMER / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1275/1025 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 92/84/92 / TORQUE ON/OFF BOTTOM 5K/3K / SLIDE 42' IN .5 HRS = 21.5% OF FOOTAGE DRILLED & 25% OF HOURS DRILL
	6:00 - 17:30	11.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 2527' - T/ 3948' = 1421' @ 123.5 FPH / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1600/1280 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 134/94/110 / TORQUE ON/OFF BOTTOM 8K/4K / SLIDE 216' IN 3.1 HRS = 15.2% OF FOOTAGE DRILLED & 26.9% OF HOURS DRILL / H2O + POLYMER W/ WEIGHTED SWEEPS
	17:30 - 18:00	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / WORK PIPE RAMS / VISUAL INSPECTION ON B.O.P.E.
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 3948' - T/ 5155' = 1207' @ 201.6 FPH / WOB 17K-19K / TOP DRIVE RPM 35-45 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1800/1450 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 170/109/135 / TORQUE ON/OFF BOTTOM 11K/6K / SLIDE 100' IN 1.0 HRS = 8.2% OF FOOTAGE DRILLED & 16.6% OF HOURS DRILL / H2O + POLYMER W/ WEIGHTED SWEEPS
10/16/2009	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 5155' - T/ 6120' = 965' @ 160.8 FPH / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1950/1600 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 190/122/147 / TORQUE ON/OFF BOTTOM 13K/7K / ROTATE = 100% OF FOOTAGE DRILLED / STARTED LIGHT MUD UP @ 6000' /

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009		Spud Date: 8/15/2009	
Project: UTAH-UINTAH			Site: NBU 922-311 PAD		Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING			Start Date: 7/21/2009		End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Level)			UWI: NE/SE/O/9/S/22/E/31/O/0/26/PM/S/2,319.00/E/0/128.00/O/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:00 - 10:00	4.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 6120' - T/ 6365' = 245' @ 61.25 FPH / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1970/1620 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 192/123/148 / TORQUE ON/OFF BOTTOM 13K/7K / SLIDE 15 FEET IN .5 HOURS = 6.1% OF FOOTAGE DRILLED & 12.5% OF HOURS DRILLED / 32 VIS - 9.0 PPG / DRILLER'S ERROR SET 48K ON BIT - BIT PERFORMANCE DROPPED - APPEARED TO BE DAMAGED
	10:00 - 13:00	3.00	DRLPRO	06	A	P		P.O.O.H. TO CHECK BIT / 1- CUTTER BROKE ON HEEL ROW / CHECK M.W.D. TOOLS / LAY DOWN .22 REV/GAL MOTOR & BIT #1 / WORK BLIND RAMS + ANNULAR
	13:00 - 16:30	3.50	DRLPRO	06	A	P		PICK UP .16 REV/GAL MOTOR + BIT #2 / SET BEND F/ 1.50* TO 1.83* / ORIENTATE & SHALLOW TEST M.W.D. TOOLS / T.I.H. TO DRILL BREAKING CIRCULATION AT SELECTED INTERVALS / 2' OF FILL / LOST 17 BBLs MUD ON TRIP
	16:30 - 17:00	0.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 6365' - T/ 6408' = 103' @ 206 FPH / WOB 17K-19K / TOP DRIVE RPM 35-45 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1960/1780 PSI / MUD MOTOR RPM 80 / PU/SO/ROT WT 190/128/150 / TORQUE ON/OFF BOTTOM 11K/8K / ROTATE = 100% OF FOOTAGE DRILLED / 32 VIS - 9.0 PPG
	17:00 - 17:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E.
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 6408' - T/ 6825' = 417' @ 64.1 FPH / WOB 18K-20K / TOP DRIVE RPM 35-45 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1975/1700 PSI / MUD MOTOR RPM 80 / PU/SO/ROT WT 200/128/157 / TORQUE ON/OFF BOTTOM 13K/7K / ROTATE = 100% OF FOOTAGE DRILLED / 35 VIS - 9.0 PPG / LOST APPROXIMATELY 25 BBLs MUD - HEALED W/ LCM SWEEPS
10/17/2009	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 6825' - T/ 7093' = 268' @ 44.6 FPH / WOB 18K-20K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 2000/1725 PSI / MUD MOTOR RPM 79 / PU/SO/ROT WT 220/130/159 / TORQUE ON/OFF BOTTOM 11K/9K / SLIDE 40' IN 1.5 HOURS = 14.9% OF FOOTAGE DRILLED & 25% OF HOURS DRILLED / 39 VIS - 9.4 PPG
	6:00 - 17:00	11.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 7093' - T/ 7644' = 551' @ 50.1 FPH / WOB 18K-21K / TOP DRIVE RPM 35-40 / PUMP 105 SPM = 472 GPM / PUMP PRESSURE ON/OFF BOTTOM 2058/1880 PSI / MUD MOTOR RPM 76 / PU/SO/ROT WT 210/135/165 / TORQUE ON/OFF BOTTOM 12K/10K / SLIDE 40' IN 1.5 HOURS = 7.2% OF FOOTAGE DRILLED & 13.6% OF HOURS DRILLED / 43 VIS - 10.0 PPG / LOST APPROXIMATELY 10 BBLs - PUMPING LCM SWEEPS TO CONTROL
	17:00 - 17:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E. / WORK PIPE RAMS

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009		Spud Date: 8/15/2009	
Project: UTAH-UINTAH			Site: NBU 922-311 PAD		Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING			Start Date: 7/21/2009		End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Leve			UWI: NE/SE/O/9/S/22/E/31/O/0/26/PM/S/2,319.00/E/0/128.00/O/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 7644' - T/ 7990' = 346' @ 53.2 FPH / WOB 18K-21K / TOP DRIVE RPM 35-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2275/2000 PSI / MUD MOTOR RPM 72 / PU/SO/ROT WT 230/138/170 / TORQUE ON/OFF BOTTOM 12K/10K / ROTATE = 100% OF FOOTAGE DRILLED / 43 VIS - 10.0 PPG / LOST APPROXIMATELY 20 BBLS - PUMPING LCM SWEEPS TO CONTROL
10/18/2009	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 7990' - T/ 8222' = 232' @ 38.6 FPH / WOB 18K-22K / TOP DRIVE RPM 35-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2010/1730 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 224/131/160 / TORQUE ON/OFF BOTTOM 12K/10K / SLIDE 20' IN 1.16 HOURS = 8.6% OF FOOTAGE DRILLED & 19.3% OF HOURS DRILLED / 44 VIS - 10.7 PPG - 3% LCM / BYPASSED SHAKERS @ 8125' - RAISED LCM TO 3% DUE TO SWEEPS NOT WORKING / LOST APPROXIMATELY 45 BBLS WHILE DRILLING
	6:00 - 16:00	10.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 8222' - T/ 8592' = 370' @ 37.0 FPH / WOB 18K-22K / TOP DRIVE RPM 35-40 / PUMP 105 SPM = 472 GPM / PUMP PRESSURE ON/OFF BOTTOM 2610/2420 PSI / MUD MOTOR= 76 RPM / PU/SO/ROT WT 230/145/178 / TORQUE ON/OFF BOTTOM 12K/10K / SLIDE 19' IN .66 HOURS = 5.1% OF FOOTAGE DRILLED & 6.6% OF HOURS DRILLED / 43 VIS - 11.5 PPG - 3% LCM / LOST APPROXIMATELY 15 BBLS WHILE DRILLING
	16:00 - 16:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E. / WORK PIPE RAMS
	16:30 - 19:30	3.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 8592' - T/ 8673' = 81' @ 27.0 FPH / WOB 18K-22K / TOP DRIVE RPM 35-40 / PUMP 105 SPM = 472 GPM / PUMP PRESSURE ON/OFF BOTTOM 2610/2420 PSI / MUD MOTOR= 76 RPM / PU/SO/ROT WT 230/145/178 / TORQUE ON/OFF BOTTOM 12K/10K / ROTATE = 100% OF FOOTAGE DRILLED / 44 VIS - 11.6 PPG - 3% LCM / LOST APPROXIMATELY 5 BBLS WHILE DRILLING
	19:30 - 20:30	1.00	DRLPRO	05	C	P		CIRCULATE & CONDITION HOLE FOR BIT TRIP / MIX WEIGHT PILL
	20:30 - 23:30	3.00	DRLPRO	06	A	P		PUMP PILL / P.O.O.H. FOR BIT #3 / STRAIGHT PULL OFF BOTTOM
	23:30 - 0:00	0.50	DRLPRO	06	A	P		LAY DOWN DIRECTIONAL TOOLS, CHANGE OUT MOTORS TO STRAIGHT MOTOR & BIT #3 / WORK ANNULAR & BLIND RAMS
10/19/2009	0:00 - 0:30	0.50	DRLPRO	06	A	P		FINISH LAYING DOWN DIRECTIONAL TOOLS, CHANGING OUT MOTORS TO A FIXED STRAIGHT MOTOR & BITS
	0:30 - 4:00	3.50	DRLPRO	06	A	P		T.I.H. T/ 8563' / BREAK CIRCULATION @ 2300' & @ 6000' / LOST APPROXIMATELY 7 BBLS TO HOLE
	4:00 - 4:30	0.50	DRLPRO	03	D	P		FILL PIPE / PRECAUTIONARY WASH & REAM F/ 8563' - T/ 8673' W/ 3' OF FILL ON BOTTOM / CUT NEW BIT PATTERN
	4:30 - 6:00	1.50	DRLPRO	02	D	P		DRILL F/ 8673' - T/ 8710' = 37' @ 24.6 FPH / WOB 20K-22K / TOP DRIVE RPM 30-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2230/2000 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 224/146/180 / TORQUE ON/OFF BOTTOM 10K/9K / 44 VIS - 11.6 PPG - 5% LCM / NO APPARENT LOSSES TO HOLE

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009		Spud Date: 8/15/2009	
Project: UTAH-UINTAH			Site: NBU 922-311 PAD		Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING			Start Date: 7/21/2009		End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Level)			UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:00 - 18:00	12.00	DRLPRO	02	D	P		DRILL F/ 8710' - T/ 9115' = 405' @ 33.7 FPH / WOB 20K-22K / TOP DRIVE RPM 30-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2492/2210 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 235/145/182 / TORQUE ON/OFF BOTTOM 12K/10K / 45 VIS - 12.0 PPG - 5% LCM / LOST APPROXIMATELY 40 BBLS TO HOLE
	18:00 - 18:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E.
	18:30 - 0:00	5.50	DRLPRO	02	D	P		DRILL F/ 9115' - T/ 9344' (T.D.) = ' @ 33.7 FPH / WOB 20K-22K / TOP DRIVE RPM 30-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2550/2300 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 250/150/188 / TORQUE ON/OFF BOTTOM 12K/11K / 45 VIS - 12.0 PPG - 5% LCM / LOST APPROXIMATELY 40 BBLS TO HOLE / LOST APPROXIMATELY 28 BBLS TO HOLE
10/20/2009	0:00 - 1:00	1.00	EVALPR	05	C	P		CIRCULATE & CONDITION HOLE FOR SHORT TRIP
	1:00 - 2:30	1.50	EVALPR	06	E	P		SHORT TRIP TO 7100' / STRAIGHT PULL OFF BOTTOM / NO PROBLEMS - NO FILL ON BOTTOM
	2:30 - 4:30	2.00	EVALPR	05	C	P		CIRCULATE & CONDITION HOLE FOR LOGS / PUMP 50 VIS SWEEP / BUILD CLEAN WEIGHT SLUG
	4:30 - 8:30	4.00	EVALPR	06	B	P		DROP SINGLE SHOT SURVEY TOOL / PUMP PILL / P.O.O.H. / BREAK BIT & LAY DOWN MUD MOTOR
	9:00 - 9:30	0.50	EVALPR	14	B	P		PULL WEAR BUSHING / VISUAL INSPECT B.O.P.E. / WORK BLIND RAMS / RECOVER SURVEY TOOL - 3.5 DEG W/ 150.9 UN-CORRECTED AZI = 161.26 AZI CORRECTED
	9:30 - 16:00	6.50	EVALPR	11	D	P		SAFETY MEETING / M.I.R.U. HALLIBURTON EQUIPMENT / RUN TRIPLE COMBO LOGS F/ 9354' - SURFACE / R.D.M.O. LOGGING EQUIPMENT
	16:00 - 17:00	1.00	CSG	12	A	P		SAFETY MEETING / M.I.R.U. WEATHERFORD EQUIPMENT
	17:00 - 22:00	5.00	CSG	12	C	P		RUN 220 JTS 4.5 #11.6 I-80 BT&C CASING + RELATED TOOLS BREAKING CIRCULATION AT SELECTED INTERVALS
	22:00 - 22:30	0.50	CSG	12	C	P		INSTALL MANDREL + ROTATING RUBBER / HOLD CASING @ 9332' TO CIRCULATE & CEMENT / NO APPARENT MUD LOSSES TO HOLE
	22:30 - 23:30	1.00	CSG	05	D	P		CIRCULATE & CONDITION HOLE FOR CEMENT / BOTTOMS UP GAS = 8376 UNITS W/ 5'-10' FLARE
	23:30 - 0:00	0.50	CSG	12	E	P		SAFETY MEETING (REVIEW J.S.A.) M.I.R.U. BJ EQUIPMENT / TEST PUMPS & LINES TO 5k PSI

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH		Site: NBU 922-311 PAD	Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING		Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Leve) UWI: NE/SE/O/9/S/22/E/31/O/O/26/PM/S/2,319.00/E/O/128.00/O/O			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
10/21/2009	0:00 - 2:30	2.50	CSG	12	E	P		SAFETY MEETING (REVIEW J.S.A.) M.I.R.U. BJ EQUIPMENT / TEST PUMPS & LINES TO 5k PSI / PUMP 40 BBLS H2O + 582 SX LEAD CEMENT @ 12.2 ppg (PREM LITE II + .25 pps CELLO FLAKE + 5 pps KOL SEAL + .05 lb/sx STATIC FREE + 10% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + .4 % R-3 + 163.33 BBLS FRESH WATER / (11.79 gal/sx, 2.17 yield) + 1205 SX TAIL @ 14.3 ppg (CLS G 50/50 POZ + 10% SALT + .05lbs/sx STATIC FREE + .2% R3 + .002 GPS FP-6L + 2% BENTONITE + 169.39 BBLS H2O / (5.90 gal/sx, 1.31 yield) / DROP PLUG & DISPLACE W/ 144.1 BBLS H2O + ADDITIVES / GOOD RETURNS TO 100 BBLS DISPLACEMENT - RETURNS DROPPED BY 50% - REDUCED PUMP RATE TO 4 BBLS/MIN W/ PARTIAL RETURNS (APPROX 25%) / RETURNED 15 BBLS PRE-FLUSH TO RESERVE PIT & NO CEMENT TO SURFACE / LIFT PRESSURE @ 2200 PSI (CALC TOP OF TAIL @ 5800') / BUMP PLUG W/ 3100 PSI / HOLD 5 MINUTES W/ NO LOSS / PLUG DOWN @ 02:30 HOURS / FLOATS HELD W/ 1.5 BBLS BACK TO INVENTORY / R.D.M.O. CEMENT EQUIPMENT NOTE: LOGS TO 9354' - CEMENT VOLUMES WERE CALCULATED W/ 10% EXCESS FOR TAIL CEMENT & 5% FOR LEAD CEMENT BASED ON INFORMATION FROM CALIPER LOGS
	2:30 - 3:00	0.50	CSG	12	C	P		LAND CASING W/ 99K ON MANDREL (SHOE @ 9334.43', TOP OF FLOAT @ 9287.11 7 TOP OF MARKER @ 4540') / FLUSH B.O.P.E. / LAY DOWN LANDING JOINT
	3:00 - 3:30	0.50	CSG	14	A	P		NIPPLE DOWN B.O.P.E. TO SKID / RIG RELEASED @ 03:30 HOURS ON 10/21/2009

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-3114AS GREEN Spud Conductor: 8/14/2009 Spud Date: 8/15/2009
 Project: UTAH-UINTAH Site: NBU 922-311 PAD Rig Name No: PROPETRO/, H&P 298/298
 Event: DRILLING Start Date: 7/21/2009 End Date: 10/21/2009
 Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/15/2009	6:00 - 15:00	9.00	MIRU	01	A	P		MIRU
	15:00 - 16:00	1.00	DRLSUR	02	A	P		HAMMER DRILL F/40 TO 180'
	16:00 - 17:00	1.00	DRLSUR	06	A	P		POOH L/D HAMMER
	17:00 - 22:30	5.50	DRLSUR	06	A	P		P/U PDC BIT,MUD MTR & DIR TOOLS,ORIENTATE WEATHERFORD,TIH
	22:30 - 0:00	1.50	DRLSUR	02	D	P		DIR DRILL F/180 TO 350
8/16/2009	0:00 - 0:00	24.00	DRLSUR	02	D	P		DIR DRILL F/350 TO 2125
8/17/2009	0:00 - 1:00	1.00	DRLSUR	08	B	Z		REPLACE STANDPIPE VALVE
	1:00 - 6:00	5.00	DRLSUR	06	A	X		POOH W/PLUGGED BIT & MTR
	6:00 - 10:00	4.00	DRLSUR	21	D	Z		WAIT ON MUD MTR,COULD NOT BREAK ELEVATOR SUB OUT OF WEATHERFORD MTR
	10:00 - 14:00	4.00	DRLSUR	06	A	P		TIH ,P/U DIR TOOLS,MUD MTR,TIH,30'FILL
	14:00 - 17:00	3.00	DRLSUR	02	D	P		DRILL F/2125 TO TD 2310,
	17:00 - 17:30	0.50	DRLSUR	05	C	P		CIRC HOLE CLEAN F/LDDP & CSG
	17:30 - 21:30	4.00	DRLSUR	06	A	P		LDDP & BHA
	21:30 - 0:00	2.50	CSG	12	C	P		RUN 52 JTS #36 J55 9.625 CSG TO 2284
10/12/2009	9:00 - 19:00	10.00	RDMO	01	E	P		RIG DOWN,PREP RIG F/TRUCKS,SKID RIG BACK TO LOAD OUT POSITION,MOVE CAMPS TO NEW LOC & RIG UP, HSM W/ JONES TRUCKIJNG,J&C CRANE,5 BED TRUCKS ON LOCATION @ 12:00 , CRANE @ 13:30 MOVE FRAC TANKS,CMT SILOS,JUNK RACK,SET OUT BACK END & HAUL TO NEW LOCATION (1 MILE) & SET IN PLACE,PUMPS ,PITS,GENERATORS,MCC & VFD HOUSES,SHAKERS,WATER TANK, DERRICK DOWN @ 17:30,RIG 90% RIGGED DOWN,50% MOVED,10% RIGGED UP, WAIT ON DAYLIGHT
10/13/2009	19:00 - 0:00	5.00	RDMO	21	C	P		WAIT ON DAYLIGHT TO MOVE IN EQUIPMENT & RIG UP
	0:00 - 6:00	6.00	MIRU	01	B	P		SAFETY MEETING / MOVE IN AND SET SKID PACKAGE + DRAW-WORKS / SET AND RAISE SHAKERS & SUBSTRUCTOR INSTALL B.O.P.E. HANDLER + FLOW LINE WALK WAY SYSTEM GAS BUSTER EQUIPMENT RAISED DOG HOUSE / INSPECT & RAISE DERRICK TO FLOOR & PIN,RAISE DERRICK. UP@19:00,SET IN FRAC TANKS,CMT SILOS, BOILER UTILIZED 5 BED TRUCKS 1 HAUL TRUCK,2 FORKLIFTS,1 CRANE ALL LEFT @ 1900 HRS, RIG UP LIGHTS,ELECTICAL CORDS
10/14/2009	6:00 - 0:00	18.00	MIRU	01	B	P		RIG UP HYDRAULIC WINCHES / ELECTRICAL LINES / WATER LINES / AIR LINES / POWER UP ELECTRONICS
	0:00 - 6:00	6.00	MIRU	01	B	P		RIG UP POWER LINES / WATER LINES / MUD LINES / RE-STRING LOAD SYSTEM W/ NEW SPOOL OF DRILL LINE / HOOK UP YELLOW DOG & FILL PITS FROM RESERVE PIT / POWER UP ELECTRONICS & CALIBRATE SYSTEMS / CHANGE OUT SAVER SUB ON TOP DRIVE / RIG BACK ON DAY WORK @ 13:00 HOURS
	6:00 - 13:00	7.00	MIRU	01	B	P		NIPPLE UP B.O.P.E. / INSTALL FLARE LINES / INSTALL FLOW LINE & FILL UP LINES / FUNCTION TEST RAMS, ANNULAR & HCR VALVES
	13:00 - 18:00	5.00	PRSPD	14	A	P		

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH		Site: NBU 922-311 PAD	Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING		Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/O/9/S/22/E/31/O/0/26/PM/S/2,319.00/E/0/128.00/O/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	18:00 - 22:00	4.00	PRPSPD	15	A	P		PRESSURE TEST PIPE RAMS, BLIND RAMS, IBOP, FLOOR VALVE, KILL LINES & KILL LINE VALVES, BOP WING VALVES, HCR VALVE + CHOKE LINE; INNER AND OUTER CHOKE VALVES & MANIFOLD TO 250 PSI LOW @ 5 MINUTES + 5000 PSI HIGH @ 10 MINUTES / TEST ANNULAR TO 250 PSI LOW @ 5 MINUTES + 2500 PSI HIGH @ 10 MINUTES / TEST SUPER CHOKE + SURFACE CASING TO 1500 PSI @ 30 MINUTES - MAKE REPAIRS AS NEEDED / FUNCTION TEST CLOSING UNIT - PASSED
	22:00 - 22:30	0.50	PRPSPD	14	B	P		INSTALL WEAR BUSHING / VISUAL INSPECTION ON B.O.P.E.
	22:30 - 0:00	1.50	PRPSPD	06	A	P		SAFETY MEETING / M.I.R.U. WEATHERFORD EQUIPMENT / PICK UP DIRECTIONAL TOOLS + ORIENTATE & SHALLOW TEST SAME
10/15/2009	0:00 - 2:30	2.50	PRPSPD	06	A	P		PICK UP DRILL STRING & T.I.H. / TAG CEMENT @ 2212'
	2:30 - 3:00	0.50	PRPSPD	06	A	P		RIG DOWN WEATHERFORD EQUIPMENT / BREAK CIRCULATION / TEST PUMPS, LINES, KELLY HOSE & TOP DRIVE TO 2500 PSI - ALL GOOD
	3:00 - 3:30	0.50	PRPSPD	14	B	P		INSTALL WEAR BUSHING / CONDUCT PRE-SPUD INSPECTION
	3:30 - 4:00	0.50	PRPSPD	02	F	P		DRILL FLOAT TRAC F/ 2212' - T/ 2332'
	4:00 - 6:00	2.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 2332' - T/ 2527' = 195' @ 97.5 FPH / H2O + POLYMER / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1275/1025 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 92/84/92 / TORQUE ON/OFF BOTTOM 5K/3K / SLIDE 42' IN .5 HRS = 21.5% OF FOOTAGE DRILLED & 25% OF HOURS DRILL
	6:00 - 17:30	11.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 2527' - T/ 3948' = 1421' @ 123.5 FPH / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1600/1280 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 134/94/110 / TORQUE ON/OFF BOTTOM 8K/4K / SLIDE 216' IN 3.1 HRS = 15.2% OF FOOTAGE DRILLED & 26.9% OF HOURS DRILL / H2O + POLYMER W/ WEIGHTED SWEEPS
	17:30 - 18:00	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / WORK PIPE RAMS / VISUAL INSPECTION ON B.O.P.E.
	18:00 - 0:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 3948' - T/ 5155' = 1207' @ 201.6 FPH / WOB 17K-19K / TOP DRIVE RPM 35-45 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1800/1450 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 170/109/135 / TORQUE ON/OFF BOTTOM 11K/6K / SLIDE 100' IN 1.0 HRS = 8.2% OF FOOTAGE DRILLED & 16.6% OF HOURS DRILL / H2O + POLYMER W/ WEIGHTED SWEEPS
10/16/2009	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 5155' - T/ 6120' = 965' @ 160.8 FPH / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1950/1600 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 190/122/147 / TORQUE ON/OFF BOTTOM 13K/7K / ROTATE = 100% OF FOOTAGE DRILLED / STARTED LIGHT MUD UP @ 6000' /

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009		Spud Date: 8/15/2009	
Project: UTAH-UINTAH		Site: NBU 922-311 PAD		Rig Name No: PROPETRO/, H&P 298/298	
Event: DRILLING		Start Date: 7/21/2009		End Date: 10/21/2009	
Active Datum: RKB @5,061.00ft (above Mean Sea Level)		UWI: NE/SE/O/9/S/22/E/31/O/O/26/PM/S/2,319.00/E/O/128.00/O/O			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:00 - 10:00	4.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 6120' - T/ 6365' = 245' @ 61.25 FPH / WOB 15K-18K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1970/1620 PSI / MUD MOTOR RPM 109 / PU/SO/ROT WT 192/123/148 / TORQUE ON/OFF BOTTOM 13K/7K / SLIDE 15 FEET IN .5 HOURS = 6.1% OF FOOTAGE DRILLED & 12.5% OF HOURS DRILLED / 32 VIS - 9.0 PPG / DRILLER'S ERROR SET 48K ON BIT - BIT PERFORMANCE DROPPED - APPEARED TO BE DAMAGED
	10:00 - 13:00	3.00	DRLPRO	06	A	P		P.O.O.H. TO CHECK BIT / 1- CUTTER BROKE ON HEEL ROW / CHECK M.W.D. TOOLS / LAY DOWN .22 REV/GAL MOTOR & BIT #1 / WORK BLIND RAMS + ANNULAR
	13:00 - 16:30	3.50	DRLPRO	06	A	P		PICK UP .16 REV/GAL MOTOR + BIT #2 / SET BEND F/ 1.50* TO 1.83* / ORIENTATE & SHALLOW TEST M.W.D. TOOLS / T.I.H. TO DRILL BREAKING CIRCULATION AT SELECTED INTERVALS / 2' OF FILL / LOST 17 BBLs MUD ON TRIP
	16:30 - 17:00	0.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 6365' - T/ 6408' = 103' @ 206 FPH / WOB 17K-19K / TOP DRIVE RPM 35-45 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1960/1780 PSI / MUD MOTOR RPM 80 / PU/SO/ROT WT 190/128/150 / TORQUE ON/OFF BOTTOM 11K/8K / ROTATE = 100% OF FOOTAGE DRILLED / 32 VIS - 9.0 PPG
	17:00 - 17:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E.
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 6408' - T/ 6825' = 417' @ 64.1 FPH / WOB 18K-20K / TOP DRIVE RPM 35-45 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 1975/1700 PSI / MUD MOTOR RPM 80 / PU/SO/ROT WT 200/128/157 / TORQUE ON/OFF BOTTOM 13K/7K / ROTATE = 100% OF FOOTAGE DRILLED / 35 VIS - 9.0 PPG / LOST APPROXIMATELY 25 BBLs MUD - HEALED W/ LCM SWEEPS
10/17/2009	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 6825' - T/ 7093' = 268' @ 44.6 FPH / WOB 18K-20K / TOP DRIVE RPM 35-40 / PUMP 110 SPM = 495 GPM / PUMP PRESSURE ON/OFF BOTTOM 2000/1725 PSI / MUD MOTOR RPM 79 / PU/SO/ROT WT 220/130/159 / TORQUE ON/OFF BOTTOM 11K/9K / SLIDE 40' IN 1.5 HOURS = 14.9% OF FOOTAGE DRILLED & 25% OF HOURS DRILLED / 39 VIS - 9.4 PPG
	6:00 - 17:00	11.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 7093' - T/ 7644' = 551' @ 50.1 FPH / WOB 18K-21K / TOP DRIVE RPM 35-40 / PUMP 105 SPM = 472 GPM / PUMP PRESSURE ON/OFF BOTTOM 2058/1880 PSI / MUD MOTOR RPM 76 / PU/SO/ROT WT 210/135/165 / TORQUE ON/OFF BOTTOM 12K/10K / SLIDE 40' IN 1.5 HOURS = 7.2% OF FOOTAGE DRILLED & 13.6% OF HOURS DRILLED / 43 VIS - 10.0 PPG / LOST APPROXIMATELY 10 BBLs - PUMPING LCM SWEEPS TO CONTROL
	17:00 - 17:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E. / WORK PIPE RAMS

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH		Site: NBU 922-311 PAD	Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING		Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRILL/SURVEY F/ 7644' - T/ 7990' = 346' @ 53.2 FPH / WOB 18K-21K / TOP DRIVE RPM 35-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2275/2000 PSI / MUD MOTOR RPM 72 / PU/SO/ROT WT 230/138/170 / TORQUE ON/OFF BOTTOM 12K/10K / ROTATE = 100% OF FOOTAGE DRILLED / 43 VIS - 10.0 PPG / LOST APPROXIMATELY 20 BBLS - PUMPING LCM SWEEPS TO CONTROL
10/18/2009	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 7990' - T/ 8222' = 232' @ 38.6 FPH / WOB 18K-22K / TOP DRIVE RPM 35-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2010/1730 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 224/131/160 / TORQUE ON/OFF BOTTOM 12K/10K / SLIDE 20' IN 1.16 HOURS = 8.6% OF FOOTAGE DRILLED & 19.3% OF HOURS DRILLED / 44 VIS - 10.7 PPG - 3% LCM / BYPASSED SHAKERS @ 8125' - RAISED LCM TO 3% DUE TO SWEEPS NOT WORKING / LOST APPROXIMATELY 45 BBLS WHILE DRILLING
	6:00 - 16:00	10.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 8222' - T/ 8592' = 370' @ 37.0 FPH / WOB 18K-22K / TOP DRIVE RPM 35-40 / PUMP 105 SPM = 472 GPM / PUMP PRESSURE ON/OFF BOTTOM 2610/2420 PSI / MUD MOTOR= 76 RPM / PU/SO/ROT WT 230/145/178 / TORQUE ON/OFF BOTTOM 12K/10K / SLIDE 19' IN .66 HOURS = 5.1% OF FOOTAGE DRILLED & 6.6% OF HOURS DRILLED / 43 VIS - 11.5 PPG - 3% LCM / LOST APPROXIMATELY 15 BBLS WHILE DRILLING
	16:00 - 16:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E. / WORK PIPE RAMS
	16:30 - 19:30	3.00	DRLPRO	02	D	P		DRILL/SURVEY F/ 8592' - T/ 8673' = 81' @ 27.0 FPH / WOB 18K-22K / TOP DRIVE RPM 35-40 / PUMP 105 SPM = 472 GPM / PUMP PRESSURE ON/OFF BOTTOM 2610/2420 PSI / MUD MOTOR= 76 RPM / PU/SO/ROT WT 230/145/178 / TORQUE ON/OFF BOTTOM 12K/10K / ROTATE = 100% OF FOOTAGE DRILLED / 44 VIS - 11.6 PPG - 3% LCM / LOST APPROXIMATELY 5 BBLS WHILE DRILLING
	19:30 - 20:30	1.00	DRLPRO	05	C	P		CIRCULATE & CONDITION HOLE FOR BIT TRIP / MIX WEIGHT PILL
	20:30 - 23:30	3.00	DRLPRO	06	A	P		PUMP PILL / P.O.O.H. FOR BIT #3 / STRAIGHT PULL OFF BOTTOM
	23:30 - 0:00	0.50	DRLPRO	06	A	P		LAY DOWN DIRECTIONAL TOOLS, CHANGE OUT MOTORS TO STRAIGHT MOTOR & BIT #3 / WORK ANNULAR & BLIND RAMS
10/19/2009	0:00 - 0:30	0.50	DRLPRO	06	A	P		FINISH LAYING DOWN DIRECTIONAL TOOLS, CHANGING OUT MOTORS TO A FIXED STRAIGHT MOTOR & BITS
	0:30 - 4:00	3.50	DRLPRO	06	A	P		T.I.H. T/ 8563' / BREAK CIRCULATION @ 2300' & @ 6000' / LOST APPROXIMATELY 7 BBLS TO HOLE
	4:00 - 4:30	0.50	DRLPRO	03	D	P		FILL PIPE / PRECAUTIONARY WASH & REAM F/ 8563' - T/ 8673' W/ 3' OF FILL ON BOTTOM / CUT NEW BIT PATTERN
	4:30 - 6:00	1.50	DRLPRO	02	D	P		DRILL F/ 8673' - T/ 8710' = 37' @ 24.6 FPH / WOB 20K-22K / TOP DRIVE RPM 30-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2230/2000 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 224/146/180 / TORQUE ON/OFF BOTTOM 10K/9K / 44 VIS - 11.6 PPG - 5% LCM / NO APPARENT LOSSES TO HOLE

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN	Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH	Site: NBU 922-311 PAD	Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING	Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/O/9/S/22/E/31/O/0/26/PM/S/2,319.00/E/0/128.00/O/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:00 - 18:00	12.00	DRLPRO	02	D	P		DRILL F/ 8710' - T/ 9115' = 405' @ 33.7 FPH / WOB 20K-22K / TOP DRIVE RPM 30-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2492/2210 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 235/145/182 / TORQUE ON/OFF BOTTOM 12K/10K / 45 VIS - 12.0 PPG - 5% LCM / LOST APPROXIMATELY 40 BBLS TO HOLE
	18:00 - 18:30	0.50	DRLPRO	07	A	P		SERVICE RIG & EQUIPMENT / VISUAL INSPECTION ON B.O.P.E.
	18:30 - 0:00	5.50	DRLPRO	02	D	P		DRILL F/ 9115' - T/ 9344' (T.D.) = ' @ 33.7 FPH / WOB 20K-22K / TOP DRIVE RPM 30-40 / PUMP 100 SPM = 450 GPM / PUMP PRESSURE ON/OFF BOTTOM 2550/2300 PSI / MUD MOTOR= 72 RPM / PU/SO/ROT WT 250/150/188 / TORQUE ON/OFF BOTTOM 12K/11K / 45 VIS - 12.0 PPG - 5% LCM / LOST APPROXIMATELY 40 BBLS TO HOLE / LOST APPROXIMATELY 28 BBLS TO HOLE
10/20/2009	0:00 - 1:00	1.00	EVALPR	05	C	P		CIRCULATE & CONDITION HOLE FOR SHORT TRIP
	1:00 - 2:30	1.50	EVALPR	06	E	P		SHORT TRIP TO 7100' / STRAIGHT PULL OFF BOTTOM / NO PROBLEMS - NO FILL ON BOTTOM
	2:30 - 4:30	2.00	EVALPR	05	C	P		CIRCULATE & CONDITION HOLE FOR LOGS / PUMP 50 VIS SWEEP / BUILD CLEAN WEIGHT SLUG
	4:30 - 8:30	4.00	EVALPR	06	B	P		DROP SINGLE SHOT SURVEY TOOL / PUMP PILL / P.O.O.H. / BREAK BIT & LAY DOWN MUD MOTOR
	9:00 - 9:30	0.50	EVALPR	14	B	P		PULL WEAR BUSHING / VISUAL INSPECT B.O.P.E. / WORK BLIND RAMS / RECOVER SURVEY TOOL - 3.5 DEG W/ 150.9 UN-CORRECTED AZI = 161.26 AZI CORRECTED
	9:30 - 16:00	6.50	EVALPR	11	D	P		SAFETY MEETING / M.I.R.U. HALLIBURTON EQUIPMENT / RUN TRIPLE COMBO LOGS F/ 9354' - SURFACE / R.D.M.O. LOGGING EQUIPMENT
	16:00 - 17:00	1.00	CSG	12	A	P		SAFETY MEETING / M.I.R.U. WEATHERFORD EQUIPMENT
	17:00 - 22:00	5.00	CSG	12	C	P		RUN 220 JTS 4.5 #11.6 I-80 BT&C CASING + RELATED TOOLS BREAKING CIRCULATION AT SELECTED INTERVALS
	22:00 - 22:30	0.50	CSG	12	C	P		INSTALL MANDREL + ROTATING RUBBER / HOLD CASING @ 9332' TO CIRCULATE & CEMENT / NO APPARENT MUD LOSSES TO HOLE
	22:30 - 23:30	1.00	CSG	05	D	P		CIRCULATE & CONDITION HOLE FOR CEMENT / BOTTOMS UP GAS = 8376 UNITS W/ 5'-10' FLARE
	23:30 - 0:00	0.50	CSG	12	E	P		SAFETY MEETING (REVIEW J.S.A.) M.I.R.U. BJ EQUIPMENT / TEST PUMPS & LINES TO 5k PSI

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH		Site: NBU 922-311 PAD	Rig Name No: PROPETRO/, H&P 298/298
Event: DRILLING		Start Date: 7/21/2009	End Date: 10/21/2009
Active Datum: RKB @5,061.00ft (above Mean Sea Level)		UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
10/21/2009	0:00 - 2:30	2.50	CSG	12	E	P		SAFETY MEETING (REVIEW J.S.A.) M.I.R.U. BJ EQUIPMENT / TEST PUMPS & LINES TO 5k PSI / PUMP 40 BBLS H2O + 582 SX LEAD CEMENT @ 12.2 ppg (PREM LITE II + .25 pps CELLO FLAKE + 5 pps KOL SEAL + .05 lb/sx STATIC FREE + 10% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + .4 % R-3 + 163.33 BBLS FRESH WATER / (11.79 gal/sx, 2.17 yield) + 1205 SX TAIL @ 14.3 ppg (CLS G 50/50 POZ + 10% SALT + .05lbs/sx STATIC FREE + .2% R3 + .002 GPS FP-6L + 2% BENTONITE + 169.39 BBLS H2O / (5.90 gal/sx, 1.31 yield) / DROP PLUG & DISPLACE W/ 144.1 BBLS H2O + ADDITIVES / GOOD RETURNS TO 100 BBLS DISPLACEMENT - RETURNS DROPPED BY 50% - REDUCED PUMP RATE TO 4 BBLS/MIN W/ PARTIAL RETURNS (APPROX 25%) / RETURNED 15 BBLS PRE-FLUSH TO RESERVE PIT & NO CEMENT TO SURFACE / LIFT PRESSURE @ 2200 PSI (CALC TOP OF TAIL @ 5800') / BUMP PLUG W/ 3100 PSI / HOLD 5 MINUTES W/ NO LOSS / PLUG DOWN @ 02:30 HOURS / FLOATS HELD W/ 1.5 BBLS BACK TO INVENTORY / R.D.M.O. CEMENT EQUIPMENT NOTE: LOGS TO 9354' - CEMENT VOLUMES WERE CALCULATED W/ 10% EXCESS FOR TAIL CEMENT & 5% FOR LEAD CEMENT BASED ON INFORMATION FROM CALIPER LOGS
	2:30 - 3:00	0.50	CSG	12	C	P		LAND CASING W/ 99K ON MANDREL (SHOE @ 9334.43', TOP OF FLOAT @ 9287.11 7 TOP OF MARKER @ 4540') / FLUSH B.O.P.E. / LAY DOWN LANDING JOINT
	3:00 - 3:30	0.50	CSG	14	A	P		NIPPLE DOWN B.O.P.E. TO SKID / RIG RELEASED @ 03:30 HOURS ON 10/21/2009

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-3114AS GREEN Spud Conductor: 8/14/2009 Spud Date: 8/15/2009
 Project: UTAH-UINTAH Site: NBU 922-311 PAD Rig Name No: LEED 733/733
 Event: COMPLETION Start Date: 3/18/2010 End Date: 4/12/2010
 Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/19/2010	7:00 - 7:15	0.25	COMP	48		P		HSM
	7:15 - 17:00	9.75	COMP	37		P		MIRU CUTTERS WIRE LINE, RIH PERF MESAVERDE USING 3-3/8 EXPEND, 23 GRM, 0.36" HOLE, 9240'-9242' 4 SPF, 90* PH, 8 HOLES. 9157'-9159' 4 SPF, 90* PH, 8 HOLES. 9144' 9146' 4 SPF, 90* PH, 8 HOLES. 9114' 9116' 4 SPF, 90* PH, 8 HOLES. 9097' 9099' 4 SPF, 90* PH, 8 HOLES. [40HOLES] SWIFN.
3/22/2010	10:22 - 11:00	0.63	COMP	36	E	P		(STG #1) WHP = 188 #, BRK DN PERF @ 4062 # @ 5.6 B/M, INJ-RT = 50 B/M, INJ-P = 5100 #, ISIP = 2843 #, F.G.= 0.74 , CALC ALL PERF OPEN, PUMP 1044 BBLs 15% HCL AHEAD OF INJ, PUMP 1044 BBLs SLK WTR & 31744 # OTTAWA SAND, ISIP = 2761 #, F.G.= 0.73 , NPI = -82 #, MP = 6588 #, MR = 50.6 B/M, AP = 4800 #, AR = 50 B/M, 26744 # 30/50 SAND, 5000 # TLC SAND, COMMENTS = GOOD JOB
	11:00 - 17:00	6.00	COMP	36	E	P		(STG #2) RIH W/ HALLIBURTON 8K CBP AND PEF GUNS, SET CBP @ 8980', PERF THE MESAVERDE @ 8948' - 8950', 8914' - 8916', 8897' - 8901', 8823' - 8824', 4-SPF, USING 3 3/8" SCALOP GUNS, 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES, WHP = 400 #, BRK DN PERF @ 4056 # @ 6.3 B/M, INJ-RT = 50 B/M, INJ-P = 4980#, ISIP = 2690 #, F.G.= 0.74 , CALC ALL PERF OPEN, PUMP 1269 BBLs SLK WTR & 49448 # OTTAWA SAND, ISIP = 2747 # F.G.= 0.74 , NPI = 57 #, MP = 6022 #, MR = 50.8 B/M, AP = 4486 #, AR = 50 B/M, COMMENTS = GOOD JOB
								(PERF STG #4) RIH W/ HALLIBURTON 8K CBP AND PEF GUNS, SET CBP @ 8486', PERF THE MESAVERDE @ 8454' - 8456', 8406' - 8408', 8321' - 8323', 8297' - 8299', 8240' - 8242', 4-SPF, USING 3 3/8" SCALOP GUNS, 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES,

US ROCKIES REGION

Operation Summary Report

Well: NBU 922-3114AS GREEN		Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH		Site: NBU 922-311 PAD	Rig Name No: LEED 733/733
Event: COMPLETION		Start Date: 3/18/2010	End Date: 4/12/2010
Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/O/9/S/22/E/31/O/O/26/PM/S/2,319.00/E/O/128.00/O/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/23/2010	7:00 - 17:00	10.00	COMP	36	E	P		<p>(STG #4) WHP = 1200 #, BRK DN PERF @ 3768 # @ 4.8 B/M, INJ-RT = 51 B/M, INJ-P = 4610 #, ISIP = 2261 #, F.G.= 0.70 , CALC ALL PERF OPEN, PUMP 1175 BBLS SLK WTR & 45666 # OTTAWA SAND, ISIP = 2137 #, F.G.= 0.69 , NPI = -124 #, MP = 6175 #, MR = 50.5 B/M, AP = 4525 #, AR = 50 B/M, 40666 # 30/50 SAND, 5000 # TLC SAND,</p> <p>(STG #5) RIH W/ HALLIBURTON 8K CBP AND PERF GUNS, SET CBP @ 8156 ', PERF THE MESAVERDE @ 8124' - 8126', 8076' - 8078', 8026' - 8028', 7999' - 8001', 7972' - 7974', 4-SPF, USING 3 3/8" SCALOP GUNS, 23 gm, 90* PHS, 0.36 HOLE, 4C HOLES, WHP = 620 #, BRK DN PERF @ 5646 # @ 4.5 B/M, INJ-RT = 50 B/M, INJ-P = 5500 #, ISIP = 2367 #, F.G.= 0.73 , CALC 65% PERF OPEN, PUMP 913 BBLS SLK WTR & 33791 # OTTAWA SAND, ISIP = 2243 #, F.G.= 0.71, NPI = -124 #, MP = 6546 #, MR = 50.7 B/M, AP = 4910 #, AR = 50 B/M, 28791 # 30/50 SAND, 5000 # TLC SAND, COMMENTS = GOOD JOB</p> <p>(STG #6) RIH W/ HALLIBURTON 8K CBP AND PERF GUNS, SET CBP @ 7950 ', PERF THE MESAVERDE @ 7916' - 7920', 7886' - 7889', 7800 - 7803', 4-SPF, USING 3 3/8" SCALOP GUNS, 23 gm, 90* PHS, 0.36 HOLE, 40 HOLES, WHP =1520 #, BRK DN PERF @ 3232 # @ 4.8 B/M, INJ-RT = 50 B/M, INJ-P = 4900 #, ISIP = 2531#, F.G.= 0.75, CALC 93% PERF OPEN, PUMP 779 BBLS SLK WTR & 28186 # OTTAWA SAND, ISIP = 2337 #, F.G.= 0.73 , NPI = -194 #, MP = 5646 #, MR = 50.4 B/M, AP = 4840 #, AR = 50 B/M, 23186 # 30/50 SAND, 5000 # TLC SAND, COMMENTS = GOOD JOB</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN Spud Conductor: 8/14/2009 Spud Date: 8/15/2009
 Project: UTAH-UINTAH Site: NBU 922-311 PAD Rlg Name No: LEED 733/733
 Event: COMPLETION Start Date: 3/18/2010 End Date: 4/12/2010
 Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/O/9/S/22/E/31/O/O/26/PM/S/2,319.00/E/O/128.00/O/O

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
3/24/2010	7:30 - 14:00	6.50	COMP	36	E	P		<p>(STG # 7) WHP = 540 #, BRK DN PERF @ 2867# @ 4 B/M, INJ-RT = 51 B/M, INJ-P = 4850 #, ISIP = 1554 #, F.G.= 0.64 , CALC 60% PERF OPEN, PUMP 1631 BBLS SLK WTR & 66563 # OTTAWA SAND, ISIP = 2155 #, F.G.= 0.73 , NPI = 601 #, MP = 4870 # MR = 51 B/M, AP = 4660 #, AR = 50.6 B/M, 61563 # 30/50 SAND, 5000 # TLC SAND, COMMENTS = GOOD JOB</p> <p>(STG # 8) RIH W/ HALLIBURTON 8K CBP AND PERF GUNS, SET CBP @ 7228', PERF THE MESAVERDE AND WASATCH @ 7194' - 7198', PERF WASATCH @ 7144' - 7148', 7102' - 7104', 4-SPF, USING 3 3/8" SCALOP GUNS, 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES, WHP = 940 #, BRK DN PERF @ 2567 # @ 4.9 B/M, INJ-RT = 51 B/M, INJ-P = 5050 #, ISIP = 1354 #, F.G.= 0.62, CALC 69% PERF OPEN, PUMP 1787 BBLS SLK WTR & 83564 # OTTAWA SAND, ISIP = 2308 #, F.G. = 0.76, NPI = 954 #, MP = 5145 #, MR = 51 B/M, AP = 4445 #, AR = 50.2 B/M, 77564 # 30/50 SAND, 5000 # TLC SAND, COMMENTS = GOOD JOB,</p> <p>(STG # 9) RIH W/ HALLIBURTON 8K CBP AND PERF GUNS, SET THE CBP @ 6316 ' , PERF THE WASATCH @ 6280' - 6286', 6148' - 6150', 6130' - 6132', 4-SPF, USING 3 3/8" SCALOP GUNS, 23 gm, 0.36 HOLE, 90* PHS, 40 HOLES, WHP = 650 #, BRK DN PERF @ 2520 # @ 4.7 B/M, INJ-RT = 50 B/M, INJ-P = 4225 #, ISIP = 1342 #, F.G.= 0.65, CALC 63% PERF OPEN, PUMP 740 BBLS SLK WTR & 30365 # OTTAWA SAND, ISIP = 1460 #, F.G.= 0.67, NPI = 118 #, MP = 4256 #, MR = 50.3 B/M, AP = 3225 #, AR = 49.2 B/M, 25365 # 30/50 SAND, 5000 # TLC SAND, COMMENTS = GOOD JOB,</p> <p>(KILL PLUG) RIH W/ HALLIBURTON 8K CBP, SET THE CBP @ 6080 ' , R/D WIRELINE AND FRAC OFF GREEN WELL.</p> <p>TOTAL FLUID = 10168 BBLS, TOTAL SAND = 398149 #, JSA- SETTING WH COVER. RUSU.</p>
4/9/2010	7:00 - 7:15 7:15 - 15:00	0.25 7.75	COMP COMP	48 31	 I	 P		<p>SET WELLHEAD COVER ON 3101AS. SPOT AND RUSU. ND FRAC VALVES. NU BOP. RU FLOOR AND TBG EQUIP. SPOT IN TBG TRAILER. MU 3-7/8" HURRICANE MILL, POBS, 1.87" XN AND RIH AS MEAS AND PU 2-3/8" L-80 TBG. TAG SAND AT 6041' W/ 190-JTS. RU DRLG EQUIP. FILL TBG AND P-TEST TO 3000#. GOOD. READY TO D/O PLUGS IN AM.</p>
4/12/2010	6:30 - 6:45	0.25	COMP	48		P		<p>JSA- D/O PLUGS.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN Spud Conductor: 8/14/2009 Spud Date: 8/15/2009
 Project: UTAH-UINTAH Site: NBU 922-311 PAD Rig Name No: LEED 733/733
 Event: COMPLETION Start Date: 3/18/2010 End Date: 4/12/2010
 Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/O/9/S/22/E/31/O/0/26/PM/S/2,319.00/E/0/128.00/O/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	6:45 - 15:30	8.75	COMP	44	C	P		EST CIRC AND D/O PLUGS. #1- C/O 30' SAND TO CBP AT 6080'. D/O IN 10 MIN. 0# INC. RIH. #2- C/O 20' SAND TO CBP AT 6316'. D/O IN 10 MIN. 25# INC. RIH. #3- C/O 2' SAND TO CBP AT 7228'. D/O IN 10 MIN. 100# INC. RIH. #4- C/O 40' SAND TO CBP AT 7465'. D/O IN 10 MIN. 25# INC. RIH. #5- C/O 45' SAND TO CBP AT 7950'. D/O IN 8 MIN. 100# INC. RIH. #6- C/O 30' SAND TO CBP AT 8156'. D/O IN 12 MIN. 100# INC. RIH. #7- C/O 70' SAND TO CBP AT 8486'. D/O IN 9 MIN. 100# INC. RIH. #8- C/O 30' SAND TO CBP AT 8721'. D/O IN 12 MIN. 50# INC. RIH. #9- C/O 25' SAND TO CBP AT 8980'. D/O IN 15 MIN. 50# INC. RIH. PBSD. C/O 50' SAND TO PBSD AT 9287' W/ 293-JTS IN. (45' RATHOLE) CIRC CLEAN. RD PWR SWIVEL. POOH AS LD 16-JTS. PU 7" 5K HANGER. LUB IN AND LAND 277-JTS 2-3/8" L-80 TBG W/ EOT AT 8798.92'. DROP BALL. RD FLOOR. ND BOP. NU WH. PMP OFF BIT AT 2000#. LAY FLOW BACK LINE TO FBT. TO WINDY TO RD. WILL RDSU IN AM AND MOVE OFF. SICP 2100#, FTP 50#, NO CHOKE. TBG DETAIL KB 26.00 7" 5K HANGER 1.00 277-JTS 2-3/8" L-80 TBG 8769.72 1.87" XN 2.20 EOT 8798.92 302-JTS DELIVERED / 23-JTS RETURNED / 2-JTS BAD. PMP 10,168 / RCVR 2925 / LTR 7243 7 AM FLBK REPORT: CP 1875#, TP 2100#, 20/64" CK, 43 BWPH, HEAVY SAND, LIGHT GAS TTL BBLS RECOVERED: 3754 BBLS LEFT TO RECOVER: 6414
4/13/2010	7:00 -			33	A			WELL TURNED TO SALES @ 0100 HR ON 4/14/10 - 2000 MCFD, 888 BWPD, CP 1950#, FTP 2100#, CK 20/64"
4/14/2010	1:00 -		PROD	50				7 AM FLBK REPORT: CP 1850#, TP 1925#, 20/64" CK, 35 BWPH, MED SAND, - GAS TTL BBLS RECOVERED: 4638 BBLS LEFT TO RECOVER: 5530
4/15/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 1850#, TP 1825#, 20/64" CK, 30 BWPH, LIGHT SAND, - GAS TTL BBLS RECOVERED: 5455 BBLS LEFT TO RECOVER: 4713
4/16/2010	7:00 -			33	A			7 AM FLBK REPORT: CP 1900#, TP 1775#, 20/64" CK, 25 BWPH, TRACE SAND, - GAS TTL BBLS RECOVERED: 6069 BBLS LEFT TO RECOVER: 4099
4/19/2010	7:00 -		PROD	50				WELL IP'D ON 4/19/10 - 1981 MCFD, 40 BOPD, 480 BWPD, CP 2243#, FTP 1551#, CK 20/64", LP 124#, 24 HRS

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

FORM 9

5. LEASE DESIGNATION AND SERIAL NUMBER:
UO 1530A

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:

7. UNIT or CA AGREEMENT NAME:
NATURAL BUTTES

1. TYPE OF WELL
Gas Well

8. WELL NAME and NUMBER:
NBU 922-3114AS

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

9. API NUMBER:
43047503970000

3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779
PHONE NUMBER: 720 929-6515 Ext

9. FIELD and POOL or WILDCAT:
NATURAL BUTTES

4. LOCATION OF WELL
FOOTAGES AT SURFACE:
2319 FSL 0128 FEL
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:
Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E Meridian: S

COUNTY:
UINTAH

STATE:
UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 3/17/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input 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 type="text"/>

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 procedures for the proposed repair work on the subject well location.

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

Date: 03/21/2011
By: Derek Quist

NAME (PLEASE PRINT) Gina Becker **PHONE NUMBER** 720 929-6086 **TITLE** Regulatory Analyst II

SIGNATURE N/A **DATE** 3/17/2011

WORKORDER #: 88122145

3/3/11

Name: NBU 922-31I4AS - 922-31I PAD
Surface Location: NESE SEC.31, T9S, R22E
Uintah County, UT

API: 4304750397 **LEASE#:** UO-1530A

ELEVATIONS: 5034' GL 5060' KB

TOTAL DEPTH: 9344' **PBTD:** 9288'

SURFACE CASING: 9 5/8", 36# J-55 @ 2308'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 @ 9334'
TOC @ 232' per CBL

PERFORATIONS: Wasatch 6130' - 7148'
Mesaverde 7194' - 9242'

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	0.02173	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.01554
9.625" 36# J-55	8.921	2020	3520	3.247	0.434	0.0773
Annular Capacities						
2.375" tbg. X 4 1/2" 11.6# csg				0.4227	0.0565	0.01006

GEOLOGICAL MARKERS, TOPS:

1306' Green River
2111' Mahogany
4588' Wasatch
7189' Mesaverde

NBU 922-3114AS - WELLHEAD REPLACEMENT 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 @ ~6080'. 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 7,000# / 9,000# 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 ~6030'. Clean out to PBTD (9288').
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 7,000# / 9,000# 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 ~6030'. Clean out to PBTD (9288').
11. POOH, land tbg and pump off POBS.
12. NUWH, RDMO. Turn well over to production ops.



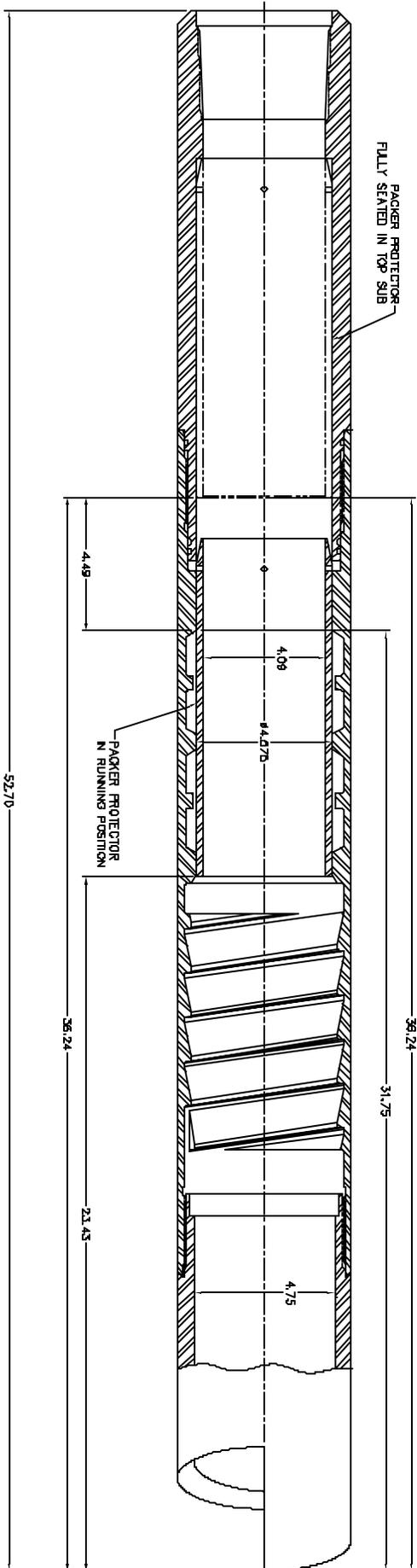
Logan High Pressure Casing Patches Assembly Procedure

All parts should be thoroughly greased before being assembled.

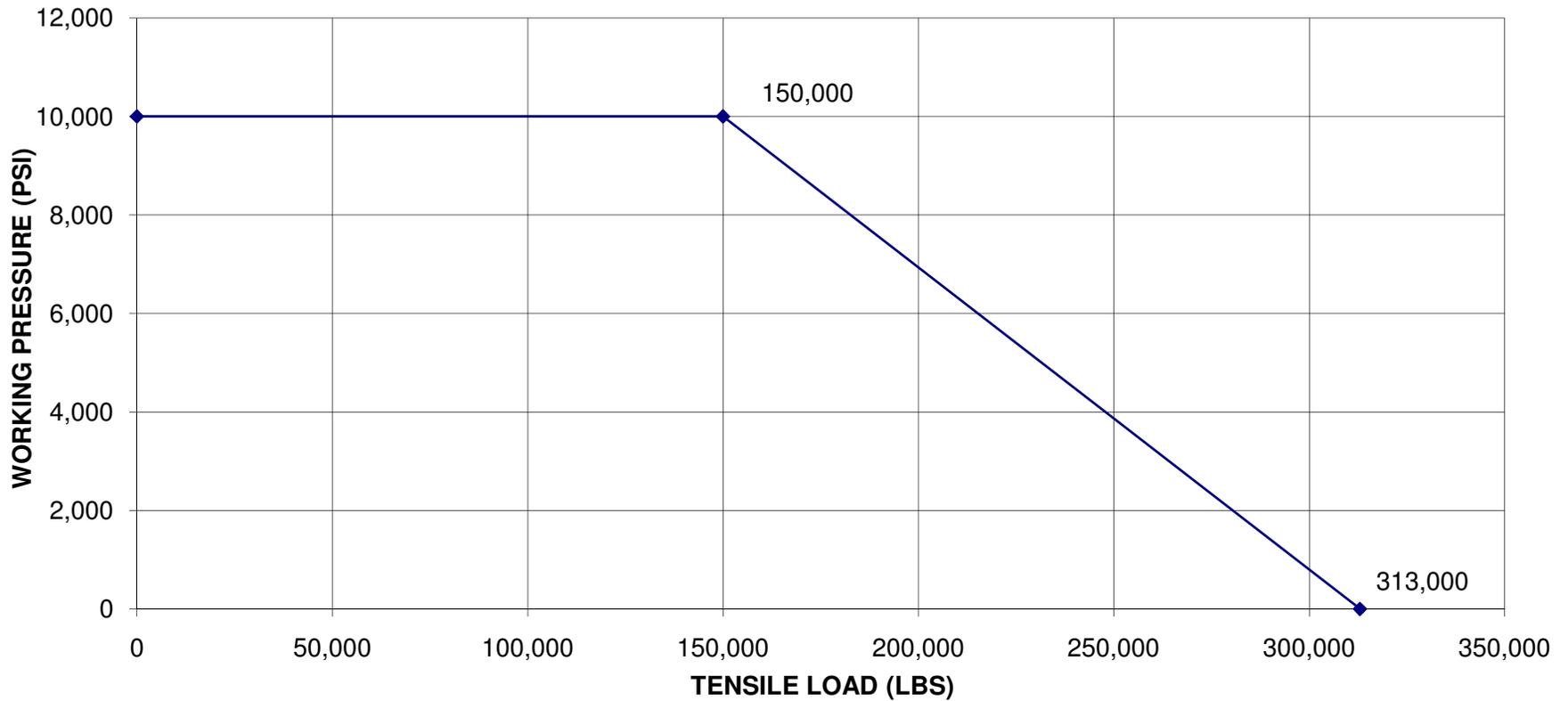
1. Install all four Logan Type "L" Packers in the spaces provided in the Casing Patch Bowl. Refer to diagram provided for proper installation.
2. Install Packer Protector from the Basket Grapple end of the Bowl. The beveled end of the Packer Protector goes in first. Carefully push the Packer Protector 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



**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

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: UO 1530A
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:
		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: NBU 922-31I4AS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503970000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6515 Ext	9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2319 FSL 0128 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NESE Section: 31 Township: 09.0S Range: 22.0E Meridian: S	COUNTY: UINTAH	
		STATE: UTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 5/9/2011 <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 type="text" value="Wellhead Repair"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		
<p>The operator has concluded wellhead/casing repairs on the subject well location. Please see the attached chronological history for details of the operations.</p> <p style="text-align: right;">Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY</p>		
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 5/9/2011	

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN Spud Conductor: 8/14/2009 Spud Date: 8/15/2009
 Project: UTAH-UINTAH Site: NBU 922-311 PAD Rig Name No: MILES-GRAY 1/1
 Event: WELL WORK EXPENSE Start Date: 4/12/2011 End Date:
 Active Datum: RKB @5,061.00ft (above Mean Sea Level) UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
4/13/2011	7:00 -		PROD	35	G	P		<p>Travel to location rig up ran g1 tool set down @ 8835 came out with the bypass plunger ran jdc set down @ 8835 jar spring out came out with the titanium spring spring and plunger looks good left spring and plunger out for the work over rig rig down travel to the next loc</p> <p>FLUID LEVEL gas cut SEAT NIPPLE DEPTH 8835 SN TYPE X TD (Max Depth) 8835</p> <p>JOB DETAILS SPRING AND/OR PRODUCTION TOOL DETAIL</p> <p>Spring Out Used-Titanium Spring In None</p> <p>Stuck Spring No, it came free Corrosion on Spring No Bailed Acid No Broken Spring No Scale on Spring Drop Down Menu Production Tools None Depth of Tool</p> <p>Other Hardware None PLUNGER DETAIL Stuck Plunger No, it came free Corrosion on Plunger No Broken Plunger No Scale on Plunger No SOLIDS DETAIL Tight Spots None Severity of Trash None</p> <p>Solid sample to turn in Drop Down Menu Solid Sample Source Drop Down Menu Speculated Type of Solid Drop Down Menu Speculated Depth of Solid</p> <p>LOST SLICKLINE TOOLS Slickline Tools Lost Drop Down Menu Depth of Tool</p>
4/14/2011	7:00 - 9:30	2.50	WO/REP	30	A	P		ROAD RIG TO LOC, MIRU, 150# ON WELL, PUMP 30 BBLs WTR DN TBG, N/D WH, N/U BOPS AND TBG EQUIP,
	9:30 - 12:00	2.50	WO/REP	31	I	P		TOOH W/ 2 3/8" L-80 TBG, 277 JTS L-80 TBG, LAY DN POBS
	12:00 - 16:30	4.50	WO/REP	34	I	P		R/U CASED HOLE WIRELINE, RIH W/ GAGUE RING TO 6100', RIH W/ HALLIBURTON 10K CBP, SET CBP @ 6070', RIH W/ DUMP BAILER, DUMP 4 SACKS CEMENT ON TOP OF CBP, R/D WIRELINE, SHUT WELL IN, SDFN,
4/15/2011	7:00 - 7:30	0.50	WO/REP	48		P		JSA-SAFETY MEETING, W/ CAMERON, RBS FISHING, FRANK'S CSG TONGS, AND RIG CREW,

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-3114AS GREEN	Spud Conductor: 8/14/2009	Spud Date: 8/15/2009
Project: UTAH-UINTAH	Site: NBU 922-311 PAD	Rig Name No: MILES-GRAY 1/1
Event: WELL WORK EXPENSE	Start Date: 4/12/2011	End Date:
Active Datum: RKB @5,061.00ft (above Mean Sea Leve		
UWI: NE/SE/0/9/S/22/E/31/0/0/26/PM/S/2,319.00/E/0/128.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:30 - 10:30	3.00	WO/REP	30		P		N/D BOPS AND TBG SPOOL, P/U POWER SWIVEL RIH W/ INSIDE CUTTER, CUT 4 1/2" CSG OFF 6' BELOW SURFACE, P/O LAY DN CAMERON CSG HANGER AND CUT CSG, P/U OVERSHOT RIH LATCH ONTO CSG, R/U CSG TONGS AND WIRELINE, CHECK CSG TORQUE TO 2500#, RIH W/ STRING SHOT, P/U CSG TO 1500#, PUT 2500 @ TORQUE TO LEFT IN CSG SHOT STRING SHOT, BACK CSG OFF @ 54', R/D WIRELINE, P/O LAY DN JT CSG AND OVERSHOT, P/U 1 JT BUTTRESS SKIRTED PIN CSG AND 12', SUB, RIH SCREWED INTO CSG W/ GETTING EXTRA 14 TURN TO TORQUE TO 6500#, PULLED CSG TO 90,000#,
	10:30 - 12:00	1.50	WO/REP	33	C	P		R/U B&C QUICK TEST TO 4 1/2" CSG, PRESSURE TEST @ LOW TEST 1000# FOR 15 MIN, OK, HIGH TEST TO 3500# FOR 30 MIN, LOST 18# IN 30 MIN, TEST OK, R/D TESTER,
	12:00 - 13:00	1.00	WO/REP	30		P		SET CAMERON SLIPS IN CSG BOWL, PICK CSG UP TO 90,000#, SET SLIPS, CUT CSG SUB OFF, N/U CSG HEAD AND TBG SPOOL, TEST HEAD OK, N/U BOPS AND TBG EQUIP,
	13:00 - 14:00	1.00	WO/REP	30	F	P		
	14:00 - 15:00	1.00	WO/REP	31	I	P		P/U 3 7/8" BIT AND PUMP OFF BIT SUB, TIH W/ 2 3/8" TBG W/ BROACH TBG IN HOLE, RIH TO 3340', WELL HEAD START TO MOVE, LOCK NUT ON CSG HEAD WAS LOSE,
	15:00 - 18:00	3.00	WO/REP	46	F	P		HAD CAMERON COME BACK OUT AND REPAIR LOCK DN NUT, TIGHTEN DOWN CSG & TBG SPOOL, SHUT WELL IN, SDFWE
4/18/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA-SAFETY MEETING, DRILL OUT W/ FOAM UNIT,
	7:15 - 12:00	4.75	WO/REP	44	C	P		NO PRESSURE ON WELL, TIH TAG CEMENT @ 6040', R/U POWER SWIVEL AND FOAM UNIT, PRESSURE TEST BOPS TO 3000#, OK, ESTB CIRC W/ FOAM UNIT, DRILL OUT CEMENT FROM 6040' TO 6070', DRILL OUT CBP IN 5 MIN, NO PRESSURE INCREASE, CIRC WELL CLEAN, RIH TAG PBTD @9285', P/O LAY DN 15 JTS ON TRAILER, R/D POWER SWIVEL AND FOAM UNIT, LAND TBG IN WELL HEAD, EOT @ 8791.95', LAY DN 1 BAD JT AND 1 GOOD JT,
	12:00 - 16:00	4.00	WO/REP	30		P		N/D BOPS AND TBG EQUIP, N/U WELL HEAD, PUMP BIT OFF @ 1200#, R/D SERVICE UNIT, MOVE OVER TO NEXT WELL, 60 BBLs WTR LTR,
								KB = 26.00'
								HANGER = .83'
								277 JTS 2 3/8" L-80 TBG = 8762.92'
								XN-NIPPLE 1.875 = 2.20'
								EOT = 8791.95'

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

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

Well Name: NBU 922-3114AS

Api No: 43-047-50397 Lease Type: STATE

Section 31 Township 09S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

SPUDDED:

Date 08/14/2009

Time 2:00 PM

How DRY

Drilling will Commence: _____

Reported by KENNY MORRIS

Telephone # (435) 828-1691

Date 08/17/2009 Signed CHD

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
4304750397	NBU 922-3114AS		NESE	31	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	8/14/2009			<u>8/25/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>W57MVD</u> SPUD WELL LOCATION ON 08/14/2009 AT 07:00 HRS. <u>BHL= NESE</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750398	NBU 922-3113CS		NESE	31	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	8/14/2009			<u>8/25/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>W57MVD</u> SPUD WELL LOCATION ON 08/14/2009 AT 09:00 HRS. <u>BHL= NESE</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750395	NBU 922-3101AS		NESE	31	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	8/14/2009			<u>8/25/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>W57MVD</u> SPUD WELL LOCATION ON 08/14/2009 AT 11:00 HRS. <u>BHL= NWNW</u>							

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)

RECEIVED
AUG 17 2009

ANDY LYTLE

Name (Please Print)

[Signature]
Signature

REGULATORY ANALYST

8/17/2009

Title

Date