

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

FORM 3
AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL		1. WELL NAME and NUMBER NBU 922-29M3CS
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>		3. FIELD OR WILDCAT NATURAL BUTTES
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO		5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. OPERATOR PHONE 720 929-6587
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217		9. OPERATOR E-MAIL mary.mondragon@anadarko.com
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) ML 23608	11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
13. NAME OF SURFACE OWNER (if box 12 = 'fee')		14. SURFACE OWNER PHONE (if box 12 = 'fee')
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')		16. SURFACE OWNER E-MAIL (if box 12 = 'fee')
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')	18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input checked="" type="checkbox"/> (Submit Commingling Application) NO <input type="checkbox"/>	19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>

20. LOCATION OF WELL	FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN
LOCATION AT SURFACE	572 FSL 520 FWL	SWSW	29	9.0 S	22.0 E	S
Top of Uppermost Producing Zone	65 FSL 315 FWL	SWSW	29	9.0 S	22.0 E	S
At Total Depth	65 FSL 315 FWL	SWSW	29	9.0 S	22.0 E	S

21. COUNTY UINTAH	22. DISTANCE TO NEAREST LEASE LINE (Feet) 65	23. NUMBER OF ACRES IN DRILLING UNIT 203
	25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 800	26. PROPOSED DEPTH MD: 9463 TVD: 9400
27. ELEVATION - GROUND LEVEL 5015	28. BOND NUMBER 22013542	29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496

ATTACHMENTS

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

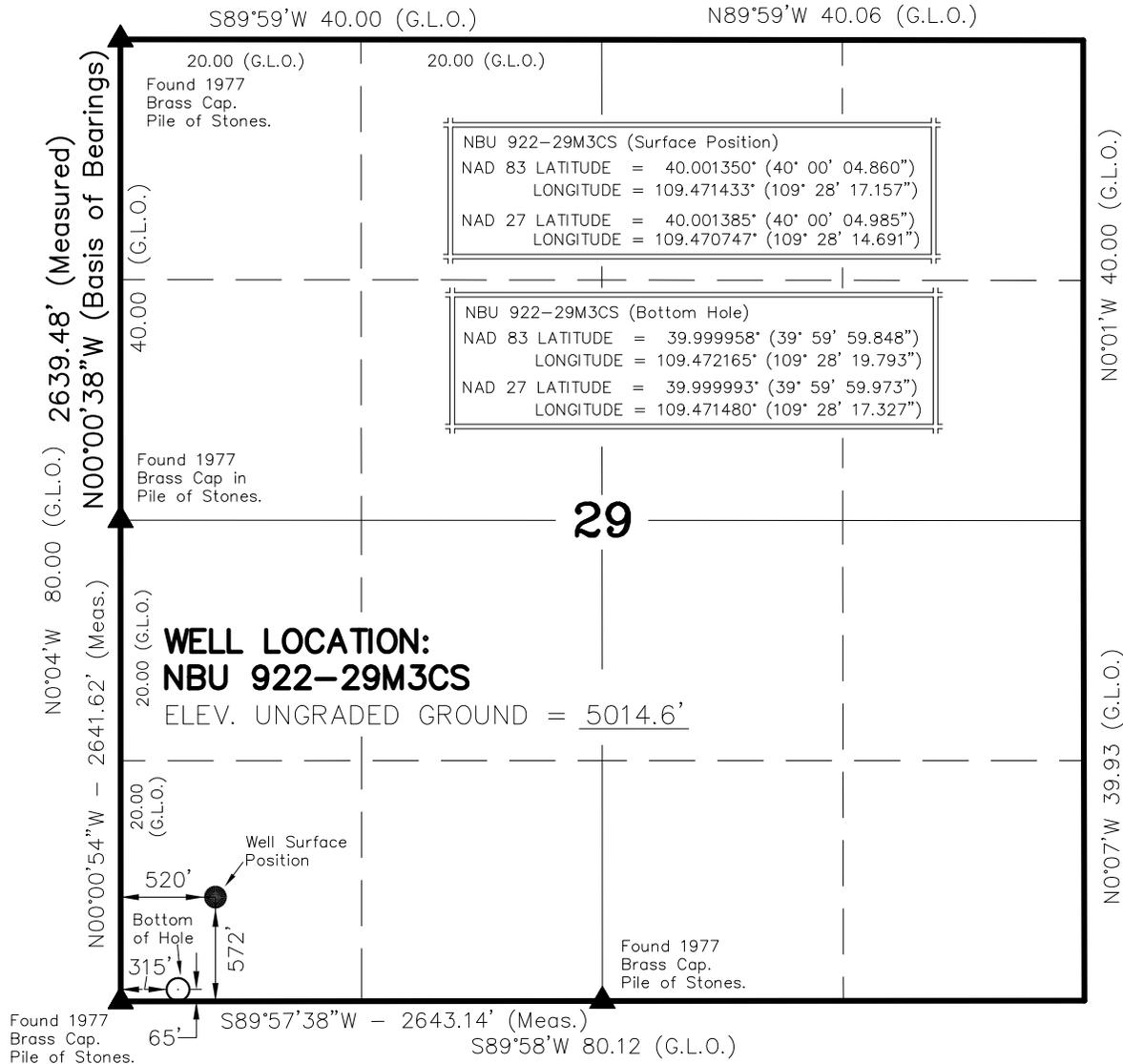
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input 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 04/13/2009	EMAIL Kathy.SchneebeckDulnoan@anadarko.com
API NUMBER ASSIGNED 43047503420000	APPROVAL  Permit Manager	

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	9463		
Pipe	Grade	Length	Weight			
	Grade I-80 LT&C	9463	11.6			

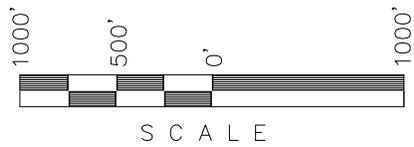
Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2400		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2400	36.0			

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 S22°01'45\"W 547.21' 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'.

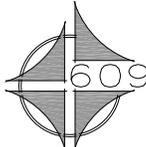


SURVEYOR'S CERTIFICATE

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

REGISTERED LAND SURVEYOR
 REGISTRATION NO. 362251
 STATE OF UTAH

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



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

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

DATE SURVEYED: 10-10-08	SURVEYED BY: M.S.B.	SHEET 2 OF 12
DATE DRAWN: 01-29-09	DRAWN BY: M.W.W.	
SCALE: 1" = 1000'	Date Last Revised: 02-12-09	

NBU 922-29M3CS
WELL PLAT
 65' FSL, 315' FWL (Bottom Hole)
 SW ¼ SW ¼ OF SECTION 29, T9S, R22E,
 S.L.B.&M. UINTAH COUNTY, UTAH.



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)

NBU 922-29M PAD

NBU 922-29M3CS

NBU 922-29M3CS

Plan: Design #1

Standard Planning Report

25 March, 2009



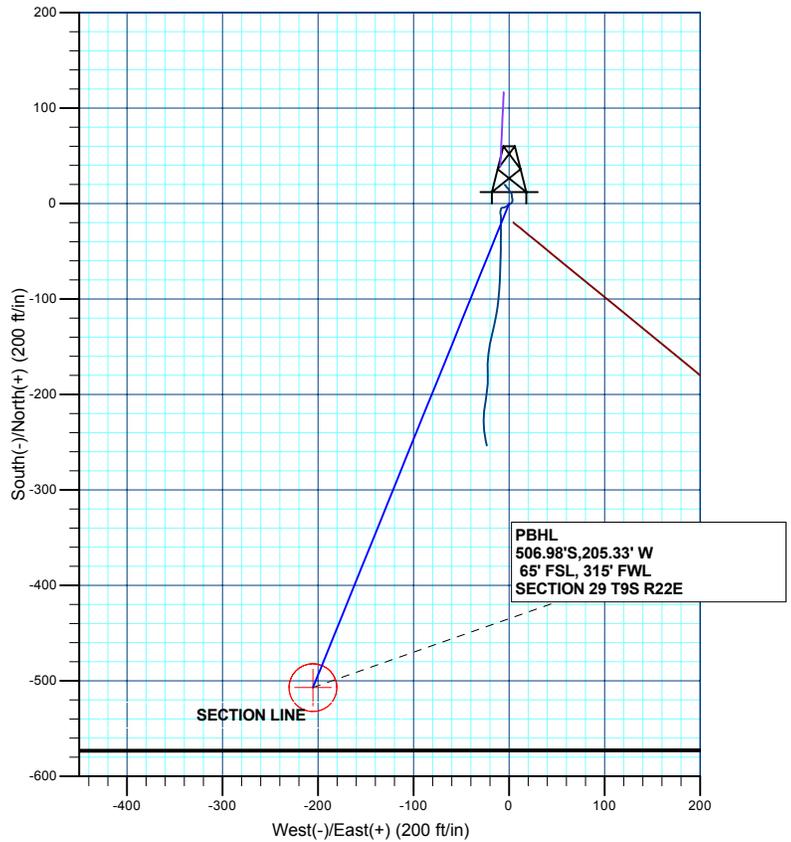
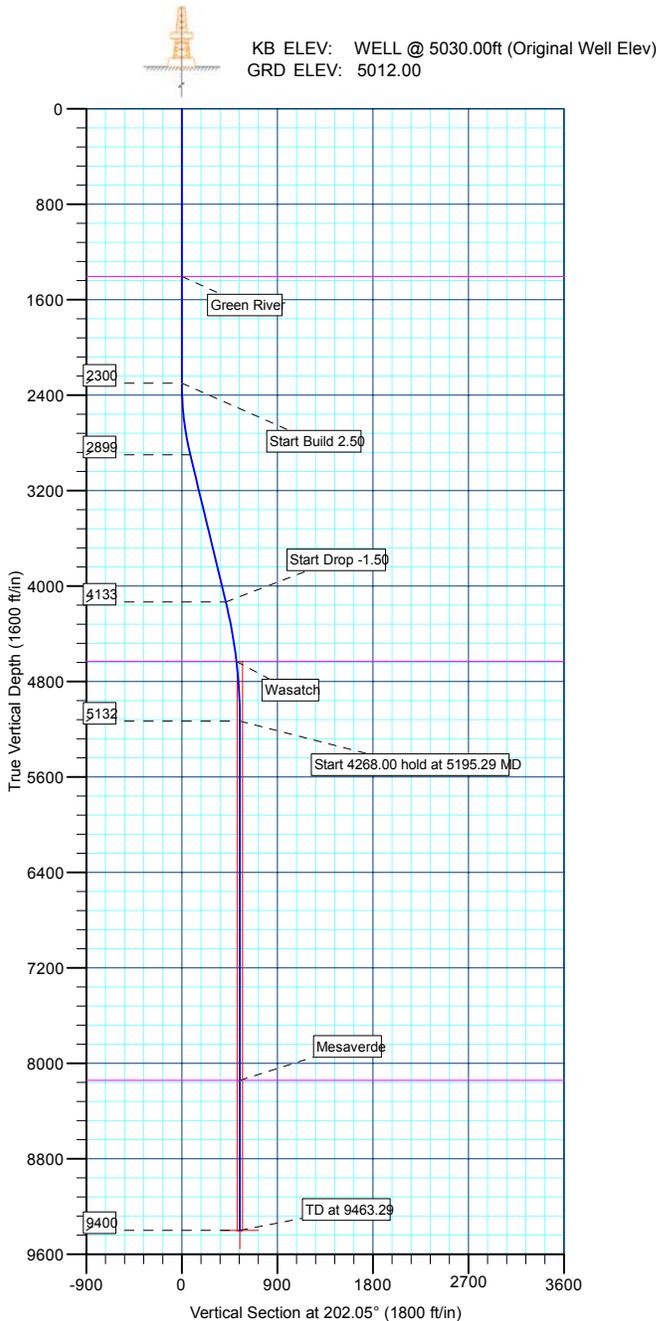


ANTI-COLLISION NOTE: PLEASE BE AWARE THAT THERE IS A LEVEL 1 WARNING FROM THE DEPTHS OF 1400' TVD TO 2499.75' TVD. THE CONVERGENCE IS WITH THE EXISTING NBU 922-29M .

WELL DETAILS: NBU 922-29M3CS					
+N/-S	+E/-W	Northing	Ground Level: Easting	5012.00 Latitude	Slot Longitude
0.00	0.00	14530223.14	2068696.96	40° 0' 4.986 N	109° 28' 14.689 W

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	9400.00	-506.98	-205.33	39° 59' 59.975 N	109° 28' 17.328 W	Circle (Radius: 25.00)

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	
2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00	
2906.44	15.16	202.05	2899.38	-73.93	-29.94	2.50	202.05	79.77	
4184.56	15.16	202.05	4133.03	-383.76	-155.42	0.00	0.00	414.04	
5195.29	0.00	0.00	5132.00	-506.98	-205.33	1.50	180.00	546.98	
9463.29	0.00	0.00	9400.00	-506.98	-205.33	0.00	0.00	546.98	PBHL_NBU 922-29M3CS



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1406.00	1406.00	Green River
4632.00	4693.85	Wasatch
8143.00	8206.29	Mesaverde

CASING DETAILS			
TVD	MD	Name	Size
2200.00	2200.00	9 5/8"	9.62

Plan: Design #1 (NBU 922-29M3CS/NBU 922-29M3CS)
 Created By: Robert H. Scott



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site:	NBU 922-29M PAD	North Reference:	True
Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-29M3CS		
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 922-29M PAD, SECTION 29 T9S R22E				
Site Position:		Northing:	14,530,203.55 ft	Latitude:	40° 0' 4.792 N
From:	Lat/Long	Easting:	2,068,701.78 ft	Longitude:	109° 28' 14.632 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.98 °

Well	NBU 922-29M3CS					
Well Position	+N/-S	19.67 ft	Northing:	14,530,223.14 ft	Latitude:	40° 0' 4.986 N
	+E/-W	-4.48 ft	Easting:	2,068,696.96 ft	Longitude:	109° 28' 14.689 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,012.00 ft

Wellbore	NBU 922-29M3CS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2008	3/20/2009	11.38	65.96	52,571

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	202.05

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	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,906.44	15.16	202.05	2,899.38	-73.93	-29.94	2.50	2.50	0.00	202.05	
4,184.56	15.16	202.05	4,133.03	-383.76	-155.42	0.00	0.00	0.00	0.00	
5,195.29	0.00	0.00	5,132.00	-506.98	-205.33	1.50	-1.50	0.00	180.00	
9,463.29	0.00	0.00	9,400.00	-506.98	-205.33	0.00	0.00	0.00	0.00	PBHL_NBU 922-29



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site:	NBU 922-29M PAD	North Reference:	True
Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-29M3CS		
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 2.50									
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	2.50	202.05	2,399.97	-2.02	-0.82	2.18	2.50	2.50	0.00
2,500.00	5.00	202.05	2,499.75	-8.08	-3.27	8.72	2.50	2.50	0.00
2,600.00	7.50	202.05	2,599.14	-18.17	-7.36	19.61	2.50	2.50	0.00
2,700.00	10.00	202.05	2,697.97	-32.27	-13.07	34.82	2.50	2.50	0.00
2,800.00	12.50	202.05	2,796.04	-50.35	-20.39	54.33	2.50	2.50	0.00
2,900.00	15.00	202.05	2,893.17	-72.38	-29.31	78.09	2.50	2.50	0.00
Start 1278.13 hold at 2906.44 MD									
2,906.44	15.16	202.05	2,899.38	-73.93	-29.94	79.77	2.50	2.50	0.00
3,000.00	15.16	202.05	2,989.69	-96.61	-39.13	104.24	0.00	0.00	0.00
3,100.00	15.16	202.05	3,086.21	-120.85	-48.95	130.39	0.00	0.00	0.00
3,200.00	15.16	202.05	3,182.73	-145.09	-58.76	156.54	0.00	0.00	0.00
3,300.00	15.16	202.05	3,279.25	-169.34	-68.58	182.70	0.00	0.00	0.00
3,400.00	15.16	202.05	3,375.77	-193.58	-78.40	208.85	0.00	0.00	0.00
3,500.00	15.16	202.05	3,472.29	-217.82	-88.22	235.00	0.00	0.00	0.00
3,600.00	15.16	202.05	3,568.81	-242.06	-98.03	261.16	0.00	0.00	0.00
3,700.00	15.16	202.05	3,665.33	-266.30	-107.85	287.31	0.00	0.00	0.00
3,800.00	15.16	202.05	3,761.85	-290.54	-117.67	313.46	0.00	0.00	0.00
3,900.00	15.16	202.05	3,858.37	-314.78	-127.49	339.61	0.00	0.00	0.00
4,000.00	15.16	202.05	3,954.89	-339.02	-137.30	365.77	0.00	0.00	0.00
4,100.00	15.16	202.05	4,051.41	-363.26	-147.12	391.92	0.00	0.00	0.00
Start Drop -1.50									
4,184.56	15.16	202.05	4,133.03	-383.76	-155.42	414.04	0.00	0.00	0.00
4,200.00	14.93	202.05	4,147.93	-387.47	-156.93	418.04	1.50	-1.50	0.00
4,300.00	13.43	202.05	4,244.88	-410.18	-166.12	442.54	1.50	-1.50	0.00
4,400.00	11.93	202.05	4,342.44	-430.52	-174.36	464.49	1.50	-1.50	0.00
4,500.00	10.43	202.05	4,440.54	-448.49	-181.64	483.88	1.50	-1.50	0.00
4,600.00	8.93	202.05	4,539.12	-464.07	-187.95	500.69	1.50	-1.50	0.00
Wasatch									
4,693.85	7.52	202.05	4,632.00	-476.52	-192.99	514.12	1.50	-1.50	0.00
4,700.00	7.43	202.05	4,638.10	-477.26	-193.29	514.91	1.50	-1.50	0.00
4,800.00	5.93	202.05	4,737.41	-488.04	-197.66	526.55	1.50	-1.50	0.00
4,900.00	4.43	202.05	4,837.00	-496.41	-201.04	535.57	1.50	-1.50	0.00
5,000.00	2.93	202.05	4,936.79	-502.35	-203.45	541.99	1.50	-1.50	0.00
5,100.00	1.43	202.05	5,036.72	-505.88	-204.88	545.79	1.50	-1.50	0.00
Start 4268.00 hold at 5195.29 MD									
5,195.29	0.00	0.00	5,132.00	-506.98	-205.33	546.98	1.50	-1.50	165.76
5,200.00	0.00	0.00	5,136.71	-506.98	-205.33	546.98	0.00	0.00	0.00
5,300.00	0.00	0.00	5,236.71	-506.98	-205.33	546.98	0.00	0.00	0.00
5,400.00	0.00	0.00	5,336.71	-506.98	-205.33	546.98	0.00	0.00	0.00
5,500.00	0.00	0.00	5,436.71	-506.98	-205.33	546.98	0.00	0.00	0.00
5,600.00	0.00	0.00	5,536.71	-506.98	-205.33	546.98	0.00	0.00	0.00
5,700.00	0.00	0.00	5,636.71	-506.98	-205.33	546.98	0.00	0.00	0.00
5,800.00	0.00	0.00	5,736.71	-506.98	-205.33	546.98	0.00	0.00	0.00
5,900.00	0.00	0.00	5,836.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,000.00	0.00	0.00	5,936.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,100.00	0.00	0.00	6,036.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,200.00	0.00	0.00	6,136.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,300.00	0.00	0.00	6,236.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,400.00	0.00	0.00	6,336.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,500.00	0.00	0.00	6,436.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,600.00	0.00	0.00	6,536.71	-506.98	-205.33	546.98	0.00	0.00	0.00



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site:	NBU 922-29M PAD	North Reference:	True
Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-29M3CS		
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)
6,700.00	0.00	0.00	6,636.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,800.00	0.00	0.00	6,736.71	-506.98	-205.33	546.98	0.00	0.00	0.00
6,900.00	0.00	0.00	6,836.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,000.00	0.00	0.00	6,936.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,100.00	0.00	0.00	7,036.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,200.00	0.00	0.00	7,136.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,300.00	0.00	0.00	7,236.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,400.00	0.00	0.00	7,336.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,500.00	0.00	0.00	7,436.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,600.00	0.00	0.00	7,536.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,700.00	0.00	0.00	7,636.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,800.00	0.00	0.00	7,736.71	-506.98	-205.33	546.98	0.00	0.00	0.00
7,900.00	0.00	0.00	7,836.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,000.00	0.00	0.00	7,936.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,100.00	0.00	0.00	8,036.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,200.00	0.00	0.00	8,136.71	-506.98	-205.33	546.98	0.00	0.00	0.00
Mesaverde									
8,206.29	0.00	0.00	8,143.00	-506.98	-205.33	546.98	0.00	0.00	0.00
8,300.00	0.00	0.00	8,236.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,400.00	0.00	0.00	8,336.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,500.00	0.00	0.00	8,436.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,600.00	0.00	0.00	8,536.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,700.00	0.00	0.00	8,636.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,800.00	0.00	0.00	8,736.71	-506.98	-205.33	546.98	0.00	0.00	0.00
8,900.00	0.00	0.00	8,836.71	-506.98	-205.33	546.98	0.00	0.00	0.00
9,000.00	0.00	0.00	8,936.71	-506.98	-205.33	546.98	0.00	0.00	0.00
9,100.00	0.00	0.00	9,036.71	-506.98	-205.33	546.98	0.00	0.00	0.00
9,200.00	0.00	0.00	9,136.71	-506.98	-205.33	546.98	0.00	0.00	0.00
9,300.00	0.00	0.00	9,236.71	-506.98	-205.33	546.98	0.00	0.00	0.00
9,400.00	0.00	0.00	9,336.71	-506.98	-205.33	546.98	0.00	0.00	0.00
PBHL_NBU 922-29M3CS									
9,463.29	0.00	0.00	9,400.00	-506.98	-205.33	546.98	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL_NBU 922-29M: - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	9,400.00	-506.98	-205.33	14,529,712.71	2,068,500.36	39° 59' 59.975 N	109° 28' 17.328 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,200.00	2,200.00	9 5/8"	9.62	12.25	



Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Company:	ANADARKO PETROLEUM CORP.	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Project:	UINTAH COUNTY, UTAH (nad 27)	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site:	NBU 922-29M PAD	North Reference:	True
Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Wellbore:	NBU 922-29M3CS		
Design:	Design #1		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,406.00	1,406.00	Green River			
4,693.85	4,632.00	Wasatch			
8,206.29	8,143.00	Mesaverde			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,300.00	2,300.00	0.00	0.00	Start Build 2.50	
2,906.44	2,899.38	-73.93	-29.94	Start 1278.13 hold at 2906.44 MD	
4,184.56	4,133.03	-383.76	-155.42	Start Drop -1.50	
5,195.29	5,132.00	-506.98	-205.33	Start 4268.00 hold at 5195.29 MD	
9,463.29	9,400.00	-506.98	-205.33	TD at 9463.29	



ANADARKO PETROLEUM CORP.

**UINTAH COUNTY, UTAH (nad 27)
NBU 922-29M PAD
NBU 922-29M3CS**

**NBU 922-29M3CS
Design #1**

Anticollision Report

25 March, 2009





Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	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 3/20/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	9,463.29	Design #1 (NBU 922-29M3CS)	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 922-29M PAD						
NBU 922-29M EXISTING - NBU 922-29M EXISTING - N	1,767.96	1,768.15	0.60	-7.37	0.075	Level 1, CC, ES, SF
NBU 922-29M2DS - NBU 922-29M2DS - Design #1	2,300.00	2,300.00	40.05	29.98	3.976	CC, ES, SF
NBU 922-29M4DS - NBU 922-29M4DS - Design #1	2,349.31	2,348.97	20.16	9.89	1.963	CC
NBU 922-29M4DS - NBU 922-29M4DS - Design #1	2,400.00	2,399.24	20.26	9.79	1.935	ES, SF

Offset Design	NBU 922-29M PAD - NBU 922-29M EXISTING - NBU 922-29M EXISTING - NBU 922-29M EXISTING										Offset Site Error:	0.00 ft	
Survey Program:	100-NS-GYRO-MS										Offset Well Error:	0.00 ft	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-13.61	19.67	-4.76	20.24				
100.00	100.00	100.07	100.06	0.09	0.11	-12.46	19.60	-4.33	20.07	19.87	0.20	99.623	
200.00	200.00	200.25	200.24	0.32	0.36	-10.75	18.94	-3.60	19.28	18.61	0.67	28.695	
300.00	300.00	300.21	300.19	0.54	0.61	-8.98	17.90	-2.83	18.13	16.97	1.15	15.736	
400.00	400.00	400.22	400.20	0.77	0.87	-6.79	16.89	-2.01	17.01	15.37	1.64	10.380	
500.00	500.00	500.12	500.09	0.99	1.14	-4.65	16.08	-1.31	16.13	14.01	2.13	7.588	
600.00	600.00	600.21	600.18	1.22	1.40	-2.41	15.24	-0.64	15.26	12.64	2.61	5.839	
700.00	700.00	700.12	700.08	1.44	1.66	0.03	14.39	0.01	14.39	11.29	3.10	4.641	
800.00	800.00	800.21	800.16	1.67	1.92	2.38	13.48	0.56	13.50	9.91	3.58	3.766	
900.00	900.00	900.19	900.13	1.89	2.18	5.09	12.29	1.09	12.34	8.28	4.07	3.035	
1,000.00	1,000.00	1,000.15	1,000.09	2.12	2.44	9.44	11.26	1.87	11.41	6.86	4.55	2.505	
1,100.00	1,100.00	1,100.17	1,100.10	2.34	2.71	14.58	10.23	2.66	10.57	5.53	5.04	2.096	
1,200.00	1,200.00	1,200.24	1,200.16	2.56	2.95	18.38	8.79	2.92	9.26	3.75	5.51	1.680	
1,300.00	1,300.00	1,300.23	1,300.13	2.79	3.19	24.26	6.85	3.09	7.52	1.54	5.98	1.257	Level 3
1,400.00	1,400.00	1,400.21	1,400.08	3.01	3.45	37.18	4.73	3.59	5.94	-0.52	6.46	0.919	Level 1
1,500.00	1,500.00	1,500.22	1,500.07	3.24	3.69	53.99	2.61	3.59	4.44	-2.48	6.93	0.641	Level 1
1,600.00	1,600.00	1,600.21	1,600.04	3.46	3.89	72.58	0.87	2.79	2.92	-4.43	7.35	0.397	Level 1
1,700.00	1,700.00	1,700.21	1,700.02	3.69	4.03	90.44	-0.01	1.39	1.39	-6.33	7.71	0.180	Level 1
1,767.96	1,767.96	1,768.15	1,767.96	3.84	4.12	144.46	-0.49	0.35	0.60	-7.37	7.96	0.075	Level 1, CC, ES, SF
1,800.00	1,800.00	1,800.19	1,799.99	3.91	4.17	-175.35	-0.84	-0.07	0.85	-7.23	8.08	0.105	Level 1
1,900.00	1,900.00	1,900.17	1,899.96	4.14	4.34	-143.01	-1.90	-1.43	2.38	-6.09	8.48	0.281	Level 1
2,000.00	2,000.00	2,000.16	1,999.93	4.36	4.52	-134.40	-2.84	-2.90	4.06	-4.81	8.88	0.458	Level 1
2,100.00	2,100.00	2,100.14	2,099.90	4.59	4.69	-130.63	-3.76	-4.38	5.78	-3.50	9.28	0.623	Level 1

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



Weatherford International Ltd.
Anticollision Report



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	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-NS-GYRO-MS													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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
2,200.00	2,200.00	2,200.18	2,199.93	4.81	4.84	-125.41	-4.13	-5.80	7.12	-2.53	9.65	0.738	Level 1		
2,300.00	2,300.00	2,300.20	2,299.94	5.04	4.96	-120.59	-4.07	-6.89	8.00	-1.99	10.00	0.801	Level 1		
2,400.00	2,399.97	2,400.14	2,399.88	5.23	5.14	48.69	-4.48	-7.84	7.44	-2.92	10.37	0.718	Level 1		
2,491.30	2,491.08	2,491.35	2,491.08	5.39	5.35	89.62	-5.21	-8.49	5.91	-4.83	10.74	0.550	Level 1		
2,500.00	2,499.75	2,500.02	2,499.75	5.41	5.37	96.03	-5.28	-8.52	5.95	-4.83	10.78	0.552	Level 1		
2,600.00	2,599.14	2,599.62	2,599.34	5.59	5.63	150.84	-6.55	-8.78	11.71	0.56	11.15	1.050	Level 2		
2,700.00	2,697.97	2,698.69	2,698.40	5.78	5.89	167.28	-8.25	-9.06	24.35	12.84	11.51	2.115			
2,800.00	2,796.04	2,797.03	2,796.72	6.00	6.14	173.37	-9.94	-9.15	41.95	30.09	11.86	3.536			
2,906.44	2,899.38	2,901.39	2,901.05	6.28	6.41	176.95	-12.38	-8.65	65.15	52.94	12.21	5.336			
3,000.00	2,989.69	2,992.94	2,992.55	6.56	6.65	178.62	-15.31	-8.40	86.96	74.34	12.63	6.887			
3,100.00	3,086.21	3,090.28	3,089.83	6.89	6.91	179.49	-18.70	-8.61	109.89	96.81	13.08	8.400			
3,200.00	3,182.73	3,187.53	3,187.03	7.25	7.16	-179.89	-22.09	-8.68	132.88	119.33	13.54	9.811			
3,300.00	3,279.25	3,285.08	3,284.51	7.63	7.42	-179.40	-25.57	-8.66	155.84	141.83	14.01	11.120			
3,400.00	3,375.77	3,382.75	3,382.12	8.02	7.68	-179.01	-29.27	-8.61	178.63	164.14	14.49	12.329			
3,500.00	3,472.29	3,480.93	3,480.21	8.44	7.94	-178.68	-33.26	-8.58	201.16	186.19	14.97	13.437			
3,600.00	3,568.81	3,579.39	3,578.57	8.86	8.20	-178.39	-37.68	-8.67	223.27	207.81	15.46	14.443			
3,700.00	3,665.33	3,677.44	3,676.50	9.30	8.46	-178.14	-42.44	-8.80	245.05	229.10	15.95	15.364			
3,800.00	3,761.85	3,775.39	3,774.33	9.75	8.72	-177.87	-47.41	-8.77	266.70	250.26	16.44	16.218			
3,900.00	3,858.37	3,873.32	3,872.12	10.21	8.98	-177.63	-52.52	-8.69	288.24	271.30	16.94	17.012			
4,000.00	3,954.89	3,971.26	3,969.94	10.68	9.24	-177.45	-57.64	-8.82	309.69	292.24	17.44	17.753			
4,100.00	4,051.41	4,068.88	4,067.42	11.16	9.50	-177.32	-62.74	-9.09	331.09	313.14	17.95	18.447			
4,184.56	4,133.03	4,151.28	4,149.70	11.56	9.71	-177.20	-67.05	-9.19	349.24	330.86	18.38	19.005			
4,200.00	4,147.93	4,166.32	4,164.73	11.63	9.75	-177.18	-67.84	-9.20	352.52	334.05	18.47	19.088			
4,300.00	4,244.88	4,264.46	4,262.73	12.01	10.02	-177.05	-72.97	-9.23	372.34	353.28	19.06	19.532			
4,400.00	4,342.44	4,363.31	4,361.45	12.38	10.28	-176.94	-78.13	-9.47	389.52	369.87	19.65	19.827			
4,500.00	4,440.54	4,462.31	4,460.30	12.73	10.54	-176.84	-83.30	-9.88	404.05	383.84	20.21	19.989			
4,600.00	4,539.12	4,561.46	4,559.32	13.05	10.81	-176.71	-88.47	-10.24	416.01	395.25	20.77	20.033			
4,700.00	4,638.10	4,660.00	4,657.74	13.35	11.07	-176.57	-93.54	-10.53	425.47	404.17	21.30	19.975			
4,800.00	4,737.41	4,758.17	4,755.79	13.63	11.33	-176.44	-98.20	-10.87	432.67	410.85	21.81	19.834			
4,900.00	4,837.00	4,857.46	4,854.99	13.88	11.60	-176.32	-102.55	-11.28	437.56	415.24	22.31	19.611			
5,000.00	4,936.79	4,957.60	4,955.03	14.10	11.86	-176.20	-106.88	-11.81	439.84	417.04	22.79	19.297			
5,100.00	5,036.72	5,058.31	5,055.65	14.30	12.13	-176.06	-111.26	-12.48	439.43	416.18	23.25	18.897			
5,195.29	5,132.00	5,154.62	5,151.85	14.46	12.39	26.13	-115.61	-13.30	436.40	412.73	23.67	18.438			
5,200.00	5,136.71	5,159.38	5,156.60	14.46	12.40	26.14	-115.83	-13.35	436.18	412.49	23.69	18.413			
5,300.00	5,236.71	5,260.21	5,257.32	14.62	12.67	26.30	-120.57	-14.38	431.50	407.35	24.16	17.861			
5,400.00	5,336.71	5,360.91	5,357.89	14.78	12.93	26.47	-125.55	-15.39	426.63	402.00	24.63	17.322			
5,500.00	5,436.71	5,461.12	5,457.97	14.95	13.20	26.66	-130.68	-16.38	421.61	396.51	25.10	16.797			
5,600.00	5,536.71	5,561.05	5,557.75	15.11	13.47	26.85	-135.80	-17.42	416.56	390.99	25.57	16.290			
5,700.00	5,636.71	5,660.46	5,657.04	15.28	13.73	27.03	-140.85	-18.50	411.54	385.50	26.04	15.804			
5,800.00	5,736.71	5,759.58	5,756.02	15.44	13.99	27.20	-145.67	-19.62	406.70	380.19	26.51	15.341			
5,900.00	5,836.71	5,859.37	5,855.70	15.61	14.26	27.37	-150.39	-20.72	402.00	375.01	26.98	14.899			
6,000.00	5,936.71	5,959.60	5,955.80	15.78	14.53	27.60	-155.36	-21.51	397.23	369.77	27.46	14.468			
6,100.00	6,036.71	6,059.48	6,055.55	15.95	14.79	27.89	-160.54	-22.00	392.41	364.48	27.93	14.048			
6,200.00	6,136.71	6,159.14	6,155.07	16.13	15.06	28.20	-165.74	-22.34	387.64	359.23	28.41	13.645			
6,300.00	6,236.71	6,258.58	6,254.37	16.30	15.33	28.55	-170.94	-22.52	382.95	354.07	28.89	13.257			
6,400.00	6,336.71	6,357.86	6,353.52	16.47	15.59	28.94	-176.13	-22.41	378.42	349.06	29.36	12.888			
6,500.00	6,436.71	6,457.91	6,453.44	16.65	15.86	29.36	-181.35	-22.11	374.01	344.17	29.84	12.533			
6,600.00	6,536.71	6,558.55	6,553.93	16.83	16.13	29.76	-186.60	-22.17	369.44	339.12	30.33	12.183			
6,700.00	6,636.71	6,658.42	6,653.67	17.01	16.39	30.10	-191.77	-22.60	364.74	333.94	30.81	11.840			
6,800.00	6,736.71	6,757.78	6,752.91	17.19	16.66	30.42	-196.70	-23.16	360.17	328.89	31.28	11.513			
6,900.00	6,836.71	6,857.04	6,852.06	17.37	16.93	30.71	-201.40	-23.81	355.76	324.00	31.76	11.200			
7,000.00	6,936.71	6,956.24	6,951.15	17.55	17.19	30.99	-205.88	-24.45	351.55	319.31	32.24	10.903			

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



Weatherford International Ltd.
Anticollision Report



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	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-NS-GYRO-MS													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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
7,100.00	7,036.71	7,056.64	7,051.45	17.73	17.46	31.28	-210.31	-25.09	347.45	314.72	32.72	10.617			
7,200.00	7,136.71	7,157.94	7,152.63	17.92	17.73	31.60	-215.15	-25.80	343.00	309.79	33.21	10.328			
7,300.00	7,236.71	7,257.96	7,252.52	18.10	18.00	31.96	-220.29	-26.48	338.27	304.58	33.69	10.040			
7,400.00	7,336.71	7,357.11	7,351.54	18.29	18.26	32.39	-225.46	-26.76	333.71	299.53	34.18	9.764			
7,500.00	7,436.71	7,456.06	7,450.35	18.47	18.53	32.88	-230.59	-26.63	329.40	294.75	34.66	9.504			
7,600.00	7,536.71	7,554.87	7,549.04	18.66	18.79	33.41	-235.52	-26.26	325.44	290.30	35.14	9.260			
7,700.00	7,636.71	7,654.75	7,648.80	18.85	19.05	33.98	-240.36	-25.65	321.74	286.11	35.63	9.030			
7,800.00	7,736.71	7,755.47	7,749.38	19.04	19.32	34.62	-245.59	-24.89	317.87	281.75	36.12	8.800			
7,900.00	7,836.71	7,854.24	7,848.00	19.23	19.58	35.32	-251.00	-23.93	313.94	277.34	36.61	8.576			
7,956.98	7,893.69	7,900.00	7,893.69	19.33	19.70	35.67	-253.35	-23.30	312.19	275.34	36.85	8.471			
8,000.00	7,936.71	7,900.00	7,893.69	19.42	19.70	35.67	-253.35	-23.30	315.14	278.20	36.95	8.530			
8,100.00	8,036.71	7,900.00	7,893.69	19.61	19.70	35.67	-253.35	-23.30	343.39	306.23	37.16	9.241			
8,200.00	8,136.71	7,900.00	7,893.69	19.80	19.70	35.67	-253.35	-23.30	395.63	358.25	37.37	10.586			
8,300.00	8,236.71	7,900.00	7,893.69	19.99	19.70	35.67	-253.35	-23.30	463.81	426.23	37.59	12.339			
8,400.00	8,336.71	7,900.00	7,893.69	20.18	19.70	35.67	-253.35	-23.30	541.97	504.16	37.80	14.337			
8,500.00	8,436.71	7,900.00	7,893.69	20.38	19.70	35.67	-253.35	-23.30	626.36	588.35	38.02	16.475			
8,600.00	8,536.71	7,900.00	7,893.69	20.57	19.70	35.67	-253.35	-23.30	714.80	676.56	38.23	18.696			
8,700.00	8,636.71	7,900.00	7,893.69	20.77	19.70	35.67	-253.35	-23.30	805.94	767.49	38.45	20.961			
8,800.00	8,736.71	7,900.00	7,893.69	20.96	19.70	35.67	-253.35	-23.30	898.97	860.30	38.66	23.250			
8,900.00	8,836.71	7,900.00	7,893.69	21.16	19.70	35.67	-253.35	-23.30	993.35	954.47	38.88	25.549			
9,000.00	8,936.71	7,900.00	7,893.69	21.36	19.70	35.67	-253.35	-23.30	1,088.74	1,049.64	39.10	27.847			
9,100.00	9,036.71	7,900.00	7,893.69	21.55	19.70	35.67	-253.35	-23.30	1,184.89	1,145.57	39.31	30.140			
9,200.00	9,136.71	7,900.00	7,893.69	21.75	19.70	35.67	-253.35	-23.30	1,281.62	1,242.09	39.53	32.422			
9,300.00	9,236.71	7,900.00	7,893.69	21.95	19.70	35.67	-253.35	-23.30	1,378.83	1,339.08	39.75	34.691			
9,400.00	9,336.71	7,900.00	7,893.69	22.15	19.70	35.67	-253.35	-23.30	1,476.40	1,436.44	39.96	36.944			
9,463.29	9,400.00	7,900.00	7,893.69	22.28	19.70	35.67	-253.35	-23.30	1,538.32	1,498.22	40.10	38.362			



Weatherford International Ltd.
Anticollision Report



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	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 Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+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	-13.34	38.97	-9.24	40.05						
100.00	100.00	100.00	100.00	0.09	0.09	-13.34	38.97	-9.24	40.05	39.87	0.18	217.309			
200.00	200.00	200.00	200.00	0.32	0.32	-13.34	38.97	-9.24	40.05	39.42	0.63	63.189			
300.00	300.00	300.00	300.00	0.54	0.54	-13.34	38.97	-9.24	40.05	38.97	1.08	36.970			
400.00	400.00	400.00	400.00	0.77	0.77	-13.34	38.97	-9.24	40.05	38.52	1.53	26.128			
500.00	500.00	500.00	500.00	0.99	0.99	-13.34	38.97	-9.24	40.05	38.07	1.98	20.203			
600.00	600.00	600.00	600.00	1.22	1.22	-13.34	38.97	-9.24	40.05	37.62	2.43	16.469			
700.00	700.00	700.00	700.00	1.44	1.44	-13.34	38.97	-9.24	40.05	37.17	2.88	13.900			
800.00	800.00	800.00	800.00	1.67	1.67	-13.34	38.97	-9.24	40.05	36.72	3.33	12.024			
900.00	900.00	900.00	900.00	1.89	1.89	-13.34	38.97	-9.24	40.05	36.27	3.78	10.594			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	-13.34	38.97	-9.24	40.05	35.82	4.23	9.468			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	-13.34	38.97	-9.24	40.05	35.37	4.68	8.559			
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-13.34	38.97	-9.24	40.05	34.92	5.13	7.809			
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	-13.34	38.97	-9.24	40.05	34.47	5.58	7.179			
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-13.34	38.97	-9.24	40.05	34.02	6.03	6.644			
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	-13.34	38.97	-9.24	40.05	33.57	6.48	6.183			
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	-13.34	38.97	-9.24	40.05	33.12	6.93	5.782			
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	-13.34	38.97	-9.24	40.05	32.68	7.38	5.429			
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	-13.34	38.97	-9.24	40.05	32.23	7.83	5.118			
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	-13.34	38.97	-9.24	40.05	31.78	8.28	4.840			
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	-13.34	38.97	-9.24	40.05	31.33	8.73	4.590			
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	-13.34	38.97	-9.24	40.05	30.88	9.17	4.365			
2,200.00	2,200.00	2,200.00	2,200.00	4.81	4.81	-13.34	38.97	-9.24	40.05	30.43	9.62	4.161			
2,300.00	2,300.00	2,300.00	2,300.00	5.04	5.04	-13.34	38.97	-9.24	40.05	29.98	10.07	3.976	CC, ES, SF		
2,400.00	2,399.97	2,398.53	2,398.51	5.23	5.26	146.82	40.66	-9.16	43.52	33.03	10.49	4.150			
2,500.00	2,499.75	2,496.23	2,496.08	5.41	5.48	151.69	45.68	-8.93	54.19	43.32	10.86	4.988			
2,600.00	2,599.14	2,593.35	2,592.87	5.59	5.70	156.56	53.64	-8.56	72.09	60.87	11.22	6.423			
2,700.00	2,697.97	2,690.56	2,689.70	5.78	5.92	160.36	62.10	-8.16	94.86	83.29	11.56	8.202			
2,800.00	2,796.04	2,786.65	2,785.43	6.00	6.14	163.23	70.47	-7.77	121.94	110.05	11.89	10.260			
2,906.44	2,899.38	2,887.51	2,885.90	6.28	6.37	165.53	79.25	-7.36	155.42	143.22	12.21	12.733			
3,000.00	2,989.69	2,975.46	2,973.52	6.56	6.58	167.16	86.91	-7.00	187.01	174.43	12.58	14.864			
3,100.00	3,086.21	3,069.46	3,067.16	6.89	6.81	168.39	95.09	-6.62	220.88	207.89	12.99	17.002			
3,200.00	3,182.73	3,167.75	3,165.15	7.25	7.00	169.35	102.82	-6.26	254.02	240.65	13.37	18.996			
3,300.00	3,279.25	3,267.18	3,264.39	7.63	7.19	170.16	108.92	-5.98	285.60	271.85	13.75	20.766			
3,400.00	3,375.77	3,367.71	3,364.82	8.02	7.37	170.87	113.35	-5.77	315.59	301.44	14.14	22.311			
3,500.00	3,472.29	3,469.29	3,466.36	8.44	7.56	171.52	116.03	-5.64	343.96	329.41	14.55	23.648			
3,600.00	3,568.81	3,571.74	3,568.81	8.86	7.74	172.12	116.91	-5.60	370.68	355.72	14.95	24.789			
3,700.00	3,665.33	3,668.26	3,665.33	9.30	7.95	172.64	116.91	-5.60	396.62	381.22	15.39	25.766			
3,800.00	3,761.85	3,764.78	3,761.85	9.75	8.16	173.09	116.91	-5.60	422.58	406.74	15.84	26.672			
3,900.00	3,858.37	3,861.30	3,858.37	10.21	8.38	173.49	116.91	-5.60	448.57	432.27	16.30	27.523			
4,000.00	3,954.89	3,957.82	3,954.89	10.68	8.59	173.85	116.91	-5.60	474.57	457.82	16.75	28.324			
4,100.00	4,051.41	4,054.34	4,051.41	11.16	8.80	174.17	116.91	-5.60	500.59	483.38	17.21	29.079			
4,184.56	4,133.03	4,135.96	4,133.03	11.56	8.98	174.42	116.91	-5.60	522.61	505.00	17.61	29.684			
4,200.00	4,147.93	4,150.86	4,147.93	11.63	9.02	174.47	116.91	-5.60	526.59	508.90	17.69	29.768			
4,300.00	4,244.88	4,247.81	4,244.88	12.01	9.23	174.75	116.91	-5.60	550.99	532.76	18.23	30.219			
4,400.00	4,342.44	4,345.37	4,342.44	12.38	9.45	174.98	116.91	-5.60	572.85	554.09	18.77	30.527			
4,500.00	4,440.54	4,443.47	4,440.54	12.73	9.66	175.17	116.91	-5.60	592.17	572.89	19.29	30.704			
4,600.00	4,539.12	4,542.05	4,539.12	13.05	9.88	175.32	116.91	-5.60	608.93	589.13	19.79	30.764			
4,700.00	4,638.10	4,641.03	4,638.10	13.35	10.10	175.44	116.91	-5.60	623.11	602.82	20.29	30.715			
4,800.00	4,737.41	4,740.35	4,737.41	13.63	10.32	175.54	116.91	-5.60	634.71	613.94	20.76	30.568			
4,900.00	4,837.00	4,839.93	4,837.00	13.88	10.54	175.61	116.91	-5.60	643.71	622.48	21.23	30.327			
5,000.00	4,936.79	4,939.73	4,936.79	14.10	10.76	175.66	116.91	-5.60	650.10	628.44	21.67	30.001			

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



Weatherford International Ltd.
Anticollision Report



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
5,100.00	5,036.72	5,039.65	5,036.72	14.30	10.99	175.69	116.91	-5.60	653.90	631.80	22.10	29.593			
5,195.29	5,132.00	5,134.93	5,132.00	14.46	11.20	17.75	116.91	-5.60	655.08	632.60	22.48	29.144			
5,200.00	5,136.71	5,139.64	5,136.71	14.46	11.21	17.75	116.91	-5.60	655.08	632.58	22.50	29.118			
5,300.00	5,236.71	5,239.64	5,236.71	14.62	11.43	17.75	116.91	-5.60	655.08	632.16	22.92	28.576			
5,400.00	5,336.71	5,339.64	5,336.71	14.78	11.65	17.75	116.91	-5.60	655.08	631.73	23.35	28.052			
5,500.00	5,436.71	5,439.64	5,436.71	14.95	11.88	17.75	116.91	-5.60	655.08	631.30	23.78	27.546			
5,600.00	5,536.71	5,539.64	5,536.71	15.11	12.10	17.75	116.91	-5.60	655.08	630.87	24.21	27.057			
5,700.00	5,636.71	5,639.64	5,636.71	15.28	12.32	17.75	116.91	-5.60	655.08	630.44	24.64	26.585			
5,800.00	5,736.71	5,739.64	5,736.71	15.44	12.55	17.75	116.91	-5.60	655.08	630.01	25.07	26.128			
5,900.00	5,836.71	5,839.64	5,836.71	15.61	12.77	17.75	116.91	-5.60	655.08	629.58	25.50	25.686			
6,000.00	5,936.71	5,939.64	5,936.71	15.78	12.99	17.75	116.91	-5.60	655.08	629.15	25.94	25.258			
6,100.00	6,036.71	6,039.64	6,036.71	15.95	13.21	17.75	116.91	-5.60	655.08	628.71	26.37	24.844			
6,200.00	6,136.71	6,139.64	6,136.71	16.13	13.44	17.75	116.91	-5.60	655.08	628.28	26.80	24.442			
6,300.00	6,236.71	6,239.64	6,236.71	16.30	13.66	17.75	116.91	-5.60	655.08	627.85	27.24	24.053			
6,400.00	6,336.71	6,339.64	6,336.71	16.47	13.88	17.75	116.91	-5.60	655.08	627.41	27.67	23.675			
6,500.00	6,436.71	6,439.64	6,436.71	16.65	14.11	17.75	116.91	-5.60	655.08	626.98	28.10	23.309			
6,600.00	6,536.71	6,539.64	6,536.71	16.83	14.33	17.75	116.91	-5.60	655.08	626.54	28.54	22.954			
6,700.00	6,636.71	6,639.64	6,636.71	17.01	14.55	17.75	116.91	-5.60	655.08	626.11	28.97	22.609			
6,800.00	6,736.71	6,739.64	6,736.71	17.19	14.78	17.75	116.91	-5.60	655.08	625.67	29.41	22.273			
6,900.00	6,836.71	6,839.64	6,836.71	17.37	15.00	17.75	116.91	-5.60	655.08	625.23	29.85	21.948			
7,000.00	6,936.71	6,939.64	6,936.71	17.55	15.22	17.75	116.91	-5.60	655.08	624.80	30.28	21.631			
7,100.00	7,036.71	7,039.64	7,036.71	17.73	15.45	17.75	116.91	-5.60	655.08	624.36	30.72	21.323			
7,200.00	7,136.71	7,139.64	7,136.71	17.92	15.67	17.75	116.91	-5.60	655.08	623.92	31.16	21.024			
7,300.00	7,236.71	7,239.64	7,236.71	18.10	15.89	17.75	116.91	-5.60	655.08	623.48	31.60	20.733			
7,400.00	7,336.71	7,339.64	7,336.71	18.29	16.12	17.75	116.91	-5.60	655.08	623.05	32.03	20.449			
7,500.00	7,436.71	7,439.64	7,436.71	18.47	16.34	17.75	116.91	-5.60	655.08	622.61	32.47	20.173			
7,600.00	7,536.71	7,539.64	7,536.71	18.66	16.57	17.75	116.91	-5.60	655.08	622.17	32.91	19.904			
7,700.00	7,636.71	7,639.64	7,636.71	18.85	16.79	17.75	116.91	-5.60	655.08	621.73	33.35	19.642			
7,800.00	7,736.71	7,739.64	7,736.71	19.04	17.01	17.75	116.91	-5.60	655.08	621.29	33.79	19.387			
7,900.00	7,836.71	7,839.64	7,836.71	19.23	17.24	17.75	116.91	-5.60	655.08	620.85	34.23	19.138			
8,000.00	7,936.71	7,939.64	7,936.71	19.42	17.46	17.75	116.91	-5.60	655.08	620.41	34.67	18.895			
8,100.00	8,036.71	8,039.64	8,036.71	19.61	17.68	17.75	116.91	-5.60	655.08	619.97	35.11	18.658			
8,200.00	8,136.71	8,139.64	8,136.71	19.80	17.91	17.75	116.91	-5.60	655.08	619.53	35.55	18.427			
8,300.00	8,236.71	8,239.64	8,236.71	19.99	18.13	17.75	116.91	-5.60	655.08	619.09	35.99	18.201			
8,400.00	8,336.71	8,339.64	8,336.71	20.18	18.36	17.75	116.91	-5.60	655.08	618.65	36.43	17.981			
8,500.00	8,436.71	8,439.64	8,436.71	20.38	18.58	17.75	116.91	-5.60	655.08	618.21	36.87	17.766			
8,600.00	8,536.71	8,539.64	8,536.71	20.57	18.80	17.75	116.91	-5.60	655.08	617.77	37.31	17.556			
8,700.00	8,636.71	8,639.64	8,636.71	20.77	19.03	17.75	116.91	-5.60	655.08	617.33	37.76	17.351			
8,800.00	8,736.71	8,739.64	8,736.71	20.96	19.25	17.75	116.91	-5.60	655.08	616.88	38.20	17.150			
8,900.00	8,836.71	8,839.64	8,836.71	21.16	19.48	17.75	116.91	-5.60	655.08	616.44	38.64	16.954			
9,000.00	8,936.71	8,939.64	8,936.71	21.36	19.70	17.75	116.91	-5.60	655.08	616.00	39.08	16.762			
9,100.00	9,036.71	9,039.64	9,036.71	21.55	19.92	17.75	116.91	-5.60	655.08	615.56	39.52	16.575			
9,200.00	9,136.71	9,139.64	9,136.71	21.75	20.15	17.75	116.91	-5.60	655.08	615.12	39.96	16.391			
9,300.00	9,236.71	9,239.64	9,236.71	21.95	20.37	17.75	116.91	-5.60	655.08	614.67	40.41	16.212			
9,400.00	9,336.71	9,339.64	9,336.71	22.15	20.60	17.75	116.91	-5.60	655.08	614.23	40.85	16.036			
9,463.29	9,400.00	9,402.93	9,400.00	22.28	20.74	17.75	116.91	-5.60	655.08	613.95	41.13	15.927			

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 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	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				Semi Major Axis			Distance					Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+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	167.16	-19.67	4.48	20.17				
100.00	100.00	100.00	100.00	0.09	0.09	167.16	-19.67	4.48	20.17	19.99	0.18	109.445	
200.00	200.00	200.00	200.00	0.32	0.32	167.16	-19.67	4.48	20.17	19.54	0.63	31.824	
300.00	300.00	300.00	300.00	0.54	0.54	167.16	-19.67	4.48	20.17	19.09	1.08	18.619	
400.00	400.00	400.00	400.00	0.77	0.77	167.16	-19.67	4.48	20.17	18.64	1.53	13.159	
500.00	500.00	500.00	500.00	0.99	0.99	167.16	-19.67	4.48	20.17	18.19	1.98	10.175	
600.00	600.00	600.00	600.00	1.22	1.22	167.16	-19.67	4.48	20.17	17.74	2.43	8.294	
700.00	700.00	700.00	700.00	1.44	1.44	167.16	-19.67	4.48	20.17	17.29	2.88	7.000	
800.00	800.00	800.00	800.00	1.67	1.67	167.16	-19.67	4.48	20.17	16.84	3.33	6.056	
900.00	900.00	900.00	900.00	1.89	1.89	167.16	-19.67	4.48	20.17	16.39	3.78	5.336	
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	167.16	-19.67	4.48	20.17	15.94	4.23	4.769	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	167.16	-19.67	4.48	20.17	15.49	4.68	4.311	
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	167.16	-19.67	4.48	20.17	15.04	5.13	3.933	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	167.16	-19.67	4.48	20.17	14.59	5.58	3.616	
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	167.16	-19.67	4.48	20.17	14.14	6.03	3.346	
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	167.16	-19.67	4.48	20.17	13.69	6.48	3.114	
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	167.16	-19.67	4.48	20.17	13.24	6.93	2.912	
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	167.16	-19.67	4.48	20.17	12.79	7.38	2.734	
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	167.16	-19.67	4.48	20.17	12.35	7.83	2.577	
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	167.16	-19.67	4.48	20.17	11.90	8.28	2.437	
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	167.16	-19.67	4.48	20.17	11.45	8.73	2.312	
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	167.16	-19.67	4.48	20.17	11.00	9.17	2.199	
2,200.00	2,200.00	2,200.00	2,200.00	4.81	4.81	167.16	-19.67	4.48	20.17	10.55	9.62	2.096	
2,300.00	2,300.00	2,300.00	2,300.00	5.04	5.04	167.16	-19.67	4.48	20.17	10.10	10.07	2.002	
2,349.31	2,349.31	2,348.97	2,348.96	5.13	5.14	-36.65	-20.00	4.89	20.16	9.89	10.27	1.963 CC	
2,400.00	2,399.97	2,399.24	2,399.21	5.23	5.24	-42.14	-21.03	6.14	20.26	9.79	10.47	1.935 ES, SF	
2,500.00	2,499.75	2,498.10	2,497.85	5.41	5.42	-61.99	-25.08	11.10	22.35	11.53	10.81	2.066	
2,600.00	2,599.14	2,596.17	2,595.35	5.59	5.61	-84.11	-31.77	19.27	30.14	18.96	11.18	2.696	
2,700.00	2,697.97	2,693.10	2,691.18	5.78	5.82	-99.11	-40.96	30.51	44.96	33.40	11.56	3.889	
2,800.00	2,796.04	2,788.54	2,784.85	6.00	6.05	-107.67	-52.51	44.64	66.02	54.06	11.96	5.519	
2,906.44	2,899.38	2,888.15	2,881.71	6.28	6.32	-112.77	-67.18	62.58	94.44	82.01	12.43	7.600	
3,000.00	2,989.69	2,974.09	2,964.41	6.56	6.60	-115.30	-81.97	80.67	123.31	110.41	12.90	9.560	
3,100.00	3,086.21	3,064.41	3,050.32	6.89	6.95	-115.97	-99.63	102.25	156.84	143.38	13.46	11.653	
3,200.00	3,182.73	3,152.93	3,133.37	7.25	7.35	-115.61	-118.99	125.93	192.95	178.88	14.07	13.715	
3,300.00	3,279.25	3,239.44	3,213.35	7.63	7.80	-114.73	-139.86	151.45	231.57	216.85	14.72	15.727	
3,400.00	3,375.77	3,323.77	3,290.06	8.02	8.30	-113.60	-162.04	178.56	272.71	257.29	15.42	17.689	
3,500.00	3,472.29	3,409.84	3,367.16	8.44	8.88	-112.36	-186.26	208.18	316.07	299.91	16.16	19.559	
3,600.00	3,568.81	3,499.58	3,447.36	8.86	9.53	-111.32	-211.74	239.34	359.84	342.90	16.94	21.240	
3,700.00	3,665.33	3,589.32	3,527.57	9.30	10.22	-110.50	-237.23	270.50	403.70	385.95	17.75	22.740	
3,800.00	3,761.85	3,679.06	3,607.77	9.75	10.93	-109.85	-262.71	301.66	447.61	429.02	18.59	24.082	
3,900.00	3,858.37	3,768.80	3,687.97	10.21	11.66	-109.31	-288.20	332.82	491.55	472.11	19.44	25.284	
4,000.00	3,954.89	3,858.54	3,768.18	10.68	12.41	-108.86	-313.68	363.98	535.53	515.21	20.31	26.364	
4,100.00	4,051.41	3,951.73	3,851.51	11.16	13.18	-108.47	-340.10	396.29	579.47	558.26	21.21	27.323	
4,184.56	4,133.03	4,043.24	3,934.24	11.56	13.84	-108.27	-364.85	426.56	615.28	593.29	22.00	27.971	
4,200.00	4,147.93	4,060.19	3,949.69	11.63	13.95	-108.36	-369.26	431.94	621.60	599.46	22.14	28.073	
4,300.00	4,244.88	4,171.89	4,052.56	12.01	14.68	-108.84	-396.80	465.62	660.50	637.47	23.04	28.671	
4,400.00	4,342.44	4,286.80	4,160.07	12.38	15.37	-109.24	-422.47	497.01	695.74	671.83	23.91	29.093	
4,500.00	4,440.54	4,404.73	4,272.01	12.73	16.03	-109.59	-445.96	525.72	727.16	702.40	24.76	29.368	
4,600.00	4,539.12	4,525.43	4,388.06	13.05	16.63	-109.87	-466.95	551.39	754.62	729.06	25.56	29.523	
4,700.00	4,638.10	4,648.60	4,507.80	13.35	17.17	-110.11	-485.16	573.66	777.98	751.67	26.31	29.572	
4,800.00	4,737.41	4,773.89	4,630.77	13.63	17.65	-110.30	-500.33	592.21	797.12	770.13	26.99	29.529	
4,900.00	4,837.00	4,900.91	4,756.39	13.88	18.06	-110.46	-512.22	606.74	811.95	784.34	27.62	29.402	

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



Weatherford International Ltd.
Anticollision Report



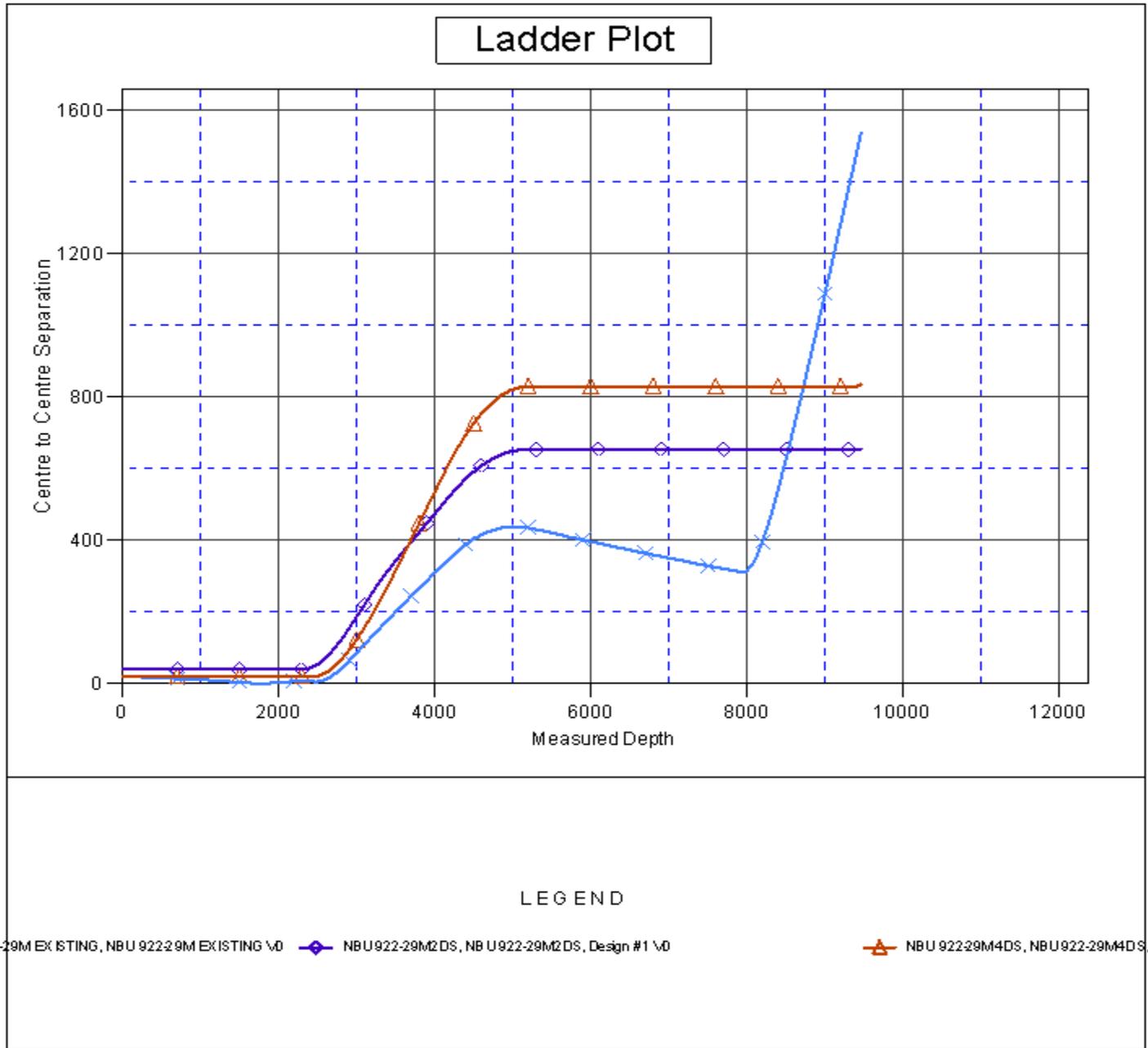
Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	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)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,000.00	4,936.79	5,029.25	4,884.03	14.10	18.38	-110.57	-520.64	617.04	822.39	794.23	28.16	29.206		
5,100.00	5,036.72	5,158.45	5,012.99	14.30	18.64	-110.65	-525.45	622.92	828.37	799.74	28.63	28.936		
5,195.29	5,132.00	5,277.48	5,132.00	14.46	18.81	91.36	-526.64	624.38	829.94	800.95	28.99	28.624		
5,200.00	5,136.71	5,282.19	5,136.71	14.46	18.81	91.36	-526.64	624.38	829.94	800.93	29.01	28.610		
5,300.00	5,236.71	5,382.19	5,236.71	14.62	18.94	91.36	-526.64	624.38	829.94	800.62	29.33	28.300		
5,400.00	5,336.71	5,482.19	5,336.71	14.78	19.07	91.36	-526.64	624.38	829.94	800.29	29.65	27.992		
5,500.00	5,436.71	5,582.19	5,436.71	14.95	19.20	91.36	-526.64	624.38	829.94	799.97	29.97	27.688		
5,600.00	5,536.71	5,682.19	5,536.71	15.11	19.33	91.36	-526.64	624.38	829.94	799.64	30.30	27.388		
5,700.00	5,636.71	5,782.19	5,636.71	15.28	19.46	91.36	-526.64	624.38	829.94	799.31	30.64	27.091		
5,800.00	5,736.71	5,882.19	5,736.71	15.44	19.60	91.36	-526.64	624.38	829.94	798.97	30.97	26.798		
5,900.00	5,836.71	5,982.19	5,836.71	15.61	19.74	91.36	-526.64	624.38	829.94	798.63	31.31	26.509		
6,000.00	5,936.71	6,082.19	5,936.71	15.78	19.88	91.36	-526.64	624.38	829.94	798.29	31.65	26.224		
6,100.00	6,036.71	6,182.19	6,036.71	15.95	20.02	91.36	-526.64	624.38	829.94	797.95	31.99	25.942		
6,200.00	6,136.71	6,282.19	6,136.71	16.13	20.16	91.36	-526.64	624.38	829.94	797.60	32.34	25.665		
6,300.00	6,236.71	6,382.19	6,236.71	16.30	20.30	91.36	-526.64	624.38	829.94	797.26	32.69	25.391		
6,400.00	6,336.71	6,482.19	6,336.71	16.47	20.45	91.36	-526.64	624.38	829.94	796.91	33.04	25.122		
6,500.00	6,436.71	6,582.19	6,436.71	16.65	20.59	91.36	-526.64	624.38	829.94	796.55	33.39	24.856		
6,600.00	6,536.71	6,682.19	6,536.71	16.83	20.74	91.36	-526.64	624.38	829.94	796.20	33.75	24.594		
6,700.00	6,636.71	6,782.19	6,636.71	17.01	20.89	91.36	-526.64	624.38	829.94	795.84	34.10	24.336		
6,800.00	6,736.71	6,882.19	6,736.71	17.19	21.04	91.36	-526.64	624.38	829.94	795.48	34.46	24.082		
6,900.00	6,836.71	6,982.19	6,836.71	17.37	21.19	91.36	-526.64	624.38	829.94	795.12	34.82	23.832		
7,000.00	6,936.71	7,082.19	6,936.71	17.55	21.35	91.36	-526.64	624.38	829.94	794.75	35.19	23.585		
7,100.00	7,036.71	7,182.19	7,036.71	17.73	21.50	91.36	-526.64	624.38	829.94	794.39	35.55	23.343		
7,200.00	7,136.71	7,282.19	7,136.71	17.92	21.66	91.36	-526.64	624.38	829.94	794.02	35.92	23.104		
7,300.00	7,236.71	7,382.19	7,236.71	18.10	21.81	91.36	-526.64	624.38	829.94	793.65	36.29	22.868		
7,400.00	7,336.71	7,482.19	7,336.71	18.29	21.97	91.36	-526.64	624.38	829.94	793.28	36.66	22.637		
7,500.00	7,436.71	7,582.19	7,436.71	18.47	22.13	91.36	-526.64	624.38	829.94	792.91	37.04	22.409		
7,600.00	7,536.71	7,682.19	7,536.71	18.66	22.29	91.36	-526.64	624.38	829.94	792.53	37.41	22.184		
7,700.00	7,636.71	7,782.19	7,636.71	18.85	22.45	91.36	-526.64	624.38	829.94	792.15	37.79	21.963		
7,800.00	7,736.71	7,882.19	7,736.71	19.04	22.61	91.36	-526.64	624.38	829.94	791.78	38.17	21.746		
7,900.00	7,836.71	7,982.19	7,836.71	19.23	22.78	91.36	-526.64	624.38	829.94	791.40	38.55	21.532		
8,000.00	7,936.71	8,082.19	7,936.71	19.42	22.94	91.36	-526.64	624.38	829.94	791.02	38.93	21.321		
8,100.00	8,036.71	8,182.19	8,036.71	19.61	23.11	91.36	-526.64	624.38	829.94	790.63	39.31	21.113		
8,200.00	8,136.71	8,282.19	8,136.71	19.80	23.28	91.36	-526.64	624.38	829.94	790.25	39.69	20.909		
8,300.00	8,236.71	8,382.19	8,236.71	19.99	23.44	91.36	-526.64	624.38	829.94	789.86	40.08	20.708		
8,400.00	8,336.71	8,482.19	8,336.71	20.18	23.61	91.36	-526.64	624.38	829.94	789.48	40.46	20.510		
8,500.00	8,436.71	8,582.19	8,436.71	20.38	23.78	91.36	-526.64	624.38	829.94	789.09	40.85	20.316		
8,600.00	8,536.71	8,682.19	8,536.71	20.57	23.95	91.36	-526.64	624.38	829.94	788.70	41.24	20.124		
8,700.00	8,636.71	8,782.19	8,636.71	20.77	24.12	91.36	-526.64	624.38	829.94	788.31	41.63	19.935		
8,800.00	8,736.71	8,882.19	8,736.71	20.96	24.29	91.36	-526.64	624.38	829.94	787.92	42.02	19.750		
8,900.00	8,836.71	8,982.19	8,836.71	21.16	24.47	91.36	-526.64	624.38	829.94	787.53	42.42	19.567		
9,000.00	8,936.71	9,082.19	8,936.71	21.36	24.64	91.36	-526.64	624.38	829.94	787.13	42.81	19.387		
9,100.00	9,036.71	9,182.19	9,036.71	21.55	24.82	91.36	-526.64	624.38	829.94	786.74	43.20	19.210		
9,200.00	9,136.71	9,282.19	9,136.71	21.75	24.99	91.36	-526.64	624.38	829.94	786.34	43.60	19.035		
9,300.00	9,236.71	9,382.19	9,236.71	21.95	25.17	91.36	-526.64	624.38	829.94	785.94	44.00	18.863		
9,347.33	9,284.04	9,429.52	9,284.04	22.04	25.25	91.36	-526.64	624.38	829.94	785.76	44.19	18.783		
9,400.00	9,336.71	9,445.48	9,300.00	22.15	25.28	91.36	-526.64	624.38	830.75	786.43	44.32	18.743		
9,463.29	9,400.00	9,445.48	9,300.00	22.28	25.28	91.36	-526.64	624.38	835.94	791.49	44.45	18.806		



Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

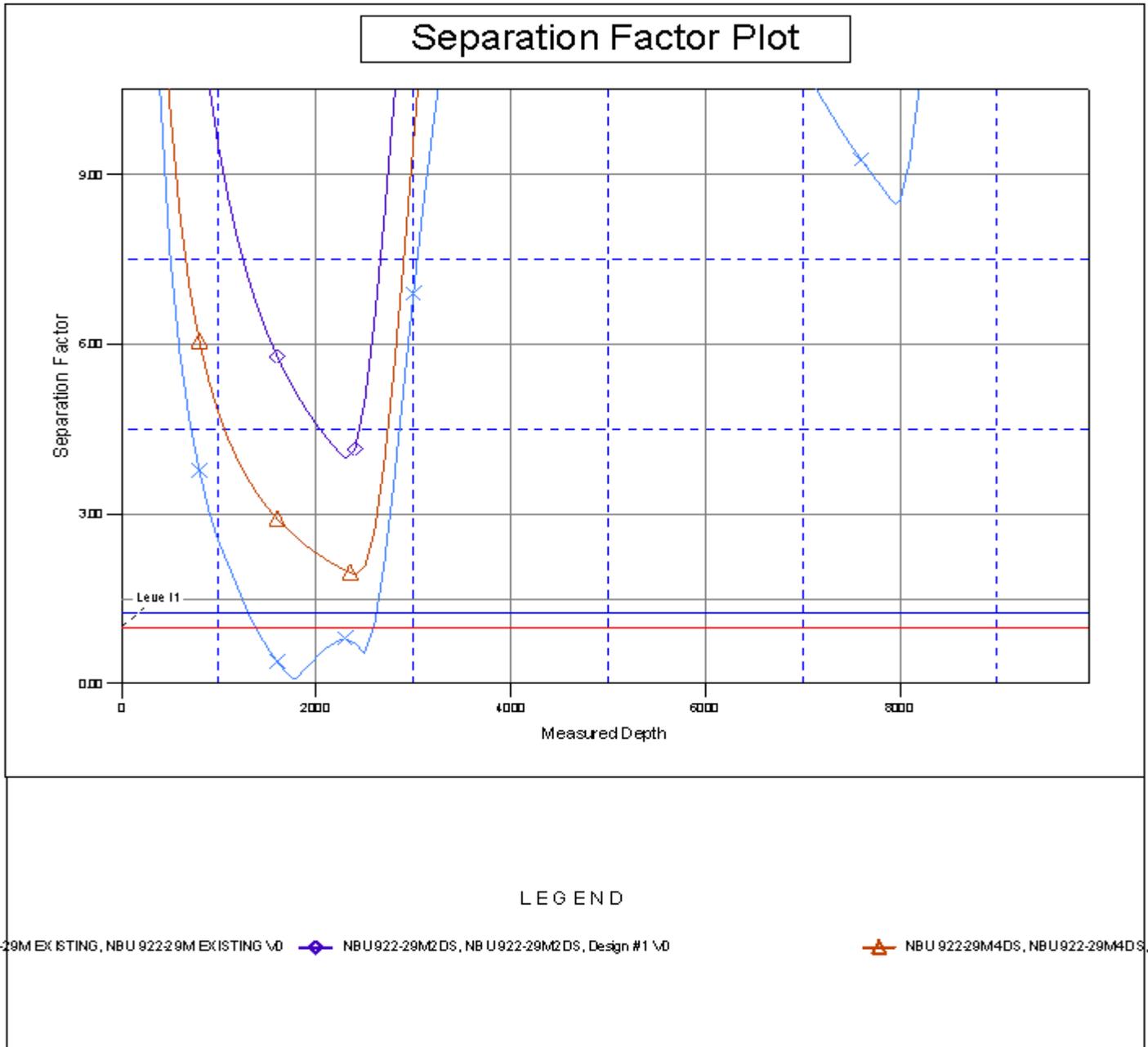
Reference Depths are relative to WELL @ 5030.00ft (Original Well Elev) Coordinates are relative to: NBU 922-29M3CS
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 0.98°





Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	WELL @ 5030.00ft (Original Well Elev)
Reference Site:	NBU 922-29M PAD	MD Reference:	WELL @ 5030.00ft (Original Well Elev)
Site Error:	0.00ft	North Reference:	True
Reference Well:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00ft	Output errors are at	2.00 sigma
Reference Wellbore	NBU 922-29M3CS	Database:	EDM 2003.21 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 5030.00ft (Original Well Elev) Coordinates are relative to: NBU 922-29M3CS
 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°





Weatherford®

Weatherford International, Ltd

2000 Oil Field Drive
Casper, Wyoming 82604 USA
+1.307.268.7900 Main
+1.307.235.3958 Fax
www.weatherford.com

Contact Information

District Manager: Pat Rasmussen

+1.307.268.7900 Casper, Wyoming
Email: pat.rasmussen@weatherford.com

Directional Drilling Coordinator:

Larren Holdren

+1.307.268.7900 Casper, Wyoming
Email: larren.holdren@weatherford.com

Bret Wolford

Email: bret.wolford@weatherford.com

MWD Coordinators:

+1.307.268.7900 Casper, Wyoming

Adam Rinker

Email: adam.rinker@weatherford.com

Matthew Heaton

Email: matthew.heaton@weatherford.com

Directional Drilling Sales Casper: Dean Reed

1.307.268.7900 Casper, Wyoming
Email: dean.reed@weatherford.com

Directional Drilling Sales Denver: Linda Smith

+1.303.825.6558 Denver, Colorado
Email: linda.smith@weatherford.com

Well Planning Casper Office:

+1.307.268.7900 Casper, Wyoming

Tracy Williams

Email: tracy.williams@weatherford.com

Well Planning Denver Office:

+1.303.825.6558 Denver, Colorado

Robert Scott

Email: robert.scott@weatherford.com

NBU 922-29M3CS

Pad: NBU 922-29M

Surface: 572' FSL, 520' FWL (SW/4SW/4)

BHL: 65' FSL 315' FWL (SW/4SW/4)

Sec. 29 T9S R22E

Uintah, Utah

Mineral Lease: ML22935

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	1,402'	
Birds Nest	1,707'	Water
Mahogany	2,175'	Water
Wasatch	4,628'	Gas
Mesaverde	7,194'	Gas
MVU2	8,139'	Gas
MVL1	8,705'	Gas
TVD	9,400'	
TD	9,463'	

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 9,463' TD, approximately equals 5,601 psi (calculated at 0.57 psi/foot).

Maximum anticipated surface pressure equals approximately 3,496 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.

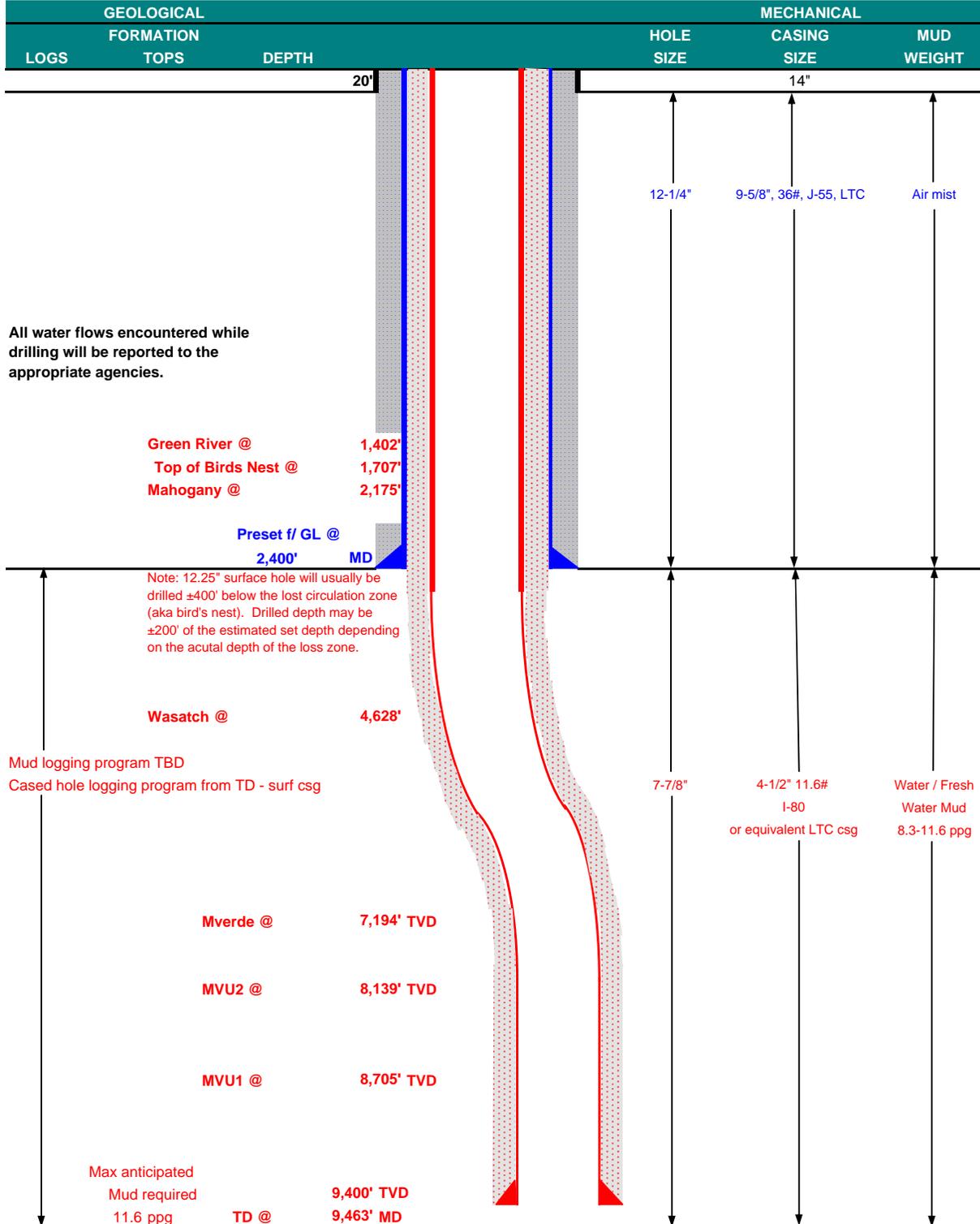
10. Other Information:

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 8, 2009			
WELL NAME	NBU 922-29M3CS		TD	9,400'	TVD	9,463' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	ELEVATION	5,015' GL KB 5,030'
SURFACE LOCATION	SW/4 SW/4 572' FSL 520' FWL		Sec 29	T 9S	R 22E		
	Latitude: 40.001385		Longitude: -109.470747		NAD 27		
BTM HOLE LOCATION	SW/4 SW/4 65' FSL 315' FWL		Sec 29	T 9S	R 22E		
	Latitude: 39.999993		Longitude: -109.471480		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 2,400	36.00	J-55	LTC	0.97	1.80	6.67
						7,780	6,350	201,000
PRODUCTION	4-1/2"	0 to 9,463	11.60	I-80	LTC	2.16	1.12	2.10

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))
- 2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)
 (Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoys.Fact. of water)
MASP 3,496 psi
- 3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD
 (Burst Assumptions: TD = 11.6 ppg) 0.59 psi/ft = bottomhole gradient
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoys.Fact. of water)
MABHP 5,601 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	1,900'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	450	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	4,123'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	390	40%	11.00	3.38
	TAIL	5,340'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,310	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.

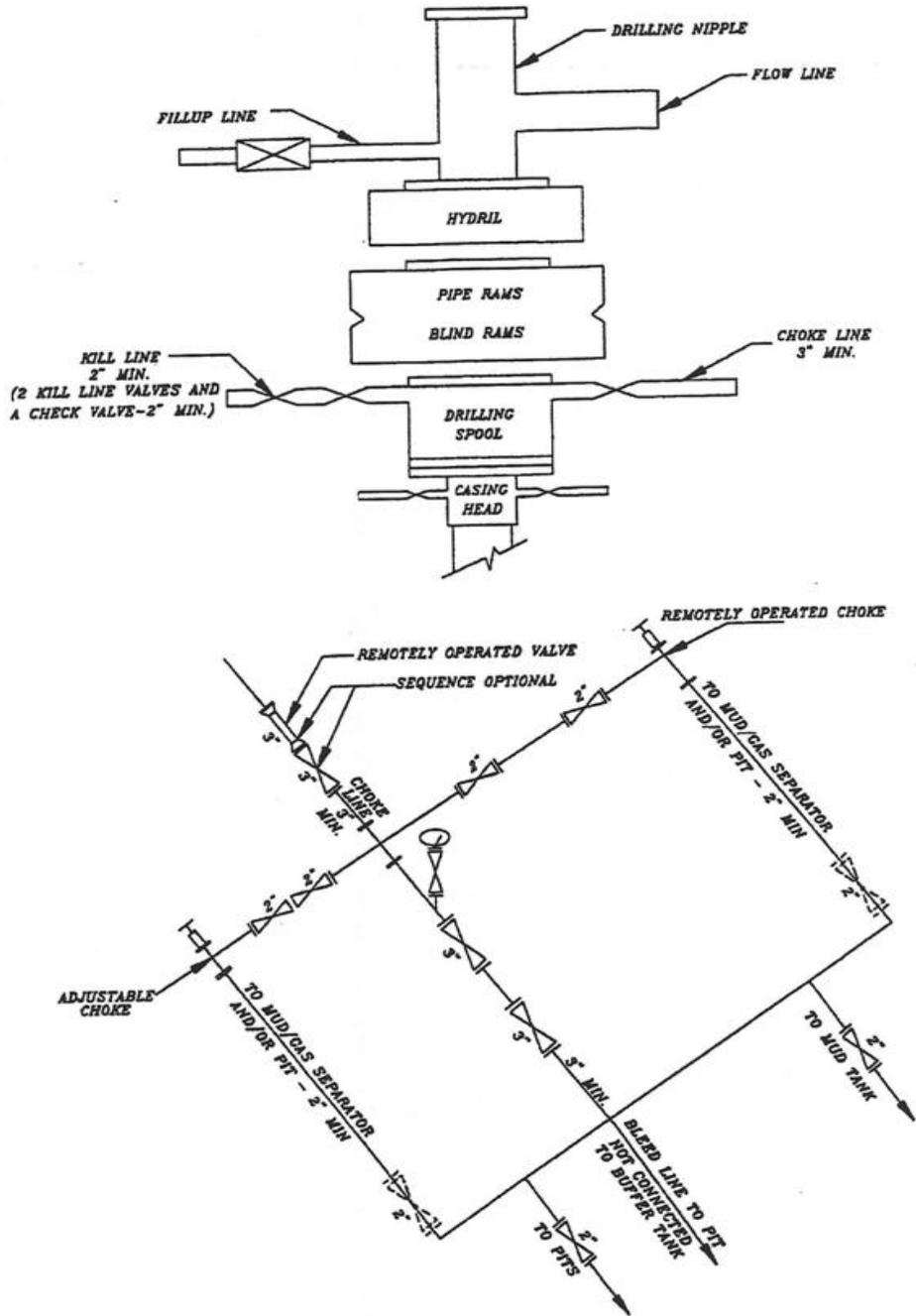
Surveys will be taken at 1,000' minimum intervals.

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 922-29M3CS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD - NBU 922-29M



RELATIVE COORDINATES		
From Surface Position to Bottom Hole		
WELL	NORTH	EAST
922-29M2DS	78'	4'
922-29M3CS	-507'	-205'
922-29M4DS	-507'	620'

BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 29, T9S, R22E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL SATELLITE POSITIONING OBSERVATIONS TO BEAR N00°00'38"W.

SURFACE POSITION FOOTAGES:

NBU 922-29M2DS
611' FSL & 511' FWL

NBU 922-29M3CS
572' FSL & 520' FWL

NBU 922-29M4DS
553' FSL & 525' FWL

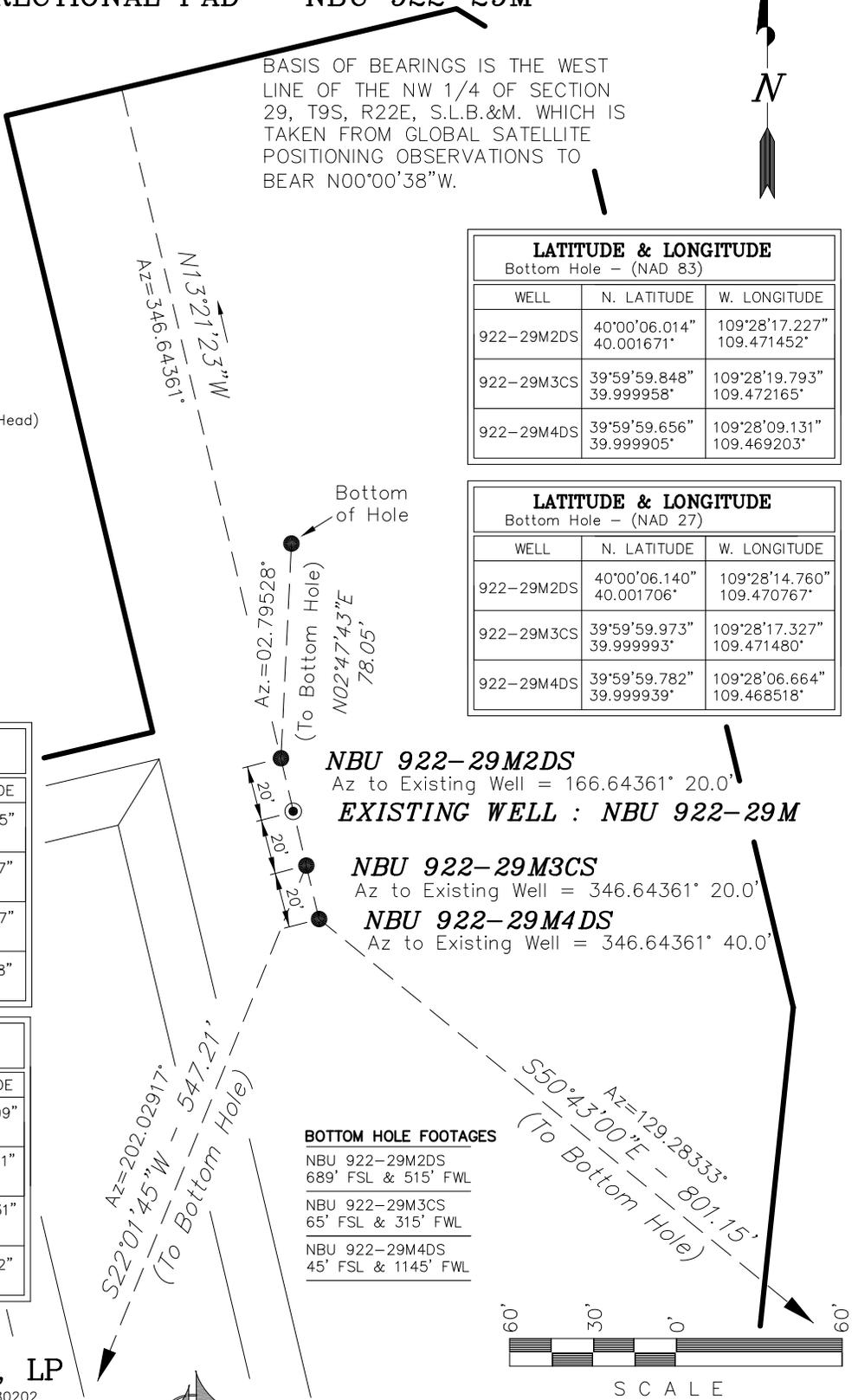
NBU 922-29M (Existing Well Head)
592' FSL, & 516' FWL

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
922-29M2DS	40°00'06.014" 40.001671°	109°28'17.227" 109.471452°
922-29M3CS	39°59'59.848" 39.999958°	109°28'19.793" 109.472165°
922-29M4DS	39°59'59.656" 39.999905°	109°28'09.131" 109.469203°

LATITUDE & LONGITUDE		
Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
922-29M2DS	40°00'06.140" 40.001706°	109°28'14.760" 109.470767°
922-29M3CS	39°59'59.973" 39.999993°	109°28'17.327" 109.471480°
922-29M4DS	39°59'59.782" 39.999939°	109°28'06.664" 109.468518°

LATITUDE & LONGITUDE		
Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
922-29M2DS	40°00'05.244" 40.001457°	109°28'17.275" 109.471465°
922-29M3CS	40°00'04.860" 40.001350°	109°28'17.157" 109.471433°
922-29M4DS	40°00'04.668" 40.001297°	109°28'17.097" 109.471416°
Existing Well NBU 922-29M	40°00'05.054" 40.001404°	109°28'17.218" 109.471450°

LATITUDE & LONGITUDE		
Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
922-29M2DS	40°00'05.370" 40.001492°	109°28'14.809" 109.470780°
922-29M3CS	40°00'04.985" 40.001385°	109°28'14.691" 109.470747°
922-29M4DS	40°00'04.793" 40.001331°	109°28'14.631" 109.470731°
Existing Well NBU 922-29M	40°00'05.180" 40.001439°	109°28'14.752" 109.470764°



NBU 922-29M2DS
Az to Existing Well = 166.64361° 20.0'

EXISTING WELL : NBU 922-29M

NBU 922-29M3CS
Az to Existing Well = 346.64361° 20.0'

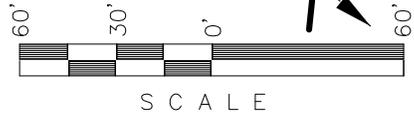
NBU 922-29M4DS
Az to Existing Well = 346.64361° 40.0'

BOTTOM HOLE FOOTAGES

NBU 922-29M2DS
689' FSL & 515' FWL

NBU 922-29M3CS
65' FSL & 315' FWL

NBU 922-29M4DS
45' FSL & 1145' FWL



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

NBU 922-29M2DS,
NBU 922-29M3CS & NBU 922-29M4DS
LOCATED IN SECTION 29, T9S, R22E,
S.L.B.&M. UINTAH COUNTY, UTAH.

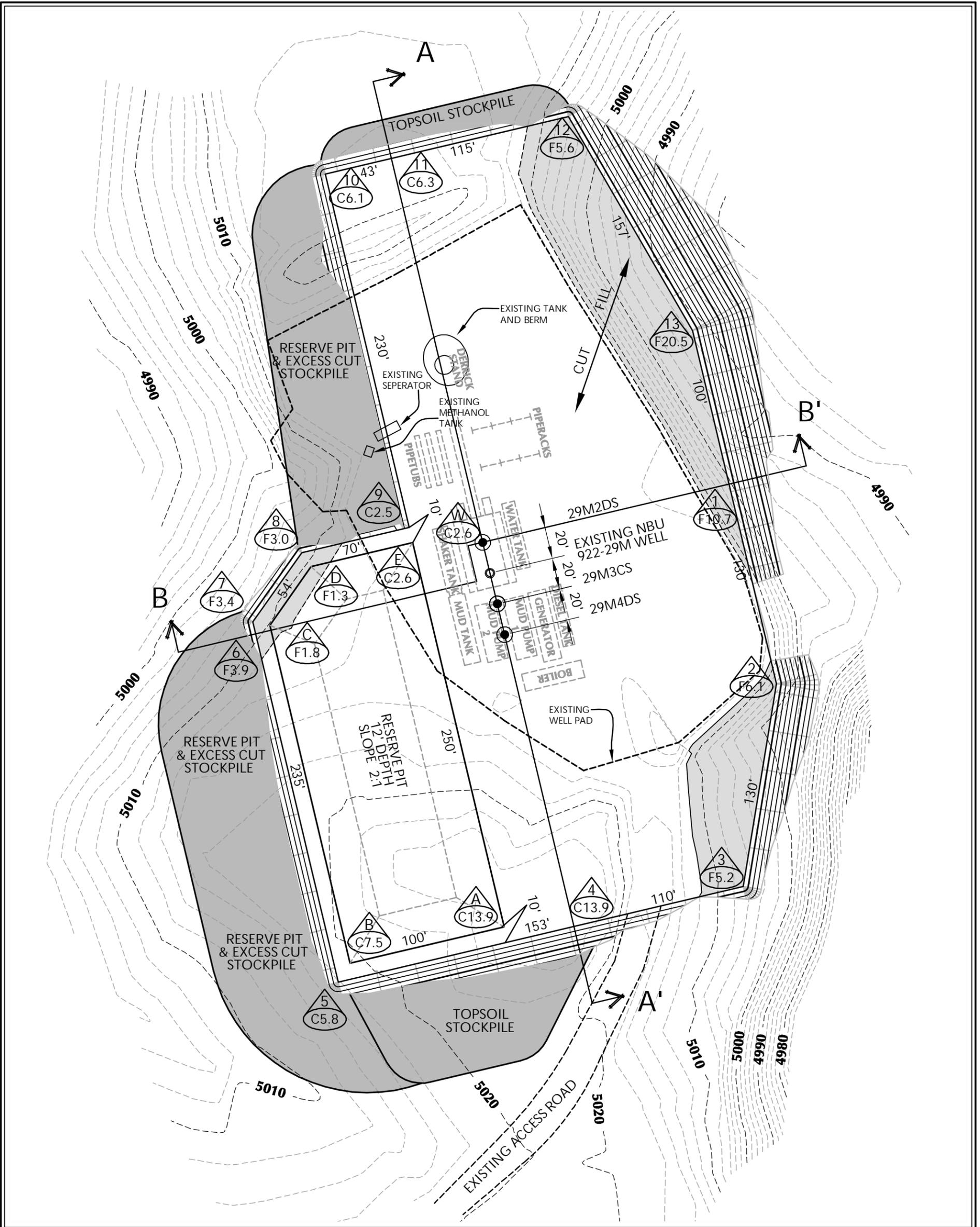
609

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

DATE SURVEYED: 10-10-08	SURVEYED BY: M.S.B.
DATE DRAWN: 01-29-09	DRAWN BY: M.W.W.
REVISED: 02-24-09	

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
4
OF 12



WELL PAD NBU 922-29M QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 5,014.6'
 FINISHED GRADE ELEVATION = 5,012.0'
 CUT SLOPES = 1.5:1
 FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 17,783 C.Y.
 TOTAL FILL FOR WELL PAD = 10,357 C.Y.
 TOPSOIL @ 6" DEPTH = 1,654 C.Y.
 EXCESS MATERIAL = 7,426 C.Y.
 TOTAL DISTURBANCE = 3.35 ACRES
 SHRINKAGE FACTOR = 1.10
 SWELL FACTOR = 1.00
 RESERVE PIT CAPACITY (2' OF FREEBOARD)
 +/- 28,210 BARRELS
 RESERVE PIT VOLUME
 +/- 7,580 CY

WELL PAD LEGEND

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



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

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

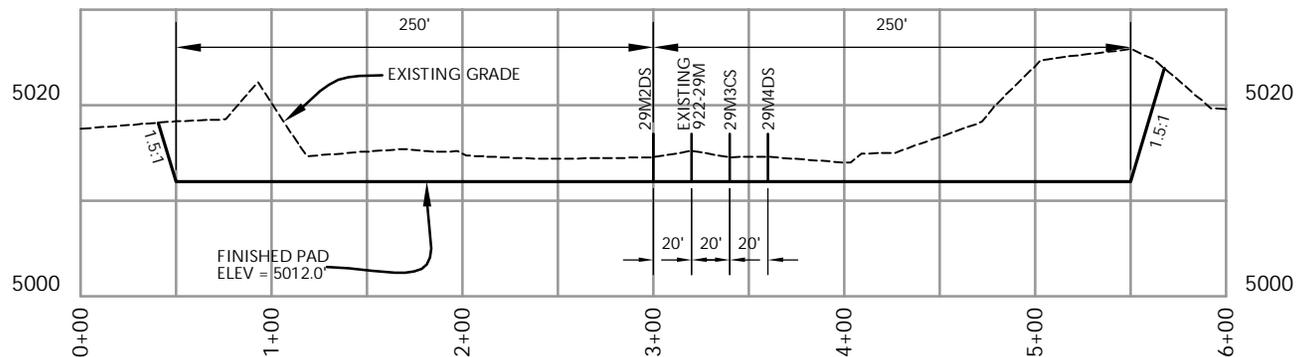


CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

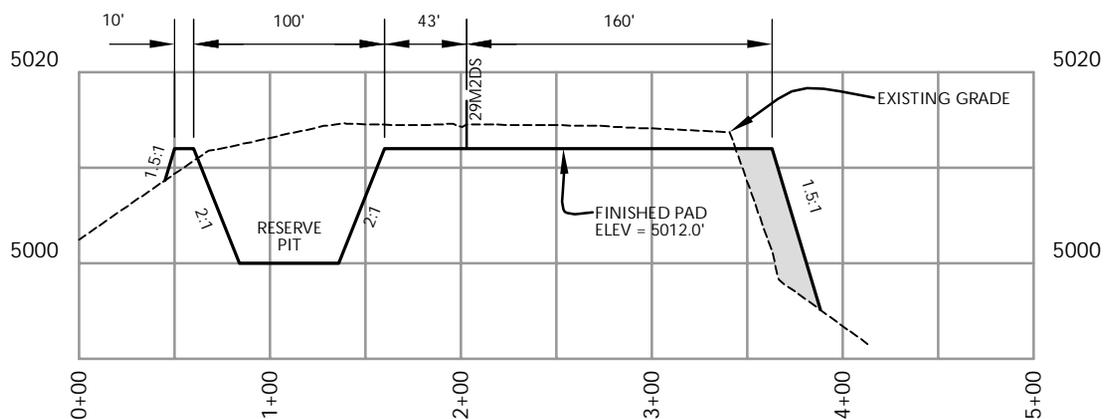
Scale: 1"=60'	Date: 2/18/09	SHEET NO: 5
REVISED:		5 OF 12

WELL PAD - LOCATION LAYOUT
 NBU 922-29M2DS,
 NBU 922-29M3CS & NBU 922-29M4DS
 LOCATED IN SECTION 29, T.9S., R.22E.
 S.L.B.&M., UINTAH COUNTY, UTAH

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



CROSS SECTION A-A'



CROSS SECTION B-B'

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

KERR-MCGEE OIL & GAS
ONSHORE L.P.

1099 18th Street - Denver, Colorado 80202

WELL PAD - CROSS SECTIONS
NBU 922-29M2DS,
NBU 922-29M3CS & NBU 922-29M4DS
LOCATED IN SECTION 29, T.9S., R.22E.
S.L.B.&M., Uintah County, Utah



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

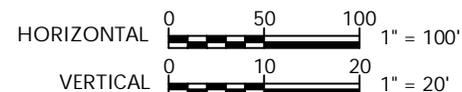
Scale: 1"=100'

Date: 2/18/09

SHEET NO:

6 6 OF 12

REVISED:



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

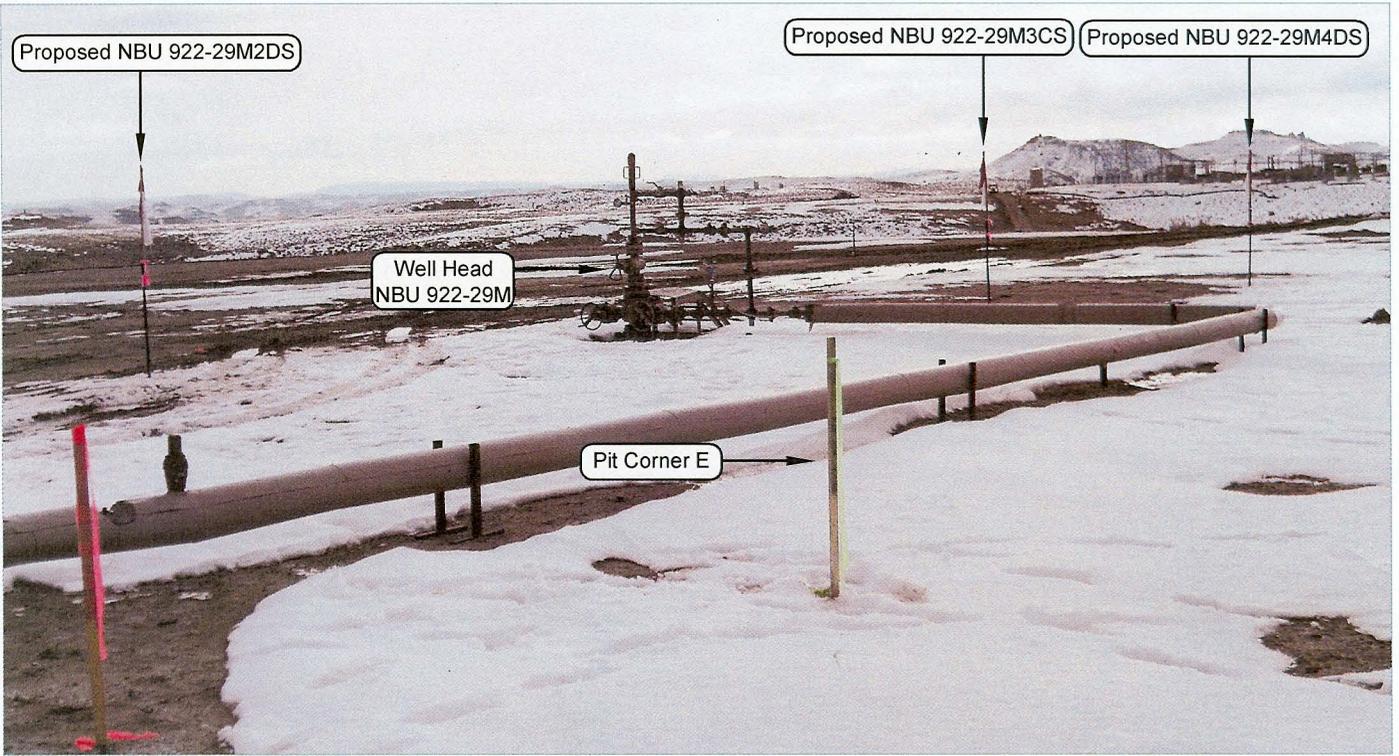


PHOTO VIEW: FROM CORNER E TO LOCATION STAKES

CAMERA ANGLE: SOUTHEASTERLY



PHOTO VIEW: FROM EXISTING ROAD

CAMERA ANGLE: NORTHWESTERLY

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



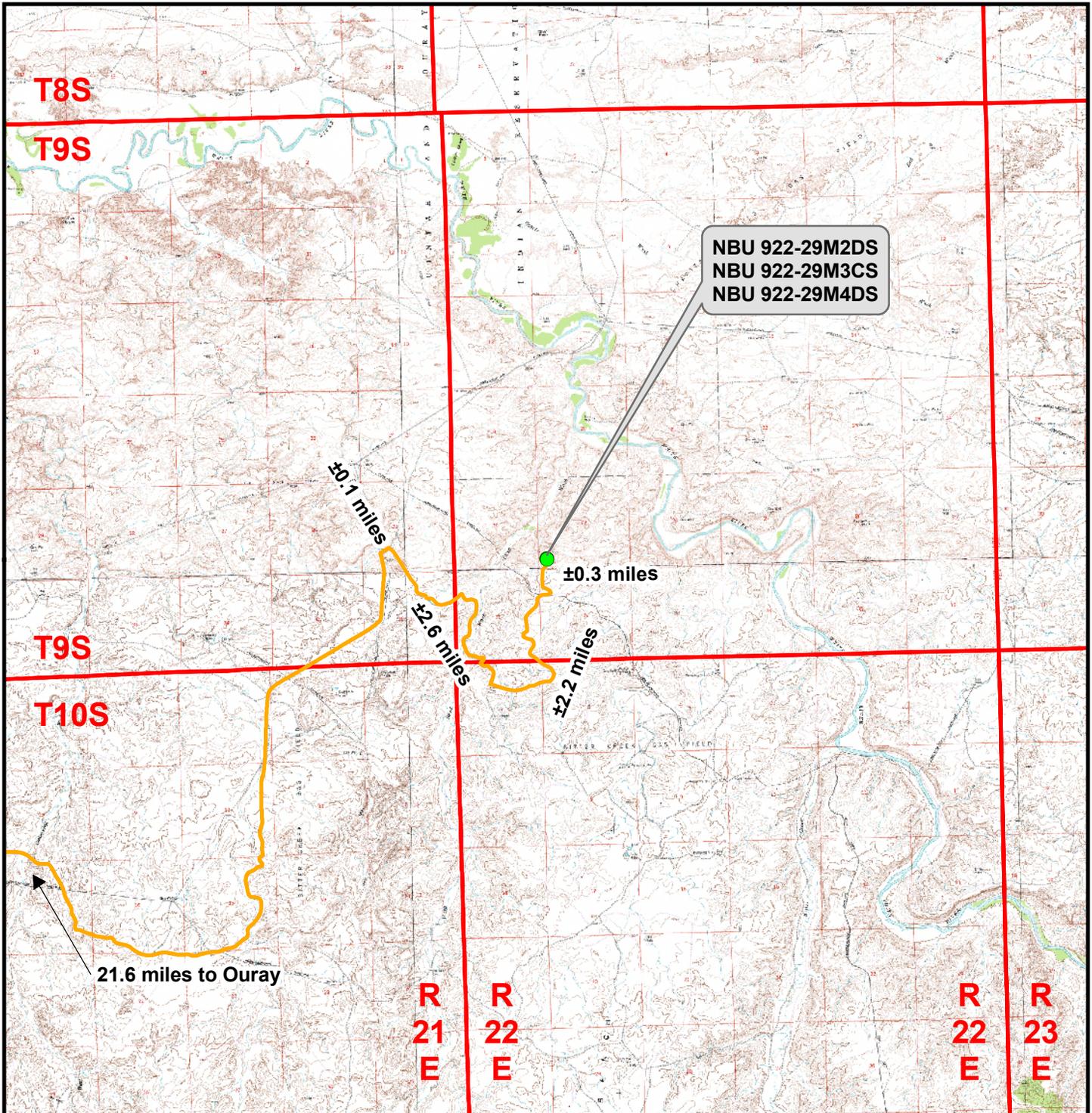
CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

LOCATION PHOTOS		DATE TAKEN: 10-10-08
		DATE DRAWN: 01-29-09
TAKEN BY: M.S.B.	DRAWN BY: M.W.W.	REVISED: 02-24-09

NBU 922-29M2DS,
 NBU 922-29M3CS & NBU 922-29M4DS
 LOCATED IN SECTION 29, T9S, R22E,
 S.L.B.&M. UINTAH COUNTY, UTAH.

Timberline (435) 789-1365
 Engineering & Land Surveying, Inc.
 209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
7
OF 12



Legend

- Proposed Well Location
- Access Route - Proposed

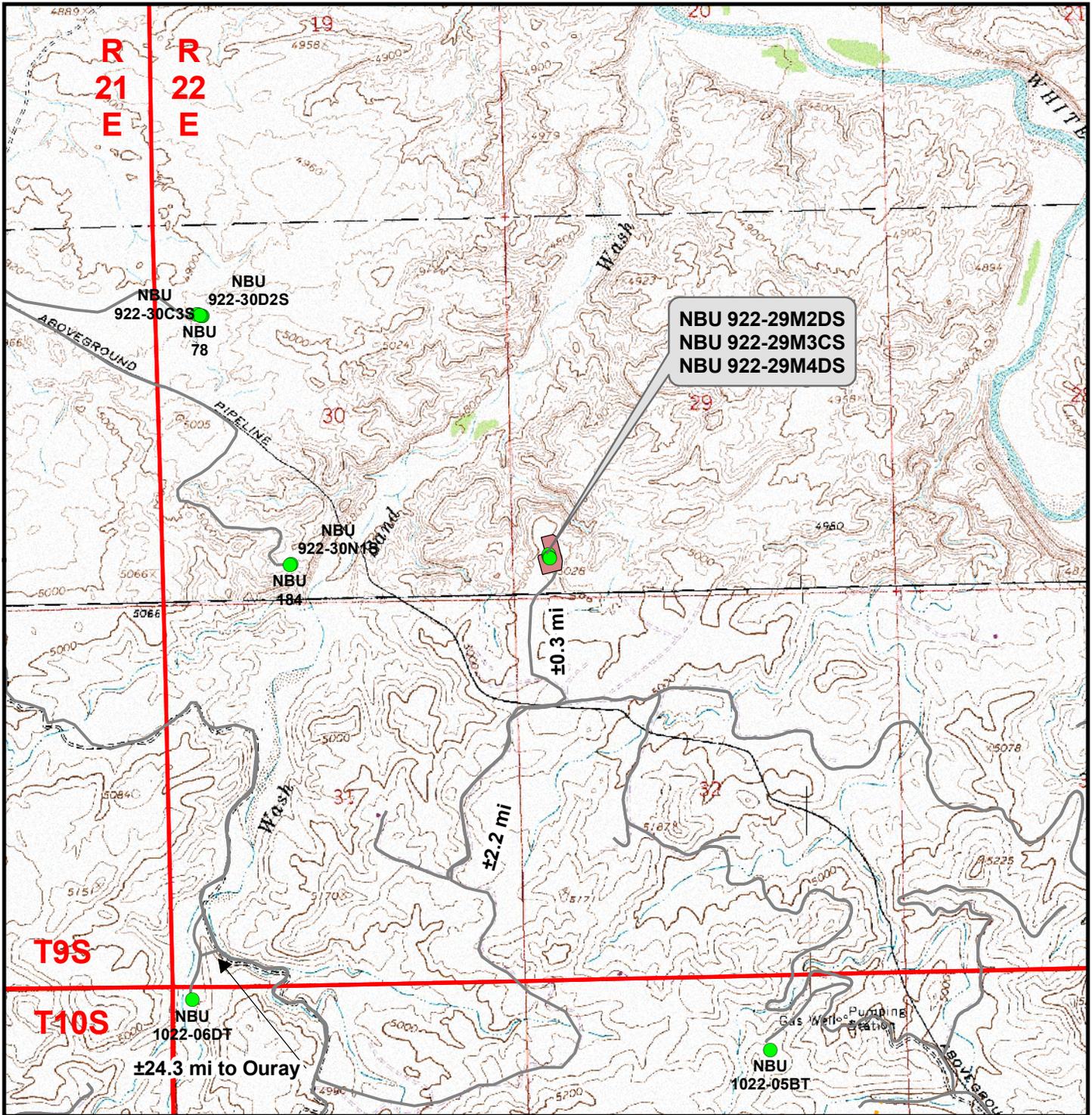
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

**NBU 922-29M2DS,
 NBU 922-29M3CS & NBU 922-29M4DS
 Topo A
 Located In Section 29, 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



Scale: 1:100,000	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 24 Feb 2009	8
Revised:	Date:	



Legend

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

Total Proposed Road Length: ±0ft

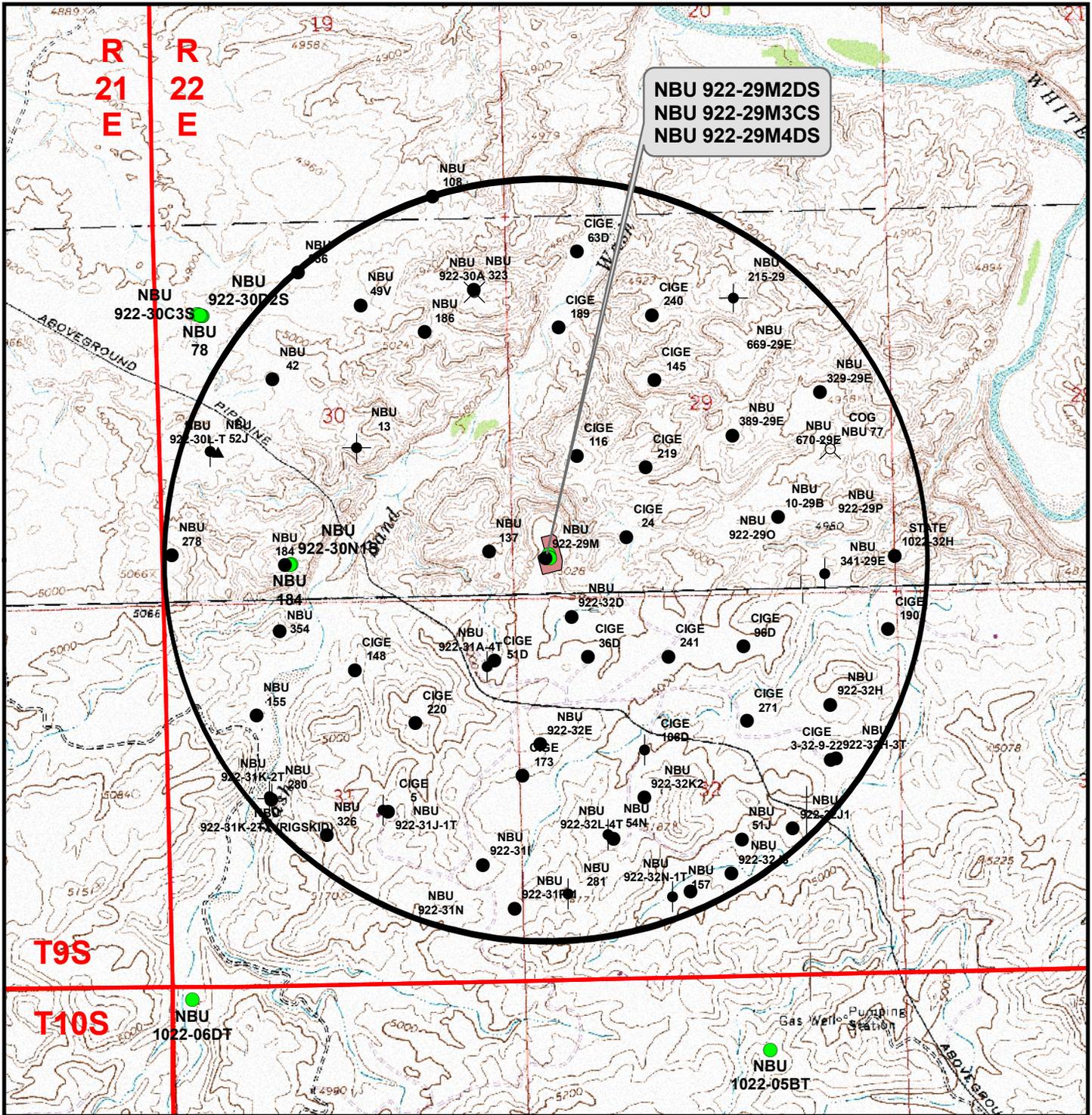
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

**NBU 922-29M2DS,
 NBU 922-29M3CS & NBU 922-29M4DS
 Topo B
 Located In Section 29, 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



Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 24 Feb 2009	9
Revised:	Date:	



NBU 922-29M2DS
 NBU 922-29M3CS
 NBU 922-29M4DS

Legend

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

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

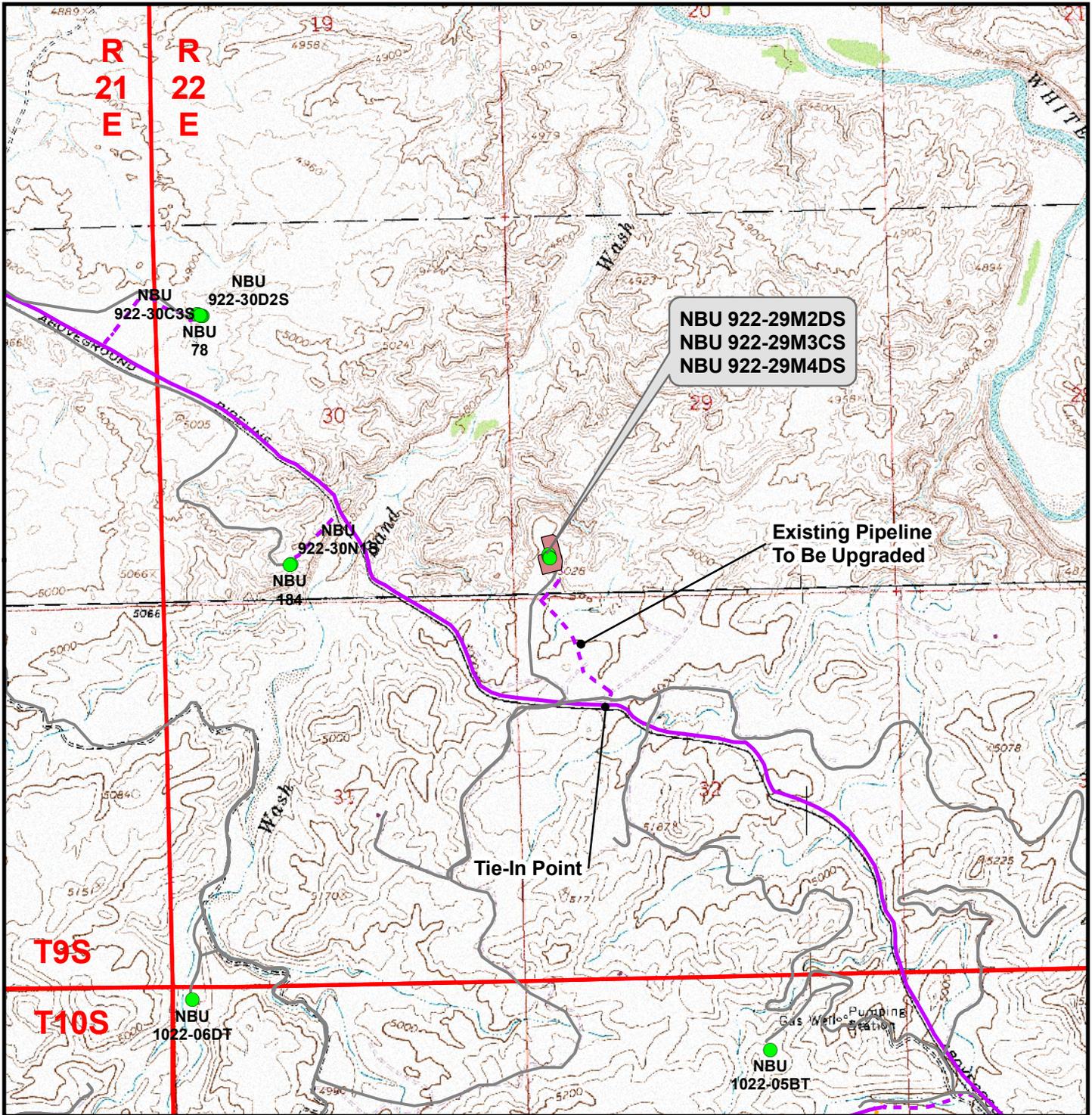
Kerr-McGee Oil & Gas Onshore, LP
 1099 18th Street, Denver, Colorado 80202

**NBU 922-29M2DS,
 NBU 922-29M3CS & NBU 922-29M4DS
 Topo C
 Located In Section 29, 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



Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 24 Feb 2009	10 10 of 12
Revised:	Date:	



Legend

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

Proposed Pipeline Length From Tie-In Point To Edge Of Pad: ±2,360ft
 Proposed Pipeline Length Around Pad: ±660ft

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

**NBU 922-29M2DS,
 NBU 922-29M3CS & NBU 922-29M4DS
 Topo D
 Located In Section 29, 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

Scale: 1" = 2000ft	NAD83 USP Central	Sheet No:
Drawn: JELO	Date: 24 Feb 2009	11 11 of 12
Revised:	Date:	

Kerr-McGee Oil & Gas Onshore, LP
NBU 922-29M2DS, NBU 922-29M3CS, NBU 922-29M4DS
Section 29, 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 BEARING NORTHEAST. EXIT RIGHT AND PROCEED IN A NORTHEASERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 0.1 MILES TO A SECOND CLASS D COUNTY ROAD BEARING 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 BEARING EASTERLY. EXIT LEFT AND PROCEED IN AN EASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE THIRD CLASS D COUNTY ROAD APPROXIMATELY 2.2 MILES TO THE EXISTING ACCESS ROAD WHICH RUNS TO THE NBU 922-29M WELL PAD. EXIT RIGHT AND PROCEED IN A NORTHERLY DIRECTION ALONG THE ACCESS ROAD APPROXIMATELY 0.3 MILES TO THE EXISTING NBU 922-29M WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 57.5 MILES IN A SOUTHERLY DIRECTION.

Kerr-McGee Oil & Gas Onshore LP

NBU 922-29M2DS

Surface: 611' FSL, 511' FWL (SW/4SW/4)
BHL: 689' FSL 515' FWL (SW/4SW/4)

NBU 922-29M3CS

Surface: 572' FSL, 520' FWL (SW/4SW/4)
BHL: 65' FSL 315' FWL (SW/4SW/4)

NBU 922-29M4DS

Surface: 553' FSL, 525' FWL (SW/4SW/4)
BHL: 45' FSL 1,145' FWL (SW/4SW/4)

Section 29 Township 9 South Range 22 East
Pad: NBU 922-29M
Uintah, Utah
Surface: State
Minerals: State – ML22935

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 ± 0.0 mi. ($\pm 0'$) 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.

Kerr-McGee Oil & Gas Onshore LP
NBU 922-29M2DS/ 29M3CS/ 29M4DS

Page 6
Surface Use and Operations Plan

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.

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 8, 2009
Date



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

April 8, 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 922-29M3CS
T9S-R22E
Section 29: SWSW
Surface: 572' FSL, 520' FWL
Bottom Hole: 65' FSL, 315' FWL
Uintah County, Utah

Dear Mrs. Mason:

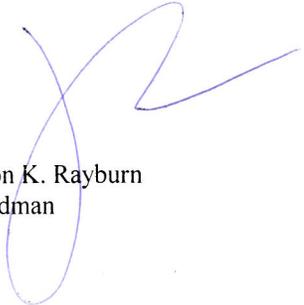
Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 922-29M3CS 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

Paleontological Reconnaissance Survey Report

Survey of Kerr McGee's Proposed Multi-Well Pads and Pipeline Upgrades for "NBU #922-29M2DS, M4DS & M3CS, #1022-901S, L4S, M1S & M4S, #1022-10C1BS, B2AS, B4BS & A4BS, #1022-18O1AS, I4BS, P1DS & P4AS, and #1022-19H1AS, H2BS, A3BS & A1CS" (Sec. 19, T 9 S, R 21 E), (Sec. 29 & 32, T 9 S, R 22 E), (Sec. 13, T 10 S, R 21 E), & (Sec. 9, 10, & 18-20, T 10 S, R 22 E)

Archy Bench & Red Wash SW
Topographic Quadrangles
Uintah County, Utah

March 25, 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 multi-well pads and pipeline upgrades for "NBU #922-29M2DS, M4DS & M3CS, #1022-9O1S, L4S, M1S & M4S, #1022-10C1BS, B2AS, B4BS & A4BS, #1022-18O1AS, I4BS, P1DS & P4AS, and #1022-19H1AS, H2BS, A3BS & A1CS" (Sec. 19, T 9 S, R 21 E), (Sec. 29 & 32, T 9 S, R 22 E), (Sec. 13, T 10 S, R 21 E), & (Sec. 9, 10, & 18-20, T 10 S, R 22 E) was conducted by Stephen Sandau and Thomas Temme on March 20, 2009. 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 multi-well pads, and pipeline upgrades for "NBU #922-29M2DS, M4DS & M3CS, #1022-9O1S, L4S, M1S & M4S, #1022-10C1BS, B2AS, B4BS & A4BS, #1022-18O1AS, I4BS, P1DS & P4AS, and #1022-19H1AS, H2BS, A3BS & A1CS" (Sec. 19, T 9 S, R 21 E), (Sec. 29 & 32, T 9 S, R 22 E), (Sec. 13, T 10 S, R 21 E), & (Sec. 9, 10, & 18-20, 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, 0.5-5 miles west of the White River on East Bench, and some 19-26 miles southeast of Ouray, UT. The project area can be found on the Arch Bench and Red Wash SW 7.5 minute U. S. Geological Survey Quadrangle Maps, 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 B) of the Uinta Formation. The following list provides a description of the individual wells and their associated pipelines and access roads.

NBU #922-29M2DS, M4DS & M3CS

The proposed pipeline upgrade begins in the NW/NW quarter-quarter section of Sec. 32, T 9 S, R 22 E, and heads north for about 2500 feet before joining the proposed multi-well pad located on the existing pad "NBU #922-29M" in the SW/SW quarter-quarter section of Sec. 29 (Figure 1). The project area is situated in hilly terrain of ridges, ravines and valleys cut by modern drainages. Ground cover consists of previously disturbed mudstones and siltstones, tan silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of tan sandstone, green and purplish brown siltstone, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including arid steppe grasses and shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of gray, green, and purplish brown mudstones and

siltstones inter-bedded with purplish brown, fine-grained, sub-lithic sandstone and tan, fine-grained, sub-quartzitic sandstone; cut by several paleo-channels of tan, medium to coarse-grained, cross-bedded, lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides and valleys throughout the project area.

Numerous isolated turtle shell fragments were observed in the colluvium along the proposed pipeline upgrade. Most fragments were moderately to well preserved, and moderately to highly weathered. At least one individual turtle, represented as a small fragmentary scatter, was observed in the colluvium in the middle portion of the proposed pipeline upgrade. A few ichnofossil burrows and burrow casts, presumably of *Planolites*, were observed in the purplish brown sandstones and in the colluvium throughout the project area.

NBU #1022-901S, L4S, M1S & M4S

The proposed pipeline upgrade and multi-well pad is located on the existing pad "CIGE #298" in the SE/SW quarter-quarter section of Sec. 9, T 10 S, R 22 E (Figure 1). The project area is situated in hilly terrain cut by modern drainages. Ground cover consists of previously disturbed mudstones and siltstones, tan silty soil, small mudflats, and alluvium/colluvium consisting of locally derived and transported clasts of green and tan sandstone, green, purplish brown, and tan siltstone, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including cheat grass, shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of green, tan, and orangish tan mudstones and siltstones inter-bedded with purplish brown, fine-grained, sub-lithic sandstone and cut by several paleo-channels of greenish tan and greenish gray, medium to coarse-grained, cross-bedded, lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides capped by thick beds of channel sandstone throughout the project area.

Numerous isolated bone and turtle shell fragments were observed in the colluvium and *in situ* in medium to coarse-grained sandstones throughout the project area. Most fragments were moderately preserved and highly weathered. At least one individual turtle, represented as a small fragmentary scatter, was observed in colluvium in the northeastern portion of the proposed multi-well pad. Two individual concentrations of large mammal limb bone fragments were observed in the southern portion of the proposed multi-well pad, one sourcing from gray mudstone and one sourcing from orangish tan mudstone. Identifiable mammalian bone fragments include a sesamoid, humeral head, proximal tibia, distal tibia, distal calcaneum, and distal femur. A small concentration of mammal mandible fragments was observed in gray/green disaggregated mudstone, next to the southeastern corner of the existing pad. A few ichnofossil burrow casts, presumably of *Planolites*, were observed in colluvium throughout the project area. The area where the fossils were discovered is designated as the new vertebrate fossil locality "42Un2536V."

NBU #1022-10C1BS, B2AS, B4BS & A4BS

The proposed pipeline upgrade begins in the SE/NW quarter-quarter section of Sec. 10, T 10 S, R 22 E, and heads northeast for about 2500 feet before joining the proposed multi-well pad on the existing pad "NBU #231" located in the NW/NE and NE/NE quarter-quarter sections of Sec. 10 (Figure 1). The project area is situated in hilly terrain of ridges and ravines cut by modern

drainages, next to a deep river cut canyon of the White River. Ground cover consists of previously disturbed mudstones and siltstones, tan silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of tan sandstone, green and purplish brown siltstone, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including arid steppe grasses and shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of gray, green, purplish brown, and tan mudstones and siltstones inter-bedded with tan, green, and purplish brown fine-grained, sub-quartzitic sandstone cut by numerous large paleo-channels of tan, medium to coarse-grained, cross-bedded, sub-lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides throughout the project area. Three isolated, moderately to well preserved, and moderately to highly weathered turtle shell fragments were observed in the colluvium along the proposed pipeline upgrade. A few ichnofossil burrows and burrow casts, presumably of *Planolites*, were observed in the purplish brown sandstones and in the colluvium throughout the project area.

NBU #1022-18O1AS, I4BS, P1DS & P4AS

The proposed pipeline upgrade begins in the NE/NE quarter-quarter section of Sec. 19, T 10 S, R 22 E, and heads south-southeast for about 1100 feet before joining the proposed multi-well pad on the existing pad "NBU #1022-18D" located in the NW/NW quarter-quarter section of Sec. 18 (Figure 2). The project area is situated in hilly terrain cut by modern drainages and an ephemeral stream. Ground cover consists primarily of previously disturbed mudstones and siltstones, small amounts of tannish brown silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of tan, medium-grained, sub-lithic sandstones; green and purplish brown siltstones; and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including cheat grass, shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of green, purplish brown, and tan mudstones and siltstones inter-bedded with green and purplish brown, fine-grained, sub-lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides throughout the project area.

A few isolated bone and turtle shell fragments were observed in the colluvium throughout the project area. Most fragments were moderately preserved and highly weathered. Abundant ichnofossil burrows and burrow casts, presumably of *Planolites*, were observed in the purplish brown siltstones and in the colluvium throughout the project area.

NBU #1022-19H1AS, H2BS, A3BS & A1CS

The proposed pipeline upgrade begins in the NE/NE quarter-quarter section of Sec. 19, T 10 S, R 22 E, and heads south-southeast for about 700 feet before joining the proposed multi-well pad on the existing pad "NBU #1022-20D" located in the NW/NW quarter-quarter section of Sec. 20 (Figure 2). The project area is situated in hilly terrain cut by modern drainages and an ephemeral stream. Ground cover consists primarily of previously disturbed mudstones and siltstones, small amounts of tan to orangish tan silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of green and purplish brown, fine-grained, sub-lithic sandstones; purplish brown and tan siltstones, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including cheat grass, shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of

green, purplish brown, and tan mudstones and siltstones inter-bedded with green and purplish brown, fine-grained, sub-lithic sandstone cut by paleo-channels of tan, medium to coarse-grained, cross-bedded, lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides throughout the project area.

Infrequent isolated bone (? mammal rib fragment) and turtle shell fragments were observed in the colluvium at the base of the surrounding hills. Most fragments were moderately to well preserved and highly weathered. Abundant ichnofossil burrows and burrow casts, presumably of *Planolites*, were observed in the purplish brown and green sandstones and in the colluvium throughout the project area.

SURVEY RESULTS

PROJECT	GEOLOGY	PALEONTOLOGY
<p>“NBU #922-29M2DS, M4DS & M3CS” (Sec. 29 & 32, T 9 S, R 22 E)</p>	<p>The project area is situated in hilly terrain of ridges, ravines and valleys cut by modern drainages. Ground cover consists of previously disturbed mudstones and siltstones, tan silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of tan sandstone, green and purplish brown siltstone, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including arid steppe grasses and shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of gray, green, and purplish brown mudstones and siltstones inter-bedded with purplish brown, fine-grained, sub-lithic sandstone and tan, fine-grained, sub-quartzic sandstone; cut by several paleo-channels of tan, medium to coarse-grained, cross-bedded, lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides and valleys throughout the project area.</p>	<p>Numerous isolated turtle shell fragments were observed in the colluvium along the proposed pipeline upgrade. Most fragments were moderately to well preserved and moderately to highly weathered. At least one individual turtle, represented as a small fragmentary scatter, was observed in the colluvium in the middle portion of the proposed pipeline upgrade. A few ichnofossil burrows and burrow casts, presumably of <i>Planolites</i>, were observed in the purplish brown sandstones and in the colluvium throughout the project area. Class 3a</p>

<p>“NBU #1022-901S, L4S, M1S & M4S” (Sec. 9, T 10 S, R 22 E)</p>	<p>The project area is situated in hilly terrain cut by modern drainages. Ground cover consists of previously disturbed mudstones and siltstones, tan silty soil, small mudflats, and alluvium/colluvium consisting of locally derived and transported clasts of green and tan sandstone, green, purplish brown, and tan siltstone, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including cheat grass, shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of green, tan, and orangish tan mudstones and siltstones inter-bedded with purplish brown, fine-grained, sub-lithic sandstone and cut by several paleo-channels of greenish tan and greenish gray, medium to coarse-grained, cross-bedded, lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides capped by thick beds of channel sandstone throughout the project area.</p>	<p>Numerous isolated bone and turtle shell fragments were observed in the colluvium and <i>in situ</i> in medium to coarse-grained sandstones throughout the project area. Most fragments were moderately preserved and highly weathered. At least one individual turtle, represented as a small fragmentary scatter, was observed in colluvium in the northeastern portion of the proposed multi-well pad. Two individual concentrations of large mammal limb bone fragments were observed in the southern portion of the proposed multi-well pad, one sourcing from gray mudstone and one sourcing from orangish tan mudstone. Identifiable mammalian bone fragments include a sesamoid, humeral head, proximal tibia, distal tibia, distal calcaneum, and distal femur. A small concentration of mammal mandible fragments was observed in gray/green disaggregated mudstone, next to the southeastern corner of the existing pad. A few ichnofossil burrow casts, presumably of <i>Planolites</i>, were observed in colluvium throughout the project area. The area where the fossils were discovered is designated as the new vertebrate fossil locality “42Un2536V.” Class 5a</p>
---	---	--

<p>“NBU #1022-10C1BS, B2AS, B4BS & A4BS” (Sec. 10, T 10 S, R 22 E)</p>	<p>The project area is situated in hilly terrain of ridges and ravines cut by modern drainages, next to a deep river cut canyon of the White River. Ground cover consists of previously disturbed mudstones and siltstones, tan silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of tan sandstone, green and purplish brown siltstone, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including arid steppe grasses and shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of gray, green, purplish brown, and tan mudstones and siltstones inter-bedded with tan, green, and purplish brown fine-grained, sub-quartzic sandstone cut by numerous large paleo-channels of tan, medium to coarse-grained, cross-bedded, sub-lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides throughout the project area.</p>	<p>Three isolated, moderately to well preserved, and moderately to highly weathered turtle shell fragments were observed in the colluvium along the proposed pipeline upgrade. A few ichnofossil burrows and burrow casts, presumably of <i>Planolites</i>, were observed in the purplish brown sandstones and in the colluvium throughout the project area. Class 3b</p>
<p>“NBU #1022-18O1AS, I4BS, P1DS & P4AS” (Sec. 18 & 19, T 10 S, R22 E)</p>	<p>The project area is situated in hilly terrain cut by modern drainages and an ephemeral stream. Ground cover consists primarily of previously disturbed mudstones and siltstones, small amounts of tannish brown silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of tan, medium-grained, sub-lithic sandstones; green and purplish brown siltstones; and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including cheat grass, shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of green, purplish brown, and tan mudstones and siltstones inter-bedded with green and purplish brown, fine-grained, sub-lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides throughout the project area.</p>	<p>A few isolated bone and turtle shell fragments were observed in the colluvium throughout the project area. Most fragments were moderately preserved and highly weathered. Abundant ichnofossil burrows and burrow casts, presumably of <i>Planolites</i>, were observed in the purplish brown siltstones and in the colluvium throughout the project area. Class 3a</p>

<p>“NBU #1022-19H1AS, H2BS, A3BS & A1CS” (Sec. 19 & 20, T 10 S, R22 E)</p>	<p>The project area is situated in hilly terrain cut by modern drainages and an ephemeral stream. Ground cover consists primarily of previously disturbed mudstones and siltstones, small amounts of tan to orangish tan silty soil, and alluvium/colluvium consisting of locally derived and transported clasts of green and purplish brown, fine-grained, sub-lithic sandstones; purplish brown and tan siltstones, and disaggregated mudstones and siltstones. Sediments in the project area support vegetation including cheat grass, shrubs, cactus, and sagebrush. The stratigraphy of the project area is typical of the Wagonhound Member (Uinta B) and includes variegated beds of green, purplish brown, and tan mudstones and siltstones interbedded with green and purplish brown, fine-grained, sub-lithic sandstone cut by paleo-channels of tan, medium to coarse-grained, cross-bedded, lithic sandstone. Stratigraphy outcrops as resistant beds exposed in colluvium covered hillsides throughout the project area.</p>	<p>Infrequent isolated bone (? mammal rib fragment) and turtle shell fragments were observed in the colluvium at the base of the surrounding hills. Most fragments were moderately to well preserved and highly weathered. Abundant ichnofossil burrows and burrow casts, presumably of <i>Planolites</i>, were observed in the purplish brown and green sandstones and in the colluvium throughout the project area.</p> <p>Class 3a</p>
---	---	--

RECOMMENDATIONS

A reconnaissance survey was conducted for Kerr McGee's proposed multi-well pads, and pipeline upgrades for "NBU #922-29M2DS, M4DS & M3CS, #1022-9O1S, L4S, M1S & M4S, #1022-10C1BS, B2AS, B4BS & A4BS, #1022-18O1AS, I4BS, P1DS & P4AS, and #1022-19H1AS, H2BS, A3BS & A1CS" (Sec. 19, T 9 S, R 21 E), (Sec. 29 & 32, T 9 S, R 22 E), (Sec. 13, T 10 S, R 21 E), & (Sec. 9, 10, & 18-20, T 10 S, R 22 E). The well pads and the associated pipeline upgrades covered in this report showed some signs of vertebrate fossils, therefore, we advise the following recommendations.

Due to a number of vertebrate fossils found in and around the proposed location for "NBU #1022-9O1S, L4S, M1S & M4S" we recommend that a permitted paleontologist be present to monitor the construction process of the access road, pipeline and well pad.

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

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

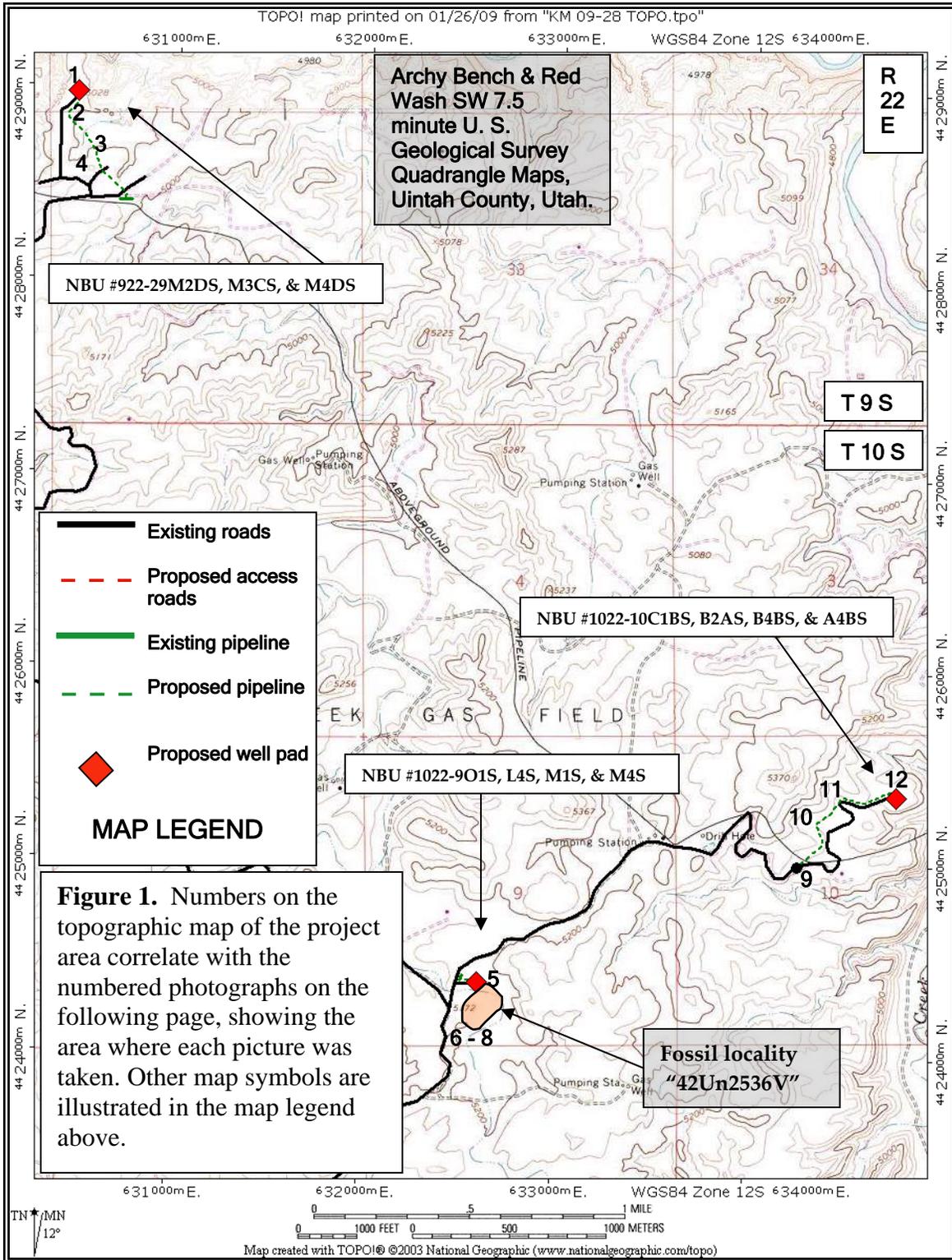


Figure 1. *continued...*

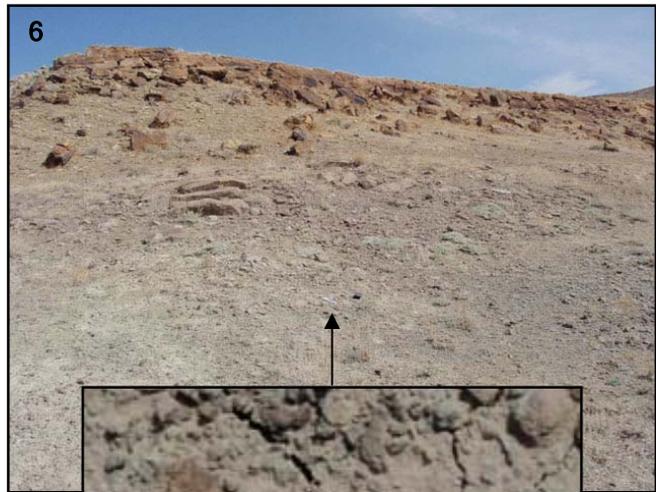
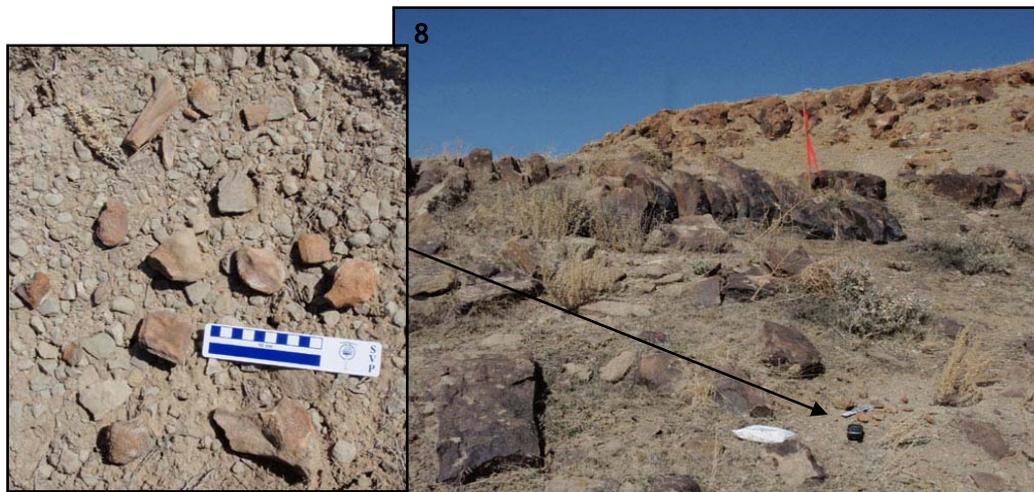
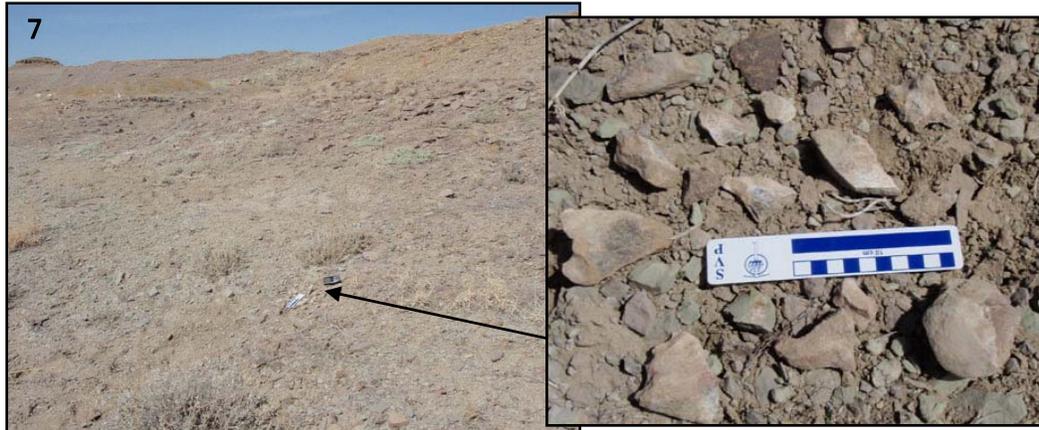
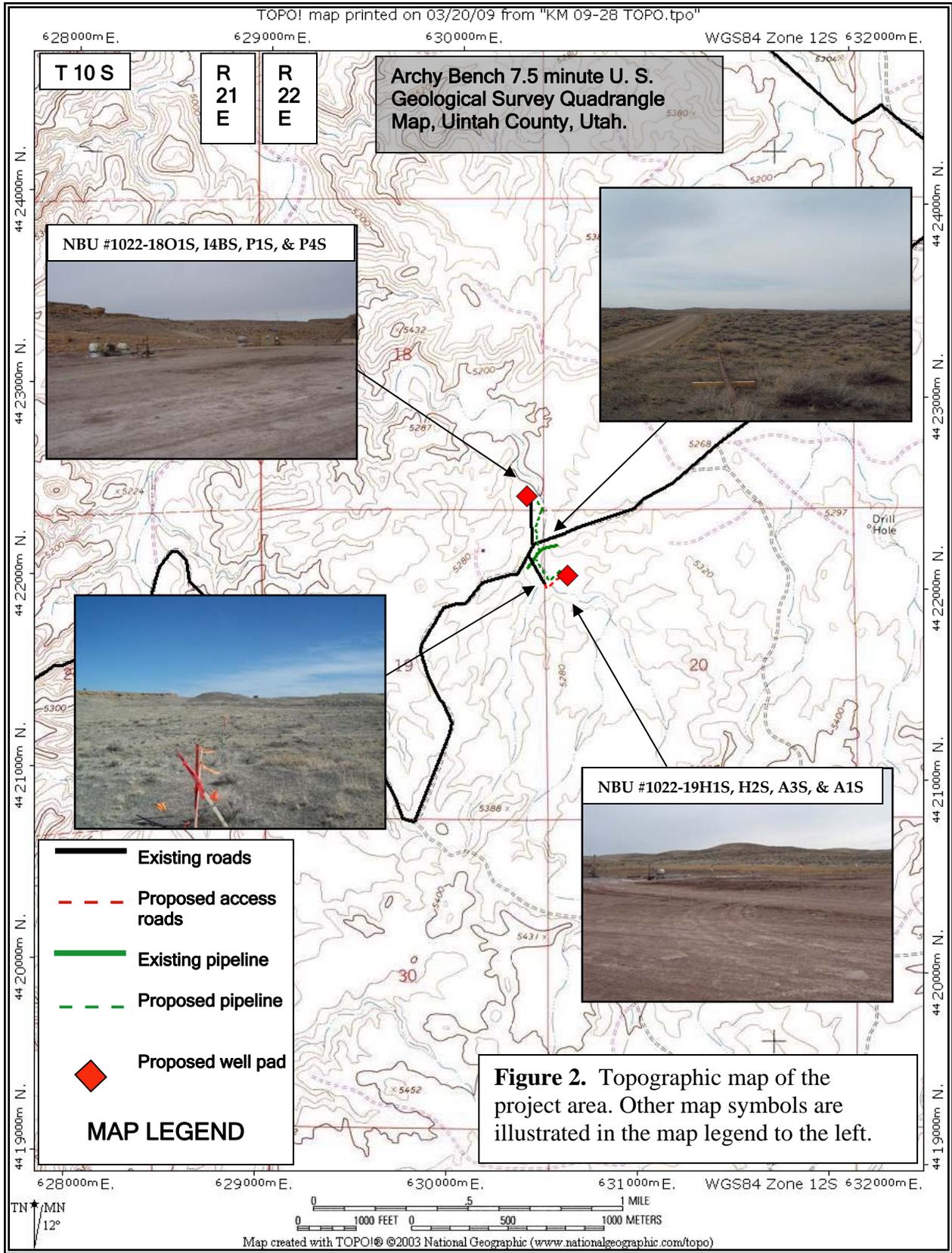


Figure 1. *continued...*





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.
- 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.

API Number: 4304750342

Well Name: NBU 922-29M3CS

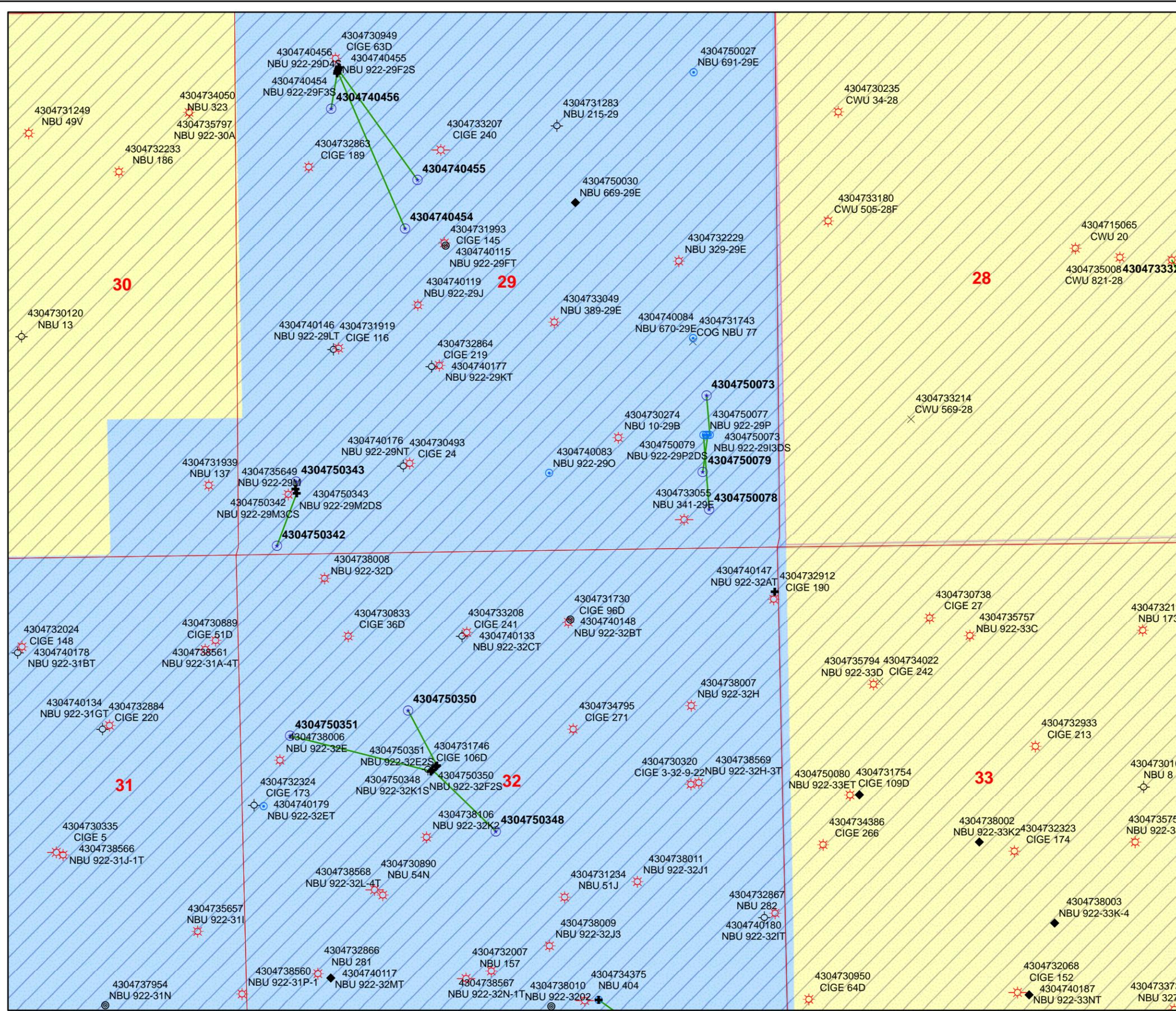
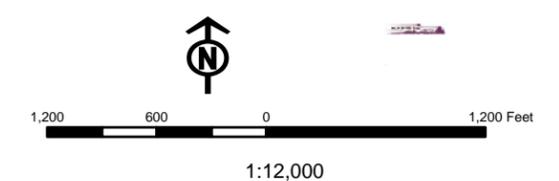
Township 09.0 S Range 22.0 E Section 29

Meridian: SLBM

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

Map Prepared:
Map Produced by Diana Mason

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



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

April 17, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50342	NBU 922-29M3CS	Sec 29 T09S R22E 0572 FSL 0520 FWL
	BHL	Sec 29 T09S R22E 0065 FSL 0315 FWL
43-047-50343	NBU 922-29M2DS	Sec 29 T09S R22E 0611 FSL 0511 FWL
	BHL	Sec 29 T09S R22E 0689 FSL 0515 FWL
43-047-50348	NBU 922-32K1S	Sec 32 T09S R22E 2137 FNL 1793 FWL
	BHL	Sec 32 T09S R22E 2558 FSL 2399 FWL
43-047-50349	NBU 922-32F3T	Sec 32 T09S R22E 2111 FNL 1824 FWL
43-047-50350	NBU 922-32F2S	Sec 32 T09S R22E 2098 FNL 1839 FWL
	BHL	Sec 32 T09S R22E 1558 FNL 1565 FWL
43-047-50351	NBU 922-32E2S	Sec 32 T09S R22E 2150 FNL 1778 FWL
	BHL	Sec 32 T09S R22E 1786 FNL 0412 FWL
43-047-38921	NBU 1022-8B-4T	Sec 08 T10S R22E 0909 FNL 1793 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:4-17-09

From: Jim Davis
To: Bonner, Ed; Mason, Diana
Date: 5/5/2009 4:42 PM
Subject: Well approvals 5/5/09

CC: Garrison, LaVonne

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

EC 98-16 (4304750251)
NBU 922-29M3CS (4304750342)
NBU 922-29M2DS (4304750343)

NBU 921-26B3S (4304750364)
NBU 921-26D1BS (4304750363)
NBU 921-26D1CS (4304750362)

NBU 922-29M4DS (4304750357)
NBU 922-29M3CS (4304750342)
NBU 922-29M2DS (4304750343)

NBU 1022-10C1BS (4304750358)
NBU 1022-10B2AS (4304750360)
NBU 1022-10A4BS (4304750361)
NBU 1022-10B4BS (4304750359)

-Jim

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

Well Name	KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 922-29M3CS 430475034:		
String	Surf	Prod	
Casing Size(")	9.625	4.500	
Setting Depth (TVD)	2400	9463	
Previous Shoe Setting Depth (TVD)	40	2400	
Max Mud Weight (ppg)	8.3	11.6	
BOPE Proposed (psi)	500	5000	
Casing Internal Yield (psi)	3520	7780	
Operators Max Anticipated Pressure (psi)	5601	11.4	

Calculations	Surf String	9.625	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	1036	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	748	NO
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	508	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	517	NO
Required Casing/BOPE Test Pressure=		2400	psi
*Max Pressure Allowed @ Previous Casing Shoe=		40	psi *Assumes 1psi/ft frac gradient

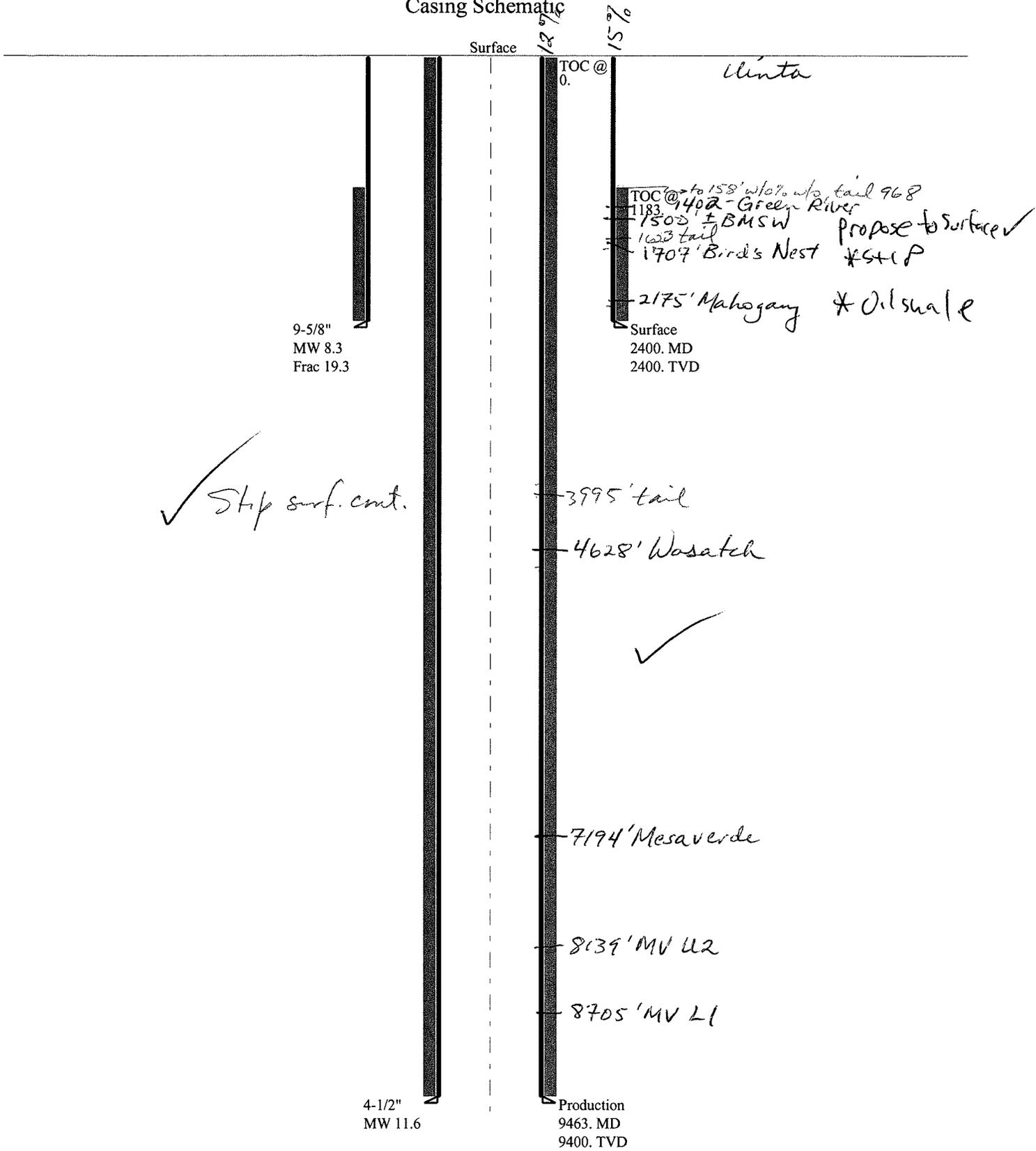
Calculations	Prod String	4.500	"
Max BPH (psi)	$.052 * \text{Setting Depth} * \text{MW} =$	5708	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	$\text{Max BHP} - (0.12 * \text{Setting Depth}) =$	4572	YES
MASP (Gas/Mud) (psi)	$\text{Max BHP} - (0.22 * \text{Setting Depth}) =$	3626	YES
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	$\text{Max BHP} - .22 * (\text{Setting Depth} - \text{Previous Shoe Depth}) =$	4154	NO
Required Casing/BOPE Test Pressure=		5000	psi
*Max Pressure Allowed @ Previous Casing Shoe=		2400	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

43047503420000 NBU 922-29M3CS

Casing Schematic



✓ Stop surf. cont.

✓

Well name:	43047503420000 NBU 922-29M3CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Surface	Project ID:	43-047-50342
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 8.330 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: 108 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 100 ft
Cement top: 1,183 ft

Burst

Max anticipated surface pressure: 2,112 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,400 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: 2,104 ft

Directional Info - Build & Drop

Kick-off point 2300 ft
Departure at shoe: 2 ft
Maximum dogleg: 2.5 °/100ft
Inclination at shoe: 2.5 °

Re subsequent strings:

Next setting depth: 9,400 ft
Next mud weight: 11.600 ppg
Next setting BHP: 5,664 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,400 ft
Injection pressure: 2,400 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	2400	9.625	36.00	J-55	LT&C	2400	2400	8.796	19625
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	1038	1961	1.889	2400	3520	1.47	86.4	453	5.24 J

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

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

Date: June 9, 2009
Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2400 ft, a mud weight of 8.33 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:	43047503420000 NBU 922-29M3CS		
Operator:	KERR-MCGEE OIL & GAS ONSHORE, L.P.		
String type:	Production	Project ID:	43-047-50342
Location:	UINTAH COUNTY		

Design parameters:

Collapse

Mud weight: 11.600 ppg
 Internal fluid density: 1.000 ppg

Burst

Max anticipated surface pressure: 3,596 psi
 Internal gradient: 0.220 psi/ft
 Calculated BHP 5,664 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

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

Tension is based on air weight.
 Neutral point: 7,833 ft

Environment:

H2S considered? No
 Surface temperature: 74 °F
 Bottom hole temperature: 206 °F
 Temperature gradient: 1.40 °F/100ft
 Minimum section length: 100 ft

Cement top: Surface

Directional Info - Build & Drop

Kick-off point 2300 ft
 Departure at shoe: 547 ft
 Maximum dogleg: 2.5 °/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	9463	4.5	11.60	I-80	LT&C	9400	9463	3.875	124912
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	5176	6360	1.229	5664	7780	1.37	109	212	1.94 J

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

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

Date: June 9, 2009
 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 9400 ft, a mud weight of 11.6 ppg. An internal gradient of .052 psi/ft was used for collapse from TD. 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 922-29M3CS
API Number 43047503420000 **APD No** 1408 **Field/Unit** NATURAL BUTTES
Location: 1/4,1/4 SWSW **Sec** 29 **Tw** 9.0S **Rng** 22.0E 572 FSL 520 FWL
GPS Coord (UTM) 630534 4428838 **Surface Owner**

Participants

Floyd Bartlett (DOGM), Ed Bonner (SITLA), Ramie Hoopes, Clay Einerson, Griz Oleen, Tony Kzneck, Charles Chase (Kerr McGee), Ben Williams (UDWR) and Kolby Kay (Timberline Engineering and Land Surveying).

Regional/Local Setting & Topography

This location is in a tributary of the Sand Wash drainage of the Natural Buttes Unit approximately 21.6 road miles southeast of Ouray, Ut.. The Seep Ridge Road, Uintah County roads and existing oil field development roads access the site. Sand Wash, the major drainage in the area, drains northerly to the White River a distance of approximately 1 1/2 miles. The area is characterized by narrow ridges and steep sided hills, which are frequently divided by narrow to wide valley bottoms. Sand Wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. Washes are sometimes rimmed with exposed sand stone bedrock cliffs.

Three additional gas wells are proposed on an enlarged pad that currently contains the NBU 922-29M producing gas well. Continued operation of this well is planned. The additional wells are the NBU 922-29M2DS, 29M3CS and the 29M4DS. A steep near vertical break-off on the southwest side between Corners 6-8 limits the desired enlargement of the reserve pit. Rounding between Corners C and D is planned. This area has a fill to 1.8 feet. Additional rounding is recommended. A 10-foot wide bank is required as planned. In the pit area, excavated spoils and fill material must remain on the benched area so it can be recovered. The area between Corners 3 and 2 is also steep. Rounding is already planned but additional rounding at Corner 3 is desirable. The excess stockpile between Corners 8 and 10 must not expand beyond where it can also be recovered. Other areas planned for enlargement are suitable. With the adjustments the location should be suitable and stable for drilling and operating the wells.

Both the surface and minerals are owned by SITLA.

Surface Use Plan

Current Surface Use

- Wildlfe Habitat
- Existing Well Pad
- Grazing

New Road Miles	Well Pad	Src Const Material	Surface Formation
0	Width 313 Length 500	Onsite	UNTA

Ancillary Facilities N

Waste Management Plan Adequate?

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

Vegetation in the non-disturbed area includes halogeton, black sagebrush, shadscale and annuals.

Sheep, antelope and small mammals and birds.

Soil Type and Characteristics

Soils are a shallow rocky sandy loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

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	High permeability	20
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		45

1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut in the southwest corner of the location. Dimensions are 100' x 150' x 12' deep with 2' of freeboard. Rounding between Corners C and D is planned. This area is within a fill to 1.8 feet. Additional rounding is recommended. A 10-foot wide bank is required as planned. A liner with a minimum thickness of 30 mils. and a felt sub-liner thick enough to cushion the rocks are required.

Closed Loop Mud Required? N **Liner Required?** Y **Liner Thickness** 16 **Pit Underlayment Required?** Y

Other Observations / Comments

On 5/13/2009 the following met and discussed the changes incorporated in the above description. Floyd Bartlett (DOGM), Clay Einerson, Lovell Young (Kerr McGee), and Kolby Kay (Timberline Engineering and Land Surveying).

Floyd Bartlett

4/28/2009

Evaluator

Date / Time

Application for Permit to Drill Statement of Basis

6/17/2009

Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
1408	43047503420000	LOCKED	GW	S	No
Operator	KERR-MCGEE OIL & GAS ONSHORE, L.P.		Surface Owner-APD		
Well Name	NBU 922-29M3CS		Unit	NATURAL BUTTES	
Field	NATURAL BUTTES		Type of Work	DRILL	
Location	SWSW 29 9S 22E S 572 FSL 520 FWL		GPS Coord (UTM)	630548E	4428823N

Geologic Statement of Basis

Kerr McGee proposes to set 2,400' 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 1,500'. A search of Division of Water Rights records shows no water wells within a 10,000 foot radius of the proposed location. 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. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill
APD Evaluator

5/20/2009
Date / Time

Surface Statement of Basis

This location is in a tributary of the Sand Wash drainage of the Natural Buttes Unit approximately 21.6 road miles southeast of Ouray, Ut.. The Seep Ridge Road, Uintah County roads and existing oil field development roads access the site. Sand Wash, the major drainage in the area, drains northerly to the White River a distance of approximately 1 1/2 miles. The area is characterized by narrow ridges and steep sided hills, which are frequently divided by narrow to wide valley bottoms. Sand Wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. Washes are sometimes rimed with exposed sand stone bedrock cliffs.

Three additional gas wells are proposed on an enlarged pad that currently contains the NBU 922-29M producing gas well. Continued operation of this well is planned. The additional wells are the NBU 922-29M2DS, 29M3CS and the 29M4DS. A steep near vertical break-off on the southwest side between Corners 6-8 limits the desired enlargement of the reserve pit. Rounding between Corners C and D is planned. This area has a fill to 1.8 feet. Additional rounding is recommended. A 10-foot wide bank is required as planned. In the pit area, excavated spoils and fill material must remain on the benched area so it can be recovered. The area between Corners 3 and 2 is also steep. Rounding is already planned but additional rounding at Corner 3 is desirable. The excess stockpile between Corners 8 and 10 must not expand beyond where it can also be recovered. Other areas planned for enlargement are suitable. With the adjustments the location should be suitable and stable for drilling and operating the wells.

Both the surface and minerals are owned by SITLA. Ed Bonner of SITLA reviewed the site and had no concerns regarding the proposal except as covered above.

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. He provided Ed Bonner of SITLA and Ramie Hoopes of Kerr McGee a written wildlife evaluation and a copy of a recommended seed mix to be used for re-vegetating the disturbed area.

Floyd Bartlett
Onsite Evaluator

4/28/2009
Date / Time

Application for Permit to Drill Statement of Basis

6/17/2009

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

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

**WORKSHEET
APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 4/13/2009

API NO. ASSIGNED: 43047503420000

WELL NAME: NBU 922-29M3CS

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

PHONE NUMBER: 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: SWSW 29 090S 220E

Permit Tech Review:

SURFACE: 0572 FSL 0520 FWL

Engineering Review:

BOTTOM: 0065 FSL 0315 FWL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.00141

LONGITUDE: -109.47066

UTM SURF EASTINGS: 630548.00

NORTHINGS: 4428823.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 23608

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: 5 - Statement of Basis - bhll
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 922-29M3CS
API Well Number: 43047503420000
Lease Number: ML 23608
Surface Owner: STATE
Approval Date: 6/24/2009

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

Commingling:

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.

Notification Requirements:

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

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

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

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

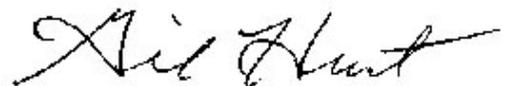
The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at: (801) 538-5338 office
(801) 942-0871 home
- Carol Daniels at: (801) 538-5284 office
- Dustin Doucet at: (801) 538-5281 office
(801) 733-0983 home

Reporting Requirements:

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

Approved By:



Gil Hunt
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
---	---

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 922-29M3CS
------------------------------------	---

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503420000
---	---

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: 0572 FSL 0520 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 29 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 checked="" type="checkbox"/> SPUD REPORT Date of Spud: 9/3/2009	<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 09/03/2009 AT 11:15 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 September 03, 2009

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 9/3/2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
---	---

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 922-29M3CS
------------------------------------	---

2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503420000
---	---

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: 0572 FSL 0520 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 29 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: 9/7/2009	<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 09/06/2009. DRILLED 12 1/4" SURFACE HOLE TO 2400'. RAN 9 5/8" 36# J-55 SURFACE CSG. CMT W/350 SX PREM CLASS G @15.8 PPG 1.15 YIELD. DISPLACE W/179.5 BBLS WATER BUMPED PLUG FLOAT HELD. TOP OUT W/240 SX PREM CLASS G @15.8 PPG 1.15 YIELD. CMT TO SURFACE WORT.

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

NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 9/10/2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
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 922-29M3CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503420000
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: 0572 FSL 0520 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 29 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: 10/25/2009	<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.

FINISHED DRILLING FROM 2400' TO 9515' ON 10/23/2009. RAN 4-1/2" 11.6# I-80 PRODUCTION CSG. PUMP 40 BBLS FRESH WATER SPACER. LEAD CMT W/535 SX CLASS G PREM LITE @ 12.2 PPG, 2.13 YIELD. TAILED CMT W/1350 SX CLASS G 50/50 POZ MIX @ 14.3 PPG, 1.26 YIELD. DROPPED PLUG & DISPLACED W/147 BBLS FRESH WATER W/0.1 GAL/BBL ALDAGDS @ 2500 PSI, BUMPLED PLUG @ 3175 PSI, FLOATS HELD W/1.5 BBL RETURN. LOST RETURNS 100 BBLS INTO DISPLACEMENT. RELEASE ENSIGN 146 RIG ON 10/25/2009 AT 23:59 HRS.

Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
 October 28, 2009

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A		DATE 10/26/2009

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
	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 922-29M3CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503420000
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: 0572 FSL 0520 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 29 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: 1/13/2010	<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 01/13/2010 AT 9:45 A.M. PLEASE REFER TO THE ATTACHED CHRONOLOGICAL WELL HISTORY

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

NAME (PLEASE PRINT) Andy Lytle	PHONE NUMBER 720 929-6100	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 1/18/2010	

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE]		Spud Conductor: 9/3/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH		Site: NBU 922-29M PAD	Rig Name No: ENSIGN 146/146, PROPETRO/
Event: DRILLING		Start Date: 7/21/2009	End Date: 10/25/2009
Active Datum: RKB @5,029.00ft (above Mean Sea Level)		UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
9/6/2009	9:00 - 11:00	2.00	MIRU	01	B	P		MIRU
	11:00 - 12:00	1.00	DRLSUR	02	A	P		SPUD 12.25 @11:00AM 9/6/09,HAMMER DRILL 130'
	12:00 - 15:00	3.00	DRLSUR	06	A	P		L/D HAMMER ,P/U DIR TOOL& BIT ,TIH
	15:00 - 0:00	9.00	DRLSUR	02	D	P		DIR DRILL F/130 TO 980 ,W/AIR MIST 10BBL/MIN 2200 CFM,1000 PSI
9/7/2009	0:00 - 14:30	14.50	DRLSUR	02	D	P		DIR DRILL F/980 TO TD 2400,DRILL W/12 BBLs /MIN NO AIR,GOOD RETURNS
	14:30 - 15:30	1.00	DRLSUR	05	C	P		CIRC & CONDITION F/CASING
	15:30 - 20:00	4.50	DRLSUR	06	A	P		LDDP & DIR TOOLS,CHANGE BIT
	20:00 - 0:00	4.00	CSG	12	C	P		RUN 54 JTS #36 J55 9.625 CSG TO 2369'.FILL PIPE @800 AND 1800;CEMENT W/350 SX LEAD@15.8LB 1.15 YELD 5GALMIX,DISPLACE 179.5 BBLs WATER,BUMPLUG,FLOAT HELD,TOPOUT W/240 SX 15.8YLD,1.15 YLD 5/GAL MIX,NO CEMENT TO SURFACE,WILL FINISH TOP JOB LATER
10/15/2009	18:00 - 21:00	3.00	RDMO	01	E	P		RDRT, SKID, RURT
	21:00 - 22:30	1.50	DRLPRO	14	A	P		N/UP BOPE
	22:30 - 0:00	1.50	DRLPRO	15	A	P		TEST BOPE - RAMS, CHOKE LINE, CHOKE, MANUAL VALVES, FLOOR VALVES, IBOP 250 LOW 5000 HIGH, ANNULAR 250 LOW 2500 HIGH , CASING 1500
10/16/2009	0:00 - 3:30	3.50	DRLPRO	15	A	P		TEST BOPE - RAMS, CHOKE LINE, CHOKE, MANUAL VALVES, FLOOR VALVES, IBOP 250 LOW 5000 HIGH, ANNULAR 250 LOW 2500 HIGH , CASING 1500
	3:30 - 4:00	0.50	DRLPRO	14	B	P		INSTALL WEARBUSHING
	4:00 - 7:00	3.00	DRLPRO	08	B	Z		INSTALL TRACK GUIDES ON BLOCKS - AFTER INSTALLING TRACK GUIDES, OBSERVED GUIDES HANGING IN AREA WHERE DERRICK PINS TOGETHER
	7:00 - 9:30	2.50	DRLPRO	09	A	P		SLIP & CUT DRILLING LINE
	9:30 - 12:00	2.50	DRLPRO	08	B	Z		REMOVE BLOCK TRACK GUIDES
	12:00 - 12:30	0.50	DRLPRO	06	A	P		RETRIEVE STUCK DRIFT FROM HWDP
	12:30 - 16:00	3.50	DRLPRO	06	A	P		P/UP DIRECTIONAL BHA - ORIENT & SCRIBE - RIH TAG CEMENT @ 2268'
	16:00 - 17:00	1.00	DRLPRO	07	B	P		LEVEL & CENTER DERRICK, INSTALL ROTATING HEAD
	17:00 - 19:00	2.00	DRLPRO	02	F	P		DRILL CEMENT, FE & RATHOLE F/2268' TO 2410'
	19:00 - 0:00	5.00	DRLPRO	02	D	P		DRILL/SLIDE F/2410' TO 2780' (370' @ fph) MW 8.3, VIS 27, WOB 18, RPM 45 MM RPM 102, TQ 7, GPM 486, SLIDE 2470 2490, 2510 2520, 2555 2575, 2601 2621, 2646 2668, MW 8.3, VIS 27, WOB 18, MM RPM 102, GPM 486, DIFF 200
10/17/2009	0:00 - 11:30	11.50	DRLPRO	02	D	P		DRILL/SLIDE F/2780' TO 3552' (772' @ 67.1fph) MW 8.5, VIS 27, WOB 18, RPM 45, MM RPM 102, TQ 9, GPM 486, SLIDE 2782 2802, 2826 2846, 2873 2913, 2918 2943, 2963, 2988, 3009 3021, 3054 3066, 3099 3109, 3145 3155, 3190 3202, 3235 3243, 3280 3288, 3326 3334, 3371 3379, 3416 3426, 3461 3471, 3507 3519, WOB 18, MM RPM 102, GPM 486, DIFF 225
	11:30 - 12:00	0.50	DRLPRO	07	A	P		RIG SER

RECEIVED January 18, 2010

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-29M3CS [BLUE] Spud Conductor: 9/3/2009 Spud Date: 9/6/2009
 Project: UTAH-UJINTAH Site: NBU 922-29M PAD Rig Name No: ENSIGN 146/146, PROPETRO/
 Event: DRILLING Start Date: 7/21/2009 End Date: 10/25/2009
 Active Datum: RKB @5,029.00ft (above Mean Sea Level) UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00NW/0/520.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	12:00 - 0:00	12.00	DRLPRO	02	D	P		DRILL/SLIDE F/3552' TO 4632' (1080' @ 90fph) MW 8.5, VIS 27, WOB 18, RPM 45, MM RPM 102, TQ 9, GPM 486, SLIDE 3552 3560, 3597 3605, 3643 3649, 3733 3743, 3779, 3789, 3824 3832, 3869 3875, 3914 3924, 3960 3968, 4005 4015, 4050 4060, 4096 4106, 4141 4153, 4186 4196, 4232 4242, 4277 4287, 4322 4332, 4413 4423, 4549 4557, 4594 4602, WOB 20, MM RPM 102, GPM 486, DIFF 200
10/18/2009	0:00 - 14:30	14.50	DRLPRO	02	D	P		DRILL/SLIDE F/4632' TO 5705' (1073' @ 74fph) MW 8.5, VIS 28, WOB 20, RPM 45, MM RPM 102, TQ 11, GPM 486, SLIDE 4639 4649, 4685 4694, 4730 4748, 4821 4841, 4911 4936, 4957 4972, 5002 5017, 5047 5062, 5138 5153, 5274 5289, 5545 5560, WOB 22, MM RPM 102, GPM 486, DIFF 200
	14:30 - 15:30	1.00	DRLPRO	05	A	P		LOST RETURNS @ 5705' - WORK PIPE
	15:30 - 16:00	0.50	DRLPRO	07	A	P		DISPLACE WATER W/8.6 ppg 38 VIS MUD
	16:00 - 0:00	8.00	DRLPRO	02	D	P		RIG SER
10/19/2009	0:00 - 13:30	13.50	DRLPRO	02	D	P		DRILL/SLIDE F/5705' TO 6408' (703' @ 87.9fph) MW 8.7, VIS 38, WOB 20, RPM 45, MM RPM 102, TQ 11, GPM 486, SLIDE 5817 5832, 5908 5918, WOB 22, MM RPM 102, GPM 486, DIFF 200
	13:30 - 14:00	0.50	DRLPRO	07	A	P		DRILL/SLIDE F/6408' TO 6995' (587' @ 43.5fph) MW 9.1, VIS 40, WOB 21, RPM 45, MM RPM 102, TQ 12, GPM 486 (BYPASSED SHAKERS @ 6814' - RAISE LCM TO 2%)
	14:00 - 18:00	4.00	DRLPRO	02	D	P		RIG SER
	18:00 - 18:30	0.50	DRLPRO	08	A	Z		DRLG F/6995' TO 7247' (252' @ 63fph) MW 9.2 VIS 40, LCM 2%, WOB 21, RPM 45, MM RPM 102, TQ 12, GPM 486
	18:30 - 0:00	5.50	DRLPRO	02	D	P		HYD SLIPS BLEED OFF & SET WHILE DRILLING - SPUN SLIPS INSIDE BUSHINGS - PULLED ROTATING HEAD RUBBER & RETRIEVED SLIP JUNK
10/20/2009	0:00 - 15:00	15.00	DRLPRO	02	D	P		DRILL/SLIDE F/7247' TO 7560' (313' @ 56.9fph) MW 9.5, LCM 2%, VIS 40, WOB 32, RPM 45, MM RPM 102, TQ 12, GPM 486, SLIDE 7279 7811, WOB 22, MM RPM 102, GPM 486, DIFF 175
	15:00 - 15:30	0.50	DRLPRO	07	A	P		DRILL/SLIDE F/7560' TO 8173' (613' @ 40.9fph) MW 10.2, VIS 42, LCM 12%, WOB 22, RPM 45, MM RPM 102, TQ 12, GPM 486, SLIDE F/7902 7920, 7992 8010, 8083 8101, WOB 34, MM RPM 102, GPM 486, DIFF 225 (RAISED LCM TO 18% @ 8013' LOST 100 BLS MUD)
	15:30 - 0:00	8.50	DRLPRO	02	D	P		RIG SER
10/21/2009	0:00 - 10:00	10.00	DRLPRO	02	D	P		DRILL/SLIDE F/8173' TO 8465' (292' @ 34.4fph) MW 10.8, VIS 42, LCM 19%, WOB 22, RPM 45, MM RPM 102, TQ 13, GPM 486, SLIDE 8173 8198, 8264 8279, WOB 36, MM RPM 102, GPM 486, DIFF 200
	10:00 - 12:00	2.00	DRLPRO	05	A	P		DRLG F/8465' TO 8757' (292' @ 29.2fph) MW 11.4, VIS 43, LCM 28/35% WOB 15/22, RPM 45, MM RPM 92, GPM 441 (MM STALLING UNABLE TO MAINTAIN CONSTANT WOB)
	12:00 - 23:30	11.50	DRLPRO	06	A	P		LOST RETURNS @ 8757' - CIRC @ REDUCED PUMP RATE & BUILD VOLUME RAISE LCM TO 30/35% - REGAINED RETURNS - TOTAL MUD LOST 600 BLS
	23:30 - 0:00	0.50	DRLPRO	06	A	P		POOH - PUMP & ROT 1st 10 STANDS - CHECK FLOW - POOH 10 STANDS - CHECK FLOW PUMP SLUG - POOH - RETRIEVE MWD - RACK BACK DIRECTIONAL BHA IN DERRICK - L/DN MM & BIT P/UP MM, BIT #2 & MONEL

RECEIVED January 18, 2010

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-29M3CS [BLUE]		Spud Conductor: 9/3/2009		Spud Date: 9/6/2009	
Project: UTAH-UINTAH			Site: NBU 922-29M PAD		Rig Name No: ENSIGN 146/146, PROPETRO/
Event: DRILLING			Start Date: 7/21/2009		End Date: 10/25/2009
Active Datum: RKB @5,029.00ft (above Mean Sea Level)			UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
10/22/2009	0:00 - 1:30	1.50	DRLPRO	06	A	P		P/UP MM, BIT & MONEL, SURFACE CHECK MM - PLUGGED MM FLOAT & MONEL W/LCM, CLEANED SAME
	1:30 - 6:00	4.50	DRLPRO	06	A	P		CONTINUE RIH BHA BRK CIRC, RIH TO 2379' BRK CIRC, MAX GAS 2061 UNITS
	6:00 - 9:30	3.50	DRLPRO	06	A	P		RIH TO 4500' - BRK CIRC - CIRC OUT GAS - MW 11.7 30% LCM - GAS 6814 UNITS - 10' FLARE
	9:30 - 12:30	3.00	DRLPRO	06	A	P		RIH TO 6500' - BRK CIRC - CIRC OUT GAS - MW 11.7 LCM 30% - GAS 7489 UNITS (NO FLARE IGNITER FAILED) - (WASH TIGHT SPOT @ 4650')
	12:30 - 15:00	2.50	DRLPRO	06	A	P		RIH TO 8717' - WASH F/8717' TO 8757' - NO FILL - BTMMS UP GAS 6181 UNITS - 15' FLARE - LOST 60 BBLs ON TRIP
	15:00 - 20:00	5.00	DRLPRO	02	D	P		DRLG F/8757' TO 8964' (207' @ 41.4fph) MW 12.1, VIS 40, LCM 30/33%, WOB 18, RPM 45, MM RPM 78, GPM 486
	20:00 - 20:30	0.50	DRLPRO	07	A	P		RIG SER
10/23/2009	20:30 - 0:00	3.50	DRLPRO	02	D	P		DRLG F/8964' TO 9145' (181' @ 51.7fph) MW 12.2, VIS 43, LCM 33%, WOB 18/19, RPM 45, MM RPM 78, TQ 11, GPM 486
	0:00 - 7:00	7.00	DRLPRO	02	D	P		DRLG F/9145' TO 9515' (370' @ 52.9FPH) MW 12.2, VIS 43, LCM 33%, WOB 19, RPM 45, MM RPM 78, GPM 486
	7:00 - 9:00	2.00	DRLPRO	05	A	P		CIRC
	9:00 - 9:30	0.50	DRLPRO	10	B	P		DROP MULTI-SHOT
	9:30 - 20:30	11.00	DRLPRO	06	A	P		BACK REAM 10 STDS, PUMP SLUG & POOH F/LOGS - RETRIEVE MULTI-SHOT - L/DN MM & MONEL - (TIGHT @ 4650')
10/24/2009	20:30 - 21:30	1.00	DRLPRO	06	A	P		P/UP & M/UP WEATHERFORD LATCH SUB ASSY
	21:30 - 0:00	2.50	DRLPRO	06	A	P		RIH LATCH ASSY ON DRILL PIPE - BRK CIRC @ 2379'
	0:00 - 10:00	10.00	DRLPRO	06	B	P		RIH W/LATCH ASSY ON DP, WASH F/9455' TO 9515' - NO PROBLEMS - BRK CIRC @ 6000'
	10:00 - 11:00	1.00	DRLPRO	05	A	P		CIRC - GAS OUT - 7423 UNITS - NO FLARE - CUT 12.2 TO 11.9
	11:00 - 11:30	0.50	DRLPRO	06	B	P		POOH SPACE OUT F/LOGGING TOOL CLEARANCE 9394'
	11:30 - 14:00	2.50	DRLPRO	11	D	P		HPJSM - R/UP WEATHERFORD EQUIPMENT - RIH W/TRIPLE COMBO THRU DP - LAND & DROP 85' OF LOGGING TOOLS - POOH W/LINE R/DN WEATHERFORD - BTM OF LOGGING TOOL @ 9474'
	14:00 - 15:30	1.50	DRLPRO	22	A	X		WORK STUCK PIPE @ 9394'
10/25/2009	15:30 - 0:00	8.50	DRLPRO	06	B	P		POOH W/TRIPLE COMBO LOGGING TOOLS @ 3 min/std F/9474' TO 2400'
	0:00 - 4:00	4.00	DRLPRO	06	B	P		POOH W/TRIPLE COMBO - R/DN WEATHERFORD
	4:00 - 4:30	0.50	DRLPRO	14	B	P		RETRIEVE WEARBUSHING
	4:30 - 5:30	1.00	CSG	12	A	P		HPJSM - R/UP FRANKS CASING EQUIPMENT
	5:30 - 18:00	12.50	CSG	12	C	P		RUN 225 JTS & 1 MARKER JT 4.5" 11.60 I-80 BTC PROD CASING TO 9499' - FLOAT SHOE @ 9499', FLOAT COLLAR 9455' - R/DN FRANKS
18:00 - 19:00	1.00	CSG	05	A	P		CIRC	

RECEIVED January 18, 2010

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-29M3CS [BLUE]	Spud Conductor: 9/3/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH	Site: NBU 922-29M PAD	Rig Name No: ENSIGN 146/146, PROPETRO/
Event: DRILLING	Start Date: 7/21/2009	End Date: 10/25/2009
Active Datum: RKB @5,029.00ft (above Mean Sea Level)	UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	19:00 - 21:30	2.50	CSG	12	E	P		HPJSM - R/UP HALLIBURTON & TEST LINE 5000 PSI, CEMENT 4.5" PROD CASING - PUMP 40 BBLs FRESH WATER SPACER, 535 SKS LEAD 12.2 PPG YIELD 2.13, 1350 SKS TAIL 14.3 PPG YIELD 1.26, DROPPED PLUG & DISPLACED W/147 BBLs FRESH WATER W/0.1 gal/bbl CLAYFIX II & 0.01 gal/bbl ALDACIDE G @ 2500 PSI, BUMPED PLUG @ 3175 PSI, FLOATS HELD W/1.5 BBL RETURN, LOST RETURNS 100 BBLs INTO DISPLACEMENT - R/DN HALLIBURTON
	21:30 - 22:00	0.50	CSG	12	C	P		LAND CASING & VERIFY - L/OUT LANDING JT
	22:00 - 0:00	2.00	CSG	14	A	P		N/DN BOPE - CLEAN RIG TANKS - TRANSFER 800 BBLs MUD TO TANKS - RELEASE RIG @ 23:59 10/25/09

RECEIVED January 18, 2010

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE]		Spud Conductor: 9/3/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH		Site: NBU 922-29M PAD	Rig Name No:
Event: COMPLETION		Start Date: 12/11/2009	End Date: 1/11/2010
Active Datum: RKB @5,029.00ft (above Mean Sea Level)		UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
12/14/2009	7:00 - 7:15	0.25	COMP	48		P		HSM, FRACING / DEFITS
	7:15 - 23:00	15.75	COMP	36	E	P		MIRU SCHLUMBERGER FRAC EQUIP & SCHLUMBERGER WIRELINE, P/T SURFACE LINES TO 8500#, FRAC MESAVERDE 9085'-9272' 40 HOLES. STG #1] BRK DN PERFS @ 3506#, INJ RT=49.8, INJ PSI=4700#, ISIP=2580#, FG=.71, PUMP'D 1321.2 BBLS SLK WTR W/ 46388# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2720# FG=.73, AR=44.6, AP=4666#, MR=49.9, MP=6886#, NPI=140#. 40/40 CALC PERFS OPEN 100% STG #2 DEFIT] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN. SET CBP @ 9036' PERF MESA VERDE USING 3-3/8 EXPEND [SLICK] 23 GRM, 0.36" HOLE, 8942'-8946' 4 SPF, 90* PH, 16 HOLES, PUT IN HALIBURTON SURFACE GAUGES, WHP=1724#, BRK DN PERFS @ 3134#, INJT RT=5.5, PUMP'D 24 BBLS, ISIP=2475#, FG=.71 WAIT 6 HRS [TIME 12:30] P/U RIH W/ 3-3/8 EXPEND [SLICK] 23 GRM, 0.36" HOLE PERF MESAVERDE 9000'-9002' 4 SPF, 90* PH, 8 HOLES. 8970'-8972' 4 SPF, 90* PH, 8 HOLES. 8912'-8914' 4 SPF, 90* PH, 8 HOLES. [40 HOLES] STG #2] WHP=1914#, BRK DN PERFS @ 2610#, INJ RT=49.6, INJ PSI=4800#, ISIP=2290#, FG=.69, PUMP'D 871 BBLS SLK WTR W/ 32370# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2840#, FG=.75, AR=42.9, AP=4332#, MR=49.8, MP=5331#, NPI=550#, 40/40 CALC PERFS OPEN 100%. SWIFN.
12/15/2009	7:00 - 7:15	0.25	COMP	48		P		HSM, FRACING / DEFITS

RECEIVED January 18, 2010

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE]		Spud Conductor: 9/3/2009		Spud Date: 9/6/2009	
Project: UTAH-UINTAH			Site: NBU 922-29M PAD		
Event: COMPLETION			Start Date: 12/11/2009		End Date: 1/11/2010
Active Datum: RKB @5,029.00ft (above Mean Sea Level)			UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 -		COMP	36	E	P		<p>FRAC MESAVERDE STG #2 8912'-9002' 40 HOLES</p> <p>STG #2] WHP=1914#, BRK DN PERFS @ 2610#, INJ RT=49.6, INJ PSI=4800#, ISIP=2290#, FG=69, PUMP'D 871.6 BBLS SLK WTR W/ 32370# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2840#, FG=.75, AR=42.9, AP=4332#, MR=49.8, MP=5331#, NPI=550#, 40/40 CALC PERFS OPEN.</p> <p>DEFIT STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 8871', PERF MESAVERDE USING 3-3/8 EXPEND [SLICK] 23 GRM, 0.36" HOLE. 8838'-8841' 4 SPF, 90* PH, 12 HOLES.</p> <p>WHP=1044#, BRK DN PERFS @ 3751#, RT=5.2, ISIP=2230#, FG=.68 [TIME 11:13]</p> <p>17:30 PULL HAL SURFACE GAUGES. GOOD INFO. PU 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF F/ 8736'-40, 4 SPF, 16 HOLES. 8824'-27', 4 SPF, 12 HOLES. POOH.</p> <p>STG #3]18:40 OPEN WELL 430#. BEG PUMPING, SPEAR HEAD 150 GAL 28% HCL ACID. PUMP 100 BBLS SAW, CALC PERF'S OPEN @ 50.7 BPM @ 5553 PSI= 66% OPEN. PUMP'D 1235 BBLS SLK WTR W/ 49,620# 30/50 MESH W/ 5000# RESIN COAT IN TAIL, ISIP=2757#, FG=.74, AR=45.9, AP=4408#, MR=50.8, MP=6209#, NPI=527#, 26/40 CALC PERFS OPEN. 19:10 SWI, READY T/ PERF.</p> <p>D-FIT STG 4)PU 4 1/2 8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH SET CBP @ 8670' P/U PERF F/ 8572'-80', 4 SPF, 32 HOLES. POOH. RU HAL SURFACE GAUGES. 22:03 OPEN WELL 1658 PSI. BRK @ 3034 PSI @ 4.7 BPM, CONT PUMPING 1000 GAL @ 5.0 BPM. SD ISIP 2150 PSI, FG .68. (TIME 22:06). D-FIT OVER NIGHT. RU GAUGES IN THE :AM.</p>
12/16/2009	7:00 - 7:15	0.25	COMP	48		P		

RECEIVED January 18, 2010

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE]	Spud Conductor: 9/3/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH	Site: NBU 922-29M PAD	Rig Name No:
Event: COMPLETION	Start Date: 12/11/2009	End Date: 1/11/2010
Active Datum: RKB @5,029.00ft (above Mean Sea Level)		UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 -		COMP	36	E	P		<p>STG# 4] P/U RIH W/ 3-3/8 EXPEND [SLICK] 23 GRM, 0.36" HOLE, PERF MESAVERDE. 8638'-8640' 4 SPF, 90* PH, 8 HOLES.</p> <p>FRAC STG #4] WHP=1448#, BRK DN PERFS @ 2473#, INJ RT=50.7, INJ PSI=4600#, ISP=2000#, FG=.66, PUMP'D 1292.2 BBLs SLK WTR W/ 50031# 30/50 MESH W/ 5000# RESIN COAT IN TAIL. ISIP=2620#, FG=.73, AR=44.8, AP=4041#, MR=50.8, MP=5409#, NPI=620#, 37/40 CALC PERFS OPEN 92%.</p> <p>STG #5 DEFIT] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @ 8250', PERF MESAVERDE USING 3-3/8 EXPEND [SLICK] 23 GRM, 0.36" HOLE. 8438'-8442' 4 SPF, 90* PH, 16 HOLES.</p> <p>WHP=1515#, BRK DN PERFS=3692#, RT=5.3, ISIP=2016#, FG=.67 [TIME 14:25] HSM. SIM OPS.</p>
12/17/2009	7:00 - 7:15	0.25	COMP	48		P		

RECEIVED January 18, 2010

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE]		Spud Conductor: 9/3/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH		Site: NBU 922-29M PAD	Rig Name No:
Event: COMPLETION		Start Date: 12/11/2009	End Date: 1/11/2010
Active Datum: RKB @5,029.00ft (above Mean Sea Level)		UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:15 - 18:00	10.75	COMP	36	B	P		<p>FRAC STG 5)OPEN WELL. PU 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. RIH PERF F/ 8227'-29', 4 SPF, 8 HOLES. 8306'-08', 4 SPF, 8 HOLES. 8384'-86', 4 SPF, 8 HOLES. POOH. 08:30 OPEN WELL. WHP=1675#, BRK DN PERFS @ 3692# @ 5.3 BPM, ISIP=2016#, FG=67, PERFS OPEN CALC= INJ RT=51.6, INJ PSI=5250# = 65% , PUMP'D 1292.2 BBLS SLK WTR W/ 54,684# 30/50 MESH & TAIL IN W/ 5000# 20/40 TLC. TOTAL PROP 59,684 ISIP=2441#, FG=.72, AR=47, AP=4152#, MR=51.8, MP=6402#, NPI=425#. 09:08 SWI,</p> <p>STG 6 D-FIT)PU 4 1/2 N8K HAL CBP & 3 3/8 EXP GUN, 23 GM, .36 HOLE SIZE. 90 DEG PHASING. WHILE RIH W/ WL GROUND VALVE GUY FOR SCHLUMBERGER FRAC SERV GOT CONFUSED & CLOSED THE FRAC VALVE ON THIS WELL INSTEAD OF THE YELLOW WELL. WHEN HE CLOSED THE FRAC VALVE HE CUT THE WL IN HALF. CCL WAS @ 6738' WHEN WL WAS CUT. (HAVE APROX 6730' OF WL, CCL, WEIGHT BAR, 2' GUN, BAKER 10 SETTING TOOL & 4 1/2 8K HAL CBP IN THE WELL.) RD LUBE. PULL WL OUT OF GREASE HEAD. (HAD T/ X-OUT WL TRUCK BECAUSE NOT ENOUGH WL ON TRUCK T/ FINISH JOB.) 13:30 SWI.</p> <p>SICP 2200 PSI. FISH IN WELL= APROX 6730' OF WL, WL HEAD, CCL, WEIGHT BAR, 2' GUN, BAKER 10 SETTING TOOL & PLUG. WL TOOL'S = 23.5' LONG. INCLUDING HAL 8K CBP. THERE IS A CBP @ 8472'. THIS PLUG IS UNDER STG 5. (((THE 2' GUN IS LIVE. YOU WILL NEED WL HAND T/ DISS ARM GUN.)))</p> <p>(((THERE WILL BE A PICTURE OF FISH INSIDE WELL PKG.)))</p>
12/29/2009	6:45 - 7:00	0.25	COMP	48		P		JSA-RUSU
	7:00 - 16:30	9.50	COMP	30	A	P		<p>MOVE OVER FROM 29M2DS TO 29M3CS. RUSU. FCP 375. OPEN WELL TO PIT. SPOT IN TBG AND FISH TOOLS. SPOT IN PMP. PMP 50 BBLS 10# DOWN CSG. ND FRAC VALVES. NU BOP. RU FLOOR AND TBG EQUIP. MU FBHA #1 OF EWL PRONG SPEAR (3-7/8" STOP RING), BIT SUB, DRAIN SUB, BUMPER SUB, JAR, 12' X 3-1/8" DC. ACCEL, X-O SUB, 6' X 2-3/8" L-80 PUP JT. RIH AS MEAS AND PU 78-JTS 2-3/8" L-80 TBG. TAGGED EWL AT 2485'. WORK SPEAR TO 2527'. POOH. AS POOH STRING PULLED OVER 2500# W/ SPEAR AT 1640'. FIN POOH. RCVR 54' EWL (6676' LTR). PMP 15 BBL 10# AND RUN BACK IN W/ FBHA #1 AND 50-JTS 2-3/8" TBG. EOT AT 1640'. SDFN. JSA- FISHING TOOLS AND WIRELINE</p>
12/30/2009	6:45 - 7:00	0.25	COMP	48		P		JSA- FISHING TOOLS AND WIRELINE

RECEIVED January 18, 2010

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE]	Spud Conductor: 9/3/2009	Spud Date: 9/6/2009
Project: UTAH-UINTAH	Site: NBU 922-29M PAD	Rig Name No:
Event: COMPLETION	Start Date: 12/11/2009	End Date: 1/11/2010
Active Datum: RKB @5,029.00ft (above Mean Sea Level)		UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	7:00 - 17:30	10.50	COMP	31	B	P		FCP 50#. OPEN CSG TO PIT. PMP 15 BBLS DOWN TBG. CONT RIH W/ TBG. TAG EWL AT 2147' W/ 66 JTS IN. WORK SPEAR. POOH. LINE PULLED OVER W/ SPEAR AT 1608'. PULL FBHA. RCVR WIRE. RU SCHLUM AND PULL WIRELINE W/ TRUCK. RECOVERED ALL OF WIRELINE W/ ROPE SOCKET ON BTM (PULL FROM WEAK POINT. RD SCHLUM. MU FBHA #3 OF 3-7/8" O.S. (2-5/16" GR), DRAIN SUB, BUMPER SUB, JAR, 12' X 3-1/8" SHORT DC, ACCEL, X-OVER, 6' X 2-3/8" TBG SUB AND RIH ON 2-3/8" L-80 TBG. RAN 78-JTS FROM DERRICK, MEAS AND PU 179-JTS. HAVE 257-JTS IN. EOT AT 8205'. PUT CSG TO PIT ON 22/64" CHOKE. SDFN.
12/31/2009	6:45 - 7:00	0.25	COMP	48		P		JSA- TRIPPING AND FISHING
	7:00 - 16:30	9.50	COMP	31	B	P		SITP 1000, FCP 150 ON 22/64". REMOVE CHOKE AND OPEN CSG TO PIT. BLOW DOWN TBG, PMP 10 BBLS 10# DOWN TBG. CONT RIH AS PU TBG. TAG TOP OF FISH AT 8419' W/ 264-JTS IN. WORK O.S. ONTO FISH. PU AND PULL 5K OVER. SET BACK DOWN 2' HIGHER NOW. PMP DOWN TBG-HAVE RESTRICTION LIKE FISH IS LATCHED ON. POOH W/ 264-JTS 2-3/8" L-80 TBG. NO FISH, HAVE SAND IN GRAPPLE AND CONTROL. CONFER W/ OFFICE. RIH W/ 3-7/8" SHOE, 3) 3-3/4" WP EXT, TOP SUB, BUMPER SUB, JAR, SHORT DC, ACCEL, X-O SUB, 6' X 2-3/8" PUP JT AND RIH W/ 200-JTS 2-3/8" L-80 TBG. EOT AT 6416'. SDFN W/ CSG FLOWING TO PIT ON 22/64" CHOKE.
1/4/2010	6:45 - 7:00	0.25	COMP	48		P		JSA- WASHING OVER TOOLS. HANDLING FISH TOOLS ON SURFACE.
	7:00 - 18:00	11.00	COMP	31	B	P		SITP 2200, SICP 1700. BLOW WELL DOWN. (REPLUMB LINES- PIT FULL) PMP 15 BBLS 10# DOWN TBG. CONT RIH W/ 62-JTS 2-3/8" L-80 TBG. RU PWR SWIVEL. PMP 80 BBLS TO EST REV CIRC. TAG TOP OF GUN / PLUG ASSY AT 8419' W/ 263-JTS IN. WASH OVER TO 8442' W/ 264-JTS IN. CIRC CLEAN. MIX AND SPOT POLYMER PILL AROUND GUN. RD PWR SWIVEL. POOH W/ TBG AND WASHOVER BHA. LD SHOE AND WP EXT. MU 3-7/8" OS (2-3/8" GR), DRAIN SUB, BUMPER SUB, JAR, SHORT DC, ACCEL, X-OVER SUB, 6' TBG SUB. RIH W/ 264- JTS 2-3/8" L-80 TBG. TAG AND LATCH ONTO FISH AT 8421'. PULL UP AND JAR 1-TIME AT 20K OVER. ACTS LIKE SHEARED PINS ON CBP. UNABLE TO GET TO BITE AGAIN. POOH W/ 34-JTS. HAVE 230-JTS IN, EOT AT 7347'. DRAIN EQUIP. SDFN.
1/5/2010	6:45 - 7:00	0.25	COMP	48		P		JSA- LD FISH.
	7:00 - 11:00	4.00	COMP	31	B	P		SITP 2000, SICP 1800. BLOW WELL DOWN. PMP 10 BBLS 10# DOWN TBG. CONT POOH AS CSG BLOW DOWN. CONTROL WELL W/ 10# FIN POOH W/ TBG. RCVR FISH OF PERF GUN AND SETTING TOOL. LD FISH AND TOOLS.
	11:00 - 14:00	3.00	COMP	30	F	P		CSG START TO FLOW. RD FLOOR. CONTROL WELL W/ 100 BBL 10#. ND BOP. NU FRAC VALVES AND CAMERON ISOLATION SLEEVE. RU FLOOR.
	14:00 - 16:00	2.00	COMP	37	B	P		MIRU CUTTERS. RIH W/ BAKER 4-1/2" 8K CBP AND 3-1/8" PERF GUN (23 GRAM, .36 EOD, 40" PENT, 4 SPF ON 90"). SET CBP AT 8158'. PULL UP AND PERF 8126'-28' FOR DFIT TEST.

RECEIVED January 18, 2010

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE] Spud Conductor: 9/3/2009 Spud Date: 9/6/2009
 Project: UTAH-UINTAH Site: NBU 922-29M PAD Rig Name No:
 Event: COMPLETION Start Date: 12/11/2009 End Date: 1/11/2010
 Active Datum: RKB @5,029.00ft (above Mean Sea Level) UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	16:00 - 17:30	1.50	COMP	33	D	P		MIRU SUPERIOR PMP TRUCK. AS GETTING READY FRAC VALVES STARTED LEAKING. WORK ON VALVES TO GET WELL CONTROL BUT DO NOT TRUST FOR DFIT OR FRAC. WILL X-OUT FRAC VALVES IN AM. RD SUPERIOR. SDFN JSA- X-OUT FRAC VAVLES
1/6/2010	6:45 - 7:00	0.25	COMP	48		P		BLOW WELL DOWN. RD FLOOR. ND FRAC VALVES. NU NEW FRAC VALVES. RU FLOOR. MIRU FRAC TECH PMP TRUCK. INSTALL HAL CO DFIT GUAGES. P-TEST LINES TO 7000. PMP DFIT ON STG #6 (8126'-28'). FILL W/ 11.5 BBLs, BD 3921# AT 3 BPM. ISIP 2350# FG .81 (10.0# FLUID). PMP 24 BBL AT 3 BPM W/ 2450#. SHUT DOWN. ISIP 2180#, FG .79. 5-MIN 1946#. SHUT IN. RD FRAC TECH. SDFN
	7:00 - 15:00	8.00	COMP	33	D	P		JSA- PERF AND FRAC.
1/7/2010	6:45 - 7:00	0.25	COMP	48		P		REMOVE AND DOWNLOAD DFIT DATA. GOOD. RU CUTTERS AND RIH W/ 3-1/8" EXP GUN (23 GRAM, .36" EOD, 40" PENT, 4 SPF ON 90* PHASING). PERF REST OF STG 6
	7:00 - 9:00	2.00	COMP	37	B	P		8063'-65', 7981'-83', 7903'-05', 7875'-77'. (10' NET, 40 HOLES)
	9:00 - 16:12	7.20	COMP	46	F	P		MIRU FRAC TECH. (WAIT FOR CREW TO FINISH 32FT PAD). HSM. P-TEST LINES TO 8000#.
	16:12 - 16:45	0.55	COMP	36	B	P		FRAC STG #6- 7875'-8128' (10' NET, 40 HOLES) OPEN WELL UP W/ 970#. BD 2959# AT 4.8 BPM. ISIP 1967, FG .77 (W/ 10# FLUID). PMP PRE PAD AND PAD 51 BPM AT 5185#, 65% HOLE OPEN. MP 6044, MR 51.9, AP 4437, AR 51.5. ISIP 2481, FG .74, NPI 541. PMP 1101 BBL SLK WTR, 30,340# 30/50, TAILED IN W/ 5000# 20/40 RESIN. (TOT PROP 35,340#. PMP CFT 1200 CHEM TRACER.
	16:45 - 18:00	1.25	COMP	37	B	P		PERF AND DFIT STG #7- RIH W/ 4-1/2" BAKER 8K CBP AND 3-1/8" EXP GUN (23 GRAM, .36" EOD, 40" PENT, 4 SPF ON 90*). SET CBP AT 7653'. PULL UP AND PERF 7621'-23'. POOH.
	18:00 - 19:00	1.00	COMP	33	D	P		HOOK UP HAL CO SURFACE DFIT GUAGES. OPEN WELL W/ 332#. BD 3030# AT 3.3 BPM. ISIP 2437#, FG .76. PMP 24 BBLs 9.8# AT 3.3 BPM AT 2050#. SHUT DOWN. ISIP 2032# FG .71. SHUT WELL IN FOR DFIT. WINTERIZE EQUIP.
1/8/2010	6:45 - 7:00	0.25	COMP	48		P		JSA- PERF, DFIT, AND FRAC
	7:00 - 8:00	1.00	COMP	37	B	P		FIN PERF STG #7
	8:00 - 9:30	1.50	COMP	36	B	P		DOWN LOAD DFIT DATA. GOOD. RIH W/ 3-1/8" EXP GUN (23 GRAM, .36" EOD, 40" PENT, 4 SPF ON 90*) AND FIN PERF STG #7. 7583'-87', 7556'-58', 7540'-42', (10' NET, 40 HOLES) FRAC STG #7- 7540'-7623'. OPEN WELL W/ 550#. BD 1847# AT 7.1 BPM (DID NOT SEE GOOD BREAK) ISIP 1557#, FG .64. PMP EXTRA ACID IN PREPAD- PERFS OPENED. PMP PAD 4950# AT 50 BPM, 60% PERFS OPEN. MP 6204, MR 50.7, AP 3441, AR 49.7. ISIP 1642, FG .65, NPI 85. PMP 1098 BBLs SLK WTR, 34,007# 30/50, TAILED IN 5000# 20/40 RESIN. PMP CFT 1000 CHEM TRACER. HAD PROBLEMS W/ HYDRATION UNIT ON FLUSH, OVERFLUSHED BY 15 TOTAL BBLs

RECEIVED January 18, 2010

**US ROCKIES REGION
Operation Summary Report**

Well: NBU 922-29M3CS [BLUE] Spud Conductor: 9/3/2009 Spud Date: 9/6/2009
 Project: UTAH-UINTAH Site: NBU 922-29M PAD Rig Name No:
 Event: COMPLETION Start Date: 12/11/2009 End Date: 1/11/2010
 Active Datum: RKB @5,029.00ft (above Mean Sea Level) UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	9:30 - 10:30	1.00	COMP	37	B	P		STG #8- RIH W/ 4-1/2" BAKER 8K CBP AND 3-1/8" EXP GUN (23 GRAM, .36" EOD, 40" PENT, 4 SPF ON 90*). SET PLUG AT 7498'. PULL UP AND PERF 7464'-68'.
	10:30 - 11:30	1.00	COMP	35		P		RU DELSCO SLK LINE AND RUN HAL CO DOWNHOLE DFIT GUAGES. SPOT AT 7450'.
	11:30 - 18:15	6.75	COMP	33	G	P		DFIT STG #8 OPEN WELL W/ 1084#. BD 3119 AT 3.2 BPM. ISIP 2572, FG .78. INJ 24 BBL AT 3.2 BPM AT 1569#. SHUT DOWN. ISIP 1562#, FG .65. SHUT DOWN AT 11:45. PULL TOOLS AT 17:45. HAVE GOOD DATA.
	18:15 - 19:10	0.92	COMP	37	B	P		FIN PERF STG #8 RIH W/ 3-1/8" EXP GUNS (23 GRAM, .36" EOD, 40" PENT, 4 SPF ON 90*). FIN PERF STG #8. 7435'-37', 7358'-62'. (10' NET, 40 HOLES)
	19:10 - 19:50	0.67	COMP	36	B	P		FRAC STG #8 7358'-7468' OPEN WELL W/ 850#. BD 1665 AT 6 BPM. (DID NOT SEE GOOD BREAK) ISIP 1400#, FG .62. PMP ACID IN PAD. PMP 51 BPM AT 4650#, 63% PERFS OPEN MP 5992, MR 51.6, AP 3630, AR 50.8. ISIP 1781, FG .67, NPI 381. PMP 1302 BBLS SLK WTR, 44,757# 30/50, TAILED IN 7000# 20/40 RESIN. PMP CFT 1000 CHEM TRACER.
	19:50 - 21:00	1.17	COMP	37	B	P		STG #9 RIH W/ 4-1/2" BAKER 8K CBP AND 3-1/8" EXP GUN (23 GRAM, .36" EOD, 40" PENT, 4 SPF ON 90*). SET PLUG AT 7312'. PULL UP AND PERF FOR DFIT AT 7280'-82'.
	21:00 - 22:00	1.00	COMP	33	G	P		DFIT STG #9 RU DELSCO AND RIH W/ HAL CO DOWNHOLE DFIT GUAGES. SPOT GUAGES AT 7265'. OPEN WELL W/ 1041#. BD 2556# AT 3.2 BPM. ISIP 2269#, FG .75. PMP 24 BBL AT 3.2 BPM AT 2005#. ISIP 1664#, FG .67. SHUT DOWN 21:46. WINTERIZE EQUIP. SDFN.
	TOTALS							
	SAND 126,098#		FLUIDS 3591 BBLS		SCALE INHIB 305 GAL, BIOCID 75 GAL.			
1/9/2010	6:45 - 7:00	0.25	COMP	48		P		JSA- RD WL. ND FRAC VALVES. NU BOP.
	7:00 - 7:30	0.50	COMP	33	D	P		POOH W/ HAL CO DOWNHOLE GUAGES. GOOD DFIT DATA. RDMO DELSCO SLK LINE.
	7:30 - 8:30	1.00	COMP	34	I	P		RIH W/ 4-1/2" BAKER 8K CBP AND SET KILL PLUG AT 7230'.
	8:30 - 10:30	2.00	COMP	34		P		RD WIRELINE AND FRAC EQUIP. RD FLOOR. ND FRAC VALVES. NU BOP. RU FLOOR AND TBG EQUIP.
	10:30 - 15:00	4.50	COMP	31	I	P		MU 3-7/8" HURRICANE MILL, POBS, AND 1.87" XN. RIH ON 228 JTS 2-3/8" L-80 TBG TO TAG KILL PLUG AT 7237'. LD 4-JTS. HAVE 224JTS IN W/ EOT AT 7113'. WINTERIZE EQUIP. SDFN.
1/11/2010	6:45 - 9:00	2.25	COMP	48		P		JSA- D/O PLUGS. LAND HANGER. THAW OUT PMP. N/C

RECEIVED January 18, 2010

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-29M3CS [BLUE]		Spud Conductor: 9/3/2009		Spud Date: 9/6/2009	
Project: UTAH-UINTAH			Site: NBU 922-29M PAD		Rig Name No:
Event: COMPLETION			Start Date: 12/11/2009		End Date: 1/11/2010
Active Datum: RKB @5,029.00ft (above Mean Sea Level)			UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
	9:00 - 20:00	11.00	COMP	44	C	P		<p>SITP 0, SICP 0. RUN BACK IN W/ 4-JTS. RU PWR SWIVEL W/ 228-JTS IN. THAW OUT PMP MANIFOLD. PMP THRU LINES. FILL HOLE AND P-TEST TO 3000#. GOOD. EST CIRC AND D/O PLUGS.</p> <p>#1- NO SAND. PLUG AT 7230'. D/O IN 10 MIN. 0# INC. RIH #2- C/O 15' SAND TO CBP AT 7312'. D/O IN 12 MIN. 23# INC. RIH #3- C/O 25' SAND TO CBP AT 7498'. D/O IN 15 MIN. 25# INC. RIH. #4- C/O 30' SAND TO CBP AT 7653'. D/O IN 20 MIN. 150# INC. RIH. #5- C/O 30' SAND TO CBP AT 8158'. D/O IN 30 MIN. 400# INC. RIH #6- C/O 0' SAND TO CBP AT 8442'. D/O IN 20 MIN. 0# INC. RIH #7- C/O 30' SAND TO CBP AT 8472'. D/O IN 10 MIN. 50# INC. RIH. #8- C/O 30' SAND TO CBP AT 8670'. D/O IN 20 MIN. 50# INC. RIH. #9- C/O 30' SAND TO CBP AT 8871'. D/O IN 20 MIN. 50# INC. RIH. #10- C/O 30' SAND TO CBP AT 9032'. DP IN 20 MIN. 50# INC. RIH. PBSD- C/O 63' SAND TO 9373' (101' RATHOLE) W/ 295-JTS IN. CIRC CLEAN.</p> <p>RD PWR SWIVEL. POOH AS LD 70-JTS TBG. PU 7" 5K HANGER. LUB IN AND LAND 225-JTS 2-3/8" L-80 TBG W/ EOT AT 7154.67'. RD FLOOR. ND BOP. NU WH. PMP OFF BIT AT 1400. DRAIN AND RACK OUT EQUIP. WILL RID IN AM. TURN WELL OVER TO FLOW BACK CREW. SDFN.</p> <p>TBG DETAIL KB 13.00 7" 5K HANGER 1.00 225-JTS 2-3/8" L-80 7138.47 1.87" XN (FE) 2.20 EOT 7154.67</p> <p>PMP 9753 313 JTS DELIVERED RCVR 3300 88 JTS RETURNED LTR 5453</p>
1/12/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2200#, TP 1900#, 20/64" CK, 55 BWPH, 1/2 CUP SAND, - GAS TTL BBLs RECOVERED: 4110 BBLs LEFT TO RECOVER: 5643</p>
1/13/2010	9:45 -		PROD	50				<p>WELL TURNED TO SALE @ 0945 HR ON 1/13/10 - FTP 2000#, CP 2200#, 1800 MCFD, 37 BWPD, 20/64 CK</p>
	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2200#, TP 2050#, 20/64" CK, 37 BWPH, TBLSPN SAND, - GAS TTL BBLs RECOVERED: 5143 BBLs LEFT TO RECOVER: 4610</p>
1/14/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2200#, TP 1700#, 20/64" CK, 25 BWPH, 1/2 teasp SAND, - GAS TTL BBLs RECOVERED: 5868 BBLs LEFT TO RECOVER: 3885</p>
1/15/2010	7:00 -			33	A			<p>7 AM FLBK REPORT: CP 2100#, TP 1650#, 20/64" CK, 20 BWPH, TRACE SAND, - GAS TTL BBLs RECOVERED: 6348 BBLs LEFT TO RECOVER: 3405</p>

RECEIVED January 18, 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: ML 23608
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 922-29M3CS
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: SWSW 572 FSL & 520 FWL AT TOP PRODUCING INTERVAL REPORTED BELOW: SWSW 70 FSL & 294 FWL SEC.29-9S-22E AT TOTAL DEPTH: SWSW 38^a FSL & 315 FWL SEC.29-9S-22E		9. API NUMBER: 4304750342
14. DATE SPUDDED: 9/3/2009		10. FIELD AND POOL, OR WILDCAT NATURAL BUTTES
15. DATE T.D. REACHED: 10/23/2009		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSW 29 9S 22E
16. DATE COMPLETED: 1/13/2010		12. COUNTY UINTAH
ABANDONED <input type="checkbox"/> READY TO PRODUCE <input checked="" type="checkbox"/>		13. STATE UTAH
17. ELEVATIONS (DF, RKB, RT, GL): 5015' GL		

18. TOTAL DEPTH: MD 9,515	19. PLUG BACK T.D.: MD 9,455	20. IF MULTIPLE COMPLETIONS, HOW MANY? *	21. DEPTH BRIDGE MD
TVD 9,445	TVD 9,385		PLUG SET: TVD
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each) CBL/GR-HVL, CTQAL		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#		2,379		700			
7 7/8"	4 1/2 I-80	11.6#		9,499		1885			

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"	7,154							

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) MESAVERDE	7,280	9,272			7,280 9,272	0.36	328	Open <input checked="" type="checkbox"/>	Squeezed <input type="checkbox"/>
(B) WSMVD								Open <input 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
7,280-9,272	PMP 9,661 BBLs SLICK H2O & 347,541 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: _____	30. WELL STATUS: PROD
---	---------------------------------

RECEIVED

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED: 1/13/2010		TEST DATE: 1/21/2010		HOURS TESTED: 24		TEST PRODUCTION RATES: →		OIL - BBL: 0	GAS - MCF: 2,121	WATER - BBL: 480	PROD. METHOD: FLOWING
CHOKE SIZE: 20/64	TBG. PRESS. 1,180	CSG. PRESS. 1,673	API GRAVITY	BTU - GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL: 0	GAS - MCF: 2,121	WATER - BBL: 480	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	1,371				
MAHOGANY	2,096				
WASATCH	4,720	7,261			
MESAVERDE	7,264	9,428			

35. ADDITIONAL REMARKS (Include plugging procedure)

ATTACHED TO THIS COMPLETION REPORT IS THE CHRONOLOGICAL WELL HISTORY AND EOWR.

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

NAME (PLEASE PRINT) ANDY LYTLE

TITLE REGULATORY ANALYST

SIGNATURE 

DATE 2/12/2010

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 922-29M PAD

NBU 922-29M3CS

NBU 922-29M3CS

Survey: Survey #1

Standard Survey Report

26 October, 2009



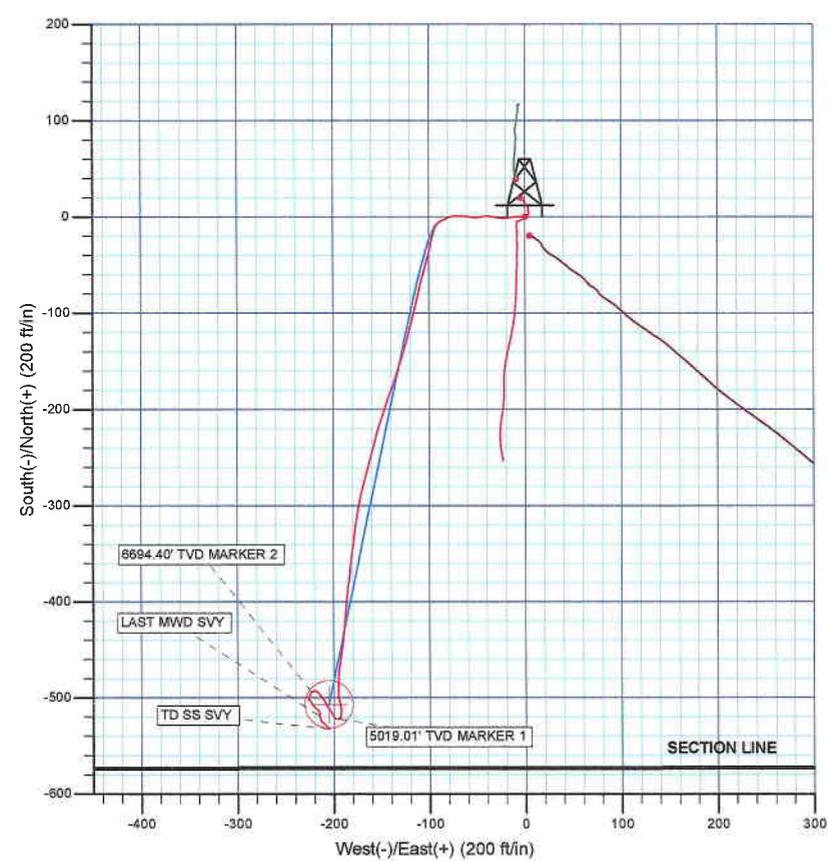
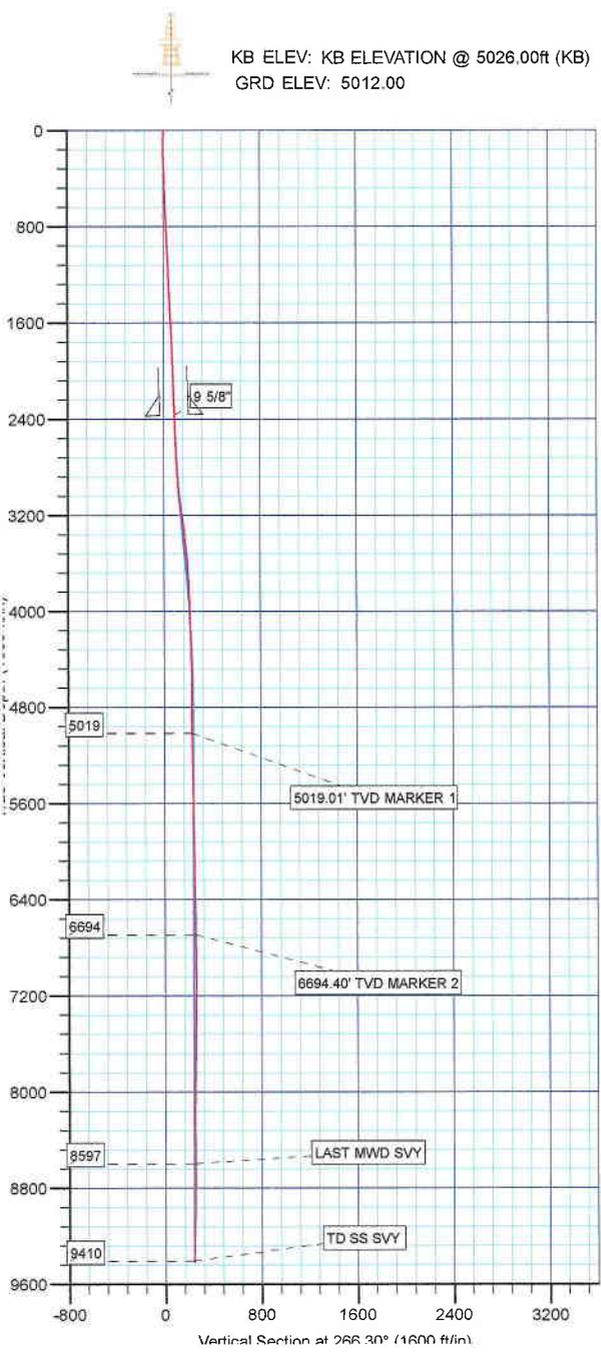
Weatherford®



WELL DETAILS: NBU 922-29M3CS							
+N/-S	+E/-W	Northing	Ground Level: Easting	5012.00 Latitude	Longitude	Slot	
0.00	0.00	14530223.14	2068696.96	40° 0' 4.986 N	109° 28' 14.689 W		

WELLBORE TARGET DETAILS (LAT/LONG)							
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape	
PBHL	9416.00	-506.98	-205.3339°	59° 59.975	109° 28' 17.328 W	Circle (Radius: 25.00)	

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
12420.00	2.44	227.37	2417.98	-6.13	-90.58	0.00	0.00	0.00	39.58		
22469.00	2.44	227.37	2466.94	-7.54	-92.11	0.00	0.00	0.00	41.57		
33161.88	19.25	191.80	3145.31	-130.29	-126.60	2.50	-40.10	0.00	168.29		
43681.15	19.25	191.80	3635.53	-297.88	-161.63	0.00	0.00	0.00	336.77		
54964.63	0.00	0.00	4895.00	-506.98	-205.33	1.50	180.00	0.00	546.98		
69485.63	0.00	0.00	9416.00	-506.98	-205.33	0.00	0.00	0.00	546.98	PBHL_NBU 922-29M3CS	



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4632.00	4701.42	Wasatch
7198.00	7267.63	DKCYN
8143.00	8212.63	Mesaverde

CASING DETAILS			
TVD	MD	Name	Size
2367.03	2369.00	9 5/8"	9.62

Company:	ANADARKO PETROLEUM CORP.	Local Co-ordinate Reference:	Well NBU 922-29M3CS
Project:	UINTAH COUNTY, UTAH (nad 27)	TVD Reference:	KB ELEVATION @ 5026.00ft (KB)
Site:	NBU 922-29M PAD	MD Reference:	KB ELEVATION @ 5026.00ft (KB)
Well:	NBU 922-29M3CS	North Reference:	True
Wellbore:	NBU 922-29M3CS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 922-29M3CS	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 922-29M PAD, SECTION 29 T9S R22E				
Site Position:		Northing:	14,530,203.55 ft	Latitude:	40° 0' 4.792 N
From:	Lat/Long	Easting:	2,068,701.78 ft	Longitude:	109° 28' 14.632 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.98 °

Well	NBU 922-29M3CS					
Well Position	+N/-S	0.00 ft	Northing:	14,530,223.14 ft	Latitude:	40° 0' 4.986 N
	+E/-W	0.00 ft	Easting:	2,068,696.96 ft	Longitude:	109° 28' 14.689 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,012.00 ft

Wellbore	NBU 922-29M3CS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	10/7/2009	11.31	65.94	52,553

Design	NBU 922-29M3CS				
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	266.30	

Survey Program	Date	10/26/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
110.00	9,480.00	Survey #1 (NBU 922-29M3CS)	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
110.00	0.19	84.57	110.00	0.02	0.18	-0.18	0.17	0.17	0.00
200.00	0.30	294.22	200.00	0.13	0.12	-0.12	0.53	0.12	-167.06
290.00	1.34	265.95	289.99	0.15	-1.15	1.14	1.21	1.16	-31.41
380.00	1.97	271.85	379.95	0.13	-3.75	3.73	0.72	0.70	6.56
470.00	2.06	269.82	469.90	0.17	-6.91	6.88	0.13	0.10	-2.26
560.00	2.25	265.20	559.83	0.02	-10.29	10.26	0.29	0.21	-5.13
650.00	2.38	262.95	649.76	-0.36	-13.90	13.90	0.18	0.14	-2.50
740.00	2.69	261.95	739.67	-0.88	-17.85	17.87	0.35	0.34	-1.11
830.00	3.00	271.32	829.56	-1.13	-22.29	22.32	0.62	0.34	10.41
920.00	2.56	275.95	919.45	-0.86	-26.65	26.65	0.55	-0.49	5.14
1,010.00	2.75	276.20	1,009.36	-0.42	-30.79	30.76	0.21	0.21	0.28
1,100.00	2.19	281.95	1,099.27	0.17	-34.62	34.54	0.68	-0.62	6.39

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-29M PAD
Well: NBU 922-29M3CS
Wellbore: NBU 922-29M3CS
Design: NBU 922-29M3CS

Local Co-ordinate Reference: Well NBU 922-29M3CS
TVD Reference: KB ELEVATION @ 5026.00ft (KB)
MD Reference: KB ELEVATION @ 5026.00ft (KB)
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)
1,190.00	2.13	273.95	1,189.21	0.64	-37.97	37.85	0.34	-0.07	-8.89
1,280.00	2.50	267.70	1,279.14	0.68	-41.60	41.47	0.50	0.41	-6.94
1,370.00	2.56	257.45	1,369.05	0.16	-45.53	45.42	0.51	0.07	-11.39
1,460.00	3.13	266.20	1,458.94	-0.44	-49.94	49.86	0.79	0.63	9.72
1,550.00	3.38	274.32	1,548.79	-0.40	-55.04	54.95	0.58	0.28	9.02
1,640.00	2.81	280.95	1,638.66	0.22	-59.85	59.71	0.75	-0.63	7.37
1,730.00	2.50	273.32	1,728.57	0.75	-63.97	63.79	0.52	-0.34	-8.48
1,820.00	2.38	266.44	1,818.48	0.75	-67.80	67.61	0.35	-0.13	-7.64
1,910.00	2.06	274.44	1,908.42	0.76	-71.28	71.08	0.49	-0.36	8.89
2,000.00	2.00	264.82	1,998.36	0.74	-74.45	74.25	0.38	-0.07	-10.69
2,090.00	2.13	253.70	2,088.30	0.13	-77.62	77.45	0.47	0.14	-12.36
2,180.00	2.50	244.82	2,178.23	-1.18	-81.00	80.91	0.57	0.41	-9.87
2,270.00	2.75	246.20	2,268.13	-2.88	-84.76	84.76	0.29	0.28	1.53
2,360.00	2.50	242.57	2,358.04	-4.66	-88.47	88.59	0.33	-0.28	-4.03
2,460.00	2.50	217.31	2,457.95	-7.40	-91.73	92.02	1.09	0.00	-25.26
2,505.00	3.90	209.17	2,502.88	-9.52	-93.07	93.49	3.26	3.11	-18.09
2,551.00	5.06	199.44	2,548.74	-12.79	-94.51	95.14	3.01	2.52	-21.15
2,596.00	6.21	196.86	2,593.52	-16.99	-95.88	96.77	2.62	2.56	-5.73
2,641.00	7.44	192.69	2,638.20	-22.17	-97.22	98.45	2.95	2.73	-9.27
2,687.00	8.68	192.34	2,683.74	-28.46	-98.62	100.25	2.70	2.70	-0.76
2,732.00	10.25	192.06	2,728.13	-35.70	-100.18	102.28	3.49	3.49	-0.62
2,776.00	11.88	195.56	2,771.31	-43.89	-102.21	104.83	4.01	3.70	7.95
2,823.00	13.44	196.19	2,817.17	-53.79	-105.03	108.29	3.33	3.32	1.34
2,868.00	14.56	194.06	2,860.83	-64.30	-107.87	111.79	2.74	2.49	-4.73
2,913.00	15.75	193.06	2,904.26	-75.74	-110.62	115.28	2.71	2.64	-2.22
2,959.00	17.61	193.88	2,948.33	-88.58	-113.70	119.18	4.08	4.04	1.78
3,004.00	19.00	193.54	2,991.05	-102.31	-117.05	123.41	3.10	3.09	-0.76
3,049.00	19.81	194.06	3,033.49	-116.83	-120.62	127.91	1.84	1.80	1.16
3,095.00	20.00	195.94	3,076.74	-131.95	-124.67	132.93	1.45	0.41	4.09
3,140.00	19.52	197.19	3,119.09	-146.54	-129.01	138.20	1.42	-1.07	2.78
3,185.00	19.81	198.19	3,161.47	-160.96	-133.61	143.72	0.99	0.64	2.22
3,230.00	20.13	199.19	3,203.76	-175.52	-138.53	149.58	1.04	0.71	2.22
3,276.00	19.88	199.19	3,246.99	-190.38	-143.71	155.70	0.54	-0.54	0.00
3,321.00	19.54	197.84	3,289.35	-204.77	-148.53	161.44	1.26	-0.76	-3.00
3,366.00	18.75	196.31	3,331.86	-218.88	-152.86	166.68	2.08	-1.76	-3.40
3,411.00	17.75	195.31	3,374.60	-232.43	-156.71	171.39	2.33	-2.22	-2.22
3,457.00	17.38	194.94	3,418.45	-245.84	-160.33	175.87	0.84	-0.80	-0.80
3,502.00	17.75	194.06	3,461.36	-258.98	-163.73	180.11	1.01	0.82	-1.96
3,547.00	18.50	195.19	3,504.12	-272.53	-167.27	184.52	1.84	1.67	2.51
3,593.00	17.94	193.31	3,547.82	-286.47	-170.81	188.95	1.76	-1.22	-4.09
3,638.00	17.75	190.94	3,590.65	-299.94	-173.71	192.71	1.67	-0.42	-5.27
3,683.00	16.85	188.90	3,633.62	-313.12	-176.02	195.87	2.41	-2.00	-4.53
3,729.00	15.56	187.06	3,677.79	-325.83	-177.81	198.48	3.02	-2.80	-4.00
3,774.00	15.63	187.56	3,721.13	-337.83	-179.35	200.79	0.34	0.16	1.11
3,819.00	15.56	187.44	3,764.48	-349.83	-180.93	203.14	0.17	-0.16	-0.27
3,864.00	15.03	185.88	3,807.88	-361.62	-182.30	205.28	1.49	-1.18	-3.47
3,910.00	14.06	186.69	3,852.41	-373.10	-183.57	207.28	2.15	-2.11	1.76
3,955.00	13.25	186.69	3,896.13	-383.65	-184.80	209.19	1.80	-1.80	0.00
4,000.00	12.75	185.31	3,939.98	-393.72	-185.86	210.90	1.31	-1.11	-3.07
4,046.00	12.03	185.66	3,984.91	-403.54	-186.81	212.48	1.57	-1.57	0.76
4,091.00	11.38	184.84	4,028.97	-412.63	-187.64	213.90	1.49	-1.44	-1.82
4,136.00	10.69	184.94	4,073.14	-421.21	-188.38	215.19	1.53	-1.53	0.22
4,182.00	9.69	184.94	4,118.41	-429.32	-189.08	216.41	2.17	-2.17	0.00
4,227.00	8.09	184.35	4,162.87	-436.25	-189.65	217.42	3.56	-3.56	-1.31

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-29M PAD
Well: NBU 922-29M3CS
Wellbore: NBU 922-29M3CS
Design: NBU 922-29M3CS

Local Co-ordinate Reference: Well NBU 922-29M3CS
TVD Reference: KB ELEVATION @ 5026.00ft (KB)
MD Reference: KB ELEVATION @ 5026.00ft (KB)
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)
4,272.00	7.44	187.19	4,207.46	-442.30	-190.25	218.42	1.68	-1.44	6.31
4,317.00	7.75	190.56	4,252.07	-448.17	-191.17	219.71	1.21	0.69	7.49
4,363.00	8.06	189.19	4,297.63	-454.41	-192.25	221.20	0.79	0.67	-2.98
4,408.00	7.88	187.31	4,342.19	-460.58	-193.15	222.49	0.70	-0.40	-4.18
4,453.00	7.88	187.44	4,386.77	-466.70	-193.94	223.68	0.04	0.00	0.29
4,499.00	7.38	185.56	4,432.36	-472.76	-194.64	224.76	1.21	-1.09	-4.09
4,544.00	7.06	184.19	4,477.00	-478.40	-195.12	225.61	0.81	-0.71	-3.04
4,589.00	6.56	182.19	4,521.69	-483.73	-195.42	226.25	1.23	-1.11	-4.44
4,635.00	6.06	180.56	4,567.41	-488.78	-195.54	226.70	1.15	-1.09	-3.54
4,680.00	5.63	178.44	4,612.17	-493.36	-195.51	226.96	1.07	-0.96	-4.71
4,725.00	5.31	177.19	4,656.97	-497.65	-195.34	227.07	0.76	-0.71	-2.78
4,771.00	4.81	164.81	4,702.79	-501.64	-194.73	226.72	2.60	-1.09	-26.91
4,816.00	4.94	164.81	4,747.63	-505.33	-193.73	225.96	0.29	0.29	0.00
4,861.00	4.75	175.31	4,792.47	-509.05	-193.07	225.54	2.01	-0.42	23.33
4,907.00	4.88	174.19	4,838.31	-512.90	-192.72	225.44	0.35	0.28	-2.43
4,952.00	3.93	181.50	4,883.17	-516.34	-192.57	225.51	2.45	-2.11	16.24
4,997.00	3.31	193.06	4,928.08	-519.15	-192.90	226.02	2.12	-1.38	25.69
5,042.00	2.00	220.56	4,973.04	-521.01	-193.70	226.95	3.98	-2.91	61.11
5019.01' TVD MARKER 1									
5,088.00	1.56	242.81	5,019.01	-521.91	-194.78	228.08	1.76	-0.96	48.37
5,133.00	1.36	260.26	5,064.00	-522.28	-195.85	229.17	1.08	-0.44	38.78
5,224.00	1.56	293.56	5,154.97	-521.97	-198.05	231.35	0.94	0.22	36.59
5,314.00	1.75	335.69	5,244.94	-520.22	-199.74	232.92	1.34	0.21	46.81
5,405.00	1.63	330.06	5,335.90	-517.84	-200.96	233.98	0.22	-0.13	-6.19
5,495.00	1.37	319.89	5,425.87	-515.90	-202.29	235.19	0.41	-0.29	-11.30
5,586.00	2.00	330.56	5,516.83	-513.69	-203.77	236.52	0.77	0.69	11.73
5,677.00	1.69	329.94	5,607.78	-511.15	-205.23	237.81	0.34	-0.34	-0.68
5,767.00	1.44	318.31	5,697.75	-509.15	-206.64	239.09	0.45	-0.28	-12.92
5,858.00	2.39	334.72	5,788.70	-506.58	-208.21	240.49	1.20	1.04	18.03
5,948.00	1.81	329.69	5,878.64	-503.66	-209.73	241.82	0.68	-0.64	-5.59
6,039.00	2.25	326.81	5,969.58	-500.92	-211.44	243.34	0.50	0.48	-3.16
6,130.00	1.75	319.34	6,060.52	-498.37	-213.32	245.06	0.62	-0.55	-8.21
6,222.00	1.29	319.03	6,152.49	-496.53	-214.91	246.53	0.50	-0.50	-0.34
6,311.00	1.25	322.06	6,241.47	-495.00	-216.17	247.68	0.09	-0.04	3.40
6,401.00	1.13	307.69	6,331.45	-493.69	-217.47	248.90	0.36	-0.13	-15.97
6,492.00	0.88	286.19	6,422.43	-492.94	-218.85	250.23	0.49	-0.27	-23.63
6,583.00	0.81	257.06	6,513.43	-492.89	-220.15	251.52	0.47	-0.08	-32.01
6,673.00	0.99	250.24	6,603.41	-493.30	-221.50	252.90	0.23	0.20	-7.58
6694.40' TVD MARKER 2									
6,764.00	0.94	238.69	6,694.40	-493.95	-222.88	254.31	0.22	-0.05	-12.69
6,855.00	0.94	216.56	6,785.39	-494.94	-223.96	255.46	0.40	0.00	-24.32
6,945.00	1.08	207.72	6,875.38	-496.28	-224.80	256.38	0.23	0.16	-9.82
7,036.00	1.06	200.56	6,966.36	-497.83	-225.49	257.17	0.15	-0.02	-7.87
7,127.00	1.19	190.81	7,057.34	-499.55	-225.97	257.75	0.25	0.14	-10.71
7,217.00	1.38	177.69	7,147.32	-501.55	-226.10	258.01	0.39	0.21	-14.58
7,308.00	0.68	120.40	7,238.31	-502.92	-225.59	257.59	1.28	-0.77	-62.96
7,399.00	0.69	136.19	7,329.30	-503.58	-224.74	256.79	0.21	0.01	17.35
7,489.00	0.44	145.19	7,419.30	-504.26	-224.17	256.27	0.29	-0.28	10.00
7,580.00	0.81	162.31	7,510.29	-505.16	-223.77	255.93	0.45	0.41	18.81
7,670.00	1.13	140.31	7,600.28	-506.45	-223.01	255.25	0.54	0.36	-24.44
7,761.00	1.48	136.56	7,691.25	-507.99	-221.63	253.98	0.40	0.38	-4.12
7,852.00	1.63	141.69	7,782.22	-509.86	-220.02	252.49	0.22	0.16	5.64
7,942.00	1.19	127.31	7,872.19	-511.43	-218.49	251.06	0.62	-0.49	-15.98
8,033.00	1.56	128.94	7,963.17	-512.78	-216.77	249.43	0.41	0.41	1.79

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-29M PAD
Well: NBU 922-29M3CS
Wellbore: NBU 922-29M3CS
Design: NBU 922-29M3CS

Local Co-ordinate Reference: Well NBU 922-29M3CS
TVD Reference: KB ELEVATION @ 5026.00ft (KB)
MD Reference: KB ELEVATION @ 5026.00ft (KB)
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)
8,123.00	1.43	160.83	8,053.14	-514.61	-215.45	248.23	0.92	-0.14	35.43
8,214.00	0.63	146.94	8,144.12	-516.11	-214.80	247.68	0.91	-0.88	-15.26
8,305.00	0.13	169.44	8,235.12	-516.63	-214.51	247.43	0.56	-0.55	24.73
8,395.00	0.44	207.44	8,325.12	-517.03	-214.65	247.59	0.39	0.34	42.22
8,486.00	0.41	247.71	8,416.12	-517.47	-215.11	248.08	0.32	-0.03	44.25
8,577.00	0.44	182.06	8,507.11	-517.94	-215.43	248.43	0.51	0.03	-72.14
LAST MWD SVY									
8,667.00	0.56	189.19	8,597.11	-518.72	-215.51	248.56	0.15	0.13	7.92
TD SS SVY									
9,480.00	2.10	132.06	9,409.89	-532.62	-205.09	239.05	0.23	0.19	-7.03

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,088.00	5,019.01	-521.91	-194.78	5019.01' TVD MARKER 1
6,764.00	6,694.40	-493.95	-222.88	6694.40' TVD MARKER 2
8,667.00	8,597.11	-518.72	-215.51	LAST MWD SVY
9,480.00	9,409.89	-532.62	-205.09	TD SS SVY

Checked By: _____ Approved By: _____ Date: _____



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27)

NBU 922-29M PAD

NBU 922-29M3CS

NBU 922-29M3CS

Survey: Survey #1

Survey Report - Geographic

26 October, 2009



Weatherford®

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-29M PAD
Well: NBU 922-29M3CS
Wellbore: NBU 922-29M3CS
Design: NBU 922-29M3CS

Local Co-ordinate Reference: Well NBU 922-29M3CS
TVD Reference: KB ELEVATION @ 5026.00ft (KB)
MD Reference: KB ELEVATION @ 5026.00ft (KB)
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 922-29M PAD, SECTION 29 T9S R22E				
Site Position:		Northing:	14,530,203.55 ft	Latitude:	40° 0' 4.792 N
From:	Lat/Long	Easting:	2,068,701.78 ft	Longitude:	109° 28' 14.632 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.98 °

Well	NBU 922-29M3CS					
Well Position	+N/-S	0.00 ft	Northing:	14,530,223.14 ft	Latitude:	40° 0' 4.986 N
	+E/-W	0.00 ft	Easting:	2,068,696.96 ft	Longitude:	109° 28' 14.689 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	5,012.00 ft

Wellbore	NBU 922-29M3CS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2009	10/7/2009	11.31	65.94	52,553

Design	NBU 922-29M3CS				
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	266.30	

Survey Program	Date	10/26/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
110.00	9,480.00	Survey #1 (NBU 922-29M3CS)	MWD	MWD - Standard	

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-29M PAD
Well: NBU 922-29M3CS
Wellbore: NBU 922-29M3CS
Design: NBU 922-29M3CS

Local Co-ordinate Reference: Well NBU 922-29M3CS
TVD Reference: KB ELEVATION @ 5026.00ft (KB)
MD Reference: KB ELEVATION @ 5026.00ft (KB)
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	14,530,223.14	2,068,696.96	40° 0' 4.986 N	109° 28' 14.689 W
110.00	0.19	84.57	110.00	0.02	0.18	14,530,223.16	2,068,697.14	40° 0' 4.986 N	109° 28' 14.687 W
200.00	0.30	294.22	200.00	0.13	0.12	14,530,223.27	2,068,697.07	40° 0' 4.987 N	109° 28' 14.688 W
290.00	1.34	265.95	289.99	0.15	-1.15	14,530,223.27	2,068,695.81	40° 0' 4.987 N	109° 28' 14.704 W
380.00	1.97	271.85	379.95	0.13	-3.75	14,530,223.20	2,068,693.21	40° 0' 4.987 N	109° 28' 14.737 W
470.00	2.06	269.82	469.90	0.17	-6.91	14,530,223.19	2,068,690.05	40° 0' 4.988 N	109° 28' 14.778 W
560.00	2.25	265.20	559.83	0.02	-10.29	14,530,222.98	2,068,686.67	40° 0' 4.986 N	109° 28' 14.821 W
650.00	2.38	262.95	649.76	-0.36	-13.90	14,530,222.54	2,068,683.06	40° 0' 4.982 N	109° 28' 14.868 W
740.00	2.69	261.95	739.67	-0.88	-17.85	14,530,221.95	2,068,679.13	40° 0' 4.977 N	109° 28' 14.919 W
830.00	3.00	271.32	829.56	-1.13	-22.29	14,530,221.63	2,068,674.69	40° 0' 4.975 N	109° 28' 14.976 W
920.00	2.56	275.95	919.45	-0.86	-26.65	14,530,221.82	2,068,670.33	40° 0' 4.977 N	109° 28' 15.032 W
1,010.00	2.75	276.20	1,009.36	-0.42	-30.79	14,530,222.19	2,068,666.18	40° 0' 4.982 N	109° 28' 15.085 W
1,100.00	2.19	281.95	1,099.27	0.17	-34.62	14,530,222.71	2,068,662.34	40° 0' 4.988 N	109° 28' 15.134 W
1,190.00	2.13	273.95	1,189.21	0.64	-37.97	14,530,223.13	2,068,658.98	40° 0' 4.992 N	109° 28' 15.177 W
1,280.00	2.50	267.70	1,279.14	0.68	-41.60	14,530,223.10	2,068,655.35	40° 0' 4.993 N	109° 28' 15.224 W
1,370.00	2.56	257.45	1,369.05	0.16	-45.53	14,530,222.52	2,068,651.44	40° 0' 4.988 N	109° 28' 15.274 W
1,460.00	3.13	266.20	1,458.94	-0.44	-49.94	14,530,221.84	2,068,647.03	40° 0' 4.982 N	109° 28' 15.331 W
1,550.00	3.38	274.32	1,548.79	-0.40	-55.04	14,530,221.79	2,068,641.94	40° 0' 4.982 N	109° 28' 15.397 W
1,640.00	2.81	280.95	1,638.66	0.22	-59.85	14,530,222.33	2,068,637.12	40° 0' 4.988 N	109° 28' 15.458 W
1,730.00	2.50	273.32	1,728.57	0.75	-63.97	14,530,222.79	2,068,632.98	40° 0' 4.993 N	109° 28' 15.511 W
1,820.00	2.38	266.44	1,818.48	0.75	-67.80	14,530,222.72	2,068,629.16	40° 0' 4.993 N	109° 28' 15.561 W
1,910.00	2.06	274.44	1,908.42	0.76	-71.28	14,530,222.67	2,068,625.68	40° 0' 4.993 N	109° 28' 15.605 W
2,000.00	2.00	264.82	1,998.36	0.74	-74.45	14,530,222.60	2,068,622.50	40° 0' 4.993 N	109° 28' 15.646 W
2,090.00	2.13	253.70	2,088.30	0.13	-77.62	14,530,221.94	2,068,619.34	40° 0' 4.987 N	109° 28' 15.687 W
2,180.00	2.50	244.82	2,178.23	-1.18	-81.00	14,530,220.57	2,068,615.99	40° 0' 4.974 N	109° 28' 15.730 W
2,270.00	2.75	246.20	2,268.13	-2.88	-84.76	14,530,218.80	2,068,612.26	40° 0' 4.957 N	109° 28' 15.778 W
2,360.00	2.50	242.57	2,358.04	-4.66	-88.47	14,530,216.96	2,068,608.58	40° 0' 4.940 N	109° 28' 15.826 W
2,460.00	2.50	217.31	2,457.95	-7.40	-91.73	14,530,214.17	2,068,605.37	40° 0' 4.913 N	109° 28' 15.868 W
2,505.00	3.90	209.17	2,502.88	-9.52	-93.07	14,530,212.03	2,068,604.06	40° 0' 4.892 N	109° 28' 15.885 W
2,551.00	5.06	199.44	2,548.74	-12.79	-94.51	14,530,208.73	2,068,602.68	40° 0' 4.860 N	109° 28' 15.904 W
2,596.00	6.21	196.86	2,593.52	-16.99	-95.88	14,530,204.50	2,068,601.39	40° 0' 4.818 N	109° 28' 15.921 W
2,641.00	7.44	192.69	2,638.20	-22.17	-97.22	14,530,199.31	2,068,600.13	40° 0' 4.767 N	109° 28' 15.939 W
2,687.00	8.68	192.34	2,683.74	-28.46	-98.62	14,530,192.99	2,068,598.84	40° 0' 4.705 N	109° 28' 15.957 W
2,732.00	10.25	192.06	2,728.13	-35.70	-100.18	14,530,185.73	2,068,597.40	40° 0' 4.633 N	109° 28' 15.977 W
2,776.00	11.88	195.56	2,771.31	-43.89	-102.21	14,530,177.51	2,068,595.51	40° 0' 4.552 N	109° 28' 16.003 W
2,823.00	13.44	196.19	2,817.17	-53.79	-105.03	14,530,167.55	2,068,592.86	40° 0' 4.454 N	109° 28' 16.039 W
2,868.00	14.56	194.06	2,860.83	-64.30	-107.87	14,530,157.00	2,068,590.21	40° 0' 4.350 N	109° 28' 16.075 W
2,913.00	15.75	193.06	2,904.26	-75.74	-110.62	14,530,145.51	2,068,587.65	40° 0' 4.237 N	109° 28' 16.111 W
2,959.00	17.61	193.88	2,948.33	-88.58	-113.70	14,530,132.62	2,068,584.79	40° 0' 4.110 N	109° 28' 16.150 W
3,004.00	19.00	193.54	2,991.05	-102.31	-117.05	14,530,118.84	2,068,581.68	40° 0' 3.975 N	109° 28' 16.194 W
3,049.00	19.81	194.06	3,033.49	-116.83	-120.62	14,530,104.26	2,068,578.36	40° 0' 3.831 N	109° 28' 16.239 W
3,095.00	20.00	195.94	3,076.74	-131.95	-124.67	14,530,089.07	2,068,574.57	40° 0' 3.682 N	109° 28' 16.291 W
3,140.00	19.52	197.19	3,119.09	-146.54	-129.01	14,530,074.41	2,068,570.49	40° 0' 3.538 N	109° 28' 16.347 W
3,185.00	19.81	198.19	3,161.47	-160.96	-133.61	14,530,059.91	2,068,566.13	40° 0' 3.395 N	109° 28' 16.406 W
3,230.00	20.13	199.19	3,203.76	-175.52	-138.53	14,530,045.27	2,068,561.46	40° 0' 3.251 N	109° 28' 16.470 W
3,276.00	19.88	199.19	3,246.99	-190.38	-143.71	14,530,030.32	2,068,556.54	40° 0' 3.104 N	109° 28' 16.536 W
3,321.00	19.54	197.84	3,289.35	-204.77	-148.53	14,530,015.85	2,068,551.97	40° 0' 2.962 N	109° 28' 16.598 W
3,366.00	18.75	196.31	3,331.86	-218.88	-152.86	14,530,001.67	2,068,547.87	40° 0' 2.823 N	109° 28' 16.654 W
3,411.00	17.75	195.31	3,374.60	-232.43	-156.71	14,529,988.05	2,068,544.26	40° 0' 2.689 N	109° 28' 16.703 W
3,457.00	17.38	194.94	3,418.45	-245.84	-160.33	14,529,974.59	2,068,540.87	40° 0' 2.556 N	109° 28' 16.750 W
3,502.00	17.75	194.06	3,461.36	-258.98	-163.73	14,529,961.39	2,068,537.70	40° 0' 2.426 N	109° 28' 16.793 W
3,547.00	18.50	195.19	3,504.12	-272.53	-167.27	14,529,947.78	2,068,534.39	40° 0' 2.292 N	109° 28' 16.839 W
3,593.00	17.94	193.31	3,547.82	-286.47	-170.81	14,529,933.79	2,068,531.09	40° 0' 2.154 N	109° 28' 16.884 W
3,638.00	17.75	190.94	3,590.65	-299.94	-173.71	14,529,920.26	2,068,528.42	40° 0' 2.021 N	109° 28' 16.922 W
3,683.00	16.85	188.90	3,633.62	-313.12	-176.02	14,529,907.04	2,068,526.34	40° 0' 1.891 N	109° 28' 16.951 W

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-29M PAD
Well: NBU 922-29M3CS
Wellbore: NBU 922-29M3CS
Design: NBU 922-29M3CS

Local Co-ordinate Reference: Well NBU 922-29M3CS
TVD Reference: KB ELEVATION @ 5026.00ft (KB)
MD Reference: KB ELEVATION @ 5026.00ft (KB)
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
3,729.00	15.56	187.06	3,677.79	-325.83	-177.81	14,529,894.31	2,068,524.77	40° 0' 1.765 N	109° 28' 16.974 W
3,774.00	15.63	187.56	3,721.13	-337.83	-179.35	14,529,882.28	2,068,523.44	40° 0' 1.647 N	109° 28' 16.994 W
3,819.00	15.56	187.44	3,764.48	-349.83	-180.93	14,529,870.26	2,068,522.06	40° 0' 1.528 N	109° 28' 17.014 W
3,864.00	15.03	185.88	3,807.88	-361.62	-182.30	14,529,858.45	2,068,520.89	40° 0' 1.412 N	109° 28' 17.032 W
3,910.00	14.06	186.69	3,852.41	-373.10	-183.57	14,529,846.95	2,068,519.82	40° 0' 1.298 N	109° 28' 17.048 W
3,955.00	13.25	186.69	3,896.13	-383.65	-184.80	14,529,836.38	2,068,518.76	40° 0' 1.194 N	109° 28' 17.064 W
4,000.00	12.75	185.31	3,939.98	-393.72	-185.86	14,529,826.29	2,068,517.88	40° 0' 1.094 N	109° 28' 17.078 W
4,046.00	12.03	185.66	3,984.91	-403.54	-186.81	14,529,816.46	2,068,517.10	40° 0' 0.997 N	109° 28' 17.090 W
4,091.00	11.38	184.84	4,028.97	-412.63	-187.64	14,529,807.35	2,068,516.42	40° 0' 0.907 N	109° 28' 17.101 W
4,136.00	10.69	184.94	4,073.14	-421.21	-188.38	14,529,798.76	2,068,515.84	40° 0' 0.823 N	109° 28' 17.110 W
4,182.00	9.69	184.94	4,118.41	-429.32	-189.08	14,529,790.64	2,068,515.27	40° 0' 0.742 N	109° 28' 17.119 W
4,227.00	8.09	184.35	4,162.87	-436.25	-189.65	14,529,783.70	2,068,514.83	40° 0' 0.674 N	109° 28' 17.126 W
4,272.00	7.44	187.19	4,207.46	-442.30	-190.25	14,529,777.64	2,068,514.33	40° 0' 0.614 N	109° 28' 17.134 W
4,317.00	7.75	190.56	4,252.07	-448.17	-191.17	14,529,771.75	2,068,513.51	40° 0' 0.556 N	109° 28' 17.146 W
4,363.00	8.06	189.19	4,297.63	-454.41	-192.25	14,529,765.50	2,068,512.53	40° 0' 0.494 N	109° 28' 17.160 W
4,408.00	7.88	187.31	4,342.19	-460.58	-193.15	14,529,759.32	2,068,511.74	40° 0' 0.433 N	109° 28' 17.172 W
4,453.00	7.88	187.44	4,386.77	-466.70	-193.94	14,529,753.18	2,068,511.05	40° 0' 0.373 N	109° 28' 17.182 W
4,499.00	7.38	185.56	4,432.36	-472.76	-194.64	14,529,747.11	2,068,510.46	40° 0' 0.313 N	109° 28' 17.191 W
4,544.00	7.06	184.19	4,477.00	-478.40	-195.12	14,529,741.46	2,068,510.08	40° 0' 0.257 N	109° 28' 17.197 W
4,589.00	6.56	182.19	4,521.69	-483.73	-195.42	14,529,736.13	2,068,509.87	40° 0' 0.205 N	109° 28' 17.201 W
4,635.00	6.06	180.56	4,567.41	-488.78	-195.54	14,529,731.08	2,068,509.83	40° 0' 0.155 N	109° 28' 17.202 W
4,680.00	5.63	178.44	4,612.17	-493.36	-195.51	14,529,726.50	2,068,509.95	40° 0' 0.109 N	109° 28' 17.202 W
4,725.00	5.31	177.19	4,656.97	-497.65	-195.34	14,529,722.22	2,068,510.18	40° 0' 0.067 N	109° 28' 17.200 W
4,771.00	4.81	164.81	4,702.79	-501.64	-194.73	14,529,718.24	2,068,510.86	40° 0' 0.028 N	109° 28' 17.192 W
4,816.00	4.94	164.81	4,747.63	-505.33	-193.73	14,529,714.57	2,068,511.92	39° 59' 59.991 N	109° 28' 17.179 W
4,861.00	4.75	175.31	4,792.47	-509.05	-193.07	14,529,710.85	2,068,512.65	39° 59' 59.954 N	109° 28' 17.171 W
4,907.00	4.88	174.19	4,838.31	-512.90	-192.72	14,529,707.01	2,068,513.07	39° 59' 59.916 N	109° 28' 17.166 W
4,952.00	3.93	181.50	4,883.17	-516.34	-192.57	14,529,703.57	2,068,513.28	39° 59' 59.882 N	109° 28' 17.164 W
4,997.00	3.31	193.06	4,928.08	-519.15	-192.90	14,529,700.76	2,068,513.00	39° 59' 59.855 N	109° 28' 17.168 W
5,042.00	2.00	220.56	4,973.04	-521.01	-193.70	14,529,698.88	2,068,512.22	39° 59' 59.836 N	109° 28' 17.179 W
5019.01' TVD MARKER 1									
5,088.00	1.56	242.81	5,019.01	-521.91	-194.78	14,529,697.97	2,068,511.16	39° 59' 59.827 N	109° 28' 17.192 W
5,133.00	1.36	260.26	5,064.00	-522.28	-195.85	14,529,697.58	2,068,510.10	39° 59' 59.824 N	109° 28' 17.206 W
5,224.00	1.56	293.56	5,154.97	-521.97	-198.05	14,529,697.85	2,068,507.89	39° 59' 59.827 N	109° 28' 17.235 W
5,314.00	1.75	335.69	5,244.94	-520.22	-199.74	14,529,699.57	2,068,506.17	39° 59' 59.844 N	109° 28' 17.256 W
5,405.00	1.63	330.06	5,335.90	-517.84	-200.96	14,529,701.93	2,068,504.91	39° 59' 59.867 N	109° 28' 17.272 W
5,495.00	1.37	319.89	5,425.87	-515.90	-202.29	14,529,703.84	2,068,503.55	39° 59' 59.887 N	109° 28' 17.289 W
5,586.00	2.00	330.56	5,516.83	-513.69	-203.77	14,529,706.03	2,068,502.03	39° 59' 59.908 N	109° 28' 17.308 W
5,677.00	1.69	329.94	5,607.78	-511.15	-205.23	14,529,708.55	2,068,500.53	39° 59' 59.934 N	109° 28' 17.327 W
5,767.00	1.44	318.31	5,697.75	-509.15	-206.64	14,529,710.52	2,068,499.08	39° 59' 59.953 N	109° 28' 17.345 W
5,858.00	2.39	334.72	5,788.70	-506.58	-208.21	14,529,713.06	2,068,497.47	39° 59' 59.979 N	109° 28' 17.365 W
5,948.00	1.81	329.69	5,878.64	-503.66	-209.73	14,529,715.96	2,068,495.90	40° 0' 0.008 N	109° 28' 17.385 W
6,039.00	2.25	326.81	5,969.58	-500.92	-211.44	14,529,718.66	2,068,494.15	40° 0' 0.035 N	109° 28' 17.407 W
6,130.00	1.75	319.34	6,060.52	-498.37	-213.32	14,529,721.18	2,068,492.22	40° 0' 0.060 N	109° 28' 17.431 W
6,222.00	1.29	319.03	6,152.49	-496.53	-214.91	14,529,723.00	2,068,490.60	40° 0' 0.078 N	109° 28' 17.451 W
6,311.00	1.25	322.06	6,241.47	-495.00	-216.17	14,529,724.50	2,068,489.32	40° 0' 0.093 N	109° 28' 17.467 W
6,401.00	1.13	307.69	6,331.45	-493.69	-217.47	14,529,725.80	2,068,487.99	40° 0' 0.106 N	109° 28' 17.484 W
6,492.00	0.88	286.19	6,422.43	-492.94	-218.85	14,529,726.51	2,068,486.59	40° 0' 0.114 N	109° 28' 17.502 W
6,583.00	0.81	257.06	6,513.43	-492.89	-220.15	14,529,726.54	2,068,485.30	40° 0' 0.114 N	109° 28' 17.519 W
6,673.00	0.99	250.24	6,603.41	-493.30	-221.50	14,529,726.11	2,068,483.95	40° 0' 0.110 N	109° 28' 17.536 W
6694.40' TVD MARKER 2									
6,764.00	0.94	238.69	6,694.40	-493.95	-222.88	14,529,725.44	2,068,482.59	40° 0' 0.104 N	109° 28' 17.554 W
6,855.00	0.94	216.56	6,785.39	-494.94	-223.96	14,529,724.43	2,068,481.52	40° 0' 0.094 N	109° 28' 17.568 W
6,945.00	1.08	207.72	6,875.38	-496.28	-224.80	14,529,723.07	2,068,480.71	40° 0' 0.081 N	109° 28' 17.578 W
7,036.00	1.06	200.56	6,966.36	-497.83	-225.49	14,529,721.51	2,068,480.04	40° 0' 0.065 N	109° 28' 17.587 W

Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)
Site: NBU 922-29M PAD
Well: NBU 922-29M3CS
Wellbore: NBU 922-29M3CS
Design: NBU 922-29M3CS

Local Co-ordinate Reference: Well NBU 922-29M3CS
TVD Reference: KB ELEVATION @ 5026.00ft (KB)
MD Reference: KB ELEVATION @ 5026.00ft (KB)
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
7,127.00	1.19	190.81	7,057.34	-499.55	-225.97	14,529,719.79	2,068,479.60	40° 0' 0.048 N	109° 28' 17.593 W
7,217.00	1.38	177.69	7,147.32	-501.55	-226.10	14,529,717.79	2,068,479.50	40° 0' 0.028 N	109° 28' 17.595 W
7,308.00	0.68	120.40	7,238.31	-502.92	-225.59	14,529,716.43	2,068,480.03	40° 0' 0.015 N	109° 28' 17.588 W
7,399.00	0.69	136.19	7,329.30	-503.58	-224.74	14,529,715.77	2,068,480.89	40° 0' 0.008 N	109° 28' 17.578 W
7,489.00	0.44	145.19	7,419.30	-504.26	-224.17	14,529,715.11	2,068,481.47	40° 0' 0.002 N	109° 28' 17.570 W
7,580.00	0.81	162.31	7,510.29	-505.16	-223.77	14,529,714.22	2,068,481.88	39° 59' 59.993 N	109° 28' 17.565 W
7,670.00	1.13	140.31	7,600.28	-506.45	-223.01	14,529,712.94	2,068,482.67	39° 59' 59.980 N	109° 28' 17.555 W
7,761.00	1.48	136.56	7,691.25	-507.99	-221.63	14,529,711.42	2,068,484.07	39° 59' 59.965 N	109° 28' 17.538 W
7,852.00	1.63	141.69	7,782.22	-509.86	-220.02	14,529,709.58	2,068,485.72	39° 59' 59.946 N	109° 28' 17.517 W
7,942.00	1.19	127.31	7,872.19	-511.43	-218.49	14,529,708.04	2,068,487.28	39° 59' 59.931 N	109° 28' 17.497 W
8,033.00	1.56	128.94	7,963.17	-512.78	-216.77	14,529,706.71	2,068,489.02	39° 59' 59.917 N	109° 28' 17.475 W
8,123.00	1.43	160.83	8,053.14	-514.61	-215.45	14,529,704.91	2,068,490.37	39° 59' 59.899 N	109° 28' 17.458 W
8,214.00	0.63	146.94	8,144.12	-516.11	-214.80	14,529,703.43	2,068,491.04	39° 59' 59.885 N	109° 28' 17.450 W
8,305.00	0.13	169.44	8,235.12	-516.63	-214.51	14,529,702.91	2,068,491.34	39° 59' 59.879 N	109° 28' 17.446 W
8,395.00	0.44	207.44	8,325.12	-517.03	-214.65	14,529,702.50	2,068,491.21	39° 59' 59.875 N	109° 28' 17.448 W
8,486.00	0.41	247.71	8,416.12	-517.47	-215.11	14,529,702.06	2,068,490.75	39° 59' 59.871 N	109° 28' 17.454 W
8,577.00	0.44	182.06	8,507.11	-517.94	-215.43	14,529,701.58	2,068,490.45	39° 59' 59.866 N	109° 28' 17.458 W
LAST MWD SVY									
8,667.00	0.56	189.19	8,597.11	-518.72	-215.51	14,529,700.80	2,068,490.38	39° 59' 59.859 N	109° 28' 17.459 W
TD SS SVY									
9,480.00	2.10	132.06	9,409.89	-532.62	-205.09	14,529,687.08	2,068,501.04	39° 59' 59.721 N	109° 28' 17.325 W

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,088.00	5,019.01	-521.91	-194.78	5019.01' TVD MARKER 1
6,764.00	6,694.40	-493.95	-222.88	6694.40' TVD MARKER 2
8,667.00	8,597.11	-518.72	-215.51	LAST MWD SVY
9,480.00	9,409.89	-532.62	-205.09	TD SS SVY

Checked By: _____ Approved By: _____ Date: _____

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: ML 23608
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:
1. TYPE OF WELL Gas Well		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		8. WELL NAME and NUMBER: NBU 922-29M3CS
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		9. API NUMBER: 43047503420000
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0572 FSL 0520 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 29 Township: 09.0S Range: 22.0E Meridian: S		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		COUNTY: UINTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		STATE: UTAH
TYPE OF SUBMISSION	TYPE OF ACTION	
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 6/28/2011 <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"/> ALTER CASING <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> WILDCAT WELL DETERMINATION <input checked="" type="checkbox"/> OTHER	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.		<input checked="" type="checkbox"/> CASING REPAIR
The operator requests approval to conduct wellhead/casing repair operations on the subject well location. Please find the attached procedure for the proposed repair work on the subject well location.		<input type="checkbox"/> CHANGE WELL NAME
		<input type="checkbox"/> CONVERT WELL TYPE
		<input type="checkbox"/> NEW CONSTRUCTION
		<input type="checkbox"/> PLUG BACK
		<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
		<input type="checkbox"/> TEMPORARY ABANDON
		<input type="checkbox"/> WATER DISPOSAL
		<input type="checkbox"/> APD EXTENSION
		OTHER: <input style="width: 100px;" type="text" value="Wellhead Repair"/>
NAME (PLEASE PRINT) Gina Becker		PHONE NUMBER 720 929-6086
SIGNATURE N/A		TITLE Regulatory Analyst II
		DATE 6/28/2011

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

Date: 07/11/2011
By: *Derek Duff*

WORKORDER #:

Name: NBU 922-29M3CS - [922-29M PAD]
Surface Location: SWSW Sec. 29, T9S, R22E
 Uintah County, UT

6/16/2011

API: 4304750342 **LEASE#:** ML-23608

ELEVATIONS: 5015' GL 5029' KB

TOTAL DEPTH: 9515' **PBTD:** 9455'

SURFACE CASING: 9 5/8", 36# J-55 @ 2379'

PRODUCTION CASING: 4 1/2", 11.6#, I-80 @ 9499'
 TOC @ 148' per CBL

PERFORATIONS: Mesaverde 7280' - 9272'

Tubular/Borehole	Drift inches	Collapse psi	Burst psi	Capacities		
				Gal./ft.	Cuft/ft.	Bbl./ft.
2.375" 4.7# J-55 tbg.	1.901	8100	7700	0.1624	0.02171	0.00387
4.5" 11.6# I-80	3.875	6350	7780	0.6528	0.0872	0.0155
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	0.01

GEOLOGICAL TOPS:

1371' Green River
 2096' Mahogany
 4720' Wasatch
 7264' Mesaverde

NBU 922-29M3CS- WELLHEAD REPAIR PROCEDURE

PREP-WORK PRIOR TO MIRU:

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

WORKOVER PROCEDURE:

1. MIRU workover rig.
2. Kill well with 10# brine / KCL (dictated by well pressure).
3. Remove tree, install double BOP with blind and 2 3/8" pipe rams, with accumulator closing unit and manual back-ups. Function test BOP system.
4. POOH w/ tubing laying down extra tubing.
5. Rig up wireline service. RIH and set CBP @ ~7230'. 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:

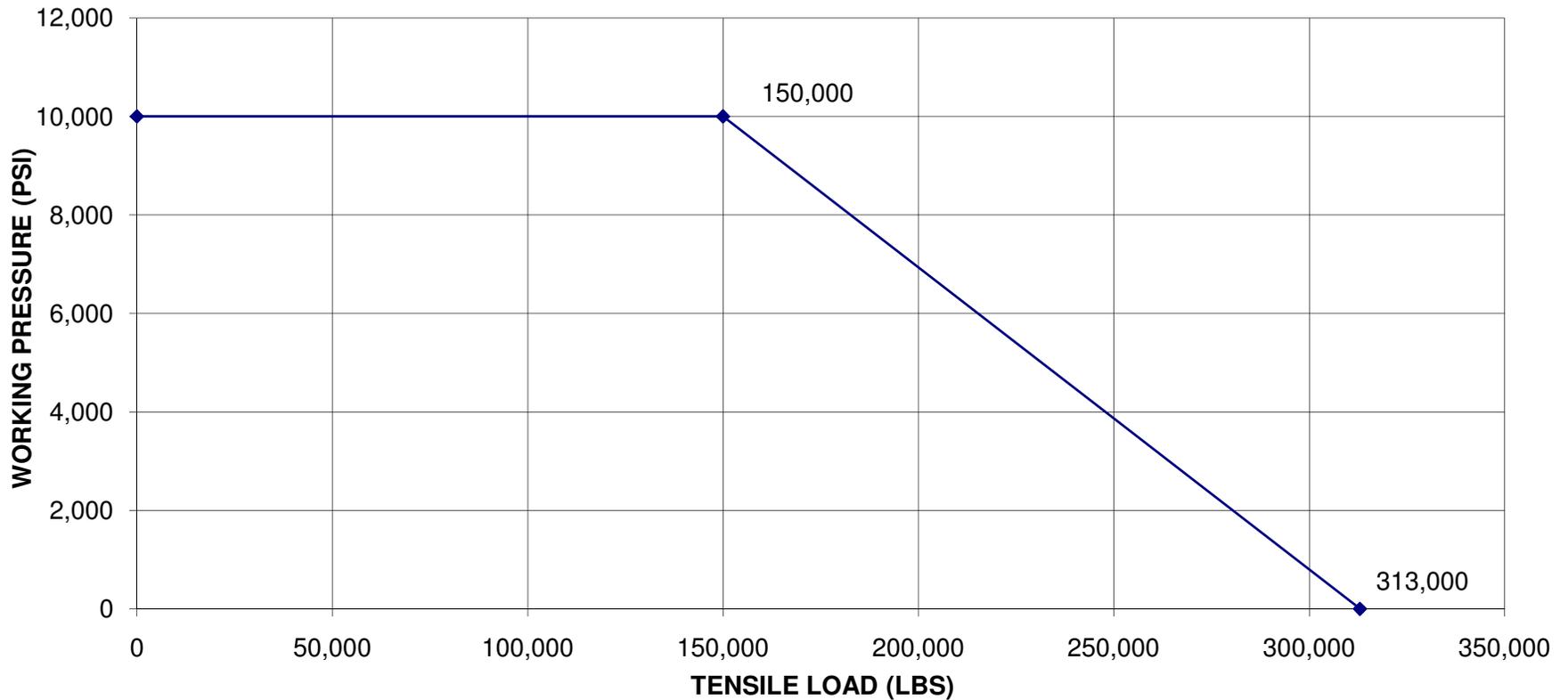
1. PU internal casing cutters and RIH. Cut casing at +/- 30' from surface.
2. POOH, LD cutters and casing.
3. PU 7 3/8" overshot with 4 1/2" right hand standard wicker grapple, 1 - 4 3/4" drill collar with 3 1/2" IF threads, pup joint, manual bumper sub, and crossovers. If casing cut is deeper than ±30' 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 overshot, POOH, and lay down.
4. TIH w/ skirted mill and dress off the fish top for approximately 1/2 hour. TOO. H.
5. PU & RIH w/ 4 1/2" 10k external casing patch on 4 1/2" P-110 casing. Ensure that sliding sleeve assembly shifts ±3' and casing tags no-go portion of patch. NOTE: Shear pins will shear at 3500 to 4500 lbs.
6. Latch fish, PU to 100,000# tension. RU B&C. Cycle pressure test to 3500 psi.
7. Install slips. Land casing w/ 80,000# tension.
8. Cut-off and dress 4 1/2" casing stub.
9. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~7180'. Clean out to PBSD (9455').
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" overshot. RIH, latch fish. Pick string weight to neutral.
4. MIRU casing crew and wireline services. RIH and shoot string shot at casing collar @ ± 46'.
5. Back-off casing, POOH.

6. PU new casing joint with buttress threads and entry guide and RIH. Tag casing top. Thread into casing and torque up to ± 7000 ft-lbs, count number of additional turns to make-up, and document in the daily report. Ensure that tongs are safely anchored to rig and that all personnel are at a safe working distance from the tongs during torque-up and torque release. After initial make-up, place pipe torque to neutral and mark pipe. Place ± 7000 ft-lbs on casing a second time, count turns, then return pipe torque to neutral and count turns. Repeat if torque-up turns do not equal torque release turns. Once torque-in equals torque-out go to step 7.
7. PU 100,000# tension string weight. RU B&C. Cycle pressure test to 3500 psi.
8. Install slips. Land casing w/ 80,000# tension.
9. Cut-off and dress 4 1/2" casing stub.
10. NUWH. PU 3 7/8" bit, POBS and RIH. D/O cement and plug ~7180'. Clean out to PBSD (9455').
11. POOH, land tbg and pump off POBS.
12. NUWH, RDMO. Turn well over to production ops.

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



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

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

DATA BY SLS 11/16/2009

RECEIVED Jun. 28, 2011

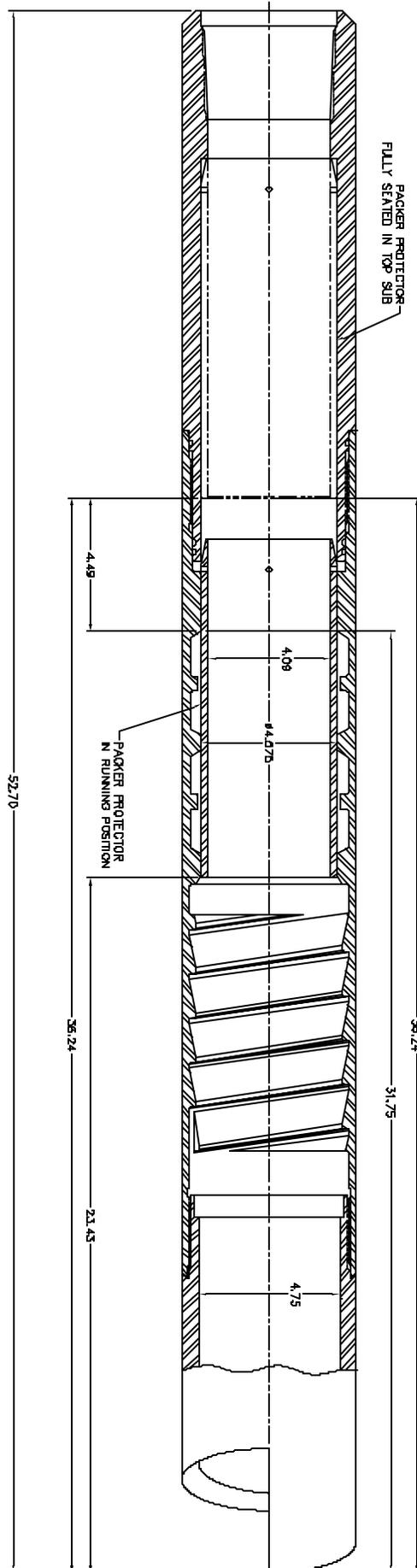


Logan High Pressure Casing Patches Assembly Procedure

All parts should be thoroughly greased before being assembled.

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

Follow recommended Make-Up Torque as provided in chart.



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

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS		5. LEASE DESIGNATION AND SERIAL NUMBER: ML 23608
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 922-29M3CS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047503420000	
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: 0572 FSL 0520 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSW Section: 29 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: 9/1/2011 <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.		
THE OPERATOR HAS CONCLUDED WELLHEAD/CASING REPAIRS ON THE SUBJECT WELL LOCATION. PLEASE SEE THE ATTACHED CHRONOLOGICAL HISTORY FOR DETAILS OF THE OPERATIONS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A	DATE 9/1/2011	

US ROCKIES REGION
Operation Summary Report

Well: NBU 922-29M3CS		Spud Conductor: 9/3/2009		Spud Date: 9/6/2009				
Project: UTAH-UINTAH			Site: NBU 922-29M PAD			Rig Name No: SWABBCO 6/6		
Event: WELL WORK EXPENSE			Start Date: 8/3/2011			End Date: 8/8/2011		
Active Datum: RKB @5,029.00ft (above Mean Sea Level)				UWI: SE/SE/0/9/S/22/E/30/0/0/26/PM/S/572.00/W/0/520.00/0/0				
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation
8/3/2011	12:00 - 18:00	6.00	WO/REP	48		P		JSA= WELL CONTROL
	18:00 - 18:00	0.00	WO/REP	30		P		FWP= 200 PSI MIRU CONTROL WELL W/ TMAC ND WELLHEAD NU BOPS UNLAND TUBING POOH W/ 285 JNTS 2-3/8" L-80 LD 44 JNS DUE TO INT SCALE LD BHA PREP F/ W/L IN AM
8/4/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= W/L SAFETY
	7:15 - 18:00	10.75	WO/REP	30		P		SIWP= 700# RU W/L RIH W/ GAUGE RING TO 7250' POOH PU CIBP SET @ 7230' POOH DUMP BAIL 2 SKS CEM ON PLG POOH FILL W/ TMAC PRESS TEST TO 500# ND BOPS ND WELLHEAD PU INT CUTTER CUT BELOW 4' PUP POOH PU OVERSHOT ATTEMPT TO B/O @ 1ST COLLAR BACKED OFF 3 JNTS DOWN POOH 1ST JNT 12500# TORQUE TO BREAK CHECK ALL JNTS RIH PU 10' PUP & JNT RIH TORQUE ALL TO 7000# NU TESTER PULL 90000# TEST TO 3500# LOST 19# SET SLIPS W/ 90000# HOOK LOAD NU WELL HEAD NU BOPS SIW SDFN
8/5/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= FOAMING
	7:15 - 17:00	9.75	WO/REP	30		P		SIWP=0 PSI PU 3-7/8" ROCK BIT RIH TAG CEM @ 7200' EST CIRC W/ FOAMER C/O & DRILL THRU CEM TO CIBP @ 7230' DRILL THRU CIBP IN 30 MIN CIRC CLEAN CONTINUE TO RIH TAG @ 9050' EST CIRC W/ FOAMER C/O & DRILL TO 9373' CIRC CLEAN POOH SIW SDFN
8/8/2011	7:00 - 7:15	0.25	WO/REP	48		P		JSA= WELL CONTROL
	7:15 - 17:00	9.75	WO/REP	30		P		SIWP= 1000# OPEN WELL TO FBT PMP 20 BBLS TMAC TO CONTROL WELL CONTINUE TO POOH W/ BIT LD BHA PU NOTCHED 1.87XN NPL RIH W/ 143 JNTS PU BROACH RIH TO XN NPL, CONTINUE TO RIH LAND TUBING ON HNGR W/ 285 JNTS EOT @ 9050.61' PU RIH W/ BROACH TO 5000' RD FLOOR & TUBING EQUIP ND BOPS NU WELLHEAD SIW RD RIG

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

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

Well Name: NBU 922-29M3CS

Api No: 43-047-50342 Lease Type: STATE

Section 29 Township 09S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

SPUDDED:

Date 09/03/2009

Time 11:15 AM

How DRY

Drilling will Commence: _____

Reported by KENNY MORRIS

Telephone # (435) 828-1691

Date 09/03/2009 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
4304750357	NBU 922-29M4DS		SWSW	29	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	9/3/2009		<u>9/21/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 09/03/2009 AT 13:00 HRS. <u>BHL = SWSW</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750342	NBU 922-29M3CS		SWSW	29	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	9/3/2009		<u>9/21/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 09/03/2009 AT 11:15 HRS. <u>BHL = SWSW</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750343	NBU 922-29M2DS		SWSW	29	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
<u>B</u>	99999	<u>2900</u>	9/3/2009		<u>9/21/09</u>		
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 09/03/2009 AT 9:15 HRS. <u>BHL = SWSW</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
SEP 03 2009

ANDY LYTLE

Name (Please Print)

Signature [Signature]

REGULATORY ANALYST

9/3/2009

Title

Date

DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

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

Well Name: NBU 922-29M3CS

Api No: 43-047-50342 Lease Type: STATE

Section 29 Township 09S Range 22E County UINTAH

Drilling Contractor PETE MARTIN DRLG RIG # BUCKET

SPUDDED:

Date 09/03/2009

Time 11:15 AM

How DRY

Drilling will Commence: _____

Reported by KENNY MORRIS

Telephone # (435) 828-1691

Date 09/03/2009 Signed CHD

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

FORM 6

ENTITY ACTION FORM

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

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750357	NBU 922-29M4DS		SWSW	29	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	9/3/2009			<u>9/21/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 09/03/2009 AT 13:00 HRS. <u>BHL = SWSW</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750342	NBU 922-29M3CS		SWSW	29	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	9/3/2009			<u>9/21/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 09/03/2009 AT 11:15 HRS. <u>BHL = SWSW</u>							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750343	NBU 922-29M2DS		SWSW	29	9S	22E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	9/3/2009			<u>9/21/09</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSMVD</u> SPUD WELL LOCATION ON 09/03/2009 AT 9:15 HRS. <u>BHL = SWSW</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
SEP 03 2009

ANDY LYTLE

Name (Please Print)

Signature 

REGULATORY ANALYST

Title

9/3/2009

Date