

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

FORM 3

AMENDED REPORT 

<b>APPLICATION FOR PERMIT TO DRILL</b>						<b>1. WELL NAME and NUMBER</b> NBU 922-34D2DS	
<b>2. TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						<b>3. FIELD OR WILDCAT</b> NATURAL BUTTES	
<b>4. TYPE OF WELL</b> Gas Well Coalbed Methane Well: NO						<b>5. UNIT or COMMUNITIZATION AGREEMENT NAME</b> NATURAL BUTTES	
<b>6. NAME OF OPERATOR</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.						<b>7. OPERATOR PHONE</b> 720 929-6587	
<b>8. ADDRESS OF OPERATOR</b> P.O. Box 173779, Denver, CO, 80217						<b>9. OPERATOR E-MAIL</b> mary.mondragon@anadarko.com	
<b>10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTU 0149077			<b>11. MINERAL OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			<b>12. SURFACE OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
<b>13. NAME OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>14. SURFACE OWNER PHONE (if box 12 = 'fee')</b>	
<b>15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>						<b>16. SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>	
<b>17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>			<b>18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			<b>19. SLANT</b> VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>	
<b>20. LOCATION OF WELL</b>	<b>FOOTAGES</b>	<b>QTR-QTR</b>	<b>SECTION</b>	<b>TOWNSHIP</b>	<b>RANGE</b>	<b>MERIDIAN</b>	
<b>LOCATION AT SURFACE</b>	2025 FNL 452 FWL	SWNW	34	9.0 S	22.0 E	S	
<b>Top of Uppermost Producing Zone</b>	531 FNL 556 FWL	NWNW	34	9.0 S	22.0 E	S	
<b>At Total Depth</b>	531 FNL 556 FWL	NWNW	34	9.0 S	22.0 E	S	
<b>21. COUNTY</b> UINTAH			<b>22. DISTANCE TO NEAREST LEASE LINE (Feet)</b> 531			<b>23. NUMBER OF ACRES IN DRILLING UNIT</b> 600	
			<b>25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 360			<b>26. PROPOSED DEPTH</b> MD: 9345 TVD: 9000	
<b>27. ELEVATION - GROUND LEVEL</b> 4948			<b>28. BOND NUMBER</b> WYB000291			<b>29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> Permit #43-8496	
<b>ATTACHMENTS</b>							
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>							
<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			
<b>NAME</b> Kathy Schneebeck-Dulnoan			<b>TITLE</b> Staff Regulatory Analyst			<b>PHONE</b> 720 929-6007	
<b>SIGNATURE</b>			<b>DATE</b> 07/23/2009			<b>EMAIL</b> Kathy.SchneebeckDulnoan@anadarko.com	
<b>API NUMBER ASSIGNED</b> 43047506040000			<b>APPROVAL</b>  Permit Manager				

<b>Proposed Hole, Casing, and Cement</b>						
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Prod	7.875	4.5	0	9345		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade I-80 LT&C	9345	11.6			

<b>Proposed Hole, Casing, and Cement</b>						
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Top (MD)</b>	<b>Bottom (MD)</b>		
Surf	12.25	9.625	0	2275		
<b>Pipe</b>	<b>Grade</b>	<b>Length</b>	<b>Weight</b>			
	Grade J-55 LT&C	2275	36.0			





# **ANADARKO PETROLEUM CORP.**

**UINTAH COUNTY, UTAH (nad 27)**

**NBU 922-34E PAD**

**NBU 922-34D2DS**

**NBU 922-34D2DS**

**Plan: Design #1**

## **Standard Planning Report**

**20 July, 2009**



**Weatherford®**



WELL DETAILS: NBU 922-34D2DS						
+N/-S	+E/-W	Northing	Ground Level: Easting	4948.00 Latitude	Longitude	Slot
0.00	0.00	14527814.06	2079235.08	39° 59' 39.368 N	109° 25' 59.819 W	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1300.00	1300.00	Green River
4427.00	4661.91	Wasatch
7832.00	8177.24	Mesaverde

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	
3184.26	29.53	3.96	3141.26	247.46	17.13	3.00	3.96	248.06	
5114.14	29.53	3.96	4820.49	1196.32	82.81	0.00	0.00	1199.19	
6295.24	0.00	0.00	5950.00	1493.28	103.37	2.50	180.00	1496.85	
9345.24	0.00	0.00	9000.00	1493.28	103.37	0.00	0.00	1496.85	PBHL_ NBU 922-34D2DS

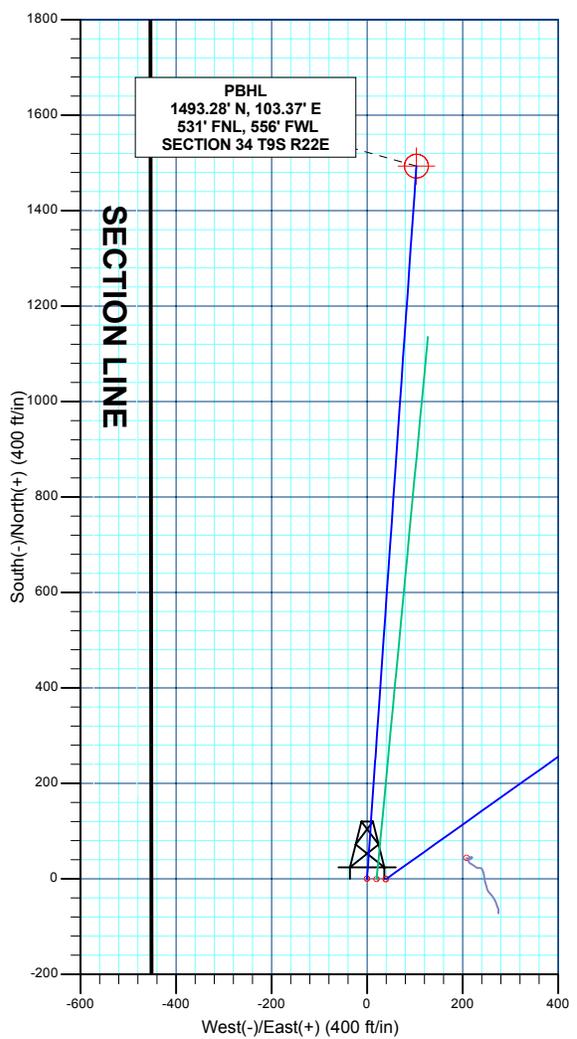
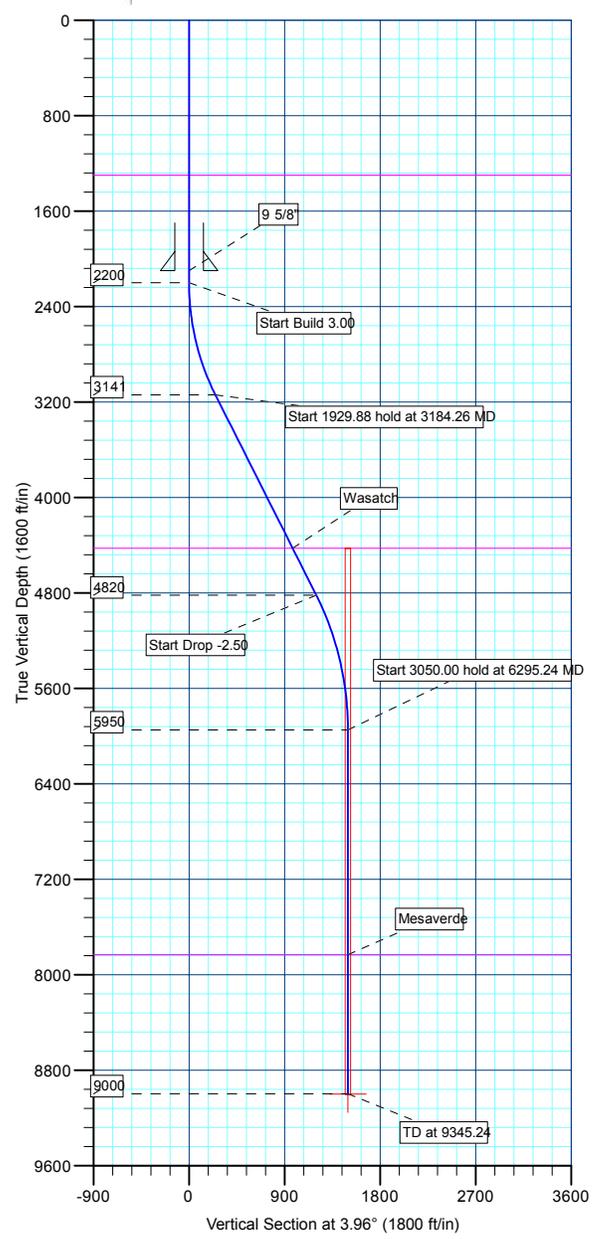
CASING DETAILS			
TVD	MD	Name	Size
2100.00	2100.00	9 5/8"	9.62

WELLBORE TARGET DETAILS (LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	9000.00	1493.28	103.37	39° 59' 54.128 N	109° 25' 58.490 W	Circle (Radius: 25.00)



WELL @ 4966.00ft (Original Well Elev)  
 GRD ELEV: 4948.00

**ANTI-COLLISION WARNING: THE PLAN CONVERGES WITH THE NBU 922-34D3AS FROM 4112.09' TO 4721.17' TVD. THE CLOSEST POINT IS AT 4677.31' TVD.**





<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site:</b>	NBU 922-34E PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-34D2DS		
<b>Design:</b>	Design #1		

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

<b>Site</b>	NBU 922-34E PAD, SECTION 34 T9S R22E				
<b>Site Position:</b>		<b>Northing:</b>	14,527,814.03ft	<b>Latitude:</b>	39° 59' 39.361 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,079,274.59ft	<b>Longitude:</b>	109° 25' 59.311 W
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in	<b>Grid Convergence:</b>	1.01 °

<b>Well</b>	NBU 922-34D2DS					
<b>Well Position</b>	<b>+N/-S</b>	0.73 ft	<b>Northing:</b>	14,527,814.06 ft	<b>Latitude:</b>	39° 59' 39.368 N
	<b>+E/-W</b>	-39.50 ft	<b>Easting:</b>	2,079,235.08 ft	<b>Longitude:</b>	109° 25' 59.819 W
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	4,948.00 ft

<b>Wellbore</b>	NBU 922-34D2DS				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2009	2/23/2009	11.38	65.96	52,571

<b>Design</b>	Design #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	3.96

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,184.26	29.53	3.96	3,141.26	247.46	17.13	3.00	3.00	0.00	3.96	
5,114.14	29.53	3.96	4,820.49	1,196.32	82.81	0.00	0.00	0.00	0.00	
6,295.24	0.00	0.00	5,950.00	1,493.28	103.37	2.50	-2.50	0.00	180.00	
9,345.24	0.00	0.00	9,000.00	1,493.28	103.37	0.00	0.00	0.00	0.00	PBHL_ NBU 922-34



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site:</b>	NBU 922-34E PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-34D2DS		
<b>Design:</b>	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)
<b>Start Build 3.00</b>									
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	3.00	3.96	2,299.95	2.61	0.18	2.62	3.00	3.00	0.00
2,400.00	6.00	3.96	2,399.63	10.44	0.72	10.46	3.00	3.00	0.00
2,500.00	9.00	3.96	2,498.77	23.46	1.62	23.51	3.00	3.00	0.00
2,600.00	12.00	3.96	2,597.08	41.64	2.88	41.74	3.00	3.00	0.00
2,700.00	15.00	3.96	2,694.31	64.92	4.49	65.08	3.00	3.00	0.00
2,800.00	18.00	3.96	2,790.18	93.25	6.46	93.48	3.00	3.00	0.00
2,900.00	21.00	3.96	2,884.43	126.55	8.76	126.85	3.00	3.00	0.00
3,000.00	24.00	3.96	2,976.81	164.72	11.40	165.12	3.00	3.00	0.00
3,100.00	27.00	3.96	3,067.06	207.67	14.37	208.16	3.00	3.00	0.00
<b>Start 1929.88 hold at 3184.26 MD</b>									
3,184.26	29.53	3.96	3,141.26	247.46	17.13	248.06	3.00	3.00	0.00
3,200.00	29.53	3.96	3,154.96	255.21	17.67	255.82	0.00	0.00	0.00
3,300.00	29.53	3.96	3,241.97	304.37	21.07	305.10	0.00	0.00	0.00
3,400.00	29.53	3.96	3,328.99	353.54	24.47	354.38	0.00	0.00	0.00
3,500.00	29.53	3.96	3,416.00	402.71	27.88	403.67	0.00	0.00	0.00
3,600.00	29.53	3.96	3,503.01	451.87	31.28	452.95	0.00	0.00	0.00
3,700.00	29.53	3.96	3,590.02	501.04	34.68	502.24	0.00	0.00	0.00
3,800.00	29.53	3.96	3,677.03	550.21	38.09	551.52	0.00	0.00	0.00
3,900.00	29.53	3.96	3,764.04	599.37	41.49	600.81	0.00	0.00	0.00
4,000.00	29.53	3.96	3,851.06	648.54	44.89	650.09	0.00	0.00	0.00
4,100.00	29.53	3.96	3,938.07	697.71	48.30	699.38	0.00	0.00	0.00
4,200.00	29.53	3.96	4,025.08	746.87	51.70	748.66	0.00	0.00	0.00
4,300.00	29.53	3.96	4,112.09	796.04	55.10	797.94	0.00	0.00	0.00
4,400.00	29.53	3.96	4,199.10	845.21	58.51	847.23	0.00	0.00	0.00
4,500.00	29.53	3.96	4,286.12	894.37	61.91	896.51	0.00	0.00	0.00
4,600.00	29.53	3.96	4,373.13	943.54	65.31	945.80	0.00	0.00	0.00
<b>Wasatch</b>									
4,661.91	29.53	3.96	4,427.00	973.98	67.42	976.31	0.00	0.00	0.00
4,700.00	29.53	3.96	4,460.14	992.71	68.72	995.08	0.00	0.00	0.00
4,800.00	29.53	3.96	4,547.15	1,041.87	72.12	1,044.37	0.00	0.00	0.00
4,900.00	29.53	3.96	4,634.16	1,091.04	75.52	1,093.65	0.00	0.00	0.00
5,000.00	29.53	3.96	4,721.17	1,140.21	78.93	1,142.93	0.00	0.00	0.00
5,100.00	29.53	3.96	4,808.19	1,189.37	82.33	1,192.22	0.00	0.00	0.00
<b>Start Drop -2.50</b>									
5,114.14	29.53	3.96	4,820.49	1,196.32	82.81	1,199.19	0.00	0.00	0.00
5,200.00	27.38	3.96	4,895.97	1,237.13	85.64	1,240.09	2.50	-2.50	0.00
5,300.00	24.88	3.96	4,985.74	1,281.07	88.68	1,284.13	2.50	-2.50	0.00
5,400.00	22.38	3.96	5,077.35	1,321.05	91.45	1,324.21	2.50	-2.50	0.00
5,500.00	19.88	3.96	5,170.62	1,357.01	93.93	1,360.26	2.50	-2.50	0.00
5,600.00	17.38	3.96	5,265.37	1,388.88	96.14	1,392.21	2.50	-2.50	0.00
5,700.00	14.88	3.96	5,361.43	1,416.60	98.06	1,419.99	2.50	-2.50	0.00
5,800.00	12.38	3.96	5,458.60	1,440.11	99.69	1,443.55	2.50	-2.50	0.00
5,900.00	9.88	3.96	5,556.71	1,459.36	101.02	1,462.86	2.50	-2.50	0.00
6,000.00	7.38	3.96	5,655.57	1,474.33	102.06	1,477.86	2.50	-2.50	0.00
6,100.00	4.88	3.96	5,754.99	1,484.99	102.79	1,488.54	2.50	-2.50	0.00
6,200.00	2.38	3.96	5,854.79	1,491.31	103.23	1,494.88	2.50	-2.50	0.00
<b>Start 3050.00 hold at 6295.24 MD</b>									
6,295.24	0.00	0.00	5,950.00	1,493.28	103.37	1,496.85	2.50	-2.50	0.00
6,300.00	0.00	0.00	5,954.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
6,400.00	0.00	0.00	6,054.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
6,500.00	0.00	0.00	6,154.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00



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<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site:</b>	NBU 922-34E PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-34D2DS		
<b>Design:</b>	Design #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,600.00	0.00	0.00	6,254.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
6,700.00	0.00	0.00	6,354.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
6,800.00	0.00	0.00	6,454.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
6,900.00	0.00	0.00	6,554.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,000.00	0.00	0.00	6,654.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,100.00	0.00	0.00	6,754.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,200.00	0.00	0.00	6,854.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,300.00	0.00	0.00	6,954.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,400.00	0.00	0.00	7,054.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,500.00	0.00	0.00	7,154.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,600.00	0.00	0.00	7,254.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,700.00	0.00	0.00	7,354.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,800.00	0.00	0.00	7,454.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
7,900.00	0.00	0.00	7,554.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,000.00	0.00	0.00	7,654.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,100.00	0.00	0.00	7,754.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
<b>Mesaverde</b>									
8,177.24	0.00	0.00	7,832.00	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,200.00	0.00	0.00	7,854.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,300.00	0.00	0.00	7,954.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,400.00	0.00	0.00	8,054.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,500.00	0.00	0.00	8,154.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,600.00	0.00	0.00	8,254.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,700.00	0.00	0.00	8,354.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,800.00	0.00	0.00	8,454.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
8,900.00	0.00	0.00	8,554.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
9,000.00	0.00	0.00	8,654.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
9,100.00	0.00	0.00	8,754.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
9,200.00	0.00	0.00	8,854.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
9,300.00	0.00	0.00	8,954.76	1,493.28	103.37	1,496.85	0.00	0.00	0.00
<b>TD at 9345.24 - PBHL_ NBU 922-34D2DS</b>									
9,345.24	0.00	0.00	9,000.00	1,493.28	103.37	1,496.85	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 922-34D - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	9,000.00	1,493.28	103.37	14,529,308.93	2,079,312.18	39° 59' 54.128 N	109° 25' 58.490 W

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



<b>Database:</b>	EDM 2003.21 Single User Db	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site:</b>	NBU 922-34E PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	NBU 922-34D2DS		
<b>Design:</b>	Design #1		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,300.00	1,300.00	Green River				
4,661.91	4,427.00	Wasatch				
8,177.24	7,832.00	Mesaverde				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
2,200.00	2,200.00	0.00	0.00	Start Build 3.00	
3,184.26	3,141.26	247.46	17.13	Start 1929.88 hold at 3184.26 MD	
5,114.14	4,820.49	1,196.32	82.81	Start Drop -2.50	
6,295.24	5,950.00	1,493.28	103.37	Start 3050.00 hold at 6295.24 MD	
9,345.24	9,000.00	1,493.28	103.37	TD at 9345.24	



# **ANADARKO PETROLEUM CORP.**

**UINTAH COUNTY, UTAH (nad 27)  
NBU 922-34E PAD  
NBU 922-34D2DS**

**NBU 922-34D2DS  
Design #1**

## **Anticollision Report**

**20 July, 2009**





<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

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

<b>Survey Tool Program</b>	Date 2/23/2009			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	9,345.24	Design #1 ( NBU 922-34D2DS)	MWD	MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (ft)</b>	<b>Offset Measured Depth (ft)</b>	<b>Distance Between Centres (ft)</b>	<b>Distance Between Ellipses (ft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
NBU 922-34E PAD						
CIGE 117 - CIGE 117 EXISTING - CIGE 117 EXISTING	0.00	0.00	212.98			
CIGE 117 - CIGE 117 EXISTING - CIGE 117 EXISTING	1,600.00	1,600.00	215.64	209.40	34.562	ES
CIGE 117 - CIGE 117 EXISTING - CIGE 117 EXISTING	2,800.00	2,787.07	247.88	236.06	20.964	SF
NBU 922-34C3DS - NBU 922-34C3DS - Design #1	2,100.00	2,100.00	39.51	30.33	4.306	CC, ES, SF
NBU 922-34D3AS - NBU 922-34D3AS - Design #1	2,100.00	2,100.00	20.18	11.01	2.200	CC
NBU 922-34D3AS - NBU 922-34D3AS - Design #1	4,949.58	4,963.60	48.19	3.18	1.071	Level 2, ES, SF

<b>Offset Design</b>													<b>Offset Site Error:</b>	0.00 ft
NBU 922-34E PAD - CIGE 117 - CIGE 117 EXISTING - CIGE 117 EXISTING													<b>Offset Well Error:</b>	0.00 ft
Survey Program: 100-NS-GYRO-MS														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	78.17	43.67	208.46	212.98					
100.00	100.00	99.32	99.32	0.09	0.11	78.28	43.31	208.69	213.14	212.94	0.20	1,063.880		
200.00	200.00	196.69	196.68	0.32	0.35	78.48	42.76	209.73	214.08	213.41	0.67	319.854		
300.00	300.00	298.38	298.36	0.54	0.61	78.78	41.88	211.15	215.27	214.11	1.15	186.600		
400.00	400.00	398.99	398.95	0.77	0.87	79.21	40.40	212.07	215.89	214.25	1.64	131.763		
500.00	500.00	498.44	498.39	0.99	1.07	79.38	39.89	212.79	216.50	214.44	2.06	105.113		
600.00	600.00	595.81	595.75	1.22	1.24	79.22	40.75	213.95	217.84	215.38	2.46	88.715		
700.00	700.00	696.24	696.16	1.44	1.47	79.12	41.48	215.73	219.72	216.81	2.91	75.571		
800.00	800.00	796.40	796.31	1.67	1.71	79.08	41.95	217.38	221.42	218.05	3.37	65.624		
900.00	900.00	895.58	895.47	1.89	1.94	78.92	42.92	219.05	223.26	219.43	3.83	58.264		
1,000.00	1,000.00	999.20	999.07	2.12	2.14	78.65	44.17	220.14	224.53	220.27	4.26	52.743		
1,100.00	1,100.00	1,100.93	1,100.80	2.34	2.26	78.39	45.20	219.96	224.55	219.95	4.60	48.789		
1,200.00	1,200.00	1,203.99	1,203.85	2.56	2.33	78.23	45.60	218.77	223.51	218.61	4.90	45.633		
1,300.00	1,300.00	1,305.99	1,305.83	2.79	2.40	78.20	45.24	216.56	221.31	216.13	5.19	42.666		
1,400.00	1,400.00	1,406.59	1,406.39	3.01	2.49	78.29	44.33	213.84	218.47	212.97	5.50	39.714		
1,500.00	1,500.00	1,503.44	1,503.18	3.24	2.61	78.85	41.82	212.16	216.27	210.42	5.85	36.972		
1,586.61	1,586.61	1,586.92	1,586.61	3.43	2.75	79.64	38.79	212.11	215.63	209.44	6.19	34.852		
1,600.00	1,600.00	1,600.00	1,599.68	3.46	2.78	79.76	38.34	212.21	215.64	209.40	6.24	34.562 ES		
1,700.00	1,700.00	1,698.38	1,698.01	3.69	2.97	80.59	35.33	213.31	216.22	209.56	6.66	32.463		
1,800.00	1,800.00	1,795.79	1,795.37	3.91	3.18	81.32	32.85	215.20	217.74	210.64	7.10	30.679		
1,900.00	1,900.00	1,893.97	1,893.49	4.14	3.41	81.91	30.98	218.01	220.29	212.75	7.55	29.189		

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



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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			
2,000.00	2,000.00	1,995.48	1,994.94	4.36	3.65	82.42	29.42	220.94	222.95	214.94	8.01	27.835			
2,100.00	2,100.00	2,094.40	2,093.81	4.59	3.88	82.95	27.67	223.64	225.43	216.96	8.47	26.613			
2,200.00	2,200.00	2,196.47	2,195.83	4.81	4.13	83.47	25.91	226.24	227.76	218.82	8.94	25.471			
2,300.00	2,299.95	2,293.93	2,293.25	5.04	4.37	80.62	24.01	228.73	229.64	220.24	9.40	24.422			
2,400.00	2,399.63	2,389.68	2,388.91	5.27	4.60	82.76	22.76	232.44	232.29	222.44	9.86	23.569			
2,500.00	2,498.77	2,490.23	2,489.36	5.49	4.84	85.94	22.60	236.89	235.46	225.13	10.32	22.807			
2,600.00	2,597.08	2,593.48	2,592.56	5.73	5.09	90.66	21.45	239.92	237.94	227.12	10.82	21.997			
2,700.00	2,694.31	2,691.44	2,690.48	6.00	5.33	96.48	19.30	241.28	241.18	229.86	11.32	21.314			
2,800.00	2,790.18	2,787.07	2,786.08	6.32	5.55	103.01	17.01	242.28	247.88	236.06	11.82	20.964 SF			
2,900.00	2,884.43	2,880.68	2,879.66	6.70	5.77	109.88	14.71	243.12	259.73	247.39	12.33	21.056			
3,000.00	2,976.81	2,972.24	2,971.19	7.15	5.98	116.68	12.43	243.87	277.97	265.14	12.83	21.669			
3,100.00	3,067.06	3,061.70	3,060.62	7.69	6.19	123.08	10.18	244.51	303.32	290.04	13.28	22.836			
3,184.26	3,141.26	3,135.18	3,134.07	8.21	6.36	127.99	8.31	244.91	330.35	316.72	13.63	24.240			
3,200.00	3,154.96	3,148.73	3,147.61	8.31	6.39	128.98	7.96	244.97	335.94	322.24	13.70	24.521			
3,300.00	3,241.97	3,234.17	3,233.03	9.00	6.59	134.65	5.72	245.27	373.55	359.40	14.15	26.402			
3,400.00	3,328.99	3,318.48	3,317.30	9.74	6.78	139.35	3.25	245.56	414.39	399.80	14.59	28.394			
3,500.00	3,416.00	3,402.39	3,401.16	10.50	6.97	143.28	0.48	245.86	457.74	442.70	15.04	30.434			
3,600.00	3,503.01	3,485.49	3,484.21	11.29	7.17	146.55	-2.53	246.35	503.08	487.58	15.50	32.459			
3,700.00	3,590.02	3,568.33	3,566.98	12.11	7.37	149.29	-5.75	247.18	550.02	534.06	15.96	34.452			
3,800.00	3,677.03	3,653.14	3,651.71	12.94	7.58	151.66	-9.23	248.28	598.16	581.71	16.44	36.381			
3,900.00	3,764.04	3,739.41	3,737.90	13.78	7.79	153.75	-12.68	249.24	646.87	629.95	16.93	38.218			
4,000.00	3,851.06	3,826.60	3,825.03	14.64	8.01	155.58	-16.02	250.02	695.99	678.57	17.42	39.957			
4,100.00	3,938.07	3,916.16	3,914.54	15.51	8.23	157.20	-19.02	250.80	745.15	727.23	17.92	41.577			
4,200.00	4,025.08	4,005.97	4,004.31	16.38	8.46	158.61	-21.46	251.61	794.19	775.75	18.44	43.080			
4,300.00	4,112.09	4,090.39	4,088.70	17.26	8.67	159.78	-23.59	252.47	843.38	824.43	18.96	44.489			
4,400.00	4,199.10	4,174.69	4,172.97	18.15	8.89	160.81	-25.83	253.46	892.97	873.48	19.48	45.830			
4,500.00	4,286.12	4,260.64	4,258.88	19.04	9.11	161.73	-28.14	254.72	942.84	922.82	20.02	47.093			
4,600.00	4,373.13	4,347.56	4,345.75	19.94	9.33	162.54	-30.28	256.49	992.79	972.22	20.57	48.271			
4,700.00	4,460.14	4,433.95	4,432.08	20.84	9.56	163.24	-32.24	258.71	1,042.78	1,021.66	21.12	49.372			
4,800.00	4,547.15	4,519.08	4,517.18	21.74	9.78	163.88	-34.23	260.67	1,092.91	1,071.23	21.68	50.420			
4,900.00	4,634.16	4,604.02	4,602.07	22.65	10.00	164.49	-36.35	262.25	1,143.20	1,120.97	22.23	51.424			
5,000.00	4,721.17	4,688.06	4,686.06	23.56	10.22	165.04	-38.56	263.71	1,193.68	1,170.89	22.79	52.382			
5,100.00	4,808.19	4,771.98	4,769.94	24.47	10.44	165.55	-40.88	265.29	1,244.37	1,221.02	23.35	53.296			
5,114.14	4,820.49	4,783.83	4,781.78	24.60	10.47	165.62	-41.21	265.52	1,251.55	1,228.12	23.43	53.422			
5,200.00	4,895.97	4,858.33	4,856.24	25.28	10.66	166.30	-43.34	266.94	1,293.85	1,269.76	24.09	53.711			
5,300.00	4,985.74	4,947.63	4,945.50	25.93	10.89	167.00	-45.88	268.31	1,339.66	1,314.85	24.81	53.991			
5,400.00	5,077.35	5,038.43	5,036.25	26.54	11.13	167.59	-48.47	269.37	1,381.65	1,356.14	25.51	54.171			
5,500.00	5,170.62	5,130.35	5,128.12	27.11	11.37	168.09	-51.12	270.30	1,419.77	1,393.61	26.16	54.271			
5,600.00	5,265.37	5,224.80	5,222.54	27.63	11.61	168.51	-53.86	271.17	1,453.95	1,427.18	26.78	54.296			
5,700.00	5,361.43	5,323.66	5,321.36	28.09	11.86	168.86	-56.56	272.10	1,483.95	1,456.59	27.36	54.238			
5,800.00	5,458.60	5,423.87	5,421.53	28.50	12.12	169.14	-59.04	273.10	1,509.60	1,481.71	27.89	54.117			
5,900.00	5,556.71	5,525.04	5,522.66	28.85	12.39	169.35	-61.31	274.12	1,530.87	1,502.49	28.38	53.939			
6,000.00	5,655.57	5,624.42	5,622.02	29.14	12.64	169.51	-63.33	275.07	1,547.74	1,518.93	28.80	53.733			
6,100.00	5,754.99	5,716.78	5,714.35	29.37	12.87	169.62	-65.50	275.56	1,560.61	1,531.47	29.14	53.554			
6,200.00	5,854.79	5,811.07	5,808.61	29.54	13.10	169.71	-68.17	275.54	1,569.65	1,540.23	29.42	53.356			
6,295.24	5,950.00	5,914.45	5,911.94	29.65	13.35	173.73	-70.99	275.30	1,574.15	1,544.50	29.65	53.094			
6,300.00	5,954.76	5,919.62	5,917.11	29.65	13.36	173.73	-71.11	275.28	1,574.26	1,544.60	29.67	53.064			
6,400.00	6,054.76	5,970.00	5,967.48	29.74	13.48	173.74	-72.27	275.18	1,577.37	1,547.42	29.95	52.667			
6,500.00	6,154.76	5,970.00	5,967.48	29.84	13.48	173.74	-72.27	275.18	1,586.05	1,555.93	30.12	52.664			
6,600.00	6,254.76	5,970.00	5,967.48	29.93	13.48	173.74	-72.27	275.18	1,600.94	1,570.65	30.28	52.865			
6,700.00	6,354.76	5,970.00	5,967.48	30.03	13.48	173.74	-72.27	275.18	1,621.87	1,591.42	30.45	53.259			
6,800.00	6,454.76	5,970.00	5,967.48	30.12	13.48	173.74	-72.27	275.18	1,648.61	1,617.99	30.62	53.836			

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



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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			
6,900.00	6,554.76	5,970.00	5,967.48	30.22	13.48	173.74	-72.27	275.18	1,680.88	1,650.09	30.79	54.584			
7,000.00	6,654.76	5,970.00	5,967.48	30.32	13.48	173.74	-72.27	275.18	1,718.38	1,687.41	30.97	55.490			
7,100.00	6,754.76	5,970.00	5,967.48	30.42	13.48	173.74	-72.27	275.18	1,760.76	1,729.62	31.14	56.542			
7,200.00	6,854.76	5,970.00	5,967.48	30.53	13.48	173.74	-72.27	275.18	1,807.69	1,776.37	31.32	57.724			
7,300.00	6,954.76	5,970.00	5,967.48	30.63	13.48	173.74	-72.27	275.18	1,858.81	1,827.32	31.49	59.025			
7,400.00	7,054.76	5,970.00	5,967.48	30.73	13.48	173.74	-72.27	275.18	1,913.80	1,882.13	31.67	60.431			
7,500.00	7,154.76	5,970.00	5,967.48	30.84	13.48	173.74	-72.27	275.18	1,972.33	1,940.49	31.85	61.931			
7,600.00	7,254.76	5,970.00	5,967.48	30.95	13.48	173.74	-72.27	275.18	2,034.10	2,002.07	32.03	63.512			
7,700.00	7,354.76	5,970.00	5,967.48	31.06	13.48	173.74	-72.27	275.18	2,098.81	2,066.60	32.21	65.166			
7,800.00	7,454.76	5,970.00	5,967.48	31.17	13.48	173.74	-72.27	275.18	2,166.21	2,133.82	32.39	66.883			
7,900.00	7,554.76	5,970.00	5,967.48	31.28	13.48	173.74	-72.27	275.18	2,236.05	2,203.48	32.57	68.653			
8,000.00	7,654.76	5,970.00	5,967.48	31.39	13.48	173.74	-72.27	275.18	2,308.11	2,275.36	32.75	70.470			
8,100.00	7,754.76	5,970.00	5,967.48	31.51	13.48	173.74	-72.27	275.18	2,382.19	2,349.25	32.94	72.326			
8,200.00	7,854.76	5,970.00	5,967.48	31.62	13.48	173.74	-72.27	275.18	2,458.11	2,424.98	33.12	74.214			
8,300.00	7,954.76	5,970.00	5,967.48	31.74	13.48	173.74	-72.27	275.18	2,535.69	2,502.39	33.31	76.130			
8,400.00	8,054.76	5,970.00	5,967.48	31.85	13.48	173.74	-72.27	275.18	2,614.80	2,581.31	33.49	78.069			
8,500.00	8,154.76	5,970.00	5,967.48	31.97	13.48	173.74	-72.27	275.18	2,695.30	2,661.62	33.68	80.025			
8,600.00	8,254.76	5,970.00	5,967.48	32.09	13.48	173.74	-72.27	275.18	2,777.07	2,743.20	33.87	81.995			
8,700.00	8,354.76	5,970.00	5,967.48	32.21	13.48	173.74	-72.27	275.18	2,859.99	2,825.94	34.06	83.976			
8,800.00	8,454.76	5,970.00	5,967.48	32.33	13.48	173.74	-72.27	275.18	2,943.98	2,909.73	34.25	85.964			
8,900.00	8,554.76	5,970.00	5,967.48	32.46	13.48	173.74	-72.27	275.18	3,028.94	2,994.50	34.44	87.957			
9,000.00	8,654.76	5,970.00	5,967.48	32.58	13.48	173.74	-72.27	275.18	3,114.79	3,080.16	34.63	89.952			
9,100.00	8,754.76	5,970.00	5,967.48	32.71	13.48	173.74	-72.27	275.18	3,201.47	3,166.65	34.82	91.947			
9,200.00	8,854.76	5,970.00	5,967.48	32.83	13.48	173.74	-72.27	275.18	3,288.90	3,253.89	35.01	93.940			
9,300.00	8,954.76	5,970.00	5,967.48	32.96	13.48	173.74	-72.27	275.18	3,377.02	3,341.82	35.20	95.929			
9,345.24	9,000.00	5,970.00	5,967.48	33.02	13.48	173.74	-72.27	275.18	3,417.11	3,381.82	35.29	96.828			



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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			
0.00	0.00	0.00	0.00	0.00	0.00	91.06	-0.73	39.50	39.51						
100.00	100.00	100.00	100.00	0.09	0.09	91.06	-0.73	39.50	39.51	39.32	0.18	214.353			
200.00	200.00	200.00	200.00	0.32	0.32	91.06	-0.73	39.50	39.51	38.87	0.63	62.330			
300.00	300.00	300.00	300.00	0.54	0.54	91.06	-0.73	39.50	39.51	38.42	1.08	36.467			
400.00	400.00	400.00	400.00	0.77	0.77	91.06	-0.73	39.50	39.51	37.97	1.53	25.773			
500.00	500.00	500.00	500.00	0.99	0.99	91.06	-0.73	39.50	39.51	37.52	1.98	19.928			
600.00	600.00	600.00	600.00	1.22	1.22	91.06	-0.73	39.50	39.51	37.08	2.43	16.245			
700.00	700.00	700.00	700.00	1.44	1.44	91.06	-0.73	39.50	39.51	36.63	2.88	13.711			
800.00	800.00	800.00	800.00	1.67	1.67	91.06	-0.73	39.50	39.51	36.18	3.33	11.860			
900.00	900.00	900.00	900.00	1.89	1.89	91.06	-0.73	39.50	39.51	35.73	3.78	10.450			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	91.06	-0.73	39.50	39.51	35.28	4.23	9.339			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	91.06	-0.73	39.50	39.51	34.83	4.68	8.442			
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	91.06	-0.73	39.50	39.51	34.38	5.13	7.702			
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	91.06	-0.73	39.50	39.51	33.93	5.58	7.082			
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	91.06	-0.73	39.50	39.51	33.48	6.03	6.554			
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	91.06	-0.73	39.50	39.51	33.03	6.48	6.099			
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	91.06	-0.73	39.50	39.51	32.58	6.93	5.703			
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	91.06	-0.73	39.50	39.51	32.13	7.38	5.356			
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	91.06	-0.73	39.50	39.51	31.68	7.83	5.048			
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	91.06	-0.73	39.50	39.51	31.23	8.28	4.774			
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	91.06	-0.73	39.50	39.51	30.78	8.73	4.528			
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	91.06	-0.73	39.50	39.51	30.33	9.17	4.306 CC, ES, SF			
2,200.00	2,200.00	2,198.28	2,198.23	4.81	4.80	88.98	0.74	41.56	41.60	31.99	9.61	4.327			
2,300.00	2,299.95	2,296.16	2,295.81	5.04	5.02	82.78	5.11	47.70	47.77	37.72	10.05	4.754			
2,400.00	2,399.63	2,393.41	2,392.26	5.27	5.24	83.42	12.31	57.83	57.61	47.13	10.48	5.497			
2,500.00	2,498.77	2,489.78	2,487.08	5.49	5.48	85.57	22.25	71.80	71.15	60.22	10.93	6.511			
2,600.00	2,597.08	2,585.01	2,579.81	5.73	5.75	88.18	34.79	89.41	88.50	77.10	11.40	7.761			
2,700.00	2,694.31	2,678.89	2,670.06	6.00	6.05	90.69	49.75	110.44	109.73	97.80	11.93	9.198			
2,800.00	2,790.18	2,771.21	2,757.48	6.32	6.41	92.84	66.95	134.62	134.86	122.32	12.53	10.762			
2,900.00	2,884.43	2,861.82	2,841.78	6.70	6.83	94.58	86.20	161.67	163.79	150.57	13.22	12.386			
3,000.00	2,976.81	2,950.58	2,922.74	7.15	7.31	95.92	107.28	191.29	196.43	182.40	14.03	14.005			
3,100.00	3,067.06	3,037.38	3,000.20	7.69	7.86	96.90	129.99	223.20	232.62	217.67	14.95	15.563			
3,184.26	3,141.26	3,109.99	3,063.59	8.21	8.38	97.51	150.50	252.03	265.73	249.90	15.83	16.790			
3,200.00	3,154.96	3,124.32	3,076.02	8.31	8.49	97.84	154.64	257.85	272.09	256.08	16.01	16.995			
3,300.00	3,241.97	3,215.35	3,154.95	9.00	9.20	99.64	180.94	294.80	312.63	295.41	17.22	18.158			
3,400.00	3,328.99	3,306.38	3,233.88	9.74	9.95	101.02	207.23	331.75	353.37	334.87	18.50	19.100			
3,500.00	3,416.00	3,397.41	3,312.80	10.50	10.73	102.12	233.52	368.70	394.25	374.40	19.85	19.864			
3,600.00	3,503.01	3,488.43	3,391.73	11.29	11.53	103.01	259.81	405.65	435.22	413.98	21.24	20.487			
3,700.00	3,590.02	3,579.46	3,470.66	12.11	12.35	103.75	286.11	442.60	476.27	453.59	22.68	20.999			
3,800.00	3,677.03	3,670.49	3,549.58	12.94	13.19	104.38	312.40	479.54	517.38	493.23	24.15	21.423			
3,900.00	3,764.04	3,761.52	3,628.51	13.78	14.04	104.91	338.69	516.49	558.53	532.88	25.65	21.777			
4,000.00	3,851.06	3,852.55	3,707.44	14.64	14.90	105.37	364.98	553.44	599.71	572.54	27.17	22.075			
4,100.00	3,938.07	3,943.57	3,786.37	15.51	15.76	105.77	391.28	590.39	640.92	612.22	28.71	22.327			
4,200.00	4,025.08	4,034.60	3,865.29	16.38	16.64	106.12	417.57	627.34	682.16	651.90	30.26	22.543			
4,300.00	4,112.09	4,125.63	3,944.22	17.26	17.52	106.43	443.86	664.29	723.41	691.58	31.83	22.728			
4,400.00	4,199.10	4,216.66	4,023.15	18.15	18.41	106.71	470.15	701.24	764.68	731.27	33.41	22.889			
4,500.00	4,286.12	4,307.69	4,102.08	19.04	19.30	106.96	496.45	738.19	805.96	770.96	35.00	23.028			
4,600.00	4,373.13	4,398.71	4,181.00	19.94	20.19	107.18	522.74	775.14	847.25	810.66	36.60	23.150			
4,700.00	4,460.14	4,489.74	4,259.93	20.84	21.09	107.39	549.03	812.09	888.56	850.35	38.20	23.258			
4,800.00	4,547.15	4,580.77	4,338.86	21.74	21.99	107.57	575.32	849.04	929.87	890.05	39.82	23.353			
4,900.00	4,634.16	4,671.80	4,417.79	22.65	22.89	107.74	601.62	885.99	971.19	929.75	41.44	23.437			
5,000.00	4,721.17	4,762.82	4,496.71	23.56	23.80	107.90	627.91	922.94	1,012.51	969.45	43.06	23.513			

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



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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	4,808.19	4,853.85	4,575.64	24.47	24.71	108.04	654.20	959.89	1,053.85	1,009.15	44.69	23.580			
5,114.14	4,820.49	4,866.72	4,586.80	24.60	24.83	108.06	657.92	965.11	1,059.69	1,014.77	44.92	23.589			
5,200.00	4,895.97	4,945.11	4,654.76	25.28	25.62	109.00	680.56	996.93	1,094.72	1,048.35	46.37	23.611			
5,300.00	4,985.74	5,036.87	4,734.33	25.93	26.54	109.83	707.06	1,034.18	1,134.31	1,086.39	47.92	23.670			
5,400.00	5,077.35	5,128.97	4,814.19	26.54	27.46	110.42	733.67	1,071.56	1,172.56	1,123.12	49.44	23.716			
5,500.00	5,170.62	5,221.24	4,894.19	27.11	28.39	110.78	760.32	1,109.01	1,209.48	1,158.57	50.91	23.756			
5,600.00	5,265.37	5,319.79	4,979.71	27.63	29.33	110.89	788.72	1,148.92	1,245.05	1,192.71	52.34	23.787			
5,700.00	5,361.43	5,446.05	5,091.50	28.09	30.30	110.71	822.72	1,196.71	1,277.73	1,224.00	53.73	23.780			
5,800.00	5,458.60	5,576.33	5,210.05	28.50	31.20	110.51	854.01	1,240.69	1,306.59	1,251.58	55.00	23.755			
5,900.00	5,556.71	5,710.40	5,335.05	28.85	32.02	110.27	882.09	1,280.14	1,331.43	1,275.30	56.13	23.720			
6,000.00	5,655.57	5,847.96	5,466.02	29.14	32.73	110.00	906.43	1,314.36	1,352.08	1,294.98	57.09	23.682			
6,100.00	5,754.99	5,988.58	5,602.27	29.37	33.35	109.70	926.57	1,342.65	1,368.36	1,310.47	57.89	23.636			
6,200.00	5,854.79	6,131.79	5,742.94	29.54	33.83	109.38	942.06	1,364.42	1,380.14	1,321.63	58.50	23.591			
6,295.24	5,950.00	6,270.05	5,880.08	29.65	34.17	112.99	952.15	1,378.61	1,387.06	1,328.15	58.92	23.543			
6,300.00	5,954.76	6,277.00	5,886.99	29.65	34.19	112.97	952.53	1,379.14	1,387.30	1,328.37	58.93	23.541			
6,400.00	6,054.76	6,423.69	6,033.39	29.74	34.42	112.66	957.72	1,386.43	1,390.52	1,331.30	59.22	23.481			
6,500.00	6,154.76	6,545.07	6,154.76	29.84	34.53	112.62	958.28	1,387.22	1,390.86	1,331.43	59.43	23.403			
6,600.00	6,254.76	6,645.07	6,254.76	29.93	34.61	112.62	958.28	1,387.22	1,390.86	1,331.24	59.62	23.329			
6,700.00	6,354.76	6,745.07	6,354.76	30.03	34.70	112.62	958.28	1,387.22	1,390.86	1,331.05	59.81	23.254			
6,800.00	6,454.76	6,845.07	6,454.76	30.12	34.79	112.62	958.28	1,387.22	1,390.86	1,330.86	60.01	23.178			
6,900.00	6,554.76	6,945.07	6,554.76	30.22	34.87	112.62	958.28	1,387.22	1,390.86	1,330.66	60.20	23.102			
7,000.00	6,654.76	7,045.07	6,654.76	30.32	34.96	112.62	958.28	1,387.22	1,390.86	1,330.46	60.40	23.026			
7,100.00	6,754.76	7,145.07	6,754.76	30.42	35.05	112.62	958.28	1,387.22	1,390.86	1,330.26	60.61	22.949			
7,200.00	6,854.76	7,245.07	6,854.76	30.53	35.15	112.62	958.28	1,387.22	1,390.86	1,330.05	60.81	22.871			
7,300.00	6,954.76	7,345.07	6,954.76	30.63	35.24	112.62	958.28	1,387.22	1,390.86	1,329.84	61.02	22.793			
7,400.00	7,054.76	7,445.07	7,054.76	30.73	35.33	112.62	958.28	1,387.22	1,390.86	1,329.63	61.23	22.715			
7,500.00	7,154.76	7,545.07	7,154.76	30.84	35.43	112.62	958.28	1,387.22	1,390.86	1,329.42	61.45	22.636			
7,600.00	7,254.76	7,645.07	7,254.76	30.95	35.52	112.62	958.28	1,387.22	1,390.86	1,329.20	61.66	22.557			
7,700.00	7,354.76	7,745.07	7,354.76	31.06	35.62	112.62	958.28	1,387.22	1,390.86	1,328.99	61.88	22.477			
7,800.00	7,454.76	7,845.07	7,454.76	31.17	35.72	112.62	958.28	1,387.22	1,390.86	1,328.76	62.10	22.397			
7,900.00	7,554.76	7,945.07	7,554.76	31.28	35.82	112.62	958.28	1,387.22	1,390.86	1,328.54	62.32	22.317			
8,000.00	7,654.76	8,045.07	7,654.76	31.39	35.92	112.62	958.28	1,387.22	1,390.86	1,328.32	62.55	22.236			
8,100.00	7,754.76	8,145.07	7,754.76	31.51	36.02	112.62	958.28	1,387.22	1,390.86	1,328.09	62.78	22.156			
8,200.00	7,854.76	8,245.07	7,854.76	31.62	36.13	112.62	958.28	1,387.22	1,390.86	1,327.86	63.01	22.075			
8,300.00	7,954.76	8,345.07	7,954.76	31.74	36.23	112.62	958.28	1,387.22	1,390.86	1,327.62	63.24	21.993			
8,400.00	8,054.76	8,445.07	8,054.76	31.85	36.34	112.62	958.28	1,387.22	1,390.86	1,327.39	63.48	21.912			
8,500.00	8,154.76	8,545.07	8,154.76	31.97	36.44	112.62	958.28	1,387.22	1,390.86	1,327.15	63.71	21.830			
8,600.00	8,254.76	8,645.07	8,254.76	32.09	36.55	112.62	958.28	1,387.22	1,390.86	1,326.91	63.95	21.748			
8,700.00	8,354.76	8,745.07	8,354.76	32.21	36.66	112.62	958.28	1,387.22	1,390.86	1,326.67	64.19	21.666			
8,800.00	8,454.76	8,845.07	8,454.76	32.33	36.77	112.62	958.28	1,387.22	1,390.86	1,326.43	64.44	21.584			
8,900.00	8,554.76	8,945.07	8,554.76	32.46	36.88	112.62	958.28	1,387.22	1,390.86	1,326.18	64.69	21.502			
9,000.00	8,654.76	9,045.07	8,654.76	32.58	36.99	112.62	958.28	1,387.22	1,390.86	1,325.93	64.93	21.420			
9,100.00	8,754.76	9,145.07	8,754.76	32.71	37.10	112.62	958.28	1,387.22	1,390.86	1,325.68	65.18	21.337			
9,200.00	8,854.76	9,245.07	8,854.76	32.83	37.22	112.62	958.28	1,387.22	1,390.86	1,325.43	65.44	21.255			
9,300.00	8,954.76	9,345.07	8,954.76	32.96	37.33	112.62	958.28	1,387.22	1,390.86	1,325.17	65.69	21.172			
9,345.24	9,000.00	9,390.31	9,000.00	33.02	37.38	112.62	958.28	1,387.22	1,390.86	1,325.06	65.81	21.135			



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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			
0.00	0.00	0.00	0.00	0.00	0.00	92.07	-0.73	20.17	20.18						
100.00	100.00	100.00	100.00	0.09	0.09	92.07	-0.73	20.17	20.18	20.00	0.18	109.510			
200.00	200.00	200.00	200.00	0.32	0.32	92.07	-0.73	20.17	20.18	19.55	0.63	31.843			
300.00	300.00	300.00	300.00	0.54	0.54	92.07	-0.73	20.17	20.18	19.10	1.08	18.630			
400.00	400.00	400.00	400.00	0.77	0.77	92.07	-0.73	20.17	20.18	18.65	1.53	13.167			
500.00	500.00	500.00	500.00	0.99	0.99	92.07	-0.73	20.17	20.18	18.20	1.98	10.181			
600.00	600.00	600.00	600.00	1.22	1.22	92.07	-0.73	20.17	20.18	17.75	2.43	8.299			
700.00	700.00	700.00	700.00	1.44	1.44	92.07	-0.73	20.17	20.18	17.30	2.88	7.005			
800.00	800.00	800.00	800.00	1.67	1.67	92.07	-0.73	20.17	20.18	16.85	3.33	6.059			
900.00	900.00	900.00	900.00	1.89	1.89	92.07	-0.73	20.17	20.18	16.40	3.78	5.339			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	92.07	-0.73	20.17	20.18	15.95	4.23	4.771			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	92.07	-0.73	20.17	20.18	15.50	4.68	4.313			
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	92.07	-0.73	20.17	20.18	15.05	5.13	3.935			
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	92.07	-0.73	20.17	20.18	14.60	5.58	3.618			
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	92.07	-0.73	20.17	20.18	14.16	6.03	3.348			
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	92.07	-0.73	20.17	20.18	13.71	6.48	3.116			
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	92.07	-0.73	20.17	20.18	13.26	6.93	2.914			
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	92.07	-0.73	20.17	20.18	12.81	7.38	2.736			
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	92.07	-0.73	20.17	20.18	12.36	7.83	2.579			
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	92.07	-0.73	20.17	20.18	11.91	8.28	2.439			
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	92.07	-0.73	20.17	20.18	11.46	8.73	2.313			
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	92.07	-0.73	20.17	20.18	11.01	9.17	2.200 CC			
2,100.33	2,100.33	2,100.33	2,100.33	4.59	4.59	92.07	-0.73	20.17	20.18	11.01	9.18	2.199			
2,200.00	2,200.00	2,199.85	2,199.80	4.81	4.81	84.77	1.87	20.42	20.50	10.88	9.62	2.131			
2,300.00	2,299.95	2,299.38	2,299.02	5.04	5.04	67.46	9.62	21.15	22.13	12.06	10.07	2.198			
2,400.00	2,399.63	2,398.64	2,397.43	5.27	5.27	56.66	22.47	22.36	24.86	14.35	10.50	2.366			
2,500.00	2,498.77	2,497.64	2,494.77	5.49	5.50	48.47	40.33	24.05	28.35	17.42	10.93	2.593			
2,600.00	2,597.08	2,596.38	2,590.81	5.73	5.77	42.40	63.13	26.20	32.33	20.97	11.36	2.847			
2,700.00	2,694.31	2,694.86	2,685.29	6.00	6.09	37.92	90.76	28.81	36.61	24.83	11.78	3.109			
2,800.00	2,790.18	2,793.10	2,777.98	6.32	6.46	34.59	123.11	31.87	41.06	28.86	12.20	3.367			
2,900.00	2,884.43	2,891.09	2,868.66	6.70	6.91	32.12	160.07	35.36	45.60	32.97	12.63	3.611			
3,000.00	2,976.81	2,988.85	2,957.11	7.15	7.43	30.27	201.50	39.27	50.17	37.09	13.08	3.835			
3,100.00	3,067.06	3,086.38	3,043.11	7.69	8.04	28.89	247.27	43.59	54.74	41.16	13.57	4.033			
3,184.26	3,141.26	3,168.38	3,113.52	8.21	8.63	28.01	289.10	47.54	58.55	44.53	14.01	4.178			
3,200.00	3,154.96	3,183.68	3,126.46	8.31	8.74	27.85	297.23	48.31	59.31	45.18	14.13	4.198			
3,300.00	3,241.97	3,280.50	3,206.75	9.00	9.53	25.88	351.07	53.40	66.83	52.01	14.82	4.510			
3,400.00	3,328.99	3,376.31	3,283.41	9.74	10.39	22.92	408.28	58.80	79.07	63.63	15.44	5.122			
3,500.00	3,416.00	3,474.53	3,360.12	10.50	11.36	20.07	469.35	64.57	94.40	78.35	16.05	5.883			
3,600.00	3,503.01	3,573.25	3,437.19	11.29	12.36	18.00	530.77	70.37	109.94	93.24	16.70	6.583			
3,700.00	3,590.02	3,671.97	3,514.25	12.11	13.39	16.44	592.19	76.17	125.58	108.19	17.39	7.221			
3,800.00	3,677.03	3,772.61	3,592.96	12.94	14.41	15.22	654.63	82.07	141.09	122.99	18.11	7.793			
3,900.00	3,764.04	3,878.46	3,677.99	13.78	15.32	14.52	717.39	87.99	153.29	134.44	18.85	8.132			
4,000.00	3,851.06	3,985.31	3,766.67	14.64	16.20	14.31	776.70	93.60	160.99	141.35	19.64	8.196			
4,100.00	3,938.07	4,092.68	3,858.49	15.51	17.05	14.51	832.10	98.83	164.16	143.66	20.49	8.011			
4,200.00	4,025.08	4,200.12	3,952.87	16.38	17.86	15.12	883.18	103.65	162.76	141.36	21.40	7.605			
4,300.00	4,112.09	4,307.14	4,049.18	17.26	18.62	16.19	929.63	108.04	156.87	134.47	22.40	7.004			
4,400.00	4,199.10	4,413.30	4,146.76	18.15	19.32	17.87	971.24	111.97	146.57	123.04	23.53	6.229			
4,500.00	4,286.12	4,518.16	4,244.93	19.04	19.95	20.47	1,007.87	115.43	132.07	107.16	24.91	5.302			
4,600.00	4,373.13	4,621.30	4,343.05	19.94	20.52	24.58	1,039.51	118.42	113.73	86.95	26.78	4.246			
4,700.00	4,460.14	4,722.36	4,440.48	20.84	21.01	31.53	1,066.22	120.94	92.29	62.60	29.69	3.108			
4,800.00	4,547.15	4,821.04	4,536.65	21.74	21.43	44.51	1,088.14	123.01	69.58	34.76	34.81	1.998			
4,900.00	4,634.16	4,917.05	4,631.06	22.65	21.77	70.47	1,105.50	124.65	51.30	8.64	42.66	1.203 Level 2			

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



**Weatherford International Ltd.**  
Anticollision Report



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	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			
4,949.58	4,677.31	4,963.60	4,677.08	23.10	21.92	89.45	1,112.49	125.31	48.19	3.18	45.01	1.071	Level 2, ES, SF		
5,000.00	4,721.17	5,010.18	4,723.26	23.56	22.06	109.37	1,118.56	125.88	51.75	7.89	43.86	1.180	Level 2		
5,100.00	4,808.19	5,100.00	4,812.61	24.47	22.28	137.56	1,127.62	126.74	76.19	39.27	36.92	2.064			
5,114.14	4,820.49	5,112.75	4,825.32	24.60	22.30	140.29	1,128.62	126.83	80.90	44.84	36.06	2.244			
5,200.00	4,895.97	5,187.88	4,900.31	25.28	22.43	152.00	1,133.10	127.26	112.14	79.66	32.48	3.453			
5,300.00	4,985.74	5,274.17	4,986.57	25.93	22.54	159.43	1,135.22	127.46	150.92	120.28	30.64	4.925			
5,400.00	5,077.35	5,364.95	5,077.35	26.54	22.64	163.91	1,135.26	127.46	189.25	159.32	29.93	6.323			
5,500.00	5,170.62	5,458.22	5,170.62	27.11	22.74	166.67	1,135.26	127.46	224.28	194.52	29.76	7.536			
5,600.00	5,265.37	5,552.97	5,265.37	27.63	22.84	168.49	1,135.26	127.46	255.55	225.74	29.81	8.572			
5,700.00	5,361.43	5,649.03	5,361.43	28.09	22.94	169.74	1,135.26	127.46	282.87	252.92	29.95	9.445			
5,800.00	5,458.60	5,746.20	5,458.60	28.50	23.04	170.62	1,135.26	127.46	306.11	276.00	30.11	10.165			
5,900.00	5,556.71	5,844.31	5,556.71	28.85	23.15	171.25	1,135.26	127.46	325.18	294.92	30.27	10.744			
6,000.00	5,655.57	5,943.17	5,655.57	29.14	23.26	171.69	1,135.26	127.46	340.03	309.63	30.39	11.188			
6,100.00	5,754.99	6,042.59	5,754.99	29.37	23.37	171.98	1,135.26	127.46	350.60	320.12	30.48	11.501			
6,200.00	5,854.79	6,142.38	5,854.79	29.54	23.49	172.14	1,135.26	127.46	356.87	326.34	30.53	11.688			
6,295.24	5,950.00	6,237.60	5,950.00	29.65	23.60	176.15	1,135.26	127.46	358.83	328.29	30.54	11.749			
6,300.00	5,954.76	6,242.36	5,954.76	29.65	23.60	176.15	1,135.26	127.46	358.83	328.28	30.56	11.743			
6,400.00	6,054.76	6,342.36	6,054.76	29.74	23.72	176.15	1,135.26	127.46	358.83	327.92	30.91	11.609			
6,500.00	6,154.76	6,442.36	6,154.76	29.84	23.84	176.15	1,135.26	127.46	358.83	327.57	31.27	11.477			
6,600.00	6,254.76	6,542.36	6,254.76	29.93	23.96	176.15	1,135.26	127.46	358.83	327.21	31.62	11.347			
6,700.00	6,354.76	6,642.36	6,354.76	30.03	24.08	176.15	1,135.26	127.46	358.83	326.85	31.98	11.219			
6,800.00	6,454.76	6,742.36	6,454.76	30.12	24.21	176.15	1,135.26	127.46	358.83	326.49	32.35	11.093			
6,900.00	6,554.76	6,842.36	6,554.76	30.22	24.33	176.15	1,135.26	127.46	358.83	326.12	32.71	10.970			
7,000.00	6,654.76	6,942.36	6,654.76	30.32	24.46	176.15	1,135.26	127.46	358.83	325.75	33.08	10.848			
7,100.00	6,754.76	7,042.36	6,754.76	30.42	24.59	176.15	1,135.26	127.46	358.83	325.39	33.45	10.728			
7,200.00	6,854.76	7,142.36	6,854.76	30.53	24.72	176.15	1,135.26	127.46	358.83	325.01	33.82	10.611			
7,300.00	6,954.76	7,242.36	6,954.76	30.63	24.85	176.15	1,135.26	127.46	358.83	324.64	34.19	10.495			
7,400.00	7,054.76	7,342.36	7,054.76	30.73	24.98	176.15	1,135.26	127.46	358.83	324.27	34.57	10.381			
7,500.00	7,154.76	7,442.36	7,154.76	30.84	25.12	176.15	1,135.26	127.46	358.83	323.89	34.94	10.270			
7,600.00	7,254.76	7,542.36	7,254.76	30.95	25.25	176.15	1,135.26	127.46	358.83	323.51	35.32	10.160			
7,700.00	7,354.76	7,642.36	7,354.76	31.06	25.39	176.15	1,135.26	127.46	358.83	323.13	35.70	10.052			
7,800.00	7,454.76	7,742.36	7,454.76	31.17	25.52	176.15	1,135.26	127.46	358.83	322.75	36.08	9.945			
7,900.00	7,554.76	7,842.36	7,554.76	31.28	25.66	176.15	1,135.26	127.46	358.83	322.37	36.46	9.841			
8,000.00	7,654.76	7,942.36	7,654.76	31.39	25.80	176.15	1,135.26	127.46	358.83	321.99	36.85	9.738			
8,100.00	7,754.76	8,042.36	7,754.76	31.51	25.94	176.15	1,135.26	127.46	358.83	321.60	37.23	9.638			
8,200.00	7,854.76	8,142.36	7,854.76	31.62	26.08	176.15	1,135.26	127.46	358.83	321.21	37.62	9.538			
8,300.00	7,954.76	8,242.36	7,954.76	31.74	26.23	176.15	1,135.26	127.46	358.83	320.82	38.01	9.441			
8,400.00	8,054.76	8,342.36	8,054.76	31.85	26.37	176.15	1,135.26	127.46	358.83	320.44	38.40	9.345			
8,500.00	8,154.76	8,442.36	8,154.76	31.97	26.52	176.15	1,135.26	127.46	358.83	320.04	38.79	9.251			
8,600.00	8,254.76	8,542.36	8,254.76	32.09	26.67	176.15	1,135.26	127.46	358.83	319.65	39.18	9.158			
8,700.00	8,354.76	8,642.36	8,354.76	32.21	26.81	176.15	1,135.26	127.46	358.83	319.26	39.57	9.067			
8,800.00	8,454.76	8,742.36	8,454.76	32.33	26.96	176.15	1,135.26	127.46	358.83	318.86	39.97	8.978			
8,900.00	8,554.76	8,842.36	8,554.76	32.46	27.11	176.15	1,135.26	127.46	358.83	318.47	40.36	8.890			
9,000.00	8,654.76	8,942.36	8,654.76	32.58	27.26	176.15	1,135.26	127.46	358.83	318.07	40.76	8.803			
9,100.00	8,754.76	9,042.36	8,754.76	32.71	27.41	176.15	1,135.26	127.46	358.83	317.67	41.16	8.718			
9,200.00	8,854.76	9,142.36	8,854.76	32.83	27.57	176.15	1,135.26	127.46	358.83	317.27	41.56	8.634			
9,300.00	8,954.76	9,242.36	8,954.76	32.96	27.72	176.15	1,135.26	127.46	358.83	316.87	41.96	8.552			
9,345.24	9,000.00	9,287.60	9,000.00	33.02	27.79	176.15	1,135.26	127.46	358.83	316.69	42.14	8.515			

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



<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

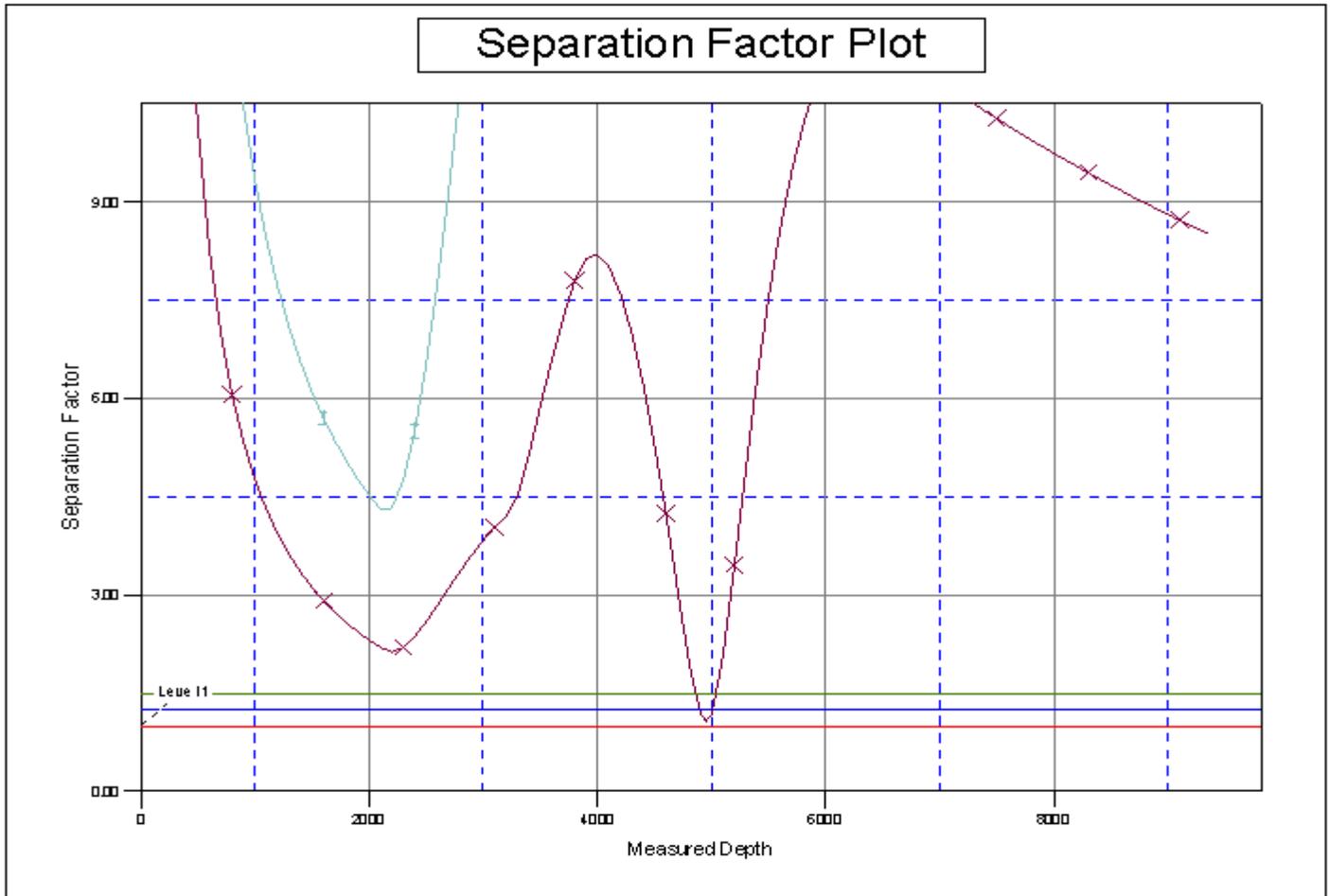
Reference Depths are relative to WELL @ 4966.00ft (Original Well Elev) Coordinates are relative to: NBU 922-34D2DS  
 Offset Depths are relative to Offset Datum Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N  
 Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 1.01°





<b>Company:</b>	ANADARKO PETROLEUM CORP.	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D2DS
<b>Project:</b>	UINTAH COUNTY, UTAH (nad 27)	<b>TVD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Reference Site:</b>	NBU 922-34E PAD	<b>MD Reference:</b>	WELL @ 4966.00ft (Original Well Elev)
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	NBU 922-34D2DS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	NBU 922-34D2DS	<b>Database:</b>	EDM 2003.21 Single User Db
<b>Reference Design:</b>	Design #1	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to WELL @ 4966.00ft (Original Well Elev) Coordinates are relative to: NBU 922-34D2DS  
 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: 1.01°



LEGEND

- o CIGE 117, CIGE 117 EXISTING, CIGE 117 EXISTING V0
- + NBU 922-34C3DS, NBU 922-34C3DS, Design #1 V0
- x NBU 922-34D3AS, NBU 922-34D3AS, Design #1 V0

**NBU 922-34D2DS**

Pad: NBU 922-34E

Surface: 2,025' FNL 452' FWL (SW/4NW/4)

BHL: 531' FNL 556' FWL (NW/4NW/4)

Sec. 34 T9S R22E

Uintah, Utah

Mineral Lease: UTU 0149077

**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	1,300'	
Birds Nest	1,557'	Water
Mahogany	2,075'	Water
Wasatch	4,427'	Gas
Mesaverde	6,847'	Gas
MVU2	7,832'	Gas
MVL1	8,282'	Gas
TVD	9,000'	
TD	9,345'	

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 9,345' TD, approximately equals 5,531 psi (calculated at 0.59 psi/foot).

Maximum anticipated surface pressure equals approximately 3,347 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

**8. Anticipated Starting Dates:**

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

**9. Variances:**

*Please refer to the attached Drilling Program.*

*Onshore Order #2 – Air Drilling Variance*

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

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

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

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

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

***Background***

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

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

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

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

#### ***Variance for BOPE Requirements***

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

#### ***Variance for Mud Material Requirements***

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

#### ***Variance for Special Drilling Operation (surface equipment placement) Requirements***

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

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

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

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

***Variance for FIT Requirements***

*KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.*

***Conclusion***

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

**10. Other Information:**

*Please refer to the attached Drilling Program.*





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

### CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2,275	36.00	J-55	LTC	0.98	1.90	7.04
PRODUCTION	4-1/2"	0 to 9,345	11.60	I-80	LTC	2.26	1.17	2.12

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

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)  
 (Burst Assumptions: TD = 11.6 ppg) 0.22 psi/ft = gradient for partially evac wellbore  
 (Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)  
**MASP 3,347 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\*Buoy.Fact. of water)  
**MABHP 5,531 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
<b>Option 1</b>							
	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			<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>				
<b>Option 2</b>	LEAD	1,775'	65/35 Poz + 6% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOW	420	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	3,925'	Premium Lite II + 3% KCl + 0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	370	40%	11.00	3.38
	TAIL	5,420'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,330	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.

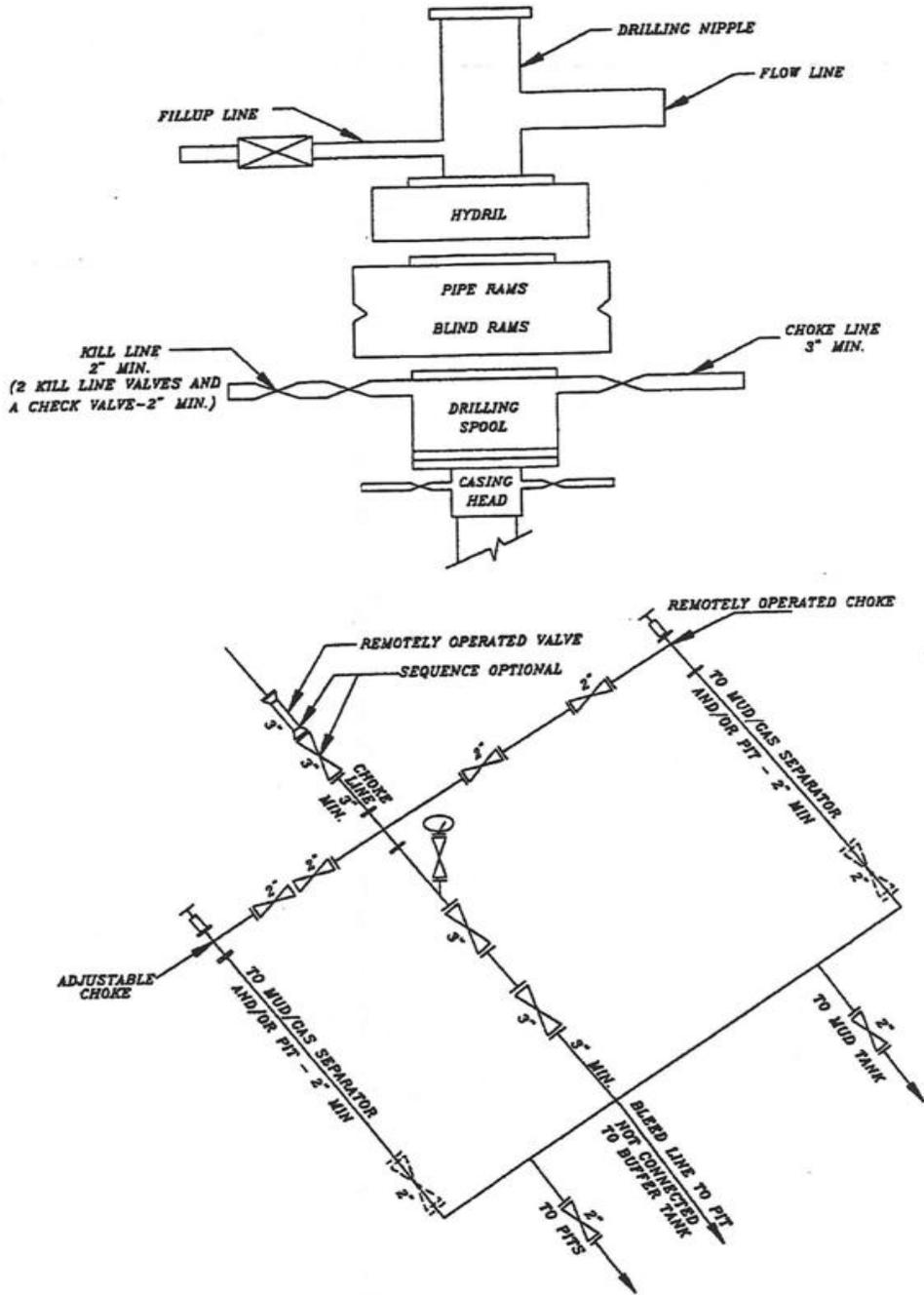
DRILLING ENGINEER: \_\_\_\_\_  
John Huycke / Emile Goodwin

DATE: \_\_\_\_\_

DRILLING SUPERINTENDENT: \_\_\_\_\_  
John Merkel / Lovel Young

DATE: \_\_\_\_\_

### EXHIBIT A NBU 922-34D2DS



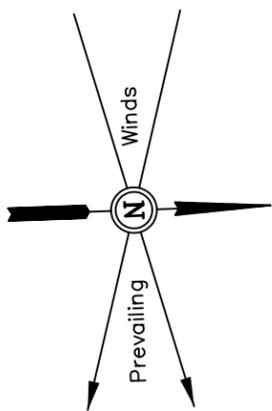
**SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK**

# Kerr-McGee Oil & Gas Onshore LP

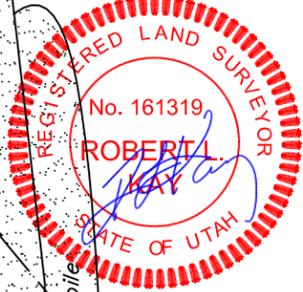
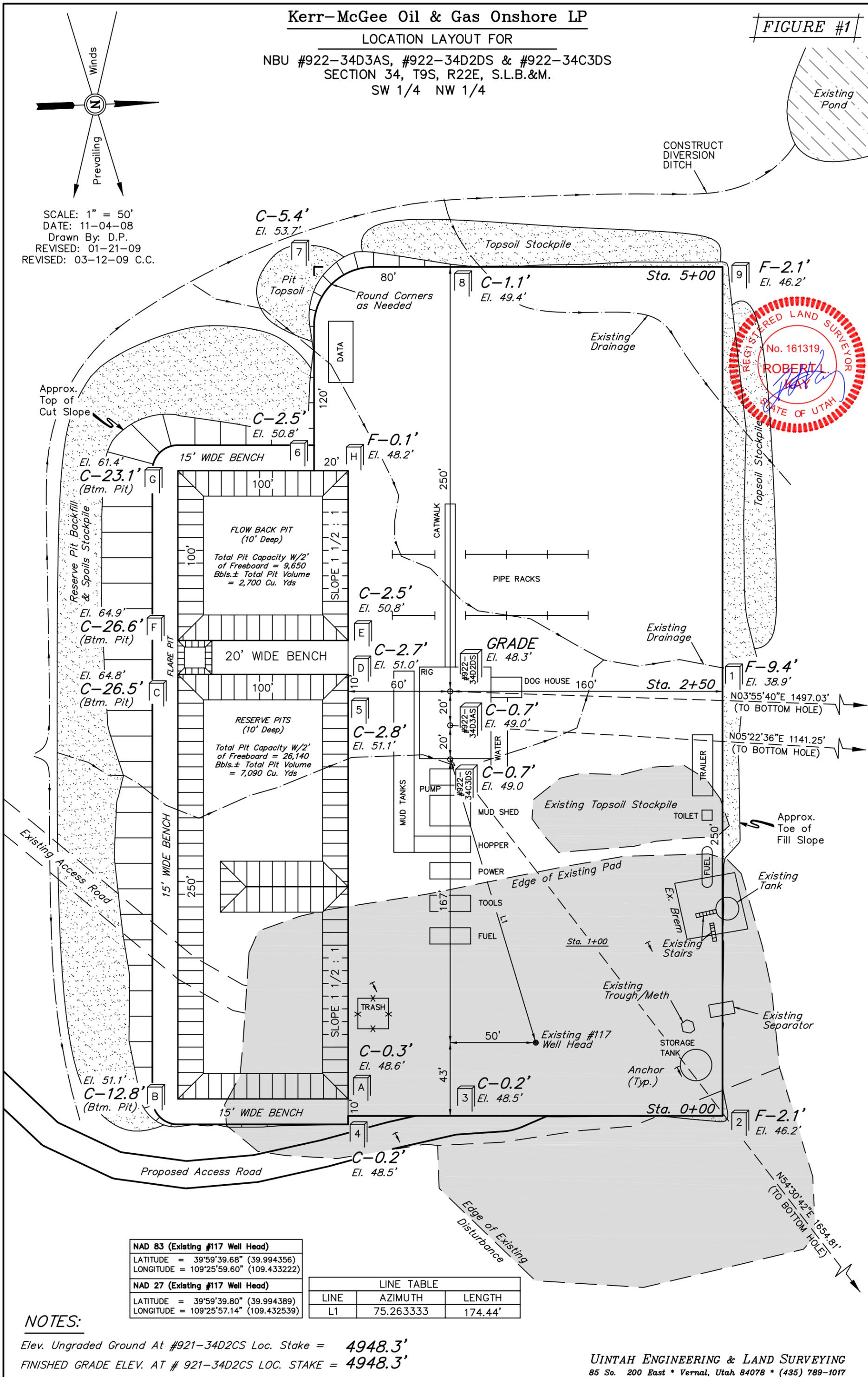
## LOCATION LAYOUT FOR

NBU #922-34D3AS, #922-34D2DS & #922-34C3DS  
SECTION 34, T9S, R22E, S.L.B.&M.  
SW 1/4 NW 1/4

FIGURE #1



SCALE: 1" = 50'  
DATE: 11-04-08  
Drawn By: D.P.  
REVISED: 01-21-09  
REVISED: 03-12-09 C.C.



<b>NAD 83 (Existing #117 Well Head)</b>	
LATITUDE	= 39°59'39.68" (39.994356)
LONGITUDE	= 109°25'59.60" (109.433222)
<b>NAD 27 (Existing #117 Well Head)</b>	
LATITUDE	= 39°59'39.80" (39.994389)
LONGITUDE	= 109°25'57.14" (109.432539)

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	75.263333	174.44'

**NOTES:**

Elev. Ungraded Ground At #921-34D2CS Loc. Stake = **4948.3'**  
FINISHED GRADE ELEV. AT # 921-34D2CS LOC. STAKE = **4948.3'**

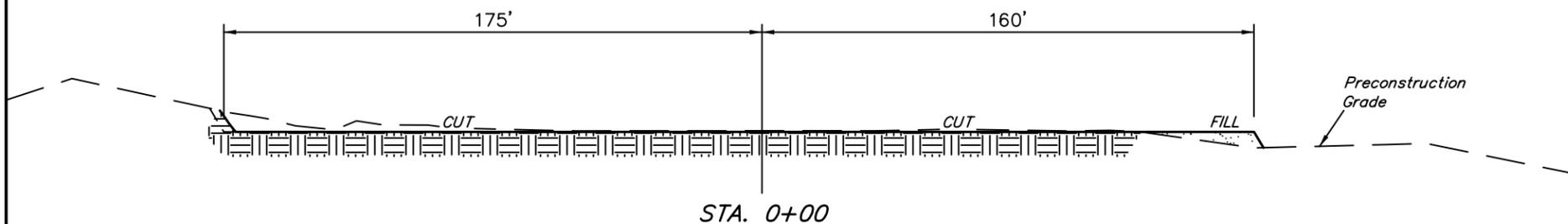
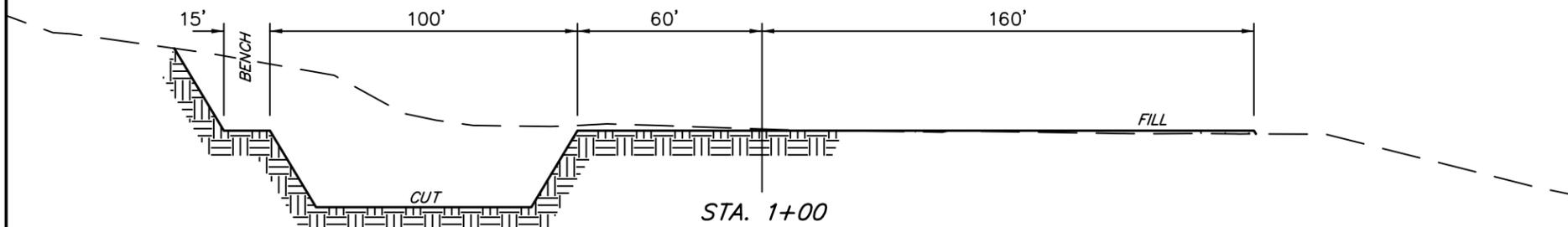
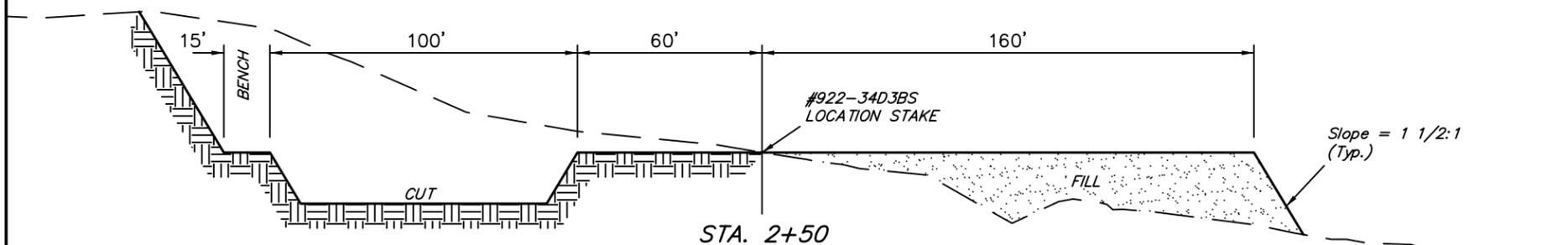
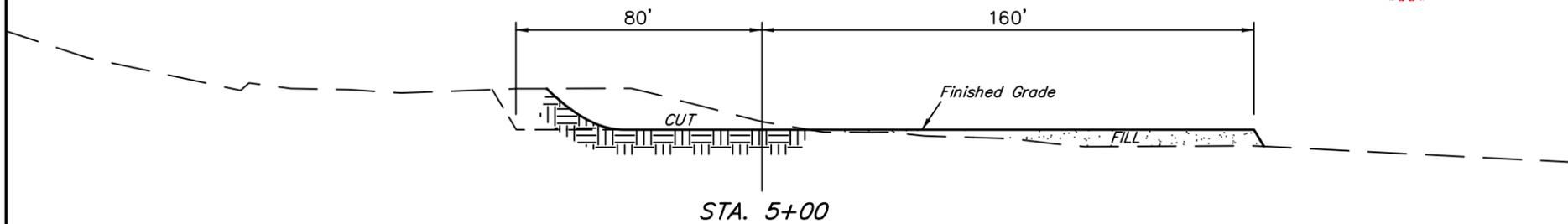
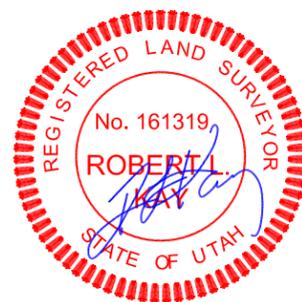
**Kerr-McGee Oil & Gas Onshore LP**

**FIGURE #2**

TYPICAL CROSS SECTIONS FOR  
 NBU #922-34D3AS, #922-34D2DS & #922-34C3DS  
 SECTION 34, T9S, R22E, S.L.B.&M.  
 SW 1/4 NW 1/4

X-Section  
 Scale  
 1" = 50'

SCALE: 1" = 50'  
 DATE: 11-04-08  
 Drawn By: D.P.  
 REVISED: 01-21-09  
 REVISED: 03-12-09 C.C.



**APPROXIMATE ACREAGES**

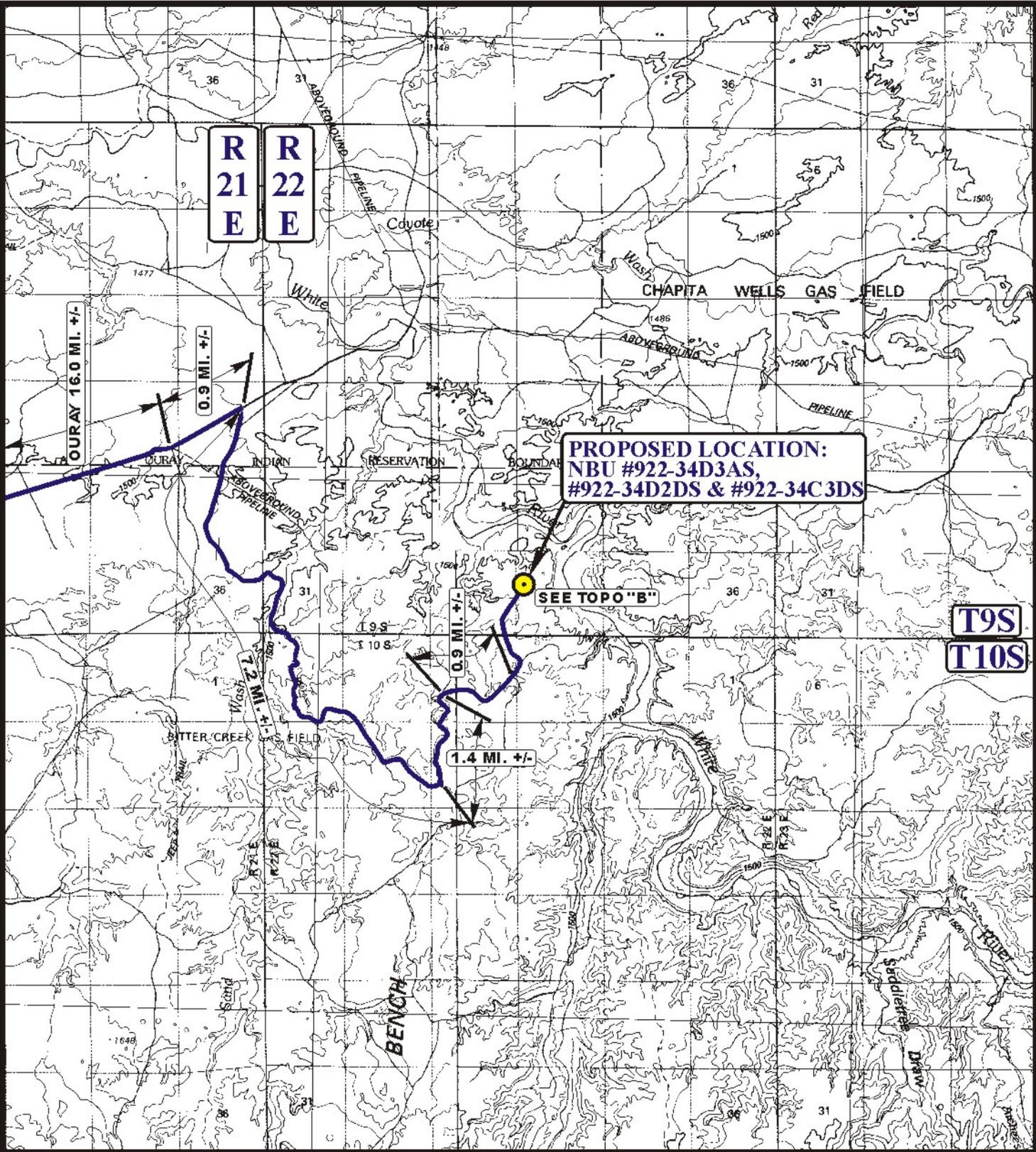
EXISTING WELL SITE DISTURBANCE	= ± 0.998 ACRES
NEW CONSTRUCTION WELL SITE DISTURBANCE	= ± 3.666 ACRES
ACCESS ROAD DISTURBANCE	= ± 0.406 ACRES
PIPELINE DISTURBANCE	= ± 0.977 ACRES
<b>TOTAL</b>	<b>= ± 6.047 ACRES</b>

\* NOTE:  
 FILL QUANTITY INCLUDES  
 5% FOR COMPACTION

**APPROXIMATE YARDAGES**

(6") Topsoil Stripping (New Construction Only)	= 2,400 Cu. Yds.
Remaining Location	= 24,470 Cu. Yds.
<b>TOTAL CUT</b>	<b>= 26,870 CU.YDS.</b>
<b>FILL</b>	<b>= 10,470 CU.YDS.</b>

EXCESS MATERIAL	= 16,400 Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 7,300 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	= 9,100 Cu. Yds.



**LEGEND:**

 PROPOSED LOCATION

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

**NBU #922-34D3AS, #922-34D2DS & #922-34C3DS**  
**SECTION 34, T9S, R22E, S.L.B.&M.**  
**SW 1/4 NW 1/4**



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

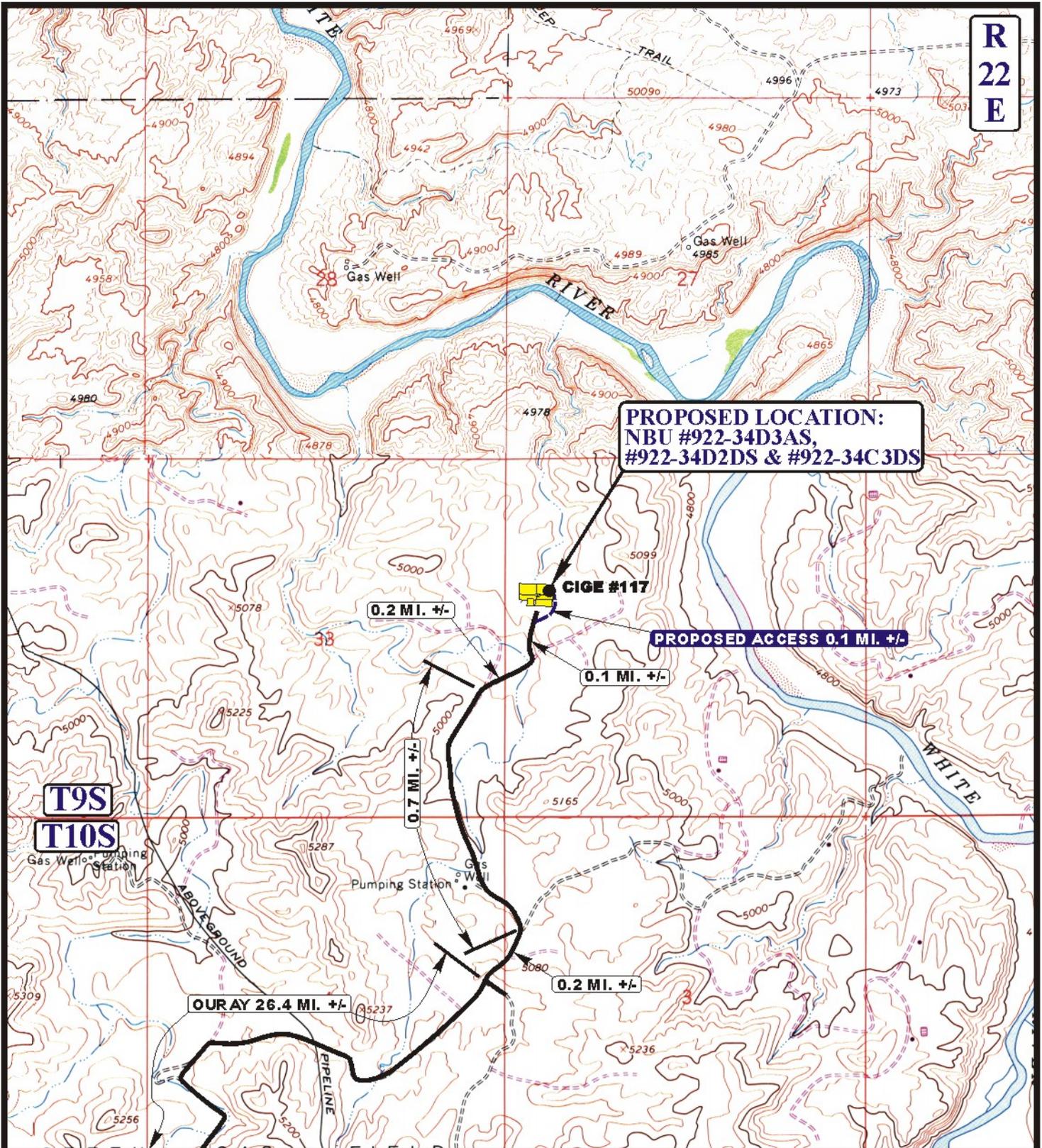


**TOPOGRAPHIC**  
**MAP**

**11 05 08**  
MONTH DAY YEAR

SCALE: 1:100,000 DRAWN BY: D.P. REV: 03-12-09 C.C.





**LEGEND:**

-  EXISTING ROAD
-  PROPOSED ACCESS ROAD

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

**NBU #922-34D3AS, #922-34D2DS & #922-34C3DS**  
**SECTION 34, T9S, R22E, S.L.B.&M.**  
**SW 1/4 NW 1/4**



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 85 South 200 East Vernal, Utah 84078  
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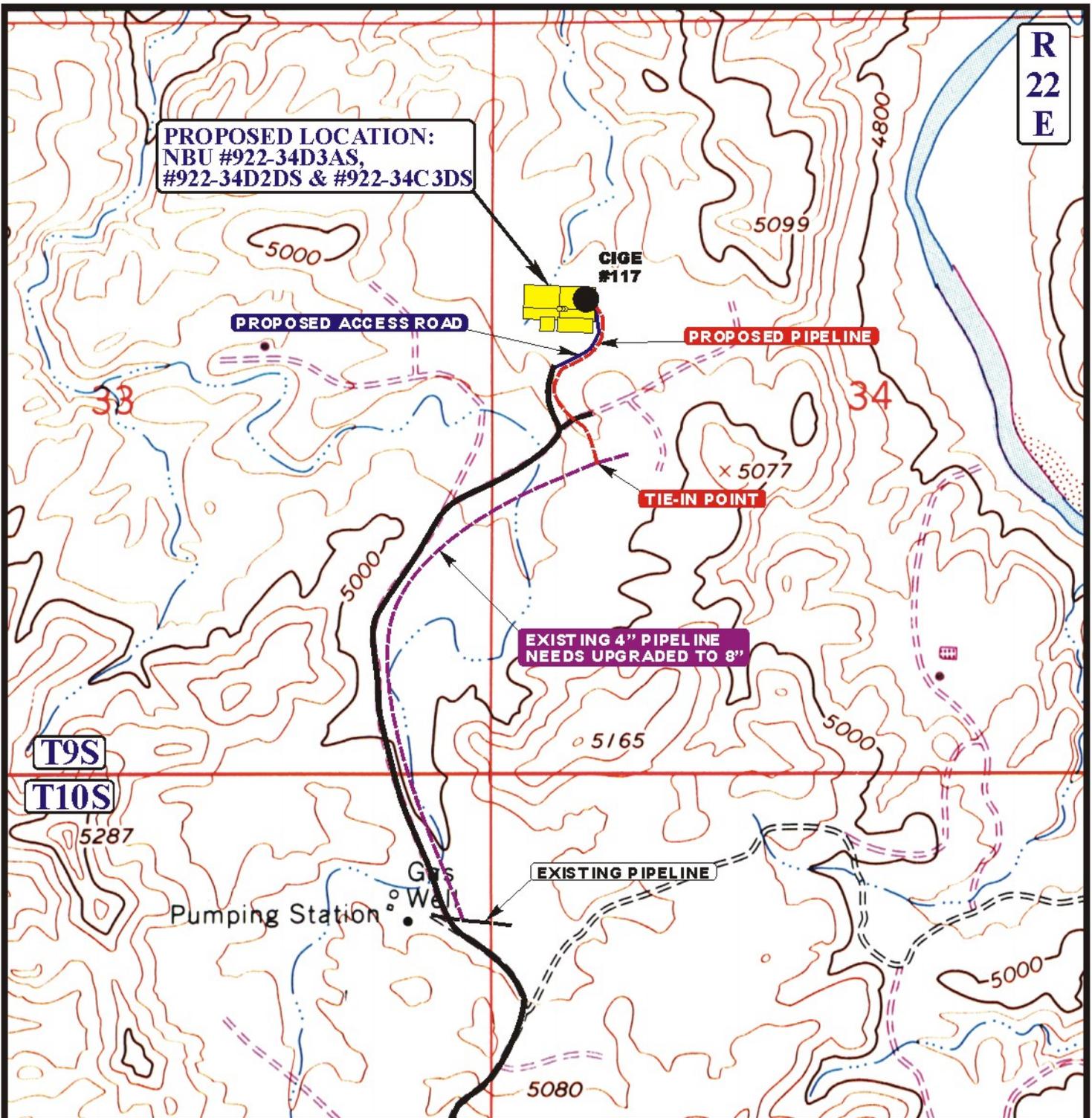
**TOPOGRAPHIC**  
**MAP**

<b>11</b>	<b>05</b>	<b>08</b>
MONTH	DAY	YEAR

SCALE: 1" = 2000' DRAWN BY: D.P. REV: 03-12-09 C.C.







APPROXIMATE TOTAL PIPELINE UPGRADE DISTANCE = 8,100' +/-

APPROXIMATE TOTAL PIPELINE DISTANCE = 1,420' +/-

**LEGEND:**

- PROPOSED ACCESS ROAD
- EXISTING PIPELINE
- PROPOSED PIPELINE
- PIPELINE TO BE UPGRADED

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

**NBU #922-34D3AS, #922-34D2DS & #922-34C3DS**  
**SECTION 34, T9S, R22E, S.L.B.&M.**  
**SW 1/4 NW 1/4**



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



**TOPOGRAPHIC**  
**MAP**

**11 05 08**  
 MONTH DAY YEAR

SCALE: 1" = 1000'

DRAWN BY: D.P

REV: 03-12-09 C.C.



# Kerr-McGee Oil & Gas Onshore LP

## NBU #922-34D3AS, #922-34D2DS & #922-34C3DS

PIPELINE ALIGNMENT

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 34, T9S, R22E, S.L.B.&M.



TIE-IN POINT

PHOTO: VIEW OF TIE-IN POINT

CAMERA ANGLE: NORTHERLY



PHOTO: VIEW OF PIPELINE ALIGNMENT

CAMERA ANGLE: NORTHEASTERLY



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

- Since 1964 -

<b>PIPELINE PHOTOS</b>			<b>11</b>	<b>05</b>	<b>08</b>	<b>PHOTO</b>
			MONTH	DAY	YEAR	
TAKEN BY: D.K.		DRAWN BY: D.P.		REV: 03-12-09 C.C.		

# Kerr-McGee Oil & Gas Onshore LP

## NBU #922-34D3AS, #922-34D2DS & #922-34C3DS

LOCATED IN UINTAH COUNTY, UTAH  
SECTION 34, T9S, R22E, S.L.B.&M.

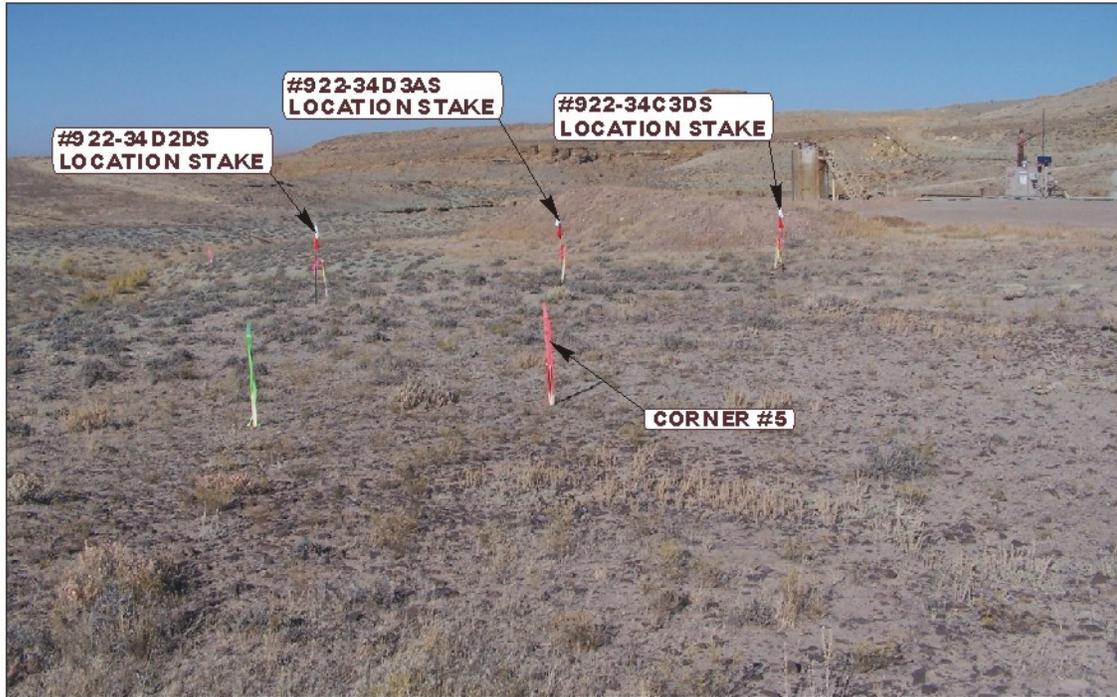


PHOTO: VIEW FROM CORNER #5 TO LOCATION STAKE

CAMERA ANGLE: NORTHERLY



PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: NORTHEASTERLY



- Since 1964 -

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

<b>LOCATION PHOTOS</b>	<b>11</b>	<b>05</b>	<b>08</b>	<b>PHOTO</b>
	MONTH	DAY	YEAR	
TAKEN BY: D.K.	DRAWN BY: D.P.	REV: 03-12-09 C.C.		

**Kerr-McGee Oil & Gas Onshore LP**  
**NBU #922-34D3AS, #922-34D2DS & #922-34C3DS**  
**SECTION 34, T9S, R22E, S.L.B.&M.**

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 14.0 MILES TO THE JUNCTION OF STATE HIGHWAY 88; EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 17.0 MILES TO OURAY, UTAH; PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 6.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHEAST; TURN LEFT AND PROCEED IN A SOUTHEASTERLY, THEN EASTERLY DIRECTION APPROXIMATELY 5.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 3.8 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTHWEST; TURN RIGHT AND PROCEED IN A SOUTHWESTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 7.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 1.4 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 0.9 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN LEFT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.7 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHEAST; TURN RIGHT AND PROCEED IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN LEFT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE BEGINNING OF THE PROPOSED ACCESS TO THE NORTHEAST; FOLLOW ROAD FLAGS IN A NORTHEASTERLY DIRECTION APPROXIMATELY 0.1 MILES TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 58.7 MILES.

**NBU 922-34C3DS**

Surface: 2,026' FNL 491' FWL (SW/4NW/4)  
BHL: 1,062' FNL 1,840' FWL (NE/4NW/4)

**NBU 922-34D2DS**

Surface: 2,025' FNL 452' FWL (SW/4NW/4)  
BHL: 531' FNL 556' FWL (NW/4NW/4)

**NBU 922-34D3AS**

Surface: 2,025' FNL 472' FWL (SW/4NW/4)  
BHL: 889' FNL 580' FWL (NW/4NW/4)

Pad: NBU 922-34E  
Sec. 34 T9S R22E

Uintah, Utah  
Mineral Lease: UTU 0149077

**ONSHORE ORDER NO. 1**

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

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) documents. An NOS was submitted showing the surface locations in SW/4 NW/4 of Section 34 T9S R22E. At the time the NOS was submitted, the wells had the following well names:

NBU 922-34C3DS was fka NBU 922-34C3BS  
NBU 922-34D2DS was fka NBU 922-34D2CS  
NBU 922-34D3AS was fka NBU 922-34D3BS

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

An on-site meeting was held on February 3, 2009. Present were:

- Verlyn Pindell, Dave Gordon, Scott Ackerman, Karl Wright – BLM;
- David Kay – Uintah Engineering & Land Surveying;
- Kolby Kay – 609 Consulting, LLC;
- Tony Kazeck, Clay Einerson, Raleen White, Ramey Hoopes, Grizz Oleen, Charles Chase and Spencer Biddle – Kerr-McGee.

**Directional Drilling:**

In accordance with Utah 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:**

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

2. **Planned Access Roads:**

*See MDP for additional details on road construction.*

Approximately  $\pm 0.1$  miles of new access road is proposed. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

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

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

Please refer to Topo Map C.

4. **Location of Existing and Proposed Facilities:**

*See MDP for additional details on Existing and Proposed Facilities.*

*The following guidelines will apply if the well is productive.*

**Approximately  $\pm 1,420'$  ( $\pm 0.27$  miles) of new pipeline is proposed and approximately  $\pm 8,100'$  ( $\pm 1.53$  miles) of existing 4" pipeline needs to be upgraded to 8". Refer to Topo D for the existing pipeline.** Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place.

The pond located next to the pad will be unaffected by the pad construction.

5. **Location and Type of Water Supply:**

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

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

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

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:**

*See MDP for additional details on Source of Construction Materials.*

7. **Methods of Handling Waste Materials:**

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

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E

NBU #159 in Sec. 35 T9S R21E

Ace Oilfield in Sec. 2 T6S R20E

MC&MC in Sec. 12 T6S R19E

Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

**8. Ancillary Facilities:**

*See MDP for additional details on Ancillary Facilities.*

None are anticipated.

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

*See MDP for additional details on Well Site Layout.*

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

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

**10. Plans for Reclamation of the Surface:**

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

**11. Surface/Mineral Ownership:**

United States of America

Bureau of Land Management

170 South 500 East

Vernal, UT 84078

(435)781-4400

**12. Other Information:**

*See MDP for additional details on Other Information.*

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

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

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

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

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

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

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

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

  
\_\_\_\_\_  
Kathy Schneebeck Dulnoan

July 22, 2009  
\_\_\_\_\_  
Date

CLASS I REVIEW OF KERR-MCGEE OIL AND GAS  
ONSHORE LP'S SIX PROPOSED WELL LOCATIONS  
AND PIPELINE REROUTE  
(T9S, R22E, SEC. 29, 30, 32, AND 34)  
UINTAH COUNTY, UTAH

By:

Nicole Shelnut

Prepared For:

Bureau of Land Management  
Vernal Field Office  
and  
State of Utah  
School & Institutional Trust Lands Administration

Prepared Under Contract With:

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

Prepared By:

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

MOAC Report No. 09-045

May 4, 2009

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

Public Lands Policy Coordination Office  
Archaeological Survey Permit No. 117

**IPC #08-316**

## **Paleontological Reconnaissance Survey Report**

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**Survey of Kerr McGee's Proposed Multi-Well Pads, Access Roads,  
Pipelines & Pipeline Upgrade for "NBU #921-26B2S, B3S, D1BS  
& D1CS" (Sec. 26, T 9 S, R 21 E) & "NBU #922-34D3AS,  
D2DS & C3DS" (Sec. 33 & 34, T 9 S, R 22 E) &  
(Sec. 4, T 10 S, R 22 E)**

Archy Bench & Ouray SE  
Topographic Quadrangle  
Uintah County, Utah

December 3, 2008

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



# 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 22, 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 922-34D2DS (FKA 34D2CS)  
T9S-R22E  
Section 34: NWNW  
Surface: 2025' FNL, 452' FWL  
Bottom Hole: 531' FNL, 556' 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.

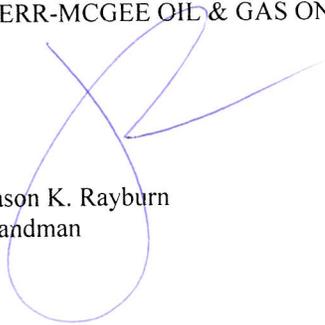
- Kerr-McGee's NBU 922-34D2DS located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the 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

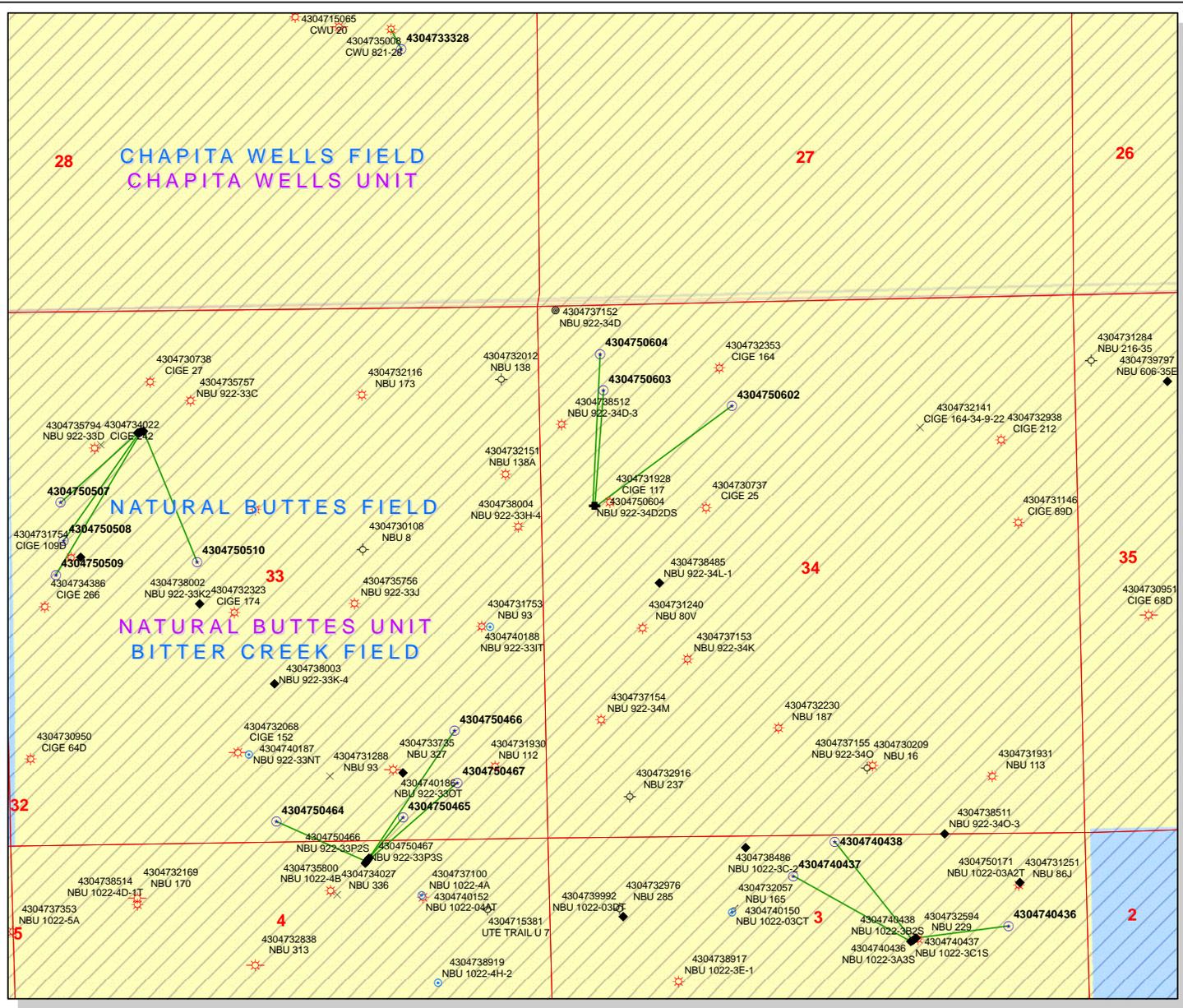
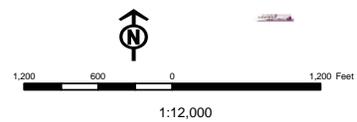
A handwritten signature in blue ink, appearing to read "Jason K. Rayburn", is written over the typed name and extends upwards into the company name line.

'APIWellNo:43047506040000'

**API Number: 4304750604**  
**Well Name: NBU 922-34D2S**  
**Township 09.0 S Range 22.0 E Section 34**  
**Meridian: SLBM**  
 Operator: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Map Prepared:  
 Map Produced by Diana Mason

<b>Units</b>	<b>Wells Query Events</b>
<b>STATUS</b>	<b>GIS_STAT_TYPE</b>
ACTIVE	<-all other values-->
EXPLORATORY	<-Null-->
GAS STORAGE	APD
NF PP OIL	DRL
NF SECONDARY	GI
PI OIL	GS
PP GAS	LA
PP GEOTHERM	NEW
PP OIL	OPS
SECONDARY	PA
TERMINATED	PGW
<b>Fields</b>	POW
ACTIVE	RET
COMBINED	SGW
Sections	SOW
	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)

July 31, 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)		
43-047-50602	NBU 922-34C3DS	Sec 34 T09S R22E 2026 FNL 0491 FWL
	BHL	Sec 34 T09S R22E 1062 FNL 1840 FWL
43-047-50603	NBU 922-34D3AS	Sec 34 T09S R22E 2025 FNL 0472 FWL
	BHL	Sec 34 T09S R22E 0889 FNL 0580 FWL
43-047-50604	NBU 922-34D2DS	Sec 34 T09S R22E 2025 FNL 0452 FWL
	BHL	Sec 34 T09S R22E 0531 FNL 0556 FWL
43-047-50605	NBU 921-22I3DS	Sec 22 T09S R21E 2131 FSL 2077 FEL
	BHL	Sec 22 T09S R21E 1486 FSL 0685 FEL
43-047-50606	NBU 921-22J2CS	Sec 22 T09S R21E 2130 FSL 2137 FEL
	BHL	Sec 22 T09S R21E 2281 FSL 2476 FEL
43-047-50607	NBU 921-22J3BS	Sec 22 T09S R21E 2130 FSL 2117 FEL
	BHL	Sec 22 T09S R21E 1798 FSL 2526 FEL
43-047-50608	NBU 921-22P2DS	Sec 22 T09S R21E 2131 FSL 2097 FEL
	BHL	Sec 22 T09S R21E 0978 FSL 0709 FEL
43-047-50609	NBU 921-21A2DS	Sec 21 T09S R21E 1009 FNL 0852 FEL
	BHL	Sec 21 T09S R21E 0474 FNL 0670 FEL

Page 2

43-047-50610	NBU 921-21A3AS	Sec 21 T09S R21E 1017 FNL 0833 FEL
	BHL	Sec 21 T09S R21E 0841 FNL 0670 FEL
43-047-50611	NBU 921-21A3DS	Sec 21 T09S R21E 1025 FNL 0815 FEL
	BHL	Sec 21 T09S R21E 1193 FNL 0670 FEL
43-047-50612	NBU 921-21B1CS	Sec 21 T09S R21E 1000 FNL 0870 FEL
	BHL	Sec 21 T09S R21E 0597 FNL 1981 FEL

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

/s/ Michael L. Coulthard

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

MCoulthard:mc:7-31-09

**WORKSHEET  
APPLICATION FOR PERMIT TO DRILL**

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**APD RECEIVED:** 7/23/2009

**API NO. ASSIGNED:** 43047506040000

**WELL NAME:** NBU 922-34D2DS

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

**PHONE NUMBER:** 720 929-6007

**CONTACT:** Kathy Schneebeck-Dulnoan

**PROPOSED LOCATION:** SWNW 34 090S 220E

**Permit Tech Review:**

**SURFACE:** 2025 FNL 0452 FWL

**Engineering Review:**

**BOTTOM:** 0531 FNL 0556 FWL

**Geology Review:**

**COUNTY:** UINTAH

**LATITUDE:** 39.99424

**LONGITUDE:** -109.43323

**UTM SURF EASTINGS:** 633757.00

**NORTHINGS:** 4428083.00

**FIELD NAME:** NATURAL BUTTES

**LEASE TYPE:** 1 - Federal

**LEASE NUMBER:** UTU 0149077

**PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

**SURFACE OWNER:** 1 - Federal

**COALBED METHANE:** NO

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**RECEIVED AND/OR REVIEWED:**

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

**Commingle Approved**

**LOCATION AND SITING:**

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

**Comments:** Presite Completed

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



JON M. HUNTSMAN, JR.  
*Governor*

GARY R. HERBERT  
*Lieutenant Governor*

## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

### Permit To Drill

\*\*\*\*\*

**Well Name:** NBU 922-34D2DS  
**API Well Number:** 43047506040000  
**Lease Number:** UTU 0149077  
**Surface Owner:** FEDERAL  
**Approval Date:** 8/11/2009

**Issued to:**

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

**Authority:**

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

**Duration:**

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

**General:**

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

**Conditions of Approval:**

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

In accordance with 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.

**Notification Requirements:**

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

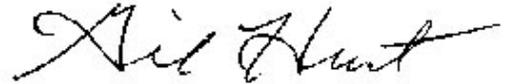
- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
- OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>

**Reporting Requirements:**

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

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

**Approved By:**



Gil Hunt  
Associate Director, Oil & Gas

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU 0149077
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-34D2DS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047506040000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6007 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2025 FNL 0452 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWNW Section: 34 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 8/12/2010  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> Date of Work Completion:  <input type="checkbox"/> <b>SPUD REPORT</b> Date of Spud:  <input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>

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

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

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

Date: August 23, 2010  
 By:

<b>NAME (PLEASE PRINT)</b> Danielle Piernot	<b>PHONE NUMBER</b> 720 929-6156	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A		<b>DATE</b> 8/12/2010



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43047506040000**

**API:** 43047506040000

**Well Name:** NBU 922-34D2DS

**Location:** 2025 FNL 0452 FWL QTR SWNW SEC 34 TWNP 090S RNG 220E MER S

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

**Date Original Permit Issued:** 8/11/2009

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

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
- Has the approved source of water for drilling changed?  Yes  No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
- Is bonding still in place, which covers this proposed well?  Yes  No

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

**Signature:** Danielle Piernot

**Date:** 8/12/2010

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

**Date:** August 23, 2010

**By:** 

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>  <b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU 0149077
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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.	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>  <b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>1. TYPE OF WELL</b> Gas Well	<b>8. WELL NAME and NUMBER:</b> NBU 922-34D2DS
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>9. API NUMBER:</b> 43047506040000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6515 Ext
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2025 FNL 0452 FWL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SWNW Section: 34 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES  <b>COUNTY:</b> UINTAH  <b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 7/12/2011	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> 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"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

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

**Date:** 07/12/2011

**By:**

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



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43047506040000**

**API:** 43047506040000

**Well Name:** NBU 922-34D2DS

**Location:** 2025 FNL 0452 FWL QTR SWNW SEC 34 TWNP 090S RNG 220E MER S

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

**Date Original Permit Issued:** 8/11/2009

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

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
  
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
  
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
  
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
  
- Has the approved source of water for drilling changed?  Yes  No
  
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
  
- Is bonding still in place, which covers this proposed well?  Yes  No

**Signature:** Gina Becker

**Date:** 7/12/2011

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9  5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149077
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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 922-34D2DS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047506040000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6511  9. FIELD and POOL or WILDCAT: NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2025 FNL 0452 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 34 Township: 09.0S Range: 22.0E Meridian: S	COUNTY: UINTAH  STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/11/2012	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	

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

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

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

**Date:** August 09, 2012

**By:**

NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBER 720 929-6156	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 8/9/2012	



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43047506040000**

API: 43047506040000

Well Name: NBU 922-34D2DS

Location: 2025 FNL 0452 FWL QTR SWNW SEC 34 TWNP 090S RNG 220E MER S

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

Date Original Permit Issued: 8/11/2009

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

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
- Has the approved source of water for drilling changed?  Yes  No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Danielle Piernot

Date: 8/9/2012

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9  5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149077
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>  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 922-34D1CS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.	9. API NUMBER: 43047506040000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	PHONE NUMBER: 720 929-6514
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2221 FNL 0225 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 33 Township: 09.0S Range: 22.0E Meridian: S	9. FIELD and POOL or WILDCAT: NATURAL BUTTES  COUNTY: UINTAH  STATE: UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 1/1/2013  <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:  <input type="checkbox"/> SPUD REPORT Date of Spud:  <input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> ACIDIZE  <input checked="" type="checkbox"/> CHANGE TO PREVIOUS PLANS  <input type="checkbox"/> CHANGE WELL STATUS  <input type="checkbox"/> DEEPEN  <input type="checkbox"/> OPERATOR CHANGE  <input type="checkbox"/> PRODUCTION START OR RESUME  <input type="checkbox"/> REPERFORATE CURRENT FORMATION  <input type="checkbox"/> TUBING REPAIR  <input type="checkbox"/> WATER SHUTOFF  <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING  <input type="checkbox"/> CHANGE TUBING  <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS  <input type="checkbox"/> FRACTURE TREAT  <input type="checkbox"/> PLUG AND ABANDON  <input type="checkbox"/> RECLAMATION OF WELL SITE  <input type="checkbox"/> SIDETRACK TO REPAIR WELL  <input type="checkbox"/> VENT OR FLARE  <input type="checkbox"/> SI TA STATUS EXTENSION  <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR  <input type="checkbox"/> CHANGE WELL NAME  <input type="checkbox"/> CONVERT WELL TYPE  <input type="checkbox"/> NEW CONSTRUCTION  <input type="checkbox"/> PLUG BACK  <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION  <input type="checkbox"/> TEMPORARY ABANDON  <input type="checkbox"/> WATER DISPOSAL  <input type="checkbox"/> APD EXTENSION  OTHER: <input style="width: 100px;" type="text"/>

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

The operator is requesting the approval of the following changes to the originally approved APD: 1. Change the Well Name = from NBU 922-34D2DS to NBU 922-34D1CS \ 2. Surface & Bottom Hole Location Changes (New Plat Package is Attached) \ a. SHL - From (Section 34) = 2025 FNL/452 FWL - To (Section 33) = 2221 FNL/ 225 FEL \ b. BHL (Section 34) - From = 531 FNL/556 FWL To (Section 34) = 570 FNL/825 FWL \ 3. Proposed Total Depth (New Drilling Program Attached) \ 4. Surface Hole Size & Casing Grade (New Wellbore Diagram Attached) \ 5. Change to Directional Survey Plans (Directional Drilling Survey Attached) \ 6. Surface Use Plan of Operation (Updated Plan Attached) \ 7. Updated Topos & Directions (Attached)

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

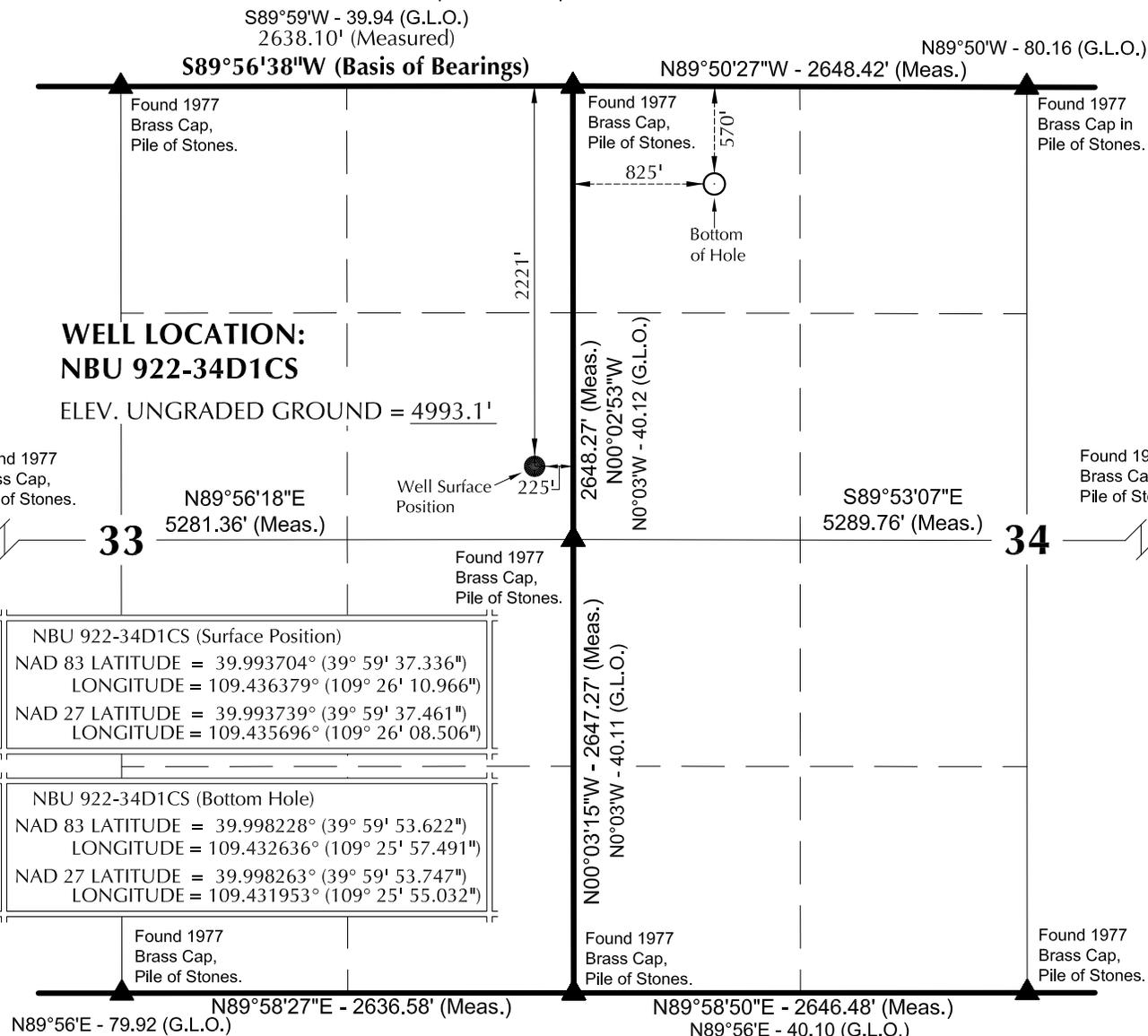
**Date:** December 24, 2012

**By:**

NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II
SIGNATURE N/A		DATE 12/12/2012



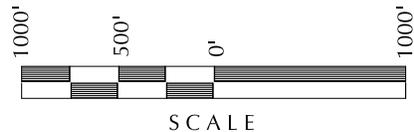
# T9S, R22E, S.L.B.&M.



NBU 922-34D1CS (Surface Position) NAD 83 LATITUDE = 39.993704° (39° 59' 37.336") LONGITUDE = 109.436379° (109° 26' 10.966") NAD 27 LATITUDE = 39.993739° (39° 59' 37.461") LONGITUDE = 109.435696° (109° 26' 08.506")	
NBU 922-34D1CS (Bottom Hole) NAD 83 LATITUDE = 39.998228° (39° 59' 53.622") LONGITUDE = 109.432636° (109° 25' 57.491") NAD 27 LATITUDE = 39.998263° (39° 59' 53.747") LONGITUDE = 109.431953° (109° 25' 55.032")	

**NOTES:**

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines. G.L.O. distances are shown in feet or chains.
- 2. 1 chain = 66 feet.
- 3. The Bottom of hole bears N32°27'08"E 1953.87' from the Surface Position.
- 4. NAD 83 Latitude & Longitude are (CORS 96)(EPOCH:2002).
- 5. Bearings and Distances are based upon a Local Cartesian Grid, oriented to Geodetic North at the North 1/4 Corner of Section 8, T10S, R22E, S.L.B.&M. The Grid having a mean project height of 5300'. Lineal units used are U.S. Survey Foot.
- 6. Basis of elevation is Tri-Sta "Two Water" located in Lot 4 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 ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

*John R. Haugh*  
 PROFESSIONAL LAND SURVEYOR  
 REGISTRATION NO. 6028691  
 STATE OF UTAH

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

**WELL PAD: NBU 922-33H**

**NBU 922-34D1CS**  
**WELL PLAT**  
 570' FNL, 825' FWL (Bottom Hole)  
 NW 1/4 NW 1/4 OF SECTION 34, T9S, R22E,  
 S.L.B.&M., UTAH COUNTY, UTAH.

**609**

**CONSULTING, LLC**  
 2155 North Main Street  
 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: 6-19-12	SURVEYED BY: A.F.	SHEET NO: <b>3</b> 3 OF 22
DATE DRAWN: 6-20-12	DRAWN BY: T.J.R.	
SCALE: 1" = 1000'		Date Last Revised: 9-6-12 T.J.R.

**Kerr-McGee Oil & Gas Onshore, LP  
WELL PAD – NBU 922-33H  
WELLS – NBU 922-34D4CS, NBU 922-34D4BS,  
NBU 922-34D1CS, NBU 922-33A4BS,  
NBU 922-33A4CS, NBU 922-33H1BS,  
NBU 922-33H1CS, NBU 922-33I1BS,  
NBU 922-33H4BS & NBU 922-33J1BS  
Section 33, T9S, R22E, S.L.B.&M.**

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.7 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 2.6 miles to a third Class D County Road to the east. Exit left and proceed in an easterly, then northeasterly, then southeasterly direction along the third Class D County Road approximately 4.7 miles to the intersection of a fourth Class D County Road to the northeast. Exit left and proceed in a northeasterly, then northwesterly direction along the fourth Class D County Road approximately 0.2 miles to a fifth Class D County Road to the north. Exit right and proceed in a northerly direction along the fifth Class D County Road approximately 0.1 miles to the existing access road to the east. Exit right and proceed in an easterly direction along the existing access road approximately 40 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 49.9 miles in a southerly direction.

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

**NBU 922-34D1CS**

Surface: 2221 FNL / 225 FEL      SENE  
BHL: 570 FNL / 825 FWL      NWNW

Section 33 T9S R22E

Unitah County, Utah  
Mineral Lease: UTU-0149077

**ONSHORE ORDER NO. 1****DRILLING PROGRAM**

1. & 2.a **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	1,308'	
Birds Nest	1,574'	Water
Mahogany	2,077'	Water
Wasatch	4,469'	Gas
Mesaverde	6,888'	Gas
Sego	9,073'	Gas
Castlegate	9,138'	Gas
Blackhawk	9,600'	Gas
TVD =	10,200'	
TD =	10,674'	

- 2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) may elect to drill to (i) the Blackhawk formation (part of the Mesaverde Group), (ii) to a shallower depth within the Mesaverde Group, or (iii) to the Wasatch Formation. If Kerr McGee drills to the Blackhawk formation, please refer to Blackhawk as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr-McGee drills to a shallower depth in the Mesaverde Group or to the Wasatch Formation, please refer to the attached Wasatch/Mesaverde Drilling Program which includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the shallower formations.

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

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

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

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

**5. Drilling Fluids Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**6. Evaluation Program:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

**7. Abnormal Conditions:****7.a Blackhawk (Part of Mesaverde Group)**

Maximum anticipated bottom hole pressure calculated at 10200' TVD, approximately equals  
6,528 psi (0.64 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 4,270 psi (bottom hole pressure  
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

**7.b Wasach Formation/Mesaverde Group**

Maximum anticipated bottom hole pressure calculated at 9073' TVD, approximately equals  
5,535 psi (0.61 psi/ft = actual bottomhole gradient)

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

Maximum anticipated surface pressure equals approximately 3,562 psi (bottom hole pressure  
minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

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

**8. Anticipated Starting Dates:**

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

**9. Variations:**

Please refer to the Standard Operating Practices on file with the BLM Vernal Field Office.

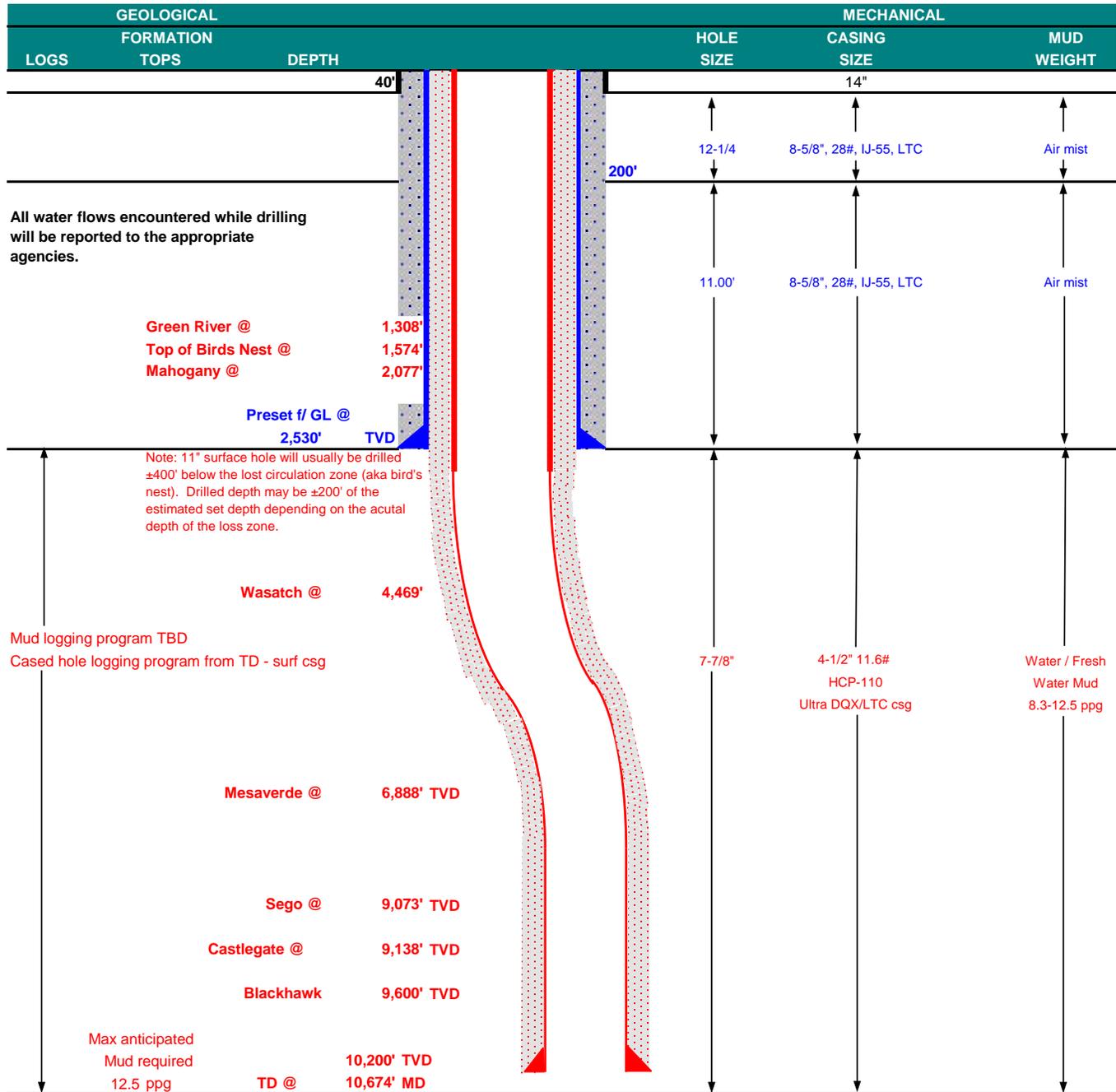
**10. Other Information:**

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



**KERR-McGEE OIL & GAS ONSHORE LP**  
**Blackhawk Drilling Program**

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP			DATE	November 8, 2012		
WELL NAME	<b>NBU 922-34D1CS</b>			TD	10,200'	TVD	10,674' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	4,990'
SURFACE LOCATION	SENE	2221 FNL	225 FEL	Sec 33	T 9S	R 22E	
	Latitude:	39.993704	Longitude:	-109.436379		NAD 83	
BTM HOLE LOCATION	NWNW	570 FNL	825 FWL	Sec 34	T 9S	R 22E	
	Latitude:	39.998228	Longitude:	-109.432636		NAD 83	
OBJECTIVE ZONE(S)	BLACKHAWK (Part of the Mesaverde Group)						
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.						





**KERR-McGEE OIL & GAS ONSHORE LP**  
**Blackhawk Drilling Program**

**CASING PROGRAM**

							DESIGN FACTORS			
							LTC	DQX		
	SIZE	INTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION	
CONDUCTOR	14"	0-40'								
							3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to 2,530	28.00	IJ-55	LTC	2.13	1.59	5.61	N/A
							10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to 5,000	11.60	HCP-110	DQX	1.19	1.30		3.67
	4-1/2"	5,000	to 10,674'	11.60	HCP-110	LTC	1.19	1.30	5.24	

**Surface casing:**

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**Production casing:**

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
<b>Option 1</b>							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
SURFACE			<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>				
<b>Option 2</b>	LEAD	2,030'	Premium cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps	250	35%	12.00	2.86
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,964'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	310	35%	12.00	3.38
	TAIL	6,710'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,580	35%	14.30	1.31

\*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

\*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

**FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well. 1 centralizer on the first 3 joints and one every third joint thereafter.

**ADDITIONAL INFORMATION**

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

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

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

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

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

**DRILLING ENGINEER:**

Nick Spence / Danny Showers / Travis Hansell

**DATE:**

**DRILLING SUPERINTENDENT:**

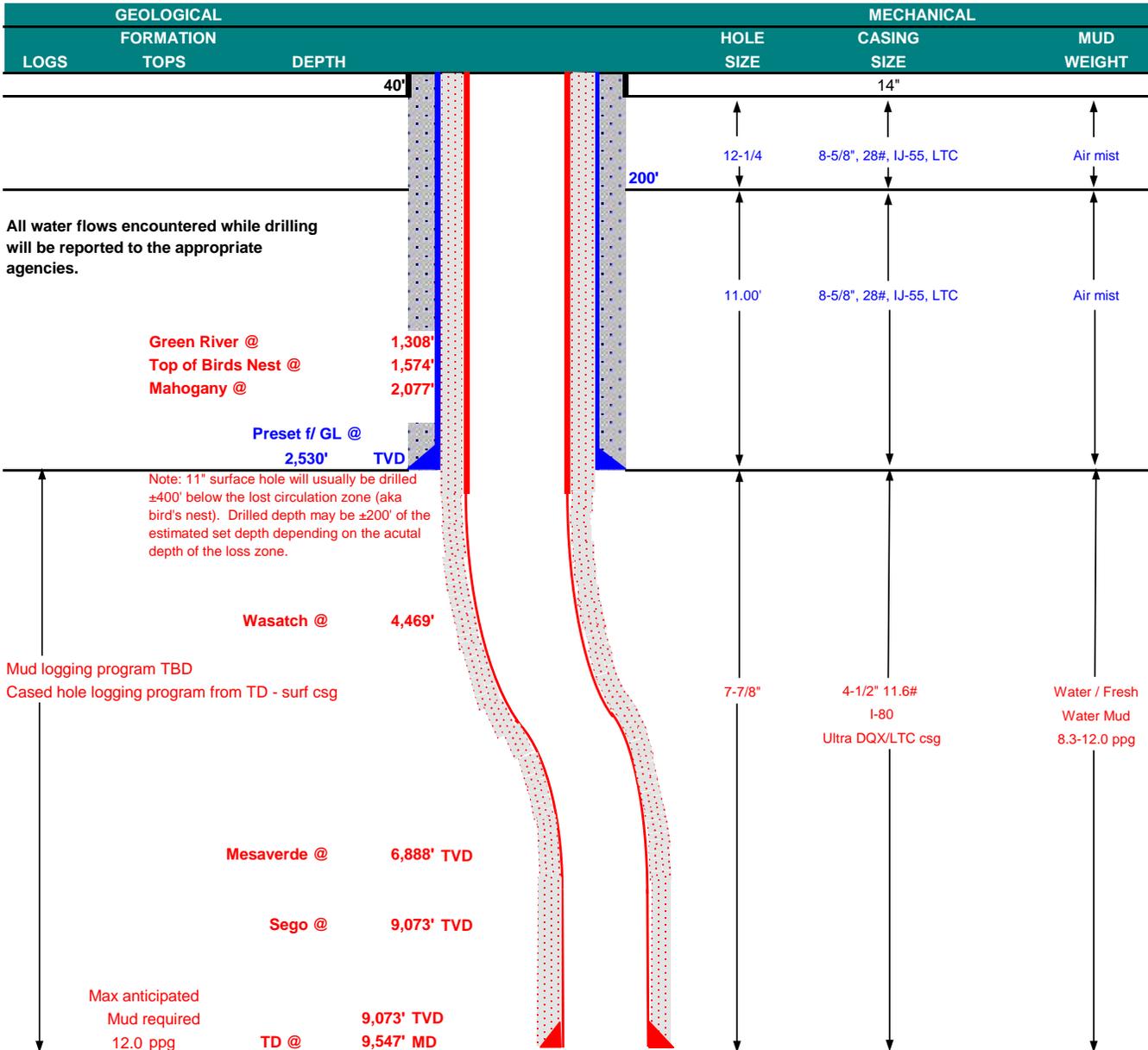
Kenny Gathings / Lovel Young

**DATE:**



**KERR-McGEE OIL & GAS ONSHORE LP**  
**Wasatch/Mesaverde Drilling Program**

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP		DATE	November 8, 2012			
WELL NAME	<b>NBU 922-34D1CS</b>		TD	9,073'	TVD	9,547' MD	
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION	4,990'
SURFACE LOCATION	SENE	2221 FNL	225 FEL	Sec 33	T 9S	R 22E	
	Latitude: 39.993704		Longitude: -109.436379		NAD 83		
BTM HOLE LOCATION	NWNW	570 FNL	825 FWL	Sec 34	T 9S	R 22E	
	Latitude: 39.998228		Longitude: -109.432636		NAD 83		
OBJECTIVE ZONE(S)	Wasatch Formation/Mesaverde Group						
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept.						





## KERR-McGEE OIL & GAS ONSHORE LP

### Wasatch/Mesaverde Drilling Program

CASING PROGRAM							DESIGN FACTORS			
	SIZE	INTERVAL	WT.	GR.	CPLG.	BURST	COLLAPSE	LTC	DQX	
								TENSION		
CONDUCTOR	14"	0-40'								
SURFACE	8-5/8"	0 to 2,530	28.00	IJ-55	LTC	3,390	1,880	348,000	N/A	
						2.13	1.59	5.61	N/A	
PRODUCTION	4-1/2"	0 to 5,000	11.60	I-80	DQX	7,780	6,350		267,035	
						1.11	1.12		2.95	
						7,780	6,350	223,000		
	4-1/2"	5,000 to 9,547'	11.60	I-80	LTC	1.11	1.12	5.18		

**Surface Casing:**

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**Production casing:**

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

**CEMENT PROGRAM**

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE Option 1	LEAD	500'	Premium cmt + 2% CaCl + 0.25 pps flocele	180	60%	15.80	1.15
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt + 2% CaCl + 0.25 pps flocele	270	0%	15.80	1.15
<b>NOTE: If well will circulate water to surface, option 2 will be utilized</b>							
SURFACE Option 2	LEAD	2,030'	Premium cmt + 16% Gel + 10 pps gilsonite + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps	250	35%	12.00	2.86
	TAIL	500'	Premium cmt + 2% CaCl + 0.25 pps Flocele + 3% salt BWOC + GR 3 pps	150	35%	15.80	1.15
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	3,967'	Premium Lite II +0.25 pps celloflake + 5 pps gilsonite + 10% gel + 0.5% extender	310	35%	12.00	3.38
	TAIL	5,580'	50/50 Poz/G + 10% salt + 2% gel + 0.1% R-3	1,320	35%	14.30	1.31

\*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

\*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

**FLOAT EQUIPMENT & CENTRALIZERS**

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
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**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.

IF extreme mud losses are observed OR cement doesn't reach surface on a well on the pad, a DV Tool may be used. With Cement Baskets above and Below it.

**DRILLING ENGINEER:**\_\_\_\_\_  
Nick Spence / Danny Showers / Travis Hansell

DATE: \_\_\_\_\_

**DRILLING SUPERINTENDENT:**\_\_\_\_\_  
Kenny Gathings / Lovel Young

DATE: \_\_\_\_\_



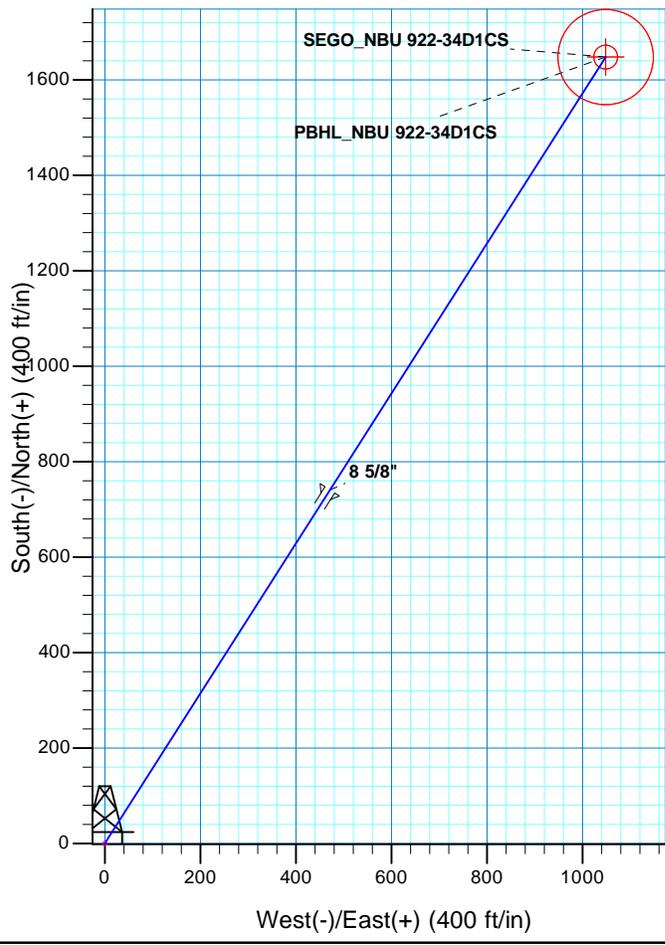
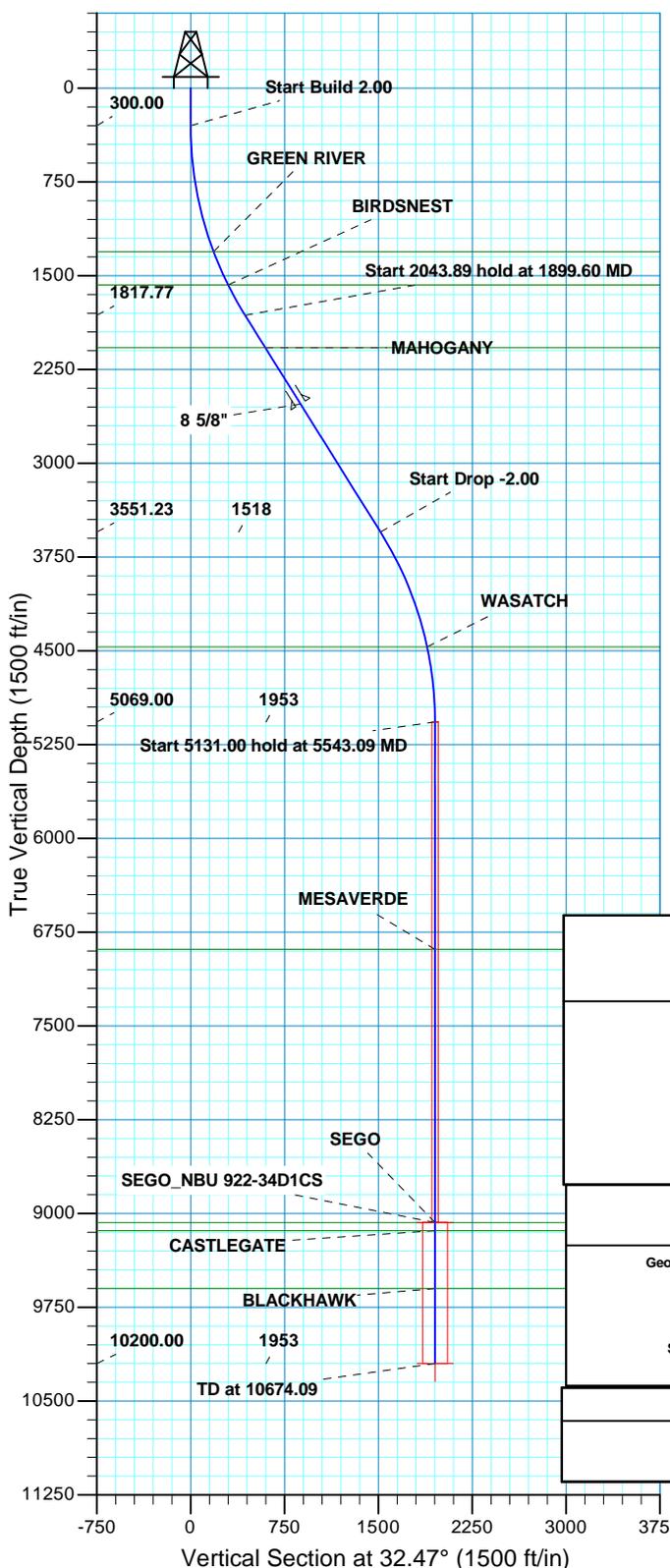
Site: NBU 922-33H PAD  
Well: NBU 922-34D1CS  
Wellbore: OH  
Design: PLAN #1 PRELIMINARY



WELL DETAILS: NBU 922-34D1CS								
GL 4990 & KB 4 @ 4994.00ft (ASSUMED)								
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
0.00	0.00	14527609.19	2078562.59	39.993739	-109.435696			
DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SEGO	9073.00	1647.73	1048.52	14529275.06	2079582.02	39.998263	-109.431953	Circle (Radius: 25.00)
- plan hits target center								
PBHL	10200.00	1647.73	1048.52	14529275.06	2079582.02	39.998263	-109.431953	Circle (Radius: 100.00)
- plan hits target center								

Azimuths to True North  
Magnetic North: 10.87°

Magnetic Field  
Strength: 52195.6snT  
Dip Angle: 65.84°  
Date: 11/06/2012  
Model: IGRF2010



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
1899.60	31.99	32.47	1817.77	367.08	233.59	2.00	32.47	435.10	
3943.49	31.99	32.47	3551.23	1280.65	814.93	0.00	0.00	1517.95	
5543.09	0.00	0.00	5069.00	1647.73	1048.52	2.00	180.00	1953.05	
10674.09	0.00	0.00	10200.00	1647.73	1048.52	0.00	0.00	1953.05	PBHL_NBU 922-34D1CS

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N		FORMATION TOP DETAILS		
Geodetic System: Universal Transverse Mercator (US Survey Feet)	Datum: NAD 1927 (NADCON CONUS)	TVDPath	MDPath	Formation
Ellipsoid: Clarke 1866	Zone: Zone 12N (114 W to 108 W)	1308.00	1330.05	GREEN RIVER
Location: SECTION 33 T9S R22E	System Datum: Mean Sea Level	1574.00	1620.24	BIRDSNEST
		2077.00	2205.25	MAHOGANY
		4469.00	4938.61	WASATCH
		6888.00	7362.09	MESAVERDE
		9073.00	9547.09	SEGO
		9138.00	9612.09	CASTLEGATE
		9600.00	10074.09	BLACKHAWK

CASING DETAILS			
TVD	MD	Name	Size
2527.00	2735.84	8 5/8"	8.625



## **US ROCKIES REGION PLANNING**

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

**NBU 922-33H PAD**

**NBU 922-34D1CS**

**OH**

**Plan: PLAN #1 PRELIMINARY**

## **Standard Planning Report**

**06 November, 2012**





**SDI**  
Planning Report



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Site:</b>	NBU 922-33H PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

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

<b>Site</b>	NBU 922-33H PAD, SECTION 33 T9S R22E				
<b>Site Position:</b>	<b>Northing:</b>	14,527,606.67 usft	<b>Latitude:</b>	39.993734	
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,078,522.56 usft	<b>Longitude:</b>	-109.435839
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	1.01 °

<b>Well</b>	NBU 922-34D1CS, 2221 FNL 225 FEL					
<b>Well Position</b>	<b>+N/-S</b>	1.82 ft	<b>Northing:</b>	14,527,609.19 usft	<b>Latitude:</b>	39.993739
	<b>+E/-W</b>	40.06 ft	<b>Easting:</b>	2,078,562.58 usft	<b>Longitude:</b>	-109.435696
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	4,990.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	11/06/12	10.87	65.84	52,196

<b>Design</b>	PLAN #1 PRELIMINARY			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	32.47

<b>Plan Sections</b>										
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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,899.60	31.99	32.47	1,817.77	367.08	233.59	2.00	2.00	0.00	32.47	
3,943.49	31.99	32.47	3,551.23	1,280.65	814.93	0.00	0.00	0.00	0.00	
5,543.09	0.00	0.00	5,069.00	1,647.73	1,048.52	2.00	-2.00	0.00	180.00	
10,674.09	0.00	0.00	10,200.00	1,647.73	1,048.52	0.00	0.00	0.00	0.00	PBHL_NBU 922-34D



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Site:</b>	NBU 922-33H PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Start Build 2.00</b>										
400.00	2.00	32.47	399.98	1.47	0.94	1.75	2.00	2.00	0.00	
500.00	4.00	32.47	499.84	5.89	3.75	6.98	2.00	2.00	0.00	
600.00	6.00	32.47	599.45	13.24	8.43	15.69	2.00	2.00	0.00	
700.00	8.00	32.47	698.70	23.52	14.97	27.88	2.00	2.00	0.00	
800.00	10.00	32.47	797.47	36.72	23.37	43.52	2.00	2.00	0.00	
900.00	12.00	32.47	895.62	52.82	33.61	62.60	2.00	2.00	0.00	
1,000.00	14.00	32.47	993.06	71.79	45.69	85.10	2.00	2.00	0.00	
1,100.00	16.00	32.47	1,089.64	93.63	59.58	110.98	2.00	2.00	0.00	
1,200.00	18.00	32.47	1,185.27	118.29	75.27	140.21	2.00	2.00	0.00	
1,300.00	20.00	32.47	1,279.82	145.76	92.75	172.77	2.00	2.00	0.00	
1,330.05	20.60	32.47	1,308.00	154.56	98.35	183.19	2.00	2.00	0.00	
<b>GREEN RIVER</b>										
1,400.00	22.00	32.47	1,373.17	175.99	111.99	208.60	2.00	2.00	0.00	
1,500.00	24.00	32.47	1,465.21	208.96	132.97	247.67	2.00	2.00	0.00	
1,600.00	26.00	32.47	1,555.84	244.61	155.65	289.93	2.00	2.00	0.00	
1,620.24	26.40	32.47	1,574.00	252.15	160.45	298.87	2.00	2.00	0.00	
<b>BIRDSNEST</b>										
1,700.00	28.00	32.47	1,644.94	282.91	180.03	335.33	2.00	2.00	0.00	
1,800.00	30.00	32.47	1,732.39	323.81	206.05	383.81	2.00	2.00	0.00	
1,899.60	31.99	32.47	1,817.77	367.08	233.59	435.10	2.00	2.00	0.00	
<b>Start 2043.89 hold at 1899.60 MD</b>										
1,900.00	31.99	32.47	1,818.11	367.26	233.70	435.31	0.00	0.00	0.00	
2,000.00	31.99	32.47	1,902.92	411.96	262.14	488.29	0.00	0.00	0.00	
2,100.00	31.99	32.47	1,987.73	456.65	290.59	541.27	0.00	0.00	0.00	
2,200.00	31.99	32.47	2,072.54	501.35	319.03	594.25	0.00	0.00	0.00	
2,205.25	31.99	32.47	2,077.00	503.70	320.53	597.03	0.00	0.00	0.00	
<b>MAHOGANY</b>										
2,300.00	31.99	32.47	2,157.36	546.05	347.47	647.23	0.00	0.00	0.00	
2,400.00	31.99	32.47	2,242.17	590.75	375.92	700.21	0.00	0.00	0.00	
2,500.00	31.99	32.47	2,326.98	635.44	404.36	753.19	0.00	0.00	0.00	
2,600.00	31.99	32.47	2,411.79	680.14	432.80	806.17	0.00	0.00	0.00	
2,700.00	31.99	32.47	2,496.60	724.84	461.25	859.15	0.00	0.00	0.00	
2,735.84	31.99	32.47	2,527.00	740.86	471.44	878.14	0.00	0.00	0.00	
<b>8 5/8"</b>										
2,800.00	31.99	32.47	2,581.42	769.54	489.69	912.13	0.00	0.00	0.00	
2,900.00	31.99	32.47	2,666.23	814.24	518.13	965.11	0.00	0.00	0.00	
3,000.00	31.99	32.47	2,751.04	858.93	546.57	1,018.09	0.00	0.00	0.00	
3,100.00	31.99	32.47	2,835.85	903.63	575.02	1,071.07	0.00	0.00	0.00	
3,200.00	31.99	32.47	2,920.67	948.33	603.46	1,124.05	0.00	0.00	0.00	
3,300.00	31.99	32.47	3,005.48	993.03	631.90	1,177.03	0.00	0.00	0.00	
3,400.00	31.99	32.47	3,090.29	1,037.72	660.35	1,230.01	0.00	0.00	0.00	
3,500.00	31.99	32.47	3,175.10	1,082.42	688.79	1,282.99	0.00	0.00	0.00	
3,600.00	31.99	32.47	3,259.91	1,127.12	717.23	1,335.97	0.00	0.00	0.00	
3,700.00	31.99	32.47	3,344.73	1,171.82	745.68	1,388.95	0.00	0.00	0.00	
3,800.00	31.99	32.47	3,429.54	1,216.51	774.12	1,441.93	0.00	0.00	0.00	
3,900.00	31.99	32.47	3,514.35	1,261.21	802.56	1,494.91	0.00	0.00	0.00	
3,943.49	31.99	32.47	3,551.23	1,280.65	814.93	1,517.95	0.00	0.00	0.00	
<b>Start Drop -2.00</b>										



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Site:</b>	NBU 922-33H PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,000.00	30.86	32.47	3,599.46	1,305.51	830.75	1,547.42	2.00	-2.00	0.00	
4,100.00	28.86	32.47	3,686.17	1,347.51	857.48	1,597.21	2.00	-2.00	0.00	
4,200.00	26.86	32.47	3,774.58	1,386.94	882.57	1,643.94	2.00	-2.00	0.00	
4,300.00	24.86	32.47	3,864.56	1,423.74	905.98	1,687.55	2.00	-2.00	0.00	
4,400.00	22.86	32.47	3,956.01	1,457.87	927.70	1,728.01	2.00	-2.00	0.00	
4,500.00	20.86	32.47	4,048.81	1,489.28	947.69	1,765.24	2.00	-2.00	0.00	
4,600.00	18.86	32.47	4,142.86	1,517.94	965.93	1,799.21	2.00	-2.00	0.00	
4,700.00	16.86	32.47	4,238.03	1,543.82	982.40	1,829.88	2.00	-2.00	0.00	
4,800.00	14.86	32.47	4,334.22	1,566.88	997.07	1,857.21	2.00	-2.00	0.00	
4,900.00	12.86	32.47	4,431.30	1,587.09	1,009.93	1,881.17	2.00	-2.00	0.00	
4,938.61	12.09	32.47	4,469.00	1,594.12	1,014.41	1,889.51	2.00	-2.00	0.00	
<b>WASATCH</b>										
5,000.00	10.86	32.47	4,529.16	1,604.43	1,020.96	1,901.73	2.00	-2.00	0.00	
5,100.00	8.86	32.47	4,627.68	1,618.88	1,030.16	1,918.85	2.00	-2.00	0.00	
5,200.00	6.86	32.47	4,726.73	1,630.42	1,037.50	1,932.53	2.00	-2.00	0.00	
5,300.00	4.86	32.47	4,826.21	1,639.03	1,042.98	1,942.74	2.00	-2.00	0.00	
5,400.00	2.86	32.47	4,925.97	1,644.71	1,046.60	1,949.48	2.00	-2.00	0.00	
5,500.00	0.86	32.47	5,025.92	1,647.46	1,048.34	1,952.72	2.00	-2.00	0.00	
5,543.09	0.00	0.00	5,069.00	1,647.73	1,048.52	1,953.05	2.00	-2.00	-75.36	
<b>Start 5131.00 hold at 5543.09 MD</b>										
5,600.00	0.00	0.00	5,125.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,225.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,325.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,425.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,525.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,100.00	0.00	0.00	5,625.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,200.00	0.00	0.00	5,725.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,300.00	0.00	0.00	5,825.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,400.00	0.00	0.00	5,925.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,025.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,125.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,225.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,325.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,425.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,525.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,100.00	0.00	0.00	6,625.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,200.00	0.00	0.00	6,725.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,300.00	0.00	0.00	6,825.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,362.09	0.00	0.00	6,888.00	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
<b>MESAVERDE</b>										
7,400.00	0.00	0.00	6,925.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,025.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,125.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,225.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,325.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,425.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,525.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,100.00	0.00	0.00	7,625.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,725.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,825.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,400.00	0.00	0.00	7,925.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,025.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,125.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	



**SDI**  
Planning Report

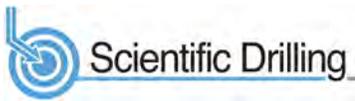


<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Site:</b>	NBU 922-33H PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

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)	
8,700.00	0.00	0.00	8,225.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,325.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,425.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,525.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,100.00	0.00	0.00	8,625.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,200.00	0.00	0.00	8,725.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,300.00	0.00	0.00	8,825.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,400.00	0.00	0.00	8,925.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,025.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,547.09	0.00	0.00	9,073.00	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
<b>SEGO - SEGO_NBU 922-34D1CS</b>										
9,600.00	0.00	0.00	9,125.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,612.09	0.00	0.00	9,138.00	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
<b>CASTLEGATE</b>										
9,700.00	0.00	0.00	9,225.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,325.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
9,900.00	0.00	0.00	9,425.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,000.00	0.00	0.00	9,525.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,074.09	0.00	0.00	9,600.00	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
<b>BLACKHAWK</b>										
10,100.00	0.00	0.00	9,625.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,200.00	0.00	0.00	9,725.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,300.00	0.00	0.00	9,825.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,400.00	0.00	0.00	9,925.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,500.00	0.00	0.00	10,025.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,600.00	0.00	0.00	10,125.91	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
10,674.09	0.00	0.00	10,200.00	1,647.73	1,048.52	1,953.05	0.00	0.00	0.00	
<b>PBHL_NBU 922-34D1CS</b>										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SEGO_NBU 922-34D1C - hit/miss target - Shape - Circle (radius 25.00)	0.00	0.00	9,073.00	1,647.73	1,048.52	14,529,275.07	2,079,582.02	39.998263	-109.431953	
PBHL_NBU 922-34D1C - plan hits target center - Circle (radius 100.00)	0.00	0.00	10,200.00	1,647.73	1,048.52	14,529,275.07	2,079,582.02	39.998263	-109.431953	

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)		
2,735.84	2,527.00	8 5/8"	8.625	11.000		



**SDI**  
Planning Report



<b>Database:</b>	EDM5000-RobertS-Local	<b>Local Co-ordinate Reference:</b>	Well NBU 922-34D1CS
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Project:</b>	UTAH - UTM (feet), NAD27, Zone 12N	<b>MD Reference:</b>	GL 4990 & KB 4 @ 4994.00ft (ASSUMED)
<b>Site:</b>	NBU 922-33H PAD	<b>North Reference:</b>	True
<b>Well:</b>	NBU 922-34D1CS	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #1 PRELIMINARY		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,330.05	1,308.00	GREEN RIVER			
1,620.24	1,574.00	BIRDSNEST			
2,205.25	2,077.00	MAHOGANY			
4,938.61	4,469.00	WASATCH			
7,362.09	6,888.00	MESAVERDE			
9,547.09	9,073.00	SEGO			
9,612.09	9,138.00	CASTLEGATE			
10,074.09	9,600.00	BLACKHAWK			

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 2.00	
1,899.60	1,817.77	367.08	233.59	Start 2043.89 hold at 1899.60 MD	
3,943.49	3,551.23	1,280.65	814.93	Start Drop -2.00	
5,543.09	5,069.00	1,647.73	1,048.52	Start 5131.00 hold at 5543.09 MD	
10,674.09	10,200.00	1,647.73	1,048.52	TD at 10674.09	

NBU 922-33A4BS/ 922-33A4CS/ 922-33H1BS/ 922-33H1CS/ 922-33H4BS  
 NBU 922-33I1BS/ 922-33J1BS/ 922-33D1CS/ 922-33D4BS/ 922-33D4CS  
 Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations  
 1 of 6

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

### NBU 922-33H PAD

<u>API #</u>	<u>NBU 922-33A4BS</u>		
	Surface: 2221 FNL / 235 FEL	SENE	Lot
	BHL: 745 FNL / 493 FEL	NENE	Lot
<u>API #</u>	<u>NBU 922-33A4CS</u>		
	Surface: 2222 FNL / 245 FEL	SENE	Lot
	BHL: 1076 FNL / 493 FEL	NENE	Lot
<u>API #</u>	<u>NBU 922-33H1BS</u>		
	Surface: 2222 FNL / 255 FEL	SENE	Lot
	BHL: 1406 FNL / 493 FEL	SENE	Lot
<u>API #</u>	<u>NBU 922-33H1CS</u>		
	Surface: 2223 FNL / 265 FEL	SENE	Lot
	BHL: 1737 FNL / 493 FEL	SENE	Lot
<u>API #</u>	<u>NBU 922-33H4BS</u>		
	Surface: 2224 FNL / 295 FEL	SENE	Lot
	BHL: 2068 FNL / 493 FEL	SENE	Lot
<u>API #</u>	<u>NBU 922-33I1BS</u>		
	Surface: 2223 FNL / 275 FEL	SENE	Lot
	BHL: 2434 FSL / 490 FEL	NESE	Lot
<u>API #</u>	<u>NBU 922-33J1BS</u>		
	Surface: 2225 FNL / 305 FEL	SENE	Lot
	BHL: 2401 FSL / 1814 FEL	NWSE	Lot
<u>API #4304750604</u>	<u>NBU 922-34D1CS</u>		
	Surface: 2221 FNL / 225 FEL	SENE	Lot
	BHL: 570 FNL / 825 FWL	NWNW	Lot
<u>API #4304750602</u>	<u>NBU 922-34D4BS</u>		
	Surface: 2220 FNL / 215 FEL	SENE	Lot
	BHL: 908 FNL / 816 FWL	NWNW	Lot
<u>API #</u>	<u>NBU 922-34D4CS</u>		
	Surface: 2220 FNL / 205 FEL	SENE	Lot
	BHL: 1233 FNL / 825 FWL	NWNW	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

NBU 922-33A4BS/ 922-33A4CS/ 922-33H1BS/ 922-33H1CS/ 922-33H4BS  
 NBU 922-33I1BS/ 922-33J1BS/ 922-33D1CS/ 922-33D4BS/ 922-33D4CS  
 Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations  
 2 of 6

An on-site meeting was held on August 16-17, 2012. Present were:

- Dave Gordon, Tyler Cox, Aaron Roe and Brian Barnett - BLM;
- Jessi Brunson - USFWS;
- Bill Knapp - ICF Consulting;
- Jacob Dunham - 609 Consulting;
- Mitch Batty - Timberline Engineering & Land Surveying, Inc.; and
- Gina Becker, Charles Chase, Lindsey Frazier, Doyle Holmes, Randy Townley and Casey McKee- Kerr-McGee

**A. Existing Roads:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Topo B for existing roads.

**B. New or Reconstructed Access Roads:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**The following segments are "on-lease"**

No new access road is proposed. Please refer to Topo B.

**C. Location of Existing Wells:**

Please refer to Topo C for existing wells.

**D. Location of Existing and/or Proposed Facilities:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

This pad will expand the existing pad for the NBU 922-33H-4, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on November 1, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

**GAS GATHERING**

*Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.*

The total gas gathering pipeline distance from the meter to the tie in point is  $\pm 6,235'$  and the individual segments are broken up as follows:

**The following segments are "onlease", no ROW needed.**

- $\pm 425'$  (0.08 miles) – Section 33 T9S R22E (SE/4 NE/4) – On-lease UTU 01191-A, BLM surface, New 10" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- $\pm 285'$  (0.05 miles) – Section 33 T9S R22E (NE/4) – On-lease UTU 01191-A, BLM surface, New 10" buried gas gathering pipeline from the edge of the pad to the NBU 922-33F Pad pipeline intersection. Please refer to Exhibit A Gas Gathering- Lines 9 and 8.
- $\pm 1,330'$  (0.3 miles) – Section 33 T9S R22E (E/2) – On-lease UTU 01191-A, BLM surface, New 12" buried gas gathering pipeline from the NBU 922-33F Pad pipeline intersection to tie-in to the NBU 922-34E Pad pipeline intersection. This pipeline will be used concurrently with the NBU 922-33F Pad. Please refer to Exhibit A Gas Gathering- Line 4.

NBU 922-33A4BS/ 922-33A4CS/ 922-33H1BS/ 922-33H1CS/ 922-33H4BS  
 NBU 922-33I1BS/ 922-33J1BS/ 922-33D1CS/ 922-33D4BS/ 922-33D4CS  
 Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations  
 3 of 6

**The following segments require a ROW. Anadarko Uintah Midstream (AUM) will apply for an SF-299/POD under separate cover. Listed below is the gas gathering pipeline distances:**

±4,195' (0.8 miles) – Section 33 T9S R22E and Section 3 and 4 T10S R22E – On-lease UTU 01191-A and UTU 01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 922-34E Pad pipeline intersection to the existing 16" buried gas pipeline in 1022-3 at the NBU 1022-3E Pad intersection. Please refer to Exhibit A Gas Gathering- Lines 3 and 1.

#### **LIQUID GATHERING**

*Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.*

The total liquid gathering pipeline distance from the separator to the tie in point is ±6,235' and the individual segments are broken up as follows:

**The following segments are "onlease", no ROW needed.**

- ±425' (0.08 miles) – Section 33 T9S R22E (SE/4 NE/4) – On-lease UTU 01191-A, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.
- ±285' (0.05 miles) – Section 33 T9S R22E (NE/4) – On-lease UTU 01191-A, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the NBU 922-33F Pad pipeline intersection. Please refer to Exhibit B Liquid Gathering- Lines 9 and 8.
- ±1,330' (0.3 miles) – Section 33 T9S R22E (E/2) – On-lease UTU 01191-A, BLM surface, New 6" buried liquid gathering pipeline from the NBU 922-33F Pad pipeline intersection to tie-in to the NBU 922-34E Pad pipeline intersection. This pipeline will be used concurrently with the NBU 922-33F Pad. Please refer to Exhibit B Liquid Gathering- Line 4.
- ±4,195' (0.8 miles) – Section 33 T9S R22E and Section 3 and 4 T10S R22E – On-lease UTU 01191-A and UTU 01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 922-34E Pad pipeline intersection to the existing 6" buried liquid pipeline in 1022-3 at the NBU 1022-3E Pad intersection. This pipeline will be used concurrently with the NBU 922-33F, NBU 922-34E, NBU 922-34F, NBU 922-34L and NBU 922-34M Pads. Please refer to Exhibit B Liquid Gathering- Line 3 and Line 1.

#### **Pipeline Gathering Construction**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **The Anadarko Completions Transportation System (ACTS) information:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

Please refer to Exhibit C for ACTS Lines

#### **E. Location and Types of Water Supply:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **F. Construction Materials:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

#### **G. Methods for Handling Waste:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Materials Management**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**H. Ancillary Facilities:**

No additional ancillary facilities are planned for this location.

**I. Well Site Layout:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**J. Plans for Surface Reclamation:**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Interim Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Measures Common to Interim and Final Reclamation**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Weed Control**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**Monitoring**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

**K. Surface/Mineral Ownership:**

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

**L. Other Information:**

**Cultural and Paleontological Resources**

Please refer to the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-33A4BS/ 922-33A4CS/ 922-33H1BS/ 922-33H1CS/ 922-33H4BS  
NBU 922-33I1BS/ 922-33J1BS/ 922-33D1CS/ 922-33D4BS/ 922-33D4CS  
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations  
5 of 6

**Resource Reports:**

A Class I literature survey was completed on September 21, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC-12-264.

A paleontological reconnaissance survey was completed on August 28, 2012 by SWCA Environmental Consultants. For additional details please refer to report SWCA-UT12-14314-177.

Biological field survey was completed on August 25, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-836 and 841.

**Proposed Action Annual Emissions Tables:**

Please refer to the Appendix in the Standard Operating Practices on file at the BLM Vernal Field Office dated October 31, 2012.

NBU 922-33A4BS/ 922-33A4CS/ 922-33H1BS/ 922-33H1CS/ 922-33H4BS  
NBU 922-33I1BS/ 922-33J1BS/ 922-33D1CS/ 922-33D4BS/ 922-33D4CS  
Kerr-McGee Oil Gas Onshore, L.P.

Surface Use Plan of Operations  
6 of 6

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

Gina T. Becker  
Senior Regulatory Analyst  
Kerr-McGee Oil & Gas Onshore LP  
PO Box 173779  
Denver, CO 80217-3779  
(720) 929-6086

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

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

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

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

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

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

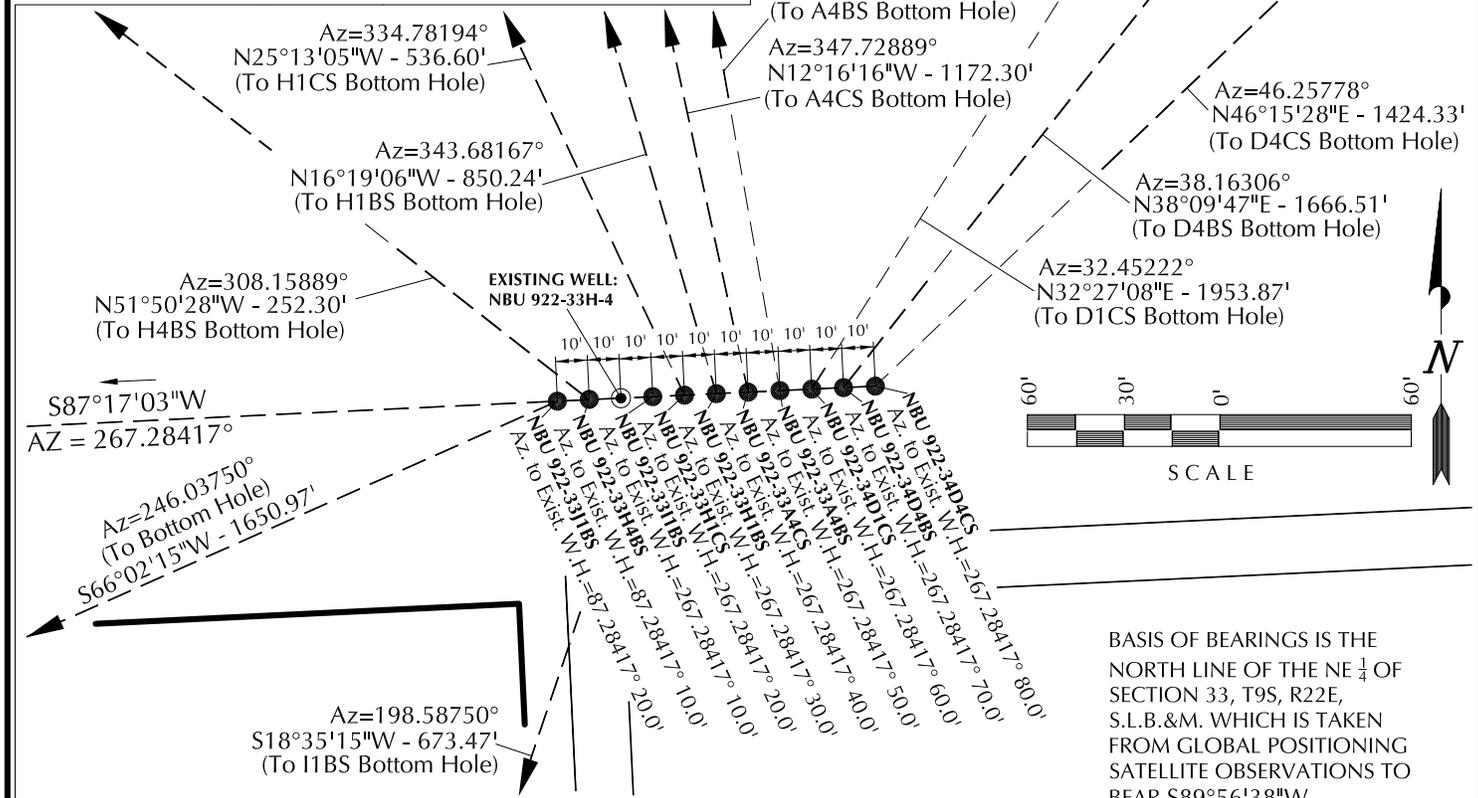
  
\_\_\_\_\_  
Gina T. Becker

November 5, 2012  
\_\_\_\_\_  
Date

WELL NAME	SURFACE POSITION					BOTTOM HOLE				
	NAD83		NAD27		FOOTAGES	NAD83		NAD27		FOOTAGES
	LATITUDE	LONGITUDE	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE	LATITUDE	LONGITUDE	
NBU 922-34D4CS	39°59'37.345"	109°26'10.709"	39°59'37.470"	109°26'08.249"	2220' FNL 205' FEL	39°59'47.072"	109°25'57.487"	39°59'47.196"	109°25'55.028"	1233' FNL 825' FWL
NBU 922-34D4BS	39°59'37.341"	109°26'10.838"	39°59'37.465"	109°26'08.378"	2220' FNL 215' FEL	39°59'50.283"	109°25'57.605"	39°59'50.408"	109°25'55.145"	908' FNL 816' FWL
NBU 922-34D1CS	39°59'37.336"	109°26'10.966"	39°59'37.461"	109°26'08.506"	2221' FNL 225' FEL	39°59'53.622"	109°25'57.491"	39°59'53.747"	109°25'55.032"	570' FNL 825' FWL
NBU 922-33A4BS	39°59'37.331"	109°26'11.094"	39°59'37.456"	109°26'08.634"	2221' FNL 235' FEL	39°59'51.915"	109°26'14.421"	39°59'52.040"	109°26'11.961"	745' FNL 493' FEL
NBU 922-33A4CS	39°59'37.327"	109°26'11.223"	39°59'37.451"	109°26'08.763"	2222' FNL 245' FEL	39°59'48.645"	109°26'14.419"	39°59'48.770"	109°26'11.958"	1076' FNL 493' FEL
NBU 922-33H1BS	39°59'37.322"	109°26'11.351"	39°59'37.447"	109°26'08.891"	2222' FNL 255' FEL	39°59'45.384"	109°26'14.416"	39°59'45.509"	109°26'11.956"	1406' FNL 493' FEL
NBU 922-33H1CS	39°59'37.317"	109°26'11.479"	39°59'37.442"	109°26'09.019"	2223' FNL 265' FEL	39°59'42.114"	109°26'14.414"	39°59'42.239"	109°26'11.954"	1737' FNL 493' FEL
NBU 922-33I1BS	39°59'37.313"	109°26'11.608"	39°59'37.438"	109°26'09.148"	2223' FNL 275' FEL	39°59'31.007"	109°26'14.367"	39°59'31.131"	109°26'11.907"	2434' FSL 490' FEL
NBU 922-33H4BS	39°59'37.303"	109°26'11.864"	39°59'37.428"	109°26'09.404"	2224' FNL 295' FEL	39°59'38.844"	109°26'14.412"	39°59'38.969"	109°26'11.952"	2068' FNL 493' FEL
NBU 922-33J1BS	39°59'37.299"	109°26'11.992"	39°59'37.424"	109°26'09.533"	2225' FNL 305' FEL	39°59'30.678"	109°26'31.374"	39°59'30.803"	109°26'28.913"	2401' FSL 1814' FEL
NBU 922-33H-4	39°59'37.308"	109°26'11.736"	39°59'37.433"	109°26'09.276"	2224' FNL 285' FEL					

RELATIVE COORDINATES - From Surface Position to Bottom Hole

WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST
NBU 922-34D4CS	984.8'	1029.0'	NBU 922-34D4BS	1310.3'	1029.7'	NBU 922-34D1CS	1648.8'	1048.4'	NBU 922-33A4BS	1476.0'	-259.4'
NBU 922-33A4CS	1145.5'	-249.2'	NBU 922-33H1BS	816.0'	-238.9'	NBU 922-33H1CS	485.5'	-228.6'	NBU 922-33I1BS	-638.3'	-214.7'
NBU 922-33H4BS	155.9'	-198.4'	NBU 922-33J1BS	-670.5'	-1508.7'						



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

**WELL PAD - NBU 922-33H**

**WELL PAD INTERFERENCE PLAT**  
WELLS - NBU 922-34D4CS, NBU 922-34D4BS, NBU 922-34D1CS, NBU 922-33A4BS, NBU 922-33A4CS, NBU 922-33H1BS, NBU 922-33H1CS, NBU 922-33I1BS, NBU 922-33H4BS & NBU 922-33J1BS  
LOCATED IN SECTION 33, T9S, R22E, S.L.B.&M., Uintah County, Utah.

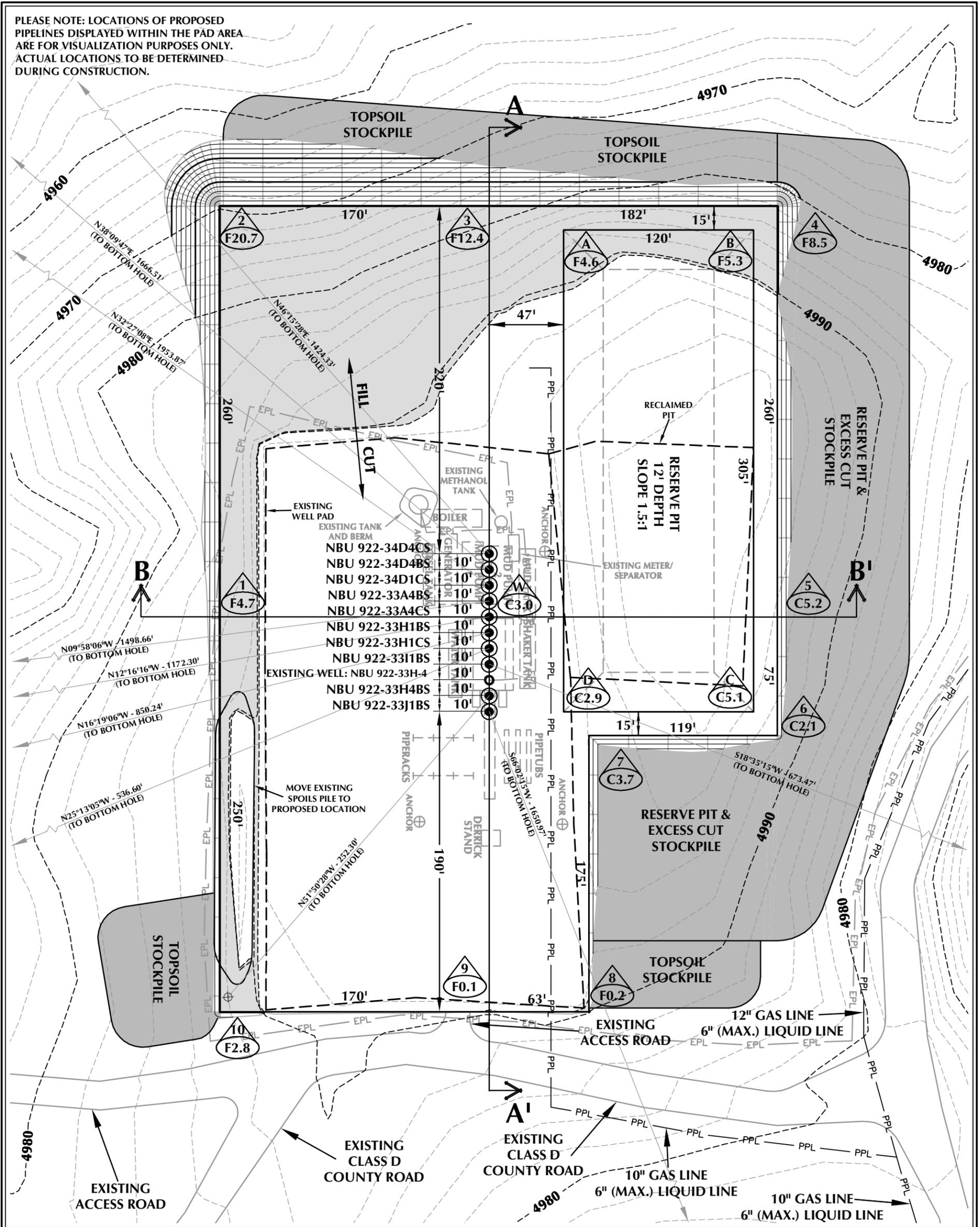


**CONSULTING, LLC**  
2155 North Main Street  
Sheridan WY 82801  
Phone 307-674-0609  
Fax 307-674-0182

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

DATE SURVEYED: 5-30-12	SURVEYED BY: A.F.	SHEET NO: <b>11</b>
DATE DRAWN: 6-13-12	DRAWN BY: T.J.R.	
SCALE: 1" = 60'	Date Last Revised: 9-6-12 T.J.R.	11 OF 22

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



**WELL PAD - NBU 922-33H DESIGN SUMMARY**

EXISTING GRADE @ CENTER OF WELL PAD = 4993.3'  
 FINISHED GRADE ELEVATION = 4990.3'  
 CUT SLOPES = 1.5:1  
 FILL SLOPES = 1.5:1  
 TOTAL WELL PAD AREA = 4.11 ACRES  
 TOTAL DISTURBANCE AREA = 5.70 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00

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

**WELL PAD - NBU 922-33H**

WELL PAD - LOCATION LAYOUT  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33I1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH



**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, WY 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

**WELL PAD QUANTITIES**

TOTAL CUT FOR WELL PAD = 15,533 C.Y.  
 TOTAL FILL FOR WELL PAD = 14,358 C.Y.  
 TOPSOIL @ 6" DEPTH = 2,062 C.Y.  
 EXCESS MATERIAL = 1,175 C.Y.

**RESERVE PIT QUANTITIES**

TOTAL CUT FOR RESERVE PIT  
 +/- 13,060 C.Y.  
 RESERVE PIT CAPACITY (2' OF FREEBOARD)  
 +/- 50,220 BARRELS

**WELL PAD LEGEND**

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

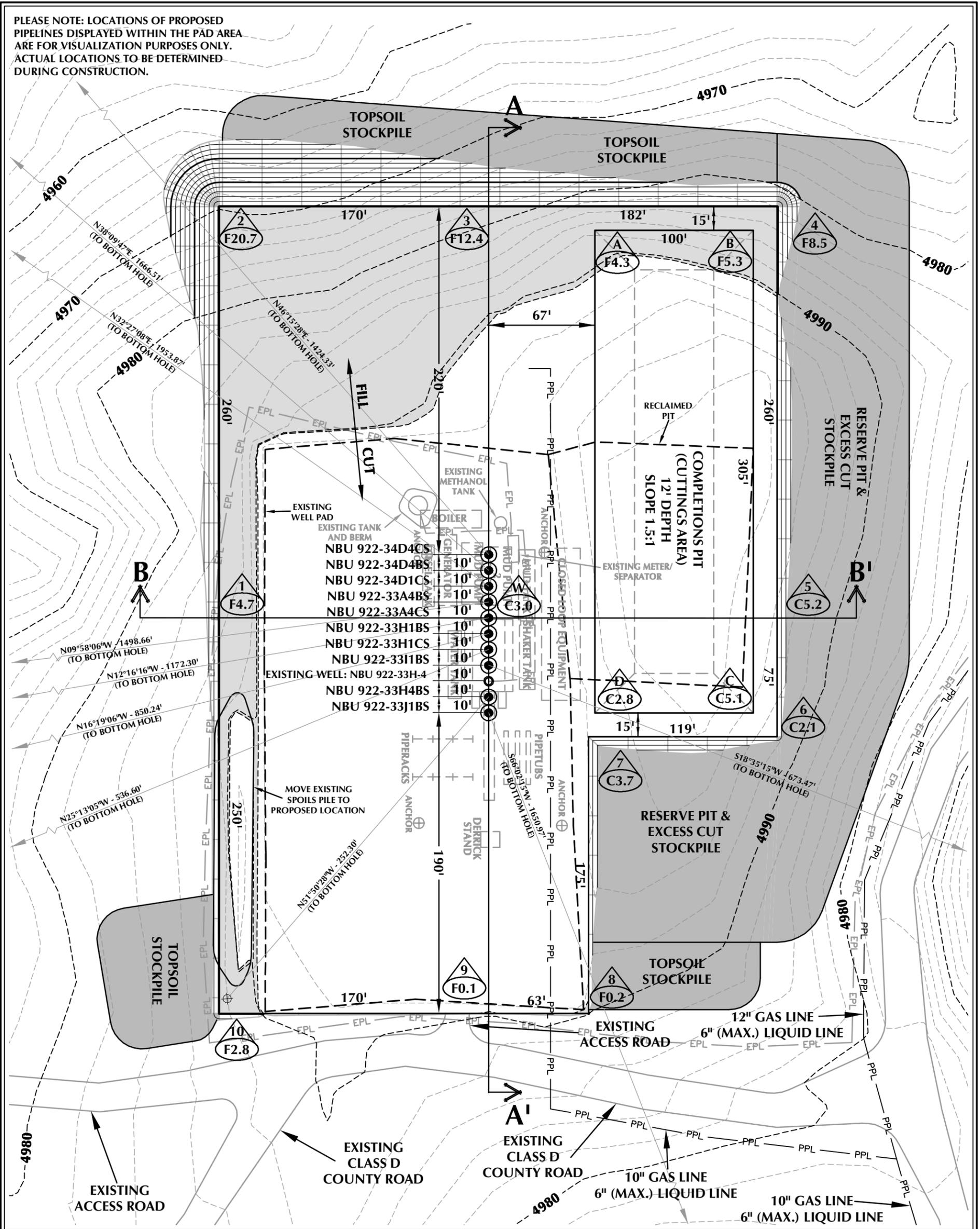


HORIZONTAL 0 30' 60' 1" = 60'  
 2' CONTOURS

SCALE: 1"=60' DATE: 7/5/12 SHEET NO:  
 REVISED: APF 9/14/12 **12** 12 OF 22

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

PLEASE NOTE: LOCATIONS OF PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.



**WELL PAD - NBU 922-33H (CLOSED LOOP) DESIGN SUMMARY**

EXISTING GRADE @ CENTER OF WELL PAD = 4993.3'  
 FINISHED GRADE ELEVATION = 4990.3'  
 CUT SLOPES = 1.5:1  
 FILL SLOPES = 1.5:1  
 TOTAL WELL PAD AREA = 4.11 ACRES  
 TOTAL DISTURBANCE AREA = 5.70 ACRES  
 SHRINKAGE FACTOR = 1.10  
 SWELL FACTOR = 1.00

**WELL PAD QUANTITIES**

TOTAL CUT FOR WELL PAD = 15,533 C.Y.  
 TOTAL FILL FOR WELL PAD = 14,358 C.Y.  
 TOPSOIL @ 6" DEPTH = 2,062 C.Y.  
 EXCESS MATERIAL = 1,175 C.Y.

**COMPLETIONS PIT QUANTITIES**

TOTAL CUT FOR COMPLETIONS PIT +/- 10,510 C.Y.  
 COMPLETIONS PIT CAPACITY (2' OF FREEBOARD) +/- 40,100 BARRELS

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



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 2155 North Main Street  
 Sheridan, WY 82801  
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**TIMBERLINE**  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

**WELL PAD LEGEND**

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



HORIZONTAL 0 30' 60' 1" = 60'

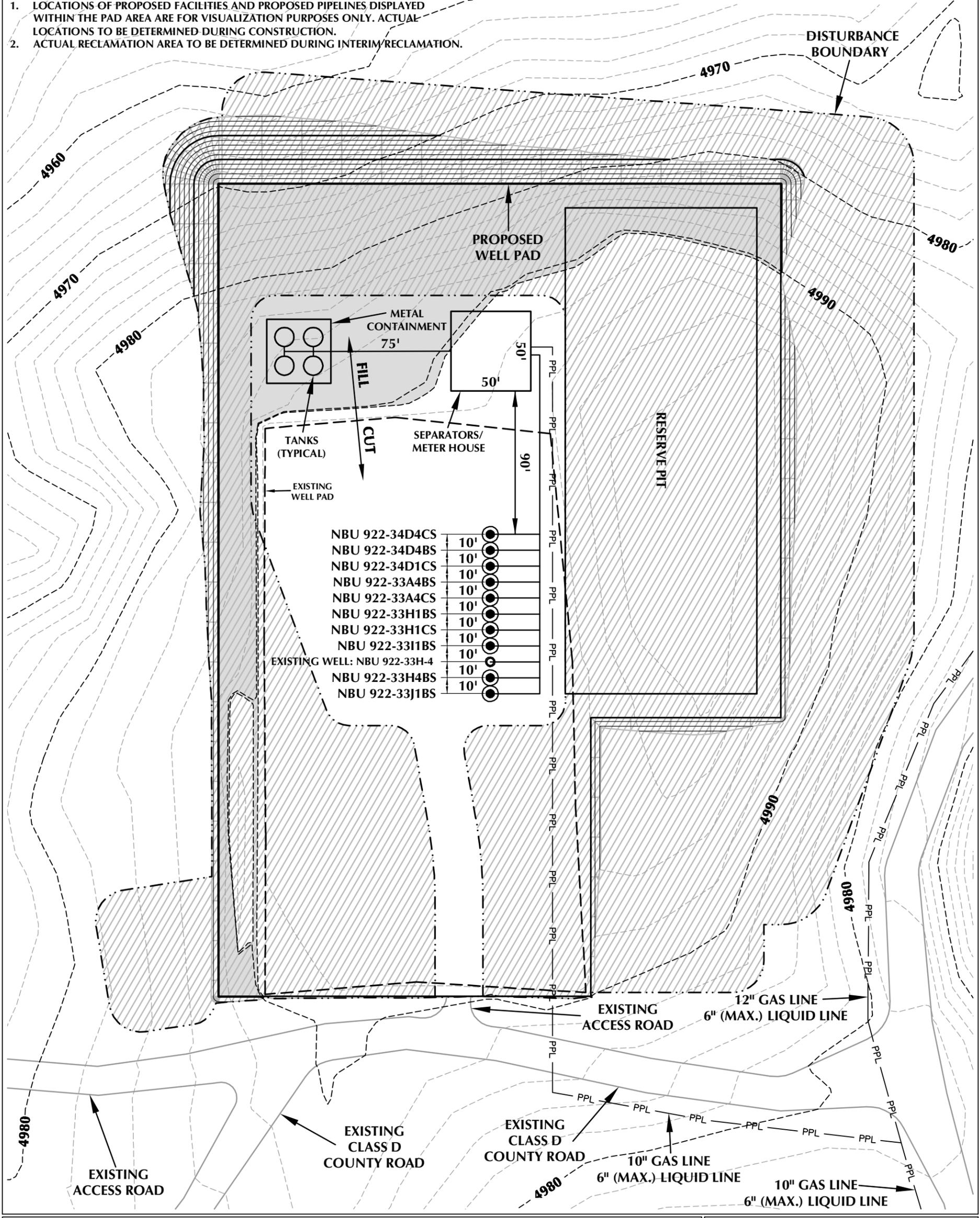
2' CONTOURS

SCALE: 1"=60' DATE: 7/5/12 SHEET NO:  
 REVISED: APF 9/14/12 **12B** 12B OF 22



**PLEASE NOTE:**

1. LOCATIONS OF PROPOSED FACILITIES AND PROPOSED PIPELINES DISPLAYED WITHIN THE PAD AREA ARE FOR VISUALIZATION PURPOSES ONLY. ACTUAL LOCATIONS TO BE DETERMINED DURING CONSTRUCTION.
2. ACTUAL RECLAMATION AREA TO BE DETERMINED DURING INTERIM RECLAMATION.



**WELL PAD - NBU 922-33H DESIGN SUMMARY**

TOTAL DISTURBANCE AREA = 5.70 ACRES (INCLUDING EXISTING)  
 RECLAMATION AREA = 4.45 ACRES  
 TOTAL WELL PAD AREA AFTER RECLAMATION = 1.25 ACRES

**WELL PAD LEGEND**

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)
- PPL - PROPOSED PIPELINE
- EPL - EXISTING PIPELINE
- RECLAMATION AREA



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

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

**WELL PAD - NBU 922-33H**

WELL PAD - RECLAMATION LAYOUT  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33I1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC  
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 Sheridan, WY 82801  
 Phone 307-674-0609  
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**TIMBERLINE**  
 ENGINEERING & LAND SURVEYING, INC.  
 209 NORTH 300 WEST - VERNAL, UTAH 84078

(435) 789-1365

SCALE: 1"=60' DATE: 7/5/12 SHEET NO:  
 REVISED: APF 9/14/12 **14** 14 OF 22

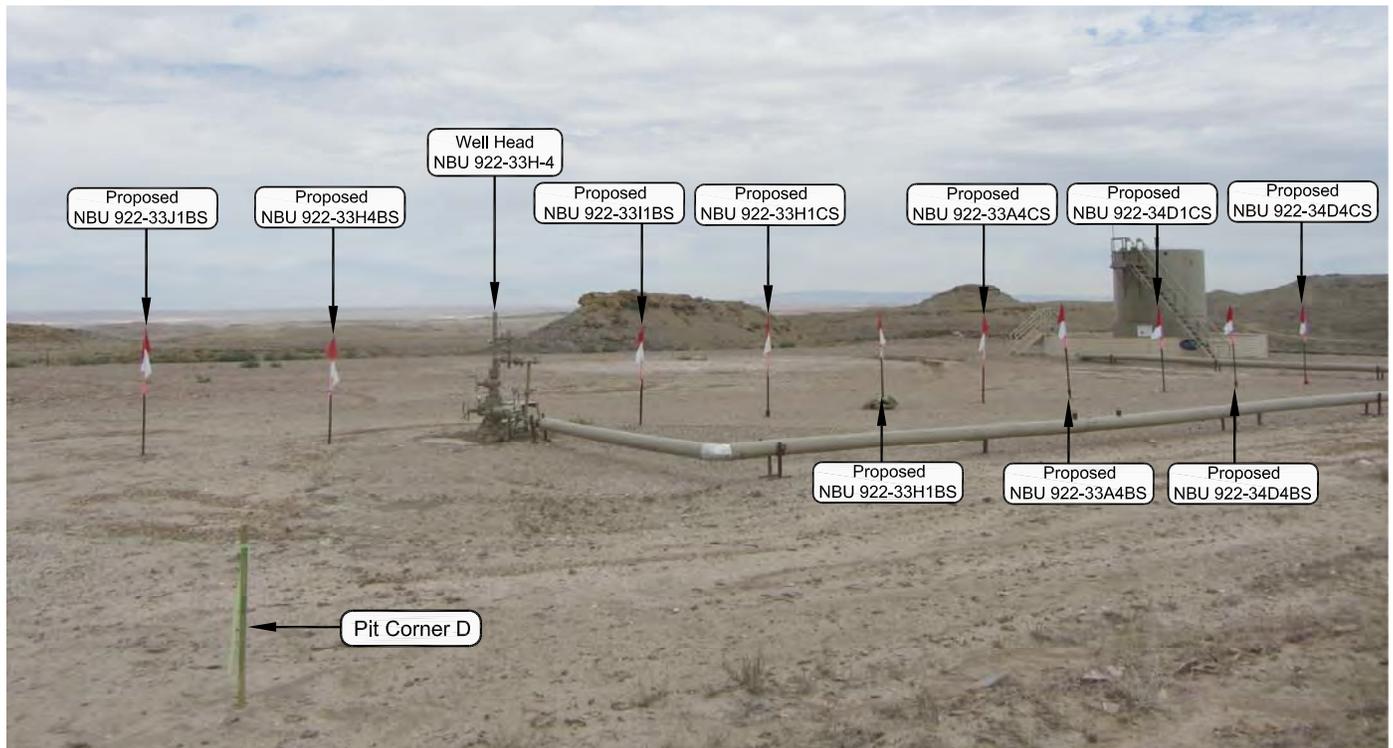


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: EASTERLY

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

**WELL PAD - NBU 922-33H**

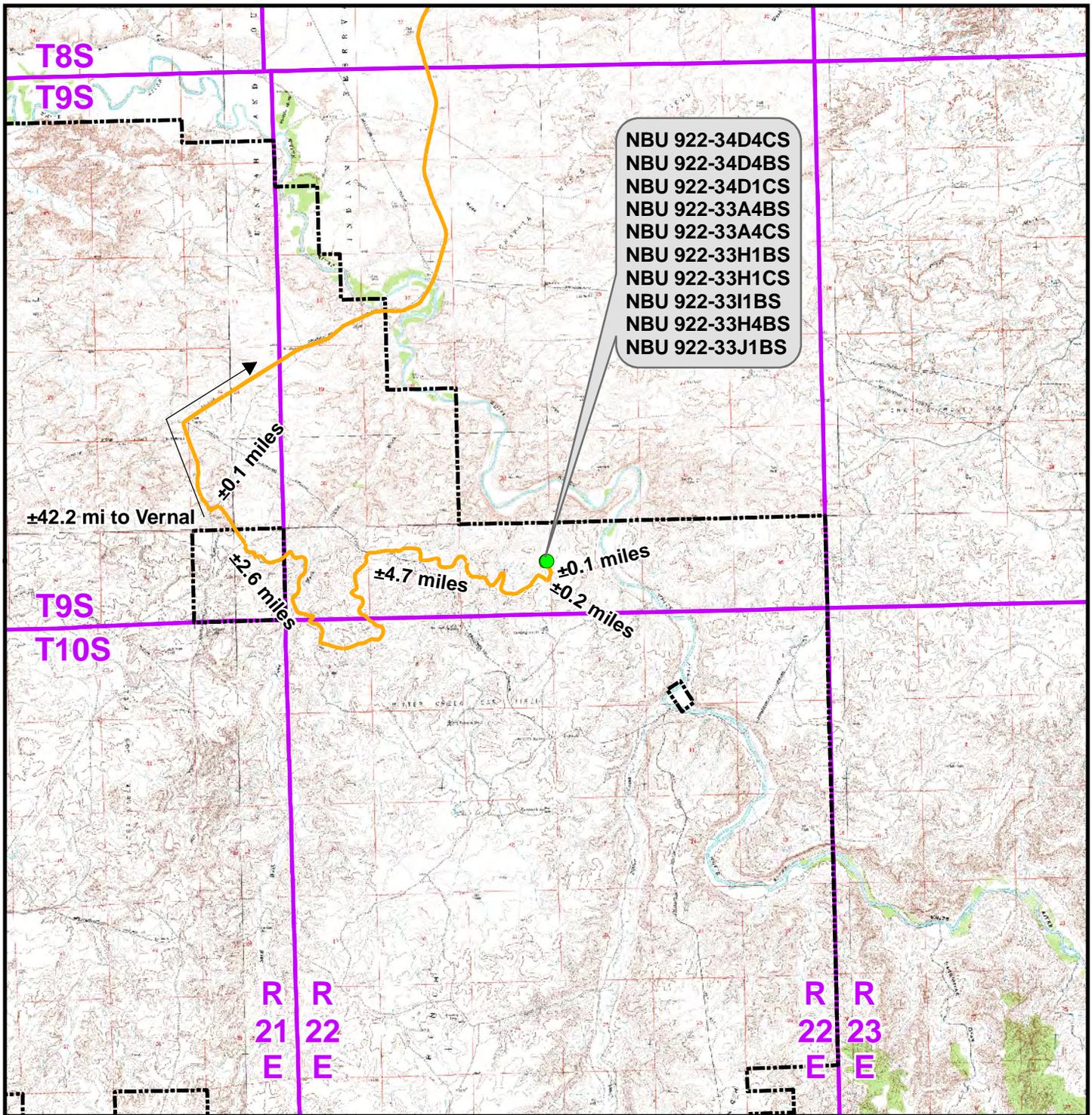
LOCATION PHOTOS  
NBU 922-34D4CS,  
NBU 922-34D4BS, NBU 922-34D1CS, NBU 922-33A4BS,  
NBU 922-33A4CS, NBU 922-33H1BS, NBU 922-33H1CS,  
NBU 922-33I1BS, NBU 922-33H4BS & NBU 922-33J1BS  
LOCATED IN SECTION 33, T9S, R22E,  
S.L.B.&M., UTAH COUNTY, UTAH.



**CONSULTING, LLC**  
2155 North Main Street  
Sheridan WY 82801  
Phone 307-674-0609  
Fax 307-674-0182

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

DATE PHOTOS TAKEN: 5-30-12	PHOTOS TAKEN BY: A.F.	SHEET NO: <b>15</b>
DATE DRAWN: 6-13-12	DRAWN BY: T.J.R.	
Date Last Revised: 9-6-12 T.J.R.		15 OF 22



File: K:\ANADARKO\2012\14\_NBU\_FOCUS\_922-33\GIS\Maps\_ABCDENBU\_922-33\NBU\_922-33H\_A.mxd, 9/10/2012 2:22:07 PM

**Legend**

- Proposed Well Location
- Natural Buttes Unit Boundary
- Access Route - Proposed

Distance From Well Pad - NBU 922-33H To Unit Boundary: ±2,220ft

**WELL PAD - NBU 922-33H**

TOPO A  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33J1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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

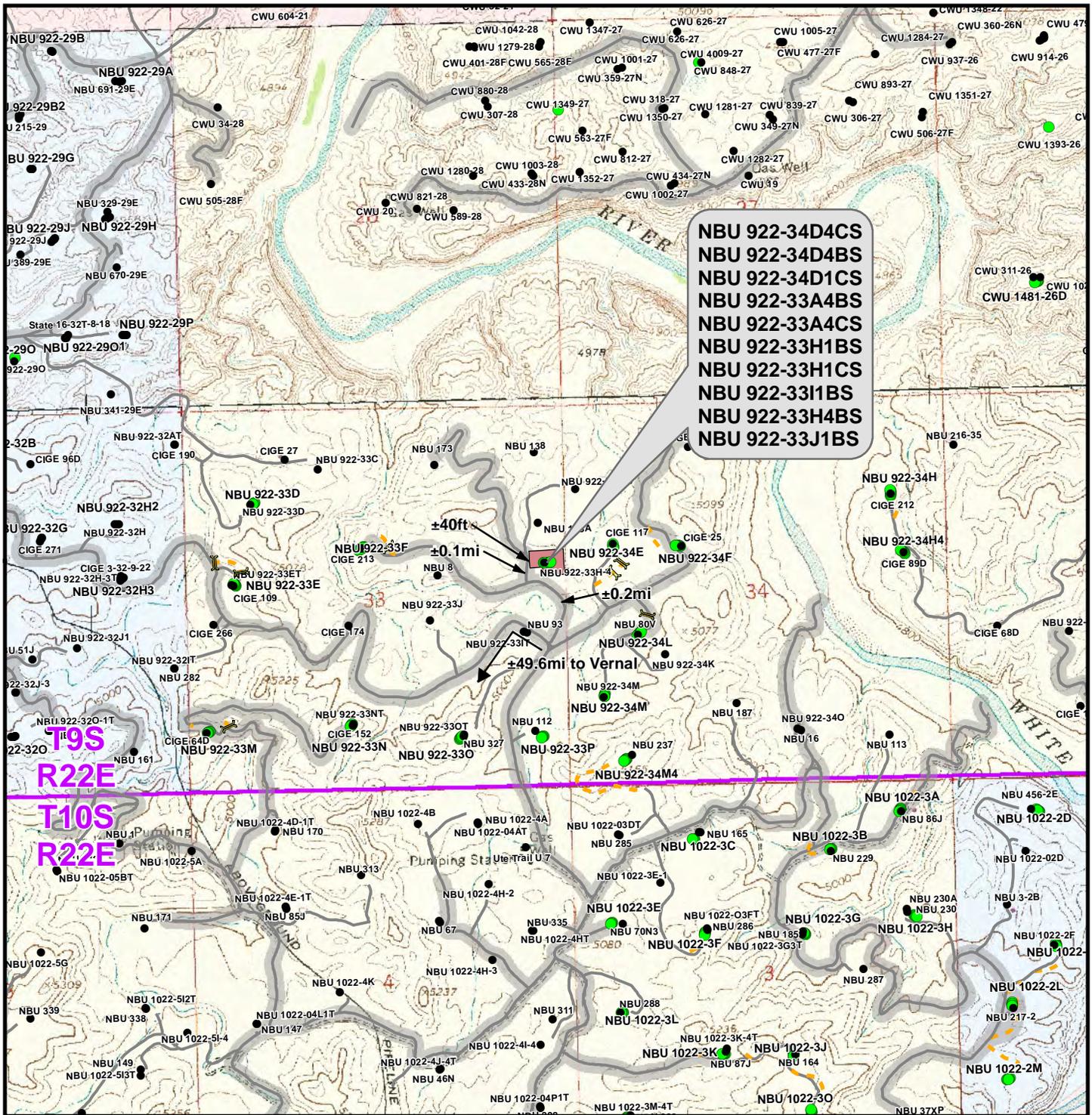
1099 18th Street  
 Denver, Colorado 80202



**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, Wyoming 82801  
 Phone 307-674-0609  
 Fax 307-674-0182



SCALE: 1:100,000	NAD83 USP Central	SHEET NO:
DRAWN: TL	DATE: 24 Aug 2012	<b>16</b>
REVISED: TL	DATE: 13 Sept 2012	



File: K:\ANADARKO\2012\14\_NBU\_FOCUS\_922-33\GIS\Maps\_ABCDENBU\_922-33\HINBU\_922-33H\_NBU\_922-33H\_B.mxd, 9/10/2012 2:30:45 PM

**Legend**

- Well - Proposed
- Well - Existing
- Well Pad
- - - Road - Proposed
- - - Road - Existing
- ▬ County Road
- ▬ Culvert/LWC - Proposed
- Bureau of Land Management
- Indian Reservation
- State
- Private

Total Proposed Road Length: ±0ft

**WELL PAD - NBU 922-33H**

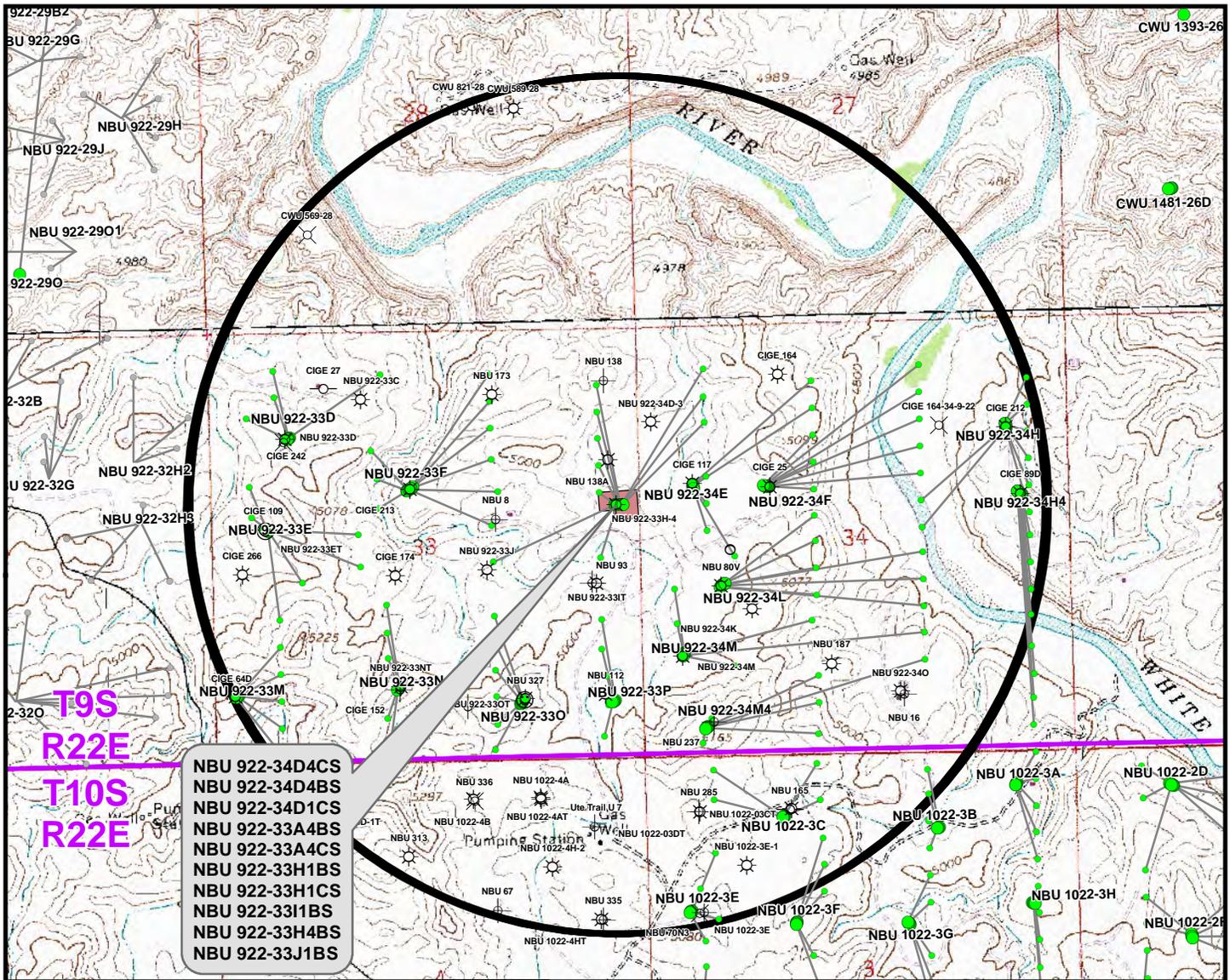
**TOPO B**  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33J1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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



**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, Wyoming 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

SCALE: 1" = 2,000ft	NAD83 USP Central	<b>17</b> 17 OF 22
DRAWN: TL	DATE: 24 Aug 2012	
REVISED: TL	DATE: 13 Sept 2012	



- NBU 922-34D4CS
- NBU 922-34D4BS
- NBU 922-34D1CS
- NBU 922-33A4BS
- NBU 922-33A4CS
- NBU 922-33H1BS
- NBU 922-33H1CS
- NBU 922-33I1BS
- NBU 922-33H4BS
- NBU 922-33J1BS

Well locations derived from Utah Division of Oil, Gas and Mining (UDOGM) (oilgas.ogm.utah.gov). The estimated distances from proposed bore locations to the nearest existing bore locations are based on UDOGM data.

Proposed Well	Nearest Well Bore	Footage
NBU 922-34D4CS	NBU 922-34D-3	665ft
NBU 922-34D4BS	NBU 922-34D-3	723ft
NBU 922-34D1CS	CIGE 164	915ft
NBU 922-33A4BS	NBU 138	110ft
NBU 922-33A4CS	NBU 138	403ft
NBU 922-33H1BS	NBU 138A	288ft
NBU 922-33H1CS	NBU 138A	141ft
NBU 922-33I1BS	NBU 922-33IT	331ft
NBU 922-33H4BS	NBU 922-33H-4	260ft
NBU 922-33J1BS	NBU 922-33J	124ft

**Legend**

- Well - Proposed
- Well Path
- ☀ Producing
- ⊕ Deferred
- ☀ Active Injector
- ⊕ Plugged & Abandoned
- Bottom Hole - Proposed
- Well Pad
- ☺ Spudded
- ⊗ Cancelled
- ☀ Location Abandoned
- ⊕ Shut-In
- Bottom Hole - Existing
- ◻ Well - 1 Mile Radius
- APD Approved
- ⊖ Temporarily Abandoned
- ⊖ Preliminary Location

**WELL PAD - NBU 922-33H**

TOPO C  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33J1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., Uintah County, Utah

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

**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, Wyoming 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

SCALE: 1" = 2,000ft

DRAWN: TL

REVISED: TL

NAD83 USP Central

DATE: 24 Aug 2012

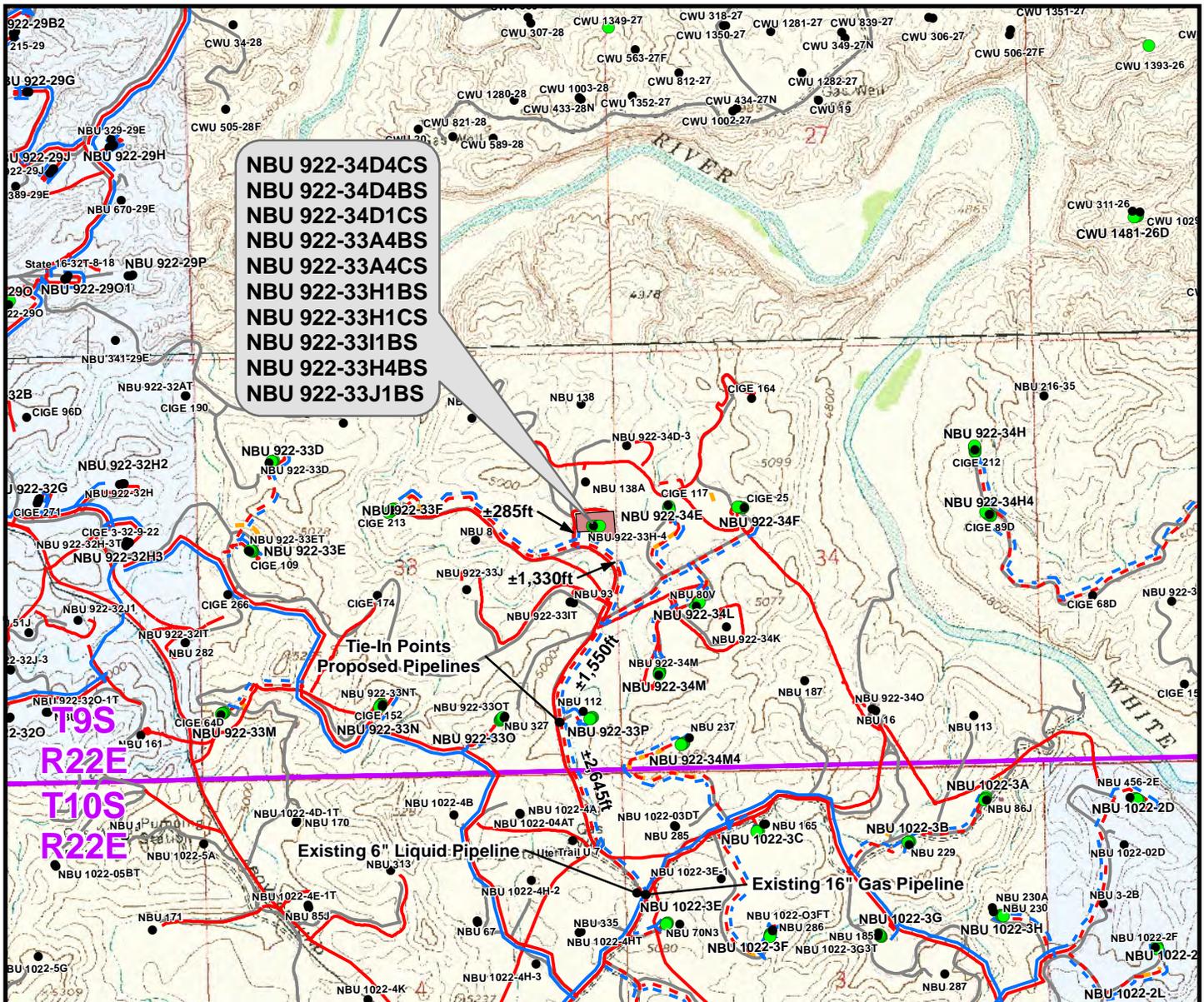
DATE: 13 Sept 2012

SHEET NO:

**18**

18 OF 22

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Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±425ft
Buried 6" (Max.) (Edge of Pad to 33F Intersection)	±285ft
Buried 6" (Max.) (33F Intersection to 34E Intersection)	±1,330ft
Buried 6" (Max.) (34E Intersection to 33P Intersection)	±1,550ft
<b>TOTAL PROPOSED BURIED LIQUID PIPELINE =</b>	<b>±3,590ft</b>

Proposed Gas Pipeline	Length
Buried 10" (Meter House to Edge of Pad)	±425ft
Buried 12" (Edge of Pad to 33F Intersection)	±285ft
Buried 12" (33F Intersection to 34E Intersection)	±1,330ft
Buried 16" (34E Intersection to 33P Intersection)	±1,550ft
<b>TOTAL PROPOSED BURIED GAS PIPELINE =</b>	<b>±3,590ft</b>

**Legend**

- Well - Proposed
- Well - Existing
- Well Pad
- - - Gas Pipeline - Proposed
- - - Gas Pipeline - To Be Upgraded
- - - Gas Pipeline - Existing
- - - Liquid Pipeline - Proposed
- - - Liquid Pipeline - Existing
- - - Road - Proposed
- - - Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

**WELL PAD - NBU 922-33H**

TOPO D  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33J1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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

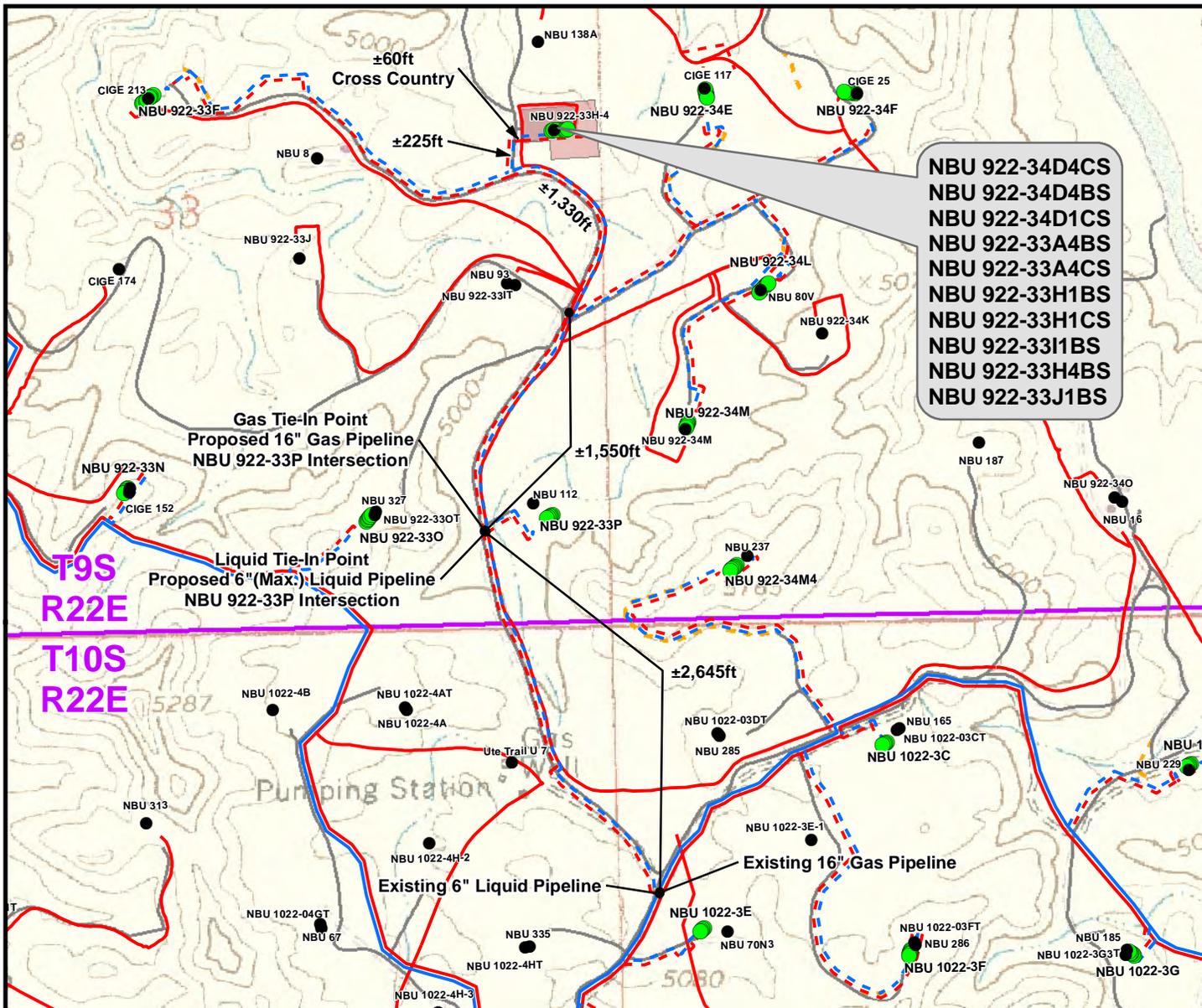
1099 18th Street  
 Denver, Colorado 80202



**CONSULTING, LLC**  
 2155 North Main Street  
 Sheridan, Wyoming 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

SCALE: 1" = 2,000ft	NAD83 USP Central	<b>19</b> 19 OF 22
DRAWN: TL	DATE: 24 Aug 2012	
REVISED: TL	DATE: 13 Sept 2012	

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- NBU 922-34D4CS
- NBU 922-34D4BS
- NBU 922-34D1CS
- NBU 922-33A4BS
- NBU 922-33A4CS
- NBU 922-33H1BS
- NBU 922-33H1CS
- NBU 922-33I1BS
- NBU 922-33H4BS
- NBU 922-33J1BS

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Proposed Liquid Pipeline	Length
Buried 6" (Max.) (Separator to Edge of Pad)	±425ft
Buried 6" (Max.) (Edge of Pad to 33F Intersection)	±285ft
Buried 6" (Max.) (33F Intersection to 34E Intersection)	±1,330ft
Buried 6" (Max.) (34E Intersection to 33P Intersection)	±1,550ft
<b>TOTAL PROPOSED BURIED LIQUID PIPELINE =</b>	<b>±3,590ft</b>

Proposed Gas Pipeline	Length
Buried 10" (Meter House to Edge of Pad)	±425ft
Buried 12" (Edge of Pad to 33F Intersection)	±285ft
Buried 12" (33F Intersection to 34E Intersection)	±1,330ft
Buried 16" (34E Intersection to 33P Intersection)	±1,550ft
<b>TOTAL PROPOSED BURIED GAS PIPELINE =</b>	<b>±3,590ft</b>

**Legend**

- Well - Proposed
- Well - Existing
- Well Pad - Proposed
- Well Pad - Existing
- Gas Pipeline - Proposed
- Gas Pipeline - To Be Upgraded
- Gas Pipeline - Existing
- Liquid Pipeline - Proposed
- Liquid Pipeline - Existing
- Road - Proposed
- Road - Existing
- Bureau of Land Management
- Indian Reservation
- State
- Private

**WELL PAD - NBU 922-33H**

TOPO D2 (PAD & PIPELINE DETAIL)  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33J1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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

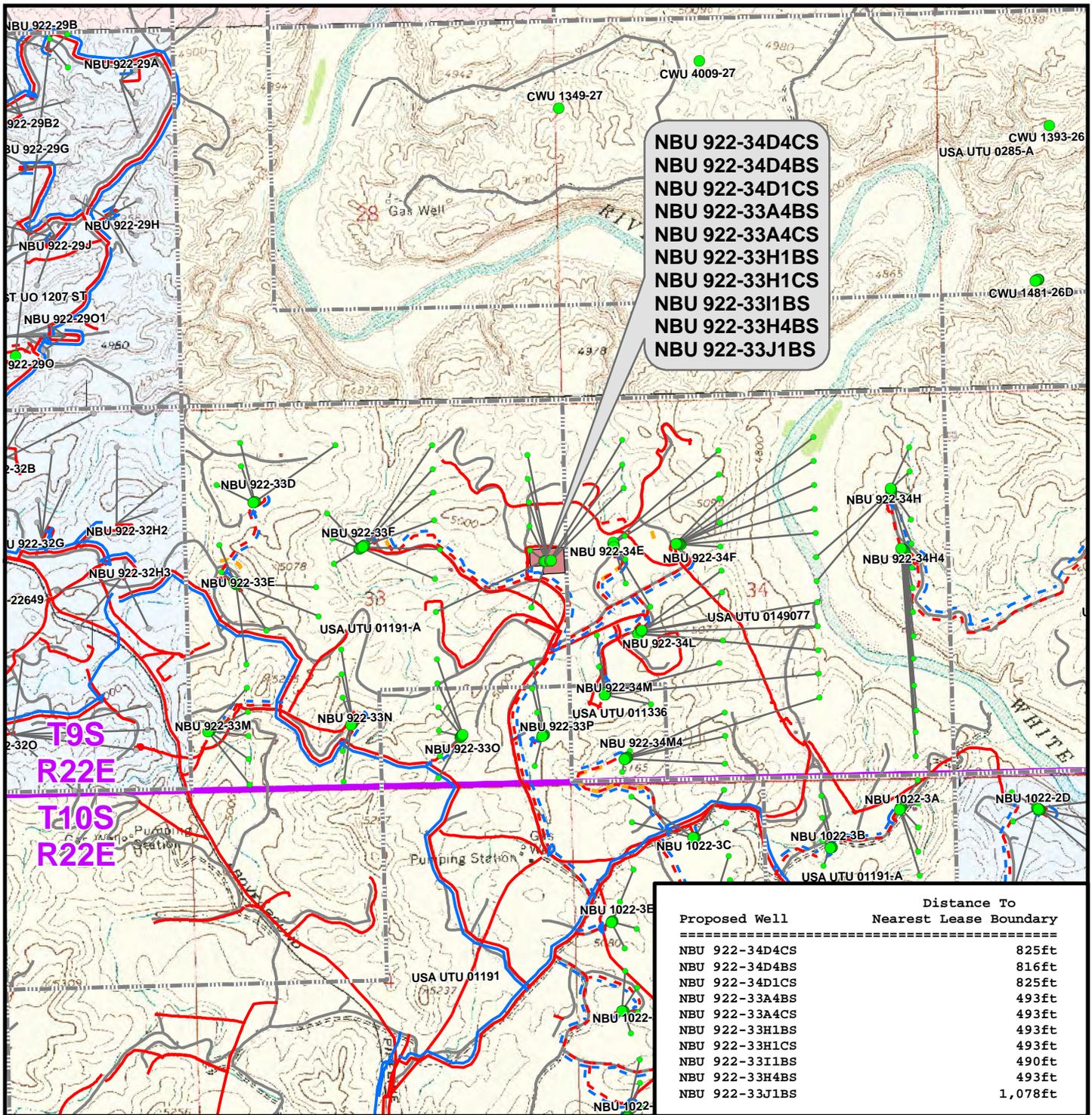
1099 18th Street  
 Denver, Colorado 80202



**CONSULTING, LLC**

2155 North Main Street  
 Sheridan, Wyoming 82801  
 Phone 307-674-0609  
 Fax 307-674-0182

SCALE: 1" = 1,000ft	NAD83 USP Central	<b>20</b> 20 OF 22
DRAWN: TL	DATE: 24 Aug 2012	
REVISED: TL	DATE: 13 Sept 2012	



NBU 922-34D4CS  
 NBU 922-34D4BS  
 NBU 922-34D1CS  
 NBU 922-33A4BS  
 NBU 922-33A4CS  
 NBU 922-33H1BS  
 NBU 922-33H1CS  
 NBU 922-33I1BS  
 NBU 922-33H4BS  
 NBU 922-33J1BS

Proposed Well	Distance To Nearest Lease Boundary
NBU 922-34D4CS	825ft
NBU 922-34D4BS	816ft
NBU 922-34D1CS	825ft
NBU 922-33A4BS	493ft
NBU 922-33A4CS	493ft
NBU 922-33H1BS	493ft
NBU 922-33H1CS	493ft
NBU 922-33I1BS	490ft
NBU 922-33H4BS	493ft
NBU 922-33J1BS	1,078ft

**Legend**

- Well - Proposed (Green dot)
- Bottom Hole - Proposed (Green circle)
- Bottom Hole - Existing (Grey circle)
- Well Path (Black line)
- Well Pad (Red shaded area)
- Lease Boundary (Black dashed line)
- Gas Pipeline - Proposed (Red dashed line)
- Gas Pipeline - To Be Upgraded (Red dotted line)
- Gas Pipeline - Existing (Red solid line)
- Liquid Pipeline - Proposed (Blue dashed line)
- Liquid Pipeline - Existing (Blue solid line)
- Road - Proposed (Yellow dashed line)
- Road - Existing (Grey solid line)
- Bureau of Land Management (Yellow shaded area)
- Indian Reservation (Red shaded area)
- State (Blue shaded area)
- Private (White shaded area)

**WELL PAD - NBU 922-33H**

TOPO E  
 NBU 922-34D4CS, NBU 922-34D4BS,  
 NBU 922-34D1CS, NBU 922-33A4BS,  
 NBU 922-33A4CS, NBU 922-33H1BS,  
 NBU 922-33H1CS, NBU 922-33I1BS,  
 NBU 922-33H4BS & NBU 922-33J1BS  
 LOCATED IN SECTION 33, T9S, R22E,  
 S.L.B.&M., UINTAH COUNTY, UTAH

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

1099 18th Street  
 Denver, Colorado 80202

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 2155 North Main Street  
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 Phone 307-674-0609  
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SCALE: 1" = 2,000ft

DRAWN: TL

REVISED: TL

NAD83 USP Central

DATE: 24 Aug 2012

DATE: 13 Sept 2012

SHEET NO:  
21  
 21 OF 22

File: K:\ANADARKO\2012\14\_NBU\_FOCUS\_922-33\GIS\Maps\_ABCDENBU\_922-33H\NBU\_922-33H\_E.mxd, 9/10/2012 3:27:24 PM

NOV 13 2012  
JUN 26, 2009

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
UTU-0149077

6. If Indian, Allottee or Tribe Name  
N/A

7. If Unit or CA Agreement, Name and No.  
UTU63047A

8. Lease Name and Well No.  
NBU 922-34D1CS

9. API Well No.  
4304750604

10. Field and Pool, or Exploratory  
NATURAL BUTTES

11. Sec., T., R., M., or Blk. and Survey or Area  
33 T 9S R 22E

1a. Type of Work:  DRILL  REENTER

1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

2. Name of Operator  
KERR-MCGEE OIL & GAS ONSHORE, L.P.

3a. Address  
P.O. BOX 173779  
DENVER, COLORADO 80202-3779

3b. Phone No. (include area code)  
PHONE 720-929-6086  
FAX 720-929-7086

4. Location of well (Report location clearly and in accordance with any State requirements. \*)  
At surface SENE 2221 FNL 225 FEL LAT = 39.993704 LONG = -109.436379  
At proposed prod. Zone NWNW 570 FNL 825 FWL LAT = 39.998228 LONG = -109.432636

14. Distance in miles and direction from the nearest town or post office\*  
Approximately 50 miles Southeast of Vernal, Utah

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)  
825

16. No. of acres in lease  
600

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.  
915

19. Proposed Depth  
10674 MD  
10200 TVD

21. Elevations (Show whether DF, RT, GR, etc.)  
4990.3 GR

22. Approximate date work will start\*  
11/9/2012

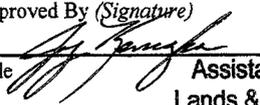
23. Estimated duration  
60-90 DAYS

24. Attachments

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

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

25. Signature  Name (Printed/ Typed) GINA T BECKER Date November 9, 2012  
Title SENIOR REGULATORY ANALYST

Approved By (Signature)  Name (Printed/ Typed) Jerry Kenczka Date MAY 29 2013  
Title Assistant Field Manager Lands & Mineral Resources Office VERNAL FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.  
CONDITIONS OF APPROVAL ATTACHED

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

Kerr-McGee Oil & Gas Onshore, L.P. hereby certifies that it is authorized by the proper lease interest owners and responsible under the terms and conditions of the lease to conduct lease operation associated with this application.

NOTICE OF APPROVAL

D



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

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

<b>Company:</b>	Kerr McGee Oil & Gas Onshore, LP	<b>Location:</b>	SENE, Sec. 33, T9S, R22E
<b>Well No:</b>	NBU 922-34D1CS	<b>Lease No:</b>	UTU-0149077
<b>API No:</b>	43-047-50604	<b>Agreement:</b>	Natural Butte

**OFFICE NUMBER: (435) 781-4400**

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

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

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

**NOTIFICATION REQUIREMENTS**

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

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

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.
- Mitigation measures can be found in Appendix B, Table B-2, of the GNB ROD (BLM 2012b) under the following sections of the table:
  - Air Quality
  - Soils
  - Vegetation: *Sclerocactus wetlandicus*
  - Wildlife: Colorado River Fish
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an integrated pest management program is applicable, coordination has been undertaken with the state and local management program (if existing). A copy of the pest management plan will be submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.
- Paleontological monitoring by a BLM permitted paleontologist is required for Well Pads 922-33A, 922-33D, 922-33E, 922-33H, and 922-33N; Access Road for 922-33E during all ground disturbing activities (BLM 2012b; BLM 2013c).
- Damage to livestock and livestock facilities would be reported as quickly as possible to the BLM and affected livestock operators. Operators would develop and employ prevention measures to avoid damaging fences, gates, and cattle guards, including upgrading cattle guard gate widths and load-bearing requirements and fencing all open pits and cellars.

If partial or complete removal of a fence cannot be avoided, the fence would be braced and tied off per the BLM guidance. Where the fence is crossed by a road, the fence would be braced and a cattle guard and gate installed per BLM guidance.

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

**SITE SPECIFIC DOWNHOLE COAs:**

- Cement for the 4.5 inch casing shall be brought up to a minimum of 200 feet above the surface casing shoe.
- A CBL shall be run from TD to TOC in the Production Casing.
- Variances shall be granted as requested in Section 9 of the Drilling Program of the SOP.

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

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in CD (compact disc) format to the Vernal BLM Field Office. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

## OPERATING REQUIREMENT REMINDERS:

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

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU 0149077	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	
<b>8. WELL NAME and NUMBER:</b> NBU 922-34D1CS	
<b>9. API NUMBER:</b> 43047506040000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>COUNTY:</b> UINTAH	
<b>STATE:</b> UTAH	

**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.

<b>1. TYPE OF WELL</b> Gas Well	
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6511
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2221 FNL 0225 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 33 Township: 09.0S Range: 22.0E Meridian: S	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 8/11/2013	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> 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"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

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

**Date:** July 22, 2013

**By:**

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 7/19/2013	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43047506040000**

API: 43047506040000

Well Name: NBU 922-34D1CS

Location: 2221 FNL 0225 FEL QTR SENE SEC 33 TWNP 090S RNG 220E MER S

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

Date Original Permit Issued: 8/11/2009

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

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
  
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
  
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
  
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
  
- Has the approved source of water for drilling changed?  Yes  No
  
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
  
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Teena Paulo

Date: 7/19/2013

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU 0149077	
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
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.	
<b>1. TYPE OF WELL</b> Gas Well	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>8. WELL NAME and NUMBER:</b> NBU 922-34D1CS
<b>PHONE NUMBER:</b> 720 929-6100	<b>9. API NUMBER:</b> 43047506040000
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2221 FNL 0225 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 33 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
	<b>COUNTY:</b> UINTAH
	<b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 8/11/2014	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> 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"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

**Approved by the  
Utah Division of  
Oil, Gas and Mining  
June 12, 2014**

**Date:** \_\_\_\_\_  
**By:** 

<b>NAME (PLEASE PRINT)</b> Teena Paulo	<b>PHONE NUMBER</b> 720 929-6236	<b>TITLE</b> Staff Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/11/2014	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43047506040000**

API: 43047506040000

Well Name: NBU 922-34D1CS

Location: 2221 FNL 0225 FEL QTR SENE SEC 33 TWP 090S RNG 220E MER S

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

Date Original Permit Issued: 8/11/2009

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

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
  
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
  
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
  
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
  
- Has the approved source of water for drilling changed?  Yes  No
  
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
  
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Teena Paulo

Date: 6/11/2014

Title: Staff Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APR 02 2015

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

BLM

5. Lease Serial No.  
UTU0149077

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

7. If Unit or CA/Agreement, Name and/or No.  
891008900A

8. Well Name and No.  
NBU 922-34D1CS

9. API Well No.  
43-047-50604-00-X1

10. Field and Pool, or Exploratory  
NATURAL BUTTES

11. County or Parish, and State  
UINTAH COUNTY, UT

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
KERR MCGEE OIL & GAS ONSHORE

Contact: JOEL MALEFYT  
Email: joel.malefyt@anadarko.com

3a. Address  
1368 SOUTH 1200 EAST  
VERNAL, UT 84078

3b. Phone No. (include area code)  
Ph: 720-929-6828  
Fx: 720-929-7828

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 33 T9S R22E SENE 1647FNL 374FEL  
39.995279 N Lat, 109.436912 W Lon

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A PD
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

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

APD - 5/29/13

NEPA - 2013-74EA

CONDITIONS OF APPROVAL ATTACHED

RECEIVED

APR 20 2015

DIV. OF OIL, GAS & MINING

VERNAL FIELD OFFICE

ENG. *RHP 4/7/15*

GEOLOGIST \_\_\_\_\_

E.S. \_\_\_\_\_

PETROLEUM \_\_\_\_\_

RECLAMATION \_\_\_\_\_

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #297060 verified by the BLM Well Information System

For KERR MCGEE OIL & GAS ONSHORE L, sent to the Vernal

Committed to AFMSS for processing by JOHNETTA MAGEE on 04/06/2015 (15JM1514SE)

Name (Printed/Typed) JOEL MALEFYT

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 04/02/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By *[Signature]*

Title Assistant Field Manager  
Lands & Mineral Resources

Date APR 10 2015

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office VERNAL FIELD OFFICE

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

**Revisions to Operator-Submitted EC Data for Sundry Notice #297060**

	<b>Operator Submitted</b>	<b>BLM Revised (AFMSS)</b>
Sundry Type:	OTHER NOI	APDCH NOI
Lease:	UTU01191	UTU0149077
Agreement:	UTU63047A	891008900A (UTU63047A)
Operator:	KERR MCGEE OIL & GAS LP PO BOX 173779 DENVER, CO 80202-3779 Ph: 720-929-6000	KERR MCGEE OIL & GAS ONSHORE L 1368 SOUTH 1200 EAST VERNAL, UT 84078 Ph: 435.789.3995
Admin Contact:	JOEL MALEFYT REGULATORY ANALYST E-Mail: JOEL.MALEFYT@ANADARKO.COM  Ph: 720-929-6828 Fx: 720-929-7828	JOEL MALEFYT REGULATORY ANALYST E-Mail: joel.malefyt@anadarko.com  Ph: 720-929-6828 Fx: 720-929-7828
Tech Contact:	JOEL MALEFYT REGULATORY ANALYST E-Mail: JOEL.MALEFYT@ANADARKO.COM  Ph: 720-929-6828 Fx: 720-929-7828	JOEL MALEFYT REGULATORY ANALYST E-Mail: joel.malefyt@anadarko.com  Ph: 720-929-6828 Fx: 720-929-7828
Location:		
State:	UT	UT
County:	UINTAH	UINTAH
Field/Pool:	NATURAL BUTTES	NATURAL BUTTES
Well/Facility:	NBU 922-34D1CS Sec 34 T9S R22E	NBU 922-34D1CS Sec 33 T9S R22E SENE 1647FNL 374FEL 39.995279 N Lat, 109.436912 W Lon

# **CONDITIONS OF APPROVAL**

## **Kerr McGee Oil and Gas Onshore LP.**

### **Notice of Intent APD Extension**

**Lease:** UTU-0149077  
**Well:** NBU 922-34D1CS  
**Location:** SENE Sec 33-T9S-R22E

An extension for the referenced APD is granted with the following conditions:

---

1. The extension and APD shall expire on 05/29/2017.
2. No other extension shall be granted.

If you have any other questions concerning this matter, please contact Robin L Hansen of this office at (435) 781-2777

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU 0149077	
<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>	
<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES	
<b>8. WELL NAME and NUMBER:</b> NBU 922-34D1CS	
<b>9. API NUMBER:</b> 43047506040000	
<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES	
<b>COUNTY:</b> UINTAH	
<b>STATE:</b> UTAH	

**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.

<b>1. TYPE OF WELL</b> Gas Well	
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>PHONE NUMBER:</b> 720 929-6100
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2221 FNL 0225 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 33 Township: 09.0S Range: 22.0E Meridian: S	

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/24/2015	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> 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"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

Approved by the  
 June 25, 2015  
 Oil, Gas and Mining

Date: \_\_\_\_\_

By:

<b>NAME (PLEASE PRINT)</b> Jennifer Thomas	<b>PHONE NUMBER</b> 720 929-6808	<b>TITLE</b> Regulatory Specialist
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/24/2015	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43047506040000**

API: 43047506040000

Well Name: NBU 922-34D1CS

Location: 2221 FNL 0225 FEL QTR SENE SEC 33 TWP 090S RNG 220E MER S

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

Date Original Permit Issued: 8/11/2009

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- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Jennifer Thomas

Date: 6/24/2015

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

<b>STATE OF UTAH</b> DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	<b>FORM 9</b>
<b>5. LEASE DESIGNATION AND SERIAL NUMBER:</b> UTU 0149077	
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>	
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.	
<b>1. TYPE OF WELL</b> Gas Well	<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME:</b>
<b>2. NAME OF OPERATOR:</b> KERR-MCGEE OIL & GAS ONSHORE, L.P.	<b>7. UNIT or CA AGREEMENT NAME:</b> NATURAL BUTTES
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779	<b>8. WELL NAME and NUMBER:</b> NBU 922-34D1CS
<b>PHONE NUMBER:</b> 720 929-6454	<b>9. API NUMBER:</b> 43047506040000
<b>4. LOCATION OF WELL</b> <b>FOOTAGES AT SURFACE:</b> 2221 FNL 0225 FEL <b>QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN:</b> Qtr/Qtr: SENE Section: 33 Township: 09.0S Range: 22.0E Meridian: S	<b>9. FIELD and POOL or WILDCAT:</b> NATURAL BUTTES
	<b>COUNTY:</b> UINTAH
	<b>STATE:</b> UTAH

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

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> Approximate date work will start: 6/24/2016	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> <b>SUBSEQUENT REPORT</b> 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"/> <b>SPUD REPORT</b> Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> <b>DRILLING REPORT</b> Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input checked="" type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

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

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

**Approved by the**  
**June 27, 2016**  
**Oil, Gas and Mining**

**Date:** \_\_\_\_\_  
**By:** 

<b>NAME (PLEASE PRINT)</b> Joel Malefy	<b>PHONE NUMBER</b> 720 929-6828	<b>TITLE</b> Regulatory Analyst
<b>SIGNATURE</b> N/A	<b>DATE</b> 6/24/2016	



**The Utah Division of Oil, Gas, and Mining**

- State of Utah  
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

**Request for Permit Extension Validation Well Number 43047506040000**

API: 43047506040000

Well Name: NBU 922-34D1CS

Location: 2221 FNL 0225 FEL QTR SENE SEC 33 TWNP 090S RNG 220E MER S

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

Date Original Permit Issued: 8/11/2009

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

- If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
  
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
  
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well?  Yes  No
  
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes  No
  
- Has the approved source of water for drilling changed?  Yes  No
  
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?  Yes  No
  
- Is bonding still in place, which covers this proposed well?  Yes  No

Signature: Joel Malefyt

Date: 6/24/2016

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