

Submit To Appropriate District Office State Lease - 6 copies Fee Lease - 5 copies <u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised June 10, 2003 WELL API NO. 30-015-32945 5. Indicate Type of Lease STATE ☐ FEE ☒ State Oil & Gas Lease No.
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WELL COMPLETION OR RECOMP LETION REPORT AND LOG																																																				
1a. Type of Well: OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____ b. Type of Completion: NEW ☒ WORK ☐ DEEPEN ☐ PLUG ☐ DIFF. ☐ WELL OVER BACK RESVR. ☐ OTHER _____	7. Lease Name or Unit Agreement Name Mead																																																			
2. Name of Operator Pure Resources, L. P.	8. Well No. 4																																																			
3. Address of Operator 500 W. Illinois Midland, Texas 79701	9. Pool name or Wildcat Carlsbad; Morrow, South (Pro Gas) 73960																																																			
4. Well Location Unit Letter H 2,418 Feet From The North Line and 171 Feet From The East Line Section 5 Township 22S Range 27E NMPM Eddy County																																																				
10. Date Spudded 10/15/2003	11. Date T.D. Reached 11/11/2003																																																			
12. Date Compl. (Ready to Prod.) 12/16/2003	13. Elevations (DF& RKB, RT, GR, etc.) 3,153' GR & 3,174' RKB																																																			
14. Elev. Casinghead 11,850'	15. Plug Back T.D. 11,804'																																																			
16. Total Depth 11,850'	17. If Multiple Compl. How Many Zones? 1																																																			
18. Intervals Drilled By 0'-11,850'	19. Producing Interval(s), of this completion - Top, Bottom, Name 11,258' -11,692' Morrow																																																			
20. Was Directional Survey Made Yes	21. Type Electric and Other Logs Run GR/CSNG/HRTT/SDL/DSN/DLL/MSFL																																																			
22. Was Well Cored No	23. CASING RECORD (Report all strings set in well)																																																			
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>CASING SIZE</th> <th>WEIGHT LB./FT.</th> <th>DEPTH SET</th> <th>HOLE SIZE</th> <th>CEMENTING RECORD</th> <th>AMOUNT PULLED</th> </tr> <tr> <td>13-3/8"</td> <td>48# H-40</td> <td>430'</td> <td>17-1/2"</td> <td>390 Prem. Cir.</td> <td>0'</td> </tr> <tr> <td>9-5/8"</td> <td>36# J-55</td> <td>3,000'</td> <td>12-1/4"</td> <td>1,200 "C"+Prem Cir.</td> <td>0'</td> </tr> <tr> <td>5-1/2"</td> <td>17# P-110 & L-80</td> <td>11,850'</td> <td>8-3/4"</td> <td>535 "H" Cir. to DV</td> <td>0'</td> </tr> <tr> <td></td> <td>DV Tool Set @</td> <td>8,783'</td> <td></td> <td>1,170 "H" TOC@2800'</td> <td>Calc.</td> </tr> </table>	CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED	13-3/8"	48# H-40	430'	17-1/2"	390 Prem. Cir.	0'	9-5/8"	36# J-55	3,000'	12-1/4"	1,200 "C"+Prem Cir.	0'	5-1/2"	17# P-110 & L-80	11,850'	8-3/4"	535 "H" Cir. to DV	0'		DV Tool Set @	8,783'		1,170 "H" TOC@2800'	Calc.	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="4">24. LINER RECORD</th> <th colspan="3">25. TUBING RECORD</th> </tr> <tr> <th>SIZE</th> <th>TOP</th> <th>BOTTOM</th> <th>SACKS CEMENT</th> <th>SIZE</th> <th>DEPTH SET</th> <th>PACKER SET</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>2-7/8" L-80</td> <td>11,150'</td> <td>11,150'</td> </tr> </table>	24. LINER RECORD				25. TUBING RECORD			SIZE	TOP	BOTTOM	SACKS CEMENT	SIZE	DEPTH SET	PACKER SET					2-7/8" L-80	11,150'	11,150'
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26. Perforation record (interval, size, and number) 11,258' - 11,272' w/2 JSPF, .38", (26 Holes) 11,417' - 11,508' w/2 JSPF, .38", (28 Holes) 11,580' - 11,692' w/2 JSPF, .38", (42 Holes)	27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>DEPTH INTERVAL</th> <th>AMOUNT AND KIND MATERIAL USED</th> </tr> <tr> <td>11,258' - 11,272'</td> <td>Frac w/35,321g 35Q CO2 & 42,940# 20/40sd</td> </tr> <tr> <td>11,417' - 11,508'</td> <td>Frac w/33,251g 35Q CO2 & 48,340# 20/40sd</td> </tr> <tr> <td>11,580' - 11,692'</td> <td>Frac w/29,531g 35Q CO2 & 50,064# 20/40sd</td> </tr> </table>	DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED	11,258' - 11,272'	Frac w/35,321g 35Q CO2 & 42,940# 20/40sd	11,417' - 11,508'	Frac w/33,251g 35Q CO2 & 48,340# 20/40sd	11,580' - 11,692'	Frac w/29,531g 35Q CO2 & 50,064# 20/40sd																																											
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28 PRODUCTION																																																				
Date First Production 12/18/2003	Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing																																																			
Date of Test 12/18/2003	Well Status (Prod. or Shut-in) Producing																																																			
Hours Tested 4	Choke Size 33/64"																																																			
Flow Tubing Press. 2,140 psi	Casing Pressure PKR																																																			
Calculated 24-Hour Rate 0	Oil - Bbl. 0																																																			
Gas - MCF 6,060	Water - Bbl. 0																																																			
Oil Gravity - API - (Corr.) 0	Gas - Oil Ratio 0																																																			
29. Disposition of Gas (Sold, used for fuel, vented, etc.) Vent																																																				
30. List Attachments Deviation Survey, Directional Survey, Electric Logs, OCD Form C-122 w/graph																																																				
31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief																																																				
Signature <i>Alan W. Bohling</i> E-mail Address abohling@PureResources.com	Printed Name Alan W. Bohling Title Regulatory Analyst Date 12/19/2003																																																			

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico			Northwestern New Mexico	
T. Anhy	T. Canyon		T. Ojo Alamo	T. Penn "B"
T. Salt	T. Strawn	10,192'	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	10,448'	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss		T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian		T. Menefee	T. Madison
T. Queen	T. Silurian		T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya		T. Mancos	T. McCracken
T. San Andres	T. Simpson		T. Gallup	T. Ignacio Otzte
T. Glorieta	T. McKee		Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger		T. Dakota	T.
T. Blinebry	T. Gr. Wash		T. Morrison	T.
T. Tubb	T. Delaware Sand		T. Todilto	T.
T. Drinkard	T. Bone Springs	5,082'	T. Entrada	T.
T. Abo	T. Cherry Cyn	2,672'	T. Wingate	T.
T. Wolfcamp	T. Brushy Cyn	3,766'	T. Chinle	T.
T. Penn	T. Morrow A	11,142'	T. Permian	T.
T. Cisco (Bough C)	T. Morrow C	11,574'	T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, from.....to..... No. 3, from.....to.....
No. 2, from.....to..... No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

From	To	Thickness In Feet	Lithology

Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

RECEIVED

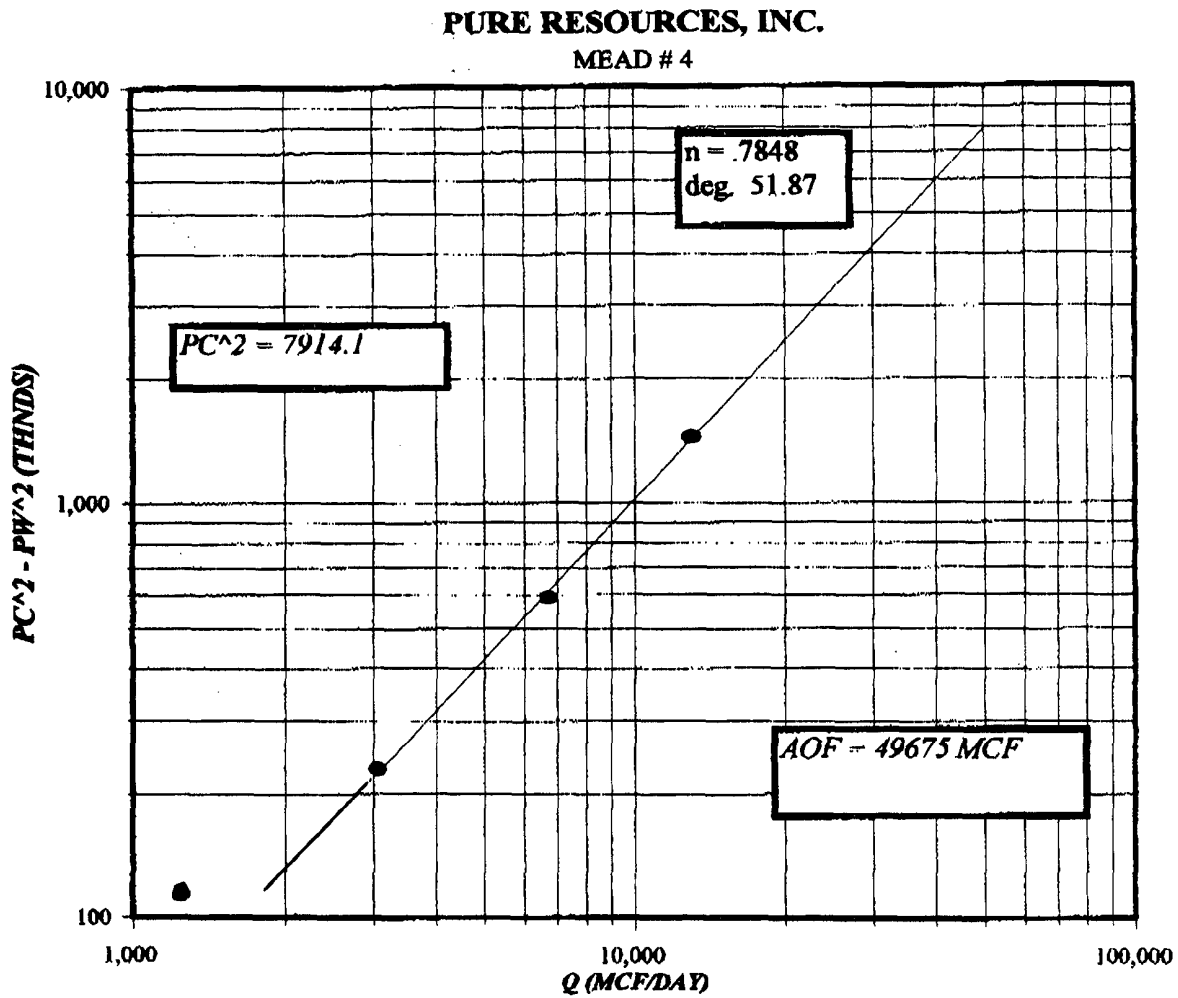
DEC 22 2003

Form C-122
Revised October, 1999

OCD-ARTESIA

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator PURE RESOURCES, INC.				Lease or Unit Name MEAD			
Type Test ☒ Initial ☐ Annual ☐ Special						Test Date 12-18-03	Well No. 4
Completion Date 12/16/03		Total Depth 11850		Plug Back TD 11804		Elevation H 5 22 27	
Csg. Size 5 1/2	Wt. 17#	d 2.441	Set At 11850	Perforations: From: 11258 To: 11692		County EDDY	
Tbg. Size 2 7/8	Wt. 6.5	d 2.441	Set At 11150	Perforations: From: To:		Pool CARLSBAD MORROW SO.	
Type Well-Single-Bradenhead G.G. or G.O. Multiple SINGLE				Packer Set At 11150		Formation MORROW	
Producing Thru Tbg 11150		Reservoir Temp. °F 166.9 @ 11150	Mean Annual Temp. °F 60	Baro. Press. P _a 13.2		Connection VENTED	
L 11150	H 11150	Gg 0.606	%CO ₂ 1.432	%N ₂ 0.459	%H ₂ S N/A	Prover N/A	Meter Run 4.026
FLOW DATA				TUBING DATA		CASING DATA	
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp. °F	Press p.s.i.g.	Temp. °F
SI						2800	PKR
1	4 X	2.250	100	16	74	2775	"
2	4 X	2.250	205	40	82	2740	"
3	4 X	2.250	310	124	68	2600	"
4	4 X	2.250	430	320	53	2140	"
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q, Mcfd
1	25.64	42.56	113.2	0.9868	1.285	1.011	1,399
2	25.64	93.42	218.2	0.9795	1.285	1.017	3,066
3	25.64	200.19	323.2	0.9924	1.285	1.028	6,729
4	25.64	376.6	443.2	1.007	1.285	1.044	13,045
5							
No.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio DRY GAS Mcf bbl.		
1	0.16	534	1.49	0.978	A.P.I. Gravity of Liquid Hydrocarbons DRY Deg.		
2	0.32	542	1.51	0.967	Specific Gravity Separator Gas 0.606 XXXXXXXX		
3	0.47	528	1.47	0.947	Specific Gravity Flowing Fluid XXXXXX		
4	0.65	513	1.43	0.918	Critical Pressure *675 P.S.I.A. P.S.I.A.		
5					Critical Temperature *357 R R		
P _c 2813.2 P ₂ 7914.1							
No.	P ₁ ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \frac{5.494}{\quad} (2) \left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \frac{3.808}{\quad}$		
1		2792.1	7795.7	118.4			
2		2772	7683.8	230.3			
3		2706.5	7324.9	589.2			
4		2544.3	6473.7	1440.4			
5							
Absolute Open Flow 49,675 Mcfd @ 15.025					Angle of Slope Q: 51.87		Slope n: 0.7848
Remarks: NO FLUID PRODUCED *CORRECTED TO 1.432 % CO2							
Approved By Division:		Conducted By: Gurdian Well Testers		Calculated By: BM		Checked By: BM	



District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

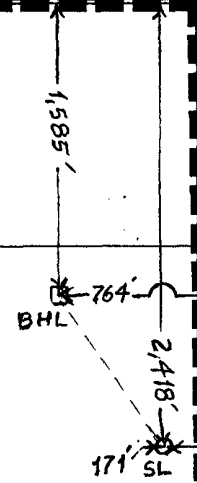
WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-32945		Pool Code 73960		Pool Name Carlsbad; Morrow, South (Pro Gas)	
Property Code	Property Name Mead			Well Number 004	
OGRID No. 150628	Operator Name Pure Resources, L. P.			Elevation 3,153' GR	

10 Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	5	22S	27E		2,418	North	171	East	Eddy

11 Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	5	22S	27E		1,585	North	764	East	Eddy
Dedicated Acres 320		Joint or Infill		Consolidation Code		Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Alan W. Bohling</i> Signature Alan W. Bohling Printed Name Regulatory Analyst abohling@PureResources.com Title and E-mail Address 12/19/2003 Date
RECEIVED DEC 22 2003 OCD-ARTESIA		18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number

Rec'd 12/11/03 From Robert Ready & Tom Brown 5 pm AWB

OPERATOR: TOM BROWN, INC.
WELL/LEASE: MEAD #4
COUNTY: EDDY

046-0022

STATE OF NEW MEXICO
DEVIATION REPORT

204	3/4
383	1 1/2
649	1
738	1
973	1
1,173	1/2
1,359	1/2
1,692	1 1/4
1,991	1/2
2,288	1/2
2,586	1/2
2,934	1/2
3,147	1/2
3,335	1/2
3,497	1/2
3,686	1/2
3,707	1/4
3,906	1/4
4,312	1/2
4,500	1/2
4,688	1/2
4,874	1
5,062	1
5,249	3/4
5,437	1 1/4
5,626	1
5,826	1 1/2
6,030	1/4

RECEIVED

DEC 22 2003

OCD-ARTESIA

RECEIVED

DEC 05 2003

By: Steve Moore

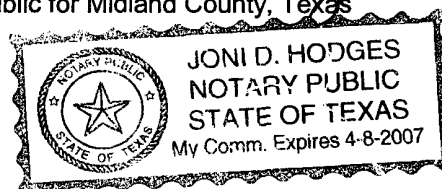
STATE OF TEXAS

COUNTY OF MIDLAND

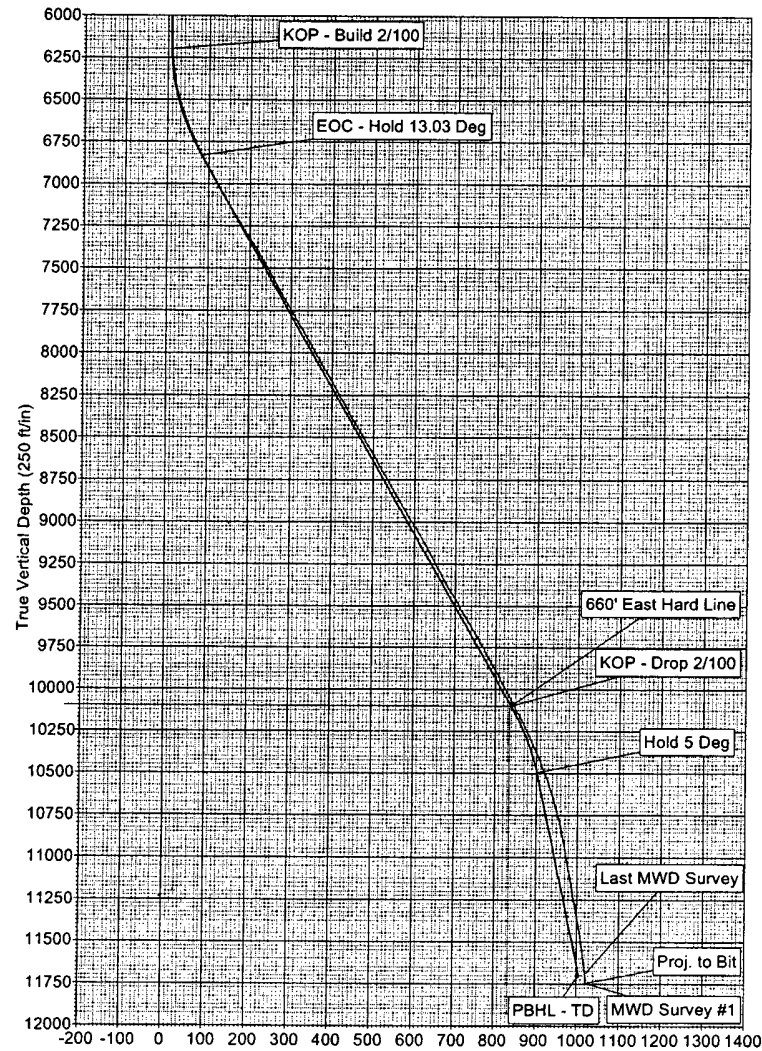
The foregoing instrument was acknowledged before me on this 4th day of December, 2003, by Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.

My Commission Expires: 4/08/2007

Joni D. Hodges
Notary Public for Midland County, Texas



TOM BROWN, INC.

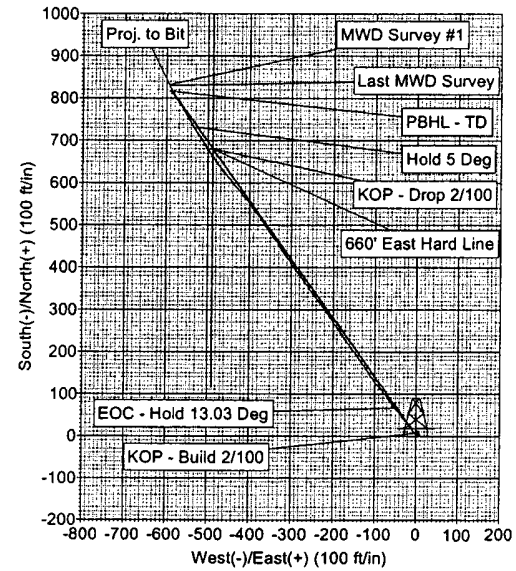


Vertical Section at 324.31° (100 ft/in)

SECTION DETAILS

Sec	MD	Inc	Azi	TVL	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	6030.00	0.25	20.00	6029.62	6.84	-3.39	0.00	0.00	7.53	
2	6200.00	0.25	324.21	6199.62	7.48	-3.48	0.14	242.11	8.11	
3	6839.21	13.03	324.20	6833.22	67.33	-46.64	2.00	0.00	81.69	
4	10192.38	13.03	324.20	10100.00	680.70	-489.00	0.00	0.00	838.14	660' East Hard Line
5	10192.41	13.03	324.20	10100.03	680.70	-489.00	0.00	0.00	838.14	
6	10594.11	5.00	324.20	10496.44	731.73	-525.80	2.00	180.00	901.05	
7	11800.00	5.00	324.20	11697.74	816.97	-587.28	0.00	0.00	1006.15	PBHL - TD

Project: Eddy Co., New Mexico
Site: Mead #4
Well: Mead #4
Wellbore: S-Well #1
Plan: Plan #3



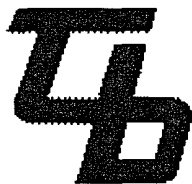
Azimuths to True North
Magnetic North: 8.95°

Magnetic Field
Strength: 49579.2nT
Dip Angle: 60.50°
Date: 10/26/2003
Model: IGRF2000



Plan: Plan #3 (Mead #4/S-Well #1)

Created By: Mike Stanley Date: 10/27/2003
Checked: _____ Date: _____
Reviewed: _____ Date: _____
Approved: _____ Date: _____



TOM BROWN, INC.

Eddy Co., New Mexico

Mead #4

Mead #4

S-Well #1

Survey: MWD Survey #1

Standard Survey Report

11 November, 2003

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DEC 2 9 2003

OCD-ARTESIA





Black Viper Energy Services

Survey Report



Database:	EDM 2003.5 Single User Db	Local Co-ordinate Reference:	Well Mead #4
Company:	TOM BROWN, INC.	TVD Reference:	Well @ 3153.00ft (Mean Sea Level)
Project:	Eddy Co., New Mexico	MD Reference:	Well @ 3153.00ft (Mean Sea Level)
Site:	Mead #4	North Reference:	True
Well:	Mead #4	Survey Calculation Method:	Minimum Curvature
Wellbore:	S-Well #1		
Design:	S-Well #1		

Project	Eddy Co., New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Mead #4, R27E, T22S, S5					
Site Position:	From:	Lat/Long	Northing:	516991.50 ft	Latitude:	32° 25' 016" N
			Easting:	536213.84 ft	Longitude:	104° 12' 057" W
Position Uncertainty:	ft		Slot Radius:	in	Grid Convergence:	0.06°

Well	Mead #4					
Well Position	+N/-S	0.00 ft	Northing:	516991.50 ft	Latitude:	32° 25' 016" N
	+E/-W	0.00 ft	Easting:	536213.84 ft	Longitude:	104° 12' 057" W
Position Uncertainty	ft		Wellhead Elevation:	3153.00 ft	Ground Level:	3153.00 ft

Wellbore	S-Well #1				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2000	10/26/2003	8.95	60.50	49579

Design	S-Well #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	6030.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	324.31	

Survey Program	Date	11/11/2003		
From	To	Survey (Wellbore)	Tool Name	Description
(ft)	(ft)			
0.00	6030.00	S.S. Survey #1 (OH)	S.S.	Single Shot
6030.00	11850.00	MWD Survey #1 (S-Well #1)	MWD	Standard MWD



Black Viper Energy Services

Survey Report



Database: EDM 2003.5 Single User Db
Company: TOM BROWN, INC.
Project: Eddy Co., New Mexico
Site: Mead #4
Well: Mead #4
Wellbore: S-Well #1
Design: S-Well #1

Local Co-ordinate Reference: Well Mead #4
TVD Reference: Well @ 3153.00ft (Mean Sea Level)
MD Reference: Well @ 3153.00ft (Mean Sea Level)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
6030.00	0.25	20.00	6029.62	6.84	-3.39	7.53	0.00	0.00	0.00
6147.00	0.80	311.00	6146.61	7.61	-3.92	8.47	0.64	0.47	-58.97
6178.00	1.00	308.30	6177.61	7.92	-4.29	8.94	0.66	0.65	-8.71
6209.00	1.50	314.40	6208.60	8.37	-4.80	9.60	1.67	1.61	19.68
6240.00	1.80	325.70	6239.59	9.06	-5.36	10.48	1.42	0.97	36.45
6271.00	2.10	325.40	6270.57	9.93	-5.96	11.54	0.97	0.97	-0.97
6303.00	2.50	327.60	6302.55	11.00	-6.66	12.82	1.28	1.25	6.87
6334.00	3.00	326.30	6333.51	12.25	-7.48	14.31	1.63	1.61	-4.19
6366.00	3.70	326.40	6365.46	13.80	-8.51	16.18	2.19	2.19	0.31
6397.00	4.40	326.10	6396.38	15.62	-9.73	18.36	2.26	2.26	-0.97
6428.00	5.20	324.80	6427.27	17.76	-11.20	20.96	2.60	2.58	-4.19
6460.00	6.20	323.30	6459.11	20.33	-13.07	24.14	3.16	3.12	-4.69
6490.00	6.80	321.60	6488.92	23.02	-15.14	27.53	2.10	2.00	-5.67
6521.00	7.00	319.60	6519.69	25.90	-17.51	31.25	1.01	0.65	-6.45
6552.00	7.60	318.40	6550.44	28.87	-20.09	35.17	2.00	1.94	-3.87
6583.00	8.00	319.80	6581.16	32.05	-22.85	39.36	1.43	1.29	4.52
6615.00	8.40	321.10	6612.83	35.57	-25.75	43.91	1.38	1.25	4.06
6646.00	8.90	320.20	6643.48	39.17	-28.71	48.56	1.67	1.61	-2.90
6677.00	9.60	319.50	6674.07	42.98	-31.92	53.53	2.29	2.26	-2.26
6709.00	10.30	319.90	6705.59	47.20	-35.50	59.04	2.20	2.19	1.25
6740.00	10.60	321.10	6736.08	51.54	-39.07	64.65	1.20	0.97	3.87
6771.00	10.90	321.70	6766.53	56.06	-42.68	70.43	1.03	0.97	1.94
6803.00	11.40	321.40	6797.93	60.90	-46.53	76.61	1.57	1.56	-0.94
6834.00	12.10	321.00	6828.28	65.82	-50.48	82.91	2.27	2.26	-1.29
6865.00	12.40	321.90	6858.57	70.96	-54.58	89.48	1.15	0.97	2.90
6897.00	12.80	323.70	6889.80	76.53	-58.80	96.46	1.75	1.25	5.62
6927.00	12.40	324.60	6919.08	81.83	-62.63	103.00	1.49	-1.33	3.00
6959.00	12.20	324.00	6950.35	87.37	-66.61	109.82	0.74	-0.62	-1.87
6990.00	12.30	323.40	6980.64	92.67	-70.51	116.40	0.52	0.32	-1.94
7020.00	12.80	323.20	7009.92	97.89	-74.40	122.91	1.67	1.67	-0.67
7051.00	13.20	321.10	7040.13	103.40	-78.68	129.88	2.00	1.29	-6.77
7083.00	13.60	320.90	7071.26	109.16	-83.35	137.28	1.26	1.25	-0.62
7113.00	13.50	320.40	7100.42	114.60	-87.81	144.30	0.51	-0.33	-1.67
7145.00	13.10	320.20	7131.56	120.26	-92.51	151.64	1.26	-1.25	-0.62
7176.00	13.60	321.00	7161.73	125.79	-97.05	158.79	1.72	1.61	2.58
7206.00	13.60	320.80	7190.88	131.27	-101.50	165.83	0.16	0.00	-0.67
7237.00	14.10	323.10	7220.98	137.11	-106.07	173.24	2.40	1.61	7.42
7269.00	14.80	325.30	7251.97	143.59	-110.74	181.22	2.78	2.19	6.87
7300.00	14.80	326.80	7281.94	150.16	-115.16	189.14	1.24	0.00	4.84
7332.00	14.60	325.80	7312.90	156.91	-119.66	197.25	1.01	-0.62	-3.12
7395.00	14.10	324.90	7373.93	169.76	-128.54	212.86	0.87	-0.79	-1.43
7457.00	13.50	324.20	7434.14	181.81	-137.12	227.65	1.00	-0.97	-1.13
7489.00	12.90	323.70	7465.29	187.71	-141.42	234.96	1.91	-1.87	-1.56
7520.00	13.00	323.10	7495.51	193.29	-145.56	241.91	0.54	0.32	-1.94
7551.00	12.90	323.20	7525.72	198.85	-149.72	248.85	0.33	-0.32	0.32
7581.00	12.70	323.10	7554.97	204.17	-153.71	255.50	0.67	-0.67	-0.33
7613.00	13.10	324.00	7586.16	209.91	-157.95	262.64	1.40	1.25	2.81
7644.00	13.70	324.90	7616.32	215.76	-162.13	269.82	2.05	1.94	2.90
7675.00	13.60	324.90	7646.44	221.75	-166.34	277.14	0.32	-0.32	0.00
7739.00	13.00	324.60	7708.73	233.77	-174.83	291.86	0.94	-0.94	-0.47
7771.00	12.60	324.90	7739.93	239.56	-178.92	298.95	1.27	-1.25	0.94
7801.00	12.60	324.90	7769.21	244.91	-182.69	305.50	0.00	0.00	0.00
7832.00	13.00	326.00	7799.44	250.57	-186.58	312.36	1.51	1.29	3.55
7863.00	13.70	325.30	7829.60	256.48	-190.62	319.52	2.32	2.26	-2.26



Black Viper Energy Services

Survey Report



Database: EDM 2003.5 Single User Db
Company: TOM BROWN, INC.
Project: Eddy Co., New Mexico
Site: Mead #4
Well: Mead #4
Wellbore: S-Well #1
Design: S-Well #1

Local Co-ordinate Reference: Well Mead #4
TVD Reference: Well @ 3153.00ft (Mean Sea Level)
MD Reference: Well @ 3153.00ft (Mean Sea Level)
North Reference: True
Survey Calculation Method: Minimum Curvature

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)
7894.00	13.80	325.70	7859.71	262.55	-194.79	326.88	0.45	0.32	1.29
7957.00	13.50	326.00	7920.93	274.86	-203.14	341.75	0.49	-0.48	0.48
7989.00	13.30	326.00	7952.06	281.00	-207.29	349.16	0.62	-0.62	0.00
8021.00	13.10	326.50	7983.22	287.08	-211.35	356.46	0.72	-0.62	1.56
8051.00	12.70	326.80	8012.46	292.67	-215.03	363.15	1.35	-1.33	1.00
8083.00	12.30	326.30	8043.70	298.45	-218.85	370.07	1.29	-1.25	-1.56
8113.00	12.90	324.80	8072.98	303.85	-222.55	376.62	2.28	2.00	-5.00
8145.00	13.60	322.50	8104.13	309.75	-226.90	383.95	2.74	2.19	-7.19
8177.00	13.50	322.10	8135.24	315.68	-231.48	391.44	0.43	-0.31	-1.25
8239.00	13.00	322.30	8195.59	326.91	-240.19	405.64	0.81	-0.81	0.32
8271.00	12.70	322.20	8226.78	332.54	-244.55	412.75	0.94	-0.94	-0.31
8303.00	13.20	322.70	8257.97	338.22	-248.92	419.92	1.60	1.56	1.56
8335.00	13.10	323.20	8289.13	344.03	-253.31	427.20	0.47	-0.31	1.56
8366.00	12.80	324.10	8319.34	349.63	-257.43	434.15	1.17	-0.97	2.90
8398.00	12.60	324.00	8350.56	355.32	-261.56	441.18	0.63	-0.62	-0.31
8429.00	13.00	324.10	8380.79	360.88	-265.59	448.05	1.29	1.29	0.32
8492.00	13.30	325.30	8442.14	372.58	-273.87	462.38	0.64	0.48	1.90
8523.00	13.50	325.40	8472.29	378.49	-277.95	469.56	0.65	0.65	0.32
8555.00	13.30	325.70	8503.42	384.61	-282.15	476.98	0.66	-0.62	0.94
8587.00	13.10	326.20	8534.58	390.66	-286.24	484.28	0.72	-0.62	1.56
8650.00	13.50	324.00	8595.89	402.54	-294.53	498.77	1.02	0.63	-3.49
8713.00	13.30	324.20	8657.17	414.37	-303.10	513.37	0.33	-0.32	0.32
8776.00	12.80	324.40	8718.54	425.92	-311.40	527.60	0.80	-0.79	0.32
8839.00	12.90	326.10	8779.97	437.43	-319.38	541.60	0.62	0.16	2.70
8902.00	13.10	326.20	8841.35	449.20	-327.28	555.77	0.32	0.32	0.16
8934.00	13.20	326.50	8872.51	455.26	-331.31	563.04	0.38	0.31	0.94
8966.00	13.10	327.00	8903.67	461.35	-335.30	570.32	0.47	-0.31	1.56
8996.00	13.60	325.00	8932.86	467.09	-339.18	577.24	2.27	1.67	-6.67
9028.00	14.50	323.00	8963.91	473.37	-343.74	585.01	3.20	2.81	-6.25
9089.00	14.50	323.50	9022.96	485.61	-352.88	600.28	0.21	0.00	0.82
9153.00	13.30	325.50	9085.09	498.12	-361.82	615.65	2.02	-1.87	3.12
9184.00	12.80	326.00	9115.29	503.90	-365.76	622.65	1.65	-1.61	1.61
9215.00	12.30	326.90	9145.55	509.52	-369.48	629.38	1.73	-1.61	2.90
9247.00	12.20	326.30	9176.82	515.19	-373.22	636.16	0.51	-0.31	-1.87
9277.00	12.40	324.00	9206.13	520.43	-376.87	642.55	1.76	0.67	-7.67
9309.00	12.20	322.30	9237.40	525.88	-380.96	649.37	1.29	-0.62	-5.31
9340.00	12.50	322.80	9267.68	531.15	-384.99	655.99	1.03	0.97	1.61
9372.00	12.40	323.30	9298.93	536.66	-389.14	662.89	0.46	-0.31	1.56
9403.00	12.60	323.40	9329.19	542.04	-393.14	669.60	0.65	0.65	0.32
9434.00	13.10	322.20	9359.41	547.53	-397.31	676.49	1.83	1.61	-3.87
9465.00	13.50	320.50	9389.58	553.10	-401.77	683.61	1.80	1.29	-5.48
9496.00	13.70	320.90	9419.71	558.74	-406.38	690.89	0.71	0.65	1.29
9559.00	12.90	321.50	9481.02	570.04	-415.47	705.36	1.29	-1.27	0.95
9590.00	12.60	321.70	9511.26	575.40	-419.72	712.19	0.98	-0.97	0.65
9622.00	13.30	321.40	9542.44	581.01	-424.18	719.36	2.20	2.19	-0.94
9653.00	14.00	320.10	9572.57	586.68	-428.81	726.66	2.47	2.26	-4.19
9716.00	13.70	320.30	9633.74	598.26	-438.46	741.70	0.48	-0.48	0.32
9779.00	13.10	321.10	9695.02	609.56	-447.71	756.27	1.00	-0.95	1.27
9810.00	12.70	321.10	9725.24	614.95	-452.05	763.18	1.29	-1.29	0.00
9841.00	12.20	321.20	9755.51	620.15	-456.25	769.85	1.61	-1.61	0.32
9872.00	12.60	320.50	9785.79	625.31	-460.45	776.50	1.38	1.29	-2.26
9903.00	13.10	320.30	9816.01	630.63	-464.84	783.37	1.62	1.61	-0.65
9966.00	12.60	322.00	9877.43	641.53	-473.64	797.36	0.99	-0.79	2.70



Black Viper Energy Services

Survey Report



Database: EDM 2003.5 Single User Db
 Company: TOM BROWN, INC.
 Project: Eddy Co., New Mexico
 Site: Mead #4
 Well: Mead #4
 Wellbore: S-Well #1
 Design: S-Well #1

Local Co-ordinate Reference: Well Mead #4
 TVD Reference: Well @ 3153.00ft (Mean Sea Level)
 MD Reference: Well @ 3153.00ft (Mean Sea Level)
 North Reference: True
 Survey Calculation Method: Minimum Curvature

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)
9998.00	12.10	321.90	9908.69	646.92	-477.85	804.20	1.56	-1.56	-0.31
10030.00	12.50	323.50	9939.96	652.35	-481.98	811.02	1.64	1.25	5.00
10061.00	12.70	325.10	9970.21	657.84	-485.93	817.78	1.30	0.65	5.16
10093.00	12.40	325.50	10001.45	663.55	-489.89	824.73	0.98	-0.94	1.25
10125.00	11.70	326.60	10032.74	669.09	-493.62	831.41	2.30	-2.19	3.44
10155.00	12.10	326.30	10062.10	674.25	-497.04	837.59	1.35	1.33	-1.00
10185.00	12.00	326.30	10091.44	679.46	-500.51	843.85	0.33	-0.33	0.00
10193.75	11.94	326.52	10100.00	680.97	-501.52	845.66	0.84	-0.65	2.55
660' East Hard Line									
10216.00	11.80	327.10	10121.77	684.80	-504.02	850.23	0.84	-0.64	2.59
10246.00	11.80	327.20	10151.14	689.96	-507.35	856.36	0.07	0.00	0.33
10279.00	11.40	327.40	10183.46	695.54	-510.94	862.99	1.22	-1.21	0.61
10310.00	11.10	326.50	10213.87	700.61	-514.23	869.03	1.12	-0.97	-2.90
10342.00	11.00	326.30	10245.27	705.72	-517.63	875.16	0.33	-0.31	-0.62
10372.00	10.90	327.00	10274.73	710.48	-520.76	880.85	0.55	-0.33	2.33
10402.00	10.50	326.60	10304.20	715.14	-523.81	886.42	1.36	-1.33	-1.33
10434.00	10.50	327.00	10335.67	720.02	-527.00	892.24	0.23	0.00	1.25
10465.00	10.40	326.70	10366.15	724.73	-530.08	897.86	0.37	-0.32	-0.97
10497.00	10.00	327.40	10397.65	729.48	-533.16	903.52	1.31	-1.25	2.19
10532.00	9.20	327.50	10432.16	734.40	-536.30	909.35	2.29	-2.29	0.29
10564.00	8.80	328.40	10463.76	738.64	-538.96	914.34	1.33	-1.25	2.81
10596.00	9.00	329.80	10495.38	742.89	-541.50	919.28	0.92	0.62	4.37
10627.00	8.50	328.30	10526.02	746.94	-543.92	923.98	1.77	-1.61	-4.84
10656.00	8.00	329.90	10554.72	750.51	-546.06	928.12	1.90	-1.72	5.52
10689.00	8.00	331.10	10587.40	754.50	-548.32	932.69	0.51	0.00	3.64
10719.00	7.40	330.00	10617.13	758.00	-550.30	936.68	2.06	-2.00	-3.67
10750.00	7.40	330.70	10647.87	761.47	-552.27	940.65	0.29	0.00	2.26
10782.00	6.80	330.00	10679.62	764.91	-554.23	944.59	1.89	-1.87	-2.19
10812.00	6.40	328.10	10709.42	767.87	-556.00	948.02	1.52	-1.33	-6.33
10843.00	6.30	326.30	10740.23	770.75	-557.86	951.45	0.72	-0.32	-5.81
10874.00	6.10	327.40	10771.05	773.55	-559.69	954.79	0.75	-0.65	3.55
10906.00	5.10	329.60	10802.90	776.21	-561.32	957.91	3.20	-3.12	6.87
10936.00	4.50	323.30	10832.79	778.31	-562.70	960.41	2.66	-2.00	-21.00
10967.00	4.60	322.20	10863.70	780.26	-564.19	962.87	0.43	0.32	-3.55
11029.00	4.50	328.20	10925.50	784.30	-567.00	967.78	0.78	-0.16	9.68
11091.00	4.60	324.00	10987.31	788.37	-569.74	972.69	0.56	0.16	-6.77
11154.00	4.60	327.60	11050.10	792.55	-572.58	977.74	0.46	0.00	5.71
11216.00	4.20	330.60	11111.92	796.63	-575.02	982.48	0.74	-0.65	4.84
11279.00	4.10	325.30	11174.76	800.49	-577.44	987.02	0.63	-0.16	-8.41
11342.00	4.10	327.40	11237.59	804.24	-579.94	991.52	0.24	0.00	3.33
11404.00	4.30	332.40	11299.43	808.17	-582.21	996.04	0.67	0.32	8.06
11469.00	4.00	334.90	11364.26	812.38	-584.30	1000.68	0.54	-0.46	3.85
11528.00	3.80	327.30	11423.12	815.89	-586.23	1004.66	0.94	-0.34	-12.88
11591.00	3.80	333.20	11485.98	819.51	-588.29	1008.80	0.62	0.00	9.37
11653.00	3.30	330.40	11547.86	822.89	-590.10	1012.61	0.85	-0.81	-4.52
11714.00	3.00	342.60	11608.77	825.94	-591.45	1015.87	1.20	-0.49	20.00
11779.00	3.10	336.40	11673.68	829.18	-592.66	1019.20	0.53	0.15	-9.54
11800.00	2.80	351.30	11694.65	830.20	-592.96	1020.21	3.91	-1.43	70.95
Last MWD Survey									
11803.09	2.80	351.30	11697.74	830.35	-592.99	1020.35	0.00	0.00	0.00
PBHL - TD									
11850.00	2.80	351.30	11744.59	832.62	-593.33	1022.39	0.00	0.00	0.00
Proj. to Bit									



Black Viper Energy Services Survey Report



Database:	EDM 2003.5 Single User Db	Local Co-ordinate Reference:	Well Mead #4
Company:	TOM BROWN, INC.	TVD Reference:	Well @ 3153.00ft (Mean Sea Level)
Project:	Eddy Co., New Mexico	MD Reference:	Well @ 3153.00ft (Mean Sea Level)
Site:	Mead #4	North Reference:	True
Well:	Mead #4	Survey Calculation Method:	Minimum Curvature
Wellbore:	S-Well #1		
Design:	S-Well #1		

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)
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Targets

Target Name	Shape	TVD (ft)	Northing (ft)	Easting (ft)	+N/-S ft	+E/-W ft	Created	Updated
660' East Hard Line	Point	10100.00	517671.66	535724.09	680.70	-489.00	9/4/2003	9/4/2003
PBHL - TD	Point	11697.74	517807.82	535625.66	816.97	-587.28	9/4/2003	10/27/2003
660' East Hard Line	Point	10100.00	517671.66	535724.09	680.70	-489.00	9/4/2003	9/4/2003
PBHL - TD	Point	11697.74	517807.82	535625.66	816.97	-587.28	9/4/2003	10/27/2003

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
11800.00	11694.65	830.20	-592.96	Last MWD Survey
11850.00	11744.59	832.62	-593.33	Proj. to Bit

Mead #4 Final Report 11-11-03.txt

TOM BROWN, INC.

Mead #4 - MWD Survey #1

Eddy Co., New Mexico

Mead #4

Measured Vertical Depth Section (ft) (ft)	Dogleg Incl. Rate (°/100ft)	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)
6030.00	0.250	20.000	6029.62	6.84 N	3.39 W
7.53	0.00				
6147.00	0.800	311.000	6146.61	7.61 N	3.92 W
8.47	0.64				
6178.00	1.000	308.300	6177.61	7.92 N	4.29 W
8.94	0.66				
6209.00	1.500	314.400	6208.60	8.37 N	4.80 W
9.60	1.67				
6240.00	1.800	325.700	6239.59	9.06 N	5.36 W
10.48	1.42				
6271.00	2.100	325.400	6270.57	9.93 N	5.96 W
11.54	0.97				
6303.00	2.500	327.600	6302.55	11.00 N	6.66 W
12.82	1.28				
6334.00	3.000	326.300	6333.51	12.25 N	7.48 W
14.31	1.63				
6366.00	3.700	326.400	6365.46	13.80 N	8.51 W
16.18	2.19				
6397.00	4.400	326.100	6396.38	15.62 N	9.73 W
18.36	2.26				
6428.00	5.200	324.800	6427.27	17.76 N	11.20 W
20.96	2.60				
6460.00	6.200	323.300	6459.11	20.33 N	13.07 W
24.14	3.16				
6490.00	6.800	321.600	6488.92	23.02 N	15.14 W
27.53	2.10				
6521.00	7.000	319.600	6519.69	25.90 N	17.51 W
31.25	1.01				
6552.00	7.600	318.400	6550.44	28.87 N	20.09 W
35.17	2.00				
6583.00	8.000	319.800	6581.16	32.05 N	22.85 W
39.36	1.43				
6615.00	8.400	321.100	6612.83	35.57 N	25.75 W
43.91	1.38				
6646.00	8.900	320.200	6643.48	39.17 N	28.71 W
48.56	1.67				
6677.00	9.600	319.500	6674.07	42.98 N	31.92 W
53.53	2.29				
6709.00	10.300	319.900	6705.59	47.20 N	35.50 W

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59.04	2.20				
6740.00	10.600	321.100	6736.08	51.54 N	39.07 W
64.65	1.20				
6771.00	10.900	321.700	6766.53	56.06 N	42.68 W
70.43	1.03				
6803.00	11.400	321.400	6797.93	60.90 N	46.53 W
76.61	1.57				
6834.00	12.100	321.000	6828.28	65.82 N	50.48 W
82.91	2.27				
6865.00	12.400	321.900	6858.57	70.96 N	54.58 W
89.48	1.15				
6897.00	12.800	323.700	6889.80	76.53 N	58.80 W
96.46	1.75				
6927.00	12.400	324.600	6919.08	81.83 N	62.63 W
103.00	1.49				
6959.00	12.200	324.000	6950.35	87.37 N	66.61 W
109.82	0.74				
6990.00	12.300	323.400	6980.64	92.67 N	70.51 W
116.40	0.52				
7020.00	12.800	323.200	7009.92	97.89 N	74.40 W
122.91	1.67				
7051.00	13.200	321.100	7040.13	103.40 N	78.68 W
129.88	2.00				
7083.00	13.600	320.900	7071.26	109.16 N	83.35 W
137.28	1.26				
7113.00	13.500	320.400	7100.42	114.60 N	87.81 W
144.30	0.51				
7145.00	13.100	320.200	7131.56	120.26 N	92.51 W
151.64	1.26				
7176.00	13.600	321.000	7161.73	125.79 N	97.05 W
158.79	1.72				
7206.00	13.600	320.800	7190.88	131.27 N	101.50 W
165.83	0.16				
7237.00	14.100	323.100	7220.98	137.11 N	106.07 W
173.24	2.40				
7269.00	14.800	325.300	7251.97	143.59 N	110.74 W
181.22	2.78				
7300.00	14.800	326.800	7281.94	150.16 N	115.16 W
189.14	1.24				
7332.00	14.600	325.800	7312.90	156.91 N	119.66 W
197.25	1.01				
7395.00	14.100	324.900	7373.93	169.76 N	128.54 W
212.86	0.87				
7457.00	13.500	324.200	7434.14	181.81 N	137.12 W
227.65	1.00				
7489.00	12.900	323.700	7465.29	187.71 N	141.42 W
234.96	1.91				
7520.00	13.000	323.100	7495.51	193.29 N	145.56 W
241.91	0.54				
7551.00	12.900	323.200	7525.72	198.85 N	149.72 W
248.85	0.33				
7581.00	12.700	323.100	7554.97	204.17 N	153.71 W

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255.50	0.67				
7613.00	13.100	324.000	7586.16	209.91 N	157.95 W
262.64	1.40				
7644.00	13.700	324.900	7616.32	215.76 N	162.13 W
269.82	2.05				
7675.00	13.600	324.900	7646.44	221.75 N	166.34 W
277.14	0.32				
7739.00	13.000	324.600	7708.73	233.77 N	174.83 W
291.86	0.94				
7771.00	12.600	324.900	7739.93	239.56 N	178.92 W
298.95	1.27				
7801.00	12.600	324.900	7769.21	244.91 N	182.69 W
305.50	0.00				
7832.00	13.000	326.000	7799.44	250.57 N	186.58 W
312.36	1.51				
7863.00	13.700	325.300	7829.60	256.48 N	190.62 W
319.52	2.32				
7894.00	13.800	325.700	7859.71	262.55 N	194.79 W
326.88	0.45				
7957.00	13.500	326.000	7920.93	274.86 N	203.14 W
341.75	0.49				
7989.00	13.300	326.000	7952.06	281.00 N	207.29 W
349.16	0.62				
8021.00	13.100	326.500	7983.22	287.08 N	211.35 W
356.46	0.72				
8051.00	12.700	326.800	8012.46	292.67 N	215.03 W
363.15	1.35				
8083.00	12.300	326.300	8043.70	298.45 N	218.85 W
370.07	1.29				
8113.00	12.900	324.800	8072.98	303.85 N	222.55 W
376.62	2.28				
8145.00	13.600	322.500	8104.13	309.75 N	226.90 W
383.95	2.74				
8177.00	13.500	322.100	8135.24	315.68 N	231.48 W
391.44	0.43				
8239.00	13.000	322.300	8195.59	326.91 N	240.19 W
405.64	0.81				
8271.00	12.700	322.200	8226.78	332.54 N	244.55 W
412.75	0.94				
8303.00	13.200	322.700	8257.97	338.22 N	248.92 W
419.92	1.60				
8335.00	13.100	323.200	8289.13	344.03 N	253.31 W
427.20	0.47				
8366.00	12.800	324.100	8319.34	349.63 N	257.43 W
434.15	1.17				
8398.00	12.600	324.000	8350.56	355.32 N	261.56 W
441.18	0.63				
8429.00	13.000	324.100	8380.79	360.88 N	265.59 W
448.05	1.29				
8492.00	13.300	325.300	8442.14	372.58 N	273.87 W
462.38	0.64				
8523.00	13.500	325.400	8472.29	378.49 N	277.95 W

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469.56	0.65					
8555.00	13.300	325.700	8503.42	384.61 N	282.15 W	
476.98	0.66					
8587.00	13.100	326.200	8534.58	390.66 N	286.24 W	
484.28	0.72					
8650.00	13.500	324.000	8595.89	402.54 N	294.53 W	
498.77	1.02					
8713.00	13.300	324.200	8657.17	414.37 N	303.10 W	
513.37	0.33					
8776.00	12.800	324.400	8718.54	425.92 N	311.40 W	
527.60	0.80					
8839.00	12.900	326.100	8779.97	437.43 N	319.38 W	
541.60	0.62					
8902.00	13.100	326.200	8841.35	449.20 N	327.28 W	
555.77	0.32					
8934.00	13.200	326.500	8872.51	455.26 N	331.31 W	
563.04	0.38					
8966.00	13.100	327.000	8903.67	461.35 N	335.30 W	
570.32	0.47					
8996.00	13.600	325.000	8932.86	467.09 N	339.18 W	
577.24	2.27					
9028.00	14.500	323.000	8963.91	473.37 N	343.74 W	
585.01	3.20					
9089.00	14.500	323.500	9022.96	485.61 N	352.88 W	
600.28	0.21					
9153.00	13.300	325.500	9085.09	498.12 N	361.82 W	
615.65	2.02					
9184.00	12.800	326.000	9115.29	503.90 N	365.76 W	
622.65	1.65					
9215.00	12.300	326.900	9145.55	509.52 N	369.48 W	
629.38	1.73					
9247.00	12.200	326.300	9176.82	515.19 N	373.22 W	
636.16	0.51					
9277.00	12.400	324.000	9206.13	520.43 N	376.87 W	
642.55	1.76					
9309.00	12.200	322.300	9237.40	525.88 N	380.96 W	
649.37	1.29					
9340.00	12.500	322.800	9267.68	531.15 N	384.99 W	
655.99	1.03					
9372.00	12.400	323.300	9298.93	536.66 N	389.14 W	
662.89	0.46					
9403.00	12.600	323.400	9329.19	542.04 N	393.14 W	
669.60	0.65					
9434.00	13.100	322.200	9359.41	547.53 N	397.31 W	
676.49	1.83					
9465.00	13.500	320.500	9389.58	553.10 N	401.77 W	
683.61	1.80					
9496.00	13.700	320.900	9419.71	558.74 N	406.38 W	
690.89	0.71					
9559.00	12.900	321.500	9481.02	570.04 N	415.47 W	
705.36	1.29					
9590.00	12.600	321.700	9511.26	575.40 N	419.72 W	

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712.19	0.98				
9622.00	13.300	321.400	9542.44	581.01 N	424.18 W
719.36	2.20				
9653.00	14.000	320.100	9572.57	586.68 N	428.81 W
726.66	2.47				
9716.00	13.700	320.300	9633.74	598.26 N	438.46 W
741.70	0.48				
9779.00	13.100	321.100	9695.02	609.56 N	447.71 W
756.27	1.00				
9810.00	12.700	321.100	9725.24	614.95 N	452.05 W
763.18	1.29				
9841.00	12.200	321.200	9755.51	620.15 N	456.25 W
769.85	1.61				
9872.00	12.600	320.500	9785.79	625.31 N	460.45 W
776.50	1.38				
9903.00	13.100	320.300	9816.01	630.63 N	464.84 W
783.37	1.62				
9966.00	12.600	322.000	9877.43	641.53 N	473.64 W
797.36	0.99				
9998.00	12.100	321.900	9908.69	646.92 N	477.85 W
804.20	1.56				
10030.00	12.500	323.500	9939.96	652.35 N	481.98 W
811.02	1.64				
10061.00	12.700	325.100	9970.21	657.84 N	485.93 W
817.78	1.30				
10093.00	12.400	325.500	10001.45	663.55 N	489.89 W
824.73	0.98				
10125.00	11.700	326.600	10032.74	669.09 N	493.62 W
831.41	2.30				
10155.00	12.100	326.300	10062.10	674.25 N	497.04 W
837.59	1.35				
10185.00	12.000	326.300	10091.44	679.46 N	500.51 W
843.85	0.33				
10216.00	11.800	327.100	10121.77	684.80 N	504.02 W
850.23	0.84				
10246.00	11.800	327.200	10151.14	689.96 N	507.35 W
856.36	0.07				
10279.00	11.400	327.400	10183.46	695.54 N	510.94 W
862.99	1.22				
10310.00	11.100	326.500	10213.87	700.61 N	514.23 W
869.03	1.12				
10342.00	11.000	326.300	10245.27	705.72 N	517.63 W
875.16	0.33				
10372.00	10.900	327.000	10274.73	710.48 N	520.76 W
880.85	0.55				
10402.00	10.500	326.600	10304.20	715.14 N	523.81 W
886.42	1.36				
10434.00	10.500	327.000	10335.67	720.02 N	527.00 W
892.24	0.23				
10465.00	10.400	326.700	10366.15	724.73 N	530.08 W
897.86	0.37				
10497.00	10.000	327.400	10397.65	729.48 N	533.16 W

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903.52	1.31				
10532.00	9.200	327.500	10432.16	734.40 N	536.30 W
909.35	2.29				
10564.00	8.800	328.400	10463.76	738.64 N	538.96 W
914.34	1.33				
10596.00	9.000	329.800	10495.38	742.89 N	541.50 W
919.28	0.92				
10627.00	8.500	328.300	10526.02	746.94 N	543.92 W
923.98	1.77				
10656.00	8.000	329.900	10554.72	750.51 N	546.06 W
928.12	1.90				
10689.00	8.000	331.100	10587.40	754.50 N	548.32 W
932.69	0.51				
10719.00	7.400	330.000	10617.13	758.00 N	550.30 W
936.68	2.06				
10750.00	7.400	330.700	10647.87	761.47 N	552.27 W
940.65	0.29				
10782.00	6.800	330.000	10679.62	764.91 N	554.23 W
944.59	1.89				
10812.00	6.400	328.100	10709.42	767.87 N	556.00 W
948.02	1.52				
10843.00	6.300	326.300	10740.23	770.75 N	557.86 W
951.45	0.72				
10874.00	6.100	327.400	10771.05	773.55 N	559.69 W
954.79	0.75				
10906.00	5.100	329.600	10802.90	776.21 N	561.32 W
957.91	3.20				
10936.00	4.500	323.300	10832.79	778.31 N	562.70 W
960.41	2.66				
10967.00	4.600	322.200	10863.70	780.26 N	564.19 W
962.87	0.43				
11029.00	4.500	328.200	10925.50	784.30 N	567.00 W
967.78	0.78				
11091.00	4.600	324.000	10987.31	788.37 N	569.74 W
972.69	0.56				
11154.00	4.600	327.600	11050.10	792.55 N	572.58 W
977.74	0.46				
11216.00	4.200	330.600	11111.92	796.63 N	575.02 W
982.48	0.74				
11279.00	4.100	325.300	11174.76	800.49 N	577.44 W
987.02	0.63				
11342.00	4.100	327.400	11237.59	804.24 N	579.94 W
991.52	0.24				
11404.00	4.300	332.400	11299.43	808.17 N	582.21 W
996.04	0.67				
11469.00	4.000	334.900	11364.26	812.38 N	584.30 W
1000.68	0.54				
11528.00	3.800	327.300	11423.12	815.89 N	586.23 W
1004.66	0.94				
11591.00	3.800	333.200	11485.98	819.51 N	588.29 W
1008.80	0.62				
11653.00	3.300	330.400	11547.86	822.89 N	590.10 W

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1012.61	0.85				
11714.00	3.000	342.600	11608.77	825.94 N	591.45 W
1015.87	1.20				
11779.00	3.100	336.400	11673.68	829.18 N	592.66 W
1019.20	0.53				
11800.00	2.800	351.300	11694.65	830.20 N	592.96 W
1020.21	3.91				
11850.00	2.800	351.300	11744.59	832.62 N	593.33 W
1022.39	0.00				

All data are in feet unless otherwise stated. Directions and coordinates are relative to True North. Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet. Vertical Section is from Slot and calculated along an Azimuth of 324.310° (True).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), New Mexico East 3001. Central meridian is -104.333°. Grid Convergence at Surface is 0.063°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 11850.00ft., the Bottom Hole Displacement is 1022.40ft., in the Direction of 324.310° (True).

0 COMPANY : PURE RESOURCES, INC LEASE : HEAD

WELL NO. : 4

PC = 2013.4

PC2 = 7774.1

UNIT : H SECTION : 5

TOWNSHIP : 22

L : 11150 H : 11150 L/H : 1 G/GMIX : 0.606

Pt2 = 7774.1 Pw = 2792.1 *

ACO2 : 1.432 QM2 : 0.45 Q2S :

DATE : 12-18-03

7580.1 2772.0 *

d : 2.441 Pr : 0.010763 GH : 6756.9

RANGE : 27

6828.8 2706.5 *

4636.3 2544.3 *

VOL 1 : 1399 PSIA 1 : 2788.2

RESV.TEMP 166.9

Pc2-Pw2 = 118.4 Pw2 = 7795.7 *

VOL 2 : 3066 PSIA 2 : 2753.2

230.3 7683.8 *

VOL 3 : 6729 PSIA 3 : 2613.2

SHUT-IN PR= 2813.2

589.2 7324.9 *

VOL 4 : 13045 PSIA 4 : 2153.2

1440.4 6473.7 *

PCR : 675

n = 0.785 ✓ *

TCR : 357

Pc2/(Pc2-Pw2) = 66.836 *

34.362 *

13.433 *

5.494 ✓ *

LINE	RATE 1	RATE 2	RATE 3	RATE 4
	1ST	2ND	1ST	2ND
1 QM	1.399	1.399	3.066	3.066
2 TW	534	534	534	534
3 Ts	626.9	626.9	626.9	626.9
4 T	580.5	580.5	580.5	580.5
PR (est)	4.13	4.08	3.87	3.19
5 Z(est)	0.819	0.833	0.818	0.832
6 TZ	475.3	483.6	474.9	482.9
7 GH/TZ	14.215	13.972	14.228	13.993
8 eS	1.704	1.689	1.705	1.690
9 1-e-S	0.413	0.408	0.413	0.408
10 Pt	2788.2	2788.2	2753.2	2753.2
11 Pt2 /1000	7774.1	7774.1	7580.1	7580.1
12 Pr	0.010763	0.010763	0.010763	0.010763
13 Pc=PrTZ	5.116	5.205	5.111	5.197
14 PcQM	7.16	7.28	15.67	15.93
15 L/H(PcQm)	51.2	53.0	245.6	253.9
16 Pw	21.16787	21.62520	101.5468	103.6699
17 Pw2	7795.2	7795.7	7681.7	7683.8
18 Pa2	13284.1	13164.5	13097.3	12985.8
19 Ps	3644.7	3628.3	3619.0	3603.6
20 P	3216.5	3208.2	3186.1	3178.4
21 Pr	4.77	4.75	4.72	4.71
22 Tr	1.63	1.63	1.63	1.63
23 Z	0.833	0.833	0.832	0.832

[Pc2/Pc2-Pw2]n = 27.056 *

16.052 *

7.680 *

3.808 ✓ *

AOF= Q 37.852 *

49.214 *

51.682 *

49.675 ✓ *

FORM C122-D *