

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB No. 1004-0137
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.

5. Lease Serial No.
NM115413

6. If Indian, Allottee or Tribe Name

RECEIVED

OCT 15 2009

SUBMIT IN TRIPLICATE - Other instructions on page 2.

7. If Unit of CA/Agreement, Name and No. **ARTEZIA**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Marbob Energy Corporation

8. Well Name and No.
White Federal #1H

9. API Well No.

30-015-36185

3a. Address
P O Box 227, Artesia, N M 88211-0227

3b. Phone No. (include area code)
505-748-3303

10. Field and Pool or Exploratory Area
Willow Lake; Bone Spring, SE

4. Location of Well (Footage, Sec., T, R, M, or Survey Description)
Surf 480' FNL & 380' FEL, BHL 330' FSL & 380' FEL
Section 21, T25S - R29E

11. Country or Parish, State
Eddy County, New Mexico

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other BH Location Change
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Marbob Energy Corporation respectfully requests approval for a bottom hole location change on the above referenced.

From: Surface location of 480' FNL & 380' FEL bottom hole location of 2310' FNL & 330' FEL
To: Surface location of 480' FNL & 380' FEL bottom hole location of 330' FSL & 380' FEL

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Nancy T Agnew

Title Land Department

Signature

Nancy T. Agnew

Date 07/21/2009

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

D. H. Winkler

Title

Date

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

APPROVED

OCT 13 2009

/s/ Dustin Winkler

BUREAU OF LAND MANAGEMENT
CARLSBAD 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

(Instructions on page 2)

MZ

1625 N. FRENCH DR., HOBBS, NM 88240

1301 W. GRAND AVENUE, ARTESIA, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code	Pool Name
		96217	Willow Lake; Bone Spring, SE
Property Code	Property Name		Well Number
	WHITE FEDERAL		1H
OGRID No.	Operator Name		Elevation
14049	MARBOB ENERGY CORPORATION		3042'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	21	25-S	29-E		480	NORTH	380	EAST	EDDY

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
P	21	25-S	29-E		330	SOUTH	380	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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

DETAIL

3025.7' 3042.2'

600'

3039.4' 3050.1'

GEODETTIC COORDINATES
 NAD 27 NME
 SURFACE HOLE LOCATION
 Y=408026.2 N
 X=608893.5 E

LAT. = 32.121292° N
 LONG. = 103.981595° W

BOTTOM HOLE LOCATION
 Y=403529.7 N
 X=608915.9 E

PROJECT AREA

PRODUCING AREA

330' 330' 330' 330'

380' 380'

SEE DETAIL

S.L.

GRID. AZ. = 179°42'47"

HORZ. DIST = 4497.6'

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Nancy T. Agnew 7/20/09
 Signature Date

Nancy T. Agnew
 Printed Name

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.

SEAL OF RONALD J. EIDSON
 JUNE 16, 2009
 NEW MEXICO
 State of
 Professional Surveyor
 No. 3239
 SURVEYOR
 7-16-09

Certificate No. GARY EIDSON 12641
 RONALD EIDSON 3239



Marbob

**Eddy County
White Federal**

#1H

OH

Plan: Plan #1

Pathfinder X & Y Planning Report

22 July, 2009

PATHFINDER



Pathfinder Energy Services

Pathfinder X & Y Planning Report



Company: Marbob
Project: Eddy County
Site: White Federal
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3064.00ft (22' KB Correction)
MD Reference: WELL @ 3064.00ft (22' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Project	Eddy County		
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	White Federal		
Site Position:		Northing:	408,026.200 ft
From: Map		Easting:	608,893.500 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 7' 16.651 N
		Longitude:	103° 58' 53.742 W
		Grid Convergence:	0.19 °

Well		#1H				
Well Position	+N/-S	0.00 ft	Northing:	408,026.200 ft	Latitude:	32° 7' 16.651 N
	+E/-W	0.00 ft	Easting:	608,893.500 ft	Longitude:	103° 58' 53.742 W
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft	Ground Level:	3,042.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/22/2009	7.98	60.08	48,729

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	179.71

Survey Tool Program	Date	07/22/2009		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	11,891.61	Plan #1 (OH)	MWD	MWD - Standard



Pathfinder Energy Services

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Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,064.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
100.00	0.00	0.00	100.00	-2,964.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
200.00	0.00	0.00	200.00	-2,864.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
300.00	0.00	0.00	300.00	-2,764.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
400.00	0.00	0.00	400.00	-2,664.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
500.00	0.00	0.00	500.00	-2,564.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
600.00	0.00	0.00	600.00	-2,464.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
700.00	0.00	0.00	700.00	-2,364.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
800.00	0.00	0.00	800.00	-2,264.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
900.00	0.00	0.00	900.00	-2,164.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,000.00	0.00	0.00	1,000.00	-2,064.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,100.00	0.00	0.00	1,100.00	-1,964.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,200.00	0.00	0.00	1,200.00	-1,864.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,300.00	0.00	0.00	1,300.00	-1,764.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,400.00	0.00	0.00	1,400.00	-1,664.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,500.00	0.00	0.00	1,500.00	-1,564.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,600.00	0.00	0.00	1,600.00	-1,464.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,700.00	0.00	0.00	1,700.00	-1,364.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,800.00	0.00	0.00	1,800.00	-1,264.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
1,900.00	0.00	0.00	1,900.00	-1,164.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,000.00	0.00	0.00	2,000.00	-1,064.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,100.00	0.00	0.00	2,100.00	-964.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,200.00	0.00	0.00	2,200.00	-864.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,300.00	0.00	0.00	2,300.00	-764.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,400.00	0.00	0.00	2,400.00	-664.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,500.00	0.00	0.00	2,500.00	-564.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,600.00	0.00	0.00	2,600.00	-464.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50



Pathfinder Energy Services
Pathfinder X & Y Planning Report



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Site: White Federal
Well: #1H
Wellbore: OH
Design: Plan #1

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2,700.00	0.00	0.00	2,700.00	-364.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,800.00	0.00	0.00	2,800.00	-264.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
2,900.00	0.00	0.00	2,900.00	-164.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,000.00	0.00	0.00	3,000.00	-64.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,100.00	0.00	0.00	3,100.00	36.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,200.00	0.00	0.00	3,200.00	136.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,300.00	0.00	0.00	3,300.00	236.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,400.00	0.00	0.00	3,400.00	336.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,500.00	0.00	0.00	3,500.00	436.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,600.00	0.00	0.00	3,600.00	536.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,700.00	0.00	0.00	3,700.00	636.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,800.00	0.00	0.00	3,800.00	736.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
3,900.00	0.00	0.00	3,900.00	836.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,000.00	0.00	0.00	4,000.00	936.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,100.00	0.00	0.00	4,100.00	1,036.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,200.00	0.00	0.00	4,200.00	1,136.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,300.00	0.00	0.00	4,300.00	1,236.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,400.00	0.00	0.00	4,400.00	1,336.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,500.00	0.00	0.00	4,500.00	1,436.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,600.00	0.00	0.00	4,600.00	1,536.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,700.00	0.00	0.00	4,700.00	1,636.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,800.00	0.00	0.00	4,800.00	1,736.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
4,900.00	0.00	0.00	4,900.00	1,836.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,000.00	0.00	0.00	5,000.00	1,936.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,100.00	0.00	0.00	5,100.00	2,036.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,200.00	0.00	0.00	5,200.00	2,136.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,300.00	0.00	0.00	5,300.00	2,236.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50



Pathfinder Energy Services

Pathfinder X & Y Planning Report



Company: Marbob
Project: Eddy County
Site: White Federal
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3064.00ft (22' KB Correction)
MD Reference: WELL @ 3064.00ft (22' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	0.00	0.00	5,400.00	2,336.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,500.00	0.00	0.00	5,500.00	2,436.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,600.00	0.00	0.00	5,600.00	2,536.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,700.00	0.00	0.00	5,700.00	2,636.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,800.00	0.00	0.00	5,800.00	2,736.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
5,900.00	0.00	0.00	5,900.00	2,836.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,000.00	0.00	0.00	6,000.00	2,936.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,100.00	0.00	0.00	6,100.00	3,036.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,200.00	0.00	0.00	6,200.00	3,136.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,300.00	0.00	0.00	6,300.00	3,236.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,400.00	0.00	0.00	6,400.00	3,336.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,500.00	0.00	0.00	6,500.00	3,436.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,600.00	0.00	0.00	6,600.00	3,536.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,700.00	0.00	0.00	6,700.00	3,636.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,800.00	0.00	0.00	6,800.00	3,736.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
6,900.00	0.00	0.00	6,900.00	3,836.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
7,000.00	0.00	0.00	7,000.00	3,936.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
7,100.00	0.00	0.00	7,100.00	4,036.00	0.00	0.00	0.00	0.00	408,026.20	608,893.50
7,122.50	0.00	0.00	7,122.50	4,058.50	0.00	0.00	0.00	0.00	408,026.20	608,893.50
KOP-7122.50°MD,0.00°INC,0.00°AZI,7122.50°TVD										
7,125.00	0.30	179.71	7,125.00	4,061.00	-0.01	0.00	0.01	12.00	408,026.19	608,893.50
7,150.00	3.30	179.71	7,149.98	4,085.98	-0.79	0.00	0.79	12.00	408,025.41	608,893.50
7,175.00	6.30	179.71	7,174.89	4,110.89	-2.88	0.01	2.88	12.00	408,023.32	608,893.51
7,200.00	9.30	179.71	7,199.66	4,135.66	-6.28	0.03	6.28	12.00	408,019.92	608,893.53
7,225.00	12.30	179.71	7,224.21	4,160.21	-10.96	0.06	10.96	12.00	408,015.24	608,893.56
7,250.00	15.30	179.71	7,248.49	4,184.49	-16.92	0.09	16.92	12.00	408,009.28	608,893.59
7,275.00	18.30	179.71	7,272.42	4,208.42	-24.15	0.12	24.15	12.00	408,002.05	608,893.62



Pathfinder Energy Services

Pathfinder X & Y Planning Report



Company: Marbob
Project: Eddy County
Site: White Federal
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3064.00ft (22' KB Correction)
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7,300.00	21.30	179.71	7,295.94	4,231.94	-32.61	0.17	32.61	12.00	407,993.59	608,893.67
7,325.00	24.30	179.71	7,318.98	4,254.98	-42.30	0.21	42.30	12.00	407,983.90	608,893.71
7,350.00	27.30	179.71	7,341.49	4,277.49	-53.18	0.27	53.18	12.00	407,973.02	608,893.77
7,375.00	30.30	179.71	7,363.40	4,299.40	-65.22	0.33	65.22	12.00	407,960.98	608,893.83
7,400.00	33.30	179.71	7,384.64	4,320.64	-78.39	0.40	78.39	12.00	407,947.81	608,893.90
7,425.00	36.30	179.71	7,405.17	4,341.17	-92.65	0.47	92.66	12.00	407,933.55	608,893.97
7,450.00	39.30	179.71	7,424.92	4,360.92	-107.97	0.55	107.98	12.00	407,918.23	608,894.05
7,475.00	42.30	179.71	7,443.84	4,379.84	-124.31	0.63	124.31	12.00	407,901.89	608,894.13
7,500.00	45.30	179.71	7,461.89	4,397.89	-141.61	0.72	141.61	12.00	407,884.59	608,894.22
7,525.00	48.30	179.71	7,479.00	4,415.00	-159.83	0.81	159.83	12.00	407,866.37	608,894.31
7,550.00	51.30	179.71	7,495.14	4,431.14	-178.92	0.91	178.92	12.00	407,847.28	608,894.41
7,575.00	54.30	179.71	7,510.25	4,446.25	-198.83	1.01	198.83	12.00	407,827.37	608,894.51
7,600.00	57.30	179.71	7,524.30	4,460.30	-219.50	1.11	219.51	12.00	407,806.70	608,894.61
7,625.00	60.30	179.71	7,537.25	4,473.25	-240.88	1.22	240.89	12.00	407,785.32	608,894.72
7,650.00	63.30	179.71	7,549.07	4,485.07	-262.91	1.33	262.92	12.00	407,763.29	608,894.83
7,675.00	66.30	179.71	7,559.71	4,495.71	-285.53	1.45	285.53	12.00	407,740.67	608,894.95
7,700.00	69.29	179.71	7,569.16	4,505.16	-308.67	1.56	308.68	12.00	407,717.53	608,895.06
7,725.00	72.29	179.71	7,577.38	4,513.38	-332.28	1.68	332.28	12.00	407,693.92	608,895.18
7,750.00	75.29	179.71	7,584.36	4,520.36	-356.28	1.80	356.29	12.00	407,669.92	608,895.30
7,775.00	78.29	179.71	7,590.07	4,526.07	-380.62	1.93	380.62	12.00	407,645.58	608,895.43
7,800.00	81.29	179.71	7,594.50	4,530.50	-405.22	2.05	405.22	12.00	407,620.98	608,895.55
7,825.00	84.29	179.71	7,597.63	4,533.63	-430.02	2.18	430.02	12.00	407,596.18	608,895.68
7,850.00	87.29	179.71	7,599.47	4,535.47	-454.95	2.30	454.95	12.00	407,571.25	608,895.80
7,872.56	90.00	179.71	7,600.00	4,536.00	-477.49	2.42	477.50	12.00	407,548.71	608,895.92
EOC-7872.56°MD,90.00°INC,179.71°AZI,7600.00°TVD,12.00°DLS, 477.50°VS, -477.50°N, 2.42°E										
7,900.00	90.00	179.71	7,600.00	4,536.00	-504.94	2.56	504.94	0.00	407,521.26	608,896.06
8,000.00	90.00	179.71	7,600.00	4,536.00	-604.94	3.06	604.94	0.00	407,421.26	608,896.56



Pathfinder Energy Services
Pathfinder X & Y Planning Report



Company: Marbob
Project: Eddy County
Site: White Federal
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3064.00ft (22' KB Correction)
MD Reference: WELL @ 3064.00ft (22' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,100.00	90 00	179.71	7,600 00	4,536.00	-704.94	3 57	704.94	0.00	407,321.26	608,897.07
8,200.00	90 00	179.71	7,600 00	4,536.00	-804.93	4 07	804.94	0 00	407,221.27	608,897.57
8,300.00	90 00	179.71	7,600.00	4,536.00	-904.93	4 58	904.94	0 00	407,121.27	608,898.08
8,400.00	90 00	179.71	7,600.00	4,536.00	-1,004.93	5 09	1,004.94	0 00	407,021.27	608,898.59
8,500.00	90.00	179.71	7,600.00	4,536.00	-1,104.93	5 59	1,104.94	0.00	406,921.27	608,899.09
8,600.00	90.00	179.71	7,600.00	4,536 00	-1,204.93	6.10	1,204.94	0.00	406,821.27	608,899.60
8,700.00	90.00	179 71	7,600.00	4,536 00	-1,304.93	6.60	1,304.94	0.00	406,721.27	608,900.10
8,800.00	90 00	179 71	7,600.00	4,536.00	-1,404.93	7.11	1,404.94	0 00	406,621 27	608,900.61
8,900.00	90 00	179 71	7,600.00	4,536.00	-1,504.93	7.62	1,504.94	0.00	406,521.27	608,901.12
9,000 00	90.00	179.71	7,600 00	4,536.00	-1,604.92	8 12	1,604.94	0 00	406,421.28	608,901.62
9,100.00	90.00	179 71	7,600 00	4,536.00	-1,704.92	8 63	1,704.94	0.00	406,321 28	608,902.13
9,200.00	90.00	179.71	7,600.00	4,536.00	-1,804.92	9 14	1,804.94	0.00	406,221.28	608,902.64
9,300.00	90.00	179 71	7,600 00	4,536.00	-1,904.92	9.64	1,904.94	0.00	406,121.28	608,903 14
9,400.00	90.00	179 71	7,600.00	4,536 00	-2,004.92	10.15	2,004.94	0.00	406,021.28	608,903 65
9,500.00	90.00	179.71	7,600.00	4,536.00	-2,104.92	10.65	2,104.94	0 00	405,921.28	608,904 15
9,600.00	90.00	179 71	7,600.00	4,536.00	-2,204.92	11 16	2,204.94	0.00	405,821.28	608,904 66
9,700 00	90.00	179.71	7,600.00	4,536.00	-2,304.92	11 67	2,304.94	0.00	405,721 28	608,905 17
9,800 00	90.00	179 71	7,600.00	4,536.00	-2,404.91	12.17	2,404.94	0.00	405,621.29	608,905 67
9,900 00	90 00	179.71	7,600 00	4,536.00	-2,504.91	12.68	2,504.94	0.00	405,521.29	608,906.18
10,000.00	90.00	179 71	7,600 00	4,536 00	-2,604.91	13.18	2,604.94	0.00	405,421.29	608,906.68
10,100 00	90.00	179 71	7,600 00	4,536.00	-2,704.91	13 69	2,704.94	0.00	405,321.29	608,907.19
10,200.00	90 00	179 71	7,600.00	4,536.00	-2,804.91	14 20	2,804.94	0.00	405,221 29	608,907.70
10,300 00	90.00	179 71	7,600.00	4,536.00	-2,904.91	14.70	2,904.94	0.00	405,121 29	608,908.20
10,400.00	90 00	179.71	7,600.00	4,536.00	-3,004.91	15.21	3,004.94	0.00	405,021.29	608,908 71
10,500 00	90 00	179.71	7,600 00	4,536.00	-3,104.90	15.72	3,104.94	0.00	404,921.30	608,909.22
10,600 00	90.00	179.71	7,600 00	4,536.00	-3,204.90	16 22	3,204.94	0.00	404,821.30	608,909.72
10,700.00	90.00	179 71	7,600.00	4,536 00	-3,304.90	16.73	3,304.94	0.00	404,721.30	608,910.23



Pathfinder Energy Services
Pathfinder X & Y Planning Report



Company: Marbob
Project: Eddy County
Site: White Federal
Well: #1H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3064.00ft (22' KB Correction)
MD Reference: WELL @ 3064 00ft (22' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
10,800.00	90.00	179.71	7,600.00	4,536.00	-3,404.90	17.23	3,404.94	0.00	404,621.30	608,910.73
10,900.00	90.00	179.71	7,600.00	4,536.00	-3,504.90	17.74	3,504.94	0.00	404,521.30	608,911.24
11,000.00	90.00	179.71	7,600.00	4,536.00	-3,604.90	18.25	3,604.94	0.00	404,421.30	608,911.75
11,100.00	90.00	179.71	7,600.00	4,536.00	-3,704.90	18.75	3,704.94	0.00	404,321.30	608,912.25
11,200.00	90.00	179.71	7,600.00	4,536.00	-3,804.90	19.26	3,804.94	0.00	404,221.30	608,912.76
11,300.00	90.00	179.71	7,600.00	4,536.00	-3,904.89	19.76	3,904.94	0.00	404,121.31	608,913.26
11,400.00	90.00	179.71	7,600.00	4,536.00	-4,004.89	20.27	4,004.94	0.00	404,021.31	608,913.77
11,500.00	90.00	179.71	7,600.00	4,536.00	-4,104.89	20.78	4,104.94	0.00	403,921.31	608,914.28
11,600.00	90.00	179.71	7,600.00	4,536.00	-4,204.89	21.28	4,204.94	0.00	403,821.31	608,914.78
11,700.00	90.00	179.71	7,600.00	4,536.00	-4,304.89	21.79	4,304.94	0.00	403,721.31	608,915.29
11,800.00	90.00	179.71	7,600.00	4,536.00	-4,404.89	22.30	4,404.94	0.00	403,621.31	608,915.80
11,891.61	90.00	179.71	7,600.00	4,536.00	-4,496.50	22.76	4,496.56	0.00	403,529.70	608,916.26

BHL-11891.61'MD,90.00°INC,179.71°AZI, 7600.00'TVD, 4496.55'VS, -4496.50'N, 22.76'E - PBHL(White#1H)



Pathfinder Energy Services

Pathfinder X & Y Planning Report



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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

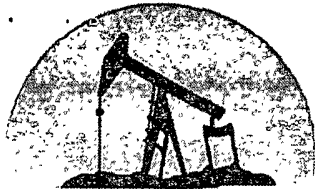
Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL(White#1H) - plan hits target - Point	0 00	0.00	7,600.00	-4,496.50	22.40	403,529.700	608,915.900	32° 6' 32.151 N	103° 58' 53.653 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,122.50	7,122.50	0 00	0.00	KOP-7122.50'MD,0.00°INC,0 00°AZI,7122.50'TVD
7,872.56	7,600.00	-477.49	2.42	EOC-7872.56'MD,90.00°INC,179.71°AZI,7600.00'TVD,12 00°DLS, 477
11,891.61	7,600.00	-4,496.50	22.76	BHL-11891.61'MD,90.00°INC,179 71°AZI, 7600.00'TVD, 4496.55'VS, -

Checked By: _____ Approved By: _____ Date: _____



marbob
energy corporation
Artesia, N.M.

Project: Eddy County
Site: White Federal
Well: #1H
Wellbore: OH
Plan: Plan #1 (#1H/OH)



Azimuths to Grid North
True North: -0.19°
Magnetic North: 7.79°

Magnetic Field
Strength: 48728.6snT
Dip Angle: 60.08°
Date: 07/22/2009
Model: IGRF200510

PATHFINDER

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7122.50	0.00	0.00	7122.50	0.00	0.00	0.00	0.00	0.00
3	7872.56	90.00	179.71	7600.00	-477.49	2.42	12.00	179.71	477.50
4	11891.61	90.00	179.71	7600.00	-4496.50	22.76	0.00	0.00	4496.56

PBHL(White#1H)

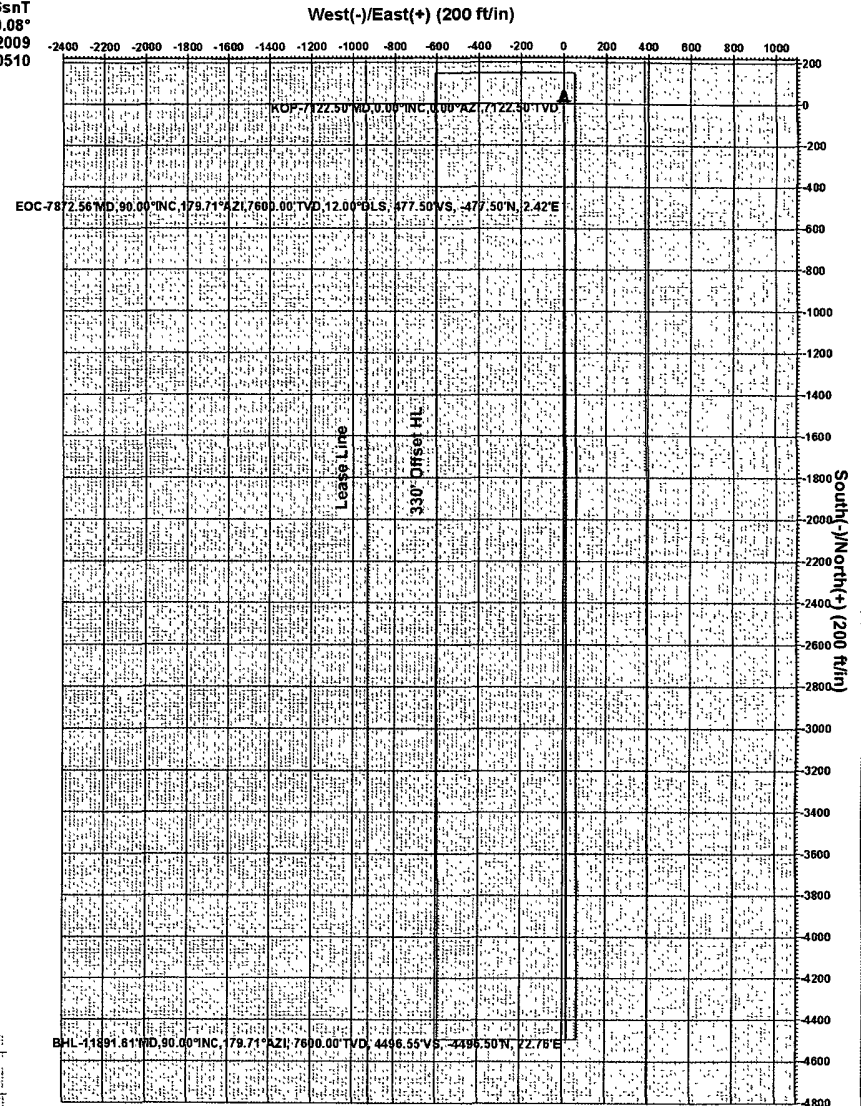
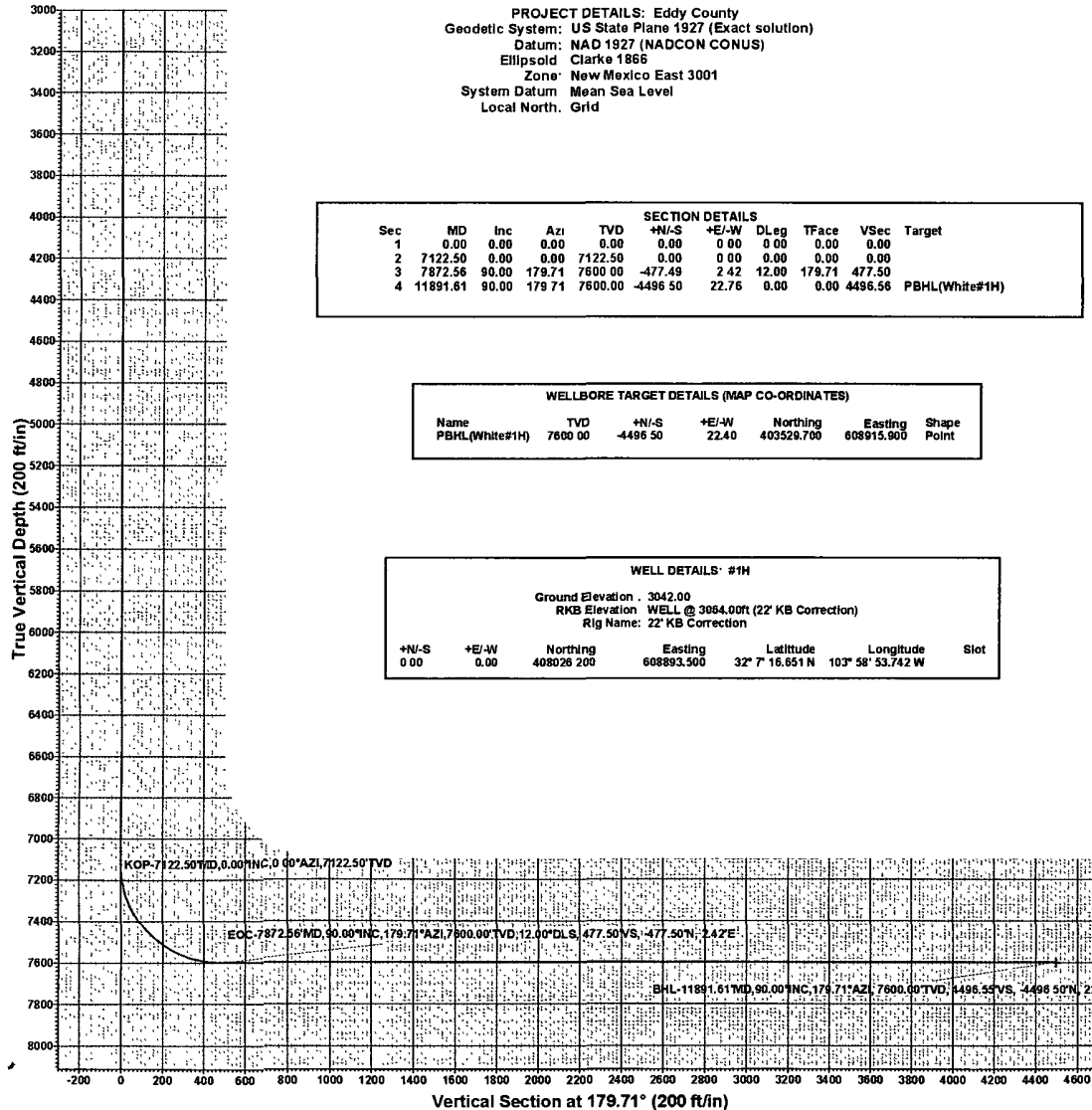
WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	DLeg	Northing	Easting	Shape
PBHL(White#1H)	7600.00	-4496.50	22.40	403529.700	608915.900		Point

WELL DETAILS: #1H

Ground Elevation: 3042.00
RKB Elevation: WELL @ 3064.00ft (22' KB Correction)
Rig Name: 22' KB Correction

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	408026.200	608893.500	32° 7' 16.851 N	103° 58' 53.742 W	



Plan Plan #1 (#1H/OH)

Created By: Nate Bingham Date: 15 23, July 22 2009

Checked: _____ Date: _____



"Nancy Agnew"
<landtech@marbob.com>
09/24/2009 03:09 PM

To <Dustin_Winkler@blm.gov>
cc
bcc
Subject White Federal #1H

Hi Dustin,

Here is the information on the changes you requested for the White Federal #1H:

The new Bottom Hole Location will change the 5 1/2" 17# N80 production casing length to 11,900' and the 1st stage cement job to 400 sk of acid soluble "H" cement wt 15.0 ppg yield 2.6.

Please let me know if you have any further questions or need anything else. Thank you!

Nancy Agnew
Land Department
Marbob Energy Corporation

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Marbob Energy Corporation
LEASE NO.:	SHL: NM115413, BHL: NM-096848
WELL NAME & NO.:	White Federal #1H
SURFACE HOLE FOOTAGE:	480' FNL & 380' FEL
BOTTOM HOLE FOOTAGE	330' FSL & 380' FEL
LOCATION:	Section 21, T. 25 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

COMMUNITIZATION AGREEMENT

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. Operator to supply NMOCD order, which details the vertical and horizontal extent of pool to verify that requested communitization is within an approved and established pool. NMOCD form C-123 – pool designation request.

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium Cave/Karst

Possible water flows in the Salado and Delaware Mountain groups.

Possible lost circulation in the Delaware Mountain group.

1. **The 13-3/8 inch surface casing shall be set at approximately 600 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to surface. Additional cement will be required due to additional length of casing.**
 - a. **If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.**
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool, cement shall:
 - ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi**.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8" intermediate casing shoe shall be **3000 (3M) psi.**
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - e. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

DHW 093009