



Project: Eddy County
Site: Hearse State
Well: #1H
Wellbore: OH
Plan: Plan #1 (#1H/OH)



Azimuths to Grid North
True North: 0.06°
Magnetic North: 8.17°

Magnetic Field
Strength: 48881.9nT
Dip Angle: 60.44°
Date: 07/02/2010
Model: IGRF200510

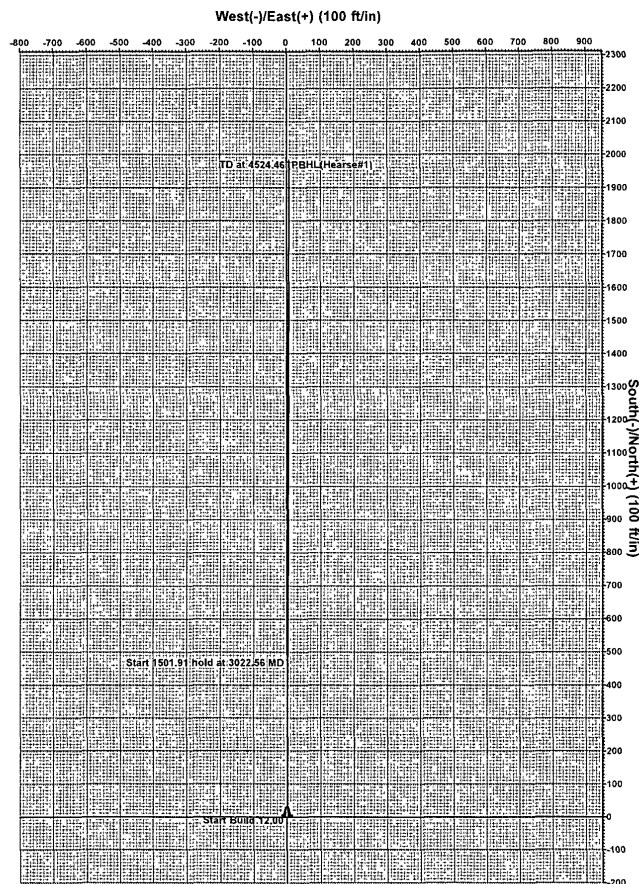
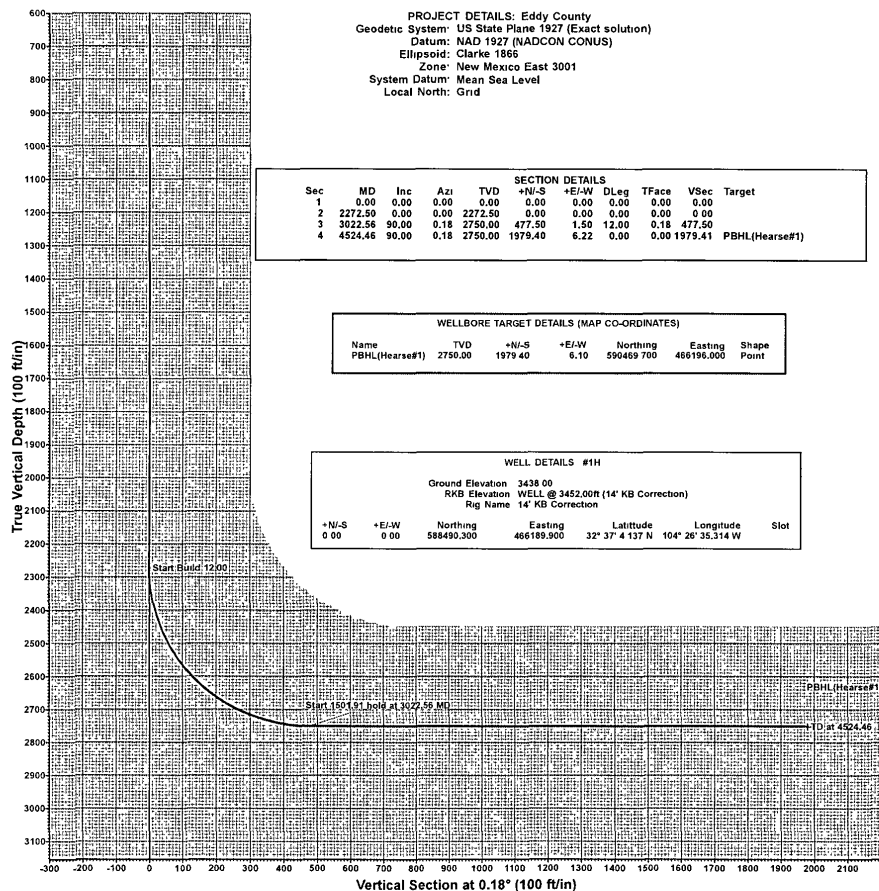
PATHFINDER

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 Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2272.56	0.00	0.00	2272.56	0.00	0.00	0.00	0.00	0.00
3	3022.56	90.00	0.18	2750.00	477.50	1.50	12.00	0.18	477.50
4	4524.46	90.00	0.18	2750.00	1979.40	6.22	0.00	0.00	1979.41 PBHL(Hearse#1)

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N-S	+E-W	Northing	Easting
PBHL(Hearse#1)	2750.00	1979.40	6.10	590469.700	466196.000

WELL DETAILS #1H					
Ground Elevation 3438.00					
RKB Elevation WELL @ 3452.00ft (14' KB Correction)					
Rig Name 14' KB Correction					
+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.00	0.00	588490.300	466189.900	32° 37' 4.137 N	104° 28' 35.314 W



Plan Plan #1 (#1H/OH)	
Created By: Nate Bingham	Date: 7.32, July 02 2010
Checked: _____	Date: _____



Marbob

**Eddy County
Hearse State
#1H
OH**

Plan: Plan #1

Pathfinder X & Y Planning Report

02 July, 2010

PATHFINDER



Pathfinder
Pathfinder X & Y Planning Report



Company:	Marbob	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	WELL @ 3452.00ft (14' KB Correction)
Site:	Hearse State	MD Reference:	WELL @ 3452.00ft (14' KB Correction)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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	Hearse State		
Site Position:		Northing:	588,490.300 ft
From:	Map	Easting:	466,189.900 ft
Position Uncertainty:	0.00 ft	Slot Radius:	
		Latitude:	32° 37' 4.137 N
		Longitude:	104° 26' 35.314 W
		Grid Convergence:	-0.06 °

Well	#1H			
Well Position	+N/-S	0.00 ft	Northing:	588,490.300 ft
	+E/-W	0.00 ft	Easting:	466,189.900 ft
Position Uncertainty	0.00 ft		Wellhead Elevation:	ft
			Latitude:	32° 37' 4.137 N
			Longitude:	104° 26' 35.314 W
			Ground Level:	3,438.00 ft

Wellbore	OH		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/02/2010	8.12	60.44	48,882

Design	Plan #1		
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	0.18

Survey Tool Program	Date 07/02/2010			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	4,524.46	Plan #1 (OH)	MWD	MWD - Standard



Pathfinder
Pathfinder X & Y Planning Report



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Site:	Hearse State	MD Reference:	WELL @ 3452.00ft (14' KB Correction)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
0.00	0.00	0.00	0.00	-3,452.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
100.00	0.00	0.00	100.00	-3,352.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
200.00	0.00	0.00	200.00	-3,252.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
300.00	0.00	0.00	300.00	-3,152.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
400.00	0.00	0.00	400.00	-3,052.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
500.00	0.00	0.00	500.00	-2,952.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
600.00	0.00	0.00	600.00	-2,852.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
700.00	0.00	0.00	700.00	-2,752.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
800.00	0.00	0.00	800.00	-2,652.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
900.00	0.00	0.00	900.00	-2,552.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,000.00	0.00	0.00	1,000.00	-2,452.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,100.00	0.00	0.00	1,100.00	-2,352.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,200.00	0.00	0.00	1,200.00	-2,252.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,300.00	0.00	0.00	1,300.00	-2,152.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,400.00	0.00	0.00	1,400.00	-2,052.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,500.00	0.00	0.00	1,500.00	-1,952.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,600.00	0.00	0.00	1,600.00	-1,852.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,700.00	0.00	0.00	1,700.00	-1,752.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,800.00	0.00	0.00	1,800.00	-1,652.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
1,900.00	0.00	0.00	1,900.00	-1,552.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
2,000.00	0.00	0.00	2,000.00	-1,452.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
2,100.00	0.00	0.00	2,100.00	-1,352.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
2,200.00	0.00	0.00	2,200.00	-1,252.00	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
2,272.50	0.00	0.00	2,272.50	-1,179.50	0.00	0.00	0.00	0.00	588,490.30	466,189.90	
2,275.00	0.30	0.18	2,275.00	-1,177.00	0.01	0.00	0.01	12.00	588,490.31	466,189.90	
2,300.00	3.30	0.18	2,299.98	-1,152.02	0.79	0.00	0.79	12.00	588,491.09	466,189.90	
2,325.00	6.30	0.18	2,324.89	-1,127.11	2.88	0.01	2.88	12.00	588,493.18	466,189.91	



Pathfinder
Pathfinder X & Y Planning Report



Company:	Marbob	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	WELL @ 3452.00ft (14' KB Correction)
Site:	Hearse State	MD Reference:	WELL @ 3452.00ft (14' KB Correction)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)
2,350.00	9.30	0.18	2,349.66	-1,102.34	6.28	0.02	6.28	12.00	588,496.58	466,189.92
2,375.00	12.30	0.18	2,374.21	-1,077.79	10.96	0.03	10.96	12.00	588,501.26	466,189.93
2,400.00	15.30	0.18	2,398.49	-1,053.51	16.92	0.05	16.92	12.00	588,507.22	466,189.95
2,425.00	18.30	0.18	2,422.42	-1,029.58	24.15	0.08	24.15	12.00	588,514.45	466,189.98
2,450.00	21.30	0.18	2,445.94	-1,006.06	32.61	0.10	32.61	12.00	588,522.91	466,190.00
2,475.00	24.30	0.18	2,468.98	-983.02	42.30	0.13	42.30	12.00	588,532.60	466,190.03
2,500.00	27.30	0.18	2,491.49	-960.51	53.18	0.17	53.18	12.00	588,543.48	466,190.07
2,525.00	30.30	0.18	2,513.40	-938.60	65.22	0.20	65.22	12.00	588,555.52	466,190.10
2,550.00	33.30	0.18	2,534.64	-917.36	78.39	0.25	78.39	12.00	588,568.69	466,190.15
2,575.00	36.30	0.18	2,555.17	-896.83	92.66	0.29	92.66	12.00	588,582.96	466,190.19
2,600.00	39.30	0.18	2,574.92	-877.08	107.98	0.34	107.98	12.00	588,598.28	466,190.24
2,625.00	42.30	0.18	2,593.84	-858.16	124.31	0.39	124.31	12.00	588,614.61	466,190.29
2,650.00	45.30	0.18	2,611.89	-840.11	141.61	0.44	141.61	12.00	588,631.91	466,190.34
2,675.00	48.30	0.18	2,629.00	-823.00	159.83	0.50	159.83	12.00	588,650.13	466,190.40
2,700.00	51.30	0.18	2,645.14	-806.86	178.92	0.56	178.92	12.00	588,669.22	466,190.46
2,725.00	54.30	0.18	2,660.25	-791.75	198.83	0.62	198.83	12.00	588,689.13	466,190.52
2,750.00	57.30	0.18	2,674.30	-777.70	219.50	0.69	219.51	12.00	588,709.80	466,190.59
2,775.00	60.30	0.18	2,687.25	-764.75	240.89	0.76	240.89	12.00	588,731.19	466,190.66
2,800.00	63.30	0.18	2,699.07	-752.93	262.91	0.83	262.92	12.00	588,753.21	466,190.73
2,825.00	66.30	0.18	2,709.71	-742.29	285.53	0.90	285.53	12.00	588,775.83	466,190.80
2,850.00	69.29	0.18	2,719.16	-732.84	308.67	0.97	308.68	12.00	588,798.97	466,190.87
2,875.00	72.29	0.18	2,727.38	-724.62	332.28	1.04	332.28	12.00	588,822.58	466,190.94
2,900.00	75.29	0.18	2,734.36	-717.64	356.28	1.12	356.29	12.00	588,846.58	466,191.02
2,925.00	78.29	0.18	2,740.07	-711.93	380.62	1.20	380.62	12.00	588,870.92	466,191.10
2,950.00	81.29	0.18	2,744.50	-707.50	405.22	1.27	405.22	12.00	588,895.52	466,191.17
2,975.00	84.29	0.18	2,747.63	-704.37	430.02	1.35	430.02	12.00	588,920.32	466,191.25
3,000.00	87.29	0.18	2,749.47	-702.53	454.95	1.43	454.95	12.00	588,945.25	466,191.33



Pathfinder

Pathfinder X & Y Planning Report



Company:	Marbob	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	WELL @ 3452.00ft (14' KB Correction)
Site:	Hearse State	MD Reference:	WELL @ 3452.00ft (14' KB Correction)
Well:	#1H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	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)	
3,022.56	90.00	0.18	2,750.00	-702.00	477.50	1.50	477.50	12.00	588,967.80	466,191.40	
3,100.00	90.00	0.18	2,750.00	-702.00	554.94	1.74	554.94	0.00	589,045.24	466,191.64	
3,200.00	90.00	0.18	2,750.00	-702.00	654.94	2.06	654.94	0.00	589,145.24	466,191.96	
3,300.00	90.00	0.18	2,750.00	-702.00	754.94	2.37	754.94	0.00	589,245.24	466,192.27	
3,400.00	90.00	0.18	2,750.00	-702.00	854.94	2.69	854.94	0.00	589,345.24	466,192.59	
3,500.00	90.00	0.18	2,750.00	-702.00	954.94	3.00	954.94	0.00	589,445.24	466,192.90	
3,600.00	90.00	0.18	2,750.00	-702.00	1,054.94	3.31	1,054.94	0.00	589,545.24	466,193.21	
3,700.00	90.00	0.18	2,750.00	-702.00	1,154.94	3.63	1,154.94	0.00	589,645.24	466,193.53	
3,800.00	90.00	0.18	2,750.00	-702.00	1,254.94	3.94	1,254.94	0.00	589,745.24	466,193.84	
3,900.00	90.00	0.18	2,750.00	-702.00	1,354.94	4.26	1,354.94	0.00	589,845.24	466,194.16	
4,000.00	90.00	0.18	2,750.00	-702.00	1,454.94	4.57	1,454.94	0.00	589,945.24	466,194.47	
4,100.00	90.00	0.18	2,750.00	-702.00	1,554.94	4.88	1,554.94	0.00	590,045.24	466,194.78	
4,200.00	90.00	0.18	2,750.00	-702.00	1,654.94	5.20	1,654.94	0.00	590,145.24	466,195.10	
4,300.00	90.00	0.18	2,750.00	-702.00	1,754.94	5.51	1,754.94	0.00	590,245.24	466,195.41	
4,400.00	90.00	0.18	2,750.00	-702.00	1,854.94	5.83	1,854.94	0.00	590,345.24	466,195.73	
4,500.00	90.00	0.18	2,750.00	-702.00	1,954.94	6.14	1,954.94	0.00	590,445.24	466,196.04	
4,524.46	90.00	0.18	2,750.00	-702.00	1,979.40	6.22	1,979.41	0.00	590,469.70	466,196.12	
PBHL(Hearse#1)											

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(Hearse#1) - plan hits target center - Point	0.00	360.00	2,750.00	1,979.40	6.10	590,469.700	466,196.000	32° 37' 23.725 N	104° 26' 35.266 W



Pathfinder
Pathfinder X & Y Planning Report



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Checked By: _____	Approved By: _____	Date: _____
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