

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

SEP 29 2009

FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010

LM

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5 Lease Serial No
NMNM-103601

6 If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

7 If Unit of CA/Agreement, Name and/or No

1 Type of Well

☒ Oil Well

☐ Gas Well

☐ Other

8 Well Name and No.
Madden Federal #1

2. Name of Operator

Mack Energy Corporation

9 API Well No.

30-015-37261

3a Address

P.O. Box 960 Artesia, NM 88210-0960

3b. Phone No. (include area code)

(575) 748-1288

10. Field and Pool or Exploratory Area

County Line Tank; Abo

4 Location of Well (Footage, Sec., T,R,M. or Survey Description)

355 FNL & 330 FEL, Sec. 29 T16S R29E

11 Country or Parish, State

Eddy, NM

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 Change BHL & TD depth
	☐ 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.)

Mack Energy proposes to change the BHL of this well to 355 FNL & 1650 FWL. All casing strings will remain the same, except for the production string which will be 1320' less in the lateral. New TD depth will be 10,115'.



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

Jerry W. Sherrell

Title Production Clerk

Signature

Jerry W. Sherrell

Date 9/22/09

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

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

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for my 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)

DISTRICT I
1625 N. FRENCH DR., HOBBBS, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97197	Pool Name County Line Tank;Abo
Property Code	Property Name MADDEN FEDERAL	Well Number 1
OGRID No. 013837	Operator Name MACK ENERGY CORPORATION	Elevation 3632'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/EAST line	County
A	29	16-S	29-E		355	NORTH	330	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/EAST line	County
C	29	16-S	29-E		355	NORTH	1650	WEST	EDDY
Dedicated Acres 120	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

	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 unless 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. <i>Jerry W. Sherrell</i> 9/22/09 Signature Date Jerry W. Sherrell Printed Name
BOTTOM HOLE LOCATION Y=690786.1 N X=571697.3 E GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=690787.4 N X=574997.0 E LAT = 32.898815° N LONG = 104.088990° W DETAIL 3630.8' 3636.6' 600' 3630.5' 3633.0'	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. WOUND 1.6.2009 Date Surveyed: MEXICO LA Signature & Seal of Professional Surveyor 3239 <i>Ronald J. Eidson</i> 9-15-09 09-13-0862 Certificate No. GARY G. EIDSON 12641 RONALD J. EIDSON 3239



Mack Energy

Eddy County

Madden Federal Com

#1H

OH

Plan: Plan #2

Pathfinder X & Y Planning Report

17 September, 2009





Pathfinder Energy Services

Pathfinder X & Y Planning Report



Company: Mack Energy
Project: Eddy County
Site: Madden Federal Com
Well: #1H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3650 00ft (18' KB Correction)
MD Reference: WELL @ 3650 00ft (18' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Project: Eddy County

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site: Madden Federal Com

Site Position:	Map	Northing:	690,787.400 ft	Latitude:	32° 53' 55.734 N
From:		Easting:	574,997.000 ft	Longitude:	104° 5' 20.365 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.13 °

Well: #1H

Well Position	+N/-S	0.00 ft	Northing:	690,787.400 ft	Latitude:	32° 53' 55.734 N
	+E/-W	0.00 ft	Easting:	574,997.000 ft	Longitude:	104° 5' 20.365 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,632.00 ft

Wellbore: OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	07/14/2009	8.09	60.78	49,183

Design: Plan #2

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	269.98

Survey Tool Program Date 09/17/2009

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	10,115.23	Plan #2 (OH)	MWD	MWD - Standard



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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	-3,650.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
100.00	0.00	0.00	100.00	-3,550.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
200.00	0.00	0.00	200.00	-3,450.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
300.00	0.00	0.00	300.00	-3,350.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
400.00	0.00	0.00	400.00	-3,250.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
500.00	0.00	0.00	500.00	-3,150.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
600.00	0.00	0.00	600.00	-3,050.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
700.00	0.00	0.00	700.00	-2,950.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
800.00	0.00	0.00	800.00	-2,850.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
900.00	0.00	0.00	900.00	-2,750.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,000.00	0.00	0.00	1,000.00	-2,650.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,100.00	0.00	0.00	1,100.00	-2,550.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,200.00	0.00	0.00	1,200.00	-2,450.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,300.00	0.00	0.00	1,300.00	-2,350.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,400.00	0.00	0.00	1,400.00	-2,250.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,500.00	0.00	0.00	1,500.00	-2,150.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,600.00	0.00	0.00	1,600.00	-2,050.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,700.00	0.00	0.00	1,700.00	-1,950.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,800.00	0.00	0.00	1,800.00	-1,850.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
1,900.00	0.00	0.00	1,900.00	-1,750.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,000.00	0.00	0.00	2,000.00	-1,650.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,100.00	0.00	0.00	2,100.00	-1,550.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,200.00	0.00	0.00	2,200.00	-1,450.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,300.00	0.00	0.00	2,300.00	-1,350.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,400.00	0.00	0.00	2,400.00	-1,250.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,500.00	0.00	0.00	2,500.00	-1,150.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,600.00	0.00	0.00	2,600.00	-1,050.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00



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2,700.00	0.00	0.00	2,700.00	-950.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,800.00	0.00	0.00	2,800.00	-850.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
2,900.00	0.00	0.00	2,900.00	-750.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,000.00	0.00	0.00	3,000.00	-650.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,100.00	0.00	0.00	3,100.00	-550.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,200.00	0.00	0.00	3,200.00	-450.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,300.00	0.00	0.00	3,300.00	-350.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,400.00	0.00	0.00	3,400.00	-250.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,500.00	0.00	0.00	3,500.00	-150.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,600.00	0.00	0.00	3,600.00	-50.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,700.00	0.00	0.00	3,700.00	50.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,800.00	0.00	0.00	3,800.00	150.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
3,900.00	0.00	0.00	3,900.00	250.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,000.00	0.00	0.00	4,000.00	350.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,100.00	0.00	0.00	4,100.00	450.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,200.00	0.00	0.00	4,200.00	550.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,300.00	0.00	0.00	4,300.00	650.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,400.00	0.00	0.00	4,400.00	750.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,500.00	0.00	0.00	4,500.00	850.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,600.00	0.00	0.00	4,600.00	950.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,700.00	0.00	0.00	4,700.00	1,050.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,800.00	0.00	0.00	4,800.00	1,150.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
4,900.00	0.00	0.00	4,900.00	1,250.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
5,000.00	0.00	0.00	5,000.00	1,350.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
5,100.00	0.00	0.00	5,100.00	1,450.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
5,200.00	0.00	0.00	5,200.00	1,550.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
5,300.00	0.00	0.00	5,300.00	1,650.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00



Pathfinder Energy Services

Pathfinder X & Y Planning Report



Company: Mack Energy
Project: Eddy County
Site: Madden Federal Com
Well: #1H
Wellbore: OH
Design: Plan #2

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5,400.00	0 00	0 00	5,400.00	1,750.00	0.00	0.00	0.00	0 00	690,787.40	574,997.00
5,500.00	0 00	0.00	5,500.00	1,850.00	0.00	0.00	0.00	0 00	690,787.40	574,997.00
5,600.00	0.00	0 00	5,600.00	1,950.00	0 00	0.00	0 00	0 00	690,787.40	574,997.00
5,700.00	0 00	0 00	5,700.00	2,050.00	0 00	0.00	0.00	0.00	690,787.40	574,997.00
5,800.00	0.00	0.00	5,800.00	2,150.00	0 00	0 00	0 00	0.00	690,787.40	574,997.00
5,900.00	0 00	0 00	5,900.00	2,250.00	0.00	0.00	0.00	0 00	690,787.40	574,997.00
6,000.00	0 00	0 00	6,000.00	2,350.00	0.00	0.00	0.00	0.00	690,787.40	574,997.00
6,100.00	0.00	0 00	6,100.00	2,450.00	0.00	0 00	0.00	0.00	690,787.40	574,997.00
6,200.00	0 00	0 00	6,200.00	2,550.00	0.00	0 00	0 00	0.00	690,787.40	574,997.00
6,300.00	0 00	0.00	6,300.00	2,650.00	0.00	0.00	0 00	0.00	690,787.40	574,997.00
6,400.00	0 00	0.00	6,400.00	2,750.00	0 00	0.00	0.00	0 00	690,787.40	574,997.00
6,500.00	0 00	0.00	6,500.00	2,850.00	0.00	0 00	0.00	0.00	690,787.40	574,997.00
6,530.00	0 00	0 00	6,530.00	2,880.00	0.00	0.00	0 00	0 00	690,787.40	574,997.00
KOP-6530.00°MD,0.00°INC,0.00°AZI,6530.00°TVD										
6,550.00	2 29	269.98	6,549.99	2,899.99	0.00	-0.40	0.40	11.46	690,787.40	574,996.60
6,600.00	8 02	269.98	6,599.77	2,949.77	0 00	-4.89	4.89	11.46	690,787.40	574,992.11
6,650.00	13 75	269.98	6,648.85	2,998.85	-0 01	-14.33	14.33	11.46	690,787.39	574,982.67
6,700.00	19 48	269.98	6,696.74	3,046.74	-0.01	-28.62	28.62	11.46	690,787.39	574,968.38
6,750.00	25 21	269.98	6,742.97	3,092.97	-0.02	-47.62	47.62	11.46	690,787.38	574,949.38
6,800.00	30.94	269.98	6,787.07	3,137.07	-0.02	-71.15	71.15	11.46	690,787.38	574,925.85
6,850.00	36.67	269.98	6,828.60	3,178.60	-0.03	-98.95	98.95	11.46	690,787.37	574,898.05
6,900.00	42 40	269.98	6,867.14	3,217.14	-0.05	-130.77	130.77	11.46	690,787.35	574,866.23
6,950.00	48.13	269.98	6,902.32	3,252.32	-0 06	-166.27	166.27	11.46	690,787.34	574,830.73
7,000.00	53 86	269.98	6,933.78	3,283.78	-0.07	-205.11	205.11	11.46	690,787.33	574,791.89
7,050.00	59 59	269.98	6,961.20	3,311.20	-0.09	-246.89	246.89	11.46	690,787.31	574,750.11
7,100.00	65 32	269.98	6,984.32	3,334.32	-0.10	-291.20	291.20	11.46	690,787.30	574,705.80
7,150.00	71.05	269.98	7,002.89	3,352.89	-0 12	-337.60	337.60	11.46	690,787.28	574,659.40



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Wellbore: OH
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7,200.00	76.78	269.98	7,016.74	3,366.74	-0.13	-385.62	385.62	11.46	690,787.27	574,611.38
7,250.00	82.51	269.98	7,025.73	3,375.73	-0.15	-434.79	434.79	11.46	690,787.25	574,562.21
7,300.00	88.24	269.98	7,029.76	3,379.76	-0.17	-484.60	484.60	11.46	690,787.23	574,512.40
7,315.40	90.00	269.98	7,030.00	3,380.00	-0.17	-500.00	500.00	11.46	690,787.23	574,497.00
EOC-7315.40°MD,90.00°INC,269.98°AZI,7030.00°TVD,11.46°DLS, 500.00°VS, -0.17°N, -500.00°E										
7,351.04	90.71	269.98	7,029.78	3,379.78	-0.19	-535.65	535.65	2.00	690,787.21	574,461.35
7,400.00	90.71	269.98	7,029.17	3,379.17	-0.20	-584.60	584.60	0.00	690,787.20	574,412.40
7,500.00	90.71	269.98	7,027.92	3,377.92	-0.24	-684.59	684.59	0.00	690,787.16	574,312.41
7,600.00	90.71	269.98	7,026.68	3,376.68	-0.27	-784.58	784.58	0.00	690,787.13	574,212.42
7,700.00	90.71	269.98	7,025.44	3,375.44	-0.31	-884.57	884.57	0.00	690,787.09	574,112.43
7,800.00	90.71	269.98	7,024.19	3,374.19	-0.34	-984.57	984.57	0.00	690,787.06	574,012.43
7,815.44	90.71	269.98	7,024.00	3,374.00	-0.35	-1,000.00	1,000.00	0.00	690,787.05	573,997.00
TGT1(Mad#1H)										
7,822.46	90.57	269.98	7,023.92	3,373.92	-0.35	-1,007.02	1,007.02	2.00	690,787.05	573,989.98
7,900.00	90.57	269.98	7,023.15	3,373.15	-0.38	-1,084.56	1,084.56	0.00	690,787.02	573,912.44
8,000.00	90.57	269.98	7,022.15	3,372.15	-0.41	-1,184.56	1,184.56	0.00	690,786.99	573,812.44
8,100.00	90.57	269.98	7,021.15	3,371.15	-0.45	-1,284.55	1,284.55	0.00	690,786.95	573,712.45
8,200.00	90.57	269.98	7,020.15	3,370.15	-0.48	-1,384.55	1,384.55	0.00	690,786.92	573,612.45
8,300.00	90.57	269.98	7,019.15	3,369.15	-0.52	-1,484.54	1,484.54	0.00	690,786.88	573,512.46
8,400.00	90.57	269.98	7,018.15	3,368.15	-0.55	-1,584.54	1,584.54	0.00	690,786.85	573,412.46
8,500.00	90.57	269.98	7,017.15	3,367.15	-0.59	-1,684.53	1,684.53	0.00	690,786.81	573,312.47
8,600.00	90.57	269.98	7,016.15	3,366.15	-0.62	-1,784.53	1,784.53	0.00	690,786.78	573,212.47
8,700.00	90.57	269.98	7,015.15	3,365.15	-0.66	-1,884.52	1,884.52	0.00	690,786.74	573,112.48
8,800.00	90.57	269.98	7,014.15	3,364.15	-0.69	-1,984.52	1,984.52	0.00	690,786.71	573,012.48
8,815.49	90.57	269.98	7,014.00	3,364.00	-0.70	-2,000.00	2,000.00	0.00	690,786.70	572,997.00
TGT2(Mad#1H)										
8,821.21	90.46	269.98	7,013.95	3,363.95	-0.70	-2,005.72	2,005.72	2.00	690,786.70	572,991.28
8,900.00	90.46	269.98	7,013.32	3,363.32	-0.73	-2,084.51	2,084.51	0.00	690,786.67	572,912.49



Pathfinder Energy Services

Pathfinder X & Y Planning Report



Company: Mack Energy
Project: Eddy County
Site: Madden Federal Com
Well: #1H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3650.00ft (18' KB Correction)
MD Reference: WELL @ 3650.00ft (18' 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)
9,000.00	90.46	269.98	7,012.52	3,362.52	-0.76	-2,184.51	2,184.51	0.00	690,786.64	572,812.49
9,100.00	90.46	269.98	7,011.72	3,361.72	-0.80	-2,284.51	2,284.51	0.00	690,786.60	572,712.49
9,200.00	90.46	269.98	7,010.92	3,360.92	-0.83	-2,384.50	2,384.50	0.00	690,786.57	572,612.50
9,300.00	90.46	269.98	7,010.12	3,360.12	-0.87	-2,484.50	2,484.50	0.00	690,786.53	572,512.50
9,400.00	90.46	269.98	7,009.32	3,359.32	-0.90	-2,584.50	2,584.50	0.00	690,786.50	572,412.50
9,500.00	90.46	269.98	7,008.52	3,358.52	-0.94	-2,684.49	2,684.49	0.00	690,786.46	572,312.51
9,600.00	90.46	269.98	7,007.72	3,357.72	-0.97	-2,784.49	2,784.49	0.00	690,786.43	572,212.51
9,700.00	90.46	269.98	7,006.92	3,356.92	-1.01	-2,884.49	2,884.49	0.00	690,786.39	572,112.51
9,800.00	90.46	269.98	7,006.12	3,356.12	-1.04	-2,984.48	2,984.48	0.00	690,786.36	572,012.52
9,815.52	90.46	269.98	7,006.00	3,356.00	-1.05	-3,000.00	3,000.00	0.00	690,786.35	571,997.00
TGT3(Mad#1H)										
9,821.52	90.57	269.95	7,005.95	3,355.95	-1.05	-3,006.01	3,006.01	2.00	690,786.35	571,990.99
9,900.00	90.57	269.95	7,005.16	3,355.16	-1.12	-3,084.48	3,084.48	0.00	690,786.28	571,912.52
10,000.00	90.57	269.95	7,004.16	3,354.16	-1.20	-3,184.47	3,184.47	0.00	690,786.20	571,812.53
10,100.00	90.57	269.95	7,003.15	3,353.15	-1.29	-3,284.47	3,284.47	0.00	690,786.11	571,712.53
10,115.23	90.57	269.95	7,003.00	3,353.00	-1.30	-3,299.70	3,299.70	0.00	690,786.10	571,697.30

TD at 10115.23 - PBHL(M#1H)



Pathfinder Energy Services

Pathfinder X & Y Planning Report



Company: Mack Energy
Project: Eddy County
Site: Madden Federal Com
Well: #1H
Wellbore: OH
Design: Plan #2

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3650.00ft (18' KB Correction)
MD Reference: WELL @ 3650.00ft (18' KB Correction)
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
TGT1(Mad#1H) - plan hits target - Point	0.00	0.00	7,024.00	-0.35	-1,000.00	690,787.051	573,997.000	32° 53' 55.754 N	104° 5' 32.094 W
TGT2(Mad#1H) - plan hits target - Point	0.00	0.00	7,014.00	-0.70	-2,000.00	690,786.702	572,997.000	32° 53' 55.773 N	104° 5' 43.822 W
TGT3(Mad#1H) - plan hits target - Point	0.00	0.00	7,006.00	-1.05	-3,000.00	690,786.353	571,997.000	32° 53' 55.792 N	104° 5' 55.551 W
PBHL(M#1H) - plan hits target - Point	0.00	0.00	7,003.00	-1.30	-3,299.70	690,786.100	571,697.300	32° 53' 55.796 N	104° 5' 59.066 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,530.00	6,530.00	0.00	0.00	KOP-6530.00°MD,0.00°INC,0.00°AZI,6530.00°TVD
7,315.40	7,030.00	-0.17	-500.00	EOC-7315.40°MD,90.00°INC,269.98°AZI,7030.00°TVD,11.46°DLS, 500
10,115.23	7,003.00	-0.19	-535.65	TD at 10115.23

Checked By _____ Approved By: _____ Date _____



Azimuths to Grid North
True North: -0.13°
Magnetic North: 7.96°

Magnetic Field
Strength: 49183.1snT
Dip Angle: 60.78°
Date: 07/14/2009
Model: IGRF200510

PATHFINDER

WELL DETAILS #1H						
Ground Elevation 3632.00						
RKB Elevation WELL @ 3650.00R (18' KB Correction)						
Rig Name 18' KB Correction						
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	690787.400	574997.000	32° 53' 55.734 N	104° 5' 20.365 W	

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

WELLBORE TARGET DETAILS				
Name	TVD	+N-S	+E-W	Shape
PBHL(M#1H)	7003.00	-1.30	-3299.70	Point
TGT3(Mad#1H)	7006.00	-1.05	-3000.00	Point
TGT2(Mad#1H)	7014.00	-0.70	-2000.00	Point
TGT1(Mad#1H)	7024.00	-0.35	-1000.00	Point

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dip	VSec	Target	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	6530.00	0.00	0.00	6530.00	0.00	0.00	0.00	0.00		
3	7315.40	90.00	269.98	7030.00	-0.17	-500.00	11.46	500.00		
4	7351.04	90.71	269.98	7029.78	-0.19	-535.65	12.88	535.65		
5	7815.44	90.71	269.98	7024.00	-0.35	-1000.00	0.00	1000.00	TGT1(Mad#1H)	
6	7822.46	90.57	269.98	7023.92	-0.35	-1007.02	2.00	-180.00	1007.02	
7	7815.49	90.57	269.98	7014.00	-0.70	-2000.00	0.00	0.00	2000.00	TGT2(Mad#1H)
8	8821.21	90.46	269.98	7013.95	-0.70	-2005.72	2.00	-180.00	2005.72	
9	9815.52	90.46	269.98	7006.00	-1.05	-3000.00	0.00	0.00	3000.00	TGT3(Mad#1H)
10	9821.52	90.57	269.98	7005.95	-1.05	-3006.01	2.00	-13.76	3006.01	
11	10115.23	90.57	269.98	7003.00	-1.30	-3299.70	0.00	0.00	3299.70	PBHL(M#1H)

