

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Road, Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101

May 27, 2004

RECEIVED

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Mack Energy Corporation P.O. Box 960 Artesia, NM 88211-0960		'OGRID Number 013837
		'API Number 30- 025-37989
'Property Code 35811	'Property Name Eagle State Com	'Well No. 1
'Proposed Pool 1 Wildcat Abo		Proposed Pool 2

7 Surface Location

UL or lot no. B	Section 18	Township 15S	Range 32E	Lot Idn	Feet from the 660	North/South line North	Feet from the 1800	East/West line East	County Lea
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8 Proposed Bottom Hole Location If Different From Surface

UL or lot no. D	Section 18	Township 15S	Range 32E	Lot Idn	Feet from the 355	North/South line North	Feet from the 355	East/West line West	County Lea
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Additional Well Information

'Work Type Code Re-Entry P	'Well Type Code Oil	" Cable/Rotary Rotary	'Lease Type Code S	'Ground Level Elevation 4344'
'Multiple No	" Proposed Depth 12085'	" Formation Abo	'Contractor	'Spud Date 2/25/2011
Depth to Groundwater 65'		Distance from nearest fresh water well 1000'		Distance from nearest surface water 1000'
Pit Liner: Synthetic ☐ _____mils thick Clay ☐		Pit Volume: _____bbls		
Closed-Loop System ☒		Drilling Method - Fresh Water ☒ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐		

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2	13 3/8" H-40	48	412	500sx	0 In Place
12 1/4	9 5/8, J-55	36-40	4018	2950sx	0 In Place
7 7/8	5 1/2", L-80	17	12,085	1440sx	0

Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Mack Energy proposes to plug back well to 10,000', pull 5 1/2" csg from 9300'. Drill horizontally to 12,085'. Run 5 1/2 casing to 12,085' set with 1440sx cement.

Permit Expires 2 Years From Approval
Date Unless Drilling Underway
Plugback

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒ a general permit ☐ , or an (attached) alternative OCD-approved plan. ☐		OIL CONSERVATION DIVISION	
Signature Jerry W. Sherrell		Approved by:	
Printed name: Jerry W. Sherrell		Title: PETROLEUM ENGINEER	
Title: Production Clerk		Approval Date: FEB 17, 2011	
E-mail Address: jerrys@mec.com		Expiration Date:	
Date: 2/11/2011	Phone: (575)748-1288	Conditions of Approval Attached ☐	

State of New Mexico

DISTRICT I

1626 N. FRENCH DR., HOBBS, NM 88240

FEB 14 2011

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

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

HOBBS

CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-37989		Pool Code 35811 97D19	Wildcat Abo	Pool Name
Property Code 35811	Property Name EAGLE STATE COM			Well Number 1
OGRID No. 013837	Operator Name MACK ENERGY CORPORATION			Elevation 4344'

Surface Location

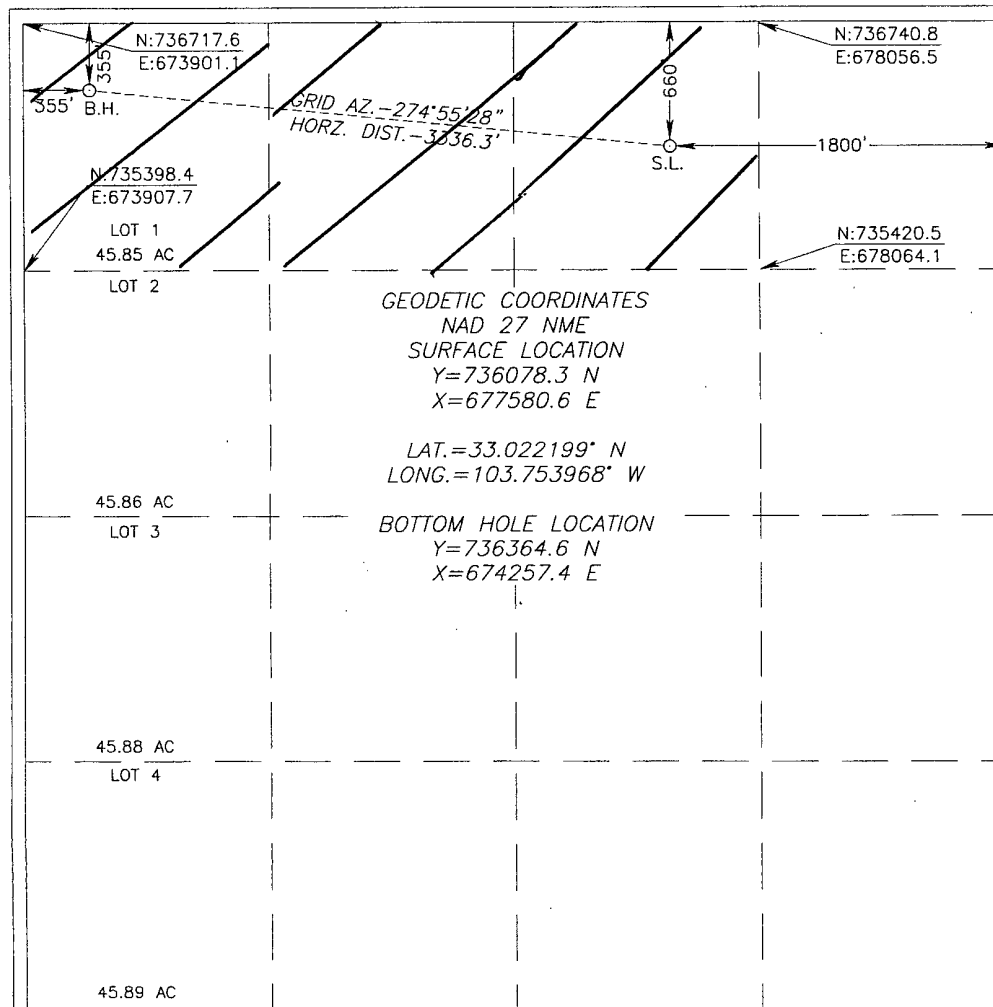
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	18	15-S	32-E		660	NORTH	1800	EAST	LEA

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
1	18	15-S	32-E		355	NORTH	355	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
125.85			

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 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.

James W. Shendell 2.11.2011
Signature Date

Jerry W. Sherrell
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.

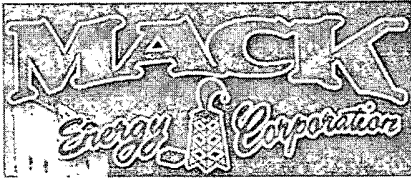
JUNE 29, 2006

Date Surveyed LA

Signature & Seal of Professional Surveyor

NEW MEXICO
02/08/2011
11:11:01 AM
PR

Certificate No. GARY EIDSON 12641
RONALD EIDSON 3239



RECEIVED

FEB 14 2011

HOBBSD

Mack Energy

Lea County

Eagle State Com

#1H

OH

Plan: Design #1

Pathfinder X & Y Planning Report

10 February, 2011

PATHFINDER

A Schlumberger Company



Pathfinder

Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company:	Mack Energy	Local Co-ordinate Reference:	Well #1H
Project:	Lea County	TVD Reference:	WELL @ 4362.00usft (Original Well Elev)
Site:	Eagle State Com	MD Reference:	WELL @ 4362.00usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 5000.1 Single User Db

Project		Lea 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		Eagle State Com					
Site Position:		Northing:	736,078.300	usft	Latitude:	33° 1' 19.915 N	
From:	Map	Easting:	677,580.600	usft	Longitude:	103° 45' 14.283 W	
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.32 °

Well	#1H					
Well Position	+N/-S	0.00 usft	Northing:	736,078.300 usft	Latitude:	33° 1' 19.915 N
	+E/-W	0.00 usft	Easting:	677,580.600 usft	Longitude:	103° 45' 14.283 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,344.00 usft

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	02/09/11	7.76	60.92	49,138

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	274.92

Survey Tool Program		Date	02/10/11		
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
0.00	12,083.99	Design #1 (OH)	MWD	MWD - Standard	



Pathfinder
Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company: Mack Energy
Project: Lea County
Site: Eagle State Com
Well: #1H
Wellbore: OH
Design: Design #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 4362.00usft (Original Well Elev)
MD Reference: WELL @ 4362.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	4,362.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
100.00	0.00	0.00	100.00	4,262.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
200.00	0.00	0.00	200.00	4,162.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
300.00	0.00	0.00	300.00	4,062.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
400.00	0.00	0.00	400.00	3,962.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
500.00	0.00	0.00	500.00	3,862.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
600.00	0.00	0.00	600.00	3,762.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
700.00	0.00	0.00	700.00	3,662.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
800.00	0.00	0.00	800.00	3,562.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
900.00	0.00	0.00	900.00	3,462.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,000.00	0.00	0.00	1,000.00	3,362.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,100.00	0.00	0.00	1,100.00	3,262.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,200.00	0.00	0.00	1,200.00	3,162.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,300.00	0.00	0.00	1,300.00	3,062.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,400.00	0.00	0.00	1,400.00	2,962.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,500.00	0.00	0.00	1,500.00	2,862.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,600.00	0.00	0.00	1,600.00	2,762.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,700.00	0.00	0.00	1,700.00	2,662.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,800.00	0.00	0.00	1,800.00	2,562.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
1,900.00	0.00	0.00	1,900.00	2,462.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,000.00	0.00	0.00	2,000.00	2,362.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,100.00	0.00	0.00	2,100.00	2,262.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,200.00	0.00	0.00	2,200.00	2,162.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,300.00	0.00	0.00	2,300.00	2,062.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,400.00	0.00	0.00	2,400.00	1,962.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,500.00	0.00	0.00	2,500.00	1,862.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,600.00	0.00	0.00	2,600.00	1,762.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60



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Pathfinder X & Y Planning Report

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Wellbore: OH
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2,700.00	0.00	0.00	2,700.00	1,662.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,800.00	0.00	0.00	2,800.00	1,562.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
2,900.00	0.00	0.00	2,900.00	1,462.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,000.00	0.00	0.00	3,000.00	1,362.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,100.00	0.00	0.00	3,100.00	1,262.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,200.00	0.00	0.00	3,200.00	1,162.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,300.00	0.00	0.00	3,300.00	1,062.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,400.00	0.00	0.00	3,400.00	962.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,500.00	0.00	0.00	3,500.00	862.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,600.00	0.00	0.00	3,600.00	762.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,700.00	0.00	0.00	3,700.00	662.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,800.00	0.00	0.00	3,800.00	562.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
3,900.00	0.00	0.00	3,900.00	462.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,000.00	0.00	0.00	4,000.00	362.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,100.00	0.00	0.00	4,100.00	262.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,200.00	0.00	0.00	4,200.00	162.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,300.00	0.00	0.00	4,300.00	62.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,400.00	0.00	0.00	4,400.00	-38.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,500.00	0.00	0.00	4,500.00	-138.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,600.00	0.00	0.00	4,600.00	-238.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,700.00	0.00	0.00	4,700.00	-338.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,800.00	0.00	0.00	4,800.00	-438.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
4,900.00	0.00	0.00	4,900.00	-538.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,000.00	0.00	0.00	5,000.00	-638.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,100.00	0.00	0.00	5,100.00	-738.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,200.00	0.00	0.00	5,200.00	-838.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,300.00	0.00	0.00	5,300.00	-938.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60



Pathfinder
Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company: Mack Energy
Project: Lea County
Site: Eagle State Com
Well: #1H
Wellbore: OH
Design: Design #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 4362.00usft (Original Well Elev)
MD Reference: WELL @ 4362.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
5,400.00	0.00	0.00	5,400.00	-1,038.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,500.00	0.00	0.00	5,500.00	-1,138.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,600.00	0.00	0.00	5,600.00	-1,238.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,700.00	0.00	0.00	5,700.00	-1,338.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,800.00	0.00	0.00	5,800.00	-1,438.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
5,900.00	0.00	0.00	5,900.00	-1,538.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,000.00	0.00	0.00	6,000.00	-1,638.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,100.00	0.00	0.00	6,100.00	-1,738.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,200.00	0.00	0.00	6,200.00	-1,838.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,300.00	0.00	0.00	6,300.00	-1,938.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,400.00	0.00	0.00	6,400.00	-2,038.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,500.00	0.00	0.00	6,500.00	-2,138.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,600.00	0.00	0.00	6,600.00	-2,238.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,700.00	0.00	0.00	6,700.00	-2,338.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,800.00	0.00	0.00	6,800.00	-2,438.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
6,900.00	0.00	0.00	6,900.00	-2,538.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,000.00	0.00	0.00	7,000.00	-2,638.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,100.00	0.00	0.00	7,100.00	-2,738.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,200.00	0.00	0.00	7,200.00	-2,838.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,300.00	0.00	0.00	7,300.00	-2,938.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,400.00	0.00	0.00	7,400.00	-3,038.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,500.00	0.00	0.00	7,500.00	-3,138.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,600.00	0.00	0.00	7,600.00	-3,238.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,700.00	0.00	0.00	7,700.00	-3,338.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,800.00	0.00	0.00	7,800.00	-3,438.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
7,900.00	0.00	0.00	7,900.00	-3,538.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60
8,000.00	0.00	0.00	8,000.00	-3,638.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60



Pathfinder
Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company: Mack Energy
Project: Lea County
Site: Eagle State Com
Well: #1H
Wellbore: OH
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Database: EDM 5000.1 Single User Db

Planned Survey												
MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)		
8,100.00	0.00	0.00	8,100.00	-3,738.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60		
8,200.00	0.00	0.00	8,200.00	-3,838.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60		
8,300.00	0.00	0.00	8,300.00	-3,938.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60		
8,406.00	0.00	0.00	8,406.00	-4,044.00	0.00	0.00	0.00	0.00	736,078.30	677,580.60		
8,450.00	4.20	274.92	8,449.96	-4,087.96	0.14	-1.61	1.61	9.55	736,078.44	677,578.99		
8,500.00	8.97	274.92	8,499.62	-4,137.62	0.63	-7.32	7.35	9.55	736,078.93	677,573.28		
8,550.00	13.75	274.92	8,548.62	-4,186.62	1.47	-17.13	17.19	9.55	736,079.77	677,563.47		
8,600.00	18.52	274.92	8,596.64	-4,234.64	2.67	-30.97	31.09	9.55	736,080.97	677,549.63		
8,650.00	23.30	274.92	8,643.33	-4,281.33	4.20	-48.75	48.93	9.55	736,082.50	677,531.85		
8,700.00	28.07	274.92	8,688.38	-4,326.38	6.05	-70.33	70.59	9.55	736,084.35	677,510.27		
8,750.00	32.84	274.92	8,731.47	-4,369.47	8.23	-95.57	95.93	9.55	736,086.53	677,485.03		
8,800.00	37.62	274.92	8,772.30	-4,410.30	10.70	-124.30	124.76	9.55	736,089.00	677,456.30		
8,850.00	42.39	274.92	8,810.58	-4,448.58	13.46	-156.32	156.90	9.55	736,091.76	677,424.28		
8,900.00	47.17	274.92	8,846.07	-4,484.07	16.48	-191.40	192.11	9.55	736,094.78	677,389.20		
8,950.00	51.94	274.92	8,878.49	-4,516.49	19.74	-229.30	230.15	9.55	736,098.04	677,351.30		
9,000.00	56.71	274.92	8,907.64	-4,545.64	23.22	-269.75	270.75	9.55	736,101.52	677,310.85		
9,050.00	61.49	274.92	8,933.31	-4,571.31	26.90	-312.49	313.64	9.55	736,105.20	677,268.11		
9,100.00	66.26	274.92	8,955.32	-4,593.32	30.75	-357.20	358.52	9.55	736,109.05	677,223.40		
9,150.00	71.04	274.92	8,973.52	-4,611.52	34.74	-403.59	405.08	9.55	736,113.04	677,177.01		
9,200.00	75.81	274.92	8,987.78	-4,625.78	38.85	-451.32	452.99	9.55	736,117.15	677,129.28		
9,250.00	80.58	274.92	8,998.00	-4,636.00	43.05	-500.07	501.91	9.55	736,121.35	677,080.53		
9,300.00	85.36	274.92	9,004.12	-4,642.12	47.30	-549.49	551.52	9.55	736,125.60	677,031.11		
9,350.00	90.13	274.92	9,006.09	-4,644.09	51.58	-599.25	601.47	9.55	736,129.88	676,981.35		
9,358.99	90.99	274.92	9,006.00	-4,644.00	52.36	-608.21	610.46	9.55	736,130.66	676,972.39		
9,400.00	90.99	274.92	9,005.29	-4,643.29	55.87	-649.06	651.46	0.00	736,134.17	676,931.54		
9,500.00	90.99	274.92	9,003.56	-4,641.56	64.45	-748.68	751.45	0.00	736,142.75	676,831.92		
9,600.00	90.99	274.92	9,001.84	-4,639.84	73.02	-848.30	851.43	0.00	736,151.32	676,732.30		



Pathfinder
Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company: Mack Energy
Project: Lea County
Site: Eagle State Corn
Well: #1H
Wellbore: OH
Design: Design #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 4362.00usft (Original Well Elev)
MD Reference: WELL @ 4362.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,700.00	90.99	274.92	9,000.11	-4,638.11	81.60	-947.91	951.42	0.00	736,159.90	676,632.69
9,800.00	90.99	274.92	8,998.38	-4,636.38	90.17	-1,047.53	1,051.40	0.00	736,168.47	676,533.07
9,900.00	90.99	274.92	8,996.65	-4,634.65	98.75	-1,147.15	1,151.39	0.00	736,177.05	676,433.45
10,000.00	90.99	274.92	8,994.92	-4,632.92	107.32	-1,246.76	1,251.37	0.00	736,185.62	676,333.84
10,100.00	90.99	274.92	8,993.20	-4,631.20	115.90	-1,346.38	1,351.36	0.00	736,194.20	676,234.22
10,200.00	90.99	274.92	8,991.47	-4,629.47	124.47	-1,446.00	1,451.35	0.00	736,202.77	676,134.60
10,300.00	90.99	274.92	8,989.74	-4,627.74	133.05	-1,545.61	1,551.33	0.00	736,211.35	676,034.99
10,400.00	90.99	274.92	8,988.01	-4,626.01	141.62	-1,645.23	1,651.32	0.00	736,219.92	675,935.37
10,500.00	90.99	274.92	8,986.29	-4,624.29	150.20	-1,744.85	1,751.30	0.00	736,228.50	675,835.75
10,600.00	90.99	274.92	8,984.56	-4,622.56	158.77	-1,844.46	1,851.29	0.00	736,237.07	675,736.14
10,700.00	90.99	274.92	8,982.83	-4,620.83	167.35	-1,944.08	1,951.27	0.00	736,245.65	675,636.52
10,800.00	90.99	274.92	8,981.10	-4,619.10	175.93	-2,043.70	2,051.26	0.00	736,254.23	675,536.90
10,900.00	90.99	274.92	8,979.37	-4,617.37	184.50	-2,143.31	2,151.24	0.00	736,262.80	675,437.29
11,000.00	90.99	274.92	8,977.65	-4,615.65	193.08	-2,242.93	2,251.23	0.00	736,271.38	675,337.67
11,100.00	90.99	274.92	8,975.92	-4,613.92	201.65	-2,342.55	2,351.21	0.00	736,279.95	675,238.05
11,200.00	90.99	274.92	8,974.19	-4,612.19	210.23	-2,442.16	2,451.20	0.00	736,288.53	675,138.44
11,300.00	90.99	274.92	8,972.46	-4,610.46	218.80	-2,541.78	2,551.18	0.00	736,297.10	675,038.82
11,400.00	90.99	274.92	8,970.74	-4,608.74	227.38	-2,641.40	2,651.17	0.00	736,305.68	674,939.20
11,500.00	90.99	274.92	8,969.01	-4,607.01	235.95	-2,741.01	2,751.15	0.00	736,314.25	674,839.59
11,600.00	90.99	274.92	8,967.28	-4,605.28	244.53	-2,840.63	2,851.14	0.00	736,322.83	674,739.97
11,700.00	90.99	274.92	8,965.55	-4,603.55	253.10	-2,940.25	2,951.12	0.00	736,331.40	674,640.35
11,800.00	90.99	274.92	8,963.82	-4,601.82	261.68	-3,039.86	3,051.11	0.00	736,339.98	674,540.74
11,900.00	90.99	274.92	8,962.10	-4,600.10	270.25	-3,139.48	3,151.09	0.00	736,348.55	674,441.12
12,000.00	90.99	274.92	8,960.37	-4,598.37	278.83	-3,239.10	3,251.08	0.00	736,357.13	674,341.50
12,084.45	90.99	274.92	8,958.91	-4,596.91	286.07	-3,323.22	3,335.51	0.00	736,364.37	674,257.38



Pathfinder
Pathfinder X & Y Planning Report

PATHFINDER
A Schlumberger Company

Company: Mack Energy
Project: Lea County
Site: Eagle State Com
Well: #1H
Wellbore: OH
Design: Design #1

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 4362.00usft (Original Well Elev)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Checked By: _____ Approved By: _____ Date: _____