

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
1 Budget Bureau No. 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1 Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2 Name of Operator

Mack Energy Corporation

3 Address and Telephone No

P.O. Box 960 Artesia, NM 88211-0960 (505)748-1288

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

330 FSL & 330 FWL, Sec 15 T16S R28E

5 Lease Designation and Serial No

NMMN-117550

6 If Indian, Allottee or Tribe Name

7 If Unit or CA, Agreement Designation

8 Well Name and No

North Pole Federal #1

9 API Well No

30-015-36079

10 Field and Pool, or Exploratory Area

Crow Flats; Wolfcamp

11 County or Parish, State

Eddy, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION	
☐ Notice of Intent	☐ Abandonment	☐ Change of Plans
☒ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other <u>Completion</u>	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work)*

6/17/2008 Acidize open hole w/ 5,000 gals 15% HCL, 75,000 20% HCL and 12,600 gals 5% HCL. Frac through Strata Port @ 8,774' w/ 10,000# White Sand 30/50, 30,000 gals 40# gel. Frac through Strata Port @ 7,528' w/ 16,250# White Sand 30/50, 22,500 gals 40# gel. Frac through Strata Port @ 6,926' w/ 5,500# White Sand 30/50, 26,000 gals 40# gel.
6/24/2008 RIH w/ 145 jts 2 7/8 tubing, 7" packer set @ 4,600'.

**Accepted for record
NMOCD**

14 I hereby certify that the foregoing is true and correct

Signed

[Signature]

Title

Production Clerk

Date

7/14/2008

(This space for Federal or State office use)

Approved by

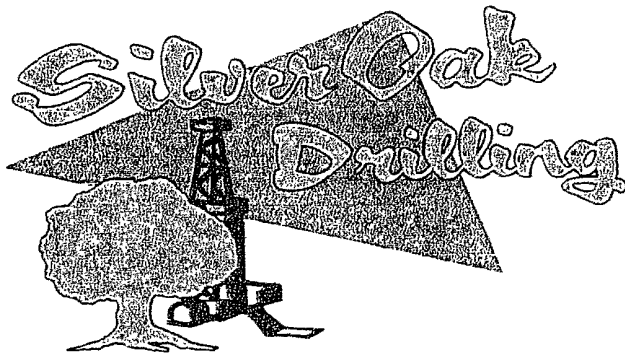
Conditions of approval, if any

Title

Date

Title 18 U.S.C. Section 1001, makes 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

•See Instruction on Reverse Side



PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288

June 6, 2008

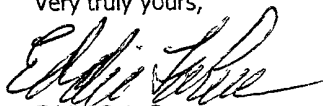
Mack Energy Corporation
PO Box 960
Artesia, NM 88211-0960

RE: North Pole Federal #1
330' FSL & 330' FWL
Sec. 15, T16S, R89E
Eddy County, New Mexico

Dear Sir,

The attached is the Deviation Survey for the above captioned well.

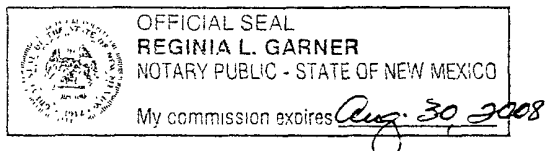
Very truly yours,


Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 6th day of June, 2008.


Notary Public



Date	Depth	Dev	Dir	TVD	Date	Depth	Dev	Dir	TVD
04/23/2008	154.00	0.25			05/19/2008	8455.00	88.29	87.21	6555.19
04/24/2008	303.00	1.00			05/19/2008	8486.00	88.37	86.42	6556.10
04/25/2008	561.00	1.00			05/19/2008	8549.00	87.76	86.49	6558.24
04/25/2008	771.00	1.00			05/19/2008	8581.00	87.93	85.93	6559.00
04/26/2008	954.00	0.90			05/19/2008	8612.00	88.72	85.19	6560.36
04/26/2008	1211.00	0.90			05/20/2008	8835.00	89.69	85.64	
04/26/2008	1517.00	0.90			05/20/2008	8866.00	89.96	86.10	
04/27/2008	1792.00	0.70			05/20/2008	8644.00	88.81	85.26	6561.04
04/29/2008	2001.00	0.10			05/20/2008	8676.00	89.60	85.07	6561.49
04/29/2008	2297.00	0.40			05/20/2008	8708.00	89.60	85.05	6561.71
04/30/2008	2500.00	0.50			05/21/2008	8895.00	89.96	85.96	6563.36
04/30/2008	2749.00	0.30			05/21/2008	8930.00	89.87	86.00	6561.93
05/01/2008	2998.00	0.60			05/21/2008	8962.00	89.69	85.98	6563.53
05/01/2008	3247.00	0.40			05/22/2008	9088.00	89.25	86.56	6565.16
05/02/2008	3496.00	0.30			05/22/2008	9120.00	88.81	85.97	6565.70
05/02/2008	3745.00	0.40			05/22/2008	9151.00	89.43	86.01	6566.18
05/03/2008	4026.00	0.20			05/23/2008	9183.00	89.60	86.29	6566.45
05/03/2008	4270.00	0.70			05/23/2008	9215.00	89.78	85.77	6566.57
05/03/2008	4549.00	0.70			05/23/2008	9247.00	90.57	85.87	6566.45
05/04/2008	4767.00	0.40			05/24/2008	9691.00	89.43	87.33	6550.78
05/05/2008	4966.00	1.49	17.89		05/24/2008	9723.00	90.75	87.25	6560.00
05/05/2008	5059.00	1.93	2.27		05/24/2008	9754.00	91.28	87.01	6560.18
05/05/2008	5152.00	2.11	6.43		05/24/2008	9945.00	90.92	86.57	6555.93
05/06/2008	5245.00	2.37	8.15		05/24/2008	9976.00	88.34	86.61	6555.86
05/06/2008	5337.00	2.55	12.45		05/24/2008	10071.00	88.37	87.23	6558.33
05/06/2008	5657.00	3.61	8.17		05/25/2008	10135.00	88.55	87.65	6560.05
05/06/2008	5678.00	3.96	13.04		05/25/2008	10166.00	88.64	87.65	6560.81
05/06/2008	4709.00	4.04	18.36		05/25/2008	10198.00	89.90	87.76	6560.50
05/07/2008	5739.00	4.84	23.01		05/25/2008	10451.00	88.55	86.45	6568.00
05/07/2008	5770.00	4.84	40.40		05/25/2008	10483.00	88.64	86.35	
05/07/2008	5801.00	6.51	55.51		05/25/2008	10515.00	89.08	86.51	6569.43
05/07/2008	5988.00	9.06	81.80		05/26/2008	10578.00	89.34	86.73	6570.97
05/07/2008	6019.00	8.97	80.21		05/26/2008	10641.00	89.34	86.58	6572.10
05/08/2008	6050.00	9.67	81.72		# EOF				
05/08/2008	6081.00	11.43	86.18						
05/08/2008	6206.00	21.54	94.92						
05/08/2008	6237.00	24.80	95.41						
05/09/2008	6268.00	28.67	94.79						
05/09/2008	6299.00	32.41	93.59						
05/09/2008	6424.00	43.26	95.09						
05/10/2008	6517.00	52.23	87.67						
05/10/2008	6548.00	56.01	86.66						
05/14/2008	6775.00	81.43	84.26						
05/14/2008	6807.00	86.44	85.10						
05/14/2008	7028.00	90.75	86.28						
05/14/2008	7060.00	90.66	86.80						
05/14/2008	7092.00	90.31	86.67						
05/14/2008	7123.00	89.96	86.77						
05/14/2008	7187.00	88.81	87.27						
05/15/2008	7218.00	88.55	87.09						
05/15/2008	7250.00	89.60	87.50						
05/15/2008	7280.00	89.69	87.54						
05/15/2008	7504.00	87.85	87.68						
05/15/2008	7536.00	87.32	86.57						
05/15/2008	7567.00	86.97	86.45						
05/16/2008	7631.00	88.67	86.39						
05/16/2008	7662.00	88.28	85.59						
05/16/2008	7694.00	88.11	86.02						
05/16/2008	7885.00	90.31	85.87	6555.00					
05/16/2008	7916.00	91.10	85.33	6555.00					
05/16/2008	7948.00	92.77	68.34						
05/16/2008	7980.00	92.68	86.90	6552.00					
05/17/2008	8011.00	92.15	87.09	6551.00					
05/17/2008	8043.00	92.07	86.69	6550.49					
05/17/2008	8075.00	91.10	87.36	6549.60					
05/17/2008	8265.00	89.52	87.82	6549.55					
05/17/2008	8329.00	88.37	88.10	6550.85					
05/18/2008	8360.00	88.02	87.60	6551.83					
05/18/2008	8592.00	88.11	87.92	6552.91					



DIRECTIONAL SURVEY REPORT

MACK ENERGY

NORTH POLE FEDERAL #1

EDDY COUNTY, NEW MEXICO

PREPARED BY: CODY MEBANE

Pathfinder Energy Services, Inc.
6213 W. County Road 112 • Midland, TX • 79706
(432)681-6000

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) MATT SHIPP
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 5/5/08 TO 5/26/08
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

MACK ENERGY
NORTH POLE FEDERAL #1
EDDY COUNTY, NM
RIG: SILVER OAK #7
9. SURVEY CERTIFIED FROM: 4781 TO 10780 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4584.08 FEET ON A BEARING OF 86.31 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 10845.6 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE



CODY MEBANE
M/LWD SERVICE COORDINATOR

PATHFINDER

ENERGY SERVICES

DIRECTIONAL SURVEY INFORMATION

FAXED MAY 27 2008

APPROVED MAY 27 2008

Prepared By: CODY MEBANE

Name of Client: Mack Energy Corporation

Attention: _____

☐ Directional Only Job OR ☒ Logging Job

Name(s) of Persons Performing Surveys:

A) Matt Shipp D) _____
B) Kyle Tabor E) _____
C) _____ F) _____

Positions of Said Persons: Surveyors / Field Engineers: Other _____

Date(s) Survey was Performed: From 5-May-08 To 26-May-08

Type of Survey Performed: (Specify if other than MWD) Gamma-Ray

IDENTIFICATION OF WELL:

Client:	<u>Mack Energy</u>	Rig Name:	<u>Silver Oak #7</u>
Well No.:	<u>North Pole Federal #1</u>	API No.:	<u>30-015-36079</u>
Location:	<u>Eddy County, New Mexico</u>	Job No.:	<u>101007368WT-WT</u>
State:	<u>New Mexico</u>		

TEXAS RAILROAD COMMISSION INFORMATION:

Field: Crow Flats; Wolfcamp

Abstract No.: _____

Well Plat Survey Co.: _____

Surveys Performed From 4781 Feet TO 10780 Feet

MMS / ASCII / LAS Diskette Filename: ASCII

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOW THE WELL TO BE DISPLACED AT 4584.08
FEET ON A BEARING OF 86.31 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT
A PROJECTED DEPTH OF 10845.6 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 05/05/2008
Date Completed: 05/26/2008

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
Rig: Silver Oak #7
PathFinder Office Supervisor: Cody Mebane
PathFinder Field Engineers: Matt Shipp
Kyle Tabor

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.54.58.4496 N LON: 104.10.14.7864 W
GRID Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 549885.0369 Y: 697076.8692
North Aligned To: GRID NORTH
Total Magnetic Correction: 8.19° EAST TO GRID
Vertical Section Plane: 86.30
Survey Vert. Reference: 18.00' Kelly Bushing To Ground
Altitude: 3584.00' Ground To MSL

Measured Depth	10845.62	(feet)
Inclination	89.25	(deg)
Azimuth	86.79	(deg)
True Vertical Depth	6573.30	(feet)
Vertical Section	4584.08	(feet)
Survey X cord	554459.68	(feet)
Survey Y cord	697371.61	(feet)
Survey Lat	32.91702588 N	(deg)
Survey Lon	104.15586515 W	(deg)
Rectangular Corr. N/S	294.74 N	(feet)
Rectangular Corr. E/W	4574.60 E	(feet)
Closure Distance	4584.08	(feet)
Direction of Closure	86.31	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
Rig: Silver Oak #7
PathFinder Office Supervisor: Cody Mebane
PathFinder Field Engineers: Matt Shipp
Kyle Tabor

Survey Horiz. Reference: WELLHEAD
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Total Magnetic Correction: 8.19° EAST TO GRID
Vertical Section Plane: 86.30
Survey Vert. Reference: 18.00' Kelly Bushing To Ground
Altitude: 3584.00' Ground To MSL

Survey Calculations by RX4 using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	TEMP (F)
TIE-IN TO SCIENTIFIC GYRO SURVEY CONVERTED FROM TRUE TO GRID @ 4715'MD.											
4715.00	0.21	67.93	4714.96	4696.96	2.31	10.90 S	3.02 E	11.31@	164.51	0.00	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.											
4781.00	0.26	45.62	4780.96	4762.96	2.54	10.75 S	3.24 E	11.23@	163.23	0.16	93.80
4842.00	1.06	10.26	4841.95	4823.95	2.78	10.10 S	3.44 E	10.67@	161.20	1.41	97.41
4905.00	1.41	3.74	4904.94	4886.94	3.02	8.75 S	3.59 E	9.46@	157.68	0.60	97.41
4966.00	1.49	17.89	4965.92	4947.92	3.41	7.25 S	3.89 E	8.22@	151.80	0.60	101.02
5059.00	1.93	7.27	5058.88	5040.88	4.15	4.54 S	4.46 E	6.36@	135.56	0.58	101.02
5152.00	2.11	6.43	5151.82	5133.82	4.75	1.29 S	4.84 E	5.01@	104.89	0.20	104.64
5245.00	2.37	8.15	5244.75	5226.75	5.45	2.32 N	5.31 E	5.79@	66.43	0.29	104.64
5337.00	2.55	12.45	5336.67	5318.67	6.41	6.20 N	6.02 E	8.64@	44.17	0.28	104.64
5399.00	2.99	8.46	5398.59	5380.59	7.13	9.14 N	6.56 E	11.25@	35.64	0.77	104.64
5493.00	3.52	7.09	5492.44	5474.44	8.19	14.43 N	7.27 E	16.16@	26.74	0.57	104.64
5586.00	3.61	8.17	5585.26	5567.26	9.33	20.16 N	8.04 E	21.71@	21.74	0.12	108.25
5678.00	3.96	13.04	5677.06	5659.06	10.84	26.13 N	9.17 E	27.69@	19.34	0.52	108.25
5709.00	4.04	18.36	5707.99	5689.99	11.55	28.20 N	9.75 E	29.84@	19.08	1.22	104.64
5739.00	4.04	23.01	5737.91	5719.91	12.43	30.18 N	10.50 E	31.96@	19.18	1.09	108.25
5770.00	4.84	40.40	5768.82	5750.82	13.83	32.18 N	11.78 E	34.27@	20.10	5.02	108.25
5801.00	6.51	55.51	5799.67	5781.67	16.25	34.17 N	14.07 E	36.96@	22.38	7.18	108.25
5832.00	7.83	60.66	5830.42	5812.42	19.66	36.20 N	17.36 E	40.15@	25.62	4.73	108.25
5863.00	8.62	65.45	5861.11	5843.11	23.74	38.20 N	21.31 E	43.75@	29.16	3.37	108.25
5895.00	9.15	71.70	5892.72	5874.72	28.44	40.00 N	25.91 E	47.66@	32.94	3.44	108.25
5926.00	8.97	80.07	5923.34	5905.34	33.23	41.19 N	30.63 E	51.33@	36.64	4.29	108.25
5957.00	8.88	81.95	5953.96	5935.96	38.02	41.94 N	35.38 E	54.87@	40.15	0.98	108.25

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
RIG: Silver Oak #7

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	TEMP (F)
5988.00	9.06	81.80	5984.58	5966.58	42.83	42.62 N	40.17 E	58.57@	43.30	0.59	111.87
6019.00	8.97	80.21	6015.20	5997.20	47.67	43.38 N	44.96 E	62.48@	46.03	0.85	108.25
6050.00	9.67	81.72	6045.79	6027.79	52.67	44.17 N	49.92 E	66.66@	48.50	2.39	108.25
6081.00	11.43	86.18	6076.27	6058.27	58.34	44.75 N	55.56 E	71.34@	51.15	6.26	108.25
6112.00	13.45	88.69	6106.54	6088.54	65.01	45.04 N	62.23 E	76.82@	54.11	6.74	104.64
6144.00	15.30	92.24	6137.53	6119.53	72.93	44.96 N	70.17 E	83.34@	57.36	6.40	104.64
6175.00	18.03	93.97	6167.23	6149.23	81.75	44.46 N	79.05 E	90.70@	60.64	8.95	104.64
6206.00	21.54	94.92	6196.39	6178.39	92.14	43.64 N	89.51 E	99.58@	64.01	11.37	108.25
6237.00	24.80	95.41	6224.89	6206.89	104.19	42.54 N	101.65 E	110.20@	67.29	10.53	108.25
6268.00	28.67	94.79	6252.57	6234.57	117.97	41.31 N	115.54 E	122.70@	70.33	12.52	108.25
6299.00	32.01	93.59	6279.32	6261.32	133.48	40.17 N	131.16 E	137.17@	72.97	10.95	108.25
6330.00	35.96	93.00	6305.02	6287.02	150.67	39.18 N	148.45 E	153.54@	75.22	12.79	108.25
6362.00	39.13	92.68	6330.39	6312.39	170.04	38.22 N	167.93 E	172.22@	77.18	9.92	111.87
6393.00	42.12	93.69	6353.92	6335.92	190.08	37.09 N	188.08 E	191.70@	78.84	9.88	108.25
6424.00	43.26	95.09	6376.70	6358.70	210.89	35.48 N	209.03 E	212.02@	80.37	4.79	108.25
6455.00	46.17	92.73	6398.73	6380.73	232.50	34.00 N	230.79 E	233.28@	81.62	10.81	111.87
6486.00	49.07	89.97	6419.63	6401.63	255.31	33.48 N	253.68 E	255.87@	82.48	11.43	108.25
6517.00	52.32	87.67	6439.26	6421.26	279.27	33.98 N	277.65 E	279.72@	83.02	11.95	108.25
6548.00	56.01	86.66	6457.41	6439.41	304.39	35.23 N	302.75 E	304.79@	83.36	12.19	111.87
6579.00	60.06	86.04	6473.82	6455.82	330.68	36.91 N	328.99 E	331.05@	83.60	13.17	108.25
6610.00	63.93	85.83	6488.37	6470.37	358.05	38.85 N	356.28 E	358.39@	83.78	12.50	111.87
6642.00	67.80	86.15	6501.45	6483.45	387.24	40.89 N	385.41 E	387.57@	83.94	12.13	108.25
6673.00	70.87	86.26	6512.39	6494.39	416.25	42.81 N	414.35 E	416.55@	84.10	9.91	108.25
6775.00	81.43	84.26	6536.78	6518.78	515.12	51.02 N	512.89 E	515.43@	84.32	10.53	104.64
6807.00	86.44	85.10	6540.16	6522.16	546.92	53.97 N	544.57 E	547.24@	84.34	15.87	108.25
6838.00	88.11	85.03	6541.63	6523.63	577.87	56.63 N	575.42 E	578.20@	84.38	5.39	108.25
6870.00	88.99	85.50	6542.44	6524.44	609.86	59.27 N	607.30 E	610.18@	84.43	3.12	108.25

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
RIG:Silver Oak #7

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	TEMP (F)
6933.00	90.04	85.53	6542.97	6524.97	672.85	64.20 N	670.10 E	673.17@	84.53	1.67	108.25
6965.00	90.84	85.76	6542.73	6524.73	704.84	66.63 N	702.01 E	705.16@	84.58	2.60	108.25
6997.00	91.19	86.51	6542.16	6524.16	736.84	68.78 N	733.93 E	737.15@	84.65	2.59	108.25
7028.00	90.75	86.28	6541.64	6523.64	767.83	70.73 N	764.86 E	768.13@	84.72	1.60	108.25
7060.00	90.66	86.80	6541.24	6523.24	799.83	72.66 N	796.80 E	800.11@	84.79	1.65	108.25
7092.00	90.31	86.67	6540.97	6522.97	831.83	74.49 N	828.75 E	832.09@	84.86	1.17	108.25
7123.00	89.96	86.77	6540.90	6522.90	862.83	76.26 N	859.70 E	863.07@	84.93	1.17	108.25
7155.00	89.69	86.95	6541.00	6523.00	894.83	78.01 N	891.65 E	895.06@	85.00	1.01	111.87
7187.00	88.81	87.27	6541.41	6523.41	926.82	79.63 N	923.61 E	927.03@	85.07	2.93	111.87
7218.00	88.55	87.09	6542.13	6524.13	957.81	81.15 N	954.56 E	958.00@	85.14	1.02	108.25
7250.00	89.60	87.50	6542.64	6524.64	989.80	82.66 N	986.52 E	989.98@	85.21	3.52	111.87
7282.00	89.69	87.54	6542.84	6524.84	1021.79	84.04 N	1018.49 E	1021.95@	85.28	0.31	111.87
7314.00	89.25	87.17	6543.14	6525.14	1053.78	85.52 N	1050.45 E	1053.93@	85.35	1.80	108.25
7345.00	88.81	87.65	6543.66	6525.66	1084.77	86.92 N	1081.42 E	1084.91@	85.40	2.10	108.25
7377.00	88.90	87.76	6544.30	6526.30	1116.76	88.20 N	1113.39 E	1116.87@	85.47	0.44	108.25
7409.00	89.16	87.87	6544.85	6526.85	1148.74	89.42 N	1145.36 E	1148.84@	85.54	0.88	111.87
7440.00	89.34	88.03	6545.25	6527.25	1179.73	90.53 N	1176.34 E	1179.81@	85.60	0.78	111.87
7472.00	88.55	88.02	6545.84	6527.84	1211.71	91.63 N	1208.31 E	1211.78@	85.66	2.47	108.25
7504.00	87.85	87.68	6546.85	6528.85	1243.68	92.83 N	1240.27 E	1243.74@	85.72	2.43	111.87
7536.00	87.32	86.57	6548.19	6530.19	1275.65	94.44 N	1272.20 E	1275.70@	85.75	3.84	108.25
7567.00	86.97	86.45	6549.74	6531.74	1306.61	96.32 N	1303.11 E	1306.66@	85.77	1.19	108.25
7599.00	87.85	86.41	6551.18	6533.18	1338.57	98.31 N	1335.01 E	1338.63@	85.79	2.75	111.87
7631.00	88.29	86.29	6552.26	6534.26	1370.56	100.35 N	1366.93 E	1370.61@	85.80	1.43	108.25
7662.00	88.29	85.59	6553.19	6535.19	1401.54	102.54 N	1397.84 E	1401.59@	85.80	2.26	108.25
7694.00	88.11	86.02	6554.19	6536.19	1433.52	104.88 N	1429.74 E	1433.58@	85.80	1.46	108.25
7726.00	88.55	85.29	6555.12	6537.12	1465.51	107.31 N	1461.63 E	1465.56@	85.80	2.66	108.25
7757.00	89.43	85.01	6555.67	6537.67	1496.50	109.93 N	1492.51 E	1496.56@	85.79	2.98	111.87

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
RIG:Silver Oak #7

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	TEMP (F)
7789.00	89.78	84.86	6555.89	6537.89	1528.49	112.75 N	1524.39 E	1528.55@	85.77	1.19	111.87
7821.00	89.69	84.95	6556.04	6538.04	1560.48	115.59 N	1556.26 E	1560.55@	85.75	0.40	111.87
7853.00	89.78	84.75	6556.19	6538.19	1592.47	118.47 N	1588.13 E	1592.54@	85.73	0.68	108.25
7885.00	90.31	85.87	6556.16	6538.16	1624.46	121.08 N	1620.02 E	1624.54@	85.73	3.87	108.25
7916.00	91.10	85.33	6555.78	6537.78	1655.46	123.46 N	1650.93 E	1655.54@	85.72	3.09	111.87
7948.00	92.77	86.34	6554.70	6536.70	1687.43	125.78 N	1682.83 E	1687.52@	85.73	6.10	108.25
7980.00	92.68	86.90	6553.18	6535.18	1719.40	127.67 N	1714.73 E	1719.48@	85.74	1.77	111.87
8011.00	92.15	87.09	6551.87	6533.87	1750.37	129.29 N	1745.66 E	1750.44@	85.76	1.82	108.25
8043.00	92.07	86.69	6550.69	6532.69	1782.34	131.03 N	1777.59 E	1782.42@	85.78	1.27	111.87
8075.00	91.10	87.36	6549.81	6531.81	1814.33	132.69 N	1809.54 E	1814.40@	85.81	3.68	111.87
8107.00	90.75	87.86	6549.29	6531.29	1846.32	134.02 N	1841.51 E	1846.38@	85.84	1.91	111.87
8138.00	89.60	87.98	6549.20	6531.20	1877.30	135.15 N	1872.49 E	1877.36@	85.87	3.73	111.87
8170.00	89.78	87.46	6549.37	6531.37	1909.29	136.42 N	1904.46 E	1909.34@	85.90	1.72	111.87
8202.00	89.96	87.85	6549.44	6531.44	1941.28	137.73 N	1936.43 E	1941.32@	85.93	1.34	111.87
8234.00	89.69	87.76	6549.54	6531.54	1973.27	138.95 N	1968.41 E	1973.31@	85.96	0.89	115.48
8265.00	89.52	87.82	6549.76	6531.76	2004.26	140.15 N	1999.38 E	2004.29@	85.99	0.58	111.87
8297.00	88.72	87.96	6550.25	6532.25	2036.25	141.33 N	2031.36 E	2036.27@	86.02	2.54	111.87
8329.00	88.37	88.10	6551.06	6533.06	2068.22	142.43 N	2063.33 E	2068.24@	86.05	1.18	108.25
8360.00	88.02	87.60	6552.04	6534.04	2099.19	143.59 N	2094.29 E	2099.21@	86.08	1.97	111.87
8392.00	88.11	87.92	6553.12	6535.12	2131.17	144.84 N	2126.25 E	2131.18@	86.10	1.04	108.25
8424.00	88.02	87.73	6554.20	6536.20	2163.14	146.05 N	2158.21 E	2163.15@	86.13	0.66	108.25
8455.00	88.29	87.21	6555.19	6537.19	2194.11	147.42 N	2189.16 E	2194.12@	86.15	1.89	108.25
8486.00	88.37	86.42	6556.10	6538.10	2225.10	149.14 N	2220.10 E	2225.10@	86.16	2.56	108.25
8519.00	88.02	86.45	6557.14	6539.14	2258.08	151.19 N	2253.02 E	2258.09@	86.16	1.07	108.25
8549.00	87.76	86.49	6558.24	6540.24	2288.06	153.04 N	2282.94 E	2288.07@	86.16	0.88	108.25
8581.00	87.93	85.57	6559.45	6541.45	2320.04	155.25 N	2314.84 E	2320.04@	86.16	2.92	111.87
8612.00	88.72	85.19	6560.35	6542.35	2351.02	157.75 N	2345.73 E	2351.03@	86.15	2.83	111.87

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
RIG: Silver Oak #7

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	TEMP (F)
8644.00	88.81	85.26	6561.04	6543.04	2383.01	160.41 N	2377.61 E	2383.02@ 86.14	0.36	111.87
8676.00	89.60	85.07	6561.49	6543.49	2415.00	163.11 N	2409.49 E	2415.01@ 86.13	2.54	111.87
8708.00	89.60	85.05	6561.71	6543.71	2446.99	165.86 N	2441.37 E	2447.00@ 86.11	0.06	111.87
8740.00	89.60	85.28	6561.93	6543.93	2478.98	168.56 N	2473.26 E	2479.00@ 86.10	0.72	111.87
8771.00	89.08	85.36	6562.29	6544.29	2509.98	171.09 N	2504.15 E	2509.99@ 86.09	1.70	111.87
8803.00	88.90	85.14	6562.85	6544.85	2541.96	173.74 N	2536.04 E	2541.98@ 86.08	0.89	108.25
8835.00	89.69	85.64	6563.25	6545.25	2573.96	176.31 N	2567.93 E	2573.98@ 86.07	2.92	111.87
8866.00	89.96	86.10	6563.34	6545.34	2604.96	178.54 N	2598.85 E	2604.98@ 86.07	1.72	111.87
8898.00	89.96	85.96	6563.36	6545.36	2636.96	180.76 N	2630.78 E	2636.98@ 86.07	0.44	111.87
8930.00	89.87	86.00	6563.41	6545.41	2668.96	183.00 N	2662.70 E	2668.98@ 86.07	0.31	111.87
8962.00	89.69	85.98	6563.53	6545.53	2700.96	185.24 N	2694.62 E	2700.98@ 86.07	0.57	115.48
8994.00	89.60	85.84	6563.73	6545.73	2732.95	187.52 N	2726.54 E	2732.98@ 86.07	0.52	111.87
9025.00	89.16	85.99	6564.07	6546.07	2763.95	189.73 N	2757.46 E	2763.98@ 86.06	1.50	111.87
9057.00	88.81	86.12	6564.64	6546.64	2795.95	191.93 N	2789.37 E	2795.97@ 86.06	1.17	111.87
9088.00	89.25	86.56	6565.16	6547.16	2826.94	193.91 N	2820.31 E	2826.97@ 86.07	2.01	111.87
9120.00	88.81	85.97	6565.70	6547.70	2858.94	196.00 N	2852.23 E	2858.96@ 86.07	2.30	111.87
9151.00	89.43	86.01	6566.18	6548.18	2889.93	198.16 N	2883.15 E	2889.96@ 86.07	2.00	111.87
9183.00	89.60	86.29	6566.45	6548.45	2921.93	200.31 N	2915.08 E	2921.95@ 86.07	1.02	111.87
9215.00	89.78	85.77	6566.62	6548.62	2953.93	202.53 N	2947.00 E	2953.95@ 86.07	1.72	111.87
9247.00	90.57	85.87	6566.52	6548.52	2985.93	204.86 N	2978.92 E	2985.95@ 86.07	2.49	115.48
9278.00	90.57	85.70	6566.22	6548.22	3016.93	207.14 N	3009.83 E	3016.95@ 86.06	0.55	115.48
9310.00	90.57	85.92	6565.90	6547.90	3048.92	209.48 N	3041.75 E	3048.95@ 86.06	0.69	115.48
9342.00	90.48	85.77	6565.60	6547.60	3080.92	211.79 N	3073.66 E	3080.95@ 86.06	0.55	115.48
9374.00	90.22	85.60	6565.41	6547.41	3112.92	214.20 N	3105.57 E	3112.95@ 86.05	0.97	115.48
9406.00	90.22	86.75	6565.29	6547.29	3144.92	216.34 N	3137.50 E	3144.95@ 86.06	3.59	115.48
9438.00	90.22	87.36	6565.16	6547.16	3176.91	217.98 N	3169.45 E	3176.94@ 86.07	1.91	111.87
9469.00	90.13	87.33	6565.07	6547.07	3207.91	219.42 N	3200.42 E	3207.93@ 86.08	0.31	115.48

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
RIG:Silver Oak #7

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	TEMP (F)
9501.00	91.63	87.28	6564.58	6546.58	3239.90	220.92 N	3232.38 E	3239.92@	86.09	4.69	115.48
9533.00	91.80	87.15	6563.62	6545.62	3271.88	222.48 N	3264.33 E	3271.90@	86.10	0.67	115.48
9564.00	92.24	87.46	6562.53	6544.53	3302.86	223.93 N	3295.27 E	3302.87@	86.11	1.74	115.48
9596.00	91.98	87.27	6561.35	6543.35	3334.83	225.40 N	3327.22 E	3334.85@	86.12	1.01	115.48
9627.00	90.84	87.53	6560.59	6542.59	3365.81	226.81 N	3358.18 E	3365.83@	86.14	3.77	115.48
9659.00	89.52	86.56	6560.48	6542.48	3397.81	228.46 N	3390.13 E	3397.82@	86.14	5.12	115.48
9691.00	89.43	87.23	6560.78	6542.78	3429.81	230.19 N	3422.09 E	3429.82@	86.15	2.11	119.09
9723.00	90.75	87.25	6560.73	6542.73	3461.80	231.73 N	3454.05 E	3461.81@	86.16	4.12	115.48
9754.00	91.28	87.01	6560.18	6542.18	3492.79	233.28 N	3485.00 E	3492.80@	86.17	1.88	115.48
9786.00	91.19	87.19	6559.49	6541.49	3524.78	234.90 N	3516.95 E	3524.79@	86.18	0.63	115.48
9818.00	91.10	87.37	6558.85	6540.85	3556.77	236.42 N	3548.91 E	3556.78@	86.19	0.63	115.48
9850.00	91.36	87.19	6558.16	6540.16	3588.76	237.94 N	3580.87 E	3588.77@	86.20	0.99	115.48
9881.00	91.36	86.61	6557.43	6539.43	3619.75	239.61 N	3611.81 E	3619.75@	86.20	1.87	115.48
9913.00	91.54	86.46	6556.62	6538.62	3651.74	241.55 N	3643.75 E	3651.74@	86.21	0.73	119.09
9945.00	90.92	86.57	6555.93	6537.93	3683.73	243.49 N	3675.68 E	3683.74@	86.21	1.97	115.48
9976.00	89.34	86.61	6555.86	6537.86	3714.73	245.34 N	3706.62 E	3714.73@	86.21	5.10	115.48
10008.00	88.46	86.79	6556.47	6538.47	3746.72	247.18 N	3738.56 E	3746.73@	86.22	2.81	119.09
10040.00	88.20	87.29	6557.41	6539.41	3778.71	248.83 N	3770.51 E	3778.71@	86.22	1.76	119.09
10071.00	88.37	87.23	6558.33	6540.33	3809.69	250.31 N	3801.46 E	3809.69@	86.23	0.58	119.09
10103.00	88.46	87.51	6559.22	6541.22	3841.67	251.78 N	3833.41 E	3841.67@	86.24	0.92	119.09
10135.00	88.55	87.65	6560.05	6542.05	3873.65	253.13 N	3865.37 E	3873.65@	86.25	0.52	119.09
10166.00	88.64	87.65	6560.81	6542.81	3904.63	254.40 N	3896.34 E	3904.63@	86.26	0.29	119.09
10198.00	88.90	87.76	6561.50	6543.50	3936.62	255.68 N	3928.30 E	3936.62@	86.28	0.88	119.09
10230.00	89.08	87.32	6562.07	6544.07	3968.60	257.05 N	3960.27 E	3968.60@	86.29	1.49	119.09
10261.00	88.72	87.38	6562.66	6544.66	3999.59	258.49 N	3991.23 E	3999.59@	86.29	1.18	119.09
10293.00	88.20	86.48	6563.52	6545.52	4031.58	260.20 N	4023.17 E	4031.58@	86.30	3.25	122.71
10325.00	88.20	85.64	6564.53	6546.53	4063.56	262.40 N	4055.08 E	4063.56@	86.30	2.62	119.09

PathFinder Energy Services, Inc.

Survey Report

MACK ENERGY CORPORATION
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
RIG:Silver Oak #7

Page 07/07

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Subsea Depth (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)	TEMP (F)
10356.00	88.37	85.81	6565.45	6547.45	4094.55	264.71 N	4085.98 E	4094.55@	86.29	0.78	119.09
10388.00	88.37	85.82	6566.36	6548.36	4126.53	267.04 N	4117.88 E	4126.53@	86.29	0.03	119.09
10420.00	88.55	85.78	6567.22	6549.22	4158.52	269.39 N	4149.79 E	4158.52@	86.29	0.58	119.09
10451.00	88.55	86.45	6568.01	6550.01	4189.51	271.49 N	4180.70 E	4189.51@	86.28	2.16	119.09
10483.00	88.64	86.35	6568.79	6550.79	4221.50	273.49 N	4212.63 E	4221.50@	86.29	0.42	119.09
10515.00	89.08	86.51	6569.43	6551.43	4253.49	275.49 N	4244.56 E	4253.49@	86.29	1.46	122.71
10546.00	89.34	86.69	6569.86	6551.86	4284.49	277.32 N	4275.51 E	4284.49@	86.29	1.02	119.09
10578.00	89.34	86.73	6570.23	6552.23	4316.49	279.16 N	4307.45 E	4316.49@	86.29	0.13	119.09
10610.00	89.25	86.46	6570.62	6552.62	4348.48	281.06 N	4339.39 E	4348.48@	86.29	0.89	119.09
10641.00	89.34	86.58	6571.00	6553.00	4379.48	282.94 N	4370.33 E	4379.48@	86.30	0.48	119.09
10673.00	89.34	86.46	6571.37	6553.37	4411.48	284.88 N	4402.27 E	4411.48@	86.30	0.38	119.09
10704.00	89.52	86.75	6571.68	6553.68	4442.48	286.72 N	4433.21 E	4442.48@	86.30	1.10	119.09
10736.00	89.52	86.76	6571.95	6553.95	4474.47	288.53 N	4465.16 E	4474.48@	86.30	0.03	119.09
10768.00	89.25	86.64	6572.29	6554.29	4506.47	290.37 N	4497.11 E	4506.47@	86.31	0.92	122.71
10780.00	89.25	86.79	6572.45	6554.45	4518.47	291.06 N	4509.09 E	4518.47@	86.31	1.25	122.71
STRAIGHT-LINE PROJECTION @10845'MD.											
10845.62	89.25	86.79	6573.30	6555.30	4584.08	294.74 N	4574.60 E	4584.08@	86.31	0.00	122.70

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MACK ENERGY
NORTH POLE FED #1
EDDY COUNTY, NEW MEXICO
Rig: SILVER OAK 7

Thu Apr 24 11:12:11 2008

Coordinates

Latitude: 32.916236 N (32 deg. 54 min. 58.4499 sec.)
Longitude: 104.170774 W (-104 deg. 10 min. 14.7857 sec.)
Elevation: 3584.00 feet.
Calculation Date: Apr/24/2008

Magnetic Calculations

Model: IGRF2005
Dip Angle: 60.8116 degrees
Total Magnetic Field: 0.49303 gauss
Magnetic Declination: 8.278595 degrees
Horizontal Intensity: 0.248444 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.278595 Degr

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 549885.1000 feet
Y: 697076.9000 feet
True to Grid: (convergence) -0.088337 degrees
Magnetic to Grid: 8.190258 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 8.190258 Degr.

SCIENTIFIC WELL LOGGING CONTROLS

WELL LOG SURVEY

Directional Survey Report

For

WELL NUMBER

Well Number	:	NORTH POLE, FED. NO. 1
Well Location	:	COOY COUNTY, NEW MEXICO
Job Number	:	32K0508367
Location Latitude	:	37.916
Survey Date	:	4-MAY-2008
S.L.C. Personnel	:	VICTOR PELENDZ JR
Length Units	:	Feet
North Reference	:	GRN 101.11
Grid Correction	:	0.00 Degrees
Survey Depth Zero	:	RFC
Proposal Direction	:	
Calculation Method	:	Minimum Curvature

Remarks : The OUTRAN Survey will be called definitive

SCIENTIFIC DRILLING CONTROLS

Outrun Surveys

For

Page 1

HACK ENERGY

Well No. : 10R01-POLE FFD NO. 1

Date : 1464-2003

Job No. : 32R0508307

TRUE

Proposal : 0.00

Depth (Feet)	F.A.D. (Feet)	V.E. (Feet)	Dir. Deg.	Azimuth Deg.	Latitude (Feet)	Departure (Feet)	Deflection >100
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0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	100.00	-0.71	0.33	115.71	0.71	0.15	0.30
200.00	200.00	-0.67	0.28	172.78	-0.67	-0.28	0.21
300.00	300.00	-1.21	0.37	180.38	-1.21	0.23	0.08
400.00	400.00	-1.83	0.36	182.57	-1.83	0.26	0.02
500.00	499.99	-2.10	0.39	190.59	-2.10	-0.33	0.08
600.00	599.99	-2.84	0.22	175.18	-2.84	-0.35	0.10
700.00	699.99	-3.73	0.71	152.34	-3.73	0.27	0.06
800.00	799.99	-3.55	0.17	146.66	-3.55	-0.11	0.08
900.00	899.99	-3.80	0.15	168.47	-3.80	-0.01	0.06
1000.00	999.99	-4.06	0.19	146.09	-4.06	0.11	0.08
1100.00	1099.99	-4.31	0.20	140.39	-4.31	0.32	0.02
1200.00	1199.99	-4.55	0.11	151.25	-4.55	0.47	0.09
1300.00	1299.99	-4.70	0.08	153.53	-4.70	0.55	0.03
1400.00	1399.99	-4.80	0.08	234.57	-4.80	0.53	0.10
1500.00	1499.99	-4.91	0.22	242.94	-4.91	0.27	0.14
1600.00	1599.99	-5.06	0.22	244.80	-5.06	-0.07	0.02
1700.00	1699.99	-5.22	0.30	251.25	-5.22	0.49	0.09
1800.00	1799.98	-5.56	0.33	210.35	-5.56	-0.08	0.22
1900.00	1899.98	-5.09	0.34	174.77	-5.09	-1.19	0.09
2000.00	1999.98	-6.69	0.36	177.31	-6.69	-1.16	0.11
2100.00	2099.98	-7.70	0.34	183.31	-7.70	-1.16	0.04
2200.00	2199.98	-7.90	0.35	186.97	-7.90	-1.22	0.02
2300.00	2299.98	-8.47	0.30	187.31	-8.47	-1.29	0.05
2400.00	2399.97	-8.93	0.24	192.98	-8.93	-1.37	0.07
2500.00	2499.97	-9.70	0.21	205.31	-9.70	-1.50	0.06
2600.00	2599.97	-9.60	0.15	190.44	-9.60	-1.60	0.07
2700.00	2699.97	-9.89	0.15	178.62	-9.89	-1.62	0.03
2800.00	2799.97	-10.07	0.10	196.53	-10.07	-1.64	0.06
2900.00	2899.97	-10.25	0.12	173.43	-10.25	-1.62	0.08
3000.00	2999.97	-10.50	0.19	170.92	-10.50	-1.54	0.08
3100.00	3099.97	-10.76	0.13	140.75	-10.76	-1.45	0.10
3200.00	3199.97	-10.91	0.10	219.87	-10.91	-1.33	0.15
3300.00	3299.97	-11.07	0.10	168.17	-11.07	-1.47	0.09
3400.00	3399.97	-11.22	0.07	154.96	-11.22	-1.42	0.04
3500.00	3499.97	-11.37	0.15	175.82	-11.37	-1.50	0.09
3600.00	3599.97	-11.46	0.06	85.43	-11.46	-1.16	0.12
3700.00	3699.97	-11.51	0.06	174.79	-11.51	-1.10	0.08
3800.00	3799.97	-11.61	0.15	115.11	-11.61	-0.98	0.13
3900.00	3899.97	-11.61	0.11	70.73	-11.61	-0.77	0.11

Bottom Survey
for
BLACK ENERGY

Page 2

Well No.: HEPH POLY CO. (H)

Date: 4 MAY 2006

Job No.: 32K0508307

TRUE

Proposal: 0.00

Depth	L.V.D.	W.S.	Inc	azimuth	Latitude	Departure	Declg
(Feet)	(Feet)	(Feet)	Dec.	Deg.	(Feet)	(Feet)	/100

4000.00	3999.97	-11.59	0.07	78.93	11.59	-0.62	0.04
4100.00	4099.97	-11.53	0.11	82.37	11.53	0.42	0.10
4200.00	4199.97	-11.42	0.22	75.13	-11.42	-0.10	0.05
4300.00	4299.9	-11.30	0.34	71.76	11.30	0.29	0.03
4400.00	4399.97	-11.17	0.27	74.45	-11.17	0.71	0.03
4500.00	4499.97	-11.08	0.35	85.54	11.08	1.21	0.10
4600.00	4599.96	-10.99	0.45	81.00	-10.99	1.94	0.10
4700.00	4699.96	-10.91	0.55	88.17	10.91	2.49	0.21
4715.00	4714.96	-10.90	0.21	168.02	-10.90	3.00	3.06

The Horizontal Displacement (in Feet) at

Measured Depth 4715.00 is 11.31 in a Direction of 164.61 Degrees

FEB 06 2008
OCD-ARTESIA

OCD-ARTESIA

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FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of work- ☒ DRILL ☐ REENTER		5 Lease Serial No NMNM-117550	
1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6 If Indian, Allottee or Tribe Name	
2. Name of Operator Mack Energy Corporation 13837		7 If Unit or CA Agreement, Name and No	
3a Address P.O. Box 960 Artesia, NM 88211-0960		8. Lease Name and Well No. North Pole Federal #1 36994	
3b. Phone No (include area code) (505)748-1288		9 API Well No. 30-015-3607	
4 Location of Well (Report location clearly and accurately with any State requirements*) At surface 330 FSL & 330 FWL - M) At proposed prod zone 355 FSL & 330 FEL - P Roswell Controlled Water Basin		10. Field and Pool, or Exploratory Crow Flats; Wolfcamp 97102	
14 Distance in miles and direction from nearest town or post office* 12 miles northwest of Loco Hills, NM		11 Sec., T. R. M. or Bk. and Survey or Area Sec. 15 T16S R28E	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 330		12 County or Parish Eddy	13 State NM
16 No. of acres in lease 480		17 Spacing Unit dedicated to this well 160	
18 Distance from proposed* location to nearest well, drilling, completed, applied for, on this lease, ft 1320		19 Proposed Depth TVD 6691 10,650' 10953 MD	
20 BLM/BIA Bond No. on file Per Plan 12-20-07 NMB000286			
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3584' GR		22 Approximate date work will start* 11/30/07	
23 Estimated duration 35 days			
24 Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form

- | | |
|---|--|
| 1 Well plat certified by a registered surveyor | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above), |
| 2 A Drilling Plan | 5 Operator certification |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office) | 6 Such other site specific information and/or plans as may be required by the authorized officer |

25 Signature <i>Jerry W. Sherrell</i>	Name (Printed/Typed) Jerry W. Sherrell	Date 11/5/07
Title Production Clerk		
Approved by (Signature) <i>/s/ James Stovall</i>	Name (Printed/Typed) <i>/s/ James Stovall</i>	Date FEB 01 2008
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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
Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

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)

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
625 N. FRENCH DR., HOBBS, 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 97102	Pool Name Crow Flats; Wolfcamp
Property Code	Property Name NORTH POLE FEDERAL	Well Number 1
OGRID No. 013837	Operator Name MACK ENERGY CORPORATION	Elevation 3584'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	15	16-S	28-E		330	SOUTH	330	WEST	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	15	16-S	28-E		355	SOUTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=697076.9 N X=549885.1 E LAT.=32.916236° N LONG.=104.170774° W DETAIL 3589.9' 3577.6' 600' 3595.0' 3587.5' BOTTOM HOLE LOCATION Y=697373.1 N X=554459.6 E GRID AZ.=86°17'43" HORIZ. DIST.=4885.2' 330' SEE DETAIL 330' B.H.	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. <i>Jerry W. Sherrell</i> 11/5/07 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. RONALD J. EIDSON OCTOBER 10, 2007 Date Surveyed 3239 Signature & Seal of Professional Surveyor 07.11.1404 Certificate No. GARY G. EIDSON 12841 RONALD J. EIDSON 3239
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