

Submit 1 Copy To Appropriate District
Office
District I- (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II- (575) 748-1283
1301 W. Grand Ave., Artesia, NM 88210
District III- (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV- (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103

Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-015-42014
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No. Fee
7. Lease Name or Unit Agreement Name Warren Fee
8. Well Number 1
9. OGRID Number 013837
10. Pool Name or Wildcat Cass Draw; Bone Spring

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR, USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐

2. Name of Operator
Mack Energy Corporation

3. Address of Operator
P.O. Box 960 Artesia, NM 88210

4. Well Location
Unit Letter C 875 feet from the North line and 2045 feet from the West line
Section 34 Township 22S Range 27E NMPM County Eddy

11. Elevation (Show whether DR, RKB, RT, GR etc.)
3111.8' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Mack Energy Corporation proposes directionally drill the Warren Fee #1:

SHL: 875 FNL & 2045 FWL
BHL: 965 FNL & 2285 FWL

The new casing design is as follows:

Surface: 17 1/2" hole with 13 3/8"-48#-J-55 set at 400'. Cement w/375sx Class C.

Intermediate: 12 1/4" hole with 9 5/8"-36#-J-55 set at 1,835'. Cement w/650sx Class C.

Production: 8 3/4" hole with 7" 26#-HCP-110 (1,500') and 7"-26#-L-80 (7,814') set at 9,314'. Cement w/1365sx 35/65Poz C and PVL.

Mack Energy is proposing to use inclination survey only to drill surface casing. A inclination and azimuth tool will be used to drill from surface casing depth to TD.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jerry W. Sherrell TITLE Production Clerk DATE 11/11/14

Type or print name Jerry W. Sherrell

E-mail address: jerrys@mec.com

PHONE: 575-748-1288

For State Use Only

APPROVED BY: T. C. Shepard

TITLE

"Geologist"

DATE 11-12-2014

Conditions of Approval (if any):

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 12 2014

Form C-102

Revised August 1, 2011

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-42014	² Pool Code 10380	³ Pool Name Cass Draw; Bone Spring
⁴ Property Code 40367	⁵ Property Name WARREN FEE	⁶ Well Number 1
⁷ OGRID No. 13837	⁸ Operator Name MACK ENERGY CORPORATION	⁹ Elevation 3111.8

" Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	34	22 S	27 E		875	NORTH	2045	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
C	34	22 S	27 E		965	NORTH	2285	WEST	EDDY

¹² Dedicated Acres 40	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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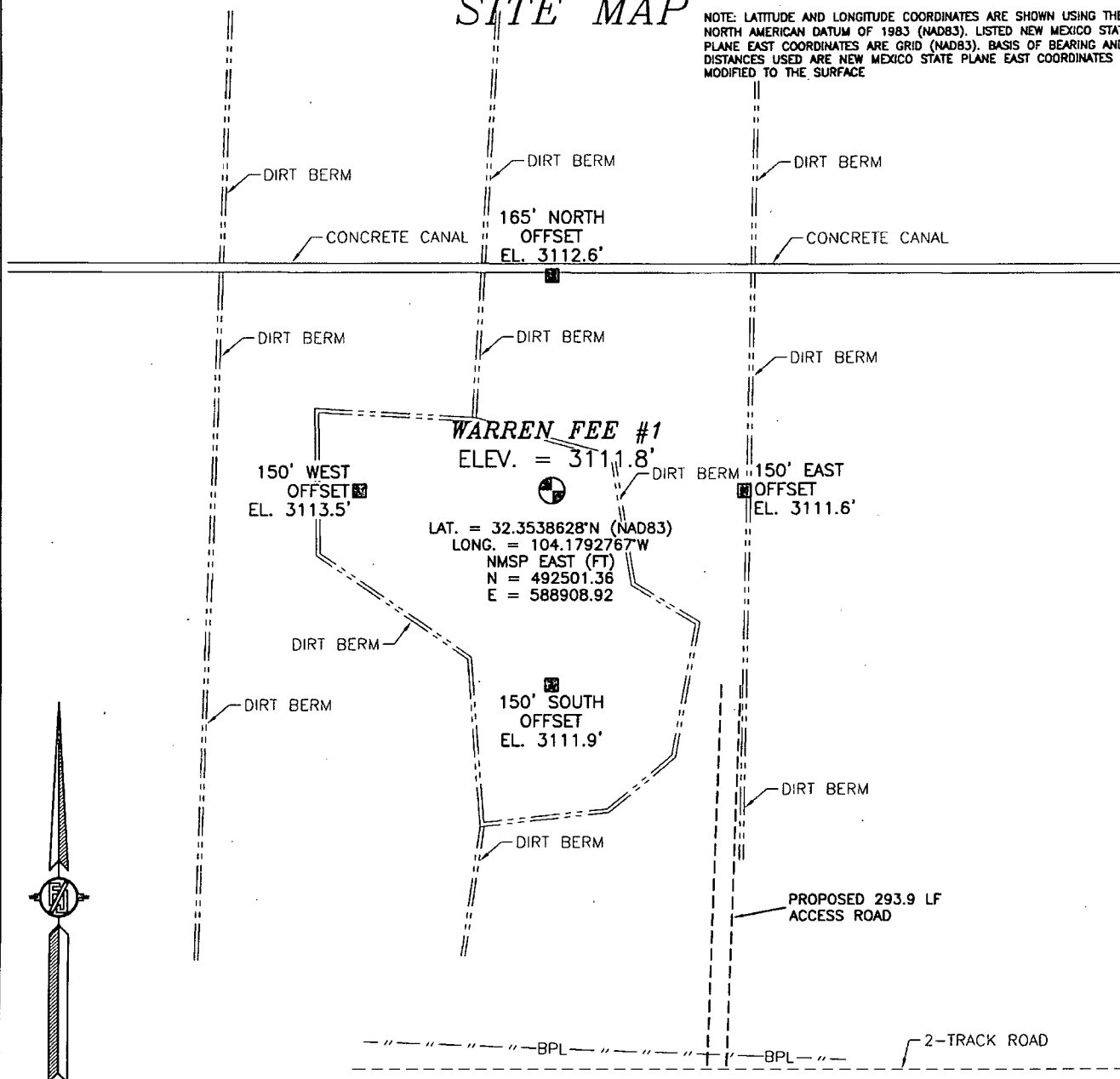
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°46'40"E 2639.36 FT NW CORNER SEC. 34 LAT. = 32.3562537°N LONG. = 104.1857972°W NMSP EAST (FT) N = 493368.29 E = 586894.25 2045' 2285' 202°03'26"E 27°03'33"FT DNF SW CORNER SEC. 34 LAT. = 32.3414054°N LONG. = 104.1864496°W NMSP EAST (FT) N = 487966.38 E = 586700.21 589°29'41"W 2652.18 FT		N89°46'22"E 2639.11 FT N/4 CORNER SEC. 34 LAT. = 32.3562715°N LONG. = 104.172516°W NMSP EAST (FT) N = 493378.52 E = 589532.97 875' 965' 202°03'26"E 27°03'33"FT DNF S/4 CORNER SEC. 34 LAT. = 32.3414594°N LONG. = 104.1778641°W NMSP EAST (FT) N = 487989.76 E = 589351.67 589°28'55"W 2651.41 FT		NE CORNER SEC. 34 LAT. = 32.3562894°N LONG. = 104.1687069°W NMSP EAST (FT) N = 493388.98 E = 592171.45 202°03'26"E 27°03'33"FT DNF SE CORNER SEC. 34 LAT. = 32.3415144°N LONG. = 104.1692811°W NMSP EAST (FT) N = 488013.72 E = 592002.35 589°28'55"W 2651.41 FT		17 OPERATOR CERTIFICATION I hereby certify that the information contained 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 a 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> 11-11-2014 Signature Date <i>Jerry W. Sherrell</i> Printed Name <i>jerryse@mec.com</i> E-mail Address
NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE.		18 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. 11 FEBRUARY 27 2014 12797 DATE OF SURVEY <i>Jerry W. Sherrell</i> Signature and Seal of Professional Surveyor Certificate Number FLM001-E JARAMILLO, PLS 12797 SURVEY NO. 2617A				

SECTION 34, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE



0 12 60 120 240

SCALE 1" = 120'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF CR 708 (TIDWELL) AND CR 704 (SMEDLEY) GO SOUTH ON CR 708 FOR APPROX. 0.2 OF A MILE. GO EAST ON 2-TRACK ROAD FOR APPROX. 0.4 OF A MILE. LOCATION IS APPROX. 300' NORTH.

MACK ENERGY CORPORATION
WARREN FEE #1

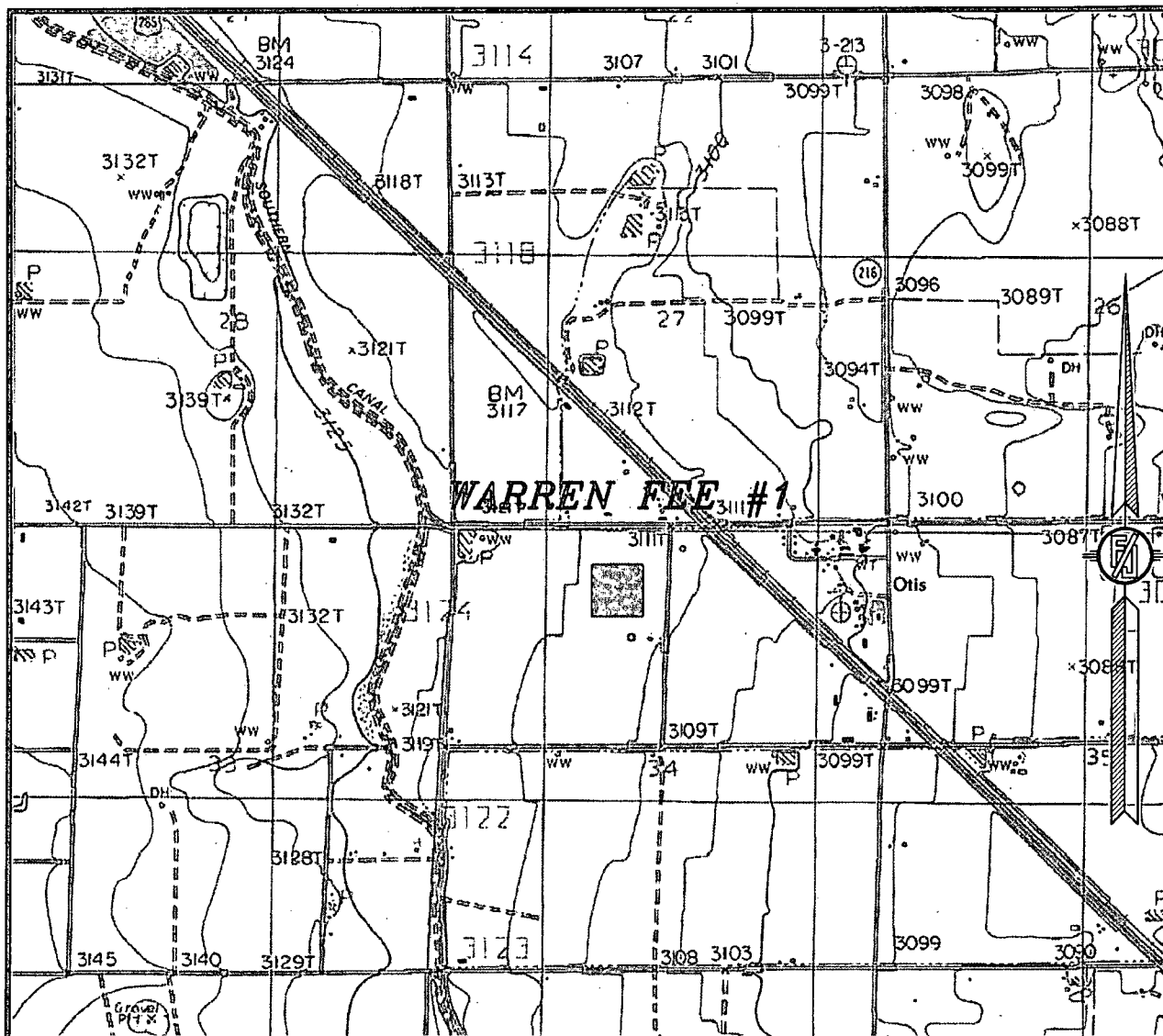
LOCATED 875 FT. FROM THE NORTH LINE
AND 2045 FT. FROM THE WEST LINE OF
SECTION 34, TOWNSHIP 22 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 27, 2014

SURVEY NO. 2617A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

34, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
OTIS

NOT TO SCALE

MACK ENERGY CORPORATION
WARREN FEE #1

LOCATED 875 FT. FROM THE NORTH LINE
AND 2045 FT. FROM THE WEST LINE OF
SECTION 34, TOWNSHIP 22 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

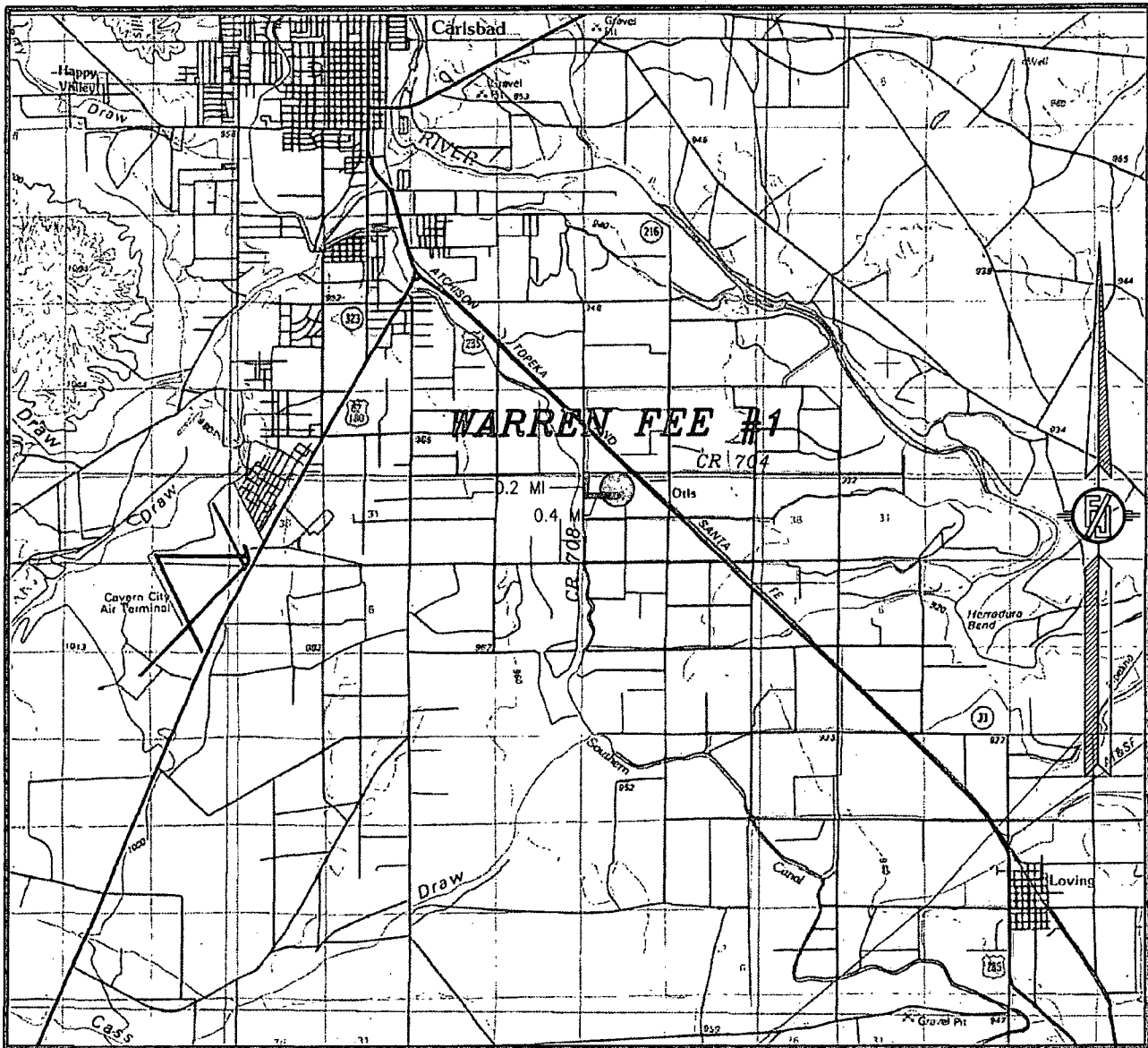
FEBRUARY 27, 2014

SURVEY NO. 2617A

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

301 SOUTH CANAL
(575) 234-3341

SECTION 34, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



MACK ENERGY CORPORATION
WARREN FEE #1

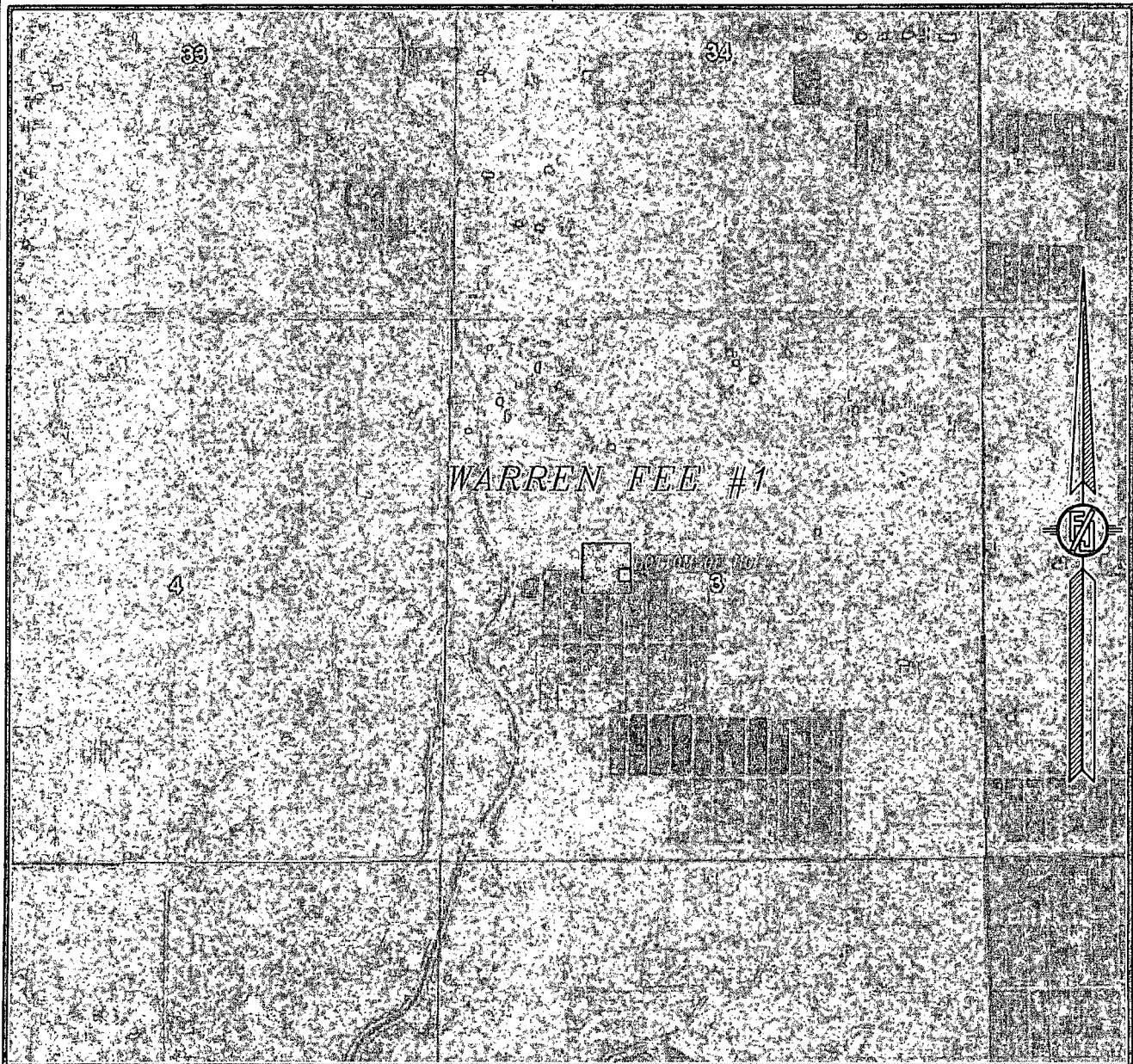
LOCATED 875 FT. FROM THE NORTH LINE
AND 2045 FT. FROM THE WEST LINE OF
SECTION 34, TOWNSHIP 22 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION
FROM THE INTERSECTION OF CR 708 (TIDWELL) AND CR 704
(SMEDLEY) GO SOUTH ON CR 708 FOR APPROX. 0.2 OF A MILE. GO
EAST ON 2-TRACK ROAD FOR APPROX. 0.4 OF A MILE. LOCATION IS
APPROX. 300' NORTH.

FEBRUARY 27, 2014

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 SURVEY NO. 2617A CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
APRIL 2013

MACK ENERGY CORPORATION
WARREN FEE #1

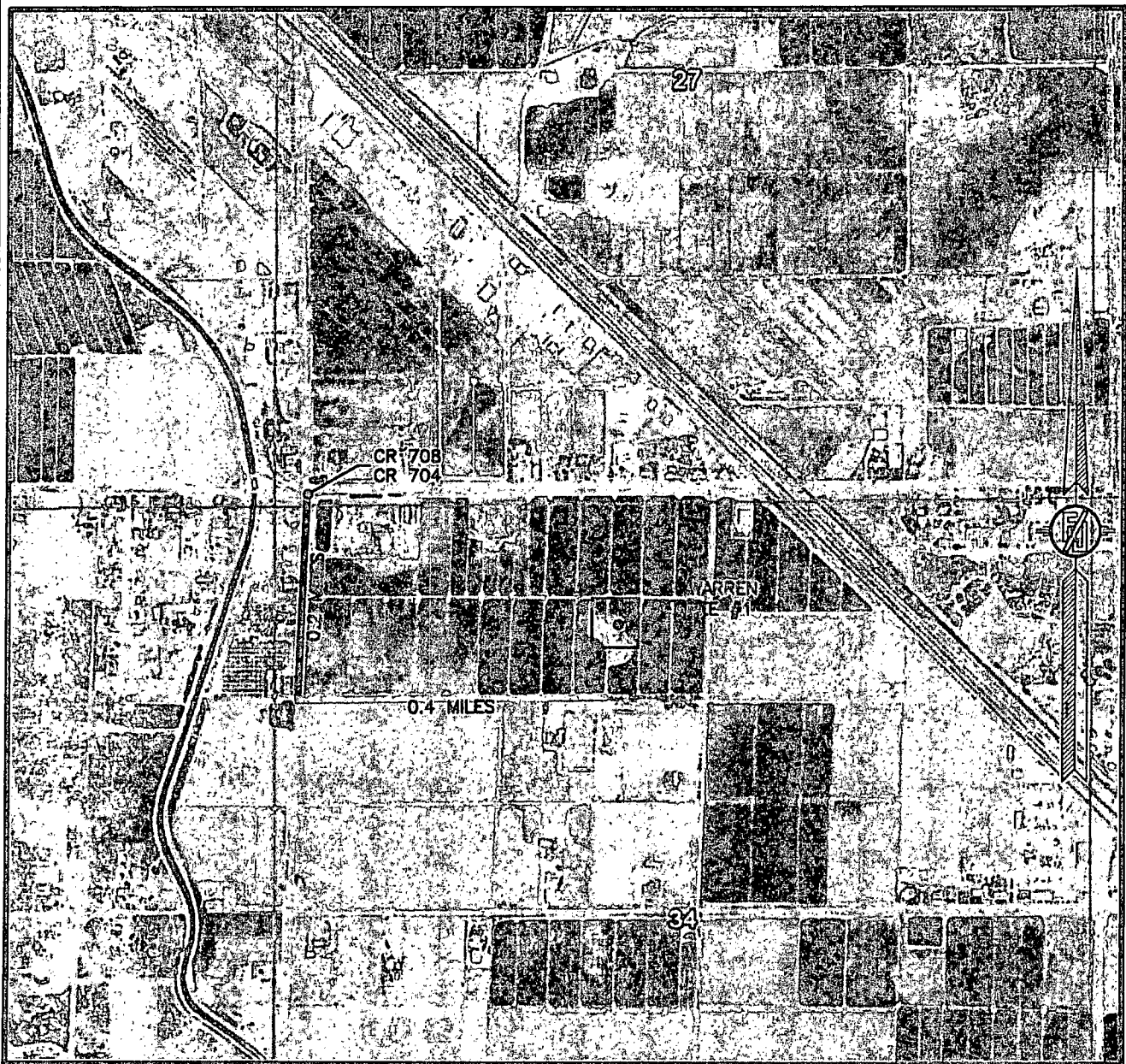
LOCATED 875 FT. FROM THE NORTH LINE
AND 2045 FT. FROM THE WEST LINE OF
SECTION 34, TOWNSHIP 22 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 27, 2014

SURVEY NO. 2617A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

SECTION 34, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
APRIL 2013

**MACK ENERGY CORPORATION
WARREN FEE #1**

LOCATED 875 FT. FROM THE NORTH LINE
AND 2045 FT. FROM THE WEST LINE OF
SECTION 34, TOWNSHIP 22 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 27, 2014

SURVEY NO. 2617A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

Mack Energy

Eddy County

Warren Fee

#1H

OH

Plan: Design #1

Standard Planning Report

04 March, 2014

Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Mack Energy	TVD Reference:	WELL @ 3129.5usft (Original Well Elev)
Project:	Eddy County	MD Reference:	WELL @ 3129.5usft (Original Well Elev)
Site:	Warren Fee	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Project	Eddy County		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Warren Fee		
Site Position:		Northing:	492,501.36 usft
From:	Map	Easting:	588,908.92 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 21' 13.906 N
		Longitude:	104° 10' 45.396 W
		Grid Convergence:	0.08 °

Well	#1H		
Well Position	+N/-S	0.0 usft	Northing: 492,501.36 usft
	+E/-W	0.0 usft	Easting: 588,908.92 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 32° 21' 13.906 N
			Longitude: 104° 10' 45.396 W
			Ground Level: 3,111.8 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	3/4/2014	7.54
			Dip Angle
			(°)
			60.14
			Field Strength
			(nT)
			48,359

Design	Design #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			110.62

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,334.1	6.68	110.62	2,333.4	-6.9	18.2	2.00	2.00	0.00	110.62	
4,179.9	6.68	110.62	4,166.6	-82.5	219.2	0.00	0.00	0.00	0.00	
4,514.1	0.00	0.00	4,500.0	-89.3	237.5	2.00	-2.00	0.00	180.00	PBHL(WF#1)
9,314.1	0.00	0.00	9,300.0	-89.3	237.5	0.00	0.00	0.00	0.00	

Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Mack Energy	TVD Reference:	WELL @ 3129.5usft (Original Well Elev)
Project:	Eddy County	MD Reference:	WELL @ 3129.5usft (Original Well Elev)
Site:	Warren Fee	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 2000.0 'MD, 0.00° INC, 0.00° AZI									
2,100.0	2.00	110.62	2,100.0	-0.6	1.6	1.7	2.00	2.00	0.00
2,200.0	4.00	110.62	2,199.8	-2.5	6.5	7.0	2.00	2.00	0.00
2,300.0	6.00	110.62	2,299.5	-5.5	14.7	15.7	2.00	2.00	0.00
2,334.1	6.68	110.62	2,333.4	-6.9	18.2	19.5	2.00	2.00	0.00
EOB - 2334.1 'MD, 6.68° INC, 110.62° AZI									
2,400.0	6.68	110.62	2,398.8	-9.6	25.4	27.1	0.00	0.00	0.00
2,500.0	6.68	110.62	2,498.1	-13.7	36.3	38.8	0.00	0.00	0.00
2,600.0	6.68	110.62	2,597.4	-17.7	47.2	50.4	0.00	0.00	0.00
2,700.0	6.68	110.62	2,696.8	-21.8	58.1	62.0	0.00	0.00	0.00
2,800.0	6.68	110.62	2,796.1	-25.9	69.0	73.7	0.00	0.00	0.00
2,900.0	6.68	110.62	2,895.4	-30.0	79.8	85.3	0.00	0.00	0.00
3,000.0	6.68	110.62	2,994.7	-34.1	90.7	96.9	0.00	0.00	0.00
3,100.0	6.68	110.62	3,094.0	-38.2	101.6	108.6	0.00	0.00	0.00
3,200.0	6.68	110.62	3,193.4	-42.3	112.5	120.2	0.00	0.00	0.00
3,300.0	6.68	110.62	3,292.7	-46.4	123.4	131.9	0.00	0.00	0.00
3,400.0	6.68	110.62	3,392.0	-50.5	134.3	143.5	0.00	0.00	0.00
3,500.0	6.68	110.62	3,491.3	-54.6	145.2	155.1	0.00	0.00	0.00
3,600.0	6.68	110.62	3,590.6	-58.7	156.1	166.8	0.00	0.00	0.00
3,700.0	6.68	110.62	3,690.0	-62.8	167.0	178.4	0.00	0.00	0.00
3,800.0	6.68	110.62	3,789.3	-66.9	177.9	190.0	0.00	0.00	0.00
3,900.0	6.68	110.62	3,888.6	-71.0	188.8	201.7	0.00	0.00	0.00
4,000.0	6.68	110.62	3,987.9	-75.1	199.6	213.3	0.00	0.00	0.00
4,100.0	6.68	110.62	4,087.2	-79.2	210.5	224.9	0.00	0.00	0.00
4,179.9	6.68	110.62	4,166.6	-82.5	219.2	234.2	0.00	0.00	0.00
Start Drop -2.00									
4,200.0	6.28	110.62	4,186.6	-83.3	221.4	236.5	2.00	-2.00	0.00
4,300.0	4.28	110.62	4,286.1	-86.5	230.0	245.7	2.00	-2.00	0.00
4,400.0	2.28	110.62	4,386.0	-88.5	235.3	251.4	2.00	-2.00	0.00
4,500.0	0.28	110.62	4,485.9	-89.3	237.4	253.7	2.00	-2.00	0.00
4,514.1	0.00	0.00	4,500.0	-89.3	237.5	253.7	2.00	-2.00	-787.14
Start 4800.0 hold at 4514.1 MD - PBHL(WF#1)									
4,600.0	0.00	0.00	4,585.9	-89.3	237.5	253.7	0.00	0.00	0.00

Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Mack Energy	TVD Reference:	WELL @ 3129.5usft (Original Well Elev)
Project:	Eddy County	MD Reference:	WELL @ 3129.5usft (Original Well Elev)
Site:	Warren Fee	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.0	0.00	0.00	4,685.9	-89.3	237.5	253.7	0.00	0.00	0.00
4,800.0	0.00	0.00	4,785.9	-89.3	237.5	253.7	0.00	0.00	0.00
4,900.0	0.00	0.00	4,885.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,000.0	0.00	0.00	4,985.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,100.0	0.00	0.00	5,085.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,200.0	0.00	0.00	5,185.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,300.0	0.00	0.00	5,285.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,400.0	0.00	0.00	5,385.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,500.0	0.00	0.00	5,485.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,600.0	0.00	0.00	5,585.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,700.0	0.00	0.00	5,685.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,800.0	0.00	0.00	5,785.9	-89.3	237.5	253.7	0.00	0.00	0.00
5,900.0	0.00	0.00	5,885.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,000.0	0.00	0.00	5,985.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,100.0	0.00	0.00	6,085.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,200.0	0.00	0.00	6,185.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,300.0	0.00	0.00	6,285.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,400.0	0.00	0.00	6,385.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,500.0	0.00	0.00	6,485.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,600.0	0.00	0.00	6,585.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,700.0	0.00	0.00	6,685.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,800.0	0.00	0.00	6,785.9	-89.3	237.5	253.7	0.00	0.00	0.00
6,900.0	0.00	0.00	6,885.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,000.0	0.00	0.00	6,985.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,100.0	0.00	0.00	7,085.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,200.0	0.00	0.00	7,185.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,300.0	0.00	0.00	7,285.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,400.0	0.00	0.00	7,385.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,500.0	0.00	0.00	7,485.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,600.0	0.00	0.00	7,585.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,700.0	0.00	0.00	7,685.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,800.0	0.00	0.00	7,785.9	-89.3	237.5	253.7	0.00	0.00	0.00
7,900.0	0.00	0.00	7,885.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,000.0	0.00	0.00	7,985.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,100.0	0.00	0.00	8,085.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,200.0	0.00	0.00	8,185.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,300.0	0.00	0.00	8,285.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,400.0	0.00	0.00	8,385.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,500.0	0.00	0.00	8,485.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,600.0	0.00	0.00	8,585.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,700.0	0.00	0.00	8,685.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,800.0	0.00	0.00	8,785.9	-89.3	237.5	253.7	0.00	0.00	0.00
8,900.0	0.00	0.00	8,885.9	-89.3	237.5	253.7	0.00	0.00	0.00
9,000.0	0.00	0.00	8,985.9	-89.3	237.5	253.7	0.00	0.00	0.00
9,100.0	0.00	0.00	9,085.9	-89.3	237.5	253.7	0.00	0.00	0.00
9,200.0	0.00	0.00	9,185.9	-89.3	237.5	253.7	0.00	0.00	0.00
9,300.0	0.00	0.00	9,285.9	-89.3	237.5	253.7	0.00	0.00	0.00
9,314.1	0.00	0.00	9,300.0	-89.3	237.5	253.7	0.00	0.00	0.00
TD at 9314.1									

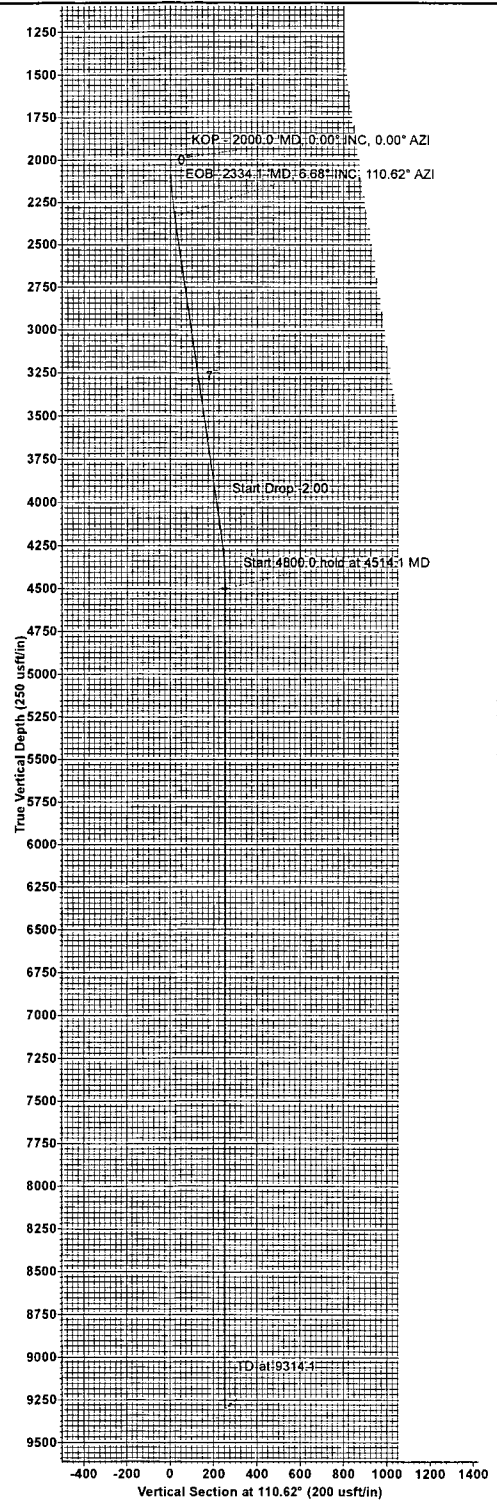
Wellplanning

Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #1H
Company:	Mack Energy	TVD Reference:	WELL @ 3129.5usft (Original Well Elev)
Project:	Eddy County	MD Reference:	WELL @ 3129.5usft (Original Well Elev)
Site:	Warren Fee	North Reference:	Grid
Well:	#1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
PBHL(WF#1)	0.00	0.00	4,500.0	-89.3	237.5	492,412.02	589,146.38	32° 21' 13.019 N	104° 10' 42.629 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
		(usft)	(usft)	
2,000.0	2,000.0	0.0	0.0	KOP - 2000.0 'MD, 0.00° INC, 0.00° AZI
2,334.1	2,333.4	-6.9	18.2	EOB- 2334.1 'MD, 6.68° INC, 110.62° AZI
4,179.9	4,166.6	-82.5	219.2	Start Drop -2.00
4,514.1	4,500.0	-89.3	237.5	Start 4800.0 hold at 4514.1 MD
9,314.1	9,300.0	-89.3	237.5	TD at 9314.1



NEXUS

DIRECTIONAL SOLUTIONS, L.P.



Azimuths to Grid North
 True North: -0.08°
 Magnetic North: 7.46°
 Magnetic Field
 Strength: 48358.5nT
 Dip Angle: 60.14°
 Date: 3/4/2014
 Model: IGRF2010

To convert a Magnetic Direction to a Grid Direction, Add 7.46°
 To convert a True Direction to a Grid Direction, Subtract 0.08°

Warren Fee #1H
 Eddy County
 Northing: (Y) 492501.36
 Easting: (X) 588908.92
 Design #1

WELL DETAILS:									
WELL @ 3129.5usft (Original Well Elev)									
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
0.0	0.0	492501.36	588908.92	32° 21' 13.906 N	104° 10' 45.396 W				

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
2334.1	6.68	110.62	2333.4	-6.9	18.2	2.00	110.62	19.5	
4179.9	6.68	110.62	4166.6	-82.5	219.2	0.00	0.00	234.2	
4514.1	0.00	0.00	4500.0	-89.3	237.5	2.00	180.00	253.7	PBHL(WF#1)
9314.1	0.00	0.00	9300.0	-89.3	237.5	0.00	0.00	253.7	

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL(WF#1)	4500.0	-89.3	237.5	492412.02	589146.38

Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone
 Local Origin: Well #1H, Grid North
 Latitude: 32° 21' 13.906 N
 Longitude: 104° 10' 45.396 W
 Grid East: 588908.92
 Grid North: 492501.36
 Scale Factor: 1.000
 Geomagnetic Model: IGRF2010
 Sample Date: 04-Mar-14
 Magnetic Declination: 7.54°
 Dip Angle from Horizontal: 60.14°
 Magnetic Field Strength: 48359
 To convert a Magnetic Direction to a Grid Direction, Add 7.46°
 To convert a Magnetic Direction to a True Direction, Add 7.54° East
 To convert a True Direction to a Grid Direction, Subtract 0.08°

LEGEND

• Design #1

