

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNMOCD
Hobbs
HOBBS OCDFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010WELL COMPLETION OR RECOMPLETION REPORT AND LOG
DEC 04 2019

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other		5. Lease Serial No. NMLC029405A	
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Resvr. Other _____		6. If Indian, Allottee or Tribe Name	
2. Name of Operator MACK ENERGY CORPORATION E-Mail: DWEAVER@MEC.COM		7. Unit or CA Agreement Name and No.	
3. Address P.O. BOX 960 ARTESIA, NM 88210		8. Lease Name and Well No. PARTITION 24 FEDERAL HE 1H	
3a. Phone No. (include area code) Ph: 575-748-1288		9. API Well No. 30-025-44903	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface Sec 19 T17S R32E Mer NWNE 1486FNL 229FWL At top prod interval reported below Sec 24 T17S R31E Mer SENE 1558FNL 320FEL At total depth Sec 24 T17S R31E Mer SWNW 1640FNL 79FWL		10. Field and Pool, or Exploratory FREN GLORIETA YESO	
14. Date Spudded 07/10/2019		11. Sec., T., R., M., or Block and Survey or Area Sec 19 T17S R32E Mer	
15. Date T.D. Reached 07/30/2019		12. County or Parish LEA	
16. Date Completed ☐ D & A ☒ Ready to Prod. 08/31/2019		13. State NM	
17. Elevations (DF, KB, RT, GL)* 3929 GL			
18. Total Depth: MD TVD 10660		19. Plug Back T.D.: MD TVD 10635	
20. Depth Bridge Plug Set: MD TVD			
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)		22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)	

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J55	48.0	0	715		725		0	
12.250	9.625 J55	36.0	0	2000		600		0	
8.500	5.500 L80	17.0	0	5113		355		2050	
8.500	7.000 L80	26.0	5093	10660		1285		4673	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	5010							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) FREN GLORIETA YESO	5694	10565	5694 TO 10565	0.420	2556	OPEN
B)						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
5694 TO 10565	1579BBLs 15% ACID, 193,656BBLs SW, 2,330,100# 100 MESH, 2,176,838# WS 40/70, 500,503# 40/70 SLC

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
09/01/2019	09/01/2019	24	→	71.0	69.0	2499.0	35.0	0.60	ELECTRIC PUMP SUB SURFACE
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→	71	69	2499	971	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio		
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #483853 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Reclamation due: 03/01/2020

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
QUEEN SAN ANDRES YESO	2952	2962	SAND, OIL/GAS/WATER	YATES	1963
	3710	4000	DOLOMITE, OIL/GAS/WATER	7 RIVERS	2327
	5694	10565	DOLOMITE, OIL/GAS/WATER	QUEEN	2937
				GRAYBURG	3321
				SAN ANDRES	3680
				GLORIETTA	5216

32. Additional remarks (include plugging procedure):

8/8-21/2019 PERFORATED 5,694-10,565'W/ 2556 HOLES. FRAC W/ 2000GALS & 1579.1BBLs 15% ACID, 193,656BBLs SW, 2,330,100# MESH, 2,176,838# 40/70 WS, 500,503# 40/70 SLC.
8/22-29/2019 Drilled out plugs.
8/30/2019 RIH with 152 jts 2 7/8" tubing and sub pump set @ 5010'.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7 Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #483853 Verified by the BLM Well Information System.
For MACK ENERGY CORPORATION, sent to the Hobbs
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/18/2019 0

Name (please print) DEANA WEAVER

Title PRODUCTION CLERK

Signature _____ (Electronic Submission)

Date 09/18/2019

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.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

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) 743-1283 Fax: (575) 743-9720

District III
1900 Rio Brazos Road, Arter, 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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-44903		² Pool Code 26770	³ Pool Name Fren; Glorieta-Yeso
⁴ Property Code 321610	⁵ Property Name PARTITION 24 FED HE		⁶ Well Number 1H
⁷ OGRID No. 13837	⁸ Operator Name MACK ENERGY CORPORATION		⁹ Elevation 3929

*** Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	19	17S	32E		1486	NORTH	229	WEST	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
E	24	17S	31E		1640	NORTH	79	WEST	EDDY

¹⁰ Dedicated Acres	¹¹ Joint or Infill	¹² Consolidation Code	¹³ 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.

" 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 undivided 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 covenant 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>Deana Weaver</i> 9/18/19 Signature Date Deana Weaver Printed Name dweaver@mec.com E-mail Address		" 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. AUGUST 1, 2019 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number: 12797 SURVEY NO. 7460	
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Intent ☐ As Drilled ☒ XX

API #

Operator Name:
MACK ENERGY CORPORATION

Property Name:
PARTITION 24 FED HE

Well Number
1H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	19	17S	32E	2	1486	NORTH	229	EAST	LEA
Latitude					Longitude			NAD	
32.8233483					103.8137423			83	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
H	24	17S	31E		1558	NORTH	320	EAST	EDDY
Latitude					Longitude			NAD	
32.8231489					103.8155288			83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	24	17S	31E		1640	NORTH	100	WEST	EDDY
Latitude					Longitude			NAD	
32.8228937					103.8314143			83	

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:

Property Name:

Well Number

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

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

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

1 Operator name and Address Mack Energy Corporation P.O. Box 960 Artesia, NM 88210		2 OGRID Number 013837
		3 Reason for Filing Code/ Effective Date NW
4 API Number 30-025-44903	5 Pool Name Fren; Glorieta-Yeso	6 Pool Code 26770
7 Property Code 321610	8 Property Name Partition 24 Federal HE	9 Well Number 1H

II. Surface Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
Lot 2	19	17S	32E		1486	North	229	West	Lea, NM

III. Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	24	17S	31E		1640	North	79	West	Eddy, NM
12 Lse Code F	13 Producing Method Code P	14 Gas Connection Date	15 C-129 Permit Number	16 C-129 Effective Date	17 C-129 Expiration Date				

III. Oil and Gas Transporters

18 Transporter OGRID	19 Transporter Name and Address	20 O/G/W
278421	Holly Marketing & Refining Co LLC P.O. Box 1600 Artesia, NM 88211-1600	O
036788	DCP Midstream 4001 Penbrook Odessa, TX 79762	G

IV. Well Completion Data

21 Spud Date	22 Ready Date	23 TD	24 PBTB	25 Perforations	26 DHC, MC
7/10/2019	8/31/2019	10,660'	10,635'	5,694-10,565'	
27 Hole Size	28 Casing & Tubing Size	29 Depth Set	30 Sacks Cement		
17 1/2"	13 3/8"	715'	725sx		
12 1/4"	9 5/8"	2000'	600sx		
8 1/2"	7" & 5 1/2"	10,660'	1640sx		
	2 7/8" J-55 (Tubing)	5010'			

V. Well Test Data

31 Date New Oil	32 Gas Delivery Date	33 Test Date	34 Test Length	35 Tbg. Pressure	36 Csg. Pressure
9/1/2019	9/1/2019	9/1/2019	24 hours		
37 Choke Size	38 Oil	39 Water	40 Gas	41 Test Method	
71		2499	61	Pumping	
42 I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief. Signature: <i>Deana Weaver</i>			OIL CONSERVATION DIVISION		
Printed name: Deana Weaver			Approved by:		
Title: Production Clerk			Title:		
E-mail Address: dweaver@mec.com			Approval Date:		
Date: 9/18/19	Phone: (575) 748-1288				

Mack Energy

Lea County, NM

Sec 19-T17S-R32E

Partition 24 Fed HE #1H

Wellbore #1

Survey: Survey #1

Standard Survey Report

29 July, 2019

Microsoft Survey Report

Company: Mack Energy
Project: Lea County, NM
Site: Sec 19-T17S-R32E
Well: Partition 24 Fed HE #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Partition 24 Fed HE #1H
TVD Reference: 3929 +13 @ 3942.00usft
MD Reference: 3929 +13 @ 3942.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.15 Single User Db

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

Site		Sec 19-T17S-R32E			
Site Position:		Northing:	664,333.50 usft	Latitude:	32.8251977
From:	Map	Easting:	701,242.80 usft	Longitude:	-103.8127768
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.28 °

Well	Partition 24 Fed HE #1H					
Well Position	+N-S	0.00 usft	Northing:	663,659.20 usft	Latitude:	32.8233483
	+E-W	0.00 usft	Easting:	700,949.50 usft	Longitude:	-103.8137423
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,929.00 usft	

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	07/02/19	6.89	60.54	48,052.47151628

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	267.79	

Survey Program		Date	07/29/19		
From	To	Survey (Wellbore)	Tool Name	Description	
(usft)	(usft)				
112.00	10,660.00	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100R)	Bulld Rate (°/100R)	Turn Rate (°/100R)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.00	0.10	355.00	112.00	0.10	-0.01	0.00	0.09	0.09	0.00
1st MWD Survey									
293.00	0.30	270.00	293.00	0.25	-0.50	0.49	0.17	0.11	-46.96
378.00	0.20	334.00	378.00	0.39	-0.78	0.77	0.33	-0.12	75.29
525.00	0.30	286.00	525.00	0.72	-1.27	1.24	0.15	0.07	-32.85
675.00	0.50	257.00	674.99	0.69	-2.28	2.25	0.19	0.13	-19.33
755.00	0.60	268.60	754.99	0.60	-3.04	3.01	0.19	0.12	14.50
850.00	1.00	270.30	849.98	0.59	-4.37	4.34	0.42	0.42	1.79
945.00	1.10	259.40	944.96	0.43	-6.09	6.07	0.23	0.11	-11.47
1,040.00	1.40	251.50	1,039.94	-0.11	-8.09	8.09	0.36	0.32	-8.32

Microsoft Survey Report

Company: Mack Energy
Project: Lea County, NM
Site: Sec 19-T17S-R32E
Well: Partition 24 Fed HE #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Partition 24 Fed HE #1H
TVD Reference: 3929 +13 @ 3942 00usft
MD Reference: 3929 +13 @ 3942.00usft
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)
1,135.00	1.10	235.50	1,134.92	-0.99	-9.94	9.97	0.48	-0.32	-16.84
1,230.00	1.20	222.70	1,229.90	-2.24	-11.37	11.44	0.29	0.11	-13.47
1,326.00	0.80	195.80	1,325.89	-3.63	-12.23	12.36	0.63	-0.42	-28.02
1,421.00	0.70	158.10	1,420.88	-4.80	-12.20	12.37	0.52	-0.11	-39.68
1,516.00	1.10	133.00	1,515.87	-5.96	-11.31	11.53	0.58	0.42	-26.42
1,611.00	1.50	112.80	1,610.84	-7.07	-9.50	9.76	0.63	0.42	-21.26
1,706.00	1.50	92.10	1,705.81	-7.59	-7.11	7.40	0.57	0.00	-21.79
1,801.00	1.30	77.30	1,800.78	-7.40	-4.82	5.10	0.43	-0.21	-15.58
1,896.00	1.40	74.80	1,895.76	-6.86	-2.64	2.91	0.12	0.11	-2.63
1,938.00	1.60	79.60	1,937.74	-6.62	-1.57	1.83	0.56	0.48	11.43
2,053.00	1.50	78.20	2,052.70	-6.02	1.48	-1.25	0.09	-0.09	-1.22
2,148.00	1.20	80.40	2,147.67	-5.60	3.68	-3.46	0.32	-0.32	2.32
2,243.00	1.30	73.90	2,242.65	-5.14	5.69	-5.49	0.18	0.11	-6.84
2,338.00	1.10	75.10	2,337.63	-4.61	7.61	-7.43	0.21	-0.21	1.26
2,434.00	1.10	73.70	2,433.61	-4.11	9.39	-9.22	0.03	0.00	-1.45
2,529.00	1.00	85.40	2,528.60	-3.79	11.09	-10.93	0.25	-0.11	12.32
2,624.00	0.90	90.00	2,623.58	-3.72	12.66	-12.51	0.13	-0.11	4.84
2,719.00	1.00	95.40	2,718.57	-3.80	14.23	-14.07	0.14	0.11	5.68
2,814.00	1.20	99.10	2,813.55	-4.03	16.04	-15.87	0.22	0.21	3.89
2,909.00	1.20	103.00	2,908.53	-4.42	17.99	-17.81	0.09	0.00	4.11
3,004.00	1.20	105.40	3,003.51	-4.90	19.92	-19.71	0.05	0.00	2.53
3,099.00	1.30	110.10	3,098.49	-5.54	21.89	-21.66	0.15	0.11	4.95
3,195.00	1.20	113.40	3,194.47	-6.31	23.83	-23.57	0.13	-0.10	3.44
3,290.00	1.40	115.90	3,289.44	-7.21	25.79	-25.49	0.22	0.21	2.63
3,385.00	1.40	115.20	3,384.41	-8.21	27.89	-27.55	0.02	0.00	-0.74
3,480.00	1.50	115.70	3,479.38	-9.25	30.06	-29.68	0.11	0.11	0.53
3,575.00	0.60	285.70	3,574.37	-9.65	30.70	-30.30	2.20	-0.95	178.95
3,670.00	0.60	284.60	3,669.37	-9.39	29.74	-29.35	0.01	0.00	-1.16
3,766.00	0.50	259.20	3,765.36	-9.34	28.84	-28.46	0.27	-0.10	-26.46
3,861.00	0.60	241.70	3,860.36	-9.66	27.99	-27.60	0.20	0.11	-18.42
3,956.00	0.40	242.20	3,955.36	-10.05	27.26	-26.86	0.21	-0.21	0.53
4,052.00	0.30	258.40	4,051.36	-10.25	26.72	-26.31	0.15	-0.10	16.87
4,147.00	0.10	250.80	4,146.35	-10.33	26.40	-25.98	0.21	-0.21	-8.00
4,242.00	0.10	220.70	4,241.35	-10.42	26.27	-25.84	0.05	0.00	-31.68
4,337.00	0.00	358.60	4,336.35	-10.49	26.21	-25.79	0.11	-0.11	0.00
4,432.00	0.00	295.80	4,431.35	-10.49	26.21	-25.79	0.00	0.00	0.00
4,528.00	0.20	175.30	4,527.35	-10.65	26.23	-25.80	0.21	0.21	0.00
4,623.00	0.40	170.50	4,622.35	-11.14	26.29	-25.84	0.21	0.21	-5.05
4,718.00	0.80	229.90	4,717.35	-11.90	25.84	-25.36	0.72	0.42	62.53
4,750.00	3.60	261.20	4,749.32	-12.20	24.68	-24.19	9.21	8.75	97.81
4,782.00	7.40	266.90	4,781.17	-12.46	21.63	-21.13	11.88	11.87	17.81
4,814.00	11.10	268.20	4,812.75	-12.67	16.49	-15.99	11.58	11.56	4.06
4,845.00	14.50	274.00	4,842.97	-12.49	9.63	-9.14	11.71	10.97	18.71

Microsoft Survey Report

Company: Mack Energy
Project: Lea County, NM
Site: Sec 19-T17S-R32E
Well: Partition 24 Fed HE #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Partition 24 Fed HE #1H
TVD Reference: 3929 +13 @ 3942.00usft
MD Reference: 3929 +13 @ 3942.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,877.00	16.90	273.90	4,873.78	-11.90	0.99	-0.53	7.50	7.50	-0.31
4,909.00	19.40	272.40	4,904.18	-11.36	-8.96	9.39	7.95	7.81	-4.69
4,940.00	21.60	272.50	4,933.22	-10.89	-19.80	20.21	7.10	7.10	0.32
4,971.00	24.10	273.40	4,961.78	-10.27	-31.83	32.20	8.14	8.06	2.90
5,003.00	26.80	274.70	4,990.68	-9.29	-45.54	45.88	8.62	8.44	4.06
5,035.00	30.40	275.60	5,018.77	-7.91	-60.79	61.05	11.33	11.25	2.81
5,067.00	34.60	275.60	5,045.75	-6.23	-77.90	78.08	13.12	13.12	0.00
5,099.00	38.70	274.70	5,071.42	-4.52	-96.92	97.02	12.92	12.81	-2.81
5,131.00	42.40	273.10	5,095.73	-3.12	-117.67	117.70	12.01	11.56	-5.00
5,162.00	45.30	271.90	5,118.08	-2.19	-139.12	139.11	9.73	9.35	-3.87
5,194.00	47.80	270.20	5,140.09	-1.77	-162.35	162.30	8.71	7.81	-5.31
5,225.00	49.80	267.30	5,160.51	-2.29	-185.68	185.81	9.55	6.45	-9.35
5,257.00	50.80	264.10	5,180.95	-4.14	-210.21	210.21	8.30	3.12	-10.00
5,281.00	51.77	262.37	5,195.96	-6.35	-228.80	228.88	6.94	4.05	-7.22
Cross Lease 5281 MD/5195.96 TVD -6.35 S -228.8 W N: 663652.8 E: 700720.7									
5,289.00	52.10	261.80	5,200.90	-7.22	-235.04	235.14	6.94	4.11	-7.09
5,321.00	52.50	261.10	5,220.47	-10.98	-260.08	260.31	2.13	1.25	-2.19
5,338.00	52.90	260.90	5,230.77	-13.10	-273.43	273.73	2.53	2.35	-1.18
5,348.00	53.00	261.00	5,236.79	-14.35	-281.31	281.66	1.28	1.00	1.00
5,358.00	53.10	260.80	5,242.80	-15.61	-289.21	289.59	1.89	1.00	-2.00
5,368.00	53.20	260.70	5,248.80	-16.90	-297.10	297.53	1.28	1.00	-1.00
5,378.00	53.40	260.40	5,254.78	-18.22	-305.01	305.49	3.13	2.00	-3.00
5,388.00	53.40	260.20	5,260.74	-19.57	-312.93	313.45	1.61	0.00	-2.00
5,398.00	53.30	260.20	5,266.71	-20.94	-320.83	321.40	1.00	-1.00	0.00
5,408.00	53.40	260.10	5,272.68	-22.31	-328.74	329.35	1.28	1.00	-1.00
5,418.00	53.50	260.10	5,278.63	-23.69	-336.65	337.31	1.00	1.00	0.00
5,428.00	53.60	260.40	5,284.57	-25.05	-344.58	345.29	2.61	1.00	3.00
5,438.00	53.70	260.10	5,290.50	-26.42	-352.52	353.27	2.61	1.00	-3.00
5,448.00	53.80	260.30	5,296.41	-27.79	-360.46	361.27	1.90	1.00	2.00
5,458.00	53.90	259.60	5,302.31	-29.20	-368.41	369.27	5.74	1.00	-7.00
5,468.00	54.00	260.10	5,308.20	-30.62	-376.37	377.27	4.16	1.00	5.00
5,478.00	54.20	260.10	5,314.06	-32.01	-384.35	385.30	2.00	2.00	0.00
5,488.00	54.40	259.60	5,319.90	-33.45	-392.35	393.34	4.53	2.00	-5.00
5,498.00	54.50	259.60	5,325.71	-34.91	-400.35	401.40	1.00	1.00	0.00
5,508.00	54.60	259.70	5,331.51	-36.38	-408.36	409.46	1.29	1.00	1.00
5,518.00	54.80	259.70	5,337.29	-37.84	-416.39	417.54	2.00	2.00	0.00
5,528.00	55.10	260.20	5,343.03	-39.27	-424.45	425.65	5.07	3.00	5.00
5,538.00	55.60	258.70	5,348.72	-40.77	-432.54	433.79	13.31	5.00	-15.00
5,575.00	57.90	255.30	5,369.01	-47.74	-462.68	464.17	9.88	6.22	-9.19
5,607.00	61.30	252.80	5,385.20	-55.34	-489.20	490.97	12.58	10.62	-7.81
5,671.00	71.70	250.30	5,410.69	-73.93	-544.78	547.23	16.64	16.25	-3.91
5,685.75	75.43	250.43	5,414.86	-78.68	-558.10	560.72	25.31	25.29	0.90
FTP 5685.75 MD/5414.86 TVD -78.68 S -558.10 W N: 663580.5 E: 700391.4									
5,705.00	80.30	250.60	5,418.91	-84.96	-575.84	578.69	25.31	25.29	0.87

Microsoft Survey Report

Company: Mack Energy
Project: Lea County, NM
Site: Sec 19-T17S-R32E
Well: Partition 24 Fed HE #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Partition 24 Fed HE #1H
TVD Reference: 3929 +13 @ 3942 00usft
MD Reference: 3929 +13 @ 3942 00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000 15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,714.94	81.71	250.89	5,420.48	-88.20	-585.11	588.08	14.50	14.21	2.94
FTP Partition 24 Fed HE #1H - LP Partition 24 Fed HE #1H									
5,781.00	91.10	252.80	5,424.60	-108.71	-647.69	651.40	14.50	14.21	2.89
5,875.00	91.40	255.90	5,422.55	-134.06	-738.17	742.79	3.31	0.32	3.30
5,971.00	90.90	258.50	5,420.62	-155.32	-831.76	837.13	2.76	-0.52	2.71
6,066.00	90.40	260.40	5,419.54	-172.71	-925.14	931.11	2.07	-0.53	2.00
6,161.00	89.30	264.70	5,419.79	-185.03	-1,019.31	1,025.69	4.67	-1.16	4.53
6,256.00	90.10	267.50	5,420.29	-191.49	-1,114.08	1,120.64	3.07	0.84	2.95
6,352.00	91.40	269.90	5,419.03	-193.66	-1,210.04	1,216.61	2.84	1.35	2.50
6,447.00	90.10	270.20	5,417.79	-193.58	-1,305.03	1,311.52	1.40	-1.37	0.32
6,542.00	90.20	270.20	5,417.54	-193.25	-1,400.03	1,406.44	0.11	0.11	0.00
6,637.00	90.60	270.10	5,416.88	-193.00	-1,495.03	1,501.36	0.43	0.42	-0.11
6,686.00	90.60	269.80	5,416.36	-193.04	-1,544.02	1,550.32	0.61	0.00	-0.61
6,782.00	90.90	270.00	5,415.11	-193.21	-1,640.01	1,646.24	0.38	0.31	0.21
6,877.00	89.80	270.00	5,414.53	-193.21	-1,735.01	1,741.17	1.16	-1.16	0.00
6,972.00	89.60	270.40	5,415.02	-192.88	-1,830.01	1,836.09	0.47	-0.21	0.42
7,067.00	89.70	269.90	5,415.60	-192.63	-1,925.01	1,931.00	0.54	0.11	-0.53
7,162.00	90.60	269.70	5,415.36	-192.96	-2,020.01	2,025.94	0.97	0.95	-0.21
7,183.00	90.60	269.10	5,415.14	-193.18	-2,041.00	2,046.93	2.86	0.00	-2.86
7,278.00	91.30	269.20	5,413.56	-194.59	-2,135.98	2,141.89	0.74	0.74	0.11
7,374.00	91.80	269.80	5,410.96	-195.43	-2,231.94	2,237.81	0.81	0.52	0.62
7,469.00	89.70	269.80	5,409.72	-195.76	-2,326.93	2,332.74	2.21	-2.21	0.00
7,564.00	89.80	269.20	5,410.13	-196.59	-2,421.92	2,427.70	0.64	0.11	-0.63
7,659.00	90.50	269.20	5,409.89	-197.92	-2,516.91	2,522.67	0.74	0.74	0.00
7,755.00	91.30	268.80	5,408.38	-199.59	-2,612.88	2,618.64	0.93	0.83	-0.42
7,850.00	90.00	269.10	5,407.30	-201.33	-2,707.86	2,713.61	1.40	-1.37	0.32
7,945.00	90.80	268.70	5,406.64	-203.15	-2,802.84	2,808.59	0.94	0.84	-0.42
8,040.00	90.60	269.80	5,405.48	-204.40	-2,897.82	2,903.55	1.18	-0.21	1.16
8,135.00	91.30	269.70	5,403.90	-204.81	-2,992.81	2,998.48	0.74	0.74	-0.11
8,231.00	90.80	271.20	5,402.14	-204.06	-3,088.78	3,094.36	1.65	-0.52	1.58
8,326.00	91.10	270.70	5,400.57	-202.48	-3,183.76	3,189.20	0.61	0.32	-0.53
8,420.00	90.50	270.40	5,399.25	-201.58	-3,277.74	3,283.08	0.71	-0.64	-0.32
8,515.00	90.90	270.40	5,398.09	-200.92	-3,372.73	3,377.97	0.42	0.42	0.00
8,611.00	89.90	269.60	5,397.42	-200.92	-3,468.73	3,473.90	1.33	-1.04	-0.83
8,706.00	80.30	269.20	5,397.26	-201.91	-3,563.72	3,568.86	0.60	0.42	-0.42
8,801.00	90.90	269.30	5,396.26	-203.16	-3,658.71	3,663.82	0.64	0.63	0.11
8,896.00	90.40	270.10	5,395.19	-203.65	-3,753.70	3,758.76	0.99	-0.53	0.84
8,992.00	89.90	269.90	5,394.93	-203.65	-3,849.70	3,854.69	0.56	-0.52	-0.21
9,087.00	90.30	269.60	5,394.77	-204.07	-3,944.70	3,949.63	0.53	0.42	-0.32
9,182.00	90.90	269.40	5,393.77	-204.90	-4,039.69	4,044.59	0.67	0.63	-0.21
9,277.00	89.90	270.50	5,393.11	-204.98	-4,134.69	4,139.51	1.56	-1.05	1.16
9,373.00	90.30	270.40	5,392.94	-204.23	-4,230.68	4,235.41	0.43	0.42	-0.10
9,468.00	90.80	270.30	5,392.03	-203.65	-4,325.68	4,330.31	0.54	0.53	-0.11

Microsoft Survey Report

Company: Mack Energy
Project: Lea County, NM
Site: Sec 19-T17S-R32E
Well: Partition 24 Fed HE #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Partition 24 Fed HE #1H
TVD Reference: 3929 +13 @ 3942.00usft
MD Reference: 3928 +13 @ 3942.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,563.00	89.70	270.90	5,391.62	-202.65	-4,420.67	4,425.19	1.32	-1.16	0.63
9,659.00	89.70	270.30	5,392.12	-201.65	-4,516.66	4,521.08	0.62	0.00	-0.62
9,754.00	90.30	270.50	5,392.12	-200.98	-4,611.66	4,615.98	0.67	0.63	0.21
9,850.00	91.00	270.90	5,391.03	-199.81	-4,707.64	4,711.85	0.84	0.73	0.42
9,945.00	90.90	270.80	5,389.45	-198.40	-4,802.62	4,806.70	0.15	-0.11	-0.11
10,040.00	90.10	271.00	5,388.63	-196.91	-4,897.60	4,901.55	0.87	-0.84	0.21
10,136.00	90.50	271.10	5,388.12	-195.15	-4,993.59	4,997.40	0.43	0.42	0.10
10,231.00	91.10	271.40	5,386.80	-193.08	-5,088.55	5,092.21	0.71	0.63	0.32
10,326.00	90.10	271.00	5,385.80	-191.09	-5,183.53	5,187.04	1.13	-1.05	-0.42
10,380.31	89.70	270.20	5,385.90	-190.52	-5,237.83	5,241.28	1.65	-0.74	-1.47
Plat BHL Partition 24 Fed HE #1H									
10,421.00	89.40	269.60	5,386.22	-190.59	-5,278.52	5,281.94	1.65	-0.74	-1.47
10,517.00	89.80	269.60	5,386.89	-191.26	-5,374.52	5,377.89	0.42	0.42	0.00
10,569.38	90.08	269.60	5,386.94	-191.63	-5,426.90	5,430.25	0.54	0.54	0.00
LTP 10569.38 MD/5386.94 TVD -191.63 S -5426.86 W N: 663467.5 E: 695522.6									
10,589.46	90.08	269.60	5,386.94	-191.63	-5,426.98	5,430.33	0.00	0.00	0.00
LTP Partition 24 Fed HE #1H									
10,591.00	90.20	269.60	5,386.89	-191.78	-5,448.51	5,451.86	0.54	0.54	0.00
Last MWD Survey 10591 MD/5386.89 TVD -191.78 S -5448.51 W N: 663467.4 E: 695500.9									
10,660.00	90.20	269.60	5,386.65	-192.26	-5,517.51	5,520.82	0.00	0.00	0.00
PTB 10660 MD/5386.65 TVD -192.26 S -5517.51 W N: 663466.9 E: 695431.9 - BHL Partition 24 Fed HE #1H									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
112.00	112.00	0.10	-0.01	1st MWD Survey
5,281.00	5,195.96	-8.35	-228.80	Cross Lease 5281 MD/5195.96 TVD -6.35 S -228.8 W N: 663852.8 E: 700720.7
5,685.75	5,414.86	-78.68	-558.10	FTP 5685.75 MD/5414.86 TVD -78.68 S -558.10 W N: 663580.5 E: 700391.4
10,569.38	5,386.94	-191.63	-5,426.90	LTP 10569.38 MD/5386.94 TVD -191.63 S -5426.86 W N: 663467.5 E: 695522.6
10,591.00	5,386.89	-191.78	-5,448.51	Last MWD Survey 10591 MD/5386.89 TVD -191.78 S -5448.51 W N: 663467.4
10,660.00	5,386.65	-192.26	-5,517.51	PTB 10660 MD/5386.65 TVD -192.26 S -5517.51 W N: 663466.9 E: 695431.9

Checked By: _____

Approved By: _____

Date: _____

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) 743-1283 Fax: (575) 743-9720
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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name	
4 Property Code		5 Property Name PARTITION 24 FED HE			6 Well Number 1H
7 OGRID No. 13837		8 Operator Name MACK ENERGY CORPORATION			9 Elevation 3929

• Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	19	17S	32E		1486	NORTH	229	WEST	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
E	24	17S	31E		1640	NORTH	79	WEST	EDDY

10 Dedicated Acres		11 Joint or Infill		12 Consolidation Code		13 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.

14 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. Signature _____ Date _____ Printed Name _____ E-mail Address _____	
15 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. AUGUST 1, 2012 Date of Survey _____ Signature and Seal of Professional Surveyor _____ Certificate Number _____ SURVEY NO. 7460	

Intent ☐ As Drilled ☒

API #

Operator Name:
MACK ENERGY CORPORATION

Property Name:
PARTITION 24 FED HE

Well Number
1H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	19	17S	32E	2	1486	NORTH	229	EAST	LEA
Latitude					Longitude			NAD	
32.8233483					103.8137423			83	

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
H	24	17S	31E		1558	NORTH	320	EAST	EDDY
Latitude					Longitude			NAD	
32.8231489					103.8155288			83	

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
E	24	17S	31E		1640	NORTH	100	WEST	EDDY
Latitude					Longitude			NAD	
32.8228937					103.8314143			83	

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:

Property Name:

Well Number

KZ 06/29/2018