

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

NMOCD-REC'D: 8/25/2020
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 - 0 05-64307	⁵ Pool Name Round Tank; San Andres	⁶ Pool Code 52770
⁷ Property Code 320519	⁸ Property Name Hamilton Federal Com	⁹ Well Number 1H

II. ¹⁰ 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	15S	29E		383	South	598	West	Chaves, NM

¹¹ 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
M	22	15S	29E		2	South	329	West	Chaves, NM
¹² Lse Code F	¹³ Producing Method Code P	¹⁴ Gas Connection Date 10/14/2019	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 8/3/2019	²² Ready Date 10/4/2019	²³ TD 8750	²⁴ PBTD 8701	²⁵ Perforations 3699-8650	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17 1/2"	13 3/8" J-55	220'	425		
12 1/4"	9 5/8" LT&C	1200'	465		
8 3/4"	7" & 5 1/2" HCP-110	8750'	1925		
	2 7/8 & 3 1/2" J-55 (tubing)	2456'			

V. Well Test Data

³¹ Date New Oil 10/16/2019	³² Gas Delivery Date 10/14/2019	³³ Test Date 10/16/2019	³⁴ Test Length 24 hours	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil 14	³⁹ Water 2224	⁴⁰ Gas 26		⁴¹ Test Method 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: <i>Amelia B. ...</i>		
Title: Production Clerk			Title: BUSINESS OP. SPEC.		
E-mail Address: dweaver@mec.com			Approval Date: 12/22/2020		
Date: 5/22/2020		Phone: 575-748-1288	Now compliant with 5.9 rule 12/22/2020		

NMOCD-REC'D: 8/25/2020

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

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 30-005-64307	² Pool Code 52770	³ Pool Name Round Tank; San Andres
⁴ Property Code 320519	⁵ Property Name HAMILTON FEDERAL COM	
⁷ OGRID No. 13837	⁸ Operator Name MACK ENERGY CORPORATION	⁶ Well Number 1H ⁹ Elevation 3863.7

¹⁰ 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	15 S	29 E		383	SOUTH	598	WEST	CHAVES

¹¹ 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
M	22	15 S	29 E		2	SOUTH	329	WEST	CHAVES

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

NW CORNER SEC. 15 LAT. = 33.0232846°N LONG. = 104.0248543°W NMSP EAST (FT) N = 736146.75 E = 635885.28 W Q CORNER SEC. 15 LAT. = 33.0160243°N LONG. = 104.0248725°W NMSP EAST (FT) N = 733505.21 E = 635887.45 SW CORNER SEC. 15 LAT. = 33.0086425°N LONG. = 104.0249569°W NMSP EAST (FT) N = 730819.43 E = 635869.46 W Q CORNER SEC. 22 LAT. = 33.0012599°N LONG. = 104.0247523°W NMSP EAST (FT) N = 728133.59 E = 635940.04 SW CORNER SEC. 22 LAT. = 32.9939935°N LONG. = 104.0247493°W NMSP EAST (FT) N = 725489.88 E = 635948.72		N Q CORNER SEC. 15 LAT. = 33.0232830°N LONG. = 104.0162387°W NMSP EAST (FT) N = 736153.99 E = 638525.95 HAMILTON FEDERAL COM 1H ELEV. = 3863.7' LAT. = 33.0097108°N (NAD83) LONG. = 104.0229943°W NMSP EAST (FT) N = 731209.87 E = 636469.94 S Q CORNER SEC. 15 LAT. = 33.0087116°N LONG. = 104.0163901°W NMSP EAST (FT) N = 730852.37 E = 638495.53 SE CORNER SEC. 15 LAT. = 33.0087818°N LONG. = 104.0077346°W NMSP EAST (FT) N = 733484.36 E = 641173.28 E Q CORNER SEC. 15 LAT. = 33.0158685°N LONG. = 104.0077346°W NMSP EAST (FT) N = 733484.36 E = 641140.79 SE CORNER SEC. 15 LAT. = 33.0087818°N LONG. = 104.0078257°W NMSP EAST (FT) N = 730885.92 E = 641120.85 E Q CORNER SEC. 22 LAT. = 33.0015079°N LONG. = 104.0077509°W NMSP EAST (FT) N = 728239.54 E = 641151.97 SE CORNER SEC. 22 LAT. = 32.9942030°N LONG. = 104.0076851°W NMSP EAST (FT) N = 725581.88 E = 641180.37	
SURFACE LOCATION & KOP FTP S89°16'53"W 2626.96 FT S89°16'05"W 2626.21 FT FIRST TAKE POINT 127' FNL, 358' FWL LAT. = 33.0063030°N LONG. = 104.0237799°W LAST TAKE POINT 100' FSL, 330' FWL LAT. = 32.9942675°N LONG. = 104.0236727°W BOTTOM OF HOLE LAT. = 32.9939982°N LONG. = 104.0236776°W NMSP EAST (FT) N = 725492.58 E = 636277.31 LTP BOTTOM OF HOLE LAT. = 32.9939935°N LONG. = 104.0162451°W NMSP EAST (FT) N = 725495.33 E = 638556.12		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. Deana Weaver 10/22/19 Signature Date Deana Weaver Printed Name dweaver@mec.com E-mail Address 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. JULY 11, 2019 Date of Survey Signature and Seal of Professional Surveyor Certificate Number F111111 JARAMILLO, P.S. 5311C	

Intent ☐ As Drilled ☒

API #

Operator Name: MACK ENERGY CORPORATION	Property Name: HAMILTON FEDERAL COM	Well Number 1H
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Kick Off Point (KOP)

UL M	Section 15	Township 15S	Range 29E	Lot	Feet 323	From N/S SOUTH	Feet 598	From E/W WEST	County CHAVES
Latitude 33.0097108					Longitude 104.0229943			NAD 83	

First Take Point (FTP)

UL D	Section 22	Township 15S	Range 29E	Lot	Feet 127	From N/S NORTH	Feet 358	From E/W WEST	County CHAVES
Latitude 33.0083030					Longitude 104.0237799			NAD 83	

Last Take Point (LTP)

UL M	Section 22	Township 15S	Range 29E	Lot	Feet 100	From N/S SOUTH	Feet 330	From E/W WEST	County CHAVES
Latitude 32.9942675					Longitude 104.0236727			NAD 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
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KZ 06/29/2018

Mack Energy

Chaves County

Sec 15-T15S-R29E

Hamilton Federal Com #1H

Wellbore #1

Survey: Survey #1

Standard Survey Report

15 August, 2019

Microsoft

Survey Report

Company:	Mack Energy	Local Co-ordinate Reference:	Well Hamilton Federal Com #1H
Project:	Chaves County	TVD Reference:	3863.7 + 13 @ 3876.70usft
Site:	Sec 15-T15S-R29E	MD Reference:	3863.7 + 13 @ 3876.70usft
Well:	Hamilton Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Project	Chaves 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		Sec 15-T15S-R29E			
Site Position:		Northing:	731,209.87 usft	Latitude:	33.009711
From:	Map	Easting:	636,469.94 usft	Longitude:	-104.022995
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.17 °

Well	Hamilton Federal Com #1H					
Well Position	+N/-S	0.00 usft	Northing:	731,209.87 usft	Latitude:	33.009711
	+E/-W	0.00 usft	Easting:	636,469.94 usft	Longitude:	-104.022995
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,863.70 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	07/15/19	7.00	60.68	48,136.34560560

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	181.92

Survey Program		Date	08/15/19		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
162.00	8,750.00	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
162.00	0.40	121.00	162.00	-0.29	0.48	0.27	0.25	0.25	0.00
1st MWD Survey									
180.00	0.40	102.80	180.00	-0.34	0.60	0.32	0.70	0.00	-101.11
248.00	0.70	98.50	248.00	-0.45	1.24	0.41	0.45	0.44	-6.32
307.00	1.00	103.80	306.99	-0.63	2.10	0.56	0.53	0.51	8.98
395.00	1.60	92.40	394.97	-0.86	4.07	0.73	0.74	0.68	-12.95
485.00	1.50	98.90	484.93	-1.10	6.49	0.88	0.22	-0.11	7.22
576.00	1.30	98.10	575.91	-1.43	8.69	1.14	0.22	-0.22	-0.88
665.00	0.80	90.50	664.89	-1.57	10.31	1.23	0.58	-0.56	-8.54
752.00	1.00	84.30	751.88	-1.50	11.67	1.11	0.26	0.23	-7.13

Microsoft Survey Report

Company:	Mack Energy	Local Co-ordinate Reference:	Well Hamilton Federal Com #1H
Project:	Chaves County	TVD Reference:	3863.7 + 13 @ 3876.70usft
Site:	Sec 15-T15S-R29E	MD Reference:	3863.7 + 13 @ 3876.70usft
Well:	Hamilton Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
847.00	1.70	80.00	846.85	-1.18	13.89	0.71	0.74	0.74	-4.53
942.00	1.00	89.90	941.83	-0.93	16.10	0.39	0.77	-0.74	10.42
1,038.00	0.10	58.20	1,037.82	-0.89	17.01	0.32	0.95	-0.94	-33.02
1,140.00	0.30	242.50	1,139.82	-0.96	16.85	0.40	0.39	0.20	-172.25
1,241.00	0.26	285.27	1,240.82	-1.02	16.39	0.47	0.21	-0.04	42.35
1,336.00	0.26	256.09	1,335.82	-1.02	15.98	0.48	0.14	0.00	-30.72
1,431.00	0.48	266.72	1,430.82	-1.09	15.37	0.58	0.24	0.23	11.19
1,526.00	0.70	257.05	1,525.81	-1.25	14.41	0.76	0.25	0.23	-10.18
1,622.00	0.83	254.07	1,621.80	-1.57	13.17	1.13	0.14	0.14	-3.10
1,717.00	0.35	241.50	1,716.80	-1.90	12.25	1.49	0.52	-0.51	-13.23
1,812.00	0.48	254.77	1,811.79	-2.14	11.61	1.75	0.17	0.14	13.97
1,907.00	0.48	256.97	1,906.79	-2.33	10.84	1.97	0.02	0.00	2.32
2,002.00	0.57	240.71	2,001.79	-2.65	10.04	2.32	0.18	0.09	-17.12
2,097.00	0.97	284.48	2,096.78	-2.68	8.85	2.39	0.72	0.42	46.07
2,192.00	1.10	298.10	2,191.76	-2.05	7.27	1.81	0.29	0.14	14.34
2,288.00	1.05	290.98	2,287.75	-1.30	5.63	1.12	0.15	-0.05	-7.42
2,383.00	0.88	291.60	2,382.73	-0.72	4.14	0.59	0.18	-0.18	0.65
2,478.00	1.05	283.77	2,477.72	-0.25	2.62	0.16	0.23	0.18	-8.24
2,513.00	1.58	244.49	2,512.71	-0.38	1.87	0.32	2.90	1.51	-112.23
2,573.00	4.92	223.22	2,572.61	-2.61	-0.64	2.63	5.82	5.57	-35.45
2,620.00	9.32	221.28	2,619.23	-6.94	-4.53	7.09	9.37	9.36	-4.13
2,668.00	13.49	216.45	2,666.28	-14.37	-10.42	14.71	8.90	8.69	-10.06
2,715.00	17.14	211.44	2,711.60	-24.69	-17.30	25.26	8.25	7.77	-10.66
2,763.00	19.02	205.73	2,757.23	-37.78	-24.38	38.57	5.38	3.92	-11.90
2,810.00	21.84	204.32	2,801.27	-52.64	-31.31	53.66	6.09	6.00	-3.00
2,858.00	24.52	203.18	2,845.39	-69.94	-38.91	71.20	5.66	5.58	-2.37
2,905.00	27.69	203.18	2,887.59	-88.95	-47.05	90.47	6.74	6.74	0.00
2,953.00	30.67	205.73	2,929.50	-110.24	-56.75	112.07	6.73	6.21	5.31
3,000.00	34.89	205.81	2,969.01	-133.15	-67.82	135.34	8.98	8.98	0.17
3,049.00	39.81	205.64	3,007.95	-159.92	-80.71	162.53	10.04	10.04	-0.35
3,096.00	44.43	206.34	3,042.80	-188.24	-94.53	191.30	9.88	9.83	1.49
3,144.00	47.94	207.04	3,076.03	-219.18	-110.09	222.74	7.39	7.31	1.46
3,191.00	50.63	208.63	3,106.68	-250.67	-126.73	254.77	6.27	5.72	3.38
3,226.00	52.87	207.48	3,128.35	-274.93	-139.65	279.44	6.90	6.40	-3.29
3,236.00	53.04	207.13	3,134.37	-282.02	-143.31	286.65	3.27	1.70	-3.50
3,246.00	53.31	207.31	3,140.37	-289.14	-146.98	293.89	3.06	2.70	1.80
3,256.00	53.35	206.78	3,146.34	-296.28	-150.62	301.15	4.27	0.40	-5.30
3,266.00	53.44	206.96	3,152.30	-303.44	-154.25	308.43	1.70	0.90	1.80
3,276.00	53.70	206.96	3,158.24	-310.61	-157.90	315.72	2.60	2.60	0.00
3,286.00	53.79	206.52	3,164.16	-317.82	-161.53	323.04	3.66	0.90	-4.40
3,296.00	53.88	206.43	3,170.06	-325.04	-165.13	330.38	1.16	0.90	-0.90
3,306.00	54.10	206.43	3,175.94	-332.29	-168.73	337.74	2.20	2.20	0.00
3,316.00	54.18	206.25	3,181.79	-339.55	-172.32	345.12	1.66	0.80	-1.80

Microsoft

Survey Report

Company:	Mack Energy	Local Co-ordinate Reference:	Well Hamilton Federal Com #1H
Project:	Chaves County	TVD Reference:	3863.7 + 13 @ 3876.70usft
Site:	Sec 15-T15S-R29E	MD Reference:	3863.7 + 13 @ 3876.70usft
Well:	Hamilton Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)	
3,326.00	54.32	206.34	3,187.64	-346.83	-175.92	352.51	1.58	1.40	0.90	
3,336.00	54.45	205.90	3,193.46	-354.12	-179.50	359.93	3.81	1.30	-4.40	
3,346.00	54.45	205.29	3,199.27	-361.46	-183.01	367.38	4.96	0.00	-6.10	
3,356.00	54.67	205.64	3,205.07	-368.82	-186.51	374.85	3.60	2.20	3.50	
3,366.00	54.49	205.37	3,210.87	-376.17	-190.02	382.32	2.84	-1.80	-2.70	
3,376.00	54.89	205.37	3,216.65	-383.55	-193.52	389.80	4.00	4.00	0.00	
3,379.00	54.93	205.27	3,218.37	-385.77	-194.57	392.06	2.86	1.18	-3.19	
Cross Lease Line 3379' MD/3218.37 TVD -385.77 S -194.57 W N: 730824.1 E: 636275.3										
3,387.00	55.02	205.02	3,222.96	-391.70	-197.35	398.08	2.86	1.18	-3.18	
3,398.00	55.90	204.23	3,229.20	-399.93	-201.13	406.43	9.95	8.00	-7.18	
3,429.00	58.05	200.98	3,246.10	-423.92	-211.11	430.75	11.20	6.94	-10.48	
3,476.00	62.53	198.08	3,269.39	-462.39	-224.73	469.64	10.93	9.53	-6.17	
3,503.81	65.20	196.17	3,281.64	-486.25	-232.07	493.73	11.41	9.59	-6.88	
FTP 3503.81 MD/3281.64 TVD -486.25 S -232.07 W N: 730723.6 E: 636237.8										
3,524.00	67.15	194.83	3,289.80	-504.04	-237.01	511.69	11.41	9.67	-6.62	
3,531.01	67.68	194.47	3,292.49	-510.31	-238.64	518.00	8.99	7.62	-5.17	
FTP Hamilton Federal Com #1H Plan #2										
3,533.92	67.91	194.32	3,293.59	-512.92	-239.31	520.63	8.99	7.63	-5.14	
FTP Hamilton Federal Com #1H										
3,620.00	74.53	190.08	3,321.30	-592.52	-256.46	600.76	8.99	7.69	-4.92	
3,667.00	79.23	187.97	3,331.97	-637.71	-263.63	646.17	10.91	10.00	-4.49	
3,715.00	84.55	184.46	3,338.74	-684.93	-268.76	693.53	13.24	11.08	-7.31	
3,769.00	86.84	183.58	3,342.79	-738.64	-272.54	747.34	4.54	4.24	-1.63	
3,832.00	87.41	183.23	3,345.95	-801.45	-276.27	810.24	1.06	0.90	-0.56	
3,895.00	90.53	178.74	3,347.08	-864.40	-277.36	873.19	8.68	4.95	-7.13	
3,916.00	90.40	178.90	3,346.91	-885.40	-276.92	894.16	0.98	-0.62	0.76	
4,011.00	91.30	176.70	3,345.50	-980.31	-273.28	988.90	2.50	0.95	-2.32	
4,107.00	90.20	175.40	3,344.25	-1,076.07	-266.66	1,084.39	1.77	-1.15	-1.35	
4,202.00	88.90	175.20	3,344.99	-1,170.75	-258.88	1,178.75	1.38	-1.37	-0.21	
4,297.00	89.60	176.90	3,346.24	-1,265.51	-252.34	1,273.24	1.94	0.74	1.79	
4,392.00	90.00	179.00	3,346.57	-1,360.44	-248.94	1,368.01	2.25	0.42	2.21	
4,487.00	91.70	178.80	3,345.16	-1,455.41	-247.12	1,462.86	1.80	1.79	-0.21	
4,582.00	90.40	178.30	3,343.42	-1,550.36	-244.71	1,557.68	1.47	-1.37	-0.53	
4,677.00	89.50	178.00	3,343.50	-1,645.31	-241.65	1,652.47	1.00	-0.95	-0.32	
4,772.00	90.00	178.70	3,343.91	-1,740.27	-238.91	1,747.29	0.91	0.53	0.74	
4,868.00	89.90	177.60	3,344.00	-1,836.22	-235.81	1,843.08	1.15	-0.10	-1.15	
4,963.00	88.50	178.30	3,345.33	-1,931.15	-232.41	1,937.84	1.65	-1.47	0.74	
5,058.00	89.60	177.90	3,346.90	-2,026.08	-229.26	2,032.61	1.23	1.16	-0.42	
5,153.00	91.00	176.50	3,346.40	-2,120.96	-224.62	2,127.28	2.08	1.47	-1.47	
5,248.00	90.50	178.10	3,345.16	-2,215.84	-220.15	2,221.96	1.76	-0.53	1.68	
5,343.00	89.70	179.90	3,344.99	-2,310.82	-218.49	2,316.84	2.07	-0.84	1.89	
5,439.00	91.00	179.70	3,344.41	-2,406.82	-218.16	2,412.77	1.37	1.35	-0.21	
5,534.00	90.20	180.90	3,343.41	-2,501.81	-218.65	2,507.72	1.52	-0.84	1.26	
5,629.00	89.60	179.50	3,343.58	-2,596.81	-218.99	2,602.68	1.60	-0.63	-1.47	

Microsoft
Survey Report

Company:	Mack Energy	Local Co-ordinate Reference:	Well Hamilton Federal Com #1H
Project:	Chaves County	TVD Reference:	3863.7 + 13 @ 3876.70usft
Site:	Sec 15-T15S-R29E	MD Reference:	3863.7 + 13 @ 3876.70usft
Well:	Hamilton Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	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)
5,724.00	89.60	177.80	3,344.24	-2,691.77	-216.75	2,697.52	1.79	0.00	-1.79
5,819.00	89.40	177.20	3,345.07	-2,786.68	-212.60	2,792.23	0.67	-0.21	-0.63
5,914.00	89.80	178.30	3,345.73	-2,881.60	-208.87	2,886.97	1.23	0.42	1.16
6,009.00	90.10	179.30	3,345.82	-2,976.58	-206.88	2,981.83	1.10	0.32	1.05
6,105.00	89.70	179.00	3,345.98	-3,072.57	-205.46	3,077.72	0.52	-0.42	-0.31
6,200.00	90.00	178.70	3,346.23	-3,167.55	-203.55	3,172.58	0.45	0.32	-0.32
6,295.00	89.40	178.70	3,346.73	-3,262.52	-201.40	3,267.43	0.63	-0.63	0.00
6,391.00	89.10	179.30	3,347.99	-3,358.50	-199.72	3,363.30	0.70	-0.31	0.62
6,486.00	90.20	180.10	3,348.57	-3,453.49	-199.23	3,458.22	1.43	1.16	0.84
6,581.00	90.10	179.70	3,348.32	-3,548.49	-199.06	3,553.17	0.43	-0.11	-0.42
6,677.00	89.30	180.40	3,348.82	-3,644.49	-199.14	3,649.11	1.11	-0.83	0.73
6,772.00	90.60	180.10	3,348.90	-3,739.49	-199.56	3,744.07	1.40	1.37	-0.32
6,867.00	90.60	180.70	3,347.91	-3,834.48	-200.22	3,839.03	0.63	0.00	0.63
6,962.00	90.20	180.20	3,347.25	-3,929.47	-200.97	3,934.00	0.67	-0.42	-0.53
7,057.00	89.70	178.70	3,347.33	-4,024.47	-200.06	4,028.91	1.66	-0.53	-1.58
7,152.00	89.20	179.10	3,348.24	-4,119.44	-198.23	4,123.77	0.67	-0.53	0.42
7,247.00	90.90	178.90	3,348.16	-4,214.43	-196.57	4,218.64	1.80	1.79	-0.21
7,342.00	90.70	179.40	3,346.83	-4,309.41	-195.16	4,313.52	0.57	-0.21	0.53
7,438.00	90.50	180.50	3,345.83	-4,405.40	-195.08	4,409.46	1.16	-0.21	1.15
7,533.00	90.10	180.40	3,345.33	-4,500.40	-195.83	4,504.43	0.43	-0.42	-0.11
7,628.00	89.70	181.00	3,345.49	-4,595.39	-196.99	4,599.40	0.76	-0.42	0.63
7,724.00	89.90	180.00	3,345.83	-4,691.38	-197.83	4,695.37	1.06	0.21	-1.04
7,818.00	89.50	180.00	3,346.32	-4,785.38	-197.83	4,789.32	0.43	-0.43	0.00
7,913.00	90.00	180.30	3,346.74	-4,880.38	-198.07	4,884.27	0.61	0.53	0.32
8,009.00	89.70	179.50	3,346.99	-4,976.38	-197.91	4,980.21	0.89	-0.31	-0.83
8,104.00	88.90	179.60	3,348.15	-5,071.37	-197.16	5,075.12	0.85	-0.84	0.11
8,199.00	89.90	179.70	3,349.14	-5,166.36	-196.58	5,170.04	1.06	1.05	0.11
8,294.00	90.10	179.70	3,349.14	-5,261.36	-196.08	5,264.97	0.21	0.21	0.00
8,389.00	90.50	178.80	3,348.65	-5,356.35	-194.84	5,359.87	1.04	0.42	-0.95
8,485.00	89.50	178.30	3,348.65	-5,452.31	-192.41	5,455.70	1.16	-1.04	-0.52
8,580.00	89.90	180.20	3,349.14	-5,547.30	-191.17	5,550.59	2.04	0.42	2.00
8,652.02	89.90	180.20	3,349.27	-5,619.32	-191.42	5,622.58	0.00	0.00	0.00
LTP Hamilton Federal Com #1H Plan #2									
8,652.03	89.90	180.20	3,349.27	-5,619.33	-191.42	5,622.59	0.00	0.00	0.00
LTP 8652.03 MD/3349.27 TVD -5619.33 S -191.42 W N: 725590.5 E: 636278.5									
8,652.04	89.90	180.20	3,349.27	-5,619.34	-191.42	5,622.59	0.00	0.00	0.00
LTP Hamilton Federal Com #1H									
8,675.00	89.90	180.20	3,349.31	-5,642.30	-191.50	5,645.55	0.00	0.00	0.00
8,701.00	90.30	181.00	3,349.26	-5,668.30	-191.77	5,671.54	3.44	1.54	3.08
Last MWD Survey 8701 MD/3349.26 TVD -5668.3 S -191.77 W N: 725541.5 E: 636278.1									
8,750.00	90.30	181.00	3,349.01	-5,717.29	-192.63	5,720.53	0.00	0.00	0.00
PTB 8750 MD/3349.01 TVD -5717.29 S -192.63 W N: 725492.5 E: 636277.3 - BHL Hamilton Federal Com #1H - BHL Hamilton Federal Com #									

Microsoft

Survey Report

Company:	Mack Energy	Local Co-ordinate Reference:	Well Hamilton Federal Com #1H
Project:	Chaves County	TVD Reference:	3863.7 + 13 @ 3876.70usft
Site:	Sec 15-T15S-R29E	MD Reference:	3863.7 + 13 @ 3876.70usft
Well:	Hamilton Federal Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.15 Single User Db

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
162.00	162.00	-0.29	0.48	1st MWD Survey
3,379.00	3,218.37	-385.77	-194.57	Cross Lease Line 3379' MD/3218.37 TVD -385.77 S -194.57 W N: 730824.1 E:
3,503.81	3,281.64	-486.25	-232.07	FTP 3503.81 MD/3281.64 TVD -486.25 S -232.07 W N: 730723.6 E: 636237.8
8,652.03	3,349.27	-5,619.33	-191.42	LTP 8652.03 MD/3349.27 TVD -5619.33 S -191.42 W N: 725590.5 E: 636278.5
8,701.00	3,349.26	-5,668.30	-191.77	Last MWD Survey 8701 MD/3349.26 TVD -5668.3 S -191.77 W N: 725541.5 E:
8,750.00	3,349.01	-5,717.29	-192.63	PTB 8750 MD/3349.01 TVD -5717.29 S -192.63 W N: 725492.5 E: 636277.3

Checked By: _____ Approved By: _____ Date: _____

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District IV
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 12980

CONDITIONS OF APPROVAL

Operator: MACK ENERGY CORP P.O. Box 960 11344 Lovington Hwy Artesia, NM88211-0960		OGRID: 13837	Action Number: 12980	Action Type: C-104C
OCD Reviewer abustamante		Condition None		