

N.M. OIL CONSERVATION DIVISION

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

811 S. FIRST STREET
ARTESIA, NM 88210

Amended

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG



1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other		5. Lease Serial No. NMNM4433	
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____		6. If Indian, Allottee or Tribe Name	
2. Name of Operator MACK ENERGY CORPORATION		8. Lease Name and Well No. CALGARY FEDERAL 3H	
Contact: ROBERT CHASE E-Mail: JERRYS@MEC.COM		7. Unit or CA Agreement Name and No.	
3. Address P.O. BOX 960 ARTESIA, NM 88211-0960		9. API Well No. 30-005-64152-00-S1	
3a. Phone No. (include area code) Ph: 575-748-1288		10. Field and Pool, or Exploratory ROUND TANK-SAN ANDRES	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface NENE 990FNL 330FEL At top prod interval reported below NENE 977FNL 918FEL At total depth NENW 930FNL 1630FWL		11. Sec., T., R., M., or Block and Survey or Area Sec 25 T15S R28E Mer NMP	
14. Date Spudded 03/27/2012		15. Date T.D. Reached 04/08/2012	
16. Date Completed ☐ D & A ☒ Ready to Prod. 06/05/2012		17. Elevations (DF, KB, RT, GL)* 3697 GL	
18. Total Depth: MD 6131 TVD 6131		19. Plug Back T.D.: MD 6072 TVD 6072	
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) NOLOGSRAN	
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
14.750	9.625 J-55	36.0	0	460		850		193	
8.750	5.500 L-80	17.0	0	6131		1370		0	

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	2397							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) SAN ANDRES	3400	6050	3400 TO 6050	0.420	48	SEE 3160-5 FOR DETAILS
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
3400 TO 6050	SEE 3160-5 FOR DETAILS
3400 TO 6050	SEE 3160-5 FOR DETAILS

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Con. API	Gas Gravity	Production Method
06/18/2012	07/02/2012	24	→	111.0	121.0	650.0	34.9	0.60	ELECTRIC PUMPING UNIT
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→	111	121	650	1090	POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Con. API	Gas Gravity	Production Method
06/18/2012	07/02/2012	24	→	111.0	121.0	650.0	34.9	0.60	ELECTRIC PUMPING UNIT
Choke Size	Tbg Press Flwg SI	Csg Press	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→	111	121	650	1090	POW	

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

ELECTRONIC SUBMISSION #145267 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

ACCEPTED FOR 6 MONTH PERIOD
ENDING DEC 05 2012

DAVID R. GLASS
PETROLEUM ENGINEER

RECEIVED

AUG 21 2012

NMOCD ARTESIA

ACCEPTED FOR RECORD

/S/ DAVID R. GLASS

Revisions to Operator-Submitted EC Data for Well Completion #145267

	Operator Submitted	BLM Revised (AFMSS)
Lease:	NMNM4433	NMNM4433
Agreement:		
Operator:	MACK ENERGY CORPORATION P.O. BOX 960 ARTESIA, NM 88210 Ph: 575-748-1288	MACK ENERGY CORPORATION P.O. BOX 960 ARTESIA, NM 88211-0960 Ph: 505-748-3436
Admin Contact:	ROBERT CHASE VICE PRESIDENT E-Mail: JERRYYS@MEC.COM Ph: 575-748-1288 Fx: 575-746-9539	ROBERT CHASE VICE PRESIDENT E-Mail: JERRYYS@MEC.COM Ph: 575-748-1288 Fx: 575-746-9539
Tech Contact:	DEANA WEAVER PRODUCTION CLERK E-Mail: DWEAVER@MEC.COM Ph: 575-748-1288 Fx: 575-746-9539	DEANA WEAVER PRODUCTION CLERK E-Mail: DWEAVER@MEC.COM Ph: 575-748-1288 Fx: 575-746-9539
Well Name: Number:	CALGARY FEDERAL 3	CALGARY FEDERAL 3H
Location:		
State:	NM	NM
County:	CHAVES	CHAVES
S/T/R:	Sec 25 T15S R28E Mer	Sec 25 T15S R28E Mer NMP
Surf Loc:	NENE 990FNL 330FEL	NENE 990FNL 330FEL
Field/Pool:	ROUND TANK; SAN ANDRES	ROUND TANK-SAN ANDRES
Logs Run:	NO LOGS RAN	NOLOGSRAN
Producing Intervals - Formations:	ROUND TANK; SAN ANDRES	SAN ANDRES
Porous Zones:	ROUND TANK; SAN ANDRES	QUATERNARY SAN ANDRES
Markers:	YATES QUEEN GRAYBURG SAN ANDRES	YATES QUEEN GRAYBURG SAN ANDRES

Mack Energy Corporation

CHAVES COUNTY, NEW MEXICO

Sec. 25-T15S-R28E

Calgary Federal #3

Plan A Rev 1

Survey: Sperry MWD Surveys

Sperry Drilling Services Standard Report

09 April, 2012

Well Coordinates: 724,439.17 N, 578,531.26 E (32° 59' 28.64" N, 104° 04' 37.95" W)

Ground Level: 3,697.00 ft

Local Coordinate Origin:

Centered on Well Calgary Federal #3

Viewing Datum:

RKB 17.5 ft @ 3714.50 ft (Silver Oak Rig 2)

TVDs to System

N

North Reference:

Grid

Unit System:

API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

HALLIBURTON

Survey Report for Calgary Federal #3 - Sperry MWD Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
516.00	2.25	70.15	515.87	3.44	9.53	-9.48	0.44
546.00	2.71	68.51	545.84	3.90	10.74	-10.68	1.55
577.00	2.88	66.61	576.80	4.48	12.14	-12.07	0.62
639.00	2.83	70.37	638.73	5.61	15.01	-14.92	0.31
732.00	2.73	70.47	731.62	7.12	19.26	-19.15	0.11
824.00	1.69	76.62	823.55	8.17	22.64	-22.52	1.16
917.00	1.37	88.76	916.51	8.51	25.09	-24.96	0.49
1,009.00	1.31	93.02	1,008.49	8.48	27.24	-27.11	0.13
1,102.00	1.45	90.32	1,101.46	8.42	29.48	-29.35	0.17
1,193.00	1.52	81.45	1,192.43	8.59	31.82	-31.69	0.26
1,287.00	1.50	78.60	1,286.40	9.02	34.26	-34.12	0.08
1,379.00	0.79	41.93	1,378.38	9.73	35.87	-35.72	1.07
1,472.00	0.78	9.03	1,471.37	10.83	36.39	-36.23	0.48
1,564.00	1.08	341.43	1,563.36	12.27	36.22	-36.03	0.58
1,657.00	1.67	326.54	1,656.33	14.23	35.19	-34.97	0.74
1,749.00	1.86	327.46	1,748.29	16.61	33.65	-33.39	0.21
1,842.00	2.07	301.71	1,841.24	18.76	31.41	-31.12	0.97
1,935.00	2.08	278.63	1,934.18	19.90	28.31	-28.01	0.89
2,027.00	2.21	270.71	2,026.11	20.17	24.89	-24.58	0.35
2,120.00	2.16	267.54	2,119.05	20.12	21.34	-21.04	0.14
2,212.00	2.36	274.89	2,210.97	20.21	17.72	-17.42	0.38
2,304.00	2.28	277.82	2,302.90	20.62	14.02	-13.71	0.16
2,397.00	2.30	275.72	2,395.82	21.05	10.33	-10.01	0.09
2,459.00	2.42	283.34	2,457.77	21.48	7.82	-7.50	0.54
2,490.00	3.68	273.25	2,488.73	21.69	6.19	-5.86	4.40
2,521.00	5.27	275.12	2,519.63	21.87	3.78	-3.45	5.15
2,552.00	6.70	269.93	2,550.46	22.00	0.55	-0.22	4.93
2,583.00	8.81	266.75	2,581.18	21.86	-3.63	3.95	6.94
2,614.00	11.45	269.24	2,611.69	21.68	-9.07	9.40	8.63
2,645.00	14.34	268.23	2,641.91	21.52	-15.99	16.31	9.35
2,675.00	16.77	267.22	2,670.81	21.20	-24.03	24.34	8.15
2,706.00	20.09	267.85	2,700.21	20.78	-33.82	34.13	10.73
2,737.00	23.26	267.40	2,729.02	20.30	-45.26	45.56	10.24
2,768.00	26.60	267.75	2,757.12	19.75	-58.31	58.60	10.78
2,799.00	30.01	267.39	2,784.41	19.13	-72.99	73.27	11.01
2,814.00	31.64	267.56	2,797.29	18.79	-80.67	80.94	10.88
2,830.00	33.53	267.61	2,810.77	18.43	-89.28	89.55	11.81
2,860.00	36.94	267.56	2,835.28	17.70	-106.57	106.82	11.37
2,891.00	40.46	267.91	2,859.46	16.93	-125.93	126.17	11.38
2,922.00	44.50	267.64	2,882.32	16.12	-146.85	147.07	13.05
2,953.00	48.83	267.72	2,903.59	15.21	-169.37	169.58	13.97
2,984.00	53.08	267.04	2,923.12	14.10	-193.42	193.61	13.81
3,015.00	57.41	267.63	2,940.78	12.92	-218.85	219.02	14.05
3,046.00	61.80	267.70	2,956.46	11.83	-245.56	245.71	14.16
3,077.00	66.15	268.30	2,970.06	10.86	-273.40	273.53	14.14
3,108.00	69.85	269.08	2,981.67	10.21	-302.13	302.25	12.16
3,139.00	73.79	270.29	2,991.34	10.05	-331.57	331.69	13.24
3,170.00	76.52	270.98	2,999.29	10.38	-361.53	361.65	9.07
3,201.00	79.50	270.97	3,005.73	10.90	-391.85	391.97	9.61

Survey Report for Calgary Federal #3 - Sperry MWD Surveys

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
3,232.00	82.40	271.53	3,010.60	11.57	-422.45	422.58	9.52
3,260.00	85.30	269.64	3,013.60	11.85	-450.29	450.41	12.34
3,274.00	87.34	270.04	3,014.50	11.81	-464.26	464.38	14.85
3,306.00	89.82	270.18	3,015.29	11.87	-496.24	496.37	7.76
3,336.00	89.75	270.36	3,015.40	12.02	-526.24	526.36	0.64
3,367.00	89.88	270.91	3,015.50	12.36	-557.24	557.36	1.82
3,398.00	89.82	271.37	3,015.59	12.98	-588.24	588.36	1.50
3,429.00	89.51	271.82	3,015.77	13.84	-619.22	619.36	1.76
3,460.00	89.07	272.03	3,016.15	14.88	-650.20	650.35	1.57
3,491.00	89.44	272.40	3,016.55	16.08	-681.18	681.34	1.69
3,522.00	89.88	272.47	3,016.74	17.40	-712.15	712.33	1.44
3,552.00	89.88	272.32	3,016.80	18.65	-742.12	742.32	0.50
3,583.00	90.68	272.31	3,016.65	19.90	-773.10	773.31	2.58
3,614.00	91.17	272.20	3,016.15	21.12	-804.07	804.29	1.62
3,645.00	91.24	272.23	3,015.50	22.32	-835.04	835.28	0.25
3,737.00	90.80	272.14	3,013.86	25.83	-926.96	927.24	0.49
3,829.00	90.43	271.90	3,012.87	29.07	-1,018.89	1,019.21	0.48
3,891.00	90.37	272.01	3,012.44	31.18	-1,080.86	1,081.20	0.20
3,922.00	90.31	271.95	3,012.26	32.25	-1,111.84	1,112.20	0.27
3,983.00	90.25	271.47	3,011.96	34.07	-1,172.81	1,173.19	0.79
4,076.00	89.81	271.55	3,011.91	36.53	-1,265.78	1,266.18	0.48
4,107.00	89.51	271.58	3,012.09	37.37	-1,296.76	1,297.18	0.97
4,169.00	89.94	273.27	3,012.39	40.00	-1,358.71	1,359.15	2.81
4,261.00	90.43	272.32	3,012.09	44.48	-1,450.59	1,451.10	1.16
4,323.00	91.17	271.49	3,011.23	46.54	-1,512.55	1,513.08	1.79
4,416.00	91.54	270.80	3,009.03	48.40	-1,605.51	1,606.05	0.84
4,478.00	91.48	270.98	3,007.39	49.36	-1,667.48	1,668.03	0.31
4,571.00	91.05	270.52	3,005.34	50.58	-1,760.45	1,761.01	0.68
4,633.00	90.99	271.02	3,004.24	51.41	-1,822.43	1,823.00	0.81
4,695.00	90.99	271.11	3,003.17	52.57	-1,884.41	1,884.99	0.15
4,757.00	90.43	270.55	3,002.40	53.46	-1,946.40	1,946.98	1.28
4,820.00	89.51	270.44	3,002.43	54.01	-2,009.40	2,009.98	1.47
4,883.00	88.77	270.56	3,003.38	54.56	-2,072.39	2,072.97	1.19
4,946.00	88.58	270.68	3,004.83	55.24	-2,135.37	2,135.95	0.36
5,010.00	88.77	271.30	3,006.31	56.34	-2,199.34	2,199.94	1.01
5,073.00	88.83	271.67	3,007.63	57.98	-2,262.30	2,262.92	0.59
5,169.00	88.83	271.29	3,009.59	60.46	-2,358.25	2,358.89	0.40
5,264.00	88.52	270.50	3,011.79	61.94	-2,453.21	2,453.87	0.89
5,359.00	88.21	269.61	3,014.50	62.03	-2,548.17	2,548.82	0.99
5,454.00	88.95	269.59	3,016.85	61.37	-2,643.14	2,643.77	0.78
5,518.00	89.51	269.36	3,017.71	60.78	-2,707.13	2,707.74	0.95
5,581.00	89.81	269.28	3,018.09	60.03	-2,770.13	2,770.72	0.49
5,645.00	89.69	269.31	3,018.37	59.25	-2,834.12	2,834.69	0.19
5,708.00	89.57	269.44	3,018.77	58.56	-2,897.12	2,897.67	0.28
5,772.00	90.25	269.83	3,018.87	58.15	-2,961.12	2,961.65	1.22
5,835.00	90.12	270.07	3,018.67	58.10	-3,024.12	3,024.65	0.43
5,899.00	89.88	270.18	3,018.67	58.24	-3,088.11	3,088.64	0.41
5,962.00	89.63	270.25	3,018.94	58.47	-3,151.11	3,151.64	0.41
6,060.00	89.26	270.66	3,019.89	59.25	-3,249.11	3,249.63	0.56
6,131.00	89.26	270.66	3,020.81	60.07	-3,320.10	3,320.62	0.00

Survey Report for Calgary Federal #3 - Sperry MWD Surveys

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N-S (ft)	Origin +E-W (ft)	Start TVD (ft)
Target	Calgary Federal #3 Plan A Rev 1 (BHL)	270.86	Slot	0.00	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
516.00	6,131.00	Sperry MWD Surveys	MWD

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N-S (ft)	+E-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Calgary Federal #3 Pla - survey misses target center by 13.66ft at 3809.54ft MD (3013.03 TVD, 28.41 N, -999.44 E) - Point	0.00	0.00	3,010.50	15.00	-999.89	724,454.17	577,531.45	32° 59' 28.813 N	104° 4' 49.691 W
Calgary Federal #3 Se - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	724,439.17	578,531.26	32° 59' 28.640 N	104° 4' 37.952 W
Calgary Federal #3 Pla - survey misses target center by 13.61ft at 5810.57ft MD (3018.73 TVD, 58.09 N, -2999.68 E) - Point	0.00	0.00	3,015.00	45.00	-2,999.66	724,484.17	575,531.85	32° 59' 29.157 N	104° 5' 13.167 W
Calgary Federal #3 Pla - survey misses target center by 6.15ft at 3309.66ft MD (3015.30 TVD, 11.89 N, -499.90 E) - Point	0.00	0.00	3,011.00	7.50	-499.94	724,446.67	578,031.36	32° 59' 28.727 N	104° 4' 43.822 W
Calgary Federal #3 Pla - survey misses target center by 11.30ft at 6118.66ft MD (3020.65 TVD, 59.93 N, -3307.76 E) - Point	0.00	0.00	3,016.00	49.63	-3,307.94	724,488.80	575,223.60	32° 59' 29.209 N	104° 5' 16.786 W
Calgary Federal #3 Pla - survey misses target center by 25.44ft at 4810.17ft MD (3002.36 TVD, 53.93 N, -1999.57 E) - Point	0.00	0.00	3,011.00	30.00	-1,999.77	724,469.17	576,531.66	32° 59' 28.985 N	104° 5' 1.429 W
Calgary Federal #3 Se - survey hits target center - Polygon	0.00	0.00	0.00	0.00	0.00	724,439.17	578,531.26	32° 59' 28.640 N	104° 4' 37.952 W

North Reference Sheet for Sec. 25-T15S-R28E - Calgary Federal #3 - Plan A Rev 1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to RKB 17.5 ft @ 3714.50ft (Silver Oak Rig 2). Northing and Easting are relative to Calgary Federal #3

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is 104° 20' 0.000 W, Longitude Origin: 0° 0' 0.000 E, Latitude Origin: 0° 0' 0.000 N

False Easting: 500,000.00ft, False Northing: 0.00ft, Scale Reduction: 0.99991615

Grid Coordinates of Well: 724,439.17 ft N, 578,531.26 ft E

Geographical Coordinates of Well: 32° 59' 28.64" N, 104° 04' 37.95" W

Grid Convergence at Surface is: 0.14°

Based upon Minimum Curvature type calculations, at a Measured Depth of 6,131.00ft
the Bottom Hole Displacement is 3,320.64ft in the Direction of 271.04° (Grid).

Magnetic Convergence at surface is: -7.73° (2 April 2012, BGGM2011)

