

Substitit 3 Copies To Appropriate District
Office
District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Ave , 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 and Natural Resources

Form C-103
May 27, 2004

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

WELL API NO. 30-015-35814
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. B-9391
7. Lease Name or Unit Agreement Name State H
8. Well Number 2
9. OGRID Number 013837
10. Pool name or Wildcat Chalk Bluff Wolfcamp

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 88211-0960

4 Well Location
Unit Letter H 2063 feet from the North line and 441 feet from the East line
Section 2 Township 18S Range 27E NMPM County Eddy

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3590' GR

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type Depth Groundwater Distance from nearest fresh water well Distance from nearest surface water

Pit Liner Thickness: mil Below-Grade Tank: Volume bbbs; Construction Material

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

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS. ☐
CHANGE PLANS ☐	P AND A ☐
MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐
OTHER: Change casing ☒	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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Mack Energy would like to change the casing string approved on this APD.

Drill a 17 1/2" hole to 200', run 13 3/8" 48# H-40 casing and cement.

Drill a 12 1/4" hole to 1150', run 8 5/8" 24# J-55 casing and cement.

Drill a 7 7/8" hole to approximately 7300', run 5 1/2" 17# L-80 casing and cement.

OCT 22 2007
OCD-ARTESIA

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐ a general permit ☐ or an (attached) alternative OCD-approved plan ☐

SIGNATURE Jerry W. Sherrell TITLE Production Clerk DATE 10/19/07
Type or print name Jerry W. Sherrell E-mail address: jerrys@mackenergycorp.com Telephone No (505)748-1288
For State Use Only

BRYAN G. ARANT

APPROVED BY: DISTRICT II GEOLOGIST TITLE DISTRICT II GEOLOGIST DATE OCT 22 2007

Conditions of Approval (if any):



Mack Energy Corp.

Eddy County, NM (NAD 27 NME)

State H #2

State H #2

Wellbore #1

OCT 22 2007

OCD-ARTESIA

Plan: Plan #2

Standard Planning Report

19 October, 2007



Scientific Drilling
Directional Drilling Operations



Scientific Drilling
Planning Report



Database:	EDM 2003 16 Single User Db	Local Co-ordinate Reference:	Well State H #2
Company:	Mack Energy Corp	TVD Reference:	WELL @ 3606 00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3606 00ft (KB Elev)
Site:	State H #2	North Reference:	Grid
Well:	State H #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Project	Eddy County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		State H #2			
Site Position:		Northing:	646,629 20ft	Latitude:	32° 46' 39 510 N
From:	Map	Easting:	528,184 50ft	Longitude:	104° 14' 29 874 W
Position Uncertainty:	0 00 ft	Slot Radius:	ft	Grid Convergence:	0 05 °

Well	State H #2				
Well Position	+N/-S	0 00 ft	Northing:	646,629 20 ft	Latitude: 32° 46' 39 510 N
	+E/-W	0 00 ft	Easting:	528,184 50 ft	Longitude: 104° 14' 29 874 W
Position Uncertainty		0 00 ft	Wellhead Elevation:	3,606 00 ft	Ground Level: 0 00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	10/19/2007	8 36	60 68	49,259

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0 00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0 00	0 00	156 92

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0 00	0 00	0 00	0 00	0 00	0.00	0 00	0 00	0 00	0 00	
1,250 00	0 00	0.00	1,250 00	0.00	0 00	0 00	0 00	0.00	0.00	
1,785 00	10 70	156.92	1,781.89	-45.82	19 53	2 00	2 00	0 00	156 92	
2,636 01	10 70	156.92	2,618 11	-191 18	81 47	0 00	0 00	0.00	0 00	
3,171 01	0 00	0 00	3,150 00	-237 00	101 00	2 00	-2 00	0.00	180 00	
7,321 01	0 00	0 00	7,300 00	-237.00	101 00	0 00	0 00	0 00	0 00	PBHL-State H #1



Scientific Drilling Planning Report



Database:	EDM 2003 16 Single User Db	Local Co-ordinate Reference:	Well State H #2
Company:	Mack Energy Corp	TVD Reference:	WELL @ 3606.00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3606 00ft (KB Elev)
Site:	State H #2	North Reference:	Grid
Well:	State H #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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
1,150 00	0 00	0 00	1,150 00	0 00	0 00	0.00	0 00	0 00	0.00
8 5/8" Casing									
1,250 00	0 00	0.00	1,250 00	0 00	0.00	0 00	0 00	0 00	0 00
KOP 1250' Start 2.0°/100'									
1,300 00	1 00	156 92	1,299 99	-0 40	0 17	0 44	2.00	2 00	0 00
1,400 00	3 00	156 92	1,399 93	-3 61	1 54	3.93	2 00	2 00	0 00
1,500 00	5.00	156.92	1,499 68	-10 03	4.27	10 90	2 00	2 00	0 00
1,600 00	7 00	156 92	1,599 13	-19 64	8 37	21 35	2.00	2 00	0 00
1,700 00	9 00	156.92	1,698 15	-32 45	13.83	35 27	2 00	2.00	0 00
1,785 00	10 70	156 92	1,781 90	-45 82	19 53	49 81	2 00	2 00	0 00
EOC hold 10.70°									
1,800 00	10 70	156 92	1,796.63	-48 38	20 62	52 59	0 00	0 00	0.00
1,900 00	10 70	156 92	1,894 89	-65 46	27 90	71 16	0 00	0 00	0 00
2,000 00	10 70	156 92	1,993 15	-82 54	35 18	89 73	0 00	0 00	0 00
2,100 00	10 70	156 92	2,091 41	-99 63	42 46	108.29	0 00	0 00	0 00
2,200 00	10.70	156.92	2,189 68	-116 71	49.74	126 86	0 00	0 00	0 00
2,300.00	10.70	156.92	2,287 94	-133 79	57.01	145 43	0 00	0.00	0 00
2,400 00	10 70	156.92	2,386 20	-150 87	64.29	163 99	0 00	0 00	0 00
2,500 00	10.70	156 92	2,484 46	-167 95	71.57	182 56	0.00	0 00	0 00
2,599 99	10 70	156 92	2,582 72	-185 03	78 85	201 13	0 00	0 00	0 00
2,636 01	10 70	156 92	2,618 11	-191 18	81 47	207 81	0 00	0 00	0.00
Start Drop 2.0°/100'									
2,699 99	9.42	156.92	2,681 11	-201 46	85 85	218 99	2 00	-2 00	0 00
2,799 99	7 42	156 92	2,780 03	-214 93	91 59	233 63	2 00	-2 00	0 00
2,899 99	5.42	156.92	2,879 39	-225 22	95.98	244 81	2 00	-2 00	0 00
2,999 99	3 42	156 92	2,979 09	-232 31	99 00	252 52	2 00	-2 00	0 00
3,099 99	1 42	156 92	3,079 00	-236 19	100 65	256 74	2 00	-2 00	0.00
3,171.01	0.00	0.00	3,150 00	-237 00	101 00	257.62	2 00	-2 00	0 00
EOC hold 0.0°									
7,321 01	0 00	0 00	7,300 00	-237 00	101 00	257 62	0 00	0 00	0.00
East HL-State H #1 - PBHL-State H #1 - South HL-State H #1									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL-State H #1	0 00	0 00	7,300 00	-237 00	101.00	646,392 20	528,285 50	32° 46' 37 164 N	104° 14' 28.693 W
- hit/miss target									
- Circle (radius 10 00)									
South HL-State H #1	0 00	0 00	7,300 00	-247 00	111 00	646,382 20	528,295 50	32° 46' 37 065 N	104° 14' 28 576 W
- plan misses by 14 14ft at 7321.01ft MD (7300.00 TVD, -237 00 N, 101.00 E)									
- Rectangle (sides W0 00 H200.00 D0.00)									
East HL-State H #1	0 00	0 00	7,300 00	-247 00	111 00	646,382.20	528,295 50	32° 46' 37 065 N	104° 14' 28.576 W
- plan misses by 14 14ft at 7321 01ft MD (7300 00 TVD, -237.00 N, 101.00 E)									
- Rectangle (sides W800 00 H0 00 D0 00)									



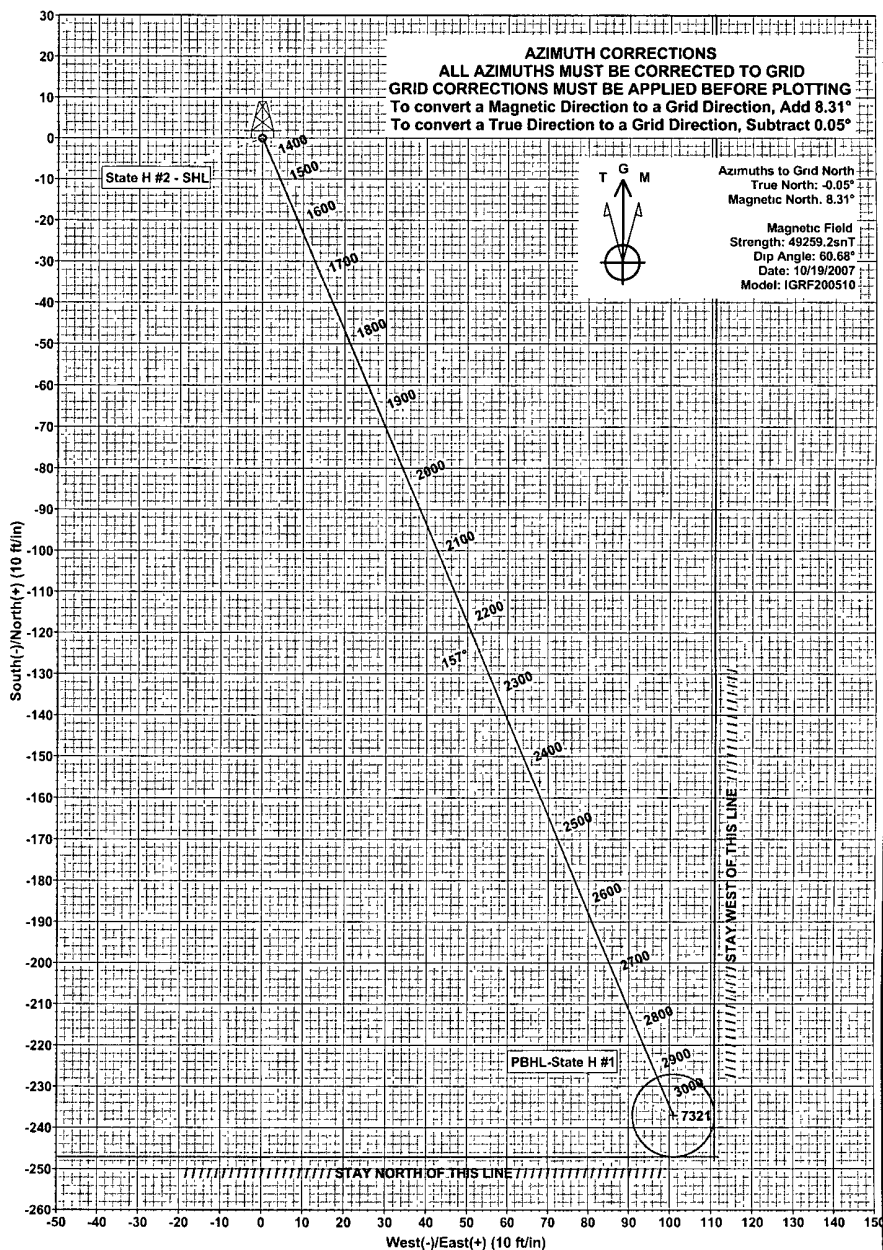
Scientific Drilling
Planning Report



Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well State H #2
Company:	Mack Energy Corp	TVD Reference:	WELL @ 3606 00ft (KB Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3606 00ft (KB Elev)
Site:	State H #2	North Reference:	Grid
Well:	State H #2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (ft)	Hole Diameter (ft)
1,150 00	1,150 00	8 5/8" Casing	8 62500	12.25000

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,250 00	1,250 00	0 00	0 00	KOP 1250' Start 2 0°/100'
1,785 00	1,781 90	-45 82	19 53	EOC hold 10.70°
2,636 01	2,618 11	-191 18	81 47	Start Drop 2 0°/100'
3,171 01	3,150 00	-237 00	101 00	EOC hold 0 0°



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	0.00	0.00	
3	1785.00	0.70	156.92	1781.89	-45.82	19.53	2.00	156.92	49.81	
4	2636.01	10.70	156.92	2618.11	-191.18	81.47	0.00	0.00	207.91	
5	3171.01	0.00	0.00	3150.00	-237.00	101.00	2.00	180.00	257.62	
6	7321.01	0.00	0.00	7300.00	-237.00	101.00	0.00	0.00	257.62	PBHL-State H #1

WELL DETAILS: State H #2						
+N/-S	+E/-W	Northing	Ground Level:		Longitude	Slot
			Easting	Latitude		
0.00	0.00	646629 20	528184.50	32°46' 39 510 N 104°14'	29.874 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	
East HL-State H #1	7300.00	-247.00	111.00	646382.20	528295.50	32°46' 37.065 N	104°14' 28.576 W	Rectangle (Sides: L800.00 W000.00)	
PBHL-State H #1	7300.00	-237.00	111.00	646392.20	528285.50	32°46' 37.164 N	104°14' 28.693 W	Circle (Radius: 10.00)	
South HL-State H #1	7300.00	-247.00	101.00	646382.20	528295.50	32°46' 37.065 N	104°14' 28.576 W	Rectangle (Sides: L0.00 W200.00)	

PROJECT DETAILS: Eddy County, NM (NAD 27 NME)

Plan: Plan #2 (State H #2/Wellbore #1)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
Mean Sea Level
System Datum:

Created By: Julio Pina Date: 19-Oct-07

Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____