

Mack Energy Corp.

Eddy County, NM (NAD 27 NME)

Chief State #1

Chief State #1

OH



Plan: Plan #2

30-eis-35c11

Standard Planning Report

07 August, 2006



Scientific Drilling Planning Report



Database:	EDM.2003.14 Single User Db	Local Co-ordinate Reference:	Well Chief State #1
Company:	Mack Energy Corp.	TVD Reference:	WELL @ 4036.0ft (Original Well Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 4036.0ft (Original Well Elev)
Site:	Chief State #1	North Reference:	Grid
Well:	Chief State #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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	Chief State #1		
Site Position:		Northing:	626,083.79 ft
From:	Lat/Long	Easting:	387,743.82 ft
Position Uncertainty:	0.0 ft	Slot Radius:	ft
		Latitude:	32° 43' 14.410 N
		Longitude:	104° 41' 54.020 W
		Grid Convergence:	-0.20 °

Well	Chief State #1		
Well Position	+N/-S	0.0 ft	Northing:
	+E/-W	0.0 ft	Easting:
Position Uncertainty	0.0 ft	Wellhead Elevation:	4,036.0 ft
		Latitude:	32° 43' 14.410 N
		Longitude:	104° 41' 54.020 W
		Ground Level:	4,020.0 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	2006-08-07	8.70
			Dip Angle
			(°)
			Field Strength
			(nT)
			60.56
			49,280

Design	Plan #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			(°)
			180.00

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,073.0	0.00	0.00	4,073.0	0.0	0.0	0.00	0.00	0.00	0.00	
4,820.0	89.64	180.00	4,550.5	-474.4	0.0	12.00	12.00	24.10	180.00	
6,325.6	89.64	180.00	4,560.0	-1,980.0	0.0	0.00	0.00	0.00	0.00	TG1-Chief State #1
6,336.5	89.86	180.00	4,560.0	-1,991.0	0.0	2.00	2.00	0.00	0.00	
8,305.6	89.86	180.00	4,565.0	-3,960.0	0.0	0.00	0.00	0.00	0.00	PBHL-Chief State #1

Scientific Drilling

Planning Report



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Company:	Mack Energy Corp.	TVD Reference:	WELL @ 4036.0ft (Original Well Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 4036.0ft (Original Well Elev)
Site:	Chief State #1	North Reference:	Grid
Well:	Chief State #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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)
0.0	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
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,073.0	0.00	0.00	4,073.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - build 12°/100'									
4,100.0	3.24	180.00	4,100.0	-0.8	0.0	0.8	12.00	12.00	0.00
4,200.0	15.24	180.00	4,198.5	-16.8	0.0	16.8	12.00	12.00	0.00
4,300.0	27.24	180.00	4,291.5	-53.0	0.0	53.0	12.00	12.00	0.00
4,400.0	39.24	180.00	4,375.0	-107.7	0.0	107.7	12.00	12.00	0.00
4,500.0	51.24	180.00	4,445.3	-178.5	0.0	178.5	12.00	12.00	0.00
4,600.0	63.24	180.00	4,499.3	-262.5	0.0	262.5	12.00	12.00	0.00
4,700.0	75.24	180.00	4,534.7	-355.8	0.0	355.8	12.00	12.00	0.00
4,800.0	87.24	180.00	4,549.9	-454.5	0.0	454.5	12.00	12.00	0.00
4,820.0	89.64	180.00	4,550.5	-474.4	0.0	474.4	12.00	12.00	0.00
EOC - hold 89.64°									

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Site:	Chief State #1	North Reference:	Grid
Well:	Chief State #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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)	
4,900.0	89.64	180.00	4,551.0	-554.5	0.0	554.5	0.00	0.00	0.00	
5,000.0	89.64	180.00	4,551.6	-654.5	0.0	654.5	0.00	0.00	0.00	
5,100.0	89.64	180.00	4,552.2	-754.5	0.0	754.5	0.00	0.00	0.00	
5,200.0	89.64	180.00	4,552.9	-854.5	0.0	854.5	0.00	0.00	0.00	
5,300.0	89.64	180.00	4,553.5	-954.5	0.0	954.5	0.00	0.00	0.00	
5,400.0	89.64	180.00	4,554.1	-1,054.5	0.0	1,054.5	0.00	0.00	0.00	
5,500.0	89.64	180.00	4,554.8	-1,154.5	0.0	1,154.5	0.00	0.00	0.00	
5,600.0	89.64	180.00	4,555.4	-1,254.4	0.0	1,254.4	0.00	0.00	0.00	
5,700.0	89.64	180.00	4,556.0	-1,354.4	0.0	1,354.4	0.00	0.00	0.00	
5,800.0	89.64	180.00	4,556.7	-1,454.4	0.0	1,454.4	0.00	0.00	0.00	
5,900.0	89.64	180.00	4,557.3	-1,554.4	0.0	1,554.4	0.00	0.00	0.00	
6,000.0	89.64	180.00	4,557.9	-1,654.4	0.0	1,654.4	0.00	0.00	0.00	
6,100.0	89.64	180.00	4,558.6	-1,754.4	0.0	1,754.4	0.00	0.00	0.00	
6,200.0	89.64	180.00	4,559.2	-1,854.4	0.0	1,854.4	0.00	0.00	0.00	
6,300.0	89.64	180.00	4,559.8	-1,954.4	0.0	1,954.4	0.00	0.00	0.00	
6,325.6	89.64	180.00	4,560.0	-1,980.0	0.0	1,980.0	0.00	0.00	0.00	
KOP - build 2°/100'										
6,336.5	89.86	180.00	4,560.0	-1,991.0	0.0	1,991.0	2.00	2.00	0.00	
EOC - hold 89.86°										
6,400.0	89.86	180.00	4,560.2	-2,054.4	0.0	2,054.4	0.00	0.00	0.00	
6,500.0	89.86	180.00	4,560.5	-2,154.4	0.0	2,154.4	0.00	0.00	0.00	
6,600.0	89.86	180.00	4,560.7	-2,254.4	0.0	2,254.4	0.00	0.00	0.00	
6,700.0	89.86	180.00	4,561.0	-2,354.4	0.0	2,354.4	0.00	0.00	0.00	
6,800.0	89.86	180.00	4,561.2	-2,454.4	0.0	2,454.4	0.00	0.00	0.00	
6,900.0	89.86	180.00	4,561.5	-2,554.4	0.0	2,554.4	0.00	0.00	0.00	
7,000.0	89.86	180.00	4,561.7	-2,654.4	0.0	2,654.4	0.00	0.00	0.00	
7,100.0	89.86	180.00	4,562.0	-2,754.4	0.0	2,754.4	0.00	0.00	0.00	
7,200.0	89.86	180.00	4,562.2	-2,854.4	0.0	2,854.4	0.00	0.00	0.00	
7,300.0	89.86	180.00	4,562.5	-2,954.4	0.0	2,954.4	0.00	0.00	0.00	
7,400.0	89.86	180.00	4,562.7	-3,054.4	0.0	3,054.4	0.00	0.00	0.00	
7,500.0	89.86	180.00	4,563.0	-3,154.4	0.0	3,154.4	0.00	0.00	0.00	
7,600.0	89.86	180.00	4,563.2	-3,254.4	0.0	3,254.4	0.00	0.00	0.00	
7,700.0	89.86	180.00	4,563.5	-3,354.4	0.0	3,354.4	0.00	0.00	0.00	
7,800.0	89.86	180.00	4,563.7	-3,454.4	0.0	3,454.4	0.00	0.00	0.00	
7,900.0	89.86	180.00	4,564.0	-3,554.4	0.0	3,554.4	0.00	0.00	0.00	
8,000.0	89.86	180.00	4,564.2	-3,654.4	0.0	3,654.4	0.00	0.00	0.00	
8,100.0	89.86	180.00	4,564.5	-3,754.4	0.0	3,754.4	0.00	0.00	0.00	
8,200.0	89.86	180.00	4,564.7	-3,854.4	0.0	3,854.4	0.00	0.00	0.00	
8,300.0	89.86	180.00	4,565.0	-3,954.4	0.0	3,954.4	0.00	0.00	0.00	
8,305.6	89.86	180.00	4,565.0	-3,960.0	0.0	3,960.0	0.00	0.00	0.00	

Scientific Drilling

Planning Report



Database:	EDM 2003.14 Single User Db	Local Co-ordinate Reference:	Well Chief State #1
Company:	Mack Energy Corp.	TVD Reference:	WELL @ 4036.0ft (Original Well Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 4036.0ft (Original Well Elev)
Site:	Chief State #1	North Reference:	Grid
Well:	Chief State #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
TG1-Chief State #1	0.00	0.00	4,560.0	-1,980.0	0.0	624,103.79	387,743.82	32° 42' 54.817 N	104° 41' 53.940 W
- plan hits target									
- Point									
PBHL-Chief State #1	0.00	0.00	4,565.0	-3,960.0	0.0	622,123.79	387,743.82	32° 42' 35.224 N	104° 41' 53.860 W
- plan hits target									
- Point									

Plan Annotations					
	Measured	Vertical	Local Coordinates		
	Depth	Depth	+N/-S	+E/-W	Comment
	(ft)	(ft)	(ft)	(ft)	
	4,073.0	4,073.0	0.0	0.0	KOP - build 12°/100'
	4,820.0	4,550.5	-474.4	0.0	EOC - hold 89.64°
	6,325.6	4,560.0	-1,980.0	0.0	KOP - build 2°/100'
	6,336.5	4,560.0	-1,991.0	0.0	EOC - hold 89.86°

Mack Energy Corp.

Scientific Drilling for Mack Energy Corp.
Site: Eddy County, NM (NAD 27 NME)
Well: Chief State #1
Wellbore: OH
Design: Plan #2



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	Tface	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	4073.0	0.00	0.00	4073.0	0.0	0.0	0.00	0.00	0.0	
3	4820.0	89.64	180.00	4560.6	-474.4	0.0	12.00	180.00	474.4	TG1-Chief State #1
4	6326.6	89.64	180.00	4560.0	-1360.0	0.0	0.00	0.00	1360.0	
6	6336.6	89.66	180.00	4560.0	-1391.0	0.0	2.00	0.00	1391.0	
6	8306.6	89.86	180.00	4560.0	-3560.0	0.0	0.00	0.00	3560.0	PBHL-Chief State #1

WELL DETAILS: Chief State #1

Ground Level: 4020.0
+N/S 0.0 +E/W 0.0 Northing 387743.82 Easting 387743.82 Latitude 32° 43' 14.10" N Longitude 104° 41' 54.02" W Silt

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/S	+E/W	Northing	Easting	Shape
TG1-Chief State #1	4560.0	-1360.0	0.0	624103.79	387743.82	Point
PBHL-Chief State #1	4560.0	-3560.0	0.0	622123.79	387743.82	Point

PROJECT DETAIL S: Eddy County, NM (NAD 27 NME)

Geodetic System: US State Plane 1927 (Exact solution)

Datum: NAD 1927 (NADCON CONUS)

Ellipsoid: Clarke 1866

Zone: New Mexico East 3001

System Datum: Mean Sea Level

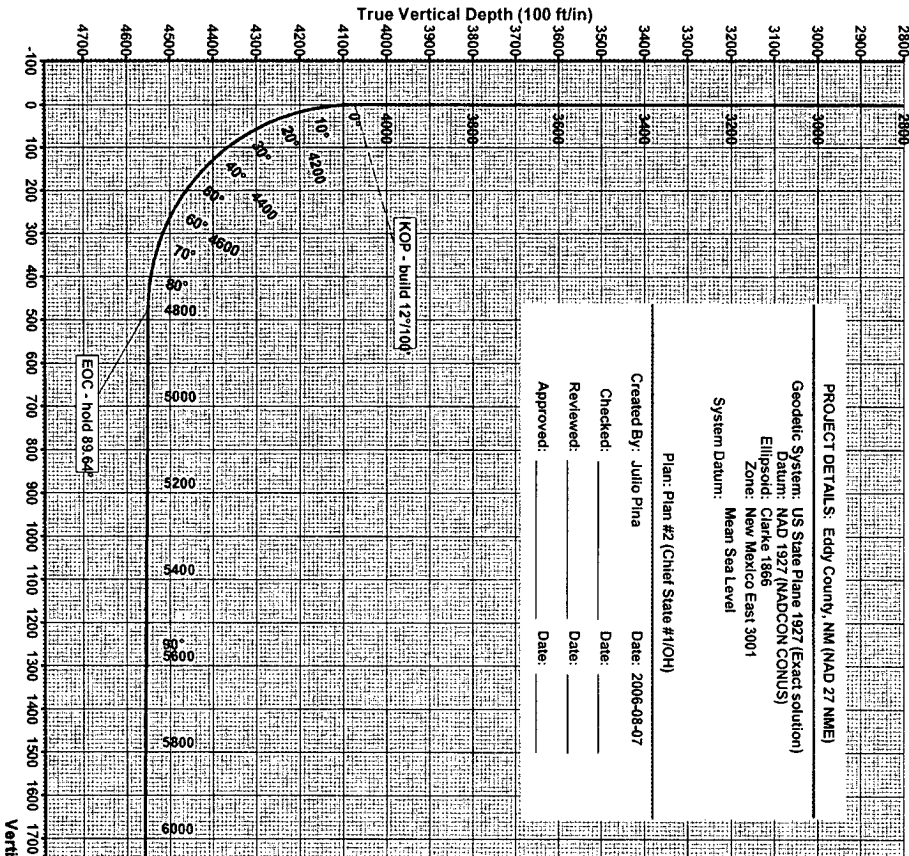
Plan: Plan #2 (Chief State #1/OH)

Created By: Julio Pina Date: 2006-08-07

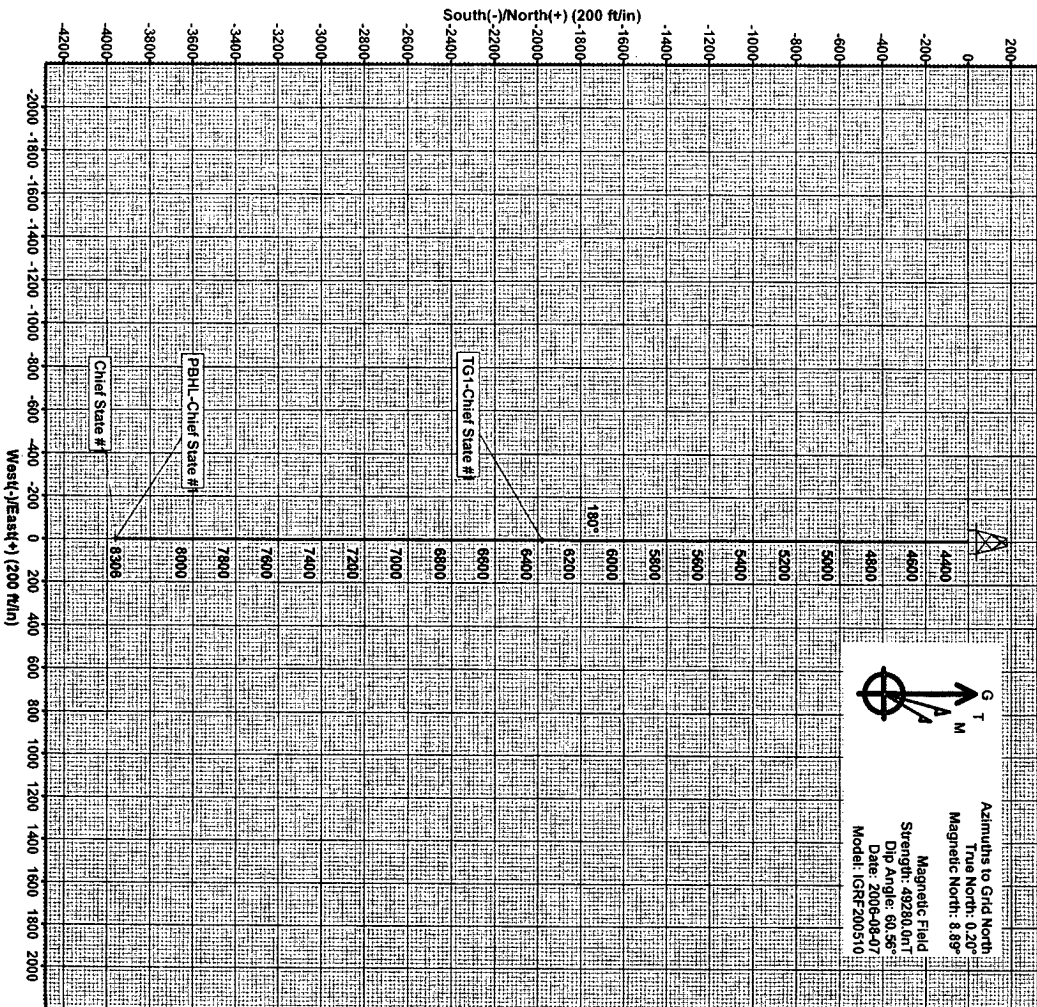
Checked: Date: _____

Reviewed: Date: _____

Approved: Date: _____



Vertical Section at 180.00° (100 ft/in)



Azimuths to Grid North
True North: 0.20°
Magnetic North: 8.89°
Magnetic Field
Strength: 48280.0 nT
Dip Angle: 69.55°
Date: 2006-09-07
Model: IGRF2005.10