

Apache Corporation
303 Veterans Airpark Lane, #3000
Midland, TX 79705

North Monument G/SA Unit #395
Lea County, New Mexico

30-025-41722

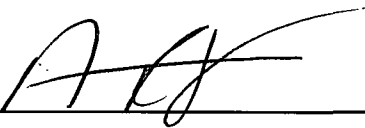
M 36 19S 36E 1070' FSL .175' FWL

229	2.29	0.10	0.18	0.40	0.40
502	2.73	0.10	0.18	0.48	0.88
828	3.26	0.20	0.35	1.14	2.02
1018	1.90	0.20	0.35	0.67	2.68

HOBBS OCD

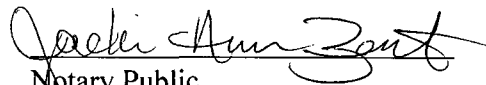
OCT 09 2014

RECEIVED

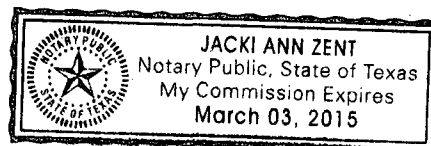


Archie Brown - General Manager

The attached instrument was acknowledged before me on the 30th day of July, 2014 by
Archie Brown - General Manager, CapStar Drilling, Inc.



Notary Public



OCT 15 2014



PHOENIX
TECHNOLOGY SERVICES

Apache Corporation

Lea County, NM (NAD83 NME)

NMGSAU

#395

Wellbore #1 Job #1411192

Survey: Phoenix MWD Surveys

Planning Report

23 July, 2014

HOBBS OCD

OCT 09 2014

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Apache
EXPLORING WHAT'S POSSIBLE



Phoenix Technology Services Planning Report



Company:	Apache Corporation	Local Co-ordinate Reference:	Well #395
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB: 11' @ 3584.00usft (Capstar 119)
Site:	NMGSAU	MD Reference:	KB: 11' @ 3584.00usft (Capstar 119)
Well:	#395	North Reference:	Grid
Wellbore:	Wellbore #1 Job #1411192	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Capstar 119)	Database:	Compass 5000 GCR DB

Project	Lea County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	NMGSAU		
Site Position:		Northing:	582,973.08 usft
From:	Map	Easting:	870,597.88 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 35' 53.14439 N
		Longitude:	103° 15' 51.08348 W
		Grid Convergence:	0.58 °

Well		#395				
Well Position	+N/-S	0.00 usft	Northing:	587,994.01 usft	Latitude:	32° 36' 44.36384 N
	+E/-W	0.00 usft	Easting:	854,703.88 usft	Longitude:	103° 18' 56.29007 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,573.00 usft	

Wellbore	Wellbore #1 Job #1411192				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	2014/07/02	7.23	60.50	48,551

Design		Surveys (Capstar 119)		
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	327.20

Survey Program	Date 2014/07/23			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,190.00	3,978.00	Phoenix MWD Surveys (Wellbore #1 Job #	PHX+MWD+BGGM	PHX+MWD+BGGM v3:standard declination



Phoenix Technology Services Planning Report



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Site:	NMGSAU	MD Reference:	KB 11' @ 3584.00usft (Capstar 119)
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Wellbore:	Wellbore #1 Job #1411192	Survey Calculation Method:	Minimum Curvature
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Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	Northing (usft)	Easting (usft)	V. Sec (usft)	DLeg (°/100usft)	
0.00	0.00	0.00	-3,584.00	0.00	0.00	0.00	587,994.01	854,703.88	0.00	0.00	
1,190.00	0.30	72.20	-2,394.01	1,189.99	0.95	2.97	587,994.96	854,706.85	-0.81	0.03	
First Phoenix MWD Survey											
1,442.00	5.10	2.50	-2,142.35	1,441.65	12.35	4.08	588,006.36	854,707.96	8.17	1.99	
1,694.00	10.20	1.00	-1,892.67	1,691.33	45.87	4.96	588,039.88	854,708.84	35.87	2.03	
1,947.00	8.60	343.40	-1,643.02	1,940.98	86.41	-0.05	588,080.42	854,703.83	72.66	1.29	
2,199.00	8.70	306.60	-1,393.70	2,190.30	115.85	-20.75	588,109.86	854,683.13	108.62	2.16	
2,452.00	7.00	309.50	-1,143.08	2,440.92	137.07	-48.01	588,131.08	854,655.87	141.22	0.69	
2,704.00	7.10	311.80	-892.99	2,691.01	157.22	-71.47	588,151.22	854,632.41	170.86	0.12	
2,957.00	5.40	315.80	-641.50	2,942.50	176.17	-91.43	588,170.18	854,612.45	197.61	0.69	
3,209.00	6.60	312.00	-390.88	3,193.12	194.36	-110.46	588,188.37	854,593.42	223.21	0.50	
3,462.00	6.50	315.90	-139.53	3,444.47	214.38	-131.23	588,208.39	854,572.65	251.29	0.18	
3,715.00	6.60	326.40	111.82	3,695.82	236.77	-149.24	588,230.78	854,554.64	279.87	0.47	
3,928.00	6.60	326.40	323.41	3,907.41	257.16	-162.79	588,251.17	854,541.09	304.35	0.00	
Final Phoenix MWD Survey											
3,978.00	6.60	326.40	373.08	3,957.08	261.95	-165.97	588,255.96	854,537.91	310.09	0.00	
Projection to TD											

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,190.00	1,189.99	0.95	2.97	First Phoenix MWD Survey
3,928.00	3,907.41	257.16	-162.79	Final Phoenix MWD Survey
3,978.00	3,957.08	261.95	-165.97	Projection to TD

Checked By: _____	Approved By: _____	Date: _____
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