

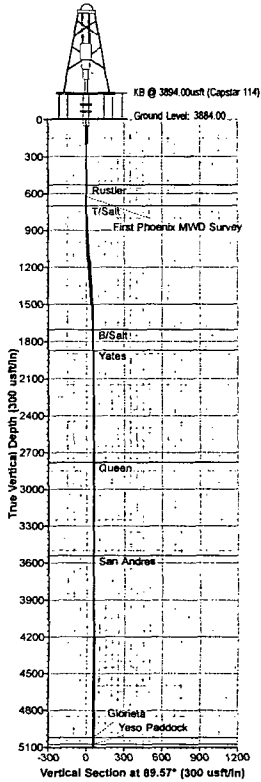


Project: Eddy County, NM (NAD27 NME)
Site: Crow Federal
Well: #11H
Wellbore: OH/Job #1310714
Design: Plan #2 06-10-13
Rig: Capstar 114

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DEC 09 2013
NMOCD ARTESIA



T G M
Azimuth to Grid North
True North: -0.25°
Magnetic North: 7.27°
Magnetic Field
Strength: 48755.0nT
Dip Angle: 60.66°
Date: 06/10/2013
Model: IGRF2010_14



WELL DETAILS											
+N-S		-E-W		Northing	Ground Level	3884.00	Eastings		Latitude	Longitude	
0.00		0.00		671195.90	543906.40		32° 50' 39.571153 N		103° 51' 53.168197 W		

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N-S	-E-W	Diag	TFace	VSeet	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	875.00	0.00	0.00	875.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 2.00
3	375.00	4.00	89.57	374.84	0.05	8.98	2.00	89.57	8.98	0.00	Start 500.00 hold at 875.00 MD
4	1375.00	4.00	89.57	1373.62	0.31	41.86	0.00	0.00	0.00	41.86	Start Drop -1.50
5	1641.67	0.00	0.00	1640.07	0.38	51.18	1.50	180.00	51.18	0.00	Start 3702.53 hold at 1641.67 MD
6	5344.20	0.00	0.00	5342.50	0.38	51.18	0.00	0.00	51.18	0.00	XOP Start Build 12.00
7	6086.14	89.03	89.57	6020.00	3.94	620.56	12.00	89.57	620.57	0.00	LP Start 1779.69 hold at 6086.15 MD
8	7855.82	89.03	89.57	5850.00	17.42	2299.93	0.00	0.00	2300.00	MP-Crow Fed #11H	Start DLS 2.00 TFO 0.02
9	7878.36	89.28	89.57	5850.18	17.51	2312.48	2.00	0.02	2312.53	0.00	Start 2388.19 hold at 7878.35 MD
10	10266.55	89.28	89.57	5880.00	35.90	4700.40	0.00	0.00	4700.53	PBHL-Crow Fed #11H	TD at 10266.55

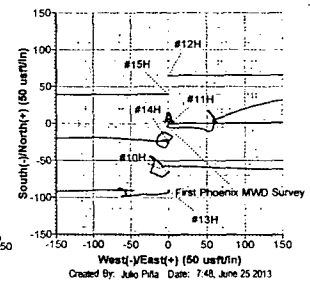
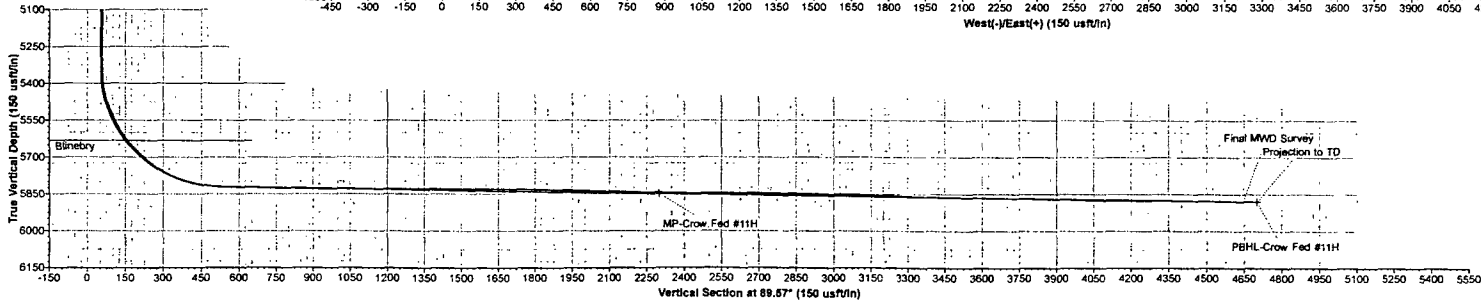
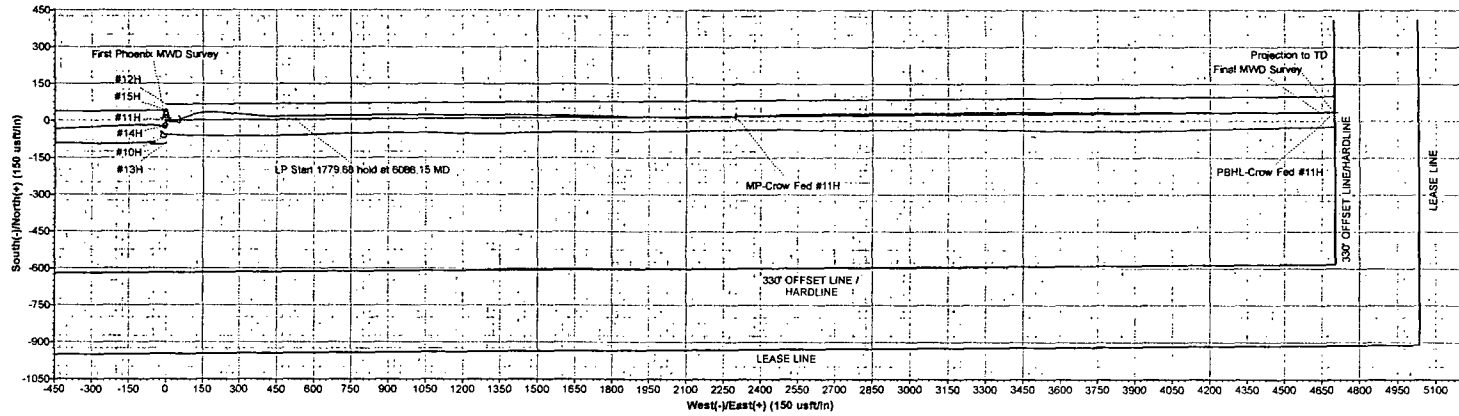
DESIGN TARGET DETAILS											
Name	TVD	+N-S	-E-W	Northing	Eastings	Latitude	Longitude		Shape		
MP-Crow Fed #11H	5850.00	17.42	2299.93	671213.32	6456206.33	32° 50' 39.641758 N	103° 51' 51.2620873 W		Point		
- plan hits target center											
PBHL-Crow Fed #11H	5880.00	35.90	4700.40	671231.50	645606.80	32° 50' 39.713749 N	103° 50' 58.071144 W		Point		
- plan hits target center											

PROJECT DETAILS: Eddy County, NM (NAD27 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											
SITE DETAILS: Crow Federal											
Site Centre Northing: 671130.90											
Easting: 643906.80											
Positional Uncertainty: 0.00											
Convergence: 0.25											
Local North: Grid											
FORMATION TOP DETAILS											
TVDPath	MDPath	Formation	DipAngle	DpDr							
530.00	530.00	Rustler	0.00	0.00							
701.00	701.00	T/Salt	0.00	0.00							
1705.00	1705.00	B/Salt	0.00	0.00							
1872.00	1872.00	Yates	0.00	0.00							
2781.00	2781.00	Guean	0.00	0.00							
3541.00	3541.00	San Andres	0.00	0.00							
5021.00	5022.60	Glorieta	0.00	0.00							
5075.00	5076.60	Yesso Paddock	0.00	0.00							
5933.00	5936.37	Binebry	0.00	0.00							

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001
Local Origin: Well #11H, Grid North
Latitude: 32° 50' 39.571153 N
Longitude: 103° 51' 53.168197 W
Grid East: 643906.80
Grid North: 671195.90
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 10-Jun-13
Magnetic Declination: 7.52°
Dip Angle from Horizontal: 60.66°
Magnetic Field Strength: 48755
To convert a Magnetic Direction to a Grid Direction, Add 7.27°
To convert a Magnetic Direction to a True Direction, Add 7.52° East
To convert a True Direction to a Grid Direction, Subtract 0.25°

LEGEND

- #12H, Wellbore #1 / Job #1210350, Plan 1 4-25-2012 V0
- #10H, OH / Job #1310298, Surveys (Capstar 114) V0
- #11H, OH/Job #1310714, Surveys (Capstar 114) V0
- #13H, OH / Job #1310316, Surveys (Capstar 114) V0
- #14H, OH/Job #1310557, Surveys (Capstar 114) V0
- #15H, OH / Job #1310461, Plan #2 04-18-13 V0
- Plan #2 06-10-13



30-015-410578