

Project: Eddy County, New Mexico (NAD83)
 Site: Littlefield 34 Federal Com
 Well: 1H
 Wellbore: OH
 Design: Plan 1 09-20-16
 Rig:



PHOENIX
 TECHNOLOGY SERVICES



Azimuths to Grid North
 True North: -0.19°
 Magnetic North: 6.88°

Magnetic Field
 Strength: 48070.5nT
 Dip Angle: 59.73°
 Date: 9/19/2016
 Model: HDGM

Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone

Local Origin: Well 1H, Grid North

Latitude: 32° 0' 4.17432 N
 Longitude: 103° 58' 24.42649 W

Grid East: 652895.40
 Grid North: 364347.00
 Scale Factor: 1.000

Geomagnetic Model: HDGM
 Sample Date: 19-Sep-16
 Magnetic Declination: 7.07°
 Dip Angle from Horizontal: 59.73°
 Magnetic Field Strength: 48071

To convert a Magnetic Direction to a Grid Direction, Add 6.88°
 To convert a Magnetic Direction to a True Direction, Add 7.07° East
 To convert a True Direction to a Grid Direction, Subtract 0.19°

LEGEND

— 3H, OH, Plan 1 09-20-16 V0
 — Plan 1 09-20-16

WELL DETAILS

+N/S	+E/W	North	Ground Level	Easting	Latitude	Longitude
0.00	0.00	364347.00	2884.00	652895.40	32° 0' 4.17432 N	103° 58' 24.42649 W

DESIGN TARGET DETAILS

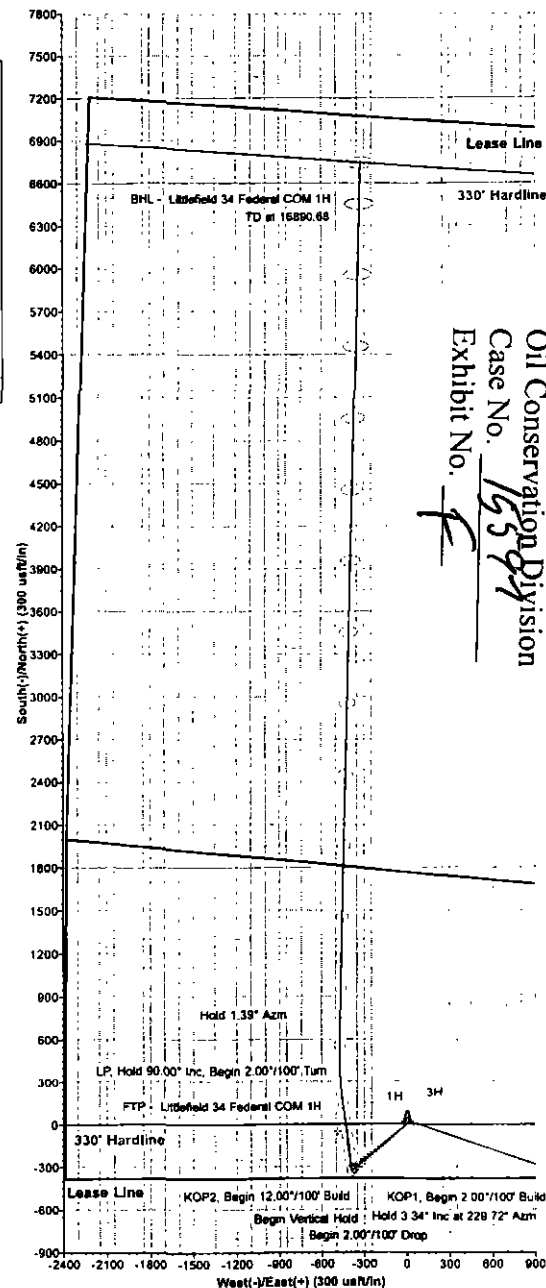
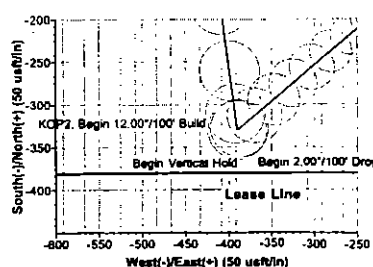
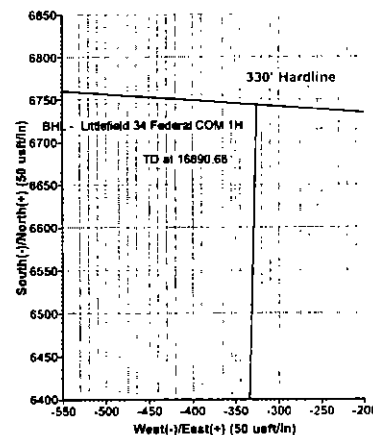
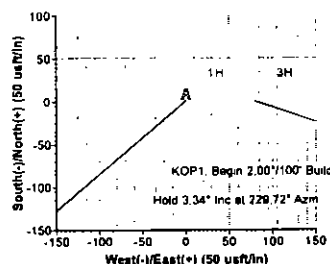
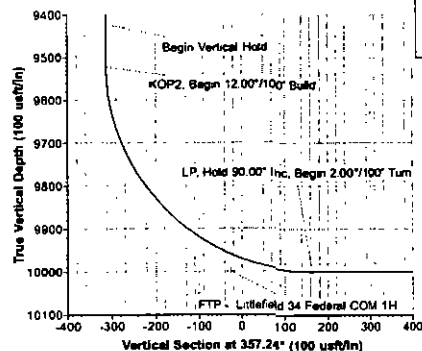
Name	TVD	+N/S	+E/W	North	Easting	Latitude	Longitude
BHL - Littlefield 34 Federal COM 1H 10000.00				6743.60	-325.50	371090.60	652569.90
FTP - Littlefield 34 Federal COM 1H 10000.00				-50.40	-489.80	364296.60	652405.60

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Diag	TFace	VSec	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP1, Begin 2.00°/100' Build
2	530.00	0.00	0.00	530.00	0.00	0.00	0.00	0.00	0.00	0.00	Hold 3.34° Inc at 229.72° Azm
3	666.98	3.34	229.72	666.98	-3.15	-3.71	2.00	229.72	-2.96	0.00	Begin 2.00°/100' Drop
4	9270.36	3.34	229.72	9270.36	-327.15	-396.09	0.00	0.00	-308.16	0.00	Begin Vertical Hold
5	9437.34	0.00	0.00	9437.34	-330.30	-369.80	2.00	180.00	-311.12	0.00	KOP2, Begin 12.00°/100' Build
6	9537.34	0.00	0.00	9537.34	-330.30	-369.80	0.00	0.00	-311.12	0.00	LP, Hold 90.00° Inc, Begin 2.00°/100' Turn
7	10267.34	90.00	352.55	10000.00	143.13	-451.71	12.00	352.55	164.75	0.00	Hold 1.38° Azm
8	10729.38	90.00	1.38	10000.00	584.12	-475.05	2.00	90.00	606.34	0.00	
9	6890.68	90.00	1.39	10000.00	6743.60	-325.50	0.00	0.00	6751.45	0.00	BHL - Littlefield 34 Federal COM 1H TD at 16890.68

FORMATION TOP DETAILS

No formation data is available



Oil Conservation Division
 Case No. 16584
 Exhibit No. 4