

BC Operating, Inc.

Lea Co, NM (Nad-83_2010)

Blue Quail 7 Fed Com #1H

Blue Quail 7 Fed Com #1H

HOBBS OCD
FEB 27 2017
RECEIVED

Lateral #1

Plan: Design #1

Standard Planning Report

21 April, 2015

M3P
DIRECTIONAL
SERVICES

M3P Directional Services
Planning Report



Database: EDM 5000.1 Single User Db
Company: BC Operating, Inc.
Project: Lea Co, NM (Nad-83_2010)
Site: Blue Quail 7 Fed Com #1H
Well: Blue Quail 7 Fed Com #1H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Site Blue Quail 7 Fed Com #1H
TVD Reference: WELL @ 3583.00usft (Original Well Elev)
MD Reference: WELL @ 3583.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project Lea Co, NM (Nad-83_2010)
Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

Site Blue Quail 7 Fed Com #1H, Sec 6, T-23S, R-32E
Site Position: Northing: 483,241.37 usft Latitude: 32° 19' 37.003 N
From: Map Easting: 734,987.47 usft Longitude: 103° 42' 23.049 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: 0.34 °

Well Blue Quail 7 Fed Com #1H
Well Position +N/-S 0.00 usft Northing: 483,241.37 usft Latitude: 32° 19' 37.003 N
+E/-W 0.00 usft Easting: 734,987.47 usft Longitude: 103° 42' 23.049 W
Position Uncertainty 0.00 usft Wellhead Elevation: 3,583.00 usft Ground Level: 3,558.00 usft

Wellbore Lateral #1
Magnetics Model Name Sample Date Declination (°) Dip Angle (°) Field Strength (nT)
IGRF2010 4/21/2015 7.18 60.16 48,278

Design Design #1
Audit Notes:
Version: Phase: PLAN Tie On Depth: 0.00
Vertical Section: Depth From (TVD) +N/-S +E/-W Direction
(usft) (usft) (usft) (°)
0.00 0.00 0.00 179.61

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
11,227.04	0.00	0.00	11,227.04	0.00	0.00	0.00	0.00	0.00	0.00	
12,127.04	90.00	179.61	11,800.00	-572.94	3.91	10.00	10.00	0.00	179.61	
16,835.45	90.00	179.61	11,800.00	-5,281.24	36.08	0.00	0.00	0.00	0.00	PBHL - TD (BQ7FC1H

M3P Directional Services

Planning Report



Database: EDM 5000.1 Single User Db
 Company: BC Operating, Inc.
 Project: Lea Co, NM (Nad-83_2010)
 Site: Blue Quail 7 Fed Com #1H
 Well: Blue Quail 7 Fed Com #1H
 Wellbore: Lateral #1
 Design: Design #1

Local Co-ordinate Reference:
 TVD Reference:
 MD Reference:
 North Reference:
 Survey Calculation Method:

Site Blue Quail 7 Fed Com #1H
 WELL @ 3583.00usft (Original Well Elev)
 WELL @ 3583.00usft (Original Well Elev)
 Grid
 Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

M3P Directional Services
Planning Report



Database: EDM 5000.1 Single User Db
Company: BC Operating, Inc.
Project: Lea Co, NM (Nad-83_2010)
Site: Blue Quail 7 Fed Com #1H
Well: Blue Quail 7 Fed Com #1H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Blue Quail 7 Fed Com #1H
WELL @ 3583.00usft (Original Well Elev)
WELL @ 3583.00usft (Original Well Elev)
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00

M3P Directional Services

Planning Report



Database: EDM 5000.1 Single User Db
Company: BC Operating, Inc.
Project: Lea Co, NM (Nad-83_2010)
Site: Blue Quail 7 Fed Com #1H
Well: Blue Quail 7 Fed Com #1H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Blue Quail 7 Fed Com #1H
WELL @ 3583.00usft (Original Well Elev)
WELL @ 3583.00usft (Original Well Elev)
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.00	0.00	0.00
11,227.04	0.00	0.00	11,227.04	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 10°/100°									
11,250.00	2.30	179.61	11,249.99	-0.46	0.00	0.46	10.00	10.00	0.00
11,300.00	7.30	179.61	11,299.80	-4.64	0.03	4.64	10.00	10.00	0.00
11,350.00	12.30	179.61	11,349.06	-13.14	0.09	13.14	10.00	10.00	0.00
11,400.00	17.30	179.61	11,397.39	-25.91	0.18	25.91	10.00	10.00	0.00
11,450.00	22.30	179.61	11,444.42	-42.83	0.29	42.84	10.00	10.00	0.00
11,500.00	27.30	179.61	11,489.79	-63.80	0.44	63.80	10.00	10.00	0.00
11,550.00	32.30	179.61	11,533.17	-88.63	0.61	88.64	10.00	10.00	0.00
11,600.00	37.30	179.61	11,574.21	-117.16	0.80	117.16	10.00	10.00	0.00
11,650.00	42.30	179.61	11,612.62	-149.15	1.02	149.15	10.00	10.00	0.00
11,700.00	47.30	179.61	11,648.09	-184.37	1.26	184.37	10.00	10.00	0.00
11,750.00	52.30	179.61	11,680.35	-222.54	1.52	222.55	10.00	10.00	0.00
11,800.00	57.30	179.61	11,709.17	-263.38	1.80	263.39	10.00	10.00	0.00
11,850.00	62.30	179.61	11,734.32	-306.58	2.09	306.59	10.00	10.00	0.00
11,900.00	67.30	179.61	11,755.60	-351.80	2.40	351.81	10.00	10.00	0.00
11,950.00	72.30	179.61	11,772.86	-398.71	2.72	398.72	10.00	10.00	0.00
12,000.00	77.30	179.61	11,785.97	-446.94	3.05	446.95	10.00	10.00	0.00
12,050.00	82.30	179.61	11,794.83	-496.14	3.39	496.15	10.00	10.00	0.00
12,100.00	87.30	179.61	11,799.36	-545.91	3.73	545.93	10.00	10.00	0.00
12,123.96	89.69	179.61	11,799.99	-569.86	3.89	569.87	10.00	10.00	0.00
FTP (BQ7FC1H)									
12,127.04	90.00	179.61	11,800.00	-572.94	3.91	572.96	10.00	10.00	0.00
EOC - Hold 90°									
12,200.00	90.00	179.61	11,800.00	-645.90	4.41	645.92	0.00	0.00	0.00
12,300.00	90.00	179.61	11,800.00	-745.90	5.10	745.92	0.00	0.00	0.00
12,400.00	90.00	179.61	11,800.00	-845.90	5.78	845.92	0.00	0.00	0.00
12,500.00	90.00	179.61	11,800.00	-945.89	6.46	945.92	0.00	0.00	0.00
12,600.00	90.00	179.61	11,800.00	-1,045.89	7.15	1,045.92	0.00	0.00	0.00
12,700.00	90.00	179.61	11,800.00	-1,145.89	7.83	1,145.92	0.00	0.00	0.00
12,800.00	90.00	179.61	11,800.00	-1,245.89	8.51	1,245.92	0.00	0.00	0.00
12,900.00	90.00	179.61	11,800.00	-1,345.88	9.19	1,345.92	0.00	0.00	0.00
13,000.00	90.00	179.61	11,800.00	-1,445.88	9.88	1,445.92	0.00	0.00	0.00
13,100.00	90.00	179.61	11,800.00	-1,545.88	10.56	1,545.92	0.00	0.00	0.00
13,200.00	90.00	179.61	11,800.00	-1,645.88	11.24	1,645.92	0.00	0.00	0.00
13,300.00	90.00	179.61	11,800.00	-1,745.87	11.93	1,745.92	0.00	0.00	0.00
13,400.00	90.00	179.61	11,800.00	-1,845.87	12.61	1,845.92	0.00	0.00	0.00
13,500.00	90.00	179.61	11,800.00	-1,945.87	13.29	1,945.92	0.00	0.00	0.00
13,600.00	90.00	179.61	11,800.00	-2,045.87	13.98	2,045.92	0.00	0.00	0.00
13,700.00	90.00	179.61	11,800.00	-2,145.87	14.66	2,145.92	0.00	0.00	0.00
13,800.00	90.00	179.61	11,800.00	-2,245.86	15.34	2,245.92	0.00	0.00	0.00
13,900.00	90.00	179.61	11,800.00	-2,345.86	16.03	2,345.92	0.00	0.00	0.00
14,000.00	90.00	179.61	11,800.00	-2,445.86	16.71	2,445.92	0.00	0.00	0.00
14,100.00	90.00	179.61	11,800.00	-2,545.86	17.39	2,545.92	0.00	0.00	0.00
14,200.00	90.00	179.61	11,800.00	-2,645.85	18.08	2,645.92	0.00	0.00	0.00
14,300.00	90.00	179.61	11,800.00	-2,745.85	18.76	2,745.92	0.00	0.00	0.00
14,400.00	90.00	179.61	11,800.00	-2,845.85	19.44	2,845.92	0.00	0.00	0.00
14,500.00	90.00	179.61	11,800.00	-2,945.85	20.13	2,945.92	0.00	0.00	0.00

M3P Directional Services

Planning Report



Database: EDM 5000.1 Single User Db
Company: BC Operating, Inc.
Project: Lea Co, NM (Nad-83_2010)
Site: Blue Quail 7 Fed Com #1H
Well: Blue Quail 7 Fed Com #1H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Site Blue Quail 7 Fed Com #1H
WELL @ 3583.00usft (Original Well Elev)
WELL @ 3583.00usft (Original Well Elev)
Grid
Minimum Curvature

Planned Survey

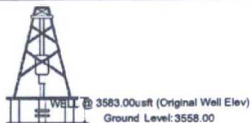
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,600.00	90.00	179.61	11,800.00	-3,045.84	20.81	3,045.92	0.00	0.00	0.00
14,700.00	90.00	179.61	11,800.00	-3,145.84	21.49	3,145.92	0.00	0.00	0.00
14,800.00	90.00	179.61	11,800.00	-3,245.84	22.17	3,245.92	0.00	0.00	0.00
14,900.00	90.00	179.61	11,800.00	-3,345.84	22.86	3,345.92	0.00	0.00	0.00
15,000.00	90.00	179.61	11,800.00	-3,445.84	23.54	3,445.92	0.00	0.00	0.00
15,100.00	90.00	179.61	11,800.00	-3,545.83	24.22	3,545.92	0.00	0.00	0.00
15,200.00	90.00	179.61	11,800.00	-3,645.83	24.91	3,645.92	0.00	0.00	0.00
15,300.00	90.00	179.61	11,800.00	-3,745.83	25.59	3,745.92	0.00	0.00	0.00
15,400.00	90.00	179.61	11,800.00	-3,845.83	26.27	3,845.92	0.00	0.00	0.00
15,500.00	90.00	179.61	11,800.00	-3,945.82	26.96	3,945.92	0.00	0.00	0.00
15,600.00	90.00	179.61	11,800.00	-4,045.82	27.64	4,045.92	0.00	0.00	0.00
15,700.00	90.00	179.61	11,800.00	-4,145.82	28.32	4,145.92	0.00	0.00	0.00
15,800.00	90.00	179.61	11,800.00	-4,245.82	29.01	4,245.92	0.00	0.00	0.00
15,900.00	90.00	179.61	11,800.00	-4,345.81	29.69	4,345.92	0.00	0.00	0.00
16,000.00	90.00	179.61	11,800.00	-4,445.81	30.37	4,445.92	0.00	0.00	0.00
16,100.00	90.00	179.61	11,800.00	-4,545.81	31.06	4,545.92	0.00	0.00	0.00
16,200.00	90.00	179.61	11,800.00	-4,645.81	31.74	4,645.92	0.00	0.00	0.00
16,300.00	90.00	179.61	11,800.00	-4,745.80	32.42	4,745.92	0.00	0.00	0.00
16,400.00	90.00	179.61	11,800.00	-4,845.80	33.11	4,845.92	0.00	0.00	0.00
16,500.00	90.00	179.61	11,800.00	-4,945.80	33.79	4,945.92	0.00	0.00	0.00
16,600.00	90.00	179.61	11,800.00	-5,045.80	34.47	5,045.92	0.00	0.00	0.00
16,700.00	90.00	179.61	11,800.00	-5,145.80	35.15	5,145.92	0.00	0.00	0.00
16,745.45	90.00	179.61	11,800.00	-5,191.24	35.47	5,191.36	0.00	0.00	0.00
LTP (BQ7FC1H)									
16,800.00	90.00	179.61	11,800.00	-5,245.79	35.84	5,245.92	0.00	0.00	0.00
16,835.45	90.00	179.61	11,800.00	-5,281.24	36.08	5,281.36	0.00	0.00	0.00
PBHL - TD (BQ7FC1H)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (BQ7FC1H)	0.00	0.00	11,800.00	-569.85	5.31	482,671.52	734,992.78	32° 19' 31.363 N	103° 42' 23.026 W
- hit/miss target									
- Shape									
- plan misses target center by 1.42usft at 12123.96usft MD (11799.99 TVD, -569.86 N, 3.89 E)									
- Point									
PBHL - TD (BQ7FC1H)	0.00	0.00	11,800.00	-5,281.24	36.08	477,960.13	735,023.55	32° 18' 44.741 N	103° 42' 22.989 W
- plan hits target center									
- Point									
LTP (BQ7FC1H)	0.00	0.00	11,800.00	-5,191.24	35.68	478,050.13	735,023.15	32° 18' 45.631 N	103° 42' 22.987 W
- plan misses target center by 0.21usft at 16745.45usft MD (11800.00 TVD, -5191.24 N, 35.47 E)									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,227.04	11,227.04	0.00	0.00	KOP - Build 10°/100'
12,127.04	11,800.00	-572.94	3.91	EOC - Hold 90°



BC Operating, Inc.

Project: Lea Co, NM (Nad-83_2010)
Well: Blue Quail 7 Fed Com #1H
Wellbore: Lateral #1
Design: Design #1
Original Well Elev



WELL DETAILS

+N-S	+E-W	Northing	Ground Level	Latitude	Longitude
0.00	0.00	483241.37	3558.00	32° 19' 37.003 N	103° 42' 23.049 W
			Easting		
			734987.47		

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Deg	TFace	VSec	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	11227.04	0.00	0.00	11227.04	0.00	0.00	0.00	0.00	0.00		KOP - Build 10°/100'
3	12127.04	90.00	179.61	11800.00	-572.94	3.91	10.00	179.61	572.96		EOC - Hold 90°
4	16835.45	90.00	179.61	11800.00	-5281.24	36.68	0.00	0.00	5281.36	PBHL - TD (BQ7FC1H)	

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
FTP (BQ7FC1H)	11800.00	-569.85	5.31	482671.52	734992.78	32° 19' 31.363 N	103° 42' 23.026 W	Point
LTP (BQ7FC1H)	11800.00	-5191.24	35.68	478050.13	735023.15	32° 18' 45.631 N	103° 42' 22.987 W	Point
PBHL - TD (BQ7FC1H)	11800.00	-5281.24	36.68	477960.13	735023.55	32° 18' 44.741 N	103° 42' 22.989 W	Point

- plan misses target center by 1.42usft at 12123.96usft MD (11799.99 TVD, -569.86 N, 3.89 E)
- plan misses target center by 0.21usft at 16745.45usft MD (11800.00 TVD, -5191.24 N, 35.47 E)
- plan hits target center

Map System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: New Mexico Eastern Zone
Local Origin: Site Blue Quail 7 Fed Com #1H, Grid North
Latitude: 32° 19' 37.003 N
Longitude: 103° 42' 23.049 W
Grid East: 734987.47
Grid North: 483241.37
Scale Factor: 1.000

Geomagnetic Model: IGRF2010
Sample Date: 21-Apr-15
Magnetic Declination: 7.18°
Dip Angle from Horizontal: 60.16°
Magnetic Field Strength: 48278

To convert a Magnetic Direction to a Grid Direction, Add 6.85°
To convert a Magnetic Direction to a True Direction, Add 7.18° East
To convert a True Direction to a Grid Direction, Subtract 0.34°

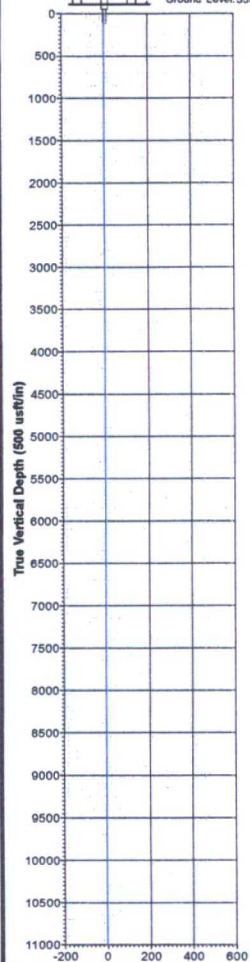
LEGEND

Design #1

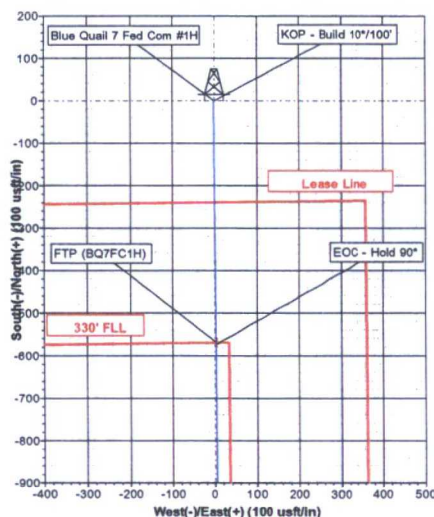


Azimuths to Grid North
True North: -0.34°
Magnetic North: 6.85°

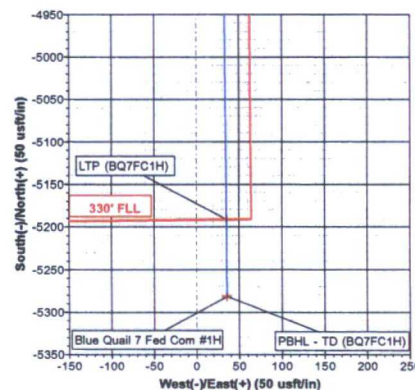
Magnetic Field
Strength: 48277.7nT
Dip Angle: 60.16°
Date: 4/21/2015
Model: IGRF2010



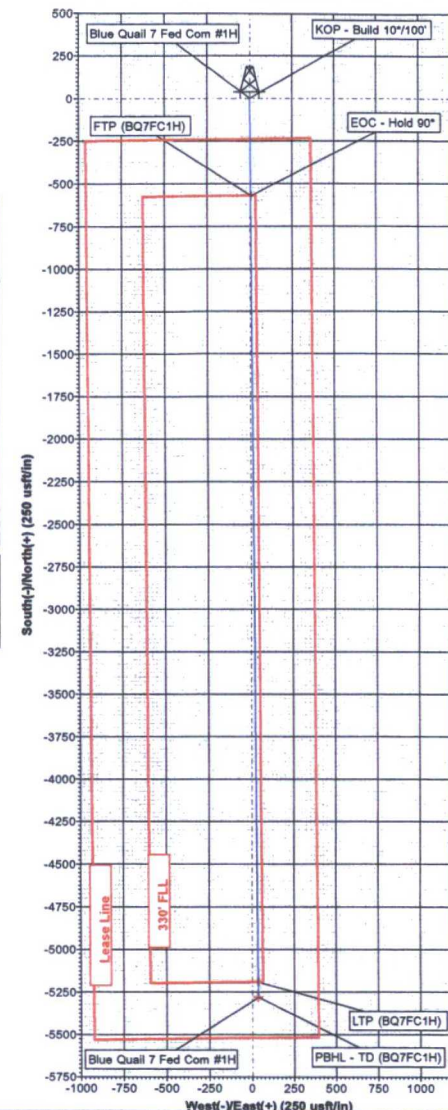
Vertical Section at 179.61° (200 usft/in)



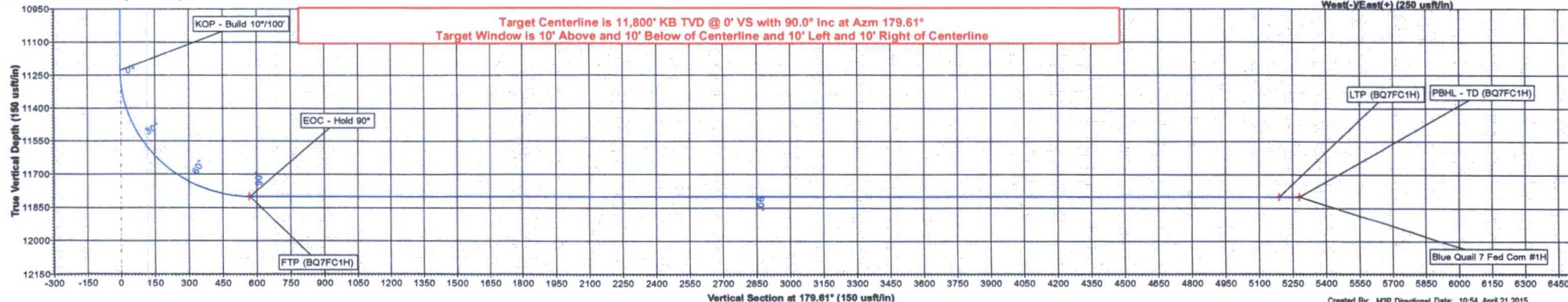
West(-)/East(+) (100 usft/in)



West(-)/East(+) (50 usft/in)



West(-)/East(+) (250 usft/in)



Vertical Section at 179.61° (150 usft/in)

Target Centerline is 11,800' KB TVD @ 0° VS with 90.0° Inc at Azm 179.61°
Target Window is 10' Above and 10' Below of Centerline and 10' Left and 10' Right of Centerline