

Denver Division- Colorado

DJ - Hereford Ranch

Lion Creek 19-30H

Lion Creek 19-30H

Original Wellbore

Plan: APD Directional Plan

Standard Planning Report

07 February, 2011

EOG Resources Inc

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Site Lion Creek 19-30H
Company:	Denver Division- Colorado	TVD Reference:	RIG @ 5437.00ft (TBD)
Project:	DJ - Hereford Ranch	MD Reference:	RIG @ 5437.00ft (TBD)
Site:	Lion Creek 19-30H	North Reference:	True
Well:	Lion Creek 19-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Project	DJ - Hereford Ranch, Weld County		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site		Lion Creek 19-30H			
Site Position:		Northing:	571,372.94 ft	Latitude:	40° 53' 53.678 N
From:	Lat/Long	Easting:	2,252,622.88 ft	Longitude:	104° 35' 10.471 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.59 deg

Well	Lion Creek 19-30H					
Well Position	+N/-S	0.00 ft	Northing:	571,372.94 ft	Latitude:	40° 53' 53.678 N
	+E/-W	0.00 ft	Easting:	2,252,622.88 ft	Longitude:	104° 35' 10.471 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,415.00 ft

Wellbore	Original Wellbore				
Magnetics	Model Name	Sample Date	Declination (deg)	Dip Angle (deg)	Field Strength (nT)
	IGRF200510	2/3/2011	8.82	67.50	53,464

Design	APD Directional Plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (deg)
	0.00	0.00	0.00	164.01

Plan Sections										
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)	TFO (deg)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,241.53	0.00	0.00	7,241.53	0.00	0.00	0.00	0.00	0.00	0.00	
7,991.54	90.00	164.01	7,719.00	-459.00	131.49	12.00	12.00	0.00	164.01	
12,052.56	90.00	164.01	7,719.00	-4,362.99	1,249.87	0.00	0.00	0.00	0.00	Lion Creek 19-30H

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Well:	Lion Creek 19-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
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
1,615.00	0.00	0.00	1,615.00	0.00	0.00	0.00	0.00	0.00	0.00
9-5/8"									
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

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Well:	Lion Creek 19-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
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
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
7,241.53	0.00	0.00	7,241.53	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	7.02	164.01	7,299.85	-3.44	0.98	3.58	12.00	12.00	0.00
7,400.00	19.02	164.01	7,397.11	-25.05	7.18	26.06	12.00	12.00	0.00
7,500.00	31.02	164.01	7,487.56	-65.63	18.80	68.27	12.00	12.00	0.00
7,600.00	43.02	164.01	7,567.26	-123.40	35.35	128.36	12.00	12.00	0.00
7,700.00	55.02	164.01	7,632.73	-195.83	56.10	203.71	12.00	12.00	0.00
7,800.00	67.02	164.01	7,681.10	-279.77	80.15	291.03	12.00	12.00	0.00
7,900.00	79.02	164.01	7,710.25	-371.54	106.44	386.49	12.00	12.00	0.00
7,991.54	90.00	164.01	7,719.00	-459.01	131.49	477.47	12.00	12.00	0.00
7"									
8,000.00	90.00	164.01	7,719.00	-467.14	133.82	485.93	0.00	0.00	0.00
8,100.00	90.00	164.01	7,719.00	-563.27	161.36	585.93	0.00	0.00	0.00
8,200.00	90.00	164.01	7,719.00	-659.41	188.90	685.93	0.00	0.00	0.00
8,300.00	90.00	164.01	7,719.00	-755.54	216.44	785.93	0.00	0.00	0.00
8,400.00	90.00	164.01	7,719.00	-851.67	243.98	885.93	0.00	0.00	0.00
8,500.00	90.00	164.01	7,719.00	-947.81	271.52	985.93	0.00	0.00	0.00
8,600.00	90.00	164.01	7,719.00	-1,043.94	299.06	1,085.93	0.00	0.00	0.00
8,700.00	90.00	164.01	7,719.00	-1,140.07	326.60	1,185.93	0.00	0.00	0.00
8,800.00	90.00	164.01	7,719.00	-1,236.21	354.14	1,285.93	0.00	0.00	0.00
8,900.00	90.00	164.01	7,719.00	-1,332.34	381.68	1,385.93	0.00	0.00	0.00
9,000.00	90.00	164.01	7,719.00	-1,428.47	409.22	1,485.93	0.00	0.00	0.00
9,100.00	90.00	164.01	7,719.00	-1,524.60	436.76	1,585.93	0.00	0.00	0.00
9,200.00	90.00	164.01	7,719.00	-1,620.74	464.29	1,685.93	0.00	0.00	0.00
9,300.00	90.00	164.01	7,719.00	-1,716.87	491.83	1,785.93	0.00	0.00	0.00
9,400.00	90.00	164.01	7,719.00	-1,813.00	519.37	1,885.93	0.00	0.00	0.00
9,500.00	90.00	164.01	7,719.00	-1,909.14	546.91	1,985.93	0.00	0.00	0.00
9,600.00	90.00	164.01	7,719.00	-2,005.27	574.45	2,085.93	0.00	0.00	0.00
9,700.00	90.00	164.01	7,719.00	-2,101.40	601.99	2,185.93	0.00	0.00	0.00
9,800.00	90.00	164.01	7,719.00	-2,197.54	629.53	2,285.93	0.00	0.00	0.00
9,900.00	90.00	164.01	7,719.00	-2,293.67	657.07	2,385.93	0.00	0.00	0.00
10,000.00	90.00	164.01	7,719.00	-2,389.80	684.61	2,485.93	0.00	0.00	0.00

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Well:	Lion Creek 19-30H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Wellbore		
Design:	APD Directional Plan		

Planned Survey									
Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (?/100ft)	Build Rate (?/100ft)	Turn Rate (?/100ft)
10,100.00	90.00	164.01	7,719.00	-2,485.94	712.15	2,585.93	0.00	0.00	0.00
10,200.00	90.00	164.01	7,719.00	-2,582.07	739.69	2,685.93	0.00	0.00	0.00
10,300.00	90.00	164.01	7,719.00	-2,678.20	767.23	2,785.93	0.00	0.00	0.00
10,400.00	90.00	164.01	7,719.00	-2,774.34	794.77	2,885.93	0.00	0.00	0.00
10,500.00	90.00	164.01	7,719.00	-2,870.47	822.31	2,985.93	0.00	0.00	0.00
10,600.00	90.00	164.01	7,719.00	-2,966.60	849.85	3,085.93	0.00	0.00	0.00
10,700.00	90.00	164.01	7,719.00	-3,062.73	877.39	3,185.93	0.00	0.00	0.00
10,800.00	90.00	164.01	7,719.00	-3,158.87	904.93	3,285.93	0.00	0.00	0.00
10,900.00	90.00	164.01	7,719.00	-3,255.00	932.46	3,385.93	0.00	0.00	0.00
11,000.00	90.00	164.01	7,719.00	-3,351.13	960.00	3,485.93	0.00	0.00	0.00
11,100.00	90.00	164.01	7,719.00	-3,447.27	987.54	3,585.93	0.00	0.00	0.00
11,200.00	90.00	164.01	7,719.00	-3,543.40	1,015.08	3,685.93	0.00	0.00	0.00
11,300.00	90.00	164.01	7,719.00	-3,639.53	1,042.62	3,785.93	0.00	0.00	0.00
11,400.00	90.00	164.01	7,719.00	-3,735.67	1,070.16	3,885.93	0.00	0.00	0.00
11,500.00	90.00	164.01	7,719.00	-3,831.80	1,097.70	3,985.93	0.00	0.00	0.00
11,600.00	90.00	164.01	7,719.00	-3,927.93	1,125.24	4,085.93	0.00	0.00	0.00
11,700.00	90.00	164.01	7,719.00	-4,024.07	1,152.78	4,185.93	0.00	0.00	0.00
11,800.00	90.00	164.01	7,719.00	-4,120.20	1,180.32	4,285.93	0.00	0.00	0.00
11,900.00	90.00	164.01	7,719.00	-4,216.33	1,207.86	4,385.93	0.00	0.00	0.00
12,000.00	90.00	164.01	7,719.00	-4,312.47	1,235.40	4,485.93	0.00	0.00	0.00
12,052.56	90.00	164.01	7,719.00	-4,362.99	1,249.87	4,538.49	0.00	0.00	0.00
4 1/2" - Lion Creek 19-30H (BHL)									

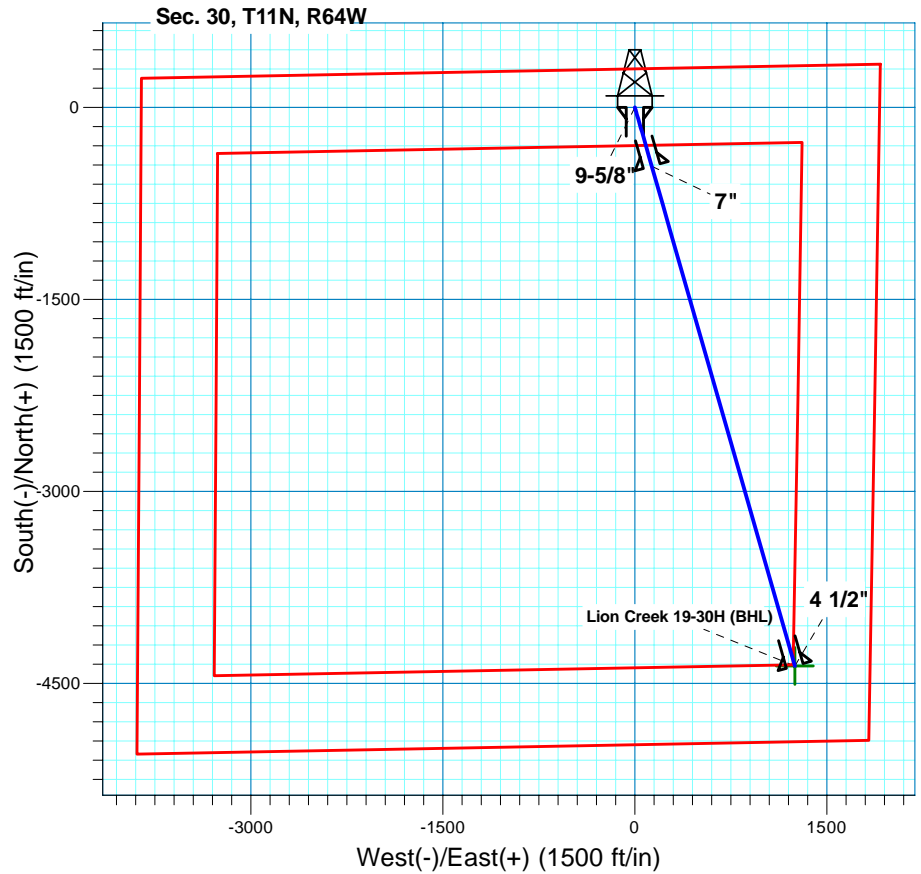
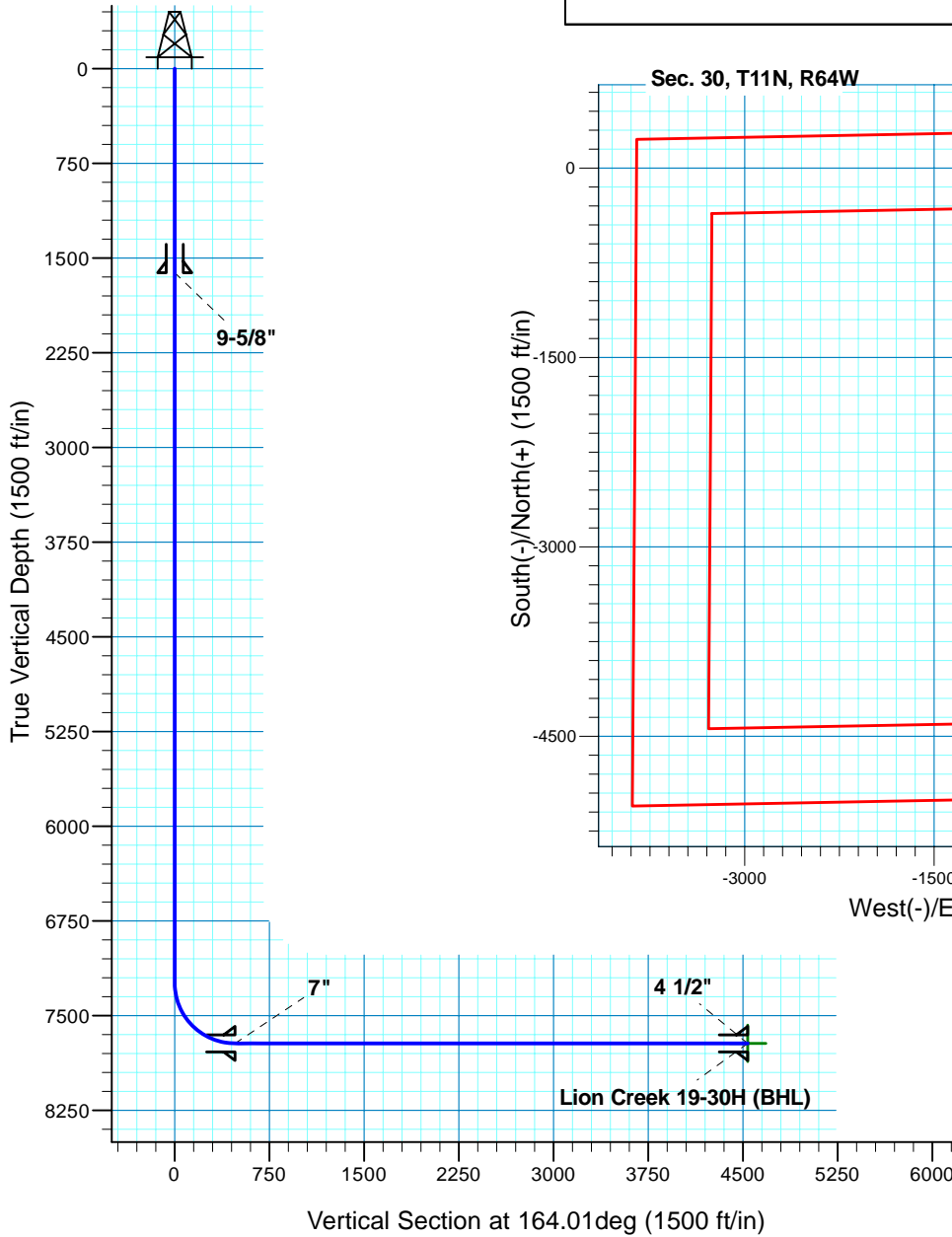
Targets									
Target Name	Dip Angle (deg)	Dip Dir. (deg)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
Lion Creek 19-30H (B	0.00	0.00	7,719.00	-4,362.99	1,249.87	567,023.06	2,253,917.64	40° 53' 10.568 N	104° 34' 54.199 W
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,615.00	1,615.00	9-5/8"	9-5/8	13-1/2	
7,991.54	7,719.00	7"	7	8-3/4	
12,052.56	7,719.00	4 1/2"	4-1/2	6	

Lion Creek 19-30H
Section 30 T11N R64W
Weld County, CO

Surface Location

NAD 1927 (NADCON CONUS) Colorado North 501
Ground Elevation: 5415.00 RIG @ 5437.00ft (TBD)
Northing Easting Latitude Longitude
571372.94 2252622.88 40° 53' 53.678 N 104° 35' 10.471 W



T M
Azimuths to True North
Magnetic North: 8.82°
Magnetic Field
Strength: 53463.6snT
Dip Angle: 67.50°
Date: 2/3/2011
Model: IGRF200510

Project: DJ - Hereford Ranch
Site: Lion Creek 19-30H
Well: Lion Creek 19-30H
Plan: APD Directional Plan

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	7241.53	0.00	0.00	7241.53	0.00	0.00	0.00	0.00	0.00	
3	7991.54	90.00	164.01	7719.00	-459.00	131.49	12.00	164.01	477.47	
4	12052.56	90.00	164.01	7719.00	-4362.99	1249.87	0.00	0.00	4538.49	Lion Creek 19-30H (BHL)

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Lion Creek 19-30H (BHL)	7719.00	-4362.99	1249.87	567023.06	2253917.64	40° 53' 10.568 N	104° 34' 54.199 W	Point