



Endeavour International Corp

Sec. 23 T3N R97W (NAD83)

Wiley Pad

Wiley 23-3-97 H1

Pilot Hole Wellbore

Plan: Pilot Hole Plan #2 01Jun13 kjs

Standard Planning Report - Geographic

13 June, 2013

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Wiley 23-3-97 H1
Company:	Endeavour International Corp	TVD Reference:	WELL @ 6047.0ft (Original Well Elev)
Project:	Sec. 23 T3N R97W (NAD83)	MD Reference:	WELL @ 6047.0ft (Original Well Elev)
Site:	Wiley Pad	North Reference:	True
Well:	Wiley 23-3-97 H1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Pilot Hole Wellbore		
Design:	Pilot Hole Plan #2 01Jun13 kjs		

Project	Sec. 23 T3N R97W (NAD83), Rio Blanco, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		Wiley Pad			
Site Position:		Northing:	1,877,120.60 ft	Latitude:	40° 12' 35.230 N
From:	Lat/Long	Easting:	2,234,427.56 ft	Longitude:	108° 14' 27.890 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.73 °

Well	Wiley 23-3-97 H1					
Well Position	+N-S	0.0 ft	Northing:	1,877,120.60 ft	Latitude:	40° 12' 35.230 N
	+E-W	0.0 ft	Easting:	2,234,427.56 ft	Longitude:	108° 14' 27.890 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,022.0 ft

Wellbore	Pilot Hole Wellbore				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	10.73	66.33	52,828

Design	Pilot Hole Plan #2 01Jun13 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	119.15

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,250.0	0.00	0.00	8,250.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,917.1	20.01	119.15	8,903.6	-56.2	100.7	3.00	3.00	0.00	119.15	
10,496.7	20.01	119.15	10,387.8	-319.5	572.9	0.00	0.00	0.00	0.00	
11,573.9	20.01	119.15	11,400.0	-499.1	894.9	0.00	0.00	0.00	0.00	

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Project: Sec. 23 T3N R97W (NAD83)
Site: Wiley Pad
Well: Wiley 23-3-97 H1
Wellbore: Pilot Hole Wellbore
Design: Pilot Hole Plan #2 01Jun13 kjs

Local Co-ordinate Reference: Well Wiley 23-3-97 H1
TVD Reference: WELL @ 6047.0ft (Original Well Elev)
MD Reference: WELL @ 6047.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
NE Corner - SE Corner									
200.0	0.00	0.00	200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
400.0	0.00	0.00	400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
600.0	0.00	0.00	600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
800.0	0.00	0.00	800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
1,000.0	0.00	0.00	1,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
1,200.0	0.00	0.00	1,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
1,400.0	0.00	0.00	1,400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
1,600.0	0.00	0.00	1,600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
1,800.0	0.00	0.00	1,800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
1,805.0	0.00	0.00	1,805.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
Mesaverde									
2,000.0	0.00	0.00	2,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
2,200.0	0.00	0.00	2,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
2,400.0	0.00	0.00	2,400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
2,600.0	0.00	0.00	2,600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
2,800.0	0.00	0.00	2,800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
3,000.0	0.00	0.00	3,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
3,200.0	0.00	0.00	3,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
3,400.0	0.00	0.00	3,400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
3,600.0	0.00	0.00	3,600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
3,800.0	0.00	0.00	3,800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
4,000.0	0.00	0.00	4,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
4,200.0	0.00	0.00	4,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
4,400.0	0.00	0.00	4,400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
4,600.0	0.00	0.00	4,600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
4,718.0	0.00	0.00	4,718.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
Rollins									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
5,000.0	0.00	0.00	5,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
5,200.0	0.00	0.00	5,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
5,400.0	0.00	0.00	5,400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
5,600.0	0.00	0.00	5,600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
5,800.0	0.00	0.00	5,800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
5,843.0	0.00	0.00	5,843.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
Mancos									
5,978.0	0.00	0.00	5,978.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
Sego-Lower									
6,000.0	0.00	0.00	6,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
6,200.0	0.00	0.00	6,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
6,318.0	0.00	0.00	6,318.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
Castlegate									
6,400.0	0.00	0.00	6,400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
6,600.0	0.00	0.00	6,600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
6,800.0	0.00	0.00	6,800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
7,000.0	0.00	0.00	7,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
7,200.0	0.00	0.00	7,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
7,400.0	0.00	0.00	7,400.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
7,600.0	0.00	0.00	7,600.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
7,800.0	0.00	0.00	7,800.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
8,000.0	0.00	0.00	8,000.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
8,200.0	0.00	0.00	8,200.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W

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TVD Reference: WELL @ 6047.0ft (Original Well Elev)
MD Reference: WELL @ 6047.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
8,250.0	0.00	0.00	8,250.0	0.0	0.0	1,877,120.60	2,234,427.56	40° 12' 35.230 N	108° 14' 27.890 W
KOP 3°/100									
8,400.0	4.50	119.15	8,399.8	-2.9	5.1	1,877,117.57	2,234,432.62	40° 12' 35.202 N	108° 14' 27.824 W
8,600.0	10.50	119.15	8,598.0	-15.6	27.9	1,877,104.18	2,234,455.01	40° 12' 35.076 N	108° 14' 27.530 W
8,800.0	16.50	119.15	8,792.4	-38.3	68.7	1,877,080.23	2,234,495.07	40° 12' 34.851 N	108° 14' 27.005 W
8,917.1	20.01	119.15	8,903.6	-56.2	100.7	1,877,061.40	2,234,526.55	40° 12' 34.675 N	108° 14' 26.592 W
Hold 20.01° Inc, 119.15° Az									
9,000.0	20.01	119.15	8,981.5	-70.0	125.5	1,877,046.84	2,234,550.90	40° 12' 34.538 N	108° 14' 26.273 W
9,115.5	20.01	119.15	9,090.0	-89.2	160.0	1,877,026.56	2,234,584.82	40° 12' 34.348 N	108° 14' 25.828 W
Niobrara: Buck Peak									
9,200.0	20.01	119.15	9,169.4	-103.3	185.3	1,877,011.71	2,234,609.65	40° 12' 34.209 N	108° 14' 25.502 W
9,400.0	20.01	119.15	9,357.4	-136.7	245.1	1,876,976.58	2,234,668.40	40° 12' 33.879 N	108° 14' 24.732 W
9,562.5	20.01	119.15	9,510.0	-163.8	293.6	1,876,948.05	2,234,716.12	40° 12' 33.612 N	108° 14' 24.106 W
Niobrara: Tow Creek									
9,600.0	20.01	119.15	9,545.3	-170.0	304.8	1,876,941.45	2,234,727.14	40° 12' 33.550 N	108° 14' 23.961 W
9,800.0	20.01	119.15	9,733.2	-203.4	364.6	1,876,906.32	2,234,785.89	40° 12' 33.221 N	108° 14' 23.191 W
9,931.8	20.01	119.15	9,857.0	-225.3	404.0	1,876,883.18	2,234,824.59	40° 12' 33.003 N	108° 14' 22.683 W
Niobrara: Wolf Mtn									
10,000.0	20.01	119.15	9,921.1	-236.7	424.4	1,876,871.19	2,234,844.64	40° 12' 32.891 N	108° 14' 22.420 W
10,200.0	20.01	119.15	10,109.0	-270.1	484.2	1,876,836.06	2,234,903.39	40° 12' 32.562 N	108° 14' 21.650 W
10,306.4	20.01	119.15	10,209.0	-287.8	516.0	1,876,817.37	2,234,934.64	40° 12' 32.386 N	108° 14' 21.240 W
Niobrara: Hot Wolf Mtn									
10,400.0	20.01	119.15	10,297.0	-303.4	544.0	1,876,800.93	2,234,962.14	40° 12' 32.232 N	108° 14' 20.880 W
10,496.7	20.01	119.15	10,387.8	-319.5	572.9	1,876,783.95	2,234,990.53	40° 12' 32.073 N	108° 14' 20.507 W
10,600.0	20.01	119.15	10,484.9	-336.7	603.8	1,876,765.80	2,235,020.88	40° 12' 31.903 N	108° 14' 20.109 W
10,800.0	20.01	119.15	10,672.8	-370.1	663.5	1,876,730.67	2,235,079.63	40° 12' 31.573 N	108° 14' 19.339 W
10,837.5	20.01	119.15	10,708.0	-376.3	674.7	1,876,724.09	2,235,090.63	40° 12' 31.512 N	108° 14' 19.194 W
Fort Hays Equiv									
10,867.3	20.01	119.15	10,736.0	-381.3	683.6	1,876,718.86	2,235,099.39	40° 12' 31.462 N	108° 14' 19.080 W
Carlile									
10,985.4	20.01	119.15	10,847.0	-401.0	718.9	1,876,698.11	2,235,134.09	40° 12' 31.268 N	108° 14' 18.625 W
Frontier									
11,000.0	20.01	119.15	10,860.7	-403.4	723.3	1,876,695.54	2,235,138.38	40° 12' 31.244 N	108° 14' 18.568 W
11,081.2	20.01	119.15	10,937.0	-417.0	747.6	1,876,681.28	2,235,162.22	40° 12' 31.110 N	108° 14' 18.256 W
Frontier Target									
11,200.0	20.01	119.15	11,048.6	-436.8	783.1	1,876,660.41	2,235,197.13	40° 12' 30.914 N	108° 14' 17.798 W
11,295.1	20.01	119.15	11,138.0	-452.6	811.5	1,876,643.71	2,235,225.06	40° 12' 30.758 N	108° 14' 17.432 W
Mowry									
11,400.0	20.01	119.15	11,236.6	-470.1	842.9	1,876,625.28	2,235,255.88	40° 12' 30.585 N	108° 14' 17.028 W
11,401.5	20.01	119.15	11,238.0	-470.4	843.3	1,876,625.01	2,235,256.32	40° 12' 30.582 N	108° 14' 17.022 W
Dakota									
11,573.9	20.01	119.15	11,400.0	-499.1	894.9	1,876,594.73	2,235,306.97	40° 12' 30.298 N	108° 14' 16.358 W
Pilot Hole TD at 11573.9									

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Wellbore:	Pilot Hole Wellbore		
Design:	Pilot Hole Plan #2 01Jun13 kjs		

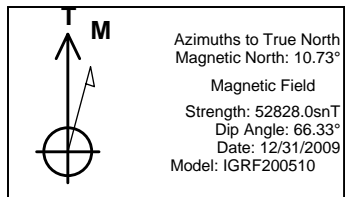
Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
NE Corner	0.00	0.00	0.0	-943.8	98.3	1,876,174.22	2,234,497.39	40° 12' 25.904 N	108° 14' 26.623 W
- plan misses by 948.9ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Circle (radius 600.0)									
SE Corner	0.00	0.00	0.0	-2,273.8	87.5	1,874,845.19	2,234,446.47	40° 12' 12.763 N	108° 14' 26.762 W
- plan misses by 2275.5ft at 0.0ft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Circle (radius 600.0)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
11,081.2	10,937.0	Frontier Target				
11,401.5	11,238.0	Dakota				
1,805.0	1,805.0	Mesaverde				
9,931.8	9,857.0	Niobrara: Wolf Mtn				
4,718.0	4,718.0	Rollins				
6,318.0	6,318.0	Castlegate				
9,115.5	9,090.0	Niobrara: Buck Peak				
5,843.0	5,843.0	Mancos				
11,573.9	11,400.0	TD				
10,985.4	10,847.0	Frontier				
9,562.5	9,510.0	Niobrara: Tow Creek				
10,837.5	10,708.0	Fort Hays Equiv				
10,306.4	10,209.0	Niobrara: Hot Wolf Mtn				
11,295.1	11,138.0	Mowry				
10,867.3	10,736.0	Carlile				
5,978.0	5,978.0	Sego-Lower				

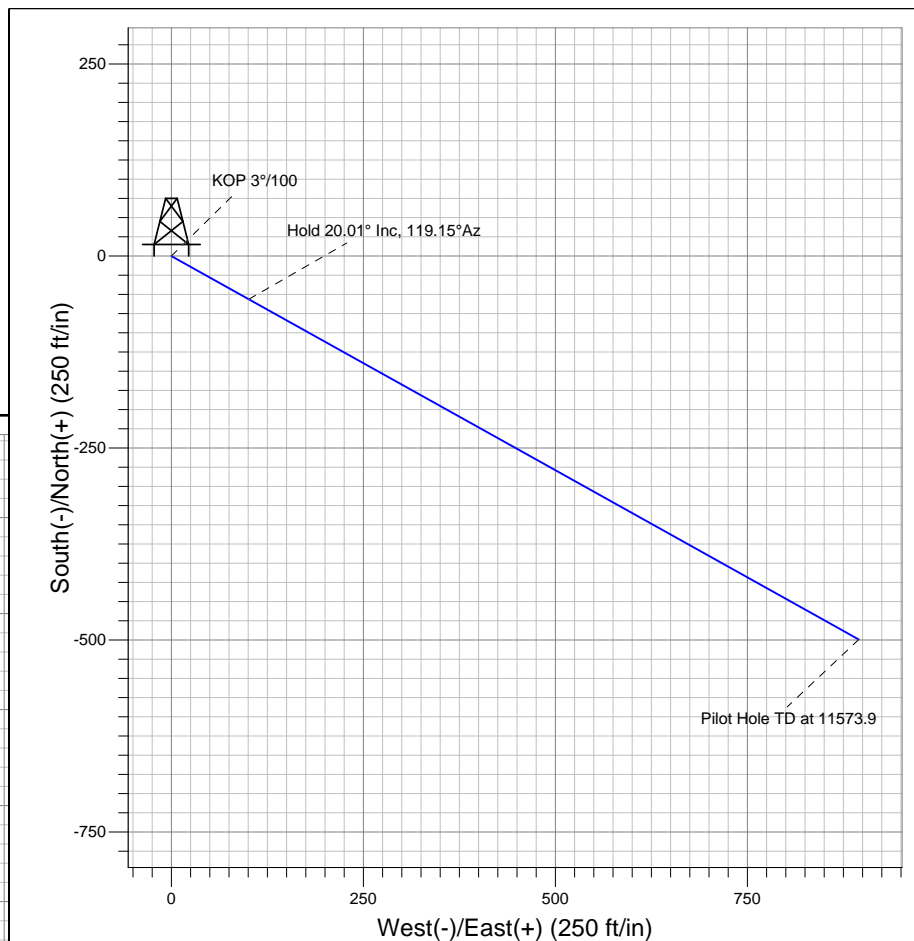
Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
8,250.0	8,250.0	0.0	0.0	KOP 3°/100
8,917.1	8,903.6	-56.2	100.7	Hold 20.01° Inc, 119.15°Az
11,573.9	11,400.0	-499.1	894.9	Pilot Hole TD at 11573.9



Well Name: Wiley 23-3-97 H1
Surface Location: Wiley Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6022.0
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.0 0.0 1877120.60 2234427.56 40° 12' 35.230 N 108° 14' 27.890 W



Project: Sec. 23 T3N R97W (NAD83)
Site: Wiley Pad
Well: Wiley 23-3-97 H1
Plan: Pilot Hole Plan #2 01Jun13 kjs



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	8250.0	0.00	0.00	8250.0	0.0	0.0	0.00	0.00	0.0	
3	8917.1	20.01	119.15	8903.6	-56.2	100.7	3.00	119.15	115.3	
4	10496.7	20.01	119.15	10387.8	-319.5	572.9	0.00	0.00	655.9	
5	11573.9	20.01	119.15	11400.0	-499.1	894.9	0.00	0.00	1024.6	

