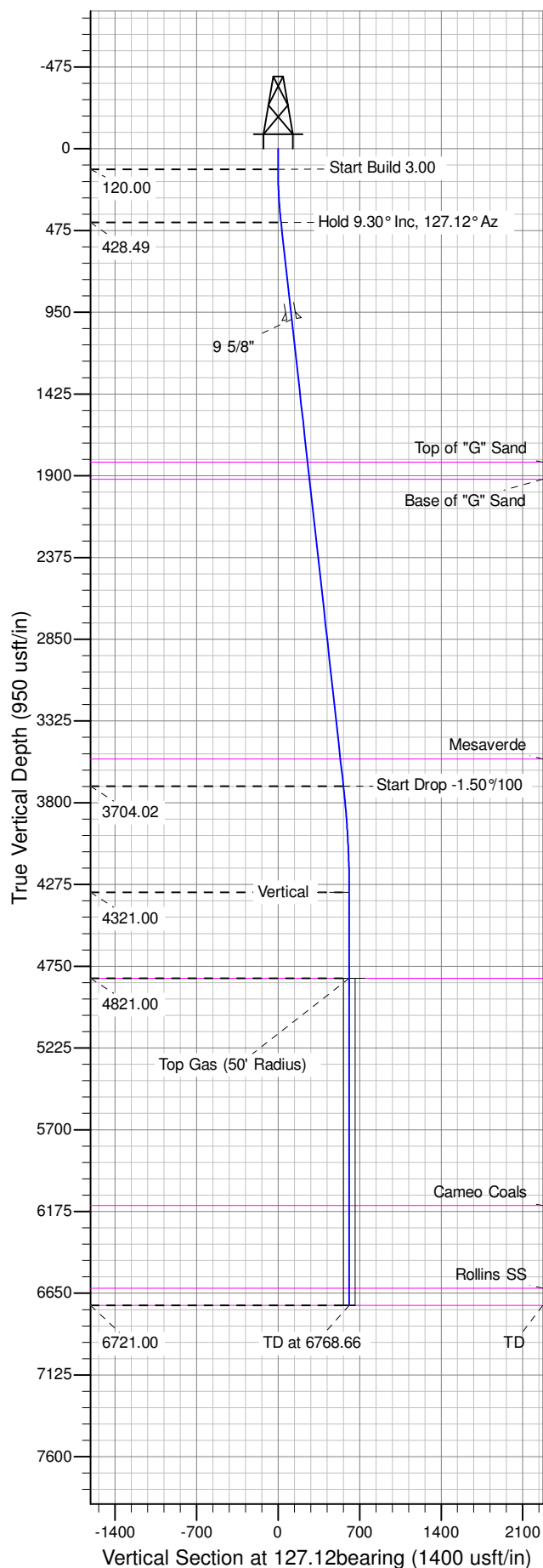
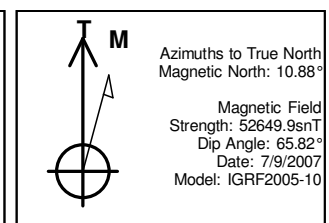
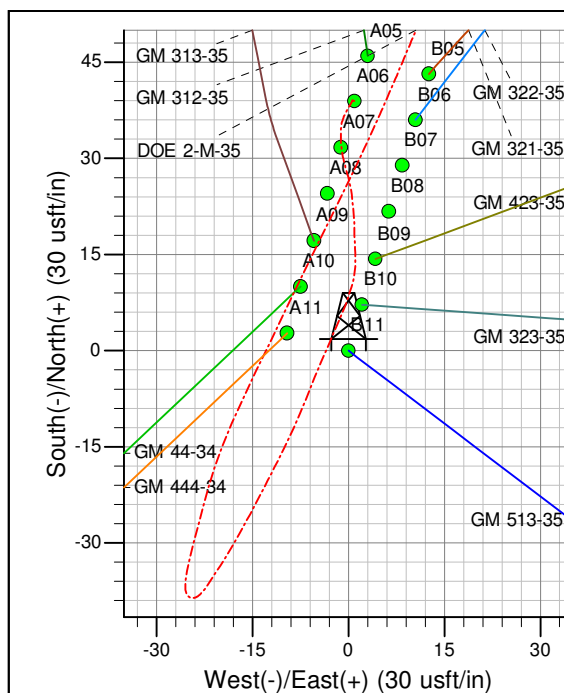
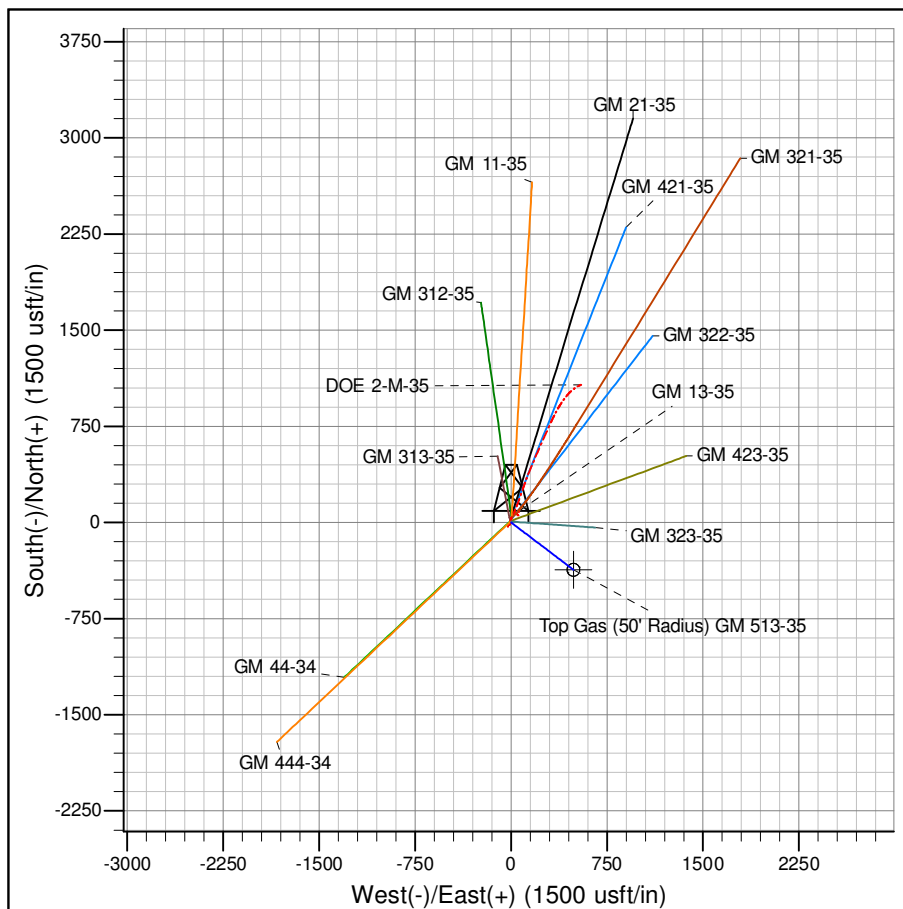




Well Name: GM 513-35
Surface Location: DOE 2-M-35 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5445.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1609628.90 2271140.20 39.47876 -108.08249 B 11
KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)



ANNOTATIONS									
TVD	MD	Inc	Azi	+N/-S	+E/-W	Vsect	Departure	Annotation	
120.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00	Start Build 3.00
428.49	428.85	9.30	127.12	-15.14	20.00	25.08	25.08	Hold 9.30° Inc, 127.12° Az	Hold 9.30° Inc, 127.12° Az
3704.02	3748.96	9.30	127.12	-338.69	447.47	561.20	561.20	Start Drop -1.50°/100	Start Drop -1.50°/100
4321.00	4368.66	0.00	0.00	-368.96	487.46	611.35	611.35	Vertical	Vertical
4821.00	4868.66	0.00	0.00	-368.96	487.46	611.35	611.35	Top Gas	Top Gas
6721.00	6768.66	0.00	0.00	-368.96	487.46	611.35	611.35	TD at 6768.66	TD at 6768.66



Project: GV 35-06S-096W
Site: DOE 2-M-35 Pad
Well: GM 513-35
Design #2 07Jul14 mab

PICEANCE VLY NAD 83

GV 35-06S-096W

DOE 2-M-35 Pad

GM 513-35 - Slot B11

GM 513-35

Plan: Design #2 07Jul14 mab

Standard Planning Report - Geographic

18 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 513-35 - Slot B11
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 35-06S-096W	MD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Site:	DOE 2-M-35 Pad	North Reference:	True
Well:	GM 513-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	GM 513-35		
Design:	Design #2 07Jul14 mab		

Project	GV 35-06S-096W, Garfield County, CO, 35-06S-096W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	DOE 2-M-35 Pad			
Site Position:		Northing:	1,609,700.26000 usft	Latitude: 39.47896
From: Map		Easting:	2,271,163.17000 usft	Longitude: -108.08242
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.63 °

Well	GM 513-35 - Slot B11			
Well Position	+N/-S	0.00 usft	Northing:	1,609,628.90000 usft
	+E/-W	0.00 usft	Easting:	2,271,140.20000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	Ground Level: 5,445.00 usft

Wellbore	GM 513-35				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	7/9/2007	10.88	65.82	52,650

Design	Design #2 07Jul14 mab			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	127.12

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
429.85	9.30	127.12	428.49	-15.14	20.00	3.00	3.00	0.00	127.12	
3,748.96	9.30	127.12	3,704.02	-338.69	447.47	0.00	0.00	0.00	0.00	
4,368.66	0.00	0.00	4,321.00	-368.96	487.46	1.50	-1.50	0.00	180.00	
4,868.66	0.00	0.00	4,821.00	-368.96	487.46	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
6,768.66	0.00	0.00	6,721.00	-368.96	487.46	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 513-35 - Slot B11
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 35-06S-096W	MD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Site:	DOE 2-M-35 Pad	North Reference:	True
Well:	GM 513-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	GM 513-35		
Design:	Design #2 07Jul14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,609,628.90000	2,271,140.20000	39.47876	-108.08249	
120.00	0.00	0.00	120.00	0.00	0.00	1,609,628.90000	2,271,140.20000	39.47876	-108.08249	
Start Build 3.00										
200.00	2.40	127.12	199.98	-1.01	1.34	1,609,627.85143	2,271,141.50645	39.47876	-108.08249	
400.00	8.40	127.12	399.00	-12.37	16.34	1,609,616.07611	2,271,156.17762	39.47873	-108.08243	
429.85	9.30	127.12	428.49	-15.14	20.00	1,609,613.20285	2,271,159.75749	39.47872	-108.08242	
Hold 9.30° Inc, 127.12° Az										
600.00	9.30	127.12	596.41	-31.72	41.91	1,609,596.00029	2,271,181.19059	39.47868	-108.08234	
800.00	9.30	127.12	793.78	-51.22	67.67	1,609,575.78030	2,271,206.38318	39.47862	-108.08225	
1,000.00	9.30	127.12	991.16	-70.72	93.43	1,609,555.56031	2,271,231.57578	39.47857	-108.08216	
9 5/8"										
1,200.00	9.30	127.12	1,188.53	-90.21	119.19	1,609,535.34032	2,271,256.76838	39.47852	-108.08207	
1,400.00	9.30	127.12	1,385.90	-109.71	144.94	1,609,515.12033	2,271,281.96098	39.47846	-108.08198	
1,600.00	9.30	127.12	1,583.28	-129.21	170.70	1,609,494.90033	2,271,307.15358	39.47841	-108.08189	
1,800.00	9.30	127.12	1,780.65	-148.70	196.46	1,609,474.68034	2,271,332.34618	39.47836	-108.08180	
1,840.89	9.30	127.12	1,821.00	-152.69	201.73	1,609,470.54676	2,271,337.49632	39.47835	-108.08178	
Top of "G" Sand										
1,942.22	9.30	127.12	1,921.00	-162.57	214.78	1,609,460.30224	2,271,350.26022	39.47832	-108.08173	
Base of "G" Sand										
2,000.00	9.30	127.12	1,978.02	-168.20	222.22	1,609,454.46035	2,271,357.53878	39.47830	-108.08170	
2,200.00	9.30	127.12	2,175.40	-187.70	247.98	1,609,434.24036	2,271,382.73138	39.47825	-108.08161	
2,400.00	9.30	127.12	2,372.77	-207.19	273.73	1,609,414.02037	2,271,407.92397	39.47820	-108.08152	
2,600.00	9.30	127.12	2,570.15	-226.69	299.49	1,609,393.80038	2,271,433.11657	39.47814	-108.08143	
2,800.00	9.30	127.12	2,767.52	-246.19	325.25	1,609,373.58039	2,271,458.30917	39.47809	-108.08134	
3,000.00	9.30	127.12	2,964.89	-265.68	351.01	1,609,353.36040	2,271,483.50177	39.47803	-108.08125	
3,200.00	9.30	127.12	3,162.27	-285.18	376.77	1,609,333.14041	2,271,508.69437	39.47798	-108.08116	
3,400.00	9.30	127.12	3,359.64	-304.68	402.53	1,609,312.92042	2,271,533.88697	39.47793	-108.08107	
3,588.84	9.30	127.12	3,546.00	-323.08	426.85	1,609,293.82881	2,271,557.67369	39.47788	-108.08098	
Mesaverde										
3,600.00	9.30	127.12	3,557.01	-324.17	428.28	1,609,292.70043	2,271,559.07957	39.47787	-108.08097	
3,748.96	9.30	127.12	3,704.02	-338.69	447.47	1,609,277.64014	2,271,577.84357	39.47783	-108.08091	
Start Drop -1.50°/100										
3,800.00	8.53	127.12	3,754.44	-343.46	453.77	1,609,272.69119	2,271,584.00958	39.47782	-108.08088	
4,000.00	5.53	127.12	3,952.92	-358.24	473.29	1,609,257.37233	2,271,603.09574	39.47778	-108.08081	
4,200.00	2.53	127.12	4,152.40	-366.72	484.49	1,609,248.57600	2,271,614.05531	39.47776	-108.08078	
4,368.66	0.00	0.00	4,321.00	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
Vertical										
4,400.00	0.00	0.00	4,352.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
4,600.00	0.00	0.00	4,552.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
4,800.00	0.00	0.00	4,752.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
4,868.66	0.00	0.00	4,821.00	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
Top Gas - Approx. Top Gas										
5,000.00	0.00	0.00	4,952.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
5,200.00	0.00	0.00	5,152.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
5,400.00	0.00	0.00	5,352.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
5,600.00	0.00	0.00	5,552.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
5,800.00	0.00	0.00	5,752.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
6,000.00	0.00	0.00	5,952.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
6,188.66	0.00	0.00	6,141.00	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	
Cameo Coals										
6,200.00	0.00	0.00	6,152.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 513-35 - Slot B11
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Project:	GV 35-06S-096W	MD Reference:	KELLY BUSHING @ 5471.00usft (Nabors 573 (26' RKB) mab)
Site:	DOE 2-M-35 Pad	North Reference:	True
Well:	GM 513-35	Survey Calculation Method:	Minimum Curvature
Wellbore:	GM 513-35		
Design:	Design #2 07Jul14 mab		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,400.00	0.00	0.00	6,352.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076
6,600.00	0.00	0.00	6,552.34	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076
6,668.66	0.00	0.00	6,621.00	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076
Rollins SS									
6,768.66	0.00	0.00	6,721.00	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076
TD at 6768.66 - TD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (50' Radius) GM - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,821.00	-368.96	487.46	1,609,246.24583	2,271,616.95853	39.47775	-108.08076

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,000.00	991.16	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,840.89	1,821.00	Top of "G" Sand				
1,942.22	1,921.00	Base of "G" Sand				
3,588.84	3,546.00	Mesaverde				
4,868.66	4,821.00	Approx. Top Gas				
6,188.66	6,141.00	Cameo Coals				
6,668.66	6,621.00	Rollins SS				
6,768.66	6,721.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 3.00	
429.85	428.49	-15.14	20.00	Hold 9.30° Inc, 127.12° Az	
3,748.96	3,704.02	-338.69	447.47	Start Drop -1.50°/100	
4,368.66	4,321.00	-368.96	487.46	Vertical	
4,868.66	4,821.00	-368.96	487.46	Top Gas	
6,768.66	6,721.00	-368.96	487.46	TD at 6768.66	