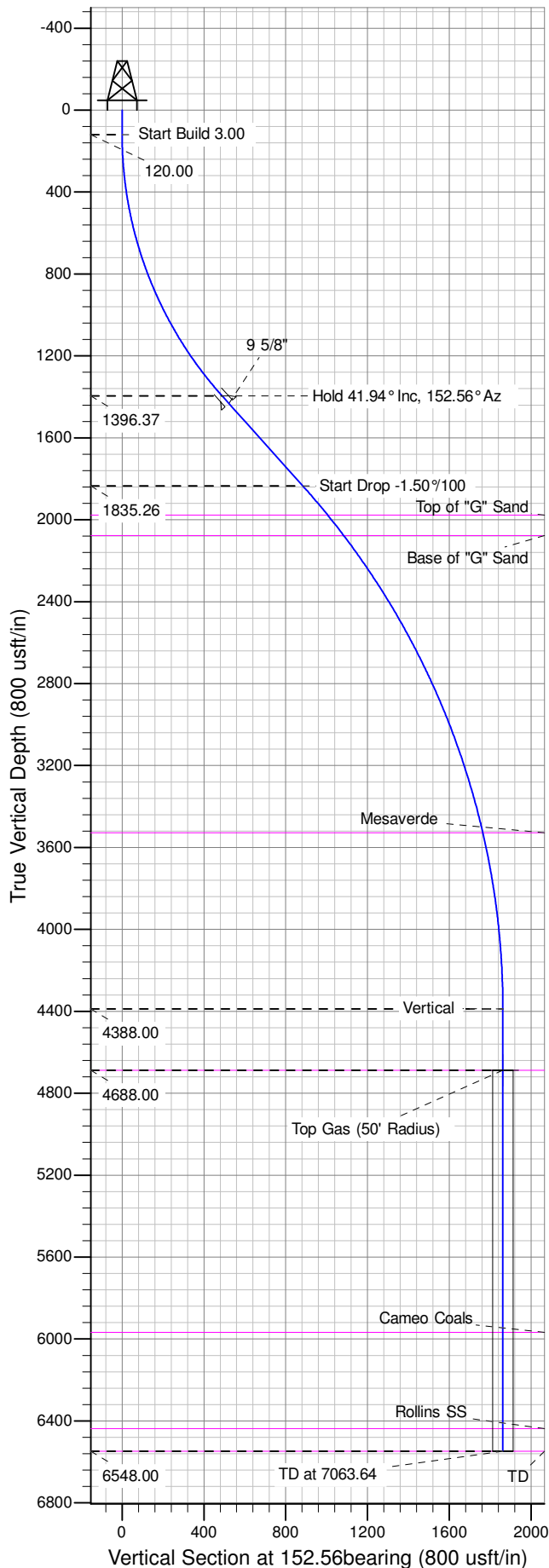
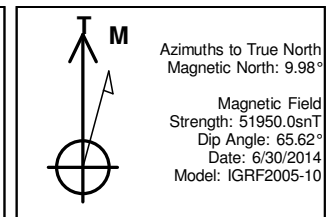
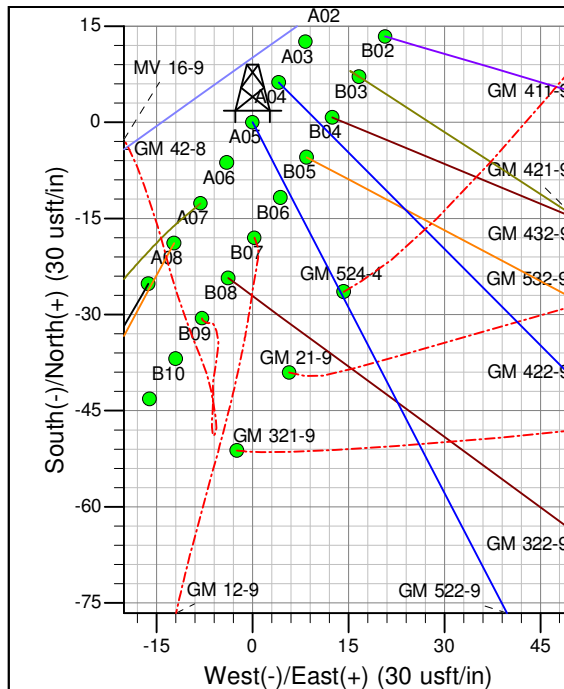
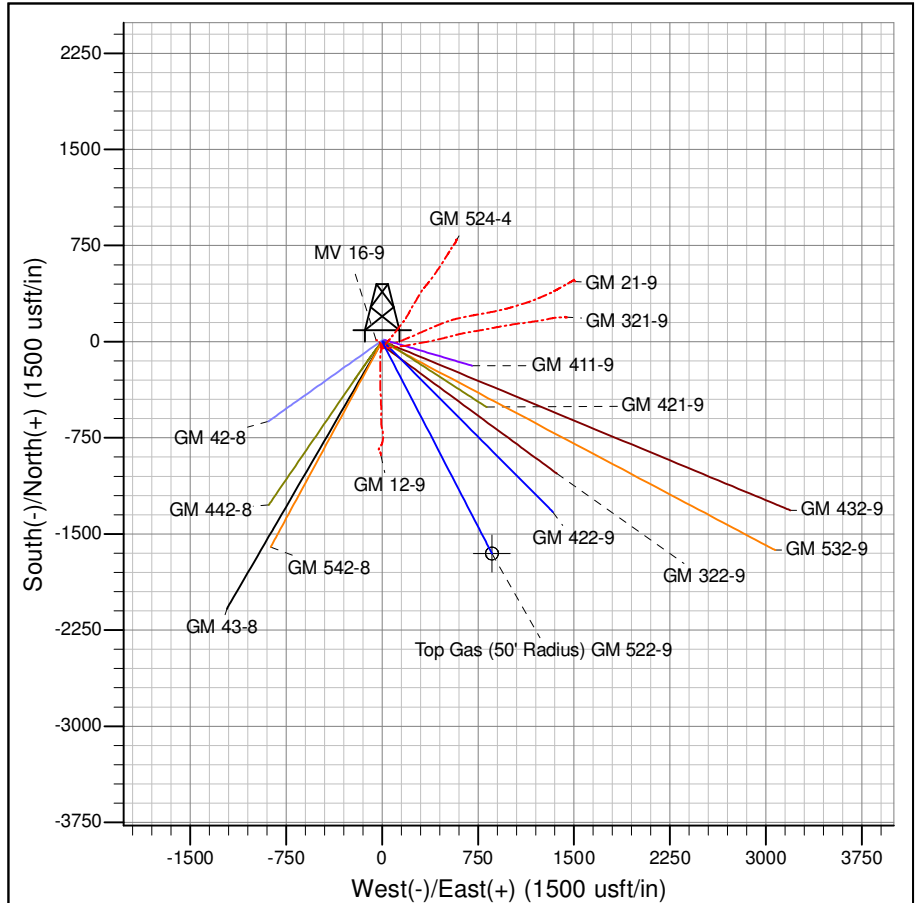




Well Name: GM 522-9
Surface Location: MV 16-9 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 6087.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 1601968.80000 2260339.40000 39.45689 -108.11995 A04
KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' 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	
1396.37	1517.88	41.94	152.56	-434.11	225.40	489.14	489.14	Hold 41.94° Inc, 152.56° Az	
1835.26	2107.88	41.94	152.56	-784.05	407.10	883.44	883.44	Start Drop -1.50°/100	
4388.00	4903.64	0.00	0.00	-1652.27	857.90	1861.72	1861.72	Vertical	
4688.00	5203.64	0.00	0.00	-1652.27	857.90	1861.72	1861.72	Top Gas	
6548.00	7063.64	0.00	0.00	-1652.27	857.90	1861.72	1861.72	TD at 7063.64	



Project: GV 09-07S-096W
Site: MV 16-9 Pad
Well: GM 522-9
Design #1 30Jun14 mab

PICEANCE VLY NAD 83

GV 09-07S-096W

MV 16-9 Pad

GM 522-9 - Slot A04

Wellbore #1

Plan: Design #1 30Jun14 mab

Standard Planning Report - Geographic

04 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 522-9 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 522-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 mab		

Project	GV 09-07S-096W, Garfield County, CO, 09-07S-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	MV 16-9 Pad			
Site Position:		Northing:	1,601,987.30000 usft	Latitude: 39.45695
From: Map		Easting:	2,260,352.30000 usft	Longitude: -108.11991
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.65 °

Well	GM 522-9 - Slot A04			
Well Position	+N/-S	0.00 usft	Northing:	1,601,968.80000 usft
	+E/-W	0.00 usft	Easting:	2,260,339.40000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	6,087.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	6/30/2014	9.98	65.62	51,950

Design	Design #1 30Jun14 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	152.56

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	
1,517.88	41.94	152.56	1,396.37	-434.11	225.40	3.00	3.00	0.00	152.56	
2,107.88	41.94	152.56	1,835.26	-784.05	407.10	0.00	0.00	0.00	0.00	
4,903.64	0.00	0.00	4,388.00	-1,652.27	857.90	1.50	-1.50	0.00	180.00	
5,203.64	0.00	0.00	4,688.00	-1,652.27	857.90	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,063.64	0.00	0.00	6,548.00	-1,652.27	857.90	0.00	0.00	0.00	0.00	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 522-9 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 522-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 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	1,601,968.80000	2,260,339.40000	39.45689	-108.11996	
120.00	0.00	0.00	120.00	0.00	0.00	1,601,968.80000	2,260,339.40000	39.45689	-108.11996	
Start Build 3.00										
200.00	2.40	152.56	199.98	-1.49	0.77	1,601,967.29162	2,260,340.12876	39.45689	-108.11995	
400.00	8.40	152.56	399.00	-18.18	9.44	1,601,950.35278	2,260,348.31259	39.45684	-108.11992	
600.00	14.40	152.56	594.96	-53.25	27.65	1,601,914.77582	2,260,365.50124	39.45675	-108.11986	
800.00	20.40	152.56	785.72	-106.31	55.20	1,601,860.95055	2,260,391.50639	39.45660	-108.11976	
1,000.00	26.40	152.56	969.19	-176.77	91.78	1,601,789.46668	2,260,426.04311	39.45641	-108.11963	
1,200.00	32.40	152.56	1,143.35	-263.86	137.00	1,601,701.10740	2,260,468.73302	39.45617	-108.11947	
1,400.00	38.40	152.56	1,306.30	-366.64	190.37	1,601,596.84080	2,260,519.10839	39.45589	-108.11928	
1,517.88	41.94	152.56	1,396.37	-434.11	225.40	1,601,528.39042	2,260,552.17951	39.45570	-108.11916	
Hold 41.94° Inc, 152.56° Az										
1,567.88	41.94	152.56	1,433.56	-463.77	240.80	1,601,498.30378	2,260,566.71557	39.45562	-108.11910	
9 5/8"										
1,600.00	41.94	152.56	1,457.46	-482.82	250.69	1,601,478.97633	2,260,576.05343	39.45557	-108.11907	
1,800.00	41.94	152.56	1,606.23	-601.44	312.28	1,601,358.63107	2,260,634.19706	39.45524	-108.11885	
2,000.00	41.94	152.56	1,755.01	-720.07	373.88	1,601,238.28579	2,260,692.34068	39.45492	-108.11863	
2,107.88	41.94	152.56	1,835.26	-784.05	407.10	1,601,173.37149	2,260,723.70338	39.45474	-108.11852	
Start Drop -1.50°/100										
2,200.00	40.55	152.56	1,904.53	-837.95	435.08	1,601,118.68986	2,260,750.12226	39.45459	-108.11842	
2,295.69	39.12	152.56	1,978.00	-892.35	463.33	1,601,063.49931	2,260,776.78703	39.45444	-108.11832	
Top of "G" Sand										
2,400.00	37.55	152.56	2,059.82	-949.77	493.15	1,601,005.24447	2,260,804.93229	39.45429	-108.11821	
2,422.88	37.21	152.56	2,078.00	-962.10	499.55	1,600,992.73493	2,260,810.97614	39.45425	-108.11819	
Base of "G" Sand										
2,600.00	34.55	152.56	2,221.49	-1,054.23	547.38	1,600,899.27219	2,260,856.13174	39.45400	-108.11802	
2,800.00	31.55	152.56	2,389.10	-1,151.03	597.64	1,600,801.06350	2,260,903.58028	39.45373	-108.11784	
3,000.00	28.55	152.56	2,562.19	-1,239.92	643.80	1,600,710.88759	2,260,947.14787	39.45349	-108.11768	
3,200.00	25.55	152.56	2,740.28	-1,320.64	685.71	1,600,628.99163	2,260,986.71510	39.45327	-108.11753	
3,400.00	22.55	152.56	2,922.90	-1,392.99	723.27	1,600,555.60008	2,261,022.17350	39.45307	-108.11740	
3,600.00	19.55	152.56	3,109.52	-1,456.75	756.38	1,600,490.91410	2,261,053.42588	39.45289	-108.11728	
3,800.00	16.55	152.56	3,299.65	-1,511.75	784.94	1,600,435.11100	2,261,080.38660	39.45274	-108.11718	
4,000.00	13.55	152.56	3,492.77	-1,557.85	808.87	1,600,388.34371	2,261,102.98175	39.45262	-108.11709	
4,036.20	13.01	152.56	3,528.00	-1,565.23	812.71	1,600,380.85447	2,261,106.60010	39.45260	-108.11708	
Mesaverde										
4,200.00	10.55	152.56	3,688.33	-1,594.92	828.12	1,600,350.74045	2,261,121.14939	39.45251	-108.11702	
4,400.00	7.55	152.56	3,885.82	-1,622.85	842.62	1,600,322.40426	2,261,134.83974	39.45244	-108.11697	
4,600.00	4.55	152.56	4,084.68	-1,641.57	852.34	1,600,303.41282	2,261,144.01527	39.45239	-108.11694	
4,800.00	1.55	152.56	4,284.37	-1,651.02	857.25	1,600,293.81818	2,261,148.65082	39.45236	-108.11692	
4,903.64	0.00	0.00	4,388.00	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
Vertical										
5,000.00	0.00	0.00	4,484.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
5,200.00	0.00	0.00	4,684.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
5,203.64	0.00	0.00	4,688.00	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
Top Gas - Approx. Top Gas										
5,400.00	0.00	0.00	4,884.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
5,600.00	0.00	0.00	5,084.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
5,800.00	0.00	0.00	5,284.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
6,000.00	0.00	0.00	5,484.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
6,200.00	0.00	0.00	5,684.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	
6,400.00	0.00	0.00	5,884.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692	

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 522-9 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 522-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 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
6,483.64	0.00	0.00	5,968.00	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692
Cameo Coals									
6,600.00	0.00	0.00	6,084.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692
6,800.00	0.00	0.00	6,284.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692
6,953.64	0.00	0.00	6,438.00	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692
Rollins SS									
7,000.00	0.00	0.00	6,484.36	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692
7,063.64	0.00	0.00	6,548.00	-1,652.27	857.90	1,600,292.55233	2,261,149.26240	39.45236	-108.11692
TD at 7063.64 - 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) G1 - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,688.00	-1,652.27	857.90	1,600,292.55233	2,261,149.26241	39.45236	-108.11692

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,567.88	1,433.56	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
2,295.69	1,978.00	Top of "G" Sand				
2,422.88	2,078.00	Base of "G" Sand				
4,036.20	3,528.00	Mesaverde				
5,203.64	4,688.00	Approx. Top Gas				
6,483.64	5,968.00	Cameo Coals				
6,953.64	6,438.00	Rollins SS				
7,063.64	6,548.00	TD				

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 522-9 - Slot A04
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Project:	GV 09-07S-096W	MD Reference:	KELLY BUSHING @ 6108.00usft (Cyclone 17 (21' RKB) mab)
Site:	MV 16-9 Pad	North Reference:	True
Well:	GM 522-9	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 30Jun14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 3.00
1,517.88	1,396.37	-434.11	225.40	Hold 41.94° Inc, 152.56° Az
2,107.88	1,835.26	-784.05	407.10	Start Drop -1.50°/100
4,903.64	4,388.00	-1,652.27	857.90	Vertical
5,203.64	4,688.00	-1,652.27	857.90	Top Gas
7,063.64	6,548.00	-1,652.27	857.90	TD at 7063.64