



Well Name: GM 706-4-HN2
Surface Location: MV 28-4 Pad
North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
Ground Elevation: 5681.00

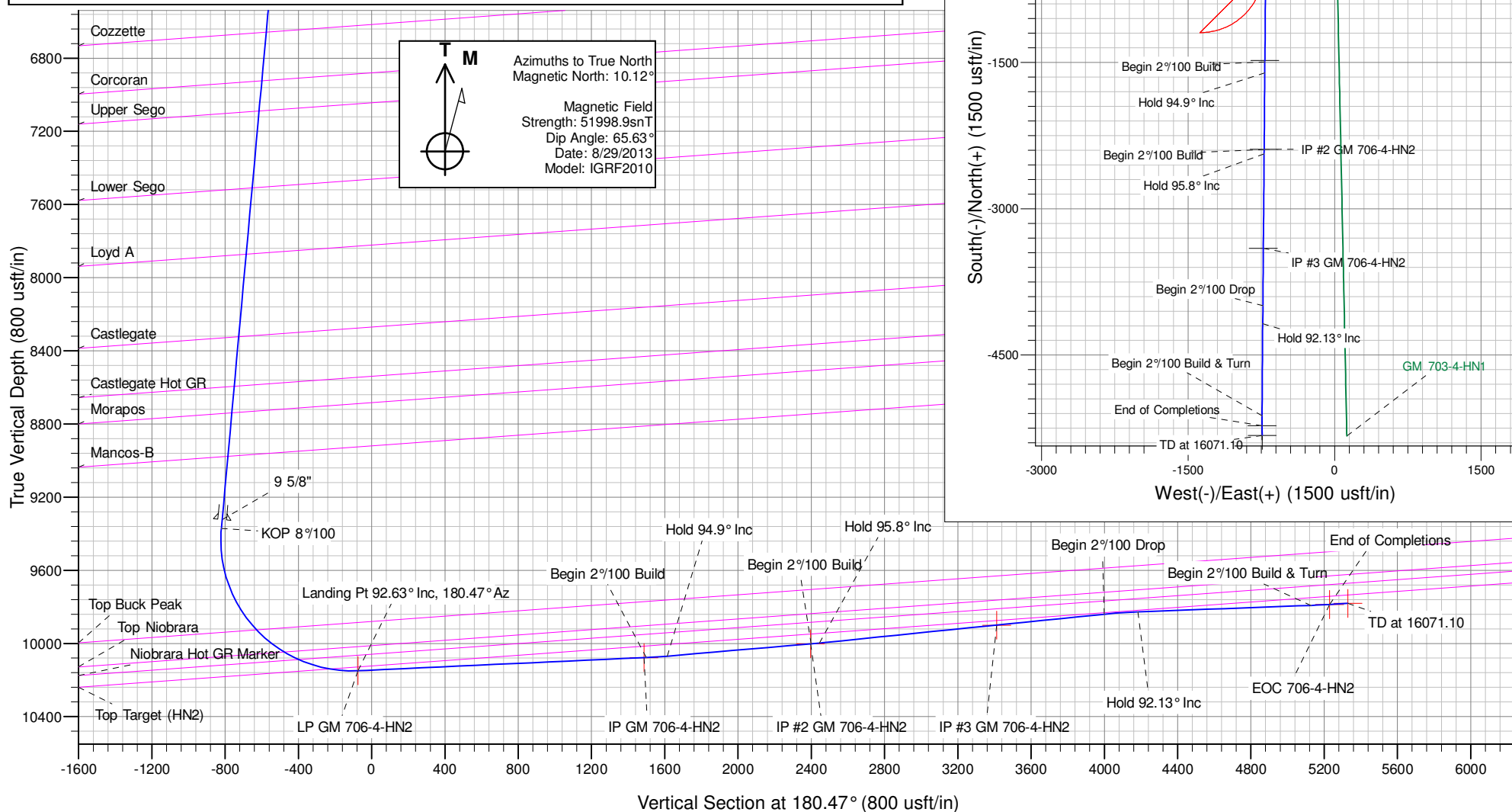
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1605934.72	2261168.75	39.46784	-108.11742	B16

KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))

Project: GV 04-07S-096W
Site: MV 28-4 Pad
Well: GM 706-4-HN2
Plan #7 24Mar14 kjs

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 2.00
446.43	447.14	6.54	322.38	14.78	-11.39	-14.68	18.66	Hold 6.54° Inc
9371.45	9430.67	6.54	322.38	825.54	-636.26	-819.96	1042.28	KOP 8°/100
10149.00	10652.73	92.63	180.47	80.00	-700.00	-73.89	1887.63	Landing Pt 92.63° Inc, 180.47° Az
10076.82	12228.27	92.63	180.47	-1493.84	-712.81	1500.00	3461.51	Begin 2°/100 Build
10069.36	12341.98	94.90	180.47	-1607.29	-713.74	1613.46	3574.97	Hold 94.9° Inc
10001.93	13131.44	94.90	180.47	-2393.84	-720.14	2400.03	4361.55	Begin 2°/100 Build
9997.73	13176.44	95.80	180.47	-2438.64	-720.51	2444.84	4406.35	Hold 95.8° Inc
9839.75	14739.75	95.80	180.47	-3993.90	-733.17	4000.14	5961.66	Begin 2°/100 Drop
9827.06	14923.23	92.13	180.47	-4176.90	-734.66	4183.15	6144.67	Hold 92.13° Inc
9791.89	15869.48	92.13	180.47	-5122.46	-742.35	5128.75	7090.26	Begin 2°/100 Build & Turn
9786.90	15971.16	93.50	178.96	-5224.02	-741.85	5230.29	7191.82	End of Completions
9780.80	16071.10	93.50	178.96	-5323.75	-740.03	5330.00	7291.57	TD at 16071.10



PICEANCE VLY NAD 83

GV 04-07S-096W

MV 28-4 Pad

GM 706-4-HN2 - Slot B16

Wellbore #1

Plan: Plan #7 24Mar14 kjs

Standard Planning Report - Geographic

25 March, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 706-4-HN2 - Slot B16
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Site:	MV 28-4 Pad	North Reference:	True
Well:	GM 706-4-HN2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #7 24Mar14 kjs		

Project	GV 04-07S-096W, Garfield County, CO, 04-07S-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 28-4 Pad			
Site Position:		Northing:	1,605,943.00 usft	Latitude:	39.46786
From:	Map	Easting:	2,261,130.35 usft	Longitude:	-108.11756
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.65 °

Well	GM 706-4-HN2 - Slot B16					
Well Position	+N/-S	0.00 usft	Northing:	1,605,934.72 usft	Latitude:	39.46784
	+E/-W	0.00 usft	Easting:	2,261,168.75 usft	Longitude:	-108.11743
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,681.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/29/2013	10.12	65.63	51,999

Design	Plan #7 24Mar14 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.47

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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
447.14	6.54	322.38	446.43	14.78	-11.39	2.00	2.00	0.00	322.38	
9,430.67	6.54	322.38	9,371.45	825.54	-636.26	0.00	0.00	0.00	0.00	
10,652.73	92.63	180.47	10,149.00	80.00	-700.00	8.00	7.04	-11.61	-141.54	LP GM 706-4-HN2
12,228.27	92.63	180.47	10,076.82	-1,493.84	-712.81	0.00	0.00	0.00	0.00	
12,341.98	94.90	180.47	10,069.36	-1,607.29	-713.74	2.00	2.00	0.00	0.00	
13,131.44	94.90	180.47	10,001.93	-2,393.84	-720.14	0.00	0.00	0.00	0.00	
13,176.44	95.80	180.47	9,997.73	-2,438.64	-720.51	2.00	2.00	0.00	0.00	
14,739.75	95.80	180.47	9,839.75	-3,993.90	-733.17	0.00	0.00	0.00	0.00	
14,923.23	92.13	180.47	9,827.06	-4,176.90	-734.66	2.00	-2.00	0.00	-180.00	
15,869.48	92.13	180.47	9,791.89	-5,122.46	-742.35	0.00	0.00	0.00	0.00	
15,971.16	93.50	178.96	9,786.90	-5,224.02	-741.85	2.00	1.34	-1.48	-47.76	EOC 706-4-HN2
16,071.10	93.50	178.96	9,780.80	-5,323.75	-740.03	0.00	0.00	0.00	0.00	TD / PBHL GM 706-4-

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 706-4-HN2 - Slot B16
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Site:	MV 28-4 Pad	North Reference:	True
Well:	GM 706-4-HN2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #7 24Mar14 kjs		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	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	1,605,934.72	2,261,168.75	39.46784	-108.11743	
650 radius										
120.00	0.00	0.00	120.00	0.00	0.00	1,605,934.72	2,261,168.75	39.46784	-108.11743	
Start Build 2.00										
200.00	1.60	322.38	199.99	0.88	-0.68	1,605,935.62	2,261,168.09	39.46785	-108.11743	
400.00	5.60	322.38	399.55	10.83	-8.35	1,605,945.78	2,261,160.72	39.46787	-108.11746	
447.14	6.54	322.38	446.43	14.78	-11.39	1,605,949.82	2,261,157.79	39.46788	-108.11747	
Hold 6.54° Inc										
600.00	6.54	322.38	598.29	28.57	-22.02	1,605,963.91	2,261,147.56	39.46792	-108.11750	
800.00	6.54	322.38	796.99	46.62	-35.93	1,605,982.35	2,261,134.18	39.46797	-108.11755	
1,000.00	6.54	322.38	995.69	64.67	-49.85	1,606,000.80	2,261,120.79	39.46802	-108.11760	
1,200.00	6.54	322.38	1,194.39	82.72	-63.76	1,606,019.24	2,261,107.41	39.46807	-108.11765	
1,400.00	6.54	322.38	1,393.08	100.77	-77.67	1,606,037.68	2,261,094.02	39.46812	-108.11770	
1,600.00	6.54	322.38	1,591.78	118.82	-91.58	1,606,056.12	2,261,080.64	39.46817	-108.11775	
1,800.00	6.54	322.38	1,790.48	136.87	-105.49	1,606,074.57	2,261,067.25	39.46822	-108.11780	
1,833.74	6.54	322.38	1,824.00	139.92	-107.84	1,606,077.68	2,261,064.99	39.46823	-108.11781	
Top of "G" Sand										
1,863.94	6.54	322.38	1,854.00	142.64	-109.94	1,606,080.46	2,261,062.97	39.46823	-108.11782	
Base of "G" Sand										
2,000.00	6.54	322.38	1,989.18	154.92	-119.40	1,606,093.01	2,261,053.87	39.46827	-108.11785	
2,150.81	6.54	322.38	2,139.00	168.53	-129.89	1,606,106.91	2,261,043.77	39.46831	-108.11789	
Top Fort Union										
2,200.00	6.54	322.38	2,187.87	172.97	-133.31	1,606,111.45	2,261,040.48	39.46832	-108.11790	
2,400.00	6.54	322.38	2,386.57	191.02	-147.22	1,606,129.89	2,261,027.10	39.46837	-108.11795	
2,455.79	6.54	322.38	2,442.00	196.06	-151.11	1,606,135.04	2,261,023.36	39.46838	-108.11796	
Base Fort Union										
2,522.23	6.54	322.38	2,508.00	202.05	-155.73	1,606,141.16	2,261,018.92	39.46840	-108.11798	
Surface Casing - 13 3/8"										
2,600.00	6.54	322.38	2,585.27	209.07	-161.14	1,606,148.34	2,261,013.71	39.46842	-108.11800	
2,800.00	6.54	322.38	2,783.97	227.12	-175.05	1,606,166.78	2,261,000.33	39.46847	-108.11805	
3,000.00	6.54	322.38	2,982.66	245.17	-188.96	1,606,185.22	2,260,986.94	39.46852	-108.11809	
3,200.00	6.54	322.38	3,181.36	263.22	-202.87	1,606,203.66	2,260,973.56	39.46857	-108.11814	
3,400.00	6.54	322.38	3,380.06	281.27	-216.78	1,606,222.11	2,260,960.17	39.46861	-108.11819	
3,405.98	6.54	322.38	3,386.00	281.81	-217.20	1,606,222.66	2,260,959.77	39.46862	-108.11819	
Mesaverde										
3,600.00	6.54	322.38	3,578.76	299.32	-230.69	1,606,240.55	2,260,946.79	39.46866	-108.11824	
3,800.00	6.54	322.38	3,777.45	317.37	-244.60	1,606,258.99	2,260,933.40	39.46871	-108.11829	
4,000.00	6.54	322.38	3,976.15	335.42	-258.52	1,606,277.43	2,260,920.02	39.46876	-108.11834	
4,200.00	6.54	322.38	4,174.85	353.47	-272.43	1,606,295.87	2,260,906.63	39.46881	-108.11839	
4,400.00	6.54	322.38	4,373.55	371.52	-286.34	1,606,314.32	2,260,893.25	39.46886	-108.11844	
4,557.48	6.54	322.38	4,530.00	385.74	-297.29	1,606,328.84	2,260,882.71	39.46890	-108.11848	
Approx. Top Gas										
4,600.00	6.54	322.38	4,572.24	389.57	-300.25	1,606,332.76	2,260,879.86	39.46891	-108.11849	
4,800.00	6.54	322.38	4,770.94	407.62	-314.16	1,606,351.20	2,260,866.48	39.46896	-108.11854	
5,000.00	6.54	322.38	4,969.64	425.67	-328.07	1,606,369.64	2,260,853.09	39.46901	-108.11859	
5,200.00	6.54	322.38	5,168.34	443.72	-341.98	1,606,388.09	2,260,839.71	39.46906	-108.11864	
5,400.00	6.54	322.38	5,367.03	461.77	-355.90	1,606,406.53	2,260,826.32	39.46911	-108.11869	
5,600.00	6.54	322.38	5,565.73	479.82	-369.81	1,606,424.97	2,260,812.94	39.46916	-108.11874	
5,800.00	6.54	322.38	5,764.43	497.87	-383.72	1,606,443.41	2,260,799.55	39.46921	-108.11878	
5,878.08	6.54	322.38	5,842.00	504.92	-389.15	1,606,450.61	2,260,794.32	39.46923	-108.11880	
Cameo Coals										

WPX
Planning Report - Geographic

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Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
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Well:	GM 706-4-HN2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #7 24Mar14 kjs		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
6,000.00	6.54	322.38	5,963.12	515.92	-397.63	1,606,461.86	2,260,786.16	39.46926	-108.11883	
6,200.00	6.54	322.38	6,161.82	533.97	-411.54	1,606,480.30	2,260,772.78	39.46931	-108.11888	
6,383.37	6.54	322.38	6,344.00	550.52	-424.30	1,606,497.21	2,260,760.51	39.46935	-108.11893	
Rollins SS										
6,400.00	6.54	322.38	6,360.52	552.02	-425.45	1,606,498.74	2,260,759.39	39.46936	-108.11893	
6,600.00	6.54	322.38	6,559.22	570.07	-439.36	1,606,517.18	2,260,746.01	39.46941	-108.11898	
6,698.72	6.54	322.38	6,657.29	578.98	-446.23	1,606,526.29	2,260,739.40	39.46943	-108.11901	
Cozzette										
6,800.00	6.54	322.38	6,757.91	588.12	-453.28	1,606,535.63	2,260,732.62	39.46946	-108.11903	
6,966.22	6.54	322.38	6,923.06	603.12	-464.84	1,606,550.95	2,260,721.50	39.46950	-108.11907	
Corcoran										
7,000.00	6.54	322.38	6,956.61	606.17	-467.19	1,606,554.07	2,260,719.24	39.46951	-108.11908	
7,133.42	6.54	322.38	7,089.16	618.21	-476.47	1,606,566.37	2,260,710.31	39.46954	-108.11911	
Upper Sego										
7,200.00	6.54	322.38	7,155.31	624.22	-481.10	1,606,572.51	2,260,705.85	39.46956	-108.11913	
7,400.00	6.54	322.38	7,354.01	642.27	-495.01	1,606,590.95	2,260,692.47	39.46961	-108.11918	
7,556.97	6.54	322.38	7,509.95	656.44	-505.93	1,606,605.43	2,260,681.96	39.46964	-108.11922	
Lower Sego										
7,600.00	6.54	322.38	7,552.70	660.32	-508.92	1,606,609.40	2,260,679.08	39.46966	-108.11923	
7,800.00	6.54	322.38	7,751.40	678.37	-522.83	1,606,627.84	2,260,665.70	39.46971	-108.11928	
7,921.75	6.54	322.38	7,872.36	689.36	-531.30	1,606,639.07	2,260,657.55	39.46974	-108.11931	
Loyd A										
8,000.00	6.54	322.38	7,950.10	696.42	-536.74	1,606,646.28	2,260,652.31	39.46975	-108.11933	
8,200.00	6.54	322.38	8,148.80	714.47	-550.66	1,606,664.72	2,260,638.93	39.46980	-108.11938	
8,375.70	6.54	322.38	8,323.35	730.33	-562.88	1,606,680.92	2,260,627.17	39.46985	-108.11942	
Castlegate										
8,400.00	6.54	322.38	8,347.49	732.52	-564.57	1,606,683.17	2,260,625.54	39.46985	-108.11943	
8,600.00	6.54	322.38	8,546.19	750.57	-578.48	1,606,701.61	2,260,612.16	39.46990	-108.11947	
8,648.27	6.54	322.38	8,594.14	754.93	-581.84	1,606,706.06	2,260,608.93	39.46992	-108.11949	
Castlegate Hot GR										
8,794.18	6.54	322.38	8,739.11	768.10	-591.98	1,606,719.51	2,260,599.16	39.46995	-108.11952	
Morapos										
8,800.00	6.54	322.38	8,744.89	768.62	-592.39	1,606,720.05	2,260,598.77	39.46995	-108.11952	
9,000.00	6.54	322.38	8,943.59	786.67	-606.30	1,606,738.49	2,260,585.39	39.47000	-108.11957	
9,034.33	6.54	322.38	8,977.69	789.77	-608.69	1,606,741.66	2,260,583.09	39.47001	-108.11958	
Mancos-B										
9,200.00	6.54	322.38	9,142.28	804.72	-620.21	1,606,756.94	2,260,572.00	39.47005	-108.11962	
9,381.00	6.54	322.38	9,322.11	821.06	-632.80	1,606,773.63	2,260,559.89	39.47010	-108.11967	
9 5/8"										
9,400.00	6.54	322.38	9,340.98	822.77	-634.12	1,606,775.38	2,260,558.62	39.47010	-108.11967	
9,430.67	6.54	322.38	9,371.45	825.54	-636.26	1,606,778.21	2,260,556.57	39.47011	-108.11968	
KOP 8"/100										
9,600.00	9.34	206.25	9,539.89	820.84	-648.28	1,606,773.85	2,260,544.42	39.47010	-108.11972	
9,800.00	24.73	189.53	9,730.64	764.67	-662.47	1,606,718.11	2,260,528.61	39.46994	-108.11977	
10,000.00	40.58	185.41	9,898.51	657.95	-675.61	1,606,611.83	2,260,512.40	39.46965	-108.11982	
10,037.41	43.56	184.94	9,926.27	632.99	-677.87	1,606,586.94	2,260,509.42	39.46958	-108.11983	
Top Buck Peak										
10,200.00	56.51	183.35	10,030.49	508.96	-686.69	1,606,463.22	2,260,497.04	39.46924	-108.11986	
10,231.50	59.02	183.10	10,047.29	482.36	-688.19	1,606,436.68	2,260,494.77	39.46917	-108.11986	
Top Niobrara										

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 706-4-HN2 - Slot B16
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Site:	MV 28-4 Pad	North Reference:	True
Well:	GM 706-4-HN2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #7 24Mar14 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,321.09	66.17	182.45	10,088.50	402.97	-692.02	1,606,357.44	2,260,488.66	39.46895	-108.11988
Niobrara Hot GR Marker									
10,400.00	72.46	181.94	10,116.37	329.24	-694.84	1,606,283.82	2,260,483.71	39.46875	-108.11989
10,501.14	80.53	181.33	10,139.97	231.02	-697.64	1,606,185.72	2,260,478.09	39.46848	-108.11990
Top Target (HN2)									
10,600.00	88.42	180.77	10,149.48	132.71	-699.43	1,606,087.51	2,260,473.46	39.46821	-108.11990
10,652.73	92.63	180.47	10,149.00	80.00	-700.00	1,606,034.84	2,260,471.38	39.46806	-108.11991
Landing Pt 92.63° Inc, 180.47° Az - LP GM 706-4-HN2									
10,800.00	92.63	180.47	10,142.25	-67.11	-701.20	1,605,887.83	2,260,465.94	39.46766	-108.11991
11,000.00	92.63	180.47	10,133.09	-266.90	-702.82	1,605,688.19	2,260,458.56	39.46711	-108.11992
11,200.00	92.63	180.47	10,123.93	-466.68	-704.45	1,605,488.54	2,260,451.18	39.46656	-108.11992
11,400.00	92.63	180.47	10,114.77	-666.46	-706.08	1,605,288.90	2,260,443.80	39.46601	-108.11993
11,600.00	92.63	180.47	10,105.60	-866.25	-707.70	1,605,089.25	2,260,436.42	39.46546	-108.11993
11,800.00	92.63	180.47	10,096.44	-1,066.03	-709.33	1,604,889.61	2,260,429.04	39.46492	-108.11994
12,000.00	92.63	180.47	10,087.28	-1,265.81	-710.96	1,604,689.96	2,260,421.66	39.46437	-108.11994
12,200.00	92.63	180.47	10,078.12	-1,465.60	-712.58	1,604,490.32	2,260,414.27	39.46382	-108.11995
12,215.75	92.63	180.47	10,077.40	-1,481.33	-712.71	1,604,474.60	2,260,413.69	39.46378	-108.11995
IP GM 706-4-HN2									
12,228.27	92.63	180.47	10,076.82	-1,493.84	-712.81	1,604,462.10	2,260,413.23	39.46374	-108.11995
Begin 2°/100 Build									
12,341.98	94.90	180.47	10,069.36	-1,607.29	-713.74	1,604,348.72	2,260,409.04	39.46343	-108.11995
Hold 94.9° Inc									
12,400.00	94.90	180.47	10,064.40	-1,665.10	-714.21	1,604,290.96	2,260,406.90	39.46327	-108.11996
12,600.00	94.90	180.47	10,047.32	-1,864.36	-715.83	1,604,091.83	2,260,399.54	39.46272	-108.11996
12,800.00	94.90	180.47	10,030.24	-2,063.62	-717.45	1,603,892.71	2,260,392.18	39.46218	-108.11997
13,000.00	94.90	180.47	10,013.15	-2,262.88	-719.08	1,603,693.58	2,260,384.82	39.46163	-108.11997
13,127.95	94.90	180.47	10,002.22	-2,390.36	-720.11	1,603,566.19	2,260,380.11	39.46128	-108.11998
IP #2 GM 706-4-HN2									
13,131.44	94.90	180.47	10,001.93	-2,393.84	-720.14	1,603,562.72	2,260,379.98	39.46127	-108.11998
Begin 2°/100 Build									
13,176.44	95.80	180.47	9,997.73	-2,438.64	-720.51	1,603,517.95	2,260,378.33	39.46115	-108.11998
Hold 95.8° Inc									
13,200.00	95.80	180.47	9,995.35	-2,462.08	-720.70	1,603,494.53	2,260,377.46	39.46108	-108.11998
13,400.00	95.80	180.47	9,975.14	-2,661.05	-722.32	1,603,295.69	2,260,370.11	39.46054	-108.11998
13,600.00	95.80	180.47	9,954.93	-2,860.02	-723.94	1,603,096.86	2,260,362.76	39.45999	-108.11999
13,800.00	95.80	180.47	9,934.72	-3,058.99	-725.56	1,602,898.03	2,260,355.41	39.45944	-108.12000
14,000.00	95.80	180.47	9,914.50	-3,257.96	-727.18	1,602,699.20	2,260,348.06	39.45890	-108.12000
14,149.20	95.80	180.47	9,899.43	-3,406.39	-728.39	1,602,550.87	2,260,342.57	39.45849	-108.12001
IP #3 GM 706-4-HN2									
14,200.00	95.80	180.47	9,894.29	-3,456.93	-728.80	1,602,500.37	2,260,340.71	39.45835	-108.12001
14,400.00	95.80	180.47	9,874.08	-3,655.90	-730.42	1,602,301.54	2,260,333.35	39.45781	-108.12001
14,600.00	95.80	180.47	9,853.87	-3,854.87	-732.04	1,602,102.70	2,260,326.00	39.45726	-108.12002
14,739.75	95.80	180.47	9,839.75	-3,993.90	-733.17	1,601,963.77	2,260,320.87	39.45688	-108.12002
Begin 2°/100 Drop									
14,800.00	94.60	180.47	9,834.29	-4,053.90	-733.66	1,601,903.81	2,260,318.65	39.45671	-108.12002
14,923.23	92.13	180.47	9,827.06	-4,176.90	-734.66	1,601,780.89	2,260,314.11	39.45638	-108.12003
Hold 92.13° Inc									
15,000.00	92.13	180.47	9,824.21	-4,253.61	-735.28	1,601,704.23	2,260,311.27	39.45617	-108.12003
15,200.00	92.13	180.47	9,816.77	-4,453.47	-736.91	1,601,504.52	2,260,303.89	39.45562	-108.12004
15,400.00	92.13	180.47	9,809.34	-4,653.32	-738.54	1,601,304.80	2,260,296.51	39.45507	-108.12004
15,600.00	92.13	180.47	9,801.90	-4,853.18	-740.16	1,601,105.08	2,260,289.12	39.45452	-108.12005

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 706-4-HN2 - Slot B16
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Site:	MV 28-4 Pad	North Reference:	True
Well:	GM 706-4-HN2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #7 24Mar14 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,800.00	92.13	180.47	9,794.47	-5,053.03	-741.79	1,600,905.37	2,260,281.74	39.45397	-108.12005
15,869.48	92.13	180.47	9,791.89	-5,122.46	-742.35	1,600,835.99	2,260,279.18	39.45378	-108.12005
Begin 2°/100 Build & Turn									
15,971.16	93.50	178.96	9,786.90	-5,224.02	-741.85	1,600,734.47	2,260,276.76	39.45350	-108.12005
End of Completions - EOC 706-4-HN2									
16,000.00	93.50	178.96	9,785.14	-5,252.80	-741.32	1,600,705.68	2,260,276.45	39.45342	-108.12005
16,071.10	93.50	178.96	9,780.80	-5,323.75	-740.03	1,600,634.73	2,260,275.70	39.45323	-108.12005
TD at 16071.10 - TD / PBHL GM 706-4-HN2									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
650 radius - plan misses target center by 1481.22usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Circle (radius 650.00)	0.00	0.00	0.00	-545.17	-1,377.25	1,605,429.47	2,259,776.43	39.46635	-108.12230
TD / PBHL GM 706-4-HN2 - plan hits target center - Point	0.00	0.00	9,780.80	-5,323.75	-740.03	1,600,634.73	2,260,275.70	39.45323	-108.12005
EOC 706-4-HN2 - plan hits target center - Point	0.00	0.00	9,786.90	-5,224.02	-741.85	1,600,734.47	2,260,276.76	39.45350	-108.12005
IP #3 GM 706-4-HN2 - plan misses target center by 2.32usft at 14149.20usft MD (9899.43 TVD, -3406.39 N, -728.39 E) - Point	0.00	0.00	9,900.10	-3,406.44	-730.61	1,602,550.88	2,260,340.35	39.45849	-108.12001
IP #2 GM 706-4-HN2 - plan misses target center by 1.85usft at 13127.95usft MD (10002.22 TVD, -2390.36 N, -720.11 E) - Point	0.00	0.00	10,001.26	-2,390.27	-721.69	1,603,566.33	2,260,378.54	39.46128	-108.11998
IP GM 706-4-HN2 - plan misses target center by 1.00usft at 12215.75usft MD (10077.39 TVD, -1481.33 N, -712.71 E) - Point	0.00	0.00	10,077.40	-1,481.32	-713.71	1,604,474.63	2,260,412.70	39.46378	-108.11995
LP GM 706-4-HN2 - plan hits target center - Point	0.00	0.00	10,149.00	80.00	-700.00	1,606,034.84	2,260,471.38	39.46806	-108.11991

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)
2,522.23	2,508.00	13 3/8"		13.375	17.500
9,381.00	9,322.11	9 5/8"		9.625	12.250

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well GM 706-4-HN2 - Slot B16
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Project:	GV 04-07S-096W	MD Reference:	KELLY BUSHING @ 5714.00usft (Nabors Pace X21 (33' RKB))
Site:	MV 28-4 Pad	North Reference:	True
Well:	GM 706-4-HN2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #7 24Mar14 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,833.74	1,824.00	Top of "G" Sand				
1,863.94	1,854.00	Base of "G" Sand				
2,150.81	2,139.00	Top Fort Union				
2,455.79	2,442.00	Base Fort Union				
2,522.23	2,508.00	Surface Casing				
3,405.98	3,386.00	Mesaverde				
4,557.48	4,530.00	Approx. Top Gas				
5,878.08	5,842.00	Cameo Coals				
6,383.37	6,344.00	Rollins SS				
6,698.72	6,657.29	Cozzette		-4.17	179.86	
6,966.22	6,923.06	Corcoran		-4.17	179.86	
7,133.42	7,089.16	Upper Sego		-4.17	179.86	
7,556.97	7,509.95	Lower Sego		-4.17	179.86	
7,921.75	7,872.36	Loyd A		-4.17	179.86	
8,375.70	8,323.35	Castlegate		-4.17	179.86	
8,648.27	8,594.14	Castlegate Hot GR		-4.17	179.86	
8,794.18	8,739.11	Morapos		-4.17	179.86	
9,034.33	8,977.69	Mancos-B		-4.17	179.86	
10,037.41	9,926.27	Top Buck Peak		-4.17	179.86	
10,231.50	10,047.29	Top Niobrara		-4.17	179.86	
10,321.09	10,088.50	Niobrara Hot GR Marker		-4.17	179.86	
10,501.14	10,139.97	Top Target (HN2)		-4.17	179.86	

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 2.00	
447.14	446.43	14.78	-11.39	Hold 6.54° Inc	
9,430.67	9,371.45	825.54	-636.26	KOP 8°/100	
10,652.73	10,149.00	80.00	-700.00	Landing Pt 92.63° Inc, 180.47° Az	
12,228.27	10,076.82	-1,493.84	-712.81	Begin 2°/100 Build	
12,341.98	10,069.36	-1,607.29	-713.74	Hold 94.9° Inc	
13,131.44	10,001.93	-2,393.84	-720.14	Begin 2°/100 Build	
13,176.44	9,997.73	-2,438.64	-720.51	Hold 95.8° Inc	
14,739.75	9,839.75	-3,993.90	-733.17	Begin 2°/100 Drop	
14,923.23	9,827.06	-4,176.90	-734.66	Hold 92.13° Inc	
15,869.48	9,791.89	-5,122.46	-742.35	Begin 2°/100 Build & Turn	
15,971.16	9,786.90	-5,224.02	-741.85	End of Completions	
16,071.10	9,780.80	-5,323.75	-740.03	TD at 16071.10	