Contingency Casing Design

If hole conditions dictate, 7" casing will be set at 7,313' MD (7,040' TVD). A 6 1/8" hole will then be drilled to 8,815' MD (7,040' TVD) where 4 1/2" casing will be set and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 6400'.

2nd Intermediate

0 ft to 100 ft				Make up Torque ft-lbs			Total ft = 100
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	J-55	LT&C	3670	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367 ,000 #		415 ,000 #		6.151	

100 ft to 5,800 ft				Make up Torque ft-lbs			Total ft = 5,700
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	23 #/ft	J-55	LT&C	3130	2350	3910	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
3,270	4,360 psi	313 ,000 #		366 ,000 #		6.25	

5,800 ft to 7,313 ft				Make up Torque ft-lbs			Total ft = 1,513
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	J-55	LT&C	3670	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367 ,000 #		415 ,000 #		6.151	

Lead w/760sx Lite crete (YLD 2.66 Wt. 9.9) tail w/130sx PVL (YLD 1.41 Wt 13) TOC = Surface

Production

0 ft to 8,815 ft				Make up Torque ft-lbs			Total ft = 8,815
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/ft	HCP-110	LT&C	3020	2270	3780	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
8,650 psi	10,690 psi	279 ,000 #		367 ,000 #		3.875	

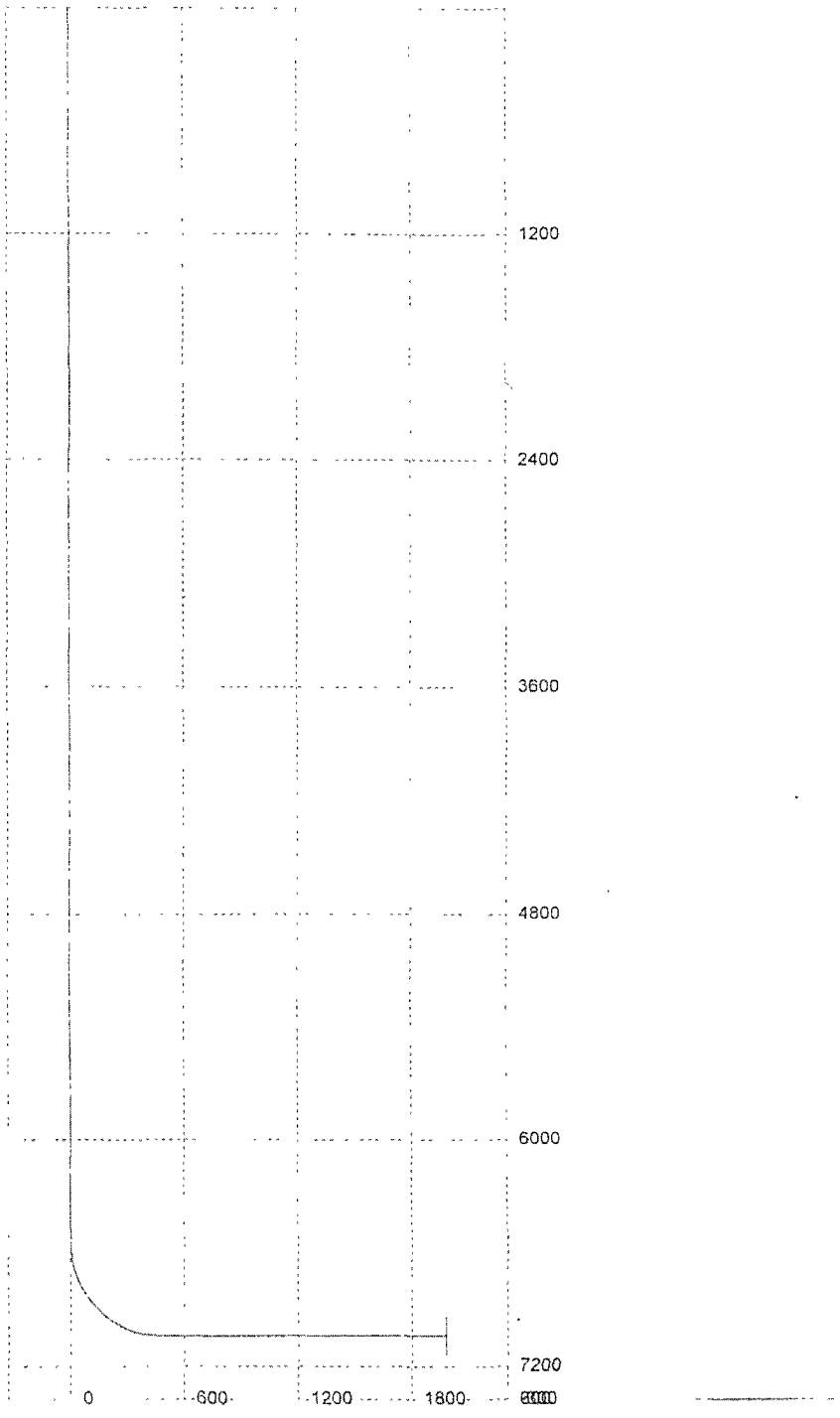
DV tool placed at approx. 6400' and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 6400'.
Cemented w/325sx PVL (YLD 1.41 Wt 13) TOC= 6400'

M.D.	Inclination	Azimuth	T.V.D.	N+/S-	E+/W-	D.L.S.	ToolFace	T.F. Ref. [HS/GN]	
0	0	0	0	0	0	0			
600	0	0	600	0	0	0			CASTILLE
720	0	0	720	0	0	0			TOS
2,120	0	0	2,120	0	0	0			BOS
2,430	0	0	2,430	0	0	0			BELL CANYON
3,200	0	0	3,200	0	0	0			CHERRY CANYON
4,300	0	0	4,300	0	0	0			BRUSHY CANYON
5,550	0	0	5,550	0	0	0			BRUSHY CANYON MKR
5,900	0	0	5,900	0	0	0			BONE SPRINGS
6563	0	0	6563	0	0	12	90	GN	KOP
6575	1.44	90	6575	0	0.15	12	0	HS	
6600	4.44	90	6599.96	0	1.43	12	0	HS	
6625	7.44	90	6624.83	0	4.02	12	0	HS	
6650	10.44	90	6649.52	0	7.9	12	0	HS	
6675	13.44	90	6673 98	0	13.08	12	0	HS	
6700	16.44	90	6698.13	0	19.52	12	0	HS	
6725	19 44	90	6721.91	0	27.22	12	0	HS	
6750	22.44	90	6745.26	0	36.15	12	0	HS	
6775	25.44	90	6768.1	0	46.3	12	0	HS	
6800	28.44	90	6790.39	0	57 62	12	0	HS	
6825	31.44	90	6812.05	0	70.1	12	0	HS	
6850	34.44	90	6833.03	0	83.69	12	0	HS	
6875	37.44	90	6853.27	0	98 36	12	0	HS	
6900	40.44	90	6872.71	0	114.07	12	0	HS	
6925	43.44	90	6891 3	0	130.78	12	0	HS	
6950	46.44	90	6909	0	148.44	12	0	HS	
6975	49.44	90	6925.74	0	167	12	0	HS	
7000	52.44	90	6941.49	0	186.41	12	0	HS	
7025	55.44	90	6956.21	0	206.61	12	0	HS	
7050	58.44	90	6969.84	0	227.57	12	0	HS	
7070	60.84	90	6979.95	0	244.82	12	0	HS	FIRST BONE SPRINGS
7075	61.44	90	6982 37	0	249 2	12	0	HS	
7100	64.44	90	6993.74	0	271.46	12	0	HS	
7125	67.44	90	7003.93	0	294.29	12	0	HS	
7150	70.44	90	7012.91	0	317.61	12	0	HS	
7175	73 44	90	7020 66	0	341.38	12	0	HS	
7200	76.44	90	7027.15	0	365.52	12	0	HS	
7225	79.44	90	7032.38	0	389.96	12	0	HS	
7250	82.44	90	7036.31	0	414.65	12	0	HS	
7275	85.44	90	7038.95	0	439.51	12	0	HS	
7300	88.44	90	7040 29	0	464.47	12	0	HS	
7313.15	90.02	90	7040.46	0	477.61	0			FBSG TARGET
8815.53	90.02	90	7040	0	1980	0			LATERAL TD

Pilot hole drilled vertically to 8500'. Well will be plugged back with a 400'-500' kick off, then kicked off at approx. 6563' and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 7,313' MD (7040' TVD). If hole conditions dictate, 7" casing will be set. A 6 1/8" hole will then be drilled to 8,815' MD (7040' TVD) where 4 1/2" casing will be set and cemented. If 7" is not set, then hole size will be reduced to 7 7/8" and drilled to 8,815' MD (7040' TVD) where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be encountered at 660' FNL and 808' FWL, 12-25S-27E. Deepest TVD in the well is 8500' in the pilot hole. Deepest TVD in the lateral will be 7040'.

3D³ Directional Drilling Planner - 3D View

Company: **Yates Petroleum Corporation**
Well: **Sherpa BOY State #1H**



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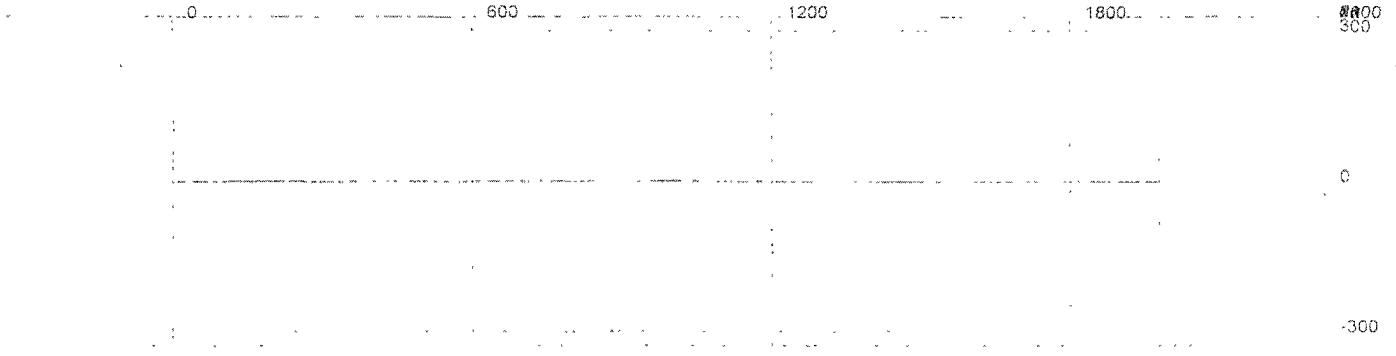

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