

# Directional Survey

## CANYON E-76 65-10 126-45

UWI E7665-10126-45	Surface Legal Location E-76 65-10 126-45	District NEW VENTURES	Field Name Canyon	License No. EL 470
Program ILX	Well Type Appraisal	Well Configuration Type HORIZONTAL	Original KB/RT Elevation (m) 273.40	KB-Ground Distance (m) 5.20

Survey Data											
Date	MD (mKB)	Incl (°)	Azm (°)	TVD (mKB)	Depart (m)	VS (m)	NS (m)	EW (m)	DLS (°/30m)	Method	Survey Company
1/17/2014	2,048.00	88.30	297.90	1,777.36	361.95	361.52	190.73	-307.62	1.90	DIRECTIO NA	Pathfinder
1/17/2014	2,057.00	88.30	297.90	1,777.63	370.92	370.52	194.93	-315.57	0.00	DIRECTIO NA	Pathfinder
1/17/2014	2,066.50	86.70	297.50	1,778.04	380.39	380.00	199.35	-323.97	5.21	DIRECTIO NA	Pathfinder
1/17/2014	2,076.50	86.50	296.80	1,778.63	390.34	389.98	203.90	-332.85	2.18	DIRECTIO NA	Pathfinder
1/17/2014	2,085.50	86.30	297.37	1,779.20	399.30	398.96	207.99	-340.85	2.01	DIRECTIO NA	Pathfinder
1/17/2014	2,095.00	85.82	296.66	1,779.85	408.75	408.43	212.30	-349.29	2.70	DIRECTIO NA	Pathfinder
1/17/2014	2,104.50	85.68	297.15	1,780.56	418.20	417.90	216.58	-357.74	1.61	DIRECTIO NA	Pathfinder
1/18/2014	2,113.50	85.59	296.97	1,781.24	427.15	426.87	220.67	-365.73	0.67	DIRECTIO NA	Pathfinder
1/18/2014	2,123.00	85.59	296.66	1,781.97	436.59	436.33	224.94	-374.19	0.98	DIRECTIO NA	Pathfinder
1/18/2014	2,132.50	85.68	295.25	1,782.69	446.03	445.79	229.08	-382.70	4.45	DIRECTIO NA	Pathfinder
1/18/2014	2,142.00	85.90	259.20	1,783.42	454.58	454.44	230.26	-391.95	113.53	DIRECTIO NA	Pathfinder
1/18/2014	2,151.00	85.82	295.16	1,784.09	462.70	462.63	231.36	-400.71	119.54	DIRECTIO NA	Pathfinder
1/18/2014	2,171.00	85.90	297.06	1,785.53	482.60	482.55	240.14	-418.62	2.85	DIRECTIO NA	Pathfinder
1/18/2014	2,181.50	85.90	296.57	1,786.28	493.06	493.02	244.86	-427.96	1.40	DIRECTIO NA	Pathfinder
1/18/2014	2,191.00	86.10	297.40	1,786.94	502.53	502.49	249.16	-436.41	2.69	DIRECTIO NA	Pathfinder
1/18/2014	2,199.50	86.40	296.40	1,787.50	511.00	510.97	253.00	-443.97	3.68	DIRECTIO NA	Pathfinder
1/18/2014	2,209.00	86.70	297.40	1,788.07	520.47	520.44	257.29	-452.43	3.29	DIRECTIO NA	Pathfinder
1/18/2014	2,247.00	87.90	295.90	1,789.86	558.38	558.37	274.31	-486.35	1.52	DIRECTIO NA	Pathfinder
1/18/2014	2,266.00	88.20	296.40	1,790.51	577.34	577.33	282.68	-503.40	0.92	DIRECTIO NA	Pathfinder
1/18/2014	2,275.50	88.70	296.60	1,790.77	586.82	586.82	286.92	-511.90	1.70	DIRECTIO NA	Pathfinder
1/18/2014	2,313.50	89.50	297.10	1,791.36	624.79	624.79	304.08	-545.80	0.74	DIRECTIO NA	Pathfinder
1/18/2014	2,342.00	89.40	298.40	1,791.64	653.28	653.28	317.35	-571.02	1.37	DIRECTIO NA	Pathfinder
1/18/2014	2,361.00	89.70	298.40	1,791.79	672.28	672.28	326.39	-587.73	0.47	DIRECTIO NA	Pathfinder
1/18/2014	2,380.00	89.80	298.20	1,791.87	691.27	691.27	335.39	-604.46	0.35	DIRECTIO NA	Pathfinder
1/18/2014	2,399.00	89.40	298.60	1,792.00	710.27	710.27	344.43	-621.17	0.89	DIRECTIO NA	Pathfinder
1/18/2014	2,418.00	89.60	298.80	1,792.17	729.27	729.27	353.55	-637.84	0.45	DIRECTIO NA	Pathfinder
1/18/2014	2,437.00	88.20	297.28	1,792.53	748.26	748.26	362.48	-654.60	3.26	DIRECTIO NA	Pathfinder
1/18/2014	2,455.50	88.60	296.84	1,793.05	766.75	766.75	370.90	-671.07	0.96	DIRECTIO NA	Pathfinder
1/18/2014	2,475.00	88.60	298.95	1,793.52	786.24	786.23	380.02	-688.30	3.25	DIRECTIO NA	Pathfinder
1/19/2014	2,494.00	88.60	297.28	1,793.99	805.23	805.23	388.97	-705.05	2.64	DIRECTIO NA	Pathfinder

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1/19/2014	2,513.50	88.20	298.56	1,794.53	824.72	824.71	398.09	-722.27	2.06	DIRECTIO NA	Pathfinder
1/19/2014	2,532.00	88.38	298.65	1,795.09	843.21	843.21	406.95	-738.51	0.33	DIRECTIO NA	Pathfinder
1/19/2014	2,551.00	87.98	297.85	1,795.69	862.20	862.19	415.94	-755.24	1.41	DIRECTIO NA	Pathfinder
1/19/2014	2,570.00	88.10	298.80	1,796.34	881.19	881.18	424.95	-771.95	1.51	DIRECTIO NA	Pathfinder
1/19/2014	2,589.00	88.10	299.00	1,796.97	900.18	900.17	434.12	-788.58	0.32	DIRECTIO NA	Pathfinder
1/19/2014	2,608.00	88.30	299.00	1,797.57	919.17	919.16	443.33	-805.19	0.32	DIRECTIO NA	Pathfinder
1/19/2014	2,627.00	88.40	298.60	1,798.11	938.16	938.15	452.48	-821.83	0.65	DIRECTIO NA	Pathfinder
1/19/2014	2,646.00	88.50	297.00	1,798.63	957.15	957.14	461.34	-838.63	2.53	DIRECTIO NA	Pathfinder
1/19/2014	2,665.00	88.80	298.60	1,799.07	976.14	976.13	470.20	-855.43	2.57	DIRECTIO NA	Pathfinder
1/19/2014	2,684.00	87.90	297.30	1,799.62	995.13	995.12	479.10	-872.21	2.50	DIRECTIO NA	Pathfinder
1/19/2014	2,703.00	88.30	297.50	1,800.25	1,014.11	1,014.10	487.84	-889.07	0.71	DIRECTIO NA	Pathfinder
1/19/2014	2,721.00	88.50	298.60	1,800.75	1,032.10	1,032.09	496.30	-904.95	1.86	DIRECTIO NA	Pathfinder
1/19/2014	2,740.00	88.00	298.50	1,801.33	1,051.09	1,051.08	505.37	-921.63	0.81	DIRECTIO NA	Pathfinder
1/19/2014	2,759.00	88.20	299.40	1,801.96	1,070.08	1,070.07	514.57	-938.24	1.45	DIRECTIO NA	Pathfinder
1/19/2014	2,778.50	88.50	301.30	1,802.53	1,089.57	1,089.56	524.41	-955.06	2.96	DIRECTIO NA	Pathfinder
1/19/2014	2,798.50	88.70	300.30	1,803.01	1,109.55	1,109.54	534.65	-972.24	1.53	DIRECTIO NA	Pathfinder
1/19/2014	2,807.50	89.20	301.30	1,803.18	1,118.54	1,118.53	539.26	-979.97	3.73	DIRECTIO NA	Pathfinder
1/19/2014	2,837.00	89.31	302.48	1,803.56	1,148.00	1,147.99	554.84	-1,005.01	1.21	DIRECTIO NA	Pathfinder
1/19/2014	2,855.50	89.20	300.50	1,803.80	1,166.48	1,166.48	564.50	-1,020.79	3.22	DIRECTIO NA	Pathfinder
1/20/2014	2,890.00	87.80	301.07	1,804.71	1,200.95	1,200.95	582.16	-1,050.41	1.31	DIRECTIO NA	Pathfinder
1/20/2014	2,890.00	87.80	301.07	1,804.71	1,200.95	1,200.95	582.16	-1,050.41	1.31	DIRECTIO NA	
1/20/2014	2,910.00	87.80	301.07	1,805.47	1,220.92	1,220.92	592.47	-1,067.53	0.00	DIRECTIO NA	Pathfinder