

Directional Survey Calculations	Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
	SHL	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	201	5102	4568
BHL	9432	89.80	181.60	5068.52	-4770.72	-92.74	4771.62	0.00	4972	330	4526	657
Miss Entry	5218	64.46	181.88	5009.08	-569.20	-10.51	569.30	8.22	770	4533	4564	658
Top Perf	5240	65.92	181.66	5018.28	-589.17	-11.11	589.27	7.01	790	4513	4564	658
Bottom Perf	9318	88.95	181.30	5067.37	-4656.77	-89.84	4657.64	0.93	4858	444	4528	657

Survey Points	NW Corner XY Coord	X	Y	Surface XY	X	Y	m	
							North Line slope	East Line slope
	SW Corner XY Coord	1717623	251158				-0.006886	
	NE Corner XY Coord	1717567	245889	1722189	250926		0.0196005	
	SE Corner XY Coord	1722851	251122				-0.0140927	
		1722747	245816				0.0106282	

	Measured Depth (ft)	Sub-Sea Incl. (deg)	Vertical Azim. (ft)	True Vert Depth (ft)	Northings (+) Southings (-) (ft)	Eastings (+) Westings (-) (ft)	Vert Section (ft)	DLS deg/100' (deg)	FNL	FSL	FWL	FEL
		0	0.0	0	0	0	0	0	0	201	5102	4568
	1236	0.90	192.30	1235.95	-9	-2	9.52	0.07	210	5093	4566	660
	1693	1.00	237.90	1692.89	-15	-6	15.23	0.16	216	5087	4562	664
	2150	0.60	252.90	2149.85	-18	-12	18.16	0.10	219	5084	4557	670
	2606	0.60	281.40	2605.82	-18	-16	18.48	0.07	219	5084	4552	674
	3064	0.70	295.60	3063.79	-16	-21	16.89	0.04	217	5085	4547	679
	3521	0.30	340.30	3520.78	-14	-24	14.62	0.12	215	5088	4544	682
	3976	0.00	137.60	3975.78	-13	-25	13.50	0.07	214	5089	4544	683
	4098	0.30	62.00	4097.77	-13	-24	13.35	0.25	214	5089	4544	682
	4131	0.20	57.30	4130.77	-13	-24	13.27	0.31	214	5089	4544	682
	4161	1.60	175.90	4160.77	-13	-24	13.66	5.68	214	5089	4544	682
	4191	4.40	186.90	4190.73	-15	-24	15.22	9.49	215	5087	4544	682
	4222	7.70	183.20	4221.55	-18	-25	18.48	10.71	219	5084	4544	682
	4252	10.10	181.40	4251.19	-23	-25	23.12	8.05	223	5079	4544	682
	4283	10.90	180.80	4281.67	-28	-25	28.77	2.61	229	5074	4544	682
	4313	12.30	178.80	4311.05	-34	-25	34.80	4.86	235	5067	4544	682
	4344	14.30	176.40	4341.22	-41	-25	41.91	6.69	242	5060	4544	682
	4374	16.80	175.70	4370.12	-49	-24	49.92	8.36	250	5052	4545	681
	4405	19.40	175.60	4399.58	-59	-23	59.50	8.39	260	5043	4546	680
	4435	21.40	176.70	4427.70	-69	-23	69.92	6.79	270	5032	4547	679
	4466	23.00	175.90	4456.40	-81	-22	81.59	5.25	282	5021	4548	678
	4496	24.50	175.90	4483.86	-93	-21	93.62	5.00	294	5009	4549	677
	4527	25.80	177.10	4511.92	-106	-20	106.75	4.51	307	4995	4549	676
	4557	26.50	176.70	4538.85	-120	-19	119.93	2.41	320	4982	4550	675
	4588	27.20	177.60	4566.51	-134	-19	133.90	2.61	334	4968	4551	674
	4618	28.60	177.40	4593.02	-148	-18	147.91	4.68	348	4954	4552	673
	4648	31.30	177.40	4619.01	-163	-17	162.85	9.00	363	4939	4553	672
	4679	33.90	177.90	4645.13	-179	-17	179.52	8.43	380	4923	4554	671
	4709	34.10	177.20	4670.00	-196	-16	196.26	1.47	397	4906	4555	670
	4740	35.20	176.80	4695.50	-214	-15	213.84	3.62	414	4888	4556	669
	4770	37.00	177.10	4719.74	-231	-14	231.47	6.03	432	4871	4557	668
	4799	39.10	176.70	4742.57	-249	-13	249.29	7.29	450	4853	4558	666
	4829	41.90	176.90	4765.38	-269	-12	268.72	9.34	469	4833	4559	665
Top of Tangent @ 4890'	4860	45.20	177.10	4787.85	-290	-11	290.02	10.66	490	4812	4561	663
	4890	47.90	178.40	4808.48	-312	-10	311.75	9.53	512	4790	4562	662
	4921	48.20	178.90	4829.20	-335	-10	334.79	1.54	535	4767	4562	661
	4951	47.90	179.10	4849.26	-357	-9	357.08	1.12	558	4745	4563	660
	4982	48.00	179.10	4870.02	-380	-9	380.08	0.32	581	4722	4564	660
Btm of Tangent @ 5073'	5012	48.80	178.90	4889.94	-402	-8	402.50	2.71	603	4700	4564	659
	5043	48.60	179.30	4910.40	-426	-8	425.78	1.17	626	4676	4565	658
	5073	48.60	179.80	4930.24	-448	-8	448.27	1.25	649	4654	4565	657
	5104	51.60	180.60	4950.12	-472	-8	472.04	9.88	673	4630	4566	657
	5134	55.60	181.30	4967.92	-496	-8	496.18	13.47	697	4606	4565	657
	5164	59.60	181.70	4983.99	-521	-9	521.51	13.38	722	4581	4565	657
	5195	62.70	181.80	4998.95	-549	-10	548.65	10.00	749	4553	4564	657
	5225	65.00	181.90	5012.17	-575	-11	575.58	7.67	776	4527	4564	658
	5256	66.90	181.40	5024.80	-604	-12	603.88	6.30	804	4498	4563	658
	5286	68.90	182.30	5036.09	-632	-12	631.67	7.22	832	4470	4563	658
	5316	72.40	182.90	5046.02	-660	-14	659.97	11.82	860	4442	4562	659
	5347	75.50	183.30	5054.59	-690	-15	689.73	10.08	890	4412	4560	660
	5377	78.10	183.70	5061.44	-719	-17	718.91	8.76	919	4383	4559	661
	5408	79.90	183.40	5067.36	-749	-19	749.31	5.88	950	4353	4557	662
	5438	82.20	183.30	5072.03	-779	-21	778.92	7.67	979	4323	4556	664
	5469	85.90	183.30	5075.24	-809	-22	809.73	11.94	1010	4292	4555	665
	5483	87.00	182.90	5076.11	-823	-23	823.69	8.36	1024	4278	4554	665
	5579	90.10	182.90	5078.53	-919	-28	919.60	3.23	1120	4183	4550	668
	5672	89.70	181.40	5078.70	-1012	-32	1012.58	1.67	1213	4090	4548	670
	5765	89.50	180.90	5079.35	-1105	-33	1105.58	0.58	1306	3997	4547	670
	5857	89.30	180.60	5080.31	-1197	-35	1197.57	0.39	1398	3905	4547	669
	5949	88.90	179.90	5081.76	-1289	-35	1289.55	0.88	1490	3813	4547	668
	6041	90.00	180.60	5082.64	-1381	-35	1381.53	1.42	1582	3721	4548	667
	6134	90.50	180.30	5082.23	-1474	-36	1474.52	0.63	1675	3628	4548	665
	6226	90.80	180.30	5081.19	-1566	-37	1566.50	0.33	1767	3536	4548	664
	6318	90.00	180.70	5080.55	-1658	-37	1658.49	0.97	1859	3444	4549	663
	6410	90.40	180.70	5080.23	-1750	-39	1750.49	0.44	1951	3352	4548	662

