

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	5378	3331
BHL	9787	87.20	175.00	5170.90	-5017.58	160.94	5020.11	0.00	5220	360	3329	1958
Miss Entry	5356	67.83	179.78	5095.54	-597.08	-13.32	596.48	13.53	798	4780	3298	2011
Top Perf	5370	69.56	179.65	5100.45	-610.18	-13.23	609.59	13.08	811	4767	3298	2011
Bottom Perf	9646	87.90	175.35	5166.75	-4921.01	152.79	4923.35	1.24	5124	457	3324	1964

Survey Points		X	Y		X	Y	m
NW Corner XY Coord		1806559	171759				North Line slope 0.0122387
SW Corner XY Coord		1806739	166225	Surface XY	1809895	171599	East Line slope -0.0274755
NE Corner XY Coord		1811870	171824				South Line slope -0.0011353
SE Corner XY Coord		1812024	166219				West Line slope -0.0325262

	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	5378	3331
	981	1.10	303.10	980.94	5	-8	-5.36	0.11	196	5383	3323	1989
	1137	1.30	304.20	1136.91	7	-11	-7.24	0.13	194	5385	3320	1992
	1518	0.40	1.70	1517.86	11	-14	-11.10	0.30	190	5388	3317	1995
	1994	0.30	85.60	1993.86	12	-13	-12.82	0.10	188	5390	3318	1994
	2470	1.10	71.00	2469.82	14	-7	-14.25	0.17	187	5392	3324	1988
	2946	0.60	343.40	2945.78	18	-4	-18.02	0.26	183	5396	3328	1984
	3421	0.80	13.70	3420.75	24	-4	-23.62	0.09	177	5401	3328	1984
	3897	0.30	30.70	3896.72	28	-2	-27.88	0.11	173	5405	3330	1983
	3992	0.80	5.20	3991.72	29	-2	-28.75	0.57	172	5406	3330	1982
	4087	0.60	9.60	4086.71	30	-2	-29.90	0.22	171	5407	3330	1982
	4183	0.50	28.70	4182.71	31	-2	-30.75	0.22	170	5408	3330	1982
	4215	0.90	21.10	4214.70	31	-1	-31.11	1.28	170	5409	3330	1982
	4247	0.70	206.10	4246.70	31	-1	-31.17	5.00	170	5409	3330	1982
	4279	3.70	203.00	4278.68	30	-2	-30.05	9.38	171	5408	3330	1982
	4310	6.60	201.10	4309.55	27	-3	-27.50	9.37	173	5405	3329	1983
	4342	8.50	201.00	4341.27	24	-4	-23.62	5.94	177	5401	3327	1985
	4374	10.20	199.50	4372.84	19	-6	-18.79	5.37	182	5396	3325	1987
	4406	12.80	199.60	4404.20	13	-8	-12.84	8.13	188	5390	3323	1989
	4437	15.30	199.70	4434.27	6	-11	-5.83	8.06	195	5383	3320	1992
	4469	18.00	199.50	4464.92	-3	-14	2.72	8.44	204	5374	3317	1995
	4501	20.80	196.00	4495.10	-13	-17	12.76	9.47	214	5364	3313	1999
	4533	23.60	192.60	4524.73	-25	-20	24.39	9.62	226	5353	3310	2002
	4564	26.20	190.20	4552.85	-38	-23	37.10	9.00	238	5340	3307	2005
	4596	28.50	189.00	4581.27	-52	-25	51.53	7.39	253	5325	3304	2008
	4628	30.60	187.40	4609.10	-68	-27	67.08	7.01	268	5310	3301	2010
	4660	32.30	185.80	4636.40	-84	-29	83.60	5.92	285	5293	3299	2013
	4692	34.40	184.50	4663.13	-102	-31	101.07	6.93	302	5276	3297	2015
	4723	36.10	183.80	4688.45	-120	-32	118.87	5.64	320	5258	3295	2017
	4755	37.50	182.50	4714.07	-139	-33	137.98	5.01	339	5239	3293	2018
	4787	38.80	180.80	4739.24	-159	-34	157.71	5.22	359	5219	3292	2019
	4819	40.60	178.60	4763.86	-179	-34	178.14	7.14	380	5198	3291	2020
	4850	42.50	177.00	4787.06	-200	-33	198.70	7.02	400	5178	3291	2020
Top of Tangent 5062	4882	44.00	176.40	4810.36	-222	-32	220.62	4.86	422	5156	3292	2019
	4914	45.40	176.50	4833.11	-244	-30	243.11	4.38	444	5134	3293	2018
	4946	47.70	176.50	4855.11	-267	-29	266.33	7.19	468	5110	3293	2017
	4977	50.90	177.10	4875.33	-291	-28	289.82	10.43	491	5087	3294	2017
	5009	52.00	177.10	4895.27	-316	-26	314.84	3.44	516	5062	3294	2016
Btm of Tangent 5168	5041	51.80	176.90	4915.01	-341	-25	340.01	0.80	541	5037	3295	2015
	5073	50.90	176.50	4935.00	-366	-23	364.99	2.98	566	5012	3295	2015
	5104	50.50	176.40	4954.63	-390	-22	388.96	1.31	590	4988	3296	2014
	5136	50.40	176.20	4975.01	-414	-20	413.62	0.57	615	4963	3297	2013
	5168	50.50	175.80	4995.39	-439	-19	438.27	1.01	640	4939	3298	2012
	5200	52.50	176.00	5015.31	-464	-17	463.29	6.27	665	4914	3299	2011
	5231	54.20	177.10	5033.81	-489	-15	488.15	6.18	689	4889	3299	2010
	5263	57.00	178.50	5051.89	-515	-14	514.55	9.47	716	4862	3300	2010
	5295	59.80	179.10	5068.65	-542	-14	541.80	8.89	743	4835	3299	2010
	5327	63.90	179.50	5083.75	-571	-13	570.00	12.86	771	4807	3299	2010
	5358	68.10	179.80	5096.35	-599	-13	598.31	13.58	800	4779	3298	2011
	5390	72.00	179.40	5107.27	-629	-13	628.38	12.24	830	4749	3297	2012
	5422	75.20	178.70	5116.30	-660	-13	659.07	10.22	860	4718	3297	2012
	5454	77.80	178.00	5123.77	-691	-12	690.18	8.40	891	4687	3297	2012
	5485	80.50	177.70	5129.61	-721	-11	720.62	8.76	922	4656	3297	2012
	5517	83.40	177.20	5134.09	-753	-9	752.30	9.19	954	4625	3297	2011
	5534	85.10	177.40	5135.79	-770	-8	769.21	10.07	970	4608	3297	2011
	5613	90.20	177.50	5139.03	-849	-5	848.11	6.46	1049	4529	3298	2009
	5644	90.20	177.80	5138.92	-880	-4	879.10	0.97	1080	4498	3299	2009
	5675	89.80	178.50	5138.92	-911	-3	910.10	2.60	1111	4467	3299	2009
	5705	89.50	178.60	5139.11	-941	-2	940.10	1.05	1141	4437	3298	2009
	5736	89.40	178.30	5139.40	-971	-1	971.10	1.02	1172	4406	3298	2009
	5767	89.30	178.80	5139.76	-1002	0	1002.10	1.64	1203	4375	3298	2009
	5857	89.50	177.60	5140.70	-1092	3	1092.09	1.35	1293	4285	3298	2009
	5949	89.40	178.80	5141.58	-1184	6	1184.09	1.31	1385	4193	3298	2008
	6041	89.40	177.70	5142.54	-1276	8	1276.08	1.20	1477	4101	3298	2008
	6133	89.30	177.60	5143.59	-1368	12	1368.06	0.15	1569	4009	3298	2007

