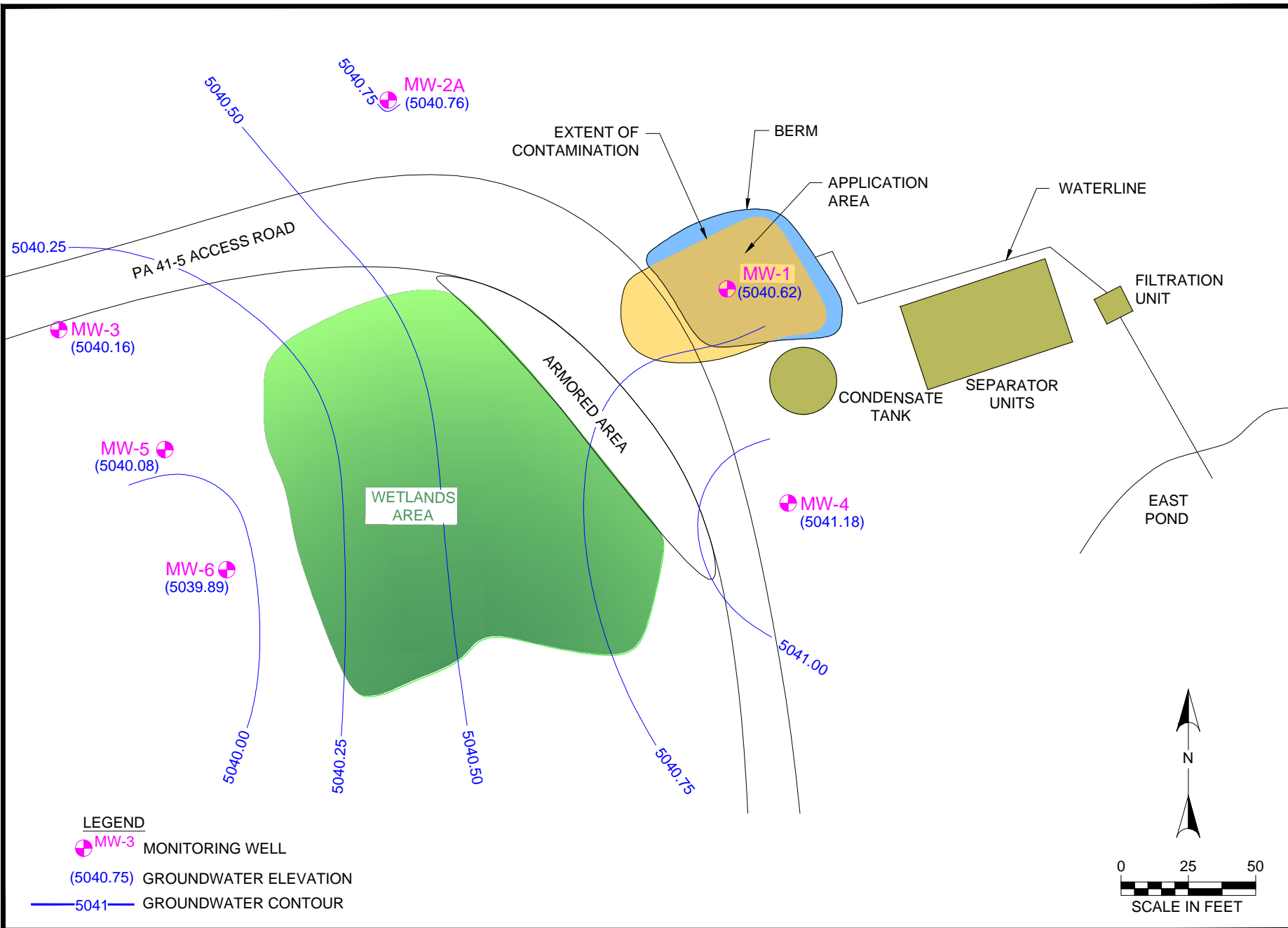

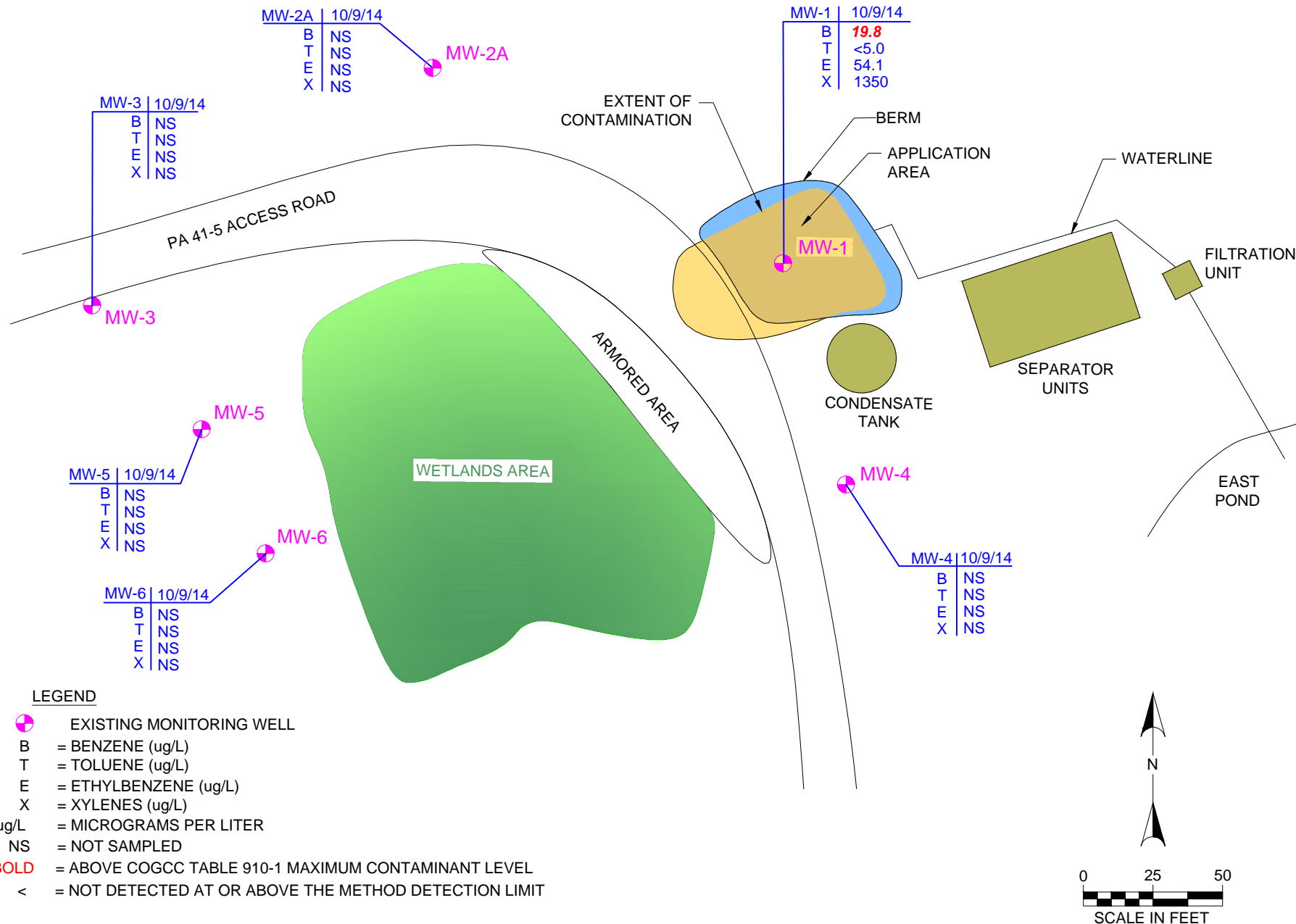


F:\Projects\013-3235\2014 Quarterly Sampling\03\Knight GW-03-2014.dwg Layout: GW



PROJECT NO: 013-3235	GROUNDWATER - PIEZOMETRIC SURFACE MAP - SEPTEMBER 2014 KNIGHT PA 311-4 SEC 4, T7S, R95W PARACHUTE, COLORADO	 <div> 760 Horizon Drive; Suite 102  Grand Junction, CO 81506  TEL 970.263.7800  FAX 970.263.7456 </div>	FIGURE
DRAWN BY: abl			2
DATE: 11.06.2014			

F:\Projects\013-3235\2014 Quarterly Sampling\03 Knight GWA-03-2014.dwg Layout: GWA



PROJECT NO:	013-3235
DRAWN BY:	abl
DATE:	11.06.2014

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - SEPTEMBER 2014  
 KNIGHT PA 311-4  
 SEC 4, T7S, R95W  
 PARACHUTE, COLORADO



760 Horizon Drive; Suite 102  
 Grand Junction, CO 81506  
 TEL 970.263.7800  
 FAX 970.263.7456

FIGURE  
 3

SAMPLE SUMMARY			Table 1																	
Location Description		Knight Property Monitoring																		
Sample Type		Groundwater																		
LABORATORY DATA SUMMARY																				
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1	MW-1									
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter									
Depth to Water (feet)			5.57	5.52	5.28	5.52	6.78	6.00	5.16	6.15	6.20									
Sample Date			11/18/2011	2/14/2012	5/8/2012	8/29/2012	11/26/2012	3/6/2013	5/30/2013	9/19/2013	12/17/2013									
Analytical Parameters																				
TPH																				
GRO	NA	mg/l	1.68	1.56	5.62	2.92	2.01	3.59	2.41	0.443	3.20									
DRO	NA	mg/l	0.596	0.412	0.996	0.886	0.518	0.405	0.361	0.283	0.336									
BTEX																				
Benzene	5	µg/l	7.9	1.2	<0.20	15.9	7.6	9.8	9.7	3.4	13.1									
Toluene	560 to 1000	µg/l	1.4	< 1.0	<1.0	7.2 J	<5.0	<1.0	2.3	1.3J	4.8									
Ethylbenzene	700	µg/l	24.3	< 1.0	<1.0	65.9	37.7	72.4	49.7	4.8	18.7									
Xylene (total)	1400 to 10000	µg/l	477	227	26.7	517	421	772	658	101	585									
PAHs																				
Acenaphthene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.48	NT	NT	<0.49	<0.48									
Acenaphthylene	NA	µg/l	< 0.2	< 0.60	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Benzo(a)anthracene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Benzo(a)pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Benzo(b)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Benzo(g,h,i)perylene	NA	µg/l	< 0.2	< 0.54	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Benzo(k)fluoranthene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Chrysene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Dibenzo(a,h)anthracene	NA	µg/l	< 0.2	< 0.78	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Fluoranthene	NA	µg/l	< 0.2	< 0.71	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Fluorene	NA	µg/l	< 0.2	< 0.55	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Indeno(1,2,3-cd)pyrene	NA	µg/l	< 0.2	< 1.5	<0.48	<0.48	<0.48	NT	NT	<0.55	<0.47									
1-Methylnapthalene	NA	µg/l	1.1	< 0.68	1.1 J	0.67 J	0.50 J	NT	NT	<0.48	1.0 J									
2-Methylnapthalene	NA	µg/l	1.6	0.83 J	2.0 J	1.0 J	<0.48	NT	NT	<0.48	1.0 J									
Napthalene	NA	µg/l	2.9	1.2 J	3.6 J	2.0 J	<0.48	NT	NT	0.69J	2.6 J									
Phenanthrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Pyrene	NA	µg/l	< 0.2	< 0.47	<0.48	<0.48	<0.48	NT	NT	<0.48	<0.47									
Metals																				
Calcium	NA	mg/l	173	88.3	138	170	147	116	114	238	102									
Iron	NA	mg/l	26.5	5.32	11.6	17.7	19.5	10.6	12.0	6.1	5.5									
Magnesium	NA	mg/l	36.7	58.6	54.7	72.5	63.6	82.7	60.6	64.3	64.9									
Manganese	NA	mg/l	1.13	0.418	0.653	0.947	0.748	0.709	0.650	0.658	0.646									
Potassium	NA	mg/l	< 10	3.64	4.63	7.7	6.15	5.42	5.75	6.79	5.57									
Selenium	NA	mg/l	< 0.01	< 0.05	<0.050	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05									
Sodium	NA	mg/l	50.2	63.8	64.7	104	80	101	86	118	93.8									
General Chemistry																				
Alkalinity, Bicarbonate	NA	mg/l	260	488	498	667	746	618	484	492	635									
Alkalinity, Carbonate	NA	mg/l	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0									
Alkalinity, Total as CaCO3	NA	mg/l	264	488	497	667	746	618	484	492	635									
Biological Oxygen Demand, 5 Day	NA	mg/l	10.5	10.9	22.6	21	28.4	15.4	11.8	12.7	20.4									
Bromide	NA	mg/l	< 0.50	< 0.20	1.3	2.8	<0.25	0.16	<0.10 <sup>a</sup>	0.17	0.10									
Chemical Oxygen Demand	NA	mg/l	31.6	18.4	62.3	79.6	21.7	45.9	21.2	31.6	35.9									
Chloride	1.25 x bkgd	mg/l	16.0	11.5	9.0	139	39.2	12.3	9.7	163.0	13.2									
Hydroxide Alkalinity	NA	mg/l	< 5.0	NT	NT	NT	NT	NT	NT	NT	NT									
Nitrogen, Nitrate	NA	mg/l	0.66	< 0.23	<0.23	0.077	<0.050	0.26	0.88	0.24	0.22									
Nitrogen, Nitrite	NA	mg/l	< 0.50	< 0.061	0.010	0.064	0.015	0.064	0.052	0.280	0.076									
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	1.500									
Phosphorus, Total	NA	mg/l	3.5	0.59	1.1	NT	2.0	0.95	0.63	10.40	5.0									
Plate Count, Total	NA	CFU/ml	1590000	110000	300000	360000	150000	NT	NT	NT	NT									
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	NT	NT	NT	NT	684									
Sulfate	1.25 x bkgd	mg/l	16.8	10.9	5.7	66.2	13.4	117	51.9	43.2	25.1									
Total Organic Carbon	NA	mg/l	13.2	8.8	10.4	18.5	10.2	9.3	8.9	14.2	10.2									
pH	NA	su	8.34	7.76	7.67	7.38	7.48	7.56	7.53	7.87	7.63									
Field Readings																				
Temperature	NA	deg. C	14.6	6.82	13.89	21.20	14.49	7.80	12.60	20.20	10.00									
Specific Conductivity	NA	mS/cm	0.511	0.837	0.789	1.234	1.227	1.319	0.958	1.364	1.101									
Dissolved Oxygen	NA	mg/l	6.55	2.25	3.25	1.51	0.95	1.34	0.28	6.5	0.27									
pH	NA	su	9.05	7.37	7.71	7.49	7.7	7.3	7.8	8.75	8.19									
Solids, Total Dissolved	NA	mg/l	0.3	0.5	0.5	0.8	NT	NT	0.6	0.9	0.7150									
Turbidity	NA	NTU	264	117	538	386	117	59.9	NT	NT	NT									

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

a - Dilution required due to matrix interference

b - Elevated detection limit due to matrix interference

c - Elevated detection limit due to dilution required for possible matrix interference

Over allowable limit

SAMPLE SUMMARY			Table 1																		
Location Description		Knight Property Monitoring																			
Sample Type		Groundwater																			
LABORATORY DATA SUMMARY																					
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-1	MW-1	MW-1	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A	MW-2A										
Sampling Period			1st Quarter	2nd Quarter	4th Quarter	4th Quarter	1st Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter										
Depth to Water (feet)			5.57	5.26	5.82	4.93	5.04	4.72	5.65	5.50	4.44										
Sample Date			2/20/2014	5/5/2014	10/9/2014	11/18/2011	2/14/2012	8/29/2012	11/26/2012	3/6/2013	5/30/2013										
Analytical Parameters																					
TPH																					
GRO	NA	mg/l	0.29	3.07	4.23	< 0.050	< 0.10	<0.10	<0.10	<0.10	<0.10										
DRO	NA	mg/l	0.429	0.2	0.436	<0.10	< 0.30	<0.25	<0.17	<0.17	<0.17										
BTEX																					
Benzene	5	µg/l	<0.20	8.4	19.8	< 1.0	< 0.20	< 0.20	<0.20	<0.20	<0.20										
Toluene	560 to 1000	µg/l	3.1	5.1	<5.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0										
Ethylbenzene	700	µg/l	<1.0	<2.0	54.1	< 1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0										
Xylene (total)	1400 to 10000	µg/l	<2.0	917 <sup>a</sup>	1350	< 3.0	< 2.0	< 2.0	<2.0	<2.0	<2.0										
PAHs																					
Acenaphthene	NA	µg/l	<0.48	<0.48	NT	< 0.2	< 0.60	<0.47	<0.48	NT	NT										
Acenaphthylene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.60	<0.47	<0.48	NT	NT										
Anthracene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Benzo(a)anthracene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Benzo(a)pyrene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Benzo(b)fluoranthene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Benzo(g,h,i)perylene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.54	<0.47	<0.48	NT	NT										
Benzo(k)fluoranthene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Chrysene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Dibenzo(a,h)anthracene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.78	<0.47	<0.48	NT	NT										
Fluoranthene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.71	<0.47	<0.48	NT	NT										
Fluorene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.55	<0.47	<0.48	NT	NT										
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.54	<0.47	NT	< 0.2	< 1.5	<0.47	<0.48	NT	NT										
1-Methylnapthalene	NA	µg/l	0.67 J	0.81	NT	< 0.2	< 0.68	<0.47	<0.48	NT	NT										
2-Methylnapthalene	NA	µg/l	1.0 J	1.2	NT	< 0.2	< 0.68	<0.47	<0.48	NT	NT										
Naphthalene	NA	µg/l	2.3 J	2.6	NT	< 0.2	< 0.73	<0.47	<0.48	NT	NT										
Phenanthrene	NA	µg/l	<0.47	ND	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Pyrene	NA	µg/l	<0.47	<0.47	NT	< 0.2	< 0.47	<0.47	<0.48	NT	NT										
Metals																					
Calcium	NA	mg/l	162	257	NT	129	109	94.6	208	107	102										
Iron	NA	mg/l	7.5	13.8	17.4	14	4.77	10.1	33.5	15.7	15.0										
Magnesium	NA	mg/l	66.2	58.8	44.0	51.4	55.4	61.6	81.6	65.2	64.7										
Manganese	NA	mg/l	1.020	1.500	1.890	1.72	2.03	1.64	3.37	3.93	2.62										
Potassium	NA	mg/l	4.11	4.79	NT	< 10	3.19	6.54	8.6	6.06	5.93										
Selenium	NA	mg/l	<0.05	<0.05	NT	< 0.01	< 0.05	< 0.05	<0.05	<0.05	<0.05										
Sodium	NA	mg/l	99.3	83.8	NT	60.4	59.4	96.7	97.8	95.6	90.2										
General Chemistry																					
Alkalinity, Bicarbonate	NA	mg/l	697	773	517	372	440	364	299	382	483										
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0										
Alkalinity, Total as CaCO3	NA	mg/l	697	773	517	374	440	364	299	382	483										
Biological Oxygen Demand, 5 Day	NA	mg/l	18.5	14	NT	< 15	< 10	< 10	<10	<10	1.4										
Bromide	NA	mg/l	<0.10	<0.10 <sup>a</sup>	NT	< 0.50	< 0.20	<0.10	0.11	<0.10 <sup>a</sup>	<0.10 <sup>a</sup>										
Chemical Oxygen Demand	NA	mg/l	48.3	36.3	NT	66.9	20.4	49	<10	<10	71.3										
Chloride	1.25 x bkgd	mg/l	12.0	9.6	NT	15.4	13.2	151	206	96.4	16.8										
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	< 5.0	NT	NT	NT	NT	NT										
Nitrogen, Nitrate	NA	mg/l	3	2.2	0.086	0.57	< 0.23	0.063	0.031	0.22	0.035										
Nitrogen, Nitrite	NA	mg/l	0.270	0.098	<0.0040	< 0.50	< 0.061	0.04	<0.0080	0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>										
Phosphate, Ortho	NA	mg/l	0.600	0.330	<0.050	NT	NT	NT	NT	NT	NT										
Phosphorus, Total	NA	mg/l	46.1	40.80	26.8	0.89	1.3	NT	1.4	0.44	0.05										
Plate Count, Total	NA	CFU/ml	620000	NT	NT	70000	6900	5600	8100	NT	NT										
Total Dissolved Solids	NA	mg/l	674	636	494	NT	NT	NT	NT	NT	NT										
Sulfate	1.25 x bkgd	mg/l	16.3	17.4	11.3	16.8	44.2	108	155	98.5	98.5										
Total Organic Carbon	NA	mg/l	10.9	12.2	NT	4.5	3.9	5.6	4.9	4	5.3										
pH	NA	su	7.4	7.38	NT	7.14	7.58	7.51	7.49	7.64	7.66										
Field Readings																					
Temperature	NA	deg. C	5.30	10.60	16.39	13.2	8.3	20.9	13.1	9.98	11.50										
Specific Conductivity	NA	mS/cm	1.1	1.103	0.809	0.651	0.77	1.132	1.34	1.195	1.037										
Dissolved Oxygen	NA	mg/l	0.29	0.08	1.03	0.24	1.22	1.73	1.22	0.86	0.17										
pH	NA	su	NT	7.54	7.53	7.50	7.25	7.56	7.75	7.31	7.7										
Solids, Total Dissolved	NA	mg/l	0.7150	676.0	0.5	0.4	0.5	0.7	NT	NT	0.7										
Turbidity	NA	NTU	NT	NT	700	653	766	1997	345	96.3	NT										

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

SAMPLE SUMMARY			Table 1																
Location Description		Knight Property Monitoring																	
Sample Type		Groundwater																	
LABORATORY DATA SUMMARY																			
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-2A	MW-2A	MW-2A	MW-2A		MW-3	MW-3	MW-3	MW-3								
Sampling Period			3rd Quarter	4th Quarter	1st Quarter	2nd Quarter		4th Quarter	1st Quarter	2nd Quarter	3rd Quarter								
Depth to Water (feet)			5.16	5.44	4.91	4.35		5.68	5.77	5.67	5.56								
Sample Date			9/19/2013	12/17/2013	2/20/2014	5/5/2014		11/18/2011	2/14/2012	5/8/2012	8/29/2012								
Analytical Parameters																			
TPH																			
GRO	NA	mg/l	<0.10	<0.10	<0.050	<0.050		< 0.050	< 0.10	<0.10	<0.10								
DRO	NA	mg/l	<0.17	.175 J	<0.17	<0.17		25.1	< 0.30	<0.25	<0.25								
BTEX																			
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20		< 1.0	< 0.20	<0.20	<0.20								
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0		< 1.0	< 1.0	<1.0	<1.0								
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0		< 1.0	< 1.0	<1.0	<1.0								
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0		< 3.0	< 2.0	<2.0	<2.0								
PAHs																			
Acenaphthene	NA	µg/l	<0.49	<0.48	<0.49	<0.49		< 0.2	< 0.60	<0.48	<0.48								
Acenaphthylene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.60	<0.48	<0.48								
Anthracene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Benzo(a)anthracene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Benzo(a)pyrene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Benzo(b)fluoranthene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Benzo(g,h,i)perylene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.54	<0.48	<0.48								
Benzo(k)fluoranthene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Chrysene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Dibenzo(a,h)anthracene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.78	<0.48	<0.48								
Fluoranthene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.71	<0.48	<0.48								
Fluorene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.55	<0.48	<0.48								
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.55	<0.54	<0.54	<0.48		< 0.2	< 1.5	<0.48	<0.48								
1-Methylnapthalene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.68	<0.48	<0.48								
2-Methylnapthalene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.68	<0.48	<0.48								
Naphthalene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.73	<0.48	<0.48								
Phenanthrene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Pyrene	NA	µg/l	<0.48	<0.47	<0.48	<0.48		< 0.2	< 0.47	<0.48	<0.48								
Metals																			
Calcium	NA	mg/l	123	134	84.6	154		76.7	151	157	133								
Iron	NA	mg/l	25.0	26.7	5.3	18.7		4.8	6.79	26.8	16.3								
Magnesium	NA	mg/l	67.2	68.4	64.4	68.5		37.2	50.3	57.8	62.8								
Manganese	NA	mg/l	1.61	2.57	1.25	1.72		0.718	1.43	1.71	1.32								
Potassium	NA	mg/l	6.84	6.43	6.22	5.99		< 10	2.95	6.88	7.87								
Selenium	NA	mg/l	<0.05	<0.05	<0.05	<0.05		< 0.01	< 0.05	<0.050	<0.050								
Sodium	NA	mg/l	122.0	120.0	106.0	98.2		56.1	61.4	61.0	92.9								
General Chemistry																			
Alkalinity, Bicarbonate	NA	mg/l	354	414	512	509		384	462	427	396								
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0		< 5.0	< 5.0	<5.0	<5.0								
Alkalinity, Total as CaCO3	NA	mg/l	354	414	512	509		386	462	427	396								
Biological Oxygen Demand, 5 Day	NA	mg/l	<1.0	1.0	15.8	3.1		11.1	< 10	<10	<10								
Bromide	NA	mg/l	<0.10 <sup>a</sup>	<0.10	<0.10	<0.10 <sup>a</sup>		< 0.50	< 0.20	<0.20	<0.10								
Chemical Oxygen Demand	NA	mg/l	24.3	14.7	23.7	14.6		21	< 10	<10	49								
Chloride	1.25 x bkgd	mg/l	149	109	53	20.7		16.7	14.5	12.9	151								
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT		< 5.0	NT	NT	NT								
Nitrogen, Nitrate	NA	mg/l	<0.020 <sup>a</sup>	0.081	0.079	0.042		0.58	< 0.23	<0.090	<0.020								
Nitrogen, Nitrite	NA	mg/l	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>	0.049	<0.0080 <sup>a</sup>		0.67	< 0.061	<0.010	<0.040								
Phosphate, Ortho	NA	mg/l	NT	<0.13 <sup>a</sup>	<0.10	<0.10 <sup>a</sup>		NT	NT	NT	NT								
Phosphorus, Total	NA	mg/l	0.22	0.74	0.38	0.85		0.45	1.7	1.3	NT								
Plate Count, Total	NA	CFU/ml	NT	NT	110000	NT		120000	8500	10000	14000								
Total Dissolved Solids	NA	mg/l	NT	772	740	692		NT	NT	NT	NT								
Sulfate	1.25 x bkgd	mg/l	112	110	69.7	78.8		10.9	24	34.7	125								
Total Organic Carbon	NA	mg/l	5.2	5	11.4	4.3		4.5	4.3	4.2	5.6								
pH	NA	su	7.7	7.63	7.42	7.58		7.1	7.64	7.6	7.33								
Field Readings																			
Temperature	NA	deg. C	17.50	10.10	5.70	9.90		14.8	7.46	13.49	21.37								
Specific Conductivity	NA	mS/cm	1.319	1.209	1.252	1.144		0.663	0.763	0.783	1.291								
Dissolved Oxygen	NA	mg/l	0.1	0.40	0.41	0.3		0.14	2.43	1.46	1.82								
pH	NA	su	7.83	8.90	NT	7.59		7.41	7.26	7.8	7.48								
Solids, Total Dissolved	NA	mg/l	0.9	0.7865	0.8125	741.0		0.4	0.5	0.5	0.8								
Turbidity	NA	NTU	NT	NT	NT	NT		568	2000	1854	1102								

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference



SAMPLE SUMMARY			Table 1							
Location Description	Knight Property Monitoring									
Sample Type	Groundwater									
LABORATORY DATA SUMMARY										
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-4
Sampling Period			4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	4th Quarter
Depth to Water (feet)			6.45	6.11	5.25	5.83	6.03	5.6	5.22	10.64
Sample Date			11/26/2012	3/6/2013	5/30/2013	9/19/2013	12/17/2013	2/20/2014	5/5/2014	11/18/2011
Analytical Parameters										
TPH										
GRO	NA	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050	< 0.050
DRO	NA	mg/l	<0.17	<0.17	<0.17	0.284	<0.17	<0.17	<0.17	<0.10
BTEX										
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	< 1.0
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0	<10	<10	<10	< 1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	< 3.0
PAHs										
Acenaphthene	NA	µg/l	<0.49	NT	NT	<0.49	<0.49	<0.50	<0.49	< 0.2
Acenaphthylene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Anthracene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Benzo(a)anthracene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Benzo(a)pyrene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Benzo(b)fluoranthene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Benzo(g,h,i)perylene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Benzo(k)fluoranthene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Chrysene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Dibenzo(a,h)anthracene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Fluoranthene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Fluorene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.49	NT	NT	<0.55	<0.54	<0.55	<0.48	< 0.2
1-Methylnapthalene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
2-Methylnapthalene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Naphthalene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Phenanthrene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Pyrene	NA	µg/l	<0.49	NT	NT	<0.48	<0.48	<0.49	<0.48	< 0.2
Metals										
Calcium	NA	mg/l	218	117	111	106	109	105	119	73.9
Iron	NA	mg/l	35.4	12.7	10.4	6.1	12.3	11.8	13.9	3.52
Magnesium	NA	mg/l	75.1	65.5	59.0	59.3	60.6	59.8	53.1	40.6
Manganese	NA	mg/l	2.31	1.18	1.01	0.77	1.08	1.18	1.43	1.74
Potassium	NA	mg/l	9.53	5.43	4.79	5.43	5.68	4.28	4.8	< 10
Selenium	NA	mg/l	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050	<0.050	< 0.01
Sodium	NA	mg/l	93.9	89.2	92.4	125.0	120.0	104.0	102.0	62.1
General Chemistry										
Alkalinity, Bicarbonate	NA	mg/l	309	333	465	380	394	423	463	392
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	< 5.0
Alkalinity, Total as CaCO3	NA	mg/l	309	333	465	380	394	423	463	396
Biological Oxygen Demand, 5 Day	NA	mg/l	<10	<10	<1.0	<1.0	<1.0	1.1	1.9	8.1
Bromide	NA	mg/l	<0.10	0.13	0.13	<0.10 <sup>a</sup>	<0.10 <sup>a</sup>	0.11	0.11	< 0.50
Chemical Oxygen Demand	NA	mg/l	<10	15.7	25.3	21.1	10.3	19.3	12.8	28.1
Chloride	1.25 x bkgd	mg/l	210	161	49.5	163	126	84	36.5	14.1
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT	NT	NT	< 5.0
Nitrogen, Nitrate	NA	mg/l	0.034	<0.020 <sup>a</sup>	0.04	0.12	0.093	0.031	<0.020 <sup>a</sup>	< 0.50
Nitrogen, Nitrite	NA	mg/l	0.015	<0.0080 <sup>a</sup>	<0.020 <sup>a</sup>	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>	< 0.50
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	<0.13	<0.10	<0.10 <sup>a</sup>	NT
Phosphorus, Total	NA	mg/l	1.7	0.31	3.3	0.13	0.21	0.42	0.47	0.14
Plate Count, Total	NA	CFU/ml	12000	NT	NT	NT	NT	42000	NT	120000
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	788	728	690	NT
Sulfate	1.25 x bkgd	mg/l	137	161	170	134	120	105	89.1	36.2
Total Organic Carbon	NA	mg/l	4.4	3.7	6.1	4.6	3.6	4.6	4.5	4.8
pH	NA	su	7.46	7.55	7.63	7.66	7.66	7.56	7.66	7.18
Field Readings										
Temperature	NA	deg. C	14.35	7.88	13.60	20.50	10.00	5.40	10.30	14.2
Specific Conductivity	NA	mS/cm	0.417	1.448	1.278	1.527	1.248	1.157	1.127	0.713
Dissolved Oxygen	NA	mg/l	1.67	1	0.71	0.34	0.44	0.68	0.2	0.15
pH	NA	su	7.75	7.25	7.61	7.36	7.92	NT	7.71	7.5
Solids, Total Dissolved	NA	mg/l	NT	NT	0.8	1.0	0.8125	0.7540	734.5	0.5
Turbidity	NA	NTU	1971	328	NT	NT	NT	NT	NT	62.7

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a-Elevated detection limit due to matrix interference

SAMPLE SUMMARY				Table 1						
Location Description		Knight Property Monitoring								
Sample Type		Groundwater								
LABORATORY DATA SUMMARY										
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sampling Period			1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Depth to Water (feet)			10.34	10.63	11.31	11.64	10.77	10.7	11.9	11.27
Sample Date			2/14/2012	5/8/2012	8/29/2012	11/26/2012	3/6/2013	5/30/2013	9/19/2013	12/17/2013
Analytical Parameters										
TPH										
GRO	NA	mg/l	< 0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
DRO	NA	mg/l	< 0.30	<0.25	<0.25	<0.17	<0.17	<0.17	2.34	<0.17
BTEX										
Benzene	5	µg/l	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	< 1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	< 2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
PAHs										
Acenaphthene	NA	µg/l	< 0.60	<0.47	<0.48	<0.48	NT	NT	<0.48	<0.48
Acenaphthylene	NA	µg/l	< 0.60	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Anthracene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Benzo(a)anthracene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Benzo(a)pyrene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Benzo(b)fluoranthene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Benzo(g,h,i)perylene	NA	µg/l	< 0.54	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Benzo(k)fluoranthene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Chrysene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Dibenzo(a,h)anthracene	NA	µg/l	< 0.78	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Fluoranthene	NA	µg/l	< 0.71	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Fluorene	NA	µg/l	< 0.55	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Indeno(1,2,3-cd)pyrene	NA	µg/l	< 1.5	<0.47	<0.48	<0.48	NT	NT	<0.54	<0.54
1-Methylnapthalene	NA	µg/l	< 0.68	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
2-Methylnapthalene	NA	µg/l	< 0.68	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Naphthalene	NA	µg/l	< 0.73	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Phenanthrene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Pyrene	NA	µg/l	< 0.47	<0.47	<0.48	<0.48	NT	NT	<0.47	<0.47
Metals										
Calcium	NA	mg/l	126	107	121	238	60.4	74.3	119.0	171.0
Iron	NA	mg/l	6.71	18.1	19.7	47.5	2.63	7.26	9.34	2.88
Magnesium	NA	mg/l	48.6	55.4	71.5	104	64.5	64.9	84.1	55.9
Manganese	NA	mg/l	1.71	1.91	4.4	2.16	0.316	0.533	0.48	0.29
Potassium	NA	mg/l	2.89	5.9	8.73	12.2	5	5.6	6.78	5.76
Selenium	NA	mg/l	< 0.05	<0.050	<0.050	<0.05	<0.05	<0.05	<0.05	<0.050
Sodium	NA	mg/l	58.3	71.8	99.1	110.0	99.2	85.0	118.0	109.0
General Chemistry										
Alkalinity, Bicarbonate	NA	mg/l	364	452	616	618	489	482	309	399
Alkalinity, Carbonate	NA	mg/l	< 5.0	<5.0	<5.0	<5.0	<5.0	<5.0	346	203
Alkalinity, Total as CaCO3	NA	mg/l	364	452	616	618	489	482	665	602
Biological Oxygen Demand, 5 Day	NA	mg/l	< 10	<10	10.7	<10	<10	2.4	<1.0	<1.0
Bromide	NA	mg/l	< 0.20	<0.40	0.19	0.26	<0.10 <sup>a</sup>	<0.10 <sup>a</sup>	<0.25 <sup>a</sup>	0.34
Chemical Oxygen Demand	NA	mg/l	< 10	<10	57	20.3	23.7	12.4	245	45.5
Chloride	1.25 x bkgd	mg/l	6.9	7.2	13.1	16.4	8	12	12.1	8.5
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	< 0.23	<0.090	<0.020	<0.050	<0.020 <sup>b</sup>	1.7	0.056	0.55
Nitrogen, Nitrite	NA	mg/l	< 0.061	<0.010	0.008	<0.0080	<0.0080 <sup>a</sup>	0.02	2.5	0.034
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	NT	NT	NT	0.77
Phosphorus, Total	NA	mg/l	1.4	1.1	NT	1.2	0.10	0.16	80.30	134
Plate Count, Total	NA	CFU/ml	4600	5400	3800	13000	NT	NT	NT	NT
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	NT	NT	NT	464
Sulfate	1.25 x bkgd	mg/l	40.8	34.2	13	110	113	74.9	70.7	108
Total Organic Carbon	NA	mg/l	3.6	4.5	8.5	10.3	3.8	4.4	25.3	8.1
pH	NA	su	7.73	7.65	7.64	7.69	7.81	7.81	11.4	11.31
Field Readings										
Temperature	NA	deg. C	6.5	13.23	19.42	14.68	6.83	12.20	19.20	11.00
Specific Conductivity	NA	mS/cm	0.682	0.814	1.02	1.371	1.15	0.983	1.736	0.920
Dissolved Oxygen	NA	mg/l	2.34	2.74	1.67	1.96	1.24	1.01	18.24	4.59
pH	NA	su	7.38	7.93	7.6	7.85	7.42	7.82	12.23	9.54
Solids, Total Dissolved	NA	mg/l	0.4	0.5	0.7	NT	NT	0.6	1.1	0.8045
Turbidity	NA	NTU	443	930	1572	554	26.5	Nt	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

SAMPLE SUMMARY			Table 1							
Location Description		Knight Property Monitoring								
Sample Type		Groundwater								
LABORATORY DATA SUMMARY										
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-4	MW-4	MW-5	MW-5	MW-5	MW-5	MW-5	MW-5
Sampling Period			1st Quarter	2nd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Depth to Water (feet)			10.49	10.32	5.63	6.06	6.11	6.12	6.8	6.6
Sample Date			2/20/2014	5/5/2014	11/18/2011	2/14/2012	5/8/2012	8/29/2012	11/26/2012	3/6/2013
Analytical Parameters										
TPH										
GRO	NA	mg/l	<0.050	<0.050	< 0.050	< 0.10	<0.10	<0.10	<0.10	<0.10
DRO	NA	mg/l	<0.17	<0.17	<0.10	< 0.30	<0.25	<0.25	<0.17	<0.17
BTEX										
Benzene	5	µg/l	<0.20	<0.20	< 1.0	< 0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	< 1.0	< 1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	< 3.0	< 2.0	<2.0	<2.0	<2.0	<2.0
PAHs										
Acenaphthene	NA	µg/l	<0.50	<0.49	< 0.2	< 0.60	<0.48	<0.48	<0.47	NT
Acenaphthylene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.60	<0.48	<0.48	<0.47	NT
Anthracene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Benzo(a)anthracene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Benzo(a)pyrene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Benzo(b)fluoranthene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Benzo(g,h,i)perylene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.54	<0.48	<0.48	<0.47	NT
Benzo(k)fluoranthene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Chrysene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Dibenzo(a,h)anthracene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.78	<0.48	<0.48	<0.47	NT
Fluoranthene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.71	<0.48	<0.48	<0.47	NT
Fluorene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.55	<0.48	<0.48	<0.47	NT
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.55	<0.48	< 0.2	< 1.5	<0.48	<0.48	<0.47	NT
1-Methylnapthalene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.47	NT
2-Methylnapthalene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.68	<0.48	<0.48	<0.47	NT
Naphthalene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.73	<0.48	<0.48	<0.47	NT
Phenanthrene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Pyrene	NA	µg/l	<0.49	<0.48	< 0.2	< 0.47	<0.48	<0.48	<0.47	NT
Metals										
Calcium	NA	mg/l	96.7	139.0	119	198	157	99.9	333	103
Iron	NA	mg/l	0.86	1.38	18.9	18.2	33.3	11.4	83.1	15.6
Magnesium	NA	mg/l	53.1	59.7	45.6	62.2	60.8	56.0	108	71.4
Manganese	NA	mg/l	0.198	0.327	0.977	1.56	1.33	0.808	2.81	0.849
Potassium	NA	mg/l	3.55	4.01	< 10	3.22	6.71	5.69	12.6	4.34
Selenium	NA	mg/l	<0.050	<0.050	< 0.01	< 0.05	<0.050	<0.050	<0.05	<0.05
Sodium	NA	mg/l	83.6	69.5	55.8	56.4	58.9	8.0	85.1	97.9
General Chemistry										
Alkalinity, Bicarbonate	NA	mg/l	332	458	364	540	481	429	452	512
Alkalinity, Carbonate	NA	mg/l	85.8	43.1	< 5.0	< 5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	418	501	366	540	481	429	452	512
Biological Oxygen Demand, 5 Day	NA	mg/l	<1.0	<1.0	< 15	< 10	<10	<10	<10	<10
Bromide	NA	mg/l	0.09	<0.10 <sup>a</sup>	< 0.50	< 4.0	<0.40	<0.10	0.1	0.16
Chemical Oxygen Demand	NA	mg/l	30.1	16	40.4	18.1	<10	75.5	10.8	20
Chloride	1.25 x bkgd	mg/l	6.5	5.7	18.1	20	10.6	133	198	78
Hydroxide Alkalinity	NA	mg/l	NT	NT	< 5.0	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	1.3	0.18	0.51	< 0.45	<0.090	0.039	<0.050	0.022
Nitrogen, Nitrite	NA	mg/l	0.046	0.015	< 0.50	< 0.061	<0.010	0.052	0.011	<0.0080 <sup>a</sup>
Phosphate, Ortho	NA	mg/l	1.1	0.41	NT	NT	NT	NT	NT	NT
Phosphorus, Total	NA	mg/l	12	12	1.2	2	1.6	NT	1.8	0.53
Plate Count, Total	NA	CFU/ml	5600	NT	180000	3300	1900	63000	16000	NT
Total Dissolved Solids	NA	mg/l	504	538	NT	NT	NT	NT	NT	NT
Sulfate	1.25 x bkgd	mg/l	91.2	55.8	16.2	19	27.8	101	142	109
Total Organic Carbon	NA	mg/l	6.2	4.8	6.1	10.9	5.0	6.4	5.2	5.6
pH	NA	su	9.02	8.56	7.22	7.62	7.65	7.47	7.54	7.6
Field Readings										
Temperature	NA	deg. C	5.70	10.50	12.7	5.77	13.89	20.67	13.05	6.3
Specific Conductivity	NA	mS/cm	0.799	0.912	0.667	0.798	0.727	1.116	1.46	1.369
Dissolved Oxygen	NA	mg/l	4.99	5.23	0.13	1.75	2.24	1.15	1.2	0.85
pH	NA	su	NT	8.65	7.47	7.22	7.85	7.51	7.76	7.3
Solids, Total Dissolved	NA	mg/l	0.5200	591.5	0.4	0.5	0.5	0.7	NT	NT
Turbidity	NA	NTU	NT	NT	896	2000	2000	2000	465	227

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference



SAMPLE SUMMARY			Table 1															
Location Description		Knight Property Monitoring																
Sample Type		Groundwater																
LABORATORY DATA SUMMARY																		
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-5	MW-5	MW-5	MW-5	MW-5	MW-6	MW-6	MW-6								
Sampling Period			2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	4th Quarter	1st Quarter	2nd Quarter								
Depth to Water (feet)			5.81	6.38	6.59	5.99	5.85	6.69	6.70	6.78								
Sample Date			5/30/2013	9/19/2013	12/17/2013	2/20/2014	5/5/2014	11/18/2011	2/14/2012	5/8/2012								
Analytical Parameters																		
TPH																		
GRO	NA	mg/l	<0.10	<0.10	<0.10	<0.050	<0.050	< 0.050	< 0.10	<0.10								
DRO	NA	mg/l	<0.17	<0.17	<0.17	0.42	<0.17	0.213	< 0.30	0.261								
BTEX																		
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	< 1.0	< 0.20	<0.20								
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	<1.0								
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	< 1.0	< 1.0	<1.0								
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0	< 3.0	< 2.0	<2.0								
PAHs																		
Acenaphthene	NA	µg/l	NT	<0.49	<0.48	<0.51	<0.49	< 0.2	< 0.60	<0.48								
Acenaphthylene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.60	<0.48								
Anthracene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Benzo(a)anthracene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Benzo(a)pyrene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Benzo(b)fluoranthene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Benzo(g,h,i)perylene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.54	<0.48								
Benzo(k)fluoranthene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Chrysene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Dibenzo(a,h)anthracene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.78	<0.48								
Fluoranthene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.71	<0.48								
Fluorene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.55	<0.48								
Indeno(1,2,3-cd)pyrene	NA	µg/l	NT	<0.54	<0.54	<0.57	<0.48	< 0.2	< 1.5	<0.48								
1-Methylnapthalene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.68	<0.48								
2-Methylnapthalene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.68	<0.48								
Naphthalene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.73	<0.48								
Phenanthrene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Pyrene	NA	µg/l	NT	<0.48	<0.47	<0.50	<0.48	< 0.2	< 0.47	<0.48								
Metals																		
Calcium	NA	mg/l	84	107	99.6	90.1	112.0	80.8	72.8	78.8								
Iron	NA	mg/l	10.8	6.1	13.7	17.9	12.6	16.7	4.98	13.2								
Magnesium	NA	mg/l	52.2	57.6	62.8	56.5	50.5	51	57.9	53.8								
Manganese	NA	mg/l	0.587	0.67	0.721	0.692	0.754	3.25	1.59	1.17								
Potassium	NA	mg/l	4.2	5.2	4.85	3.73	4.12	< 10	2.17	4.43								
Selenium	NA	mg/l	<0.050	<0.050	<0.050	<0.050	<0.050	< 0.01	< 0.05	<0.050								
Sodium	NA	mg/l	88.4	116.0	122.0	92.7	89.4	53.7	59.0	63.9								
General Chemistry																		
Alkalinity, Bicarbonate	NA	mg/l	495	390	474	439	457	388	435	438								
Alkalinity, Carbonate	NA	mg/l	<5.0	<5.0	<5.0	<5.0	63.1	< 5.0	< 5.0	<5.0								
Alkalinity, Total as CaCO3	NA	mg/l	496	390	474	439	457	390	435	438								
Biological Oxygen Demand, 5 Day	NA	mg/l	1.8	<1.0	1.3	38.6	4.5	6.8	< 10	<10								
Bromide	NA	mg/l	0.25	<0.10 <sup>a</sup>	0.12	<0.10	<0.10 <sup>a</sup>	< 0.50	< 4.0	1.0								
Chemical Oxygen Demand	NA	mg/l	12.7	18.3	17.0	74.0	11.8	96.8	35.3	<10								
Chloride	1.25 x bkgd	mg/l	15	150	72.2	41.4	12.6	21.1	31	11.8								
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT	< 5.0	NT	NT								
Nitrogen, Nitrate	NA	mg/l	<0.020 <sup>a</sup>	<0.020 <sup>a</sup>	<0.020 <sup>a</sup>	0.14	<0.020 <sup>a</sup>	0.56	< 0.45	<0.23								
Nitrogen, Nitrite	NA	mg/l	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>	0.0099	<0.0080 <sup>a</sup>	0.023 <sup>a</sup>	< 0.50	< 0.061	<0.010								
Phosphate, Ortho	NA	mg/l	NT	NT	<0.13	<0.10	<0.10	NT	NT	NT								
Phosphorus, Total	NA	mg/l	0.15	0.093	0.33	0.27	0.37	0.46	0.29	0.83								
Plate Count, Total	NA	CFU/ml	NT	NT	NT	16000	NT	2210000	81000	64000								
Total Dissolved Solids	NA	mg/l	NT	NT	776	677	612	NT	NT	NT								
Sulfate	1.25 x bkgd	mg/l	64.9	119	118	86.1	71.8	45.1	21.7	13.2								
Total Organic Carbon	NA	mg/l	5.1	4.9	5.5	27.6	5.6	34.6	11.5	7.3								
pH	NA	su	7.68	7.51	7.75	7.56	7.64	7.2	7.59	7.65								
Field Readings																		
Temperature	NA	deg. C	11.6	19.3	9.2	4.8	9.3	12.7	5.44	14.02								
Specific Conductivity	NA	mS/cm	1.024	1.397	1.231	1.064	1.05	0.749	0.866	0.790								
Dissolved Oxygen	NA	mg/l	0.23	0.09	0.08	0.25	0.12	0.27	1.4	2.40								
pH	NA	su	7.67	7.71	8.13	NT	7.71	7.52	7.17	NT								
Solids, Total Dissolved	NA	mg/l	0.67	0.91	0.7930	0.6890	682.5	0.5	0.6	0.5								
Turbidity	NA	NTU	NT	NT	NT	NT	NT	478	248	576								

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference

SAMPLE SUMMARY			Table 1							
Location Description		Knight Property Monitoring								
Sample Type		Groundwater								
LABORATORY DATA SUMMARY										
Sample ID	COGCC Table 910-1 Standards	UNITS	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6	MW-6
Sampling Period			3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter
Depth to Water (feet)			6.84	7.35	7.00	6.51	7.09	6.97	6.70	6.57
Sample Date			8/29/2012	11/26/2012	3/6/2013	5/30/2013	9/19/2013	12/17/2013	2/20/2014	5/5/2014
Analytical Parameters										
TPH										
GRO	NA	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.050	<0.050
DRO	NA	mg/l	0.445	0.347	0.175 J	<0.17	<0.17	0.17	<0.17	<0.17
BTEX										
Benzene	5	µg/l	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	560 to 1000	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	700	µg/l	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene (total)	1400 to 10000	µg/l	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
PAHs										
Acenaphthene	NA	µg/l	<0.48	<0.48	NT	NT	<0.49	<0.48	<0.49	<0.49
Acenaphthylene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Anthracene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(a)anthracene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(a)pyrene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(b)fluoranthene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(g,h,i)perylene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Benzo(k)fluoranthene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Chrysene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Dibenzo(a,h)anthracene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Fluoranthene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Fluorene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Indeno(1,2,3-cd)pyrene	NA	µg/l	<0.48	<0.48	NT	NT	<0.54	<0.54	<0.54	<0.54
1-Methylnapthalene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
2-Methylnapthalene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Naphthalene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Phenanthrene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Pyrene	NA	µg/l	<0.48	<0.48	NT	NT	<0.48	<0.47	<0.48	<0.48
Metals										
Calcium	NA	mg/l	114	229	103	66	111	82.8	76.7	94.0
Iron	NA	mg/l	6.90	46.60	14.50	8.70	5.01	6.49	9.12	14.50
Magnesium	NA	mg/l	57.4	92.7	86.7	55.7	58.3	69.9	65.1	56.0
Manganese	NA	mg/l	0.817	3.950	1.07	0.56	0.55	0.838	0.550	0.795
Potassium	NA	mg/l	6.43	9.82	5.24	4.01	6.08	4.11	3.07	4.01
Selenium	NA	mg/l	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.050
Sodium	NA	mg/l	82.0	82.0	96.5	87.1	111.0	118.0	88.0	85.5
General Chemistry										
Alkalinity, Bicarbonate	NA	mg/l	352	356	574	466	394	558	488	478
Alkalinity, Carbonate	NA	mg/l		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Total as CaCO3	NA	mg/l	352	356	574	466	394	558	488	478
Biological Oxygen Demand, 5 Day	NA	mg/l	<10	<10	<10	2	<1.0	1.8	1.2	1.9
Bromide	NA	mg/l	0.063	0.100	0.270	<0.10a	0.100	<0.10 <sup>a</sup>	0.120	<0.10 <sup>a</sup>
Chemical Oxygen Demand	NA	mg/l	47.4	10.8	21.3	11.5	13.2	36.6	21.9	18.5
Chloride	1.25 x bkgd	mg/l	136	198	57.8	13	129	37.7	16.6	9.6
Hydroxide Alkalinity	NA	mg/l	NT	NT	NT	NT	NT	NT	NT	NT
Nitrogen, Nitrate	NA	mg/l	<0.010	0.056	<0.020 <sup>a</sup>	0.021	<0.020 <sup>a</sup>	0.045	0.1	0.024
Nitrogen, Nitrite	NA	mg/l	0.04	<0.0080	<0.0080 <sup>a</sup>	<0.0080a	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>	<0.0080 <sup>a</sup>
Phosphate, Ortho	NA	mg/l	NT	NT	NT	NT	NT	<0.13	<0.10	<0.10 <sup>a</sup>
Phosphorus, Total	NA	mg/l	NT	1.6	0.32	0.22	2.5	0.59	0.33	0.22
Plate Count, Total	NA	CFU/ml	820000	420000	NT	NT	NT	NT	370000	NT
Total Dissolved Solids	NA	mg/l	NT	NT	NT	NT	NT	708	648	568
Sulfate	1.25 x bkgd	mg/l	114	114	95.9	62.5	120	73.6	56.8	36.2
Total Organic Carbon	NA	mg/l	5.2	5.2	7	5.1	4.7	5.5	5.3	4.3
pH	NA	su	7.39	5.57	7.61	7.65	7.57	7.7	7.61	7.65
Field Readings										
Temperature	NA	deg. C	21.30	12.89	5.30	12.20	21.16	7.60	2.90	9.60
Specific Conductivity	NA	mS/cm	1.145	1.395	1.368	0.956	1.364	1.160	1.067	0.983
Dissolved Oxygen	NA	mg/l	2.30	1.35	2.59	5.00	1.45	0.71	2.78	0.87
pH	NA	su	7.49	7.72	7.35	7.78	7.71	8.25	NT	7.7
Solids, Total Dissolved	NA	mg/l	0.7	0.6	NT	0.6	0.9	0.7540	0.6890	637
Turbidity	NA	NTU	201	384	NT	NT	NT	NT	NT	NT

µg/l -micrograms per liter

mg/l -milligrams per liter

J - indicates an estimated value

µmhos/cm - micromhos per centimeter

mS/cm - millisiemens per centimeter

su - standard units

NA - not applicable

NTU - nephelometric turbidity units

CFU/ml - colony forming units per milliliter

a -Elevated detection limit due to matrix interference



10/22/14

## Technical Report for

**Olsson Associates**

**Knight Property**

**(011.1712.100.100001)**

**Accutest Job Number: D63312**

**Sampling Date: 10/09/14**

### Report to:

**Olsson Associates  
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**ATTN: Tim Dobransky**

**Total number of pages in report: 40**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read "Scott Heideman".

**Scott Heideman  
Laboratory Director**

**Client Service contact: Renea Jackson 303-425-6021**

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049), TX (T104704511)

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Test results relate only to samples analyzed.

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Sample Summary

Olsson Associates

Job No: D63312

Knight Property  
Project No: (011.1712.100.100001)

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
D63312-1	10/09/14	15:05	JD	10/10/14	AQ	Ground Water	MW-1
D63312-2	10/09/14	15:05	JD	10/10/14	AQ	Trip Blank Water	TRIP BLANK

## Summary of Hits

Page 1 of 1

**Job Number:** D63312  
**Account:** Olsson Associates  
**Project:** Knight Property  
**Collected:** 10/09/14

2

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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### D63312-1 MW-1

TPH-GRO (C6-C10)	4.23	0.25	0.25	mg/l	SW846 8015B
Benzene	19.8	5.0	1.0	ug/l	SW846 8021B
Ethylbenzene	54.1	10	5.0	ug/l	SW846 8021B
Xylenes (total)	1350	10	10	ug/l	SW846 8021B
TPH-DRO (C10-C28)	0.436	0.19	0.17	mg/l	SW846-8015B
Iron	17400	70		ug/l	SW846 6010C
Magnesium	44000	200		ug/l	SW846 6010C
Manganese	1890	5.0		ug/l	SW846 6010C
Alkalinity, Bicarbonate as CaCO <sub>3</sub>	517	5.0		mg/l	SM 2320B-2011
Alkalinity, Total as CaCO <sub>3</sub>	517	5.0		mg/l	SM 2320B-2011
Nitrogen, Nitrate <sup>a</sup>	0.086	0.050		mg/l	EPA 300.0/SW846 9056
Phosphorus, Total	26.8	0.50		mg/l	HACH8190/SM4500P-B/E
Solids, Total Dissolved	494	10		mg/l	SM 2540C-2011
Sulfate	11.3	0.50		mg/l	EPA 300.0/SW846 9056

### D63312-2 TRIP BLANK

No hits reported in this sample.

(a) Dilution run out of hold, due to matrix interference in original runs. Original results run within holding time.

## Sample Results

## Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	MW-1	
<b>Lab Sample ID:</b>	D63312-1	<b>Date Sampled:</b> 10/09/14
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 10/10/14
<b>Method:</b>	SW846 8015B	<b>Percent Solids:</b> n/a
<b>Project:</b>	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GA23727.D	5	10/14/14	EP	n/a	n/a	GGA1319
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	4.23	0.25	0.25	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
120-82-1	1,2,4-Trichlorobenzene	93%		60-140%		

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	MW-1	<b>Date Sampled:</b>	10/09/14
<b>Lab Sample ID:</b>	D63312-1	<b>Date Received:</b>	10/10/14
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Knight Property		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA23727.D	5	10/14/14	EP	n/a	n/a	GTA1321
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	19.8	5.0	1.0	ug/l	
108-88-3	Toluene	ND	10	5.0	ug/l	
100-41-4	Ethylbenzene	54.1	10	5.0	ug/l	
1330-20-7	Xylenes (total)	1350	10	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-1	
<b>Lab Sample ID:</b>	D63312-1	<b>Date Sampled:</b> 10/09/14
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 10/10/14
<b>Method:</b>	SW846-8015B SW846 3510C	<b>Percent Solids:</b> n/a
<b>Project:</b>	Knight Property	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FH026953.D	1	10/14/14	JS	10/13/14	OP10800	GFH1194
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.436	0.19	0.17	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	79%		10-130%		

ND = Not detected      MDL = Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-1	<b>Date Sampled:</b>	10/09/14
<b>Lab Sample ID:</b>	D63312-1	<b>Date Received:</b>	10/10/14
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	Knight Property		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	17400	70	ug/l	1	10/15/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Magnesium	44000	200	ug/l	1	10/15/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>
Manganese	1890	5.0	ug/l	1	10/15/14	10/16/14 KV	SW846 6010C <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA5384

(2) Prep QC Batch: MP14304

RL = Reporting Limit

## Report of Analysis

**Client Sample ID:** MW-1  
**Lab Sample ID:** D63312-1  
**Matrix:** AQ - Ground Water  
**Project:** Knight Property

**Date Sampled:** 10/09/14  
**Date Received:** 10/10/14  
**Percent Solids:** n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Bicarbonate as CaC	517	5.0	mg/l	1	10/13/14	JD	SM 2320B-2011
Alkalinity, Carbonate	< 5.0	5.0	mg/l	1	10/13/14	JD	SM 2320B-2011
Alkalinity, Total as CaCO <sub>3</sub>	517	5.0	mg/l	1	10/13/14	JD	SM 2320B-2011
Nitrogen, Nitrate <sup>a</sup>	0.086	0.050	mg/l	5	10/14/14 10:57	SK	EPA 300.0/SW846 9056
Nitrogen, Nitrite	< 0.0040	0.0040	mg/l	1	10/10/14 15:47	SK	EPA 300.0/SW846 9056
Phosphate, Ortho	< 0.050	0.050	mg/l	1	10/10/14 15:47	SK	EPA 300.0/SW846 9056
Phosphorus, Total	26.8	0.50	mg/l	50	10/18/14 09:00	JB	HACH8190/SM4500P-B/E
Solids, Total Dissolved	494	10	mg/l	1	10/15/14	AK	SM 2540C-2011
Sulfate	11.3	0.50	mg/l	1	10/10/14 15:47	SK	EPA 300.0/SW846 9056

(a) Dilution run out of hold, due to matrix interference in original runs. Original results run within holding time.

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	10/09/14
<b>Lab Sample ID:</b>	D63312-2	<b>Date Received:</b>	10/10/14
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Knight Property		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA23730.D	1	10/14/14	EP	n/a	n/a	GTA1321
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



## GC Volatiles

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### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA1319-MB	GA23720.D	1	10/14/14	EP	n/a	n/a	GGA1319

The QC reported here applies to the following samples:

Method: SW846 8015B

D63312-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	0.050	0.050	mg/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	93% 60-140%

## Method Blank Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1321-MB	TA23720.D	1	10/14/14	EP	n/a	n/a	GTA1321

The QC reported here applies to the following samples:

Method: SW846 8021B

D63312-1, D63312-2

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	102% 60-140%

## Blank Spike Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GGA1319-BS	GA23721.D	1	10/14/14	EP	n/a	n/a	GGA1319

The QC reported here applies to the following samples:

Method: SW846 8015B

D63312-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-GRO (C6-C10)	2.2	2.26	103	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	99%	60-140%

\* = Outside of Control Limits.

## Blank Spike Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA1321-BS	TA23721.D	1	10/14/14	EP	n/a	n/a	GTA1321

The QC reported here applies to the following samples:

Method: SW846 8021B

D63312-1, D63312-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	27.3	100	70-130
100-41-4	Ethylbenzene	45.6	45.6	100	70-130
108-88-3	Toluene	212	199	94	70-130
1330-20-7	Xylenes (total)	216	225	104	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	60-140%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63312-1MS	GA23728.D	5	10/14/14	EP	n/a	n/a	GGA1319
D63312-1MSD	GA23729.D	5	10/14/14	EP	n/a	n/a	GGA1319
D63312-1	GA23727.D	5	10/14/14	EP	n/a	n/a	GGA1319

The QC reported here applies to the following samples:

Method: SW846 8015B

D63312-1

CAS No.	Compound	D63312-1 mg/l	Spike Q mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	4.23	11	15.4	102	11	15.4	102	0	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D63312-1	Limits
120-82-1	1,2,4-Trichlorobenzene	98%	97%	93%	60-140%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D63312-1MS	TA23728.D	5	10/14/14	EP	n/a	n/a	GTA1321
D63312-1MSD	TA23729.D	5	10/14/14	EP	n/a	n/a	GTA1321
D63312-1	TA23727.D	5	10/14/14	EP	n/a	n/a	GTA1321

The QC reported here applies to the following samples:

Method: SW846 8021B

D63312-1, D63312-2

CAS No.	Compound	D63312-1 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	19.8	136	154	99	136	152	97	1	64-130/30
100-41-4	Ethylbenzene	54.1	228	282	100	228	277	98	2	46-144/30
108-88-3	Toluene	ND	1060	992	94	1060	979	93	1	70-130/30
1330-20-7	Xylenes (total)	1350	1080	2410	98	1080	2370	94	2	59-143/30

CAS No.	Surrogate Recoveries	MS	MSD	D63312-1	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	107%	102%	60-140%

\* = Outside of Control Limits.

## GC Semi-volatiles

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10800-MB	FH026952.D	1	10/14/14	JS	10/13/14	OP10800	GFH1193

The QC reported here applies to the following samples:

Method: SW846-8015B

D63312-1

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.20	0.18	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	76% 10-130%

## Blank Spike Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10800-BS	FH026954.D	1	10/14/14	JS	10/13/14	OP10800	GFH1193

The QC reported here applies to the following samples:

Method: SW846-8015B

D63312-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH-DRO (C10-C28)	5	2.95	59	33-130

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	56%	10-130%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

**Job Number:** D63312  
**Account:** CORCCOGJ Olsson Associates  
**Project:** Knight Property

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10800-MS	FH026956.D	1	10/14/14	JS	10/13/14	OP10800	GFH1193
OP10800-MSD	FH026958.D	1	10/14/14	JS	10/13/14	OP10800	GFH1193
D60544-32	FH026960.D	1	10/14/14	JS	10/13/14	OP10800	GFH1193

The QC reported here applies to the following samples:

Method: SW846-8015B

D63312-1

CAS No.	Compound	D60544-32 mg/l	Spike Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH-DRO (C10-C28)	ND		5	3.37	67	5	3.18	64	6	33-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D60544-32	Limits
84-15-1	o-Terphenyl	93%	82%	95%	10-130%

\* = Outside of Control Limits.

## Metals Analysis

### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

QC Batch ID: MP14304  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 10/15/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	8.6	41		
Antimony	30	3.2	19		
Arsenic	25	3.8	5.6		
Barium	10	.2	1.4		
Beryllium	10	.8	1.2		
Boron	50	.8	6.6		
Cadmium	10	.2	.36		
Calcium	400	2.2	41		
Chromium	10	.3	.4		
Cobalt	5.0	.4	.57		
Copper	10	.8	1.9		
Iron	70	1.5	9.5	5.3	<70
Lead	50	2.1	21		
Lithium	5.0	.4	2.7		
Magnesium	200	6.8	19	-3.4	<200
Manganese	5.0	.01	.46	1.2	<5.0
Molybdenum	10	.4	.84		
Nickel	30	.5	.87		
Phosphorus	100	15	20		
Potassium	1000	99	270		
Selenium	50	7.1	11		
Silicon	50	4.7	5.2		
Silver	30	.3	.6		
Sodium	400	4.9	170		
Strontium	5.0	.01	.12		
Thallium	10	1.8	4		
Tin	50	12	16		
Titanium	10	.1	2.1		
Uranium	50	2.9	5.5		
Vanadium	10	.4	.4		
Zinc	30	.4	3.2		

Associated samples MP14304: D63312-1

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

QC Batch ID: MP14304  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 10/15/14

Metal	RL	IDL	MDL	MB raw	final
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(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

QC Batch ID: MP14304  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 10/15/14

Metal	D63385-1F Original MS	Spikelot ICPAL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	8.7	4870	5000	97.2 75-125
Lead	anr			
Lithium				
Magnesium	7600	32400	25000	99.2 75-125
Manganese	1.2	512	500	102.2 75-125
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver				
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP14304: D63312-1

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63312  
 Account: CORCCOGJ - Olsson Associates  
 Project: Knight Property

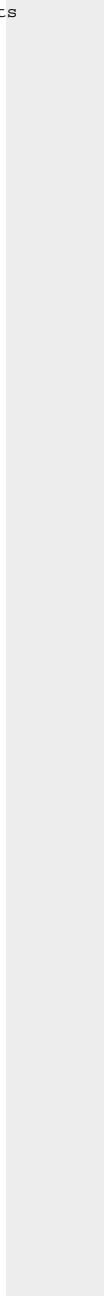
QC Batch ID: MP14304  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 10/15/14

Metal	D63385-1F Original MS	Spikelot ICPALL2	% Rec	QC Limits
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(N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

QC Batch ID: MP14304  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 10/15/14

	D63385-1F	Spikelot		MSD	QC	
Metal	Original MSD	ICPALL2	% Rec	RPD	Limit	
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt						
Copper	anr					
Iron	8.7	4930	5000	98.4	1.2	20
Lead	anr					
Lithium						
Magnesium	7600	32800	25000	100.8	1.2	20
Manganese	1.2	503	500	100.4	1.8	20
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium	anr					
Selenium	anr					
Silicon						
Silver						
Sodium	anr					
Strontium						
Thallium	anr					
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	anr					

Associated samples MP14304: D63312-1

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D63312  
 Account: CORCCOGJ - Olsson Associates  
 Project: Knight Property

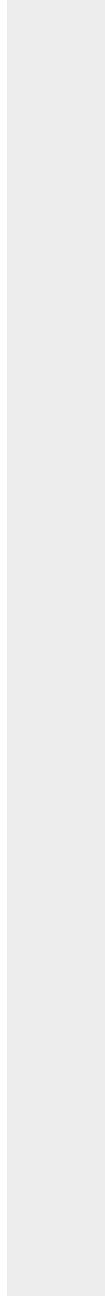
QC Batch ID: MP14304  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 10/15/14

Metal	D63385-1F Original MSD	Spikelot ICPALL2	% Rec	MSD RPD	QC Limit
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(N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested



## SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

QC Batch ID: MP14304  
Matrix Type: AQUEOUS

Methods: SW846 6010C  
Units: ug/l

Prep Date: 10/15/14

Metal	BSP Result	Spikelot ICPALL2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	4880	5000	97.6	80-120
Lead	anr			
Lithium				
Magnesium	24800	25000	99.2	80-120
Manganese	515	500	103.0	80-120
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver				
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP14304: D63312-1

Results < IDL are shown as zero for calculation purposes  
(\*) Outside of QC limits

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

Methods: SW846 6010C  
Units: ug/l

Metal	BSP Result	Spikelot ICPALL2 % Rec	QC Limits
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# SERIAL DILUTION RESULTS SUMMARY

Login Number: D63312  
 Account: CORCCOGJ - Olsson Associates  
 Project: Knight Property

QC Batch ID: MP14304  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 10/15/14

Metal	D63385-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	8.70	9.50	9.2	0-10
Lead	anr			
Lithium				
Magnesium	7600	7720	1.6	0-10
Manganese	1.20	0.00	100.0(a)	0-10
Molybdenum				
Nickel	anr			
Phosphorus				
Potassium	anr			
Selenium	anr			
Silicon				
Silver				
Sodium	anr			
Strontium				
Thallium	anr			
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP14304: D63312-1

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits

SERIAL DILUTION RESULTS SUMMARY

Login Number: D63312  
 Account: CORCCOGJ - Olsson Associates  
 Project: Knight Property

QC Batch ID: MP14304  
 Matrix Type: AQUEOUS

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 10/15/14

	D63385-1F		QC
Metal	Original SDL 1:5	%DIF	Limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

7.1.4

7

## General Chemistry

### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries



METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Bicarbonate as CaC	GN26920	5.0	0.0	mg/l	100	93.3	93.3	90-110%
Alkalinity, Carbonate	GN26922	5.0	0.0	mg/l	100	93.3	93.3	80-120%
Alkalinity, Total as CaCO3	GN26912	5.0	0.0	mg/l	100	93.3	93.3	90-110%
Bromide	GP13735/GN26878	0.050	0.0	mg/l	0.5	0.525	105.0	90-110%
Bromide	GP13757/GN26929	0.050	0.0	mg/l	0.5	0.520	104.0	90-110%
Chloride	GP13735/GN26878	0.50	0.0	mg/l	5	4.96	99.2	90-110%
Chloride	GP13757/GN26929	0.50	0.0	mg/l	5	4.99	99.8	90-110%
Fluoride	GP13735/GN26878	0.10	0.0	mg/l	1	1.05	105.0	90-110%
Fluoride	GP13757/GN26929	0.10	0.0	mg/l	1	1.04	104.0	90-110%
Nitrogen, Nitrate	GP13735/GN26878	0.010	0.0	mg/l	0.1	0.108	108.0	90-110%
Nitrogen, Nitrate	GP13757/GN26929	0.010	0.0	mg/l	0.1	0.107	107.0	90-110%
Nitrogen, Nitrite	GP13735/GN26878	0.0040	0.0	mg/l	0.05	0.0542	108.4	90-110%
Nitrogen, Nitrite	GP13757/GN26929	0.0040	0.0	mg/l	0.05	0.0536	107.2	90-110%
Phosphate, Ortho	GP13735/GN26878	0.050	0.0	mg/l	0.5	0.521	104.2	90-110%
Phosphorus, Total	GP13818/GN27026	0.010	0.0	mg/l	0.38	0.38	99.3	80-120%
Solids, Total Dissolved	GN26953	10	0.0	mg/l	400	399	99.8	90-110%
Sulfate	GP13735/GN26878	0.50	0.0	mg/l	5	5.12	102.4	90-110%
Sulfate	GP13757/GN26929	0.50	0.0	mg/l	5	5.10	102.0	90-110%

Associated Samples:

Batch GN26912: D63312-1  
Batch GN26920: D63312-1  
Batch GN26922: D63312-1  
Batch GN26953: D63312-1  
Batch GP13735: D63312-1  
Batch GP13757: D63312-1  
Batch GP13818: D63312-1

(\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO <sub>3</sub>	GN26912	D63312-1	mg/l	517	475	8.4	0-20%
Phosphorus, Total	GP13818/GN27026	D63435-1	mg/l	0.037	0.038	2.7	0-20%
Solids, Total Dissolved	GN26953	D63253-3	mg/l	530	510	3.8	0-20%

Associated Samples:

Batch GN26912: D63312-1

Batch GN26953: D63312-1

Batch GP13818: D63312-1

(\*) Outside of QC limits

8.2

8

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO <sub>3</sub>	GN26912	D63326-1	mg/l	111	100	299	118.2	80-120%
Bromide	GP13735/GN26878	D63292-1	mg/l	0.0	0.5	0.54	108.0	80-120%
Bromide	GP13757/GN26929	D63385-2	mg/l	0.094	0.5	0.61	103.2	80-120%
Chloride	GP13735/GN26878	D63292-1	mg/l	1.0	5	5.9	98.0	80-120%
Chloride	GP13757/GN26929	D63385-2	mg/l	11.4	5	16.7	106.0	80-120%
Fluoride	GP13735/GN26878	D63292-1	mg/l	0.16	1	1.2	104.0	80-120%
Fluoride	GP13757/GN26929	D63385-2	mg/l	0.16	1	1.2	104.0	80-120%
Nitrogen, Nitrate	GP13735/GN26878	D63292-1	mg/l	0.013	0.1	0.12	107.0	80-120%
Nitrogen, Nitrate	GP13757/GN26929	D63385-2	mg/l	0.0	0.1	0.11	110.0	80-120%
Nitrogen, Nitrite	GP13735/GN26878	D63292-1	mg/l	0.0	0.05	0.057	114.0	80-120%
Nitrogen, Nitrite	GP13757/GN26929	D63385-2	mg/l	0.0	0.05	0.053	106.0	80-120%
Phosphate, Ortho	GP13735/GN26878	D63292-1	mg/l	0.077	0.5	0.52	88.6	80-120%
Phosphorus, Total	GP13818/GN27026	D63435-1	mg/l	0.037	0.40	0.44	100.8	80-120%
Sulfate	GP13735/GN26878	D63292-1	mg/l	7.8	5	13.0	104.0	80-120%
Sulfate	GP13757/GN26929	D63385-2	mg/l	9.8	5	15.1	106.0	80-120%

Associated Samples:

Batch GN26912: D63312-1

Batch GP13735: D63312-1

Batch GP13757: D63312-1

Batch GP13818: D63312-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D63312  
Account: CORCCOGJ - Olsson Associates  
Project: Knight Property

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Alkalinity, Total as CaCO <sub>3</sub>	GN26912	D63326-1	mg/l	111	100	230	0.5	20%
Bromide	GP13735/GN26878	D63292-1	mg/l	0.0	0.5	0.54	0.0	20%
Bromide	GP13757/GN26929	D63385-2	mg/l	0.094	0.5	0.62	1.6	20%
Chloride	GP13735/GN26878	D63292-1	mg/l	1.0	5	6.0	1.7	20%
Chloride	GP13757/GN26929	D63385-2	mg/l	11.4	5	16.8	0.6	20%
Fluoride	GP13735/GN26878	D63292-1	mg/l	0.16	1	1.2	0.0	20%
Fluoride	GP13757/GN26929	D63385-2	mg/l	0.16	1	1.2	0.0	20%
Nitrogen, Nitrate	GP13735/GN26878	D63292-1	mg/l	0.013	0.1	0.12	0.0	20%
Nitrogen, Nitrate	GP13757/GN26929	D63385-2	mg/l	0.0	0.1	0.11	0.0	20%
Nitrogen, Nitrite	GP13735/GN26878	D63292-1	mg/l	0.0	0.05	0.058	1.7	20%
Nitrogen, Nitrite	GP13757/GN26929	D63385-2	mg/l	0.0	0.05	0.051	3.8	20%
Phosphate, Ortho	GP13735/GN26878	D63292-1	mg/l	0.077	0.5	0.52	0.0	20%
Phosphorus, Total	GP13818/GN27026	D63435-1	mg/l	0.037	0.40	0.42	4.7	20%
Sulfate	GP13735/GN26878	D63292-1	mg/l	7.8	5	13.0	0.0	20%
Sulfate	GP13757/GN26929	D63385-2	mg/l	9.8	5	15.1	0.0	20%

Associated Samples:

Batch GN26912: D63312-1

Batch GP13735: D63312-1

Batch GP13757: D63312-1

Batch GP13818: D63312-1

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

8.4

8