Mine Permit Renewal Application

APPENDICES
SECTIONS R614-301-700 thru 731.111

VALLEY CAMP OF UTAH, INC.

SCOFIELD ROUTE * HELPER, UTAH 84526 * PHONE [801] 448-9454

A2

APPENDIX R614-301-722.100a

Water Quality Data

HANSEN ALLEN & LUCE inc

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station CS-1
Location Upper South Fork Eccles Creek

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	SPECIFIC COND µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
11-2-78	11:25	0.4	5	1	7.4						4.0	11.5				0.15	<0.01	0.10			0.024	14.0			11.0		252			440			287.92					
12-29-78	14:30																																					
5-11-79	15:40	0.6	1	1	8.4						8.00		<1.0	0.010	<0.10	1.28				0.05		10.0			4.0		270			410	0.85		295.48	[illegible]		14.0		
[illegible]-79	12:03	2.6	16	7	8.4	49.0	2.0			<1.0	3.00	8.7	<1.0	<0.001	<0.01	0.18				0.015	0.010	6.0			13.0		190			325	10.00		317.16	178		12.0	2.9	9.5
7-18-79	10:30	0.4	21	7.5	7.62						10.50	8.4	<1.0	0.024	<0.01	0.08				0.020		10.0			5.0		223			420	2.90	<0.01	255.20	210		240		
7-23-79	10:47	0.3	18	5	7.8	700	4.0			2.3	9.00	8.7	<1.0	<0.001	<0.05	0.09				0.120		6.0			6.0		254			420	2.00		[illegible]	240		16.0	<2.0	4.0
1-21-79	17:45	0.3	15	8.0	7.12						3.00	7.2		<0.001	<0.01	0.06				0.020		11.0			11.0		268			410	2.50		297.68	244		17.0		
1-26-80	09:22	2.4																																				
2-23-80																																						
3-26-80		0.9	7	6	8.3																									375								
7-16-80	09:38	0.28	9	6	7.8																									410								
10-7-80	13:28	0.215	20	9	8.7																									420								
11-19-80	11:18		-2	0	7.6																																	
12-24-80	In-Accessible																																					
1-27-81	In-Accessible																																					
2-25-81	In-Accessible																																					
3-11-81	In-Accessible																																					
4-8-81	In-Accessible																																					

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEXavalent CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
11-3-78			<0.001	0.012			<0.001	62.4	<1.0	<0.001		0.005	<0.01	0.13			0.045		15.84	0.003				1.022	<0.001	4.75	<0.001	13.68	0.004					
12-29-78																																			In-accessible
5-11-79			<0.001	0.010		0.110	<0.001	72.0	6.0	0.003		0.003	0.006	0.12		0.022	0.081	0.003	17.28	0.002	<0.0002			0.962	0.001		0.005	2.10	0.009					
6-20-79			<0.001	0.090		0.059	<0.001	55.2	2.0	0.003		0.003	0.005	0.12		0.200	0.330	0.009	11.52	0.005	<0.0002			0.677	<0.001		0.003	1.67	0.017					
7-18-79			<0.001	0.030		0.077	<0.001	61.6	4.0	0.003		0.008	<0.001	0.16		0.030	0.100	0.001	14.64	0.005	<0.0002			0.909	<0.001		<0.001	3.11	0.020					
7-23-79			<0.001	0.020		0.015	<0.001	82.2	<0.1	0.005		0.005	<0.001	0.20		0.045	0.149	<0.001	3.84	0.002	<0.0002			1.140	<0.001		<0.001	9.00	0.031					
1-21-79			<0.001	0.025		0.070	<0.001	84.1	<0.1	<0.001		0.009	<0.001	0.21		0.010	0.240	<0.001	3.70	0.005	<0.0002			1.120	<0.001		<0.001	12.50	0.035					
1-26-80																																			
2-23-80																																			
3-26-80																																			
7-16-80																																			
10-7-80																																			
11-19-80																																			
12-24-80																																			
1-27-81																																			
2-25-81																																			
3-11-81																																			
4-8-81																																			

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station CS-1
Location Upper South Fork Eccles Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D	B.O.D	T.O.C	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	SPECIFIC COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY	
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L	

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS.	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS.	CHLORIDE DISS	CHROMIUM HEXavCR	COBALT DISS.	COPPER DISS	CYANIDE as Cn	FLUORIDE DISS.	GERMANIUM DISS	IRON DISS.	IRON TOTAL	LEAD DISS	MAGNESIUM DISS.	MANGANESE DISS.	MERCURY DISS	MOLYBDENUM DISS.	NICKEL DISS.	POTASSIUM DISS.	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS	SODIUM DISS.	ZINC DISS.	VANADIUM DISS.				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
11-9-78																																		
12-27-78																																		
5-11-79			<0.001	0.01		0.105	<0.001			<0.001		0.003				0.022	0.081	<0.001							<0.001		<0.001		0.026					
6-20-79			<0.001	0.050		0.040	<0.001			<0.001		0.003				0.200	0.330	<0.001							<0.001		<0.001		0.010					
7-12-79			<0.001	0.020		0.050	<0.001			<0.001		0.005				0.030	0.100	<0.001							<0.001		<0.001		0.018					
8-27-79			<0.001	0.013		0.010	<0.001			<0.001		0.001				0.045	0.149	<0.001							<0.001		<0.001		<0.001					
9-26-79			<0.001	0.010		0.050	<0.001			<0.001		0.002				0.010	0.240	<0.001							<0.001		<0.001		0.007					
6-26-80																																		
7-23-80																																		
8-26-80																																		
9-15-80																																		
10-7-80																																		
11-19-80																																		
12-24-80																																		
1-27-81																																		
2-25-81																																		
3-11-81																																		
4-8-81																																		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station 35-7
Location Eucalyptus Creek
at the Hyperbolic Road

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

DATE	NITROGEN AMMONIA as NH_4-N	NITRATE as NO_3-N	NITRITE as NO_2-N	NITROGEN TOTAL KELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L

DATE	SOLIDS TSS	TOTAL SETTLEABLE SOLIDS	T.D.S.	TOTAL SOLIDS	TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS.	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS.	CHROMIUM HEXAVCR	COBALT DISS	COPPER DISS	CYANIDE as Cn	FLUORIDE DISS.	GERMANIUM DISS	IRON DISS	IRON TOTAL	LEAD DISS	MAGNESIUM DISS.	MANGANESE DISS.	MERCURY DISS	MOLYBDENUM DISS.	NICKEL DISS.	POTASSIUM DISS	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS.	SODIUM DISS.	ZINC DISS.	VANADIUM DISS.	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
11-8-78																															
3-27-79																															
5-11-79			<0.001	0.010		0.060	<0.001			<0.001		0.004				0.012	0.201	<0.001							<0.001		<0.001		0.004		
6-7-79			<0.001	0.040		0.015	<0.001			<0.001		0.005				0.020	0.270	<0.001							<0.001		<0.001		0.010		
7-27-79			<0.001	<0.001		0.090	<0.001			<0.001		<0.001				0.030	0.240	<0.001							<0.001		<0.001		0.007		
8-23-79			<0.001	0.002		0.045	<0.001			0.002		<0.001				0.058	0.350	<0.001							<0.001		<0.001		0.008		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station CS-7
Location Burnout Creek above Huntington Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D	B.O.D	T.O.C	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH3-N	NITROGEN NITRATE as NO3-N	NITROGEN NITRITE as NO2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO4-P	PHOSPHATE ORTHO as PO4-P	SULFATE as SO4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS T.S.S	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL DISSOLVED SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO3	BICARBONATE ALK as HCO3	TOTAL ALK as CaCO3	TOTAL HARDNESS as CaCO3	ACIDITY as CaCO3	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µMHOS	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
11-8-78	13:10	0.5	14	1.5	7.4							11.6				0.98	<0.01	0.12			0.020	9.0			7.0		210			370			239.12					
12-29-78	12:30	-0-																																					
5-11-79	11:33	1.3	1	2	7.8						13.00	9.2	<1.0	<0.001	<0.10	4.00				0.08		8.0			8.0		240			360	0.85		226.92	186		14.0		
6-20-79	16:40	5.5	16	12	8.3	170	<2.0				1.50	7.4	<1.0	<0.001	<0.01	0.62				0.015		14.0			9.0		185			290	5.00		234.40	170		3.0	2.4	12.0
7-20-79	16:35	2.0	21	13	9.15						7.00	7.3	<1.0	0.034	<0.01	0.71				0.020		6.0			4.0		200			345	5.00		231.81	190		16.0		
8-23-79	19:00	0.5		12.5	7.2						7.50	7.4	<1.0	0.008	<0.01	0.97				0.030		15.0			3.0		210			370	5.00		234.48	184		4.0	<2.0	4.0
9-25-79	12:56	0.4	15	9.0	7.25						4.0		1.6	0.003	<0.01	0.73				0.020		6.3			1.0		210				530		222.04	182		4.0		

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS	CHROMIUM HEX as CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	GERMANIUM TOTAL	IRON DISS	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
11-8-78			<0.001	<0.01			<0.001	59.2	<0.01	<0.001		0.001	<0.01	0.09			0.090		6.24	0.021				0.090	<0.001	4.0	<0.001	15.82	0.002				
12-29-78																																		
5-11-79			<0.001	0.010		0.065	<0.001	55.60	6.0	0.006		0.013	<0.001	0.10		0.012	0.201	0.003	9.12	0.010	<0.0002			0.793	<0.001		0.073	7.07	0.013				
6-20-79			<0.001	0.040		0.046	<0.001	58.40	<1.0	0.001		0.005	<0.001	0.52		0.020	0.270	0.001	8.64	0.007	<0.0002			0.708	<0.001		0.003	1.98	0.013				
7-20-79			<0.001	0.020		0.095	<0.001	60.00	2.0	0.001		0.004	0.001	0.14		0.030	0.240	0.015	10.08	0.012	<0.0002			0.759	<0.001		<0.001	2.20	0.011				
8-23-79			<0.001	0.085		<0.005	<0.001	73.60	<0.1	0.004		0.006	<0.001	0.17		0.058	0.250	<0.001	2.88	0.003	<0.0002			0.790	<0.001		<0.001	2.80	0.015				
9-25-79			<0.001	0.026		0.148	<0.001	75.60	<0.1	0.006		0.010	.005	.13		0.020	0.180	<0.001	2.14	0.003	<0.0002			0.710	<0.001		<0.001	2.54	0.019				

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station S-1
Location

DATE	TIME	FLOW CFS	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP MPN	C.O.D. MG/L	B.O.D. MG/L	TOC MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	SPECIFIC COND µMHOS/CM	TURBIDITY NTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK as HCO_3 MG/L	TOTAL ALK as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pC
9-12-83	18:26	3	18	10	7.4										0.40	<0.01	<0.01			0.20	<0.02	27					321			538		<0.01	35380	290	295		
10-19-83	15:30	0.01	2	8	7.5									<0.001	<0.20					0.19		32					324			519			326.96				
6-26-84	13:08	0.01	14	8	7.1										<0.1						<0.01	31.3					328			558			164	270			

DATE	ALUMINUM DISS MG/L	ANTIMONY DISS MG/L	ARSENIC DISS. MG/L	BARIUM DISS MG/L	BERYLLIUM DISS MG/L	BORON DISS MG/L	CADMIUM DISS MG/L	CALCIUM DISS MG/L	CHLORIDE DISS MG/L	CHROMIUM HEX as Cr MG/L	COBALT DISS MG/L	COPPER DISS MG/L	CYANIDE as Cn MG/L	FLUORIDE DISS. MG/L	GERMANIUM DISS MG/L	IRON DISS MG/L	IRON TOTAL MG/L	LEAD DISS MG/L	MAGNESIUM DISS MG/L	MANGANESE DISS MG/L	MERCURY DISS MG/L	MOLYBDENUM DISS MG/L	NICKEL DISS MG/L	POTASSIUM DISS MG/L	SELENIUM DISS. MG/L	SILICA as SiO_2 MG/L	SILVER DISS MG/L	SODIUM DISS. MG/L	ZINC DISS MG/L	VANADIUM DISS MG/L	SULFIDE MG/L	NITRATE - NITRITE MG/L	MANGANESE TOTAL MG/L	COMMENTS
9-12-83	0.005		<0.001	0.150		0.100	<0.001	72.80	6.00	<0.001		<0.01		0.17		0.230	0.280	<0.001	27.84	0.120	<0.0002	<0.001	<0.001	3.5	<0.001			10.0	0.013		0.40	<0.01	0.225	
10-19-83								72.80	4.00								1.690		28.32	0.050				2.9				3.20							
6-26-84								73.8	4.2								0.42		30.4	0.05				2.85				3.27							

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station S 25-1
Location

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH3-N	NITROGEN NITRATE as NO3-N	NITROGEN NITRITE as NO2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO4-P	PHOSPHATE ORTHO as PO4-P	SULFATE as SO4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	SPECIFIC COND	TURBIDITY	CARBONATE ALK as CaCO3	BI-CARBONATE ALK as HCO3	TOTAL ALK as CaCO3	TOTAL HARDNESS as CaCO3	ALPHA RADIO ACTIVITY	BETA RADIO ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	NTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
8-25-83					8.00																	64.0					295			450		<0.01	226.92				
12- -83	Inaccessible																																				

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS	CHROMIUM HEX as CR	COBALT DISS	COPPER DISS	CYANIDE as Cn	FLUORIDE DISS	GERMANIUM DISS	IRON DISS	IRON TOTAL	LEAD DISS	MAGNESIUM DISS	MANGANESE DISS	MERCURY DISS	MOLYBDENUM DISS	NICKEL DISS	POTASSIUM DISS	SELENIUM DISS	SILICA as SiO_2	SILVER DISS	SODIUM DISS	ZINC DISS	VANADIUM DISS	S.A.R.	NITRATE + NITRITE		COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L		MG/L		
8-25-83								73.60	6.0										2.40					5.8				26.0						
12- -83																																		Snow

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station S25-2
Location

DATE	TIME	FLOW CFS	TEMPERATURE AIR °F	TEMPERATURE WATER °F	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP MPN	C.O.D. MG/L	B.O.D. MG/L	TOC MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	SPECIFIC COND. µMHOS/CM	TURBIDITY NTU	CARBONATE ALK. as $CaCO_3$ MG/L	BI-CARBONATE ALK as HCO_3 MG/L	TOTAL ALK as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY PC/L	BETA RADIO-ACTIVITY PC/L	
9-12-83	17:20	0.02	15	8	7.9																									418									
10-19-83	13:45	0.003	4	2	7.4																									389									
12-28-83	Inaccessible																																						
6-26-84	11:04	0.07	19	5	8.0																									252									

DATE	ALUMINUM DISS MG/L	ANTIMONY DISS MG/L	ARSENIC DISS. MG/L	BARIUM DISS MG/L	BERYLLIUM DISS MG/L	BORON DISS MG/L	CADMIUM DISS MG/L	CALCIUM DISS MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEX as CR MG/L	COBALT DISS MG/L	COPPER DISS MG/L	CYANIDE as Cn MG/L	FLUORIDE DISS. MG/L	GERMANIUM DISS. MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD DISS. MG/L	MAGNESIUM DISS MG/L	MANGANESE DISS. MG/L	MERCURY DISS MG/L	MOLYBDENUM DISS. MG/L	NICKEL DISS. MG/L	POTASSIUM DISS. MG/L	SELENIUM DISS. MG/L	SILICA as SiO_2 MG/L	SILVER DISS. MG/L	SODIUM DISS. MG/L	ZINC DISS MG/L	VANADIUM DISS MG/L	S.A.R.	NITRATE — NITRITE MG/L		COMMENTS
9-12-83																																		
10-19-83																																		
12-28-83																																		Snow
6-26-84																																		

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station S25-6
Location

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	COD	BOD	TOC	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	SPECIFIC COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS				MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µMHOS/CM	NTU	MG/L	MG/L	MG/L	MG/L	pC/L	pC/L
9-12-83	1235	0.007	15	4	7.5																									527							
10-19-83	1400	0.008	7	4	7.4																									452							
12-[illegible]-83	Inaccessible																																				
6-26-84	11:20	0.22	14	6	7.8																									406							

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS.	BARIUM DISS	BERYLLIUM DISS.	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS	CHROMIUM HEX as CR	COBALT DISS	COPPER DISS	CYANIDE as Cn	FLUORIDE DISS.	GERMANIUM DISS	IRON DISS	IRON TOTAL	LEAD DISS	MAGNESIUM DISS	MANGANESE DISS	MERCURY DISS	MOLYBDENUM DISS	NICKEL DISS	POTASSIUM DISS	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS	SODIUM DISS.	ZINC DISS.	VANADIUM DISS	S.A.R.	NITRATE — NITRITE		COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L		MG/L		
9-12-83																																		
10-19-83																																		
12-[illegible]-83																																		Snow
6-26-84																																		

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station S32-3
Location

DATE	TIME	FLOW (CFS)	TEMPERATURE AIR (°C)	TEMPERATURE WATER (°C)	pH	COLIFORM TOTAL (MPN)	COLIFORM FECAL (MPN)	FECAL STREP. (MPN)	C.O.D. (MG/L)	B.O.D. (MG/L)	T.O.C. (MG/L)	DISSOLVED OXYGEN (MG/L)	OIL & GREASE (MG/L)	PHENOL (MG/L)	NITROGEN AMMONIA as NH_3-N (MG/L)	NITROGEN NITRATE as NO_3-N (MG/L)	NITROGEN NITRITE as NO_2-N (MG/L)	NITROGEN TOTAL KJELDHL (MG/L)	NITROGEN ORGANIC (MG/L)	PHOSPHATE TOTAL as PO_4-P (MG/L)	PHOSPHATE ORTHO as PO_4-P (MG/L)	SULFATE as SO_4 (MG/L)	HYDROXIDE as OH (MG/L)	SURFACTANT as MBAS (MG/L)	SOLIDS TSS (MG/L)	SOLIDS TOTAL SETTLEABLE SOLIDS (ML/L)	SOLIDS T.D.S. (MG/L)	SOLIDS TOTAL SOLIDS (MG/L)	SOLIDS TOTAL VOLATILE SOLIDS (MG/L)	SPECIFIC COND (µMHOS)	TURBIDITY (FTU)	CARBONATE ALK. as CO_3 (MG/L)	BI-CARBONATE ALK as HCO_3 (MG/L)	TOTAL ALK. as $CaCO_3$ (MG/L)	TOTAL HARDNESS as $CaCO_3$ (MG/L)	ACIDITY as $CaCO_3$ (MG/L)	ALPHA RADIO-ACTIVITY (pCi/L)	BETA RADIO-ACTIVITY (pCi/L)
11-19-83	11:15	0.47	1	7	7.1																									343									
12-[illegible]-83	Inaccessible																																						
6-21-84	14:50		22	9	7.2										<0.1						<0.01	51.0					390			557			173	232					

DATE	ALUMINUM TOTAL (MG/L)	ANTIMONY TOTAL (MG/L)	ARSENIC TOTAL (MG/L)	BARIUM TOTAL (MG/L)	BERYLLIUM TOTAL (MG/L)	BORON TOTAL (MG/L)	CADMIUM TOTAL (MG/L)	CALCIUM TOTAL (MG/L)	CHLORIDE DISS. (MG/L)	CHROMIUM HEX as CR (MG/L)	COBALT TOTAL (MG/L)	COPPER TOTAL (MG/L)	CYANIDE as CN (MG/L)	FLUORIDE DISS. (MG/L)	GERMANIUM TOTAL (MG/L)	IRON DISS. (MG/L)	IRON TOTAL (MG/L)	LEAD TOTAL (MG/L)	MAGNESIUM TOTAL (MG/L)	MANGANESE TOTAL (MG/L)	MERCURY TOTAL (MG/L)	MOLYBDENUM TOTAL (MG/L)	NICKEL TOTAL (MG/L)	POTASSIUM TOTAL (MG/L)	SELENIUM TOTAL (MG/L)	SILICA as SiO_2 (MG/L)	SILVER TOTAL (MG/L)	SODIUM TOTAL (MG/L)	ZINC TOTAL (MG/L)	VANADIUM TOTAL (MG/L)				COMMENTS
10-19-83																																			
12-[illegible]-83																																			Snow
6-21-84								84.8	4.5								0.38		32.4	0.01				1.76				3.37							

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station: UPL-3
Location: HUNTINGTON CREEK BELOW ELECTRIC LAKE
DATA FROM UP&L

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
7/31/74		16	21	6	7.80	<3	<3	<3				7.60		
9/5/74		15.3	17	5.5	7.55	<3	<3	<3				7.75		
10/3/74		10	8	6	7.60	4	<3	<3				7.15		
10/3/74										3.5				0.0000
11/3/74					7.65	<3	<3	<3				7.20		
12/2/74		7.65	12	4	7.45	<3	<3	<3				8.2		
1/2/75		7.80	<-5	3	7.22	<30	<3	<3				8.45		
2/4/75		7.0	-4.4	3.5	7.20	<3	<3	<3				7.90		
2/4/75										3.1				0.0000
3/5/75		7.8	-14.5	4.0	7.36	73	<3	<3				7.50		
4/2/75		7.6	-12.0	3.5	7.64	36	<3	<3				7.2		
5/1/75		7	2.0	4.0	7.18	<3	<3	<3				7.1		
6/3/75			15	4.5	7.54	15	<3	<3				7.4		
7/22/75			23	3.5		<3	<3			4.0				0.0000
10/13/75			12	6.5	7.84	29	<3	<3				7.2		
11/12/75			6	5	7.56	<3	<3	<3				9.24		

DATE	NITROGEN AMMONIA as NH_3-N	NITRATE as NO_3-N	NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	PHENOLICS as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
7/31/74		1.10				0.40					5.0						24.0J			122.0	102.0		
9/5/74		0.85				0.27					11.0						8.20J			112.0	110.0		
10/3/74		0.90				0.25					13.0						3.90J			144.0	120.0		
10/3/74		0.91						8.0		0.0			168.0										
11/3/74		0.82				0.21					17.8						41.0J			128.0	124.0		
12/2/74		0.65				0.155					3.0						3.3J			152.0	148.0		
1/2/75		0.80				0.19					5.0						4.0J			140.0	140.0		
2/4/75		0.68				0.15					3.0						5.40J			142.0	138.0		
2/4/75		0.85						8.1		0.0			165.0										
3/5/75		0.40				0.17					4.5						1.64J			168.0	182.0		
4/2/75		0.21				0.16					4.0						1.70J			156.0	162.0		
5/1/75		0.30				0.20					5.20						2.5J			144	164.0		
6/3/75		0.26				0.07					105.0						6.2 J			140	150		
7/22/75		0.64						8.7		0.0			145.0										
10/13/75		0.39				0.09					<1.0		155.0				4.00F			98.0	114.0		
11/12/75		0.33				0.02					4.6						1.10F			104.0	116.0		

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS	CHROMIUM HEXAVALENT CR	COBALT DISS	COPPER DISS	CYANIDE as Cn	FLUORIDE DISS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
10/3/74			0.0000	0.0000			0.0015		2.0	<0.010				0.14
2/4/75			0.0000	0.0000			0.0012		1.6	<0.010				0.13
7/22/75			0.0000	0.0000			0.0023		4.0	<0.010				0.21

DATE	GERMANIUM DISS	IRON DIS.	IRON TOTAL	LEAD DISS	MAGNESIUM DISS	MANGANESE DIS.	MERCURY DIS.	MOLYBDENUM DIS.	NICKEL DIS.	POTASSIUM DIS.	SELENIUM DIS.	SILICA as SiO_2	SILVER DIS.	SODIUM DIS.	ZINC DIS.	VANADIUM DIS.	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
10/3/74			0.130	0.0000		0.062	0.0000				0.0000		0.0000		0.001		
2/4/75			0.159	0.0000		0.074	0.0000				0.0000		0.0000		0.017		
7/22/75			0.244	0.0000		0.083	0.0000				0.0000		0.0000		0.0063		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station HHL-3
Location HUNTINGTON CREEK BELOW ELECTRIC LAKE

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
2/5/76			0	3	7.16	<3	<3	<3				9.30		
3/3/76		8.6	-4	3	7.20	20	<3	<3				9.30		
3/31/76					7.18									
6/15/76	1750	20	20	7	7.4							6.8		
8/3/76	0840	34	13	9	8.2							5.8		
11-1-76	17:35	37	16	10	7.3							6.7		
10-28-76	16:35	21	7	7	7.6							8.5		

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
2/5/76		0.240				0.056					36.6						0.53			110.0	130.0		
3/3/76		0.290				0.057					4.0						0.70			112.0	122.0		
3/31/76	0.35	0.200	<0.01	0.75		0.330	0.300	15.0	<0.01				210			320	0.79	<0.01	148.8	122	140		
6/15/76		0.200				0.160	0.140	9.20	<0.01				200			300	0.80	<0.01	148.8	110	122		
8/3/76		0.40				0.130	0.110	21.0	<0.01				210			320	1.20	<0.01	131.7	108	137.1		
11-1-76		0.21				0.145	0.100	11.0	<0.01				270			410	6.10	<0.01	151.3	124	107.5		
10-28-76		0.20				0.140	0.100	25.3	<0.01				230			350	1.10	<0.01	156.1	128	140		

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS.	BARIUM DISS	BERYLLIUM DISS.	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS	CHROMIUM HEXavCR	COBALT DISS	COPPER DISS.	CYANIDE as Cn	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
3/31/76	0.007	<0.001	<0.001	0.017	<0.001	0.013	<0.001	40.8	0.5	<0.001	<0.001	<0.001		0.14
6/15/76	0.006	<0.001	<0.001	0.016	<0.001	0.002	<0.001	27.2	0.50	<0.001	<0.001	<0.001		0.11
8/3/76	0.004	<0.001	<0.001	0.018	<0.001	0.005	<0.001	45.0	8.0	<0.001	<0.001	<0.001		0.13
10-1-76	0.006		<0.001	0.007		<0.001	<0.001	36.8	10.0			<0.001		0.17
10-28-76	0.005		<0.001	0.002		<0.001	<0.001	41.6	1.8			<0.001		0.09

DATE	GERMANIUM DISS	IRON DISS.	IRON TOTAL	LEAD DISS.	MAGNESIUM DISS	MANGANESE DISS.	MERCURY DISS.	MOLYBDENUM DISS	NICKEL DISS.	POTASSIUM DISS.	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS	SODIUM DISS.	ZINC DISS.	VANADIUM DISS.	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
3/31/76	<0.001		0.290	<0.001	9.12	0.008	<0.001	<0.001	<0.001	1.23	<0.001	3.50	<0.001	2.48	0.029	<0.001	
6/15/76	<0.001		0.210	<0.001	5.76	0.010	<0.0002	<0.001	<0.001	0.72	<0.001	2.90	<0.001	18.00	0.025	<0.001	
8/3/76	<0.001		0.167	<0.001	6.0	<0.001	<0.0002	<0.001	<0.001	0.89	<0.001	1.90	<0.001	1.10	0.019	<0.001	
10-1-76	<0.001		0.173	<0.001	3.80	<0.001	<0.0002	<0.001	<0.001	1.00	<0.001	2.70		19.0	0.070		
10-28-76	<0.001		0.210	<0.001	8.6	0.003	<0.0002	<0.001	<0.001	0.81	<0.001	2.50		6.00	0.013		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station: HL-3
Location: Huntington Creek below Electric Lake

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP MPN	C.O.D. MG/L	B.O.D. MG/L	T.D.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK. as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
12-15-77	14:10	8.5	3	5	7.6							12.8				0.07				0.030	0.010	12.0					162			252	0.85		173.2	142	156			
1-12-78	14:45	9	2	3	7.7							9.4				0.10				0.020	0.011	8.0					160			248	1.6		183	150	160			
2-7-78	12:45	19	0	2.5	8.1							9.4				0.06				0.030	0.012	16.0					176			272	2.20		180.5	148	164			
3-9-78	14:50	16	5	11	8.0							9.8				0.11				0.032	0.010	22.0					172			268	2.4		178.1	146	160			
4-13-78	12:30	14		3.5	7.7							9.1				0.20				0.025	0.020	22.0					180			275	2.8		185.44	152	166			
5-11-78	14:40	27	11	4	7.3							8.9				0.30				0.030	0.020	12.0					150			230	2.20		151.28	124	136			
6-15-78	15:35	56		7.5	7.5							9.5				0.57				0.026	0.020	16.0					160			240	1.60	<0.01	151.28	124	122			
7-13-78	16:10	67	27	12	7.6							7.7				0.39				0.028	0.020	14.0					150			230	1.60		148.9	122	68.0			
8-10-78	15:00	24	26	7.5	7.3							8.5				0.39				0.030	0.025	25.0					155			235	1.2		143.9	118	140			
9-14-78	10:10	12	12	10	7.6							7.2				0.26				0.024	0.020	15.0					145			220	0.60		143.9	118	138			
10-10-78	14:40	38	21	11	7.05							8.4				0.10				0.030	0.025	23.0					150			230	0.85		146.4	120	142			
~~11-9-78~~	~~14:35~~	~~48~~	~~14~~	~~6.5~~	~~7.65~~							~~8.2~~				~~0.27~~				~~0.025~~	~~0.022~~	~~19.0~~					~~165~~			~~250~~	~~0.46~~		~~173.24~~	~~142~~	~~152~~			
~~12-14-78~~	~~13:46~~	~~41~~	~~1~~	~~4~~		~~8~~	~~<2~~					~~10.4~~									~~0.055~~	~~38.0~~				~~8.0~~	~~185~~			~~285~~	~~7.50~~		~~165.92~~	~~136~~	~~178~~			

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEXAVALENT CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
12-15-77	0.012			0.013		0.04		47.2	6.0			0.011		0.16			0.270		9.12	0.085	<0.0002			0.99				2.0	0.046					
1-12-78	0.010			0.140		0.12		48.0	2.0			0.002		0.10			0.418		9.60	0.109	<0.0002			1.36				1.0	0.011					Snowing
2-7-78	0.09			0.030		0.04		49.6	6.0			0.006		0.11			0.327		9.60	0.081	<0.0002			1.05				4.0	0.004					
3-9-78	0.040			0.070		0.06		48.0	<0.01			0.006		0.07			0.331		9.60	0.071	<0.0002			2.51				4.0	0.014					
4-13-78	0.010			0.020		0.05		49.6	2.0	<0.001		0.003		0.11			0.067	<0.001	10.08	0.041	<0.0002			1.328	<0.001			4.13	0.017					
5-11-78	0.013			0.022		0.05		45.6	6.0			0.002		0.09			0.029		5.28	0.047	<0.0002			1.000				3.10	0.015					
6-15-78	0.075		<0.001	0.040		0.09		40.8	8.0	<0.001		0.001		0.09			0.123	<0.001	7.2	0.018	<0.0002			0.819	<0.001		<0.001	8.0	0.003					
7-13-78	0.020			0.019		0.04		71.6	2.0			0.011		0.08			0.105		3.36	0.019	<0.0002			0.899				31.0	0.011					
8-10-78	0.015		<0.001	0.120		0.04		44.0	<0.1			0.001		0.06			0.151		7.2	0.031	<0.0002			0.902	<0.001			2.96	0.002					
9-14-78	0.146		<0.001	0.05		0.090		44.0	4.0	<0.001		0.003		0.08			0.093	<0.001	6.7	0.025	<0.0002			0.172			<0.001	1.59	0.012					
10-10-78	0.16		<0.001	0.037		0.550		48.0	<0.01			0.008		0.10			0.089		5.28	0.018	<0.0002			0.914	<0.001			1.65	0.003					
~~11-9-78~~	~~0.020~~		~~<0.001~~	~~0.140~~		~~0.010~~		~~47.2~~	~~2.0~~			~~<0.001~~		~~0.07~~			~~0.096~~		~~8.16~~	~~0.018~~	~~<0.0002~~			~~0.958~~				~~4.0~~	~~0.004~~					Oil Following rain
~~12-14-78~~								~~56.0~~	~~<0.01~~										~~7.20~~					~~0.978~~				~~1.79~~						S

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station 11PL-3
Location Huntington Creek below Electric Lake

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
11-9-78	14:25	48	14	6.5	7.65							8.2		
12-14-78	13:45	41	1	4		8	<2					10.4		
1-10-79	15:55	25.5	2	4.5	7.9	8	<2			2.5		8.8		<0.001
2-14-79	12:25	18.5	0	4	7.7	2	<2					9.4		
3-15-79	15:35	22	0	5	8.45	23	<2	2				10.0		
4-17-79	08:25	34	9	3	7.51	33.0	<2.0	<2.0				8.1		
5-5-79	14:45	53.5	1	5.5	8.1	5.0	<2.0	<2.2				10.4		
6-14-79	14:35	88	25	7	7.8	17.0	2.0	14.0				8.0		
7-12-79	11:28	48	30	10	7.35	940	<2.0	2.0				8.4		
7-19-79	17:25	28	19	9	7.1						7.00	8.4	<1.0	0.194
7-9-79	12:55	154	25	12	7.0	11.0	<2.0	2.0				7.8		
8-29-79	05:30	23		7	7.36	79.0	2.0				14.0	7.6	1.2	<0.001
9-20-79	13:30	30	15	7.7	7.6	<2.0	<2.0	<2.0			10.00	8.6	1.6	0.110

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HARDNESS as CaCO	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µmhos	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
11-9-78		0.21				0.075	0.022	17.0					165			250	0.46		173.24	142	152			
12-14-78						0.055		38.0			8.0		185			285	1.50		116.92	136	170			
1-10-79		0.28				0.040		19.0			1.0		164			250	1.00		168.36	138	138			
2-14-79		0.17	<0.01			0.055	0.015				6.0		196			290	1.50							
3-15-79		0.18	<0.01			0.020	<0.001				1.0		190			290	1.50							
4-17-79		0.06	<0.01			0.04	0.02				1.0		280			430	3.60							
5-5-79		0.10	<0.01			0.050	0.03				1.0		180			270	0.45							
6-14-79		0.78	<0.01			0.060	0.010				4.0		170			260	6.50							
7-12-79		0.45	<0.01			0.020	<0.010				3.0		160			270	6.00							
7-19-79	<0.01	0.56				<0.001		14.0			10.0		150			260	5.00		151.28	124		12.0		
7-9-79		0.33	<0.01			0.040	0.020				8.0		120			220	10.0							
8-29-79	<0.01	0.49				0.010		194			1.0		400			270	4.50		156.16	128		12.0	3.5	12.8
9-20-79	<0.01	0.23				0.200	0.150	35.9			3.0		197			280	5.00		173.24	142				

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEX. as CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
11-9-78	0.020		<0.001	0.040		0.090		47.2	2.0			<0.001		0.07
12-14-78								56.0	<0.01					
1-10-79			<0.001	0.030			<0.001	46.4	2.0	<0.001		<0.001	0.005	0.08
2-14-79														
3-15-79														
4-17-79														
5-5-79														
6-14-79														
7-12-79														
7-19-79			<0.001	0.045		0.095	<0.001	40.50	<0.1	0.002		0.009	<0.001	0.10
7-9-79														
8-29-79			<0.001	0.045		0.005	0.003	124	<0.1	0.003		0.016	<0.001	0.10
9-20-79			<0.001	0.080		<0.001	<0.001	48.00	2.0	0.006		0.008	<0.001	0.14

DATE	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
11-9-78			0.096		8.16	0.018	<0.0002			0.958				4.00	0.004		
12-14-78					7.20					0.978				1.79			
1-10-79			0.114	<0.001	10.56	0.035	<0.0002			0.811	<0.001		<0.001	1.59	0.027		
2-14-79																	
3-15-79																	
4-17-79																	
5-5-79																	
6-14-79																	
7-12-79																	
7-19-79		0.040	0.130	0.011	7.68	0.012	<0.0002			1.072	<0.001		<0.001	2.34	0.014		
7-9-79																	
8-29-79		0.050	0.340	<0.001	4.80	0.021	<0.0002			0.886	0.002		<0.001	1.93	0.032		
9-20-79		0.030	0.090	0.001	8.90	0.016	<0.0002			1.100	<0.001		<0.001	12.0	0.006		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station [illegible]
Location Huntington Creek
Delta Electric Lake

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D	B.O.D	T.O.C	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY	
		CFS	**	**		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L	

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS	BARIUM DISS	BERYLLIUM DISS	BORON DISS.	CADMIUM DISS	CALCIUM DISS.	CHLORIDE DISS	CHROMIUM HEX as CR	COBALT DISS.	COPPER DISS.	CYANIDE as Cn	FLUORIDE DISS.	GERMANIUM DISS	IRON DISS.	IRON TOTAL	LEAD DISS.	MAGNESIUM DISS	MANGANESE DISS.	MERCURY DISS.	MOLYBDENUM DISS	NICKEL DISS	POTASSIUM DISS.	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS.	SODIUM DISS.	ZINC DISS.	VANADIUM DISS.				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
7-14-79			<0.001	0.040		0.090	<0.001			<0.001		0.003				0.040	0.130	<0.001							<0.001		<0.001		0.006					
7-9-79																																		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station UPL-10
Location Huntington Creek above Electric Lake

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
7-15-78	16:20	34		13	7.5							9.6		
7-15-78	17:00	12.8	28	16	8.3							8.7		
8-10-78	16:00	3.0	25	17	7.9							9.0		
7-14-78	10:50	3.5	13	6	7.6							10.1		
9-10-78		3.4	12	10								9.6		
~~11-3-78~~	~~13:20~~	~~1.6~~	~~12~~	~~4~~	~~7.4~~						~~15.0~~	~~10.8~~	~~<1.0~~	~~<0.001~~

DATE	NITROGEN: AMMONIA as NH_3-N	NITRATE as NO_3-N	NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L
7-15-78		0.17				0.045	0.027	14.0	<0.01				125		
7-15-78		0.20				0.025	0.020	10.0	<0.01				149		
8-10-78		0.21				0.028	0.020	10.0			6.0		170		
7-14-78		0.02				0.075	0.020	10.0	0.01				185		
9-10-78		0.21				0.022	0.022	17.2			1.0		180		
~~11-3-78~~		~~0.26~~	~~<0.01~~	~~0.10~~			~~0.025~~	~~15.0~~			~~15.0~~		~~165~~		~~320~~

DATE	COND	TURBIDITY	CARBONATE ALK as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	µmhos/cm	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
7-15-78	193	38.0	<0.01	115.48	94.0	84.0			
7-15-78	230	15.0	<0.01	163.4	134	128			
8-10-78	260	2.5		193.3	156	164			
7-14-78	295	5.5	<0.01	205	168	190			
9-10-78	305	5.30		192.32	150	168			
~~11-3-78~~	~~320~~			~~199.64~~			~~Dilution error~~		

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS	CHROMIUM HEXAVALENT	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
7-15-78	0.310		<0.001	0.010		0.12		31.2	14.0	<0.001		0.005		0.08
7-15-78	0.004		<0.001	0.010		0.05		42.4	<0.10	<0.001		<0.001		0.11
8-10-78	0.070		<0.001	0.070		0.07	<0.001	53.6	<0.10	<0.001		0.003		0.07
7-14-78	0.075		<0.001	<0.01		0.140		56.0	7.0	<0.001		0.002		0.11
9-10-78	2.28		<0.001	<0.001		0.245		53.6	7.31		0.012	<0.001		0.11
~~11-3-78~~			~~<0.004~~	~~<0.01~~			~~<0.004~~	~~49.6~~	~~<0.01~~	~~<0.001~~		~~0.004~~	~~<0.01~~	~~0.09~~

DATE	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
7-15-78		0.197	0.004	1.44	0.017	<0.0002			0.540	<0.001		0.004	14.0	0.002		
7-15-78		0.245	<0.001	5.20	0.004	<0.0002			0.597	<0.001		<0.001	7.0			
8-10-78		0.409	<0.001	7.2	0.040	<0.0002			0.691	<0.001		0.170	3.35	0.030		
7-14-78		0.244	<0.001	9.6	0.023	<0.0002		<0.001	0.140	<0.001		<0.001	1.00	0.003		
9-10-78		0.310	<0.001	9.16	0.220	0.0005		0.026	0.766	0.001		<0.001	3.0	0.005		
~~11-3-78~~		~~0.240~~		~~12.0~~	~~0.005~~				~~0.790~~	~~<0.001~~	~~5.25~~	~~<0.001~~	~~7.08~~	~~<0.001~~		~~All filters <0.01~~

R 1-78

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station 11FL-10
Location Huntington Creek above Electric Lake

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO ACTIVITY	BETA RADIO ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µmhos	FTU		MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
11-8-78	12:20	1.6	12	4	7.4						15.0	10.8	<1.0	<0.001		0.26	<0.01	0.10			0.025	15.0			15.0		165			320			197.14					
12-27-78	12:20	4.5	-3	0	7.77						7.0				0.10	0.42		0.15		0.04	0.02	10.0			4.0		186			395			177.88	154	176			
1-25-79	13:00	6	-3	0	7.75						14.0		3.4	<0.001	0.10	0.36	<0.01	0.12		0.040	0.023	16.0			5.0		185			285			200.08	164	174			
2-24-79	14:00	Inaccessible																																					
3-8-79	10:00	6.6	2	0	7.7	170	<2									0.74				0.025	0.020	6.0					173						187.88	154	152			
4-3-79	10:30	2.6	-1	1	7.81										<0.01	0.49				2.00	0.05	14.0			1.0		226			350			185.44	152	164			
5-11-79	11:15	16.4	1	3	8.2						6.0	8.5	<1.0	<0.001	<0.10	1.70				0.05		7.0			15.0		130			194	4.0		117.12	96.0		6.0		
6-20-79	12:25	25.5	16	12	8.4	79.0	<2.0				9.0	8.3	<1.0	<0.001	<0.01	0.15				0.020		19.0			7.0		125			200	5.0		56.45	72		6.0	2.5	10.0
7-27-79	16:24	5.5	21	15	8.9						8.0	6.7	<1.0	0.010	<0.01	0.24				<0.001		6.0			7.0		164			275	5.0		185.44	152		10.0		
8-23-79	13:45	1.4		15		2200	130				9.0	7.3	<1.0	<0.001	<0.05	0.30				0.030		10.9			1.0		225			300	1.50		187.88	154		12.0	<2.0	8.0
9-25-79	14:11	2.7	15	10	7.7						8.50	8.3	22.0	0.005	<0.01	0.04				0.030		10.0			1.0		182			315	2.00		192.70	158		15.0		

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEXAVALENT	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
11-8-78			<0.001	<0.01			<0.001	49.6	<0.01	<0.001		0.004	<0.01	0.19			0.290		12.0	0.025				0.290	<0.001	3.25	<0.001	2.08	<0.001				
12-27-78			<0.001	0.004	<0.001	0.105	<0.001	54.4	6.0	<0.001		0.001		0.11			0.164	<0.001	9.64	0.017	<0.0002		<0.001	0.757	<0.001	5.60	<0.001	1.95	0.003				
1-25-79			<0.001	0.010	<0.001	0.180	<0.001	56.8	2.0	<0.001		0.004		0.10			0.432	<0.001	7.68	0.027	<0.0002	<0.001	0.006	0.833	<0.001	5.50	<0.001	2.50	0.004	<0.001				
2-24-79																																		Excessive Powder Snow
3-8-79			<0.001		0.002	0.030	<0.001	51.20	8.0	<0.001		0.008					0.144	<0.001	5.76	0.022	<0.0002		0.053	0.760				6.300	0.012					
4-3-79			<0.001		<0.001	0.150	<0.001	52.0	7.0	<0.001		<0.001						<0.001	8.16	0.014	<0.0002		0.015	0.820	<0.001		<0.001	1.76	0.002					
5-11-79			<0.001	0.020		0.085	<0.001	25.2	6.0	0.005		0.016	<0.001	0.06		0.072	0.119	<0.001	4.00	0.022	<0.0002			0.629	<0.001		0.001	2.99	0.031					
6-20-79			<0.001	0.060		0.060	<0.001	39.2	<1.0	0.001		0.007	<0.001	0.15		0.110	0.470	0.004	7.68	0.020	<0.0002			0.571	<0.001		0.004	1.58	0.013					
7-27-79			<0.001	0.030		0.098	<0.001	53.6	2.0	0.002		0.007	<0.001	0.10		0.080	0.620	<0.001	5.78	0.024	<0.0002			0.694	<0.001		<0.001	1.93	0.009					
8-23-79			<0.001	0.026		0.030	<0.001	58.4	<0.1	0.009		0.005	<0.001	0.15		0.114	0.340	<0.001	3.84	0.004	<0.0002			0.950	<0.001		<0.001	1.80	0.012					
9-25-79			<0.001	0.030		0.030	<0.001	52.6	<0.1	0.010		0.008	<0.001	0.18		0.060	0.420	<0.001	3.90	0.005	<0.0002			0.960	<0.001		<0.001	8.00	0.015					

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station UPL-10
Location [illegible]

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY	
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L	

DATE	ALUMINUM DISS.	ANTIMONY DISS.	ARSENIC DISS.	BARIUM DISS.	BERYLLIUM DISS.	BORON DISS.	CADMIUM DISS.	CALCIUM DISS.	CHLORIDE DISS.	CHROMIUM HEX as CR	COBALT DISS.	COPPER DISS.	CYANIDE as Cn	FLUORIDE DISS.	GERMANIUM DISS.	IRON DISS.	IRON TOTAL	LEAD DISS.	MAGNESIUM DISS.	MANGANESE DISS.	MERCURY DISS.	MOLYBDENUM DISS.	NICKEL DISS.	POTASSIUM DISS.	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS.	SODIUM DISS.	ZINC DISS.	VANADIUM DISS.				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
1-9-79																																		
[illegible]																																		
1-25-79																																		
2-2-79																																		
5-9-79																																		
1-3-79																																		
6-11-79			<0.001	0.01		0.080	<0.001			<0.001		0.005				0.072	0.619	<0.001							<0.001		<0.001		0.010					
6-26-79			<0.001	0.040		0.040	<0.001			<0.001		0.001				0.110	0.470	<0.001							<0.001		<0.001		0.006					
7-2-79			<0.001	0.020		0.080	<0.001			<0.001		<0.001				0.080	0.620	<0.001							<0.001		<0.001		0.006					
7-23-79			<0.001	0.013		<0.001	<0.001			<0.001		0.003				0.114	0.310	<0.001							<0.001		<0.001		0.004					

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Zalim mine discharge

DATE	TIME	FLOW (GPM)	TEMPERATURE AIR (°C)	TEMPERATURE WATER (°C)	pH	COLIFORM TOTAL (MPN)	COLIFORM FECAL (MPN)	FECAL STREP (MPN)	C.O.D. (MG/L)	B.O.D. (MG/L)	T.O.C. (MG/L)	DISSOLVED OXYGEN (MG/L)	OIL & GREASE (MG/L)	PHENOL (MG/L)	NITROGEN AMMONIA as NH_3-N (MG/L)	NITROGEN NITRATE as NO_3-N (MG/L)	NITROGEN NITRITE as NO_2-N (MG/L)	NITROGEN TOTAL KJELDAHL (MG/L)	NITROGEN ORGANIC (MG/L)	PHOSPHATE TOTAL as PO_4-P (MG/L)	PHOSPHATE ORTHO as PO_4-P (MG/L)	SULFATE as SO_4 (MG/L)	CHLORIDE as Cl (MG/L)	FLUORIDE as MG/L (MG/L)	SOLIDS TSS (MG/L)	SOLIDS TOTAL DISSOLVED SOLIDS (MG/L)	SOLIDS TDS (MG/L)	SOLIDS TOTAL VOLATILE SOLIDS (MG/L)	SOLIDS TOTAL VOLATILE SOLIDS (MG/L)	COND. (micromhos)	TURBIDITY (FTU)	BICARBONATE ALK. as CO_3 (MG/L)	BICARBONATE ALK. as HCO_3 (MG/L)	TOTAL ALK. as $CaCO_3$ (MG/L)	TOTAL HARDNESS as $CaCO_3$ (MG/L)	ACIDITY as $CaCO_3$ (MG/L)	ALPHA RADIO-ACTIVITY (pCi/L)	BETA RADIO-ACTIVITY (pCi/L)
9-27-77	10:30	0.007	12	10	8.10	14	<2			2.5		7.2	<1.0												14.0		263							218		30.0		
10-12-77	10:45	0.001	10	6	8.2																				15.0		221							226		10.0		
10-26-77	15:15	0.004	12	6	7.8	34	<2.2			2.0		8.4	<1.0												10.0		254							232		20.0		
11-9-77	16:25	0.003	5	9	7.7							7.5													49.0		272							222		20.0		
11-23-77	15:30	0.0004	6	1	7.5	2	<2			1.2		8.4	2.0												6.0		260							214		30.0		
12-14-77	15:40	Dry																																				
12-28-77	08:30	Dry																																				
1-11-78	14:50	Dry																																				
1-25-78	15:00	Dry																																				
2-8-78	13:20	Dry																																				
2-22-78	16:30	Dry																																				
3-8-78	16:00	Dry																																				
3-22-78	15:15	Dry																																				
4-12-78	16:45	Dry																																				
4-26-78	15:20	0.15	6	3	7.3	12	<2			16.0		7.1	15.6												178		208							112		32.0		
5-10-78	14:40	0.27	15	7	7.5							7.6													162		240							104		18.0		
5-24-78	15:30	0.18	8	11	7.6	110	<2			<1.0		7.2	<1.0												158		246							336		14.0		
6-14-78	15:40	0.30	18	13	7.8							6.8													28.0		200							219		14.0		
6-26-78	15:15	0.23	24	12	7.5	330	<20			<1.0			<1.0												6.2		250							220		20.0		

DATE	ALUMINUM TOTAL (MG/L)	ANTIMONY TOTAL (MG/L)	ARSENIC TOTAL (MG/L)	BARIUM TOTAL (MG/L)	BERYLLIUM TOTAL (MG/L)	BORON TOTAL (MG/L)	CADMIUM TOTAL (MG/L)	CALCIUM TOTAL (MG/L)	CHLORINE DISS. (MG/L)	CHROMIUM HEXavalent (MG/L)	COBALT TOTAL (MG/L)	COPPER TOTAL (MG/L)	CYANIDE as CN (MG/L)	FLUORIDE DISS. (MG/L)	MANGANESE TOTAL (MG/L)	IRON DISS. (MG/L)	IRON TOTAL (MG/L)	LEAD TOTAL (MG/L)	MAGNESIUM TOTAL (MG/L)	MERCURY TOTAL (MG/L)	MERCURY TOTAL (MG/L)	MOLYBDENUM TOTAL (MG/L)	NICKEL TOTAL (MG/L)	POTASSIUM TOTAL (MG/L)	SELENIUM TOTAL (MG/L)	SILICA as SiO_2 (MG/L)	SILVER TOTAL (MG/L)	SODIUM TOTAL (MG/L)	ZINC TOTAL (MG/L)	VANADIUM TOTAL (MG/L)				COMMENTS
9-27-77																	0.707								<0.001										
10-12-77																	0.221																		
10-26-77																	0.138								<0.001										
11-9-77																	0.141																		
11-23-77																	0.158								<0.001										
12-14-77																																			
12-28-77																																			
1-11-78																																			
1-25-78																																			
2-8-78																																			
2-22-78																																			
3-8-78																																			
3-22-78																																			
4-12-78																																			
4-26-78																	0.345								0.013										
5-10-78																	0.104																		
5-24-78																	0.014								<0.001										
6-14-78																	0.034																		
6-26-78																	0.040								<0.001										

R 1-78

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Belina mine Discharge

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN NITRATE as NO_3-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFIDE as SO_4	MERCURY as Hg	CYANIDE as CN	SOLIDS TSS	SOLIDS TOTAL DISSOLVED SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND.	TURBIDITY	CHLORIDE ALK. as CO_3	Bi-CARBONATE ALK. as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		GPM	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MICROMHOS	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	PCI/L	PCI/L
7-12-78	15:25	0.06	21	13	7.6							6.3													41.0		274								218		14.0		
7-26-78	15:20	0.03	28	13	8.0	9	<2			12.0		6.7	<1.0												24.0		226								210		18.0		
8-9-78	14:55	0.04	17	15	7.9							6.8													67.0		951			1400					216		16.0		
8-23-78	14:45	0.01	23	12	7.9	33	<2			<1.0		6.9	<1.0									28.0			7.0		273			438					192		20.0		
9-13-78	11:25	0.02	15	10	7.5							6.9													64.0		270								198		26.0		
9-27-78	14:50	0.003	16	9.5	8.2	23	<2			1.3		8.4	<1.0												11.0		280								200		22.0		
10-11-78	15:20	0.009	15	7.5	7.7							7.1													71.0		274			480					204		22.0		
10-25-78	14:15	0.01	4	5	7.0	110	<2			1.7		8.4	<1.0												27.0		270			440					206		12.0		
11-8-78	15:00	-0-																																				
11-21-78	09:30	-0-																																				
12-5-78	14:40	-0-																																				
12-27-78	15:10	-0-																																				
1-10-79		-0-																																				
1-24-79		-0-																																				
2-14-79		-0-																																				
2-28-79	12:30	-0-																																				
3-14-79		-0-																																				
3-28-79		-0-																																				
4-11-79		-0-																																				
4-25-79		-0-																																				

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEX. as CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	MANGANESE TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
7-12-78																	0.045																	
7-26-78																	0.278								<0.001									
8-9-78																	0.196																	
8-23-78																	0.012								<0.001									
9-13-78																	0.019																	
9-27-78																	0.015								<0.001									
10-11-78																	0.172																	
10-25-78																	0.024								<0.001									Ponds under Repair
11-8-78																																		
11-21-78																																		
12-5-78																																		
12-27-78																																		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Belina mine discharge

DATE	TIME	FLOW cfs	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP MPN	C.O.D. mg/L	B.O.D. mg/L	T.O.C. mg/L	DISSOLVED OXYGEN mg/L	OIL & GREASE mg/L	PHENOL mg/L	NITROGEN AMMONIA as NH_3-N mg/L	NITROGEN NITRATE as NO_3-N mg/L	NITROGEN NITRITE as NO_2-N mg/L	NITROGEN TOTAL KJELDAHL mg/L	NITROGEN ORGANIC mg/L	PHOSPHORE TOTAL as PO_4-P mg/L	PHOSPHORE ORTHO as PO_4-P mg/L	SULFIDE as SO_4 mg/L	CHLORIDE as Cl mg/L	FLUORIDE as F mg/L	SOLIDS TDS mg/L	SOLIDS TOTAL SUSPENDED SOLIDS mg/L	SOLIDS T.S.S. mg/L	SOLIDS TOTAL SOLIDS mg/L	SOLIDS TOTAL VOLATILE SOLIDS mg/L	COND. µmhos/cm	TURBIDITY FTU	ALK. as CO_3 mg/L	ALK. as HCO_3 mg/L	TOTAL ALK. as $CaCO_3$ mg/L	TOTAL HARDNESS as $CaCO_3$ mg/L	ACIDITY as $CaCO_3$ mg/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
5-9-79	14:15	0.005	0	1	7.65	<2.0	<2.0			3.7		9.4	1.0												2.0		200							144		1.0		
5-24-79	16:10	0.008	14	10	8.2																				52.0		314							200		17.0		
6-13-79	16:00	0.27	20	13	8.4	11.0	<2.0			2.8		7.3	<1.0												5.0		320			490				248		20.0		
6-27-79	15:30	0.37	22	12	7.75																				5.0		330			520				220		7.0		
7-11-79	9:25	0.09	20	16	9.7	2.0	<2.0			<1.0			<1.0												2.0		300			4900				210		18.0		
7-25-79	15:00	0.36	23	13	7.3																				7.0		240			400				180		8.0		
8-9-79	[illegible]	0.12	23	16.5	7.16	17.0	<2.0			<1.0		6.0	<1.0												3.0		310			430				272		14.0		
8-22-79	15:45	0.03	15	9	7.8																				7.0		200			500				242		13.0		
9-12-79	14:45	0.21			7.6	33.0	5.0			1.5			1.4												64.0		310			480				210		22.0		
9-26-79	16:15	0.18	14	11.5	7.6																				67.0		440			450				214		12.0		
10-9-79	14:30	0.77		6	7.7	490	20.0			<1.0			1.6												4.0		370			450				196		8.0		
10-24-79	16:05	0.18			7.3																				12.0		285			390				204		12.0		
11-14-79	14:52	0.01	1	1	7.58	110	<2.0			<1.0			0.8												<1.0		308			460				210		20.0		
11-27-79	16:00	-0-																																					
12-12-79	09:10	-0-																																					
12-26-79	16:00	-0-																																					
1-9-80	16:00	-0-																																					
1-23-80	15:25	0.002	-6	4	8.7	2.0	<2.0			<1.0			2.4												8.0		310			480				206		18.0		
2-13-80	16:00	-0-																																					
2-27-80	15:00	-0-																																					

DATE	ALUMINUM TOTAL mg/L	ANTIMONY TOTAL mg/L	ARSENIC TOTAL mg/L	BARIUM TOTAL mg/L	BERYLLIUM TOTAL mg/L	BORON TOTAL mg/L	CADMIUM TOTAL mg/L	CALCIUM TOTAL mg/L	CHLORIDE DISS. mg/L	CHROMIUM HEXavalent mg/L	COBALT TOTAL mg/L	COPPER TOTAL mg/L	CYANIDE as CN mg/L	FLUORIDE DISS. mg/L	GERMANIUM TOTAL mg/L	IRON DISS. mg/L	IRON TOTAL mg/L	LEAD TOTAL mg/L	MANGANESE TOTAL mg/L	MANGANESE TOTAL mg/L	MERCURY TOTAL mg/L	MOLYBDENUM TOTAL mg/L	NICKEL TOTAL mg/L	POTASSIUM TOTAL mg/L	SELENIUM TOTAL mg/L	SILICA as SiO_2 mg/L	SILVER TOTAL mg/L	SODIUM TOTAL mg/L	ZINC TOTAL mg/L	VANADIUM TOTAL mg/L				COMMENTS
5-9-79																	0.04			0.012					<0.001										
5-24-79																	1.934																		
6-13-79																	0.015			0.004					<0.001										
6-27-79																	0.046																		
7-11-79																	0.045			0.010					<0.001										
7-25-79																	0.210																		
8-9-79																	0.09			0.002					<0.001										
8-22-79																	0.590																		
9-12-79																	0.57			0.004					0.001										
9-26-79																	1.290																		
10-9-79																	0.55			0.071					<0.001										
10-24-79																	0.580			0.445															
11-14-79																	0.440			0.008					<0.001										
11-27-79																																			
12-12-79																																			
12-26-79																																			
1-9-80																																			
1-23-80																	0.450			0.010					<0.001										
2-13-80																																			
2-27-80																																			

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Belina Mine Discharge

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHORUS TOTAL as PO_4-P	PHOSPHORUS ORTHO as PO_4-P	SULFATE as SO_4	CHLORIDE as Cl	FLUORIDE as F	SOLIDS TDS	SOLIDS TOTAL DISSOLVED SOLIDS	SOLIDS TSS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND.	TURBIDITY	ALK. as CO_3	ALK. as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	UMHOS	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	PCI/L	PCI/L
3-12-80	15:30	-0-																																				
3-26-80	16:00	-0-																																				
4-9-80		-0-																																				
4-23-80		-0-																																				
5-14-80		-0-																																				
5-28-80		-0-																																				
6-11-80		-0-																																				
6-25-80		-0-																																				
7-1-80	10:00				8.0	49.0	23.0			96.0			654												74.0		315			450				180		<0.1		
7-24-80	15:15	0.045	18	15	7.2					8.3			2.00												10.0		308			480				202		4.0		
8-12-80	12:32	0.04	23	12	8.0	7.0	2.0			<1.0			0.20												4.0		280			500				216		10.0		
8-27-80	16:00	0.116	19.5	14	8.2																				41.0		245			525				214		14.0		
9-10-80	13:55	0.13			7.6	1700	49.0			5.0			<0.10												84.0		254			390				186		4.0		
9-24-80	15:30	0.29	13	10	7.4																				32.0		328			490				216		<1.0		
10-9-80	16:05	0.21	19	13	7.6	79.0	2.0			14.5			0.20												6.0		311			445				216		6.0		
10-22-80	15:40	0.29	2	9	7.6																				6.0		310			440				200		8.0		
11-12-80	15:10	0.33	3	6	7.3	190	<2.0			3.6			5.0												2.0		860			1320				200		6.0		
11-26-80	15:30	0.27	-5	4	7.2																				32.0		390			590				256		20.0		
12-11-80	14:20	0.002	2	3	7.7	5.0	<2.0			4.6			3.0												6.0		380			550				262		22.0		
12-24-80	12:40	0.6	3	3	7.6																				23.0		490			700				254		<0.1		

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEXAVALENT	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	IRON TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MANGANESE TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
3-12-80																															
3-26-80																															
4-9-80																															
4-23-80																															
5-14-80																															
5-28-80																															
6-11-80																															
6-25-80																															
7-1-80															2.390	0.004		0.020													Collected by Valley Cons personnel
7-24-80															0.180			0.002							<0.001						
8-12-80															0.110			<0.010							<0.001						Composite sampler used. Grab
8-27-80															0.150																
9-10-80															0.160			0.010							<0.001						
9-24-80															0.158																
10-9-80															0.250			0.010							<0.001						
10-22-80															0.166																
11-12-80															0.230			0.010							<0.001						
11-26-80															0.228																
12-11-80															0.185			0.011							<0.001						
12-24-80															0.225																

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Belina Mine Discharge

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
1-14-81	16:21	0.4	-2	5	7.4	79.0	<2.0			16.0			1.20	
1-28-81		-0-												
2-11-81		-0-												
2-25-81	15:25	0.07	-2	4		27.0	<2.0			8.5			1.00	
3-11-81	14:00	0.101	-2	3	7.7									
3-25-81	14:40	0.01	5	3	7.8	17.0	<2.0			23.0			0.10	
4-8-81	14:48	0.07	6	5	8.0									
4-22-81	15:30	0.06			8.0	79.0	<2			40.0			<1.0	
4-27-81		Pond			7.4	230	<2			76.0			10.1	
4-28-81		Pond			7.7	330	<2			64.0			9.3	
4-30-81		Pond			7.8	170	<2			61.0			3.2	
5-13-81	16:30	Pond	15	19										
5-27-81	15:30	0.06				23.0	<2			160			0.20	
6-10-81	15:40	Pond	26	21	8.4									
6-24-81	16:00	0.05	27	"	8.1								1.60	
7-8-81	16:30	0.04			8.1	4.0	2.0			5.3			<0.01	
7-22-81	14:50	0.02	17	12	8.0									
8-12-81	15:20					Pond under remodeling no discharge								
8-26-81	14:50	0.04	20	20	8.4									
9-9-81	14:45	0.12	14	12	7.0								1.80	

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	CHLORIDE as Cl	FLUORIDE as F
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
1-14-81										
1-28-81										
2-11-81										
2-25-81										
3-11-81										
3-25-81										
4-8-81										
4-22-81										
4-27-81										
4-28-81										
4-30-81										
5-13-81										
5-27-81										
6-10-81										
6-24-81										
7-8-81										
7-22-81										
8-12-81										
8-26-81										
9-9-81										

DATE	SOLIDS TSS	SOLIDS TOTAL DISSOLVED SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	µMHOS	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	PC/L	PC/L
1-14-81	14.0		365			450				250		4.0		
1-28-81														
2-11-81														
2-25-81	20.0		315							240		<0.1		
3-11-81	5.0		280			276				230		8.0		
3-25-81	54.0		330			560				118		6.0		
4-8-81	3.0		280			480				220		12.0		
4-22-81	154		295			450				212		10.0		
4-27-81			370							120		3.74		
4-28-81			350							108		1.87		
4-30-81			405							126		1.87		
5-13-81	27.0		293							190		<0.01		
5-27-81	10.0		330							208		32.00		
6-10-81	22.0		425			580				126		<0.01		
6-24-81	12.0		420			400				192		3.20		
7-8-81	10.0		480			750				194		<0.01		
7-22-81	1.0		380			540				198		<0.01		
8-12-81														
8-26-81	2.0		350			445				192		1.80		
9-9-81	35.0		345			355				164		<0.01		

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEXAVALENT	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
1-14-81														
1-28-81														
2-11-81														
2-25-81														
3-11-81														
3-25-81														
4-8-81														
4-22-81														
4-27-81														
4-28-81														
4-30-81														
5-13-81														
5-27-81														
6-10-81														
6-24-81														
7-8-81														
7-22-81														
8-12-81														
8-26-81														
9-9-81														

DATE	MANGANESE TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	MERCURY TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
1-14-81			0.180				0.022				<0.001						Grab Samples
1-28-81																	
2-11-81																	
2-25-81			0.120				0.020				0.001						
3-11-81			0.050														
3-25-81			3.240								0.002						
4-8-81			0.147														Grab Sample
4-22-81			4.600				0.090				0.002						
4-27-81		1.060															
4-28-81		0.630															
4-30-81		1.100															
5-13-81			3.450														Grab
5-27-81			0.170								<0.001						
6-10-81			2.500														
6-24-81			0.040								0.002						
7-8-81			0.050								0.001						
7-22-81			0.166														
8-12-81																	
8-26-81			0.130								0.004						
9-9-81			0.150								<.005						

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Belina Mine Discharge

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	SULFIDE as S MG/L	CYANIDE as CN MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL DISSOLVED SOLIDS MG/L	SOLIDS T.S.S. MG/L	SOLIDS TOTAL DISSOLVED SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as $CaCO_3$ MG/L	BI-CARBONATE ALK. as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
6-23-81	14:21	0.02	18	12	8.0																				1.0		376			382				194		<0.01		
10-14-81	14:25	0.03	1	4	8.0	700	5			2.4			78.60												16.0		330			500				199.10		<0.01		
10-28-81	14:30	0.02	13	5	8.1																				4.0		325			236				168.50		<0.01		
11-11-81	13:23	0.003	4	4	7.5								1.40												5.0		370			320				152.40		<0.01		
11-25-81	13:00	0.004	-3	2	7.2																				1.0		335			340				196.30		<0.01		
12-9-81	11:50	0.002	4	1									0.20												23.0		385			260				168.80		8.00		
12-23-81	13:23	0.004	-10	1	7.7																				3.0		375			305				183.65		2.00		
1-13-82	13:00	-0-																																					
1-27-82		-0-																																					
2-10-82		-0-																																					
2-24-82	13:10	-0-																																					
3-10-82	15:00	0.07	3	1	9.5	2.0	<2.0			1.5			<1.0												2.0		500			729				196.80		4.00		
3-24-82		-0-																																					
4-14-82	14:00	0.04	11	3	7.7	7.0	<2.0			6.8			<1.0									51.0			2.0		340			510				134.10		6.00		
4-28-82		-0-																																					
5-12-82		-0-																																					
5-26-82	14:30	0.21	19	6	7.1								<1.0												1.0		610			659				147.90		10.00		
6-9-82	14:00	0.16	15	11	7.4								<1.0												44.00		490			448				398.50		8.00		
6-23-82	15:20	0.53			7.7																				217		415			640				48.50		4.00		

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEXavCR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	MANGANESE TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
7-23-81																	0.188																	
10-14-81																	0.210							<0.001										
10-28-81																	0.166																	
11-25-81																	0.195							<0.001										
12-9-81																	0.155																	Grab Sample
12-23-81																	0.120							0.002										
1-13-82																	0.130																	Grab Sample
1-27-82																																		Trevor Whiteside
2-10-82																																		Trevor Whiteside
2-24-82																																		Trevor Whiteside
3-10-82																	0.050							<0.001										Grab Sample
3-24-82																																		Trevor Whiteside
4-14-82																	0.117							<0.001										Grab Sample
4-28-82																																		Trevor Whiteside
5-12-82																																		Trevor Whiteside
5-26-82																	0.120							<0.001										
6-9-82																	0.090							<0.001										
6-23-82																	2.550																	

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Belina Mine Discharge

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.B.O.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	MERCURY as Hg	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	SPECIFIC CONDUCTANCE	TURBIDITY	HARDNESS AS $CaCO_3$	HARDNESS AS HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µmhos	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	PCi/L	PCi/L
7-14-82	14:30	0.5	24	14	7.5	49.0	49.0			47.0			2.0												50.0		430			730				264.30		7.00		
7-29-82	14:40	0.02	22	14	7.8																				1.0		422			581				246.70		3.00		
8-8-82	16:15	0.02	14	11	8.0								0.8												5.0		480			571				292.50		2.00		
8-25-82	14:25	0.02			7.9																				1.0		418			640				181.30		<0.01		
9-9-82	14:55	0.16	22	9	8.1								0.4												23.0		362			577				232.50		1.00		
9-22-82	14:30	-0-																																				
10-13-82	14:50	-0-																																				
10-27-82	11:48	0.01	1	2	7.7								<0.1												460	<0.1	382			820								
11-10-82	14:00	-0-	Inaccessible			Road	Closed		Snow																													
11-19-82		0.16			7.9								<0.1												48.0		610											
12-8-82					7.9								<0.1												1.0		462			700								
12-27-82	12:35	0.08	4	3	8.1								<0.1												<0.1		432											
1-27-83		0.06			7.6								<0.1												56.0		468											
2-21-83	12:55	0.06	6	3	7.5								0.2												47.0		402											
2-25-83					7.5																				42.0		448											
3-18-83					7.2								0.8												7.0		348											
4-13-83					7.3								<0.2												22.0		378											
4-21-83	11:43	0.08			8.1								<0.2												58.0		356			445								
4-27-83					7.60								2.00												53.0		260											
5-25-83					7.80								0.4												106		248											

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEX as CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MANGANESE TOTAL	MAGNESIUM TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
7-14-82																	0.820								<0.001									
7-29-82																	0.050																	
8-8-82																	0.318								0.004									Grab Sample
8-25-82																	0.010																	
9-9-82																	0.914								0.005									Grab Sample
9-22-82																																		Road under Repair
10-13-82																																		Road under Repair
10-27-82																	0.018																	Below lower pond
11-10-82																																		
11-24-82																	1.17																	Collected by Valley Construction Co
12-8-82																	0.090																	Collected by Valley Camp
12-27-82																	0.270																	
1-27-83																	0.280																	
2-21-83																	3.660																	
2-25-83																	0.310																	
3-18-83																	0.360																	
4-13-83																	0.380																	
4-21-83																	2.670																	Thawing - Storm Runoff
4-27-83																	0.200																	
5-25-83																	3.950																	

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-001
Location Belina Mine Discharge

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
6-8-83					7.80								<0.1	
6-8-83					7.80								<0.1	
6-9-83					8.00								<0.1	
6-21-83	15:50	0.9	20	12	7.3								<0.1	
8-25-83	14:10	0.14	19	16	7.4								<0.1	
9-12-83	17:32	0.99	21	14	8.1								1.2	
10-19-83	16:51	0.29	7	8	7.4								<0.2	

DATE	NITROGEN AMMONIA as NH_3-N	NITRATE as NO_3-N	NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHORUS TOTAL as PO_4-P	PHOSPHORUS ORTHO as PO_4-P	SULFATE as SO_4	CHLORIDE as Cl	FLUORIDE as F	SOLIDS TSS	SOLIDS TOTAL DISSOLVED SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SUSPENDED SOLIDS	SOLIDS TOTAL VOLATILE SUSPENDED SOLIDS	SPECIFIC COND.	TURBIDITY	HARDNESS ALK. as CO_3	HARDNESS ALK. as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µmhos	NTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
6-8-83											56.0		532											
6-8-83											77.0		528											
6-9-83											44.0		504											
6-21-83											123		836			523								
8-25-83											85.0		832			605								
9-12-83											46.0		454			590								
10-19-83											43.0		360			510								

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORINE DISS.	CHROMIUM $HEXa_{ent}$ CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	PORTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
6-8-83																	2.350																
6-8-83																	1.750																
6-9-83																	1.650																
6-21-83																	1.650																
8-25-83																	1.590																
9-12-83																	0.260																
10-19-83																	0.390																

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-002
Location Utah #2 mine discharge

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
[illegible]	[illegible]	1	[illegible]	12	[illegible]	330	[illegible]			1.5		7.9	[illegible]	
[illegible]	[illegible]	[illegible]	6	8	7.5									
[illegible]	16:00	0.7	18	12	[illegible]	27	<2.2			3.5		9.6	[illegible]	
[illegible]	[illegible]	0.4	-4	10	7.6							6.5		
[illegible]	14:35	1.3	-2	6	7.2	[illegible]	2			1.5		8.4	[illegible]	
[illegible]	15:30	0.5			7.55									
[illegible]	14:00	1.7	2	7	[illegible]	270	<2			2.9		[illegible]	3.0	
[illegible]	13:30	0.1	2	0	7.8							7.6		
[illegible]	15:25	[illegible]	-5	7	7.9	270	<2			<1.0		7.4	[illegible]	
[illegible]	13:50	[illegible]	1	7	7.6							8.4		
[illegible]	7:00					33	<2						[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	12	7.8							7.3		
[illegible]	14:20	0.02	7	11	7.5	49	<2			1.9		10.0	5.9	
[illegible]	[illegible]	[illegible]		9	7.3							7.3		
[illegible]	14:30	[illegible]												
[illegible]	15:30	[illegible]												

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										
[illegible]										

DATE	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
[illegible]	3.5		365							[illegible]		[illegible]		
[illegible]	18.0		319							[illegible]		[illegible]		
[illegible]	22.0		[illegible]							[illegible]		[illegible]		
[illegible]	18.0		1770							[illegible]		[illegible]		
[illegible]	2.0		567							[illegible]		[illegible]		
[illegible]	8.0		598							[illegible]		[illegible]		
[illegible]	54.0		640							[illegible]		[illegible]		
[illegible]	15.0		530							[illegible]		[illegible]		
[illegible]	16.0		300							[illegible]		[illegible]		
[illegible]	2.0		570							300		[illegible]		
[illegible]	11.0		445							370		[illegible]		
[illegible]	10.0		328							310		52.0		
[illegible]	47.0		406							306		16.0		
[illegible]	[illegible]		[illegible]							[illegible]		[illegible]		
[illegible]														
[illegible]														

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEX. or CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														
[illegible]														

DATE	GERMANIUM TOTAL	IRON DISS	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
[illegible]			0.126								<0.001					
[illegible]			0.156													
[illegible]			0.134								<0.001					
[illegible]			0.259													
[illegible]			0.149								<0.001					
[illegible]			0.271													
[illegible]			1.558								<0.001					
[illegible]			0.507													
[illegible]			0.613								<0.001					
[illegible]			[illegible]													
[illegible]			[illegible]								<0.001					
[illegible]			[illegible]													
[illegible]			0.070								<0.001					
[illegible]			[illegible]													
[illegible]																
[illegible]																

COMMENTS: [illegible]

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-3
Location Clarified Mine Water

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3+NH_4 MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK. as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
12-26-75					7.54											0.02				0.02		44.0					404.0			920.0	0.62	<0.01	407.48	334.0	388.0		
1-26-76	15:20		-1.0	6.5	7.5				14.0		10.0	7.6	<1.0			0.133				0.06	0.02	98.0	<0.01		63.0		520			790	0.20	<0.01	307.4	252	314		
3-8-76	10:05		-2.0	8.0	7.8				4.8		19.0	7.7				0.085				0.160	0.120	30.0	<0.01		27.5		509			920	2.0	<0.01	424.5	348	356		
4-27-76	12:30	1	10	11	7.7				9.0		13.0	7.2	<1.0			0.090				0.170	0.150	62.0	<0.01		58.0		540			830	0.35	<0.01	351	288	310		
5-27-76	14:45	1	25	15.5	7.5					5.0		7.3				0.045				0.093	0.090	69.0	<0.01		3.0	<0.1	590			900	1.20	<0.01	377.2	310	330		
6-4-76	11:25	0.6	[illegible]	11	7.8				6.0	1.5	10.0	6.1	<1.0			0.05				0.170	0.160	46.0	<0.01		18.2		600			920	1.80	<0.01	415.3	338	346		
7-2-76	12:30		17	14	7.7				9.0		9.0	7.4	<1.0			1.05				0.170	0.099	25.3	<0.01		16.0		590			900	3.50	<0.01	417.2	342	348.5		
8-30-76	12:55	1	23	13	7.3				7.0		9.5	8.0	1.9			0.04				0.160	0.095	70.0	<0.01		25.0		490			750	5.40	<0.01	290.4	238	314.2		
10-27-76	11:05		3	9	7.3				2.0		1.5	8.2	<1.0			0.02				0.145	0.080	17.9	<0.01		41.0		530			810	14.00	<0.01	387.9	318	310		
11-29-76	14:48		0	10	6.9				8.0		6.5	8.1	3.0			0.04				0.150	0.095	20.4	<0.01		16.0		550			840	6.00	<0.01	400.2	328	280		
12-28-76	11:15	3.3	4	9	7.6				14.0		12.0	7.5	2.9			0.04 for 0.056				0.160	0.088 for 0.10	24.0	<0.01		5.0		530			810	3.1	<0.01	383.1	314	302		

DATE	ALUMINUM DISS MG/L	ANTIMONY DISS MG/L	ARSENIC DISS MG/L	BARIUM DISS MG/L	BERYLLIUM DISS MG/L	BORON DISS MG/L	CADMIUM DISS MG/L	CALCIUM DISS MG/L	CHLORIDE DISS MG/L	CHROMIUM HEX as CR MG/L	COBALT DISS MG/L	COPPER DISS MG/L	CYANIDE as Cn MG/L	FLUORIDE DISS MG/L	GERMANIUM DISS MG/L	IRON DISS MG/L	IRON TOTAL MG/L	LEAD DISS MG/L	MAGNESAN DISS MG/L	MANGANESE DISS MG/L	MERCURY DISS MG/L	MOLYBDENUM DISS MG/L	NICKEL DISS MG/L	POTASSIUM DISS MG/L	SELENIUM DISS MG/L	SILICA as SiO_2 MG/L	SILVER DISS MG/L	SODIUM DISS MG/L	ZINC DISS MG/L	VANADIUM DISS MG/L	COMMENTS
12-26-75	<0.01		<0.001	0.15		<0.01	<0.001	97.6	10.0	<0.01		<0.01	<0.01	0.32		0.014	0.025	<0.001	34.56	<0.01	<0.001			3.56	<0.01	1.05	<0.001	4.20	0.006		
1-26-76	0.020	<0.001	<0.001	0.093	<0.001	<0.001	<0.001	54.4	10.0	<0.001	<0.001	0.014		0.33	0.048		0.149	0.014	42.70	0.023	<0.0001	0.006	<0.001	2.27	0.050		<0.001	18.0	0.044	<0.001	
3-8-76	0.024	<0.001	<0.001	0.095	<0.001	<0.001	<0.001	55.6	9.0	<0.001	<0.001	0.012		0.55	0.044		0.156	0.013	54.08	0.022	<0.0001	0.004	<0.001	3.03	0.009		<0.001	15.0	0.032	<0.001	
4-27-76	0.020	<0.001	<0.001	0.068	<0.001	<0.001	<0.001	72.8	8.0	<0.001	<0.001	0.009		0.37	<0.001		0.183	0.013	37.44	0.020	<0.0001	<0.001	<0.001	3.93	0.011		<0.001	10.9	0.025	<0.001	
5-27-76	0.015	<0.001	0.025	0.050	<0.001	<0.001	<0.001	69.6	12.0	<0.001	<0.001	0.008		0.29	<0.001		0.170	0.009	37.44	0.059	<0.001	<0.001	<0.001	3.71	0.042		<0.001	29.0	0.030	<0.001	
6-4-76	0.021	<0.001	<0.001	0.050	<0.001	<0.001	<0.001	81.6	6.0	<0.001	<0.001	0.003		0.34	<0.001		0.200	0.006	34.08	0.022	<0.0002	<0.001	<0.001	3.25	0.019		<0.001	20.0	0.025	<0.001	
9-7-76	0.024		<0.001	0.066				92.0	14.0			0.005		0.50	<0.001		0.268	0.005	35.0	0.020	<0.0002	<0.001	<0.001	3.61	0.015			15.0	0.018		
9-30-76	0.010		<0.001	0.030				86.7	12.0			0.003		0.43	<0.001		0.260	<0.001	25.00	0.016	<0.0002	<0.001	<0.001	3.51	0.011			5.99	0.020		
10-27-76	0.007		<0.001	0.029				52.0	10.0			0.005		0.24	<0.001		0.225	<0.001	43.2	0.009	<0.0002	<0.001	<0.001	3.19	<0.001			17.0	0.021		
11-29-76	0.004		<0.001	0.025				52.0	8.0			0.005		0.24	<0.001		0.177	<0.001	36.0	0.012	<0.0002	<0.001	<0.001	4.08	<0.001			32.00	0.007		
12-28-76	0.005		<0.001	0.016				64.0	8.0			0.007		0.22	<0.001		0.116	<0.001	34.0	0.011	<0.0002	<0.001	<0.001	3.10	<0.001			20.0	0.016		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-3
Location Cleasified mine water

DATE	TIME	FLOW	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	CHLORINE TOTAL MG/L	CHLORINE RESID. MG/L	RESID. STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	CHLORIDE as Cl MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL DISSOLVED SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µmhos	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK. as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
3-17-77	13:45		0	11	7.5				6.0		5.0	8.8	2.8		0.28	0.09	<0.01	0.50		0.077	0.038	30.0	<0.01		46.0	<0.1	490			750	25.0	<0.01	351.4	288	306			
6-14-77	11:10		21	13	7.3				5.0		2.0	7.1	1.9	0.120	0.14	0.02		0.50		0.038	0.0116	8.0	<0.01		5.0	2.0	330			510	0.65	<0.01	378.2	310	306		0	0

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEXavCR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MANGANESE TOTAL MG/L	MOLYBDENUM TOTAL MG/L	MERCURY TOTAL MG/L	SELENIUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
3-17-77	0.013		<0.001	0.014		0.005	<0.001	66.4	4.0	<0.001		0.002		0.21			0.049	<0.001	33.60	0.010	<0.0002		<0.001	2.57	<0.001	7.3	<0.001	6.90	0.013					Light snow
6-14-77	0.004	<0.001	<0.001	0.019	<0.001	0.045	<0.001	72.8	14.0	<0.001	<0.001	0.005	<0.01	0.29	<0.001		0.329	<0.001	29.76	0.014	<0.0002	<0.001	<0.001	3.11	<0.001	7.60	<0.001	13.50	0.015	<0.001					

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station: VC-3A
Location: Mine Water

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L
8-26-75					7.57									
12-26-75					7.35									
1-26-76	15:20	4.0	-1.0	3.5	8.0				16.0		14.0	8.2	<1.0	
4-27-76	15:20	2	10	11	7.5				34.0		38.0	6.8	<1.0	
5-27-76	14:30	1.4	25	11.5	7.4					7.0		7.7		
6-17-76	11:25	1.2	3	11	7.7				53.0	11.5	30.0	5.9	<1.0	
8-2-76	12:30	-0-												
9-20-76	12:45	2.5	23	13	7.6				28.0		35.0	8.2	2.3	
10-27-76	11:00	2	0	11	7.7				24.0		20.0	8.4	3.16	
11-29-76	11:40	1.8	-1	10	6.8				38.0		26.0	8.0	3.9	
12-28-76	11:05	4	4	11	7.7				36.0		33.0	7.5	2.5	

DATE	NITROGEN AMMONIA as NH3-N MG/L	NITROGEN NITRATE as NO3-N MG/L	NITROGEN NITRITE as NO2-N MG/L	NITROGEN TOTAL KJELDHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO4-P MG/L	PHOSPHATE ORTHO as PO4-P MG/L	SULFATE as SO4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as CO3 MG/L	BI-CARBONATE ALK. as HCO3 MG/L	TOTAL ALK. as CaCO3 MG/L	TOTAL HARDNESS as CaCO3 MG/L	ALPHA RADIO-ACTIVITY pC/L	BETA RADIO-ACTIVITY pC/L
8-26-75		0.12				0.05		126.50					394.0			1220	2.70	<0.01	475.10	392.0	520.0		
12-26-75		0.11				0.05		58.0					633.0			970.0	2.73	<0.01	609.9	336.0	400.0		
1-26-76		0.130				0.08	0.03	90	<0.01		1024.0		515			790	0.19	<0.01	297.6	244	296		
4-27-76		0.050				0.090	0.070	46.0	<0.01		110		540			820	2.00	<0.01	366	300	308		
5-27-76		0.065				0.195	0.155	56.0	<0.01		53.0	<0.1	435			960	4.10	<0.01	412.3	338	344		
6-17-76		0.010				0.120	0.090	46.0	<0.01		256		590			900	68.40	<0.01	414.8	340	344		
8-2-76																							
9-20-76		0.05				0.130	0.095	25.0	<0.01		47.0		530			810	21.00	<0.01	375.8	308	335.4		
10-27-76		0.04				0.120	0.090	20.4	<0.01		86.0		525			800	22.00	<0.01	390.4	320	306		
11-29-76		0.05				0.140	0.100	19.1	<0.01		81.0		570			870	0.62	<0.01	427.0	350	300		
12-28-76		0.08				0.180	0.050	24.0	<0.01		44.0		520			800	23.0	<0.01	375.7	308	332		
		Avg 0.08					Avg 0.085																

DATE	ALUMINUM DISS MG/L	ANTIMONY DISS MG/L	ARSENIC DISS. MG/L	BARIUM DISS MG/L	BERYLLIUM DISS MG/L	BORON DISS. MG/L	CADMIUM DISS MG/L	CALCIUM DISS. MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEX as Cr MG/L	COBALT DISS MG/L	COPPER DISS MG/L	CYANIDE as Cn MG/L	FLUORIDE DISS. MG/L
8-26-75	<0.01		<0.01	<0.01		<0.01	<0.001	1560	10.0	<0.01		<0.01	<0.01	0.32
12-26-75	<0.01		<0.001	0.11		<0.01	<0.001	95.2	15.0	<0.01		<0.01	<0.01	0.27
1-26-76	0.021	<0.001	<0.001	0.100	<0.001	<0.001	<0.001	55.2	12.0	<0.001	<0.001	0.010		0.30
4-27-76	0.064	<0.001	0.003	0.051	<0.001	<0.001	<0.001	56.9	8.0	<0.001	<0.001	0.009		0.27
5-27-76	0.020	<0.001	<0.001	0.080	<0.001	<0.001	<0.001	82.4	10.0	<0.001	<0.001	0.010		0.35
6-14-76	0.044	<0.001	0.022	0.040	<0.001	<0.001	<0.001	56.0	6.0	<0.001	<0.001	0.004		0.32
8-2-76														
9-30-76	0.026		0.003	0.041				93.5	12.0			0.002		0.25
10-27-76	0.008		<0.001	0.024				51.2	6.0			0.003		0.19
11-29-76	0.009		<0.001	0.023				36.0	8.0			0.004		0.20
12-28-76	0.010		<0.001	0.016				71.2	10.0			0.005		0.21

DATE	GERMANIUM DISS MG/L	IRON DISS MG/L	IRON TOTAL MG/L	LEAD DISS MG/L	MAGNESIUM DISS MG/L	MANGANESE DISS MG/L	MERCURY DISS MG/L	MOLYBDENUM DISS MG/L	NICKEL DISS. MG/L	POTASSIUM DISS. MG/L	SELENIUM DISS. MG/L	SILICA as SiO_2 MG/L	SILVER DISS. MG/L	SODIUM DISS. MG/L	ZINC DISS. MG/L	VANADIUM DISS MG/L	COMMENTS
8-26-75		0.10	0.15	<0.01	49.44	<0.01	<0.001			3.53	<0.01	3.25	<0.001	6.39	0.08		
12-26-75		0.012	0.025	<0.001	38.88	<0.01	<0.001			3.16	<0.01	3.00	<0.001	15.0	0.009		
1-26-76	0.027		3.094	0.008	37.9	0.016	<0.0001	0.002	<0.001	2.95	0.012		<0.001	24.2	0.012	<0.001	
4-27-76	<0.001		0.374	0.002	39.84	0.063	<0.0001	0.006	0.007	4.18	0.050		<0.001	21.0	0.097	<0.001	
5-27-76	<0.001		0.195	0.012	33.12	0.022	<0.0001	<0.001	<0.001	2.36	0.015		<0.001	30.0	0.037	<0.001	
6-14-76	<0.001		0.380	<0.001	48.90	0.045	<0.0002	0.004	0.002	2.57	0.054		<0.001	22.0	0.073	<0.001	
8-2-76																	
9-30-76	<0.001		0.266	<0.001	24.80	0.030	<0.0002	<0.001	<0.001	3.37	0.023			5.96	0.080		
10-27-76	<0.001		0.288	<0.001	42.7	0.029	<0.0002	<0.001	<0.001	3.19	<0.001			16.0	0.064		
11-29-76	<0.001		0.244	<0.001	50.4	0.019	<0.0002	<0.001	<0.001	4.26	<0.001			30.0	0.009		
12-28-76	<0.001		0.260	<0.001	36.9	0.018	<0.0002	<0.001	<0.001	3.09	<0.001			6.1	0.074		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station YC-3A
Location Utah #3 mine waste water

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	CHLORIDE as Cl	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND.	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	μMHOS	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
3-17-77	12:25	1.3	0	11	7.5				24.0		16.0	8.6	3.3		0.055	0.10	<0.01	0.90		0.110	0.080	27.0	<0.01		146	<0.01	510			780	55.0	<0.01	370.9	304	326			
6-16-77	15:50	2	21	13	7.5				6.0		4.0	7.9	3.5	0.004	0.15	0.03		0.38		0.033	0.010	20.50	<0.01		12.0	0.2	320			520	1.20	<0.01	370.9	304	322		0	0
6-14-78	15:55	1	20	4								9.4																											

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEXav CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
3-17-77	0.018		<0.001	0.087		0.024	<0.001	71.2	6.0	<0.001		0.003		0.22			0.095	<0.001	35.37	0.016	<0.0002		0.002	2.97	<0.001	8.1	<0.001	6.72	0.033					
6-16-77	0.009	<0.001	<0.001	0.011	<0.001	0.015	<0.001	68.0	10.0	<0.001	<0.001	0.003	<0.01	0.29	<0.001		0.171	<0.001	36.48	0.004	<0.0002	<0.001	<0.001	3.15	<0.001	7.8	<0.001	7.52	0.036	<0.001				
6-14-78																																		

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-6
Location Upper Eccles Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	TOC	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
6-1-76	5:00	3.7	8	7	8.3							6.9		
7-2-76	11:30	1.7	24	12	8.1							8.4		
9-30-76	14:10	1	18	9	7.6				2.0		2.5	9.6	<1.0	
10-27-76	11:45	1.7	4	2	7.7				6.0		4.0	10.0		
11-29-76	15:30	1	-5	1	7.4				4.0		1.5	9.5	<1.0	
12-28-76	12:00	0.6	-4	2.5	7.6				14.0		10.0	8.8	<1.0	

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
6-1-76								38.0	<1.1				350			520	2.50	<0.01	[illegible]	188	220		
7-2-76		0.09				0.220	0.150	25.3	<0.01				430			660	13.0	<0.01	302.5	248	261.1		
9-30-76		0.05				0.175	0.055	25.0	<0.01		2.0		540			830	2.00	<0.01	323.3	306	259.1		
10-27-76								21.4	<0.01		10.0		470			720	2.10	<0.01	339.2	278	276		
11-29-76		0.12				0.080	0.030	32.6	<0.01		9.0		470			720	0.39	<0.01	399.2	278	308		
12-28-76		0.19				0.070	0.035	33.5	<0.01		5.0		460			700	1.9	<0.01	324.5	266	286		

DATE	ALUMINUM DISS.	ANTIMONY DISS.	ARSENIC DISS.	BARIUM DISS.	BERYLLIUM DISS.	BORON DISS.	CADMIUM DISS.	CALCIUM DISS.	CHLORIDE DISS.	CHROMIUM HEX. as CR	COBALT DISS.	COPPER DISS.	CYANIDE as Cn	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
6-1-76								56.8	2.5					0.27
7-2-76	0.007	<0.001	<0.001	0.019	<0.001	<0.001	<0.001	70.0	8.0	<0.001	<0.001	0.079		0.34
9-30-76	0.005	<0.001	<0.001	0.040	<0.001	<0.001	<0.001	77.4	12.0	<0.001	<0.001	0.006		0.25
10-27-76								84.0	4.0					0.19
11-29-76	0.006	<0.001	<0.001	0.012	<0.001	<0.001	<0.001	44.8	6.0	<0.001	0.005	0.002		0.18
12-28-76	0.005	<0.001	<0.001	0.013	<0.001	<0.001	<0.001	70.4	2.0	<0.001	0.006	0.009		0.15

DATE	GERMANIUM DISS.	IRON DISS.	IRON TOTAL	LEAD DISS.	MAGNESIUM DISS.	MANGANESE DISS.	MERCURY DISS.	MOLYBDENUM DISS.	NICKEL DISS.	POTASSIUM DISS.	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS.	SODIUM DISS.	ZINC DISS.	VANADIUM DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
6-1-76					18.72					1.28				4.18		
7-2-76	<0.001		0.364	<0.001	21.0	0.190	<0.0002	<0.001	<0.001	2.24	0.005		<0.001	4.00	0.032	<0.001
9-30-76	<0.001		0.055	<0.001	16.0	<0.001	<0.0002	<0.001	<0.001	2.11	<0.001	6.20	<0.001	39.0	0.028	<0.001
10-27-76					15.8					1.94		6.0		12.0		
11-29-76	<0.001		0.338	<0.001	47.0	0.011	<0.0002	<0.001	<0.001	2.75	<0.001		<0.001	3.80	0.022	<0.001
12-28-76	<0.001		0.380	<0.001	26.4	0.012	<0.0002	<0.001	<0.001	2.23	<0.001	6.0	<0.001	6.0	0.059	<0.001

COMMENTS

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station YC-6
Location Upper Eagle River

Coastal States Station

DATE	TIME	FLOW (CFS)	TEMPERATURE AIR (°C)	TEMPERATURE WATER (°C)	pH	COLIFORM TOTAL (MPN)	COLIFORM FECAL (MPN)	FECAL STREP. (MPN)	C.O.D. (MG/L)	B.O.D. (MG/L)	T.O.C. (MG/L)	DISSOLVED OXYGEN (MG/L)	OIL & GREASE (MG/L)	PHENOL (MG/L)	NITROGEN AMMONIA as NH3-N (MG/L)	NITROGEN NITRATE as NO3-N (MG/L)	NITROGEN NITRITE as NO2-N (MG/L)	NITROGEN TOTAL KJELDAHL (MG/L)	NITROGEN ORGANIC (MG/L)	PHOSPHATE TOTAL as PO4-P (MG/L)	PHOSPHATE ORTHO as PO4-P (MG/L)	SULFATE as SO4 (MG/L)	HYDROXIDE as OH (MG/L)	SURFACTANT as MBAS (MG/L)	SOLIDS TSS (MG/L)	SOLIDS TOTAL SETTLEABLE SOLIDS (ML/L)	SOLIDS T.D.S. (MG/L)	SOLIDS TOTAL SOLIDS (MG/L)	SOLIDS TOTAL VOLATILE SOLIDS (MG/L)	COND (µmhos)	TURBIDITY (FTU)	CARBONATE ALK. as CO3 (MG/L)	BI-CARBONATE ALK as HCO3 (MG/L)	TOTAL ALK. as CaCO3 (MG/L)	TOTAL HARDNESS as CaCO3 (MG/L)	ACIDITY as CaCO3 (MG/L)	ALPHA RADIO-ACTIVITY (pCi/L)	BETA RADIO-ACTIVITY (pCi/L)
[illegible]-77	14:40	0.6	0	1	7.8				10.0		[illegible]	9.0	<1.0		0.21	0.15	<0.01	0.39		0.055	0.024	28.0	<0.01		10.0	<0.1	412			430	3.50	<0.01	297.7	244	262			
6-16-77	12:30	0.3	18	14	7.7				8.5		5.0	7.0	<1.0	<0.001	0.18	0.05		0.50		0.310	0.120	10.8	<0.01		3.5	<0.1	230			250	2.00	<0.01	251.3	206	202		0	0
5-10-78	14:10	4.5	15	4	[illegible]						6.0	7.0	10.4			1.05	<0.01	0.17			0.035	14.0			29.0		248			275			[illegible]					
6-14-78	16:40	2.5	[illegible]	0	[illegible]						29.0	[illegible]		[illegible]	0.10	0.49	<0.01	0.45			[illegible]	[illegible]			12.0		160			[illegible]			[illegible]					
[illegible]-78	9:15	2.1	[illegible]	4.5	6.5							1.0	2.9									27.0			9.0		228			266			[illegible]					
2-23-78	14:15	0.4	20	12.5	8.1						26.0	8.6	1.0	0.010								20.0			6.0		220			235			236.7					
10-25-78	11:40	0.3	3	0.5	7.1							11.1	1.5	0.003								19.0			4.0		255			440			263.5					
9-8-78	10:55	0.5	3.0	0.3	7.4						8.0	11.8				0.59	<0.01	0.10			0.090	28.0			11.0		260			462			255.04					
12-20-78	11:10	0.1	-2	2	9.22						19.0	11.5	[illegible]	<0.001		0.94	<0.01	0.11			0.020	22.0			16.0		286						302.56					
2-28-79	12:13		Inaccessible																																			
4-9-79	11:55		Inaccessible																																			
[illegible]-79	[illegible]	[illegible]	[illegible]	[illegible]	7.4						10.0	9.3	<1.0	0.042	[illegible]	3.40				0.06		9.0			22.0		260				4.0		246.44	[illegible]		[illegible]		
[illegible]	[illegible]	[illegible]	6	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	7.7	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]	[illegible]			[illegible]		[illegible]			[illegible]	[illegible]		[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
[illegible]-79	8:57	1	24	12	7.53						7.8	7.4	<1.0	0.014	<0.01	0.05				0.020		22.0			4.0		229			410	2.50	[illegible]	236.68	194		[illegible]		
11-26-79	10:10	0.4	16	7.5	7.50						3.0	7.2		<0.001	<0.01	0.20				<0.001		15.0			1.0		212			405	3.10		239.12	196		10.0		
[illegible]	[illegible]	[illegible]	-	[illegible]	7.80						10.0		[illegible]	<0.001		0.59					0.060	40.0			24.0		299			505			263.52	216		18.0		
1-23-79	12:10	0.6	-5	0.5	7.3							9.2		0.062	<0.01					0.080		22.0			24.0		277			495			297.68					
2-27-80			In-Accessible																																			
4-9-80			In-Accessible																																			
5-14-80	[illegible]	[illegible]	10	[illegible]	7.9							[illegible]		[illegible]	[illegible]					<0.001		18.0			[illegible]		[illegible]			[illegible]			254.24					

DATE	ALUMINUM TOTAL (MG/L)	ANTIMONY TOTAL (MG/L)	ARSENIC TOTAL (MG/L)	BARIUM TOTAL (MG/L)	BERYLLIUM TOTAL (MG/L)	BORON TOTAL (MG/L)	CADMIUM TOTAL (MG/L)	CALCIUM TOTAL (MG/L)	CHLORIDE DISS. (MG/L)	CHROMIUM HEX as CR (MG/L)	COBALT TOTAL (MG/L)	COPPER TOTAL (MG/L)	CYANIDE as CN (MG/L)	FLUORIDE DISS. (MG/L)	GERMANIUM TOTAL (MG/L)	IRON DISS. (MG/L)	IRON TOTAL (MG/L)	LEAD TOTAL (MG/L)	MANGANESE TOTAL (MG/L)	MERCURY TOTAL (MG/L)	MOLYBDENUM TOTAL (MG/L)	NICKEL TOTAL (MG/L)	POTASSIUM TOTAL (MG/L)	SELENIUM TOTAL (MG/L)	SILICA as SiO2 (MG/L)	SILVER TOTAL (MG/L)	SODIUM TOTAL (MG/L)	ZINC TOTAL (MG/L)	VANADIUM TOTAL (MG/L)	COMMENTS
2-17-77	0.14		<0.001	0.020		0.003	<0.001	73.6	4.0	<0.001		0.010		0.16			0.609	<0.001	18.72	0.018	<0.0002		<0.001	1.34	<0.001	4.3	<0.001	6.15	0.060	
6-16-77	0.007	<0.001	<0.001	0.045	<0.001	0.014	<0.001	64.0	6.0	<0.001	0.001	0.009	<0.01	0.24	<0.001		0.625	<0.001	14.40	<0.001	<0.0002	<0.001	<0.001	1.31	<0.001	4.0	<0.001	2.19	0.012	<0.001
5-10-78			<0.001				<0.001	63.2	7.0	<0.001		0.006		0.14			0.029	<0.001	15.92	0.016	<0.0002			1.176	<0.001	5.2	<0.001	2.89	0.009	
[illegible]-78			[illegible]				[illegible]	65.6	10.0	[illegible]		[illegible]		0.15			0.161	<0.001	[illegible]	0.032	<0.0002			1.210	<0.001	4.85	<0.001	[illegible]	0.004	
2-23-78			<0.001					79.0	7.0								0.062	<0.001	5.29	0.010	<0.0002			1.005	<0.001		<0.001	54.0	0.010	
2-23-78			<0.001					61.0	2.0			0.006		0.14			<0.001	<0.001	14.4	0.002	<0.0002			1.198	<0.001		<0.001	3.00	0.007	
10-25-78			<0.001				<0.001	65.6	1.5	<0.001		0.005		0.15			0.056	<0.001	20.10	0.005	<0.0002			1.220	<0.001			3.21	0.008	
[illegible]-78			<0.001	<0.001			<0.001	72.2	2.0	<0.001		0.004	<0.01	0.15			0.091		17.28	0.014				1.387	<0.001	7.35	<0.001	3.39	0.003	
[illegible]-78			<0.001	0.002			<0.001	72.6	10.0	<0.001		0.129		0.16			0.100	<0.001	17.64	0.012	<0.0002			1.292	<0.001	5.80	<0.001	2.50	0.004	
[illegible]-79																														In-Accessible
4-9-80																														In-Accessible
[illegible]			[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		0.005	0.002	[illegible]		0.024	0.170	[illegible]	13.44	0.007	<0.0002			1.151	<0.001		0.004	2.74	0.015	
[illegible]			[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]			[illegible]	2.41	[illegible]	
[illegible]-79			[illegible]	0.125		0.095	[illegible]	[illegible]	[illegible]	0.003		[illegible]	<0.001	[illegible]		[illegible]	0.140	[illegible]	15.24	0.007	<0.0002			1.004	<0.001		0.002	3.02	0.016	
2-23-79			<0.001	0.036		0.090	<0.001	60.50	3.0	<0.001		0.025	<0.001	0.14		0.020	0.140	<0.001	12.40	0.020	<0.0002			0.42	<0.001		<0.001	5.00	0.05	
[illegible]-79			<0.001	[illegible]		0.060	<0.001	[illegible]	[illegible]	<0.001		[illegible]		0.15			0.250	<0.001	17.72	0.004	<0.0002			2.00	<0.001		<0.001	8.10	0.005	
[illegible]-79								80.00	4.0								0.180		14.88	0.012				1.291				3.32		
[illegible]																														
[illegible]																														
[illegible]								69.10	[illegible]								[illegible]		[illegible]	[illegible]				[illegible]				[illegible]		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-6
Location Eccles Creek above South Fork Eccles Creek
Coastal States Station

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	CHLORIDE as CH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY	
		CFS	°F	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L	

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS	CHROMIUM HEXavalent CR	COBALT DISS	COPPER DISS	CYANIDE as Cn	FLUORIDE DISS	GERMANIUM DISS	IRON DISS	IRON TOTAL	LEAD DISS	MAGNESIUM DISS	MANGANESE DISS	MERCURY DISS	MOLYBDENUM DISS	NICKEL DISS	POTASSIUM DISS	SELENIUM DISS	SILICA as SiO_2	SILVER DISS	SODIUM DISS	ZINC DISS	VANADIUM DISS				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
1-19-79																																		
2-7-79																																		
2-28-79																																		
4-12-79																																		
5-11-79			<0.001	0.02		0.020	<0.001			<0.001		0.002						<0.001							<0.001		<0.001		0.007					
6-25-79			<0.001	0.020		0.020	<0.001			<0.001		0.001						<0.001							<0.001		<0.001		0.008					
7-27-79			<0.001	0.020		0.080	<0.001			<0.001		0.005				0.010	0.140	<0.001							<0.001		<0.001		0.009					
8-23-79			<0.001	0.020		<0.001	<0.001			<0.001		0.003				0.015	0.160	<0.001							<0.001		<0.001		0.005					
[illegible]			<0.001	[illegible]		[illegible]	[illegible]			[illegible]		0.010				0.060	0.140	<0.001							<0.001		<0.001		0.005					
[illegible]																	0.060																	
[illegible]																	0.050																	
[illegible]																	0.100																	
[illegible]																	0.100																	
[illegible]																	0.100																	

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-6
Location Eccles Creek above South Fork
Coastal States Station

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL NITROGEN MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
[illegible]	10:48	[illegible]	[illegible]	[illegible]	[illegible]									<0.002	<0.01					0.030		[illegible]			3.0		215			320			[illegible]					
2-21-80	13:49	1.8	22	15	7.7									<0.001	<0.01					0.020		10.5			4.0		210			320			224.48					
3-25-80	11:05	1.2	14	11	7.3	13000	53.0				4.00	3.2	35.40	0.006	<0.01	0.45				0.090		14.0			40.0		265			400	3.70		[illegible]	53.0		60.1	4	2.0
4-14-80	09:00	0.369	12	0	8.16									0.005	<0.01					0.080		15.0			9.0		258			295			241.36					
12-2-80	14:04	0.65	21	8	8.6									<0.001	0.10					0.040		12.0			9.0		285			440			331.84					
11-14-80	10:44		-6	0	7.4									<0.001	<0.01					0.270		16.5			90.0		310			250			336					
12-24-80	09:50		-4	0	7.7									0.230	<0.01					0.120		10.0			72.0		270			242			329.40					
1-7-81	11:35		-2	0	7.8									0.014	<0.01					0.050		10.0			5.0		295			265			356.24					
2-25-81	Inaccessible																																					
3-11-81	13:40		4	1	7.9									<0.001	<0.01					0.090		7.2			11.0		265			258			214.76					
4-8-81	15:33	0.9	7	3	8.1									0.066	0.15					1.790		44.0			534		390			248			285.48					

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS MG/L	CHROMIUM HEXAVALENT CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
6-2-80								52.80	3.0								0.170		17.22	0.020				0.75				2.60							
7-24-80								58.40	4.0								0.100		16.49	0.003				0.99				3.80							
8-25-80			0.001	0.080		0.096	<0.001	149.60	16.0	<0.001		0.010	0.001	0.16		0.760	2.720	<0.001	19.68	0.070	<0.0002			2.33	0.002		<0.001	3.70	0.060						Same yesterday
9-[illegible]-80								71.20	3.1	<0.001							0.095		19.22	0.021			<0.001	0.85				2.50							
10-[illegible]-80								72.80	1.5								0.420		17.28	0.002				1.93				12.00							
11-19-80								86.40	2.14								0.830		20.64	0.100				2.14				7.00							
12-24-80								84.00	4.00								0.350		17.28	0.030				2.10				3.50							
1-27-81								87.20	4.67								0.330		16.80	0.031				1.90				7.50							
2-25-81																																			
3-11-81								79.40	6.38								0.170		17.78	0.020				1.39				5.30							
4-8-81								82.20	6.00								0.310		16.32	0.028				1.95				5.10							

R 1-79

CONSULTANTS/ENGINEERS
HANSEN ALLEN & LUCE INC
SALT LAKE CITY, UTAH

WATER QUALITY DATA

Station VC-6
Location Eccles Creek above South Fork

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH3-N	NITROGEN NITRATE as NO3-N	NITROGEN NITRITE as NO2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO4-P	PHOSPHATE ORTHO as PO4-P	SULFATE as SO4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	SPECIFIC COND	TURBIDITY	CARBONATE ALK. as CO3	BICARBONATE ALK as HCO3	TOTAL ALK as CaCO3	TOTAL HARDNESS as CaCO3	ACIDITY as CaCO3	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
7-1-87	10:40	1.31	24	18	7.3																	221			46		553			661			222					

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS	CHROMIUM HEXAVALENT CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS	GERMANIUM TOTAL	IRON DISS	IRON TOTAL	LEAD TOTAL	MANGANESE TOTAL	MAGNESIUM TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	SULFIDE as S	MAJOR CATIONS	MAJOR ANIONS	C-A / C+A x 100	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MEQ/L	MEQ/L		
7-1-87								80.1	11.7										33.9					5.8				27.8				8.17	8.56	-2.33	

R-7-87

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-7
Location Boardinghouse Creek above Mud Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
12016	15:55	1.2	-2	2	8.5				8.0		5.0	9.8		
4.27.76	12:20	2	2	10	8.2				22.0		19.0	9.0		
8.2.76	10:25	0.3	5	11	8.2				8.0		6.8	8.2		
10.27.76	13:20	0.5	4	4								9.5		
11.30.76	16:10	1.5	-4	1	7.6				7.5		5.0	9.8		

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL ALKLDHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	μmhos	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
12016					0.075	0.11	0.07	69.0	<0.01				410			630	0.19	<0.01	236.6	198	249			
4.27.76								50.0	<0.01				418			640	20.0	<0.01	290.6	230	234			
8.2.76					0.05	0.150	0.120	32.6	<0.01				430			660	2.0	<0.01	275.2	242	304.3			
10.27.76																								
11.30.76								35.0	<0.01				520			800	148	<0.01	350.9	304	224			

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEXavCR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
12016	[illegible]	[illegible]	<0.001	[illegible]	[illegible]	[illegible]	<0.01	50.0	14.0	<0.001	<0.01	<0.001		0.53
4.27.76								50.8	6.0					0.161
8.2.76	0.025	<0.01	<0.001	0.220	<0.001	<0.01	<0.01	75.0	10.0	<0.001	0.007	0.006		0.39
10.27.76														
11.30.76								7.4	7.0					0.27

DATE	IRON DISS.	IRON TOTAL	LEAD TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
12016		0.07	0.015	[illegible]	[illegible]	0.001	<0.01	[illegible]	0.009		<0.01	[illegible]	0.067	[illegible]	
4.27.76				[illegible]				[illegible]				22.0			
8.2.76		0.04	<0.01	[illegible]	0.000	<0.001	<0.01	[illegible]	0.015		<0.01	[illegible]	0.078	<0.01	
10.27.76															
11.30.76				[illegible]				2.32				52.0			

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-8
Location Mud Creek below Clear Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
1-26-76	16:00	1.7	-2.0	2.5	8.5							9.6		
4-28-76	15:15	3	12	8	8.2	4300	230			4.9				
6-14-76	12:20	6.4	5	5	8.2	430	430			4.8		8.0		
8-2-76	10:45	2.1	18	11	8.2	4300	2300			3.0		9.8		
9-30-76	13:25	1	19	12		2300	430			4.5		11.8		
10-27-76	12:30	0.9	4	7	7.7	9300	2300			2.4		10.8		
11-29-76	16:00	0.9	-4	3	7.7	9300	2300			3.4		8.7		
12-29-76	12:20	1	2	5	7.7	9300	2300			3.5		9.6		

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L
1-26-76		0.180				0.30	0.26	96.0	0.01				476		
4-28-76								56.0	<0.01				432		
6-14-76															
8-2-76		0.11				0.30	0.20	55.0	<0.01				500		
9-30-76															
10-27-76								117	<0.01				655		
11-29-76															
12-29-76								110	<0.01				640		

DATE	CONDUCTIVITY	TURBIDITY	CARBONATE ALK as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
1-26-76	730	0.34	<0.01	265.9	218	280		
4-28-76	660	0.52	<0.01	271.2	226	268		
6-14-76								
8-2-76	770	2.2	<0.01	320.4	264	258		
9-30-76								
10-27-76	1000	2.20	<0.01	380.6	312	360		
11-29-76								
12-29-76	980	1.75	<0.01	373.3	306	370		

DATE	ALUMINUM DISS	ANTIMONY DISS.	ARSENIC DISS.	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS.	CHLORIDE DISS.	CHROMIUM HEXAVALENT CR	COBALT DISS	COPPER DISS	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
1-26-76	0.047	<0.001	0.006	0.131	<0.001	0.012	<0.001	68	2.0	<0.001	<0.001	0.015		0.25
4-28-76								60.0	6.0					0.27
6-14-76														
8-2-76	0.014	<0.001	0.004	0.450	<0.001	0.017	<0.001	86.0	10.0	<0.001	<0.001	0.015		0.40
9-30-76														
10-27-76								90.4	4.0					0.39
11-29-76														
12-29-76								89.6	4.0					0.35

DATE	GERMANIUM DISS.	IRON DISS.	IRON TOTAL	LEAD DISS.	MAGNESIUM DISS.	MANGANESE DISS	MERCURY DISS.	MOLYBDENUM DISS	NICKEL DISS	POTASSIUM DISS.	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS.	SODIUM DISS.	ZINC DISS.	VANADIUM DISS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
1-26-76	0.007		0.093	0.006	26.40	0.019	<0.0001	0.004	<0.001	1.67	0.005		<0.001	18.0	0.046	<0.001
4-28-76					28.3					2.57				9.0		
6-14-76																
8-2-76	<0.001		0.305	<0.001	27.0	0.102	<0.0002	<0.001	<0.001	2.54	0.019		<0.001	4.20	0.017	<0.001
9-30-76																
10-27-76					32.16					2.88				33.0		
11-29-76																
12-29-76					35.04					2.90				28.6		

COMMENTS

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-8
Location Mud Creek below Clear Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	CHLORIDE as Cl	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND.	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK. as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	μmhos	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
3-1-77	14:20	1	0	5		23000	920			2.6		9.4																											
6-1-77	13:20	1	29	16		43000	7500			1.5		8.8																											

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEXas CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.	MERCURY TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
3-1-77																																		
6-1-77																																		

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-9
Location Lower Eccles Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND.	TURBIDITY	CARBONATE ALK as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	µMHOS	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
1-26-76	16:20	4.0	-4.0	1.0	7.9				10.0		9.0	9.6				0.260				0.13	0.10	117	<0.01				495			760	0.20	<0.01	246.4	202	244		
3-4-76	09:15	1.4	-5.0	2.0	8.3				1.5		6.0	9.8										55.8	<0.01				448			680	0.91	<0.01	290.3	228	270		
4-7-76	13:00	4.3	12	7	8.1				16.0		19.0	8.1				0.165				0.180	0.110	50.0	<0.01				387			595	0.35	<0.01	249.9	204	240		
5-14-76	12:05	5.7	12	6	9.3				14.0		19.0	7.0										46.0	<0.01				395			600	1.10	<0.01	293.7	208	222		
[illegible]	11:10	2.9	18	14	8.3				6.0		5.0	8.4				0.15				0.140	0.110	35.8	<0.01				410			630	4.0	<0.01	273.2	224	2568		
9-30-76	14:25	2.1	20	11	7.5				12.0		15.0	8.7										36.0	<0.01				420			640	2.80	<0.01	290.6	230	232		
10-27-76	11:35	3.5	-1	2	7.6				5.0		3.0	10.6				0.12				0.110	0.080	36.9	<0.01				450			690	4.30	<0.01	312.3	256	268		
11-29-76	13:15	2.2	-1	10	7.2				6.0		4.0	9.7										40.0	<0.01				438			670	0.45	<0.01	309.9	254	2066		
12-28-76	11:45	1.8	6	1	7.8				18.0		16.0	9.6				0.06				0.170	0.080	35.0	<0.01				440			670	2.20	<0.01	309.9	254	286		

DATE	ALUMINUM DISS.	ANTIMONY DISS.	ARSENIC DISS.	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS	CHROMIUM HEXAVAL CR	COBALT DISS	COPPER DISS.	CYANIDE as Cn	FLUORIDE DISS.	GERMANIUM DISS	IRON DISS.	IRON TOTAL	LEAD DISS.	MAGNESIUM DISS	MANGANESE DISS	MERCURY DISS.	MOLYBDENUM DISS	NICKEL DISS.	POTASSIUM DISS.	SELENIUM DISS.	SILICA as SiO_2	SILVER DISS	SODIUM DISS.	ZINC DISS.	VANADIUM DISS.				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
1-26-76	0.153	<0.001	0.005	0.151	<0.001	0.013	<0.001	55.2	5.0	<0.001	<0.001	<0.001		0.18	<0.001		0.135	0.013	9.60	0.052	<0.0001	<0.001	<0.001	1.64	0.062		<0.001	66.0	0.017	<0.001				
3-9-76	0.148	<0.001	0.002	0.131	<0.001	0.010	<0.001	63.2	<0.01	<0.001	<0.001	<0.001		0.50	<0.001		0.142	0.008	26.88	0.040	<0.0001	<0.001	<0.001	1.24	<0.001		<0.001	12.1	0.015	<0.001				
4-28-76	0.120	<0.001	0.008	0.157	<0.001	0.015	<0.001	50.4	7.0	<0.001	<0.001	0.008		0.25	<0.001		0.228	<0.001	27.3	0.049	<0.0001	<0.001	<0.001	2.20	<0.001		<0.001	8.0	0.013	<0.001				
6-14-76								57.6	7.0					0.21					18.72					1.04				17.00						
7-7-76	0.020	<0.001	<0.001	0.026	<0.001	<0.001	<0.001	65.0	8.0	<0.001	<0.001	0.098		0.43	<0.001		0.427	<0.001	23.0	0.063	<0.0002	<0.001	<0.001	2.02	0.013		<0.001	5.00	0.016	<0.001				
9-30-76								66.9	8.0					0.20					15.80					1.91				18.0						
10-27-76	0.006		<0.001	0.027		<0.001		72.0	4.0			0.010		0.40	<0.001		0.333	<0.001	21.10	0.063	<0.0002	<0.001	<0.001	1.97	0.002			13.0	0.018					
11-29-76								24.8	4.0					0.27					18.80					2.54				14.0						
12-28-76	0.014		<0.001	0.005		<0.001		63.2	4.0			0.017		0.24	<0.001		0.410	<0.001	30.72	0.012	<0.0002	<0.001	<0.001	2.02	<0.001			2.80	0.081					

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-0
Location Eccles Creek
Picric Wash Creek
Coastal States Station

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL ALBUMIN MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HARDNESS as CaCO MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL DISSOLVED SOLIDS ML/L	SOLIDS T.S.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µmhos	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK. as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L	

DATE	ALUMINUM DISS. MG/L	ARSENIC DISS. MG/L	ARSENIC DISS. MG/L	BARIUM DISS. MG/L	BERYLLIUM DISS. MG/L	CADMIUM DISS. MG/L	CHROMIUM DISS. MG/L	COBALT DISS. MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEXAVALENT MG/L	COBALT DISS. MG/L	COPPER DISS. MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	IRON DISS. MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD DISS. MG/L	MANGANESE DISS. MG/L	MERCURY DISS. MG/L	MERCURY DISS. MG/L	MOLYBDENUM DISS. MG/L	NICKEL DISS. MG/L	POTASSIUM DISS. MG/L	SELENIUM DISS. MG/L	SILICA as SiO_2 DISS. MG/L	SILVER DISS. MG/L	SODIUM DISS. MG/L	ZINC DISS. MG/L	STRONTIUM DISS. MG/L				COMMENTS
1-9-79																																			
2-7-79																																			
3-9-79																																			
4-18-79																																			
5-11-79			<0.001	0.51		0.105	<0.001			<0.001		0.017						<0.001							<0.001		<0.001		0.015					
6-20-79			<0.001	0.045		0.060	<0.001			<0.001		0.002						<0.001							<0.001		<0.001		0.012					
7-20-79			<0.001	0.050		0.030	<0.001			<0.001		0.003				0.010	0.760	<0.001							<0.001		<0.001		0.007					
8-23-79			<0.001	0.016		0.060	<0.001			<0.001		<0.001						<0.001							<0.001		<0.001		0.006					
9-26-79			<0.001	0.013		0.030	<0.001			<0.001		0.015						<0.001							<0.001		<0.001		0.009					

VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station [illegible]
Location [illegible]
[illegible]

Coastal States Station

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDAL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. CO_3 MG/L	BI-CARBONATE ALK. as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
[illegible]	[illegible]	2.5	[illegible]	[illegible]	7.8				12.0		11.0	9.5	<1.0		0.37	0.05	<0.01	0.35		0.038	0.026	50.0	<0.01		32.0	<0.1	420			640	3.50	<0.01	273.3	234	264			
[illegible]	11:50	1.7	23	15	7.6				6.0		4.0	7.9	<1.0	<0.001	0.14	0.02		0.65		0.130	0.028	27.0	<0.01		14.0	<0.1	280			410	2.20	<0.01	276.7	226	258		0	0
[illegible]	15:00	5.0	14	10	7.8						10.0	[illegible]	[illegible]			0.72	<0.01	0.10			0.020	33.0			209		250			380			242					
[illegible]	[illegible]	1.3	25	15	7.8						12.0	7.[illegible]		0.003	0.10	0.36	<0.01	0.12			0.020	10.0			247		162			290			148.48					
[illegible]	5:55	3.4	27	17	8.0							9.2	[illegible]									26.0			27.0		287			418			256.68					
1-23-78	13:05	1.5	21.5	13.5	8.0						14.0	6.8	2.0	0.080								28.0			11.0		240			370			251.3					
2-25-78	11:15	3.2	4	4	7.1							10.4	1.2	0.010								40.0			12.0		279			470			280.6					
3-27-78	10:25	1.3	-10	0.5	7.91						7.0	12.4	<1.0	0.004								43.0			10.0		302			460			297.7					
2-27-79	11:50	2.1	-1	2	8.0							9.7	1.0	<0.001		0.10					0.025	39.0			23.0		311			490			307.44	252				
[illegible]	[illegible]	7.6	9	6	7.72							9.4	2.8	0.004		0.40					0.30	40.0			217		305			470			278.04	252				
[illegible]	[illegible]	5.2	[illegible]	[illegible]	8.45						5.0	1.3	<1.0	0.022	0.80	1.48				0.24		30.0			258		300			490	6.5		277.92	[illegible]		22.0		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	79.0	8.0			<1.0	2.0	[illegible]	1.7	<0.001	<0.01	0.22				0.020	0.010	15.0			24.0		240			45.0	10.0		262.55	[illegible]		12.0	2.5	10.0
8-23-79	09:35	2.4	13	5.5	8.0	330	13.0			1.6	4.0	9.1	<1.0	<0.001	<0.05	<0.01						32.0			10.0		290			490	2.00		285.40	234		14.0	<2.0	3.5
9-26-79	09:50	3	6	6	7.65						3.0	8.0		<0.001	<0.01	0.02				<0.001		32.0			5.0		280			510	2.6		280.60	230		15.0		
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.00							9.2	[illegible]	<0.001		<0.01					0.060	44.0			24.0		[illegible]			[illegible]			[illegible]	230		12.0		
11-30-79	10:49	1.8	-7	0.3	6.9							10.9		0.008	<0.01					0.070		40.0			23.5		298			525			292.80					
2-27-80	14:27	2.5	8	3	9.2							10.0	14.20	0.016		12.0				0.210	0.080	280			550		585			520			268.40	220		12.0		
3-27-80	11:40	2.4	1	3	8.35									0.008	<0.01					0.140		47.0			71.0		319			500			[illegible]					
4-29-80	11:09	17.4	5	3	7.9							9.2		<0.001	0.10					0.000		33.0			1268		238			[illegible]			[illegible]					
5-4-80	10:18	14.2	10	4.5	7.5							9.8		<0.001	<0.01					0.150		32.0			197		269			425			246.84					

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEXav CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
2-23-77	[illegible]		<0.001	0.009		<0.001	<0.001	64.0	4.0	<0.001		0.015		0.16			0.042	<0.001	[illegible]	0.053	<0.0002		0.002	1.90	<0.001	5.0	<0.001	7.10	0.023					
6-16-77	0.040	<0.001	<0.001	0.063	<0.001	0.025	<0.001	58.4	6.0	<0.001	<0.001	0.005	<0.01	0.33	<0.001		0.346	<0.001	[illegible]	0.050	<0.0002	<0.001	<0.001	1.99	<0.001	5.5	<0.001	4.24	0.014	<0.001					
[illegible]			<0.001				[illegible]	[illegible]	8.0	<0.001		0.007		0.16			[illegible]	<0.001	[illegible]	0.012	<0.0002			1.676	<0.001	5.35	<0.001	4.92	0.016					
[illegible]			<0.001				<0.001	[illegible]	10.0	[illegible]		0.004		0.14			1.987	0.003	4.80	0.141	<0.0002			1.897	<0.001	5.10	<0.001	3.49	0.015					
6-12-78			<0.001					27.0	4.0								[illegible]	<0.001	[illegible]	0.045	<0.0002			1.488	<0.001		<0.001	5.3.0	0.013					
8-23-78			<0.001					56.8	4.0			0.003		0.15			0.216	<0.001	22.1	0.038	<0.0002			1.988	<0.001		<0.001	3.14	0.014					
10-25-78			<0.001				<0.001	57.6	5.0	<0.001		0.003		0.15			0.241	<0.001	22.3	0.011	<0.0002			1.520	<0.001			8.50	0.012					
12-27-78			<0.001				<0.001	73.6	6.0	<0.001		0.003		0.18			0.254	<0.001	24.0	0.066	<0.0002			1.995	<0.001			3.41	0.004					
2-23-79			<0.001				<0.001	68.8	<0.1	<0.001		0.004		0.17			0.380	<0.001	22.56	0.076	<0.0002			2.229	<0.001		<0.001	14.30	0.005				Overcast	
[illegible]			<0.001				<0.001	[illegible]	[illegible]	<0.001		0.002		0.16			5.840	0.002	21.12	0.187	<0.0002			1.952	<0.001		<0.001	4.09	0.013					
[illegible]			0.002	1.550		[illegible]	<0.001	[illegible]	[illegible]	[illegible]		[illegible]	0.002	0.15		0.020	[illegible]	[illegible]	12.72	0.042	<0.0002			0.635	<0.001		0.002	7.01	0.302					
[illegible]			[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	0.002		0.015	0.001	0.014		[illegible]	1.040	0.005	11.57	0.025	<0.0002			[illegible]	<0.001		0.002	17.5	0.016					
8-23-79			<0.001	2.020		0.025	<0.001	96.00	2.0	0.005		0.006	<0.001	0.23		0.040	0.190	<0.001	3.36	0.004	<0.0002			4.100	<0.001		<0.001	4.10	0.013					
9-26-79			<0.001	0.024		0.050	<0.001	64.20	4.0	<0.001		0.014	0.001	0.17		0.020	0.340	<0.001	6.20	0.005	<0.0002			1.560	<0.001		<0.001	34.6	0.048					
10-29-79			<0.001	0.022		0.050	<0.001	56.60	3.0	<0.001		0.015		0.17			0.246	<0.001	24.49	0.062	<0.0002			1.950	<0.001		<0.001	7.20	0.036					
11-30-79								74.40	4.0								0.670		22.56	0.085				2.112				3.41						
2-27-80			<0.001	0.150		0.110	<0.001	72.00	12.0	0.002		0.010		0.17			14.90	0.007	82.00	0.400	<0.0002			2.40	<0.001		<0.001	6.50	0.020					
3-27-80								[illegible]	10.0								1.90		24.96	0.130				[illegible]				7.00						
4-29-80								[illegible]	7.0								[illegible]		[illegible]	0.146				2.26				8.30						
5-4-80								[illegible]	[illegible]								1.930		12.48	0.150				2.10				9.50						

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-9
Location Eccles Creek above Mud Creek Coastal States Station

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL SUSPEND. MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
6-25-80	13:55	12.1	24	12	8.85							7.9		<0.002	<0.01					0.060		50.0			16.0		210			330			168.36					
7-21-80	13:15	3.4	27	16	8.6									0.002	<0.01					0.080		28.0			32.0		240			360			236.68					
8-25-80	14:30		14	12	9.0	35000	3300			3.1	4.00	8.0	<0.01	<0.001	0.16	0.64				0.900		45.0			2224		376			475	22.0		291.80	240		6.0	1.1	1.8
9-16-80	08:17	2.3	9	7	8.3									0.026	<0.01					0.060		25.5			22.0		268			410			295.24					
10-7-80	10:30	2.4	11	6	8.4									0.044	0.10					0.030		24.0			9.0		265			400			287.92					
11-19-80	10:04	3.6	-7	0.5	7.4									<0.001	<0.01					0.160		44.0			28.0		290			248			297.68					
12-24-80	12:00	3.2	6	2	7.7									0.007	<0.01					0.120		33.0			20.0		320			300			307.44					
1-27-81	10:50	2.7	0	1	7.8									<0.001	<0.01					0.030		15.0			20.0		285			265			331.84					
2-25-81	14:30	3.8	10	5	8.1									0.003	<0.01					<0.001		21.0			30.0		246			380			280.60					
3-11-81	12:48	2.4	2	3	7.9									<0.001	<0.01					0.070		20.0			17.0		265			275			280.60					
4-8-81	12:58	2.3	8	6	8.1									0.003	0.15					0.020		26.0			115		290			332			278.16					

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEX as CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
6-25-80								56.0	2.0								0.640		11.52	0.040				1.05				2.60							
7-21-80								64.80	4.0								0.470		14.88	0.050				1.49				3.10							
8-25-80			0.014	0.550		0.120	<0.001	72.00	20.0	<0.001		0.020	0.015	0.24		0.070	54.50	0.040	25.92	0.040	<0.0002			1.58	0.007		0.002	13.40	0.380						
9-16-80								61.60	3.6	<0.001							0.410		27.84	0.055			<0.001	1.50				3.20							
10-7-80								59.20	2.7								0.580		24.48	0.055				2.18				4.80							
11-19-80								76.80	2.49								0.710		23.04	0.085				2.11				3.60							
12-24-80								72.80	26.00								1.120		27.36	0.080				1.95				14.70							
1-27-81								73.60	5.00								1.200		23.04	0.095				2.00				5.20							
2-25-81								20.20	10.00								0.740		49.90	0.080				2.34				4.60							
3-11-81								67.20	10.64								0.360		21.60	0.070				2.15				4.30							
4-8-81								79.20	16.00								0.750		15.84	0.090				2.40				6.80							

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-9
Location Eccles Creek above Mud Creek
Coastal States Station

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP	COD	B.O.D.	T.O.C	DISSOLVED OXYGEN	OIL & GREASE	PHENOL	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS TDS	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY	
		CFS	°F	°F		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS	FTU	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L	

DATE	ALUMINUM DISS	ANTIMONY DISS	ARSENIC DISS	BARIUM DISS	BERYLLIUM DISS	BORON DISS	CADMIUM DISS	CALCIUM DISS	CHLORIDE DISS	CHROMIUM HEX as CR	COBALT DISS	COPPER DISS	CYANIDE as Cn	FLUORIDE DISS	GERMANIUM DISS	IRON DISS	IRON TOTAL	LEAD DISS	MAGNESIUM DISS	MANGANESE DISS	MERCURY DISS	MOLYBDENUM DISS	NICKEL DISS	POTASSIUM DISS	SELENIUM DISS	SILICA as SiO_2	SILVER DISS	SODIUM DISS	ZINC DISS	VANADIUM DISS				COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L				
[illegible]-80																	[illegible]																	
[illegible]-80																	[illegible]																	
[illegible]-80			[illegible]	[illegible]		[illegible]	[illegible]			[illegible]		[illegible]				[illegible]	[illegible]	[illegible]							[illegible]		[illegible]		[illegible]					
[illegible]-80																	[illegible]																	
11-2-80																	0.580																	
11-19-80																	0.710																	
12-24-80																	1.120																	
[illegible]-81																	[illegible]																	
[illegible]-81																	0.740																	
[illegible]-81																	0.360																	
[illegible]-81																	[illegible]																	

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-13
Location Long Canyon Creek

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
2-27-80	In-Accessible													
3-27-80	In-Accessible													
6-25-80	10:00	[illegible]	21	4	8.45							9.1		0.013
8-25-80	12:24	0.2	10	10	8.5							6.7	0.0	<0.001
12-10-80	15:05	-0-												
2-25-81		-0-												
4-8-81	12:00		In-Accessible											
6-24-81	09:50	0.04	20	12	8.2									<0.001
8-26-81	09:26	-0-												
10-14-81	10:49	-0-												
12-23-81	11:45		In-Accessible											
2-24-82			In-Accessible											
4-14-82			In-Accessible											
6-9-82	10:55	3.1	13	6	7.6									<0.001
8-11-82	09:27	0.08	19	11	7.2									<0.001
10-13-82	09:55		In-Accessible											
12-21-82	In-Accessible													
2-21-83	In-Accessible													
4-21-83	In-Accessible													
6-21-83	11:55	8.5	22	7	7.5									0.158

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L
2-27-80															
3-27-80															
6-25-80						0.060		15.0			23.0		110		
8-25-80		0.4	<0.01			0.100	0.050	9.0			34.0		221		
12-10-80															
2-25-81															
4-8-81															
6-24-81		0.15				0.160		5.0			8.0		151		
8-26-81															
10-14-81															
12-23-81															
2-24-82															
4-14-82															
6-9-82	0.42					0.090		26.0			19.0		154		
8-11-82	0.10					0.080		10.0			8.0		279		
10-13-82															
12-21-82															
2-21-83															
4-21-83															
6-21-83	<0.01					0.480		12.0			185		140		

DATE	COND.	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK. as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
2-27-80									
3-27-80									
6-25-80	180			119.56					
8-25-80	210			231.80	190		6.0		
12-10-80									
2-25-81									
4-8-81									
6-24-81	220			155.05	150		<0.01		
8-26-81									
10-14-81									
12-23-81									
2-24-82									
4-14-82									
6-9-82	213			149.10	122.20				
8-11-82	283			262.70	215.30				
10-13-82									
12-21-82									
2-21-83									
4-21-83									
6-21-83	197			141.50					

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEX as CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
2-27-80														
3-27-80														
6-25-80								26.40	<0.1					
8-25-80			<0.001	0.020		<0.001	<0.001	27.40	15.0	<0.001		0.010		0.15
12-10-80														
2-25-81														
4-8-81														
6-24-81								49.80	5.4					
8-26-81														
10-14-81														
12-23-81														
2-24-82														
4-14-82														
6-9-82								4200	0.40					
8-11-82								46.40	34.70					
10-13-82														
12-21-82														
2-21-83														
4-21-83														
6-21-83								3440	2.00					

DATE	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
2-27-80																	
3-27-80																	
6-25-80			0.170		10.08	0.030				0.53				7.0			
8-25-80		0.560	0.140	<0.001	11.04	0.010	<0.0002			6.11	<0.001		<0.001	12.50	0.022		
12-10-80																	
2-25-81																	
4-8-81																	
6-24-81			0.350		10.08	<0.001				0.52				21.00			
8-26-81																	
10-14-81																	
12-23-81																	Snow
2-24-82																	Snow - Frozen
4-14-82																	Snow
6-9-82		0.140	0.250		7.10	0.040				0.52				1.8			
8-11-82			0.220		16.32	0.007				0.50				41.0			
10-13-82																	Snow -
12-21-82																	Snow
2-21-83																	Snow
4-21-83																	Snow
6-21-83			2.450		5.76	0.087				0.82				8.9			

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-13
Location Long Canyon Creek

DATE	TIME	FLOW CFS	TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	SPECIFIC COND µMHOS/CM	TURBIDITY FTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
8-24-83	15:50	0.2	17	12	6.7								0.5	0.069	<0.01	<0.01				0.45		14			145		180			332			222	182		<0.01		
10-19-83	09:05		3	1	7.7									<0.001	0.85					<0.01		18			3.0		220			353			234.28					
12-[illegible]-83	Inaccessible																																						
3-27-84	11:45		Inaccessible																																				
6-26-84	16:30	4.7	18	8	7.5										<0.1					0.164		8.6			117		127			204			63	104				

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEX. as CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
8-24-83			<0.001	0.750		0.200	<0.001	34.10	1.9	<0.001		<0.001		0.11		0.865	2.150	0.002	4.69	0.076	<0.002			0.8	<0.001		<0.001	41.0	0.095					Scattered Showers
10-19-83								64.80	4.00								0.060		12.48	0.010				0.9				2.40						
12-[illegible]-83																																			Covered with Snow
3-27-84																																			Covered with Snow
6-26-84								37.2	2.8								1.98		7.1	0.05				0.86				1.83						

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-14
Location Whiskey Canyon Creek below sediment pond

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
4-29-80	11:48		In-Accessible											
6-25-80	14:40	[illegible]	25	13.5	8.8							[illegible]		0.002
7-25-80	15:25	0.6	15	12	8.7							[illegible]		[illegible]
10-7-80	09:40	0.5	9	6	8.9									<0.001
12-10-80	14:37	-0-												
2-25-81		-0-												
4-9-81	15:20	-0-												
6-24-81	15:45		[illegible]	12	9.3									<0.001
8-26-81	14:30	0.07	20	11	8.4								0.40	<0.001
10-14-81	13:58	0.04	0	4	8.4									<0.001
12-23-81	13:40	-0-	In-Accessible											
2-24-82			In-Accessible											
4-14-82			In-Accessible											
6-9-82	13:40		19	6	7.5									0.003
8-11-82	16:32	0.07	15	10	8.4									0.004
10-13-82	15:25		7	5	7.8								<0.1	0.005
12-21-82	In-Accessible													
2-21-83	In-Accessible													
4-21-83	In-Accessible													
6-21-83	15:45	1.1	18	11	7.7									0.070

DATE	NITROGEN AMMONIA as NH3-N	NITROGEN NITRATE as NO3-N	NITROGEN NITRITE as NO2-N	NITROGEN TOTAL ELEMENTAL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO4-P	PHOSPHATE ORTHO as PO4-P	SULFATE as SO4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	COND.	TURBIDITY	CARBONATE ALK. as CO3	BI-CARBONATE ALK as HCO3	TOTAL ALK as CaCO3	TOTAL HARDNESS as CaCO3	ACIDITY as CaCO3	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
4-29-80																								
6-25-80	0.10					0.060		37.0			34.0		180			300			156.16					
7-25-80	<0.01	1.68				0.040	0.020	39.0			18.0		299			460			[illegible]	[illegible]		[illegible]		
10-7-80	<0.01					0.080		16.0			21.0		251			390			295.24					
12-10-80																								
2-25-81																								
4-9-81																								
6-24-81	0.10					0.210		125			147		316			482			[illegible]	[illegible]		<0.01		
8-26-81	<0.01	0.16				0.190	0.040	55.5			3.0		320			390			263.52	220		<0.01		
10-14-81	0.21					0.250		60.0			22.0		320			500			283.90					
12-23-81																								
2-24-82																								
4-14-82																								
6-9-82	0.40					0.070		29.0			28.0		220			372			200.70	164.50				
8-11-82	0.07					0.110		21.0			36.0		346			514			290.80	238.40				
10-13-82	0.05	0.21				1.230	1.150	52.0			418		288			419			175.90	144.20		4.00		
12-21-82	In-Accessible																							
2-21-83	In-Accessible																							
4-21-83	In-Accessible																							
6-21-83	0.20					0.220		21.0			75.0		134			170			107.40					

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS	CHROMIUM HEX as CR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
4-29-80														
6-25-80								47.20	2.0					
7-25-80			<0.001	0.050		0.050	<0.001	65.60	18.0	<0.001		0.020		0.19
10-7-80								59.20	3.5					
12-10-80														
2-25-81														
4-9-81														
6-24-81								37.40	19.90					
8-26-81			0.002	0.45		0.090	0.002	52.80	28.00	<0.001		<0.001		0.21
10-14-81								60.00	11.10					
12-23-81														
2-24-82														
4-14-82														
6-9-82								54.00	10.10					
8-11-82								50.40	54.70					
10-13-82			0.002	0.065		0.120	<0.001	53.60	8.70	<0.001		0.030		0.11
12-21-82														
2-21-83														
4-21-83														
6-21-83								28.80	4.00					

DATE	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
4-29-80																	Rain & Snow
6-25-80			0.750		4.53	0.040				1.18				2.70			
7-25-80		0.030	0.390	<0.001	23.04	0.020	<0.0002			0.26	<0.001		<0.001	3.90	0.050		
10-7-80			0.288		19.68	0.050				2.75				12.00			
12-10-80																	
2-25-81																	
4-9-81																	
6-24-81			[illegible]		13.36	0.080				3.26				[illegible]			
8-26-81		<0.001	0.330	<0.001	37.92	0.060	<0.0002			3.90	0.005		<0.001	7.60	0.130		
10-14-81			0.380		21.16	0.065				4.10				31.00			
12-23-81																	Frozen - Snow
2-24-82																	Frozen - Snow
4-14-82																	Snow
6-9-82		0.340	0.390		15.10	0.060				1.68				5.3			
8-11-82			0.350		31.36	0.055				1.50				21.0			Recent Rain
10-13-82		6.650	11.100	0.015	13.44	0.305	<0.0002			0.74	0.006		0.001	7.4	0.190		
12-21-82																	In-Accessible Snow
2-21-83																	Snow
4-21-83																	Snow
6-21-83			0.850		4.80	0.035				0.68				10.0			

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station VC-14
Location Whiskey Canyon Creek below sediment pond

DATE	TIME	FLOW	TEMPERATURE AIR	TEMPERATURE WATER	pH	COLIFORM TOTAL	COLIFORM FECAL	FECAL STREP.	C.O.D.	B.O.D.	T.O.C.	DISSOLVED OXYGEN	OIL & GREASE	PHENOL
		CFS	°C	°C		MPN	MPN	MPN	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
8-25-83	13:54	0.04	19	11	7.4								0.6	0.045
10-19-83	16:50	0.01	7	5	7.5									<0.001
12- -83	Inaccessible													
3-27-84	11:00	0.13	0	2	8.0									
6-26-84	14:05	0.46	14	8	7.4									

DATE	NITROGEN AMMONIA as NH_3-N	NITROGEN NITRATE as NO_3-N	NITROGEN NITRITE as NO_2-N	NITROGEN TOTAL KJELDAHL	NITROGEN ORGANIC	PHOSPHATE TOTAL as PO_4-P	PHOSPHATE ORTHO as PO_4-P	SULFATE as SO_4	HYDROXIDE as OH	SURFACTANT as MBAS	SOLIDS TSS	SOLIDS TOTAL SETTLEABLE SOLIDS	SOLIDS T.D.S.	SOLIDS TOTAL SOLIDS	SOLIDS TOTAL VOLATILE SOLIDS	SPECIFIC COND.	TURBIDITY	CARBONATE ALK. as CO_3	BI-CARBONATE ALK as HCO_3	TOTAL ALK as $CaCO_3$	TOTAL HARDNESS as $CaCO_3$	ACIDITY as $CaCO_3$	ALPHA RADIO-ACTIVITY	BETA RADIO-ACTIVITY
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	ML/L	MG/L	MG/L	MG/L	µMHOS/CM	FTU	MG/L	MG/L	MG/L	MG/L	MG/L	pCi/L	pCi/L
8-25-83	<0.01	0.12				0.17		20			34.0		295			592			270.30	238		<0.01		
10-19-83	0.50					<0.02		115			10.0		420			659			285.48					
12- -83																								
3-27-84	<0.1					0.048		98			31		408			661			148					
6-26-84	<0.1					0.055		155			18		398			532			100	164				

DATE	ALUMINUM TOTAL	ANTIMONY TOTAL	ARSENIC TOTAL	BARIUM TOTAL	BERYLLIUM TOTAL	BORON TOTAL	CADMIUM TOTAL	CALCIUM TOTAL	CHLORIDE DISS.	CHROMIUM HEXavCR	COBALT TOTAL	COPPER TOTAL	CYANIDE as CN	FLUORIDE DISS.
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L
8-25-83			<0.001	0.810		0.150	<0.001	30.10	4.2	<0.001		<0.001		0.11
10-19-83								98.40	16.00					
12- -83														
3-27-84								13.3	14.6					
6-26-84								86.3	7.7					

DATE	GERMANIUM TOTAL	IRON DISS.	IRON TOTAL	LEAD TOTAL	MAGNESIUM TOTAL	MANGANESE TOTAL	MERCURY TOTAL	MOLYBDENUM TOTAL	NICKEL TOTAL	POTASSIUM TOTAL	SELENIUM TOTAL	SILICA as SiO_2	SILVER TOTAL	SODIUM TOTAL	ZINC TOTAL	VANADIUM TOTAL	COMMENTS
	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	
8-25-83		0.350	0.980	0.012	5.20	0.033	<0.0002			0.6	<0.001		<0.001	75.5	0.064		
10-19-83			0.240		28.28	0.120				1.7				5.70			
12- -83																	Covered with Snow
3-27-84			0.61		44.4	0.038				3.48				9.47			
6-26-84			0.56		28.8	0.05				2.94				4.62			Scattered Rain Showers

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station (2) 19-1
Location Whiskey Canyon Well

DATE	TIME		TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C. MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDAHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	CHLORIDE as Cl MG/L	FLUORIDE as MG/L	SOLIDS TDS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	COND. µMHOS/CM	TURBIDITY NTU	CARBONATE ALK. as CO_3 MG/L	BI-CARBONATE ALK. as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
12-5-79	15:55	0.03		6.0	7.60	<2.2	<2.2		5.0	<1.0				0.001	<0.01	0.30				0.121		24.0			16.0		306			500	2.00		305	250				
12-5-79	17:00	0.03		6.0	7.60	<2.2	<2.2		5.6	<1.0				0.001	<0.01	0.24				0.120		26.0			19.0		300			500	2.00		309.88	254				
7-18-80	15:00	0.13		7.0	7.50	<2.2	<2.2			<1.0	<1.0		4.00	<0.001	<0.01	0.42				0.002		110			70.0		370			570	5.40		251.32	210				
7-19-80	15:15	0.13		7.0	7.60	<2.2	<2.2			<1.0	<1.0		1.20	0.014	<0.01	0.32				0.005		94.0			14.0		360			550	1.20		268.40	220				
10-7-80	09:00			9.0	8.5									<0.001	0.20					0.040		15.0			3.0		290			450			340.60					
12-10-80	14:05			5	7.2									0.001	<0.01					0.030		16.5			6.0		294			450			339.16					
2-25-81	15:00				8.0								1.20	0.009	<0.01	0.20				0.006		40.0					302			460			280.60	230		<0.1		
4-8-81	14:59			3	8.0									0.035	0.14					0.025		22.0			2.0		277			270			307.40					
8-26-81	15:06			13	8.1								<0.01	<0.001	<0.01	0.26				0.160	0.040	36.0					290			370			292.80	240		42.00		
10-14-81	14:46				8.0									<0.001	0.19					0.200		18.0					293			440			334.40					
12-23-81	13:39			4	7.6									0.006	2.48					0.420		20.0			6.0		293			285			327.90	262.75				
2-24-82	13:06				7.5									<0.001	1.14					0.090		18.0			2.0		298			450			349.80	270.30				
4-14-82	14:18			4	7.4									0.038	0.07					0.330		24.0					315			503			344.70	273.30				
6-9-82	14:13			8	7.1									0.008	0.50					0.040		9.0					390			476			350.10	287				
8-11-82	16:22			11	7.8									<0.001	0.13					0.100		3.0					306			457			332.30	272.40				
10-13-82	15:07		10	9	7.4								0.8	<0.001	2.06	0.17				0.150	0.040	15.0					285			496			325.30	266.60		9.00		
12-21-82			No	Sample		Collected																															
2-21-83	13:10		6	5	7.8									0.096	0.21					0.180		34.0					349			436			365.30					
4-21-83	11:58			4	7.9									<0.001	0.15					0.08		30.0			19.0		308			406			314.8					
6-21-83	15:30		21	10	7.6									0.030	<0.01					0.120		33.0					316			373			317.20					

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEXavalent CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
12-5-79							<0.001	76.00	4.0	<0.001		0.005	<0.001			0.010	0.470	<0.001	20.16	0.010	<0.0002			1.418	<0.001		<0.001	2.50	0.105					Total Depth 720'
12-5-79							<0.001	75.20	4.0	<0.001		0.005	<0.001			0.010	0.465	<0.001	21.12	0.011	<0.0002			1.419	<0.001		<0.001	2.51	0.104					Total Depth 720'
7-18-80			<0.001				<0.001	67.40	4.0	<0.001		0.007	<0.001				0.310	<0.001	19.68	0.022	<0.0002			12.50	<0.001		<0.001	35.80	0.015					
7-19-80			<0.001				<0.001	66.40	4.0	<0.001		0.005	<0.001				0.228	<0.001	19.60	0.014	<0.0002			10.70	<0.001		<0.001	31.75	0.021					
10-7-80								68.00	0.4								0.200		23.04	0.020				1.33				12.10						
12-10-80								75.20	2.35								0.120		19.68	0.005				1.35				2.70						
2-25-81			0.001	0.070		0.015	<0.001	89.30	6.00	<0.001		0.010		0.19			0.810	0.030	10.20	0.010	<0.0002			1.36	0.001		<0.001	7.60	1.270					
4-8-81								72.80	7.00								0.850		23.50	0.014				1.29				3.00						
8-26-81			<0.001	0.070		0.020	<0.001	76.00	3.74	<0.001		0.010		0.17		<0.001	0.040	0.144	21.60	<0.001	<0.0002			1.33	0.003		<0.001	2.50	0.380					
10-14-81								73.60	3.70								0.140		19.68	0.010				8.55				9.30						
12-23-81								78.00	4.20								0.046		23.00	0.002				1.55				2.65						
2-24-82								71.00	3.70								0.010		21.50	<0.001				1.32				11.00						
4-14-82								70.00	1.80								0.020		23.00	0.010				1.35				15.0						
6-9-82								76.00	2.50								0.010		23.60	0.002				1.32				2.8						
8-11-82								75.20	15.30								0.012		19.20	0.003				1.29				42.0						
10-13-82			<0.001	0.060		0.100	<0.001	77.60	3.90	<0.001		0.009		0.13		0.019	0.020	<0.001	16.32	0.005	<0.0002			1.38	0.005		<0.001	18.0	0.850					
12-21-82																																			Pump under repair
2-21-83								74.40	2.40								0.600		17.76	0.005				1.35				34.0						
4-21-83								72.00	7.80								0.150		23.04	0.004				1.39				8.0						
6-21-83								72.00	10.00								0.600		21.60	0.011				1.42				16.0						

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VAUGHN HANSEN ASSOCIATES
Consultants / Engineers

WATER QUALITY DATA

Station U119-1
Location Whiskey Canyon Well

DATE	TIME		TEMPERATURE AIR °C	TEMPERATURE WATER °C	pH	COLIFORM TOTAL MPN	COLIFORM FECAL MPN	FECAL STREP. MPN	C.O.D. MG/L	B.O.D. MG/L	T.O.C MG/L	DISSOLVED OXYGEN MG/L	OIL & GREASE MG/L	PHENOL MG/L	NITROGEN AMMONIA as NH_3-N MG/L	NITROGEN NITRATE as NO_3-N MG/L	NITROGEN NITRITE as NO_2-N MG/L	NITROGEN TOTAL KJELDHL MG/L	NITROGEN ORGANIC MG/L	PHOSPHATE TOTAL as PO_4-P MG/L	PHOSPHATE ORTHO as PO_4-P MG/L	SULFATE as SO_4 MG/L	HYDROXIDE as OH MG/L	SURFACTANT as MBAS MG/L	SOLIDS TSS MG/L	SOLIDS TOTAL SETTLEABLE SOLIDS ML/L	SOLIDS T.D.S. MG/L	SOLIDS TOTAL SOLIDS MG/L	SOLIDS TOTAL VOLATILE SOLIDS MG/L	SPECIFIC COND µMHOS/CM	TURBIDITY FTU	CARBONATE ALK as CO_3 MG/L	BI-CARBONATE ALK as HCO_3 MG/L	TOTAL ALK. as $CaCO_3$ MG/L	TOTAL HARDNESS as $CaCO_3$ MG/L	ACIDITY as $CaCO_3$ MG/L	ALPHA RADIO-ACTIVITY pCi/L	BETA RADIO-ACTIVITY pCi/L
8-25-83	13:06		24	12	7.2								<0.1	0.024	<0.01	<0.01				0.15		34					310			496			31220	260		<0.01		
10-19-83	16:35			7	7.6									<0.001	0.20					0.14		30					340			477			28548					
6-26-84	13:25			11	7.4										<0.1					<0.01		27.7					325			519			155	251				

DATE	ALUMINUM TOTAL MG/L	ANTIMONY TOTAL MG/L	ARSENIC TOTAL MG/L	BARIUM TOTAL MG/L	BERYLLIUM TOTAL MG/L	BORON TOTAL MG/L	CADMIUM TOTAL MG/L	CALCIUM TOTAL MG/L	CHLORIDE DISS. MG/L	CHROMIUM HEX as CR MG/L	COBALT TOTAL MG/L	COPPER TOTAL MG/L	CYANIDE as CN MG/L	FLUORIDE DISS. MG/L	GERMANIUM TOTAL MG/L	IRON DISS. MG/L	IRON TOTAL MG/L	LEAD TOTAL MG/L	MAGNESIUM TOTAL MG/L	MANGANESE TOTAL MG/L	MERCURY TOTAL MG/L	MOLYBDENUM TOTAL MG/L	NICKEL TOTAL MG/L	POTASSIUM TOTAL MG/L	SELENIUM TOTAL MG/L	SILICA as SiO_2 MG/L	SILVER TOTAL MG/L	SODIUM TOTAL MG/L	ZINC TOTAL MG/L	VANADIUM TOTAL MG/L				COMMENTS
8-25-83			<0.001	0.079		0.090	<0.001	74.50	11.20	<0.001		<0.001		0.12		0.530	0.650	<0.001	20.50	0.015	<0.0002			1.5	<0.001		<0.001	16.5	0.036					
10-19-83								72.00	6.00								0.060		21.60	<0.001				1.3				27.0						
6-26-84								72.5	12.5								1.36		27.6	<0.01				1.50				43.0						

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