		Aquatic Live	Aquatic Live	WS-001 4/19/2013 0 WS- 001(SURFA CE)041913					
	Unit	Freshwater		Human Health Consumption for	Organ		Min Detection	Max Detection	
Chemical	S		CCC - Chronic		Effects		(ignore if ND)	(ignore if ND)	
FIELD	5	onio neute		organishi only	LIICOUS				
Dissolved Oxygen	ug/l						30	650	9540
Metals	- g.								
Barium	ug/l					53.2	16.8	71.5	
Cadmium	ug/l	2	0.25			< 5.0 U	0.72	0.72	
Calcium	ug/l					3800	2820	3630	
Chromium	ug/l	570	74			4.6 J	1.3	8.8	
Lead	ug/l	65	2.5			< 15.0 U	8.7	8.7	
Magnesium	ug/l					2040	1340	2270	
Nickel	ug/l	470	52	4600		4.6 J	1.2	7	
Vanadium	ug/l					4.8 J	1.3	12.8	
Other									
Hardness (as CaCO3)	ug/l					17900	12600	18300	
SVOC SIM							-		
Naphthalene	ug/l						0.035	0.067	
Pyrene	ug/l			4000		< 0.052 U	0.016	0.016	
ТРН									
VOCs	1					1	1		
1,3,5-Trimethylbenzene	ug/l						0.1	0.1	
Benzene	ug/l			51		< 0.5 U	5.8	7	
Toluene	ug/l			15000		< 0.5 U	5.2	6.5	
Total Xylenes	ug/l					< 0.5 U	0.2	0.4	

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.





Surface Water WS-001 Deep

					ocation			
					oths (ft)			
						WS-001(0.5		
						1.0)041913		
		Aquatic Live		Human Health	Organ			
	Unit	Freshwater	Freshwater	Consumption for			Min Detection	Max Detection
Chemical	S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if ND)
FIELD		1				•	•	
Dissolved Oxygen	ug/l						36	9540
Metals							•	
Barium	ug/l					56.9	16.8	173
Cadmium	ug/l	2	0.25			< 5.0 U	0.49	0.55
Calcium	ug/l					3620	2840	7010
Chromium	ug/l		74			5.2 J	1.1	21.3
Lead	ug/l	65	2.5			< 15.0 U	8.3	18.1
Magnesium	ug/l					1980	1350	3930
Nickel	ug/l	470	52	4600		5.3 J	1.2	16.6
Vanadium	ug/l					6.5	1.7	32.2
Other								
Hardness (as CaCO3)	ug/l					17200	12700	33700
SVOC SIM								
2-Methylnaphthalene	ug/l					< 0.051 U	0.012	0.012
Benzo(b)fluoranthene	ug/l			0.018		< 0.051 U	0.011	0.015
Chrysene	ug/l			0.018		< 0.051 U	0.012	0.012
Fluoranthene	ug/l			140		< 0.051 U	0.019	0.019
Naphthalene	ug/l					< 0.051 U	0.031	0.036
Pyrene	ug/l			4000		< 0.051 U	0.016	0.017
ТРН								
VOCs								
1,3,5-Trimethylbenzene	ug/l					< 0.5 U	0.1	0.1
Toluene	ug/l			15000		< 0.5 U	0.8	0.8
Total Xylenes	ug/l					< 0.5 U	0.2	0.4

Notes

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

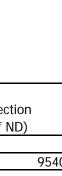
3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/I = micrograms per liter (parts per billion)

- 6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.
- 7 Freshwater CMC Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.





	Location WS-002 Sample Date 4/19/2013 Depths (ft) 0 WS- 002(SURFA Sample ID CE)041913									
		Aquatic Live	Aquatic Live	Human Health	Organ					
	Unit	Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Detec		
Chemical	S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if I		
FIELD										
Dissolved Oxygen	ug/l						4400			
Metals										
Barium	ug/l					19.2	14.6	20.4		
Cadmium	ug/l	2	0.25			< 5.0 U	0.37	0.5		
	ug/l					3260	2550	3220		
Chromium	ug/l	570	74			< 15.0 U	1.1	1.8		
Magnesium	ug/l					1610	1330	1610		
Nickel	ug/l	470	52	4600		1.1 J	1.1	2.4		
Other										
Hardness (as CaCO3)	ug/l					14800	12000	14700		
SVOC SIM										
1-Methylnaphthalene	ug/l					< 0.051 U	0.023	0.023		
2-Methylnaphthalene	ug/l					< 0.051 U	0.02	0.02		
Acenaphthene	ug/l			990	20	< 0.051 U	0.033	0.033		
Acenaphthylene	ug/l					< 0.051 U	0.032	0.032		
Anthracene	ug/l			40000		< 0.051 U	0.042	0.042		
Benzo(a)Anthracene	ug/l			0.018		< 0.051 U	0.048	0.048		
Benzo(a)Pyrene	ug/l			0.018		< 0.051 U	0.045	0.045		
Benzo(b)fluoranthene	ug/l			0.018		< 0.051 U	0.043	0.043		
Benzo(g,h,i)Perylene	ug/l					< 0.051 U	0.037	0.037		
Benzo(k)Fluoranthene	ug/l			0.018		< 0.051 U	0.044	0.044		
	ug/l			0.018		< 0.051 U	0.043	0.043		
	ug/l			0.018		< 0.051 U	0.039	0.039		
	ug/l			140		< 0.051 U	0.046	0.046		
	ug/l			5300			0.037	0.037		
Indeno(1,2,3-cd)Pyrene	ug/l			0.018	1		0.038	0.038		
Naphthalene	ug/l				1		0.031	0.06		
	ug/l		×		1	< 0.051 U	0.042	0.042		
	ug/l			4000	1	< 0.051 U	0.045	0.045		
ТРН		•	-	•	-	-	•	•		
	ug/l						1500			
VOCs		-	-	-	-	-	•	-		
Toluene	ug/l			15000		< 0.5 U	0.1	0.1		
Total Xylenes	ug/l				İ	< 0.5 U	0.2	0.2		

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)





Surface Water WS-002 Shallow

	Aquatic Live	Aquatic Live			02/041713	
	A 11 1 1	A			CE)041913	
					002(SURFA	
					WS-	
		0				
			4/19/2013			
			L	ocation	WS-002	

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (SeO4) which would result in the lowest comparison criteria concentration.

8 Results have not been validated. Preliminary data is presented for discussion purposes only.



ection if ND) n a nded

				ا Samı Dej	0			
				60	mpla ID	WS- 003(SURFA		
		A			1	CE)041913		
	1.1.4.14	Aquatic Live		Human Health	Organ			May Datastian
		Freshwater	Freshwater	Consumption for			Min Detection	Max Detection
Chemical	S	CIMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if ND)
FIELD								11.400
Dissolved Oxygen	ug/l						50	020 11480
Metals						10.7		
Barium	ug/l		0.05			19.7	15.4	26.3
Cadmium	ug/l	2	0.25			< 5.0 U	0.4	0.43
Calcium	ug/l					3100	2930	3360
Chromium		570	74			< 15.0 U	1.2	1.5
Magnesium	ug/l					1550	1400	1710
Nickel	<u> </u>	470	52	4600		< 10.0 U	1.1	2.7
Silver	ug/l	3.2				< 5.0 U	1.3	1.3
Vanadium	ug/l					1.5 J	1.4	2.5
Other								
Hardness (as CaCO3)	ug/l					14100	13100	15400
SVOC SIM								
Fluoranthene	ug/l			140		< 0.051 U	0.012	0.012
Naphthalene	ug/l					< 0.051 U	0.04	0.076
TPH						•		
VOCs								
1,2,4-Trimethylbenzene	ug/l					< 0.5 U	0.1	0.1
Benzene	ug/l			51			0.1	0.1
Ethylbenzene	ug/l			2100		< 0.5 U	0.1	0.1
Toluene	ug/l			15000		< 0.5 U	0.2	0.4
Total Xylenes	ug/l					< 0.5 U	0.3	0.8

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

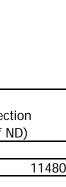
4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

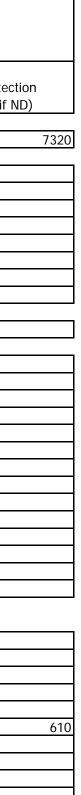
7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.





				Sam	Location ple Date pths (ft)	4/19/2013 0 WS-		
				0		004(SURFA		
			A			CE)041913		
	Unit	Aquatic Live Freshwater		Human Health Consumption for	Organ		Min Detection	Max Detec
Chamical			Freshwater CCC - Chronic		Effects			
Chemical FIELD	S	CIVIC - Acute		Organism Only	Enects		(ignore if ND)	(ignore if N
	110/1						700	
Dissolved Oxygen Metals	ug/l						/00	J
Barium	ug/l		1			294	17.8	106
Cadmium	ug/l		0.25			294 0.52 J	0.71	0.94
Calcium	ug/l	2	0.25			0.52 J 7170	3160	4680
Chromium	ug/l	570	74			32.5	1.5	13.5
Lead	ug/l		2.5			36.9	5.3	11.6
Magnesium	ug/l	05	2.0			5160	1460	2690
Nickel		470	52	4600		29.3	1.5	10
Vanadium	ug/l		52	4000	-	46.1	2	18.4
Other	uy/i					40.1	Z	10.4
Hardness (as CaCO3)	ug/l					39100	14000	22800
SVOC SIM	uy/i					37100	14000	22000
1-Methylnaphthalene	ug/l					< 0.052 U	0.013	0.39
2-Methylnaphthalene	ug/l					< 0.052 U < 0.052 U	0.013	0.39
Acenaphthene	ug/l			990	20	< 0.052 U < 0.052 U	0.017	0.27
Benzo(a)Anthracene	ug/l			0.018	20	< 0.052 U	0.014	0.023
Benzo(a)Pyrene	ug/l			0.018		< 0.052 U	0.011	0.034
Benzo(b)fluoranthene	ug/l			0.018		< 0.052 U	0.012	0.019
Benzo(g,h,i)Perylene	ug/l			0.010		< 0.052 U	0.015	0.015
Chrysene	ug/l			0.018		< 0.052 U	0.013	0.013
Fluoranthene	ug/l			140		< 0.052 U	0.013	0.013
Fluorene	ug/l			5300		< 0.052 U	0.014	0.057
Indeno(1,2,3-cd)Pyrene	ug/l			0.018			0.017	0.017
Naphthalene	ug/l			0.010			0.034	0.93
Phenanthrene	ug/l					< 0.052 U	0.039	0.042
Pyrene	ug/l			4000		< 0.032 0 0.013 J	0.011	0.042
TPH	uy/i			4000		0.013 5	0.011	0.017
VOCs								
1,2,4-Trimethylbenzene	ug/l					0.8	1.2	5.9
1,3,5-Trimethylbenzene	ug/l					0.8	0.3	4.2
Acetone	ug/l					3.4 J	3.1	18.5
Benzene	ug/l			51		0.3 J	0.1	10:5
Ethylbenzene	ug/l			2100		0.3 J	2.3	6
Gasoline Range Organics	ug/l						610	
Isopropylbenzene	ug/l					0.1 J	0.1	1.1
N-Propylbenzene	ug/l					0.1 J	0.3	0.3
Toluene	ug/l			15000		1.8	1.1	77.7
Total Xylenes	ug/l				1	3.4	0.2	59.2
	ug/1	1	L	L	1	U . 1	12.2	57.2





Surface Water WS-004 Shallow

		1	ocation			
		Samp	ole Date	4/19/2013		
		Dep	oths (ft)	0		
				WS-		
				004(SURFA		
		Sai	mple ID	CE)041913		
Aquatic Live	Aquatic Live	Human Health	Organ			
it Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Detec
CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if
	it Freshwater	it Freshwater Freshwater	Samp Dep Samp Samp Samp Samp Samp Samp Samp Sam	Sample Date Depths (ft) Sample ID Aquatic Live Aquatic Live Human Health Organ it Freshwater Freshwater Consumption for oleptic	004(SURFA Sample ID CE)041913 Aquatic Live Human Health Organ	kSample Date4/19/2013Depths (ft)0Depths (ft)0WS-004(SURFA)Sample IDCE)041913Aquatic LiveHuman HealthOrganFreshwaterFreshwaterConsumption forolepticImage: Sample IDMin Detection

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

- 6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.
- 7 Freshwater CMC Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.



ection	
ND)	

Surface Water WS-004 Deep

					Location	WS-004		
					ple Date			
				De	pths (ft)	0.5-1		
						WS-004(0.5		
				Sa	mnla ID	1.0)041913		
		Aquatic Live	Aquatic Live	Human Health	Organ	1.0/041713		
	Unit	Freshwater	Freshwater	Consumption for			Min Detection	Max Detect
Chemical	S		CCC - Chronic		Effects		(ignore if ND)	(ignore if N
FIELD			000 01101110		2.10010		(.ge. e	(.g
Dissolved Oxygen	ug/l						-	/00
Metals								
Arsenic	ua/l	340	150	0.14		14.7 J	8.9	8.9
Barium	ug/l					293	21.8	180
Cadmium	ug/l		0.25			< 5.0 U	0.69	1.1
Calcium	ug/l					7500	3250	7270
Chromium		570	74			34.3	1.2	24.3
Lead	ug/l		2.5			38.2	5.7	19.2
Magnesium	ug/l					5560	1430	4180
Nickel		470	52	4600		30.7	2.4	17.8
Silver	ug/l		-			< 5.0 U	1.4	1.4
Vanadium	ug/l	0.1				46.3	2	35.6
Other	1-3.					1.2.2		
Hardness (as CaCO3)	ug/l					41600	14000	35400
SVOC SIM								
1-Methylnaphthalene	ug/l					0.012 J	0.017	0.36
2-Methylnaphthalene	ug/l					0.017 J	0.011	0.23
Acenaphthene	ug/l			990	20	< 0.055 U	0.014	0.024
Benzo(a)Anthracene	ug/l			0.018		< 0.055 U	0.013	0.014
Benzo(a)Pyrene	ug/l			0.018		< 0.055 U	0.021	0.021
Benzo(b)fluoranthene	ug/l			0.018		< 0.055 U	0.012	0.028
Benzo(g,h,i)Perylene	ug/l					< 0.055 U	0.019	0.019
Benzo(k)Fluoranthene	ug/l			0.018		< 0.055 U	0.022	0.022
Chrysene	ug/l			0.018		0.012 J	0.011	0.027
Dibenzo(a,h)Anthracene	ug/l			0.018		< 0.055 U	0.021	0.021
Fluoranthene	ug/l			140		< 0.055 U	0.011	0.02
Fluorene	ug/l			5300		< 0.055 U	0.014	0.057
Indeno(1,2,3-cd)Pyrene	ug/l			0.018		< 0.055 U	0.023	0.023
Naphthalene	ug/l					0.049 J	0.033	0.22
Phenanthrene	ug/l					< 0.055 U	0.038	0.038
Pyrene	ug/l			4000		0.015 J	0.011	0.02
TPH	1 ' J'							
VOCs								
1,2,4-Trimethylbenzene	ug/l					0.8	2.6	2.6
1,3,5-Trimethylbenzene	ug/l					0.9	0.1	2
Acetone	ug/l					< 5.0 U	4.4	4.4
Benzene	ug/l			51		0.3 J	0.1	3.4
Ethylbenzene	ug/l			2100	1	0.3 J	2.8	2.8
Isopropylbenzene	ug/l					0.1 J	0.1	0.1
N-Propylbenzene	ug/l					0.1 J	0.3	0.3
Toluene	ug/l		i	15000	1	1.8	0.8	5.1





Surface Water WS-004 Deep

				L	ocation	WS-004			
	Sample Date								
	Depths (ft)								
						WS-004(0.5			
				Sa	mple ID	1.0)041913			
		Aquatic Live	Aquatic Live	Human Health	Organ				
	Unit	Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Detec	
Chemical	S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if N	
Total Xylenes	ug/l					3.4	0.2	20	

Notes

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (SeO4) which would result in the lowest comparison criteria concentration.



ection	
ND)	

			l	ocation	WS-005		
			Samp	ole Date	4/19/2013		
			Dej	oths (ft)	0		
					WS-		
					005(SURFA		
			Sa	mple ID	CE)041913		
	Aquatic Live	Aquatic Live	Human Health	Organ			
Unit	Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Detec
S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if
ug/l						5	050
ug/l					17.4	14.6	58.6
ug/l	2	0.25			< 5.0 U	0.45	0.53
ug/l					3230	3050	4860
ug/l	570	74			< 15.0 U	1.3	3.1
ug/l					1580	1470	2080
ug/l	470	52	4600		1.5 J	1.2	3.1
ug/l	3.2				< 5.0 U	1.4	1.4
ug/l					< 5.0 U	1.7	2.3
ug/l					14600	13700	20700
ug/l						1	500
ug/l					< 0.5 U	0.1	0.2
	s ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	Unit Freshwater	Unit Freshwater CMC - Acute Freshwater CCC - Chronic ug/l	Samp Dep Samp Samp Samp Samp Samp Samp Samp Sam	Sample Date Depths (ft) Sample ID Aquatic Live Aquatic Live Human Health Organ Unit Freshwater Freshwater Consumption for oleptic S CMC - Acute CCC - Chronic Organism Only Effects ug/l	Sample Date Depths (ft) 4/19/2013 0 WS- 005(SURFA Sample ID Linit s Aquatic Live Freshwater s Human Health CCC - Chronic Organ oleptic Organism Only Unit s CCC - Acute CCC - Chronic Organ oleptic Organism Only Effects Ug/l 17.4 3230 Ug/l 17.4 3230 Ug/l 3230 3230 Ug/l 1580 1580 Ug/l 152 4600 1.5 J Ug/l 1 14600 Ug/l 14600 14600	Sample Date Depths (ft) 4/19/2013 0 WS- 005(SURFA CE)041913 Aquatic Live Freshwater s Aquatic Live Freshwater CCC - Chronic Human Health Consumption for Organism Only Organ effects Min Detection (ignore if ND) ug/l 17.4 14.6 ug/l 17.4 14.6 ug/l 3230 3050 ug/l 3230 3050 ug/l 1580 1470 ug/l 1580 1470 ug/l 1580 1470 ug/l 1580 1470 ug/l 1580 1470 ug/l 1580 1470 ug/l 50.0 1.7 ug/l 1.4 ug/l 1.600 13700 ug/l 114600 13700

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

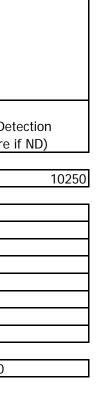
5 ug/l = micrograms per liter (parts per billion)

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (SeO4) which would result in the lowest comparison criteria concentration.

8 Results have not been validated. Preliminary data is presented for discussion purposes only.





2600

						1
		l	ocation			
		Samp	ole Date	4/19/2013		
		De	oths (ft)			
				WS-		
				006(SURFA		
		Sa	mple ID	CE)041913		
Aquatic Live	Aquatic Live	Human Health	Organ			
it Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Dete
CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if
/1					4330)
4				52.5	14.4	37.7
/1 2	0.25			< 5.0 U	0.43	0.64
				4000	3020	3950
/I 570	74			4.7 J	1.2	3.2
				2140	1540	1850
/I 1.4	0.77			< 0.20 U	0.11	0.11
/I 470	52	4600		4.3 J	1.2	3.3
/1				5.8	1.4	5
4				18800	14100	17400
/1				< 0.051 U	0.034	0.11
/1					1500)
/				< 0.5 U	0.1	0.1
/1		15000		< 0.5 U	0.1	0.1
	nit Freshwater	Freshwater Freshwater CMC - Acute CCC - Chronic // // // 0.25 // 0.25 // // // 0.74 // 0.77 // 470 // 52 // - // - // - // - // - // - // - // - // -	Samp Dep Sa Sa Aquatic Live Aquatic Live Freshwater CMC - Acute CCC - Chronic Organism Only /I /I /I /I /I /I /I /I /I /I	Depths (ft) Sample ID Aquatic Live Aquatic Live Human Health Organ Freshwater Freshwater Consumption for oleptic CMC - Acute CCC - Chronic Organism Only Effects //	Sample Date Depths (ft) 4/19/2013 0 WS- 006(SURFA Sample ID Aquatic Live Freshwater Aquatic Live Freshwater Human Health Consumption for Organism Only Organ oleptic // CCC - Chronic Organism Only Effects // 52.5 // 52.5 // 4000 // 4000 // 2140 // 5.8 // 5.8 // // 5.8	Sample Date Depths (ft) $4/19/2013$ 0 Note the depth of the dep

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

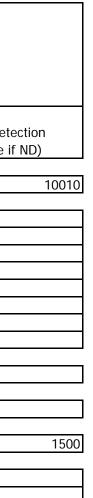
3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

- 6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.
- 7 Freshwater CMC Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.





Surface Water WS-006 Deep

					ocation	WS-006		
						4/19/2013		
	Depths (ft) 0.5-1							
				00		0.0 1		
						WS-006(0.5		
				Sa		1.0)041913		
		Aquatic Live	Aquatic Live	Human Health	Organ			
	l Init	Freshwater	Freshwater	Consumption for			Min Detection	Max Detection
Chemical	S		CCC - Chronic	•	Effects		(ignore if ND)	(ignore if ND)
FIELD	3	civic - Acute			LITECIS			
Dissolved Oxygen	ug/l						/	10010
Metals	uy/i						2	10010
Arsenic	ug/l	240	150	0.14		< 20.0 U	7.5	7.5
Barium		340	150	0.14			16.3	40.5
	ug/l	0	0.05					
Cadmium	ug/l	2	0.25				0.53	0.65
Calcium	ug/l						3010	4050
Chromium	ug/l	570	74				1.1	4.2
Magnesium	ug/l					2170	1450	1910
Mercury	ug/l	1.4	0.77			< 0.20 U	0.083	0.083
Nickel	ug/l	470	52	4600		4.9 J	1.2	3.4
Silver	ug/l	3.2				< 5.0 U	1.4	1.4
Vanadium	ug/l					5.4	1.4	4.9
Other								
Hardness (as CaCO3)	ug/l					19200	13600	17800
SVOC SIM								
Naphthalene	ug/l					< 0.052 U	0.053	0.053
ТРН	3.1							
VOCs								
Cymene	ug/l					< 0.5 U	0.2	0.2
Toluene	ug/l			15000		< 0.5 U	0.1	0.1

Notes

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

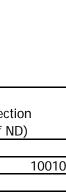
4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.





					Location	WS-007		
					ole Date			
Depths (ft) 0								
				20		WS-		
						007(SURFA		
				Sa	mple ID	CE)041913		
		Aquatic Live	Aquatic Live	Human Health	Organ			
	Unit	Freshwater	Freshwater	Consumption for			Min Detection	Max Detection
Chemical	S		CCC - Chronic		Effects		(ignore if ND)	(ignore if ND)
FIELD	5	omo nouto		organishi only	Encots	1		
Dissolved Oxygen	ug/l						214	0 6880
Metals	ugri					1	217	0000
Arsenic	ug/l	340	150	0.14		< 20.0 U	9.3	9.3
Barium	ug/l	540	150	0.14		172	23.1	131
Cadmium	ug/l	2	0.25				0.65	0.91
Calcium	ug/l	<u> </u>	0.20		1	< <u>3.0</u> 0 6390	3130	6170
Chromium	ug/l	570	74			12.2 J	1.7	18.1
Lead	ug/l		2.5				6.5	16.1
Magnesium		05	2.0			3260	1500	3350
	ug/l ug/l	1 /	0.77				0.074	0.085
Mercury				4/00				
Nickel	ug/l	470	52	4600		12.9	2.1	15.5
Vanadium	ug/l					17.5	1.6	26.4
Other	1					00400	4 4 9 9 9	
Hardness (as CaCO3)	ug/l					29400	14000	26000
SVOC SIM						0.050.11		
1-Methylnaphthalene	ug/l						0.068	0.39
2-Methylnaphthalene	ug/l						0.011	0.27
Acenaphthene	ug/l			990	20		0.014	0.041
Acenaphthylene	ug/l						0.014	0.036
Anthracene	ug/l			40000			0.027	0.13
Benzo(a)Anthracene	ug/l			0.018			0.011	0.29
Benzo(a)Pyrene	ug/l			0.018			0.085	0.085
Benzo(b)fluoranthene	ug/l			0.018			0.011	0.43
Benzo(g,h,i)Perylene	ug/l						0.012	0.081
Benzo(k)Fluoranthene	ug/l			0.018			0.011	0.16
Chrysene	ug/l			0.018			0.011	0.77
Dibenzo(a,h)Anthracene	ug/l			0.018			0.019	0.019
Fluoranthene	ug/l			140			0.011	3
Fluorene	ug/l			5300			0.027	0.065
Indeno(1,2,3-cd)Pyrene	ug/l			0.018			0.011	0.11
Naphthalene	ug/l						0.034	0.16
Phenanthrene	ug/l					< 0.052 U	0.034	0.64
Pyrene	ug/l			4000		0.080	0.013	2
ТРН								
VOCs								
1,3,5-Trimethylbenzene	ug/l					0.2 J	0.1	1.6
2-Butanone	ug/l					< 5.0 U	1	1
Acetone	ug/l					< 5.0 U	3.4	24
Benzene	ug/l			51			0.1	2
Toluene	ug/l			15000		< 0.5 U	0.1	0.1
Total Xylenes	ug/l						0.1	6.4



Surface Water WS-007 Shallow

				Dep	oths (ft)			
						WS-		
						007(SURFA		
					mple ID	CE)041913		
		Aquatic Live	•		Organ			
	Unit	Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Deteo
Chemical	S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if

Notes

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/I = micrograms per liter (parts per billion)

- 6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.
- 7 Freshwater CMC Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.



ection	
ND)	

Surface Water WS-007 Deep

					Location	WS-007		
				Sam	ple Date	4/19/2013		
					pths (ft)			
						WS-007(0.5		
						1.0)041913		
		Aquatic Live	Aquatic Live	Human Health	Organ			
		Freshwater	Freshwater	Consumption for			Min Detection	Max Detection
Chemical	S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if ND)
FIELD		r	r		-	1		4.0
Dissolved Oxygen	ug/l						21	40 688
Metals			150					
Arsenic		340	150	0.14		7.3 J	7.8	9.6
Barium	ug/l		0.05			201	23.7	160
Cadmium	ug/l	2	0.25			< 5.0 U	0.43	0.77
Calcium	ug/l				-	6630	3330	5410
Chromium	ug/l		74			18.2	1.8	20.3
Lead	ug/l	65	2.5			21.3	5.3	38.8
Magnesium	ug/l					3910	1560	3720
Nickel	<u> </u>	470	52	4600		17.3	1.7	17.4
Vanadium	ug/l					24.6	2.4	30.8
Other								
Hardness (as CaCO3)	ug/l					32600	14700	28900
SVOC SIM							1	
1-Methylnaphthalene	ug/l					0.038 J	0.012	0.5
2-Methylnaphthalene	ug/l					0.051 J	0.013	0.33
Acenaphthene	ug/l			990	20	0.022 J	0.012	0.038
Acenaphthylene	ug/l						0.016	0.04
Anthracene	ug/l			40000		0.024 J	0.012	0.15
Benzo(a)Anthracene	ug/l			0.018		0.022 J	0.018	0.22
Benzo(a)Pyrene	ug/l			0.018			0.012	0.07
Benzo(b)fluoranthene	ug/l			0.018		0.025 J	0.012	0.42
Benzo(g,h,i)Perylene	ug/l						0.011	0.075
Benzo(k)Fluoranthene	ug/l			0.018			0.015	0.13
Chrysene	ug/l			0.018		0.042 J	0.012	0.61
Dibenzo(a,h)Anthracene	ug/l			0.018		< 0.053 U	0.012	0.017
Fluoranthene	ug/l			140		0.11	0.013	2.5
Fluorene	ug/l			5300		0.043 J	0.012	0.07
Indeno(1,2,3-cd)Pyrene	ug/l			0.018		< 0.053 U	0.014	0.099
Naphthalene	ug/l					0.064	0.042	0.19
Phenanthrene	ug/l					0.18	0.035	0.71
Pyrene	ug/l			4000		0.098	0.012	1.7
TPH								
VOCs								
1,3,5-Trimethylbenzene	ug/l					0.2 J	0.2	1.9
Acetone	ug/l					3.1 J	3.4	5.1
Benzene	ug/l			51	1	< 0.5 U	0.2	1.9
Toluene	ug/l			15000		< 0.5 U	0.1	0.3
Total Xylenes	ug/l						0.2	6.8

Notes



Surface Water WS-007 Deep

					ocation	WS-007		
				Samp	ole Date	4/19/2013		
				Dep	oths (ft)	0.5-1		
					• •			
						WS-007(0.5		
				Sai	mple ID	1.0)041913		
		Aquatic Live	Aquatic Live	Human Health	Organ			
	Unit	Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Detec
Chemical	S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if I

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (Se04) which would result in the lowest comparison criteria concentration.



ection	
ND)	

					location	MC 000		
					Location ple Date	WS-008 4/19/2013		
				•	pths (ft)	4/19/2013		
				De	puis (ii)	WS-		
						008(SURFA		
				C.		CE)041913		
		Aquatic Livo	Aquatic Live	Sa Human Health	· ·	CE)041913		
	Unit	Aquatic Live Freshwater	Freshwater		Organ		Min Detection	Max Detection
Chamiaal				Consumption for	Effects		(ignore if ND)	
Chemical	S	CIVIC - ACULE	CCC - Chronic	Organism Only	Enects			(ignore if ND)
Metals	ug/l	240	150	0.14			0.4	11 /
Arsenic		340	150	0.14		< 20.0 U 83.1	9.4 28.8	11.6 182
Barium	ug/l ug/l	2	0.25				28.8 0.37	182
Cadmium		2	0.25					7400
Calcium	ug/l	570	7 4			4790	2930	7490
Chromium	ug/l		74			9.5 J	1.9	30.8
Lead	ug/l	CO	2.5		-	8.0 J	14.2 2100	30.2 5310
Magnesium	ug/l	1 4	0.77			3310		
Mercury	ug/l		0.77	4(00			0.076	0.082
Nickel	ug/l	470	52	4600	· · · ·	8.8 J	2.6	26.5
Vanadium	ug/l					12.3	2.9	32.7
Other		r				05/00	4 / 000	05700
Hardness (as CaCO3)	ug/l					25600	16000	35700
SVOC SIM								
1-Methylnaphthalene	ug/l						0.022	5.5
2-Methylnaphthalene	ug/l						0.02	7.2
Acenaphthene	ug/l			990	20		0.013	0.3
Acenaphthylene	ug/l						0.011	0.22
Anthracene	ug/l			40000			0.018	0.24
Benzo(a)Anthracene	ug/l			0.018			0.014	0.31
Benzo(a)Pyrene	ug/l			0.018			0.011	0.23
Benzo(b)fluoranthene	ug/l			0.018			0.011	0.52
Benzo(g,h,i)Perylene	ug/l						0.011	0.31
Benzo(k)Fluoranthene	ug/l			0.018			0.024	0.075
Chrysene	ug/l			0.018			0.015	0.78
Dibenzo(a,h)Anthracene	ug/l			0.018			0.031	0.06
Fluoranthene	ug/l			140			0.013	0.21
Fluorene	ug/l			5300			0.021	0.93
Indeno(1,2,3-cd)Pyrene	ug/l			0.018			0.014	0.11
Naphthalene	ug/l						0.032	2.5
Phenanthrene	ug/l						0.059	1.8
Pyrene	ug/l			4000		0.029 J	0.016	0.82
ТРН								
Oil & Grease	ug/l						170	5400
VOCs								
1,2,4-Trimethylbenzene	ug/l					0.5 J	0.2	29
1,3,5-Trimethylbenzene	ug/l					0.3 J	0.1	13
2-Phenylbutane	ug/l					< 0.5 U	0.1	1.5
Acetone	ug/l					< 5.0 U	3.5	8.9
Benzene	ug/l			51		2.6	0.5	30
Bromodichloromethane	ug/l			17		0.2 J	0.1	0.8
Chloroform	ug/l			470		0.9	0.6	2.9





				l	ocation	WS-008		
				Samp	ole Date	4/19/2013		
				De	oths (ft)	0		
						WS-		
						008(SURFA		
				Sa	mple ID	CE)041913		
		Aquatic Live	Aquatic Live	Human Health	Organ			
	Unit	Freshwater	Freshwater	Consumption for	oleptic		Min Detection	Max Detec
Chemical	S	CMC - Acute	CCC - Chronic	Organism Only	Effects		(ignore if ND)	(ignore if
Chloromethane	ug/l					< 0.5 U	1.6	1.6
Cymene	ug/l					< 0.5 U	0.2	1.8
Ethylbenzene	ug/l			2100		0.3 J	0.2	18
Isopropylbenzene	ug/l					< 0.5 U	0.1	3.7
N-Butylbenzene	ug/l					< 0.5 U	0.2	1.6
N-Propylbenzene	ug/l					< 0.5 U	0.1	5.3
Toluene	ug/l			15000		3.5	0.7	93
Total Xylenes	ug/l					3.8	0.9	130

1 All surface water criteria are from current USEPA National Recommended Surface Waste Quality Criteria.

2 CMC - Acute = Criteria Maximum Concentration

3 CCC - Chronic = Criteria Continuous Concentration

4 mg/l = milligrams per liter (parts per million)

5 ug/l = micrograms per liter (parts per billion)

6 Where hardness results are available, freshwater aquatic life criteria for Cadmium, Chromium, Lead, Nickel, Silver, and Zinc are adjusted on a sample-specific basis for comparison with sampling results using the conversion factors presented in Appendix B to the National Recommended Surface Water Quality Criteria. Where hardness results are not available, comparison criteria are based on a conservative hardness value of ppm.

7 Freshwater CMC - Acute criteria for Selenium is calculated on a sample-specific basis based on the fractions of Selenite (SeO3) and Selenate (SeO4) in the sample. Samples were analyzed for total Selenium only. Criteria in table conservatively assumes that all of the measured Selenium is Selenate (SeO4) which would result in the lowest comparison criteria concentration.



ection ND)	