

Table 1
CECMC Rule 915 Soil Analysis - Inorganics

Red Hawk - Straudinger Fire
CECMC Remediation No. 35054

Sample ID	Depth	Sample Date	Location Description	EC ¹	SAR ¹	pH ¹	Boron ²
	ft bgs			mmhos/cm	ratio		mg/L
<i>CECMC Table 915-1 Clean Up Concentrations</i>				< 4	< 6	6-8.3	2
ST 1	1	6/5/2024	E of Heat Treater	0.556	5.36	8.58	1.12
ST 2	1	6/5/2024	SW corner of Separator	0.340	4.25	8.54	0.751
ST 3	1	6/5/2024	W of Heat Treater	1.05	1.67	8.18	0.403
ST 4	1	6/5/2024	NW of Separator	0.174	0.267	8.40	0.262
ST 5	1	6/5/2024	50' SW of Heat Treater	0.153	0.238	8.35	0.216
ST 6	1	6/5/2024	75' NW of Separator	0.622	3.66	8.41	0.195
ST 7	1	6/5/2024	75' SW of Heat Treater	0.430	2.12	8.36	0.179
ST 1	1	9/17/2024	SE corner of separator	0.270	0.0744	8.24	0.122
ST 2	1	9/17/2024	NW corner of separator	0.251	0.0564	8.25	0.143
ST 3	1	9/17/2024	SW corner of separator	0.319	0.0792	8.26	0.200
ST 4	1	9/17/2024	NW of separator	0.296	0.0439	8.22	0.233
ST 5	1	9/17/2024	SW of separator	0.316	0.0795	8.26	0.140
SW 1	1	9/17/2024	SE of well	0.403	0.0526	8.31	0.251
SW 2	1	9/17/2024	SW of well	0.522	0.0735	7.98	0.177
SBG	1	9/17/2024	West background sample	0.503	0.386	8.38	ND

Concentrations exceeding the CECMC Table 915-1 allowable concentrations are expressed in **bold** type face

¹ By Saturated Paste Method

² Hot Water Soluble Soil Extract

EC = Electrical Conductivity

SAR = Sodium Adsorption Ratio

ft bgs - Feet below ground surface

mmhos/cm - Millimhos per centimeter

mg/L - Milligrams per liter

NA - Not Analyzed

CECMC - Colorado Energy and Carbon Management Commission



Table 2
CECMC Rule 915 Soil Analysis - Organics

Red Hawk - Straudinger Fire
CECMC Remediation No. 35054

Sample ID	Depth	Sample Date	Location Description	PID	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene	1,2,4-TMB	1,3,5-TMB	TPH
	ft bgs			ppm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<i>CECMC Table 915-1 Protection of Groundwater Soil Screening Level Concentrations</i>					<i>0.0026 (M)</i>	<i>0.69 (M)</i>	<i>0.78 (M)</i>	<i>9.9 (M)</i>	<i>0.0038 (R)</i>	<i>0.0081 (R)</i>	<i>0.0087 (R)</i>	<i>500</i>
<i>CECMC Table 915-1 Residential Soil Screening Level Concentrations</i>					<i>1.2</i>	<i>490</i>	<i>5.8</i>	<i>58</i>	<i>2</i>	<i>30</i>	<i>27</i>	<i>500</i>
ST 1	1	6/5/2024	E of Heat Treater	NA	ND	ND	ND	ND	ND	ND	ND	869
ST 2	1	6/5/2024	SW corner of Separator	NA	ND	ND	ND	ND	ND	ND	ND	803
ST 3	1	6/5/2024	W of Heat Treater	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 4	1	6/5/2024	NW of Separator	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 5	1	6/5/2024	50' SW of Heat Treater	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 6	1	6/5/2024	75' NW of Separator	NA	ND	ND	ND	ND	ND	0.00206	ND	0.445
ST 7	1	6/5/2024	75' SW of Heat Treater	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 1	1	9/17/2024	SE corner of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 2	1	9/17/2024	NW corner of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 3	1	9/17/2024	SW corner of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 4	1	9/17/2024	NW of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND
ST 5	1	9/17/2024	SW of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND
SW 1	1	9/17/2024	SE of well	NA	ND	ND	ND	ND	ND	ND	ND	ND
SW 2	1	9/17/2024	SW of well	NA	ND	ND	ND	ND	ND	ND	ND	ND
SBG	1	9/17/2024	West background sample	NA	ND	ND	ND	ND	ND	ND	ND	ND

Concentrations exceeding the CECMC Table 915-1 allowable concentrations are expressed in **bold** type face

TPH - Total volatile (C6 - C10) and extractable (C10-C36) petroleum hydrocarbons

ft bgs - Feet below ground surface

PID - Photoionization Detector

mg/kg - Milligrams per kilogram

ppm - Parts per million

TMB - Trimethylbenzene

ND - Non-detect

NA - Not Analyzed

CECMC - Colorado Energy and Carbon Management Commission

(M) - The letter "(M)" following a protection of Groundwater soil screening level indicates the concentration is derived from the drinking water MCL.

(R) - The letter "(R)" following a protection of Groundwater soil screening level indicates the concentration is derived from a risk-based approach.



Table 3
CECMC Rule 915 Soil Analysis - Metals

Red Hawk - Straudinger Fire
CECMC Remediation No. 35054

Sample ID	Depth	Sample Date	Location Description	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Selenium	Silver	Zinc
	ft bgs			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<i>CECMC Table 915-1 Protection of Groundwater Soil Screening Level Concentration</i>				<i>0.29 (M)</i>	<i>82 (M)</i>	<i>0.38 (M)</i>	<i>0.00067 (M)</i>	<i>46 (M)</i>	<i>14 (M)</i>	<i>26 (R)</i>	<i>0.26 (M)</i>	<i>0.8 (R)</i>	<i>370 (R)</i>
<i>CECMC Table 915-1 Allowable Residential Soil Screening Level Concentration</i>				<i>0.68</i>	<i>15000</i>	<i>71</i>	<i>0.3</i>	<i>3100</i>	<i>400</i>	<i>1500</i>	<i>390</i>	<i>390</i>	<i>23000</i>
ST 1	1	6/5/2024	E of Heat Treater	4.77	262	0.302	ND	11.2	8.33	8.27	0.283	0.161	ND
ST 2	1	6/5/2024	SW corner of Separator	4.80	196	0.180	ND	10.2	6.99	8.18	ND	ND	ND
ST 3	1	6/5/2024	W of Heat Treater	3.53	43.7	ND	ND	ND	4.08	5.13	ND	ND	ND
ST 4	1	6/5/2024	NW of Separator	2.87	48.9	ND	ND	ND	4.72	5.93	ND	ND	ND
ST 5	1	6/5/2024	50' SW of Heat Treater	3.19	51.1	ND	ND	ND	7.15	6.23	ND	ND	32.9
ST 6	1	6/5/2024	75' NW of Separator	1.58	126	ND	ND	ND	4.36	3.35	ND	ND	ND
ST 7	1	6/5/2024	75' SW of Heat Treater	1.99	141	0.105	ND	ND	5.05	3.92	ND	ND	ND
ST 1	1	9/17/2024	SE corner of separator	4.36	142	0.136	ND	12.0	7.22	9.57	ND	ND	ND
ST 2	1	9/17/2024	NW corner of separator	4.17	120	0.134	ND	12.2	7.63	9.19	ND	ND	ND
ST 3	1	9/17/2024	SW corner of separator	6.26	82.1	0.127	ND	10.6	6.98	7.60	0.300	ND	ND
ST 4	1	9/17/2024	NW of separator	3.83	113	0.133	ND	11.3	6.26	8.57	ND	ND	ND
ST 5	1	9/17/2024	SW of separator	4.62	114	0.157	ND	12.2	7.73	9.65	0.238	ND	34.4
SW 1	1	9/17/2024	SE of well	4.44	114	0.130	ND	11.9	6.98	9.04	ND	ND	ND
SW 2	1	9/17/2024	SW of well	4.19	104	0.124	ND	11.4	6.60	8.17	ND	ND	ND
SBG	1	9/17/2024	West background sample	6.71	91.9	0.310	ND	14.6	12.0	18.5	0.349	ND	61.9

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ft bgs - Feet below ground surface

mg/kg - Milligrams per kilogram

ND - Non-detect

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Table 4
CECMC Rule 915 Soil Analysis - Polycyclic Aromatic Hydrocarbons (PAHs)

Red Hawk - Straudinger Fire
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Sample ID	Depth	Sample Date	Location Description	PID	Acenaphthene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Pyrene	1-Methylnaphthalene	2-Methylnaphthalene
	ft bgs			ppm	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<i>CECMC Table 915-1 Protection of Groundwater Soil Screening Level Concentration</i>					<i>0.55 (R)</i>	<i>5.8 (R)</i>	<i>0.011 (R)</i>	<i>0.24 (R)</i>	<i>0.3 (M)</i>	<i>2.9 (R)</i>	<i>9 (R)</i>	<i>0.096 (R)</i>	<i>8.9 (R)</i>	<i>0.54 (R)</i>	<i>0.98 (R)</i>	<i>1.3 (R)</i>	<i>0.006 (R)</i>	<i>0.019 (R)</i>
<i>CECMC Table 915-1 Allowable Residential Soil Screening Level Concentration</i>					<i>360</i>	<i>1800</i>	<i>1.1</i>	<i>0.11</i>	<i>1.1</i>	<i>11</i>	<i>110</i>	<i>0.11</i>	<i>240</i>	<i>240</i>	<i>1.1</i>	<i>180</i>	<i>18</i>	<i>24</i>
ST 1	1	6/5/2024	E of Heat Treater	NA	ND	ND	ND	ND	ND	ND	0.044	ND	ND	ND	ND	ND	ND	ND
ST 2	1	6/5/2024	SW corner of Separator	NA	ND	ND	0.005	ND	ND	ND	0.070	ND	ND	ND	ND	ND	ND	ND
ST 3	1	6/5/2024	W of Heat Treater	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 4	1	6/5/2024	NW of Separator	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 5	1	6/5/2024	50' SW of Heat Treater	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 6	1	6/5/2024	75' NW of Separator	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 7	1	6/5/2024	75' SW of Heat Treater	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 1	1	9/17/2024	SE corner of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 2	1	9/17/2024	NW corner of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 3	1	9/17/2024	SW corner of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 4	1	9/17/2024	NW of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
ST 5	1	9/17/2024	SW of separator	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW 1	1	9/17/2024	SE of well	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW 2	1	9/17/2024	SW of well	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
SBG	1	9/17/2024	West background sample	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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