

### Red Butte Creek Oil Release Air Monitoring Journal

Date	Location (Time)	Analyte	Method	Result	GPS Location	Comment		
6/19/10	Miller Park, along Red Butte Creek (1209-1230)	VOCs	PID	0.0-1.5 ppm <sup>1</sup>	40°44'46.37"N, 111°50'48.60"W	~20 yards from outlet from Miller Park, 10 ft above creek		
				5.9-15.4 ppm <sup>1</sup>	40°44'46.60"N, 111°50'46.30"W	~50 yards from outlet, on edge of creek		
				5.9-15.1 ppm <sup>1</sup>	40°44'47.10"N, 111°50'45.55"W	~75 yards from outlet, 2 ft above creek		
				5.0-15.1 ppm <sup>1</sup>	40°44'47.72"N, 111°50'43.65"W	At waterfall on bridge, 12 ft above creek		
		Hydrogen Sulfide (H <sub>2</sub> S)	QRAEII	0.0 ppm <sup>2</sup>	At all locations along Red Butte Creek at Miller Park. There were no workers scrubbing the creek. Chevron is planning to flush the creek tonight.			
		Carbon Monoxide (CO)	QRAEII	0.0 ppm				
		Lower Explosive Limit (LEL)	QRAEII	0.0%				
	Benzene	Draeger Tube	None Detected <sup>3</sup>	40°44'46.60"N, 111°50'46.30"W	~50 yards from outlet, on edge of creek			
	Confluence of Jordan River and Red Butte Creek (1048-1100)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0 ppm <sup>1</sup>	40°44'29.75"N, 111°55'3.68"W	At inlet to Jordan River, 3 ft from water		
				Hydrogen Sulfide (H <sub>2</sub> S)			QRAEII	0.0 ppm <sup>2</sup>
				Carbon Monoxide (CO)			QRAEII	0.0 ppm
				Lower Explosive Limit (LEL)			QRAEII	0.0%
	966 Military Drive (1145-1205)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0 ppm <sup>1</sup>	40°44'55.12"N, 111°50'33.14"W			
Hydrogen Sulfide (H <sub>2</sub> S)				QRAEII			0.0 ppm <sup>2</sup>	
Carbon Monoxide (CO)				QRAEII			0.0 ppm	
Lower Explosive Limit (LEL)				QRAEII			0.0%	

<sup>1</sup> PID readings for VOCs are used as a screening method to determine contaminants typically associated with crude oil. If high levels of VOCs are detected, additional sampling is conducted

<sup>2</sup> 10ppm Hydrogen Sulfide (ceiling) - NIOSH recommended exposure level

<sup>3</sup> 0.5 ppm Benzene- 29 CFR 1910.1028

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6/19/10		Volatile Organic Compounds	Passive Dosimeters	----		Two passive dosimeters were set up. One inside and one outside of the residence.
	Garden Park Ward, 1140 Harvard (1240-1250)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0 ppm <sup>1</sup>	40°44'42.01"N, 111°51'29.60"W	At the creek's edge. There were no workers scrubbing the creek.
		Hydrogen Sulfide (H <sub>2</sub> S)	QRAEII	0.0 ppm <sup>2</sup>		
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
		Lower Explosive Limit (LEL)	QRAEII	0.0%		
	1100 East Harvard (1250-1255)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0 ppm <sup>1</sup>	40°44'42.1"N, 111°51'34.0"W	North of Harvard where Red Butte Creek goes underneath 1100 East
		Hydrogen Sulfide (H <sub>2</sub> S)	QRAEII	0.0 ppm <sup>2</sup>		
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
		Lower Explosive Limit (LEL)	QRAEII	0.0%		
	Liberty Park (1110-1125)	Volatile Organic Compounds (VOCs)	Photo Ionization Detector (PID)	0.0 ppm <sup>1</sup>	In between 40°44'37.96"N, 111°52'25.29"W and 40°44'38.41"N, 111°52'21.04"W	Sampling along the north side of the lake. No odor was detected.
		Hydrogen Sulfide (H <sub>2</sub> S)	QRAEII	0.0 ppm <sup>2</sup>		
		Carbon Monoxide (CO)	QRAEII	0.0 ppm		
Lower Explosive Limit (LEL)		QRAEII	0.0%			

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<b>Weather Conditions for:</b>	<b>K7PB Salt Lake City, UT (AS230)</b>				Elev: 4615 ft; Latitude: 40.73067; Longitude: -111.82667				
<b>Time: (MDT)</b>	<b>Temp. (f)</b>	<b>Dew</b>	<b>Relative</b>	<b>Wind</b>	<b>Wind</b>	<b>Altimeter</b>	<b>Station</b>	<b>Precip</b>	<b>Quality</b>
		<b>Point (f)</b>	<b>Humidity (%)</b>	<b>Direction</b>	<b>Speed (mph)</b>	<b>Setting (inches)</b>	<b>Pressure (inches)</b>	<b>24 hour (inches)</b>	<b>Control</b>
19 Jun 12:59 pm	83	35	18	S	7G17	29.64	25.019	0.00	OK
19 Jun 12:49 pm	83	35	18	SSW	12G17	29.64	25.019	0.00	OK
19 Jun 12:39 pm	82	36	19	SE	8G17	29.64	25.019	0.00	OK
19 Jun 12:29 pm	82	33	17	SW	3G17	29.64	25.019	0.00	OK
19 Jun 12:19 pm	82	34	18	SSW	12G17	29.64	25.019	0.00	OK
19 Jun 12:09 pm	82	34	18	SSE	4G13	29.64	25.019	0.00	OK
19 Jun 11:59 am	82	34	18	SW	9G19	29.64	25.019	0.00	OK
19 Jun 11:49 am	81	34	18	SSW	7G19	29.65	25.028	0.00	OK
19 Jun 11:39 am	81	35	19	SSW	5G19	29.65	25.028	0.00	OK
19 Jun 11:29 am	81	35	19	SSW	8G19	29.65	25.028	0.00	OK
19 Jun 11:19 am	81	37	21	SSW	10G19	29.64	25.019	0.00	OK
19 Jun 11:09 am	80	33	18	SSW	13G14	29.65	25.028	0.00	OK
19 Jun 10:59 am	80	34	19	SSE	4G18	29.64	25.019	0.00	OK
19 Jun 10:49 am	80	34	19	SSE	4G18	29.64	25.019	0.00	OK
19 Jun 10:39 am	79	35	20	S	2G18	29.64	25.019	0.00	OK
19 Jun 10:29 am	79	33	19	SSW	10G18	29.64	25.019	0.00	OK

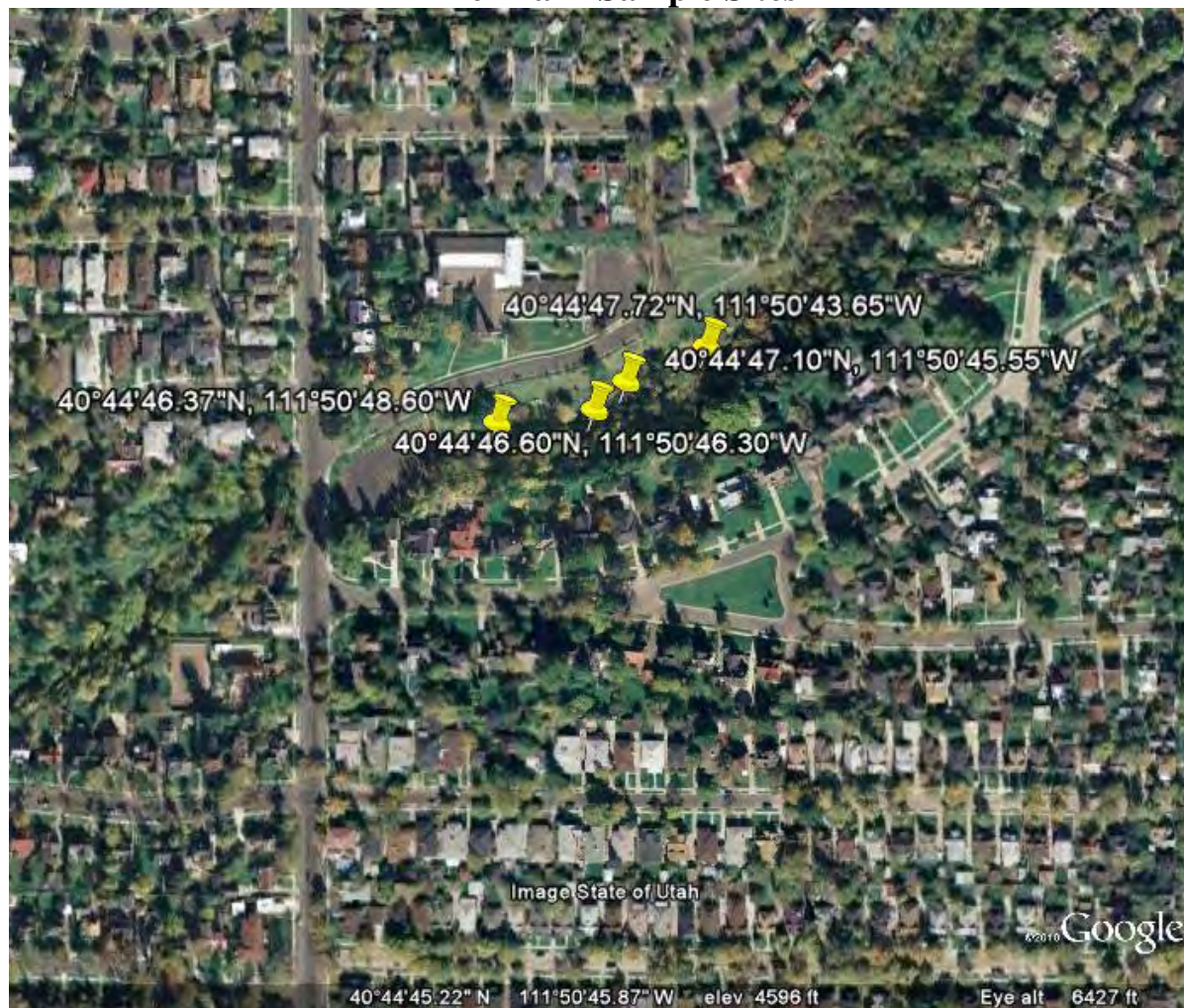
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## Liberty Park Sample Sites



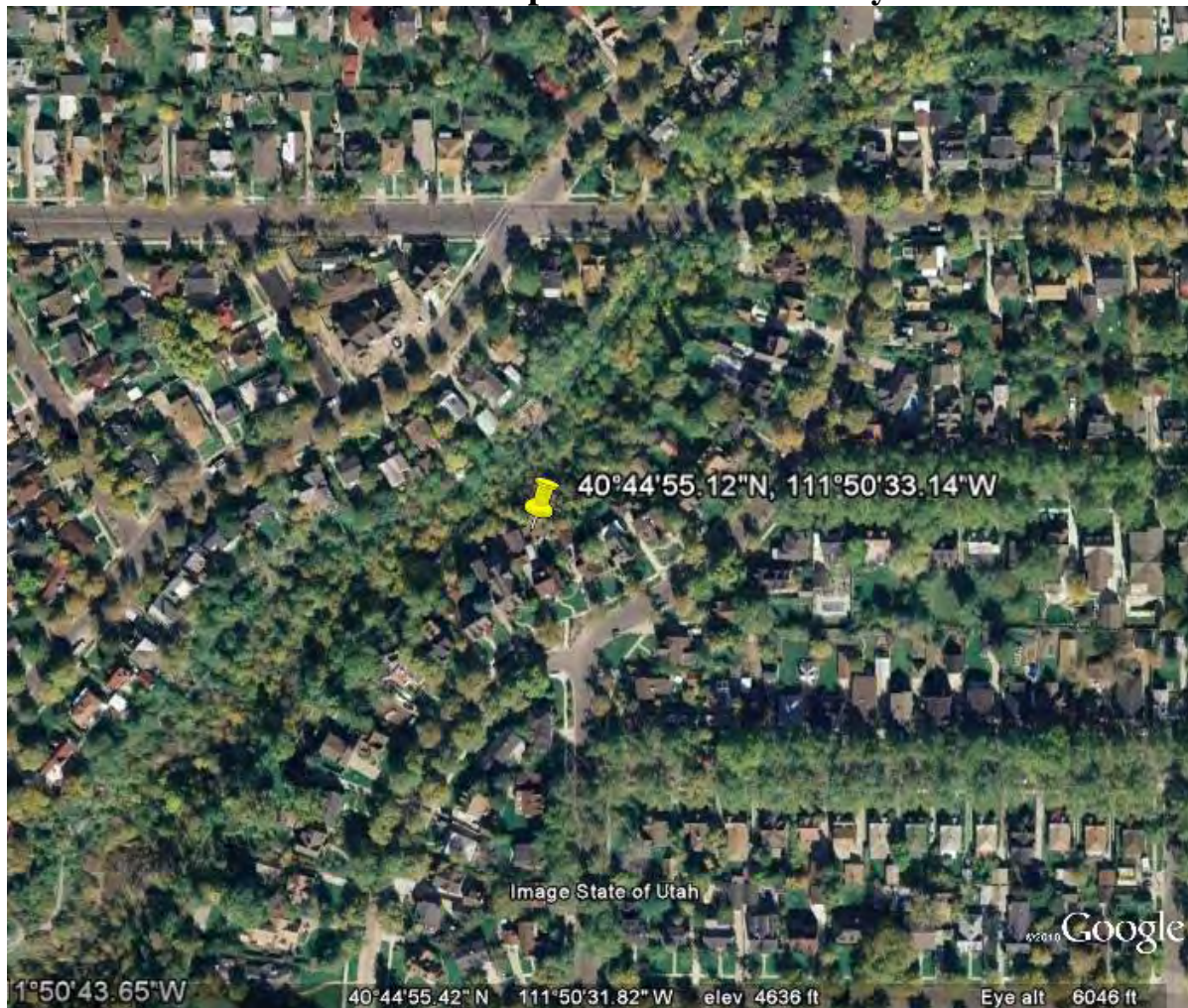
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## Miller Park Sample Sites



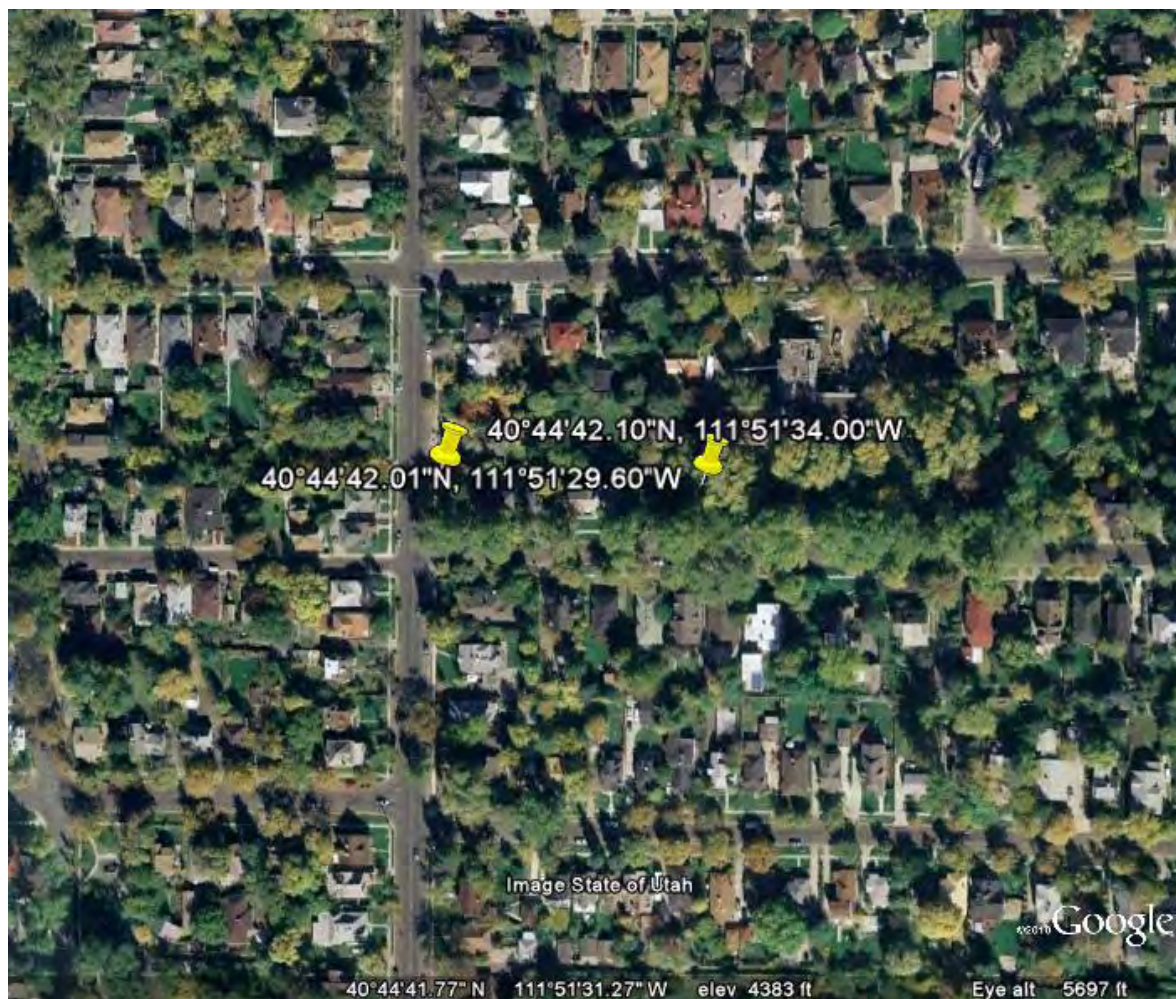
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## Resident Sample Site at 966 Military



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### Garden Ward Sample Site at 11<sup>th</sup> East and Harvard



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## Sample Site at the Jordan River Confluence

