



FIGURES

Figure 1: Groundwater Analytical Map (12/07/18)

Figure 2: Groundwater Elevation Map (12/07/18)

Figure 3: Grab Surface Water Sample Location Map (12/07/18)



MW-03R
12/07/18
B = <1.00
T = 27.4
E = 5.01
X = 32.5

MW-13R2
12/07/18
B = <1.00
T = 2.89
E = <1.00
X = <1.00

MW-17R
12/07/18
B = <1.00
T = <1.00
E = <1.00
X = <1.00

MW-12
12/07/18
B = **10.9**
T = <4.00
E = <4.00
X = <4.00

MW-16R
12/07/18
B = <1.00
T = <1.00
E = <1.00
X = <1.00

MW-11R
12/07/18
B = <1.00
T = <1.00
E = <1.00
X = <1.00

MW-14R2
12/07/18
B = <1.00
T = <1.00
E = 1.03
X = 7.40

MW-05R
12/07/18
B = <1.00
T = <1.00
E = 33.4
X = 258

MW-09R2
12/07/18
B = <1.00
T = <1.00
E = <1.00
X = 2.11

MW-07R2
12/07/18
B = **64.5**
T = <1.00
E = 12.7
X = 92.9

- LEGEND**
- APPROXIMATE LOCATION OF UNINTENTIONAL RELEASE
 - APPROXIMATE FLOW LINE LOCATION
 - APPROXIMATE MONITORING WELL LOCATIONS
 - DESTROYED MONITORING WELL LOCATIONS

PARAMETERS

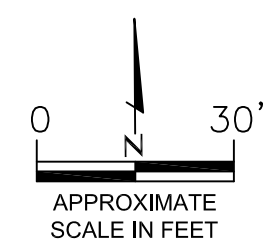
SAMPLE LOCATION
DATE
B = BENZENE (µg/L)
T = TOLUENE (µg/L)
E = ETHYLBENZENE (µg/L)
X = TOTAL XYLENES (µg/L)

µg/L = MICROGRAMS PER LITER

VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY DETECTION LIMITS

VALUES PRESENTED IN **BOLD** TYPEFACE EXCEED COGCC TABLE 910-1 REGULATORY LIMITS

COGCC - COLORADO OIL AND GAS CONSERVATION COMMISSION



GROUNDWATER ANALYTICAL MAP
(12/07/18)
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185

DATE
01/10/18

FIG. NO. 1
DRAWN BY AMN



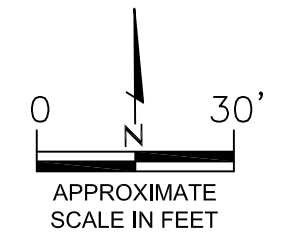


LEGEND

- APPROXIMATE LOCATION OF UNINTENTIONAL RELEASE
- APPROXIMATE FLOW LINE LOCATION
- APPROXIMATE MONITORING WELL LOCATIONS
- DESTROYED MONITORING WELL LOCATIONS
- (4748.25) GROUNDWATER ELEVATION (FT.)
- INFERRED GROUNDWATER ELEVATION CONTOUR (FT.)
- APPROXIMATE GROUNDWATER FLOW DIRECTION

FT. = FEET

NOTE:
 GROUNDWATER ELEVATION DATA WAS COLLECTED ON 12/07/18.
 GROUNDWATER ELEVATION DATA COLLECTED FROM MONITORING WELLS
 MW-03R, MW-05R2, MW-09R2, MW-11R, AND MW-13R2 WAS NOT USED IN
 THE CONSTRUCTION OF INFERRED GROUNDWATER ELEVATION CONTOURS.



GROUNDWATER ELEVATION MAP
 (12/07/18)
 WARDLAW #20-28
 FLOW LINE RELEASE
 40.452377 / -104.550395
 SE1/4 SE1/4 SEC.28 T6N R64W 6PM
 WELD COUNTY, COLORADO
 REMEDIATION # 10185

DATE	01/10/18
FIG. NO.	2
DRAWN BY	AMN

EAGLE
 ENVIRONMENTAL
 CONSULTING, INC.
 4101 INCA STREET, DENVER, CO 80211
 Ph: 303-433-0479 • F: 303-325-5449



SW-01	SW-01	SW-01	SW-01
03/16/18	06/13/18	09/12/18	12/07/18
B = <1.00	B = <1.00	B = <1.00	B = <1.00
T = <1.00	T = <1.00	T = <1.00	T = <1.00
E = <1.00	E = <1.00	E = <1.00	E = <1.00
X = <1.00	X = <1.00	X = <1.00	X = <1.00

SW-02	SW-02	SW-02	SW-02
03/16/18	06/13/18	09/12/18	12/07/18
B = <1.00	B = <1.00	B = <1.00	B = <1.00
T = <1.00	T = <1.00	T = <1.00	T = <1.00
E = <1.00	E = <1.00	E = <1.00	E = <1.00
X = <1.00	X = <1.00	X = <1.00	X = <1.00

SW-04	SW-04	SW-04	SW-04
03/16/18	06/13/18	09/12/18	12/07/18
B = <1.00	B = <1.00	B = <1.00	B = <1.00
T = <1.00	T = <1.00	T = <1.00	T = <1.00
E = <1.00	E = <1.00	E = <1.00	E = <1.00
X = <1.00	X = <1.00	X = <1.00	X = <1.00

- SW-05 (NOP)
- SW-06 (NOP)
- SW-07 (NOP)
- SW-08 (NOP)
- SW-09 (NOP)

LEGEND

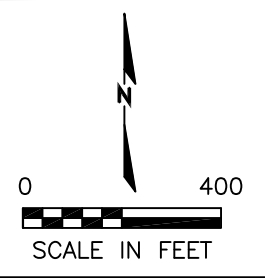
- X APPROXIMATE LOCATION OF UNINTENTIONAL RELEASE
- WELL HEAD LOCATION
- APPROXIMATE LOCATION OF SURFACE WATER SAMPLES SUBMITTED FOR LABORATORY ANALYSIS
- SW-01
- (NOP) NOT ON PLAN

PARAMETERS

SURFACE WATER SAMPLE LOCATION DATE
B = BENZENE (µg/L)
T = TOLUENE (µg/L)
E = ETHYLBENZENE (µg/L)
X = TOTAL XYLENES (µg/L)

µg/L = MICROGRAMS PER LITER

NOTES: VALUES PRESENTED WITH A LESS THAN SYMBOL (<) DID NOT CONTAIN CONCENTRATIONS AT OR ABOVE LABORATORY REPORTING LIMITS



GRAB SURFACE WATER SAMPLE LOCATION MAP (12/07/18)
 WARDLAW #20-28
 FLOW LINE RELEASE
 40.452377 / -104.550395
 SE1/4 SE1/4 SEC.28 T6N R64W 6PM
 WELD COUNTY, COLORADO
 REMEDIATION # 10185

DATE:	02/04/19
FIG. NO.	3
DRAWN BY:	RAL

EAGLE ENVIRONMENTAL CONSULTING, INC.
 4101 INCA STREET, DENVER, CO 80211
 Ph: 303-433-0479 • F: 303-325-5449



TABLES

Table 1: Water Analytical Results Summary

Table 2: Groundwater Elevation Summary

TABLE 1
WATER ANALYTICAL RESULTS SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185

Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Table 910-1 Regulatory Limits (µg/L)		5	560	700	1400
SW-01 (40.452432487 / -104.550326268)	02/09/17	<1.00	2.54	<1.00	2.58
	02/13/17	<1.00	<1.00	<1.00	<1.00
	02/20/17	<1.00	<1.00	<1.00	<1.00
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	<1.00	<1.00	<1.00	<1.00
	09/12/18	<1.00	<1.00	<1.00	<1.00
	12/07/18	<1.00	<1.00	<1.00	<1.00
SW-02 (40.451283697 / -104.550667387)	02/09/17	100	514	54.9	659
	02/13/17	11.3	83.8	9.64	240
	02/20/17	<1.00	<1.00	<1.00	3.18
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	<1.00	<1.00	<1.00	<1.00
	09/12/18	<1.00	<1.00	<1.00	<1.00
	12/07/18	<1.00	<1.00	<1.00	<1.00
SW-03 (40.451208284 / -104.550759293)	02/09/17	90.7	459	48.8	605
	02/10/17	6.24	40.2	4.92	109
	02/13/17	8.52	42.8	4.36	152
	02/20/17	<1.00	<1.00	<1.00	2.45
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	NOP			

TABLE 1
WATER ANALYTICAL RESULTS SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185

Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Table 910-1 Regulatory Limits (µg/L)		5	560	700	1400
SW-04 (40.450779462 / -104.551161230)	02/10/17	4.92	28.4	<4.00	90.9
	02/13/17	6.80	32.0	<4.00	147
	02/20/17	<1.00	<1.00	<1.00	1.49
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	<1.00	<1.00	<1.00	<1.00
	09/12/18	<1.00	<1.00	<1.00	<1.00
	12/07/18	<1.00	<1.00	<1.00	<1.00
SW-05 (40.449982352 / -104.551611892)	02/10/17	<4.00	8.20	<4.00	73.8
	02/13/17	<1.00	1.06	<1.00	22.8
	02/20/17	<1.00	<1.00	<1.00	<1.00
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	NOP			
SW-06 (40.449897202 / -104.551692223)	02/10/17	<4.00	<4.00	<4.00	16.5
	02/13/17	<1.00	<1.00	<1.00	<1.00
	02/20/17	<1.00	<1.00	<1.00	<1.00
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	NOP			
SW-07 (40.449690628 / -104.551677355)	02/10/17	<4.00	<4.00	<4.00	<4.00
	02/13/17	<1.00	<1.00	<1.00	<1.00
	02/20/17	<1.00	<1.00	<1.00	<1.00
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	NOP			

**TABLE 1
WATER ANALYTICAL RESULTS SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185**

Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Table 910-1 Regulatory Limits (µg/L)		5	560	700	1400
SW-08 (40.448928873 / -104.551685603)	02/10/17	<4.00	<4.00	<4.00	<4.00
	02/13/17	<1.00	<1.00	<1.00	<1.00
	02/20/17	<1.00	<1.00	<1.00	<1.00
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	NOP			
SW-09 (40.448299817 / -104.551680172)	02/10/17	<4.00	<4.00	<4.00	<4.00
	02/13/17	<1.00	<1.00	<1.00	<1.00
	02/20/17	<1.00	<1.00	<1.00	<1.00
	03/17/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	NOP			
GW-01	02/11/17	434	1560	138	1530
MW-01 (40.452393003 / -104.550433142)	03/27/17	188	<4.00	12.6	327
	06/15/17	614	<1.00	<1.00	2.26
	09/14/17	DES			
	12/12/17	DES			
MW-01R (40.452393003 / -104.550433142)	03/13/18	<1.00	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-01R2 (40.452393003 / -104.550433142)	06/13/18	198	<1.00	<1.00	<1.00
	09/12/18	DES			
MW-01R3 (40.452393003 / -104.550433142)	12/07/18	DRY			
MW-02 (40.452504816 / -104.550455313)	03/30/17	<1.00	<1.00	6.58	43.4
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/13/18	<1.00	<1.00	<1.00	<1.00
	05/15/18	DES			

TABLE 1
WATER ANALYTICAL RESULTS SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185

Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Table 910-1 Regulatory Limits (µg/L)		5	560	700	1400
MW-03 (40.452454447 / -104.550546129)	03/30/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/13/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	<1.00	<1.00	<1.00	<1.00
	09/12/18	DES			
MW-03R (40.452454447 / -104.550546129)	12/07/18	<1.00	27.4	5.01	32.5
MW-04 (40.452342502 / -104.550577837)	03/27/17	<4.00	<4.00	<4.00	<4.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/13/18	<1.00	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-05 (40.452208431 / -104.550603406)	03/27/17	<4.00	<4.00	<4.00	<4.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/13/18	<1.00	<1.00	<1.00	<1.00
	06/13/18	DES			
MW-05R (40.452208431 / -104.550603406)	06/13/18	<1.00	<1.00	<1.00	<1.00
	09/12/18	DES			
MW-05R2 (40.452208431 / -104.550603406)	12/07/18	<1.00	<1.00	33.4	258
MW-06 (40.452070696 / -104.550630887)	03/27/17	<4.00	<4.00	<4.00	<4.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/13/18	1.39	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-07 (40.452002981 / -104.55055025)	03/27/17	<4.00	<4.00	<4.00	<4.00
	06/15/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-07R (40.452002981 / -104.55055025)	06/13/18	<1.00	<1.00	<1.00	<1.00
	09/12/18	<1.00	<1.00	<1.00	<1.00
	11/01/18	DES			
MW-07R2 (40.452002981 / -104.55055025)	12/07/18	64.5	<1.00	12.7	92.9

TABLE 1
WATER ANALYTICAL RESULTS SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185

Sample Location (Latitude/Longitude)	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
COGCC Table 910-1 Regulatory Limits (µg/L)		5	560	700	1400
MW-08 (40.451924937 / -104.550467803)	03/27/17	<4.00	<4.00	<4.00	<4.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-09 (40.452077465/-104.550441169)	03/27/17	<4.00	<4.00	<4.00	<4.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	3.15	<1.00	<1.00	<1.00
	12/12/17	1.47	<1.00	<1.00	<1.00
	03/16/18	1.09	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-09R (40.452077465/-104.550441169)	06/13/18	1.07	<1.00	<1.00	<1.00
	09/12/18	DES			
MW-09R2 (40.452077465/-104.550441169)	12/07/18	<1.00	<1.00	<1.00	2.11
MW-10 (40.452207178/-104.55040854)	03/28/17	<4.00	<4.00	<4.00	<4.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-11 (40.452321549/-104.550383609)	03/30/17	<1.00	<1.00	<1.00	<1.00
	06/13/17	<1.00	<1.00	<1.00	<1.00
	09/14/17	<1.00	<1.00	<1.00	<1.00
	12/12/17	<1.00	<1.00	<1.00	<1.00
	03/16/18	<1.00	<1.00	<1.00	<1.00
	05/15/18	DES			
MW-11R (40.452321549/-104.550383609)	06/13/18	<1.00	<1.00	<1.00	<1.00
	09/12/18	<1.00	<1.00	<1.00	<1.00
MW-12 (40.45239442/-104.550368154)	03/30/17	210	480	19.8	424
	06/13/17	2120	5560	251	3510
	09/14/17	1310	<1.00	52.3	344
	12/12/17	220	<1.00	31.6	24.7
	03/16/18	95.7	<4.00	5.60	<4.00
	06/13/18	96.1	<4.00	4.08	<4.00
	09/12/18	137	<1.00	12.4	<1.00
	12/07/18	10.9	<4.00	<4.00	<4.00

**TABLE 2
GROUNDWATER ELEVATION SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185**

Sample Location (Latitude/Longitude)	Date	TOC Elevation (feet)	Depth to Groundwater from TOC (feet)	Relative Groundwater Elevation (feet)	Depth to Groundwater (bgs) (feet)	Stickup Height (feet)
MW-01 (40.452393003 / -104.550433142)	03/28/17	98.78	7.74	91.04	4.88	2.86
	06/15/17		7.20	91.58	4.34	
	09/14/17	DES				
MW-01R (40.452393003 / -104.550433142)	03/13/18	99.15	7.29	91.86	4.23	3.06
	05/15/18	DES				
MW-01R2 (40.452393003 / -104.550433142)	06/13/18	98.45	5.79	92.66	2.76	3.03
	09/12/18	DES				
MW-01R3 (40.452393003 / -104.550433142)	12/07/18	96.29	DRY			
MW-02 (40.452504816 / -104.550455313)	03/28/17	99.22	NM	NA	NA	2.92
	03/30/17		9.83	89.39	6.91	
	06/13/17		5.54	93.68	2.62	
	09/14/17		5.41	93.81	2.49	
	12/12/17		6.04	93.18	3.12	
	03/13/18		5.99	93.23	3.07	
	05/15/18	DES				
MW-03 (40.452454447 / -104.550546129)	03/28/17	99.62	NM	NA	NA	3.10
	03/30/17		12.97	86.65	9.87	
	06/13/17		6.00	93.62	2.90	
	09/14/17		5.89	93.73	2.79	
	12/12/17		6.53	93.09	3.43	
	03/13/18		6.48	93.14	3.38	
	06/13/18	98.22	4.25	95.37	1.15	
09/12/18	DES					
MW-03R2 (40.452454447 / -104.550546129)	12/07/18	96.75	8.21	88.54	NA	NA
MW-04 (40.452342502 / -104.550577837)	03/28/17	99.20	6.78	92.42	3.80	2.98
	06/13/17		6.00	93.20	3.02	
	09/14/17		5.86	93.34	2.88	
	12/12/17		6.50	92.70	3.52	
	03/13/18		6.51	92.69	3.53	
	05/15/18	DES				
MW-05 (40.452208431 / -104.550603406)	03/28/17	98.64	6.63	92.01	3.63	3.00
	06/13/17		6.05	92.59	3.05	
	09/14/17		5.93	92.71	2.93	
	12/12/17		6.49	92.15	3.49	
	03/13/18		6.56	92.08	3.56	
	05/15/18	DES				
MW-05R (40.452208431 / -104.550603406)	06/13/18	98.42	5.86	92.56	3.14	2.72
	09/12/18	DES				
MW-05R2 (40.452208431 / -104.550603406)	12/07/18	96.08	10.95	85.13	NA	NA
MW-06 (40.452070696 / -104.550630887)	03/28/17	98.38	6.44	91.94	3.49	2.95
	06/13/17		6.04	92.34	3.09	
	09/14/17		5.93	92.45	2.98	
	12/12/17		6.42	91.96	3.47	
	03/13/18		6.52	91.86	3.57	
	05/15/18	DES				

**TABLE 2
GROUNDWATER ELEVATION SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185**

Sample Location (Latitude/Longitude)	Date	TOC Elevation (feet)	Depth to Groundwater from TOC (feet)	Relative Groundwater Elevation (feet)	Depth to Groundwater (bgs) (feet)	Stickup Height (feet)
MW-07 (40.452002981 / -104.55055025)	03/28/17	98.37	6.57	91.80	3.65	2.92
	06/15/17		6.66	91.71	3.74	
	09/14/17		6.56	91.81	3.64	
	12/12/17		6.91	91.46	3.99	
	03/13/18		7.04	91.33	4.12	
	05/15/18	DES				
MW-07R (40.452002981 / -104.55055025)	06/13/18	98.12	6.12	92.00	3.16	2.96
	09/12/18		5.47	92.65		
	11/01/18	DES				
MW-07R2 (40.452002981 / -104.55055025)	12/07/18	95.79	3.75	92.04	NA	NA
MW-08 (40.451924937 / -104.550467803)	03/28/17	98.32	6.60	91.72	3.89	2.71
	06/13/17		6.53	91.79	3.82	
	09/14/17		6.41	91.91	3.70	
	12/12/17		6.67	91.65	3.96	
	03/13/18		6.77	91.55	4.06	
	05/15/18	DES				
MW-09 (40.452077465 / -104.550441169)	03/28/17	98.78	7.14	91.64	4.48	2.66
	06/13/17		6.85	91.93	4.19	
	09/14/17		6.76	92.02	4.10	
	12/12/17		7.03	91.75	4.37	
	03/13/18		7.11	91.67	4.45	
	05/15/18	DES				
MW-09R (40.452077465 / -104.550441169)	06/13/18	98.96	7.40	91.56	4.32	3.08
	09/12/18	DES				
MW-09R2 (40.452077465 / -104.550441169)	12/07/18	99.25	7.24	92.01	NA	NA
MW-10 (40.452207178 / -104.55040854)	03/28/17	98.91	NM	NA	NA	2.83
	06/13/17		6.60	92.31	3.77	
	12/12/17		6.92	91.99	4.09	
	03/13/18		6.76	92.15	3.93	
	05/15/18	DES				
MW-11 (40.452321549 / -104.550383609)	03/28/17	99.27	NM	NA	NA	2.74
	06/13/17		6.64	92.63	3.90	
	09/14/17		6.38	92.89	3.64	
	12/12/17		7.11	92.16	4.37	
	03/13/18		6.96	92.31	4.22	
	05/15/18	DES				
MW-11R (40.452321549 / -104.550383609)	06/13/18	99.24	12.34	86.90	9.44	2.90
	09/12/18		6.81	92.43	3.91	
	12/07/18		7.31	91.93	4.41	
MW-12 (40.45239442 / -104.550368154)	03/28/17	99.34	NM	NA	NA	2.71
	03/30/17		13.64	85.70	10.93	
	06/13/17		6.48	92.86	3.77	
	09/14/17		6.26	93.08	3.55	
	12/12/17		6.97	92.37	4.26	
	03/13/18		6.88	92.46	4.17	
	06/13/18		6.39	92.95	3.68	
	09/12/18		6.47	92.87	3.76	
	12/07/18		7.15	92.19	4.44	

**TABLE 2
GROUNDWATER ELEVATION SUMMARY
WARDLAW #20-28
FLOW LINE RELEASE
40.452377 / -104.550395
SE1/4 SE1/4 SEC.28 T6N R64W 6PM
WELD COUNTY, COLORADO
REMEDATION # 10185**

Sample Location (Latitude/Longitude)	Date	TOC Elevation (feet)	Depth to Groundwater from TOC (feet)	Relative Groundwater Elevation (feet)	Depth to Groundwater (bgs) (feet)	Stickup Height (feet)
MW-13 (40.452664489 / -104.550339323)	03/28/17	100.00	NM	NA	NA	2.64
	06/13/17		6.55	93.45	3.91	
	09/14/17		6.31	93.69	3.67	
	12/12/17		6.89	93.11	4.25	
	03/13/18		6.83	93.17	4.19	
	05/15/18	DES				
MW-13R (40.452664489 / -104.550339323)	06/13/18	100.45	10.61	89.84	7.79	2.82
	09/12/18	DES				
MW-13R2 (40.452664489 / -104.550339323)	12/07/18	95.91	14.25	81.66	NA	NA
MW-14 (40.452664489 / -104.550339323)	03/28/17	98.41	7.32	91.09	4.60	2.72
	06/15/17		6.60	91.81	3.88	
	09/14/17		6.48	91.93	3.76	
	12/12/17		7.08	91.33	4.36	
	03/13/18		7.11	91.30	4.39	
	05/15/18	DES				
MW-14R (40.452664489 / -104.550339323)	06/13/18	98.48	5.95	92.53	3.03	2.92
	09/12/18		5.59	92.89	2.67	
	11/01/18	DES				
MW-14R2 (40.452664489 / -104.550339323)	12/07/18	95.91	3.78	92.13	NA	NA
MW-15 (40.452232004 / -104.550269649)	03/28/17	99.54	NM	NA	NA	2.82
	06/15/17		7.33	92.21	4.51	
	09/14/17	DES				
MW-16 (40.452334255 / -104.550243785)	03/28/17	99.73	NM	NA	NA	2.86
	06/15/17		7.11	92.62	4.25	
	09/14/17	DES				
MW-16R (40.452334255 / -104.550243785)	03/13/18	100.29	7.90	92.39	4.68	3.22
	06/13/18		7.40	92.89	4.18	
	09/12/18		7.60	92.69	4.38	
	12/07/18		8.08	92.21	4.86	
MW-17 (40.452418346 / -104.55022411)	03/28/17	99.72	NM	NA	NA	2.75
	06/15/17		8.42	91.30	5.67	
	09/14/17	DES				
MW-17R (40.452418346 / -104.55022411)	03/13/18	100.08	7.61	92.47	4.63	2.98
	06/13/18		6.77	93.31	3.79	
	09/12/18		7.12	92.96	4.14	
	12/07/18		7.48	92.60	4.50	

NOTES:
 All wells completed as PVC stick ups. TOC = top of casing PVC = polyvinyl chloride NM = not measured
 bgs= below ground surface NA = not applicable DES = Destroyed



ATTACHMENT A

Laboratory Analytical Report

December 12, 2018

Eagle Environmental Consulting, Inc.

Martin C Eckert III

4101 Inca Street

Denver

CO 80211

Project Name - Noble - Wardlaw #20-28

Project Number - [none]

Attached are your analytical results for Noble - Wardlaw #20-28 received by Origins Laboratory, Inc. December 07, 2018. This project is associated with Origins project number Y812118-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Noble - Wardlaw #20-28

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-03R	Y812118-01	Water	December 7, 2018 13:00	12/07/2018 15:30
MW-05R2	Y812118-02	Water	December 7, 2018 12:42	12/07/2018 15:30
MW-07R2	Y812118-03	Water	December 7, 2018 12:17	12/07/2018 15:30
MW-09R2	Y812118-04	Water	December 7, 2018 12:10	12/07/2018 15:30
MW-11R	Y812118-05	Water	December 7, 2018 12:03	12/07/2018 15:30
MW-12	Y812118-06	Water	December 7, 2018 11:58	12/07/2018 15:30
MW-13R2	Y812118-07	Water	December 7, 2018 13:15	12/07/2018 15:30
MW-14R2	Y812118-08	Water	December 7, 2018 12:35	12/07/2018 15:30
MW-16R	Y812118-09	Water	December 7, 2018 11:30	12/07/2018 15:30
MW-17R	Y812118-10	Water	December 7, 2018 11:45	12/07/2018 15:30
SW-01	Y812118-11	Water	December 7, 2018 13:24	12/07/2018 15:30
SW-02	Y812118-12	Water	December 7, 2018 13:38	12/07/2018 15:30
SW-04	Y812118-13	Water	December 7, 2018 13:47	12/07/2018 15:30

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

www.originslaboratory.com

page 2 of 2



Client: Eagle Env. Consulting
 Address: 4101 Inca St.
Denver, CO 80211
(303) 433-0479
 Telephone Number: MCE 3 @ eagle-enviro.com
 Email Address: MCE 3 @ eagle-enviro.com

Project Manager: Martin Eckert III
 Project Name: Wardlaw #20-28
 Project Number: -
 Samples Collected By: SA

Fax: 303.265.9645 | Phone: 303.433.1322 | Denver, CO 80211 | 1725 Elk Place

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other			
SW-01	12/7/18	1324	3	X				X						1
SW-02		1338												2
SW-04		1347												3
														4
														5
														6
														7
														8
														9
														10
Relinquished By: <u>S. Quattrone</u>	Date: <u>12/7/18</u>	Time: <u>1530</u>	Time: <u>1530</u>	Received By: <u>[Signature]</u>	Date: <u>12/7/18</u>	Time: <u>1530</u>	Date: <u>12/7/18</u>	Time: <u>1530</u>	Turnaround Time: <input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input checked="" type="checkbox"/> Standard					

Date Results Needed

Temp Received: 3.9

*Noble, Bill to Howard

Origins Laboratory, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Origins Laboratory

F-012207-01-R1
 Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y812118

Client: Eagle
 Client Project ID: Noble - Wardlaw 20-28

Checklist Completed by: JG

Shipped Via: HD
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A

Date/Time completed: 12/10/2018

Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
(Describe)

Cooler Number/Temperature: 1 / 3.9 °C / _____ °C / _____ °C / _____ °C

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" type="checkbox"/>		
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity) (pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)		<input checked="" type="checkbox"/>		
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date/time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 12/11/18

Origins Laboratory, Inc.

Jefe Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-03R

12/7/2018 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-01 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	27.4	1.00	"	"	"	KDK	"	"	
Ethylbenzene	5.01	1.00	"	"	"	KDK	"	"	
Xylenes, total	32.5	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.9 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-05R2

12/7/2018 12:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-02 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	33.4	1.00	"	"	"	KDK	"	"	
Xylenes, total	258	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"		
Surrogate: Toluene-d8	101 %	85-115			"	"	"		
Surrogate: 4-Bromofluorobenzene	98.9 %	84-114			"	"	"		

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-07R2

12/7/2018 12:17:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-03 (Water)

BTEX by EPA 8260C

Benzene	64.5	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	12.7	1.00	"	"	"	KDK	"	"	
Xylenes, total	92.9	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.3 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-09R2

12/7/2018 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-04 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	2.11	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.8 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	97.8 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-11R

12/7/2018 12:03:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-05 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.6 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	99.0 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-12

12/7/2018 11:58:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-06 (Water)

BTEX by EPA 8260C

Benzene	10.9	4.00	ug/L	4	B8L1101	KDK	12/11/2018	12/12/2018	
Toluene	ND	4.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	4.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	4.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.3 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.8 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-13R2

12/7/2018 1:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-07 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	2.89	1.00	"	"	"	KDK	"	"	
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"		
Surrogate: Toluene-d8	102 %	85-115			"	"	"		
Surrogate: 4-Bromofluorobenzene	98.5 %	84-114			"	"	"		

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-14R2

12/7/2018 12:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-08 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	1.03	1.00	"	"	"	KDK	"	"	
Xylenes, total	7.40	1.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.3 %	84-121			"	"	"		
Surrogate: Toluene-d8	101 %	85-115			"	"	"		
Surrogate: 4-Bromofluorobenzene	97.2 %	84-114			"	"	"		

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-16R

12/7/2018 11:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-09 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	102 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	97.9 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

MW-17R

12/7/2018 11:45:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-10 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	96.7 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

SW-01

12/7/2018 1:24:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-11 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.2 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	99.4 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.3 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

SW-02

12/7/2018 1:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-12 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	100 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	101 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.8 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

SW-04

12/7/2018 1:47:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
---------	--------	-----------------	-------	----------	-------	---------	----------	----------	-------

Origins Laboratory, Inc.
Y812118-13 (Water)

BTEX by EPA 8260C

Benzene	ND	1.00	ug/L	1	B8L1101	KDK	12/11/2018	12/12/2018	U
Toluene	ND	1.00	"	"	"	KDK	"	"	U
Ethylbenzene	ND	1.00	"	"	"	KDK	"	"	U
Xylenes, total	ND	1.00	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.8 %	84-121			"	"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	84-114			"	"	"	"	

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

Blank (B8L1101-BLK1)

Prepared: 12/11/2018 Analyzed: 12/11/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5	98.9		84-121			
Surrogate: Toluene-d8	64		"	62.5	102		85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

Blank (B8L1101-BLK2)

Prepared: 12/11/2018 Analyzed: 12/11/2018

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5	98.7		84-121			
Surrogate: Toluene-d8	63		"	62.5	101		85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	100		84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

LCS (B8L1101-BS1)

Prepared: 12/11/2018 Analyzed: 12/11/2018

Benzene	48.0	1.00	ug/L	50.0		96.1	73.3-129			
Toluene	49.1	1.00	"	50.0		98.2	76.2-123			
Ethylbenzene	49.0	1.00	"	50.0		98.1	73.6-130			
m,p-Xylene	97.3	2.00	"	100		97.3	76.1-126			
o-Xylene	49.8	1.00	"	50.0		99.6	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.5	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

LCS (B8L1101-BS2)

Prepared: 12/11/2018 Analyzed: 12/11/2018

Benzene	48.3	1.00	ug/L	50.0		96.5	73.3-129			
Toluene	49.8	1.00	"	50.0		99.5	76.2-123			
Ethylbenzene	49.2	1.00	"	50.0		98.4	73.6-130			
m,p-Xylene	98.0	2.00	"	100		98.0	76.1-126			
o-Xylene	50.4	1.00	"	50.0		101	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		95.1	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.7	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

Matrix Spike (B8L1101-MS1)	Source: Y812098-02			Prepared: 12/11/2018 Analyzed: 12/11/2018						
Benzene	71.9	1.00	ug/L	50.0	ND	144	74-130			QM-07
Toluene	57.7	1.00	"	50.0	ND	115	73-131			
Ethylbenzene	58.1	1.00	"	50.0	ND	116	76-132			
m,p-Xylene	114	2.00	"	100	ND	114	69-139			
o-Xylene	57.0	1.00	"	50.0	ND	114	74-131			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.1	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.5	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

Matrix Spike (B8L1101-MS2)	Source: Y812098-07			Prepared: 12/11/2018 Analyzed: 12/11/2018						
Benzene	56.8	1.00	ug/L	50.0	ND	114	74-130			
Toluene	58.7	1.00	"	50.0	ND	117	73-131			
Ethylbenzene	58.3	1.00	"	50.0	ND	117	76-132			
m,p-Xylene	115	2.00	"	100	ND	115	69-139			
o-Xylene	57.2	1.00	"	50.0	ND	114	74-131			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.2	84-121			
Surrogate: Toluene-d8	64		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.0	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

Matrix Spike Dup (B8L1101-MSD1)	Source: Y812098-02			Prepared: 12/11/2018 Analyzed: 12/11/2018						
Benzene	71.3	1.00	ug/L	50.0	ND	143	74-130	0.866	20	QM-07
Toluene	57.6	1.00	"	50.0	ND	115	73-131	0.104	20	
Ethylbenzene	57.6	1.00	"	50.0	ND	115	76-132	0.917	20	
m,p-Xylene	114	2.00	"	100	ND	114	69-139	0.473	20	
o-Xylene	56.7	1.00	"	50.0	ND	113	74-131	0.580	20	
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.5	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.0	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
 4101 Inca Street
 Denver CO 80211

Martin C Eckert III
 Project Number: [none]
 Project: Noble - Wardlaw #20-28

Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B8L1101 - EPA 5030B (Water)

Matrix Spike Dup (B8L1101-MSD2)	Source: Y812098-07			Prepared: 12/11/2018 Analyzed: 12/11/2018						
Benzene	56.0	1.00	ug/L	50.0	ND	112	74-130	1.45	20	
Toluene	58.1	1.00	"	50.0	ND	116	73-131	0.959	20	
Ethylbenzene	57.9	1.00	"	50.0	ND	116	76-132	0.637	20	
m,p-Xylene	115	2.00	"	100	ND	115	69-139	0.513	20	
o-Xylene	57.2	1.00	"	50.0	ND	114	74-131	0.00	20	
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		95.0	84-121			
Surrogate: Toluene-d8	65		"	62.5		103	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.8	84-114			

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Eagle Environmental Consulting, Inc.
4101 Inca Street
Denver CO 80211

Martin C Eckert III
Project Number: [none]
Project: Noble - Wardlaw #20-28

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President