

US EPA ARCHIVE DOCUMENT



**Groundwater Sampling Form**

Well No. MW-23

Client: CHEVRON - CINCINNATI  
Project: 1st 2007 SAIM GROUNDWATER  
Project No.: J00-017-010

Well Condition: GOOD  
Geologist: DOUG LAM  
Date: 9/9/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 35.13  
Depth to Water: 21.09  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 14.04  
Casing Volume (Water Column x Gallons per foot): 2.25  
Purge Volume (3 x Casing Volume): 6.75

**Purge Information**

Purge Start Time: 1438  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity uS/cm	Temperature °C	DO mg/L	ORP mV	Turbidity NTU
1443	0.5 GAL	7.93	865.0	11.01	2.72	-33	10.5
1448	1.3 GAL	7.96	868.6	11.18	1.67	-39	5.7
1453	2.0 GAL	7.97	869.6	11.18	1.59	-42	4.1
1458	2.7 GAL	7.95	870.3	11.22	1.57	-46	3.0
1503	3.1 GAL	7.97	869.3	11.33	1.56	-51	2.9
1508	3.5 GAL	7.99	866.7	11.33	1.53	-55	3.3
1513	4.0 GAL	8.01	867.7	11.35	1.54	-57	4.6

Purge Finish Time: 1515  
Total Volume Purged: 5 GAL  
Final Depth to Water: 21.10

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1515  
Analytical Suite Collected: VOCS (TEL), DIS LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: ODOR, CLEAR



Well No. MLW945

Client: CHEVRON - CINCINNATI  
Project: 1ST 2007 SA 1M GROUNDWATER  
Project No.: 500-617-010

Well Condition: GOOD  
Geologist: DAUG LAM  
Date: 4/11/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 72.45  
Depth to Water: 60.41  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 12.04  
Casing Volume (Water Column x Gallons per foot): 1.92  
Purge Volume (3 x Casing Volume): 5.75

**Purge Information**

Purge Start Time: 1120  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
<u>1130</u>	<u>1.25</u>	<u>8.08</u>	<u>776.8</u>	<u>60.56</u>	<u>3.30</u>	<u>-28</u>	<u>40.3</u>
<u>1135</u>	<u>2.5</u>	<u>8.0</u>	<u>781.5</u>	<u>60.5</u>	<u>3.64</u>	<u>-27</u>	<u>10.2</u>
<u>1140</u>	<u>3.5</u>	<u>8.03</u>	<u>784.3</u>	<u>60.24</u>	<u>3.51</u>	<u>-31</u>	<u>6.3</u>
<u>1145</u>	<u>4.0</u>	<u>8.07</u>	<u>795.6</u>	<u>61.14</u>	<u>3.43</u>	<u>-32</u>	<u>3.1</u>
<u>1150</u>	<u>5.5</u>	<u>8.06</u>	<u>793.1</u>	<u>60.56</u>	<u>3.56</u>	<u>-36</u>	<u>1.4</u>

Purge Finish Time: 1155  
Total Volume Purged: 6.0 GAL  
Final Depth to Water: 60.42

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1153  
Analytical Suite Collected: VOCS (TCL), DIS, LEAD (FILTERED), TO  
QAQC Samples Collected: \_\_\_\_\_

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Groundwater Sampling Form**

Well No. MW-950

Client: CHEVRON - CINCINNATI  
Project: 1ST 2007 SAJM GROUNDWATER  
Project No.: 500-017-00

Well Condition: GOOD  
Geologist: Doug Lam  
Date: 4/11/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 104.60  
Depth to Water: 72.20  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 32.40  
Casing Volume (Water Column x Gallons per foot): 5.18  
Purge Volume (3 x Casing Volume): 15.54

**Purge Information**

Purge Start Time: 1455  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1500	0.75 GAL	7.99	1224	56.46	8.66	-47	11.9
1505	1.5 GAL	8.02	1234	56.97	8.48	-59	5.0
1510	3.2 GAL	7.99	1238	57.09	8.42	-38	2.5
1515	4.3 GAL	8.06	1238	57.05	8.35	-35	1.9
1520	4.6 GAL	8.05	1238	57.00	8.33	-36	2.0
1525	5.0 GAL	8.08	1242	57.21	8.30	-38	1.2

Purge Finish Time: 1530  
Total Volume Purged: 5.5 GAL  
Final Depth to Water: 72.21

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1525  
Analytical Suite Collected: VOC's (TCL), O's LEAD (FILTERED), TD  
QAQC Samples Collected: \_\_\_\_\_

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Groundwater Sampling Form**

Well No. MW-37

Client: CHEVRON - CINCINNATI  
Project: 1<sup>ST</sup> 2007 SA 1M GROUNDWATER  
Project No.: 500-017-010

Well Condition: WELL-OK PAD BROKEN  
Geologist: DONG LAM  
Date: 4/11/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 30.45  
Depth to Water: 19.05  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 11.40  
Casing Volume (Water Column x Gallons per foot): 1.82  
Purge Volume (3 x Casing Volume): 5.46

**Purge Information**

Purge Start Time: 1317  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature of	DO	ORP	Turbidity
1322	0.25	7.97	1017	54.36	109.92	-36	45.5
1327	0.5	8.15	1029	55.07	106.61	-38	23.5
1332	0.8	8.15	1030	54.89	112.93	-41	12.8
1337	1.2	7.95	1035	55.16	118.45	-66	7.2
1342	1.6	8.05	1037	55.27	115.25	-83	5.9
1347	2.7	8.04	1046	55.55	128.28	-85	3.2
1354	4.0	8.07	1049	55.60	134.50	-90	2.4
1357	4.75	8.05	1051	55.59	134.65	-92	1.2

Purge Finish Time: 1400  
Total Volume Purged: 5.0  
Final Depth to Water: 19.07

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1400  
Analytical Suite Collected: VOC's (TEL), DIS LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: \_\_\_\_\_

11.4  
11.6  
11.8  
11.9  
12.0  
12.1  
12.2  
12.3  
12.4  
12.5  
12.6  
12.7  
12.8  
12.9  
13.0  
13.1  
13.2  
13.3  
13.4  
13.5  
13.6  
13.7  
13.8  
13.9  
14.0  
14.1  
14.2  
14.3  
14.4  
14.5  
14.6  
14.7  
14.8  
14.9  
15.0  
15.1  
15.2  
15.3  
15.4  
15.5  
15.6  
15.7  
15.8  
15.9  
16.0  
16.1  
16.2  
16.3  
16.4  
16.5  
16.6  
16.7  
16.8  
16.9  
17.0  
17.1  
17.2  
17.3  
17.4  
17.5  
17.6  
17.7  
17.8  
17.9  
18.0  
18.1  
18.2  
18.3  
18.4  
18.5  
18.6  
18.7  
18.8  
18.9  
19.0  
19.1  
19.2  
19.3  
19.4  
19.5  
19.6  
19.7  
19.8  
19.9  
20.0



**Groundwater Sampling Form**

Well No. MW-114

Client: CHEVRON-CINCINNATI  
Project: 1<sup>ST</sup> 2007 SA 1M GROUNDWATER  
Project No. S00-017-010

Well Condition: GOOD RAISED??  
Geologist: DAUGAN  
Date: 4/11/07

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 82.25 ?  
Depth to Water: 71.32  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 10.93  
Casing Volume (Water Column x Gallons per foot): 1.75  
Purge Volume (3 x Casing Volume): 5.25

**Purge Information**

Purge Start Time: 0946  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity $\mu\text{s}/\text{cm}$	Temperature $^{\circ}\text{F}$	DO $\text{mg}/\text{L}$	ORP $\text{mV}$	Turbidity $\text{NTU}$
0951	0.5	7.70	1580	57.88	4.78	90	842
0956	1.0	7.75	1594	58.64	4.50	80	368
1001	1.75	7.74	1610	59.40	4.39	63	73
1006	2.50	7.88	1592 1602	58.44	5.67 5.34	48	57.8
1011	3.40	7.80	1638	60.46	4.45	41	27
1016	4.0	7.87	1636	60.77	4.58	35	12.1
1021	5.0	7.86	1633	60.78	4.46	30	6.6 v

Purge Finish Time: 1021  
Total Volume Purged: 5.5 GAL  
Final Depth to Water: 71.33

**Sampling Information**

Wellhead Gas Measurements: NA  
Sample Collection Time: 1025  
Analytical Suite Collected: VOC's (TCL), DIS. LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: TURBID INITIALLY GOING TO CLEAR, NO SILEN, NO ODDR



Client: CHEVRON - CINCINNATI  
Project: 1<sup>ST</sup> 2007 SA IM GROUNDWATER  
Project No. 500-617-010

Well Condition: GOOD  
Geologist: DUNG LAM  
Date: 4/12/07

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 46.80  
Depth to Water: 32.71  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 14.09  
Casing Volume (Water Column x Gallons per foot): 2.25  
Purge Volume (3 x Casing Volume): 6.75

**Purge Information**

Purge Start Time: 1123  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity $\mu S/cm$	Temperature $^{\circ}F$	DO $mg/L$	ORP $mV$	Turbidity $Ntu$
1128	0.25 GAL	7.56	825.8	57.25	2.09	62	389.0
1133	0.5 GAL	7.58	825.6	58.36	1.56	43	218.7
1138	1.2 GAL	7.67	788.8	58.16	1.53	47	195.2
1143	2.0 GAL	7.62	775.2	59.24	1.85	53	112.0
1148	3.0 GAL	7.38	697.6	59.34	1.78	59	68.8
1153	4.0 GAL	7.35	687.3	59.22	1.89	60	62.9
1158	5.0 GAL	7.37	707.7	58.87	1.94	58	47.9
1203	5.7 GAL	7.35	728.0	58.97	1.86	55	34.8
1218	8.0 GAL	<sup>7.25</sup> <sub>7.05</sub> 7.43	<sup>706</sup> <sub>750</sub> 749.0	58.95	<sup>1.67</sup> <sub>2.65</sub> 1.76	<sup>45</sup> <sub>65</sub> 51	<sup>31.3</sup> 19.3

Purge Finish Time: 1220  
Total Volume Purged: 8.5 GAL  
Final Depth to Water: 32.71

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1220  
Analytical Suite Collected: VOC's (TCL) DIS LEAD (FILTERED), TO  
QAQC Samples Collected: NONE

Notes: CLEAR FINISH (METER MALFUNCTION), NO ODOOR, NO SHEEN



**Groundwater Sampling Form**

Well No. MLW-115D

Client: CHEVRON - CINCINNATI  
Project: 1st 2007 SA IM GROUNDWATER  
Project No. 500-017-010

Well Condition: GOOD  
Geologist: QING LAN  
Date: 9/12/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 83.30'  
Depth to Water: 38.10'  
Depth to Product: NP  
Casing Diameter: 2'  
Water Column: 45.20'  
Casing Volume (Water Column x Gallons per foot): 7.23 GAL  
Purge Volume (3 x Casing Volume): 21.69 GAL

**Purge Information**

Purge Start Time: 1328  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1345	4.0 GAL	7.49	1126	58.23	0.86	-184	66.5
1358	5.5 GAL	7.32	1131	58.53	2.52	-143	10.6
1403	7 GAL	7.33	1130	58.45	1.16	-166	8.6
1406	8 GAL	<sup>7.25</sup> <sup>7.25</sup> 7.36	<sup>1100</sup> <sup>1166</sup> 1120	57.82	<sup>1.01</sup> <sup>1.28</sup> 0.92	<sup>156</sup> <sup>126</sup> -139	6.1
1410	8.5 GAL	<sup>7.26</sup> <sup>7.46</sup> 7.33	<sup>1086</sup> <sup>1153</sup> 1114	57.45	<sup>0.81</sup> <sup>1.01</sup> 0.91	<sup>159</sup> <sup>159</sup> -131	4.9

Purge Finish Time: 1415  
Total Volume Purged: \_\_\_\_\_  
Final Depth to Water: \*SAME

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1415  
Analytical Suite Collected: VOC's (TEL), DIS, LEAD (FILTERED)  
QAQC Samples Collected: None

Notes: INITIALLY TURBID GOING TO CLEAR, NO ODOOR, NO SHEEN

\* Watched TROLL 9000 sensors to clear out silt from flow cell



**Groundwater Sampling Form**  
Well No. MLW-1158

Client: CHEVRON - CINCINNATI  
Project: 1st 2007 SA IM GROUNDWATER  
Project No. 500-017-010

Well Condition: GOOD  
Geologist: DEG LAM  
Date: 4/12/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 51.70'  
Depth to Water: 38.01'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 13.69'  
Casing Volume (Water Column x Gallons per foot): 2.19 GAL  
Purge Volume (3 x Casing Volume): 6.6 GAL

**Purge Information**

Purge Start Time: 1433  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature °C	DO	ORP	Turbidity
1456	2.5 GAL	7.18	1079	14.59	0.79	-95	0.5
14:500	3.0 GAL	7.07	1078	14.73	0.78	-95	0.4
1503	3.5 GAL	6.95	1077	14.65	0.81	-94	0.2
1510	4.0	<sup>6.85</sup> <sub>7.05</sub> 6.96	<sup>1045</sup> <sub>1105</sub> 1075	14.33	<sup>0.89</sup> <sub>0.81</sub> 0.83	-104	0.2

Purge Finish Time: 1510  
Total Volume Purged: 4.5 GAL  
Final Depth to Water: same

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1515  
Analytical Suite Collected: VOCS (TCL), DIS. LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: CLEAR, NO ODOR, NO SIBEN



Client: CHEVRON-CINCINNATI  
Project: 1st 2007 SA IM GROUNDWATER  
Project No.: 500-07-010

Well Condition: GOOD  
Geologist: DOUG LAM  
Date: 4/13/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 82.60'  
Depth to Water: 73.00'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 9.60'  
Casing Volume (Water Column x Gallons per foot): 1.54 gal  
Purge Volume (3 x Casing Volume): 4.62 gal

**Purge Information**

Purge Start Time: 0959  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity uS/cm	Temperature °F	DO mg/L	ORP mV	Turbidity NTU
1004	0.5 GAL	7.07	858.3	57.32	6.35	69	76.1
1007	1.0 GAL	7.02	859.5	57.25	6.11	76	43.5
1012	1.3	7.03	856.9	56.94	7.03	81	37.4
1017	1.7	7.12	875.1	58.31	6.06	85	15.6
1022	2.7	7.13	875.3	58.32	5.91	87	8.7
1027	3.5	7.09	869.3	57.84	5.92	89	5.4

Purge Finish Time: 1030  
Total Volume Purged: 3.75 GAL  
Final Depth to Water: 73.00'

**Sampling Information**

Wellhead Gas Measurements: M  
Sample Collection Time: 1030  
Analytical Suite Collected: VOCs (TEL), DIS LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: NO ODOR, NO SHEEN, CLEAR



**TriHydro Corporation**  
Engineering and Environmental Services

**Groundwater Sampling Form**

Well No. MW-128

Client: CHEVON - CINCINNATI  
Project: 1st 2007 SA 1M GROUNDWATER  
Project No. 500-017-010

Well Condition: GOOD  
Geologist: DOUG LAM  
Date: 4-13-2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 74.91  
Depth to Water: 61.36  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 13.55  
Casing Volume (Water Column x Gallons per foot): 2.17  
Purge Volume (3 x Casing Volume): 6.51

**Purge Information**

Purge Start Time: 0846  
Purge Method: Low Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature °F	DO	ORP	Turbidity
0851	0.4 GAL	6.8	1269	57.70	1.79	-22	51.1
0856	0.6	6.83	1265	58.06	1.36	-28	12.8
0901	1.1	6.92	1280	58.62	1.14	-32	11.4
0906	1.7	6.99	1283	58.89	1.02	-37	16.2
0911	2.5	<sup>6.89</sup> 7.04	<sup>1297.5</sup> 1321.5	58.69	<sup>1.01</sup> 1.05	<sup>-27</sup> -41	8.6
0916	3.0	7.05	1279	58.31	-	-39	0.9
0918	3.2	7.09	1273	57.9	-	-42	0.8

Purge Finish Time: 0918  
Total Volume Purged: 3.75 GAL  
Final Depth to Water: 61.36

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 0920  
Analytical Suite Collected: VOCS (FW), DIS. LEAD (FILTERED)  
QAQC Samples Collected: BD-104132007

Notes: ODOR, NO SHEEN, CLEAR



**Groundwater Sampling Form**

Well No. MW-104

Client: CHEVRON - CINCINNATI  
Project: 1<sup>ST</sup> 2007 SA IM GROUNDWATER  
Project No. 500-017-010

Well Condition: Good  
Geologist: Doug Lam  
Date: 4/26/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 26.07'  
Depth to Water: 15.32  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: \_\_\_\_\_  
Casing Volume (Water Column x Gallons per foot): \_\_\_\_\_  
Purge Volume (3 x Casing Volume): \_\_\_\_\_

**Purge Information**

Purge Start Time: 1042  
Purge Method: Low Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1100	4.0	7.04	0.938	11.83	4.89	176	96
1105	5.0	7.03	0.942	11.74	4.86	170	46
1110	5.5	7.04	0.944	12.09	4.47	167	41

Purge Finish Time: 1115  
Total Volume Purged: 5.7  
Final Depth to Water: 15.32

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1115  
Analytical Suite Collected: VOC's (TCU), DIS LEAD (F)  
QAQC Samples Collected: NONE

Notes: CLEAR, NO ODSR, NO SHEEN



**Groundwater Sampling Form**

Well No. L-4R

Client: CHEVRON CINCINNATI  
Project: 1st 2007 SAHM GROUNDWATER  
Project No.: 500-017-616

Well Condition: \_\_\_\_\_  
Geologist: Doug Carr  
Date: 4/20/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 35.22'  
Depth to Water: 23.44'  
Depth to Product: \_\_\_\_\_  
Casing Diameter: 2"  
Water Column: 11.78  
Casing Volume (Water Column x Gallons per foot): 1.89  
Purge Volume (3 x Casing Volume): 5.67

**Purge Information**

Purge Start Time: 0946  
Purge Method: LW Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
0950	1.0	6.28	0.98	12.47	7.13	196	32
0955	1.5	6.57	0.96	12.52	6.20	194	25
1000	2.5	6.65	0.98	12.42	4.95	191	19
1005	3.5	6.66	0.98	12.37	4.61	190	16
1010	4.25	6.68	0.98	12.45	4.15 4.50	188	15

Purge Finish Time: 1015  
Total Volume Purged: 4.5  
Final Depth to Water: 23.44

**Sampling Information**

Wellhead Gas Measurements: N<sub>2</sub>  
Sample Collection Time: 1015  
Analytical Suite Collected: VOCS (TCL), DIS LEAD (F)  
QAQC Samples Collected: NONE

Notes: CLEAR, NO ODOOR, NO SHEEN



Client: CHEVRON - CINCINNATI  
Project: 1<sup>st</sup> 2007 SA-1M GROUNDWATER  
Project No.: 500-017-010

Well Condition: \_\_\_\_\_  
Geologist: Doug Lam  
Date: 4/19/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 27.35'  
Depth to Water: 11.96'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 15.39'  
Casing Volume (Water Column x Gallons per foot): 2.46 gal  
Purge Volume (3 x Casing Volume): 7.38 gal

**Purge Information**

Purge Start Time: 1510  
Purge Method: Low Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity mS/cm	Temperature	DO mg/L	ORP	Turbidity NTU
1520	1.0 GAL	7.0	0.666	9.89	1.79	-65	16.5
1525	1.5	6.96	0.659	9.41	0.12	-102	4.5
1530	2.5	6.97	0.662	9.05	0	-113	2.1
1535	3.5	6.98	0.661	9.07	0	-120	2.1

Purge Finish Time: 1540  
Total Volume Purged: < 4.0 GALLON  
Final Depth to Water: 11.98

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1540  
Analytical Suite Collected: VOCs (TCL), DIS LEAD (F), SVOC (2-BIS(E)HP)  
QAQC Samples Collected: NONE

Notes: DETRITUS IN WELL, LIGHT GREY GOING TO CLEAR, NO SHEEN  
STRONG HYDROCARBON ODOR



**Groundwater Sampling Form**

Well No. MW-7

Client: CHEVRON CINCINNATI  
Project: 1# 2007 SA IM GROUNDWATER  
Project No. 500-017-010

Well Condition: GOOD  
Geologist: DON LAM  
Date: 4/19/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 25.3'  
Depth to Water: 15.94  
Depth to Product: ND  
Casing Diameter: 2"  
Water Column: 9.36'  
Casing Volume (Water Column x Gallons per foot): 1.50  
Purge Volume (3 x Casing Volume): 4.50

**Purge Information**

Purge Start Time: 1350  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity µS/cm	Temperature °C	DO mg/L	ORP mV	Turbidity NTU
1405	1.5 GAL	6.85	0.944	10.56	1.55	-85	107
1410	3.5 GAL	6.87	0.956	10.17	0.57	-109	46
1415	4.0 GAL	6.89	0.955	10.54	0.28	-121	40
1420	4.2	6.91	0.953	10.80	0.04	-125	38
1425	4.4	6.90	0.954	10.99	0	-129	27
1430	4.7	6.90	0.960	10.77	0	-131	15.8
1435	5.4	6.90	0.965	10.72	0	-134	12.2

Purge Finish Time: 1440  
Total Volume Purged: 5.5 GAL  
Final Depth to Water: 15.95

**Sampling Information**

Wellhead Gas Measurements: NR  
Sample Collection Time: 1440  
Analytical Suite Collected: VOC's (TEL), DIS LEAD (P), SVOC (2 B1S, CEM) P  
QAQC Samples Collected: NONE

Notes: BLACK/GREY AT STARTUP, STRONG HYDROCARBON ODOOR,



Client: CHEVRON - CINCINNATI  
Project: 1<sup>st</sup> 2007 SA 1M GROUNDWATER  
Project No. S00-017-010

Well Condition: Good  
Geologist: Doug Can  
Date: 9/19/2007

Well Information

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 25.35  
Depth to Water: 14.29  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 11.06  
Casing Volume (Water Column x Gallons per foot): 1.77  
Purge Volume (3 x Casing Volume): 5.31

Purge Information

Purge Start Time: 1014  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity mS/cm	Temperature °C	DO mg/L	ORP mV	Turbidity NTU
1019	0.4 GAL	6.8	1.00	8.99	2.71	-76	58
1024	0.7	6.79	1.00	8.97	1.10	-109	37.8
1031	1.0	6.79	1.00	9.08	0.71	-117	28.0
1036	1.3	6.80	1.00	9.02	0.34	-123	25.5
1041	1.6	6.80	1.00	9.57	0.21	-126	22.7
1044	2.6	6.80	0.99	9.36	0	-130	20.2

Purge Finish Time: 1050  
Total Volume Purged: 3 GAL  
Final Depth to Water: 14.31

Sampling Information

Wellhead Gas Measurements: MP  
Sample Collection Time: 1050  
Analytical Suite Collected: VOC'S (TEL) DIS LEAD (E) SVOC (ZBIS (EH)P)  
QAQC Samples Collected: BD-3 04192007

Notes: CLEAR, STRONG HYDROCARBON ODOR, SLIGHT SHEEN



Well No. MW-33

Client: CHEVRON CINCINNATI  
Project: 1<sup>ST</sup> ZOO SANIT GROUNDWATER  
Project No.: SOB 017 010

Well Condition: Good  
Geologist: Dave Lan  
Date: 9/19/07

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 40<sup>00</sup>  
Depth to Water: 21.76  
Depth to Product: NP  
Casing Diameter: 2'  
Water Column: 18.24  
Casing Volume (Water Column x Gallons per foot): 2.92  
Purge Volume (3 x Casing Volume): 8.76

**Purge Information**

Purge Start Time: 0841  
Purge Method: Low Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity <u>µS/cm</u>	Temperature	DO	ORP	Turbidity
0900	1.7 GAL	6.40	0.958	13.03	2.46	78	13.1
0905	2.4	6.54	0.978	12.63	1.71	33	6.1
0910	3.0	6.62	0.982	12.96	1.09	-9	4.9
0915	3.7	6.67	0.995	12.77	0.80	-31	4.8
0920	4.1	6.70	0.998	12.73	0.60	-44	4.8
0925	4.5	6.71	0.990	12.98	0.42	-56	5.0
0930	5.3	6.73	0.990	12.95	-	-63	5.0

Purge Finish Time: 0935  
Total Volume Purged: 5.5 GAL  
Final Depth to Water: 21.78

**Sampling Information**

Wellhead Gas Measurements: NH  
Sample Collection Time: 0935  
Analytical Suite Collected: VOCS (TCU) DIS LEAD (F) (Z-BIS (EH)P)  
QAQC Samples Collected: NONE

Notes: NO ODOR, NO SHEEN



**Groundwater Sampling Form**

Well No. MW-655

Client: CHEVRON - CINCINNATI  
Project: 1<sup>st</sup> 2007 SA IM GROUNDWATER  
Project No. 500-017-010

Well Condition: GOOD  
Geologist: DAUG LAM  
Date: 4/18/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 23.10'  
Depth to Water: 10.70'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 12.4'  
Casing Volume (Water Column x Gallons per foot): 1.989  
Purge Volume (3 x Casing Volume): 5.997

**Purge Information**

Purge Start Time: 1453  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1458	0.20 GAL	6.71	1.17	11.17	0.38	231	5.8
1503	1.6 GAL	6.69	1.18	11.22	0	228	0.4
1508	2.2 GAL	6.69	1.18	11.67	0	223	0.1
1513	2.6 GAL	6.69	1.19	11.85	0	219	0.1

Purge Finish Time: 1515  
Total Volume Purged: 3.0 GAL  
Final Depth to Water: 10.70

**Sampling Information**

Wellhead Gas Measurements: N  
Sample Collection Time: 1515  
Analytical Suite Collected: VOCs (TCL), DIS LEAD (P)  
QA/QC Samples Collected: NONE

Notes: CLEAR, NO ODOUR, NO SHELV



**Groundwater Sampling Form**

Well No. MW-65D

Client: CHEVRON - CINCINNATI  
Project: 1<sup>st</sup> 2007 SA 1M GROUNDWATER  
Project No. 500-017-010

Well Condition: GOOD  
Geologist: D. LAM  
Date: 4/18/07

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 57'  
Depth to Water: 10.80'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 46.20'  
Casing Volume (Water Column x Gallons per foot): 7.40 gal  
Purge Volume (3 x Casing Volume): 22.20 gal

**Purge Information**

Purge Start Time: 1214  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity <i>mS/cm</i>	Temperature	DO	ORP	Turbidity
1232	2.0 GAL	6.59	0.93	12.93	2.86	274	69.7
1244	4.0 GAL	7.02	0.92	12.83	1.08	259	18.5
1258	6.0 GAL	7.12	0.92	12.80	0.47	239	5.4
1304	7.0 GAL	7.14	0.92	12.82	0.34	235	4.9
1309	7.5 GAL	7.15	0.92	12.65	0.26	232	4.0
1314	8.25	7.16	0.91	12.93	0.17	229	3.1
1319	9.25	7.16	0.91	12.92	-	225	

Purge Finish Time: 1320  
Total Volume Purged: 9.25  
Final Depth to Water: 10.79

**Sampling Information**

Wellhead Gas Measurements: NP  
Sample Collection Time: 1320  
Analytical Suite Collected: VOCs (TC), DS, LEAD (F)  
QAQC Samples Collected: NCWT

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Groundwater Sampling Form**

Well No. MW-657

Client: CHEVRON - CINCINNATI  
Project: 1st 2007 SAIM GROUNDWATER  
Project No. 500-017-016

Well Condition: OK - 5 PLUG SILTED IN  
Geologist: DOUG LAM  
Date: 4/18/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 42.00  
Depth to Water: 10.79  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 31.21'  
Casing Volume (Water Column x Gallons per foot): 5.00 gal  
Purge Volume (3 x Casing Volume): 15.00 gal

**Purge Information**

Purge Start Time: 1350  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1400	0.5	7.25	0.95	13.89	5.65	251	21.8
1405	0.8	7.03	0.93	12.93	6.77	245	18.8
1420	<del>1.0</del> 3.7	6.99	<del>0.94</del> 0.93	12.73	1.10	225	2.3
1425	4.0	6.97	0.93	12.61	0.62	223	0
1435	5.0	6.96	0.93	12.63	0.31	220	0

Purge Finish Time: 1440  
Total Volume Purged: 5.5 GAL  
Final Depth to Water: 10.78

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1440  
Analytical Suite Collected: VOC'S (TEL) DIS LEAD (F)  
QAQC Samples Collected: NONE

Notes: CLEAR, NO ODOR, NO SHEEN



**Groundwater Sampling Form**

Well No. MW-113

Client: CHEVRON-CINCINNATI  
Project: 1st 2007 SA 1M GROUNDWATER  
Project No.: 500-617-016

Well Condition: GOOD  
Geologist: DEUG LAM  
Date: 4/17/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 81.10'  
Depth to Water: 73.82'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 7.28'  
Casing Volume (Water Column x Gallons per foot): 1.17 GAL  
Purge Volume (3 x Casing Volume): 3.51 GAL

**Purge Information**

Purge Start Time: 0905  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity mS/CM	Temperature °C	DO m/L	ORP mV	Turbidity NTU
0910	0.3 GAL	6.74	0.925	13.79	8.99	231	76.0
0915	1.0 GAL	6.87	0.928	14.02	8.75	220	15.2
0920	1.3 GAL	6.90	0.927	14.03	8.77	214	8.2
0925	2.0 GAL	7.0 6.94	0.96 0.90 0.926	14.22	8.57	229 209 206	2.5

Purge Finish Time: 0936  
Total Volume Purged: 2.5 GAL  
Final Depth to Water: 73.83'

**Sampling Information**

Wellhead Gas Measurements: None  
Sample Collection Time: 0930  
Analytical Suite Collected: VOC's (TCL), DIS (EMD) (FILTERED)  
QA/QC Samples Collected: None

Notes: NO ODOOR, NO SHTER, CLEAR



Client: CHEVRON - CINCINNATI  
Project: 1<sup>st</sup> 2007 SA-1M GROUNDWATER  
Project No.: 500-017-010

Well Condition: Good  
Geologist: DAVID LAM  
Date: 4/17/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 72.10'  
Depth to Water: 58.30'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 13.80'  
Casing Volume (Water Column x Gallons per foot): 2.21 gal  
Purge Volume (3 x Casing Volume): 6.63 GAL

**Purge Information**

Purge Start Time: 0959  
Purge Method: Low Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity ms/cm	Temperature °C	DO mg/L	ORP mV	Turbidity
1005	0.5 GAL	6.82	1.33	14.02	1.91	117	30.5
1010	0.7 GAL	6.81	1.33	13.96	1.23	82	16.4
1015	1.0 GAL	6.81	1.32	14.40	0.93	84	5.7
1020	1.5 GAL	6.82	1.33	14.69	0.71	85	4.2
1025	2.0 GAL	6.82	1.33	14.78	0.52	82	4.1
1030	2.3	6.82	1.33	14.78	0.44	79	4.3
1035	3.0	6.83	1.33	14.95	0.27	73	4.1
1040	3.6	6.83	1.33	14.91	0.15	68	4.1
1045	4.1	6.84	1.33	14.97	0.07	65	3.2

Purge Finish Time: 1050  
Total Volume Purged: 5.0 GAL  
Final Depth to Water: 58.30'

**Sampling Information**

Wellhead Gas Measurements: ---  
Sample Collection Time: 1050  
Analytical Suite Collected: VOCS (TEL) DIS LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: NO ODOOR, NO SHEEN, CLEAR  
IRON STAINING / RESIDUE



**Groundwater Sampling Form**

Well No. MW-815

Client: CHEVRON - CINCINNATI  
Project: 1<sup>ST</sup> SA/IM GROUNDWATER 2007  
Project No. 500-617-070

Well Condition: Good  
Geologist: DUG LAM  
Date: 9/17/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 49.90'  
Depth to Water: 38.50'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 11.40'  
Casing Volume (Water Column x Gallons per foot): 1.82 gal  
Purge Volume (3 x Casing Volume): 5.46 gal

**Purge Information**

Purge Start Time: 1434  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity mS/cm	Temperature	DO	ORP	Turbidity
1434	0.25 GAL	6.65	1.10	16.13	2.31	-107	23.9
1444	0.60 GAL	6.64	1.10	16.33	1.71	-113	13.4
1449	1.1 GAL	6.65	1.10	16.37	1.35	-116	10.5
1454	2.0 GAL	6.65	1.10	16.27	1.07	-119	9.8
1459	2.7 GAL	6.65	1.09	16.24	0.92	-120	9.8
1504	3.3 GAL	6.66	1.09	16.36	0.75	-120	7.9
1509	3.7 GAL	6.66	1.09	16.38	0.67 <sup>0.675</sup>	-120	8.5

Purge Finish Time: \_\_\_\_\_  
Total Volume Purged: 5 GAL  
Final Depth to Water: 38.50

**Sampling Information**

Wellhead Gas Measurements: Nm  
Sample Collection Time: 1515  
Analytical Suite Collected: VOCS (TCL) DIS. LEAD (CF) + SVOC  
QA/QC Samples Collected: MW-815 MS/MSD 09/17/2007 (VOCs LAMP ONLY)

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





**Groundwater Sampling Form**

Well No. MLW-120

Client: CHEVRON CINCINNATI  
Project: 1<sup>st</sup> 2007 SAIM GROUNDWATER  
Project No. 500-017-010

Well Condition: Good  
Geologist: Doug Lan  
Date: 4/16/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 46.90'  
Depth to Water: 34.91'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 12.00'  
Casing Volume (Water Column x Gallons per foot): 1.92 GAL  
Purge Volume (3 x Casing Volume): 5.76 GAL

**Purge Information**

Purge Start Time: 1440  
Purge Method: Low Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity µS/cm	Temperature	DO mg/L	ORP	Turbidity NTU
1453	2.0	7.27	0.885	15.94	4.37	188	70.0
1458	2.8	7.21	0.885	15.94	2.57	175	36.6
1503	3.8	7.20	0.890	16.03	1.52	154	13.6
1512	5.0	7.18	0.903	16.02	0.83	122	7.0
1520	5.8	7.18	0.900	15.61	0.38	107	5.7
1524	6.2	7.19	0.886	15.75	0.26	99	5.2
1526	6.4	7.20	0.881	15.73	6.18	95	5.0

Purge Finish Time: 1530  
Total Volume Purged: 6.75  
Final Depth to Water: SAME (34.91')

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1530  
Analytical Suite Collected: VOCS (TEL), DIS LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: Turbid to Clear, No Odor, No Sheen



**Groundwater Sampling Form**

Well No. MW-1003

Client: CHEVRON CINCINNATI  
Project: 1st 2007 SA 1M GROUNDWATER  
Project No. 500-017-010

Well Condition: Good  
Geologist: DAUG CAM  
Date: 4/16/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 86.03'  
Depth to Water: 72.56'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 134'  
Casing Volume (Water Column x Gallons per foot): 2.16  
Purge Volume (3 x Casing Volume): 6.48

**Purge Information**

Purge Start Time: 1307  
Purge Method: Low Flow  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity µS/cm	Temperature °C	DO mg/L	ORP mV	Turbidity NTU
1314	0.5 GAL	6.83	1.78	14.71	8.30	197	69.0
1318	1.0 GAL	6.85	1.79	15.11	7.91	193	27.5
1323	1.25	6.89	1.80	15.14	7.51	190	22.7
1328	1.4	6.90	1.80	14.93	7.50	188	20.7
1333	1.9	6.92	<sup>1.35</sup> <sub>1.85</sub> 1.79	15.18	<sup>7.43</sup> <sub>7.27</sub> 6.93	<sup>178</sup> <sub>198</sub> 184	<sup>22.7</sup> <sub>18.7</sub> 11.3
1338	2.8	6.93	1.80	15.49	6.90	179	7.4
1343	3.5	6.93	1.79	15.48	<sup>8.83</sup> <sub>6.97</sub> 7.00	<sup>169</sup> <sub>167</sub> 174	6.0
1348	4.25	6.99	1.78	15.37	7.07	171	5.0

Purge Finish Time: 1350  
Total Volume Purged: 5 GAL  
Final Depth to Water: SAME

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1350  
Analytical Suite Collected: VOCS (VCL), DIS, LEAD (FILTERED)  
QAQC Samples Collected: BD-2 04162007

Notes: CLEAR, NO ODOOR, NO SHEEN



**Groundwater Sampling Form**

Well No. MW-27

Client: CHEVRON CINCINNATI  
Project: 1st 2007 SA IM Groundwater  
Project No. 500-07-010

Well Condition: Raise Casing so J-Plug or flip cap can be installed  
Geologist: DUNG LAM  
Date: 4/16/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 44.10'  
Depth to Water: 33.05  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 11.05'  
Casing Volume (Water Column x Gallons per foot): 1.77 GAL  
Purge Volume (3 x Casing Volume): 5.31 GAL

**Purge Information**

Purge Start Time: 1610  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity mS/cm	Temperature	DO	ORP	Turbidity
1618	0.5 GAL	7.31	0.768	15.97	2.14	158	52.6
1623	0.8	7.27	0.780	16.50	1.48	147	20.4
1628	1.1	7.24	0.782	16.51	1.02	129	12.3
1633	1.9	7.23	0.786	16.76	0.94	107	5.8
1638	2.5	7.22	0.789	16.73	0.62	97	4.8
1643	3.0	7.21	0.791	16.75	0.44	87	4.3

Purge Finish Time: 1645  
Total Volume Purged: 3.25  
Final Depth to Water: SAME (33.05)

**Sampling Information**

Wellhead Gas Measurements: ---  
Sample Collection Time: 1645  
Analytical Suite Collected: VOCS (TEL), DIS LEAD (FILTERED)  
QAQC Samples Collected: NONE

Notes: CLEAR, NO ODOM, NO SILEX



Client: CHEVRON  
Project: 1st 2007 SAIM GROUNDWATER  
Project No.: 500-017-010

Well Condition: Good  
Geologist: DCLG  
Date: 4/24/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 39.95'  
Depth to Water: 13.63'  
Depth to Product: NP  
Casing Diameter: 2"  
Water Column: 26.32'  
Casing Volume (Water Column x Gallons per foot): 4.21 gal  
Purge Volume (3 x Casing Volume): 12.63 gal

**Purge Information**

Purge Start Time: 0934  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity mS/cm	Temperature °C	DO mg/L	ORP mV	Turbidity NTU
0940	0.25 GAL	6.37	0.775	12.77	4.88	213	36
0945	1.0 GAL	7.04	0.718	12.54	3.50	194	16
0950	1.3 GAL	7.18	0.706	12.48	3.13	184	5
0955	2.0 GAL	7.29	0.700	12.49	2.75	175	3
1000	3.0 GAL	7.33	0.697	12.60	2.46	166	2
1005	3.5 GAL	7.39	0.697	12.59	2.28	162	1
1010	4.0 GAL	7.45	0.695	12.61	2.13	155	1

Purge Finish Time: \_\_\_\_\_  
Total Volume Purged: \_\_\_\_\_  
Final Depth to Water: 13.64

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1015  
Analytical Suite Collected: VOC'S (TCL), DIS. LEAD (F)  
QAQC Samples Collected: MW-48E MS/MSD 04242007

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Groundwater Sampling Form

Well No. MLW-98D

Client: CHEVRON  
Project: 1<sup>st</sup> ZOOM SPIM GRABBER  
Project No. 500-017-016

Well Condition: GOOD  
Geologist: DUGAN  
Date: 4/24/2007

Well Information

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 49.75  
Depth to Water: 13.09  
Depth to Product: ND  
Casing Diameter: 2"  
Water Column: 36.71  
Casing Volume (Water Column x Gallons per foot): 5.87 gal  
Purge Volume (3 x Casing Volume): 17.61 gal

Purge Information

Purge Start Time: 1121  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1140	3.0	7.27	0.789	13.45	3.74	175	140
1150	5.0	7.29	0.769	14.58	2.29	168	92
1200	6.0	7.31	0.779	14.02	1.90	160	44
1205	6.7	7.31	0.772	13.98	1.67	157	44
1210	7.5	7.31	0.770	14.14	1.55	155	37

Purge Finish Time: \_\_\_\_\_  
Total Volume Purged: \_\_\_\_\_  
Final Depth to Water: 13.05'

Sampling Information

Wellhead Gas Measurements: NM  
Sample Collection Time: 1215  
Analytical Suite Collected: VOC's (TCL), DIS, LAMP (P)  
QAQC Samples Collected: -

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Groundwater Sampling Form**

Well No. MW-85D

Client: CHEVRON  
Project: 1st 2007 SPM Groundwater  
Project No. 800-017-010

Well Condition: Good  
Geologist: Jim Cox  
Date: 9/24/2007

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 68' 3"  
Depth to Water: 144'  
Depth to Product: ND  
Casing Diameter: 2"  
Water Column: 53.87  
Casing Volume (Water Column x Gallons per foot): 8.62  
Purge Volume (3 x Casing Volume): 25.86

**Purge Information**

Purge Start Time: 1355  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1404	0.4	7.36	0.793	13.42	2.63	192	44
1409	1.9	7.32	0.791	14.07	1.72	163	21
1414	2.7	7.32	0.789	14.21	1.62	151	16
1419	3.5	7.32	0.786	14.28	1.43	138	12
1424	4.3	7.32	0.785	14.18	1.28	127	10
1429	5.0	7.32	0.788	13.99	1.19	122	10
1435	5.5	7.32	0.784	14.18	1.02	114	8
1440	6.0	7.32	0.785	14.16	0.95	112	7

Purge Finish Time: \_\_\_\_\_  
Total Volume Purged: 7.0  
Final Depth to Water: 1565

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1445  
Analytical Suite Collected: VOCs (TEL) DIS (LEM) (F)  
QAQC Samples Collected: NONE

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Groundwater Sampling Form**

Well No. MW-852

Client: \_\_\_\_\_  
Project: \_\_\_\_\_  
Project No. \_\_\_\_\_

Well Condition: \_\_\_\_\_  
Geologist: \_\_\_\_\_  
Date: \_\_\_\_\_

**Well Information**

Casing Diameter	Gallons per Foot
1.5	0.09
2	0.16
4	0.65
6	1.5
8	2.6
10	4.1

Total Depth: 454  
Depth to Water: 16.12  
Depth to Product: \_\_\_\_\_  
Casing Diameter: 2"  
Water Column: 29.28  
Casing Volume (Water Column x Gallons per foot): 4.09  
Purge Volume (3 x Casing Volume): 14.07

**Purge Information**

Purge Start Time: 1515  
Purge Method: LOW FLOW  
Flow Rate: \_\_\_\_\_

Time	Volume Removed	pH	Specific Conductivity	Temperature	DO	ORP	Turbidity
1520	0.25	7.5	0.779	12.51	4.31	150	42
1525	<del>0.8</del> 0.8	7.43	0.775	12.62	1.90	149	36
1530	1.3	7.42	0.773	12.67	1.59	147	35
1535	2.0	7.41	0.773	12.43	1.11	145	31
1540	3.2	7.41	0.771	12.88	0.99	143	35
1545	3.75	7.42	0.776	12.56	-	142	27

Purge Finish Time: \_\_\_\_\_  
Total Volume Purged: 4.5  
Final Depth to Water: 16.13

**Sampling Information**

Wellhead Gas Measurements: NM  
Sample Collection Time: 1550  
Analytical Suite Collected: VOC's (TCL) DIS LEAD (F)  
QAQC Samples Collected: -

Notes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ANALYTICAL RESULTS**

Prepared for:

Chevron  
PO Box 96  
North Bend OH 42052

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425**SAMPLE GROUP**

The sample group for this submittal is 1033726. Samples arrived at the laboratory on Saturday, April 14, 2007. The PO# for this group is 0015007286 and the release number is 50008931.

**Client Description****Lancaster Labs Number**

TH-2, 04092007 Grab Water Sample	5029021
TH-1S, 04092007 Grab Water Sample	5029022
MW-23, 04092007 Grab Water Sample	5029023
MW-94S, 04112007 Grab Water Sample	5029024
MW-95D, 04112007 Grab Water Sample	5029025
MW-37, 04112007 Grab Water Sample	5029026
MW-114, 04112007 Grab Water Sample	5029027
MW-35, 04122007 Grab Water Sample	5029028
MW-115D, 04122007 Grab Water Sample	5029029
MW-115S, 04122007 Grab Water Sample	5029030
MW-95S, 04132007 Grab Water Sample	5029031
MW-128, 04132007 Grab Water Sample	5029032
BD-1, 04132007 Grab Water Sample	5029033
TB07086 Water Sample	5029034

**METHODOLOGY**

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

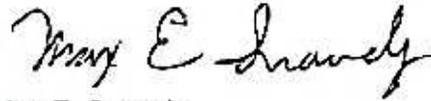
1 COPY TO      Trihydro Corporation  
1 COPY TO      Data Package Group

Attn: Chris Aneiros

**US EPA ARCHIVE DOCUMENT**

Questions? Contact your Client Services Representative  
Gwen A Birchall at (717) 656-2300

Respectfully Submitted,



Max E. Snavelly  
Senior Specialist

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5029021**
**TH-2, 04092007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/09/2007 11:30 by DL

Account Number: 11494

 Submitted: 04/14/2007 10:00  
 Reported: 04/24/2007 at 22:33  
 Discard: 06/24/2007

 Chevron  
 PO Box 96  
 North Bend OH 42052

TH--2 SDG#: HVO54-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0135 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	400.		0.8	ug/l	1
05417	o-Xylene	95-47-6	35.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	4. J		0.5	ug/l	1
05407	Toluene	108-88-3	19.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	150.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	440.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 18:52	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 17:10	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 17:10	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 17:10	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

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# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Lancaster Laboratories Sample No. WW 5029022

TH-1S, 04092007 Grab Water Sample

**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/09/2007 13:00 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00  
 Reported: 04/24/2007 at 22:33  
 Discard: 06/24/2007

Chevron  
 PO Box 96  
 North Bend OH 42052

TH-1S SDG#: HVO54-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0176		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	980.	2.		ug/l	2
05417	o-Xylene	95-47-6	53.	2.		ug/l	2
08171	1,3-Dichlorobenzene	541-73-1	N.D.	2.		ug/l	2
08172	1,4-Dichlorobenzene	106-46-7	N.D.	2.		ug/l	2
08173	1,2-Dichlorobenzene	95-50-1	N.D.	2.		ug/l	2
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	61.	1.		ug/l	2
05407	Toluene	108-88-3	28.	1.		ug/l	2
05413	Chlorobenzene	108-90-7	N.D.	2.		ug/l	2
05415	Ethylbenzene	100-41-4	620.	16.		ug/l	20
06310	Xylene (Total)	1330-20-7	1,000.	2.		ug/l	2

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	04/23/2007 19:15	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 16:24	Emiley A King	2
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 16:24	Emiley A King	2
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 16:47	Emiley A King	20
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 16:24	Emiley A King	2
01163	GC/MS VOA Water Prep	SW-846 5030B	2	04/18/2007 16:47	Emiley A King	20
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

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**Lancaster Laboratories Sample No. WW 5029023**
**MW-23, 04092007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/09/2007 15:15 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

MW-23 SDG#: HVO54-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0128 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 19:19	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 12:09	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 12:09	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 12:09	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5029024**
**MW-94S, 04112007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/11/2007 11:55 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

M94S- SDG#: HVO54-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0110 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 19:30	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 12:32	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 12:32	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 12:32	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

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**Lancaster Laboratories Sample No. WW 5029025**
**MW-95D, 04112007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/11/2007 15:25 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

M95D- SDG#: HVO54-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0115 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 19:34	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 12:56	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 12:56	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 12:56	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

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**Lancaster Laboratories Sample No. WW 5029026**
**MW-37, 04112007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/11/2007 14:00 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

MW-37 SDG#: HVO54-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0138 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 19:37	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 13:19	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 13:19	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 13:19	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5029027**
**MW-114, 04112007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/11/2007 10:25 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

MW114 SDG#: HVO54-07

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0150 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 19:41	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 14:05	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 14:05	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 14:05	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5029028**
**MW-35, 04122007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/12/2007 12:20 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

MW-35 SDG#: HVO54-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0090 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 19:45	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 14:28	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 14:28	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 14:28	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5029029**
**MW-115D, 04122007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/12/2007 14:15 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

M115D SDG#: HVO54-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
07055	Lead	7439-92-1	0.0123 J	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07055	Lead	SW-846 6010B	1	04/23/2007 19:49	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 14:51	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 14:51	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 14:51	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5029030**
**MW-115S, 04122007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/12/2007 15:15 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

M115S SDG#: HVO54-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0118 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	0.6 J		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	04/23/2007 19:53	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 15:14	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 15:14	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 15:14	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5029031**
**MW-95S, 04132007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/13/2007 10:30 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

MW95S SDG#: HVO54-11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0109 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 19:56	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 15:37	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 15:37	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 15:37	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5029032**
**MW-128, 04132007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/13/2007 09:20 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

MW128 SDG#: HVO54-12

CAT No.	Analysis Name	CAS Number	As Received		Units	Dilution Factor
			Result	Method Detection Limit		
07055	Lead	7439-92-1	0.0178	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	27.	0.8	ug/l	1
05417	o-Xylene	95-47-6	1. J	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	17.	0.5	ug/l	1
05407	Toluene	108-88-3	2. J	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	42.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	28.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	04/23/2007 20:00	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 16:00	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 16:00	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 16:00	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5029033**
**BD-1, 04132007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/13/2007 by DL

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

BD-1- SDG#: HVO54-13FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.0146 J		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	26.		0.8	ug/l	1
05417	o-Xylene	95-47-6	1. J		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	15.		0.5	ug/l	1
05407	Toluene	108-88-3	2. J		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	40.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	27.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	04/23/2007 20:04	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007 17:56	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007 17:56	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007 17:56	Emiley A King	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/17/2007 00:10	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5029034**
**TB07086 Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/09/2007 11:30

Account Number: 11494

Submitted: 04/14/2007 10:00

Chevron

Reported: 04/24/2007 at 22:33

PO Box 96

Discard: 06/24/2007

North Bend OH 42052

TB786 SDG#: HVO54-14TB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.	0.8		ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8		ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.		ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.		ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.		ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.	0.5		ug/l	1
05407	Toluene	108-88-3	N.D.	0.7		ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8		ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8		ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8		ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/18/2007	11:46	Emiley A King	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/18/2007	11:46	Emiley A King	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/18/2007	11:46	Emiley A King	1

## Quality Control Summary

 Client Name: Chevron  
 Reported: 04/24/07 at 10:33 PM

Group Number: 1033726

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 071061848003	Sample number(s): 5029021-5029033							
Lead	N.D.	0.0069	mg/l	94		90-113		
Batch number: N071081AA	Sample number(s): 5029021-5029034							
Benzene	N.D.	0.5	ug/l	103	103	78-119	0	30
Toluene	N.D.	0.7	ug/l	101	100	85-115	1	30
Chlorobenzene	N.D.	0.8	ug/l	102	101	85-115	1	30
Ethylbenzene	N.D.	0.8	ug/l	101	100	82-119	1	30
m+p-Xylene	N.D.	0.8	ug/l	102	101	83-113	1	30
o-Xylene	N.D.	0.8	ug/l	101	100	83-113	1	30
Xylene (Total)	N.D.	0.8	ug/l	102	101	83-113	1	30
1,3-Dichlorobenzene	N.D.	1.	ug/l	102	100	81-114	2	30
1,4-Dichlorobenzene	N.D.	1.	ug/l	101	100	84-116	0	30
1,2-Dichlorobenzene	N.D.	1.	ug/l	101	102	81-112	1	30

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 071061848003	Sample number(s): 5029021-5029033 UNSPK: 5029021 BKG: 5029021								
Lead	96	101	75-125	5	20	0.0135 J	0.0117 J	14 (1)	20
Batch number: N071081AA	Sample number(s): 5029021-5029034 UNSPK: 5029026								
Benzene	93		83-128						
Toluene	92		83-127						
Chlorobenzene	91		83-120						
Ethylbenzene	92		82-129						
m+p-Xylene	92		82-130						
o-Xylene	91		82-130						
Xylene (Total)	92		82-130						
1,3-Dichlorobenzene	92		79-123						
1,4-Dichlorobenzene	92		81-122						
1,2-Dichlorobenzene	93		82-117						

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

US EPA ARCHIVE DOCUMENT

## Quality Control Summary

Client Name: Chevron  
Reported: 04/24/07 at 10:33 PM

Group Number: 1033726

### Surrogate Quality Control

Analysis Name: PPL + Xylene (total) by 8260  
Batch number: N071081AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5029021	97	93	95	92
5029022	99	97	93	94
5029023	98	98	95	90
5029024	98	96	96	89
5029025	99	98	94	87
5029026	102	100	95	88
5029027	100	97	94	88
5029028	102	101	95	88
5029029	101	98	95	88
5029030	100	99	96	90
5029031	101	99	95	87
5029032	98	97	97	94
5029033	99	97	97	94
5029034	99	98	95	89
Blank	98	97	96	89
LCS	97	96	97	95
LCSD	99	97	98	94
MS	99	97	98	95
Limits:	80-116	77-113	80-113	78-113

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only  
 Acct. # 11494 Group# 1033726 Sample # 5029021-34

**COC # 0150514**

Please print. Instructions on reverse side correspond with circled numbers.

<p><b>1</b> Client: <u>CHEVRON CINCINNATI - 11494</u> Acct. #: _____</p> <p>Project Name/#: <u>1st 2007 SA IM GROUNDWATER</u> WSID #: _____</p> <p>Project Manager: <u>CHRIS ABEIROS</u> P.O.#: <u>500-017-010</u></p> <p>Sampler: <u>DOUG LAM</u> Quote #: _____</p> <p>Name of state where samples were collected: <u>OHIO</u></p>				<p><b>4</b> Matrix</p> <p><input type="checkbox"/> Available Check: _____</p> <p><input type="checkbox"/> Water _____</p> <p><input type="checkbox"/> Sludge _____</p> <p><input type="checkbox"/> Other _____</p>		<p><b>5</b> Analyses Requested</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="6">Preservation Codes</th> </tr> <tr> <td style="width: 5%;">H</td> <td style="width: 5%;">N</td> <td style="width: 5%;">S</td> <td style="width: 5%;">T</td> <td style="width: 5%;">B</td> <td style="width: 5%;">O</td> </tr> <tr> <td style="font-size: small;">(see analysis 1st)</td> <td style="font-size: small;">DISSOLVED LEAD</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Preservation Codes						H	N	S	T	B	O	(see analysis 1st)	DISSOLVED LEAD					<p><b>For Lab Use Only</b></p> <p>FSC: _____</p> <p>SCR#: _____</p> <p><b>Preservation Codes</b></p> <p>H=HCl T=Thiosulfate</p> <p>N=HNO<sub>3</sub> B=NaOH</p> <p>S=H<sub>2</sub>SO<sub>4</sub> O=Other</p> <p style="font-size: large; font-weight: bold;">COC 1 OF 2</p> <p>Remarks</p> <p style="font-size: large; font-weight: bold;">FOR: NWRCN17000M20</p>																																																																																																																								
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<p><b>7</b> Turnaround Time Requested (TAT) (please circle): <u>Normal</u> Rush</p> <p>(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)</p> <p>Date results are needed: <u>4/30/2007</u></p> <p>Rush results requested by (please circle): Phone Fax <u>E-mail</u></p> <p>Phone #: <u>513-353-1323 x23</u> Fax #: _____</p> <p>E-mail address: <u>caneiros@trihydro.com</u></p>				<p>Relinquished by: _____ Date: <u>4/12</u> Time: <u>2007</u> Received by: _____ Date: _____ Time: _____</p> <p>Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____</p> <p>Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____</p> <p>Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____</p> <p>Relinquished by: _____ Date: _____ Time: _____ Received by: _____ Date: _____ Time: _____</p>		<p><b>9</b></p>																																																																																																																																																
<p><b>8</b> Data Package Options (please circle if required)</p> <p>Type I (validation/NJ Reg) TX TRRP-13</p> <p>Type II (Tier II) MA MCP CT RCP</p> <p>Type III (Reduced NJ) Site-specific QC (MS/MSD/Dup)? Yes <u>No</u></p> <p><u>Type IV (CLP SOW)</u> (if yes, indicate COC sample and submit triplicate volume.)</p> <p>Type VI (Raw Data Only) Internal COC Required? Yes / <u>No</u></p>				<p>SDG Complete? Yes No</p>																																																																																																																																																		

# Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 11494 Group# 1033726 Sample # 5079071-34

COC # 0150515

Please print. Instructions on reverse side correspond with circled numbers.

**1** Client: CHEVRON CINCINNATI - 11494 Acct. #: \_\_\_\_\_

Project Name/#: 1#2007 SA IM GROUNDWATER PWSID #: \_\_\_\_\_

Project Manager: CHRIS ANEIRDS P.O.#: 500-07-018

Sampler: DUNG LAM Quote #: \_\_\_\_\_

Name of state where samples were collected: OHIO

4

**5** Analyses Requested

Preservation Codes														
#	2													
	DISPOSED LEAD													

**2** Sample Identification

Sample ID	Date Collected	Time Collected	3	Composite	Soil	Water	Total # of Containers	VOC's (see analyte list)	DISPOSED LEAD	6
MW-955 04132007	4/13/07	1030	X		X		4	X	X	For: NWRCN17000M20  TRIP BLANK
MW-128 04132007	4/13/07	0920	X		X	4	X	X		
BD-1 04132007	4/13/07	-	X		X	4	X	X		
TB07086	-	-	X		X	1	X			

**7** Turnaround Time Requested (TAT) (please circle): Normal Rush  
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)  
 Date results are needed: 4/30/07  
 Rush results requested by (please circle): Phone Fax E-mail  
 Phone #: 513-353-1323 Fax #: \_\_\_\_\_  
 E-mail address: caneiros@tshydro.com

**8** Data Package Options (please circle if required)

Type I (validation/NJ Reg)	TX TRRP-13	SDG Complete?
Type II (Tier II)	MA MCP CT RCP	Yes No
Type III (Reduced NJ)	Site-specific QC (MS/MSD/Dup)? Yes <u>No</u>	
Type IV (CRP SOW)	(If yes, indicate QC sample and submit duplicate volume.)	
Type VI (Raw Data Only)	Internal COC Required? Yes <u>No</u>	

Relinquished by: <u>[Signature]</u>	Date	Time	Received by:	Date	Time
	4/13	2000			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: <u>[Signature]</u>	4/13/07	1000

## Lancaster Laboratories Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

U.S. EPA data qualifiers:

### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>J</b>	Estimated value
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns >25%
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

### Inorganic Qualifiers

<b>B</b>	Value is <CRDL, but ≥IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike amount not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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## ANALYTICAL RESULTS

Prepared for:

Chevron  
PO Box 96  
North Bend OH 42052

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425SAMPLE GROUP

The sample group for this submittal is 1034791. Samples arrived at the laboratory on Saturday, April 21, 2007. The PO# for this group is 0015007286 and the release number is 50008931.

<u>Client Description</u>	<u>Lancaster Labs Number</u>
MW-104_04202007 Grab Water Sample	5035073
L-4R_04202007 Grab Water Sample	5035074
MW-48S_04192007 Grab Water Sample	5035075
MW-85S_04192007 Grab Water Sample	5035076
MW-7_04192007 Grab Water Sample	5035077
MW-33_04192007 Grab Water Sample	5035078
BD-3_04192007 Grab Water Sample	5035079
MW-65S_04182007 Grab Water Sample	5035080
MW-65D_04182007 Grab Water Sample	5035081
MW-65I_04182007 Grab Water Sample	5035082
EB-1_04182007 Grab Water Sample	5035083
MW-113_04172007 Grab Water Sample	5035084
MW-101_04172007 Grab Water Sample	5035085
MW-81S_04172007 Unspiked Grab Water Sample	5035086
MW-81S_04172007-MS Matrix Spike Grab Water Sample	5035087
MW-81S_04172007-MSD Matrix Spike Dup Grab Water	5035088
MW-81S_04172007 Duplicate Grab Water Sample	5035089
MW-81D_04172007 Grab Water Sample	5035090
BD-2_04162007 Grab Water Sample	5035091
MW-120_04162007 Grab Water Sample	5035092
MW-100s_04162007 Grab Water Sample	5035093
MW-27_04162007 Grab Water Sample	5035094
TB07086 Water Sample	5035095

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO        Trihydro Corporation  
ELECTRONIC     Trihydro Corporation  
COPY TO  
1 COPY TO        Data Package Group

Attn: Chris Aneiros  
Attn: Trihydro Database

Questions? Contact your Client Services Representative  
Gwen A Birchall at (717) 656-2300

Respectfully Submitted,



Richard H. Karam  
Group Leader

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035073**
**MW-104\_04202007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/20/2007 11:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW104 SDG#: HVO55-01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/02/2007 04:59	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 07:54	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 07:54	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 07:54	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035074**
**L-4R\_04202007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/20/2007 10:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

L-4R- SDG#: HVO55-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:03	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 08:17	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 08:17	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 08:17	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035075**
**MW-48S\_04192007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 15:40 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

M-48S SDG#: HVO55-03

CAT No.	Analysis Name	CAS Number	As Received		Units	Dilution Factor
			Result	Method Detection Limit		
07055	Lead	7439-92-1	0.0074 J	0.0069	mg/l	1
04678	TCL SW846 Semivolatiles/Waters					
03973	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	2.	ug/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	260.	4.	ug/l	5
05417	o-Xylene	95-47-6	23. J	4.	ug/l	5
08171	1,3-Dichlorobenzene	541-73-1	N.D.	5.	ug/l	5
08172	1,4-Dichlorobenzene	106-46-7	N.D.	5.	ug/l	5
08173	1,2-Dichlorobenzene	95-50-1	N.D.	5.	ug/l	5
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	3.	ug/l	5
05407	Toluene	108-88-3	N.D.	4.	ug/l	5
05413	Chlorobenzene	108-90-7	N.D.	4.	ug/l	5
05415	Ethylbenzene	100-41-4	140.	4.	ug/l	5
06310	Xylene (Total)	1330-20-7	280.	4.	ug/l	5

The reporting limits for the GC/MS volatile compounds were raised due to the level of non-target compounds.

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:14	Eric L Eby	1
04678	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/26/2007 07:35	Linda M Hartenstine	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 08:40	Stephanie A Selis	5

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035075**

**MW-48S\_04192007 Grab Water Sample**

**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 15:40 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

Sample ID	Description	Method	Count	Date/Time	Analyst	Count
M-48S	SDG#: HVO55-03					
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 08:40	Stephanie A Selis	5
00813	BNA Water Extraction	SW-846 3510C	1	04/24/2007 11:45	Olivia I Santiago	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 08:40	Stephanie A Selis	5
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035076**
**MW-85S\_04192007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 10:50 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

M-85S SDG#: HVO55-04

CAT No.	Analysis Name	CAS Number	As Received		Units	Dilution Factor
			Result	Method		
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
04678	TCL SW846 Semivolatiles/Waters					
03973	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	2.	ug/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	540.	4.	ug/l	5
05417	o-Xylene	95-47-6	19. J	4.	ug/l	5
08171	1,3-Dichlorobenzene	541-73-1	N.D.	5.	ug/l	5
08172	1,4-Dichlorobenzene	106-46-7	N.D.	5.	ug/l	5
08173	1,2-Dichlorobenzene	95-50-1	N.D.	5.	ug/l	5
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	15. J	3.	ug/l	5
05407	Toluene	108-88-3	7. J	4.	ug/l	5
05413	Chlorobenzene	108-90-7	N.D.	4.	ug/l	5
05415	Ethylbenzene	100-41-4	650.	4.	ug/l	5
06310	Xylene (Total)	1330-20-7	560.	4.	ug/l	5

The reporting limits for the GC/MS volatile compounds were raised due to the level of non-target compounds.

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:18	Eric L Eby	1
04678	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/26/2007 22:27	Linda M Hartenstine	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 09:03	Stephanie A Selis	5

**Lancaster Laboratories Sample No. WW 5035076**

**MW-85S\_04192007 Grab Water Sample**

**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 10:50 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

M-85S	SDG#:	HVO55-04					
07582	PPL + Xylene (total) by	SW-846 8260B	1	04/25/2007 09:03	Stephanie A Selis	5	
	8260						
00813	BNA Water Extraction	SW-846 3510C	1	04/24/2007 11:45	Olivia I Santiago	1	
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 09:03	Stephanie A Selis	5	
01848	WW SW846 ICP Digest (tot	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1	
	rec)						

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035077**
**MW-7\_04192007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 14:40 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW7-- SDG#: HVO55-05

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
04678	TCL SW846 Semivolatiles/Waters						
03973	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.		2.	ug/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	490.		4.	ug/l	5
05417	o-Xylene	95-47-6	21. J		4.	ug/l	5
08171	1,3-Dichlorobenzene	541-73-1	N.D.		5.	ug/l	5
08172	1,4-Dichlorobenzene	106-46-7	N.D.		5.	ug/l	5
08173	1,2-Dichlorobenzene	95-50-1	N.D.		5.	ug/l	5
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	130.		3.	ug/l	5
05407	Toluene	108-88-3	15. J		4.	ug/l	5
05413	Chlorobenzene	108-90-7	N.D.		4.	ug/l	5
05415	Ethylbenzene	100-41-4	160.		4.	ug/l	5
06310	Xylene (Total)	1330-20-7	510.		4.	ug/l	5

The reporting limits for the GC/MS volatile compounds were raised due to the level of non-target compounds.

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:22	Eric L Eby	1
04678	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/26/2007 22:48	Linda M Hartenstine	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 09:26	Stephanie A Selis	5

**Lancaster Laboratories Sample No. WW 5035077**

**MW-7\_04192007 Grab Water Sample**

**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 14:40 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW7--	SDG#: HVO55-05					
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 09:26	Stephanie A Selis	5
00813	BNA Water Extraction	SW-846 3510C	1	04/24/2007 11:45	Olivia I Santiago	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 09:26	Stephanie A Selis	5
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035078**
**MW-33\_04192007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 09:35 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW33- SDG#: HVO55-06

CAT No.	Analysis Name	CAS Number	As Received Result	As Received	Units	Dilution Factor
				Method		
07055	Lead	7439-92-1	N.D.	Detection Limit 0.0069	mg/l	1
04678	TCL SW846 Semivolatiles/Waters					
03973	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	2.	ug/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis	Analyst	Dilution Factor
				Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:26	Eric L Eby	1
04678	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/26/2007 18:21	Kevin D Ryan	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 09:49	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 09:49	Stephanie A Selis	1
00813	BNA Water Extraction	SW-846 3510C	1	04/24/2007 11:45	Olivia I Santiago	1

Lancaster Laboratories Sample No. WW 5035078

MW-33\_04192007 Grab Water Sample

**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 09:35 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW33- SDG#: HVO55-06

01163 GC/MS VOA Water Prep SW-846 5030B 1 04/25/2007 09:49 Stephanie A Selis 1

01848 WW SW846 ICP Digest (tot SW-846 3005A 1 04/26/2007 23:30 Helen L Schaeffer 1  
rec)

**Lancaster Laboratories Sample No. WW 5035079**
**BD-3\_04192007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/19/2007 by DL

Account Number: 11494

 Submitted: 04/21/2007 10:00  
 Reported: 05/03/2007 at 12:13  
 Discard: 07/03/2007

 Chevron  
 PO Box 96  
 North Bend OH 42052

BD3-- SDG#: HVO55-07FD

CAT No.	Analysis Name	CAS Number	As Received		As Received		Dilution Factor
			Result		Method	Detection Limit	
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	540.		4.	ug/l	5
05417	o-Xylene	95-47-6	19.	J	4.	ug/l	5
08171	1,3-Dichlorobenzene	541-73-1	N.D.		5.	ug/l	5
08172	1,4-Dichlorobenzene	106-46-7	N.D.		5.	ug/l	5
08173	1,2-Dichlorobenzene	95-50-1	N.D.		5.	ug/l	5
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	15.	J	3.	ug/l	5
05407	Toluene	108-88-3	6.	J	4.	ug/l	5
05413	Chlorobenzene	108-90-7	N.D.		4.	ug/l	5
05415	Ethylbenzene	100-41-4	650.		4.	ug/l	5
06310	Xylene (Total)	1330-20-7	560.		4.	ug/l	5

The reporting limits for the GC/MS volatile compounds were raised due to the level of non-target compounds.

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:30	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 10:11	Stephanie A Selis	5
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 10:11	Stephanie A Selis	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 10:11	Stephanie A Selis	5
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035080**
**MW-65S\_04182007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/18/2007 15:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

M-65S SDG#: HVO55-08

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:34	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 10:34	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 10:34	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 10:34	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035081**
**MW-65D\_04182007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/18/2007 13:20 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

M-65D SDG#: HVO55-09

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Units	
07055	Lead	7439-92-1	N.D.	Detection Limit 0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:38	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 10:58	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 10:58	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 10:58	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035082**
**MW-65I\_04182007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/18/2007 14:40 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

M-65I SDG#: HVO55-10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:42	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 11:21	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 11:21	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 11:21	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035083**
**EB-1\_04182007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/18/2007 10:00 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

EB1-- SDG#: HVO55-11EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:46	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 06:04	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 06:04	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 06:04	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035084**
**MW-113\_04172007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/17/2007 09:30 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW113 SDG#: HVO55-12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 05:50	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 11:44	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 11:44	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 11:44	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035085**
**MW-101\_04172007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/17/2007 10:50 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW101 SDG#: HVO55-13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 06:02	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 12:06	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 12:06	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 12:06	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035086**
**MW-81S\_04172007 Unspiked Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/17/2007 15:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW81S SDG#: HVO55-14BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
04678	TCL SW846 Semivolatiles/Waters					
03973	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	2.	ug/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	30.	4.	ug/l	5
05417	o-Xylene	95-47-6	N.D.	4.	ug/l	5
08171	1,3-Dichlorobenzene	541-73-1	N.D.	5.	ug/l	5
08172	1,4-Dichlorobenzene	106-46-7	N.D.	5.	ug/l	5
08173	1,2-Dichlorobenzene	95-50-1	N.D.	5.	ug/l	5
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	250.	3.	ug/l	5
05407	Toluene	108-88-3	12. J	4.	ug/l	5
05413	Chlorobenzene	108-90-7	N.D.	4.	ug/l	5
05415	Ethylbenzene	100-41-4	27.	4.	ug/l	5
06310	Xylene (Total)	1330-20-7	30.	4.	ug/l	5

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/02/2007 04:35	Eric L Eby	1
04678	TCL SW846 Semivolatiles/Waters	SW-846 8270C	1	04/26/2007 23:10	Linda M Hartenstine	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 06:27	Stephanie A Selis	5
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 06:27	Stephanie A Selis	5
00813	BNA Water Extraction	SW-846 3510C	1	04/24/2007 11:45	Olivia I Santiago	1



# Analysis Report

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Lancaster Laboratories Sample No. WW 5035086

MW-81S\_04172007 Unspiked Grab Water Sample

**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/17/2007 15:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW81S SDG#: HVO55-14BKG

01163 GC/MS VOA Water Prep SW-846 5030B 1 04/25/2007 06:27 Stephanie A Selis 5

01848 WW SW846 ICP Digest (tot SW-846 3005A 1 04/26/2007 23:30 Helen L Schaeffer 1  
rec)

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035087**
**MW-81S\_04172007-MS Matrix Spike Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/17/2007 15:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW81S SDG#: HVO55-14MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
07055	Lead	7439-92-1	0.126	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	240.	4.	ug/l	5
05417	o-Xylene	95-47-6	100.	4.	ug/l	5
08171	1,3-Dichlorobenzene	541-73-1	99.	5.	ug/l	5
08172	1,4-Dichlorobenzene	106-46-7	100.	5.	ug/l	5
08173	1,2-Dichlorobenzene	95-50-1	99.	5.	ug/l	5
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	340.	3.	ug/l	5
05407	Toluene	108-88-3	110.	4.	ug/l	5
05413	Chlorobenzene	108-90-7	100.	4.	ug/l	5
05415	Ethylbenzene	100-41-4	130.	4.	ug/l	5
06310	Xylene (Total)	1330-20-7	340.	4.	ug/l	5

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis Date and Time	Analyst	Dilution Factor
07055	Lead	SW-846 6010B	1	05/02/2007 04:47	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 07:08	Stephanie A Selis	5
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 07:08	Stephanie A Selis	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 07:08	Stephanie A Selis	5
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035088**
**MW-81S\_04172007-MSD Matrix Spike Dup Grab Water**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/17/2007 15:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW81S SDG#: HVO55-14MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.127		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	240.	4.		ug/l	5
05417	o-Xylene	95-47-6	100.	4.		ug/l	5
08171	1,3-Dichlorobenzene	541-73-1	100.	5.		ug/l	5
08172	1,4-Dichlorobenzene	106-46-7	100.	5.		ug/l	5
08173	1,2-Dichlorobenzene	95-50-1	100.	5.		ug/l	5
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	340.	3.		ug/l	5
05407	Toluene	108-88-3	110.	4.		ug/l	5
05413	Chlorobenzene	108-90-7	100.	4.		ug/l	5
05415	Ethylbenzene	100-41-4	130.	4.		ug/l	5
06310	Xylene (Total)	1330-20-7	340.	4.		ug/l	5

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/02/2007 04:51	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 07:31	Stephanie A Selis	5
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 07:31	Stephanie A Selis	5
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 07:31	Stephanie A Selis	5
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

Lancaster Laboratories Sample No. WW 5035089

MW-81S\_04172007 Duplicate Grab Water Sample

Interim Measures (IM) Groundwater Monitoring

Collected: 04/17/2007 15:15 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW81S SDG#: HVO55-14DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/02/2007 04:43	Eric L Eby	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5035090**
**MW-81D\_04172007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/17/2007 17:00 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

MW81D SDG#: HVO55-15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 06:06	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 12:29	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 12:29	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 12:29	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035091**
**BD-2\_04162007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/16/2007 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

BD-2- SDG#: HVO55-16FD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 06:10	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 12:53	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 12:53	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 12:53	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035092**
**MW-120\_04162007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/16/2007 15:30 by DL

Account Number: 11494

 Submitted: 04/21/2007 10:00  
 Reported: 05/03/2007 at 12:13  
 Discard: 07/03/2007

 Chevron  
 PO Box 96  
 North Bend OH 42052

MW120 SDG#: HVO55-17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 06:14	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 13:16	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 13:16	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 13:16	Stephanie A Selis	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035093**
**MW-100s\_04162007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/16/2007 13:50 by DL

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

M100S SDG#: HVO55-18

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 06:18	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 16:17	Sara E Wolf	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 16:17	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 16:17	Sara E Wolf	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035094**
**MW-27\_04162007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/16/2007 16:45 by DL

Account Number: 11494

 Submitted: 04/21/2007 10:00  
 Reported: 05/03/2007 at 12:13  
 Discard: 07/03/2007

 Chevron  
 PO Box 96  
 North Bend OH 42052

MW27- SDG#: HVO55-19

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/02/2007 06:22	Eric L Eby	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007 16:41	Sara E Wolf	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007 16:41	Sara E Wolf	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007 16:41	Sara E Wolf	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/26/2007 23:30	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5035095**
**TB07086 Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/16/2007

Account Number: 11494

Submitted: 04/21/2007 10:00

Chevron

Reported: 05/03/2007 at 12:13

PO Box 96

Discard: 07/03/2007

North Bend OH 42052

IMGRT SDG#: HVO55-20TB\*

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.	0.8		ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8		ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.		ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.		ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.		ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.	0.5		ug/l	1
05407	Toluene	108-88-3	N.D.	0.7		ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8		ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8		ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8		ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/25/2007	05:41	Stephanie A Selis	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/25/2007	05:41	Stephanie A Selis	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/25/2007	05:41	Stephanie A Selis	1

US EPA ARCHIVE DOCUMENT

## Quality Control Summary

 Client Name: Chevron  
 Reported: 05/03/07 at 12:13 PM

Group Number: 1034791

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 07114WAA026 bis(2-Ethylhexyl)phthalate	N.D.	2.	ug/l	93	93	62-126	0	30
Batch number: 071161848003 Lead	N.D.	0.0069	mg/l	103		90-113		
Batch number: N071151AA Benzene	N.D.	0.5	ug/l	106		78-119		
Toluene	N.D.	0.7	ug/l	102		85-115		
Chlorobenzene	N.D.	0.8	ug/l	102		85-115		
Ethylbenzene	N.D.	0.8	ug/l	102		82-119		
m+p-Xylene	N.D.	0.8	ug/l	103		83-113		
o-Xylene	N.D.	0.8	ug/l	100		83-113		
Xylene (Total)	N.D.	0.8	ug/l	102		83-113		
1,3-Dichlorobenzene	N.D.	1.	ug/l	101		81-114		
1,4-Dichlorobenzene	N.D.	1.	ug/l	102		84-116		
1,2-Dichlorobenzene	N.D.	1.	ug/l	101		81-112		
Batch number: N071151AB Benzene	N.D.	0.5	ug/l	106		78-119		
Toluene	N.D.	0.7	ug/l	102		85-115		
Chlorobenzene	N.D.	0.8	ug/l	102		85-115		
Ethylbenzene	N.D.	0.8	ug/l	102		82-119		
m+p-Xylene	N.D.	0.8	ug/l	103		83-113		
o-Xylene	N.D.	0.8	ug/l	100		83-113		
Xylene (Total)	N.D.	0.8	ug/l	102		83-113		
1,3-Dichlorobenzene	N.D.	1.	ug/l	101		81-114		
1,4-Dichlorobenzene	N.D.	1.	ug/l	102		84-116		
1,2-Dichlorobenzene	N.D.	1.	ug/l	101		81-112		

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike  
 Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 071161848003 Lead	105	106	75-125	1	20	N.D.	N.D.	5 (1)	20
Batch number: N071151AA Benzene	96	93	83-128	1	30				
Toluene	100	101	83-127	1	30				
Chlorobenzene	102	101	83-120	0	30				
Ethylbenzene	104	102	82-129	1	30				

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron

Group Number: 1034791

Reported: 05/03/07 at 12:13 PM

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
m+p-Xylene	103	104	82-130	1	30				
o-Xylene	100	101	82-130	0	30				
Xylene (Total)	102	103	82-130	0	30				
1,3-Dichlorobenzene	99	101	79-123	1	30				
1,4-Dichlorobenzene	100	101	81-122	1	30				
1,2-Dichlorobenzene	99	100	82-117	1	30				
Batch number: N071151AB      Sample number(s): 5035093-5035094      UNSPK: P035086									
Benzene	96	93	83-128	1	30				
Toluene	100	101	83-127	1	30				
Chlorobenzene	102	101	83-120	0	30				
Ethylbenzene	104	102	82-129	1	30				
m+p-Xylene	103	104	82-130	1	30				
o-Xylene	100	101	82-130	0	30				
Xylene (Total)	102	103	82-130	0	30				
1,3-Dichlorobenzene	99	101	79-123	1	30				
1,4-Dichlorobenzene	100	101	81-122	1	30				
1,2-Dichlorobenzene	99	100	82-117	1	30				

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL SW846 Semivolatiles/Waters

Batch number: 07114WAA026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
5035075	91	90	99
5035076	91	92	96
5035077	89	92	95
5035078	87	83	93
5035086	83	84	94
Blank	96	94	98
LCS	100	100	100
LCSD	100	98	98
Limits:	51-123	64-112	52-151

Analysis Name: PPL + Xylene (total) by 8260

Batch number: N071151AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5035073	101	100	93	86
5035074	102	100	93	85
5035075	100	99	95	90
5035076	100	97	95	91
5035077	100	97	95	89
5035078	101	99	93	86
5035079	99	97	94	90

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron

Group Number: 1034791

Reported: 05/03/07 at 12:13 PM

### Surrogate Quality Control

5035080	103	99	92	85
5035081	102	99	93	85
5035082	103	100	92	84
5035083	102	97	92	85
5035084	103	100	93	85
5035085	100	99	94	86
5035086	99	97	97	91
5035087	100	96	96	95
5035088	100	97	96	94
5035090	101	100	94	86
5035091	103	100	94	85
5035092	104	101	92	84
5035095	101	99	94	85
Blank	102	101	92	85
LCS	99	96	97	94
MS	100	96	96	95
MSD	100	97	96	94
<hr/>				
Limits:	80-116	77-113	80-113	78-113

Analysis Name: PPL + Xylene (total) by 8260

Batch number: N071151AB

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5035093	103	100	93	86
5035094	103	98	94	84
Blank	102	99	93	85
LCS	99	96	97	94
MS	100	96	96	95
MSD	100	97	96	94
<hr/>				
Limits:	80-116	77-113	80-113	78-113

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 11494 Group# 1034791 Sample # 5035073-95

COC # 0150516

Please print. Instructions on reverse side correspond with circled numbers.

**1** Client: CHEVRON CINCINNATI - 11494 Acct. #: \_\_\_\_\_

Project Name/ID: 1st 2007 SAIM GROUNDWATER PWSID #: \_\_\_\_\_

Project Manager: CHRIS ANGIROS P.O.#: 500-017-010

Sampler: DOUG LAM Quote #: \_\_\_\_\_

Name of state where samples were collected: OHIO

**4**

Matrix

Soil

Water

Other

Total # of Containers

**5** Analyses Requested

Preservation Codes		H	Z	1					
(see attached) VOC's (analyte list)	DISSOLVED LEAD								
SVOC Bis(2-ethylhexyl)phthalate only									

**2** Sample Identification

Sample ID	Date Collected	Time Collected	3	Matrix	Total # of Containers	H	Z	1											
MW-104 04202007	4/20/07	1115	X	X	4	X	X												
L-4R 04202007	4/20/07	1015	X	X	4	X	X												
MW-48S 04192007	4/19/07	1540	X	X	6	X	X	X											
MW-85S 04192007	4/19/07	1050	X	X	6	X	X	X											
MW-7 04192007	4/19/07	1440	X	X	6	X	X	X											
MW-33 04192007	4/19/07	0935	X	X	6	X	X	X											
BD-3 04192007	4/19/07	—	X	X	4	X	X												
MW-65S 04182007	4/18/07	1515	X	X	4	X	X												
MW-65D 04182007	4/18/07	1320	X	X	4	X	X												
MW-65I 04182007	4/18/07	1440	X	X	4	X	X												

**6** For Lab Use Only

FSC: \_\_\_\_\_

SCR#: \_\_\_\_\_

Preservation Codes

H=HCl T=Thiosulfate

N=HNO<sub>3</sub> B=NaOH

S=H<sub>2</sub>SO<sub>4</sub> O=Other

COC 1 OF 2

COOLER 1 OF 3

Remarks

FOR: NJRCN170001720

TRIP BLANK TB07086 INCLUDED WITH VOC'S

**7** Turnaround Time Requested (TAT) (please circle): Normal Rush

(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed: MAY 7, 2007

Rush results requested by (please circle): Phone Fax E-mail

Phone #: 513-353 4323 x23 Fax #: \_\_\_\_\_

E-mail address: caneros@trihydro.com

**8** Data Package Options (please circle if required)

Type I (validation/NJ Reg)	TX TRRP-13	SDG Complete?
Type II (Tier II)	MA MCP CT RCP	Yes No
Type III (Reduced NJ)	Site-specific QC (MS/MSD/Dup) <u>Yes</u> No	
Type IV (COP SOW)	(If yes, indicate QC sample and submit triplicate volume.)	
Type VI (Raw Data Only)	Internal COC Required? Yes / <u>No</u>	

**9** Relinquished by: \_\_\_\_\_ Date: 4/20 Time: 2007 Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

# Analysis Request/ Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 11494 Group# 1034791 Sample # 5635073-95

**COC # 0150517**

Please print. Instructions on reverse side correspond with circled numbers.

**1** Client: CHEVRON CINCINNATI - 11494 Acct. #: \_\_\_\_\_

Project Name/#: 1<sup>st</sup> 2007 SAIM Groundwater PWSID #: \_\_\_\_\_

Project Manager: CHRIS ANEROS P.O.#: 500-017-010

Sampler: Doug Lam Quote #: \_\_\_\_\_

Name of state where samples were collected: OHIO

**4**

Matrix

Soil

Water

Other

Total # of Containers

**5** Analyses Requested

Preservation Codes		
#	N	I
VOC's (see attached analyte list)		
DISSOLVED LEAD		
SVOC - BSLC - ethylhexylphthalate only		

**6**

**2**

Sample Identification	Date Collected	Time Collected	Grab	Compos	Soil	Water	Other	Total # of Containers	VOC's (see attached analyte list)	DISSOLVED LEAD	SVOC - BSLC - ethylhexylphthalate only	Remarks
EB-1 04182007	4/18/07	1000	X			X		4	X	X		FOR: MWEN17000M20  TRIP BLANK T807086 INCLUDED WITH VOC's
MW-113 04172007	4/17/07	0930	X			X		4	X	X		
MW-101 04172007	4/17/07	1050	X			X		4	X	X		
MW-81S 04172007	4/17/07	1515	X			X		6	X	X	X	
MW-81S MS/MSD 04172007	4/17/07	1515	X			X		8	X	X		
MW-81D 04172007	4/17/07	1700	X			X		4	X	X		
BD-2 04162007	4/16/07	—	X			X		4	X	X		
MW-120 04162007	4/16/07	1530	X			X		4	X	X		
MW-100s 04162007	4/16/07	1350	X			X		4	X	X		
MW-27 04162007	4/16/07	1645	X			X		4	X	X		

**7** Turnaround Time Requested (TAT) (please circle): Normal Rush  
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)  
 Date results are needed: MAY 7, 2007  
 Rush results requested by (please circle): Phone Fax E-mail  
 Phone #: 513-353-1323 x23 Fax #: \_\_\_\_\_  
 E-mail address: caneeros@trihydro.com

**8** Data Package Options (please circle if required)

Type I (validation/NJ Reg)	TX TRRP-13	SDG Complete? Yes No
Type II (Tier II)	MA MCP CT RCP	
Type III (Reduced NJ)	Site-specific QC (MS/MSD/Dup)? <u>Yes</u> No	
<u>Type IV (CSP SOW)</u>	(If yes, indicate QC sample and submit replicate volume.)	
Type V (Raw Data Only)	Internal COC Required? Yes <u>No</u>	

**9**

Relinquished by: <u>[Signature]</u>	Date: <u>4/20</u>	Time: <u>2000</u>	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: <u>[Signature]</u>	Date: <u>4/20/07</u>	Time: <u>1000</u>

Constituents of Concern, Chevron Cincinnati Facility, Interim Measures (IM) Groundwater Monitoring

Volatile Organic Constituents

- Benzene
- Chlorobenzene
- 1,2-Dichlorobenzene
- 1,3-Dichlorobenzene
- 1,4-Dichlorobenzene
- Ethylbenzene
- Toluene
- Xylenes
- Xylene -m
- Xylene -o
- Xylene -p

Metals

- Dissolved Lead

SIOC's

Bis (2-ethylhexyl) phthalate

## Lancaster Laboratories Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

U.S. EPA data qualifiers:

### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>J</b>	Estimated value
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns >25%
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

### Inorganic Qualifiers

<b>B</b>	Value is <CRDL, but ≥IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike amount not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

**WARRANTY AND LIMITS OF LIABILITY** – In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions of Lancaster Laboratories and we hereby object to any conflicting terms contained in any acceptance or order submitted by client.

**ANALYTICAL RESULTS**

Prepared for:

Chevron  
PO Box 96  
North Bend OH 42052

Prepared by:

Lancaster Laboratories  
2425 New Holland Pike  
Lancaster, PA 17605-2425**SAMPLE GROUP**

The sample group for this submittal is 1035478. Samples arrived at the laboratory on Thursday, April 26, 2007. The PO# for this group is 0015007286 and the release number is 50008931.

**Client Description****Lancaster Labs Number**

MW-48I,04242007 Unspiked Grab Water Sample	5038675
MW-48I,4242007_Matrix_Spike Grab Water Sample	5038676
MW-48I,04242007_Matrix_Spike_Dup Grab Water	5038677
MW-48I,04242007_Duplicate Grab Water Sample	5038678
MW-48D,04242007 Grab Water Sample	5038679
MW-85D,04242007 Grab Water Sample	5038680
MW-85I,04242007 Grab Water Sample	5038681
TB07086 Water Sample	5038682
EB-2,04252007 Grab Water Sample	5038683

**METHODOLOGY**

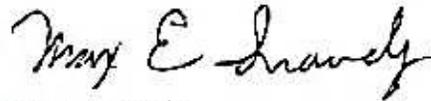
The specific methodologies used in obtaining the enclosed analytical results are indicated on the laboratory chronicles.

1 COPY TO      Trihydro Corporation  
ELECTRONIC    Trihydro Corporation  
COPY TO  
1 COPY TO      Data Package Group

Attn: Chris Aneiros  
Attn: Trihydro Database

Questions? Contact your Client Services Representative  
Gwen A Birchall at (717) 656-2300

Respectfully Submitted,



Max E. Snavelly  
Senior Specialist

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5038675**
**MW-48I,04242007 Unspiked Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/24/2007 10:15 by DL

Account Number: 11494

 Submitted: 04/26/2007 10:15  
 Reported: 05/02/2007 at 18:00  
 Discard: 07/02/2007

 Chevron  
 PO Box 96  
 North Bend OH 42052

48I-- SDG#: HVO58-01BKG

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/01/2007 21:40	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007 20:02	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007 20:02	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007 20:02	Kerri E Koch	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5038676**
**MW-48I,4242007\_Matrix\_Spike Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/24/2007 10:15 by DL

Account Number: 11494

Submitted: 04/26/2007 10:15

Chevron

Reported: 05/02/2007 at 18:00

PO Box 96

Discard: 07/02/2007

North Bend OH 42052

48I-- SDG#: HVO58-01MS

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.124		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	45.		0.8	ug/l	1
05417	o-Xylene	95-47-6	22.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	21.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	22.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	22.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	23.		0.5	ug/l	1
05407	Toluene	108-88-3	23.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	23.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	23.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	67.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/01/2007 21:55	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007 20:26	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007 20:26	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007 20:26	Kerri E Koch	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5038677**
**MW-48I,04242007\_Matrix\_Spike\_Dup Grab Water**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/24/2007 10:15 by DL

Account Number: 11494

Submitted: 04/26/2007 10:15

Chevron

Reported: 05/02/2007 at 18:00

PO Box 96

Discard: 07/02/2007

North Bend OH 42052

48I-- SDG#: HVO58-01MSD

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	0.126		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	45.		0.8	ug/l	1
05417	o-Xylene	95-47-6	22.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	21.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	22.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	22.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	23.		0.5	ug/l	1
05407	Toluene	108-88-3	23.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	23.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	23.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	67.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/01/2007 22:00	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007 20:50	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007 20:50	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007 20:50	Kerri E Koch	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

Lancaster Laboratories Sample No. WW 5038678

MW-48I,04242007\_Duplicate Grab Water Sample

Interim Measures (IM) Groundwater Monitoring

Collected: 04/24/2007 10:15 by DL

Account Number: 11494

Submitted: 04/26/2007 10:15

Chevron

Reported: 05/02/2007 at 18:00

PO Box 96

Discard: 07/02/2007

North Bend OH 42052

48I-- SDG#: HVO58-01DUP

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/01/2007 21:50	John P Hook	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5038679**
**MW-48D,04242007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/24/2007 12:15 by DL

Account Number: 11494

Submitted: 04/26/2007 10:15

Chevron

Reported: 05/02/2007 at 18:00

PO Box 96

Discard: 07/02/2007

North Bend OH 42052

48D-- SDG#: HVO58-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/01/2007 22:30	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007 21:14	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007 21:14	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007 21:14	Kerri E Koch	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5038680**
**MW-85D,04242007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/24/2007 14:45 by DL

Account Number: 11494

Submitted: 04/26/2007 10:15

Chevron

Reported: 05/02/2007 at 18:00

PO Box 96

Discard: 07/02/2007

North Bend OH 42052

85D-- SDG#: HVO58-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/01/2007 22:35	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007 21:38	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007 21:38	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007 21:38	Kerri E Koch	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

**Lancaster Laboratories Sample No. WW 5038681**
**MW-85I,04242007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/24/2007 15:50 by DL

Account Number: 11494

 Submitted: 04/26/2007 10:15  
 Reported: 05/02/2007 at 18:00  
 Discard: 07/02/2007

 Chevron  
 PO Box 96  
 North Bend OH 42052

85I-- SDG#: HVO58-04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Dilution Factor
				Method	Detection Limit	
07055	Lead	7439-92-1	N.D.	0.0069	mg/l	1
06371	8260 Special Cmpds for Waters					
05416	m+p-Xylene	n.a.	N.D.	0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.	ug/l	1
07582	PPL + Xylene (total) by 8260					
05401	Benzene	71-43-2	N.D.	0.5	ug/l	1
05407	Toluene	108-88-3	N.D.	0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial#	Date and Time		
07055	Lead	SW-846 6010B	1	05/01/2007 22:40	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007 22:02	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007 22:02	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007 22:02	Kerri E Koch	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

US EPA ARCHIVE DOCUMENT

Lancaster Laboratories Sample No. WW 5038682

TB07086 Water Sample

Interim Measures (IM) Groundwater Monitoring

Collected: 04/24/2007

Account Number: 11494

Submitted: 04/26/2007 10:15

Chevron

Reported: 05/02/2007 at 18:00

PO Box 96

Discard: 07/02/2007

North Bend OH 42052

TB708 SDG#: HVO58-05TB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.	0.8		ug/l	1
05417	o-Xylene	95-47-6	N.D.	0.8		ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.	1.		ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.	1.		ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.	1.		ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.	0.5		ug/l	1
05407	Toluene	108-88-3	N.D.	0.7		ug/l	1
05413	Chlorobenzene	108-90-7	N.D.	0.8		ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	0.8		ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	0.8		ug/l	1

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Trial#	Analysis		Analyst	Dilution Factor
				Date	Time		
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007	22:26	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007	22:26	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007	22:26	Kerri E Koch	1

US EPA ARCHIVE DOCUMENT

**Lancaster Laboratories Sample No. WW 5038683**
**EB-2,04252007 Grab Water Sample**
**Interim Measures (IM) Groundwater Monitoring**

Collected: 04/25/2007 10:30 by DL

Account Number: 11494

Submitted: 04/26/2007 10:15

Chevron

Reported: 05/02/2007 at 18:00

PO Box 96

Discard: 07/02/2007

North Bend OH 42052

EB2-- SDG#: HVO58-06EB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received		Units	Dilution Factor
				Method	Detection Limit		
07055	Lead	7439-92-1	N.D.		0.0069	mg/l	1
06371	8260 Special Cmpds for Waters						
05416	m+p-Xylene	n.a.	N.D.		0.8	ug/l	1
05417	o-Xylene	95-47-6	N.D.		0.8	ug/l	1
08171	1,3-Dichlorobenzene	541-73-1	N.D.		1.	ug/l	1
08172	1,4-Dichlorobenzene	106-46-7	N.D.		1.	ug/l	1
08173	1,2-Dichlorobenzene	95-50-1	N.D.		1.	ug/l	1
07582	PPL + Xylene (total) by 8260						
05401	Benzene	71-43-2	N.D.		0.5	ug/l	1
05407	Toluene	108-88-3	N.D.		0.7	ug/l	1
05413	Chlorobenzene	108-90-7	N.D.		0.8	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.		0.8	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.		0.8	ug/l	1

This sample was field filtered for dissolved metals.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

### Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
07055	Lead	SW-846 6010B	1	05/01/2007 22:45	John P Hook	1
06371	8260 Special Cmpds for Waters	SW-846 8260B	1	04/30/2007 22:50	Kerri E Koch	1
07582	PPL + Xylene (total) by 8260	SW-846 8260B	1	04/30/2007 22:50	Kerri E Koch	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	04/30/2007 22:50	Kerri E Koch	1
01848	WW SW846 ICP Digest (tot rec)	SW-846 3005A	1	04/30/2007 23:15	Helen L Schaeffer	1

## Quality Control Summary

Client Name: Chevron

Group Number: 1035478

Reported: 05/02/07 at 06:00 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 071201848002	Sample number(s): 5038675-5038681,5038683							
Lead	N.D.	0.0069	mg/l	105		90-113		
Batch number: L071201AA	Sample number(s): 5038675-5038677,5038679-5038683							
Benzene	N.D.	0.5	ug/l	102		78-119		
Toluene	N.D.	0.7	ug/l	100		85-115		
Chlorobenzene	N.D.	0.8	ug/l	104		85-115		
Ethylbenzene	N.D.	0.8	ug/l	100		82-119		
m+p-Xylene	N.D.	0.8	ug/l	100		83-113		
o-Xylene	N.D.	0.8	ug/l	96		83-113		
Xylene (Total)	N.D.	0.8	ug/l	99		83-113		
1,3-Dichlorobenzene	N.D.	1.	ug/l	98		81-114		
1,4-Dichlorobenzene	N.D.	1.	ug/l	98		84-116		
1,2-Dichlorobenzene	N.D.	1.	ug/l	99		81-112		

### Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Background (BKG) = the sample used in conjunction with the duplicate

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 071201848002	Sample number(s): 5038675-5038681,5038683 UNSPK: 5038675 BKG: 5038675								
Lead	104	105	75-125	1	20	N.D.	N.D.	200* (1)	20
Batch number: L071201AA	Sample number(s): 5038675-5038677,5038679-5038683 UNSPK: 5038675								
Benzene	115	116	83-128	0	30				
Toluene	113	114	83-127	1	30				
Chlorobenzene	116	116	83-120	0	30				
Ethylbenzene	115	115	82-129	0	30				
m+p-Xylene	113	114	82-130	1	30				
o-Xylene	108	109	82-130	1	30				
Xylene (Total)	111	112	82-130	1	30				
1,3-Dichlorobenzene	107	107	79-123	0	30				
1,4-Dichlorobenzene	108	108	81-122	0	30				
1,2-Dichlorobenzene	109	109	82-117	0	30				

### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

## Quality Control Summary

Client Name: Chevron

Group Number: 1035478

Reported: 05/02/07 at 06:00 PM

### Surrogate Quality Control

Analysis Name: PPL + Xylene (total) by 8260

Batch number: L071201AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5038675	98	93	91	88
5038676	97	91	93	92
5038677	96	92	93	92
5038679	98	93	91	88
5038680	99	92	91	88
5038681	99	94	90	88
5038682	100	93	91	89
5038683	100	92	90	87
Blank	98	94	91	89
LCS	96	92	94	93
MS	97	91	93	92
MSD	96	92	93	92
Limits:	80-116	77-113	80-113	78-113

\*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The background result was more than four times the spike added.

# Analysis Request / Environmental Services Chain of Custody



For Lancaster Laboratories use only

Acct. # 11494 Group# 1035478 Sample # 5038675-83

**COC # 0057839**

Please print. Instructions on reverse side correspond with circled numbers.

1 Client: CHEVRON CINCINNATI - 11494 Acct. #: \_\_\_\_\_  
 Project Name/ID: 1<sup>st</sup> 2007 SA IM GROUNDWATER EWSID #: \_\_\_\_\_  
 Project Manager: CHRIS ANEIRO P.O.#: 500-07-010  
 Sampler: DOUG LAM Quote #: \_\_\_\_\_  
 Name of state where samples were collected: OHIO

4 Matrix:  Potable  Check if  NIDES  Analytes  
 Soil  Water  Other

5 Analyses Requested: IC's (see checked analyte list)  
DISSOLVED LEAD

6 For Lab Use Only  
 FSC: \_\_\_\_\_  
 SCR #: \_\_\_\_\_  
 Temperature of samples upon receipt (if requested): \_\_\_\_\_

2 Sample Identification	Date Collected	Time Collected	3			Total # of Containers	5				Remarks	
			Grab	Composite	Soil		Water	Other	IC's	DISSOLVED LEAD		Other
MW-48I 04242007	4/24/07	1015	X		X	4	X	X				For: NWRCN17000M20
MW-48I MS/MSD 04242007	4/24/07	1015	X		X	8	X	X				
MW-48D 04242007	4/24/07	1215	X		X	4	X	X				
MW-85D 04242007	4/24/07	1445	X		X	4	X	X				
MW-85I 04242007	4/24/07	1550	X		X	4	X	X				
TB07086	-	-			X	1	X					
EB-2 04252007	4/25/07	1030	X		X	4	X	X				

7 Turnaround Time Requested (TAT) (please circle): Normal Rush  
 (Rush TAT is subject to Lancaster Laboratories approval and surcharge.)  
 Date results are needed: MAY 14, 2007  
 Rush results requested by (please circle): Phone Fax E-mail  
 Phone #: 513-353-1323 x23 Fax #: \_\_\_\_\_  
 E-mail address: caneiros@trihydro.com

8 Data Package Options (please circle if required) SDG Complete? Yes No  
 QC Summary Type VI (Raw Data) Yes No  
 Type I (Tier I) GLP Site-specific QC required? Yes No  
 Type II (Tier II) Other (if yes, indicate QC sample and submit triplicate volume.)  
 Type III (NJ Red. Del.) Internal Chain of Custody required? Yes No  
 Type IV (CLP)

9 Relinquished by: [Signature] Date 4/25 Time 2000 Received by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_ Received by: [Signature] Date 4/26/07 Time 10:35

## Lancaster Laboratories Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m3</b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.		

U.S. EPA data qualifiers:

### Organic Qualifiers

<b>A</b>	TIC is a possible aldol-condensation product
<b>B</b>	Analyte was also detected in the blank
<b>C</b>	Pesticide result confirmed by GC/MS
<b>D</b>	Compound quantitated on a diluted sample
<b>E</b>	Concentration exceeds the calibration range of the instrument
<b>J</b>	Estimated value
<b>N</b>	Presumptive evidence of a compound (TICs only)
<b>P</b>	Concentration difference between primary and confirmation columns >25%
<b>U</b>	Compound was not detected
<b>X,Y,Z</b>	Defined in case narrative

### Inorganic Qualifiers

<b>B</b>	Value is <CRDL, but ≥IDL
<b>E</b>	Estimated due to interference
<b>M</b>	Duplicate injection precision not met
<b>N</b>	Spike amount not within control limits
<b>S</b>	Method of standard additions (MSA) used for calculation
<b>U</b>	Compound was not detected
<b>W</b>	Post digestion spike out of control limits
<b>*</b>	Duplicate analysis not within control limits
<b>+</b>	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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### Tier 3 Data Validation Report Summary

Client: Chevron-Cincinnati	Laboratory: Lancaster Laboratories
Project Name: 1st 2007 SA IM Groundwater	Sample Matrix: Water
Project Number: 500-001-010	Sample Start Date: 04/09/2007
Date Validated: October 16, 2007	Sample End Date: 04/13/2007
Parameters: Lead by 6010B, and VOCs by 8260B	
Laboratory Project ID: SDG:HVO54, project number 1033726	
Data Validator: Justin Hildenbrand	

#### DATA EVALUATION CRITERIA SUMMARY

A Tier III data validation was performed by Trihydro Corporation's Data Validation Group on the analytical data report package generated by Lancaster Laboratories evaluating samples from Chevron Cincinnati Facility in Hooven, OH. Precision, accuracy, method compliance, and completeness of this data package were assessed during this data review. Precision was determined by evaluating the calculated RPD values of samples from laboratory duplicate pairs. Laboratory accuracy was established by reviewing the demonstrated percent recovery of matrix spike (MS), matrix spike duplicates (MSD), and laboratory control samples (LCS) to verify that none of the data were biased. Method compliance was established by reviewing holding times, detection limits, surrogate recoveries, method blanks, and laboratory control samples against method specific requirements. Completeness was evaluated by determining the overall ratio of the number of samples planned versus the number of samples with valid analyses. Determination of completeness included a review of the chain-of-custody, laboratory analytical methods, and all other necessary documents associated with this analytical data set.

#### SAMPLE NUMBERS TABLE

Client Sample ID	Sample Number	Laboratory Sample Code
TH-2, 04092007 Grab Water Sample	5029021	TH-2
TH-1S, 04092007 Grab Water Sample	5029022	TH-1S
MW-23, 04092007 Grab Water Sample	5029023	MW-23
MW-94S, 04112007 Grab Water Sample	5029024	M94S-
MW-95D, 04112007 Grab Water Sample	5029025	M95D-
MW-37, 04112007 Grab Water Sample	5029026	MW-37
MW-114, 04112007 Grab Water Sample	5029027	MW114
MW-35, 04122007 Grab Water Sample	5029028	MW-35
MW-115D, 04122007 Grab Water Sample	5029029	M115D
MW-115S, 04122007 Grab Water Sample	5029030	M115S
MW-95S, 04132007 Grab Water Sample	5029031	MW95S
MW-128, 04132007 Grab Water Sample	5029032	MW128
BD-1, 04132007 Grab Water Sample	5029033	BD-1-
TB07086 Water Sample	5029034	TB786





## Tier 3 Data Validation Report Summary

The samples were analyzed for client-specified analytes. The samples were shipped to Lancaster Laboratories under chain-of-custody documents 0150514 and 0150515. The laboratory data were reviewed to evaluate compliance with the required methods and the quality of the reported data. A leading check mark (✓) indicates that the referenced data were deemed acceptable. A preceding crossed circle (⊗) signifies problems with the referenced data that may have warranted attaching qualifiers to the data.

- ✓ Data Completeness
- ✓ Holding Times and Preservation
- ✓ Calibrations
- ✓ Blanks
- ✓ System Monitoring Compounds
- ✓ Laboratory Control Samples (LCS/LCSD)
- ✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Field Duplicates
- ✓ Analyte Identification and Quantitation
- ✓ Raw Data Audit

### OVERALL DATA PACKAGE ASSESSMENT

Based on a data validation review, the data are acceptable as delivered with the changes noted below. Lancaster Laboratories qualified 17 data points in this data set. The purpose of validating data and assigning qualifiers is to assist in proper data interpretation. Data which are not qualified meet the site data quality objectives. If values are assigned a "J" or "UJ" qualifier, the data may be used for site evaluation, with the reasons for qualification being given consideration when interpreting sample concentrations. Data points which are assigned an "R" qualifier should not be used for any site evaluation purposes. This data validation review resulted in no additional data points being qualified. All method detection limits (MDLs) were found to be acceptable and within client specified criteria.

#### Data Completeness

All analyses were performed as requested on the chain-of-custody records. All samples were received by the laboratory and analyzed properly. The complete data package consisted of 143 data points, total. No data points were rejected. The data completeness measure for this data package is 100%.

**Table 1. General Validation Criteria Checklist**

1. Did the laboratory identify any non-conformances related to the analytical data?	Yes
Comments: The laboratory noted that all samples with the exception of the trip blank were filtered in the field for dissolved metals. For the VOC analyses, sufficient sample was not available to perform a MSD for this SDG. However, a MS was performed. In addition, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.	
2. Were sample chain-of-custody forms complete?	Yes
Comments: The chain-of-custody forms were completely filled out and correctly relinquished.	
3. Were detection limits in accordance with the QAPP, permit, or method?	Yes
Comments: The laboratory appeared to have successfully met the project required detection limits for all analyses. Dilutions were required for the VOC analysis in sample TH-1S. Ethylbenzene was diluted to 20x, and all other VOCs were diluted 2x. These dilutions were reviewed and appeared to be appropriate. No action was necessary based on professional judgment.	
4. Were the requested analytical methods in compliance with the QAPP, permit, or COC?	Yes
Comments: The laboratory analyzed all samples as requested by the client on the chain-of-custody documents.	
5. Were samples received in good condition?	Yes
Comments: The samples were received in good condition by the laboratory at a temperature of 5.7°C, which is acceptable for these methods.	
6. Were sample holding times met?	Yes
Comments: The laboratory completed all required analyses within the acceptable holding times.	
7. Were the results reported in correct concentration units?	Yes
Comments: The results for lead were reported in units of mg/L. The results for the VOC analysis were reported in units of ug/L. These units are correct for water matrix samples.	
8. Do the laboratory reports include all constituents requested to be reported for a specific analytical method?	Yes
Comments: The laboratory reported all required analytical constituents.	
9. Were the reporting requirements for flagged data met?	Yes
Comments: No data were flagged by the laboratory. The laboratory flagged one duplicate RPD value with a (1) indicating that one or both determinations was less than five times the LOQ.	
10. Were field duplicates collected on a 10% basis?	Yes
Comments: One blind duplicate sample (BD-1, 04132007) was collected as a duplicate of sample MW-128, 04132007.	
11. Were field duplicate RPD values less than 30%?	Yes
Comments: All duplicate RPD values were less than 30% as shown in Table 1.	
12. Were equipment blanks, trip blanks, and field blanks collected on a 10% basis?	No
Comments: One trip blank and no field or equipment blanks were collected as part of this sampling event.	
13. Were detections found in trip blanks, equipment blanks, or field blanks?	No
Comments: No detections were found in the trip blank.	

**Table 2. Validation Criteria Checklist for VOC analyses (Method 8260B)**

1. Were the initial and continuous calibration verifications within acceptable limits?	Yes
Comments: The relative response factor (RRF), percent relative standard deviation (%RSD), and percent drift (%D) values in the initial and continuing calibration verifications were acceptable for reported constituents. The RRF values for some non-reportable analytes were less than the acceptable lower QC limit; however, no action was necessary since results for these analytes were not reported in the environmental samples associated with this review.	
2. Was the instrument tuning results within method control limits?	Yes
Comments: The volatile organic instrument performance check results were acceptable.	
3. Were the internal standards within method control limits?	Yes
Comments: All volatile internal standard area and retention time summary results were acceptable.	
4. Were method blank samples analyzed on a 5% basis?	Yes
Comments: Method blank samples were prepared and analyzed on a greater than 5% frequency.	
5. Were method blank detections reported for this data set?	No
Comments: There were no detections of reportable VOC analytes in the method blanks associated with this sample set: Batch N071081AA: ND for all VOCs	
6. Were laboratory control samples analyzed on a 5% basis?	Yes
Comments: The laboratory analyzed LCSs on a greater than 5% frequency.	
7. Were laboratory control recoveries within acceptable limits?	Yes
Comments: The laboratory analyzed one LCS / LCSD pair associated with this sample set. The constituent recoveries were acceptable: Batch N071081AA: 100-103%R	
8. Were matrix spike samples prepared on a 5% basis?	Yes
Comments: The MS for batch N071081AA was prepared from sample MW-37, 04112007 of this sample set. Insufficient sample remained to perform a MSD for this sample set. A LCSD was performed to evaluate precision for this data set.	
9. Were matrix spike recoveries within acceptable limits?	Yes
Comments: All matrix spike recoveries were acceptable. Batch N071081AA: 91-93%R	
10. Were surrogate recoveries within control limits?	Yes
Comments: All surrogate recoveries were within acceptable limits.	
11. General Comments: The Method 8260B results are accepted as reported by the laboratory.	

<b>Table 3. Validation Criteria Checklist for Metal Analyses – Method 6010B</b>	
1. Were the initial and continuous calibration standards and preparation blanks within acceptable limits?	Yes
Comments: The initial calibration, continuous calibrations, and preparation blank results were within the method specified limits.	
2. Were the instrument tunings within method control limits?	N/A
Comments: N/A (The client did not request that the samples be analyzed by Method 6020, ICP/MS).	
3. Were the inorganic quality assurance checks within method control limits?	Yes
Comments: The low level check standard results for ICP were acceptable. The laboratory performed one ICP-AES interference check sample analysis with this analytical set, and the results were acceptable (110 – 113%R). The laboratory analyzed one serial dilution sample for metals from sample TH-2, 04092007 of this data set. The percent difference for the serial dilution could not be calculated since lead was detected in the parent sample but not in the dilution sample.	
4. Were preparation blank samples analyzed on a 5% basis?	Yes
Comments: Preparation blanks were prepared and analyzed on a greater than 5% basis. The laboratory analyzed one preparation blank sample for lead with this analytical data set.	
5. Were preparation blank detections reported for this data set?	No
Comments: No lead detections were found in the preparation blank.	
6. Were laboratory control samples analyzed on a 5% basis?	Yes
Comments: The laboratory analyzed LCSs on a greater than 5% frequency.	
7. Were laboratory control recoveries within acceptable limits?	Yes
Comments: The laboratory analyzed one LCS sample to document precision and accuracy in this analytical group. The recovery of lead in the LCS sample was acceptable: Batch 071061848003 = 94%R	
8. Were matrix spike samples prepared on a 5% basis?	Yes
Comments: One MS/MSD sample pair for lead was analyzed by the laboratory to document precision and accuracy in this analytical group. The MS/MSD parent sample for metals batch 071061848003 was prepared from sample TH-2, 04092007 of this data set.	
9. Were matrix spike recoveries within acceptable limits?	Yes
Comments: All matrix spike recoveries were acceptable. Batch 071061848003 = 96-101%R	
General Comments: The metals data are accepted as reported by the laboratory.	

Table 4. Blind Duplicate Summary, SDG:HVN 67, Former Texaco Cincinnati Refinery, Hooven, OH (1033726)

Sample ID/Blind Duplicate ID: BD-1, 04132007 (5029033) Parent Sample: MW-128, 04132007 (5029032)			
Analyte	Parent Sample Result (ug/L)	Duplicate Result (ug/L)	Relative Percent Difference (RPD)
Lead	17.8	14.6	19.8%
m+p-xylene	27	26	3.8%
o-xylene	1	1	0%
Benzene	17	15	12.5%
Toluene	2	2	0%
Ethylbenzene	42	40	4.9%
Xylenes	28	27	3.6%

Field duplicate RPD control limits should not exceed 30% for aqueous samples, and 50% for solid samples as established by USEPA Region 1 Laboratory Data Validation Function Guidelines for Evaluation of Organic Analysis, February 1988.



### Tier 3 Data Validation Report Summary

Client: Chevron-Cincinnati	Laboratory: Lancaster Laboratories
Project Name: 1st 2007 SA IM Groundwater	Sample Matrix: Water
Project Number: 500-018-001	Sample Start Date: 04/16/2007
Date Validated: October 16, 2007	Sample End Date: 04/20/2007
Parameters: Dissolved lead by 6010B, bis(2-ethylhexyl)phthalate by 8270C, and VOCs by 8260B	
Laboratory Project ID: SDG:HVO55, project number 1034791	
Data Validator: Justin Hildenbrand	

#### DATA EVALUATION CRITERIA SUMMARY

A Tier III data validation was performed by Trihydro Corporation's Data Validation Group on the analytical data report package generated by Lancaster Laboratories evaluating samples from Chevron Cincinnati Facility in Hooven, OH. Precision, accuracy, method compliance, and completeness of this data package were assessed during this data review. Precision was determined by evaluating the calculated RPD values of samples from laboratory duplicate pairs. Laboratory accuracy was established by reviewing the demonstrated percent recovery of matrix spike (MS), matrix spike duplicates (MSD), and laboratory control samples (LCS) to verify that none of the data were biased. Method compliance was established by reviewing holding times, detection limits, surrogate recoveries, method blanks, and laboratory control samples against method specific requirements. Completeness was evaluated by determining the overall ratio of the number of samples planned versus the number of samples with valid analyses. Determination of completeness included a review of the chain-of-custody, laboratory analytical methods, and all other necessary documents associated with this analytical data set.

#### SAMPLE NUMBERS TABLE

Client Sample ID	Sample Number	Laboratory Sample Code
MW-104_04202007 Grab Water Sample	5035073	MW104
L-4R_04202007 Grab Water Sample	5035074	L-4R-
MW-48S_04192007 Grab Water Sample	5035075	M-48S
MW-85S_04192007 Grab Water Sample	5035076	M-85S
MW-7_04192007 Grab Water Sample	5035077	MW7--
MW-33_04192007 Grab Water Sample	5035078	MW33-
BD-3_04192007 Grab Water Sample	5035079	BD3--
MW-65S_04182007 Grab Water Sample	5035080	M-65S
MW-65D_04182007 Grab Water Sample	5035081	M-65D
MW-65I_04182007 Grab Water Sample	5035082	M-65I
EB-1_04182007 Grab Water Sample	5035083	EB1--
MW-113_04172007 Grab Water Sample	5035084	MW113
MW-101_04172007 Grab Water Sample	5035085	MW101
MW-81S_04172007 Unspiked Grab Water Sample	5035086	MW81S
MW-81S_04172007-MS Matrix Spike Grab Water Sample	5035087	MW81S
MW-81S_04172007-MSD Matrix Spike Dup Grab Water	5035088	MW81S
MW-81S_04172007 Duplicate Grab Water Sample	5035089	MW81S
MW-81D_04172007 Grab Water Sample	5035090	MW81D
BD-2_04162007 Grab Water Sample	5035091	BD-2-
MW-120_04162007 Grab Water Sample	5035092	MW120
MW-100s_04162007 Grab Water Sample	5035093	M100S
MW-27_04162007 Grab Water Sample	5035094	MW27-
TB07086 Water Sample	5035095	IMGRT

US EPA ARCHIVE DOCUMENT





## Tier 3 Data Validation Report Summary

The samples were analyzed for client-specified analytes. The samples were shipped to Lancaster Laboratories under chain-of-custody documents 0150516 and 0150517. The laboratory data were reviewed to evaluate compliance with the required methods and the quality of the reported data. A leading check mark (✓) indicates that the referenced data were deemed acceptable. A preceding crossed circle (⊗) signifies problems with the referenced data that may have warranted attaching qualifiers to the data.

- ✓ Data Completeness
- ✓ Holding Times and Preservation
- ✓ Calibrations
- ✓ Blanks
- ✓ System Monitoring Compounds
- ✓ Laboratory Control Samples (LCS/LCSD)
- ✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Field Duplicates
- ✓ Analyte Identification and Quantitation
- ✓ Raw Data Audit

### OVERALL DATA PACKAGE ASSESSMENT

Based on a data validation review, the data are acceptable as delivered with the changes noted below. Lancaster Laboratories qualified 11 data points in this data set. The purpose of validating data and assigning qualifiers is to assist in proper data interpretation. Data which are not qualified meet the site data quality objectives. If values are assigned a "J" or "UJ" qualifier, the data may be used for site evaluation, with the reasons for qualification being given consideration when interpreting sample concentrations. Data points which are assigned an "R" qualifier should not be used for any site evaluation purposes. This data validation review resulted in no additional data points being qualified. All method detection limits (MDLs) were found to be acceptable and within client specified criteria.

#### Data Completeness

All analyses were performed as requested on the chain-of-custody records. All samples were received by the laboratory and analyzed properly. The complete data package consisted of 203 data points, total. No data points were rejected. The data completeness measure for this data package is 100%.

**Table 1. General Validation Criteria Checklist**

1. Did the laboratory identify any non-conformances related to the analytical data?	Yes
Comments: The laboratory noted that all samples with the exception of the trip blank were filtered in the field for dissolved metals. For the VOC analysis, the lab noted that reporting levels were raised due to levels of non-target compounds in samples MW-48S, MW-85S, MW-81S, MW-7, and BD-3. For the SVOC analyses, sufficient sample was not available to perform a MS/MSD for this SDG. However, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.	
2. Were sample chain-of-custody forms complete?	Yes
Comments: The chain-of-custody forms were completely filled out and correctly relinquished.	
3. Were detection limits in accordance with the QAPP, permit, or method?	Yes
Comments: The laboratory appeared to have successfully met the project required detection limits for all analyses. Dilutions to 5x were required for the VOC analysis in samples MW-81S, MW-48S, MW-85S, MW-7, and BD-3. The laboratory noted that the dilutions in samples MW-48S, MW-85S, MW-7, and BD-3 were due to the levels of non-target analytes. All dilutions were reviewed and appeared appropriate. No action was necessary based on professional judgment.	
4. Were the requested analytical methods in compliance with the QAPP, permit, or COC?	Yes
Comments: The laboratory analyzed all samples as requested by the client on the chain-of-custody documents.	
5. Were samples received in good condition?	Yes
Comments: The samples were received in good condition by the laboratory at a temperatures of 4.7°C, 4.8°C, and 5.1°C, which are acceptable for these methods.	
6. Were sample holding times met?	Yes
Comments: The laboratory completed all required analyses within the acceptable holding times.	
7. Were the results reported in correct concentration units?	Yes
Comments: The results for lead were reported in units of mg/L. The results for the VOC and SVOC analyses were reported in units of ug/L. These units are correct for water matrix samples.	
8. Do the laboratory reports include all constituents requested to be reported for a specific analytical method?	Yes
Comments: The laboratory reported all required analytical constituents.	
9. Were the reporting requirements for flagged data met?	Yes
Comments: The laboratory flagged one duplicate RPD value with a (1) indicating that one or both determinations was less than five times the LOQ. Some data points were flagged with a "J" indicating an estimated value.	
10. Were field duplicates collected on a 10% basis?	Yes
Comments: Two blind duplicates were reported for this sample group. Sample BD-2 was collected as a duplicate of sample MW-100S. Sample BD-3 was collected as a duplicate of sample MW-85S.	
11. Were field duplicate RPD values less than 30%?	Yes
Comments: No detections were reported for the duplicate pair BD-2/MW-100S. The RPD values for the duplicate pair BD-3/MW-85S were acceptable and are reported in Table 5 at the end of this report.	
12. Were equipment blanks, trip blanks, and field blanks collected on a 10% basis?	Yes
Comments: One trip blank, one equipment blank, and no field blanks were collected as part of this sampling event.	
13. Were detections found in trip blanks, equipment blanks, or field blanks?	No
Comments: No detections were found in the trip and equipment blanks.	



<b>Table 2. Validation Criteria Checklist for VOC analyses (Method 8260B)</b>	
1. Were the initial and continuous calibration verifications within acceptable limits?	Yes
Comments: The relative response factor (RRF), percent relative standard deviation (%RSD), and percent drift (%D) values in the initial and continuing calibration verifications were acceptable for reportable constituents. The RRF values for some non-reportable analytes were outside of acceptable QC limits; however, no action was necessary since results for these analytes were not reported in the environmental samples associated with this review.	
2. Was the instrument tuning results within method control limits?	Yes
Comments: The volatile organic instrument performance check results were acceptable.	
3. Were the internal standards within method control limits?	Yes
Comments: All volatile internal standard area and retention time summary results were acceptable.	
4. Were method blank samples analyzed on a 5% basis?	Yes
Comments: Method blank samples were prepared and analyzed on a greater than 5% frequency.	
5. Were method blank detections reported for this data set?	No
Comments: There were no detections of reportable VOC analytes in the method blanks associated with this sample set: Batches N071151AA and N071151AB: ND for all VOCs	
6. Were laboratory control samples analyzed on a 5% basis?	Yes
Comments: The laboratory analyzed LCSs on a greater than 5% frequency.	
7. Were laboratory control recoveries within acceptable limits?	Yes
Comments: The laboratory analyzed one LCS and one LCSD pair associated with this sample set for both batches. The constituent recoveries were acceptable: Batches N071151AA and N071151AB: 100-106%R	
8. Were matrix spike samples prepared on a 5% basis?	Yes
Comments: The MS/MSD pair for batches N071151AA and N071151AB was prepared from sample MW-81S of this sample set.	
9. Were matrix spike recoveries within acceptable limits?	Yes
Comments: All matrix spike recoveries were acceptable. Batches N071151AA and N071151AB: 93-104%R	
10. Were surrogate recoveries within control limits?	Yes
Comments: All surrogate recoveries were within acceptable limits.	
11. General Comments: The Method 8260B results are accepted as reported by the laboratory.	

<b>Table 3. Validation Criteria Checklist for SVOC Analyses (8270C)</b>	
1. Were the initial and continuous calibration verifications within acceptable limits?	Yes
Comments: The relative response factor (RRF), percent relative standard deviation (%RSD), and percent drift (%D) values in the initial and continuing calibration verifications were acceptable for reportable constituents,	
2. Were the instrument tunings within method control limits?	Yes
Comments: The semi-volatile organic instrument performance check results were acceptable.	
3. Were the internal standards within method control limits?	Yes
Comments: All volatile internal standard area and retention time summary results were acceptable.	
4. Were method blank samples analyzed on a 5% basis?	Yes
Comments: Method blank samples were prepared and analyzed on a greater than 5% frequency.	
5. Were method blank detections reported for this data set?	No
Comments: There were no detections of bis(2-ethylhexyl)phthalate analytes in the method blank associated with batch 07114WAA026. Batch 07114WAA026: ND for bis(2-ethylhexyl)phthalate	
6. Were laboratory control samples analyzed on a 5% basis?	Yes
Comments: The laboratory analyzed LCSs on a greater than 5% frequency.	
7. Were laboratory control recoveries within acceptable limits?	Yes
Comments: The laboratory analyzed one LCS with sample batch 07114WAA026. The constituent recovery was acceptable. Batch 07114WAA026: 93%R	
8. Were matrix spike samples prepared on a 5% basis?	No
Comments: The laboratory reported that sufficient sample was not available to perform a MS/MSD for this SDG. However, a LCS/LCSD was performed to demonstrate precision and accuracy at a batch level.	
9. Were matrix spike recoveries within acceptable limits?	N/A
Comments: N/A	
10. Were surrogate recoveries within control limits?	Yes
Comments: All surrogate recoveries were within acceptable limits.	
General Comments: The client submitted MS/MSD and field duplicate samples with this sample set; however, these samples were analyzed for bis(2-ethylhexyl)phthalate only. The chain-of-custody form did not indicate that the supplied QC samples should be analyzed for SVOC analytes. The Method 8270C results are accepted as reported by the laboratory.	

**Table 4. Validation Criteria Checklist for Metal Analyses – Method 6010B**

1. Were the initial and continuous calibration standards and preparation blanks within acceptable limits?	Yes
Comments: The initial calibration, continuous calibrations, and preparation blank results were within the method specified limits.	
2. Were the instrument tunings within method control limits?	N/A
Comments: N/A (The client did not request that the samples be analyzed by Method 6020, ICP/MS).	
3. Were the inorganic quality assurance checks within method control limits?	Yes
Comments: The low level check standard results for ICP were acceptable. The laboratory performed one ICP-AES interference check sample analysis with this analytical set, and the results were acceptable (111% – 116.8%R). The laboratory analyzed one serial dilution sample for metals from sample MW-81S of this data set. The percent difference for the serial dilution could not be calculated since lead was not detected in either the parent sample or the dilution sample.	
4. Were preparation blank samples analyzed on a 5% basis?	Yes
Comments: Preparation blanks were prepared and analyzed on a greater than 5% basis.	
5. Were preparation blank detections reported for this data set?	No
Comments: No lead detections were found in the preparation blank.	
6. Were laboratory control samples analyzed on a 5% basis?	Yes
Comments: The laboratory analyzed LCSs on a greater than 5% frequency.	
Were laboratory control recoveries within acceptable limits?	Yes
Comments: The laboratory analyzed one LCS sample to document precision and accuracy in this analytical group. The recovery of lead in the LCS sample was acceptable: Batch 071161848003 = 103%R	
7. Were matrix spike samples prepared on a 5% basis?	Yes
Comments: One MS/MSD sample pair for lead was analyzed by the laboratory to document precision and accuracy in this analytical group. The MS/MSD parent sample for metals batch 071161848003 was prepared from sample MW-81S of this data set.	
8. Were matrix spike recoveries within acceptable limits?	Yes
Comments: All matrix spike recoveries were acceptable. Batch 071161848003 = 105-106%R	
General Comments: The metals data are accepted as reported by the laboratory.	

Table 5. Blind Duplicate Summary, SDG:HVO 55, Former Texaco Cincinnati Refinery, Hooven, OH (1034791)

Sample ID/Blind Duplicate ID: MW-85S_04192007; (5035076)			
Duplicate Sample: BD-3_04192007; (5035079)			
Analyte	Laboratory Result (ug/L)	Duplicate Result (ug/L)	Relative Percent Difference (RPD)
Benzene	15J	15J	0%
o-Xylene	19J	19J	0%
Ethylbenzene	650	650	0%
Toluene	7J	6J	15.4%
Xylenes	560	560	0%
m,p-Xylene	540	540	0%

Field duplicate RPD control limits should not exceed 30% as established by USEPA Region 1 Laboratory Data Validation Function Guidelines for Evaluation of Organic Analysis, February 1988.



### Tier 3 Data Validation Report Summary

Client: Chevron-Cincinnati	Laboratory: Lancaster Laboratories
Project Name: Soils Project	Sample Matrix: Water
Project Number: 500-001-010	Sample Start Date: 04/24/2007
Date Validated: October 12, 2007	Sample End Date: 04/25/2007
Parameters: Lead by 6010B, and VOCs by 8260B	
Laboratory Project ID: SDG:HVO58, 1035478	
Data Validator: Justin Hildenbrand	

#### DATA EVALUATION CRITERIA SUMMARY

A Tier III data validation was performed by Trihydro Corporation's Data Validation Group on the analytical data report package generated by Lancaster Laboratories evaluating samples from Chevron Cincinnati Facility in Hooven, OH. Precision, accuracy, method compliance, and completeness of this data package were assessed during this data review. Precision was determined by evaluating the calculated RPD values of samples from laboratory duplicate pairs. Laboratory accuracy was established by reviewing the demonstrated percent recovery of matrix spike (MS), matrix spike duplicates (MSD), and laboratory control samples (LCS) to verify that none of the data were biased. Method compliance was established by reviewing holding times, detection limits, surrogate recoveries, method blanks, and laboratory control samples against method specific requirements. Completeness was evaluated by determining the overall ratio of the number of samples planned versus the number of samples with valid analyses. Determination of completeness included a review of the chain-of-custody, laboratory analytical methods, and all other necessary documents associated with this analytical data set.

#### SAMPLE NUMBERS TABLE

Client Sample ID	Sample Number	Laboratory Sample Code
MW-48I-04242007 Unspiked Grab Water Sample	5038675	48I--
MW-48I-04242007 Matrix Spike Grab Water Sample	5038676	48I--
MW-48I-04242007 Matrix Spike Dup Grab Water	5038677	48I--
MW-48I-04242007 Duplicate Grab Water Sample	5038678	48I--
MW-48D-04242007 Grab Water Sample	5038679	48D--
MW-85D-04242007 Grab Water Sample	5038680	85D--
MW-85I-04242007 Grab Water Sample	5038681	85I--
TB07086-070424 Water Sample	5038682	TB708
EB-2,04252007 Grab Water Sample	5038683	EB2--





## Tier 3 Data Validation Report Summary

The samples were analyzed for client-specified analytes. The samples were shipped to Lancaster Laboratories under chain-of-custody document 0057839. The laboratory data were reviewed to evaluate compliance with the required methods and the quality of the reported data. A leading check mark (✓) indicates that the referenced data were deemed acceptable. A preceding crossed circle (⊗) signifies problems with the referenced data that may have warranted attaching qualifiers to the data.

- ✓ Data Completeness
- ✓ Holding Times and Preservation
- ✓ Calibrations
- ✓ Blanks
- ✓ System Monitoring Compounds
- ✓ Laboratory Control Samples (LCS/LCSD)
- ✓ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ✓ Field Duplicates
- ✓ Analyte Identification and Quantitation
- ✓ Raw Data Audit

### OVERALL DATA PACKAGE ASSESSMENT

Based on a data validation review, the data are acceptable as delivered with the changes noted below. Lancaster Laboratories did not qualify any data points in this data set. The purpose of validating data and assigning qualifiers is to assist in proper data interpretation. Data which are not qualified meet the site data quality objectives. If values are assigned a "J" or "UJ" qualifier, the data may be used for site evaluation, with the reasons for qualification being given consideration when interpreting sample concentrations. Data points which are assigned an "R" qualifier should not be used for any site evaluation purposes. This data validation review resulted in no additional data points being qualified. All method detection limits (MDLs) were found to be acceptable and within client specified criteria.

#### Data Completeness

All analyses were performed as requested on the chain-of-custody records. All samples were received by the laboratory and analyzed properly. The complete data package consisted of 44 data points, total. No data points were rejected. The data completeness measure for this data package is 100%.

**Table 1. General Validation Criteria Checklist**

1. Did the laboratory identify any non-conformances related to the analytical data? Comments: The laboratory noted that all samples with the exception of the trip blank were filtered in the field for dissolved metals.	Yes
2. Were sample chain-of-custody forms complete? Comments: The chain-of-custody forms were completely filled out and correctly relinquished.	Yes
3. Were detection limits in accordance with the QAPP, permit, or method? Comments: The laboratory appeared to have successfully met the project required detection limits for all analyses. No dilutions were required.	Yes
4. Were the requested analytical methods in compliance with the QAPP, permit, or COC? Comments: The laboratory analyzed all samples as requested by the client on the chain-of-custody documents.	Yes
5. Were samples received in good condition? Comments: The samples were received in good condition by the laboratory at a temperature of 5.0°C, which is acceptable for these methods.	Yes
6. Were sample holding times met? Comments: The laboratory completed all required analyses within the acceptable holding times.	Yes
7. Were the results reported in correct concentration units? Comments: The results for lead were reported in units of mg/L. The results for the VOC analysis were reported in units of ug/L. These units are correct for water matrix samples.	Yes
8. Do the laboratory reports include all constituents requested to be reported for a specific analytical method? Comments: The laboratory reported all required analytical constituents.	Yes
9. Were the reporting requirements for flagged data met? Comments: No data were flagged by the laboratory. The laboratory flagged one duplicate RPD value with a (1) indicating that one or both determinations was less than five times the LOQ.	Yes
10. Were field duplicates collected on a 10% basis? Comments: No blind duplicates were reported with this batch. One field duplicate was submitted for sample MW-48I, 04242007. Only lead was reported in the duplicate sample.	Yes
11. Were field duplicate RPD values less than 30%? Comments: Lead was not detected in the parent or duplicate samples.	N/A
12. Were equipment blanks, trip blanks, and field blanks collected on a 10% basis? Comments: One equipment blank and one trip blank were collected as part of this sampling event.	Yes
13. Were detections found in trip blanks, equipment blanks, or field blanks? Comments: No detections were found in the trip or equipment blank.	No

**Table 2. Validation Criteria Checklist for VOC analyses (Method 8260B)**

1. Were the initial and continuous calibration verifications within acceptable limits?	Yes
Comments: The relative response factor (RRF), percent relative standard deviation (%RSD), and percent drift (%D) values in the initial and continuing calibration verifications were acceptable, with the following exceptions. The %D values for three non-target constituents were above the QC limits in the CCV performed on 4/30/2007. No action is necessary since these constituents were not reported for these samples.	
2. Was the instrument tuning results within method control limits?	Yes
Comments: The volatile organic instrument performance check results were acceptable.	
3. Were the internal standards within method control limits?	Yes
Comments: All volatile internal standard area and retention time summary results were acceptable.	
4. Were method blank samples analyzed on a 5% basis?	Yes
Comments: Method blank samples were prepared and analyzed on a greater than 5% frequency.	
5. Were method blank detections reported for this data set?	No
Comments: There were no detections of reportable VOC analytes in the method blanks associated with this sample set: Batch L071201AA: ND for all VOCs	
6. Were laboratory control samples analyzed on a 5% basis?	Yes
Comments: The laboratory analyzed LCSs on a greater than 5% frequency.	
7. Were laboratory control recoveries within acceptable limits?	Yes
Comments: The laboratory analyzed one LCS group associated with this sample set. The constituent recoveries were acceptable: Batch L071201AA: 96-104%R	
8. Were matrix spike samples prepared on a 5% basis?	Yes
Comments: The MS/MSD pair for batch L071201AA was prepared from sample MW-481-04242007 of this sample set.	
9. Were matrix spike recoveries within acceptable limits?	No
Comments: All matrix spike recoveries were acceptable. Batch L071201AA: 107-116%R	
10. Were surrogate recoveries within control limits?	Yes
Comments: All surrogate recoveries were within acceptable limits.	
11. General Comments: The Method 8260B results are accepted as reported by the laboratory.	

<b>Table 3. Validation Criteria Checklist for Metal Analyses – Method 6010B</b>	
1. Were the initial and continuous calibration standards and preparation blanks within acceptable limits?	Yes
Comments: The initial calibration, continuous calibrations, and preparation blank results were within the method specified limits.	
2. Were the instrument tunings within method control limits?	N/A
Comments: N/A (The client did not request that the samples be analyzed by Method 6020, ICP/MS).	
3. Were the inorganic quality assurance checks within method control limits?	Yes
Comments: The low level check standard results for ICP were acceptable. The laboratory performed one ICP-AES interference check sample analysis with this analytical set, and the results were acceptable (98.2 – 101.8%R). The laboratory analyzed one serial dilution sample for metals from sample MW-48I-04242007 of this data set and the results were acceptable.	
4. Were preparation blank samples analyzed on a 5% basis?	Yes
Comments: Preparation blanks were prepared and analyzed on a greater than 5% basis. The laboratory analyzed one preparation blank sample with this analytical data set.	
5. Were preparation blank detections reported for this data set?	Yes
Comments: No lead detections were found in the preparation blank.	
6. Were laboratory control samples analyzed on a 5% basis?	Yes
Comments: The laboratory analyzed LCSs on a greater than 5% frequency.	
7. Were laboratory control recoveries within acceptable limits?	Yes
Comments: The laboratory analyzed one LCS sample to document precision and accuracy in this analytical group. The recovery of metals in the LCS samples were acceptable: Batch LCS 071201848002 = 105%R	
8. Were matrix spike samples prepared on a 5% basis?	Yes
Comments: One MS/MSD sample pair for lead was analyzed by the laboratory to document precision and accuracy in this analytical group. The MS/MSD parent sample for metals batch 071201848002 was prepared from sample MW-48I-04242007 of this data set.	
9. Were matrix spike recoveries within acceptable limits?	No
Comments: All matrix spike recoveries were acceptable.	
General Comments: The metals data are accepted as reported by the laboratory.	