



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 2/27/10

WELL NO. LR-mw-121 WEATHER: Rain, temp in 30s SAMPLE TIME: 1020

REMARKS: _____ SAMPLER(S): MAM
collect Dup/MS/MSD

WELL PURGING: STATIC WATER LEVEL: 1.2 ft. WELL DEPTH: 21.52 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 185 ml/min.

WELL PURGE DATA: 0947-start time 10:30 - End time

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1000</u>	<u>9.26</u>	<u>6.41</u>	<u>5.71</u>	<u>237</u>	<u>204</u>	<u>0.47</u>	<u>185</u>	<u>1.30</u>	
<u>1005</u>	<u>9.43</u>	<u>6.43</u>	<u>2.95</u>	<u>246</u>	<u>205</u>	<u>0.27</u>	<u>185</u>	<u>1.30</u>	
<u>1010</u>	<u>9.47</u>	<u>6.45</u>	<u>1.87</u>	<u>247</u>	<u>206</u>	<u>0.36</u>	<u>185</u>	<u>1.30</u>	
<u>1015</u>	<u>9.51</u>	<u>6.45</u>	<u>1.63</u>	<u>245</u>	<u>201</u>	<u>0.31</u>	<u>185</u>	<u>1.30</u>	
<u>1020 - collect</u>		<u>Sample</u>							

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Clx250ml HNO3 phos. field filtered dissolved AS

SAMPLE ID NUMBER(S): LR-mw-121

DECON METHOD: disinfect tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Apha TRANSPORTER: Carver

DATE: 2/27 TIME: _____

CASING CAPACITY (gallons/linear foot)
1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 2/27/13
 WELL NO. AA CR-MW-122 WEATHER: Rain, temp in 30s SAMPLE TIME: 1410
 REMARKS: well goes dry. Sample recharge SAMPLER(S): MAN

WELL PURGING:

STATIC WATER LEVEL: 1.7 ft. WELL DEPTH: 6.69 ft.
 LENGTH OF SATURATED ZONE: — linear ft. VOLUME OF WATER TO BE EVACUATED: — gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = — gals.
 REMOVAL METHOD: Geopump PUMPING RATE: — ml/min.

WELL PURGE DATA:

09:30 - start time

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>0930</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4000</u>	<u>1.70</u>	<u>- draw down to pour recharge</u>
<u>0945</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>- well dry</u>
<u>1405</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>- well recharge d</u>
<u>1405</u>	<u>6.03</u>	<u>7.42</u>	<u>1000</u>	<u>203</u>	<u>92</u>	<u>11.13</u>	<u>—</u>	<u>—</u>	<u>-</u>
<u>1410</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>- sample recharge</u>

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(1x250ml Hubs plastic field filter dissolved AS)

SAMPLE ID NUMBER(s): CR-MW-1221

DECON METHOD: disposable tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 2/27/13
 WELL NO. LR-MW-124 WEATHER: Rain, temp in low 40s SAMPLE TIME: 1305
 REMARKS: Sample depth 7.0 SAMPLER(S): MAM
Ferrous Fe⁺ = 0.0mg/L

WELL PURGING: STATIC WATER LEVEL: 1.4 ft. WELL DEPTH: 7.75 ft.
 LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA: start time 11:46

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1200</u>	<u>5.39</u>	<u>6.66</u>	<u>46.1</u>	<u>103</u>	<u>175</u>	<u>8.33</u>	<u>120</u>	<u>1.90</u>	
<u>1210</u>	<u>5.50</u>	<u>6.63</u>	<u>31.2</u>	<u>91</u>	<u>175</u>	<u>7.93</u>	<u>120</u>	<u>1.95</u>	
<u>1220</u>	<u>5.30</u>	<u>6.66</u>	<u>25.3</u>	<u>82</u>	<u>148</u>	<u>8.16</u>	<u>120</u>	<u>1.95</u>	
<u>1230</u>	<u>4.73</u>	<u>6.67</u>	<u>24.7</u>	<u>67</u>	<u>142</u>	<u>10.32</u>	<u>120</u>	<u>1.95</u>	
<u>1250</u>	<u>4.74</u>	<u>6.69</u>	<u>25.6</u>	<u>65</u>	<u>144</u>	<u>10.31</u>	<u>120</u>	<u>1.95</u>	
<u>1255</u>	<u>4.54</u>	<u>6.70</u>	<u>25.3</u>	<u>66</u>	<u>144</u>	<u>10.22</u>	<u>120</u>	<u>1.95</u>	
<u>1300</u>	<u>4.82</u>	<u>6.70</u>	<u>25.8</u>	<u>67</u>	<u>145</u>	<u>9.99</u>	<u>120</u>	<u>1.95</u>	
<u>1305-collect sample</u>									

SAMPLE WITHDRAWAL METHOD: Geopump
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(2 x 40ml Hcl VOA #260) Testkit Ferrous Iron 0.0mg/L
(1 x 6000ml NP plastic C1-300, NU-300, SU-300)

SAMPLE ID NUMBER(s): LR-MW-124
 DECON METHOD: dispose tubing
 PURGE WATER DISPOSED TO: ground
 SAMPLES DELIVERED TO: Aphc TRANSPORTER: Conite
 DATE: 2/27/13 TIME:

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Batten Hubs LOCATION: Bird Machine DATE: 2/27/13

WELL NO. LR-MW-129 WEATHER: Rain, temp in 40s SAMPLE TIME: 1400

REMARKS: Sample depth 241' SAMPLER(S): MAM

WELL PURGING:

STATIC WATER LEVEL: 0.80 ft. WELL DEPTH: 25.32 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

Start 13:20

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1330</u>	<u>8.37</u>	<u>6.82</u>	<u>5.40</u>	<u>284</u>	<u>149</u>	<u>0.44</u>	<u>120</u>	<u>0.90</u>	
<u>1335</u>	<u>8.24</u>	<u>6.82</u>	<u>4.34</u>	<u>269</u>	<u>145</u>	<u>0.44</u>	<u>120</u>	<u>0.90</u>	
<u>1340</u>	<u>8.93</u>	<u>6.81</u>	<u>4.62</u>	<u>290</u>	<u>137</u>	<u>0.35</u>	<u>120</u>	<u>0.90</u>	
<u>1345</u>	<u>9.01</u>	<u>6.80</u>	<u>3.12</u>	<u>251</u>	<u>131</u>	<u>0.33</u>	<u>120</u>	<u>0.90</u>	
<u>1350</u>	<u>9.10</u>	<u>6.79</u>	<u>2.53</u>	<u>241</u>	<u>127</u>	<u>0.27</u>	<u>120</u>	<u>0.90</u>	
<u>1355</u>	<u>9.18</u>	<u>6.79</u>	<u>1.83</u>	<u>241</u>	<u>125</u>	<u>0.27</u>	<u>120</u>	<u>0.90</u>	
<u>1400</u>	<u>collected sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x40ml HDL W/A 2260) Field kit Ferrus Iron = 0.015L
(1x100ml NP plastic CCI-300, NU-300, SUV-300)

SAMPLE ID NUMBER(S): LR-MW-129

DECON METHOD: disposable tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Kevin

DATE: 2/27/13

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Brd Machine DATE: 2/26/11

WELL NO. MB-mw-360 WEATHER: Sunny SAMPLE TIME: 1425

REMARKS: Sample depth 10' SAMPLER(S): MAN

WELL PURGING:

STATIC WATER LEVEL: 4.12 ft. WELL DEPTH: 120 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopun PUMPING RATE: 150 ml/min.

WELL PURGE DATA:

1317-station

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1327</u>	<u>7.10</u>	<u>5.87</u>	<u>111</u>	<u>144</u>	<u>142</u>	<u>1.05</u>	<u>150</u>	<u>4.60</u>	
<u>1340</u>	<u>7.03</u>	<u>5.87</u>	<u>57.1</u>	<u>135</u>	<u>142</u>	<u>1.07</u>	<u>150</u>	<u>4.60</u>	
<u>1350</u>	<u>6.77</u>	<u>5.80</u>	<u>31.5</u>	<u>130</u>	<u>149</u>	<u>1.09</u>	<u>150</u>	<u>4.60</u>	
<u>1400</u>	<u>6.48</u>	<u>5.69</u>	<u>18.7</u>	<u>118</u>	<u>151</u>	<u>2.21</u>	<u>150</u>	<u>4.60</u>	
<u>1405</u>	<u>6.54</u>	<u>5.59</u>	<u>9.71</u>	<u>109</u>	<u>156</u>	<u>2.46</u>	<u>150</u>	<u>4.60</u>	
<u>1410</u>	<u>6.50</u>	<u>5.59</u>	<u>9.93</u>	<u>109</u>	<u>160</u>	<u>2.51</u>	<u>150</u>	<u>4.6</u>	
<u>1415</u>	<u>6.37</u>	<u>5.55</u>	<u>4.65</u>	<u>107</u>	<u>162</u>	<u>2.56</u>	<u>150</u>	<u>4.60</u>	
<u>1420</u>	<u>6.36</u>	<u>5.53</u>	<u>4.46</u>	<u>106</u>	<u>167</u>	<u>2.60</u>	<u>150</u>	<u>4.61</u>	
<u>1425</u>	<u>collect sample</u>								

SAMPLE WITHDRAWAL METHOD: _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40 ml HCl VOA #260) Test kit = Ferrus Iron 10.0 ml

(1 x 1000 ml NP plastic NO₃, Cl, SO₄)

SAMPLE ID NUMBER(S): MB-mw-360

DECON METHOD: disposable

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: MAN

DATE: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker-Hughes LOCATION: Bird machine DATE: 3/4/13

WELL NO. MB-MW-361 WEATHER: Sunny, windy, temp in 30's SAMPLE TIME: 1230

REMARKS: Sample depth 20' SAMPLER(S): MAN

WELL PURGING:

STATIC WATER LEVEL: 4.45 ft. WELL DEPTH: 24.6 ft.

LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.

REMOVAL METHOD: Decant PUMPING RATE: 110 ml/min.

WELL PURGE DATA:

start 11:12

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>11:52</u>	<u>6.64</u>	<u>6.91</u>	<u>19.0</u>	<u>123</u>	<u>185</u>	<u>3.36</u>	<u>110</u>	<u>5.51</u>	
<u>12:07</u>	<u>6.81</u>	<u>6.76</u>	<u>13.3</u>	<u>121</u>	<u>152</u>	<u>2.79</u>	<u>110</u>	<u>5.83</u>	
<u>12:07</u>	<u>6.85</u>	<u>6.79</u>	<u>11.5</u>	<u>121</u>	<u>180</u>	<u>2.79</u>	<u>110</u>	<u>6.01</u>	
<u>12:12</u>	<u>6.77</u>	<u>6.78</u>	<u>6.31</u>	<u>121</u>	<u>179</u>	<u>2.66</u>	<u>110</u>	<u>6.15</u>	
<u>12:17</u>	<u>6.62</u>	<u>6.76</u>	<u>4.11</u>	<u>122</u>	<u>177</u>	<u>2.60</u>	<u>110</u>	<u>6.25</u>	
<u>12:22</u>	<u>6.71</u>	<u>6.75</u>	<u>4.52</u>	<u>121</u>	<u>176</u>	<u>2.48</u>	<u>110</u>	<u>6.38</u>	
<u>12:27</u>	<u>6.73</u>	<u>6.75</u>	<u>3.73</u>	<u>122</u>	<u>176</u>	<u>2.40</u>	<u>110</u>	<u>6.41</u>	
<u>1230 - collect sample</u>									

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x40 ml HCl vial) Test kit for metals Iron 0.0 ml

1x1000 ml NPP plastic (Cl-300, NO₃-200, SO₄-300)

SAMPLE ID NUMBER(S): MB-MW-361

DECON METHOD: Disposable tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: MAN

DATE: 3/4/13

TIME:

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Bako-Homes LOCATION: Bird Machine DATE: 3/5/13
 WELL NO. MB-mu-362 WEATHER: Cloudy, cold SAMPLE TIME: 2:05
 REMARKS: Sample depth 17'0 SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: 1.30 ft. WELL DEPTH: 19.55 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Perpump PUMPING RATE: 140 ml/min.

WELL PURGE DATA:

Start 7:33

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0743	7.62	6.49	3.44	275	216	1.55	140	1.35	
0748	8.12	6.54	2.35	245	209	0.58	140	1.35	
0753	8.31	6.54	2.15	242	207	0.47	140	1.35	
0758	8.51	6.53	2.05	240	204	0.48	140	1.35	
0803	8.85	6.54	1.92	239	201	0.49	140	1.35	
0805	<u>collect sample</u>								

SAMPLE WITHDRAWAL METHOD: Perpump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(2x40ml Hcl vofa 8260) (2x20ml Hcl vofa dissolved gases)
(1x100ml MP plastic (Cl-300, NO3-300 SO4-300) test kit Ferrus test 0.005 L)

SAMPLE ID NUMBER(s): MB-mu-362
 DECON METHOD: disposal tubing
 PURGE WATER DISPOSED TO: ground
 SAMPLES DELIVERED TO: Alpha TRANSPORTER: MAN
 DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 3/1/10

WELL NO. MB-mw-363 WEATHER: cloudy, temp in 30's SAMPLE TIME: 1316

REMARKS: Sample depth 6.5' SAMPLER(S): MAN

WELL PURGING:

STATIC WATER LEVEL: 1.20 ft. WELL DEPTH: 8.50 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: NU ml/min.

WELL PURGE DATA:

start 12:30

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1246</u>	<u>9.51</u>	<u>6.55</u>	<u>20.1</u>	<u>252</u>	<u>199</u>	<u>0.52</u>	<u>NU</u>	<u>1.20</u>	
<u>1256</u>	<u>9.50</u>	<u>6.50</u>	<u>9.65</u>	<u>252</u>	<u>187</u>	<u>0.47</u>	<u>NU</u>	<u>1.20</u>	
<u>1301</u>	<u>9.49</u>	<u>6.52</u>	<u>3.50</u>	<u>252</u>	<u>187</u>	<u>0.41</u>	<u>NU</u>	<u>1.20</u>	
<u>1306</u>	<u>10.03</u>	<u>6.57</u>	<u>2.79</u>	<u>252</u>	<u>185</u>	<u>0.31</u>	<u>NU</u>	<u>1.20</u>	
<u>1310 - pull at surface</u>									

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40ml Hcl Vac vials) Test kit = Ferrus Iron = (0.001L)

(1 x 100ml up plastic (Cl-300, NO3, SO4))

SAMPLE ID NUMBER(s): MB-mw-363

DECON METHOD: Disposable tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Carver

DATE: 3/1/10

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 2/27/13
 WELL NO.: MB-MW-371 WEATHER: Rain, temp in 30s SAMPLE TIME: 9:25
 REMARKS: Turbid, 4" well Septe Sample depth SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: 2.10 ft. WELL DEPTH: 9.92 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 140 ml/min.

WELL PURGE DATA: start time 0750

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0805	6.20	6.57	21.1	143	210	10.83	140	2.34	
0815	5.95	6.49	75.7	92	198	10.07	140		
0825	5.89	6.54	—	79	194	9.84	140		
0830	6.04	6.55	75.2	76	193	9.63	140		
0845	5.99	6.57	75.4	75	194	9.54	140		
0905	5.98	6.57	77.0	68	194	9.12	140		
0910	6.05	6.58	75.3	67	193	9.31	140		
0915	6.08	6.59	73	67	191	9.26	140		
0920	6.03	6.58	72	66	193	9.30	140		
0925	<u>collect sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Clx200ml HNO3 field filtered dissolved As

SAMPLE ID NUMBER(s): MB-MW-371

DECON METHOD: disposable tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: A pla

TRANSPORTER: Car

DATE: 2/27/13

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-27-13

WELL NO. ^{MB-}MW-374 WEATHER: Rain, 40's SAMPLE TIME: 1300

REMARKS: Fe 1.0mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 5.65 ft. WELL DEPTH: 2834 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1200	8.24	6.40	21.2	0.291	-231.8	3.19	200		
1210	8.72	6.40	13.5	0.290	-247.9	0.85	200		
1220	8.52	6.39	9.85	0.285	-250.3	0.42	200		
1230	8.32	6.36	6.69	0.280	-251.3	0.27	200		
1235	8.07	6.36	4.31	0.276	-250.8	0.34	200		
1240	8.28	6.36	3.98	0.273	-251.0	0.39	200		
1245	8.50	6.36	3.81	0.270	-242.4	0.37	200		
1250	8.71	6.36	4.12	0.270	-244.8	0.36	200		
1300	<u>SAMPLE</u>								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2 x vial 8260, 2 vial methane, ethane, ethene, 1 plastic cl, NO3, SO4 200

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-28-13
 WELL NO. NP-MW-601 WEATHER: 30's, Rain SAMPLE TIME: 9:00
 REMARKS: Fe = 0.0 mg/L SAMPLER(S): AT

WELL PURGING:

STATIC WATER LEVEL: 1305 ft. WELL DEPTH: 28.4 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Peristaltic Pump PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
8 ⁰⁰	9.46	6.06	8.15	0.205	-258.4	2.91	200	13.18	
8 ¹⁰	9.89	5.95	4.21	0.204	-272.2	0.51	200	13.33	
8 ²⁰	9.94	5.93	1.05	0.204	-264.2	0.50	200	13.46	
8 ²⁵	9.78	5.93	0.79	0.204	-243.9	0.41	200	13.51	
8 ³⁰	10.01	5.93	0.82	0.203	-261.4	0.38	200	13.59	
8 ³⁵	10.07	5.96	0.69	0.202	-266.0	0.34	200	13.70	
8 ⁴⁰	9.88	5.93	0.63	0.201	-245.8	0.30	200	13.72	
8 ⁴⁵	9.89	5.93	0.60	0.201	-256.7	0.30	200		
9 ⁰⁰	SAMPLE								

SAMPLE WITHDRAWAL METHOD: Peristaltic Pump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2 x 40 ml vial - 8260, 1 x plastic Cl-300, NO₃-300, SO₄-300

*DUP

SAMPLE ID

NUMBER(s): _____

DECON METHOD: Liquinox

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3-1-13

WELL NO. NP-MW-602 WEATHER: 30's, Cloudy SAMPLE TIME: 13²⁰

REMARKS: Fe = 0.0mg/l * DUP SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 7.15 ft. WELL DEPTH: 17.60 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1230</u>	<u>7.59</u>	<u>5.93</u>	<u>4.25</u>	<u>0.060</u>	<u>-114.6</u>	<u>6.23</u>	<u>200</u>	<u>7.70</u>	
<u>1245</u>	<u>6.87</u>	<u>5.52</u>	<u>2.81</u>	<u>0.061</u>	<u>-115.0</u>	<u>11.63</u>	<u>200</u>	<u>7.28</u>	
<u>1255</u>	<u>6.81</u>	<u>5.46</u>	<u>2.33</u>	<u>0.061</u>	<u>-116.4</u>	<u>10.80</u>	<u>200</u>	<u>--</u>	
<u>1300</u>	<u>6.89</u>	<u>5.43</u>	<u>2.15</u>	<u>0.061</u>	<u>-115.3</u>	<u>10.58</u>	<u>200</u>	<u>--</u>	
<u>1305</u>	<u>6.88</u>	<u>5.44</u>	<u>2.12</u>	<u>0.062</u>	<u>-115.1</u>	<u>10.54</u>	<u>200</u>	<u>--</u>	
<u>1310</u>	<u>6.92</u>	<u>5.43</u>	<u>2.10</u>	<u>0.062</u>	<u>-114.9</u>	<u>10.71</u>	<u>200</u>	<u>--</u>	
<u>1315</u>	<u>6.94</u>	<u>5.44</u>	<u>2.07</u>	<u>0.062</u>	<u>-115.0</u>	<u>10.75</u>	<u>200</u>	<u>--</u>	
<u>1320</u>	<u>SAMPLE</u>								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

8260 * DUP

C1-300 NO₃-300 SO₄-300

SAMPLE ID NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.4.13

WELL NO. NP. Mr. 603 WEATHER: 30's, clear SAMPLE TIME: _____

REMARKS: Fe = 0.05 mL SAMPLER(S): AG

WELL PURGING:

STATIC WATER LEVEL: 6.81 ft. WELL DEPTH: 23.06 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1220									Well being purged
1245									Well dry
3.5.13									
945	STW =	6.96							
950	9.05	6.90	25.6	243	-98.6	3.13	200	7.18	
955	Sample								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x40ml) 8260
(1x plastic) Cl-300, NO₃-300, SO₄-300

SAMPLE ID NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.4.13

WELL NO. MW-700 S WEATHER: 30's, overcast SAMPLE TIME: 9⁴⁰

REMARKS: Fe = 0.0ms/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 14.13 ft. WELL DEPTH: 21.90 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
12 ³⁰									
13 ⁵⁰									
9 ³⁰									
9 ³⁵	9.35	6.70	42.1	340	-125.6	2.67	200	NS.95	
9 ⁴⁰									sample

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40) 8260

(1 x Plastic) Cl-300, NO₃-300, SO₄-300

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3-4-13

WELL NO. MW-701 S WEATHER: 30's, overcast SAMPLE TIME: 9:25

REMARKS: Fe 20.0mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 13.55 ft. WELL DEPTH: 22.70 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>12:00</u>									<u>purging well until dry</u>
<u>1:35</u>									<u>well dry</u>
<u>3-5-13</u>									
<u>9:15</u>		<u>DTV = 13.88</u>							
<u>9:20</u>	<u>10.01</u>	<u>6.69</u>	<u>101</u>	<u>195</u>	<u>-213.6</u>	<u>5.01</u>	<u>200</u>	<u>14.15</u>	
<u>9:25</u>		<u>SAMPLE</u>							

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40ml) B260

(1 x plastic) Cl-300, NO3-300, SO4-300

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-28-12

WELL NO: MW-702 S WEATHER: 30's, cloudy SAMPLE TIME: 12:50

REMARKS: Fe = 0.0 mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 12.07 ft. WELL DEPTH: 21.17 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
12:05 12:10	10.24	5.84	4.12	0.133	-142.8	6.62	200	12.11	
12:15	10.43	5.76	3.09	0.129	-153.2	5.42	200	12.18	
12:20	10.16	5.78 ⁷⁴	3.01	0.128	-156.8	5.18	200	12.30	
12:25	10.12	5.74	2.86	0.128	-156.7	5.08	200	12.39	
12:30	10.24	5.75	2.63	0.127	-156.3	5.02	200	12.52	
12:35	10.34	5.74	1.11	0.127	-155.7	5.01	200	12.61	
12:40	10.53	5.75	1.09	0.127	-154.5	4.99	200	-	
12:45	10.44	5.75	1.03	0.126	-155.5	4.97	200	-	
12:50	SAMPLE								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x40) 8260
(1x plastic) cl-300, N03-300, S04300

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2.28.13

WELL NO. MW-702 D WEATHER: 30, cloudy SAMPLE TIME: 1400

REMARKS: Fe = 0.0 mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 12.61 ft. WELL DEPTH: 28.97 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1310	11.81	5.98	7.66	0.191	-171.6	2.84	200	12.69	
1320	11.99	5.93	4.21	0.193	-175.6	2.35	200	12.73	
1325	12.00	5.95	3.88	0.193	-175.7	2.26	200	12.79	
1330	12.05	5.93	3.61	0.193	-174.9	2.29	200	12.88	
1335	12.26	5.92	2.97	0.193	-175.3	2.26	200	12.95	
1340	12.25	5.93	2.93	0.194	-175.1	2.23	200	13.06	
1345	12.24	5.92	2.88	0.193	-174.9	2.25	200	13.13	
1350	12.28	5.92	2.83	0.193	-175.1	2.25	200	13.21	
1400	M ^a SAMPLE								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40ml) 8260
(1 x plastic) Cl-300, NO₃-300, SO₄-300

SAMPLE ID NUMBER(S): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-28-13

WELL NO. MW-702B WEATHER: 30's, Rain SAMPLE TIME: 11:00

REMARKS: Fe = 0.0 mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 17.55 ft. WELL DEPTH: 38.50 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
10 ⁰⁰	10.52	6.27	25.0	0.286	-206.0	3.50	200	-	
10 ¹⁰	10.62	6.12	10.3	0.245	-204.2	1.98	200	-	
10 ¹⁵	10.55	6.09	7.93	0.238	-205.8	1.93	200	-	
10 ²⁰	10.84	6.05	5.81	0.237	-209.7	1.55	200	-	
10 ²⁵	10.90	6.04	3.43	0.238	-212.8	1.81	200	-	
10 ³⁰	10.91	6.03	3.12	0.238	-212.4	1.31	200	-	
10 ³⁵	10.89	6.03	3.06	0.238	-213.2	1.30	200	-	
10 ⁴⁰	10.89	6.02	2.88	0.239	-213.5	1.29	200	-	
10 ⁴³	10.88	6.03	2.93	0.238	-213.8	1.29	200	-	

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2 x vial - 8260

1 x plastic - c1-300, NO₂-300, SO₄-300

SAMPLE ID NUMBER(s): MW-702B

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3-4-13

WELL NO. MV-703S WEATHER: 20's, Clear SAMPLE TIME: 8:15

REMARKS: _____ SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 3.67 ft. WELL DEPTH: 17.0 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>8:45</u>									<u>Purge well for draw down</u>
<u>9:15</u>									<u>well dry</u>
<u>3-5-13</u>									
<u>8⁰⁰ DTW = 3.85</u>									
<u>8:05</u>	<u>7.96</u>	<u>6.52</u>	<u>55.1</u>	<u>0.333</u>	<u>152</u>	<u>4.64</u>	<u>200</u>	<u>5.92</u>	
<u>8:15</u>									<u>Sample</u>

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

1 x 250 mL HNO₃ plastic field filter dissolved H₂

SAMPLE ID NUMBER(S): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 3/14/13

WELL NO. MW-7045 WEATHER: Sunny, windy, temp: 86°S SAMPLE TIME: 5:40 (3/13)

REMARKS: well drops SAMPLER(S): man

WELL PURGING: STATIC WATER LEVEL: 3.30 ft. WELL DEPTH: 10.0 ft.
 LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.
 REMOVAL METHOD: Geopump PUMPING RATE: ml/min.

WELL PURGE DATA: Start 11:20

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>11:20</u>									<u>draw down for sample recharge</u>
<u>11:40</u>									<u>well dry</u>
<u>3/13/13</u>									
<u>0835</u>									<u>WL = 3.30'</u>
<u>0837</u>	<u>5.23</u>	<u>6.92</u>	<u>31.2</u>	<u>335</u>	<u>230</u>	<u>2.20</u>	<u>120</u>	<u>-1.36</u>	
<u>0840</u>									<u>Collect Sample</u>

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x40ml HCl VOA 8260) Testkit Ferrus Iron = 0.0mg/L

(1x1000ml NP pl-d-c (Cl-300, NO3-300, SO4-200))

SAMPLE ID NUMBER(S): MW-7045

DECON METHOD: Disposable tubes

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: MAN

DATE: 3/13/14 TIME:

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bismarck DATE: 3/4/12

WELL NO. MW-704D WEATHER: Sunny, windy, temp 32° SAMPLE TIME: 1110

REMARKS: Sample depth 18' SAMPLER(S): MAN

WELL PURGING:

STATIC WATER LEVEL: 2.72 ft. WELL DEPTH: 22 ft.

LENGTH OF SATURATED ZONE: — linear ft. VOLUME OF WATER TO BE EVACUATED: — gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = — gals.

REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

start 9:10

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0920	5.76	7.02	24.1	340	200	1.93	120	3.00	
0930	6.12	7.11	39.3	316	208	0.95	120	3.00	
0940	6.17	7.12	35.2	309	200	0.98	120	3.00	
0950	6.04	7.12	30.1	303	196	0.73	120	3.00	
1000	6.83	7.13	39.7	299	194	0.69	120	3.00	
1010	6.87	7.14	30.1	298	187	0.62	120	3.00	
1020	6.99	7.13	27.3	298	183	0.59	120	3.00	
1030	7.01	7.11	30.1	298	180	0.54	120	3.00	
1040	7.13	7.11	31.2	299	179	0.50	120	3.00	
1050	7.18	7.15	30.7	299	178	0.47	120	3.00	

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40 ml HDVUA #260) (2 x 20 ml HDVUA dissolve salts)

(1 x 1000 ml Np Plastic (Cl-200, NO3-300, SO4-300) Test Kit Ferris Inc = 0.001L)

SAMPLE ID NUMBER(S): MW-704D

DECON METHOD: disposable tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: MAN

DATE: 3/4/12

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker-Hughes LOCATION: Bird Machine DATE: 3/1/13

WELL NO. MW-704P WEATHER: Sunny, windy SAMPLE TIME: 1110

REMARKS: Sample depth is SAMPLER(S): _____

WELL PURGING:

STATIC WATER LEVEL: 2.72 ft. WELL DEPTH: 22 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1100</u>	<u>6.96</u>	<u>7.11</u>	<u>23.5</u>	<u>299</u>	<u>176</u>	<u>0.11</u>	<u>120</u>	<u>3.00</u>	
<u>1105</u>	<u>6.52</u>	<u>7.07</u>	<u>25.1</u>	<u>300</u>	<u>175</u>	<u>0.46</u>	<u>120</u>	<u>3.00</u>	
<u>1110</u>	<u>-collect sample</u>		<u>2hr lat</u>						

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

See ps 1

SAMPLE ID NUMBER(s): MW-704P

DECON METHOD: _____

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: _____ TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3-4-13

WELL NO. NW-7055 WEATHER: 20's, clear SAMPLE TIME: 10¹⁵

REMARKS: _____ SAMPLER(S): AMR

WELL PURGING:

STATIC WATER LEVEL: 3.31 ft. WELL DEPTH: 17.5 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
932	7.08	5.70	4.11	0.215	-155.1	3.08	150	3.35	
945	7.98	5.52	3.52	0.209	-161.6	1.19	-	3.35	
950	8.53	5.51	3.21	0.206	-163.6	0.90	-	3.33	
955	8.47	5.55	3.09	0.206	-160.8	0.70	-	3.33	
10 ⁰⁰	8.38	5.55	3.01	0.206	-161.2	0.70	-	3.33	
10 ⁰⁵	8.39	5.56	2.98	0.205	-160.2	0.68	-	3.33	
10 ¹⁰	8.44	5.56	2.92	0.205	-159.7	0.65	-	3.33	
10 ¹⁵	SAMPLE								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(1 x 250ml) HNO₃ dissolved AS field filter

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.4.13

WELL NO. MW-706 S WEATHER: 30's, cloudy SAMPLE TIME: 9:10

REMARKS: _____ SAMPLER(S): 4A

WELL PURGING:

STATIC WATER LEVEL: 3.51 ft. WELL DEPTH: 14.08 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>11:50</u>									<u>- Drawing down well</u>
<u>12:15</u>									<u>- Well Purged</u>
<u>3.5.13</u>									
<u>9:00</u>									<u>DTW = 3.78</u>
<u>9:05</u>	<u>9.25</u>	<u>6.80</u>	<u>98</u>	<u>0.387</u>	<u>143</u>	<u>1.93</u>	<u>200</u>	<u>5.21</u>	
<u>9:10</u>									<u>sample</u>

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

1x 250 ml plastic field filter dissolved As

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs

DATE: _____

TRANSPORTER: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.4.13

WELL NO. MV-707D WEATHER: 30, clear SAMPLE TIME: 11²⁰

REMARKS: Fe=0.0mg/L SAMPLER(S): _____

WELL PURGING:

STATIC WATER LEVEL: 6.42 ft. WELL DEPTH: 31.90 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Peristaltic Pump PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
10 ³⁵	9.10	6.16	50.2	0.747	-158.9	2.38	175	6.50	
10 ⁴⁵	10.48	6.18	27.9	0.645	-166.7	0.49	175	6.58	
10 ⁵⁰	10.57	6.18	18.8	0.640	-163.5	0.41	175	6.58	
10 ⁵⁵	10.72	6.18	15.3	0.591	-160.3	0.58	175	6.58	
11 ⁰⁰	10.40	6.17	9.32	0.586	-169.7	0.54	175	6.58	
11 ⁰⁵	10.30	6.18	7.81	0.567	-153.0	0.49	175	6.58	
11 ¹⁰	10.32	6.17	7.69	0.557	-168.1	0.48	175	6.58	
11 ¹³	10.34	6.17	7.65	0.553	-165.7	0.51	175	6.58	
11 ²⁰	SAMPLE								

SAMPLE WITHDRAWAL METHOD: Peristaltic Pump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x 40ml Hcl 8260)
(1x 1000ml Cl, NO3, SO4)

SAMPLE ID

NUMBER(S): _____

DECON METHOD: Liquinox

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-26-13

WELL NO. MW-708-D WEATHER: 20's, clear SAMPLE TIME: 9:20

REMARKS: MW 708-D Fe = 0.0 mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 9.32 ft. WELL DEPTH: 27.37 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
829	8.88	6.28	41.8	0.211	-232.7	2.55	200	9.48	
840	9.71	6.30	35.1	0.204	-256.7	2.54	200	9.55	
845	9.79	6.32	28.3	0.205	-256.6	2.55	200	9.72	
850	9.47	6.33	27.2	0.206	-254.7	2.40	200	-	
855	9.56	6.32	25.1	0.206	-256.2	2.33	200		
900	10.00	6.32	24.3	0.207	-255.1	2.27	200		
905	10.24	6.33	24.1	0.209	-255.5	2.24	200		
908	10.27	6.33	23.8	0.210	-255.0	2.22	200		
920	SAMPLES								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40 vial) 8260, MW 708-D / 1 liter ch-300, NO₂-300, SO₄-300

SAMPLE ID NUMBER(S): MW-708-D

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-26-13
 WELL NO. MV-708 B WEATHER: 30's, clear SAMPLE TIME: 11:00
 REMARKS: Fe 100 mg/L SAMPLER(S): AR

WELL PURGING: STATIC WATER LEVEL: 5.58 ft. WELL DEPTH: 55.21 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Peristaltic Pump PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
950	10.01	6.64	10.12	0.367	-267.5	0.87	250	-.50	
1000	10.54	6.61	6.98	0.372	-270.1	0.58	250		
1005	10.92	6.57	6.89	0.381	-264.0	0.58	250		
1010	10.92	6.52	6.25	0.382	-275.4	0.53	250		
1005	11.11	6.51	6.31	0.383	-270.3	0.61	250		
1020	11.20	6.49	5.77	0.383	-279.8	0.91	250		
1025	11.26	6.49	5.12	0.383	-272.6	1.08	250		
1030	11.21	6.50	5.25	0.383	-275.4	1.05	250		
1033	11.25	6.50	5.17	0.383	-276.2	1.07	250		

SAMPLE WITHDRAWAL METHOD: Peristaltic Pump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x 40) 8260, 1 plastic C1-300, 103-200, SO4-200

SAMPLE ID NUMBER(s): _____

DECON METHOD: Liquinox

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker-Huges LOCATION: B... machine DATE: 2/25/13
 WELL NO. MW-7095 WEATHER: Cloudy, temp in upper 3 SAMPLE TIME: 0915
 REMARKS: _____ SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: 1.69 ft. WELL DEPTH: _____ ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Gravel PUMPING RATE: 140 ml/min.

WELL PURGE DATA: start time: 7:47

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0757	8.40	6.05	33.7	502	217	1.75	140	2.00	
0807	8.21	6.07	—	435	204	0.67	140	2.00	
0820	8.38	6.05	31.8	422	192	0.43	140	2.00	
0835	8.23	6.10	29.8	400	190	0.30	140	2.00	
0845	8.22	6.09	24.6	402	177	0.25	140	2.00	
0855	8.21	6.12	21.3	393	157	0.27	140	2.00	
0905	8.24	6.13	23.7	382	145	0.24	140	2.00	
0915	8.16	6.14	19.3	371	133	0.21	140	2.00	
0925	8.11	6.16	18.3	360	120	0.21	140	2.00	
0935	8.15	6.18	18.7	352	107	0.19	140	2.00	

SAMPLE WITHDRAWAL METHOD: Gravel

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
See PS 1 (2x40ml Hel VOA #260) (2x20ml Hel VOA dissolved gases)
(1x1000 ml NP plastic Cl-300, No3-300, So4-300) Test Kit = Ferro Iron (0.05mL)

SAMPLE ID NUMBER(S): MW-7095
 DECON METHOD: disposable tubing
 PURGE WATER DISPOSED TO: Gravel
 SAMPLES DELIVERED TO: Alfa TRANSPORTER: CONUES
 DATE: 2/25/13 TIME: _____

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Barton Heights LOCATION: Bird Machine DATE: 2/20/13

WELL NO. MW-7095 WEATHER: Cloudy SAMPLE TIME: 0915

REMARKS: _____ SAMPLER(S): _____

WELL PURGING:

STATIC WATER LEVEL: _____ ft. WELL DEPTH: _____ ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0940	8.15	6.19	←	317	103	0.20	140	2.0	
0945	8.21	6.20	←	314	101	0.19	140	2.0	
0945 - collected sample 2 hr int									

SAMPLE WITHDRAWAL METHOD: _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

See ps. 1

SAMPLE ID NUMBER(S): _____

DECON METHOD: _____

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: _____ TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Barker Hedges LOCATION: Bird Machine DATE: 2/20/13

WELL NO. MW-709D WEATHER: Cloudy temp in 30s SAMPLE TIME: 1050

REMARKS: Collat Dip, ms/ms SAMPLER(S): man

WELL PURGING:

STATIC WATER LEVEL: 1.10 ft. WELL DEPTH: 31.10 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Creepump PUMPING RATE: 100 ml/min.

WELL PURGE DATA:

Start time 1006

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1016</u>	<u>8.23</u>	<u>6.55</u>	<u>15.1</u>	<u>365</u>	<u>90</u>	<u>1.18</u>	<u>140</u>	<u>1.55</u>	
<u>1026</u>	<u>8.80</u>	<u>6.56</u>	<u>12.6</u>	<u>369</u>	<u>97</u>	<u>0.91</u>	<u>140</u>	<u>1.55</u>	
<u>1031</u>	<u>9.37</u>	<u>6.57</u>	<u>9.75</u>	<u>370</u>	<u>94</u>	<u>0.73</u>	<u>140</u>	<u>1.55</u>	
<u>1036</u>	<u>9.53</u>	<u>6.58</u>	<u>6.47</u>	<u>370</u>	<u>90</u>	<u>0.64</u>	<u>140</u>	<u>1.55</u>	
<u>1041</u>	<u>9.67</u>	<u>6.58</u>	<u>6.56</u>	<u>371</u>	<u>89</u>	<u>0.60</u>	<u>110</u>	<u>1.55</u>	
<u>1046</u>	<u>9.26</u>	<u>6.58</u>	<u>6.22</u>	<u>371</u>	<u>96</u>	<u>0.52</u>	<u>140</u>	<u>1.55</u>	
<u>1050</u>	<u>Collect Sample</u>								

SAMPLE WITHDRAWAL METHOD: Creepump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x40ml Hcl VOA 82603) (2x20ml Hcl VOA dissolved gas + S

(1x1000ml Cl-300, NO₃-300, SO₄-300) Ferrus Iron = 0.0 mg/L

SAMPLE ID NUMBER(S): MW-709D

DECON METHOD: dispose tubing

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: [Signature]

DATE: 2/20/13

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird machine DATE: 2/20/13

WELL NO. MW-7105 WEATHER: cloudy, temp in 30s SAMPLE TIME: 1:00

REMARKS: Sample depth 23' SAMPLER(S): MAM

WELL PURGING:

STATIC WATER LEVEL: 1.35 ft. WELL DEPTH: 31.55 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 140 ml/min.

WELL PURGE DATA:

Start time: 12:23

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1235</u>	<u>9.10</u>	<u>6.02</u>	<u>10.4</u>	<u>525</u>	<u>187</u>	<u>0.71</u>	<u>140</u>	<u>2.20</u>	
<u>1240</u>	<u>9.06</u>	<u>6.07</u>	<u>7.22</u>	<u>520</u>	<u>180</u>	<u>0.47</u>	<u>140</u>	<u>2.25</u>	
<u>1245</u>	<u>9.24</u>	<u>6.06</u>	<u>4.11</u>	<u>531</u>	<u>193</u>	<u>0.44</u>	<u>140</u>	<u>2.31</u>	
<u>1250</u>	<u>9.42</u>	<u>6.06</u>	<u>2.83</u>	<u>533</u>	<u>195</u>	<u>0.47</u>	<u>140</u>	<u>2.36</u>	
<u>1255</u>	<u>9.49</u>	<u>6.06</u>	<u>1.54</u>	<u>536</u>	<u>194</u>	<u>0.46</u>	<u>140</u>	<u>2.40</u>	
<u>1300</u>	<u>collected</u>	<u>sample</u>							

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x 40ml HCl VOA 8260) (2x 20ml HCl VOA dissolving gases)

(1x 1000ml Cl-300, NO-300, SO4-300) Ferrus Iron = 0.0 ns/L

SAMPLE ID NUMBER(S): MW-7105

DECON METHOD: disposable tubing

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Cowie

DATE: 2/20/13

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Birdmachine DATE: 2/25/13

WELL NO. Mu-710M WEATHER: Cloudy, temp in 30's SAMPLE TIME: 1400

REMARKS: Sample depth 29' SAMPLER(S): MAM

WELL PURGING:

STATIC WATER LEVEL: 1.2 ft. WELL DEPTH: 32.26 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Gravel pump PUMPING RATE: 140 ml/min.

WELL PURGE DATA:

Start time: 13:12

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1324</u>	<u>10.15</u>	<u>6.86</u>	<u>20.8</u>	<u>141</u>	<u>161</u>	<u>3.43</u>	<u>140</u>	<u>1.63</u>	
<u>1330</u>	<u>10.35</u>	<u>6.78</u>	<u>13.6</u>	<u>143</u>	<u>161</u>	<u>3.38</u>	<u>140</u>	<u>1.63</u>	
<u>1335</u>	<u>10.50</u>	<u>6.78</u>	<u>12.3</u>	<u>141</u>	<u>160</u>	<u>3.35</u>	<u>140</u>	<u>1.63</u>	
<u>1340</u>	<u>10.55</u>	<u>6.80</u>	<u>11.5</u>	<u>140</u>	<u>159</u>	<u>2.85</u>	<u>140</u>	<u>1.67</u>	
<u>1345</u>	<u>10.61</u>	<u>6.80</u>	<u>11.1</u>	<u>137</u>	<u>157</u>	<u>2.88</u>	<u>140</u>	<u>1.67</u>	
<u>1350</u>	<u>10.73</u>	<u>6.79</u>	<u>10.9</u>	<u>141</u>	<u>155</u>	<u>2.72</u>	<u>140</u>	<u>1.67</u>	
<u>1355</u>	<u>10.91</u>	<u>6.79</u>	<u>11.0</u>	<u>142</u>	<u>154</u>	<u>2.73</u>	<u>140</u>	<u>1.63</u>	
<u>Max-collect</u>		<u>Sample</u>							

SAMPLE WITHDRAWAL METHOD: Gravel pump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x400ml HD VOA 8260) (2x200ml HD VOA dissolving gases)
(1x1000ml NP plastic Cl-300, Ni-300, Se-300) Ferrous Ion 0.01M/L

SAMPLE ID NUMBER(S): Mu-710M

DECON METHOD: disposable lab.

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Quiver

DATE: 2/25/13

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bismarck DATE: 3/1/13
 WELL NO. MN-7100 WEATHER: Mostly cloudy, temp in 30s SAMPLE TIME: 1:45
 REMARKS: Sample depth 40' SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: 1.45 ft. WELL DEPTH: 43.5 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Gravel PUMPING RATE: 130 ml/min.

WELL PURGE DATA: start 9:30

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1000	8.31	7.65	22.3	132	73	5.43	130	2.65	
1005	8.42	7.67	20.1	130	75		130	2.90	
1010	8.67	7.62	15.1	121	74	4.74	130	3.20	
1015	8.99	7.57	11.2	111	74	4.50	130	3.40	
1020	9.04	7.55	19.3	115	71	4.29	130	3.55	
1025	9.50	7.60	21.2	125	73	3.52	130	3.61	
1030	9.63	7.65	17.3	135	67	2.62	130	3.67	
1100	9.70	7.69	18.1	143	60	2.29	130	3.71	
1110	9.85	7.71	15.3	144	57	1.80	130	3.77	
1120	10.00	7.74	15.2	152	50	1.31	13	3.83	

SAMPLE WITHDRAWAL METHOD: Gravel pump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40 ml Helix 2260) Test kit Ferrus Iron = (0.005 L)
(1 x 1000 ml NP plastic No. 503, CI)

SAMPLE ID NUMBER(s): MN-7100

DECON METHOD: Disposable

PURGE WATER DISPOSED TO: Gravel

SAMPLES DELIVERED TO: Apha

TRANSPORTER: Courier

DATE: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker-Hydro LOCATION: Bird Machine DATE: 3/1/13
 WELL NO. MW-710D WEATHER: Mostly cloudy, temp in 3 SAMPLE TIME: 1145
 REMARKS: Sample depth 4' SAMPLER(S): MA-7

WELL PURGING:

STATIC WATER LEVEL: 1.45 ft. WELL DEPTH: 935 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Gravel PUMPING RATE: 130 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1130</u>	<u>16.11</u>	<u>7.74</u>	<u>11.2</u>	<u>152</u>	<u>50</u>	<u>1.50</u>	<u>130</u>	<u>3.90</u>	
<u>1135</u>	<u>16.30</u>	<u>7.74</u>	<u>11.7</u>	<u>150</u>	<u>50</u>	<u>1.45</u>	<u>130</u>	<u>3.95</u>	
<u>1140</u>	<u>10.44</u>	<u>7.74</u>	<u>11.1</u>	<u>152</u>	<u>50</u>	<u>1.47</u>	<u>130</u>	<u>4.01</u>	
<u>1145 - collect Sample</u>									

SAMPLE WITHDRAWAL METHOD: Gravel

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2x400ml H2O2) See pg. 1

SAMPLE ID NUMBER(s): MW-710D

DECON METHOD: Disposable

PURGE WATER DISPOSED TO: Gravel

SAMPLES DELIVERED TO: Aph TRANSPORTER: own

DATE: 3/1/13 TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bind Machine DATE: 3/1/13
 WELL NO. MW-710B WEATHER: Sunny, Temp in 30's SAMPLE TIME: 0910
 REMARKS: Sample collected by Q4 SAMPLER(S): MM

WELL PURGING: STATIC WATER LEVEL: 1.4 ft. WELL DEPTH: 64.10 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Grout pump PUMPING RATE: 130 ml/min.

WELL PURGE DATA: Start 8:15

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0825	5.93	7.18	5.62	312	80	5.70	130	2.35	
0831	6.53	7.52	4.16	258	62	2.27	130	2.35	
0841	7.08	7.65	3.76	239	48	1.32	130	2.41	
0846	7.49	7.67	3.10	236	50	0.94	130	2.46	
0851	7.69	7.68	2.01	233	52	0.66	130	2.53	
0856	7.85	7.71	3.02	227	58	0.50	130	2.57	
0901	8.32	7.72	2.99	223	60	0.51	130	2.63	
0906	8.26	7.73	2.98	221	57	0.51	130	2.67	
0910	<u>collected sample</u>								

SAMPLE WITHDRAWAL METHOD: Grout pump
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(2x 40ml HCl vial via 526c) Test kit Formulation
(1x 100ml Cl-300, Se-300, Ni-300)

SAMPLE ID NUMBER(s): MW-710B
 DECON METHOD: disperse tubing
 PURGE WATER DISPOSED TO: ground
 SAMPLES DELIVERED TO: Alpha TRANSPORTER: _____
 DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-26-13
 WELL NO. MU-711S WEATHER: 40's, Clear SAMPLE TIME: 14:00
 REMARKS: Fe = 2.1 mg/L SAMPLER(S): AR

WELL PURGING: STATIC WATER LEVEL: 3.48 ft. WELL DEPTH: 19.75 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1315	6.02	6.45	19.8	0.123	-253.1	0.55	200		
1320	6.01	6.47	17.3	0.113	-262.2	0.25	200		
1325	6.04	6.46	12.1	0.111	-263.0	0.23	200		
1330	6.03	6.48	9.81	0.110	-263.2	0.22	200		
1335	6.08	6.52	5.45	0.108	-262.2	0.21	200		
1340	6.01	6.51	5.31	0.108	-262.5	0.19	200		
1345	5.90	6.52	5.30	0.108	-258.5	0.19	200		
1400	SAMPLE								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2 vial 8260, 1 plastic Cl-200, NO3-200, SO4-200

SAMPLE ID NUMBER(S): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2.26.13

WELL NO. MV-711D WEATHER: 30's, Clear SAMPLE TIME: 13:00

REMARKS: Fe = 1.5 mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: _____ ft. WELL DEPTH: _____ ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1145	9.65	6.78	25.8	0.375	-287.2	1.65	200		
1155	9.94	6.56	17.3	0.383	-288.8	1.08	200		
1200	10.59	6.43	15.9	0.403	-250.5	2.37	200		
1210	10.65	6.26	16.3	0.408	-268.2	3.15	200		
1220	10.90	6.22	10.1	0.410	-270.3	2.86	200		
1225	10.65	6.23	10.0	0.411	-269.7	2.47	200		
1230	10.81	6.21	7.88	0.410	-267.9	2.46	200		
1235	11.16	6.19	11.21	0.412	-267.5	2.43	200		
1240	11.17	6.19	9.95	0.412	-267.6	2.43	200		

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2 x 40 ml vial 8260, 1 plastic 1.800, 1103-300, 504-300

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-27-13

WELL NO. MW-7125 WEATHER: 40, Rain SAMPLE TIME: 1400

REMARKS: Fe = 0.5 mg/L SAMPLER(S): HR

WELL PURGING:

STATIC WATER LEVEL: 3.85 ft. WELL DEPTH: 19.20 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1310	5.91	6.21	63.9	0.85	-187.1	6.32	200		
1320	5.55	6.09	31.6	0.82	-196.3	4.16	200		
1330	5.56	6.11	21.3	0.087	-199.1	3.21	200		
1340	5.22	6.17	12.9	0.095	-209.4	2.59	200		
1343	5.27	6.19	10.1	0.97	-210.1	2.43	200		
1346	5.28	6.19	9.87	0.97	-210.4	2.41	200		
1349	5.28	6.20	9.79	0.97	-210.5	2.41	200		
1352	5.21	6.20	9.68	0.98	-210.9	2.39	200		
1355	5.25	6.20	9.70	0.98	-211.2	2.40	200		

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2 x 40 vial 8260

1 x plastic cl-300, NO₃-300, SO₄-300

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs

DATE: _____

TRANSPORTER: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.1.13

WELL NO. MW-713-S WEATHER: 30's, clear SAMPLE TIME: _____

REMARKS: Fe = 0.0 mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 3.44 ft. WELL DEPTH: 20.6 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
8 ²⁵	7.73	5.67	max	0.456	-252.4	2.22	200		
8 ⁴⁰	8.37	5.68	155	0.449	-207.8	2.20	200	6.10	
8 ⁵⁰	8.87	5.66		0.448	-185.8	0.29	200		
9 ⁰⁰	8.96	5.66	188	0.450	-251.1	0.30	200	6.31	
9 ¹⁵	8.93	5.65		0.449	-229.3	0.24	200		
9 ²⁵	9.03	5.65	50.3	0.448	-223.8	0.47	200	-	
9 ³⁵	9.00	5.63		0.451	-245.7	0.24	200	-	
9 ⁴⁰	9.27	5.65	45.3	0.450	-257.3	0.20	200	-	
9 ⁴⁵	9.08	5.66		0.451	-252.5	0.19	200	-	

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

8260, Cl-300, NO₃-300 SO₄-300

SAMPLE ID

NUMBER(S): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.1.13

WELL NO. MW-713-S WEATHER: 30's, clear SAMPLE TIME: 1010

REMARKS: Fe = 0.0 mg/L SAMPLER(S): RL

WELL PURGING:

STATIC WATER LEVEL: 3.44 ft. WELL DEPTH: 20.10 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
950	9.11	5.66		0.450	-256.5	0.20	200	-	
955	8.92	5.66	30.0	0.451	-257.1	0.23	200	-	
1000	8.96	5.66	26.7	0.451	-258.2	0.24	200	-	
1005	8.97	5.65	25.8	0.452	-258.4	0.23	200	-	
1008	8.99	5.66	25.6	0.452	-258.3	0.24	200	-	
1010	SAMPLE								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x vial) 8260

(1 x plastic) Cl-300, NO3-300, SO4-300

SAMPLE ID

NUMBER(S): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.1.13

WELL NO. MW-713-D WEATHER: 30's, cloudy SAMPLE TIME: 11:00

REMARKS: Fe = 0.0 mg/L SAMPLER(S): AR

WELL PURGING:

STATIC WATER LEVEL: 2.18 ft. WELL DEPTH: 33.60 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1015	9.26	6.59	11.3	0.297	-199.0	0.69	200	2.30	
1025	9.55	6.64		0.298	-226.1	0.34	200		
1030	9.57	6.64	4.53	0.298	-226.7	0.40	200	2.40	
1035	9.49	6.59	3.13	0.304	-237.7	0.39	200	2.45	
1040	9.92	6.55	2.98	0.307	-240.9	0.35	200	2.55	
1045	9.90	6.53	2.62	0.311	-241.2	0.30	200	2.68	
1050	9.80	6.52	2.31	0.312	-236.2	0.34	200	2.72	
1055	9.92	6.50	2.22	0.313	-239.1	0.28	200	2.79	
1058	9.90	6.50	2.20	0.313	-239.2	0.29	200	2.81	

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x vial) 8760
(1 x plastic) Cl-300 NO₃-300 SO₄-300

SAMPLE ID NUMBER(S): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 2-27-13
 WELL NO. MV-7145 WEATHER: 40, rain SAMPLE TIME: 9:15
 REMARKS: Fe = 1.0 mg/L SAMPLER(S): AR

WELL PURGING: STATIC WATER LEVEL: 6.48 ft. WELL DEPTH: 12.75 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
8 ⁰⁰	6.23 6.23	6.41	65.2	0.148	-167.6	5.22	200		
8 ¹⁰	7.02	6.54	30.2	0.184	-210.3	1.57	200		
8 ²⁰	7.23	6.56	24.189	0.205	-214.2	1.26	200		
8 ²⁵	7.17	6.57	12.6	0.210	-214.5	1.30	200		
8 ³⁵	7.29	6.57	11.3	0.211	-215.5	1.31	200		
8 ⁴⁰	7.22	6.58	7.23	0.213	-215.6	1.32	200		
8 ⁴⁵	7.23	6.57	6.19	0.213	-214.4	1.38	200		
8 ⁵⁰	7.27	6.58	6.13	0.217	-218.6	1.30	200		
8 ⁵³	7.26	6.57	6.09	0.217	-216.5	1.34	200		

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2 x vial 8260
1 plastic cl-300, NO₃-300, SO₄-300

SAMPLE ID NUMBER(S): MV-7145

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs DATE: _____

TRANSPORTER: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 3.27.13
 WELL NO. 714-D WEATHER: 40's, Rain SAMPLE TIME: 6:30/030
 REMARKS: Fe = 0.0 mg/l SAMPLER(S): 4R

WELL PURGING: STATIC WATER LEVEL: 6.58 ft. WELL DEPTH: 22.20 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: _____ Peristaltic Pump _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
940	9.02	6.60	10.2	0.262	-207.8	1.11	200		
950	9.16	6.58	7.98	0.265	-208.2	1.04	200		
955	8.98	6.55	5.33	0.268	-211.3	0.96	200		
1000	9.34	6.52	4.39	0.266	-217.0	1.03	200		
1005	9.48	6.52	4.12	0.268	-216.4	1.05	200		
1010	9.54	6.52	3.99	0.269	-216.9	1.06	200		
1015	9.93	6.51	3.71	0.270	-218.3	1.04	200		
1020	9.99	6.52	3.75	2.271	-218.6	1.09	200		
1030	SAMPLE								

SAMPLE WITHDRAWAL METHOD: _____ Peristaltic Pump _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

2x 40 Lq/ 8260

1 x plastic Cl-300, NO3-300, SO4-300

SAMPLE ID

NUMBER(s): _____

DECON METHOD: _____ Liquinox _____

PURGE WATER DISPOSED TO : _____

SAMPLES DELIVERED TO: Alpha Labs

DATE: _____

TRANSPORTER: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 2/26/13

WELL NO. MW-7155 WEATHER: Sunny SAMPLE TIME: 10:15

REMARKS: _____ SAMPLER(S): MAM

WELL PURGING:

STATIC WATER LEVEL: 4.64 ft. WELL DEPTH: 16.75 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 105 ml/min.

WELL PURGE DATA:

ex. start purge

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0840	6.06	5.63	141	389	205	2.13	105	5.00	floc in water
0850	6.69	5.61	56.4	345	50	1.12	105	5.05	
0900	6.80	5.67	40.9	323	49	0.84	105	5.10	
0910	7.27	5.72	21.0	317	72	0.58	105	5.15	
0915	7.44	5.75	14.5	312	82	0.57	105	5.18	
0920	7.51	5.79	14.9	311	83	0.46	105	5.18	
0925	7.72	5.80	14.0	311	79	0.43	105	5.18	
0930	7.55	5.82	17.3	311	82	0.42	105	5.18	
0935	7.45	5.83	14.1	311	85	0.38	105	5.18	
0940	7.52	5.85	11.1	310	84	0.35	105	5.18	
0945	7.46	5.85	11.6	310	84	0.34	105	5.18	

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40ml Hcl VOA 8260) Test kit Ferrus Iron (0.05ml)
(1 x 100ml NUP plastic Cl-300, NO3-300, SO4-300)

SAMPLE ID NUMBER(S): MW-7155

DECON METHOD: disposable tubing

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: _____

DATE: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Barker Hughes LOCATION: Bird Machine DATE: 2/26/23

WELL NO. MW-715 WEATHER: _____ SAMPLE TIME: 1015

REMARKS: _____ SAMPLER(S): _____

WELL PURGING:

STATIC WATER LEVEL: _____ ft. WELL DEPTH: _____ ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0950	7.50	5.27	2.70	309	20	0.38	105	5.12	
0955	7.42	5.20	7.29	310	26	0.33	105	5.12	
1000	7.42	5.29	4.31	310	23	0.34	105	5.12	
1005	7.47	5.24	4.42	310	23	0.32	105	5.12	
1010	7.51	5.29	4.13	310	23	0.32	105	5.12	
1015	-collect	5.22							

SAMPLE WITHDRAWAL METHOD: _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

See ps. 1

SAMPLE ID NUMBER(s): _____

DECON METHOD: _____

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: _____ TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker-Hughes LOCATION: Bird Machine DATE: 2/26/13

WELL NO. MW-715-D WEATHER: Sunny SAMPLE TIME: 12:15

REMARKS: _____ SAMPLER(S): MAN

WELL PURGING:

STATIC WATER LEVEL: 4.80 ft. WELL DEPTH: 29.7 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ PUMPING RATE: 150 ml/min.

WELL PURGE DATA:

1031 - start purge

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1031	7.28	6.47	38.5	260	96	3.68	150	5.40	
1036	7.56	6.50	37.3	259	60	3.44	150	5.40	
1041	7.82	6.48	34.1	259	71	3.36	150	5.40	
1051	8.07	6.51	31.3	260	81	3.32	150	5.50	
1101	8.53	6.51	27.3	261	88	3.15	150	5.50	
1111	8.33	6.49	21.3	264	97	2.89	150	5.50	
1121	8.11	6.46	19.4	269	99	2.51	150	5.50	
1131	8.51	6.43	14.2	276	104	2.22	150	5.50	
1141	8.36	6.43	10.6	284	107	2.04	150	5.50	
1151	8.15	6.41	9.60	287	107	1.90	150	5.50	

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(2 x 40ml H₂O (VOA 8260) Test kit Fenox Iron/0.0ml)

(1 x 600ml Np plastic Cl-300, NO₃-300, SO₄-300)

SAMPLE ID NUMBER(S): _____

DECON METHOD: _____

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: _____

TRANSPORTER: _____

DATE: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUND-WATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: _____

WELL NO. MW-715D WEATHER: _____ SAMPLE TIME: 1215

REMARKS: _____ SAMPLER(S): MFJ

WELL PURGING:

STATIC WATER LEVEL: _____ ft. WELL DEPTH: 29.69 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (mS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1201</u>	<u>8.15</u>	<u>6.39</u>	<u>8.79</u>	<u>292</u>	<u>112</u>	<u>1.20</u>	<u>150</u>	<u>5.50</u>	
<u>1206</u>	<u>8.55</u>	<u>6.37</u>	<u>2.35</u>	<u>294</u>	<u>113</u>	<u>1.85</u>	<u>150</u>	<u>5.50</u>	
<u>1211</u>	<u>8.71</u>	<u>6.37</u>	<u>8.31</u>	<u>296</u>	<u>115</u>	<u>1.81</u>	<u>150</u>	<u>5.50</u>	
<u>1215</u>	<u>collect</u>	<u>sample</u>							

SAMPLE WITHDRAWAL METHOD: _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

See p 5. 1

SAMPLE ID NUMBER(s): _____

DECON METHOD: _____

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: _____ TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/29/13

WELL NO. CR-MW-121 WEATHER: cloudy, temp in 60s SAMPLE TIME: 1010

REMARKS: collect pup/ms/MSD SAMPLER(S): MAN
sample depth 19'

WELL PURGING: STATIC WATER LEVEL: 1.85 ft. WELL DEPTH: 21.98 ft.
LENGTH OF SATURATED ZONE: — linear ft. VOLUME OF WATER TO BE EVACUATED: — gals.
VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = — gals.
REMOVAL METHOD: Geopump PUMPING RATE: 150 ml/min.

WELL PURGE DATA: 0930 - start purge

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>0944</u>	<u>14.65</u>	<u>6.33</u>	<u>7.97</u>	<u>245</u>	<u>200</u>	<u>2.11</u>	<u>150</u>	<u>2.10</u>	
<u>0951</u>	<u>14.37</u>	<u>6.30</u>	<u>4.27</u>	<u>245</u>	<u>210</u>	<u>0.17</u>	<u>150</u>	<u>2.10</u>	
<u>0956</u>	<u>14.25</u>	<u>6.35</u>	<u>1.89</u>	<u>244</u>	<u>195</u>	<u>0.18</u>	<u>150</u>	<u>2.10</u>	
<u>1001</u>	<u>14.30</u>	<u>6.38</u>	<u>1.94</u>	<u>243</u>	<u>195</u>	<u>0.17</u>	<u>150</u>	<u>2.10</u>	
<u>1006</u>	<u>14.20</u>	<u>6.38</u>	<u>1.79</u>	<u>244</u>	<u>193</u>	<u>0.18</u>	<u>150</u>	<u>2.10</u>	
<u>1010 - collect</u>	<u>Sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(1x 250ml ANUG plastic field filtered dissolved As)
No Test Kit

SAMPLE ID NUMBER(s): CR-MW-121

DECON METHOD: —

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier

DATE: 5/29 TIME: —

CASING CAPACITY (gallons/linear foot)
1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/20/13
 WELL NO. LR-MW-122 WEATHER: Sunny, warm SAMPLE TIME: 10:25 (10:24)
 REMARKS: well goes dry, sample recharge SAMPLER(S): MAM

WELL PURGING:

STATIC WATER LEVEL: 3.15 ft. WELL DEPTH: _____ ft.

LENGTH OF SATURATED ZONE: — linear ft. VOLUME OF WATER TO BE EVACUATED: — gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = — gals.

REMOVAL METHOD: Geopump PUMPING RATE: — ml/min.

WELL PURGE DATA:

14:16 - start purg

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>14:16</u>									<u>- draw down for recharge</u>
<u>14:21</u>									<u>- well dry</u>
<u>5/20/13</u>									<u>- DTW - 3.15'</u>
<u>10:20</u>	<u>16.35</u>	<u>6.26</u>		<u>276</u>	<u>-35</u>	<u>1.35</u>	<u>200</u>	<u>3.15</u>	
<u>10:25</u>									<u>- collect sample Recharge</u>

SAMPLE WITHDRAWAL METHOD: Geopump, LPDE

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(1 x 250 ml HAWK plastic field filtered d. ischee As)

NO Test kit

SAMPLE ID NUMBER(s): LR-MW-122

DECON METHOD: NA

PURGE WATER DISPOSED TO: Gravel

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: COU...

DATE: 5/25/13

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/29/13

WELL NO. CR-mw-124 WEATHER: Cloudy, temp 60s SAMPLE TIME: 11:15

REMARKS: Sample depth 7.0' SAMPLER(S): MAN
Fe = 0.0 mg/L

WELL PURGING: STATIC WATER LEVEL: 2.91 ft. WELL DEPTH: 7.75 ft.
 LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA: Start 10:36

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>10:46</u>	<u>16.18</u>	<u>6.67</u>	<u>15.7</u>	<u>159</u>	<u>-72</u>	<u>0.75</u>	<u>120</u>	<u>4.03</u>	
<u>10:51</u>	<u>15.59</u>	<u>6.80</u>	<u>14.4</u>	<u>165</u>	<u>-85</u>	<u>0.14</u>	<u>120</u>	<u>4.03</u>	
<u>10:56</u>	<u>15.50</u>	<u>6.88</u>	<u>13.3</u>	<u>168</u>	<u>-90</u>	<u>0.12</u>	<u>120</u>	<u>4.03</u>	
<u>11:01</u>	<u>15.45</u>	<u>6.92</u>	<u>13.7</u>	<u>167</u>	<u>-95</u>	<u>0.11</u>	<u>120</u>	<u>4.03</u>	
<u>11:06</u>	<u>15.48</u>	<u>6.93</u>	<u>14.1</u>	<u>168</u>	<u>-95</u>	<u>0.10</u>	<u>120</u>	<u>4.03</u>	
<u>11:11</u>	<u>15.54</u>	<u>6.94</u>	<u>13.9</u>	<u>167</u>	<u>-91</u>	<u>0.12</u>	<u>120</u>	<u>4.03</u>	
<u>11:15</u>	<u>-collect sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
2 x 40ml Hcl VOA 8260 Test Kit Ferrus Iron = 0.0 mg/L
1 x 250ml Np plastic C1-300, NU-300, SU-300

SAMPLE ID NUMBER(s): CR-mw-124

DECON METHOD:

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Carve

DATE: 5/29/13 TIME:

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

CLIENT: Baker-Hughes LOCATION: Bird Machine DATE: 5/29/13
 WELL NO. LR-mw-129 WEATHER: cloudy, temp in 60's SAMPLE TIME: 12:25
 REMARKS: Sample depth 24' SAMPLER(S): MAM
Fe = 0.0 mg/L

WELL PURGING: STATIC WATER LEVEL: 1.7 ft. WELL DEPTH: 25.32 ft.
 LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA: start 11:55

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1205</u>	<u>14.72</u>	<u>6.73</u>	<u>3.22</u>	<u>317</u>	<u>51</u>	<u>2.15</u>	<u>120</u>	<u>1.80</u>	
<u>1210</u>	<u>14.63</u>	<u>6.72</u>	<u>2.90</u>	<u>315</u>	<u>44</u>	<u>0.18</u>	<u>120</u>	<u>1.80</u>	
<u>1215</u>	<u>14.68</u>	<u>6.72</u>	<u>2.25</u>	<u>314</u>	<u>45</u>	<u>0.13</u>	<u>120</u>	<u>1.80</u>	
<u>1220</u>	<u>14.57</u>	<u>6.72</u>	<u>1.92</u>	<u>314</u>	<u>42</u>	<u>0.11</u>	<u>120</u>	<u>1.80</u>	
<u>1225</u>	<u>-called Surph</u>								

SAMPLE WITHDRAWAL METHOD: Geopump
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(3x40ml Hel UGA 82603) Field Kit Ferrus Druy = (0.0 mg/L)
(1x250ml AP plastic CI-300, AD-300, SO₄-300)

SAMPLE ID NUMBER(s): LR-mw-129
 DECON METHOD:
 PURGE WATER DISPOSED TO: ground
 SAMPLES DELIVERED TO: Alpha TRANSPORTER: Couper
 DATE: 5/29/13 TIME:

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/4/13
 WELL NO. MB-MW-360 WEATHER: sun, 75°F SAMPLE TIME: 1325
 REMARKS: Fe = 0.0 mg/L SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 4.68 ft. WELL DEPTH: 11.8 ft.
 LENGTH OF SATURATED ZONE: 7.12 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: peristaltic pump PUMPING RATE: 200 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1230	12.01	6.43	400	174	20.8	1.46	200	4.81'	
1245	12.96	6.29	145	145	37.2	0.97			
1300	13.65	5.99	15.1	98	100.3	1.63			
1310	13.40	6.00	10.0	89	101.1	1.64			
1315	13.25	6.01	5.0	87	102.9	1.65			
1320	13.41	6.01	4.68	88	104.0	1.66			
<u>sample 1325 @</u>				88	105.7	1.66			
1325	13.44	6.01	4.00	88	109.6	1.66	↓	↓	
<u>Sample 1325</u>									

SAMPLE WITHDRAWAL METHOD: EPA low flow
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
voc 8260 (3x 40 ml vov Hcl); 504, cl, NO3 (1x 250 ml plastic mp)

SAMPLE ID NUMBER(S): MA-MW-360
 DECON METHOD: liquinox / disposable tubing
 PURGE WATER DISPOSED TO: ground
 SAMPLES DELIVERED TO: Alpha TRANSPORTER: MM
 DATE: 6/4/13 TIME: PM

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87
 Low Flow Stabilization Parameters: pH(±0.1), Cond. (±3%), ORP (±10mV), D.O. (±10%), Turbidity (±10%)

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 6/4/13

WELL NO. M3-MW-361 WEATHER: Sunny, temp 78 SAMPLE TIME: 1310

REMARKS: Sample depth 20' Turbidity low SAMPLER(S): MAN
Fe = 0.0 mg/L

WELL PURGING: STATIC WATER LEVEL: 5.05 ft. WELL DEPTH: 24.5 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Grout pump PUMPING RATE: 120 ml/min.

WELL PURGE DATA: Start time 1110

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1130</u>	<u>11.15</u>	<u>6.83</u>	<u>56.1</u>	<u>178</u>	<u>196</u>	<u>0.19</u>	<u>120</u>	<u>7.82</u>	<u>Turbidity</u>
<u>1145</u>	<u>11.25</u>	<u>6.85</u>	<u>75.3</u>	<u>159</u>	<u>173</u>	<u>0.24</u>	<u>120</u>	<u>7.92</u>	<u>going up?</u>
<u>1155</u>	<u>11.20</u>	<u>6.87</u>	<u>89.1</u>	<u>162</u>	<u>168</u>	<u>0.25</u>	<u>120</u>	<u>7.74</u>	
<u>1205</u>	<u>11.35</u>	<u>6.89</u>	<u>102</u>	<u>158</u>	<u>153</u>	<u>0.25</u>	<u>120</u>	<u>8.05</u>	
<u>1225</u>	<u>10.96</u>	<u>6.82</u>	<u>125</u>	<u>157</u>	<u>139</u>	<u>0.28</u>	<u>120</u>	<u>8.41</u>	
<u>1245</u>	<u>10.86</u>	<u>6.79</u>	<u>130</u>	<u>154</u>	<u>129</u>	<u>0.31</u>	<u>120</u>	<u>8.51</u>	
<u>1255</u>	<u>10.50</u>	<u>6.78</u>	<u>131</u>	<u>154</u>	<u>125</u>	<u>0.31</u>	<u>120</u>	<u>8.57</u>	
<u>1300</u>	<u>10.73</u>	<u>6.77</u>	<u>101</u>	<u>153</u>	<u>127</u>	<u>0.31</u>	<u>120</u>	<u>8.63</u>	
<u>1305</u>	<u>10.77</u>	<u>6.76</u>	<u>99</u>	<u>152</u>	<u>125</u>	<u>0.32</u>	<u>120</u>	<u>8.77</u>	
<u>1310</u>	<u>collected sample</u>								

SAMPLE WITHDRAWAL METHOD: Grout pump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(3 x 40ml Hcl Vac save)
(1 x 250ml NP plastic (C, SO₄, NO₃))

SAMPLE ID NUMBER(s): M3-MW-361

DECON METHOD: _____

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: MAN TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker-Hughes LOCATION: Bird Machine DATE: 5/30

WELL NO. MB-mw-362 WEATHER: Sunny, no-w SAMPLE TIME: 1415

REMARKS: Sample depth 17' 0" SAMPLER(S): MAN
Ferrous Iron = 0.0mg/L

WELL PURGING: STATIC WATER LEVEL: 2.70 ft. WELL DEPTH: 19.55 ft.

LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.

REMOVAL METHOD: Geopump PUMPING RATE: 150 ml/min.

WELL PURGE DATA: Start time 13:22

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1332	15.96	6.51	7.78	245	117	1.28	150	2.70	
1337	16.29	6.54	3.98	245	102	0.86	150	2.70	
1342	15.98	6.53	4.74	246	89	0.48	150	2.70	
1347	15.60	6.54	4.25	246	76	0.35	150	2.70	
1352	15.97	6.55	4.85	245	70	0.42	150	2.70	
1357	16.14	6.53	4.61	245	63	0.24	150	2.70	
1402	16.05	6.54	3.71	245	55	0.27	150	2.70	
1407	16.02	6.54	3.83	246	51	0.21	150	2.70	
1412	15.94	6.54	3.91	246	48	0.20	150	2.70	

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(3x40ml vial 8260) (2x20ml Hcl dissolved gases)

(1x250ml Np plast. C1-300, SA-300, NO3-300)

SAMPLE ID NUMBER(S): MB-mw-362

DECON METHOD:

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpine TRANSPORTER: Perth

DATE: TIME:

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/31
 WELL NO. MB-mw-363 WEATHER: Sunny, warm SAMPLE TIME: 1215
 REMARKS: Fe = 0.0mg/L SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: 1.04 ft. WELL DEPTH: 8.50 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: _____ PUMPING RATE: 120 ml/min.

WELL PURGE DATA: Start: 1134

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1144</u>	<u>19.72</u>	<u>6.71</u>	<u>5.23</u>	<u>113</u>	<u>98</u>	<u>2.15</u>	<u>120</u>	<u>1.30</u>	
<u>1154</u>	<u>19.63</u>	<u>6.70</u>	<u>5.30</u>	<u>112</u>	<u>94</u>	<u>1.98</u>	<u>120</u>	<u>1.30</u>	
<u>1204</u>	<u>19.57</u>	<u>6.69</u>	<u>4.95</u>	<u>111</u>	<u>91</u>	<u>1.87</u>	<u>120</u>	<u>1.31</u>	
<u>1209</u>	<u>19.55</u>	<u>6.67</u>	<u>4.40</u>	<u>111</u>	<u>91</u>	<u>1.79</u>	<u>120</u>	<u>1.31</u>	
<u>1214</u>	<u>19.64</u>	<u>6.68</u>	<u>4.08</u>	<u>111</u>	<u>91</u>	<u>1.78</u>	<u>120</u>	<u>1.31</u>	
<u>1215</u>	<u>collect sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(3x-10ml Hcl vial v260) Test Kit = Ferrus Iron 0.0mg/L
(1x 250ml NP Plastic Cl. Sec. Nos)

SAMPLE ID NUMBER(S): MB - mw - 363
 DECON METHOD: _____
 PURGE WATER DISPOSED TO: Ground
 SAMPLES DELIVERED TO: MA Alpha TRANSPORTER: MAN
 DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/29/13
 WELL NO. MB-mw-371 WEATHER: Showers, Temp in Gas SAMPLE TIME: 0925
 REMARKS: Turbid, 4" well, sampled depth 8' SAMPLER(S): AMM

WELL PURGING: STATIC WATER LEVEL: 2.80 ft. WELL DEPTH: 9.92 ft.
 LENGTH OF SATURATED ZONE: — linear ft. VOLUME OF WATER TO BE EVACUATED: — gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = — gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 160 ml/min.

WELL PURGE DATA: 07:46 - start purge

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>0808</u>	<u>16.40</u>	<u>6.23</u>	<u>77.9</u>	<u>145</u>	<u>210</u>	<u>6.13</u>	<u>160</u>	<u>2.85</u>	
<u>0818</u>	<u>16.27</u>	<u>6.29</u>	<u>76.0</u>	<u>105</u>	<u>200</u>	<u>4.79</u>	<u>160</u>	<u>2.85</u>	
<u>0828</u>	<u>16.12</u>	<u>6.31</u>	<u>72.2</u>	<u>92</u>	<u>203</u>	<u>3.48</u>	<u>160</u>	<u>2.85</u>	
<u>0838</u>	<u>16.07</u>	<u>6.32</u>	<u>70.9</u>	<u>85</u>	<u>203</u>	<u>3.22</u>	<u>160</u>	<u>2.85</u>	
<u>0845</u>	<u>16.01</u>	<u>6.32</u>	<u>64.3</u>	<u>89</u>	<u>202</u>	<u>3.51</u>	<u>160</u>	<u>2.85</u>	
<u>0855</u>	<u>16.10</u>	<u>6.33</u>	<u>57.1</u>	<u>95</u>	<u>204</u>	<u>2.82</u>	<u>160</u>	<u>2.85</u>	
<u>0905</u>	<u>16.03</u>	<u>6.34</u>	<u>56.4</u>	<u>103</u>	<u>202</u>	<u>2.47</u>	<u>160</u>	<u>2.85</u>	
<u>0915</u>	<u>16.08</u>	<u>6.36</u>	<u>51.3</u>	<u>108</u>	<u>197</u>	<u>2.46</u>	<u>160</u>	<u>2.85</u>	
<u>0920</u>	<u>16.01</u>	<u>6.35</u>	<u>51.4</u>	<u>109</u>	<u>196</u>	<u>2.47</u>	<u>160</u>	<u>2.85</u>	

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(1 X 250 ml HNO3 field f. Herd dissolved As)

SAMPLE ID NUMBER(S): MB-mw-371

DECON METHOD: —

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Couler

DATE: 5/29/13 TIME: —

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(±0.1), Cond. (±3%), ORP (±10mV), D.O. (±10%), Turbidity (±10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/3/13

WELL NO. MB-MW-374 WEATHER: rain, 75°F SAMPLE TIME: 1300

REMARKS: Fe = 0.65 mg/L SAMPLER(S): ND

WELL PURGING:

STATIC WATER LEVEL: 6.85 ft. WELL DEPTH: 28.55 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1200	17.14	7.05	30.6	290	14.2	7.44	250	6.90'	
1215	16.82	6.88	11.2	269	6.2	1.16	↓	↓	
1230	16.39	6.87	9.19	257	7.3	1.08			
1240	16.22	6.86	8.46	258	13.8	0.64			
1250	16.47	6.86	8.10	257	13.6	0.62			
1255	17.01	6.85	7.94	257	13.0	0.62			
1300	17.20	6.85	7.68	257	13.8	0.61			
Sample 1300									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc 8260 (3x 40ml vial HCl); 504, Cl, NO3 (1x 250ml plastic NP);
dissolved gases (2x vial HCl)

SAMPLE ID

NUMBER(S): MB-MW-374

DECON

METHOD: liquinox / disposable tubing

PURGE WATER DISPOSED

TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: MM

DATE: 6/3/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(±0.1), Cond. (±3%), ORP (±10mV), D.O. (±10%), Turbidity (±10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/30/13
 WELL NO. NP-MW-601 WEATHER: sun, 85°F SAMPLE TIME: 10:40
 REMARKS: Fe = 0.0 mg/L SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 15.43 ft. WELL DEPTH: 28.43 ft.
 LENGTH OF SATURATED ZONE: 13.0 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0950	16.38	6.47	18.6	197	74.0	8.61	250	15.51'	
1005	15.86	6.44	3.19	193	61.0	0.84	↓	↓	
1020	15.52	6.50	2.24	196	34.2	0.39			
1030	16.01	6.52	2.04	195	22.6	0.38			
1035	16.21	6.53	1.97	194	18.4	0.37			
1040	16.04	6.54	1.77	194	13.9	0.37			
sample 10:40									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

voc 8260 (3 x 40 ml voc HCl), Cl, SO4, NO3 (1 x 250 ml plastic NP)

SAMPLE ID NUMBER(S): NP-MW-601

DECON METHOD: disposable tubing, ligninox

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier

DATE: 5/30/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/30/13

WELL NO. NP-MW-602 WEATHER: SUN, 85°F SAMPLE TIME: 11:40

REMARKS: Dup collected SAMPLER(S): NO

Fe = 0.0 mg/L

WELL PURGING: STATIC WATER LEVEL: 10.38 ft. WELL DEPTH: 17.55 ft.

LENGTH OF SATURATED ZONE: 7.17 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: Peristaltic Pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1050	16.06	6.36	25.2	146	110.1	9.80	250	10.40'	
1105	14.34	6.35	6.55	138	92.3	7.61	↓	↓	
1120	14.53	6.34	4.25	137	85.9	7.34			
1130	14.81	6.34	4.01	136	83.2	7.30			
1135	14.91	6.34	3.94	136	82.4	7.31			
1140	14.33	6.33	3.79	136	82.0	7.30			
sample 11:40									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc 8260 (3x vovial 40 ml HCl); 504, Cl, NO3 (1x 250 ml plastic)

SAMPLE ID NUMBER(S): NP-MW-602, NP-MW-602 DP

DECON METHOD: disposable tubing / ligninex

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Carrier

DATE: 5/30/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/30/13

WELL NO. NP-MW-603 WEATHER: Sun, 85°F SAMPLE TIME: 8:15
5/31/13

REMARKS: Fe = 0.0ms/L SAMPLER(S): ND

WELL PURGING:

STATIC WATER LEVEL: 10.90 ft. WELL DEPTH: 23.80 ft.

LENGTH OF SATURATED ZONE: 12.90 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

5/30
5/31

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1150</u>	<u>Pumping well dry</u>								
<u>1210</u>	<u>Well dry</u>								
<u>0815</u>	<u>14.80</u>	<u>7.43</u>	<u>8.29</u>	<u>212</u>	<u>30.4</u>	<u>6.48</u>	<u>250</u>	<u>NA</u>	
	<u>Sample 0815</u>								

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc 8260 (3x 40 ml voa HCl); Cl, 504, NO3 (1x 250ml plastic NP)

SAMPLE ID NUMBER(s): NP-MW-603

DECON METHOD: disposable tubing / liquinox

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier

DATE: 5/31/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/28/13 | 5/29/13
 WELL NO. MW-700 WEATHER: Sun, 75°F SAMPLE TIME: 14:00
 REMARKS: (Fe 20.0mg/L) SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 15.81 ft. WELL DEPTH: 21.90 ft.
 LENGTH OF SATURATED ZONE: 6.09 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: _____ PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
5/28 1350									Begin purging well dry
1420									Well dry.
5/29 1400	12.89	7.20	12.10	164	112.8	8.01	250	NA	sample 1400

SAMPLE WITHDRAWAL METHOD: EPA Low flow
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
Voc 8260 (3x 40 ml voc Hcl); Cl, NO3, SO4 (1x 250 ml plastic nonpres)

SAMPLE ID NUMBER(s): MW-700
 DECON METHOD: liquinox / disposable tubing
 PURGE WATER DISPOSED TO: ground
 SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier
 DATE: 5/29/13 TIME: PM

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87
 Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole MA DATE: 5/29/13
5/30/13
 WELL NO. MW-701 WEATHER: sun/clouds, 75°F SAMPLE TIME: 8:10
 REMARKS: FC=0.0msL SAMPLER(S): NO

WELL PURGING: STATIC WATER LEVEL: 17.04 ft. WELL DEPTH: 22.70 ft.
 LENGTH OF SATURATED ZONE: 5.66 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic Pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

5/29
5/30

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
14:30									Pumping well dry
14:40									well dry
08:10	12.90	7.40	19.2	135	106.1	9.26	250	NA	sample 8:10

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

VOC 8260 (3x 40 ml voa HCl); Cl, NO3, SO4 (1x 250 ml plastic NP)

SAMPLE ID NUMBER(S): MW-701

DECON METHOD: disposable tubing / liquinox

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier

DATE: 5/30/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/29/13

WELL NO. MW-7025 WEATHER: clouds/sun, 75°F SAMPLE TIME: 13:55

REMARKS: Fe=0.0ms/L SAMPLER(S): NO

WELL PURGING:

STATIC WATER LEVEL: 14.95 ft. WELL DEPTH: 21.15 ft.

LENGTH OF SATURATED ZONE: 6.2 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1305	13.62	6.39	13.0 13.6	136	106.2	4.68	250	15.0'	
1320	13.18	6.27	6.0	126	112.7	4.21	↓	↓	
1335	12.82	6.26	4.88	122	116.0	4.19			
1345	13.03	6.26	4.71	122	117.1	4.20			
1350	12.99	6.26	4.72	121	118.0	4.19			
1355	13.10	6.25	4.68	121	118.3	4.18			
sample 1355									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc 8260 (3x 40ml voa HCl); Cl, SO4, NO3 (1x 250 ml plastic non preserved)

SAMPLE ID

NUMBER(s): MW-7025

DECON

METHOD: disposable tubing / liquinox

PURGE WATER DISPOSED

TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Courier

DATE: 5/29/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/29/13

WELL NO. MW-702D WEATHER: clouds 70°F SAMPLE TIME: 12:55

REMARKS: Fe = 0.0ms/L SAMPLER(S): nd

WELL PURGING:

STATIC WATER LEVEL: 15.57 ft. WELL DEPTH: 28.97 ft.

LENGTH OF SATURATED ZONE: 13.4 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1210	13.80	6.92	3.13	228	168.5	4.29	250	15.59'	
1225	13.04	6.34	2.98	215	91.1	3.30		15.65'	
1235	12.90	6.33	2.90	213	87.2	2.55		15.69	
1245	13.15	6.32	2.92	212	88.0	2.51			
1250	13.10	6.32	2.86	212	88.2	2.48			
1255	13.08	6.32	2.88	211	88.4	2.47			
Sample 12:55							↓	↓	

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

VOC 8260 (3x 40ml vial HCl); Cl, SO4, NO3 (1x 250 ml plastic non preserved)

SAMPLE ID

NUMBER(s): MW-702D

DECON

METHOD: disposable tubing / ligninex

PURGE WATER DISPOSED

TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Courier

DATE: 5/29/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/30/13

WELL NO. MW-702B WEATHER: sun, 80°F SAMPLE TIME: 9:35

REMARKS: Fe = 0.0msL SAMPLER(S): NA

WELL PURGING:

STATIC WATER LEVEL: 14.65 ft. WELL DEPTH: 38.30 ft.

LENGTH OF SATURATED ZONE: 23.65 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
8:45	14.35	6.83	203	298	44.5	7.79	250	0	
9:00	15.74	6.54	8.50	250	31.0	1.33	200		
9:15	16.00	6.52	4.59	248	30.1	1.31			
9:25	15.82	6.51	4.44	248	29.2	1.29			
9:30	15.79	6.51	4.33	247	29.0	1.27			
9:35	15.88	6.51	3.09	247	28.6	1.26			
sample 9:35							↓	↓	

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

820 Voc (3 x vials 40 ml HCl) ; Cl, SO4, NO3 (1 x 250 ml plastic NA)

SAMPLE ID

NUMBER(S): MW-702B

DECON

METHOD: disposable tubing / liquinex

PURGE WATER DISPOSED

TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Courier

DATE: 5/30/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/4/13
6/5/13
 WELL NO. MW-703 S WEATHER: sun, 65°F SAMPLE TIME: 0845
 REMARKS: _____ SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 4.45 ft. WELL DEPTH: 16.81 ft.
 LENGTH OF SATURATED ZONE: 12.36 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic pump PUMPING RATE: 200 ml/min.

WELL PURGE DATA:

6/4/13
6/5/13

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0820									Purging well dry
0845									well dry
0845							200	NA	sample recharge
	18.08	7.09	31.0	294	64.2	4.03	200	NA	

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

dissolved As (1x 250 ml plastic HNO3)

SAMPLE ID NUMBER(s): MW-703

DECON METHOD: liquinox / disposable tubing

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: ND

DATE: 6/5/13 TIME: AM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(±0.1), Cond. (±3%), ORP (±10mV), D.O. (±10%), Turbidity (±10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 6/4/13
 WELL NO. MW-7045 WEATHER: Sunny, temp in 70s SAMPLE TIME: 8:10
 REMARKS: well draw down sample recharge SAMPLER(S): NP
Fe = 0.0 mg/L

WELL PURGING: STATIC WATER LEVEL: 3.85 ft. WELL DEPTH: 10.0 ft.
 LENGTH OF SATURATED ZONE: — linear ft. VOLUME OF WATER TO BE EVACUATED: — gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = — gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

6/4/13
 6/5/13

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1045</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>-start well draw down</u>
<u>08:10</u>	<u>16.09</u>	<u>6.98</u>	<u>41.2</u>	<u>166</u>	<u>124.0</u>	<u>5.91</u>	<u>200</u>	<u>NA</u>	<u>sample recharge</u>

SAMPLE WITHDRAWAL METHOD: Geopump
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(3x40ml Hcl vol 8260)
(1x 250ml plastic Cl, NO3, SO4)

SAMPLE ID NUMBER(s): MW-7045
 DECON METHOD: —
 PURGE WATER DISPOSED TO: Ground
 SAMPLES DELIVERED TO: Alpha TRANSPORTER: —
 DATE: — TIME: —

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 6/4/13
 WELL NO. MW-704D WEATHER: Sunny, temp. 70s SAMPLE TIME: 1040
 REMARKS: Intermittent Turb. High limit SAMPLER(S): MAN
Fe = 0.0 mg/L

WELL PURGING: STATIC WATER LEVEL: 2.85 ft. WELL DEPTH: 22 ft.
 LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA: Starting time 8:30

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0845	11.86	6.95	—	343	182	0.43	120		
0900	11.31	7.07	931	302	97	0.16	120	3.65	
0913	11.21	7.11	464	301	92	0.13	120	3.65	
0923	11.59	7.13	271	301	92	0.14	120	3.65	
0933	11.26	7.13	233	302	95	0.11	120	3.65	
0943	11.32	7.13	185	302	94	0.13	120	3.65	
0953	11.25	7.14	96.4	303	95	0.11	120	3.65	
1003	11.41	7.14	78.9	303	96	0.15	120	3.65	
1013	11.15	7.13	60.3	304	99	0.14	120	3.65	
1023	11.37	7.13	57.1	305	98	0.15	120	3.65	
1033	11.23	7.13	41.1	304	97	0.15	120	3.65	

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(3 X 40ml Hel VOC P26013) (2 X 20ml Hel dissolved gases)
(1 X 250ml NP Plastic (Cl, NO3, SO))

SAMPLE ID NUMBER(s): MW-704D
 DECON METHOD:
 PURGE WATER DISPOSED TO: Ground
 SAMPLES DELIVERED TO: MAN TRANSPORTER:
 DATE: TIME:

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/4/13
 WELL NO. MW-7055 WEATHER: sun, 70°F SAMPLE TIME: 9:30
 REMARKS: _____ SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 4.25 ft. WELL DEPTH: 17.25 ft.
 LENGTH OF SATURATED ZONE: 13.0 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>0850</u>	<u>16.15</u>	<u>6.48</u>	<u>50.0</u>	<u>229</u>	<u>81.0</u>	<u>8.96</u>	<u>250</u>	<u>4.30'</u>	
<u>0905</u>	<u>15.55</u>	<u>6.13</u>	<u>8.48</u>	<u>221</u>	<u>93.1</u>	<u>0.36</u>	↓	<u>4.37'</u>	
<u>0920</u>	<u>15.43</u>	<u>6.13</u>	<u>4.91</u>	<u>207</u>	<u>102.2</u>	<u>0.28</u>			
<u>0925</u>	<u>15.42</u>	<u>6.13</u>	<u>4.80</u>	<u>207</u>	<u>103.1</u>	<u>0.27</u>			
<u>0930</u>	<u>15.60</u>	<u>6.12</u>	<u>3.91</u>	<u>206</u>	<u>104.8</u>	<u>0.27</u>			
<u>sample 0930</u>									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Dissolved As (1x 250 ml plastic HNO3)

SAMPLE ID NUMBER(S): MW-7055

DECON METHOD: disposable tubing / liqui-lock

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: MM

DATE: 6/4/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/30/13

WELL NO. MW-7065 WEATHER: Sun, 85°F SAMPLE TIME: 5/31/13 0755

REMARKS: _____ SAMPLER(S): NA

WELL PURGING:

STATIC WATER LEVEL: 3.77 ft. WELL DEPTH: 14.12 ft.

LENGTH OF SATURATED ZONE: 10.25 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
5/30 1405									Pumping well dry
1430									well dry
5/31 0755	14.46	7.41	132	375	57.5	3.38	250	NA	sample 07:55
			132	375	57.5	3.38			

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc^{ar} Arsenic (dissolved) - 1x 250 ml plastic HNO3

SAMPLE ID NUMBER(s): MW-7065

DECON METHOD: disposable tubing / liquinox

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier

DATE: 5/31/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/31/13
 WELL NO. MW-707D WEATHER: SUN, 85° SAMPLE TIME: 0945
 REMARKS: Duplicate collected Fe = 0.0 mg/L SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 6.03 ft. WELL DEPTH: 31.80 ft.
 LENGTH OF SATURATED ZONE: 25.77 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>0845</u>	<u>17.15</u>	<u>6.81</u>	<u>134</u>	<u>764</u>	<u>55.6</u>	<u>7.40</u>	<u>250</u>	<u>6.10'</u>	
<u>0900</u>	<u>17.24</u>	<u>6.81</u>	<u>50.1</u>	<u>708</u>	<u>52.2</u>	<u>1.10</u>			
<u>0915</u>	<u>16.79</u>	<u>6.80</u>	<u>38.3</u>	<u>633</u>	<u>47.8</u>	<u>0.83</u>			
<u>0925</u>	<u>16.16</u>	<u>6.79</u>	<u>15.0</u>	<u>589</u>	<u>45.7</u>	<u>0.21</u>			
<u>0935</u>	<u>16.23</u>	<u>6.79</u>	<u>12.40</u>	<u>572</u>	<u>46.1</u>	<u>0.20</u>			
<u>0940</u>	<u>16.51</u>	<u>6.79</u>	<u>11.71</u>	<u>571</u>	<u>46.0</u>	<u>0.20</u>			
<u>0945</u>	<u>16.48</u>	<u>6.79</u>	<u>11.49</u>	<u>568</u>	<u>45.0</u>	<u>0.19</u>			
<u>sample 0945</u>									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

VOC 8260 (3x 40 ml voa HCl) ; Cl, NO3, SO4 (1x 250 ml plastic NA)

SAMPLE ID NUMBER(S): MW-707D, MW-707D DP

DECON METHOD: disposable tubing / liquinox

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Courier

DATE: 5/31/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/31/13
 WELL NO. MW-708D WEATHER: sun, 85°F SAMPLE TIME: 1055
 REMARKS: Fe=20.0mL SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 5.44 ft. WELL DEPTH: 29.35 ft.
 LENGTH OF SATURATED ZONE: 23.91 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS	
0955	17.60	7.05	44.7	265	7.7	6.50	250	0		
1010	17.49	7.02	68.1	264	10.0	2.64	↓	↓		
1025	17.81	6.94	55.0	265	16.1	2.25				
1035	17.24	6.93	32.1	262	19.3	2.20				
1045	17.29	6.91	30.4	260	21.1	2.19				
1050	17.28	6.91	29.6	260	22.0	2.19				
1055	17.27	6.90	30.2	261	24.0	2.17				
1055	sample									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

8260
Voc (3x 40 ml voa HCl); Cl, SO4, NO3 (1x 250 ml plastic NP)

SAMPLE ID NUMBER(S): MW-708D

DECON METHOD: liquinox / disposable tubing

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier

DATE: 5/31/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(±0.1), Cond. (±3%), ORP (±10mV), D.O. (±10%), Turbidity (±10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/31/13
 WELL NO. MW-708B WEATHER: sun, 90°F SAMPLE TIME: 1225
 REMARKS: re=0.0msL SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 6.05 ft. WELL DEPTH: 55.18 ft.
 LENGTH OF SATURATED ZONE: 49.13 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1135</u>	<u>17.48</u>	<u>7.24</u>	<u>12.1</u>	<u>383</u>	<u>-87.9</u>	<u>2.93</u>	<u>250</u>	<u>6.10</u>	
<u>1150</u>	<u>17.00</u>	<u>7.23</u>	<u>7.10</u>	<u>395</u>	<u>-65.2</u>	<u>0.52</u>	↓	↓	
<u>1205</u>	<u>17.79</u>	<u>7.15</u>	<u>4.03</u>	<u>393</u>	<u>-35.5</u>	<u>0.33</u>	↓	↓	
<u>1215</u>	<u>17.40</u>	<u>7.11</u>	<u>4.00</u>	<u>383</u>	<u>-20.0</u>	<u>0.31</u>	↓	↓	
<u>1220</u>	<u>17.29</u>	<u>7.10</u>	<u>3.68</u>	<u>381</u>	<u>-16.4</u>	<u>0.30</u>	↓	↓	
<u>1225</u>	<u>17.34</u>	<u>7.09</u>	<u>3.20</u>	<u>381</u>	<u>-11.9</u>	<u>0.30</u>	↓	↓	
<u>sample 1225</u>									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

VOC 8260 (3x 40 ml vov Hcl); Cl, SO4, NO3 (1x 250 ml Plastic NP)

SAMPLE ID NUMBER(S): MW-708B

DECON METHOD: disposable tubing / liquinex

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Courier

DATE: 5/31/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: B. Machine DATE: 5/30/17
 WELL NO. MU-7095 WEATHER: Sunny, warm SAMPLE TIME: 1005
 REMARKS: Sample depth 13' SAMPLER(S): 29mm 1005

WELL PURGING: STATIC WATER LEVEL: 2.67 ft. WELL DEPTH: 15.2 ft.
 LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.
 REMOVAL METHOD: PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0947	14.56	6.14	4.77	412	132	0.27	120	2.90	
0952	14.52	6.11	3.13	413	132	0.27	120	2.90	
0957	14.64	6.13	3.91	409	130	0.28	120	2.90	
1002	14.67	6.14	4.62	403	126	0.28	120	2.90	
1005	<u>-collected Sample 2hr later</u>								

SAMPLE WITHDRAWAL METHOD:
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
See ps. 1

SAMPLE ID NUMBER(s):
 DECON METHOD:
 PURGE WATER DISPOSED TO:
 SAMPLES DELIVERED TO: TRANSPORTER:
 DATE: TIME:

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/29/13

WELL NO. LR-MW-709P WEATHER: cloudy, temp in 60's SAMPLE TIME: 1410

REMARKS: Collect Dup/MS/MSP SAMPLER(S): MAM

Fe = 0.0ms/L

WELL PURGING: STATIC WATER LEVEL: 4.3 ft. WELL DEPTH: 31.45 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 140 ml/min.

WELL PURGE DATA: start time = 13:18

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1328	14.38	6.62	29.9	393	30	1.31	140	4.39	
1338	14.54	6.59	16.3	392	33	0.23	140	4.39	
1348	14.72	6.60	9.30	393	38	0.22	140	4.39	
1358	14.72	6.60	3.09	395	46	0.13	140	4.39	
1403	14.80	6.59	1.89	393	48	0.12	140	4.39	
1408	14.85	6.60	1.51	393	54	0.12	140	4.39	
1410	<u>collected sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(3x40ml Hcl VOA 826013) (2x20ml Hcl dissolved gases)
(1x250ml NP plastic C1-300, SO4-300, NO3-300) Test Kit = Ferrous Iron 0.0ms/L

SAMPLE ID NUMBER(S): MW-709D

DECON METHOD: _____

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Apha TRANSPORTER: Coire

DATE: 5/29/13 TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/30/13

WELL NO. MW-7105 WEATHER: Sunny, warm SAMPLE TIME: 1115

REMARKS: Sample depth SAMPLER(S): MA-7

WELL PURGING:

STATIC WATER LEVEL: 1.88 ft. WELL DEPTH: 16.7 ft.

LENGTH OF SATURATED ZONE: — linear ft. VOLUME OF WATER TO BE EVACUATED: — gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

start time: 10:20

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1030</u>	<u>16.11</u>	<u>6.04</u>	<u>7.70</u>	<u>595</u>	<u>83</u>	<u>0.36</u>	<u>120</u>	<u>2.70</u>	
<u>1040</u>	<u>16.05</u>	<u>6.05</u>	<u>5.41</u>	<u>592</u>	<u>77</u>	<u>0.45</u>	<u>120</u>	<u>2.81</u>	
<u>1050</u>	<u>16.17</u>	<u>6.04</u>	<u>3.70</u>	<u>590</u>	<u>76</u>	<u>0.24</u>	<u>120</u>	<u>2.98</u>	
<u>1100</u>	<u>16.18</u>	<u>6.03</u>	<u>3.23</u>	<u>589</u>	<u>75</u>	<u>0.22</u>	<u>120</u>	<u>3.10</u>	
<u>1105</u>	<u>16.27</u>	<u>6.03</u>	<u>3.88</u>	<u>589</u>	<u>74</u>	<u>0.22</u>	<u>120</u>	<u>3.19</u>	
<u>1110</u>	<u>16.24</u>	<u>6.03</u>		<u>589</u>	<u>74</u>	<u>0.22</u>	<u>120</u>	<u>3.21</u>	
<u>1115</u>	<u>-collect samp</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(3x40ml HVOc 8200) (2x20ml Hc (dissolved gases))

(1x250ml NP plastic H-300, S-300, CI-300) Ferrrous Iron: 0.0 mg/L

SAMPLE ID

NUMBER(s): MW-7105

DECON

METHOD: —

PURGE WATER DISPOSED

TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Quire

DATE: 5/30/13

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/30/13
 WELL NO. MW-710M WEATHER: Sunny, warm SAMPLE TIME: 1235
 REMARKS: Ferrous Iron = 0.0 mg/L SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: 1.85 ft. WELL DEPTH: 32.20 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: _____ PUMPING RATE: 120 ml/min.

WELL PURGE DATA: start: 11:25

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1135	16.12	6.75	35.7	203	110	2.13	120	2.38	
1145	15.83	6.74	28.3	205	108	1.19	120	2.39	
1150	15.77	6.73	23.7	210	105	0.37	120	2.42	
1200	15.21	6.73	18.0	216	99	0.23	120	2.42	
1210	15.21	6.74	11.3	217	92	0.19	120	2.42	
1220	16.16	6.74	9.07	217	91	0.12	120	2.42	
1225	16.05	6.75	2.78	217	91	0.19	120	2.42	
1230	15.84	6.75	6.81	215	89	0.15	120	2.42	
1235	<u>-collected sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(3x 40ml Hcl VOCs) (2x 20ml Hcl dissolution gases)
(1x 250 ml MP plastic Cl-300, Se-1-300, No3-300)

SAMPLE ID NUMBER(S): MW-710M

DECON METHOD: _____

PURGE WATER DISPOSED TO: 2 well

SAMPLES DELIVERED TO: Alpha TRANSPORTER: Conc

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/31/73

WELL NO. MW-710D WEATHER: Sunny, warm SAMPLE TIME: 0955

REMARKS: Sample Depth
Fe⁺ = 10.0 mg/L SAMPLER(S): MAM

WELL PURGING:

STATIC WATER LEVEL: 1.88 ft. WELL DEPTH: 43.5 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

Start time 0954

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0814	14.99	7.54	135	289	217	2.09	120	4.40	
0824	14.83	7.75	26.1	194	195	1.38	120	5.02	
0834	14.84	7.62	59.2	132	163	1.86	120	5.65	
0844	14.88	7.55		122	153	1.58	120	6.20	
0854	14.83	7.58		129	140	1.55	120	6.60	
0904	14.89	7.60		133	129	1.51	120	7.00	
0914	15.09	7.61		136	124	1.27	120	7.13	
0924	15.19	7.63		141	112	1.07	120	7.23	
0934	15.41	7.67		148	101	1.03	120	7.37	

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(3 x 400 ml HCl use 8260)

(1 x 250 ml NP Plast. (NO₂, SO₄, Cl)) 2 hr limit

SAMPLE ID NUMBER(S): MW-710D

DECON METHOD: _____

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Ame C

DATE: _____

TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker-Hughes LOCATION: Bird Machine DATE: 5/3/10
 WELL NO. MW-710D WEATHER: Sunny SAMPLE TIME: 0550
 REMARKS: Fe = 0.05L SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: _____ ft. WELL DEPTH: 43.5 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>0954</u>	<u>15.12</u>	<u>7.07</u>	<u>—</u>	<u>150</u>	<u>95</u>	<u>0.92</u>	<u>120</u>	<u>4.44</u>	
<u>0555</u>	<u>collect sample 2 hr. 1.21</u>								

SAMPLE WITHDRAWAL METHOD: _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

See p 5.1

SAMPLE ID NUMBER(s): _____

DECON METHOD: _____

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: _____ TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Bird Machine DATE: 5/31/13
 WELL NO. MW-710B WEATHER: Sunny temp in 90's SAMPLE TIME: 1105
 REMARKS: Sample depth Fe = 0.0 mg/L SAMPLER(S): MA1

WELL PURGING: STATIC WATER LEVEL: 2.10 ft. WELL DEPTH: 64.15 ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA: Stand + m.c. = 0956

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1010</u>	<u>17.85</u>	<u>7.35</u>	<u>33.8</u>	<u>233</u>	<u>-55</u>	<u>1.01</u>	<u>120</u>	<u>3.60</u>	
<u>1020</u>	<u>17.61</u>	<u>7.67</u>	<u>27.3</u>	<u>235</u>	<u>-55</u>	<u>0.67</u>	<u>120</u>	<u>3.91</u>	
<u>1030</u>	<u>17.73</u>	<u>7.72</u>	<u>24.7</u>	<u>231</u>	<u>-33</u>	<u>0.38</u>	<u>120</u>	<u>4.20</u>	
<u>1035</u>	<u>17.68</u>	<u>7.74</u>	<u>15.4</u>	<u>230</u>	<u>-45</u>	<u>0.38</u>	<u>120</u>	<u>4.22</u>	
<u>1040</u>	<u>18.13</u>	<u>7.73</u>	<u>9.17</u>	<u>225</u>	<u>-39</u>	<u>0.32</u>	<u>120</u>	<u>4.23</u>	
<u>1045</u>	<u>18.53</u>	<u>7.73</u>	<u>7.82</u>	<u>227</u>	<u>-38</u>	<u>0.43</u>	<u>120</u>	<u>4.27</u>	
<u>1050</u>	<u>18.42</u>	<u>7.74</u>	<u>7.43</u>	<u>226</u>	<u>-35</u>	<u>0.42</u>	<u>120</u>	<u>4.25</u>	
<u>1055</u>	<u>18.20</u>	<u>7.74</u>	<u>7.02</u>	<u>224</u>	<u>-35</u>	<u>0.41</u>	<u>120</u>	<u>4.25</u>	
<u>1100</u>	<u>18.34</u>	<u>7.73</u>	<u>7.13</u>	<u>223</u>	<u>-32</u>	<u>0.14</u>	<u>120</u>	<u>4.25</u>	

SAMPLE WITHDRAWAL METHOD: Geopump
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(3 x 40ml Hcl vial vial 8266) Test kit = 0.09 mg/L
(1 x 250ml NP plastic Cl-300, Se4-300, NO3-300)

SAMPLE ID NUMBER(s): MW-710B

DECON METHOD: _____

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: MA1

DATE: 5/31/13 TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/3/13

WELL NO. MW-711 S WEATHER: clouds, rain, 75°F SAMPLE TIME: 0000

REMARKS: Fe = 1.6 mg/L SAMPLER(S): ND

WELL PURGING:

STATIC WATER LEVEL: 5.18 ft. WELL DEPTH: 19.75 ft.

LENGTH OF SATURATED ZONE: 14.57 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>0910</u>	<u>15.10</u>	<u>7.47</u>	<u>44.0</u>	<u>136</u>	<u>-86.2</u>	<u>8.02</u>	<u>250</u>	<u>5.24'</u>	
<u>0925</u>	<u>14.55</u>	<u>6.98</u>	<u>24.3</u>	<u>124</u>	<u>-50.4</u>	<u>0.52</u>			
<u>0940</u>	<u>14.46</u>	<u>7.04</u>	<u>14.7</u>	<u>121</u>	<u>-58.5</u>	<u>0.37</u>			
<u>0950</u>	<u>14.34</u>	<u>7.05</u>	<u>12.4</u>	<u>115</u>	<u>-60.9</u>	<u>0.32</u>			
<u>0955</u>	<u>14.46</u>	<u>7.04</u>	<u>11.8</u>	<u>113</u>	<u>-57.3</u>	<u>0.31</u>			
<u>1000</u>	<u>14.42</u>	<u>7.04</u>	<u>12.2</u>	<u>112</u>	<u>-53.9</u>	<u>0.30</u>			
<u>Sample 1000</u>							↓	↓	

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc 8260 (3x 40 ml voa HCl); Cl, NO3, 504 (1x 250 ml plastic NP)

SAMPLE ID

NUMBER(S): MW-711 S, MW-711 S DP, MW-711 S MS, MW-711 S MS D

DECON

METHOD: disposable tubing / liquinox

PURGE WATER DISPOSED

TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: MM

DATE: 6/3/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/3/13
 WELL NO. MW-711D WEATHER: clouds, showers, 75°F SAMPLE TIME: 1130
 REMARKS: Fe = 0.6 mg/L SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 6.30 ft. WELL DEPTH: 36.35 ft.
 LENGTH OF SATURATED ZONE: 30.05 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1040	15.00	7.19	16.6	381	-32.1	6.88	250	6.40'	
1055	14.45	6.86	17.2	414	5.8	0.46			
1110	14.29	6.80	15.8	412	17.1	0.41			
1120	14.46	6.77	16.0	411	23.4	0.33			
1125	14.39	6.76	15.0	410	26.1	0.32			
1130	14.40	6.76	15.2	410	27.2	0.31			
1130 sample							↓	↓	

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Dissolved gases (2x 40 ml vial) ^{HCl}; voc 8260 (3x 40 ml vial, HCl); CI, 504, NO3 (1x 250 ml plastic NP)

SAMPLE ID NUMBER(S): MW-711D

DECON METHOD: disposable tubing / liquinox

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: MM

DATE: 6/3/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/3/13
 WELL NO. MW-7125 WEATHER: clouds, 75°F SAMPLE TIME: 1420
 REMARKS: Fe = 1.4 mg/L SAMPLER(S): no

WELL PURGING: STATIC WATER LEVEL: 5.52 ft. WELL DEPTH: 18.18 ft.
 LENGTH OF SATURATED ZONE: 13.22 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: peristaltic pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1325	17.27	7.08	236	61	72.4	10.62	250	5.68'	
1340	17.88	6.52	98	103	80.5	5.40		5.72'	
1355	18.10	6.54	51.1	103	60.7	2.89			
1405	18.34	6.56	12.3	103	42.2	1.77			
1410	18.39	6.57	11.6	104	33.9	1.49			
1415	18.47	6.57	10.98	104	34.1	1.47			
1420	18.57	6.57	10.66	104	32.6	1.46			
sample 1420							↓	↓	

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

voc 8260 (3x 40 ml vov Hcl); 504, cl, NO3 (1x 250 ml plastic no)

SAMPLE ID NUMBER(s): MW-7125

DECON METHOD: liquinox / disposable tubing

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: MM

DATE: 6/3/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Bind Machine DATE: 6/3/13
 WELL NO. MW-7135 WEATHER: Sunny Rainy SAMPLE TIME: 1255
 REMARKS: FC = 0.0 mg/L SAMPLER(S): MAM

WELL PURGING: STATIC WATER LEVEL: 5.85 ft. WELL DEPTH: _____ ft.
 LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.
 REMOVAL METHOD: Geopun PUMPING RATE: 120 ml/min.

WELL PURGE DATA: Start time 11:25

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1145</u>	<u>15.19</u>	<u>5.95</u>	<u>1000</u>	<u>475</u>	<u>20</u>	<u>1.11</u>	<u>120</u>	<u>6.35</u>	<u>Orange Ploc</u>
<u>1155</u>	<u>15.44</u>	<u>5.98</u>	<u>1000</u>	<u>470</u>	<u>22</u>	<u>0.85</u>	<u>120</u>	<u>6.25</u>	
<u>1210</u>	<u>15.54</u>	<u>6.00</u>	<u>54.6</u>	<u>476</u>	<u>30</u>	<u>0.39</u>	<u>120</u>	<u>6.20</u>	
<u>1220</u>	<u>15.35</u>	<u>6.00</u>	<u>266</u>	<u>472</u>	<u>29</u>	<u>0.20</u>	<u>120</u>	<u>6.20</u>	
<u>1230</u>	<u>15.26</u>	<u>6.01</u>	<u>233</u>	<u>466</u>	<u>21</u>	<u>0.17</u>	<u>120</u>	<u>6.20</u>	
<u>1240</u>	<u>15.37</u>	<u>6.00</u>	<u>223</u>	<u>460</u>	<u>18</u>	<u>0.17</u>	<u>120</u>	<u>6.20</u>	
<u>1245</u>	<u>15.24</u>	<u>6.01</u>	<u>21.4</u>	<u>460</u>	<u>K</u>	<u>0.17</u>	<u>120</u>	<u>6.25</u>	
<u>1250</u>	<u>15.34</u>	<u>5.99</u>	<u>21.2</u>	<u>458</u>	<u>K</u>	<u>0.19</u>	<u>120</u>	<u>6.20</u>	
<u>1255</u>	<u>collect Sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopun
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:
(3 x 40ml HCL W/MS620 B) Test Kit (0.0mg/L)
(1 x 250ml NP plastic Cl, SO₄, NO₃)

SAMPLE ID NUMBER(S): MW-7135
 DECON METHOD: _____
 PURGE WATER DISPOSED TO: _____
 SAMPLES DELIVERED TO: Alpha TRANSPORTER: _____
 DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker-Huges LOCATION: Bird Machine DATE: 6/13/13

WELL NO. MW-713D WEATHER: Cloudy, temp 80 SAMPLE TIME: 1435

REMARKS: Test Kit = 0.0 mda SAMPLER(S): MAM

WELL PURGING:

STATIC WATER LEVEL: 3.10 ft. WELL DEPTH: _____ ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA:

start time = 13:50

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
14:10	17.90	7.03	11.3	285	20	3.35	120	3.10	
14:15	17.59	7.01	7.13	286	20	0.55	120	3.10	
14:20	17.82	7.00	4.70	286	27	0.37	120	3.10	
14:25	18.05	6.99	4.35	288	30	0.27	120	3.10	
14:30	17.96	6.97	5.00	293	35	0.22	120	3.10	
14:35	<u>- collect sample</u>								

SAMPLE WITHDRAWAL METHOD: Geopump

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

- (3x 40ml Hcl Vac 2260)
- (1x 250ml NP Plastic Cl, SO₄, NO₃)

SAMPLE ID NUMBER(s): MW-713D

DECON METHOD: _____

PURGE WATER DISPOSED TO: Ground

SAMPLES DELIVERED TO: MAM TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)

CLIENT: Baker Hughes LOCATION: Band Machine DATE: 6/3/13
 WELL NO. mu-7145 WEATHER: 60S rain SAMPLE TIME: 1605
 REMARKS: Test kit = 0.0 mg/L SAMPLER(S): MAN

WELL PURGING: STATIC WATER LEVEL: 7.61 ft. WELL DEPTH: 12.95 ft.
 LENGTH OF SATURATED ZONE: linear ft. VOLUME OF WATER TO BE EVACUATED: gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = gals.
 REMOVAL METHOD: Geopump PUMPING RATE: 120 ml/min.

WELL PURGE DATA: start time: 905

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
0927	17.17	6.63	59.7	301 238	-22	2.35	120	7.60	
0940	17.34	6.85	43.1	238	-42	0.92	120	7.60	
0950	17.29	6.90	41.3	224	-60	0.81	120	7.60	
1000	17.28	6.92	37.2	222	-59	0.73	120	7.60	
1010	17.37	6.93	33.2	217	-33	0.85	120	7.60	
1020	17.30	6.93	16.4	217	-59	0.37	120	7.60	
1030	17.38	6.93	18.1	216	-63	0.40	120	7.60	
1035	17.33	6.93	16.7	215	-64	0.41	120	7.60	
1040	17.43	6.93	15.3	215	-62	0.42	120	7.60	
1042	17.44	6.93	12.9	214	-64	0.43	120	7.60	

SAMPLE WITHDRAWAL METHOD: Geopump
 LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

(3 x 40ml VOC vials)
(1 x 250ml NP vial C1, SO2, SO3)

SAMPLE ID NUMBER(s): mu-7145
 DECON METHOD:
 PURGE WATER DISPOSED TO: Ground
 SAMPLES DELIVERED TO: Aphi TRANSPORTER:
 DATE: TIME:

CASING CAPACITY (gallons/linear foot)
 1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker-Hughes LOCATION: Bird Machine DATE: 6/3/13

WELL NO. MW-7HS WEATHER: _____ SAMPLE TIME: 105

REMARKS: _____ SAMPLER(S): _____

WELL PURGING:

STATIC WATER LEVEL: _____ ft. WELL DEPTH: _____ ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: _____ gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = _____ gals.

REMOVAL METHOD: _____ PUMPING RATE: _____ ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1050</u>	<u>17.54</u>	<u>6.93</u>	<u>12.9</u>	<u>215</u>	<u>-64</u>	<u>0.42</u>	<u>120</u>	<u>7.60</u>	
<u>1055</u>	<u>17.36</u>	<u>6.93</u>	<u>10.2</u>	<u>214</u>	<u>-64</u>	<u>0.41</u>	<u>120</u>	<u>7.6</u>	
<u>1100</u>	<u>17.52</u>	<u>6.93</u>	<u>10.5</u>	<u>214</u>	<u>-64</u>	<u>0.41</u>	<u>120</u>	<u>7.60</u>	
<u>1105</u>	<u>17.51</u>	<u>6.93</u>	<u>10.7</u>	<u>215</u>	<u>-65</u>	<u>0.41</u>	<u>120</u>	<u>7.6</u>	

SAMPLE WITHDRAWAL METHOD: _____

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

See P5

SAMPLE ID NUMBER(s): _____

DECON METHOD: _____

PURGE WATER DISPOSED TO: _____

SAMPLES DELIVERED TO: _____ TRANSPORTER: _____

DATE: _____ TIME: _____

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 5/30/13

WELL NO. MW-714D WEATHER: sun, 85°F SAMPLE TIME: 14:00

REMARKS: Fe = 0 om/L SAMPLER(S): ND

WELL PURGING:

STATIC WATER LEVEL: 6.10 ft. WELL DEPTH: 22.18 ft.

LENGTH OF SATURATED ZONE: _____ linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.

VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.

REMOVAL METHOD: Peristaltic Pump PUMPING RATE: 250 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
<u>1310</u>	<u>18.44</u>	<u>7.06</u>	<u>24.2</u>	<u>310</u>	<u>61.3</u>	<u>10.01</u>	<u>250</u>	<u>6.20'</u>	
<u>1325</u>	<u>18.18</u>	<u>6.93</u>	<u>9.45</u>	<u>305</u>	<u>40.3</u>	<u>0.34</u>	<u>200</u>	<u>6.45'</u>	
<u>1340</u>	<u>18.63</u>	<u>6.89</u>	<u>5.91</u>	<u>308</u>	<u>32.5</u>	<u>0.27</u>	↓	↓	
<u>1350</u>	<u>17.75</u>	<u>6.88</u>	<u>4.52</u>	<u>307</u>	<u>29.2</u>	<u>0.24</u>	↓	↓	
<u>1355</u>	<u>18.00</u>	<u>6.88</u>	<u>4.09</u>	<u>307</u>	<u>28.4</u>	<u>0.23</u>	↓	↓	
<u>1400</u>	<u>18.20</u>	<u>6.88</u>	<u>4.00</u>	<u>306</u>	<u>28.0</u>	<u>0.22</u>	↓	↓	
<u>Sample 1400</u>									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc 8260 (3x 40 ml voa HCl); Cl, SO4, NO3 (1x 250ml plastic NP)

SAMPLE ID

NUMBER(S): MW-714D

DECON

METHOD: disposable tubing/liquinex

PURGE WATER DISPOSED

TO: ground

SAMPLES DELIVERED TO: Alpha

TRANSPORTER: Courier

DATE: 5/30/13

TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/4/13
 WELL NO. MW-7155 WEATHER: sun, 70°F SAMPLE TIME: 1215
 REMARKS: Fe = 0.0 mg/L SAMPLER(S): ND

WELL PURGING: STATIC WATER LEVEL: 5.24 ft. WELL DEPTH: 16.78 ft.
 LENGTH OF SATURATED ZONE: 11.54 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic pump PUMPING RATE: 200 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1110	12.00	6.28	98.1	341	47.8	4.17	200	5.56'	
1125	11.71	6.22	54.5	346	44.1	2.13	170		
1140	11.11	6.21	34.9	346	46.0	1.40			
1155	11.58	6.21	15.0	342	48.0	1.41			
1205	12.12	6.20	14.46	342	53.7	1.42			
1210	12.14	6.20	14.09	342	54.1	1.41			
1215	11.78	6.20	13.94	341	52.4	1.41			
	Sample 1215								

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

voc 8260 (3x 40ml voc HCl); Cl, SO4, NO3 (1x 500ml plastic NA)

SAMPLE ID NUMBER(S): MW-7155

DECON METHOD: disposable tubing/liquinox

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: MM

DATE: 6/4/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH (+/-0.1), Cond. (+/-3%), ORP (+/-10mV), D.O. (+/-10%), Turbidity (+/-10%)



GROUNDWATER SAMPLING LOG

CLIENT: Baker Hughes LOCATION: Walpole, MA DATE: 6/4/13
 WELL NO. MW-715D WEATHER: sun, 75°F SAMPLE TIME: 1100
 REMARKS: Fe = 0 mg/L SAMPLER(S): NA

WELL PURGING:

STATIC WATER LEVEL: 5.38 ft. WELL DEPTH: 29.70 ft.
 LENGTH OF SATURATED ZONE: 24.32 linear ft. VOLUME OF WATER TO BE EVACUATED: NA gals.
 VOLUME OF WATER TO BE EVACUATED X 3 CASING VOLUMES = NA gals.
 REMOVAL METHOD: Peristaltic pump PUMPING RATE: 200 ml/min.

WELL PURGE DATA:

TIME	TEMP (C)	pH	TURB. (NTU)	COND. (µS/cm)	ORP (mV)	DO (ppm)	flow rate (ml/min)	draw down (ft)	COMMENTS
1010	12.11	6.76	13.7	309	95.8	10.01	200	5.4'	
1025	11.83	6.66	11.7	299	103.4	2.42	120	5.60'	
1040	11.89	6.61	9.87	299	107.3	1.59	↓	5.62'	
1050	11.75	6.59	8.27	300	108.5	1.49			
1055	11.70	6.58	7.98	300	109.5	1.48			
1100	11.72	6.58	7.88	300	110.0	1.48			
Sample 1100									

SAMPLE WITHDRAWAL METHOD: EPA low flow

LABORATORY ANALYSIS, SAMPLE CONTAINERS USED INCLUDING NUMBER, TYPE, AND PRESERVATIVES:

Voc R260 (3x 40 ml voa Hcl); Cl, 504, 203 (1x 500ml plastic NP)

SAMPLE ID NUMBER(S): MW-715D

DECON METHOD: disposable tubing / liquidax

PURGE WATER DISPOSED TO: ground

SAMPLES DELIVERED TO: Alpha TRANSPORTER: MM

DATE: 6/4/13 TIME: PM

CASING CAPACITY (gallons/linear foot)

1" = 0.04, 2" = 0.16, 4" = 0.65, 6" = 1.47, 8" = 2.6, 10" = 4.08, 12" = 5.87

Low Flow Stabilization Parameters: pH(±0.1), Cond. (±3%), ORP (±10mV), D.O. (±10%), Turbidity (±10%)



Appendix D – Laboratory Results

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1303324

AMEC Sample IDs: MW-714S, MW-714D, MB-MW-374, MW-712S, MB-MW-371, LR-MW-121, LR-MW-121-DUP, LR-MW-124, LR-MW-129, LR-MW-122 and TRIP BLANK-02.

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
Chain of Custody				
Sample Receipt (Preservation & Temperature)				
Holding Time				
Trip Blank		NA	NA	NA
Method Blanks				
MS/MSD	An MS/MSD was not submitted for this analysis.	Sample LR-MW-121 was submitted as the source for the MS/MSD.	The lab used a sample from a different SDG.	The lab used a sample from a different SDG.
LCS/LCSD			(LCS only)	(LCS only)
Field Duplicates	A field duplicate was not submitted for this analysis.	Sample LR-MW-121-DUP was submitted as the field duplicate of LR-MW-121.	A field duplicate was not submitted for this analysis.	A field duplicate was not submitted for this analysis.
Laboratory Duplicate	NA	NA	The lab used a sample from a different SDG.	The lab used a sample from a different SDG.
Surrogate Recoveries		NA	NA	NA

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with samples MW-714S, MW-714D, MB-MW-374, MW-712S, LR-MW-124, LR-MW-129 and TRIP BLANK-02, did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00267), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for dichlorodifluoromethane (-27%), acetone (21%), 2-butanone (29%), trans-1,3-dichloropropene (-21%) and 1,2-dibromo-3-chloropropane (-21%). UJ-qualify these analytes in all samples.			
Other Issues	None	None	None	None

Notes:

NA = Not Applicable

ND = Non Detect

RPD = Relative Percent Difference

= Data Reviewed is to be considered acceptable within MCP criteria and without qualification

Qualifiers:

J = Estimated

R = Data is rejected and not suitable for use

UJ = Reporting limit is considered estimated

U = Non-detect

Data Reviewer: Denise King

Date: 03/07/2013



MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1303408

AMEC Sample IDs: MW-709S, MW-709D, MW-709D DUP, MW-710S, MW-710M, NP-MW-601, MW-702B, MW-702S, NP-MW-601 DUP, MW-702D and TRIP BLANK-03.

Data Reviewed	Analysis		
	VOCS – 8260C	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
Chain of Custody			
Sample Receipt (Preservation & Temperature)			
Holding Time			
Trip Blank		NA	NA
Method Blanks			
MS/MSD	Sample MW-709D was submitted as the source for the MS/MSD.	Sample MW-709D was submitted as the source for the MS/MSD.	Sample MW-709D was submitted as the source for the MS/MSD. Methane recovered low in the MSD at 66%. J-qualify methane in sample MW-709D and MW-709D DUP due to the low bias.
LCS/LCSD	Dichlorodifluoromethane recovered low in the LCS at 66%. UJ-qualify in all samples due to the low bias.	(LCS only)	(LCS only)
Field Duplicates	Sample MW-709D DUP was submitted as the field duplicate of sample MW-709D. Sample MW-709D DUP was analyzed at too large of a dilution and was not re-analyzed due to the vials being compromised. The lab narrative indicated that concentrations of TCE, PCE and cis-1,2-dichloroethene matched those of MW-709D. No qualifications are necessary.	Sample MW-709D DUP was submitted as the field duplicate of sample MW-709D. Sample NP-MW-601 DUP was submitted as the field duplicate of sample NP-MW-601.	Sample MW-709D DUP was submitted as the field duplicate of sample MW-709D.

Data Reviewed	Analysis		
	VOCS – 8260C	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
	Sample NP-MW-601 DUP was submitted as the field duplicate of sample NP-MW-601.		
Laboratory Duplicate	NA	The lab used sample MW-709D as the lab duplicate.	The lab used sample MW-709S as the lab duplicate.
Surrogate Recoveries		NA	NA
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with all samples, did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00267), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for dichlorodifluoromethane (-34%), acetone (-26%) and 1,2-dibromo-3-chloropropane (-21%). UJ-qualify these analytes in all samples.		
Other Issues	None	None	None

Notes:

NA = Not Applicable

ND = Non Detect

RPD = Relative Percent Difference

= Data Reviewed is to be considered acceptable within MCP criteria and without qualification

Qualifiers:

J = Estimated

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UJ = Reporting limit is considered estimated

U = Non-detect

Data Reviewer: Denise King

Date: 03/12/2013

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1303582

AMEC Sample IDs: MW-704D, MB-MW-361, MW-707D, MW-705 and TRIP BLANK-05.

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
Chain of Custody				
Sample Receipt (Preservation & Temperature)				
Holding Time				
Trip Blank		NA	NA	NA
Method Blanks				
MS/MSD	An MS/MSD was not submitted with this SDG.	An MS/MSD was not submitted with this SDG.	The lab used sample MB-MW-361 as the source for the MS.	The lab used a sample from a different SDG.
LCS/LCSD	1,2-Dibromo-3-chloropropane recovered low in the LCSD at 66%. Also the LCS/LCSD RPD is elevated at 35%. UJ-qualify 1,2-dibromo-3-chloropropane in all samples.		(LCS only)	(LCS only)
Field Duplicates	A field duplicate was not submitted for this SDG.	A field duplicate was not submitted for this SDG.	A field duplicate was not submitted for this SDG.	A field duplicate was not submitted for this SDG.
Laboratory Duplicate	NA	NA	The lab used sample MB-MW-361 as the source for the lab duplicate.	The lab used a sample from a different SDG.
Surrogate Recoveries		NA	NA	NA
Calibration Issues	The initial calibration, associated with samples MW-704D, MB-MW-361, MW-707D and TRIP BLANK-05, did not meet the			

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
(Deficiencies noted in Narrative)	method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00267), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for dichlorodifluoromethane (-23%). UJ-qualify this analyte in all samples.			
Other Issues	None	None	None	None

Notes:

NA = Not Applicable

ND = Non Detect

RPD = Relative Percent Difference

= Data Reviewed is to be considered acceptable within MCP criteria and without qualification

Qualifiers:

J = Estimated

R = Data is rejected and not suitable for use

UJ = Reporting limit is considered estimated

U = Non-detect

Data Reviewer: Denise King

Date: 03/13/2013

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1303637

AMEC Sample IDs: MB-MW-362, MW-703S, MW-704S, MW-706S, MW-701S, MW-700S, NP-MW-603 and TRIP BLANK-06.

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
Chain of Custody				
Sample Receipt (Preservation & Temperature)	Samples were received at the lab at a temperature of 8°C. The samples were delivered directly from the site on ice and had insufficient time to cool. No qualifications are necessary.	Samples were received at the lab at a temperature of 8°C. The samples were delivered directly from the site on ice and had insufficient time to cool. No qualifications are necessary. Sample MW-703S was received at a pH >2. The lab added additional HNO ₃ to pH <2. No qualification necessary.	Samples were received at the lab at a temperature of 8°C. The samples were delivered directly from the site on ice and had insufficient time to cool. No qualifications are necessary.	Samples were received at the lab at a temperature of 8°C. The samples were delivered directly from the site on ice and had insufficient time to cool. No qualifications are necessary.
Holding Time				
Trip Blank		NA	NA	NA
Method Blanks				
MS/MSD	An MS/MSD was not submitted with this SDG.	An MS/MSD was not submitted with this SDG.	The lab used sample MW-701S as the source for the MS.	The lab used a sample from a different SDG.
LCS/LCSD	Dichlorodifluoromethane recovered low in the LCSD at 68%. UJ-qualify this analyte in all samples due to the low bias.		(LCS only)	(LCS only)
Field Duplicates	A field duplicate was not submitted for this SDG.	A field duplicate was not submitted for this SDG.	A field duplicate was not submitted for this SDG.	A field duplicate was not submitted for this SDG.

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175
Laboratory Duplicate	NA	NA	The lab used sample MW-701S as the source for the lab duplicate.	The lab used a sample from a different SDG.
Surrogate Recoveries		NA	NA	NA
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with all samples, did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00267), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for dichlorodifluoromethane (-27%), 2-butanone (23%), 1,4-dioxane (22%) and 1,4-dichlorobenzene (22%). UJ-qualify these analytes in all samples.			
Other Issues	None	None	None	None

Notes:

NA = Not Applicable

ND = Non Detect

RPD = Relative Percent Difference

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Qualifiers:

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U = Non-detect

Data Reviewer: Denise King

Date: 03/13/2013



MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1309657

AMEC Sample IDs: MW-705S, MW-704D, MW-715D, MW-715S, MB-MW-361, MB-MW-360, TRIP BLANK-05

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Chain of Custody				
Sample Receipt (Preservation & Temperature)				
Holding Time				
Trip Blank		NA	NA	NA
Method Blanks				
MS/MSD	Sampe MW-709D was submitted as the source for the MS/MSD. Acetone recovered below acceptance criteria in the MS/MSD at 52%/57%. 1,4-Dioxane recovered outside of acceptance criteria in the MS/MSD at 42%/163%. The MS/MSD RPD for 1,4-dioxane was above acceptance criteria at 177%. UJ-qualify acetone and 1,4-dioxane in MW-709D and MW-709DDP due to the low bias.	Sampe MW-709D was submitted as the source for the MS/MSD. Methane recovered below acceptance criteria in the MSD at 31%. J-Qualify methane in MW-709D and MW-709DDP due to the low bias.	Sampe LR-MW-121 was submitted as the source for the MS/MSD.	Sampe MW-709D was submitted as the source for the MS/MSD.
LCS/LCSD	Dichlorodifluoromethane (133%), hexachlorobutadiene (134%) and 1,4-dioxane (135%) recovered above acceptance criteria in the LCSD associated with LR-MW-124. The LCS/LCSD RPDs for hexachlorobutadiene (22%) and 1,4-dioxane (26%) exceeded acceptance criteria as well. However these analytes are ND in the sample and not impacted by the high and non-directional bias; no qualifications are necessary.	(LCS only)		(LCS only)

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
	<p>Chloromethane (LCS at 131%), dichlorodifluoromethane (LCSD at 131%), hexachlorobutadiene (139%/148%) and 1,4-dioxane (LCSD at 134%) recovered above acceptance criteria in the LCS/LCSD associated with MW-700, MW-702S, MW-702D, and LR-MW-129. Additionally, the LCS/LCSD RPD recovered above the acceptance criteria for 1,2-dibromo-3-chloropropane (24%). These analytes are ND in the associated samples and not impacted by the high and non-directional bias.</p> <p>1,2-Dibromo-3-chloropropane recovered below acceptance criteria in the LCS at 65%. UJ-qualify 1,2-dibromo-3-chloropropane in MW-700, MW-702S, MW-702D, and LR-MW-129 due to the low bias.</p> <p>1,4-Dioxane (150%/163%) recovered above acceptance criteria in the LCS/LCSD associated with MW-709D, MW-709DDP, and TRIP BLANK -01. 1,4-Dioxane is ND in the associated samples and not impacted by the high bias. No qualifications are necessary.</p>			
Field Duplicates	Sample MW-709DDP was submitted as a field duplicate for MW-709D.	Sample MW-709DDP was submitted as a field duplicate for MW-709D.	Sample LR-MW-121DP was submitted as a field duplicate for LR-MW-121. Results were ND.	Sample MW-709DDP was submitted as a field duplicate for MW-709D.
Laboratory Duplicate	NA	NA	NA	Sample MW-709D was used for the lab duplicate analysis.
Surrogate Recoveries		NA	NA	NA
Calibration Issues (Deficiencies noted in	The initial calibration, associated with samples LR-MW-124, MW-700, MW-702S, MW-702D, and LR-MW-129 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00137) and 4-			

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Narrative)	<p>methyl-2-pentanone (0.08307) as well as the average response factor for 1,4-dioxane and 4-methyl-2-pentanone. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane and 4-methyl-2-pentanone in above samples.</p> <p>The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for tetrahydrofuran (22%), tetrachloroethylene (21%), 1,1,2-trichloroethane (21%), 1,3-dichloropropane (21%), and 1,2-dibromoethane (21%). UJ-qualify these analytes in LR-MW-124.</p> <p>The continuing calibration did not meet the minimum RRF for 1,4-dioxane and 4-methyl-2-pentanone. The continuing calibration standard did not meet the %D method criteria for dichlorodifluoromethane (30%), chloromethane (31%), acetone (-23%), 1,2-dibromo-3-chloropropane (-35%), hexachlorobutadiene (39%), and naphthalene (-27%). UJ-qualify the above-listed analytes in MW-700, MW-702S, MW-702D, and LR-MW-129.</p> <p>The initial calibration, associated with samples MW-709D, MW-709DDP, and Trip Blank-01 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00094) as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples.</p> <p>The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for 2-butanone (-27%), 1,4-dioxane (50%), and hexachlorobutadiene (24%). UJ-qualify the above-listed analytes in MW-709D, MW-709DDP, and Trip Blank-01.</p>			

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Other Issues	None	None	None	None

Notes:

NA = Not Applicable

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RPD = Relative Percent Difference

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Qualifiers:

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UJ = Reporting limit is considered estimated

U = Non-detect

Data Reviewer: Katie Weaver

Date: 6/14/2013

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1309729

AMEC Sample IDs: MW-701, MW-702B, NP-MW-601, NP-MW-602, NP-MW-602DP, MW-714D, MW-709S, MW-710S, MW-710M, MB-MW-362, TRIP BLANK-02

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Chloride – 300, Nitrate – 300, and Sulfate - 300
Chain of Custody			
Sample Receipt (Preservation & Temperature)			
Holding Time			
Trip Blank		NA	NA
Method Blanks			
MS/MSD	An MS/MSD was not submitted for this SDG.	An MS/MSD was not submitted for this SDG.	Sample MW-714D was submitted as the source for the MS.
LCS/LCSD	1,4-Dioxane (135%) recovered above acceptance criteria in the LCS. 1,4-Dioxane is ND in the associated sample and not impacted by the high bias; no qualifications are necessary. Naphthalene recovered below acceptance criteria in the LCS/LCSD at 69%/66%. UJ-qualify naphthalene in all samples due to the low bias.	(LCS only)	(LCS only)
Field Duplicates	Sample NP-MW-602DP was submitted as the field duplicate of sample NP-MW-602. All results were ND.	A field duplicate was not submitted for this analysis.	Sample NP-MW-602DP was submitted as the field duplicate of sample NP-MW-602.
Laboratory Duplicate	NA	NA	The lab used sample MW-714D as the lab duplicate.

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Chloride – 300, Nitrate – 300, and Sulfate - 300
Surrogate Recoveries		NA	NA
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with samples MW-701, MW-702B, NP-MW-601, NP-MW-602, NP-MW-602DP, MW-714D, MW-709S, MW-710S, MW-710M, MB-MW-362, TRIP BLANK-02 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00117), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for dichlorodifluoromethane (-22%), vinyl chloride (-23%), bromomethane (29%), trichlorofluoromethane (-26%), acetone (-28%), 2,2-dichloropropane (-30%), 1,1,1-trichloroethane (-22%), 1,4-dioxane (-35%), bromoform (24%), 1,1,2,2-tetrachloroethane (26%), 1,2,3-trichloropropane (24%), 1,2-dibromo-3-chloropropane (28%), 1,2,4-trichlorobenzene (24%), naphthalene (31%), and 1,2,3-trichlorobenzene (28%). J- or UJ-qualify these analytes in all above samples.		
Other Issues	None	None	None

Notes:

NA = Not Applicable

ND = Non Detect

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Qualifiers:

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UJ = Reporting limit is considered estimated

U = Non-detect

Data Reviewer: Katie Weaver

Date: 6/14/2013

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1309824

AMEC Sample IDs: NP-MW-603, MW-706S, MW-707D, MW-707DDP, MW-708B, MW-708D, MW-710D, MW-710B, MB-MW-363 and TRIP BLANK-03

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Chain of Custody			
Sample Receipt (Preservation & Temperature)	Samples were received at 6.5° C. However, the samples were transported to the laboratory on ice directly from the sampling site. No qualifications are necessary.	Samples were received at 6.5° C. However, the samples were transported to the laboratory on ice directly from the sampling site. No qualifications are necessary.	Samples were received at 6.5° C. However, the samples were transported to the laboratory on ice directly from the sampling site. No qualifications are necessary.
Holding Time			
Trip Blank		NA	NA
Method Blanks			
MS/MSD	An MS/MSD was not submitted for this analysis.	An MS/MSD was not submitted for this analysis.	The lab used sample MW-708D as the source for the MS.
LCS/LCSD	1,4-Dioxane (139%) recovered high in the LCS. 1,4-Dioxane is ND in the associated samples and not impacted by the high bias. 1,1,2,2-Tetrachloroethane (69%/66%), 1,2,3-trichloropropane (LCSD at 67%), 1,2-dibromo-3-chloropropane (68%/63%), naphthalene (63%/59%), 1,2,3-trichlorobenzene (67%/62%), and 1,2,4-trichlorobenzene (LCSD at 68%) recovered low in the LCS and/or LCSD. UJ-qualify these analytes in samples NP-MW-603, MW-707D, MW-707DDP, MW-708B, MW-708D, MW-710D, MW-710B, MB-MW-363 and TRIP BLANK-03 due to the low bias.		(LCS only)
Field Duplicates	Sample MW-707DDP was submitted as the field duplicate of sample MW-707D.	A field duplicate was not submitted for this analysis.	Sample MW-707DDP was submitted as the field duplicate of sample MW-707D.

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Laboratory Duplicate	NA	NA	The lab used sample MW-708D as the lab duplicate.
Surrogate Recoveries		NA	NA
Calibration Issues (Deficiencies noted in Narrative)	<p>The initial calibration, associated with samples NP-MW-603, MW-707D, MW-707DDP, MW-708B, MW-708D, MW-710D, MW-710B, MB-MW-363 and TRIP BLANK-03 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00117), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane and 4-methyl-2-pentanone. The continuing calibration standard did not meet the %D method criteria for bromomethane (30%), tetrahydrofuran (22%), 1,4-dioxane (-39%), 4-methyl-2-pentanone (22%), 1,1,2-trichloroethane (21%), 2-hexanone (21%), bromoform (29%), 1,1,2,2-tetrachloroethane (31%), 1,2,3-trichloropropane (29%), 1,2-dibromo-3-chloropropane (31%), 1,2,4-trichlorobenzene (28%), naphthalene (37%), and 1,2,3-trichlorobenzene (33%). UJ-qualify these analytes in all above samples.</p>		
Other Issues	None	None	None

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Data Reviewer: Katie Weaver

Date: 6/11/2013

MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1309965

AMEC Sample IDs: MW-711S, MW-711SDP, MW-711D, MB-MW-374, MW-712S, MW-714S, MW-713S, MW-713D, TRIP BLANK-04

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Chloride – 300, Nitrate – 300, and Sulfate - 300
Chain of Custody			
Sample Receipt (Preservation & Temperature)			
Holding Time			
Trip Blank		NA	NA
Method Blanks			
MS/MSD	<p>MW-711S was submitted as the source for the MS/MSD. 1,2-Dibromo-3-chloropropane (MS at 65%), naphthalene (MS at 67%), and 1,4-dioxane (MS at 40%) recovered below acceptance criteria in the MS and/or MSD. UJ-qualify 1,2-dibromo-3chloropropane, naphthalene, and 1,4-dioxane in MW-711S and MW-711SDP due to the low bias. Acetone (0%/0%) and 2-butanone (0%/0%) concentrations fell below the reported detection limits. UJ-qualify due to the potential low bias.</p> <p>Hexachlorobutadiene recovered above acceptance criteria in the MSD at 137%. In addition, the MS/MSD RPDs are above the acceptance criteria for 1,2-dibromo-3-chloropropane (28%) and 1,4-dioxane (100%). Results were ND in the associated samples and not impacted by the high and non-directional bias.</p>	An MS/MSD was not submitted for this analysis.	MW-711S was submitted as the source for the MS/MSD.
LCS/LCSD	<p>2-Butanone recovered low in the LCS at 68%. UJ-qualify 2-butanone in samples MW-711S, MW-711SDP, MW-711D, MB-MW-374, MW-712S, MW-714S, MW-713S, MW-713D, TRIP BLANK-04 due to the low bias.</p> <p>1,4-Dioxane (149%/168%) recovered high in the LCS/LCSD. The</p>	(LCS only)	(LCS only)

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Chloride – 300, Nitrate – 300, and Sulfate - 300
	LCS/LCSD RPDs for 2-butanone (25%) and 1,2-dibromo-3-chloropropane (25%) recovered above acceptance criteria. 2-Butanone, 1,2-dibromo-2-chloropropane, and 1,4-dioxane are ND in the associated samples and not impacted by the high bias or non-directional bias.		
Field Duplicates	Sample MW-711SDP was submitted as the field duplicate of sample MW-711S. All results were ND.	A field duplicate was not submitted for this analysis.	Sample MW-711SDP was submitted as the field duplicate of sample MW-711S.
Laboratory Duplicate	NA	NA	The lab used sample MW-711S as the lab duplicate.
Surrogate Recoveries		NA	NA
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with samples MW-711S, MW-711SDP, MW-711D, MB-MW-374, MW-712S, MW-714S, MW-713S, MW-713D, TRIP BLANK-04 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00094), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for 2-butanone (-32%), 1,4-dioxane (49%), 1,2-dibromo-3-chloropropane (-22%), and hexachlorobutadiene (22%). UJ-qualify these analytes in all above samples.		
Other Issues	None	None	None

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Data Reviewer: Katie Weaver
Date: 6/13/2013



MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine

Project Number: 0146790000.00010

Laboratory Name: Alpha Analytical

SDG Number: L1310057

AMEC Sample IDs: MW-705S, MW-704D, MW-715D, MW-715S, MB-MW-361, MB-MW-360, and TRIP BLANK-05

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Chain of Custody				
Sample Receipt (Preservation & Temperature)				
Holding Time				
Trip Blank		NA	NA	NA
Method Blanks				
MS/MSD	An MS/MSD was not submitted with this SDG.	An MS/MSD was not submitted with this SDG.	An MS/MSD was not submitted with this SDG.	An MS/MSD was not submitted with this SDG.
LCS/LCSD	2-Butanone recovered low in the LCS at 68%. UJ-qualify 2-butanone in samples MW-704D, MW-715D, MW-715S, MB-MW-361, MB-MW-360, and TRIP BLANK-05 due to the low bias. 1,4-Dioxane (149%/168%) recovered high in the LCS/LCSD. The LCS/LCSD RPDs for 2-butanone (25%) and 1,2-dibromo-3-chloropropane (25%) were above acceptance criteria. 2-Butanone, 1,2-dibromo-2-chloropropane, and 1,4-dioxane are ND in the associated samples and not impacted by the high bias or non-directional bias.	(LCS only)		(LCS only)
Field Duplicates	A field duplicate was not submitted with this SDG.	A field duplicate was not submitted with this SDG.	A field duplicate was not submitted with this SDG.	A field duplicate was not submitted with this SDG.

Data Reviewed	Analysis			
	VOCS – 8260C	Dissolved Gases (Methane, Ethene, and Ethane) - RSK-175	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Laboratory Duplicate	NA	NA	NA	NA
Surrogate Recoveries		NA	NA	NA
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with samples MW-704D, MW-715D, MW-715S, MB-MW-361, MB-MW-360, and TRIP BLANK-05 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 1,4-dioxane (0.00094), as well as the average response factor for 1,4-dioxane. 1,4-Dioxane is a known difficult analyte with poor purging efficiency. UJ-qualify 1,4-dioxane in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane. The continuing calibration standard did not meet the %D method criteria for 2-butanone (-32%), 1,4-dioxane (49%), 1,2-dibromo-3-chloropropane (-22%), and hexachlorobutadiene (22%). UJ-qualify these analytes in all above samples.			
Other Issues	None	None	None	None

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Data Reviewer: Katie Weaver

Date: 6/13/2013



MCP Presumptive Certainty Data Usability Assessment

Site Name: Bird Machine
 Project Number: 0146790000.00010
 Laboratory Name: Alpha Analytical
 SDG Number: L1310183
 AMEC Sample IDs: MW-704S, MW-703, and TRIP BLANK-06

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Chain of Custody			
Sample Receipt (Preservation & Temperature)			
Holding Time			
Trip Blank		NA	NA
Method Blanks			
MS/MSD	An MS/MSD was not submitted for this SDG.	An MS/MSD was not submitted for this SDG.	Sample MW-704S was submitted as the source for the MS.
LCS/LCSD	1,4-Dioxane (141%) recovered above acceptance criteria in the LCSD. The LCS/LCSD RPD for 2-butanone recovered above acceptance criteria at 25%. 1,4-Dioxane and 2-butanone are ND in the associated samples and are not impacted by the high and non-directional bias. 2-Butanone (64%) recovered below acceptance criteria in the LCSD. UJ-Qualify 2-butanone in MW-704S due to the low bias.		(LCS only)
Field Duplicates	A field duplicate was not submitted with this SDG.	A field duplicate was not submitted with this SDG.	A field duplicate was not submitted with this SDG.
Laboratory Duplicate	NA	NA	The lab used sample MW-704S as the lab duplicate.
Surrogate Recoveries		NA	NA

Data Reviewed	Analysis		
	VOCS – 8260C	Dissolved Arsenic – 6020A	Chloride – 300, Nitrate – 300, and Sulfate - 300
Calibration Issues (Deficiencies noted in Narrative)	The initial calibration, associated with samples MW-704S and TRIP BLANK-06 did not meet the method required minimum relative response factor (RRF) for the lowest calibration standard for 4-methyl-2-pentanone (0.08307) and 1,4-dioxane (0.00137), as well as the average response factor for 4-methyl-2-pentanone and 1,4-dioxane. 1,4-Dioxane and 4-methyl-2-pentanone are known difficult analytes with poor purging efficiency. UJ-qualify 1,4-dioxane and 4-methyl-2-pentanone in above samples. The continuing calibration did not meet the minimum RRF for 1,4-dioxane and 4-methyl-2-pentanone. The continuing calibration standard did not meet the %D method criteria for bromomethane (-23%) and naphthalene (-26%). UJ-qualify these analytes in all above samples.		
Other Issues	None	None	None

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Data Reviewer: Katie Weaver

Date: 6/14/2013

Laboratory Report Documentation
RTN 4-3024222
Former Bird Machine Company Site
Walpole, MA

Full copies of the laboratory analytical reports are available from the Massachusetts Department of Environmental Protection website at:

<http://public.dep.state.ma.us/SearchableSites2/Search.aspx>