**CHAIN OF CUSTODY**

**Client Sample ID:** GL-02D

**Tag:**  

**Date of Purging:**  

**Start Time:** 10:15  

**Finish Time:** 11:00  

**Weather:**  

---

**Well Status:**

- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

---

**Diameter of Well Casing (inches):** 

**Depth Measurements Performed (PVC/Metal):** PVC

**Depth to Water from Top of Casing (0.01 ft.) prior to purging:** 22.37

**Depth to Bottom from Top of Casing (0.01 ft.):** 

**Depth of Water in the Well (gallon):** 

**Volume of water in the Well (gallon):** 

**Depth to Water from Top of Casing (0.01 ft.) after purging:** 22.51

---

**Number of minutes purged**  

<table>
<thead>
<tr>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.2</td>
<td>11.4</td>
<td>12.2</td>
<td>12.8</td>
<td>12.1</td>
<td>12.1</td>
</tr>
</tbody>
</table>

**Temperature (°C):**

- 3.66
- 3.63
- 3.63
- 3.63
- 3.63
- 3.63
- 3.63

**pH:**

**Specific Conductance (umhos/cm):**  

**Dissolved Oxygen (mg/l):**

**Oxidation Reduction (eH):**

---

**Purging Equipment:**

- Peristaltic Pump  
- Bladder Pump

**Well Observation:**

- Odor:  
- Color:  

---

**Rate of Purge:** 150 ml/min

---

**Comments:**

---

**Reference SOP Field-014**

**Readings were performed on date of sampling:**  

**Tech:**

---

**Sampled by:** [Signature]  

**Printed Name:**

**Date/Time:** 4/1/11  

**Received by:**

**Printed Name:**

**Relinquished by:**

**Printed Name:**

**Date/Time:**

**Received by:**

**Printed Name:**

---

**Cooler Temp:**  

**Cooler Number:**

---

Page 4 of 51
Client: Severstal Sparrows Point  
Project: Landfill  
Project Number: Landfill  

Client Sample ID: GL-02S  
Date of Purging: 1/11  
Start Time: 7:30  
Finish Time: 10:00  
Weather:  

Well Status:  
- Good ✓  
- Grout  
- Casing  
- Lock  
- Obstructions  

Diameter of Well Casing (inches):  
Depth Measurements Performed (PVC/Metal): 5  
Depth to Water from Top of Casing (0.01 ft.) prior to purging: 22.37  
Depth to Bottom from Top of Casing (0.01 ft.):  
Depth of Water in the Well (gallon):  
Volume of water in the Well (gallon):  
Depth to Water from Top of Casing (0.01 ft.) after purging: 22.51  

Number of minutes purged:  
Temperature (°C):  
- 0: 11.4  
- 3: 11.4  
- 6: 11.4  
- 9: 11.4  
- 12: 11.4  
- 15: 11.4  

pH:  
- 0: 7.84  
- 3: 7.91  
- 6: 7.97  
- 9: 7.97  
- 12: 7.87  
- 15: 7.87  
Specific Conductance (umhos/cm):  
- 0: 1810  
- 3: 1810  
- 6: 1811  
- 9: 1807  
- 12: 1807  
- 15: 1807  
Dissolved Oxygen (mg/l):  
- 0: 2.11  
- 3: 2.10  
- 6: 2.14  
- 9: 2.11  
- 12: 2.11  
- 15: 2.11  
Oxidation Reduction (eH):  
- 0: 254  
- 3: 250  
- 6: 250  
- 9: 253  
- 12: 253  
- 15: 253  
Purging Equipment:  
- Peristaltic Pump ✓  
- Bladder Pump  
Well Observation:  
- Odor: Odorless  
- Color: Clear  
Rate of Purge: 15 ml/min  

Sample Reading:  

Comments:  
Reference SOP Field-014  
Readings were performed on date of sampling 1/11/11. Tech  

Sampled by:  
Printed Name:  
Date/Time: 1/11/11  
Received by:  
Printed Name:  
Relaunched by:  
Date/Time:  
Received by:  
Printed Name:  

Cooler Temp:  
Cooler Number:  

Page 2 of 51
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: G-1 - G-0 - D
Site: Sparrows Point, MD
Tag:

Date of Purging: 3/15/01
Start Time: 8:35
Finish Time: 9:40
Weather: 32°F, 50% Chance of Rain
Date of Collection: 3/12/01
Time of Collection: 8:12

Well Status:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Grout</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Casing</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Lock</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Obstructions</td>
<td></td>
</tr>
</tbody>
</table>

Diameter of Well Casing (inches): 7
Depth Measurements Performed (PVC/Metal): PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging: 13.93 ft.
Depth to Bottom from Top of Casing (0.01 ft.): 25.47 ft.
Depth of Water in the Well (gallon): --------
Volume of water in the Well (gallon): --------
Depth to Water from Top of Casing (0.01 ft.) after purging: 14.73 ft.
Depth to Water from Top of Casing (0.01 ft.) at time of sampling: 14.73 ft.

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>11.5</td>
<td>11.8</td>
<td>11.9</td>
<td>11.7</td>
<td>11.8</td>
</tr>
<tr>
<td>pH</td>
<td>8.11</td>
<td>8.10</td>
<td>8.11</td>
<td>8.10</td>
<td>8.10</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>1275</td>
<td>1273</td>
<td>1279</td>
<td>1273</td>
<td>1278</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/L)</td>
<td>2.41</td>
<td>2.47</td>
<td>2.38</td>
<td>2.38</td>
<td>2.35</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td>401.9</td>
<td>401.7</td>
<td>327.8</td>
<td>326.0</td>
<td>326.4</td>
</tr>
</tbody>
</table>

**Purging Equipment**
- Peristaltic Pump: ✔
- Bladder Pump: 

**Well Observation**
- Odor: ✔ Odor
- Color: ✔ Clear

**Rate of Purge:** 150 milliliters/minute

**Comments:**

Reference SOP Field-014
Readings were performed on date of sampling: 3/12/01 (Tech: TCO)

HQN: groundsg.doc.white
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: G1 0.3 S

Site: Sparrows Point, MD
Tag: 

Date of Collection: 5/11/11 Time of Collection: 9:50

Well Status:
- Good □
- Grout □
- Casing □
- Lock □
- Obstructions □

Diameter of Well Casing (inches) 2
Depth Measurements Performed (PVC/Metal) 5.5
Depth to Water from Top of Casing (0.01 ft.) prior to purging 3
Depth to Bottom from Top of Casing (0.01 ft.) 
Depth of Water in the Well (gallon) 
Volume of water in the Well (gallon) 
Depth to Water from Top of Casing (0.01 ft.) after purging 0.24
Depth to Water from Top of Casing (0.01 ft.) at time of sampling 

<table>
<thead>
<tr>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>9.9</td>
<td>9.9</td>
<td>9.9</td>
<td>10.1</td>
<td>10.1</td>
<td>16.1</td>
</tr>
<tr>
<td>pH</td>
<td>11.97</td>
<td>12.02</td>
<td>12.06</td>
<td>12.02</td>
<td>12.06</td>
<td>12.06</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>14.05</td>
<td>14.06</td>
<td>14.06</td>
<td>14.06</td>
<td>14.16</td>
<td>14.16</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>1.31</td>
<td>1.03</td>
<td>1.06</td>
<td>1.01</td>
<td>0.98</td>
<td>0.97</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td>13.7</td>
<td>13.9</td>
<td>13.7</td>
<td>13.3</td>
<td>12.3</td>
<td>12.3</td>
</tr>
</tbody>
</table>

**Purging Equipment**
- Peristaltic Pump □
- Bladder Pump □

**Well Observation**
- Odor: None
- Color: Clear

**Rate of Purge** 150 milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 5/11/11 (Tech: )
Microbac Laboratories, Inc.
Baltimore Division
2101 Van Deman Street • Baltimore, MD 21224

CHAIN OF CUSTODY

Client Sample ID: GL-05 (-25)
Tag: _______ Date of Purging: 6/14/11 Start Time: 9:15 Finish Time: 10:15 Weather: Sunny

Well Status:
- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

Diameter of Well Casing (inches): 2
Depth Measurements Performed (PVC/Metal): PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging: 39.40
Depth to Bottom from Top of Casing (0.01 ft.): -
Depth of Water in the Well (gallon): -
Volume of water in the well (gallon): -
Depth to Water from Top of Casing (0.01 ft.) after purging: 39.40

Number of minutes purged
- 0
- 3
- 6
- 9
- 12
- 15
Sample Reading
- Temperature (°C)
  - 14.5
- pH
  - 6.12
- Specific Conductance (umhos/cm)
  - 3160
- Dissolved Oxygen (mg/l)
  - 3.13
- Oxidation Reduction (eH)
  - 424.5

Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor: None
- Color: Clear

Rate of Purge: 152 ml/min

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 6/14/11. Tech

Sampled by: [Signature]
Printed Name: [Name]
Date/Time: 6/14/11 (1:00)

Delivered by: [Signature]
Printed Name: [Name]
Date/Time: 6/14/11 (1:00)

Reprinted by: [Signature]
Printed Name: [Name]
Date/Time: 6/14/11 (1:00)

Cooler Temp: [Temperature]
Cooler Number: [Number]
Client Sample ID: GL-05S

Tag: ~ Date of Purging: 4/4/11 Start Time: 13:10 Finish Time: 15:00 Weather: Clear

Well Status:
- Good √ Grout
- Good √ Casing
- Good √ Lock
- Good Obstructions

Diameter of Well Casing (inches): 3
Depth Measurements Performed (PVC/Metal): PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging: 21.68
Depth to Bottom from Top of Casing (0.01 ft.): ~
Depth of Water in the Well (gallon): ~
Volume of water in the Well (gallon): ~
Depth to Water from Top of Casing (0.01 ft.) after purging: 21.83

Number of minutes purged
<table>
<thead>
<tr>
<th>Time (min)</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>13.1</td>
<td>13.4</td>
<td>13.4</td>
<td>13.7</td>
<td>13.9</td>
<td>13.9</td>
</tr>
<tr>
<td>pH</td>
<td>5.64</td>
<td>5.51</td>
<td>5.48</td>
<td>5.41</td>
<td>5.41</td>
<td>5.11</td>
</tr>
<tr>
<td>Specific Conductance (mhos/cm)</td>
<td>1352</td>
<td>1419</td>
<td>1419</td>
<td>1419</td>
<td>1419</td>
<td>1419</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>1.11</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
<td>1.10</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td>270.5</td>
<td>266.3</td>
<td>266.5</td>
<td>266.5</td>
<td>266.5</td>
<td>266.5</td>
</tr>
</tbody>
</table>

Purging Equipment
- Peristaltic Pump 🍀
- Bladder Pump 🌈

Rate of Purge: 750 ml/min

Sample Reading

<table>
<thead>
<tr>
<th>Time (min)</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor</td>
<td>NOSE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>Clean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:

Reference SOP Field-014
Readings were performed on date of sampling: 4/4/11. Tech: TAK

Sampled by: 
Printed Name: 
Date/Time: 
Received by: 
Printed Name: 
Refill/ined by: 
Printed Name: 
Date/Time: 
Received by: 
Printed Name: 

Cooler Temp: 
Cooler Number: 

Page 10 of 51
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: G1 - 08 A
Site: Sparrows Point, MD
Tag:

Date of Collection: 3/23/11 Time of Collection: 13:30

Well Status:
- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

Diameter of Well Casing (inches)
Depth Measurements Performed (PVC/Metal)
Depth to Water from Top of Casing (0.01 ft.) prior to purging
Depth to Bottom from Top of Casing (0.01 ft.)
Depth of Water in the Well (gallon)
Volume of water in the Well (gallon)
Depth to Water from Top of Casing (0.01 ft.) after purging
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>13.0</td>
<td>13.1</td>
<td>13.7</td>
<td>13.7</td>
<td>13.7</td>
</tr>
<tr>
<td>pH</td>
<td>6.30</td>
<td>6.31</td>
<td>6.32</td>
<td>6.31</td>
<td>6.31</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>3740</td>
<td>3740</td>
<td>3740</td>
<td>3740</td>
<td>3740</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>3.76</td>
<td>3.76</td>
<td>3.76</td>
<td>3.76</td>
<td>3.76</td>
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<tr>
<td>Oxidation Reduction (eH)</td>
<td>131.6</td>
<td>131.6</td>
<td>131.6</td>
<td>131.6</td>
<td>131.6</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor: None
- Color: None

Rate of Purge milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 3/23/11. (Tech - )
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL  
Well I.D.: C2C 0S5  
Site: Sparrows Point, MD  
Tag:  
Date of Purging: 3/23/11  
Start Time: 14:10  
Finish Time:  
Weather:  
Date of Collection: 3/23/11  
Time of Collection:  

Well Status:
- Good  
- Grout  
- Casing  
- Lock  
- Obstructions

Diameter of Well Casing (inches)  
Depth Measurements Performed (PVC/Metal)  
Depth to Water from Top of Casing (0.01 ft.) prior to purging  
Depth to Bottom from Top of Casing (0.01 ft.)  
Depth of Water in the Well (gallon)  
Volume of water in the Well (gallon)  
Depth to Water from Top of Casing (0.01 ft.) after purging  
Depth to Water from Top of Casing (0.01 ft.) at time of sampling  

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>10.18</td>
<td>10.18</td>
<td>10.18</td>
<td>10.17</td>
<td>10.17</td>
<td>10.17</td>
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<tr>
<td>pH</td>
<td>11.36</td>
<td>11.36</td>
<td>11.36</td>
<td>11.31</td>
<td>11.31</td>
<td>11.30</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>2.48</td>
<td>2.49</td>
<td>2.49</td>
<td>2.48</td>
<td>2.48</td>
<td>2.48</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>3.71</td>
<td>3.75</td>
<td>3.69</td>
<td>3.63</td>
<td>3.65</td>
<td>3.64</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td>7.66</td>
<td>7.66</td>
<td>7.66</td>
<td>7.66</td>
<td>7.66</td>
<td>7.66</td>
</tr>
</tbody>
</table>

Purging Equipment
- Peristaltic Pump  
- Bladder Pump

Well Observation
- Odor:  
- Color:

Rate of Purge: 150 milliliters / minute

Comments:

Reference SOP Field: 014
Readings were performed on date of sampling 3/23/11. (Tech - Th )

HQN: groundsg.doc.white
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: G109 D

Site: Sparrows Point, MD
Tag:

Date of Purging: 3/13/11 Start Time: 11:00 Finish Time: 11:40 Weather: ENE
Date of Collection: 3/23/11 Time of Collection: 11:16

Well Status:
- Good
- Grout cracked
- Casing
- Lock
- Obstructions

Diameter of Well Casing (inches): 2
Depth Measurements Performed (PVC/Metal): PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging: 9.80
Depth to Bottom from Top of Casing (0.01 ft.):
Depth of Water in the Well (gallon):
Volume of water in the Well (gallon):
Depth to Water from Top of Casing (0.01 ft.) after purging:
Depth to Water from Top of Casing (0.01 ft.) at time of sampling:

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>13.1</td>
</tr>
<tr>
<td>3</td>
<td>6.14</td>
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<tr>
<td>6</td>
<td>7.07</td>
</tr>
<tr>
<td>9</td>
<td>17.46</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Temperature (°C)
pH
Specific Conductance (umhos/cm)
Dissolved Oxygen (mg/l)
Oxidation Reduction (eH)

Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor: None
- Color: Clean

Rate of Purge: 150 milliliters/minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling. (Tech - )
Report #

Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL  
Well I.D.: 61 095  
Site: Sparrows Point, MD  
Tag:  

Date of Purging: 3/23/11  
Start Time: 11:45  
Finish Time: 12:40  
Weather: 41°F  
Date of Collection: 3/23/11  
Time of Collection: 12:05  

Well Status:

<table>
<thead>
<tr>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
</tr>
<tr>
<td>Good</td>
</tr>
<tr>
<td>Good</td>
</tr>
<tr>
<td>Good</td>
</tr>
</tbody>
</table>

Diameter of Well Casing (inches)  
Depth Measurements Performed (PVC/Metal)  
Depth to Water from Top of Casing (0.01 ft.) prior to purging  
Depth to Bottom from Top of Casing (0.01 ft.)  
Depth of Water in the Well (gallon)  
Volume of water in the Well (gallon)  
Depth to Water from Top of Casing (0.01 ft.) after purging  
Depth to Water from Top of Casing (0.01 ft.) at time of sampling  

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of minutes purged</td>
<td>0 3 6 9 12</td>
</tr>
<tr>
<td>Temperature (°C)</td>
<td>10.4 10.4 10.3 10.3 10.3 10.3</td>
</tr>
<tr>
<td>pH</td>
<td>10.16 10.17 10.18 10.18 10.18 10.18</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>269.3 269.3 269.3 269.3 269.3 269.3</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>1.49 1.49 1.49 1.49 1.49</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td>12-16 12-16 12-16 12-16 12-16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Purging Equipment</th>
<th>Well Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peristaltic Pump</td>
<td>Odor</td>
</tr>
<tr>
<td>Bladder Pump</td>
<td>Color</td>
</tr>
</tbody>
</table>

Rate of Purge ________ milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling_______/_____/_____. (Tech – )

HQ:groundisp.doc.white
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: C-10 A
Site: Sparrows Point, MD
Tag:

Date of Purging: 3/22/11 Start Time: 13:00 Finish Time: 17:10 Weather: Cloudy
Date of Collection: 3/22/11 Time of Collection: 13:40

Well Status:
- Good
- Grout
- Casing
- Lock
- Obstructions

Diameter of Well Casing (inches)
Depth Measurements Performed (PVC/Metal)
Depth to Water from Top of Casing (0.01 ft.) prior to purging
Depth to Bottom from Top of Casing (0.01 ft.)
Depth of Water in the Well (gallon)
Volume of water in the Well (gallon)
Depth to Water from Top of Casing (0.01 ft.) after purging
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature ( °C )</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td></td>
</tr>
<tr>
<td>Specific Conductance (mhos/cm)</td>
<td></td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td></td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Peristaltic Pump</th>
<th>Well Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bladder Pump</td>
<td>Odor (None)</td>
</tr>
<tr>
<td>Color (Clear)</td>
<td></td>
</tr>
</tbody>
</table>

Rate of Purge: 120 mlliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 3/22/11. (Tech - )
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: 6014H-5
Site: Sparrows Point, MD
Tag:

Date of Purging: 3/12/14  Start Time: 14:15  Finish Time: 15:10  Weather: S W E C
Date of Collection: 3/12/14  Time of Collection: 14:35

Well Status:

- Good
- Grout
- Casing
- Lock
- Obstructions

Diameter of Well Casing (inches)
Depth Measurements Performed (PVC/Metal)
Depth to Water from Top of Casing (0.01 ft.) prior to purging
Depth to Bottom from Top of Casing (0.01 ft.)
Depth of Water in the Well (gallon)
Volume of water in the Well (gallon)
Depth to Water from Top of Casing (0.01 ft.) after purging
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

Number of minutes purged
Temperature (°C)

<table>
<thead>
<tr>
<th>Time</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12.7</td>
<td>12.8</td>
<td>12.7</td>
<td>12.6</td>
<td>12.6</td>
</tr>
</tbody>
</table>

pH

<table>
<thead>
<tr>
<th>Time</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6.7</td>
<td>5.9</td>
<td>5.9</td>
<td>5.9</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Specific Conductance (umhos/cm)

<table>
<thead>
<tr>
<th>Time</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>8.7</td>
<td>7.1</td>
<td>7.1</td>
<td>7.1</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Dissolved Oxygen (mg/l)

<table>
<thead>
<tr>
<th>Time</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
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<tr>
<td>0</td>
<td>2.7</td>
<td>2.7</td>
<td>2.7</td>
<td>2.7</td>
<td>2.7</td>
</tr>
</tbody>
</table>

Oxidation Reduction (eH)

<table>
<thead>
<tr>
<th>Time</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
</tr>
</tbody>
</table>

Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor: None
- Color: Clear

Rate of Purge: 15.0 milliliters/minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling: 3/12/14 (Tech: J. W.)
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Site: Sparrows Point, MD
Well I.D.: 6L - 11 0
Tag: 

Date of Purging: 3/23/11 Start Time: 9:00  Finish Time: 10:00 Weather: 
Date of Collection: 3/23/11 Time of Collection: 9:25

Well Status:

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<th>Status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>✓</td>
</tr>
<tr>
<td>Grout</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>✓</td>
</tr>
<tr>
<td>Casing</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Lock</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Obstructions</td>
<td></td>
</tr>
</tbody>
</table>

Diameter of Well Casing (inches)
Depth Measurements Performed (PVC/Metal)

Depth to Water from Top of Casing (0.01 ft.) prior to purging
Depth to Bottom from Top of Casing (0.01 ft.)
Depth of Water in the Well (gallon)
Volume of water in the Well (gallon)
Depth to Water from Top of Casing (0.01 ft.) after purging
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

<table>
<thead>
<tr>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

Number of minutes purged
Temperature (°C)

<table>
<thead>
<tr>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.8</td>
<td>12.8</td>
<td>12.8</td>
<td>12.8</td>
<td>12.8</td>
</tr>
</tbody>
</table>

pH

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

Specific Conductance (umhos/cm)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

Dissolved Oxygen (mg/l)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

Oxidation Reduction (eH)

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

Purging Equipment
Peristaltic Pump ✓
Bladder Pump

Well Observation
Odor: 
Color: 

Rate of Purge 150 milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 3/23/11. (Tech )
Client: SEVERSTAL  
Site: Sparrows Point, MD
Well I.D.: GL 11 6
Tag: 

Date of Purging: 12/3/11  Start Time: 10:00  Finish Time: 12:30  Weather: Overcast
Date of Collection: 1/23/11  Time of Collection: 10:12 a.m.

Well Status:

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Grout</td>
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<tr>
<td>Good</td>
<td>Casing</td>
</tr>
<tr>
<td>Good</td>
<td>Lock</td>
</tr>
<tr>
<td>Good</td>
<td>Obstructions</td>
</tr>
</tbody>
</table>

Diameter of Well Casing (inches)

Depth Measurements Performed (PVC/Metal)
PVC

Depth to Water from Top of Casing (0.01 ft.) prior to purging: 7.88

Depth to Bottom from Top of Casing (0.01 ft.)

Depth of Water in the Well (gallon)

Volume of water in the Well

Depth to Water from Top of Casing (0.01 ft.) after purging

Depth to Water from Top of Casing (0.01 ft.) at time of sampling: 7.92

<table>
<thead>
<tr>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
</tr>
<tr>
<td>pH</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
</tr>
</tbody>
</table>

Purging Equipment

<table>
<thead>
<tr>
<th>Peristaltic Pump</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bladder Pump</td>
<td></td>
</tr>
</tbody>
</table>

Well Observation

<table>
<thead>
<tr>
<th>Odor</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menta</td>
<td>Clear</td>
</tr>
</tbody>
</table>

Rate of Purge: 150 milliliters/minute

Comments:

Reference SOP Field-014

Readings were performed on date of sampling 1/23/11 (Tech - 07/14)
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: GL-12D

Site: Sparrows Point, MD
Tag: BA 81 4617

Date of Purging: 3/21/11
Start Time: 14:18
Finish Time: 15:10
Weather: 60° SW

Date of Collection: 3/21/11
Time of Collection: 14:40

Well Status:
Good

Grout

Casing

Lock

Obstructions

Diameter of Well Casing (inches) 2
Depth Measurements Performed (PVC/Metal) PVC 11.76
Depth to Water from Top of Casing (0.01 ft.) prior to purging

Depth to Bottom from Top of Casing (0.01 ft.)

Depth of Water in the Well (gallon)

Volume of water in the Well (gallon)

Depth to Water from Top of Casing (0.01 ft.) after purging

Depth to Water from Top of Casing (0.01 ft.) at time of sampling 17.20

Number of minutes purged 0 3 6 9 12 Sample Reading 15
Temperature (°C) 12.7 12.8 12.7 12.7 12.8 12.8
pH 6.95 7.85 7.85 7.86 7.86 5.86
Specific Conductance (umhos/cm) 3.86 6.57 6.49 6.50 6.50
Dissolved Oxygen (mg/l) 6.36.6 6.39.5 6.34.1 6.37.1 6.36.1 6.36.4
Oxidation Reduction (eH) 6.56.6 6.39.5 6.34.1 6.37.1 6.36.1 6.36.4

Purging Equipment Peristaltic Pump ✔
Bladder Pump

Well Observation Odor NONE
Color Clean

Rate of Purge 150 milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 3/21/11. (Tech

HQN: groundissg.doc.white
Microbloc Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Site: Sparrows Point, MD
Well I.D.: CL-12S
Tag: BA 81 4628

Date of Collection: 3/21/11  Time of Collection: 13:40

Well Status:

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Grout</th>
<th>Good</th>
<th>Casing</th>
<th>Good</th>
<th>Lock</th>
<th>Good</th>
<th>Obstructions</th>
</tr>
</thead>
</table>

Diameter of Well Casing (inches) 2
Depth Measurements Performed (PVC/Metal) PVC 7.16
Depth to Water from Top of Casing (0.01 ft.) prior to purging
Depth to Bottom from Top of Casing (0.01 ft.)
Depth of Water in the Well (gallon) ~
Volume of water in the Well (gallon) ~
Depth to Water from Top of Casing (0.01 ft.) after purging 7.32
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>

Temperature (°C) 11.7 11.5 11.5 11.6 11.5
pH 4.32 4.30 4.30 4.31 4.31
Specific Conductance (umhos/cm) 736 728 729 719 713 720
Dissolved Oxygen (mg/l) 568.2 568.9 568.5 559.5 549.1 549.1
Oxidation Reduction (eH) ~

Purging Equipment  
Peristaltic Pump ~  
Bladder Pump ~

Well Observation  
Odor: None  
Color: Clear

Rate of Purge: 1/50 milliliters / minute

Comments:
Reference SOP Field-014
Readings were performed on date of sampling 3/21/11 (Tech-50)

HQN:grounddisg.doc.white
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Site: Sparrows Point, MD
Well I.D.: C13 D
Tag: 

Date of Collection: 5/23/11 Time of Collection: 9:30

Well Status:
- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

Diameter of Well Casing (inches) 2
Depth Measurements Performed (PVC/Metal) PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging 17.16
Depth to Bottom from Top of Casing (0.01 ft.) 
Depth of Water in the Well (gallon) 
Volume of water in the Well (gallon) 
Depth to Water from Top of Casing (0.01 ft.) after purging 18.36
Depth to Water from Top of Casing (0.01 ft.) at time of sampling 18.36

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>Sample Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12.2</td>
</tr>
<tr>
<td>3</td>
<td>13.3</td>
</tr>
<tr>
<td>6</td>
<td>13.3</td>
</tr>
<tr>
<td>9</td>
<td>13.3</td>
</tr>
<tr>
<td>12</td>
<td>13.3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td></td>
<td>12.2</td>
</tr>
<tr>
<td>pH</td>
<td></td>
<td>6.73</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td></td>
<td>1.2</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td></td>
<td>1.2</td>
</tr>
</tbody>
</table>

Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor: NA
- Color: NA

Rate of Purge 150 milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 5/23/11 (Tech - 10)

HQN:grounddisg.doc.white
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well ID.: C/125
Site: Sparrows Point, MD
Tag: __________

Date of Purging: 5/22/1
Start Time: 10:45 Finish Time: 10:55 Weather: Sunny
Date of Collection: 5/22/11 Time of Collection: 10:27

Well Status:

<table>
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<tr>
<th>Status</th>
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</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Grout</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Casing</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Lock</td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Obstructions</td>
<td></td>
</tr>
</tbody>
</table>

Diameter of Well Casing (inches) __________
Depth Measurements Performed (PVC/Metal) __________
Depth to Water from Top of Casing (0.01 ft.) prior to purging __________
Depth to Bottom from Top of Casing (0.01 ft.) __________
Depth of Water in the Well (gallon) __________
Volume of water in the Well (gallon) __________
Depth to Water from Top of Casing (0.01 ft.) after purging __________
Depth to Water from Top of Casing (0.01 ft.) at time of sampling __________

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>5.4</td>
<td>5.6</td>
<td>5.4</td>
<td>5.4</td>
<td>5.8</td>
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<tr>
<td>pH</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
<td>6.2</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>4.28</td>
<td>4.72</td>
<td>4.24</td>
<td>4.28</td>
<td>4.27</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>4.26</td>
<td>4.26</td>
<td>4.25</td>
<td>4.26</td>
<td>4.27</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td>1.55</td>
<td>1.55</td>
<td>1.55</td>
<td>1.55</td>
<td>1.55</td>
</tr>
</tbody>
</table>

| Sample Reading | 15 |

<table>
<thead>
<tr>
<th>Purging Equipment</th>
<th>Well Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peristaltic Pump</td>
<td>Odor None</td>
</tr>
<tr>
<td>Bladder Pump</td>
<td>Color None</td>
</tr>
</tbody>
</table>

Rate of Purge __________ milliliters / minute

Comments: __________

Reference SOP Field-014
Readings were performed on date of sampling ________/_____/____. (Tech — )

HQN:grounding.doc.white
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: 5/22/11
Date of Purging: 5/22/11
Start Time: 12:00
Finish Time: 12:52
Weather: 50°F, N.W. 20 MPH

Site: Sparrows Point, MD
Tag: 
Date of Collection: 5/22/11
Time of Collection: 12:12

Well Status:
- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

Diameter of Well Casing (inches) 7
Depth Measurements Performed (PVC/Metal) PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging 15.26'
Depth to Bottom from Top of Casing (0.01 ft.) 
Depth of Water in the Well (gallon) 
Volume of water in the Well (gallon) 
Depth to Water from Top of Casing (0.01 ft.) after purging 
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

Number of minutes purged
Sample Reading
0 3 6 9 12
Temperature (°C ) 14.0 14.1 14.1 14.1 14.1 
0.1 0.1 0.1 0.1 0.1
pH 6.43 6.56 6.58 6.53 6.55 6.53
Specific Conductance (umhos/cm) 294 297 294 298 294 294
Dissolved Oxygen (mg/l) 6.8 6.3 6.2 6.2 6.2 6.2
Oxidation Reduction (eH) 528 528.5 540 541 540 541

Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor None
- Color Clean

Rate of Purge milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 5/22/11. (Tech.)

HQN: groundsg.doc.white
Client: SEVERSTAL  
Site: Sparrows Point, MD  
Well I.D.: 21-14L  
Tag:  

Date of Purging: 2/22/11  
Start Time: 11:00  
Finish Time: 11:52  
Weather: 50°F  

Date of Collection: 2/22/11  
Time of Collection: 11:58  

Well Status:  
- Good  
- Grout  
- Casing  
- Lock  
- Obstructions  

Diameter of Well Casing (inches): 2  
Depth Measurements Performed (PVC/Metal): PVC  
Depth to Water from Top of Casing (0.01 ft.) prior to purging: 5.26  
Depth to Bottom from Top of Casing (0.01 ft.):  
Depth of Water in the Well (gallon):  
Volume of water in the Well (gallon):  
Depth to Water from Top of Casing (0.01 ft.) after purging: 5.48  
Depth to Water from Top of Casing (0.01 ft.) at time of sampling:  

<table>
<thead>
<tr>
<th>Number of minutes purged</th>
<th>0</th>
<th>3</th>
<th>6</th>
<th>9</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature (°C)</td>
<td>9.3</td>
<td>9.3</td>
<td>9.0</td>
<td>8.3</td>
<td>8.9</td>
</tr>
<tr>
<td>pH</td>
<td>5.83</td>
<td>5.13</td>
<td>5.37</td>
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<td>5.40</td>
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<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>138</td>
<td>138</td>
<td>134</td>
<td>132</td>
<td>132</td>
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<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>2.40</td>
<td>3.05</td>
<td>3.06</td>
<td>3.10</td>
<td>3.16</td>
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<tr>
<td>Oxidation Reduction (eH)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Purging Equipment**  
- Peristaltic Pump  
- Bladder Pump  

**Well Observation**  
- Odor: Acid  
- Color: Clear  

**Rate of Purge**  
- 50 milliliters/minute  

**Comments:**  

Reference SOP Field-014  
Readings were performed on date of sampling 2/22/11. (Tech -  

HQN:grounding.doc.white
### Chain of Custody

**Client Sample ID:** GL-15 D  
**Date Scheduled:** 03/21/11

**Client:** Severstal Sparrows Point  
**Project:** Landfill  
**Project Number:** Landfill

**Tag:** ______  
**Date of Purging:** 4/4/11  
**Start Time:** 11:15  
**Finish Time:** 12:20  
**Weather:** Sunny 75°F

**Well Status:**
- Good
- Grout
- Casing
- Lock
- Obstructions

**Diameter of Well Casing (inches):** 2

**Depth Measurements Performed (PVC/Metal):** PVC

**Depth to Water from Top of Casing (0.01 ft.) prior to purging:** 8.38

**Depth to Bottom from Top of Casing (0.01 ft.):** ---

**Depth of Water in the Well (gallon):** ---

**Volume of Water in the Well (gallon):** ---

**Depth to Water from Top of Casing (0.01 ft.) after purging:** 3.35

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<td>Temperature (°C)</td>
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<td>11.6</td>
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<tr>
<td>pH</td>
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<td>Specific Conductance (umhos/cm)</td>
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<td>Dissolved Oxygen (mg/l)</td>
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<td>Oxidation Reduction (eH)</td>
<td>248.1</td>
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**Purging Equipment:** Peristaltic Pump  
**Well Observation:** Odor: None  
**Color: Clean**

**Rate of Purge:** 15 ml/min

**Comments:**

Reference SOP Field-014  
Readings were performed on date of sampling 4/4/11. Tech ___

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<td></td>
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**Cooler Temp**  
**Cooler Number:** ___

Page 22 of 51
**Chain of Custody**

**Client Sample ID:** GL-15 S  
**Date Scheduled:** 03/21/11

**Tag:**  
**Date of Purging:** 4/11/11  
**Start Time:** 10:20  
**Finish Time:** 10:40  
**Weather:** ______

**Well Status:**  
- Good  
- Grout  
- Casing  
- Lock  
- Obstructions ________

**Diameter of Well Casing (inches):** 2

**Depth Measurements Performed (PVC/Metal):**
- PVC 5.12
- Metal ________

**Depth to Water from Top of Casing (0.01 ft.) prior to purging:** 0

**Depth to Bottom from Top of Casing (0.01 ft.):** 0

**Depth of Water in the Well (gallon):** 0

**Volume of water in the Well (gallon):** 0

**Depth to Water from Top of Casing (0.01 ft.) after purging:** 0

**Number of minutes purged:** 15  
**Sample Reading:**

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<td>Specific Conductance (umhos/cm)</td>
<td>6.610</td>
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<td>Dissolved Oxygen (mg/l)</td>
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**Purging Equipment**
- Peristaltic Pump: Yes
- Bladder Pump: No

**Rate of Purge:** 15 cc/ml/min

**Odor Observation:** Male

**Color Observation:** Clear

**Comments:**

Reference SOP Field-014  
Readings were performed on date of sampling 4/11/11  
Tech ______

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**Microbac Laboratories, Inc.**  
Baltimore Division  
2101 Van Deman Street • Baltimore, MD 21224  

**CHAIN OF CUSTODY**  

```
Client Sample ID: GL-16D  
Tag: — Date of Purging: 4/11 Start Time: 12:00 Finish Time: 13:00 Weather: FR  

Well Status:  
- Good: Grout
- Good: Casing
- Good: Lock
- Good: Obstructions

Diameter of Well Casing (inches)  
2

Depth Measurements Performed (PVC/Metal)  
24fe

Depth to Water from Top of Casing (0.01 ft.) prior to purging  
19.8

Depth to Bottom from Top of Casing (0.01 ft.)

Depth of Water in the Well (gallon)

Volume of water in the Well (gallon)

Depth to Water from Top of Casing (0.01 ft.) after purging  
19.8

Number of minutes purged | 0 | 3 | 6 | 9 | 12 | 15
---|---|---|---|---|---|---
Temperature (°C) | 13.2 | 14.2 | 14.2 | 14.2 | 14.2 | 14.2
pH | 11.7 | 12.5 | 11.4 | 11.4 | 11.4 | 11.4 |
Specific Conductance (muhos/cm) | 52.10 | 56.70 | 58.20 | 58.20 | 58.20 | 58.20
Dissolved Oxygen (mg/l) | 1.91 | 1.91 | 1.91 | 1.91 | 1.91 | 1.91
Oxidation Reduction (eH) | 241.3 | 164.1 | 164.1 | 164.1 | 164.1 | 164.1

Purging Equipment  
- Peristaltic Pump
- Bladder Pump

Rate of Purge  
ml/min

Well Observation  
- Odor: None
- Color: Clear

Comments:

Reference SOP Field-014  
Readings were performed on date of sampling / / . Tech

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</table>

Cooler Temp:  
Cooler Number:  

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Microbac Laboratories, Inc.
Baltimore Division
2101 Van Deman Street • Baltimore, MD 21224

CHAIN OF CUSTODY

Client: Severstal Sparrows Point
Project: Landfill
Project Number: Landfill

Client Sample ID: GL-16S


Well Status:
- Good
- Grout
- Casing
- Lock
- Obstructions

Diameter of Well Casing (inches)
- PVC

Depth Measurements Performed (PVC/Metal)
- 2

Depth to Water from Top of Casing (0.01 ft.) prior to purging
- 15.70

Depth to Bottom from Top of Casing (0.01 ft.)
- -

Depth of Water in the Well (gallon)
- -

Volume of water in the Well (gallon)
- -

Depth to Water from Top of Casing (0.01 ft.) after purging
- 14.70

Number of minutes purged
- 15

Sample Reading

Temperature (°C)
- 13.2

pH
- 4.27

Specific Conductance (umhos/cm)
- 13.3

Dissolved Oxygen (mg/l)
- 3.16

Oxidation Reduction (eH)
- 530.1

Purging Equipment
- Well Observation
- Odor
- Color

Rate of Purge
- 150 ml/min

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 4/1/11. Tech

Sampled by: ___________________________ Date/Time: ____________ Received by: ___________________________

Printed Name: __________________________ Date/Time: ____________ Received Name: __________________________

Relinquished by: ________________________ Date/Time: ____________ Received Name: ________________________

Printed Name: __________________________ Date/Time: ____________ Received Name: __________________________

Cooler Temp ____________ Cooler Number: ____________
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL  
Site: Sparrows Point, MD
Well I.D.: C/17 A  
Tag:

Date of Purging: 3/31/11  
Start Time: 12:05  
Finish Time: 13:05  
Weather: 14°C  
Rain

Date of Collection: 3/31/11  
Time of Collection: 17:20

Well Status:
- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

Diameter of Well Casing (inches)  
Depth Measurements Performed (PVC/Metal)  
Depth to Water from Top of Casing (0.01 ft.) prior to purging  
Depth to Bottom from Top of Casing (0.01 ft.)  
Depth of Water in the Well (gallon)  
Volume of water in the Well (gallon)  
Depth to Water from Top of Casing (0.01 ft.) after purging  
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

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<th>Number of minutes purged</th>
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<th>3</th>
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<td>12.1</td>
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<tr>
<td>Specific Conductance (umhos/cm)</td>
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<tr>
<td>Dissolved Oxygen (mg/l)</td>
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<td>1.41</td>
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<tr>
<td>Oxidation Reduction (eH)</td>
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<td>291.3</td>
<td>291.1</td>
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</table>

Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor: None
- Color: Color

Rate of Purge: 150 milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling: 3/31/11. (Tech)
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: 61 175

Site: Sparrows Point, MD
Tag: 

Date of Purging: 3/31/11 Start Time: 11:05 Finish Time: 12:00 Weather: 40° F, RAIN
Date of Collection: 5/1/11 Time of Collection: 11:20

Well Status:

Good
Grout

Good
Casing

Good
Lock

Good
Obstructions

Diameter of Well Casing (inches):

PVC

Depth Measurements Performed (PVC/Metal):

Depth to Water from Top of Casing (0.01 ft.) prior to purging
13.17

Depth to Bottom from Top of Casing (0.01 ft.):

Depth of Water in the Well (gallon):

Volume of water in the Well (gallon):

Depth to Water from Top of Casing (0.01 ft.) after purging:
13.21

Depth to Water from Top of Casing (0.01 ft.) at time of sampling:

Sample Reading

Number of minutes purged 0 3 6 9 12 Sample Reading
Temperature (°C) 12.5 12.0 12.0 12.0 12.0 12.0
pH 10.04 10.00 10.04 10.07 10.55 10.55
Specific Conductance (umhos/cm) 292.0 291.0 291.0 281.1 291.0 291.1
Dissolved Oxygen (mg/l) 0.34 0.35 0.37 0.33 0.31 0.31
Oxidation Reduction (eH) 187.1 187.1 187.3 187.1 187.1 187.1

Purging Equipment
Peristaltic Pump √
Bladder Pump

Well Observation
Odor: None
Color: Clear

Rate of Purge: 15 cc milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 5/1/11. (Tech - )
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: C2118

Site: Sparrows Point, MD
Tag: 

Date of Purging: 5/28/11 Start Time: 12:30 Finish Time: 
Weather: 
Date of Collection: 5/29/11 Time of Collection: 12:45

Well Status:

Good ✓
Good ✓

Grout
Casing
Lock
Obstructions

Diameter of Well Casing (inches)
Depth Measurements Performed (PVC/Metal) PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging 13.20
Depth to Bottom from Top of Casing (0.01 ft.) 
Depth of Water in the Well (gallon) 
Volume of water in the Well (gallon) 
Depth to Water from Top of Casing (0.01 ft.) after purging 19.25
Depth to Water from Top of Casing (0.01 ft.) at time of sampling

Number of minutes purged 0 3 6 9 12
Temperature (°C) 14.5 14.7 14.8 14.5 14.5
pH 6.51 6.01 6.50 6.50 6.50
Specific Conductance (umhos/cm) 5510 5510 5510 5510 5510
Dissolved Oxygen (mg/l) 2.19 2.19 2.19 2.19 2.19
Oxidation Reduction (eH) 124.1 124.1 124.1 124.1

Purging Equipment
Peristaltic Pump ✓
Bladder Pump 

Well Observation
Odor N/E
Color Clr

Rate of Purge milliliters / minute

Sample Reading

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 5/28/11. (Tech —

HQN groundsiq.doc.white
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well I.D.: 6-7-5
Site: Sparrows Point, MD
Tag: 

Date of Collection: 3/28/14 Time of Collection: 11:55

Well Status:
- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

Diameter of Well Casing (inches) 2
Depth Measurements Performed (PVC/Metal) PVC
Depth to Water from Top of Casing (0.01 ft.) prior to purging 20.94 ft. 7.13
Depth to Bottom from Top of Casing (0.01 ft.) 
Depth of Water in the Well (gallon) 
Volume of water in the Well (gallon) 
Depth to Water from Top of Casing (0.01 ft.) after purging 
Depth to Water from Top of Casing (0.01 ft.) at time of sampling 7.46

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<td>pH</td>
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<td>Specific Conductance (umhos/cm)</td>
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<td>Dissolved Oxygen (mg/l)</td>
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<td>Oxidation Reduction (eH)</td>
<td>160</td>
<td>171</td>
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Purging Equipment
- Peristaltic Pump
- Bladder Pump

Well Observation
- Odor: Yes, Gas smell / 0.1
- Color:

Rate of Purge 150 milliliters / minute

Comments:

Reference SOP Field-014
Readings were performed on date of sampling 3/28/14. (Tech -)

HQN:groundslg.doc.white
Client: Severstal Sparrows Point
Project: Landfill
Project Number: Landfill

CHAI OF CUSTODY

Client Sample ID: GL-20

Tag: Date of Purging: [Date]

Start Time: 9:30

Finish Time: [Time]

Weather: [Condition]

Well Status:

Good [ ] Good [X] Groint
Good [X] Casing
Good [ ] Lock
Good [ ] Obstructions

Diameter of Well Casing (inches):

Depth Measurements Performed (PVC/Metal):

Depth to Water from Top of Casing (0.01 ft.) prior to purging:

Depth to Bottom from Top of Casing (0.01 ft.)

Depth of Water in the Well (gallon)

Volume of water in the Well (gallon)

Depth to Water from Top of Casing (0.01 ft.) after purging:

Number of minutes purged:

Temperature (°C):

pH:

Specific Conductance (mhos/cm):

Dissolved Oxygen (mg/l):

Oxidation Reduction (eH):

Purging Equipment:

Peristaltic Pump [ ]
Bladder Pump [X]

Well Observation:

Odor

Color

Rate of Purge: 15 c ml/min

Comments:

Reference SOP Field-014

Readings were performed on date of sampling 4/16/11. Tech

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Cooler Temp: 68.8° Cooler Number: 686
Microbac Laboratories, Inc.
Groundwater Monitoring Report

Client: SEVERSTAL
Well L.D.: 13 01 PA
Site: Sparrows Point, MD
Tag:

Date of Purging: 3/31/11 Start Time: 9:47 Finish Time: 11:00 Weather: 411 H Rain
Date of Collection: 3/31/11 Time of Collection: 10:52

Well Status:

- Good
- Grout
- Good
- Casing
- Good
- Lock
- Good
- Obstructions

Diameter of Well Casing (inches)

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Depth Measurements Performed (PVC/Metal)

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<tr>
<td>Depth of Water in the Well (gallon)</td>
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<tr>
<td>Volume of water in the Well (gallon)</td>
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<tr>
<td>Depth to Water from Top of Casing (0.01 ft.) after purging</td>
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<tr>
<td>Depth to Water from Top of Casing (0.01 ft.) at time of sampling</td>
<td>18.85</td>
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Number of minutes purged

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<tr>
<td>Temperature (°C)</td>
<td>13.4</td>
<td>13.2</td>
<td>13.0</td>
<td>13.0</td>
<td>13.0</td>
</tr>
<tr>
<td>pH</td>
<td>11.45</td>
<td>11.45</td>
<td>11.37</td>
<td>11.37</td>
<td>11.37</td>
</tr>
<tr>
<td>Specific Conductance (umhos/cm)</td>
<td>12.30</td>
<td>12.21</td>
<td>12.21</td>
<td>12.21</td>
<td>12.21</td>
</tr>
<tr>
<td>Dissolved Oxygen (mg/l)</td>
<td>4.30</td>
<td>4.26</td>
<td>4.26</td>
<td>4.26</td>
<td>4.26</td>
</tr>
<tr>
<td>Oxidation Reduction (eH)</td>
<td>23.8</td>
<td>23.8</td>
<td>23.8</td>
<td>23.8</td>
<td>23.8</td>
</tr>
</tbody>
</table>

Sample Reading

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD</td>
<td>12.21</td>
</tr>
</tbody>
</table>

Purging Equipment

- Peristaltic Pump
- Bladder Pump

Well Observation

- Odor: None
- Color: Clear

Rate of Purge: 150 milliliters/minute

Comments:

Reference SOP Field-014

Readings were performed on date of sampling 3/31/11. (Tech: [Signature])