### Utah Geological Survey

#### Lithologic Log

**Well ID:** SG23 (a.k.a. SG23B)

**Well Location:** Needle Point Spring

**UTM:** x 758104 m, y 4293869 m NAD 83 (zone 11N)

**Start Date:** 11/14/2008  
**Completion Date:** 11/16/2008  
**Driller:** USGS Central Region Drilling

**Drilling Method:**
- Geoprobe from 0 to 30’
- Center Bit Hollow-Stem Auger from 0 to 65’

**Total Depth:** 65’
**Static Water Level:** 8.11’
**Water Level Date:** 11/19/2008
**Measured From:** Top PVC riser

#### Borehole Diameter
- 8 1/4” from 0 to 65’
- 2” Sch 40 PVC from +2.43 to 55’

#### Casing Type & Diameter
- Type: 2” Sch 40 PVC
- Diameter: from +2.43 to 55’

#### Screen Type & Diameter
- Type: 2” Sch 40 PVC .010” slot
- Diameter: from 55 to 65’

**Ground Elevation:** 5449’
**Logged By:** Matt Affolter, UGS

#### Geophysical Log
- Yes
- No

#### Lithology Description

<table>
<thead>
<tr>
<th>DEPTH</th>
<th>LITHOLOGY</th>
<th>DIAGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>Light tan soil</td>
<td>![Diagram Image]</td>
</tr>
<tr>
<td>1-8</td>
<td>Dark brown soil w/ sand and clay</td>
<td></td>
</tr>
<tr>
<td>8-13</td>
<td>Medium-grained sand with dark brown clay</td>
<td></td>
</tr>
<tr>
<td>13-23</td>
<td>Light tan to brown clay</td>
<td></td>
</tr>
<tr>
<td>23-25</td>
<td>Green-grey clay</td>
<td></td>
</tr>
<tr>
<td>25-30</td>
<td>Tan silty and sandy clay</td>
<td></td>
</tr>
<tr>
<td>30-65</td>
<td>Bedrock? Tan sandstone (angular to subrounded) and grey limestone; weathered P Arcturus? NO SAMPLES RETURNED</td>
<td></td>
</tr>
<tr>
<td>DEPTH</td>
<td>LITHOLOGY</td>
<td>WELL DIAGRAM</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>--------------</td>
</tr>
<tr>
<td>55</td>
<td></td>
<td>B</td>
</tr>
<tr>
<td>60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Lithology**

- silt
- sand
- gravel
- siltstone
- sandstone
- conglomerate
- shale
- clay
- tuff
- limestone
- dolomite
- limestone-shaley
- cherty limestone