

HDP-PR-FSS-701, Final Status Survey Plan Development
APPENDIX P-6
FSS FIELD LOG

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|---------------------|----|---------------------|--|--------------------|
| Survey Area: | 05 | Description: | | Barns/Cistern Area |
| Survey Unit: | 01 | Description: | | Limestone Slope |

FSS Field Log:

| <u>Date/Time:</u> | <u>Observation or Comment:</u> | <u>Technician</u> |
|--------------------------|---|--------------------------|
| 08/29/2013 | Collected the horizontal five (5) horizontal cores from the limestone slope. | M. Bresnahan |
| Shift Notes | Previous experience collecting vertical samples in this rocky area precluded | |
| Rad. Eng. | the use of hand augers due to the sample holes collapsing and the small rocks. | |
| | falling out of the auger upon retrieval. | |
| | The technique of driving metal pipes into the hillside was selected by Rad. | |
| | Engineering based on previous success collecting vertical samples in this area. | |
| | | |
| | The cores were selected after the slope had been excavated to an approx. | |
| | 1:1 slope. The five locations were selected based on visual observations of | |
| | the slope, with the intent of determining the limestone remaining after | |
| | excavation to the 1:1 slope. See the associated map for the approximate | |
| | locations of these horizontal sample locations. | |
| | | |
| | For each location, a 1-1/2-inch diameter pipe was driven approximately | |
| | parallel to surface grade of the survey unit. Tools such as fence post drivers | |
| | and 3-lb sledge hammers were used to drive the pipe into the hillside and | |
| | collect material within its inner diameter. The pipes were driven to refusal | |
| | and removed. | |
| | | |
| | Each pipe was then cut into one foot sections using a band saw and visually | |
| | inspected to determine the nature of material (soil vs. limestone rock). All | |
| | material was collected into a single composite sample for each individual pipe. | |
| | (continued on next page) | |

FSS Field Log 1 of 2

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|-------------------|---|-------------------|-----------|----------------|----------|----------------|------|--------------|-------|-----------|-----------|------------|---------|---------------|-------|-----------|-----------|------------|---------|---------------|-------|-----------|-----------|------------|---------|---------------|-------|-----------|-----------|-----------|---------|---------------|-------|-----------|-----------|-----------|---------|--|
| 08/29/2013 | (continuation) | M. Bresnahan | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shift Notes | Collection of the horizontal five (5) horizontal cores from the limestone slope. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rad. Eng. | Assistance provided by HDP Operations sampling technicians & HP Support. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Details on the five (5) horizontal samples are provided below: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table><tr><th>Sample ID</th><th>Time</th><th>Easting</th><th>Northing</th><th>Lateral Extent</th><th>Note</th></tr><tr><td>L050199TUB00</td><td>13:00</td><td>826549.38</td><td>864607.15</td><td>0 – 2.0 ft</td><td>Refusal</td></tr><tr><td>L0501100TUB00</td><td>13:15</td><td>826545.15</td><td>864610.43</td><td>0 – 5.0 ft</td><td>Refusal</td></tr><tr><td>L0501101TUB00</td><td>13:30</td><td>826557.55</td><td>864615.12</td><td>0 – 2.0 ft</td><td>Refusal</td></tr><tr><td>L0501102TUB00</td><td>13:45</td><td>826550.22</td><td>864620.44</td><td>0 – 3.5ft</td><td>Refusal</td></tr><tr><td>L0501103TUB00</td><td>14:00</td><td>826537.94</td><td>864583.47</td><td>0 – 1.5ft</td><td>Refusal</td></tr></table> | Sample ID | Time | Easting | Northing | Lateral Extent | Note | L050199TUB00 | 13:00 | 826549.38 | 864607.15 | 0 – 2.0 ft | Refusal | L0501100TUB00 | 13:15 | 826545.15 | 864610.43 | 0 – 5.0 ft | Refusal | L0501101TUB00 | 13:30 | 826557.55 | 864615.12 | 0 – 2.0 ft | Refusal | L0501102TUB00 | 13:45 | 826550.22 | 864620.44 | 0 – 3.5ft | Refusal | L0501103TUB00 | 14:00 | 826537.94 | 864583.47 | 0 – 1.5ft | Refusal | |
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| | All samples taken were difficult to distinguish limestone rock (used for filtering operations at Hematite) from native rocky materials. In addition, all samples were taken to the point of refusal (i.e., the sample crew could not drive the pipe any further into the hillside). Refusal at each location was due to encountering a solid, impenetrable object – likely a large rock or a slab of slate that is native and common to the hillside area. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | This qualitative determination was based on sound and “feel” of the refusal, indicating the presence of stone and precluding the ability to collect a soil sample beyond the lateral extent of limestone. Since refusal was encountered at all locations, it was not possible to collect soil samples beyond extent of limestone. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| END NOTES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FSS Field Log 2 of 2