

**PHASE I APPLICATION  
CAMP HOPE RUN LANDFILL  
BOGGS TOWNSHIP, CLEARFIELD COUNTY, PENNSYLVANIA**

**FORM 6  
ATTACHMENT 6-6  
Tables**

**Table 6.1 – Lower Kittanning Elevations  
Table 6.2 – Overburden Analyses Summary**

**TABLE 6.1**  
**PA Waste, LLC**  
**Camp Hope Run Landfill**  
**Lower Kittanning Elevations**

Well No.	Surveyed Steel Casing Elevation (feet)	Steel Casing Stickup (feet)	Surface Elevation (feet)	Depth to Bottom of Lower Kittanning (feet)	Lower Kittanning Elevation (feet) (1)
W1A	1828.33	2.67	1825.66	44.0	1781.7
W22A	1829.08	2.55	1826.53	66.1	1760.4
W3A	1781.73	2.8	1778.93	99.4	1679.5
W4A	1779.03	2.55	1776.48	84.5	1692.0
W5A	1754.90	2.7	1752.20	83.0	1669.2
W6A	1753.03	2.25	1750.78	88.0	1662.8
MW-3A	1783.19 +	0.0	1783.19	80.6	1702.6
MW-4A	1758.86 +	0.85	1758.01	78.5	1679.5
MW-5A	1756.99 +	0.4	1756.59	76.0	1680.6
MW-6A	1747.58 +	1.3	1746.28	55.0	1691.3
S2-1A	1784.62	3.5	1781.12	89.5	1691.6
S2-2A	1783.24	2.5	1780.74	90.0	1690.7
S2-3A	1766.53	3.1	1763.43	82.0	1681.4
S2-4A	1712.80	2.8	1710.00	16.0	1694.0
S2-5A	1752.27	2.3	1749.97	59.3	1690.7
S3-1A	1790.08	2.23	1787.85	51.0	1736.9
S3-2A	1828.34	1.95	1826.39	68.5	1757.9
S3-3A	1758.42	2	1756.42	55.5	1700.9

+ PVC used as surveyed casing elevation.

(1) Elevation used for Structure Contour Map.

**TABLE 6.2**  
**PA Waste, LLC**  
**Camp Hope Run Landfill**  
**Overburden Analyses Summary**  
**Kauffman Mine Operation Drill Holes**  
**S2 Area**

Hole No.	Total Depth (feet)	Depth to Bottom of LK (feet)	LK Rider Depth (feet)	Interval >0.5% Sulfur Depth (feet)	Total Sulfur (>0.5%)	Height Above Bottom of LK (feet)	LK Rider Height Above Bottom of LK (feet)	Description
A-1	76.7	71.0		54.0 - 56.0	2.28	17.0 - 15.0		Dark gray shale
A-3	65.0	59.0		30.0 - 33.0 33.0 - 35.0 43.0 - 45.0	0.74 0.56 1.34	29.0 - 26.0 26.0 - 24.0 16.0 - 14.0		Dark gray , coarse-grained sandstone, many binders Dark gray , coarse-grained sandstone, many binders Dark gray shale
A-4*	61.5	53.0		50.0 - 50.9	1.20	9.0 - 8.1		Coal and dark gray shale
A-8*	85.0	77.0		23.0 - 24.6	0.79	54.0 - 52.4		Dark gray sandy shale
A-9	56.0	49.0		31.0 - 32.1 32.1 - 34.0	1.53 0.61	18.0 - 16.9 16.9 - 15.0		Dark sandstone with coal Dark gray shale with black layers
C-3	76.9	71.0		58.5 - 60.5 60.5 - 63.5 63.5 - 64.6 64.6 - 67.0 67.0 - 68.0	0.58 0.64 0.55 0.84 0.85	12.5 - 10.5 10.5 - 7.5 7.5 - 6.4 6.4 - 4.0 4.0 - 3.0		Light gray sandstone laminae Medium-dark to medium-light gray siltstone Light gray, very fine-grained sandstone Medium gray, very fine-grained sandstone to claystone Dark gray claystone (on coal)
C-4	99.7	92.0		77.5 - 80.5 80.5 - 82.8 82.8 - 84.8 87.5 - 87.9	0.58 0.52 0.58 2.90	14.5 - 11.5 11.5 - 9.2 9.2 - 7.2 4.5 - 4.1		Grayish black siltstone, decreasing organic with depth Grayish black siltstone, decreasing organic with depth Grayish black siltstone, decreasing organic with depth Medium black to dark gray siltstone (on coal)
C-5	84.8	79.0		54.1 - 54.6 75.5 - 76.2	1.10 0.65	24.9 - 24.4 3.5 - 2.8		Fine sandstone 50%-70% coal stringers Medium gray, fine sandstone (on coal)
OB-1	111.8	104.3	74.2 - 75.2	51.9 - 52.3 72.2 - 74.2 74.2 - 75.2 75.2 - 76.2 76.2 - 79.2 79.2 - 81.9 85.9 - 88.9 99.9 - 100.4	0.82 0.51 4.09 1.20 0.70 0.56 0.92 0.66	52.4 - 52.0 32.1 - 30.1 30.1 - 29.1 29.1 - 28.1 28.1 - 25.1 25.1 - 22.4 18.4 - 15.4 4.4 - 3.9	30.1 - 29.1	Black carbonaceous shale intermixed with coal Dark gray carbonaceous sandstone, black carbonaceous shale, intermixed with coal Coal LK rider Dark gray carbonaceous shale intermixed with coal Dark gray shale Dark gray shale Dark gray shale Dark gray shale and coal
OB-8	100.3	99.2	59.7 - 60.7	58.7 - 59.7 59.7 - 60.7 60.7 - 63.7 63.7 - 66.7 66.7 - 69.7 78.0 - 81.5	1.78 4.38 1.55 1.11 0.66 0.65	40.5 - 39.5 39.5 - 38.5 38.5 - 35.5 35.5 - 32.5 32.5 - 29.5 21.2 - 17.7	39.5 - 38.5	Gray-black shale LK rider coal and black shale Dark gray clay shale Dark gray shale Dark gray shale Dark gray clay shale

\*Holes A-4 and A-8 are 230 and 430 feet, respectively, outside disposal boundary.  
LK = Lower Kittanning Coal.

**TABLE 6.2**  
**PA Waste, LLC**  
**Camp Hope Run Landfill**  
**Overburden Analyses Summary**  
**April 2014 Drill Holes**  
**S2 Area**

Hole No.	Total Depth (feet)	Depth to Bottom of LK (feet)	Surface Elevation (feet)	LK Rider Depth (feet)	Interval >0.5% Sulfur Depth (feet)	Total Sulfur (>0.5%)	Height Above Bottom of LK (feet)	LK Rider Height Above Bottom of LK (feet)	Description
S2-1	91.7	89.5	1781.1	57.0 - 57.4 57.4 - 58.0	57.0 - 57.4	0.80	32.5 - 32.1	32.5 - 32.1	Coal and black shale, <b>LK rider</b>
					57.4 - 58.0	3.63	32.1 - 31.5	32.1 - 31.5	Coal and siltstone, <b>LK rider</b>
					58.0 - 60.0	0.98	31.5 - 29.5		Gray and yellowish brown, fine-grained to very fine-grained sandstone
					60.0 - 62.0	0.71	29.5 - 27.5		Gray very fine-grained sandstone
					67.0 - 69.0	0.71	22.5 - 20.5		Gray very fine-grained sandstone
					71.0 - 73.0	1.65	18.5 - 16.5		Gray silty shale.
S2-2	92.0	90.0	1780.7		41.0 - 42.0	0.88	49.0 - 48.0		Gray claystone, thin coal
					76.0 - 79.0	0.50	13.1 - 10.1		Medium-dark gray very fine-grained sandstone
S2-3	84.0	82.0	1763.4		31.0 - 32.0	0.52	51.0 - 50.0		Black shale and gray siltstone
					47.0 - 49.0	1.11	35.0 - 33.0		Gray siltstone
					49.0 - 50.0	1.38	33.0 - 32.0		Medium-dark gray shale
					50.0 - 51.0	0.80	32.0 - 31.0		Medium-dark gray shale
					51.0 - 52.0	1.03	31.0 - 30.0		Medium-dark gray shale
					52.0 - 53.0	2.12	30.0 - 29.0		Medium-dark gray shale
					53.0 - 54.0	1.41	29.0 - 28.0		Gray siltstone very fine-grained sandstone
					54.0 - 56.0	0.78	28.0 - 26.0		Gray siltstone
					56.0 - 57.0	0.54	26.0 - 25.0		Gray siltstone
					63.0 - 65.0	1.48	19.0 - 17.0		Gray shale
S2-4	17.5	16.0	1710.0		13.0 - 13.5	0.53	3.0 - 2.5		Yellow clay on coal
S2-5	62.0	59.3	1750.0		40.0 - 42.0	0.61	19.3 - 17.3		Gray very fine-grained sandstone
					43.0 - 45.0	0.51	16.3 - 14.3		Gray very fine-grained sandstone, shale siltstone interbed
					47.0 - 49.0	2.14	12.3 - 10.3		Gray shale

LK = Lower Kittanning Coal.

Samples collected by Meiser & Earl, Inc. personnel.

Samples analyzed by Geochemical Testing.

**TABLE 6.2**  
**PA Waste, LLC**  
**Camp Hope Run Landfill**  
**Overburden Analyses Summary**  
**S3 Area**

Hole No.	Total Depth (feet)	Depth to Bottom of LK (feet)	LK Rider Depth (feet)	Interval >0.5% Sulfur Depth (feet)	Total Sulfur (>0.5%)	Height Above Bottom of LK (feet)	LK Rider Height Above Bottom of LK (feet)	Description
S3-1	114.0	51.0	-	49.0 - 50.0	0.67	1.0 - 2.0	-	Medium brown shale
OB4	63.2	62.8	34.5 - 34.8	34.5 - 34.8	6.15	28.3 - 28.0	28.3 - 28.0	LK Rider - coal
			-	34.8 - 38.2	1.29	28.0 - 24.6	-	Medium gray shale
			-	38.2 - 41.2	0.90	24.6 - 21.6	-	Medium gray sandy shale
			-	49.2 - 50.2	4.40	13.6 - 12.6	-	Dark gray/black shale
			-	59.2 - 59.5	1.25	3.6 - 3.3	-	Dark gray shale and coal
C2	59.5	51	-	21.1 - 23.3	0.88	29.9 - 27.7	-	Light gray sandstone
			-	40.8 - 43.7	1.37	10.2 - 7.3	-	Dark gray siltstone - lingula