CTI and Associates, Inc.

Date: 12 October 2010

From: Rob Stenson – CTI and Associates, Inc.

To: Rick Van Saun – USACE Kansas City District
John Shimp – Ft. Riley, Kansas

Copy: Chris Winkeljohn – CTI and Associates, Inc.
File

Subject: Camp Funston WWI Incinerator (CFI) Remediation – Ft. Riley, KS

This Technical Memorandum has been prepared to summarize field investigation and soil remediation activities performed by CTI & Associates, Inc. (CTI) at the Camp Funston WWI Incinerator (CFI), Fort Riley, Kansas. In addition to the summaries, CTI is also providing a brief alternative analysis for addressing the results from the field investigation activities.

Introduction

The on-site field activities were performed between September 27 and October 6, 2010 to remove arsenic and lead contaminated soil associated with incinerator operation and disposal of ash and cinders along the Kansas River floodplain slope. The field activities were initiated under Scope of Work, Soil Removal Services (Revised May 6, 2010) and Modification 001. The location of the CFI project is presented on Figure 1.

Prior to removal of the CFI ash present along the floodplain slope, a preliminary test pit excavation was performed to evaluate the type of waste material present and to plan the impacted soil removal activities. The preliminary test pit excavation identified up to eight feet of ash and cinders on the floodplain slope with a thin layer of ash and cinders extending beyond the base of the slope within the floodplain sediments. Based on the unknown thickness and horizontal extent of the CFI ash disposal area, USACE-KCD, Fort Riley, and CTI determined further test trench excavations were necessary to define the horizontal and vertical extent of the ash and to collect representative soil and ash/cinder analytical laboratory samples to characterize the CFI ash disposal area.

Field activities included the following:

- Installation of the Threemile Creek low-water crossing to access the CFI site,
- Clearing, grubbing, and disposal of vegetation at the Fort Riley Campbell Hill Tree Disposal Area,
- Arsenic field screen testing and analytical laboratory testing of the railroad spur soil piles to evaluate disposal options,
- Load out and transportation of the clean rail spur soils to the Fort Riley Campbell Hill Construction Debris Landfill to allow adequate access and work area for the investigation,

- Excavation of eight test trenches to delineate the horizontal and vertical extent of the CFI ash deposit, preparation of ash deposit cross-sectional maps, and collection of representative soil and ash/cinder samples to characterization the CFI ash disposal area,
- Backfilling and grading of the test trench area following inspection and sampling,
- Demolition, removal, and off-site disposal of the incinerator foundation and contaminated upland surface soils as special waste at the Waste Management Rolling Meadows Landfill,
- Confirmation soil sampling of the upland area and incinerator foundation to confirm soil removal meets KDHE RSK Tier 2 Risk-Based criteria for residential land use, and
- Installation of silt fencing and planting of winter wheat to minimize erosion in the CFI upland, floodplain slope, and floodplain.

This Technical Memorandum includes a summary of the CFI field investigation and construction methods, description of test trench activities, analytical samples collected and test results, delineation of the horizontal and vertical extent of the ash deposit based on visual inspection, estimates of the CFI ash deposit volume, and recommendations regarding future site remedial options.

Camp Funston Incinerator Investigation Summary

The objectives for the CFI ash disposal area investigation were to delineate the horizontal and vertical extent of the CFI ash disposal area, prepare cross-sectional maps of the ash deposit based on visual inspection during the trench excavations, collect representative soil and ash/cinder samples to characterize the CFI ash for disposal, and develop estimated soil and ash deposit volumes to provide viable remedial options to USACE-KCD and Fort Riley.

To accurately locate the test trench excavations, soil and ash/cinder sample locations, and the physical dimensions of the former incinerator, CTI established a southwest/northeast trending site-specific coordinate system based on the two power poles located within the work area. The power pole to the southwest was established as the grid origin (designated 0, 0). The coordinate system is referenced to latitude and longitude by hand held GPS. Local permanent features, test trench beginning and end, and the test trench sample locations were direct measured from the site coordinate system base line. Local permanent features were also located by GPS including the railroad spur and the railroad spur bridge. The coordinate system and permanent features in the CFI work area, the footprint of the incinerator (based on measurements following exposure during soil removal), and test trench locations are presented on Figure 2.

The topography in the CFI investigation area includes the relatively flat upland area between the railroad siding and the edge of the floodplain, ranging in width from 60 feet in the southwest to 130 feet in the northeast. The floodplain slope is approximately a 3 to 1 slope, 16 feet in height, and extending approximately 50 feet laterally before transitioning to the relatively flat floodplain bottom. Threemile Creek is located approximately 100 feet east of the CFI investigation area and flows within an incised stream channel on the Kansas River Floodplain.

CTI completed eight test trenches to delineate the thickness and horizontal extent of the CFI ash disposal area as shown on Figure 2. The test trench excavations were completed with a Caterpillar 324 excavator with a 4-foot wide bucket. Due to steep slopes and access, the trenches were excavated from both the top of the floodplain slope and bottom of slope with the excavation spoils placed adjacent to the trench. To accurately locate the trench depth, ash thickness, and sample locations, survey lath was placed at the start of the trench (top of slope) and a survey tape placed along the

ground surface to establish distances along the trench length. The survey lath was direct measured to the site specific coordinate system and both the start and the end of the test trench were established by GPS coordinates to determine the orientation of the trench with respect to the coordinate system.

The preliminary test pit to observe site conditions was completed at test trench location TP-4. Based on the observed thickness of ash and cinders encountered, the decision was made to define the full extent of the CFI ash deposit prior to making final decisions regarding how to remediate the ash disposal area. The initial test pit extended down to the floodplain to fully define the horizontal and vertical extent of ash along the TP-4 transect. The remaining test trenches were completed from northeast to southwest.

Prior to the start of the test trench excavations, an access ramp on the floodplain slope was constructed for excavator and skid steer access. Tree and brush clearing was completed along the top of the slope and on the floodplain to provide unimpeded access to the work area. Test trenches TP-0 (northeast ash limit) and TP-7 (southwest ash limit) were completed to define the horizontal extent of the CFI ash disposal area and were completed in the upper reaches on the floodplain slope. Ash and cinders were not visible in these trenches.

The floodplain slope ash thickness in test trenches TP-1 and TP-2 typically ranged from two to three feet, four to six feet in test trenches TP-3 and TP-4, and attaining a maximum thickness of approximately 8 feet in test trench TP-5. To the southwest of TP-5, ash thickness along the floodplain side slope decreased to three to five feet in test trench TP-6 and was not encountered in test trench TP-7. The ash deposit in this area is typically granular, containing ash, cinders, small metallic debris, and occasional glass bottles and other debris as well as layers of finer grained ash and soil. Organic matter, such as, wood, cloth, rubber, etc. were not encountered during the excavations. Figure 3 presents photographs of the typical ash deposits within test trenches TP-4, TP-5, and TP-6. The test trench field logs (TP-1 through TP-6) are presented in Attachment A.

The majority of the CFI ash deposit is located along the floodplain slope and is typically covered by a layer of soil and organic matter ranging in thickness from several inches to over one foot. Toward the toe of the slope and within the level floodplain, the ash deposit is covered by either floodplain sediment or dust bowl silt deposits typically at distance of approximately 50 feet along each test trench excavation. The ash deposits within the floodplain tends to thin to less than a foot in thickness, is finer grained with less granular cinders, and becomes visibly indistinguishable from the fine grained silt and clay floodplain soils. A thin ash layer was commonly encountered at a depth of approximately three feet below grade at distances of 55 to 80 feet along the trench length. Figure 4 presents photographs of a granular ash layer and fine grained red ash at a depth of approximately three feet at a distance of 65 feet.

Following excavation of the test trenches and delineation of the ash deposit thickness and horizontal extent, an ash and soil sampling strategy was developed to characterize the ash disposal area and the overlying and underlying in-place soils. The general sampling strategy for each test trench included the following:

- Collect a composite sample of ash/cinder comprised of several subsamples collected along the length of the test trench. The intent of these samples was to characterize the material either for off-site disposal as special waste or to cap the ash deposit as an institutional control. Laboratory analysis: 8 RCRA Metals and Toxicity Characteristic Leaching Procedure (TCLP).

- Collect a grab sample of the soil underlying the floodplain slope ash deposit to evaluate potential for leaching of metals from the ash deposit. Laboratory analysis: 8 RCRA Metals.
- Collect a grab sample of ash or ash/cinder layer present at a depth within the floodplain sediments (typically at a depth greater than two feet below the floodplain sediments) to characterize the thin ash layers with the intent this material would not be remover for off-site disposal and would remain in-place with the natural soil cover. Laboratory analysis: 8 RCRA Metals and TCLP.
- Collect a grab sample of the soil overlying the floodplain ash deposit to evaluate potential for metals contamination as a result of erosion of the floodplain slope and integration of metals contaminants in the floodplain deposits. Laboratory analysis: 8 RCRA Metals.

The test trench characterization samples were collected by hand using a garden trowel in the shallow portions of the trenches with direct access. In the deeper sections of the trenches, samples were collected with the garden trowel mounted on a 2-inch PVC pipe to allow the sampling of the trench sidewalls from outside the excavation. Characterization samples were placed into ziplock bags and labeled with test trench number, distance along the transect line, sample depth, and a brief description of the material. The sample location and depth was also recorded on the field test trench log. Characterization samples were then transferred to a stainless steel composite bowl and thoroughly mixed prior to placing the sample into the analytical laboratory glassware. The remaining sample was returned to the Ziploc bag and stored for future use, if needed. During the soil sampling process, the thickness of the ash/cinder layers and overlying soil thickness was also direct measured and recorded on the field test trench log. Photographs of the trench sidewalls were also taken during the sampling effort. A summary of the analytical laboratory samples collected during the investigation is presented in Table 1.

The analytical laboratory results identify arsenic as the only constituent exceeding the KDHE – RSK residential criteria in samples collected during the investigation. The composite sample of ash and cinder collected from each of the six test trenches exceeded the KDHE – RSK residential criteria for arsenic (11 mg/kg), ranging from 16.2 mg/kg to 34.4 mg/kg. Individual grab samples of ash collected from thin layers within the floodplain sediments were below the KDHE – RSK residential criteria for arsenic in test trenches TP-1 (6.4 mg/kg) and TP-3 (10.7 mg/kg), and exceeded the KDHE – RSK residential criteria for arsenic in test trenches TP-4 (86.9 mg/kg), TP-5 (21.8 mg/kg), and TP-6 (26.8 mg/kg).

Individual grab samples of soil above the ash layers within the floodplain sediments were below the KDHE – RSK residential criteria for arsenic indicating the transport of contaminants by erosion following the decommissioning of the incinerator has not occurred. Individual grab samples of soil below the ash were below the KDHE – RSK residential criteria for arsenic indicating the contaminants are not mobilized by the infiltration of precipitation. The TCLP analytical laboratory results for the composite ash samples do not exceed the regulatory limits for metals. A summary of the analytical laboratory sample results is presented in Table 2. The laboratory analytical results in hard copy are presented in Attachment B.

Upon completion of the characterization sampling, the test trenches were backfilled using the excavator and a skid steer and the area final graded. In the upland area north of the floodplain slope, the previously identified incinerator concrete slab and suspected incinerator burn area (brick construction) and the associated footings were removed and transported off-site for disposal as special waste. The western most soil pile remaining from the railroad siding contractor, located beneath the

power pole with guy wire exceeded the KDHE – RSK residential criteria for arsenic. This material was placed along the floodplain side slope within the incinerator ash disposal area rather than loading and transporting the material off-site for disposal.

The upland area was then excavated an additional 6 to 12–inches to remove surface soils and debris. This material was transported off-site for disposal as special waste. A total of five confirmation samples comprised of four subsamples each were collected south of the power pole coordinate system base line. Each confirmation grid was approximately 50 in length along the base line and extends from the base line to the edge of the floodplain slope. A sixth confirmation sample comprised of six subsamples was collected within the footprint of the incinerator concrete slab following demolition and removal of the slab footings. The analytical laboratory results for upland confirmation samples are presented in Table 3 and indicate soil metals concentrations below the KDHE – RSK residential criteria. The location of the upland confirmation grids is presented on Figure 5.

The analytical laboratory results for the railroad spur soil pile confirmation samples are presented in Table 3 and indicate the soil piles located northeast of the power pole were below the KDHE – RSK residential criteria. This soil was loaded and transported to the Fort Riley Campbell Hill Construction Debris Landfill. The soil pile located southwest of the power pole exceeded the KDHE – RSK residential criteria and were placed on the floodplain slope within the ash disposal area. The laboratory analytical results in hard copy are presented in Attachment B.

To minimize erosion in the work area, four sections of silt fence were installed as follows: along the railroad siding; top of floodplain slope; bottom of floodplain slope; and outer edge of the disturbed floodplain area. Winter wheat was also planted in the disturbed area and covered with straw to minimize erosion.

Incinerator Ash Deposit Summary

The CFI ash deposit encompasses an area of approximately 16,250 square feet, extending approximately 250 feet southwest to northeast along the floodplain slope and between 50 to 80 feet into the floodplain from the top of the floodplain slope. The aerial extent of the CFI ash deposit, based on visual inspection is presented on Figure 6 and includes approximately 2,580 cubic yards of material. The extent of the ash disposal area is well defined along the floodplain slope based on ash and cinders not being present in test trenches TP-0 and TP-7. Visual delineation of the ash deposit to the south in the floodplain area is not as well defined as the upland area for the following reasons:

- With increasing distance from the primary ash disposal area on the floodplain slope the ash layers tend to thin out or appear to end abruptly;
- The ash becomes finer grained with increased distance from the primary ash disposal area as would be expected if the material was transported by precipitation run-off or wind erosion. Within the floodplain deposits, the ash becomes indistinguishable from the floodplain soils; and,
- Depth of ash layer burial tends to increase, presumably following the topography present at the time the incinerator was operating.

As presented on Figure 6, the ash deposit has been subdivided into the following categories:

- Upland Slope Ash Deposit: Approximately 90 percent of the ash deposit (2,390 cy) is present along the upland slope and is covered by several inches to greater than a foot of soil

and organic matter. This area covers approximately 12,000 square feet with ash thickness ranging from 1 to 8 feet;

- Floodplain Ash Deposit: Based on visual observation, the floodplain ash deposit encompasses approximately 190 cy of ash material. This assumes the ash layer extends 260 feet along the base of the floodplain slope in a band 20 feet wide and one foot thick. The floodplain ash deposit was delineated during the investigation by termination of flat lying floodplain sediments along the floodplain slope. Floodplain sediments overlying the ash deposit ranged in thickness from 6-inches to 3 feet, with increasing sediment thickness away from the floodplain slope;
- Undefined Floodplain Ash Deposit: Encountered at typical depths of 2 to 3 feet below the floodplain floor, the lateral extent of the floodplain ash deposit could not be identified based on visual inspection. Due to the fine grained nature of the ash present in the layer interval 6-inches to 1-foot in thick, the ash likely extends further into the floodplain and could include an additional 500 cy of material. This assumes the ash layer extends 260 feet across the floodplain in a band 50 feet wide and one foot thick. The demarcation line presented on Figure 6 for the potential extent of floodplain ash has been estimated to extend approximately 50 feet beyond where ash was identified in the test trenches.

Based on the configuration of the ash deposit and controlling factors such a location on the floodplain slope or burial of ash with the floodplain deposits, CTI has generated two material estimates to facilitate the remedy decision process. Remedial options considered include: (1) excavation and off-site disposal of the ash as special waste; and, (2) the in-place capping of the ash to eliminate the exposure pathway and establishing institutional controls for future land use.

A third option considered would include a combination of the above two options and would involve removal of the readily accessible ash material on the floodplain side slope and allowing the ash layers within the floodplain sediments to remain in-place. This option was not explored further due to the high cost for excavation, transport, and off-site disposal of the majority of the ash as special waste and retaining the requirement for institutional controls and maintenance for the ash present within the floodplain sediments.

Excavation and Off-site Disposal

Excavation and off-site disposal of the delineated ash deposit would include excavation, transport, and disposal of approximately 2,390 cy of readily accessible material along the floodplain slope. In the floodplain, approximately 540 cy of clean overlying soil would be removed and 190 cy of ash present in layers within the floodplain sediments would be excavated and transported off-site for disposal. The estimate provided includes only the area where ash layers were observed during the test trench investigation and could include removing an additional 1,440 cy of clean overlying soil to gain access to an estimated 500 cy of ash within the floodplain sediments. The actual volumes of overlying soil and ash would depend on the delineated limits of the ash deposit within the floodplain.

The floodplain would then be re-graded using the stockpiled clean soil. Additional soil import of 700 cy likely would be required to backfill the floodplain excavation and attain a stable floodplain slope of 3 to1 or less to prevent future erosion. CTI anticipates 300 cy of soil borrow would be required for final grading.

The challenges associated with this option include the following:

- Delineation of the ash layers within the floodplain sediments appears to become increasingly difficult with increased distance from the ash deposit source area. As a result, this likely would require analytical laboratory testing of the material to identify and characterize the ash layers. If the entire ash deposit is to be removed, additional sampling, either using an excavator or Geoprobe may be necessary to delineate the extent of ash in the floodplain based on analytical laboratory sample results. It is important to note that analytical laboratory results for ash layer grab samples collected from test trenches TP-1 and TP-3 were below the KDHE – RSK residential criteria and ash layer grab samples from TP-4, TP-5, and TP-6 exceeded the KDHE – RSK residential criteria. A grid based composite ash layer sampling strategy has the potential to significantly reduce the required ash removal volume in the floodplain.
- The potential for variability in the depth of the ash layers likely would require a overlying clean floodplain soil removal excavation plan based on further investigation and soil sampling performed in the floodplain area. Analytical laboratory results for floodplain sediment grab samples above the ash layers were below the KDHE – RSK residential criteria. This material would be removed and reused as clean soil backfill.
- Removal of the ash deposit along the floodplain slope in the vicinity of the western power pole likely would require modification to the power pole guy wires due to the potential for undermining the power pole support during excavation.
- Confirmation sampling to document removal of the ash deposit from the floodplain slope and the floodplain ash layers within the floodplain sediments would be required to document closure under the KDHE - RSK residential criteria. Based on analytical laboratory samples collected during the CFI test trench investigation, soil grab samples below the ash deposit were below the KDHE – RSK residential criteria.

The benefit of excavation and off-site disposal of the CFI ash deposit is the material would be removed from the site and long-term institutional controls or maintenance in the area would not be required. The relative cost associated with excavation and off-site disposal would be highest of the two remedial options presented.

In-Place Ash Capping and Institutional Controls

In-place ash capping would include reshaping the floodplain slope ash disposal area to move the ash and soil from the crest and upper reaches of the slope to mid slope and the base of the slope to minimize the potential for erosion at the top of the slope. This would decrease the slope grade from the current 3 to 1 to a more stable slope of 4 to 1. In the vicinity of the power pole guy wires, additional fill would be placed in this area to attain the 4 to 1 slope and would eliminate concerns regarding excavation in the area of the power pole support guy wires. Due to the unknown extent of ash layers within the floodplain sediments, CTI recommends expanding the area designated for land-use restrictions to encompass 50 to 100 feet of the floodplain to avoid cost associated with further delineation of the ash layers.

Construction of a 2-foot soil cover over the graded area of approximately 260 feet x 100 feet would require approximately 1,920 cy of soil from an on-base borrow area. The cover at the base of the slope would extend onto the floodplain to ensure sufficient soil cover is in place areas where the ash layers are present at a shallow depth within the floodplain sediments. Further evaluation of the construction limitations in the vicinity of the power pole guy wires would need to be confirmed with the power company prior to determining final soil cap volumes.

The in-place cover and institutional controls for the CFI ash deposit do not present significant construction challenges. Close proximity of an on-base soil borrow source would reduce cost by reducing truck turn-around time. Cover soils could be dumped at the top of the floodplain slope and graded to the required cap thickness requirements using field grade stakes. The long-term disadvantages of institutional controls would be the requirement to perform site inspections and the potential for maintenance of the cover, and the continuation of this area within the Army IRP program.

The benefit of in-place cover and institutional controls of the CFI ash deposit is the significantly lower cost than that of removal and off-site disposal.

Table 1
Laboratory Analytical Sample Summary - Test Trenching
Camp Funston Incinerator Investigation
Fort Riley, Kansas

Test Trench I.D. No.	Sample I.D.	Analytical Methods	Comments
TP-1	CFI TP-1 Composite	RCRA 8 Metals/TCLP	Three sub-sample composite
	CFI TP-1-30'-36" SBA	RCRA 8 Metals	In-place soil below ash deposit
	CFI TP-1-55'-24" SAA	RCRA 8 Metals	In-place floodplain soil above ash deposit
	CFI TP-1-65'-42" ASH	RCRA 8 Metals/TCLP	Ash deposit with floodplain soil
TP-2	CFI TP-2 Composite	RCRA 8 Metals/TCLP	Five sub-sample composite
	CFI TP-2-20'-36" SBA	RCRA 8 Metals	In-place soil below ash deposit
	CFI TP-2-55'-24" SAA	RCRA 8 Metals	In-place floodplain soil above ash deposit
TP-3	CFI TP-3 Composite	RCRA 8 Metals/TCLP	Three sub-sample composite
	CFI TP-3-25'-36" SBA	RCRA 8 Metals	In-place soil below ash deposit
	CFI TP-3-60'-36" SAA	RCRA 8 Metals	In-place floodplain soil above ash deposit
	CFI TP-3-60'-42" ASH	RCRA 8 Metals/TCLP	Ash deposit with floodplain soil
TP-4	CFI TP-4 Composite	RCRA 8 Metals/TCLP	Three sub-sample composite
	CFI TP-4-65'-60" ASH	RCRA 8 Metals/TCLP	Ash deposit with floodplain soil
	CFI TP-4-65'-30" SAA	RCRA 8 Metals	In-place floodplain soil above ash deposit
TP-5	CFI TP-5 Composite	RCRA 8 Metals/TCLP	Four sub-sample composite
	CFI TP-5-70'-54" ASH	RCRA 8 Metals/TCLP	Ash deposit with floodplain soil
	CFI TP-5-80'-24" SAA	RCRA 8 Metals	In-place floodplain soil above ash deposit
TP-6	CFI TP-6 Composite	RCRA 8 Metals/TCLP	Three sub-sample composite
	CFI TP-6-15'-72" SWA	RCRA 8 Metals	Disturbed soil below ash deposit with ash seam
	CFI TP-6-60'-24" SAA	RCRA 8 Metals	In-place floodplain soil above ash deposit
	CFI TP-6-60'-48" ASH	RCRA 8 Metals/TCLP	Ash deposit with floodplain soil

CFI - Camp Funston Incinerator
TCLP - Toxicity Characterictic Leaching Procedure
SAA - Soil Above Ash
SBA - Soil Below Ash
SWA - Soil With Ash
ASH - Ash Sample

Table 2
Summary of Analytical Laboratory Results - Test Trenching
Camp Funston WWI Incinerator
Fort Riley, Kansas

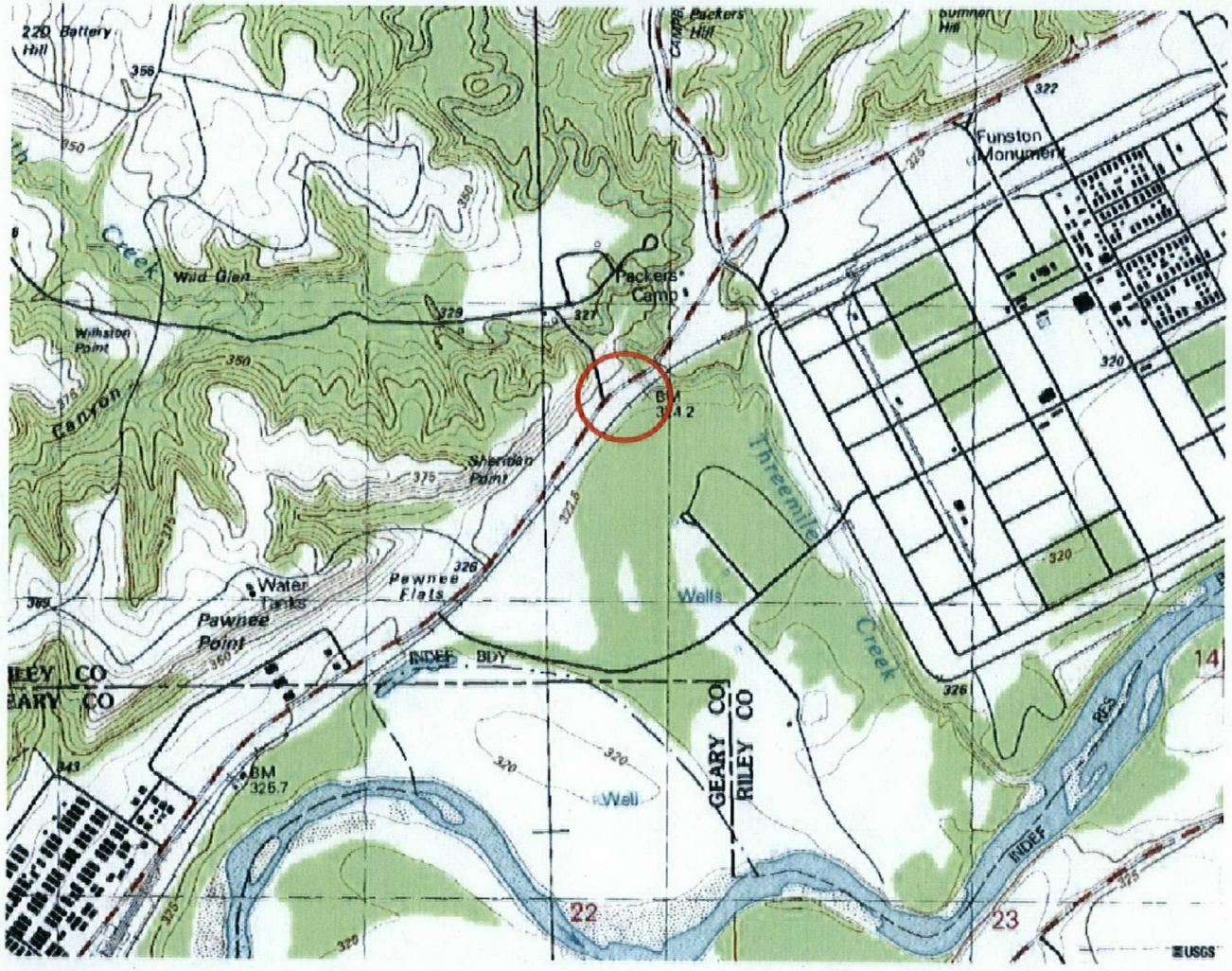
Compound	Arsenic		Barium		Cadmium		Chromium		Lead		Mercury		Selenium		Silver	
Analytical Laboratory Method	Total (mg/kg)	TCLP (mg/L)	Total (mg/kg)	TCLP (mg/L)	Total (mg/kg)	TCLP (mg/L)	Total (mg/kg)	TCLP (mg/L)	Total (mg/kg)	TCLP (mg/L)	Total (mg/kg)	TCLP (mg/L)	Total (mg/kg)	TCLP (mg/L)	Total (mg/kg)	TCLP (mg/L)
Regulatory Limits	11	5.0	5500	100.0	39	1.0	390	5.0	400	5.0	2	0.2	390	1.0	390	5.0
CFI TP-1 Composite	**16.2**	ND	784	1.6	1.3	ND	16.2	ND	76.8	0.10J	0.11	0.0017J	0.66J	ND	0.11J	ND
CFI TP-1-30'-36" SBA	5		156		ND		13.9		44		0.023J		ND		ND	
CFI TP-1-55'-24" SAA	5.2		192		ND		17.5		13.7		0.026J		ND		ND	
CFI TP-1-65'-42" ASH	6.4	ND	199	0.96J	0.36J	ND	16.8	0.011J	30.4	ND	0.064	ND	ND	ND	ND	ND
CFI TP-2 Composite	**22.8**	0.094J	354	0.62J	3.2	0,017J	11.4	ND	126	0.034J	0.074	0.0020J	ND	ND	ND	ND
CFI TP-2-20'-36" SBA	4.5		139		0.25J		11.8		14.9		0.015J		ND		ND	
CFI TP-2-55'-24" SAA	4.2		174		0.15J		16.3		13		0.067		ND		ND	
CFI TP-3 Composite	**20.7**	ND	1380	1.1	1.7	.014J	11.5	ND	120	0.069J	0.057	0.0012J	0.86J	ND	0.24J	ND
CFI TP-3-25'-36" SBA	3.3		113		0.11J		11.5		8.5		ND		ND		ND	
CFI TP-3-60'-36" SAA	5.2		184		0.092J		17.7		14.2		0.025J		ND		ND	
CFI TP-3-60'-42" ASH	10.7	ND	1030	1	1.8	0.019J	12.6	0.014J	57	0.068J	0.072	ND	ND	ND	ND	ND
CFI TP-4 Composite	**22.3**	ND	439	0.45J	3.1	0.023J	10.8	ND	143	0.058J	0.65	ND	0.73J	ND	0.32J	ND
CFI TP-4-65'-60" ASH	**86.9**	ND	370	0.97J	2.2	0.017J	13	0.015J	366	0.037J	0.11	ND	0.84J	ND	0.94J	0.011J
CFI TP-4-65'-30" SAA	5		191		0.13J		17.4		14.3		0.016J		ND		ND	
CFI TP-5 Composite	**27.1**	ND	763	0.20J	7.3	0.031J	12.6	ND	199	0.042J	0.2	ND	ND	ND	0.42J	ND
CFI TP-5-70'-54" ASH	**21.8**	ND	368	0.38J	15.6	0.013J	8.4	ND	91.6	0.024J	0.074	ND	1.0J	ND	0.19J	ND
CFI TP-5-80'-24" SAA	3.7		129		ND		13.2		10.3		0.015J		ND		ND	
CFI TP-6 Composite	**34.4**	0.060J	542	0.65J	3.7	0.028J	14.5	0.012J	334	0.094J	ND	ND	0.59J	ND	0.41J	ND
CFI TP-6-15'-72" SNA	3.5		126		ND		13.4		8.9		ND		ND		ND	
CFI TP-6-60'-24" SAA	5.4		198		ND		20.3		14.4		0.014J		ND		ND	
CFI TP-6-60'-48" ASH	**26.8**	ND	244	0.98J	1.9	0.010J	16.3	ND	182	0.034J	0.13	ND	ND	ND	0.53J	ND

Anaytical Laboratory Methods: 8 RCRA Metals/TCLP by EPA SW846-6010 and 7470/7471 (Mercury).
Regulatory Limits: RCRA 8 Total Metals - KDHE Tier 2 Risk-Based Residential Criteria, TCLP - Regulatory Limits.
SAA - Soil Above Ash
SBA - Soil Below Ash
SNA - Soil No Ash
ASH - Ash Sample

Table 3
Summary of Analytical Laboratory Results - Upland Confirmation Samples
Camp Funston WWI Incinerator
Fort Riley, Kansas

Compound	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
Analytical Laboratory Method	Total (mg/kg)	Total (mg/kg)	Total (mg/kg)	Total (mg/kg)	Total (mg/kg)	Total (mg/kg)	Total (mg/kg)	Total (mg/kg)
Regulatory Limits	11	5500	39	390	400	2.0	390	390
CFI - Q1	4.5	109	0.27J	7.3	14.2	0.26	0.30J	0.15J
CFI - Q2	4.2	106	0.30J	7.5	12.6	0.70	0.22J	0.14J
CFI - Q3	3.7	97.5	0.44J	7.9	14.6	0.67	0.31J	0.17J
CFI - Q4	2.9	90.5	0.17J	7.5	6.9	0.01J	0.28J	0.12J
CFI - Q5	5.0	99.7	0.40J	7.7	16.8	0.25J	ND	0.16J
CFI - PAD - C	3.2	78.5	0.13J	8.0	7.0	ND	ND	0.13J
CFI - SP -5	3.9	108	0.40J	7.9	11.5	**3.4**	0.25J	0.14J
CFI - SP -8	3.7	88.9	0.22J	8.6	9.7	0.39	ND	0.073J
CFI - SP -13	**13.8**	109	1.9	8.3	67.3	0.12	0.66J	0.23J

Anaytical Laboratory Methods: 8 RCRA Metals/TCLP by EPA SW846-6010 and 7470/7471 (Mercury).
Regulatory Limits: RCRA 8 Total Metals - KDHE Tier 2 Risk-Based Residential Criteria, TCLP - Regulatory Limits.
Q1 through Q5 - Upland Soil Confirmation Quadrant
CFI - PAD - C: Confirmation Soil Sample Below Incinerator Pad
CFI - SP - 5 through CFI - SP - 13: Railroad Spur Soil Pile Sample Result



LEGEND

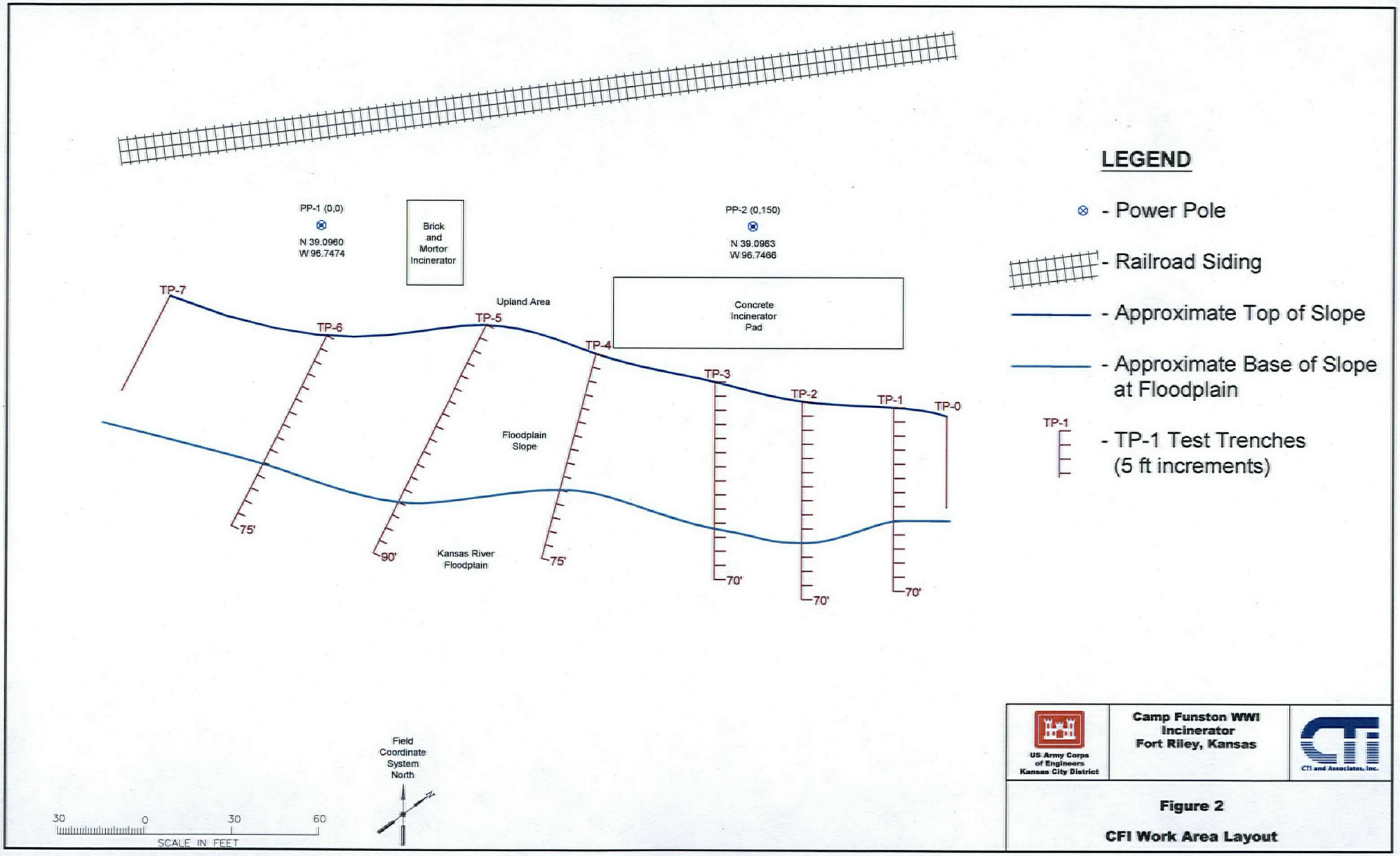
Camp Funston WWI Incinerator

US Army Corps of Engineers

Camp Funston WWI Incinerator
Fort Riley, Kansas

CTI and Associates, Inc.

FIGURE 1
Camp Funston WWI Incinerator Location Map



US Army Corps of Engineers Kansas City District

Camp Funston WWI Incinerator
Fort Riley, Kansas

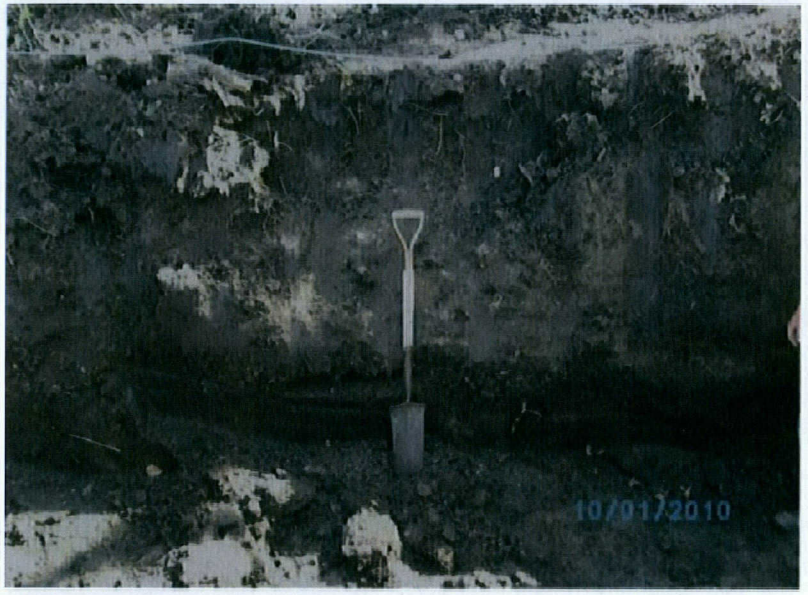
CTI and Associates, Inc.

Figure 2

CFI Work Area Layout

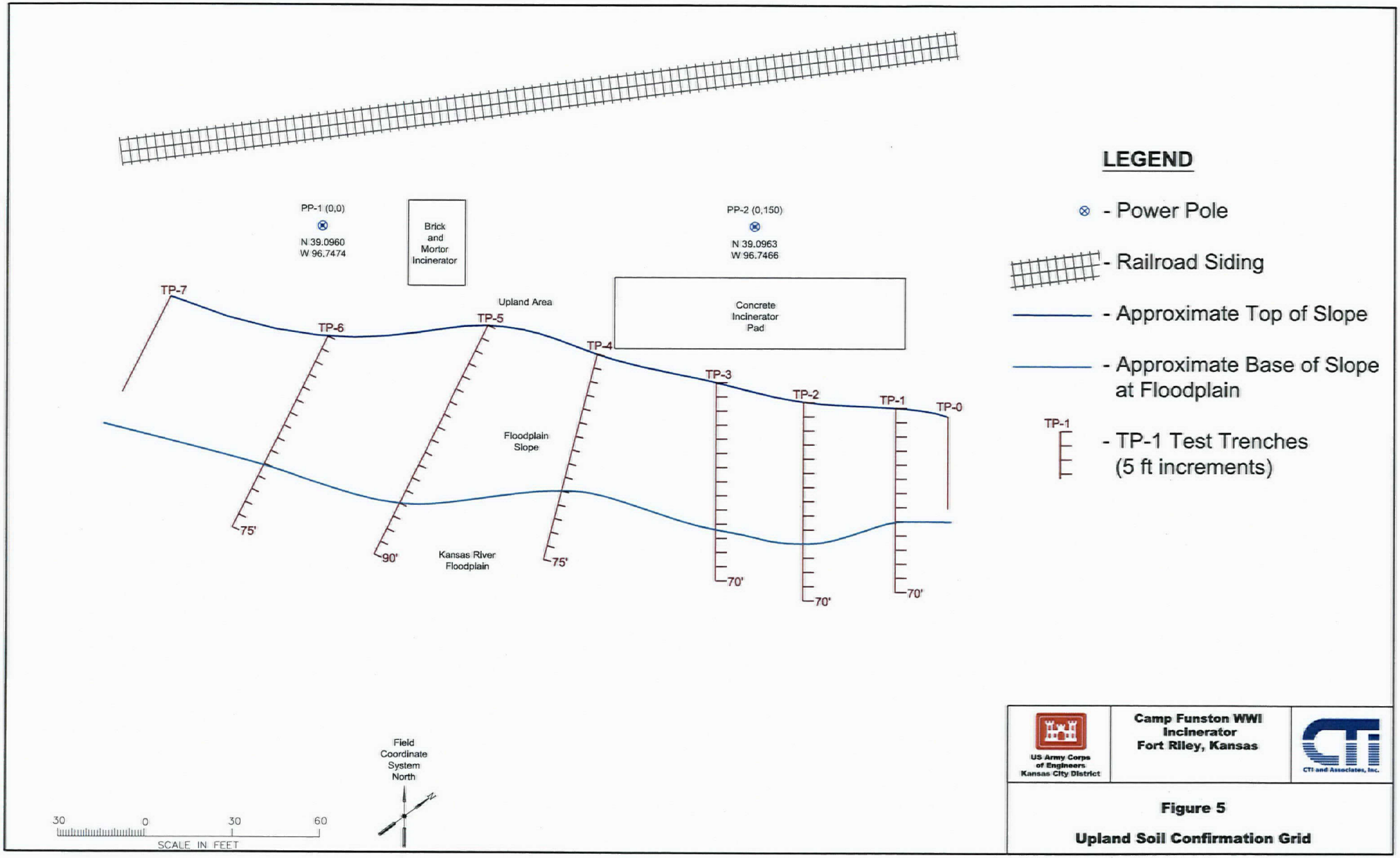
Camp Funston WWI Incinerator
Fort Riley, Kansas

FIGURE 3
Incinerator Ash Photographs – Floodplain Slope



Camp Funston WWI Incinerator
Fort Riley, Kansas

FIGURE 4
Ash Layer Photographs – Floodplain Deposits



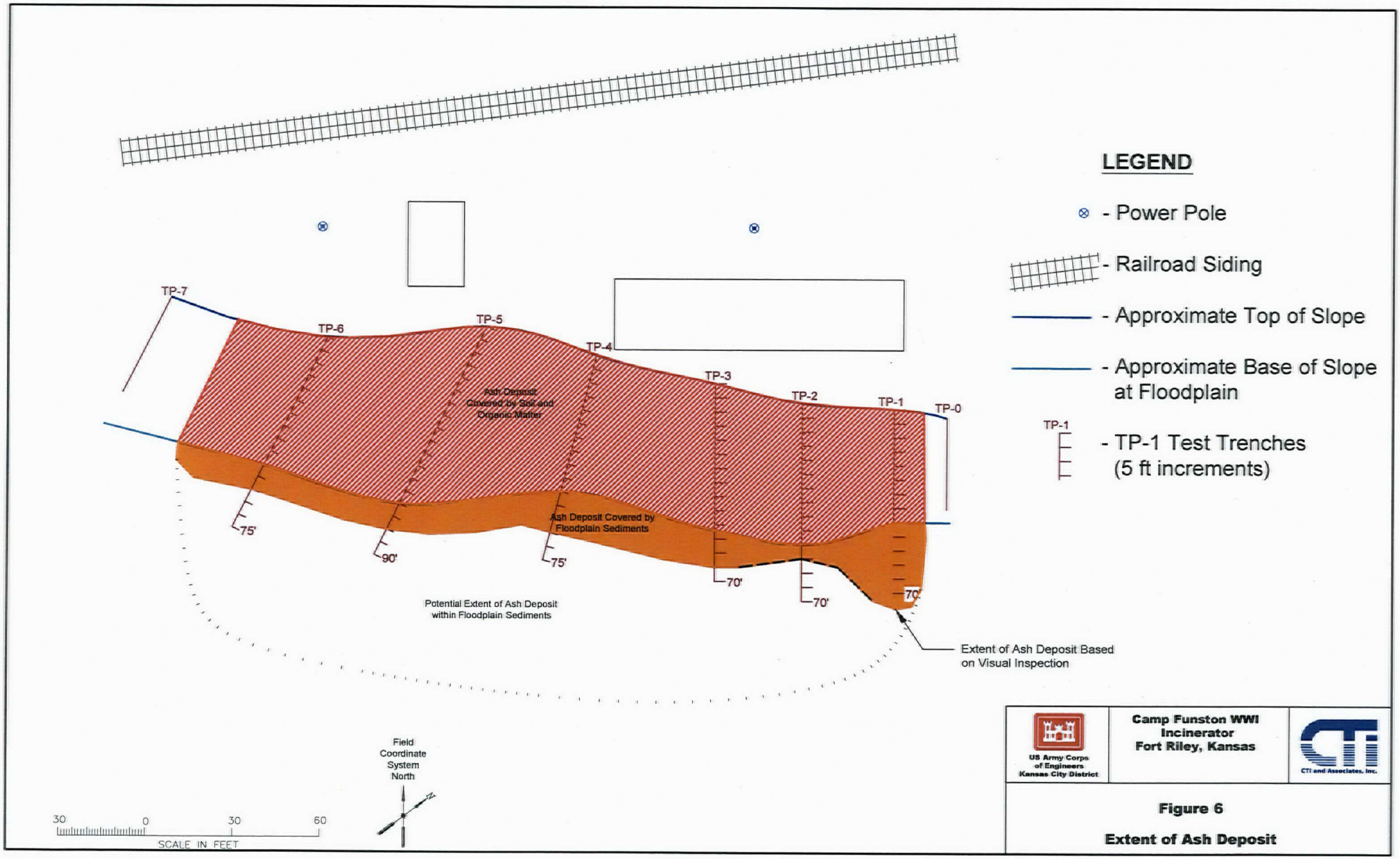
US Army Corps of Engineers Kansas City District

Camp Funston WWI Incinerator
Fort Riley, Kansas

CTI and Associates, Inc.

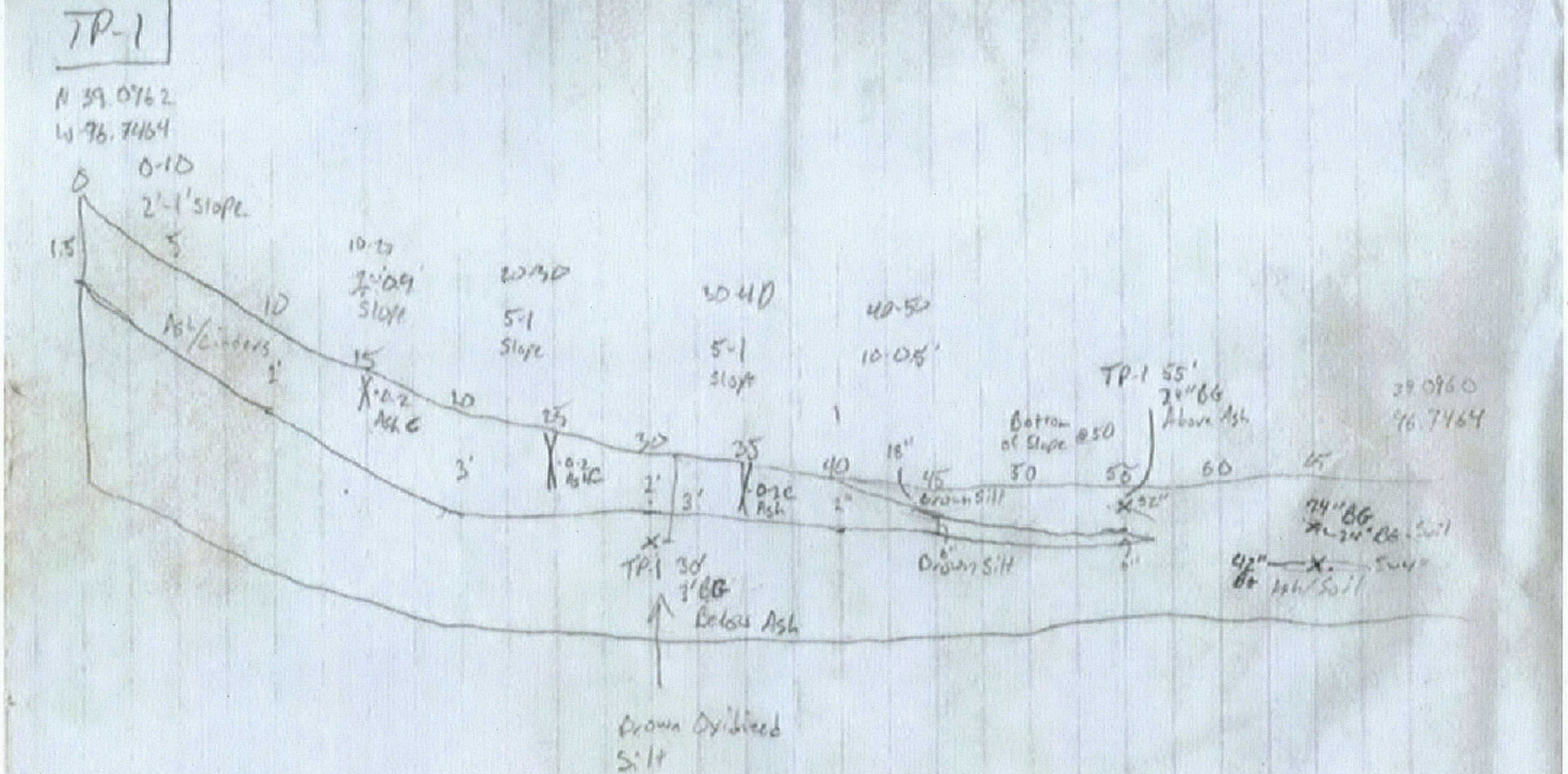
Figure 5

Upland Soil Confirmation Grid

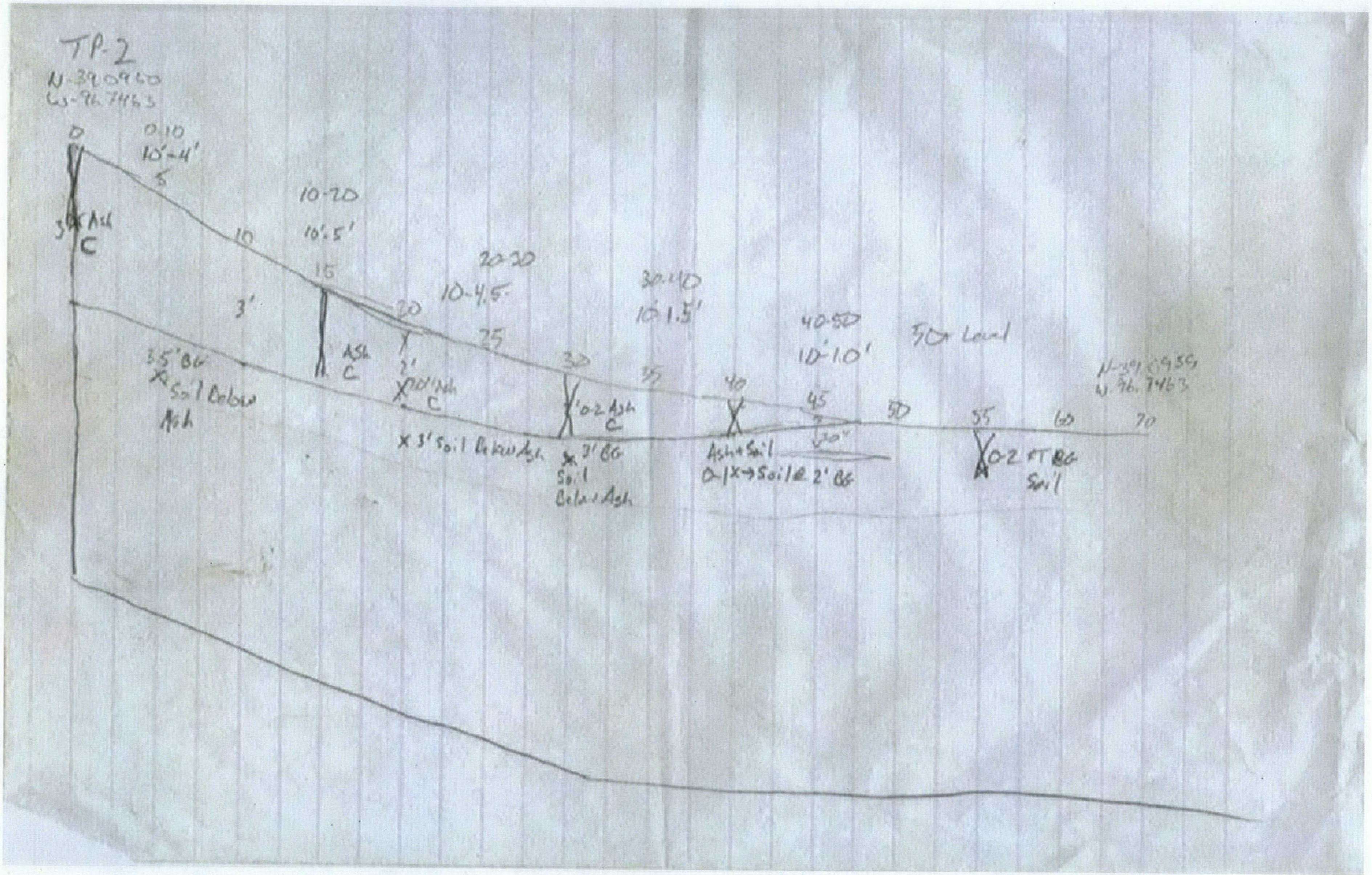

LEGEND
- Power Pole
- Railroad Siding
- Approximate Top of Slope
- Approximate Base of Slope at Floodplain
TP-1
- TP-1 Test Trenches (5 ft increments)
TP-7
TP-6
TP-5
TP-4
TP-3
TP-2
TP-1
TP-0
Ash Deposit Covered by Soil and Organic Matter
Ash Deposit Covered by Floodplain Sediments
75'
90'
75'
70'
70'
70'
Potential Extent of Ash Deposit within Floodplain Sediments
Extent of Ash Deposit Based on Visual Inspection
Field Coordinate System North
N
30 0 30 60
SCALE IN FEET
US Army Corps of Engineers Kansas City District
Camp Funston WWI Incinerator
Fort Riley, Kansas
CTI and Associates, Inc.
Figure 6
Extent of Ash Deposit

Attachment A

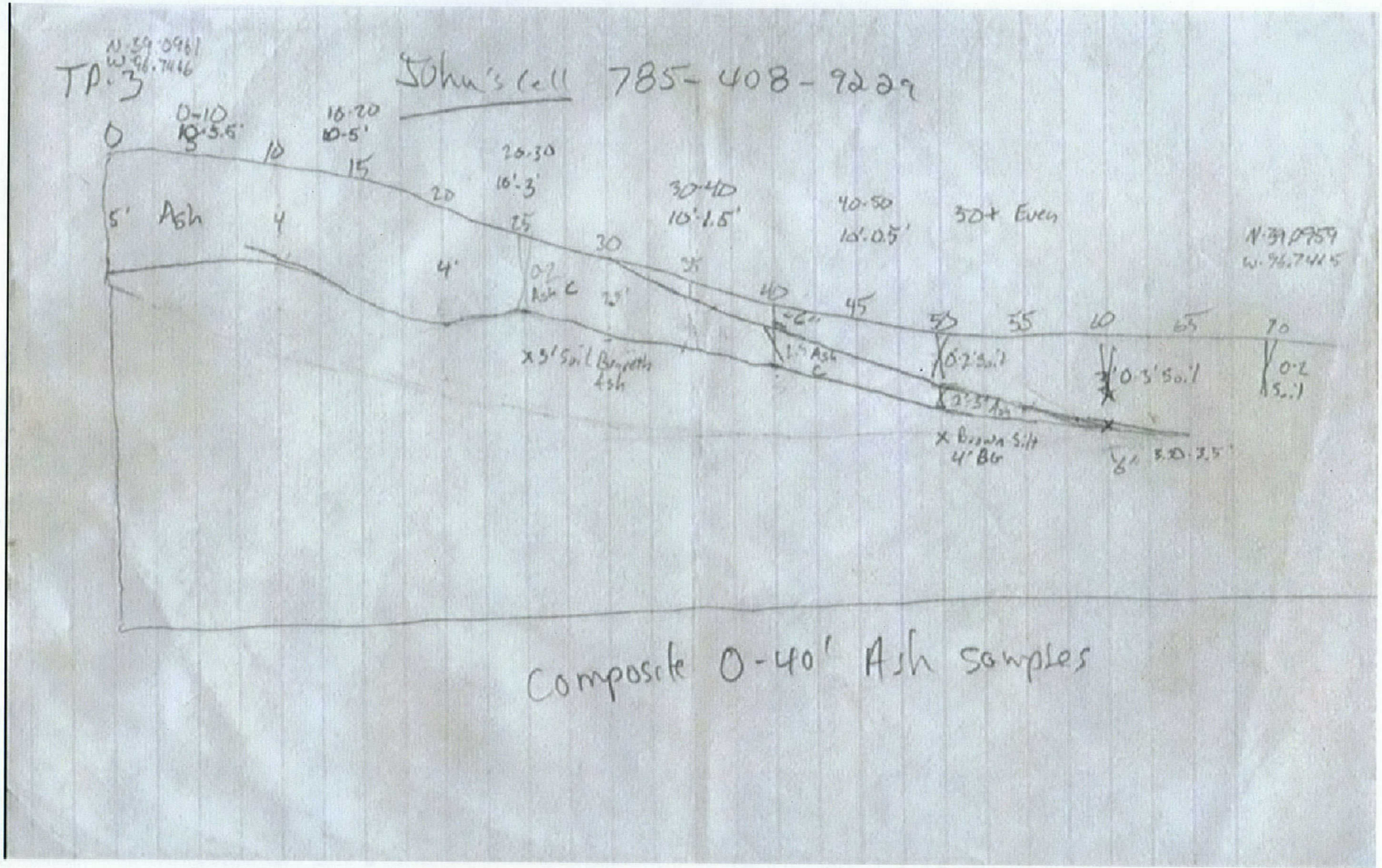
Test Trench Field Logs



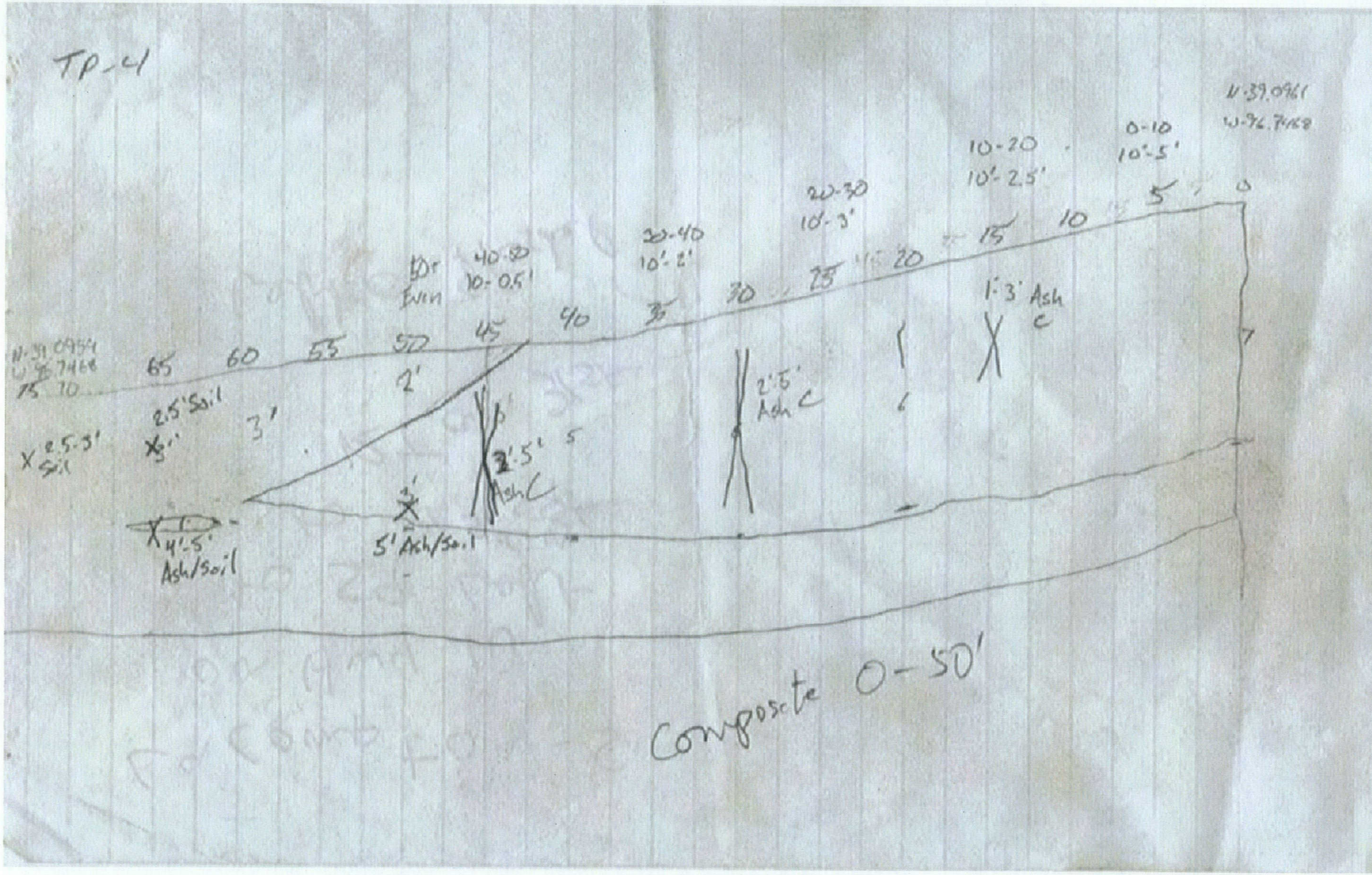
TP-1
N 39.0762
W 96.7464
0-10
2'-1' slope
10-20
Slope
20-30
5-1
Slope
30-40
5-1
Slope
40-50
10-0.5'
Ash/Cinders
TP-1 55'
24" BG
Above Ash
Bottom of Slope @50
Brown Silt
Brown Silt
TP-1 30'
3' BG
Below Ash
Brown Oxidized Silt
39.0960
96.7464
74" BG
Ash/Soil

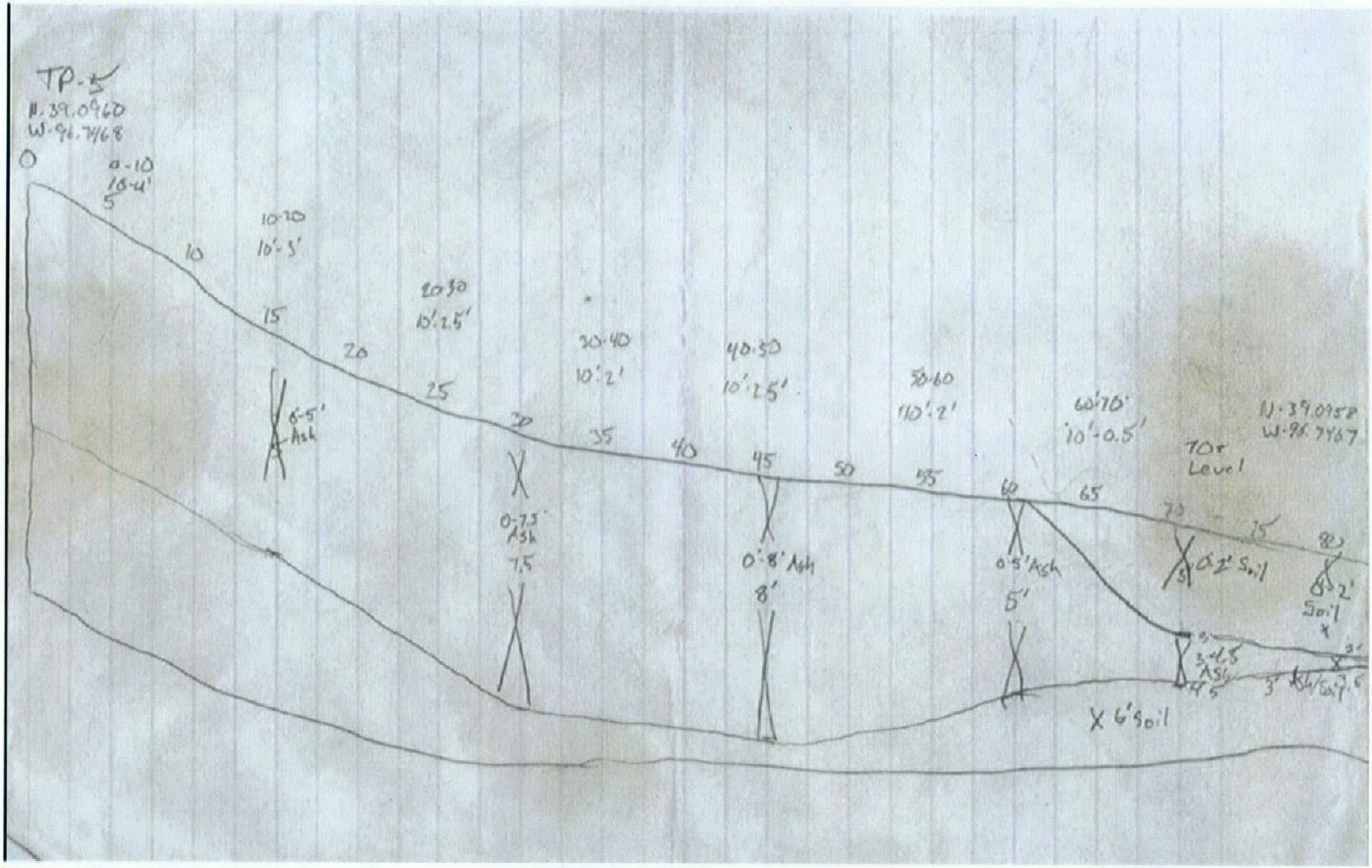


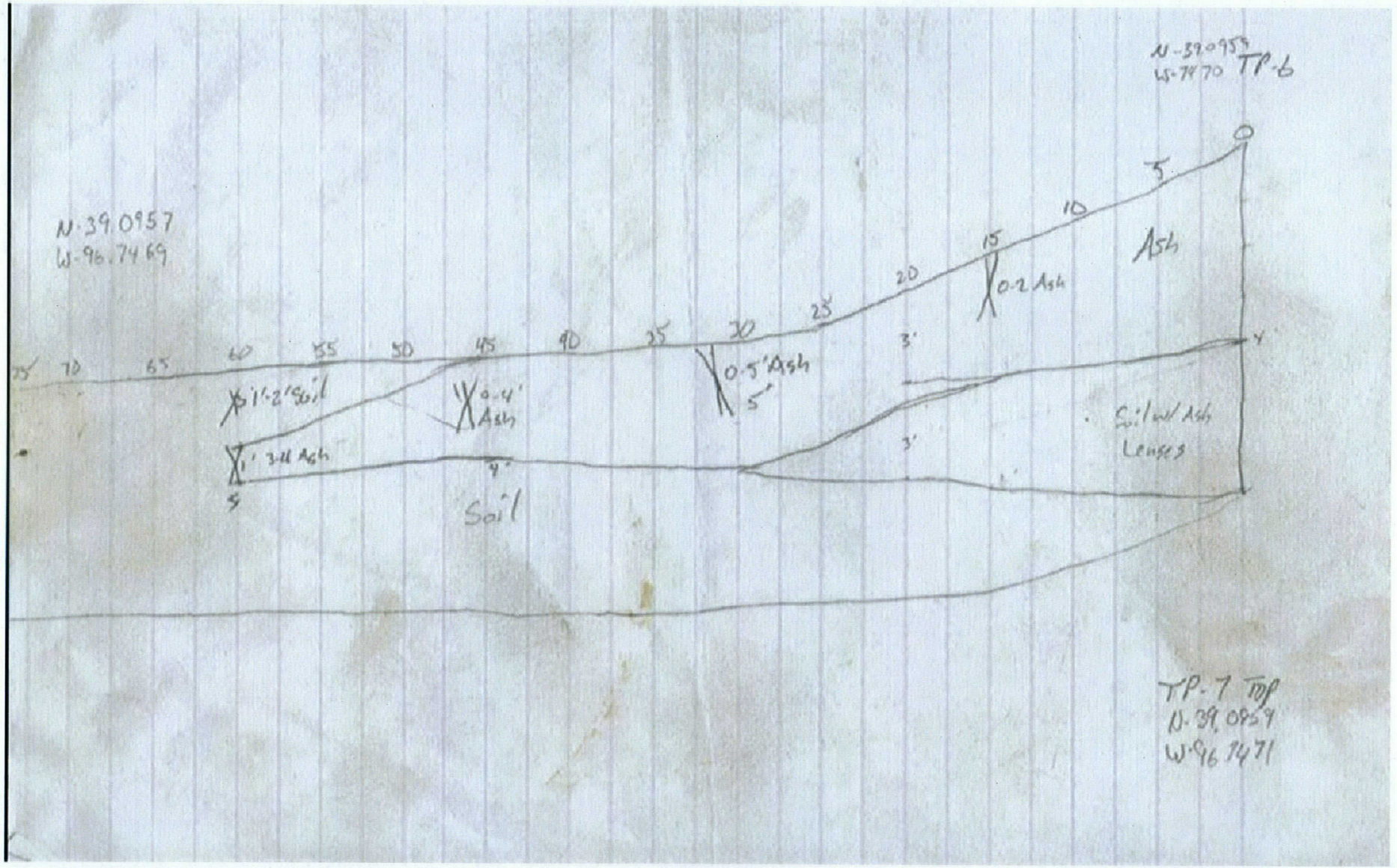
TP-2
N-39.0960
W-96.7463
0
0-10
10'-4'
5
3' Ash
C
10
10-20
10'-5'
15
3'
Ash
C
20
20-30
10-4.5
25
2'
3.5' BG
Soil Below
Ash
2.0' Ash
C
X 3' Soil Below Ash
30
30-40
10'-1.5'
35
0-2 Ash
C
3' BG
Soil
Below Ash
40
Ash + Soil
0-1 X → Soil @ 2' BG
40-50
10'-1.0'
45
30"
50
50+ Level
55
0-2 FT BG
Soil
60
70
N-39.0959
W-96.7463



Composite 0-40' Ash samples


TP-4
N-39.0961
W-96.7468
0-10
10'-5'
10-20
10'-2.5'
20-30
10'-3'
20-40
10'-2'
40-50
10-0.5'
1'-3' Ash
2'-5' Ash
5' Ash/Soil
4'-5' Ash/Soil
2.5' Soil
2.5-3' Soil
Composite 0-50'


TP-5
N. 39.0960
W. 96.7168
0
0-10
10-4'
5
10
10-20
10'-5'
15
20
20-30
10'-2.5'
25
30
30-40
10'-2'
35
40
40-50
10'-2.5'
45
50
50-60
10'-2'
55
60
60-70
10'-0.5'
65
70
70' Level
75
80
N. 39.0958
W. 96.7167
6-5' Ash
0-7.5' Ash
7.5
0-8' Ash
8'
0-5' Ash
5'
0-2' Soil
3-4.5 Ash
3' Ash/Soil
X 6' Soil


N-39.0957
W-96.7469
N-39.0953
W-96.7470 TP-6
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
1'-2' Soil
1' 3-4 Ash
5'
0-4' Ash
4'
Soil
0.5' Ash
5'
0.2 Ash
Ash
3'
4'
3'
Soil w/ Ash Lenses
TP-7 Top
N-39.0957
W-96.7471

Attachment B

Analytical Laboratory Results

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October 06, 2010

Robert Stenson
CTI and Associates, Inc.
1202 W. Washington Ave.
Cleveland, WI 53015

RE: Project: CFI FORT RILEY
Pace Project No.: 6086755

Dear Robert Stenson:
Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamie Slade

Jamie Slade

jamie.slade@pacelabs.com
Project Manager

Enclosures

cc: David Plumb, CTI and Associates, Inc.

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CERTIFICATIONS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 05-008-0
Illinois Certification #: 001191
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-08-TX
Utah Certification #: 9135995665

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SAMPLE SUMMARY

Project: CFI FORT RILEY
Pace Project No.: 6086755

Lab ID	Sample ID	Matrix	Date Collected	Date Received
6086755001	CFI TP-1 COMPOSITE	Solid	10/01/10 14:15	10/04/10 09:15
6086755002	CFI TP-1-30-36 SBA	Solid	10/01/10 14:20	10/04/10 09:15
6086755003	CFI TP-1-55-24 SAA	Solid	10/01/10 14:25	10/04/10 09:15
6086755004	CFI TP-1-65-42 ASH	Solid	10/01/10 14:30	10/04/10 09:15
6086755005	CFI TP-2 COMPOSITE	Solid	10/01/10 14:35	10/04/10 09:15
6086755006	CFI TP-2-20-36 SBA	Solid	10/01/10 14:40	10/04/10 09:15
6086755007	CFI TP-2-55-24 SAA	Solid	10/01/10 14:45	10/04/10 09:15
6086755008	CFI TP-3 COMPOSITE	Solid	10/01/10 14:50	10/04/10 09:15
6086755009	CFI TP-3-25-36 SBA	Solid	10/01/10 14:55	10/04/10 09:15
6086755010	CFI TP-3-60-36 SAA	Solid	10/01/10 15:00	10/04/10 09:15
6086755011	CFI TP-3-60-42 ASH	Solid	10/01/10 15:05	10/04/10 09:15
6086755012	CFI TP-4 COMPOSITE	Solid	10/01/10 15:10	10/04/10 09:15
6086755013	CFI TP-4-65-60 ASH	Solid	10/01/10 15:15	10/04/10 09:15
6086755014	CFI TP-4-65-30 SAA	Solid	10/01/10 15:20	10/04/10 09:15
6086755015	CFI TP-5 COMPOSITE	Solid	10/01/10 15:25	10/04/10 09:15
6086755016	CFI TP-5 70-54 ASH	Solid	10/01/10 15:30	10/04/10 09:15
6086755017	CFI TP-5 80-24 SAA	Solid	10/01/10 15:35	10/04/10 09:15
6086755018	CFI TP-6 COMPOSITE	Solid	10/01/10 15:40	10/04/10 09:15
6086755019	CFI TP-6 15-72 SNA	Solid	10/01/10 15:45	10/04/10 09:15
6086755020	CFI TP-6 60-24 SAA	Solid	10/01/10 15:50	10/04/10 09:15
6086755021	CFI TP-6 60-48 ASH	Solid	10/01/10 15:55	10/04/10 09:15

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SAMPLE ANALYTE COUNT

Project: CFI FORT RILEY
Pace Project No.: 6086755

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6086755001	CFI TP-1 COMPOSITE	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755002	CFI TP-1-30-36 SBA	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755003	CFI TP-1-55-24 SAA	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755004	CFI TP-1-65-42 ASH	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755005	CFI TP-2 COMPOSITE	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA'	1
6086755006	CFI TP-2-20-36 SBA	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755007	CFI TP-2-55-24 SAA	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755008	CFI TP-3 COMPOSITE	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755009	CFI TP-3-25-36 SBA	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755010	CFI TP-3-60-36 SAA	EPA 6010	SMW	7
		EPA 7471	JDH	1

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SAMPLE ANALYTE COUNT

Project: CFI FORT RILEY
Pace Project No.: 6086755

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		ASTM D2974-87	JHA	1
6086755011	CFI TP-3-60-42 ASH	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755012	CFI TP-4 COMPOSITE	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755013	CFI TP-4-65-60 ASH	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755014	CFI TP-4-65-30 SAA	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755015	CFI TP-5 COMPOSITE	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755016	CFI TP-5 70-54 ASH	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755017	CFI TP-5 80-24 SAA	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755018	CFI TP-6 COMPOSITE	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1

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SAMPLE ANALYTE COUNT

Project: CFI FORT RILEY
Pace Project No.: 6086755

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6086755019	**CFI TP-6 15-72 SNA**	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755020	**CFI TP-6 60-24 SAA**	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	JHA	1
6086755021	**CFI TP-6 60-48 ASH**	EPA 6010	SMW	7
		EPA 6010	SMW	7
		EPA 7470	JDH	1
		EPA 7471	JDH	1
		ASTM D2974-87	TM	1

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PROJECT NARRATIVE

Project: CFI FORT RILEY
Pace Project No.: 6086755

Method: **EPA 6010**
Description: 6010 MET ICP
Client: CTI and Associates, Inc.
Date: October 06, 2010

General Information:
21 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MPRP/12410

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 6086755021

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 711842)
  - Barium
  - Lead
  - Selenium

QC Batch: MPRP/12409

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 6086755001

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 711836)
  - Barium
  - Chromium
  - Selenium

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CFI FORT RILEY
Pace Project No.: 6086755

Method: **EPA 6010**
Description: 6010 MET ICP
Client: CTI and Associates, Inc.
Date: October 06, 2010

Analyte Comments:

QC Batch: MPRP/12409

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- CFI TP-1-30-36 SBA (Lab ID: 6086755002)
  - Cadmium
- CFI TP-1-55-24 SAA (Lab ID: 6086755003)
  - Cadmium
- CFI TP-1-65-42 ASH (Lab ID: 6086755004)
  - Selenium
- CFI TP-2 COMPOSITE (Lab ID: 6086755005)
  - Selenium
- CFI TP-2-20-36 SBA (Lab ID: 6086755006)
  - Selenium
- CFI TP-2-55-24 SAA (Lab ID: 6086755007)
  - Selenium
- CFI TP-3-25-36 SBA (Lab ID: 6086755009)
  - Selenium
- CFI TP-3-60-36 SAA (Lab ID: 6086755010)
  - Selenium
- CFI TP-3-60-42 ASH (Lab ID: 6086755011)
  - Selenium
- CFI TP-4-65-30 SAA (Lab ID: 6086755014)
  - Selenium
- CFI TP-5 80-24 SAA (Lab ID: 6086755017)
  - Cadmium
- CFI TP-5 COMPOSITE (Lab ID: 6086755015)
  - Selenium
- CFI TP-6 15-72 SNA (Lab ID: 6086755019)
  - Cadmium
- CFI TP-6 60-24 SAA (Lab ID: 6086755020)
  - Cadmium

QC Batch: MPRP/12410

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- CFI TP-6 60-48 ASH (Lab ID: 6086755021)
  - Selenium

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PROJECT NARRATIVE

Project: CFI FORT RILEY
Pace Project No.: 6086755

Method: **EPA 6010**
Description: 6010 MET ICP, TCLP
Client: CTI and Associates, Inc.
Date: October 06, 2010

General Information:
11 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CFI FORT RILEY
Pace Project No.: 6086755

Method: **EPA 7470**
Description: 7470 Mercury, TCLP
Client: CTI and Associates, Inc.
Date: October 06, 2010

General Information:
11 samples were analyzed for EPA 7470. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7470 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: CFI FORT RILEY
Pace Project No.: 6086755

Method: **EPA 7471**
Description: 7471 Mercury
Client: CTI and Associates, Inc.
Date: October 06, 2010

General Information:
21 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-1 COMPOSITE **Lab ID: 6086755001** Collected: 10/01/10 14:15 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**16.2**	mg/kg	2.4	0.45	2	10/04/10 15:25	10/05/10 16:30	7440-38-2	
Barium	**784**	mg/kg	2.4	0.071	2	10/04/10 15:25	10/05/10 16:30	7440-39-3	
Cadmium	**1.3**	mg/kg	1.2	0.064	2	10/04/10 15:25	10/05/10 16:30	7440-43-9	
Chromium	**16.2**	mg/kg	1.2	0.099	2	10/04/10 15:25	10/05/10 16:30	7440-47-3	
Lead	**76.8**	mg/kg	1.2	0.28	2	10/04/10 15:25	10/05/10 16:30	7439-92-1	
Selenium	**0.66J**	mg/kg	3.5	0.52	2	10/04/10 15:25	10/05/10 16:30	7782-49-2	
Silver	**0.11J**	mg/kg	1.7	0.078	2	10/04/10 15:25	10/05/10 16:30	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 18:54	7440-38-2	
Barium	**1.6**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 18:54	7440-39-3	
Cadmium	ND	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 18:54	7440-43-9	
Chromium	ND	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 18:54	7440-47-3	
Lead	**0.10J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 18:54	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 18:54	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 18:54	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	**0.17J**	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 16:49	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.11**	mg/kg	0.054	0.0096	1	10/05/10 11:10	10/05/10 15:50	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.0**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-1-30-36 SBA **Lab ID: 6086755002** Collected: 10/01/10 14:20 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.0**	mg/kg	2.2	0.42	2	10/04/10 15:25	10/05/10 17:09	7440-38-2	
Barium	**156**	mg/kg	2.2	0.066	2	10/04/10 15:25	10/05/10 17:09	7440-39-3	
Cadmium	ND	mg/kg	1.1	0.059	2	10/04/10 15:25	10/05/10 17:09	7440-43-9	D3
Chromium	**13.9**	mg/kg	1.1	0.092	2	10/04/10 15:25	10/05/10 17:09	7440-47-3	
Lead	**44.0**	mg/kg	1.1	0.26	2	10/04/10 15:25	10/05/10 17:09	7439-92-1	
Selenium	ND	mg/kg	3.3	0.48	2	10/04/10 15:25	10/05/10 17:09	7782-49-2	
Silver	ND	mg/kg	1.5	0.073	2	10/04/10 15:25	10/05/10 17:09	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.023J**	mg/kg	0.051	0.0092	1	10/05/10 11:10	10/05/10 14:41	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.7**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-1-55-24 SAA **Lab ID: 6086755003** Collected: 10/01/10 14:25 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.2**	mg/kg	2.5	0.47	2	10/04/10 15:25	10/05/10 17:12	7440-38-2	
Barium	**192**	mg/kg	2.5	0.074	2	10/04/10 15:25	10/05/10 17:12	7440-39-3	
Cadmium	ND	mg/kg	1.2	0.066	2	10/04/10 15:25	10/05/10 17:12	7440-43-9	D3
Chromium	**17.5**	mg/kg	1.2	0.10	2	10/04/10 15:25	10/05/10 17:12	7440-47-3	
Lead	**13.7**	mg/kg	1.2	0.30	2	10/04/10 15:25	10/05/10 17:12	7439-92-1	
Selenium	ND	mg/kg	3.7	0.54	2	10/04/10 15:25	10/05/10 17:12	7782-49-2	
Silver	ND	mg/kg	1.7	0.081	2	10/04/10 15:25	10/05/10 17:12	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.026J**	mg/kg	0.051	0.0091	1	10/05/10 11:10	10/05/10 14:43	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**26.1**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-1-65-42 ASH **Lab ID: 6086755004** Collected: 10/01/10 14:30 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.4**	mg/kg	2.3	0.43	2	10/04/10 15:25	10/05/10 17:17	7440-38-2	
Barium	**199**	mg/kg	2.3	0.068	2	10/04/10 15:25	10/05/10 17:17	7440-39-3	
Cadmium	**0.36J**	mg/kg	1.1	0.061	2	10/04/10 15:25	10/05/10 17:17	7440-43-9	
Chromium	**16.8**	mg/kg	1.1	0.095	2	10/04/10 15:25	10/05/10 17:17	7440-47-3	
Lead	**30.4**	mg/kg	1.1	0.27	2	10/04/10 15:25	10/05/10 17:17	7439-92-1	
Selenium	ND	mg/kg	3.4	0.50	2	10/04/10 15:25	10/05/10 17:17	7782-49-2	D3
Silver	ND	mg/kg	1.6	0.074	2	10/04/10 15:25	10/05/10 17:17	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 18:58	7440-38-2	
Barium	**0.96J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 18:58	7440-39-3	
Cadmium	ND	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 18:58	7440-43-9	
Chromium	**0.011J**	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 18:58	7440-47-3	
Lead	ND	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 18:58	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 18:58	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 18:58	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 16:50	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.064**	mg/kg	0.048	0.0086	1	10/05/10 11:10	10/05/10 14:45	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**21.4**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-2 COMPOSITE **Lab ID: 6086755005** Collected: 10/01/10 14:35 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**22.8**	mg/kg	1.9	0.36	2	10/04/10 15:25	10/05/10 17:21	7440-38-2	
Barium	**354**	mg/kg	1.9	0.057	2	10/04/10 15:25	10/05/10 17:21	7440-39-3	
Cadmium	**3.2**	mg/kg	0.95	0.051	2	10/04/10 15:25	10/05/10 17:21	7440-43-9	
Chromium	**11.4**	mg/kg	0.95	0.080	2	10/04/10 15:25	10/05/10 17:21	7440-47-3	
Lead	**126**	mg/kg	0.95	0.23	2	10/04/10 15:25	10/05/10 17:21	7439-92-1	
Selenium	ND	mg/kg	2.8	0.42	2	10/04/10 15:25	10/05/10 17:21	7782-49-2	D3
Silver	**0.27J**	mg/kg	1.3	0.063	2	10/04/10 15:25	10/05/10 17:21	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	**0.094J**	mg/L	0.50	0.050	1	10/05/10 10:00	10/06/10 10:37	7440-38-2	
Barium	**0.62J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/06/10 10:37	7440-39-3	
Cadmium	**0.017J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/06/10 10:37	7440-43-9	
Chromium	ND	mg/L	0.10	0.010	1	10/05/10 10:00	10/06/10 10:37	7440-47-3	
Lead	**0.034J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/06/10 10:37	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/06/10 10:37	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/06/10 10:37	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	**0.20J**	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 16:40	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.074**	mg/kg	0.059	0.011	1	10/05/10 11:10	10/05/10 14:46	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.2**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-2-20-36 SBA **Lab ID: 6086755006** Collected: 10/01/10 14:40 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.5**	mg/kg	1.9	0.36	2	10/04/10 15:25	10/05/10 17:24	7440-38-2	
Barium	**139**	mg/kg	1.9	0.057	2	10/04/10 15:25	10/05/10 17:24	7440-39-3	
Cadmium	**0.25J**	mg/kg	0.95	0.051	2	10/04/10 15:25	10/05/10 17:24	7440-43-9	
Chromium	**11.8**	mg/kg	0.95	0.080	2	10/04/10 15:25	10/05/10 17:24	7440-47-3	
Lead	**14.9**	mg/kg	0.95	0.23	2	10/04/10 15:25	10/05/10 17:24	7439-92-1	
Selenium	ND	mg/kg	2.9	0.42	2	10/04/10 15:25	10/05/10 17:24	7782-49-2	D3
Silver	ND	mg/kg	1.3	0.063	2	10/04/10 15:25	10/05/10 17:24	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.015J**	mg/kg	0.048	0.0087	1	10/05/10 11:10	10/05/10 14:48	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.6**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-2-55-24 SAA **Lab ID: 6086755007** Collected: 10/01/10 14:45 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.2**	mg/kg	1.9	0.36	2	10/04/10 15:25	10/05/10 17:28	7440-38-2	
Barium	**174**	mg/kg	1.9	0.057	2	10/04/10 15:25	10/05/10 17:28	7440-39-3	
Cadmium	**0.15J**	mg/kg	0.94	0.051	2	10/04/10 15:25	10/05/10 17:28	7440-43-9	
Chromium	**16.3**	mg/kg	0.94	0.079	2	10/04/10 15:25	10/05/10 17:28	7440-47-3	
Lead	**13.0**	mg/kg	0.94	0.23	2	10/04/10 15:25	10/05/10 17:28	7439-92-1	
Selenium	ND	mg/kg	2.8	0.42	2	10/04/10 15:25	10/05/10 17:28	7782-49-2	D3
Silver	ND	mg/kg	1.3	0.062	2	10/04/10 15:25	10/05/10 17:28	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.067**	mg/kg	0.052	0.0094	1	10/05/10 11:10	10/05/10 14:50	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.4**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-3 COMPOSITE **Lab ID: 6086755008** Collected: 10/01/10 14:50 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**20.7**	mg/kg	2.0	0.39	2	10/04/10 15:25	10/05/10 17:31	7440-38-2	
Barium	**1380**	mg/kg	2.0	0.061	2	10/04/10 15:25	10/05/10 17:31	7440-39-3	
Cadmium	**1.7**	mg/kg	1.0	0.055	2	10/04/10 15:25	10/05/10 17:31	7440-43-9	
Chromium	**11.5**	mg/kg	1.0	0.085	2	10/04/10 15:25	10/05/10 17:31	7440-47-3	
Lead	**120**	mg/kg	1.0	0.24	2	10/04/10 15:25	10/05/10 17:31	7439-92-1	
Selenium	**0.86J**	mg/kg	3.0	0.45	2	10/04/10 15:25	10/05/10 17:31	7782-49-2	
Silver	**0.24J**	mg/kg	1.4	0.067	2	10/04/10 15:25	10/05/10 17:31	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:01	7440-38-2	
Barium	**1.1**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:01	7440-39-3	
Cadmium	**0.014J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:01	7440-43-9	
Chromium	ND	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:01	7440-47-3	
Lead	**0.069J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:01	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:01	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:01	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	**0.12J**	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 16:59	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.057**	mg/kg	0.052	0.0094	1	10/05/10 11:10	10/05/10 14:52	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.9**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-3-25-36 SBA **Lab ID: 6086755009** Collected: 10/01/10 14:55 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.3**	mg/kg	1.8	0.34	2	10/04/10 15:25	10/05/10 17:35	7440-38-2	
Barium	**113**	mg/kg	1.8	0.053	2	10/04/10 15:25	10/05/10 17:35	7440-39-3	
Cadmium	**0.11J**	mg/kg	0.89	0.048	2	10/04/10 15:25	10/05/10 17:35	7440-43-9	
Chromium	**11.5**	mg/kg	0.89	0.075	2	10/04/10 15:25	10/05/10 17:35	7440-47-3	
Lead	**8.5**	mg/kg	0.89	0.21	2	10/04/10 15:25	10/05/10 17:35	7439-92-1	
Selenium	ND	mg/kg	2.7	0.39	2	10/04/10 15:25	10/05/10 17:35	7782-49-2	D3
Silver	ND	mg/kg	1.2	0.059	2	10/04/10 15:25	10/05/10 17:35	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND	mg/kg	0.048	0.0086	1	10/05/10 11:10	10/05/10 14:54	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.3**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-3-60-36 SAA **Lab ID: 6086755010** Collected: 10/01/10 15:00 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.2**	mg/kg	2.0	0.38	2	10/04/10 15:25	10/05/10 17:46	7440-38-2	
Barium	**184**	mg/kg	2.0	0.060	2	10/04/10 15:25	10/05/10 17:46	7440-39-3	
Cadmium	**0.092J**	mg/kg	1.0	0.054	2	10/04/10 15:25	10/05/10 17:46	7440-43-9	
Chromium	**17.7**	mg/kg	1.0	0.084	2	10/04/10 15:25	10/05/10 17:46	7440-47-3	
Lead	**14.2**	mg/kg	1.0	0.24	2	10/04/10 15:25	10/05/10 17:46	7439-92-1	
Selenium	ND	mg/kg	3.0	0.44	2	10/04/10 15:25	10/05/10 17:46	7782-49-2	D3
Silver	ND	mg/kg	1.4	0.066	2	10/04/10 15:25	10/05/10 17:46	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.025J**	mg/kg	0.050	0.0089	1	10/05/10 11:10	10/05/10 14:56	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.3**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-3-60-42 ASH **Lab ID: 6086755011** Collected: 10/01/10 15:05 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**10.7**	mg/kg	2.1	0.40	2	10/04/10 15:25	10/05/10 17:49	7440-38-2	
Barium	**1030**	mg/kg	2.1	0.063	2	10/04/10 15:25	10/05/10 17:49	7440-39-3	
Cadmium	**1.8**	mg/kg	1.1	0.057	2	10/04/10 15:25	10/05/10 17:49	7440-43-9	
Chromium	**12.6**	mg/kg	1.1	0.089	2	10/04/10 15:25	10/05/10 17:49	7440-47-3	
Lead	**57.0**	mg/kg	1.1	0.25	2	10/04/10 15:25	10/05/10 17:49	7439-92-1	
Selenium	ND	mg/kg	3.2	0.46	2	10/04/10 15:25	10/05/10 17:49	7782-49-2	D3
Silver	ND	mg/kg	1.5	0.070	2	10/04/10 15:25	10/05/10 17:49	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:05	7440-38-2	
Barium	**1.0**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:05	7440-39-3	
Cadmium	**0.019J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:05	7440-43-9	
Chromium	**0.014J**	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:05	7440-47-3	
Lead	**0.068J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:05	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:05	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:05	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 17:01	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.072**	mg/kg	0.046	0.0083	1	10/05/10 11:10	10/05/10 15:52	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.4**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-4 COMPOSITE **Lab ID: 6086755012** Collected: 10/01/10 15:10 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**22.3**	mg/kg	2.1	0.40	2	10/04/10 15:25	10/05/10 17:53	7440-38-2	
Barium	**439**	mg/kg	2.1	0.064	2	10/04/10 15:25	10/05/10 17:53	7440-39-3	
Cadmium	**3.1**	mg/kg	1.1	0.057	2	10/04/10 15:25	10/05/10 17:53	7440-43-9	
Chromium	**10.8**	mg/kg	1.1	0.089	2	10/04/10 15:25	10/05/10 17:53	7440-47-3	
Lead	**143**	mg/kg	1.1	0.26	2	10/04/10 15:25	10/05/10 17:53	7439-92-1	
Selenium	**0.73J**	mg/kg	3.2	0.47	2	10/04/10 15:25	10/05/10 17:53	7782-49-2	
Silver	**0.32J**	mg/kg	1.5	0.070	2	10/04/10 15:25	10/05/10 17:53	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:08	7440-38-2	
Barium	**0.45J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:08	7440-39-3	
Cadmium	**0.023J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:08	7440-43-9	
Chromium	ND	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:08	7440-47-3	
Lead	**0.058J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:08	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:08	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:08	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 17:03	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.65**	mg/kg	0.054	0.0098	1	10/05/10 11:10	10/05/10 15:54	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.0**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-4-65-60 ASH **Lab ID: 6086755013** Collected: 10/01/10 15:15 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**86.9**	mg/kg	2.2	0.42	2	10/04/10 15:25	10/05/10 17:56	7440-38-2	
Barium	**370**	mg/kg	2.2	0.067	2	10/04/10 15:25	10/05/10 17:56	7440-39-3	
Cadmium	**2.2**	mg/kg	1.1	0.060	2	10/04/10 15:25	10/05/10 17:56	7440-43-9	
Chromium	**13.0**	mg/kg	1.1	0.093	2	10/04/10 15:25	10/05/10 17:56	7440-47-3	
Lead	**366**	mg/kg	1.1	0.27	2	10/04/10 15:25	10/05/10 17:56	7439-92-1	
Selenium	**0.84J**	mg/kg	3.3	0.49	2	10/04/10 15:25	10/05/10 17:56	7782-49-2	
Silver	**0.94J**	mg/kg	1.6	0.073	2	10/04/10 15:25	10/05/10 17:56	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:12	7440-38-2	
Barium	**0.97J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:12	7440-39-3	
Cadmium	**0.017J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:12	7440-43-9	
Chromium	**0.015J**	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:12	7440-47-3	
Lead	**0.037J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:12	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:12	7782-49-2	
Silver	**0.011J**	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:12	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 17:04	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.11**	mg/kg	0.047	0.0084	1	10/05/10 11:10	10/05/10 15:56	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.7**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-4-65-30 SAA **Lab ID: 6086755014** Collected: 10/01/10 15:20 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.0**	mg/kg	1.9	0.35	2	10/04/10 15:25	10/05/10 18:00	7440-38-2	
Barium	**191**	mg/kg	1.9	0.056	2	10/04/10 15:25	10/05/10 18:00	7440-39-3	
Cadmium	**0.13J**	mg/kg	0.93	0.050	2	10/04/10 15:25	10/05/10 18:00	7440-43-9	
Chromium	**17.4**	mg/kg	0.93	0.078	2	10/04/10 15:25	10/05/10 18:00	7440-47-3	
Lead	**14.3**	mg/kg	0.93	0.22	2	10/04/10 15:25	10/05/10 18:00	7439-92-1	
Selenium	ND	mg/kg	2.8	0.41	2	10/04/10 15:25	10/05/10 18:00	7782-49-2	D3
Silver	ND	mg/kg	1.3	0.061	2	10/04/10 15:25	10/05/10 18:00	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.016J**	mg/kg	0.051	0.0092	1	10/05/10 11:10	10/05/10 15:58	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.9**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-5 COMPOSITE **Lab ID: 6086755015** Collected: 10/01/10 15:25 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**27.1**	mg/kg	2.4	0.47	2	10/04/10 15:25	10/05/10 18:03	7440-38-2	
Barium	**763**	mg/kg	2.4	0.073	2	10/04/10 15:25	10/05/10 18:03	7440-39-3	
Cadmium	**7.3**	mg/kg	1.2	0.066	2	10/04/10 15:25	10/05/10 18:03	7440-43-9	
Chromium	**12.6**	mg/kg	1.2	0.10	2	10/04/10 15:25	10/05/10 18:03	7440-47-3	
Lead	**199**	mg/kg	1.2	0.29	2	10/04/10 15:25	10/05/10 18:03	7439-92-1	
Selenium	ND	mg/kg	3.7	0.54	2	10/04/10 15:25	10/05/10 18:03	7782-49-2	D3
Silver	**0.42J**	mg/kg	1.7	0.081	2	10/04/10 15:25	10/05/10 18:03	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:16	7440-38-2	
Barium	**0.20J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:16	7440-39-3	
Cadmium	**0.031J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:16	7440-43-9	
Chromium	ND	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:16	7440-47-3	
Lead	**0.042J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:16	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:16	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:16	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 17:06	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.20**	mg/kg	0.050	0.0090	1	10/05/10 11:10	10/05/10 15:59	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**23.0**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-5 70-54 ASH **Lab ID: 6086755016** Collected: 10/01/10 15:30 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**21.8**	mg/kg	2.0	0.39	2	10/04/10 15:25	10/05/10 18:07	7440-38-2	
Barium	**368**	mg/kg	2.0	0.061	2	10/04/10 15:25	10/05/10 18:07	7440-39-3	
Cadmium	**15.6**	mg/kg	1.0	0.055	2	10/04/10 15:25	10/05/10 18:07	7440-43-9	
Chromium	**8.4**	mg/kg	1.0	0.086	2	10/04/10 15:25	10/05/10 18:07	7440-47-3	
Lead	**91.6**	mg/kg	1.0	0.25	2	10/04/10 15:25	10/05/10 18:07	7439-92-1	
Selenium	**1.0J**	mg/kg	3.1	0.45	2	10/04/10 15:25	10/05/10 18:07	7782-49-2	
Silver	**0.19J**	mg/kg	1.4	0.068	2	10/04/10 15:25	10/05/10 18:07	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:19	7440-38-2	
Barium	**0.38J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:19	7440-39-3	
Cadmium	**0.013J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:19	7440-43-9	
Chromium	ND	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:19	7440-47-3	
Lead	**0.024J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:19	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:19	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:19	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 17:08	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.074**	mg/kg	0.052	0.0094	1	10/05/10 11:10	10/05/10 16:01	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.8**	%	0.50	0.50	1		10/04/10 00:00		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-5 80-24 SAA **Lab ID: 6086755017** Collected: 10/01/10 15:35 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.7**	mg/kg	1.9	0.36	2	10/04/10 15:25	10/05/10 18:10	7440-38-2	
Barium	**129**	mg/kg	1.9	0.056	2	10/04/10 15:25	10/05/10 18:10	7440-39-3	
Cadmium	ND	mg/kg	0.94	0.051	2	10/04/10 15:25	10/05/10 18:10	7440-43-9	D3
Chromium	**13.2**	mg/kg	0.94	0.079	2	10/04/10 15:25	10/05/10 18:10	7440-47-3	
Lead	**10.3**	mg/kg	0.94	0.23	2	10/04/10 15:25	10/05/10 18:10	7439-92-1	
Selenium	ND	mg/kg	2.8	0.41	2	10/04/10 15:25	10/05/10 18:10	7782-49-2	
Silver	ND	mg/kg	1.3	0.062	2	10/04/10 15:25	10/05/10 18:10	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.015J**	mg/kg	0.053	0.0096	1	10/05/10 11:10	10/05/10 16:03	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.9**	%	0.50	0.50	1		10/04/10 00:00		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-6 COMPOSITE **Lab ID: 6086755018** Collected: 10/01/10 15:40 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**34.4**	mg/kg	2.2	0.41	2	10/04/10 15:25	10/05/10 18:14	7440-38-2	
Barium	**542**	mg/kg	2.2	0.065	2	10/04/10 15:25	10/05/10 18:14	7440-39-3	
Cadmium	**3.7**	mg/kg	1.1	0.058	2	10/04/10 15:25	10/05/10 18:14	7440-43-9	
Chromium	**14.5**	mg/kg	1.1	0.090	2	10/04/10 15:25	10/05/10 18:14	7440-47-3	
Lead	**334**	mg/kg	1.1	0.26	2	10/04/10 15:25	10/05/10 18:14	7439-92-1	
Selenium	**0.59J**	mg/kg	3.2	0.47	2	10/04/10 15:25	10/05/10 18:14	7782-49-2	
Silver	**0.41J**	mg/kg	1.5	0.071	2	10/04/10 15:25	10/05/10 18:14	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	**0.060J**	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:23	7440-38-2	
Barium	**0.65J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:23	7440-39-3	
Cadmium	**0.028J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:23	7440-43-9	
Chromium	**0.012J**	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:23	7440-47-3	
Lead	**0.094J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:23	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:23	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:23	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 17:10	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND	mg/kg	0.053	0.0096	1	10/05/10 11:10	10/05/10 16:05	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.3**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-6 15-72 SNA **Lab ID: 6086755019** Collected: 10/01/10 15:45 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.5**	mg/kg	1.8	0.34	2	10/04/10 15:25	10/05/10 18:18	7440-38-2	
Barium	**126**	mg/kg	1.8	0.053	2	10/04/10 15:25	10/05/10 18:18	7440-39-3	
Cadmium	ND	mg/kg	0.89	0.048	2	10/04/10 15:25	10/05/10 18:18	7440-43-9	D3
Chromium	**13.4**	mg/kg	0.89	0.075	2	10/04/10 15:25	10/05/10 18:18	7440-47-3	
Lead	**8.9**	mg/kg	0.89	0.21	2	10/04/10 15:25	10/05/10 18:18	7439-92-1	
Selenium	ND	mg/kg	2.7	0.39	2	10/04/10 15:25	10/05/10 18:18	7782-49-2	
Silver	ND	mg/kg	1.2	0.059	2	10/04/10 15:25	10/05/10 18:18	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND	mg/kg	0.047	0.0085	1	10/05/10 11:10	10/05/10 16:10	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.6**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-6 60-24 SAA **Lab ID: 6086755020** Collected: 10/01/10 15:50 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.4**	mg/kg	2.3	0.43	2	10/04/10 15:25	10/05/10 18:32	7440-38-2	
Barium	**198**	mg/kg	2.3	0.068	2	10/04/10 15:25	10/05/10 18:32	7440-39-3	
Cadmium	ND	mg/kg	1.1	0.061	2	10/04/10 15:25	10/05/10 18:32	7440-43-9	D3
Chromium	**20.3**	mg/kg	1.1	0.095	2	10/04/10 15:25	10/05/10 18:32	7440-47-3	
Lead	**14.4**	mg/kg	1.1	0.27	2	10/04/10 15:25	10/05/10 18:32	7439-92-1	
Selenium	ND	mg/kg	3.4	0.50	2	10/04/10 15:25	10/05/10 18:32	7782-49-2	
Silver	ND	mg/kg	1.6	0.074	2	10/04/10 15:25	10/05/10 18:32	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.014J**	mg/kg	0.051	0.0091	1	10/05/10 11:10	10/05/10 14:22	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.1**	%	0.50	0.50	1		10/04/10 00:00		

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ANALYTICAL RESULTS

Project: CFI FORT RILEY
Pace Project No.: 6086755

Sample: CFI TP-6 60-48 ASH **Lab ID: 6086755021** Collected: 10/01/10 15:55 Received: 10/04/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**26.8**	mg/kg	2.2	0.43	2	10/04/10 15:25	10/05/10 16:19	7440-38-2	
Barium	**244**	mg/kg	2.2	0.067	2	10/04/10 15:25	10/05/10 16:19	7440-39-3	
Cadmium	**1.9**	mg/kg	1.1	0.061	2	10/04/10 15:25	10/05/10 16:19	7440-43-9	
Chromium	**16.3**	mg/kg	1.1	0.094	2	10/04/10 15:25	10/05/10 16:19	7440-47-3	
Lead	**182**	mg/kg	1.1	0.27	2	10/04/10 15:25	10/05/10 16:19	7439-92-1	
Selenium	ND	mg/kg	3.4	0.49	2	10/04/10 15:25	10/05/10 16:19	7782-49-2	D3
Silver	**0.53J**	mg/kg	1.6	0.074	2	10/04/10 15:25	10/05/10 16:19	7440-22-4	
6010 MET ICP, TCLP	Analytical Method: EPA 6010 Preparation Method: EPA 3010								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Arsenic	ND	mg/L	0.50	0.050	1	10/05/10 10:00	10/05/10 19:26	7440-38-2	
Barium	**0.98J**	mg/L	1.0	0.0094	1	10/05/10 10:00	10/05/10 19:26	7440-39-3	
Cadmium	**0.010J**	mg/L	0.050	0.0056	1	10/05/10 10:00	10/05/10 19:26	7440-43-9	
Chromium	ND	mg/L	0.10	0.010	1	10/05/10 10:00	10/05/10 19:26	7440-47-3	
Lead	**0.034J**	mg/L	0.50	0.018	1	10/05/10 10:00	10/05/10 19:26	7439-92-1	
Selenium	ND	mg/L	0.50	0.039	1	10/05/10 10:00	10/05/10 19:26	7782-49-2	
Silver	ND	mg/L	0.10	0.0099	1	10/05/10 10:00	10/05/10 19:26	7440-22-4	
7470 Mercury, TCLP	Analytical Method: EPA 7470 Preparation Method: EPA 7470								
	Leachate Method/Date: EPA 1311; 10/04/10 00:00								
Mercury	ND	ug/L	2.0	0.049	1	10/05/10 11:40	10/05/10 17:12	7439-97-6	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.13**	mg/kg	0.098	0.018	1	10/05/10 11:10	10/05/10 16:12	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.50	0.50	1		10/04/10 00:00		

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MPRP/12409 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 6086755001, 6086755002, 6086755003, 6086755004, 6086755005, 6086755006, 6086755007, 6086755008, 6086755009, 6086755010, 6086755011, 6086755012, 6086755013, 6086755014, 6086755015, 6086755016, 6086755017, 6086755018, 6086755019, 6086755020

METHOD BLANK: 711834 Matrix: Solid
Associated Lab Samples: 6086755001, 6086755002, 6086755003, 6086755004, 6086755005, 6086755006, 6086755007, 6086755008, 6086755009, 6086755010, 6086755011, 6086755012, 6086755013, 6086755014, 6086755015, 6086755016, 6086755017, 6086755018, 6086755019, 6086755020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	10/05/10 17:02	
Barium	mg/kg	0.048J	1.0	10/05/10 17:02	
Cadmium	mg/kg	ND	0.50	10/05/10 17:02	
Chromium	mg/kg	ND	0.50	10/05/10 17:02	
Lead	mg/kg	0.13J	0.50	10/05/10 17:02	
Selenium	mg/kg	ND	1.5	10/05/10 17:02	
Silver	mg/kg	ND	0.70	10/05/10 17:02	

LABORATORY CONTROL SAMPLE: 711835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	44.2	88	80-120	
Barium	mg/kg	50	45.3	91	80-120	
Cadmium	mg/kg	50	44.8	90	80-120	
Chromium	mg/kg	50	45.8	92	80-120	
Lead	mg/kg	50	44.7	89	80-120	
Selenium	mg/kg	50	41.0	82	80-120	
Silver	mg/kg	25	22.2	89	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 711836 711837

Parameter	Units	6086755001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	16.2	61.2	60.1	62.6	63.2	76	78	75-125	1	20	
Barium	mg/kg	784	61.2	60.1	1400	1480	1006	1165	75-125	6	20	M0
Cadmium	mg/kg	1.3	61.2	60.1	49.6	48.7	79	79	75-125	2	20	
Chromium	mg/kg	16.2	61.2	60.1	61.8	60.4	74	73	75-125	2	20	M0
Lead	mg/kg	76.8	61.2	60.1	134	128	93	85	75-125	5	20	
Selenium	mg/kg	0.66J	61.2	60.1	42.8	41.3	69	68	75-125	4	20	M0
Silver	mg/kg	0.11J	30.6	30	24.6	24.4	80	81	75-125	1	20	

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MPRP/12410
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 6086755021

METHOD BLANK: 711840 Matrix: Solid
Associated Lab Samples: 6086755021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	10/05/10 16:02	
Barium	mg/kg	ND	1.0	10/05/10 16:02	
Cadmium	mg/kg	ND	0.50	10/05/10 16:02	
Chromium	mg/kg	0.056J	0.50	10/05/10 16:02	
Lead	mg/kg	ND	0.50	10/05/10 16:02	
Selenium	mg/kg	ND	1.5	10/05/10 16:02	
Silver	mg/kg	0.047J	0.70	10/05/10 16:02	

LABORATORY CONTROL SAMPLE: 711841

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	43.9	88	80-120	
Barium	mg/kg	50	44.6	89	80-120	
Cadmium	mg/kg	50	45.6	91	80-120	
Chromium	mg/kg	50	46.0	92	80-120	
Lead	mg/kg	50	45.0	90	80-120	
Selenium	mg/kg	50	40.7	81	80-120	
Silver	mg/kg	25	22.2	89	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 711842 711843

Parameter	Units	6086755021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	26.8	54	56.6	72.0	75.4	84	86	75-125	5	20	
Barium	mg/kg	244	54	56.6	328	293	156	87	75-125	11	20	M0
Cadmium	mg/kg	1.9	54	56.6	44.5	46.5	79	79	75-125	4	20	
Chromium	mg/kg	16.3	54	56.6	63.3	65.7	87	87	75-125	4	20	
Lead	mg/kg	182	54	56.6	215	218	61	63	75-125	1	20	M0
Selenium	mg/kg	ND	54	56.6	37.4	39.8	69	70	75-125	6	20	M0
Silver	mg/kg	0.53J	27	28.3	23.0	24.0	83	83	75-125	4	20	

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MPRP/12416 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET TCLP
Associated Lab Samples: 6086755001, 6086755004, 6086755008, 6086755011, 6086755012, 6086755013, 6086755015, 6086755016, 6086755018, 6086755021

METHOD BLANK: 712169 Matrix: Water
Associated Lab Samples: 6086755001, 6086755004, 6086755008, 6086755011, 6086755012, 6086755013, 6086755015, 6086755016, 6086755018, 6086755021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.50	10/05/10 18:28	
Barium	mg/L	0.022J	1.0	10/05/10 18:28	
Cadmium	mg/L	ND	0.050	10/05/10 18:28	
Chromium	mg/L	ND	0.10	10/05/10 18:28	
Lead	mg/L	0.020J	0.50	10/05/10 18:28	
Selenium	mg/L	ND	0.50	10/05/10 18:28	
Silver	mg/L	ND	0.10	10/05/10 18:28	

LABORATORY CONTROL SAMPLE: 712170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	1	0.94	94	80-120	
Barium	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	1	0.96	96	80-120	
Chromium	mg/L	1	0.96	96	80-120	
Lead	mg/L	1	0.95	95	80-120	
Selenium	mg/L	1	0.87	87	80-120	
Silver	mg/L	.5	0.48	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 712171 712172

Parameter	Units	6086755004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	10	10	9.3	9.3	92	92	75-125	0	20	
Barium	mg/L	0.96J	10	10	10.2	10.3	93	93	75-125	0	20	
Cadmium	mg/L	ND	10	10	9.3	9.2	93	92	75-125	1	20	
Chromium	mg/L	0.011J	10	10	9.4	9.4	94	94	75-125	0	20	
Lead	mg/L	ND	10	10	9.3	9.2	93	92	75-125	1	20	
Selenium	mg/L	ND	10	10	8.8	8.7	88	87	75-125	1	20	
Silver	mg/L	ND	5	5	4.7	4.7	94	94	75-125	0	20	

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MPRP/12417
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET TCLP
Associated Lab Samples: 6086755005

METHOD BLANK: 712173
Matrix: Water
Associated Lab Samples: 6086755005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.50	10/06/10 10:26	
Barium	mg/L	ND	1.0	10/06/10 10:26	
Cadmium	mg/L	ND	0.050	10/06/10 10:26	
Chromium	mg/L	ND	0.10	10/06/10 10:26	
Lead	mg/L	0.019J	0.50	10/06/10 10:26	
Selenium	mg/L	ND	0.50	10/06/10 10:26	
Silver	mg/L	ND	0.10	10/06/10 10:26	

LABORATORY CONTROL SAMPLE: 712174

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	1	0.94	94	80-120	
Barium	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	1	0.96	96	80-120	
Chromium	mg/L	1	0.97	97	80-120	
Lead	mg/L	1	0.94	94	80-120	
Selenium	mg/L	1	0.86	86	80-120	
Silver	mg/L	.5	0.48	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 712175 712176

Parameter	Units	6086755005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	0.094J	10	10	9.5	9.5	94	94	75-125	0	20	
Barium	mg/L	0.62J	10	10	10.2	10.2	96	96	75-125	0	20	
Cadmium	mg/L	0.017J	10	10	9.4	9.5	94	95	75-125	1	20	
Chromium	mg/L	ND	10	10	9.5	9.6	95	96	75-125	1	20	
Lead	mg/L	0.034J	10	10	9.4	9.5	94	95	75-125	1	20	
Selenium	mg/L	ND	10	10	8.8	8.8	87	88	75-125	1	20	
Silver	mg/L	ND	5	5	4.8	4.8	96	97	75-125	1	20	

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MERP/4616
QC Batch Method: EPA 7470
Analysis Method: EPA 7470
Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 6086755005

METHOD BLANK: 712161 Matrix: Water
Associated Lab Samples: 6086755005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	0.067J	2.0	10/05/10 16:36	

LABORATORY CONTROL SAMPLE: 712162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 712163 712164

Parameter	Units	6086755005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	0.20J	15	15	15.2	15.3	100	101	75-125	1	19	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MERP/4617 Analysis Method: EPA 7470
QC Batch Method: EPA 7470 Analysis Description: 7470 Mercury TCLP
Associated Lab Samples: 6086755001, 6086755004, 6086755008, 6086755011, 6086755012, 6086755013, 6086755015, 6086755016, 6086755018, 6086755021

METHOD BLANK: 712165 Matrix: Water
Associated Lab Samples: 6086755001, 6086755004, 6086755008, 6086755011, 6086755012, 6086755013, 6086755015, 6086755016, 6086755018, 6086755021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	0.068J	2.0	10/05/10 16:45	

LABORATORY CONTROL SAMPLE: 712166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	5	5.1	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 712167 712168

Parameter	Units	6086755004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	ug/L	ND	15	15	14.2	15.2	95	101	75-125	7	19	

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MERP/4612 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 6086755001, 6086755002, 6086755003, 6086755004, 6086755005, 6086755006, 6086755007, 6086755008, 6086755009, 6086755010, 6086755011, 6086755012, 6086755013, 6086755014, 6086755015, 6086755016, 6086755017, 6086755018, 6086755019, 6086755021

METHOD BLANK: 712145 Matrix: Solid
Associated Lab Samples: 6086755001, 6086755002, 6086755003, 6086755004, 6086755005, 6086755006, 6086755007, 6086755008, 6086755009, 6086755010, 6086755011, 6086755012, 6086755013, 6086755014, 6086755015, 6086755016, 6086755017, 6086755018, 6086755019, 6086755021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	0.015J	0.050	10/05/10 14:28	

LABORATORY CONTROL SAMPLE: 712146

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.51	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 712147 712148

Parameter	Units	6086755001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.11	.52	.49	0.63	0.60	100	99	75-125	5	20	

REPORT OF LABORATORY ANALYSIS

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(913)599-5665

QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: MERP/4613 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 6086755020

METHOD BLANK: 712149 Matrix: Solid
Associated Lab Samples: 6086755020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	0.030J	0.050	10/05/10 14:19	

LABORATORY CONTROL SAMPLE: 712150

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.48	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 712151 712152

Parameter	Units	6086755020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.014J	.48	.49	0.48	0.50	96	98	75-125	5	20	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: PMST/5501 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 6086755001, 6086755002, 6086755003, 6086755004, 6086755005, 6086755006, 6086755007, 6086755008, 6086755009, 6086755010, 6086755011, 6086755012, 6086755013, 6086755014, 6086755015, 6086755016, 6086755017, 6086755018, 6086755019, 6086755020

METHOD BLANK: 711771 Matrix: Solid
Associated Lab Samples: 6086755001, 6086755002, 6086755003, 6086755004, 6086755005, 6086755006, 6086755007, 6086755008, 6086755009, 6086755010, 6086755011, 6086755012, 6086755013, 6086755014, 6086755015, 6086755016, 6086755017, 6086755018, 6086755019, 6086755020

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	10/04/10 00:00	

SAMPLE DUPLICATE: 711789

Parameter	Units	6086755003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	26.1	24.5	7	20	

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QUALITY CONTROL DATA

Project: CFI FORT RILEY
Pace Project No.: 6086755

QC Batch: PMST/5504
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 6086755021

METHOD BLANK: 711974 Matrix: Solid
Associated Lab Samples: 6086755021

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	10/04/10 00:00	

SAMPLE DUPLICATE: 711975

Parameter	Units	6086332013 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.3	17.1	1	20	

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QUALIFIERS

Project: CFI FORT RILEY
Pace Project No.: 6086755

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CFI FORT RILEY
Pace Project No.: 6086755

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6086755001	CFI TP-1 COMPOSITE	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755002	CFI TP-1-30-36 SBA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755003	CFI TP-1-55-24 SAA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755004	CFI TP-1-65-42 ASH	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755005	CFI TP-2 COMPOSITE	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755006	CFI TP-2-20-36 SBA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755007	CFI TP-2-55-24 SAA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755008	CFI TP-3 COMPOSITE	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755009	CFI TP-3-25-36 SBA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755010	CFI TP-3-60-36 SAA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755011	CFI TP-3-60-42 ASH	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755012	CFI TP-4 COMPOSITE	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755013	CFI TP-4-65-60 ASH	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755014	CFI TP-4-65-30 SAA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755015	CFI TP-5 COMPOSITE	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755016	CFI TP-5 70-54 ASH	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755017	CFI TP-5 80-24 SAA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755018	CFI TP-6 COMPOSITE	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755019	CFI TP-6 15-72 SNA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755020	CFI TP-6 60-24 SAA	EPA 3050	MPRP/12409	EPA 6010	ICP/10839
6086755021	CFI TP-6 60-48 ASH	EPA 3050	MPRP/12410	EPA 6010	ICP/10838
6086755001	CFI TP-1 COMPOSITE	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755004	CFI TP-1-65-42 ASH	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755005	CFI TP-2 COMPOSITE	EPA 3010	MPRP/12417	EPA 6010	ICP/10844
6086755008	CFI TP-3 COMPOSITE	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755011	CFI TP-3-60-42 ASH	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755012	CFI TP-4 COMPOSITE	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755013	CFI TP-4-65-60 ASH	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755015	CFI TP-5 COMPOSITE	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755016	CFI TP-5 70-54 ASH	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755018	CFI TP-6 COMPOSITE	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755021	CFI TP-6 60-48 ASH	EPA 3010	MPRP/12416	EPA 6010	ICP/10845
6086755001	CFI TP-1 COMPOSITE	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755004	CFI TP-1-65-42 ASH	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755005	CFI TP-2 COMPOSITE	EPA 7470	MERP/4616	EPA 7470	MERC/4587
6086755008	CFI TP-3 COMPOSITE	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755011	CFI TP-3-60-42 ASH	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755012	CFI TP-4 COMPOSITE	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755013	CFI TP-4-65-60 ASH	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755015	CFI TP-5 COMPOSITE	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755016	CFI TP-5 70-54 ASH	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755018	CFI TP-6 COMPOSITE	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755021	CFI TP-6 60-48 ASH	EPA 7470	MERP/4617	EPA 7470	MERC/4588
6086755001	CFI TP-1 COMPOSITE	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755002	CFI TP-1-30-36 SBA	EPA 7471	MERP/4612	EPA 7471	MERC/4584

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: CFI FORT RILEY
Pace Project No.: 6086755

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6086755003	CFI TP-1-55-24 SAA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755004	CFI TP-1-65-42 ASH	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755005	CFI TP-2 COMPOSITE	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755006	CFI TP-2-20-36 SBA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755007	CFI TP-2-55-24 SAA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755008	CFI TP-3 COMPOSITE	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755009	CFI TP-3-25-36 SBA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755010	CFI TP-3-60-36 SAA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755011	CFI TP-3-60-42 ASH	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755012	CFI TP-4 COMPOSITE	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755013	CFI TP-4-65-60 ASH	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755014	CFI TP-4-65-30 SAA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755015	CFI TP-5 COMPOSITE	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755016	CFI TP-5 70-54 ASH	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755017	CFI TP-5 80-24 SAA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755018	CFI TP-6 COMPOSITE	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755019	CFI TP-6 15-72 SNA	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755020	CFI TP-6 60-24 SAA	EPA 7471	MERP/4613	EPA 7471	MERC/4583
6086755021	CFI TP-6 60-48 ASH	EPA 7471	MERP/4612	EPA 7471	MERC/4584
6086755001	CFI TP-1 COMPOSITE	ASTM D2974-87	PMST/5501		
6086755002	CFI TP-1-30-36 SBA	ASTM D2974-87	PMST/5501		
6086755003	CFI TP-1-55-24 SAA	ASTM D2974-87	PMST/5501		
6086755004	CFI TP-1-65-42 ASH	ASTM D2974-87	PMST/5501		
6086755005	CFI TP-2 COMPOSITE	ASTM D2974-87	PMST/5501		
6086755006	CFI TP-2-20-36 SBA	ASTM D2974-87	PMST/5501		
6086755007	CFI TP-2-55-24 SAA	ASTM D2974-87	PMST/5501		
6086755008	CFI TP-3 COMPOSITE	ASTM D2974-87	PMST/5501		
6086755009	CFI TP-3-25-36 SBA	ASTM D2974-87	PMST/5501		
6086755010	CFI TP-3-60-36 SAA	ASTM D2974-87	PMST/5501		
6086755011	CFI TP-3-60-42 ASH	ASTM D2974-87	PMST/5501		
6086755012	CFI TP-4 COMPOSITE	ASTM D2974-87	PMST/5501		
6086755013	CFI TP-4-65-60 ASH	ASTM D2974-87	PMST/5501		
6086755014	CFI TP-4-65-30 SAA	ASTM D2974-87	PMST/5501		
6086755015	CFI TP-5 COMPOSITE	ASTM D2974-87	PMST/5501		
6086755016	CFI TP-5 70-54 ASH	ASTM D2974-87	PMST/5501		
6086755017	CFI TP-5 80-24 SAA	ASTM D2974-87	PMST/5501		
6086755018	CFI TP-6 COMPOSITE	ASTM D2974-87	PMST/5501		
6086755019	CFI TP-6 15-72 SNA	ASTM D2974-87	PMST/5501		
6086755020	CFI TP-6 60-24 SAA	ASTM D2974-87	PMST/5501		
6086755021	CFI TP-6 60-48 ASH	ASTM D2974-87	PMST/5504		

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September 30, 2010

David Plumb
CTI and Associates, Inc.
12482 Emerson Dr.
Brighton, MI 48116

RE: Project: FORT RILEY
Pace Project No.: 6086429

Dear David Plumb:
Enclosed are the analytical results for sample(s) received by the laboratory on September 29, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamie Slade

Jamie Slade

jamie.slade@pacelabs.com
Project Manager

Enclosures

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Lenexa, KS 66219
(913)599-5665

CERTIFICATIONS

Project: FORT RILEY
Pace Project No.: 6086429

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 05-008-0
Illinois Certification #: 001191
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-08-TX
Utah Certification #: 9135995665

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SAMPLE SUMMARY

Project: FORT RILEY
Pace Project No.: 6086429

Lab ID	Sample ID	Matrix	Date Collected	Date Received
6086429001	**SP-5**	Solid	09/27/10 09:45	09/29/10 09:15
6086429002	**SP-8**	Solid	09/27/10 14:10	09/29/10 09:15
6086429003	**SP-13**	Solid	09/28/10 13:15	09/29/10 09:15

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SAMPLE ANALYTE COUNT

Project: FORT RILEY
Pace Project No.: 6086429

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6086429001	**SP-5**	EPA 6010	JDH	7
		EPA 7471	SMW	1
		ASTM D2974-87	BAC	1
6086429002	**SP-8**	EPA 6010	JDH	7
		EPA 7471	SMW	1
		ASTM D2974-87	BAC	1
6086429003	**SP-13**	EPA 6010	JDH	7
		EPA 7471	SMW	1
		ASTM D2974-87	BAC	1

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PROJECT NARRATIVE

Project: FORT RILEY
Pace Project No.: 6086429

Method: **EPA 6010**
Description: 6010 MET ICP
Client: CTI and Associates, Inc.
Date: September 30, 2010

General Information:
3 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORT RILEY
Pace Project No.: 6086429

Method: **EPA 7471**
Description: 7471 Mercury
Client: CTI and Associates, Inc.
Date: September 30, 2010

General Information:
3 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: MERP/4593

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 6086361002

M0: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

- MS (Lab ID: 708350)
  - Mercury

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086429

Sample: SP-5 **Lab ID: 6086429001** Collected: 09/27/10 09:45 Received: 09/29/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.9**	mg/kg	1.1	0.21	1	09/29/10 12:00	09/30/10 11:14	7440-38-2	
Barium	**108**	mg/kg	1.1	0.033	1	09/29/10 12:00	09/30/10 11:14	7440-39-3	
Cadmium	**0.40J**	mg/kg	0.55	0.030	1	09/29/10 12:00	09/30/10 11:14	7440-43-9	
Chromium	**7.9**	mg/kg	0.55	0.046	1	09/29/10 12:00	09/30/10 11:14	7440-47-3	
Lead	**11.5**	mg/kg	0.55	0.13	1	09/29/10 12:00	09/30/10 11:14	7439-92-1	
Selenium	**0.25J**	mg/kg	1.7	0.24	1	09/29/10 12:00	09/30/10 11:14	7782-49-2	
Silver	**0.14J**	mg/kg	0.77	0.036	1	09/29/10 12:00	09/30/10 11:14	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**3.4**	mg/kg	0.23	0.042	5	09/30/10 10:22	09/30/10 16:34	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**19.6**	%	0.50	0.50	1		09/29/10 00:00		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086429

Sample: SP-8 **Lab ID: 6086429002** Collected: 09/27/10 14:10 Received: 09/29/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.7**	mg/kg	1.0	0.20	1	09/29/10 12:00	09/30/10 11:25	7440-38-2	
Barium	**88.9**	mg/kg	1.0	0.031	1	09/29/10 12:00	09/30/10 11:25	7440-39-3	
Cadmium	**0.22J**	mg/kg	0.52	0.028	1	09/29/10 12:00	09/30/10 11:25	7440-43-9	
Chromium	**8.6**	mg/kg	0.52	0.044	1	09/29/10 12:00	09/30/10 11:25	7440-47-3	
Lead	**9.7**	mg/kg	0.52	0.13	1	09/29/10 12:00	09/30/10 11:25	7439-92-1	
Selenium	ND	mg/kg	1.6	0.23	1	09/29/10 12:00	09/30/10 11:25	7782-49-2	
Silver	**0.073J**	mg/kg	0.73	0.035	1	09/29/10 12:00	09/30/10 11:25	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.39**	mg/kg	0.051	0.0092	1	09/30/10 10:22	09/30/10 16:29	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.4**	%	0.50	0.50	1		09/29/10 00:00		

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086429

Sample: SP-13 **Lab ID: 6086429003** Collected: 09/28/10 13:15 Received: 09/29/10 09:15 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**13.8**	mg/kg	0.97	0.19	1	09/29/10 12:00	09/30/10 11:28	7440-38-2	
Barium	**109**	mg/kg	0.97	0.029	1	09/29/10 12:00	09/30/10 11:28	7440-39-3	
Cadmium	**1.9**	mg/kg	0.49	0.026	1	09/29/10 12:00	09/30/10 11:28	7440-43-9	
Chromium	**8.3**	mg/kg	0.49	0.041	1	09/29/10 12:00	09/30/10 11:28	7440-47-3	
Lead	**67.3**	mg/kg	0.49	0.12	1	09/29/10 12:00	09/30/10 11:28	7439-92-1	
Selenium	**0.66J**	mg/kg	1.5	0.21	1	09/29/10 12:00	09/30/10 11:28	7782-49-2	
Silver	**0.23J**	mg/kg	0.68	0.032	1	09/29/10 12:00	09/30/10 11:28	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.12**	mg/kg	0.052	0.0093	1	09/30/10 10:22	09/30/10 16:31	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**14.5**	%	0.50	0.50	1		09/29/10 00:00		

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QUALITY CONTROL DATA

Project: FORT RILEY
Pace Project No.: 6086429

QC Batch: MPRP/12365 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 6086429001, 6086429002, 6086429003

METHOD BLANK: 708482 Matrix: Solid
Associated Lab Samples: 6086429001, 6086429002, 6086429003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	09/30/10 11:08	
Barium	mg/kg	ND	1.0	09/30/10 11:08	
Cadmium	mg/kg	ND	0.50	09/30/10 11:08	
Chromium	mg/kg	ND	0.50	09/30/10 11:08	
Lead	mg/kg	ND	0.50	09/30/10 11:08	
Selenium	mg/kg	ND	1.5	09/30/10 11:08	
Silver	mg/kg	ND	0.70	09/30/10 11:08	

LABORATORY CONTROL SAMPLE: 708483

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	47.2	94	80-120	
Barium	mg/kg	50	49.5	99	80-120	
Cadmium	mg/kg	50	46.9	94	80-120	
Chromium	mg/kg	50	51.2	102	80-120	
Lead	mg/kg	50	49.5	99	80-120	
Selenium	mg/kg	50	45.5	91	80-120	
Silver	mg/kg	25	23.9	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 708484 708485

Parameter	Units	6086429001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	3.9	54.6	51.9	47.8	52.9	81	94	75-125	10	20	
Barium	mg/kg	108	54.6	51.9	162	154	99	88	75-125	5	20	
Cadmium	mg/kg	0.40J	54.6	51.9	44.7	42.5	81	81	75-125	5	20	
Chromium	mg/kg	7.9	54.6	51.9	55.9	53.6	88	88	75-125	4	20	
Lead	mg/kg	11.5	54.6	51.9	54.9	54.9	80	84	75-125	0	20	
Selenium	mg/kg	0.25J	54.6	51.9	42.2	39.2	77	75	75-125	7	20	
Silver	mg/kg	0.14J	27.3	25.9	22.9	22.0	84	84	75-125	4	20	

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QUALITY CONTROL DATA

Project: FORT RILEY
Pace Project No.: 6086429

QC Batch: MERP/4593 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 6086429001, 6086429002, 6086429003

METHOD BLANK: 708348 Matrix: Solid
Associated Lab Samples: 6086429001, 6086429002, 6086429003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.050	09/30/10 15:44	

LABORATORY CONTROL SAMPLE: 708349

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.56	112	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 708350 708351

Parameter	Units	6086361002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.029J	.47	.47	0.61	0.61	126	126	75-125	0	20	M0

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QUALITY CONTROL DATA

Project: FORT RILEY
Pace Project No.: 6086429

QC Batch: PMST/5479 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 6086429001, 6086429002, 6086429003

METHOD BLANK: 708804 Matrix: Solid
Associated Lab Samples: 6086429001, 6086429002, 6086429003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	09/29/10 00:00	

SAMPLE DUPLICATE: 708805

Parameter	Units	6086361026 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	21.8	22.8	4	20	

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QUALIFIERS

Project: FORT RILEY
Pace Project No.: 6086429

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

ANALYTE QUALIFIERS

M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT RILEY
Pace Project No.: 6086429

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6086429001	**SP-5**	EPA 3050	MPRP/12365	EPA 6010	ICP/10794
6086429002	**SP-8**	EPA 3050	MPRP/12365	EPA 6010	ICP/10794
6086429003	**SP-13**	EPA 3050	MPRP/12365	EPA 6010	ICP/10794
6086429001	**SP-5**	EPA 7471	MERP/4593	EPA 7471	MERC/4570
6086429002	**SP-8**	EPA 7471	MERP/4593	EPA 7471	MERC/4570
6086429003	**SP-13**	EPA 7471	MERP/4593	EPA 7471	MERC/4570
6086429001	**SP-5**	ASTM D2974-87	PMST/5479		
6086429002	**SP-8**	ASTM D2974-87	PMST/5479		
6086429003	**SP-13**	ASTM D2974-87	PMST/5479		

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October 12, 2010

Robert Stenson
CTI and Associates, Inc.
1202 W. Washington Ave.
Cleveland, WI 53015

RE: Project: FORT RILEY
Pace Project No.: 6086966

Dear Robert Stenson:
Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jamie Slade

Jamie Slade

jamie.slade@pacelabs.com
Project Manager

Enclosures

cc: David Plumb, CTI and Associates, Inc.

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CERTIFICATIONS

Project: FORT RILEY
Pace Project No.: 6086966

Kansas Certification IDs
9608 Loiret Boulevard, Lenexa, KS 66219
A2LA Certification #: 2456.01
Arkansas Certification #: 05-008-0
Illinois Certification #: 001191
Iowa Certification #: 118
Kansas/NELAP Certification #: E-10116
Louisiana Certification #: 03055
Nevada Certification #: KS000212008A
Oklahoma Certification #: 9205/9935
Texas Certification #: T104704407-08-TX
Utah Certification #: 9135995665

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SAMPLE SUMMARY

Project: FORT RILEY
Pace Project No.: 6086966

Lab ID	Sample ID	Matrix	Date Collected	Date Received
6086966001	CFI-Q1	Solid	10/06/10 10:30	10/07/10 09:45
6086966002	CFI-Q2	Solid	10/06/10 10:35	10/07/10 09:45
6086966003	CFI-Q3	Solid	10/06/10 10:40	10/07/10 09:45
6086966004	CFI-Q4	Solid	10/06/10 10:45	10/07/10 09:45
6086966005	CFI-Q5	Solid	10/06/10 10:50	10/07/10 09:45
6086966006	CFI-PAD-C	Solid	10/04/10 12:00	10/07/10 09:45

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SAMPLE ANALYTE COUNT

Project: FORT RILEY
Pace Project No.: 6086966

Lab ID	Sample ID	Method	Analysts	Analytes Reported
6086966001	CFI-Q1	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	TM	1
6086966002	CFI-Q2	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	TM	1
6086966003	CFI-Q3	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	TM	1
6086966004	CFI-Q4	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	TM	1
6086966005	CFI-Q5	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	TM	1
6086966006	CFI-PAD-C	EPA 6010	SMW	7
		EPA 7471	JDH	1
		ASTM D2974-87	TM	1

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PROJECT NARRATIVE

Project: FORT RILEY
Pace Project No.: 6086966

Method: **EPA 6010**
Description: 6010 MET ICP
Client: CTI and Associates, Inc.
Date: October 12, 2010

General Information:
6 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: FORT RILEY
Pace Project No.: 6086966

Method: **EPA 7471**
Description: 7471 Mercury
Client: CTI and Associates, Inc.
Date: October 12, 2010

General Information:
6 samples were analyzed for EPA 7471. All samples were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 7471 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086966

Sample: CFI-Q1 **Lab ID: 6086966001** Collected: 10/06/10 10:30 Received: 10/07/10 09:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.5**	mg/kg	1.0	0.20	1	10/11/10 15:45	10/12/10 13:57	7440-38-2	
Barium	**109**	mg/kg	1.0	0.031	1	10/11/10 15:45	10/12/10 13:57	7440-39-3	
Cadmium	**0.27J**	mg/kg	0.52	0.028	1	10/11/10 15:45	10/12/10 13:57	7440-43-9	
Chromium	**7.3**	mg/kg	0.52	0.044	1	10/11/10 15:45	10/12/10 13:57	7440-47-3	
Lead	**14.2**	mg/kg	0.52	0.13	1	10/11/10 15:45	10/12/10 13:57	7439-92-1	
Selenium	**0.30J**	mg/kg	1.6	0.23	1	10/11/10 15:45	10/12/10 13:57	7782-49-2	
Silver	**0.15J**	mg/kg	0.73	0.035	1	10/11/10 15:45	10/12/10 13:57	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.26**	mg/kg	0.046	0.0083	1	10/11/10 17:30	10/12/10 12:02	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.50	0.50	1		10/11/10 00:00		

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086966

Sample: CFI-Q2 **Lab ID: 6086966002** Collected: 10/06/10 10:35 Received: 10/07/10 09:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.2**	mg/kg	0.95	0.18	1	10/11/10 15:45	10/12/10 14:06	7440-38-2	
Barium	**106**	mg/kg	0.95	0.029	1	10/11/10 15:45	10/12/10 14:06	7440-39-3	
Cadmium	**0.30J**	mg/kg	0.48	0.026	1	10/11/10 15:45	10/12/10 14:06	7440-43-9	
Chromium	**7.5**	mg/kg	0.48	0.040	1	10/11/10 15:45	10/12/10 14:06	7440-47-3	
Lead	**12.6**	mg/kg	0.48	0.11	1	10/11/10 15:45	10/12/10 14:06	7439-92-1	
Selenium	**0.22J**	mg/kg	1.4	0.21	1	10/11/10 15:45	10/12/10 14:06	7782-49-2	
Silver	**0.14J**	mg/kg	0.67	0.032	1	10/11/10 15:45	10/12/10 14:06	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.070**	mg/kg	0.053	0.0095	1	10/11/10 17:30	10/12/10 12:04	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.50	0.50	1		10/11/10 00:00		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086966

Sample: CFI-Q3 **Lab ID: 6086966003** Collected: 10/06/10 10:40 Received: 10/07/10 09:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.7**	mg/kg	1.0	0.19	1	10/11/10 15:45	10/12/10 14:10	7440-38-2	
Barium	**97.5**	mg/kg	1.0	0.031	1	10/11/10 15:45	10/12/10 14:10	7440-39-3	
Cadmium	**0.44J**	mg/kg	0.51	0.028	1	10/11/10 15:45	10/12/10 14:10	7440-43-9	
Chromium	**7.9**	mg/kg	0.51	0.043	1	10/11/10 15:45	10/12/10 14:10	7440-47-3	
Lead	**14.6**	mg/kg	0.51	0.12	1	10/11/10 15:45	10/12/10 14:10	7439-92-1	
Selenium	**0.31J**	mg/kg	1.5	0.23	1	10/11/10 15:45	10/12/10 14:10	7782-49-2	
Silver	**0.17J**	mg/kg	0.72	0.034	1	10/11/10 15:45	10/12/10 14:10	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.67**	mg/kg	0.051	0.0093	1	10/11/10 17:30	10/12/10 12:10	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.6**	%	0.50	0.50	1		10/11/10 00:00		

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086966

Sample: CFI-Q4 **Lab ID: 6086966004** Collected: 10/06/10 10:45 Received: 10/07/10 09:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.9**	mg/kg	0.89	0.17	1	10/11/10 15:45	10/12/10 14:13	7440-38-2	
Barium	**90.5**	mg/kg	0.89	0.027	1	10/11/10 15:45	10/12/10 14:13	7440-39-3	
Cadmium	**0.17J**	mg/kg	0.45	0.024	1	10/11/10 15:45	10/12/10 14:13	7440-43-9	
Chromium	**7.5**	mg/kg	0.45	0.037	1	10/11/10 15:45	10/12/10 14:13	7440-47-3	
Lead	**6.9**	mg/kg	0.45	0.11	1	10/11/10 15:45	10/12/10 14:13	7439-92-1	
Selenium	**0.28J**	mg/kg	1.3	0.20	1	10/11/10 15:45	10/12/10 14:13	7782-49-2	
Silver	**0.12J**	mg/kg	0.62	0.029	1	10/11/10 15:45	10/12/10 14:13	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.010J**	mg/kg	0.045	0.0082	1	10/11/10 17:30	10/12/10 12:12	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.50	0.50	1		10/11/10 00:00		

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086966

Sample: CFI-Q5 **Lab ID: 6086966005** Collected: 10/06/10 10:50 Received: 10/07/10 09:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.0**	mg/kg	1.0	0.19	1	10/11/10 15:45	10/12/10 14:16	7440-38-2	
Barium	**99.7**	mg/kg	1.0	0.031	1	10/11/10 15:45	10/12/10 14:16	7440-39-3	
Cadmium	**0.40J**	mg/kg	0.51	0.028	1	10/11/10 15:45	10/12/10 14:16	7440-43-9	
Chromium	**7.7**	mg/kg	0.51	0.043	1	10/11/10 15:45	10/12/10 14:16	7440-47-3	
Lead	**16.8**	mg/kg	0.51	0.12	1	10/11/10 15:45	10/12/10 14:16	7439-92-1	
Selenium	ND	mg/kg	1.5	0.22	1	10/11/10 15:45	10/12/10 14:16	7782-49-2	
Silver	**0.16J**	mg/kg	0.71	0.034	1	10/11/10 15:45	10/12/10 14:16	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.025J**	mg/kg	0.052	0.0094	1	10/11/10 17:30	10/12/10 12:14	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**22.2**	%	0.50	0.50	1		10/11/10 00:00		

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ANALYTICAL RESULTS

Project: FORT RILEY
Pace Project No.: 6086966

Sample: CFI-PAD-C **Lab ID: 6086966006** Collected: 10/04/10 12:00 Received: 10/07/10 09:45 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.2**	mg/kg	1.1	0.22	1	10/11/10 15:45	10/12/10 14:20	7440-38-2	
Barium	**78.5**	mg/kg	1.1	0.034	1	10/11/10 15:45	10/12/10 14:20	7440-39-3	
Cadmium	**0.13J**	mg/kg	0.57	0.031	1	10/11/10 15:45	10/12/10 14:20	7440-43-9	
Chromium	**8.0**	mg/kg	0.57	0.048	1	10/11/10 15:45	10/12/10 14:20	7440-47-3	
Lead	**7.0**	mg/kg	0.57	0.14	1	10/11/10 15:45	10/12/10 14:20	7439-92-1	
Selenium	ND	mg/kg	1.7	0.25	1	10/11/10 15:45	10/12/10 14:20	7782-49-2	
Silver	**0.13J**	mg/kg	0.80	0.038	1	10/11/10 15:45	10/12/10 14:20	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND	mg/kg	0.057	0.010	1	10/11/10 17:30	10/12/10 12:15	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**20.9**	%	0.50	0.50	1		10/11/10 00:00		

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QUALITY CONTROL DATA

Project: FORT RILEY
Pace Project No.: 6086966

QC Batch: MPRP/12471 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 6086966001, 6086966002, 6086966003, 6086966004, 6086966005, 6086966006

METHOD BLANK: 715670 Matrix: Solid
Associated Lab Samples: 6086966001, 6086966002, 6086966003, 6086966004, 6086966005, 6086966006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	1.0	10/12/10 12:55	
Barium	mg/kg	ND	1.0	10/12/10 12:55	
Cadmium	mg/kg	ND	0.50	10/12/10 12:55	
Chromium	mg/kg	ND	0.50	10/12/10 12:55	
Lead	mg/kg	ND	0.50	10/12/10 12:55	
Selenium	mg/kg	ND	1.5	10/12/10 12:55	
Silver	mg/kg	0.053J	0.70	10/12/10 12:55	

LABORATORY CONTROL SAMPLE: 715671

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	49.5	99	80-120	
Barium	mg/kg	50	48.6	97	80-120	
Cadmium	mg/kg	50	49.5	99	80-120	
Chromium	mg/kg	50	49.3	99	80-120	
Lead	mg/kg	50	50.1	100	80-120	
Selenium	mg/kg	50	46.6	93	80-120	
Silver	mg/kg	25	23.3	93	80-120	

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QUALITY CONTROL DATA

Project: FORT RILEY
Pace Project No.: 6086966

QC Batch: MERP/4639 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 6086966001, 6086966002, 6086966003, 6086966004, 6086966005, 6086966006

METHOD BLANK: 716008 Matrix: Solid
Associated Lab Samples: 6086966001, 6086966002, 6086966003, 6086966004, 6086966005, 6086966006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.050	10/12/10 11:34	

LABORATORY CONTROL SAMPLE: 716009

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.48	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 716010 716011

Parameter	Units	6086924001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	ND	.43	.39	0.51	0.47	110	109	75-125	9	20	

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QUALITY CONTROL DATA

Project: FORT RILEY
Pace Project No.: 6086966

QC Batch: PMST/5536 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 6086966001, 6086966002, 6086966003, 6086966004, 6086966005, 6086966006

METHOD BLANK: 716157 Matrix: Solid
Associated Lab Samples: 6086966001, 6086966002, 6086966003, 6086966004, 6086966005, 6086966006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Percent Moisture	%	ND	0.50	10/11/10 00:00	

SAMPLE DUPLICATE: 716158

Parameter	Units	6086593001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.5	14.4	0	20	

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: FORT RILEY
Pace Project No.: 6086966

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: FORT RILEY
Pace Project No.: 6086966

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
6086966001	CFI-Q1	EPA 3050	MPRP/12471	EPA 6010	ICP/10894
6086966002	CFI-Q2	EPA 3050	MPRP/12471	EPA 6010	ICP/10894
6086966003	CFI-Q3	EPA 3050	MPRP/12471	EPA 6010	ICP/10894
6086966004	CFI-Q4	EPA 3050	MPRP/12471	EPA 6010	ICP/10894
6086966005	CFI-Q5	EPA 3050	MPRP/12471	EPA 6010	ICP/10894
6086966006	CFI-PAD-C	EPA 3050	MPRP/12471	EPA 6010	ICP/10894
6086966001	CFI-Q1	EPA 7471	MERP/4639	EPA 7471	MERC/4610
6086966002	CFI-Q2	EPA 7471	MERP/4639	EPA 7471	MERC/4610
6086966003	CFI-Q3	EPA 7471	MERP/4639	EPA 7471	MERC/4610
6086966004	CFI-Q4	EPA 7471	MERP/4639	EPA 7471	MERC/4610
6086966005	CFI-Q5	EPA 7471	MERP/4639	EPA 7471	MERC/4610
6086966006	CFI-PAD-C	EPA 7471	MERP/4639	EPA 7471	MERC/4610
6086966001	CFI-Q1	ASTM D2974-87	PMST/5536		
6086966002	CFI-Q2	ASTM D2974-87	PMST/5536		
6086966003	CFI-Q3	ASTM D2974-87	PMST/5536		
6086966004	CFI-Q4	ASTM D2974-87	PMST/5536		
6086966005	CFI-Q5	ASTM D2974-87	PMST/5536		
6086966006	CFI-PAD-C	ASTM D2974-87	PMST/5536		