STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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August 30, 2017

Mr. Mark Gustafson
Franke Tobey Jones
5340 North Bristol St
Tacoma, WA 98407

Re: Opinion on the Proposed Cleanup of a Property associated with the Asarco Tacoma Smelter Site

- **Name:** Franke Tobey Jones Major Modification
- **Property Address:** 5340 North Bristol St, Tacoma Washington, 98407
- **Facility/Site No.:** 9163
- **Cleanup Site ID:** 13274
- **VCP Project No.:** SW1592

Dear Mr. Gustafson:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of a Property associated with the Asarco Tacoma Smelter Site (Asarco Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issues Presented and Opinion

1. Upon completion of the proposed cleanup, will further remedial action likely be necessary at the Property to clean up contamination associated with the Asarco Site?

   NO. Ecology has determined that no further remedial action will likely be necessary at the Property to clean up contamination associated with the Asarco Site.

2. Upon completion of the proposed cleanup, will further remedial action likely still be necessary elsewhere at the Asarco Site?

   YES. Ecology has determined that further remedial action will likely still be necessary elsewhere at the Asarco Site, but no further remediation will be necessary for the Property.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Property and the Asarco Site

This opinion applies only to the Property described below within Asarco Site. This opinion does not apply to any other sites that may affect the Property. Any such sites, if known, are identified separately below.

1. Description of the Property.

The Property includes the following tax parcels in Pierce County, which were affected by the Asarco Site and will be addressed by your cleanup:

- 0221232025
- 6930000413
- 6930000393
- 6930000381

Enclosure A includes a legal description of the Property and details of the Property as currently known to Ecology.

2. Description of the Asarco Site.

The Asarco Site is defined by the nature and extent of contamination associated with the following releases:

- Arsenic into the Soil.
- Lead into the Soil.

Those releases have affected more than one parcel of real property, including the parcels identified above.

Enclosure B includes a detailed description and diagram of the Asarco Site, as currently known to Ecology.

3. Identification of Other Sites that may affect the Property.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the Property is affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. GeoEngineers, (GEO), *Remedial Investigation and Cleanup Action Plan*, Franke Tobey Jones – Master Plan Phase I & II, Tacoma, Washington, dated April 14, 2017.

2. GEO, *Phase II Development Cleanup Action Plan,* Franke Tobey Jones, Tacoma, Washington, dated June 12, 2017.

3. City of Tacoma, Planning and Development Services, *Mitigated Determination of Non-significance (MDNS),* File Number LU16-0101, dated July 14, 2016.

4. Tricia DeOme (GEO), email communication regarding remediation methodology for the Remedial Area 3, dated May 29, 2017.

These documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at (360) 407-6365.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

1. Cleanup of the Property located within the Asarco Site.

Ecology has concluded that, upon completion of your proposed cleanup, **no further remedial action** will likely be necessary at the Property to clean up contamination associated with the Asarco Site. That conclusion is based on the following analysis:

a. Characterization of the Asarco Site.

The Site is described in **Enclosure B.**

For almost 100 years, the Asarco Company operated a copper smelter in Tacoma, Washington. Air pollution from the smelter settled on the surface soil over a vast region more than 1,000 square miles of the Puget Sound basin. Elevated levels of contamination are found as far south as Lacey and as far north as Seattle (West Seattle).

Additionally, elevated levels of contamination are found as far west as the Kitsap Peninsula and as far east as Kent and Bellevue. Arsenic, lead, cadmium, and other heavy metals are still in the soil as a result of this pollution.

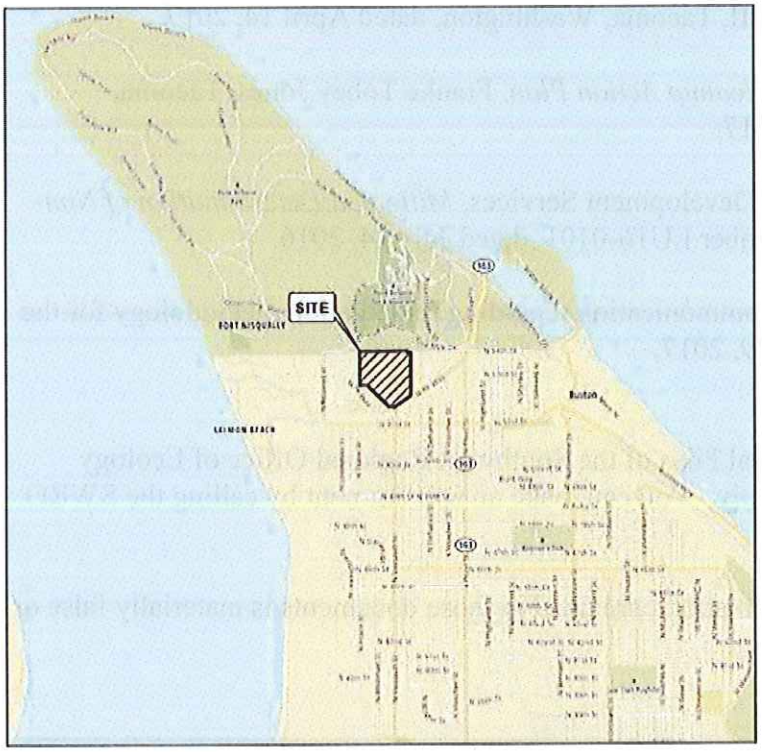


Figure 1. Vicinity Map

Franke Tobey Jones is proposing to expand its existing retirement facilities, which currently include three large buildings, 11 duplexes and various support structures. The Property is located in Tacoma, Washington and encompasses approximately 18.13 acres of land covering four parcels. For more information about this Property refer to Figures 1 and 2 and Enclosure A.

Franke Tobey Jones proposes to re-develop this Property in two phases (Figure 2). The Property was originally developed in 1924. Over the next 80 years, 14 structures were added. Soil has been graded and moved during each development stage. Eastern and southern portions of the Property received large quantities of fill.

This Property is within the Ruston/North Tacoma Study Area and as such was managed by the Environmental Protection Agency (EPA). EPA sampled and analyzed the soil on the Property for arsenic and lead and consequently conducted a remedial action on portions of the Property where arsenic and lead concentrations were above the EPA "action levels" of 230 milligrams per kilogram (mg/kg) for arsenic and 500 mg/kg for lead, respectively. GeoEngineers conducted another characterization in 2016 to determine the concentration of arsenic and lead in the deeper layers, located under the fill.

2005 Characterization Sampling by EPA: During the 2005 sampling event, EPA collected composite soil samples consisting of four subsamples from four depth intervals below ground surface (bgs) (0 to 1 inches bgs; 1 to 6 inches bgs;

6 to 12 inches bgs; and 12 to 18 inches bgs). EPA divided the Property into 13 units and collected 592 samples in 148 locations to characterize the Property (Figure3). Enclosure C contains a detailed account of the characterization sampling conducted by EPA.

EPA completed cleanup action in 10 subunits where the arsenic or lead were above the EPA action levels (Figure 3). Following remediation, EPA collected confirmational samples in the remediated areas.

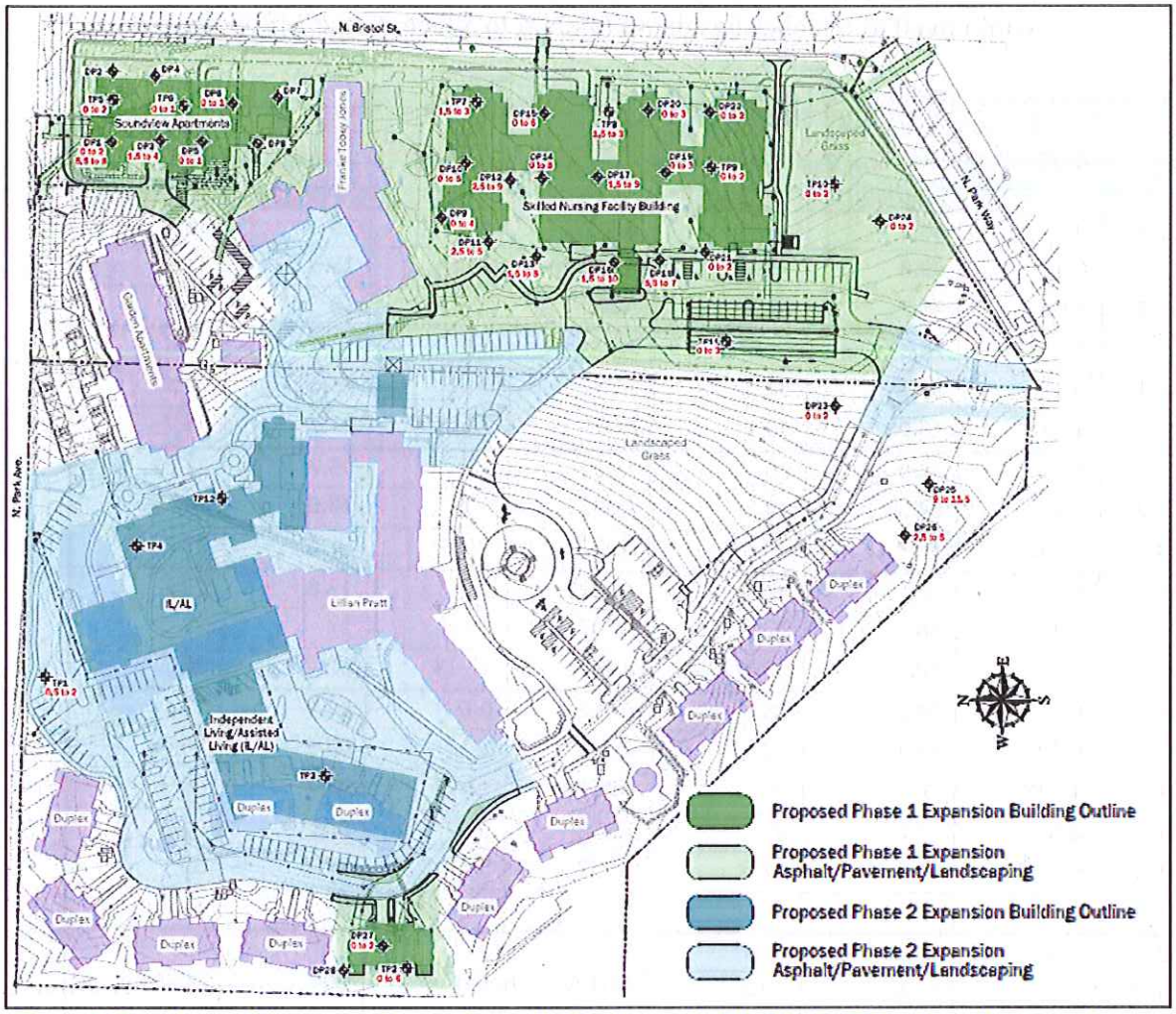


Figure 2. Two phases of the proposed expansion and redevelopment of the Franke Tobey Jones Retirement Facility

EPA collected ten discrete confirmational samples in ten locations (one from each subunit).

Table 1 and Figure 3 summarize the results of the characterization sampling conducted by EPA combined with the results of the confirmational sampling in areas that were remediated. The results are displayed by averages calculated for each unit after the cleanup was completed by EPA (Figure 3).

The 2005 sampling methodology consisted of taking samples from 0 to 1 inches bgs and from 1 to 6 inches bgs, which differs from the 2012 Tacoma Smelter Plume Model Remedies Guidance (MR Guidance). Ecology calculated weighted averages from the two values to determine the concentration of arsenic and lead within the 0 to 6 inches bgs depth interval to adhere to the MR Guidance.

Table 1. Summary of characterization and confirmational sampling conducted by EPA

Unit	Depth (inches)	Average Arsenic (mg/kg)	Average Lead (mg/kg)	Unit	Depth (inches)	Average Arsenic (mg/kg)	Average Lead (mg/kg)
AD03-3	0-6	**60.3**	101.3	AC01-2	0-6	**25**	38.4
AD03-3	6-12	**59.8**	73.1	AC01-2	6-12	15.6	33.9
AD03-3	12-18	**45.7**	65.8	AC01-2	12-18	16	26
AD03-1	0-6	**26.4**	51.9	AC01-1	0-6	13.9	28.6
AD03-1	6-12	**39.1**	58.1	AC01-1	6-12	**21.5**	33.5
AD03-1	12-18	**26.9**	49.1	AC01-1	12-18	**27.7**	44.7
AD03-2	0-6	**35.9**	80	AD01	0-6	**95.7**	213.3
AD03-2	6-12	**34.5**	49.2	AD01	6-12	**76.6**	142.1
AD03-2	12-18	**31.7**	38.1	AD01	12-18	**51.6**	88.7
AC01-6	0-6	18	38.33	AD02	0-6	13.8	29.2
AC01-6	6-12	18.8	32.9	AD02	6-12	17	29
AC01-6	12-18	**20.4**	30.6	AD02	12-18	12	26
AC01-5	0-6	**20.2**	38.7	ADS1	0-6	**55.9**	71.1
AC01-5	6-12	**31.1**	62.1	ADS1	6-12	**50.1**	56.9
AC01-5	12-18	20	35	ADS1	12-18	**38.7**	46.3
AC01-4	0-6	18.6	47.9	ADS2	0-6	**64.2**	31.8
AC01-4	6-12	**21.9**	37.5	ADS2	6-12	**57.2**	56
AC01-4	12-18	**21**	47	ADS2	12-18	**52.7**	82.8
AC01-3	0-6	**41.3**	61.7	MTCA Method A cleanup level		20	250
AC01-3	6-12	**22.6**	32.4				
AC01-3	12-18	19.1	29.8				

Numbers in **Bold** represent values above MTCA cleanup levels

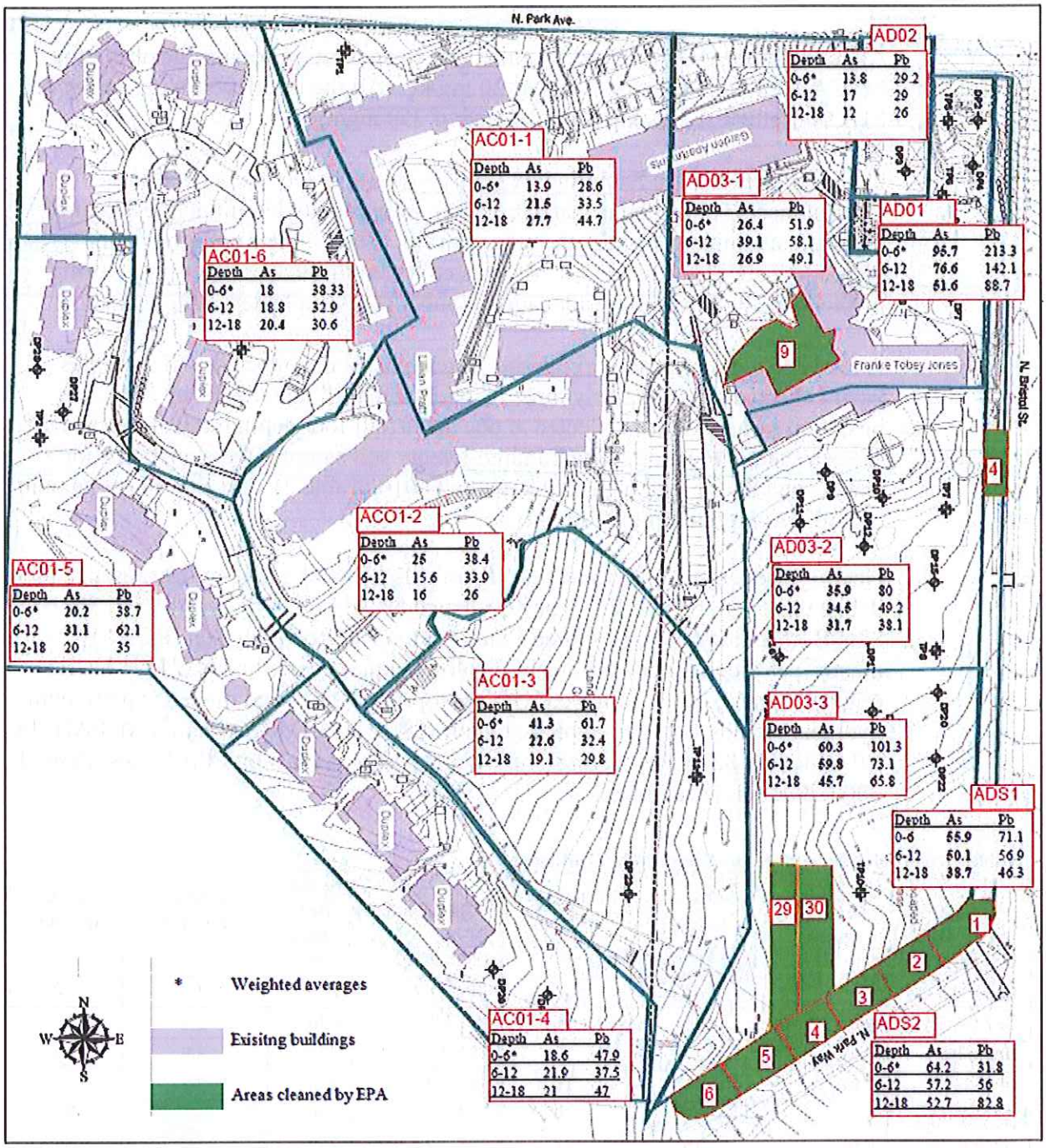


Figure 3. Summary of characterization and confirmational sampling conducted by EPA in the 13 units. The averages for each unit were calculated after the cleanup and the completion of the confirmational sampling in the areas cleaned by EPA.

All, except one, AD02, of the 13 units, had concentrations of arsenic above the MTCA Method A cleanup Level of 20 mg/kg. All the lead levels were below the MTCA Method A cleanup level for lead of 250 mg/kg.

2016 Characterization Sampling by GeoEngineers: In November 2016, GeoEngineers conducted a characterization sampling to determine the extent of vertical contamination under the area with fill. The samples collected using a test pit method are identified as TP, samples collected through a direct-push boring method as DP, followed by a location number and sample depth (Figure 4).

A total of 28 direct-push borings and 12 test pits were collected. The samples were collected approximately three feet below the fill material or up to 10 feet bgs. Soil samples were collected at one and a half foot depth intervals to the base of each sample location. One hundred-twenty soil samples were analyzed for arsenic and 85 for lead using EPA method 6010 (Table 2). No significant amount of duff was present on the Property.

GeoEngineers tested other potential chemicals of concern due to the presence of debris discovered in the fill. They evaluated the soil for VOCs with EPA Method 8260B (three samples), Resource Conservation and Recovery Act (RCRA) metals, petroleum hydrocarbons by Ecology-approved method NWTPH-HCID (eight samples). They followed with appropriate diesel- and oil-range petroleum hydrocarbons by Ecology-approved method NWTPH-Dx (two samples), PAHs by EPA Method 8270SIM (eight samples) and RCRA metals by EPA Series Method 6000/7000 (eight samples).

Table 2. 2016 Soil Characterization Sampling by GeoEngineers

Sample ID	Depth (feet bgs)	Arsenic (mg/kg)	Lead (mg/kg)	Sample ID	Depth (feet bgs)	Arsenic (mg/kg)	Lead (mg/kg)
DP5-0-0.5	0 to	**69**		DP24-2-2.5	2 to	3.6	
DP6-0-0.5	0 to	**47**	57	DP26-2-2.5	2 to	4.4	7.0
DP7-0-0.5	0 to	4.5	4.6	DP27-2-2.5	2 to	2.9	
DP8-0-0.5	0 to	17	15	TP1-2-2.5	2 to	3.5	4.1
DP16-0-0.5	0 to	11	13	TP5-2-2.5	2 to	3.1	
DP24-0-0.5	0 to	34	21	TP7-2-2.5	2 to	**55**	29
DP28-0-0.5	0 to	15	27	TP8-2-2.5	2 to	**92**	35
TP1-0-0.5	0 to	17		TP9-2-2.5	2 to	6.6	
TP3-0-0.5	0 to	6.0	14	TP10-2-2.5	2 to	2.9	
TP4-0-0.5	0 to	3.3	8.1	TP11-2-2.5	2 to	**71**	92
TP6-0-0.5	0 to	**69**	44	DP3-3-3.5	3 to	**41**	
TP9-0-0.5	0 to	**130**		DP9-3-3.5	3 to	12	20

Table 2. 2016 Soil Characterization Sampling by GeoEngineers

Sample ID	Depth (feet bgs)	Arsenic (mg/kg)	Lead (mg/kg)	Sample ID	Depth (feet bgs)	Arsenic (mg/kg)	Lead (mg/kg)
TP10-0-0.5	0 to	26		DP10-3-3.5	3 to	20	42
TP11-0-0.5	0 to	**130**	89	DP11-3-3.5	3 to	**120**	110
DP1-1-1.5	1 to	7.4	10	DP12-3-3.5	3 to	37	75
DP2-1-1.5	1 to	16	34	DP17-3-3.5	3 to	25	39
DP3-1-1.5	1 to	12	18	DP19-3-3.5	3 to	15	
DP4-1-1.5	1 to	2.9	2.9	DP20-3-3.5	3 to	2.8	
DP5-1-1.5	1 to	15	5.8	DP21-3-3.5	3 to	6.9	7.5
DP6-1-1.5	1 to	11		DP26-3-3.5	3 to	35	59
DP9-1-1.5	1 to	**52**	31	TP1-3-3.5	3 to	3.0	
DP10-1-1.5	1 to	26	24	TP2-3-3.5	3 to	14	
DP12-1-1.5	1 to	14	21	TP7-3-3.5	3 to	11	
DP13-1-1.5	1 to	4.3	4.2	TP8-3-3.5	3 to	3.1	
DP15-1-1.5	1 to	**57**	210	TP11-3-3.5	3 to	2.9	
DP17-1-1.5	1 to	13	20	DP3-4-4.5	4 to	3.7	3.8
DP19-1-1.5	1 to	**75**	190	DP26-4-4.5	4 to	**74**	140
DP20-1-1.5	1 to	28	20	DP10-5-5.5	5 to	4.7	
DP21-1-1.5	1 to	**140**	280	DP11-5-5.5	5 to	6.8	
DP22-1-1.5	1 to	12	5.9	DP14-5-5.5	5 to	**58**	91
DP23-1-1.5	1 to	38	58	DP15-5-5.5	5 to	**81**	200
DP24-1-1.5	1 to	23		DP17-5-5.5	5 to	**56**	85
DP25-1-1.5	1 to	9.2	13	DP23-5-5.5	5 to	16	5.0
DP26-1-1.5	1 to	3.8	18	DP26-5-5.5	5 to	2.8	
DP27-1-1.5	1 to	31	34	DP28-5-5.5	5 to	13	28
DP28-1-1.5	1 to	13	17	TP2-5-5.5	5 to	26	38
TP1-1-1.5	1 to	**180**	310	DP1-6-6.5	6 to	**90**	130
TP2-1-1.5	1 to	13	12	DP13-6-6.5F	6 to	**53**	88
TP5-1-1.5	1 to	**49**	60	DP15-6-6.5	6 to	7.1	
TP6-1-1.5	1 to	8.9		DP18-6-6.5	6 to	**160**	120
TP7-1-1.5	1 to	12	13	TP2-6-6.5	6 to	2.8	
TP8-1-1.5	1 to	6.6	7.4	DP1-7-7.5	7 to	23	39
TP9-1-1.5	1 to	19	3.5	DP13-7-7.5	7 to	22	
TP10-1-1.5	1 to	19	2.9	DP14-7-7.5	7 to	**120**	120
TP11-1-1.5	1 to	6.9		DP18-7-7.5	7 to	5.5	
TP12A-1-1.5	1 to	14	9.0	DP23-7-7.5	7 to	16	21
DP1-2-2.5	2 to	9.8	14	DP1-8-8.5	8 to	4.5	
DP4-2-2.5	2 to	3	3	DP12-8-8.5	8 to	**67**	130
DP6-2-2.5	2 to	5.2	4.6	DP13-8-8.5	8 to	4.0	
DP9-2-2.5	2 to	7.4		DP14-8-8.5	8 to	5.8	

Table 2. 2016 Soil Characterization Sampling by GeoEngineers

Sample ID	Depth (feet bgs)	Arsenic (mg/kg)	Lead (mg/kg)	Sample ID	Depth (feet bgs)	Arsenic (mg/kg)	Lead (mg/kg)
DP11-2-2.5	2 to	10	14	DP17-8-8.5	8 to	35	22
DP13-2-2.5	2 to	30	41	DP23-8-8.5	8 to	11	16
DP14-2-2.5	2 to	27	36	DP24-8-8.5	8 to	2.8	2.8
DP15-2-2.5	2 to	**41**	48	DP25-8-8.5F	8 to	9.1	14
DP16-2-2.5	2 to	21	44	TP9-8-8.5	8 to	2.9	2.9
DP18-2-2.5	2 to	13	19	DP12-9-9.5	9 to	3.2	
DP19-2-2.5	2 to	**59**	14	DP16-9-9.5F	9 to	**110**	280
DP20-2-2.5	2 to	27	10	DP17-9-9.5	9 to	6.6	
DP21-2-2.5	2 to	9.4	5.7	DP25-9-9.5	9 to	**49**	55
DP22-2-2.5	2 to	3.1	2.7	DP16-10-10.5	10 to	7.5	
Average for	0 to	41.3	29.3	Average for	5 to	29.4	74.5
Average for	1 to	29.1	51.2	Average for	6 to	63	113
Average for	2 to	21.3	23.5	Average for	7 to 75	37	60
Average for	3 to	24.7	50.4	Average for	8 to	15.8	31.2
Average for	4 to	38.9	71.9	Average for	9 to	42.2	167.5

Shaded values represent concentrations above the MTCA Method A cleanup levels; **Bold** values indicate concentrations above twice the MTCA Method A cleanup levels

Results:

Tacoma Smelter Plume contamination (arsenic and lead): Out of the total of 28 direct-push borings, 22 exceeded the MTCA Method A cleanup level of 20 mg/kg. Out of the total of 12 test pits excavated, ten exceed the cleanup level for arsenic. The average arsenic concentration was above the cleanup level in all the depth intervals except the 8 to 8.5 feet bgs depth interval. Sixty out of the 120 samples analyzed for arsenic were above the cleanup level and three out of 80 samples analyzed for lead were above the MTCA Method A cleanup level for lead of 250 mg/kg. Twenty-eight samples exceeded the maximum allowable concentration for a single soil sample for arsenic of 40 mg/kg. Arsenic levels ranged from 2.8 mg/kg to 180 mg/kg. Lead concentrations ranged from 2.7 mg/kg to 310 mg/kg.

PAHs and other metals: Soil samples collected from eight locations (DP1, DP4, DP6, DP13, DP16, DP21, DP25 and TP2) were analyzed for PAHs and metals (barium, cadmium, chromium, mercury, selenium and silver) based on the presence of debris in the soil samples. The metals and PAHs were either not detected or were detected at concentrations less than the respective MTCA Method A Unrestrictive Land Use (ULU) cleanup levels or Method B criteria (Enclosure D).

Petroleum hydrocarbons were analyzed in soil samples collected from eight locations (DP1, DP4, DP6, DP13, DP16, DP21, DP25 and TP2) based on the observations of a slight sheen noted during field screening. Lube oil-range petroleum hydrocarbons were identified in one soil sample collected from DP16 at 8.5 to 9 feet bgs (Enclosure D).

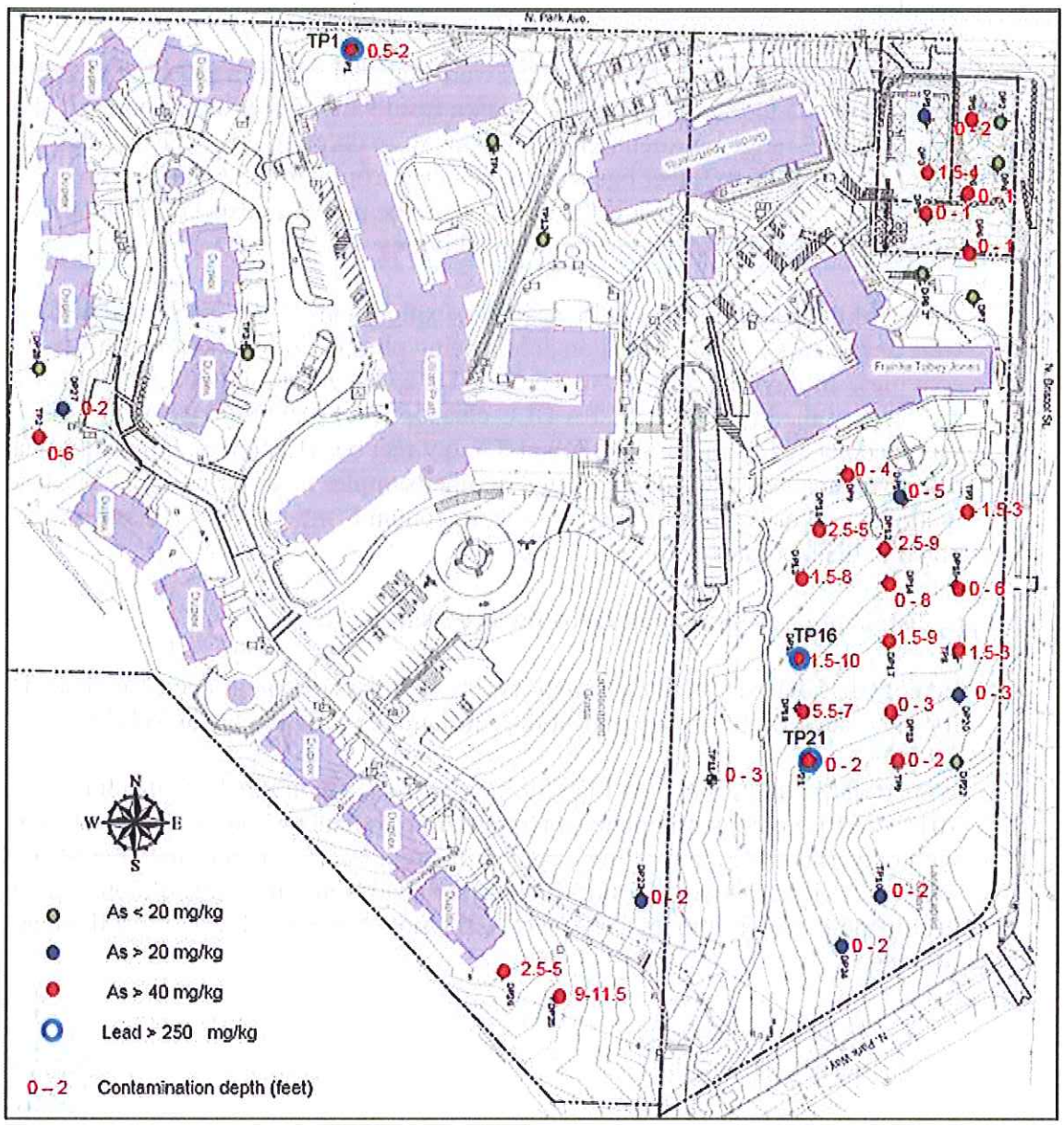


Figure 4. Summary of 2016 Characterization Sampling for arsenic and lead

This sample was submitted for follow-up analysis of diesel- and lube oil-range petroleum hydrocarbons by Ecology-approved method NWTPH-Dx including the deeper sample from this boring (DP16 from 9 to 9.5 feet bgs) to evaluate the depth of potential contamination. Diesel- and lube oil-range petroleum hydrocarbons were either not detected or were detected at concentrations (less than the respective MTCA method A ULU cleanup levels in these analyzed soil samples.

Lube oil-range petroleum hydrocarbons were detected at a concentration of 700 mg/kg from 8.5 to 9 feet bgs and 160 mg/kg from 9 to 9.5 feet bgs in boring DP16. Diesel-range petroleum hydrocarbons were detected at a concentration of 90 mg/kg from 8.5 to 9 feet bgs and not detected from 9 to 9.5 feet bgs. The petroleum-impacted soil is located deeper than the proposed excavation depth during Phase I and Phase II construction activities.

A total of three soil samples collected from explorations DP13, DP16 and TP2 were analyzed for VOCs based on debris being present during exploration activities. Methylene chloride was detected at a concentration (0.085 mg/kg) greater than the MTCA Method A ULU cleanup level (0.02 mg/kg) in one soil sample collected from boring DP16 at 8.5 to 9 feet bgs (Enclosure D). Additional follow-up analysis was not completed in other samples near boring DP16 because methylene chloride is a common laboratory contaminant and QA/QC issues were noted in the laboratory report.

b. Establishment of cleanup standards for the Asarco Site.

Ecology has determined the cleanup levels and points of compliance established for the Asarco Site will likely meet the substantive requirements of MTCA.

As part of the Interim Action Plan for the Asarco Tacoma Smelter Site (June 2012) (IAP), Ecology completed a terrestrial ecological evaluation for properties with only Tacoma Smelter Plume contamination. Ecology determined the MTCA Method A cleanup levels for both arsenic and lead were protective of both human health and the environment. The MTCA Method A cleanup levels for soil are as follows:

- Arsenic is 20 mg/kg
- Lead is 250 mg/kg

The IAP determined that the soil and duff cleanup level protective of human health and the environment for properties within the Asarco Tacoma Smelter Site are the following:

- Average arsenic detected in the soil is less than 20 mg/kg
- Average lead detected in the soil is less than 250 mg/kg
- Duff composite sample is less than 20 mg/kg
- Duff composite sample is less than 250 mg/kg

OR

- No single soil sample has arsenic above 40 mg/kg
- No single soil sample has lead above 500 mg/kg

c. Selection of cleanup for the Property.

Ecology has determined the cleanup you proposed for the Property will likely meet the substantive requirements of MTCA and the IAP. Your proposed cleanup meets the minimum cleanup requirements and will not exacerbate conditions or preclude reasonable cleanup alternatives elsewhere at the Asarco Site.

Ecology proposed four model remedies in the IAP:

- Excavation and removal
- Mixing
- Capping in place
- Consolidation and capping

Franke Tobey Jones decided they will use combination of all four model remedies on their Property.

Property Cleanup: The cleanup action at the Property will be conducted in conjunction with Property development and redevelopment. GeoEngineers divided the Property into four remedial areas reflecting the phased redevelopment:

Area 1 – Only two top feet in this area are contaminated. The contractor will excavate the top 2 feet of contaminated soil from this area and stockpile it on a plastic and cover to prevent run-off. The contractor then will excavate as much of the non-contaminated soil from Remedial Area 1 (Figure 5) as needed to have a holding area large enough to store the contaminated soil. They will then build a wall to increase storage capacity to hold the contaminated soil.

The non-contaminated soil will be stockpiled on plastic, sampled, and covered for later use as fill on other portions of the Property during construction pending chemical and analytical analysis of the samples.

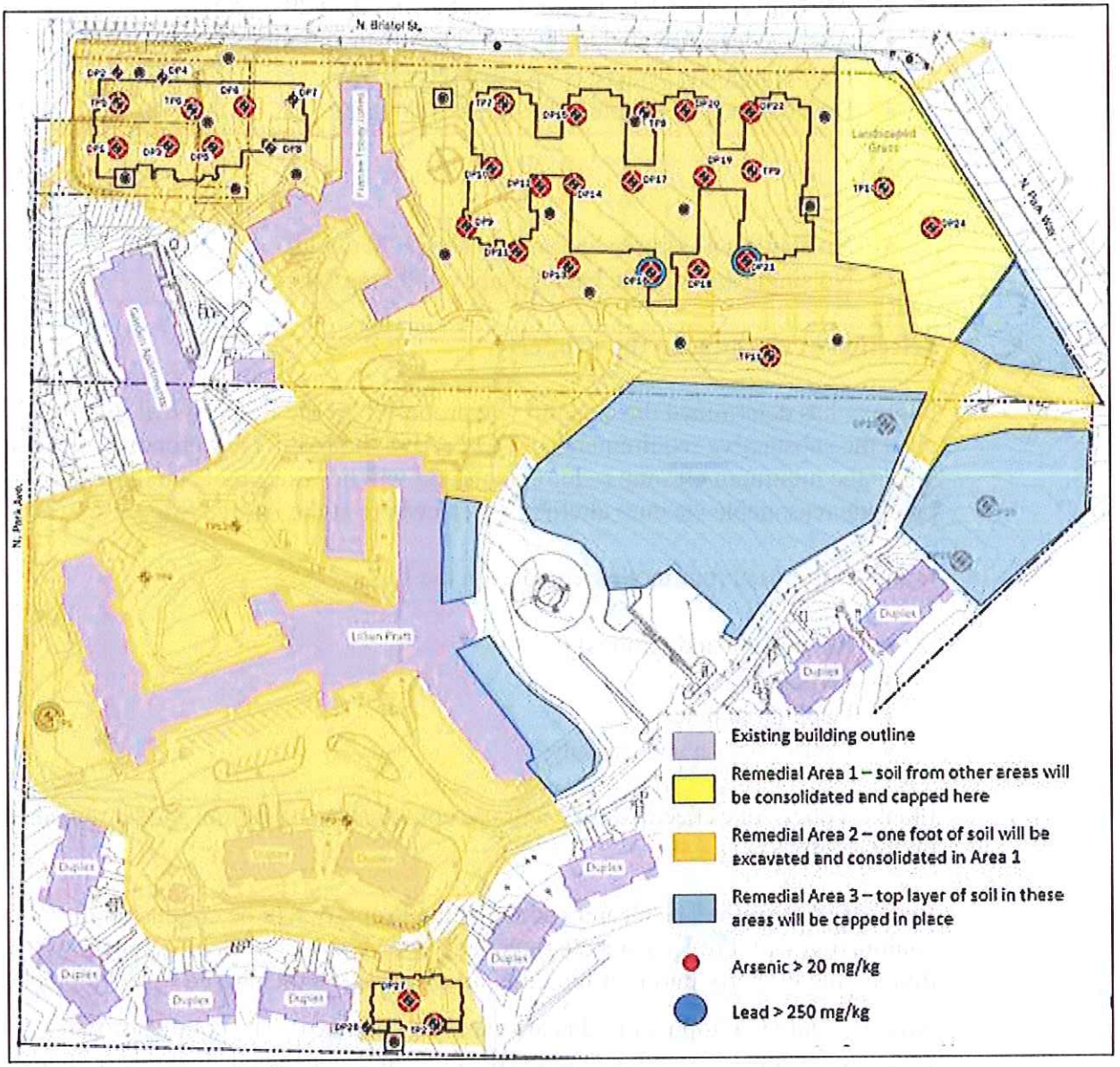


Figure 5. Proposed Remediation Areas.

Geotextile material will be put down on the bottom of the excavated containment cell before the placement of the contaminated soil.

Area 2 – This area includes all the areas that will be developed or redeveloped. The contractor will excavate the top 12 inches of soil from the construction areas. After the excavation of the upper 12 inches of surficial soil is completed, the contractor will consolidate it in Remedial Area 1. Since the redevelopment of the Property is phased, some of the contaminated soil may be placed in a separated containment cell on the Property or hauled off the Property. The location of the second containment cell will be determined during the second phase of the development of the Property.

Upon completion of soil consolidation, the contractor will mix the soil within Remedial Area 2 to meet the final grades and install utilities. Construction activities may include mixing the soil in some areas to remediate the lead and arsenic to concentrations below the MTCA Method A cleanup levels if possible. Excavation depths are anticipated to extend up to 15 feet bgs for construction purposes, as the new apartment building will be embedded to approximately 15 feet bgs. Soil, determined to be above the cleanup level for arsenic or lead will be consolidated Remedial Area 1 or stockpiled, sampled and disposed at RCRA subtitle D landfill, approved through the Tacoma Pierce County Health Department Waste Disposal Authorization process. In areas, where the arsenic or lead concentrations are still above the cleanup levels after the removal of the top 12 inches and mixing, the contractor will cap them by placing a geotextile material on top of the soil and adding a 12 inches of clean soil on top of the geotextile material.

Area 3 – These areas are landscaped and lawn areas on the Property. The contractor may scrape and excavate the top 6 to 12 inches of soil from these areas and put down a geotextile material on top of the excavated and graded areas. If feasible, the contractor may put the geotextile material directly on the contaminated soil. Then they will add 12 inches of clean soil on top of the geotextile material to form a cap. Care will be taken to remove soil around the roots of trees that will remain in place. The non-contaminated soil cap may be less than 12 inches in these areas due to the presence of roots.

In all the areas, the contractor will minimize the need for dust control. The loaded soil will be covered with a tarp and adequately secured to prevent duff from blowing out of the trailer during transport.

Confirmational Sampling: According to the Model Remedies Guidance, confirmational (compliance) soil samples will be collected to determine if the soil mixing was effective in reducing arsenic concentrations to below the cleanup level of 20 mg/kg.

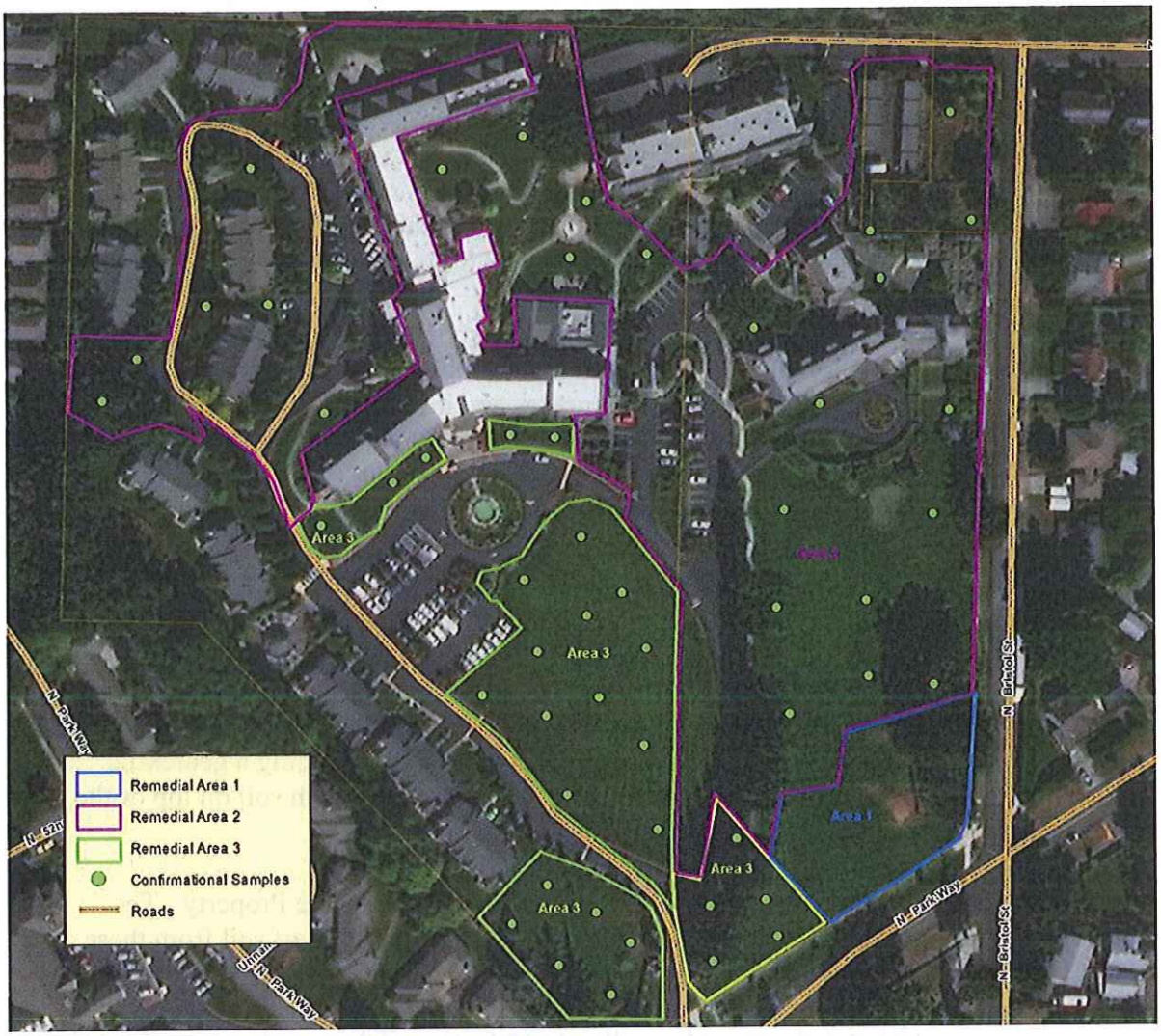


Figure 6. Approximate Location of Confirmational Samples

Confirmational soil samples will be collected for submittal to the project analytical laboratory once the final project elevations in the areas of soil mixing for the Property have been attained. Confirmational soil sampling will be conducted approximately as follows:

Within the areas of soil mixing to obtain the concentrations of arsenic and lead below the cleanup levels, the confirmational samples will be collected from the entire mixed depth profile at 6-inch intervals. Each discrete sample will be analyzed for arsenic and lead.

If the arsenic concentration for a screening sample measured with a field-portable x-ray fluorescence (XRF) analyzer is less than 20 mg/kg, the soil cleanup level will be considered to have been attained for that sample location.
If the arsenic concentration in a sample exceeds 20 mg/kg, the contractor will conduct additional soil mixing in the general area of sample location. To confirm the screening sample concentration, the confirmational soil sample will be submitted to the project analytical laboratory for analysis for arsenic and lead. If the arsenic or lead concentration for any confirmational soil sample analyzed by the laboratory exceeds 20 mg/kg (for arsenic) or 250 mg/kg (for lead), additional soil mixing will be conducted, followed by collection and analysis of an additional confirmational soil sample, as described above. Soil mixing and confirmation sampling and analysis will be repeated until the arsenic and lead concentrations for the confirmation analysis are less than 20 mg/kg and 250 mg/kg, respectively. The approximate locations of the confirmational samples area shown in Figure 6.

Within the Remedial Area 3, the upper soil layer will be excavated and either consolidated in the containment cell or hauled off the Property, followed by capping with geotextile material and 12 inches of clean topsoil. GeoEngineers will sample the soil after soil excavation at a grade level before placing the geotextile material. They will collect 28 samples from Remedial Area 3 (Figure 6). Stockpile sampling will occur for soils that will be reused on the Property as a general topsoil backfill. GeoEngineers will sample and analyze it for arsenic and lead content and will remix, any portion of the stockpile determined to be above the cleanup level, until it reaches concentrations of arsenic and lead below cleanup levels. They will divide the stockpile into equal segments and collect a composite sample, consisting of six subsamples from each segment. The number of segments will depend on the size of the stockpile, following the Tacoma Smelter Plume Model Remedies Guidance.

Since there will be capped areas on the Property where the soil exceeds the MTCA Method A Cleanup Levels for arsenic and lead, Franke Tobey Jones will institute limited environmental controls on the Property.

In order to receive a No Further Action determination, Franke Tobey Jones will do the following:

1. Place signage on the western border of the Property alongside the border of the Remedial Area 1. The sign will educate residents about the Tacoma Smelter Plume impacts. Education signage will indicate that elevated arsenic levels remain on the Property.
   They will also have directions of where to find additional information regarding contamination and protective measures. The signs must adhere to Ecology's guidelines. Ecology must approve the size of the signs, text size, coloring and wording before installation.

2. Draft an environmental covenant with the monitoring and maintenance plan for Ecology to review. Once Ecology reviews the covenant, Franke Tobey Jones will submit the covenant to the City of Tacoma, providing the city with Ecology's contact information. For guidance on the environmental covenant, visit Ecology's website:
   www.ecy.wa.gov/programs/tcp/vcp/vcp2008/vcpRequirements.html.

As a reminder, in accordance with WAC 173-340-840(5) and Ecology Toxics Cleanup Program Policy 840 (Data Submittal Requirements), data generated for Independent Remedial Actions shall be submitted simultaneously in both a written and electronic format. For additional information regarding electronic format requirements, see the website http://www.ecy.wa.gov/eim. Be advised that according to the policy, any reports containing sampling data that are submitted for Ecology review are considered incomplete until the electronic data has been entered. Please ensure that data generated during on-site activities is submitted pursuant to this policy. **Data must be submitted to Ecology in this format for Ecology to issue a No Further Action determination.** Please be sure to submit all soil data collected to date, as well as any future data, in this format. Be advised that Ecology requires up to two weeks to process the data once it is received.

2. Cleanup of the Asarco Site as a whole.

Ecology has concluded that **further remedial action** will still be necessary elsewhere within the ASARCO Site (Asarco Tacoma Smelter Site) upon completion of your proposed cleanup. In other words, while your proposed cleanup may constitute the final action for the Property, it will constitute only an **"interim action"** for the Asarco Site as a whole.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Property. This opinion **does not**:

- Change the boundaries of the Asarco Site.
- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. Opinion is limited to proposed cleanup.

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Property upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

4. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up your Property under the Voluntary Cleanup Program (VCP). As you conduct your cleanup, please do not hesitate to request additional services. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our website: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at 360-407-7094 or by e-mail at Eva.Barber@ecy.wa.gov.

Sincerely,

Eva Barber
Technical Assistance Coordinator
Toxics Cleanup Program
Southwest Regional Office

MLA: kb

By Certified Mail: [91 7199 9991 7037 7496 0289]

Enclosures: Enclosure A: Legal Description and General Description of the Property
Enclosure B: Site description of the Asarco Tacoma Smelter Site
Enclosure C: 2005 Soil Sampling Results Conducted by EPA
Enclosure D: Summary of Sampling for Petroleum Hydrocarbons, PAHs, Other Metals and VOCs in Soil

cc: Tricia DeOme, Environmental Geologist, GeoEngineers,
Phillip Kao, City of Tacoma, Planning & Development Services
Sharon Bell, Tacoma-Pierce County Health Department
Marian Abbett, Ecology, Toxics Cleanup Program
Nick Acklam, Ecology, Toxics Cleanup Program
Matthew Alexander, Ecology
Carol Serdar, Ecology
Amy Moon, HQ WQ, Ecology

Enclosure A
Legal Description of the Property

Parcel # 0221232025
Section 23 Township 21 Range 02 Quarter 22 COM AT NW COR OF NW OF NW TH E 693 FT ALG N LI OF NW TO POB TH CONT E 633.4 FT M/L ALG N LI OF NW TO NE COR OF NW OF NW TH S 1016.93 FT ALG E LI OF NW OF NW TH W 100 FT TH N 44 DEG 40 MIN 24 SEC W 554.7 FT TH W 141.87 FT TH N 620 FT TO POB EASE OF RECORD ADMIN COMB TO RESTORE PARCEL SEG'D FOR TAX PURPOSES ONLY COMB OF 2-023 & 2-024 SEG 2006-0910 JU 3/8/06JU

Parcel # 6930000413
Section 23 Township 21 Range 02 Quarter 21 POINT DEFIANCE PARK REPLAT L 7 THRU 37 B 7 INC VAC ALLEY ALSO L 1 THRU 29 B 8 INC VAC ALLEY ALSO TOG/W NORTH PARK AVE ABUTT ON N VAC BY ORD 27115 TOG/ VAC VASSAULT ST ABUTT ON W ADMIN COMB TO RESTORE PARCEL SEG'D FOR TAX PURPOSES ONLY COMB OF 041-1 & 041-2 SEG 2006-0910 JU 3/8/06JU

Parcel # 6930000393
Section 23 Township 21 Range 02 Quarter 21 POINT DEFIANCE PARK REPLAT L 3 & 4 B 7 INC POR OF ALLEY ABUTT ON W & POR OF NORTH PARK AVE ABUTT ON N VAC BY ORD 27115 ADMIN COMB TO RESTORE PARCEL SEG'D FOR TAX PURPOSES ONLY COMB OF 039-1 & 039-2 SEG 2006-0910 JU 3/8/06JU

Parcel # 6930000381
Section 23 Township 21 Range 02 Quarter 21 POINT DEFIANCE PARK REPLAT: POINT DEFIANCE PARK REPLAT NE OF NW 23-21-02E COMBO FOR TAX PURPOSES ONLY L 1 & 2 B 7 TOG/W L 5 & 6 B 7 APPROX 13,200 SQ FT COMB 038-0 & 040-0 SEG F-0818 JU 3/7/94JU

Property Description

The Property is located at 5340 North Bristol Street, Tacoma, Washington (1138819.439, 723721.671NAD State Plane WA South). The Property consists of approximately 18.13 acres of land covering four parcels (Pierce County parcel nos. 0221232025, 6930000413, 6930000393, and 693000038). The ground surface elevation slopes to the north from approximately 170 to 210 feet relative to the Old City of Tacoma Datum (OCTD). The City of Tacoma zoning for the Property is multiple family dwelling and two family dwelling. Zoning of surrounding properties consists of single-family dwelling. The facility was originally developed in 1924 with a residential building located on the eastern portion of the Property. The current use of this facility is an elderly retirement facility. Several buildings and 11 smaller duplexes and various support structures and carports are currently located on the Property.

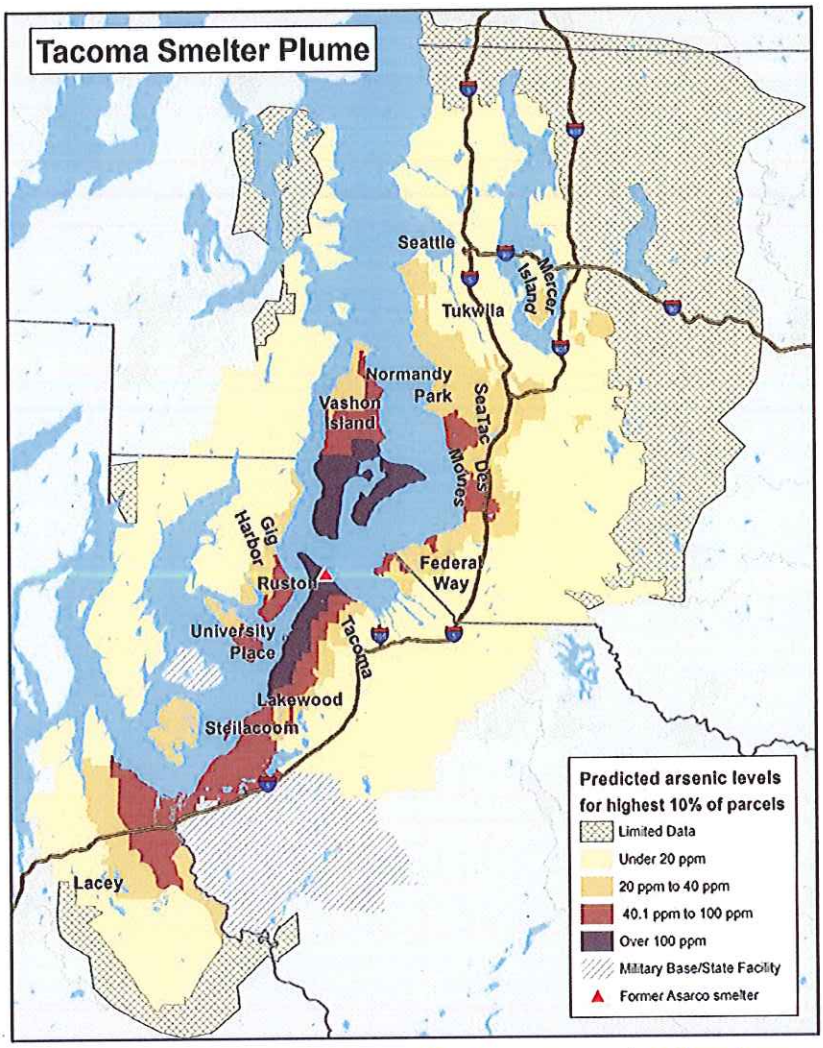
According to the *Geologic Map of the Gig Harbor Quadrangle, Pierce County Washington* (Booth & Troost, in review), soil consists of Vashon Recessional Outwash (Qvr). The recessional outwash typically overlies glacially consolidated soil, including Vashon Glacial Till (Qvt), Vashon Advance Outwash (Qva), and pre-Vashon deposits based on GeoEngineers' professional experience and geologic descriptions provided by Booth and Troost. The GeoEngineers observed zones of fill underlain by undisturbed recessional outwash and/or glacially consolidated soil in our subsurface explorations. The fill consisted of a mixture of reworked and disturbed native soils, mixed with occasional organics and construction debris such as concrete and brick and generally ranged in thickness from 1 to 8 feet but was up to 25-feet-thick in areas.

The recessional outwash deposits typically consisted of a mixture of sand and gravel with variable silt content typically found in a medium dense to dense condition and up to 18.5 feet thick. The recessional outwash unit was not present in the explored areas of the site; instead medium dense to very dense soil deposits were observed. They varied in composition from gravel with silt and sand to clay with sand below the fill or recessional outwash. For the purposes of this report, the soils were combined into a single group (glacially consolidated soil) that may include weathered glacial till, glacial till, and advance outwash.

Perched groundwater was observed during the excavation of test pits TP1, TP7, TP8, and TP9 at depths ranging between 4 and 8.5 feet bgs. The perched groundwater appears to be isolated, discontinuous and dispersed throughout the site. Seasonal perched groundwater conditions may develop at other locations on the Property. Groundwater levels will likely be lowest during the late summer and early fall months. Groundwater levels should be expected to fluctuate based on season and rainfall events. No regional groundwater table was observed.

Enclosure B

Asarco Tacoma Smelter Site



An interactive color map can be found at: https://fortress.wa.gov/ecy/smeltersearch/

For almost 100 years, the Asarco Company operated a copper smelter in Tacoma. Air pollution from the smelter settled on the surface soil over a vast region -- more than 1,000 square miles of the Puget Sound basin. Elevated levels of contamination are found as far south as the Nisqually Ridge and as far north as Seattle (West Seattle). Additionally, elevated levels of contamination are found as far west as the Kitsap Peninsula and as far east as Kent and Bellevue. Arsenic, lead, cadmium, and other heavy metals are still in the soil as a result of this pollution. The area has elevated levels of arsenic, lead, and cadmium in the soil due to air emissions from the Asarco smelter.

Enclosure C
Soil Sampling Results Conducted by EPA

MERC CONSTRUCTION, LLC
SITEWORK UTILITIES & ENVIRONMENTAL
RUSTON, WA. (253)759-4829

December 18, 2006

Franke Tobey Jones Home
5340 N. Bristol
Tacoma, WA 98407

Re: AC01

Dear Franke Tobey Jones Home,

As you know, your property at 6414 Parkway Street was tested for arsenic and lead content in connection with the Ruston/North Tacoma Soil Replacement Project. Asarco has reached an agreement with EPA that requires testing of yards in Ruston and North Tacoma to determine which yards might require soil replacement. This agreement states that yards will require remediation if the arsenic concentration exceeds 230 part per million or the lead concentration exceeds 500 parts per million (the EPA action levels).

Composite samples were collected in a number of subunits from your property and analyzed for arsenic and lead concentrations. Each composite was obtained by combining samples collected from the same depths at four different locations within each subunit. Depth intervals from which samples were collected are 0"-1", 1"-6", 6"-12", 12"-18". Results of these samples are listed on the attached table (see next page).

Because your sample results are below the EPA action levels for arsenic and lead, your property does not need to be remediated. We have enclosed a brochure from the Program For Area Clean-up (PACE) as additional information. If you have any questions, please contact Michele Wilkins at 759-6015. Thank you for your cooperation.

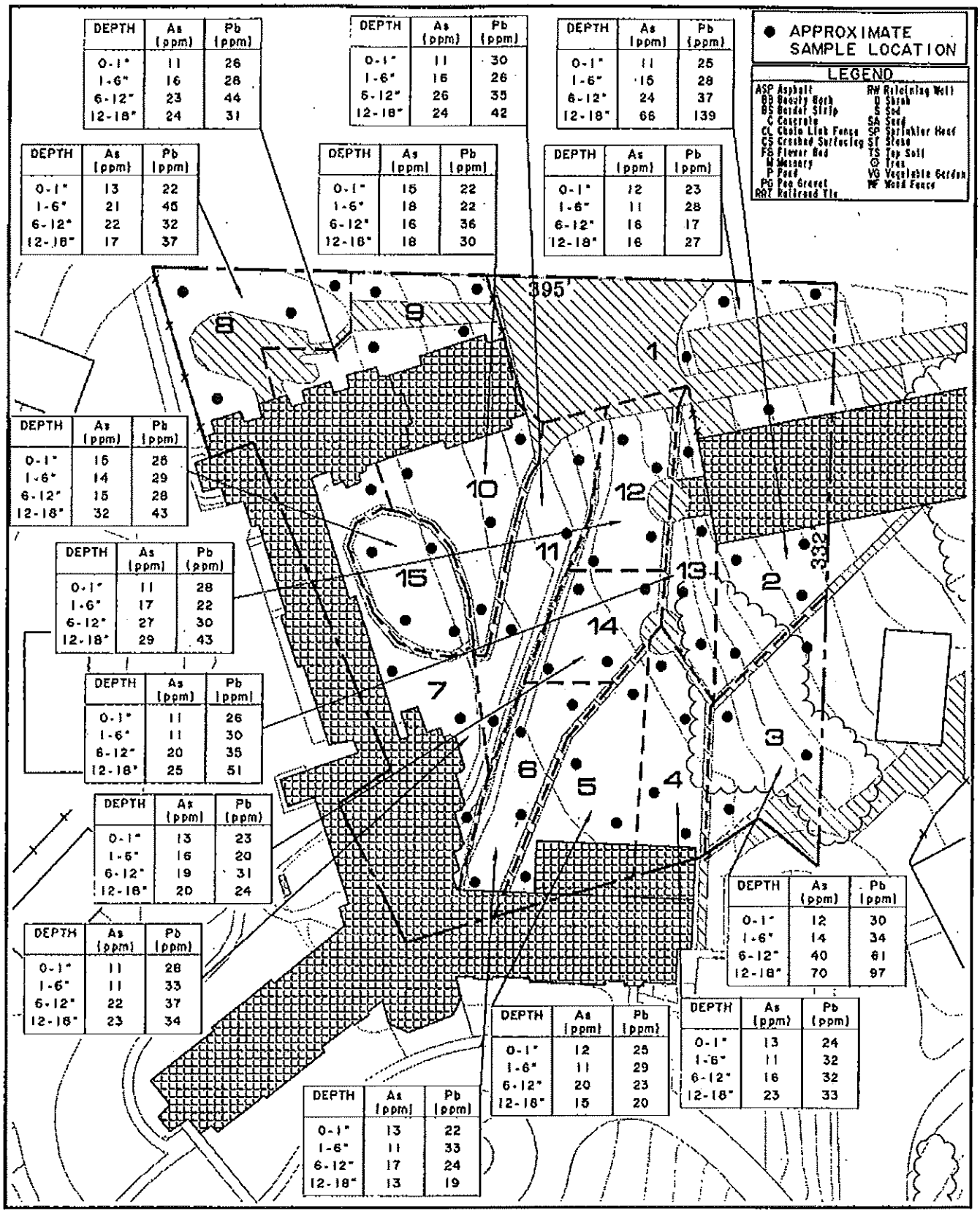
Sincerely,

Ric Rademacher
Tacoma Projects Manager

"Information for Owners of Property That Will Not Require Remediation" enclosed
cc Tenant

5219 North Shirley Street Suite 003
Tacoma, WA 98407

(253) 759-4829
Fax: (253) 759-1088



11/9/05

ACOI-IC5

NORTH

0 20 40 60 80

SCALE IN FEET

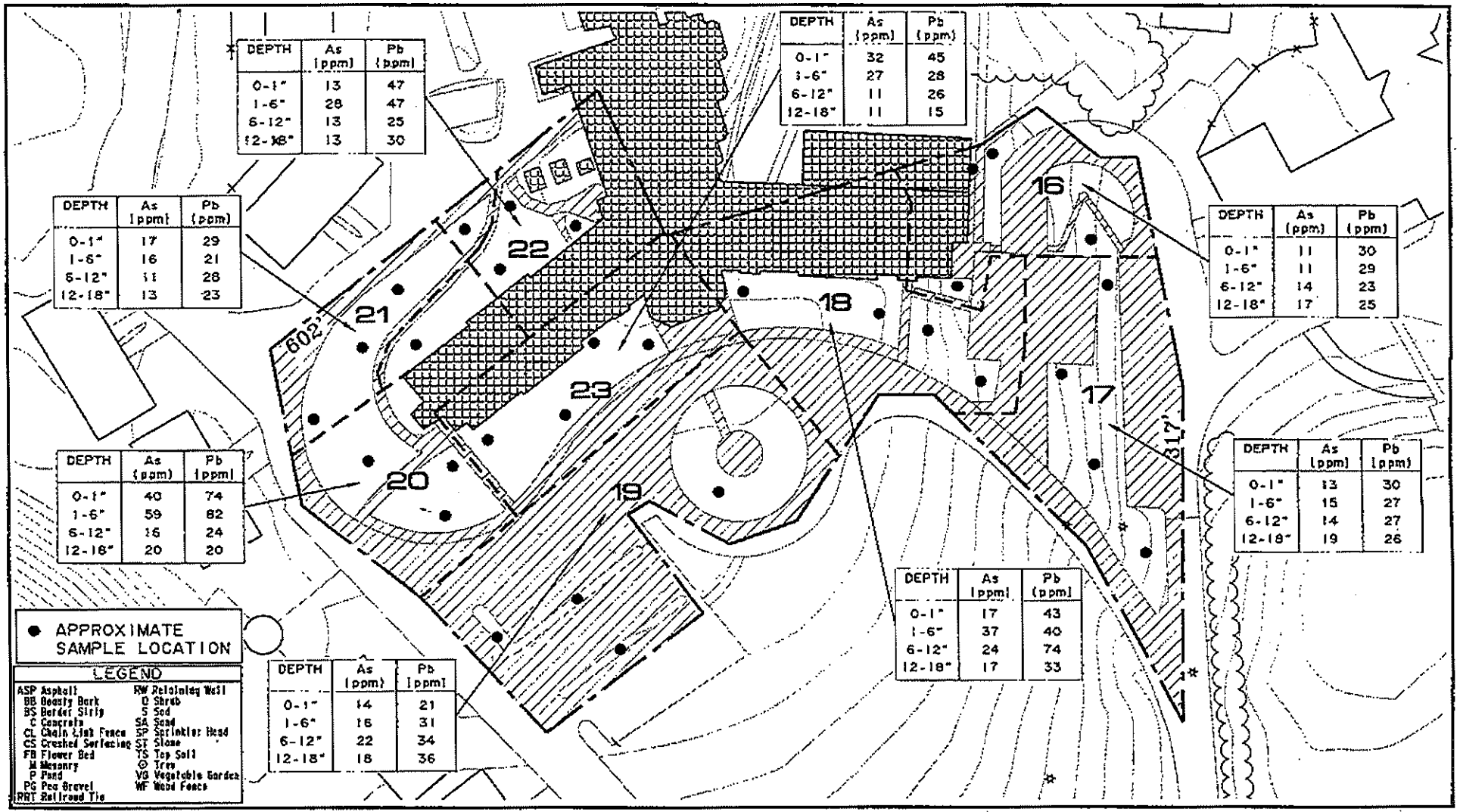
Asarco Consulting, Inc.

PROPERTY SITE CODE: ACOI-1

SITE ADDRESS: 4340 N Bristol St

PROPERTY OWNER: Franke Tobey Jones (Ed Mowe)

PROPERTY RESIDENT:



11/9/05

AC01-2C5

NORTH

0 20 40 60 80

SCALE IN FEET

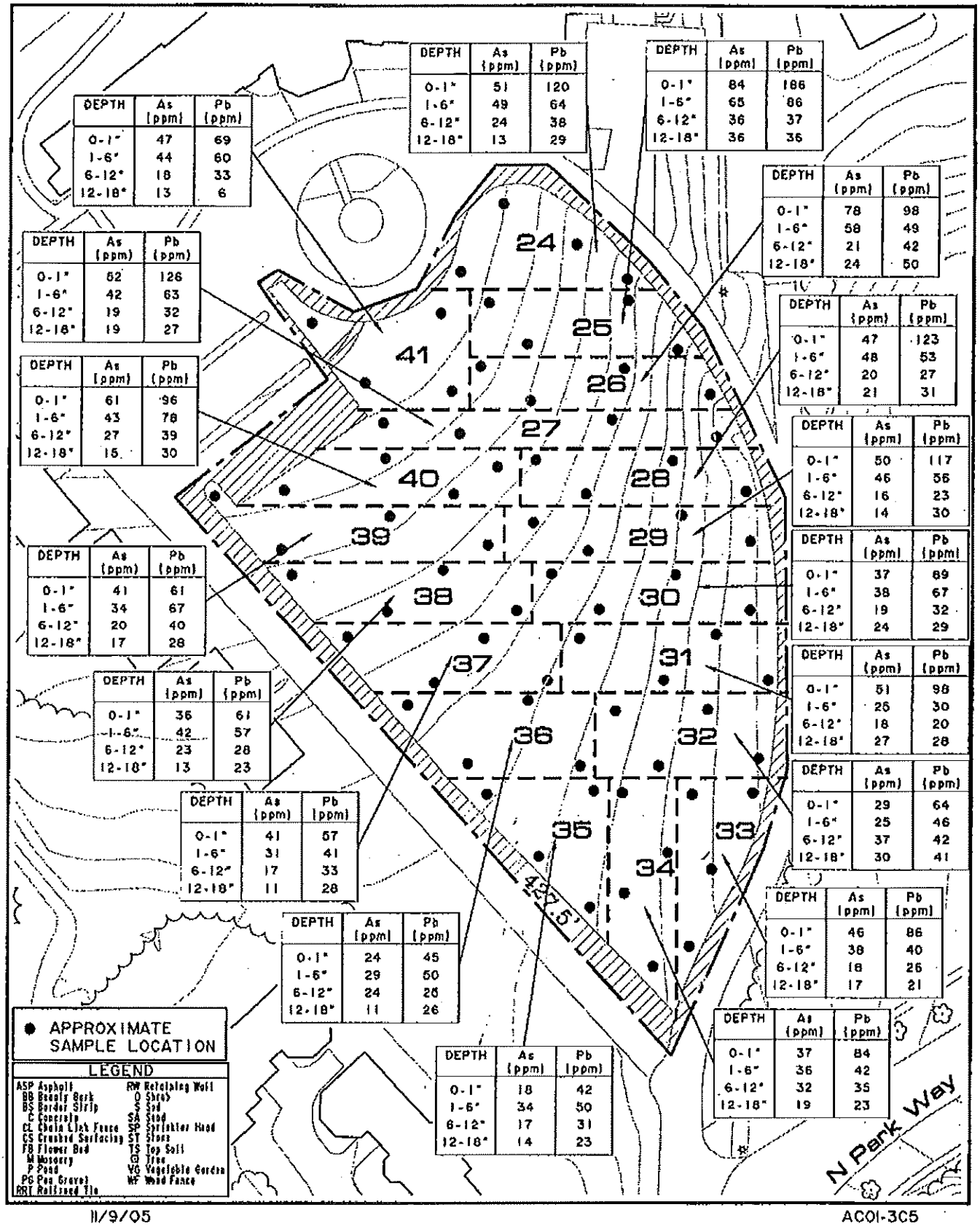
Asarco Consulting, Inc.

PROPERTY SITE CODE: AC01-2

SITE ADDRESS: 4340 N Bristol St

PROPERTY OWNER: Franke Tobey Jones (Ed Mawe)

PROPERTY RESIDENT:



11/9/05

AC01-3C5

NORTH

0 20 40 60 80

SCALE IN FEET

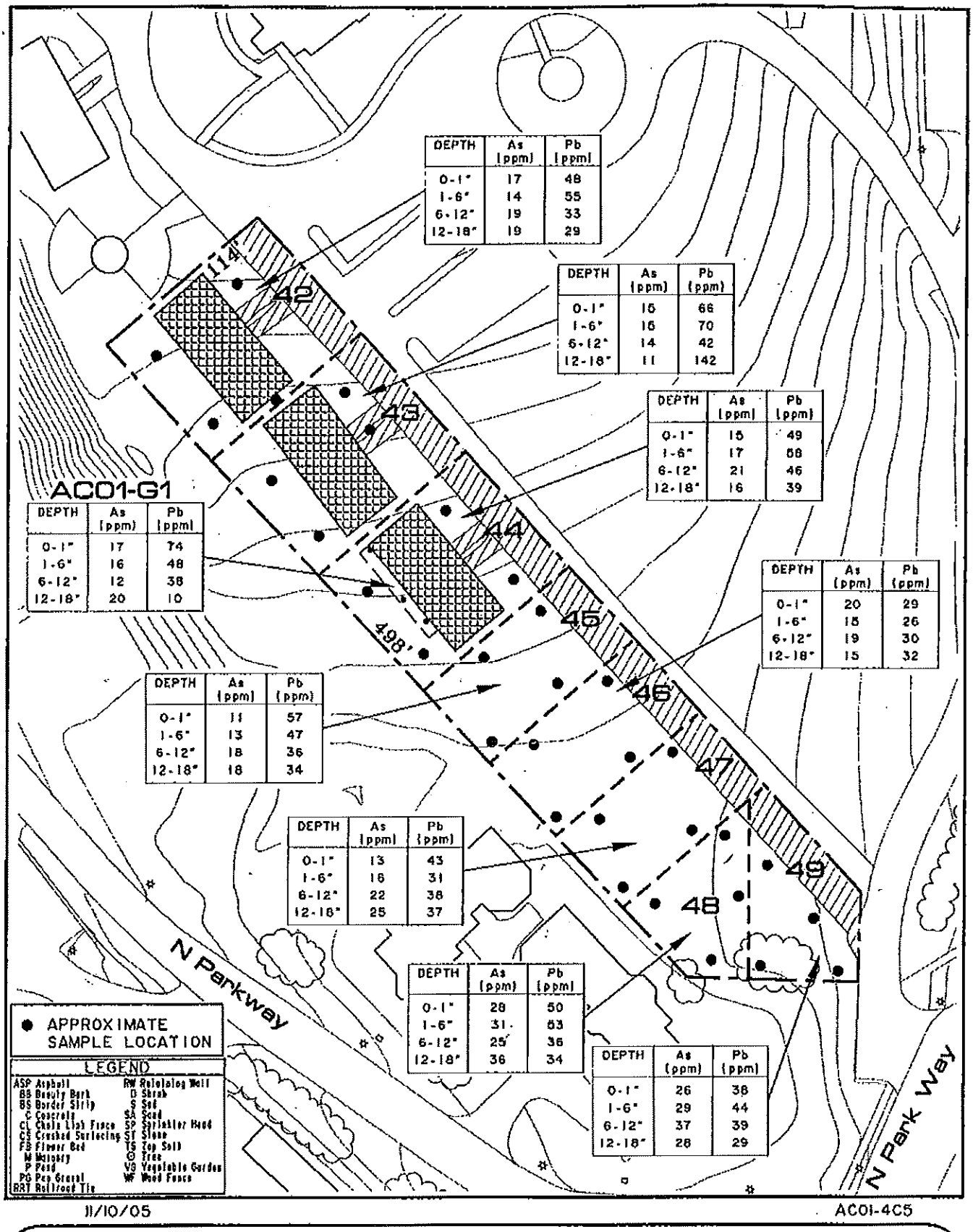
Asarco Consulting, Inc.

PROPERTY SITE CODE: AC01-3

SITE ADDRESS: 4340 N Bristol St

PROPERTY OWNER: Franke Tobey Jones Home (Ed Mawe)

PROPERTY RESIDENT:



11/10/05

AC01-4C5

NORTH

0 20 40 60 80

SCALE IN FEET

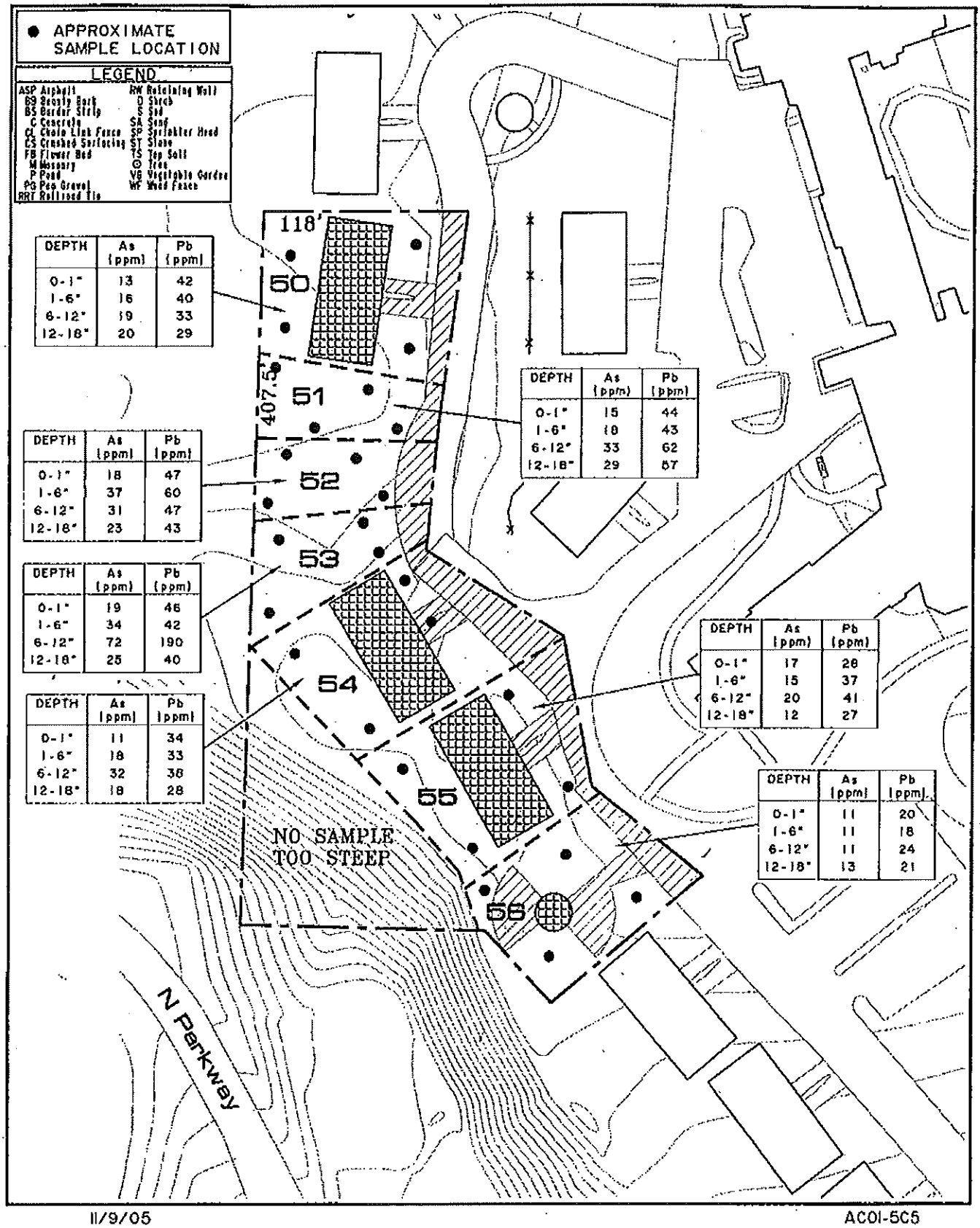
Asarco Consulting, Inc.

PROPERTY SITE CODE: AC01-4

SITE ADDRESS: 4340 N Bristol St

PROPERTY OWNER: Franke Tobey Jones (Ed Mawe)

PROPERTY RESIDENT:



11/9/05

AC01-5C5

NORTH

0 20 40 60 80

SCALE IN FEET

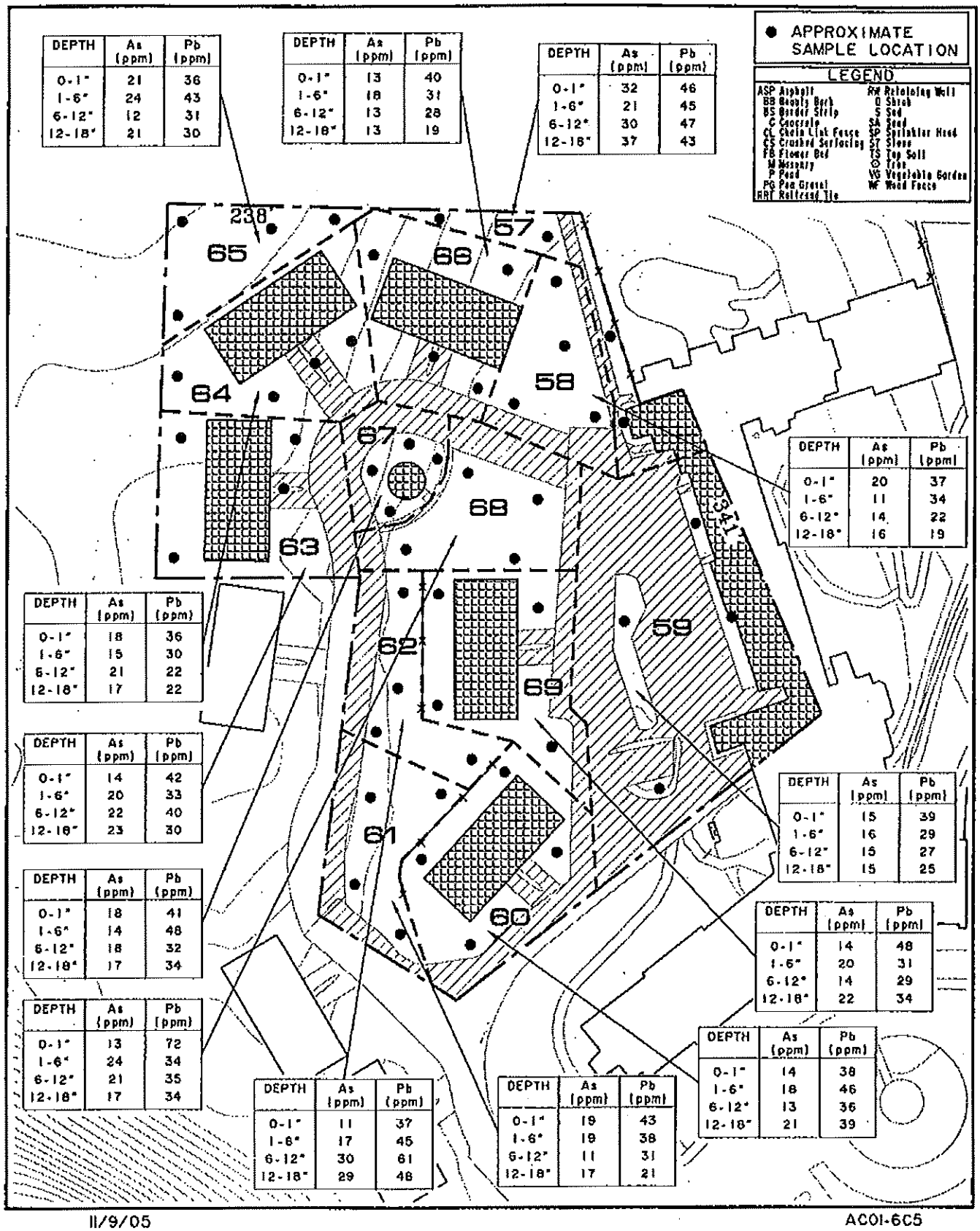
Asarco Consulting, Inc.

PROPERTY SITE CODE: AC01-5

SITE ADDRESS: 4320 N Bristol St

PROPERTY OWNER: Franke Tobey Jones (Ed Mawe)

PROPERTY RESIDENT:



11/9/05

AC01-6C5

NORTH

0 20 40 60 80

SCALE IN FEET

Asarco Consulting, Inc.

PROPERTY SITE CODE: AC01-6

SITE ADDRESS: 4340 N Bristol St

PROPERTY OWNER: Franke Tobey Jones (Ed Mawe)

PROPERTY RESIDENT:

SITE ADDRESS	NAME	SITE CODE
6414 NO Parkway	Franke Tobey Jones Home (Owner) (253)752-6621	AC01

SUBUNIT	DEPTH (Inches)	ARSENIC (mg/kg)	LEAD (mg/kg)	EPA RECOMMENDED REMOVAL DEPTH (Inches)
01	0 - 1	12	23	NONE
01	1 - 6	11	28	
01	6 - 12	16	17	
01	12 - 18	16	27	
02	0 - 1	11	25	NONE
02	1 - 6	15	28	
02	6 - 12	24	37	
02	12 - 18	66	139	
03	0 - 1	12	30	NONE
03	1 - 6	14	34	
03	6 - 12	40	61	
03	12 - 18	70	97	
04	0 - 1	13	24	NONE
04	1 - 6	11	32	
04	6 - 12	16	32	
04	12 - 18	23	33	
05	0 - 1	12	25	NONE
05	1 - 6	11	29	
05	6 - 12	20	23	
05	12 - 18	15	20	
06	0 - 1	13	22	NONE
06	1 - 6	11	33	
06	6 - 12	17	24	
06	12 - 18	13	19	
07	0 - 1	11	28	NONE
07	1 - 6	11	33	
07	6 - 12	22	37	
07	12 - 18	23	34	
08	0 - 1	13	22	NONE
08	1 - 6	21	45	
08	6 - 12	22	32	
08	12 - 18	17	37	
09	0 - 1	11	26	NONE
09	1 - 6	16	28	
09	6 - 12	23	44	
09	12 - 18	24	31	
10	0 - 1	15	22	NONE
10	1 - 6	18	22	
10	6 - 12	16	36	
10	12 - 18	18	30	
11	0 - 1	11	30	NONE
11	1 - 6	16	26	
11	6 - 12	26	35	
11	12 - 18	24	42	
12	0 - 1	11	28	NONE
12	1 - 6	17	22	
12	6 - 12	27	30	
12	12 - 18	29	43	
13	0 - 1	11	26	NONE

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

13	1 - 6	11	30	
13	6 - 12	20	35	
13	12 - 18	25	51	
14	0 - 1	13	23	NONE
14	1 - 6	16	20	
14	6 - 12	19	31	
14	12 - 18	20	24	
15	0 - 1	15	25	NONE
15	1 - 6	14	29	
15	6 - 12	15	28	
15	12 - 18	32	43	
16	0 - 1	11	30	NONE
16	1 - 6	11	29	
16	6 - 12	14	23	
16	12 - 18	17	25	
17	0 - 1	13	30	NONE
17	1 - 6	15	27	
17	6 - 12	14	27	
17	12 - 18	19	26	
18	0 - 1	17	43	NONE
18	1 - 6	37	40	
18	6 - 12	24	74	
18	12 - 18	17	33	
19	0 - 1	14	21	NONE
19	1 - 6	16	31	
19	6 - 12	22	34	
19	12 - 18	18	36	
20	0 - 1	40	74	NONE
20	1 - 6	59	82	
20	6 - 12	16	24	
20	12 - 18	20	20	
21	0 - 1	17	29	NONE
21	1 - 6	16	21	
21	6 - 12	11	28	
21	12 - 18	13	23	
22	0 - 1	13	47	NONE
22	1 - 6	28	47	
22	6 - 12	13	25	
22	12 - 18	13	30	
23	0 - 1	32	45	NONE
23	1 - 6	27	28	
23	6 - 12	11	26	
23	12 - 18	11	15	
24	0 - 1	51	120	NONE
24	1 - 6	49	64	
24	6 - 12	24	38	
24	12 - 18	13	29	
25	0 - 1	84	186	NONE
25	1 - 6	65	86	
25	6 - 12	36	37	
25	12 - 18	36	36	
26	0 - 1	78	98	NONE
26	1 - 6	58	69	
26	6 - 12	21	42	
26	12 - 18	24	50	
27	0 - 1	52	126	NONE
27	1 - 6	42	63	

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

27	6 - 12	19	32	
27	12 - 18	19	27	
28	0 - 1	47	123	NONE
28	1 - 6	48	53	
28	6 - 12	20	27	
28	12 - 18	21	31	
29	0 - 1	50	117	NONE
29	1 - 6	46	56	
29	6 - 12	16	23	
29	12 - 18	14	30	
30	0 - 1	37	89	NONE
30	1 - 6	38	67	
30	6 - 12	19	32	
30	12 - 18	24	29	
31	0 - 1	51	98	NONE
31	1 - 6	25	30	
31	6 - 12	18	20	
31	12 - 18	27	28	
32	0 - 1	29	64	NONE
32	1 - 6	25	46	
32	6 - 12	37	42	
32	12 - 18	30	41	
33	0 - 1	46	86	NONE
33	1 - 6	38	40	
33	6 - 12	18	26	
33	12 - 18	17	21	
34	0 - 1	37	84	NONE
34	1 - 6	36	42	
34	6 - 12	32	35	
34	12 - 18	19	23	
35	0 - 1	18	42	NONE
35	1 - 6	34	50	
35	6 - 12	17	31	
35	12 - 18	14	23	
36	0 - 1	24	45	NONE
36	1 - 6	29	50	
36	6 - 12	24	25	
36	12 - 18	11	26	
37	0 - 1	41	57	NONE
37	1 - 6	31	41	
37	6 - 12	17	33	
37	12 - 18	11	28	
38	0 - 1	36	61	NONE
38	1 - 6	42	57	
38	6 - 12	23	28	
38	12 - 18	13	23	
39	0 - 1	41	61	NONE
39	1 - 6	34	67	
39	6 - 12	20	40	
39	12 - 18	17	28	
40	0 - 1	61	96	NONE
40	1 - 6	43	78	
40	6 - 12	27	39	
40	12 - 18	15	30	
41	0 - 1	47	69	NONE
41	1 - 6	44	60	
41	6 - 12	18	33	

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

41	12 - 18	13	6	
42	0 - 1	17	48	NONE
42	1 - 6	14	55	
42	6 - 12	19	33	
42	12 - 18	19	29	
43	0 - 1	15	66	NONE
43	1 - 6	15	70	
43	6 - 12	14	42	
43	12 - 18	11	142	
44	0 - 1	15	49	NONE
44	1 - 6	17	58	
44	6 - 12	21	46	
44	12 - 18	16	39	
45	0 - 1	11	57	NONE
45	1 - 6	13	47	
45	6 - 12	18	36	
45	12 - 18	18	34	
46	0 - 1	20	29	NONE
46	1 - 6	15	26	
46	6 - 12	19	30	
46	12 - 18	15	32	
47	0 - 1	13	43	NONE
47	1 - 6	16	31	
47	6 - 12	22	38	
47	12 - 18	25	37	
48	0 - 1	28	50	NONE
48	1 - 6	31	53	
48	6 - 12	25	36	
48	12 - 18	36	34	
49	0 - 1	26	38	NONE
49	1 - 6	29	44	
49	6 - 12	37	39	
49	12 - 18	28	29	
50	0 - 1	13	42	NONE
50	1 - 6	16	40	
50	6 - 12	19	33	
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51	0 - 1	15	44	NONE
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53	6 - 12	72	190	
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54	0 - 1	11	34	NONE
54	1 - 6	18	33	
54	6 - 12	32	38	
54	12 - 18	18	28	
55	0 - 1	17	28	NONE
55	1 - 6	15	37	
55	6 - 12	20	41	
55	12 - 18	12	27	

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

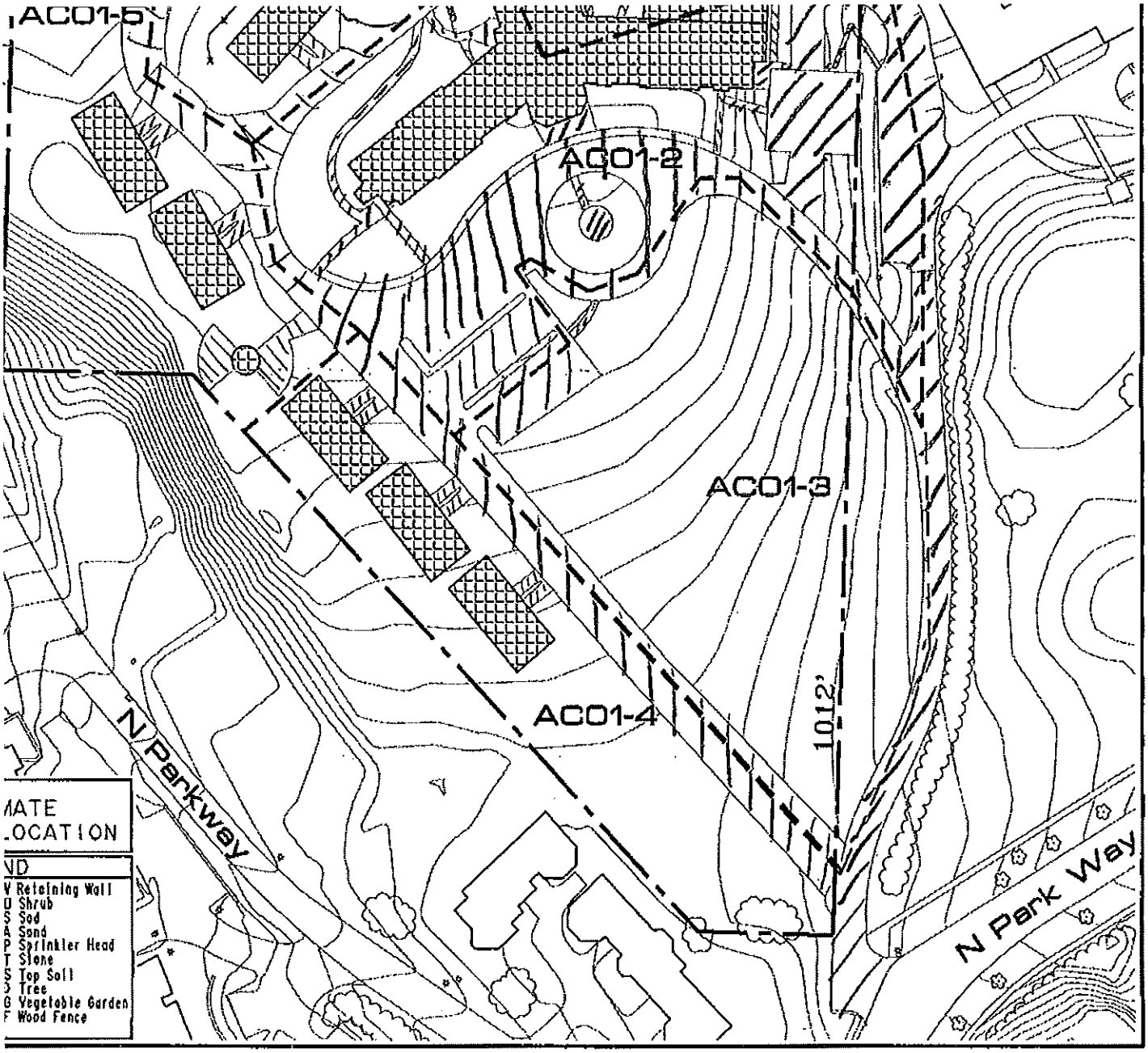
56	0 - 1	11	20	NONE
56	1 - 6	11	18	
56	6 - 12	11	24	
56	12 - 18	13	21	
57	0 - 1	32	46	NONE
57	1 - 6	21	45	
57	6 - 12	30	47	
57	12 - 18	37	43	
58	0 - 1	20	37	NONE
58	1 - 6	11	34	
58	6 - 12	14	22	
58	12 - 18	16	19	
59	0 - 1	15	39	NONE
59	1 - 6	16	29	
59	6 - 12	15	27	
59	12 - 18	15	25	
60	0 - 1	14	38	NONE
60	1 - 6	18	46	
60	6 - 12	13	36	
60	12 - 18	21	39	
61	0 - 1	19	43	NONE
61	1 - 6	19	38	
61	6 - 12	11	31	
61	12 - 18	17	21	
62	0 - 1	11	37	NONE
62	1 - 6	17	45	
62	6 - 12	30	61	
62	12 - 18	29	48	
63	0 - 1	14	42	NONE
63	1 - 6	20	33	
63	6 - 12	22	40	
63	12 - 18	23	30	
64	0 - 1	18	36	NONE
64	1 - 6	15	30	
64	6 - 12	21	22	
64	12 - 18	17	22	
65	0 - 1	21	36	NONE
65	1 - 6	24	43	
65	6 - 12	23	31	
65	12 - 18	21	30	
66	0 - 1	13	40	NONE
66	1 - 6	18	31	
66	6 - 12	13	28	
66	12 - 18	13	19	
67	0 - 1	18	41	NONE
67	1 - 6	14	48	
67	6 - 12	18	32	
67	12 - 18	17	34	
68	0 - 1	13	72	NONE
68	1 - 6	24	34	
68	6 - 12	21	35	
68	12 - 18	17	34	
69	0 - 1	14	48	NONE
69	1 - 6	20	31	
69	6 - 12	14	29	
69	12 - 18	22	34	

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

G	0 - 1	17	74	NONE
G	1 - 6	16	48	
G	6 - 12	12	38	
G	12 - 18	20	16	

DEPTH (Inches)	ARSENIC MEAN (mg/kg)	LEAD MEAN (mg/kg)
0 - 1	24	51
1 - 6	24	42
6 - 12	21	37
12 - 18	21	35

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg



05 AC01C5

Asarco Consulting, Inc.

PROPERTY SITE CODE: AC01

SITE ADDRESS: 4340 N Bristol St

PROPERTY OWNER: Franke Tobey Jones Home (Ed Mawe)

PROPERTY RESIDENT:

ASARCO
Consulting Inc.

October 14, 2004

Marion Ganz
C/o James Ganz
5354 N. Bristol Street
Tacoma, WA 98407

Re: AD01

Dear Mr. Ganz:

As you know, your property at 5354 N. Bristol Street was tested for arsenic and lead content in connection with the Ruston/North Tacoma Soil Replacement Project. Asarco has reached an agreement with EPA that requires testing of yards in Ruston and North Tacoma to determine which yards might require soil replacement. This agreement states that yards will require remediation if the arsenic concentration exceeds 230 part per million or the lead concentration exceeds 500 parts per million (the EPA action levels).

Composite samples were collected in a number of subunits from your property and analyzed for arsenic and lead concentrations. Each composite was obtained by combining samples collected from the same depths at four different locations within each subunit. Depth intervals from which samples were collected are 0"-1", 1"-6", 6"-12", 12"-18". Results of these samples are listed on the attached table (see next page).

Because your sample results are below the EPA action levels for arsenic and lead, your property does not need to be remediated. We have enclosed a brochure from the Program For Area Clean-up (PACE) as additional information. If you have any questions, please contact Karen Pickett at 756-5436. Thank you for your cooperation.

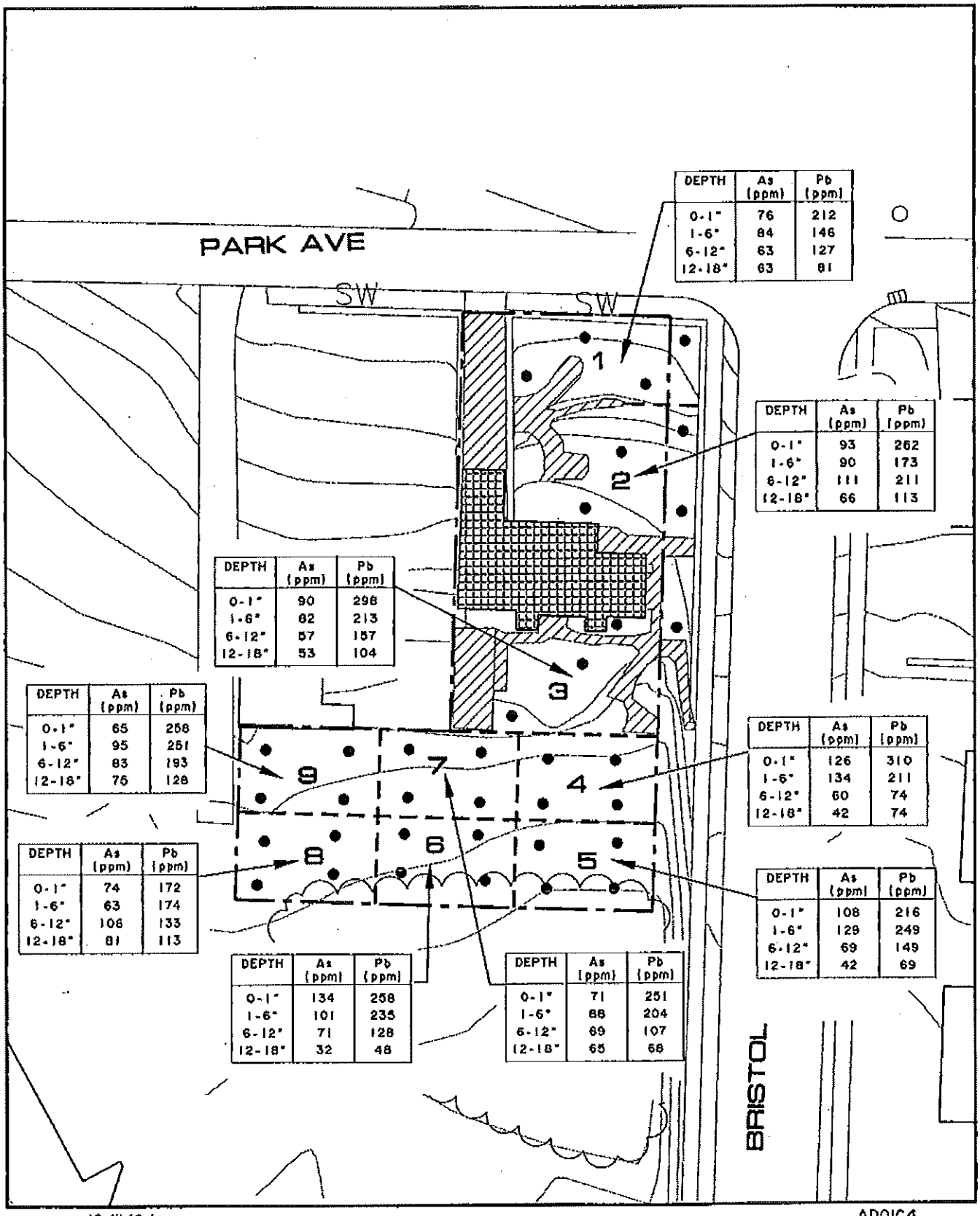
Sincerely,

Sue O'Neill

Sue O'Neill
Tacoma Projects Manager

"Information for Owners of Property That Will Not Require Remediation" enclosed

5219 N. SHIRLEY STREET, SUITE 100 · TACOMA, WASHINGTON 98407
(253) 752-1470 · FAX (253) 752-7663



10/11/04

ADOIC4

NORTH

0 10 20 30 40

SCALE IN FEET

Asarco Consulting, Inc.

PROPERTY SITE CODE: ADOI

SITE ADDRESS: 5354 N. Bristol St.

PROPERTY OWNER: Marion Ganz

PROPERTY RESIDENT:

SITE ADDRESS	NAME	SITE CODE
5354 No Bristol St	James (for Marian) Ganz (Owner) (253)759-5307	AD01

SUBUNIT	DEPTH (Inches)	ARSENIC (mg/kg)	LEAD (mg/kg)	EPA RECOMMENDED REMOVAL DEPTH (Inches)
1	0 - 1	76	212	NONE
1	1 - 6	84	146	
1	6 - 12	63	127	
1	12 - 18	63	81	
2	0 - 1	93	262	NONE
2	1 - 6	90	173	
2	6 - 12	111	211	
2	12 - 18	66	113	
3	0 - 1	90	298	NONE
3	1 - 6	82	213	
3	6 - 12	57	157	
3	12 - 18	53	104	
4	0 - 1	126	310	NONE
4	1 - 6	134	211	
4	6 - 12	60	74	
4	12 - 18	42	74	
5	0 - 1	108	216	NONE
5	1 - 6	129	249	
5	6 - 12	69	149	
5	12 - 18	42	69	
6	0 - 1	134	258	NONE
6	1 - 6	101	235	
6	6 - 12	71	128	
6	12 - 18	32	48	
7	0 - 1	71	251	NONE
7	1 - 6	88	204	
7	6 - 12	69	107	
7	12 - 18	65	68	
8	0 - 1	74	172	NONE
8	1 - 6	63	174	
8	6 - 12	106	133	
8	12 - 18	81	113	
9	0 - 1	65	258	NONE
9	1 - 6	95	251	
9	6 - 12	83	193	
9	12 - 18	75	128	

DEPTH (Inches)	ARSENIC MEAN (mg/kg)	LEAD MEAN (mg/kg)
0 - 1	93	249
1 - 6	96	206
6 - 12	77	142
12 - 18	58	89

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

MRC CONSTRUCTION, LLC
SITEWORK UTILITIES & ENVIRONMENTAL
RUSTON, WA. (253)759-4829

December 18, 2006

Franke Tobey Jones Home
5340 Bristol St
Tacoma, WA 98407

Re: AD02

Dear Franke Tobey Jones Home,

As you know, your property at 6208 Park Street was tested for arsenic and lead content in connection with the Ruston/North Tacoma Soil Replacement Project. Asarco has reached an agreement with EPA that requires testing of yards in Ruston and North Tacoma to determine which yards might require soil replacement. This agreement states that yards will require remediation if the arsenic concentration exceeds 230 part per million or the lead concentration exceeds 500 parts per million (the EPA action levels).

Composite samples were collected in a number of subunits from your property and analyzed for arsenic and lead concentrations. Each composite was obtained by combining samples collected from the same depths at four different locations within each subunit. Depth intervals from which samples were collected are 0"-1", 1"-6", 6"-12", 12"-18". Results of these samples are listed on the attached table (see next page).

Because your sample results are below the EPA action levels for arsenic and lead, your property does not need to be remediated. We have enclosed a brochure from the Program For Area Clean-up (PACE) as additional information. If you have any questions, please contact Michele Wilkins at 759-6015. Thank you for your cooperation.

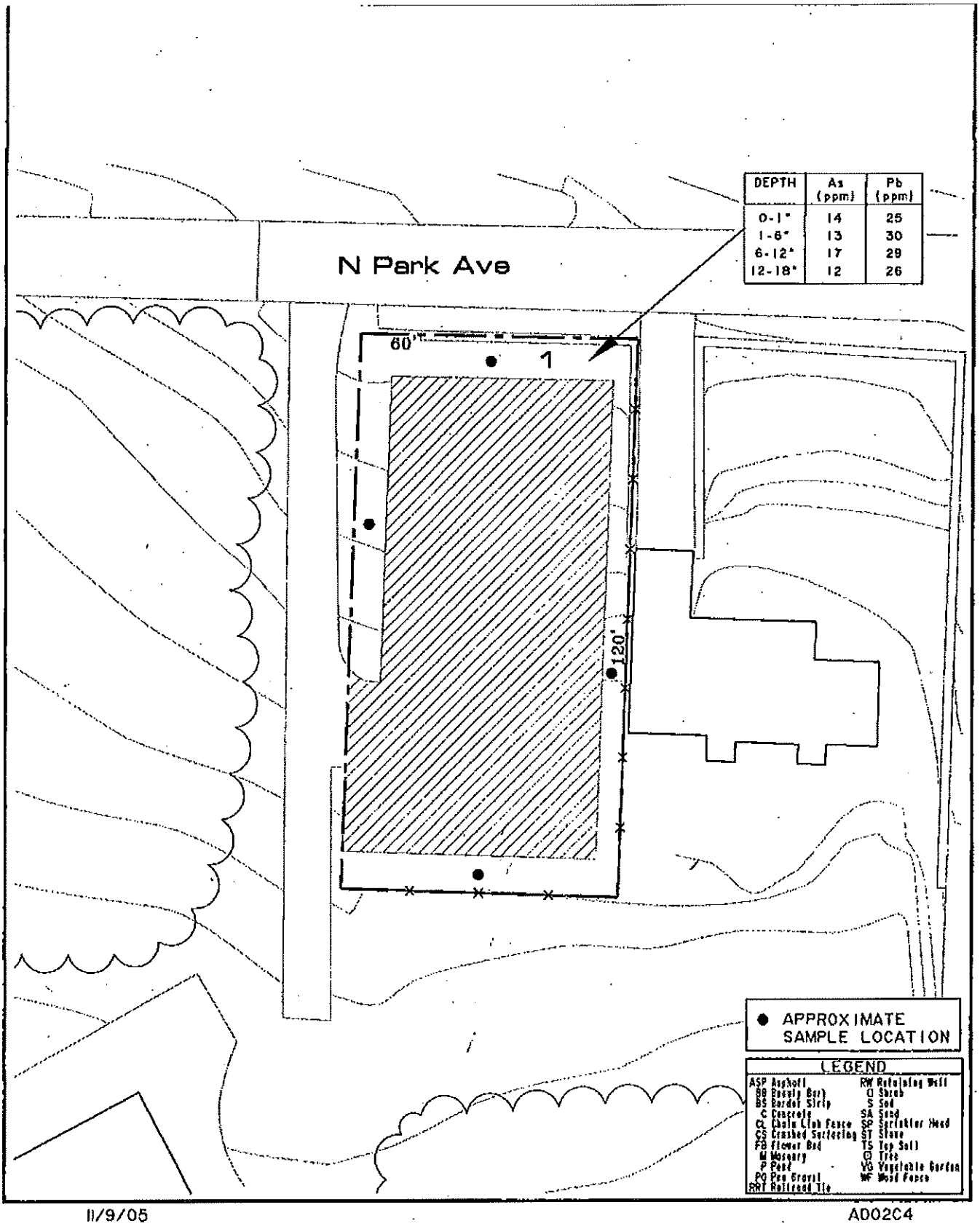
Sincerely,

Ric Rademacher
Tacoma Projects Manager

"Information for Owners of Property That Will Not Require Remediation" enclosed
cc Tenant

5219 North Shirley Street Suite 003
Tacoma, WA 98407

(253) 759-4829
Fax: (253) 759-1088



11/9/05

AD02C4

NORTH

0 10 20 30

SCALE IN FEET

Asarco Consulting, Inc

PROPERTY SITE CODE: AD02

SITE ADDRESS: 6208 N Park Ave

PROPERTY OWNER: Edward Mawl

PROPERTY RESIDENT: Franke Tobey Jones Home

SITE ADDRESS	NAME	SITE CODE
6208 NO Park St	Franke Tobey Jones Home (Owner) (253)752-6621	AD02

SUBUNIT	DEPTH (Inches)	ARSENIC (mg/kg)	LEAD (mg/kg)	EPA RECOMMENDED REMOVAL DEPTH (Inches)
1	0 - 1	14	25	NONE
1	1 - 6	13	30	
1	6 - 12	17	29	
1	12 - 18	12	26	

DEPTH (Inches)	ARSENIC MEAN (mg/kg)	LEAD MEAN (mg/kg)
0 - 1	14	25
1 - 6	13	30
6 - 12	17	29
12 - 18	12	26

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

MRC CONSTRUCTION, LLC
SITEWORK UTILITIES & ENVIRONMENTAL
RUSTON, WA. (253)759-4829

September 26, 2007

Franke Tobey Jones Home
5340 N Bristol St
Tacoma, WA 98407

Re: AD03

Dear Frank Tobey Jones Home,

Thank you for your cooperation during the remediation of your property at 5335 NO Vassault. Exposed soils requiring remediation under the Ruston-North Tacoma Residential Soils Work Plan that are above the Environmental Protection Agency action levels (arsenic – 230 part per million, lead – 500 part per million) have been removed from the property. Please refer to the enclosed map of your property for specific details.

Sampling was performed after excavation of the property and the results are attached to this letter. This information should be retained for your reference in case any future questions arise concerning your property.

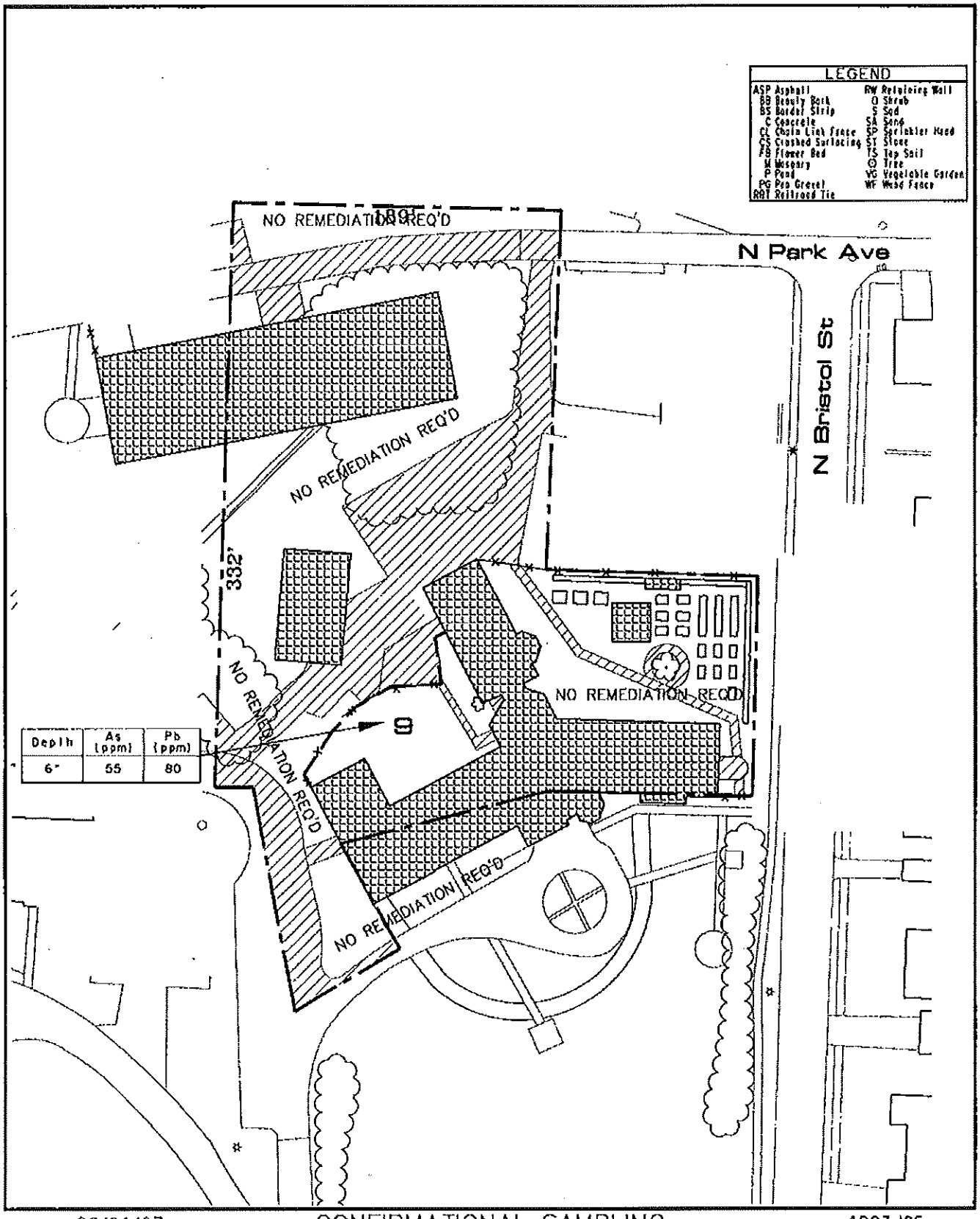
We appreciate your consideration throughout this period of sampling and remediation. If you have any questions, please contact Michele Wilkins of the Asarco Information Center at (253) 759-6015.

Sincerely,

Ric Rademacher
Project Manager

5219 North Shirley Street Suite 003
Tacoma, WA 98407

(253) 759-4829
Fax: (253) 759-1088



08/24/07 CONFIRMATIONAL SAMPLING AD03-IC5

NORTH

0 20 40 60 80

SCALE IN FEET

MRC Construction, LLC

PROPERTY SITE CODE: AD03-I

SITE ADDRESS: 5335 N Vassault St

PROPERTY OWNER: Franke Tobey Jones (Ed Mowe)

PROPERTY RESIDENT:

Ruston Soils Post Remediation Report

Address
5335 No Vassault

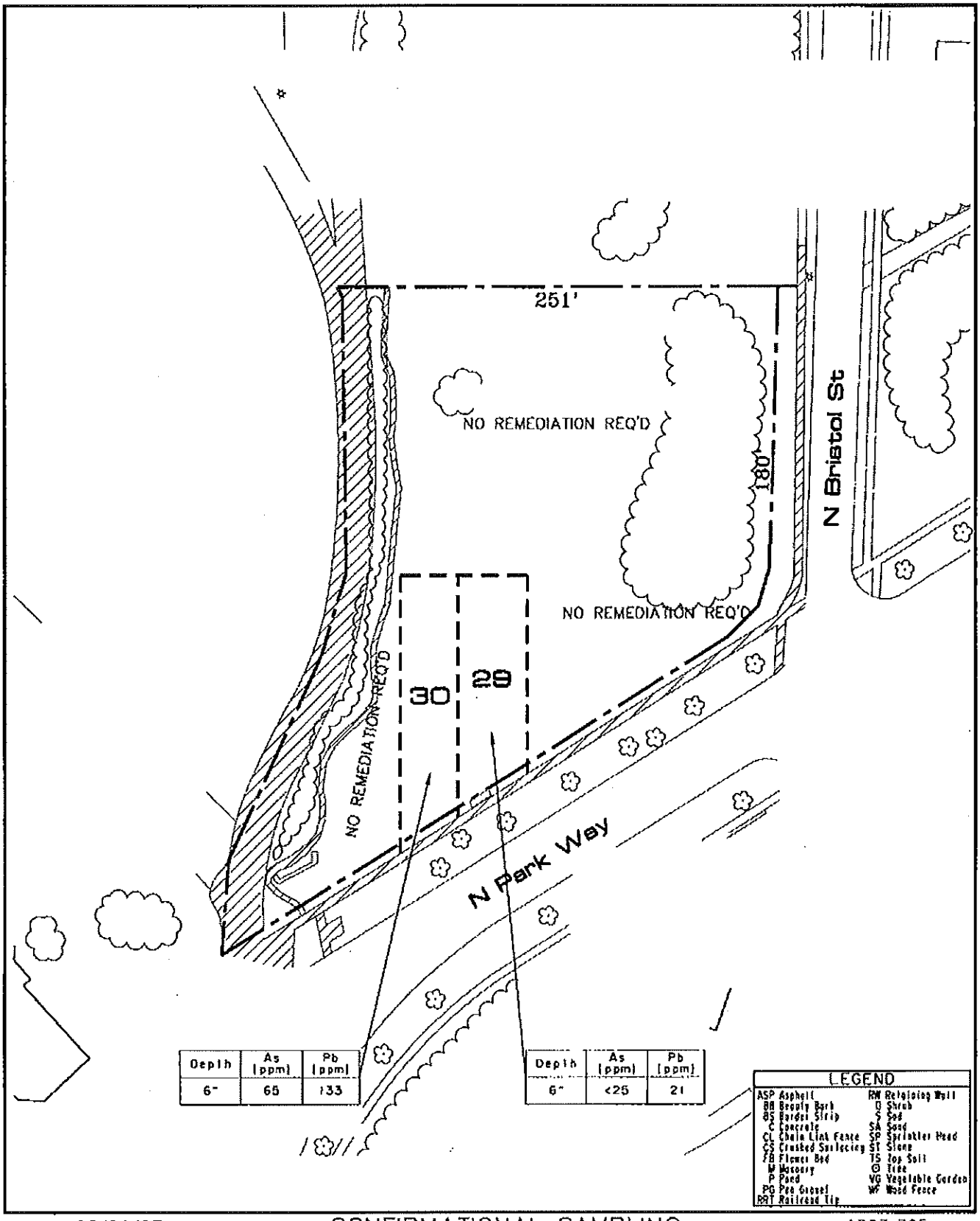
Owner
Franke Tobey Jones Home (Owner)

Site Code
AD03

SubUnit	Sample Number	Lab Number	Sample Date	Sample Time	Excvt Depth(inches)	Sample Depth(inches)	Analysis Date	Arsenic (ppm)	Lead (ppm)	Comments
9	AD03-PST-09-B1		8/21/2007	:1	1	1 - 6 INCHES		55	80	
29	AD03-PST-29-B1		8/8/2007	09:34	1	1 - 6 inches		16	21	
30	AD03-PST-30-B1		8/10/2007	11:09	1	1 - 6 inches		65	133	

Notes: (1) Depth at which samples were taken

Print Date 1/22/2008



08/24/07 CONFIRMATIONAL SAMPLING ADO3-3C5

NORTH

0 20 40 60 80

SCALE IN FEET

MRC Construction, LLC

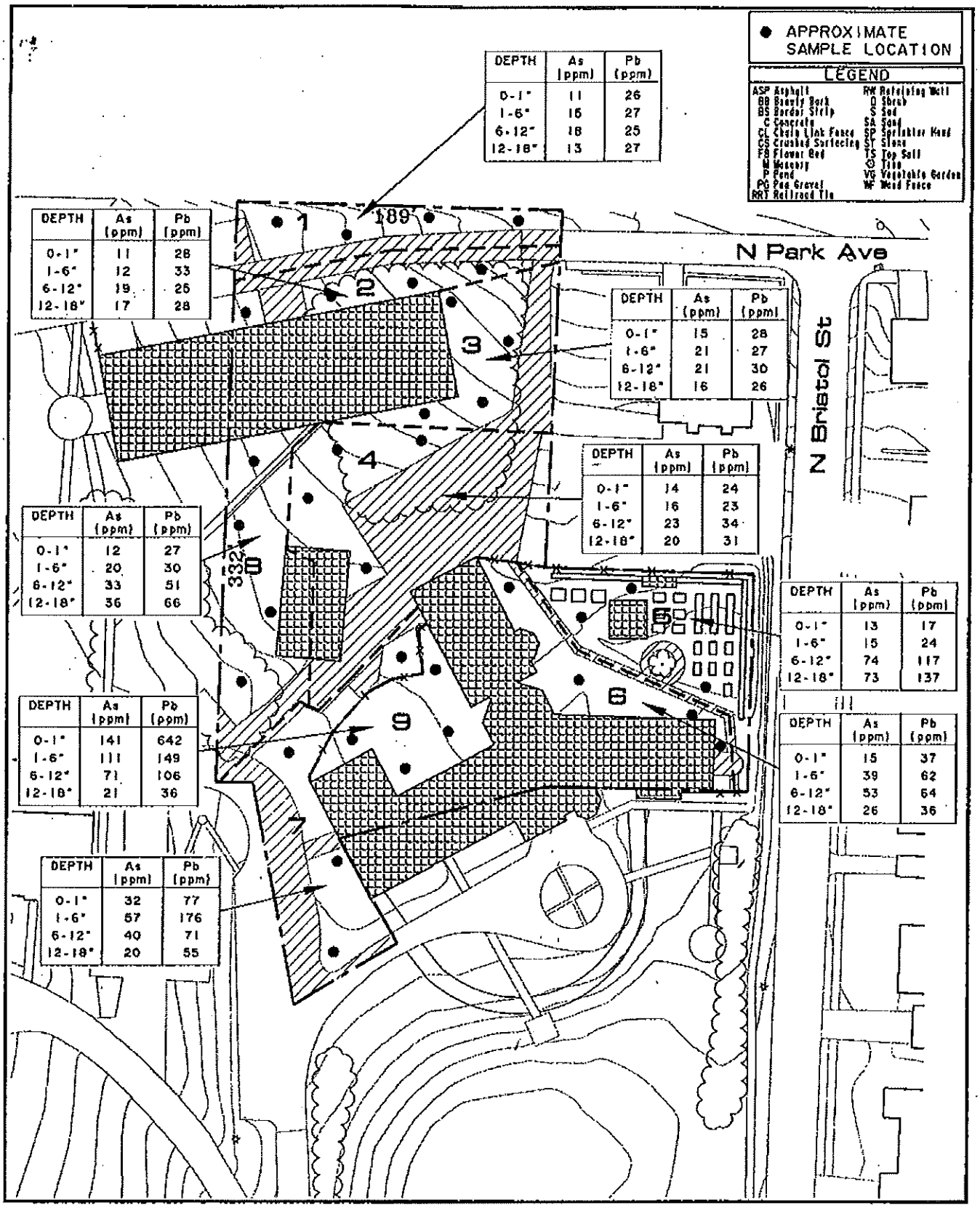
PROPERTY SITE CODE: ADO3-3

SITE ADDRESS: 5335 N Vassault St

PROPERTY OWNER: Franke Tobey Jones Home (Ed Mawe)

PROPERTY RESIDENT:

189'
N Park Ave
AD03-1
AD03-2
N Bristol St
AD03-3
027.5'



11/14/05

AD03-IC5

NORTH

0 20 40 60 80

SCALE IN FEET

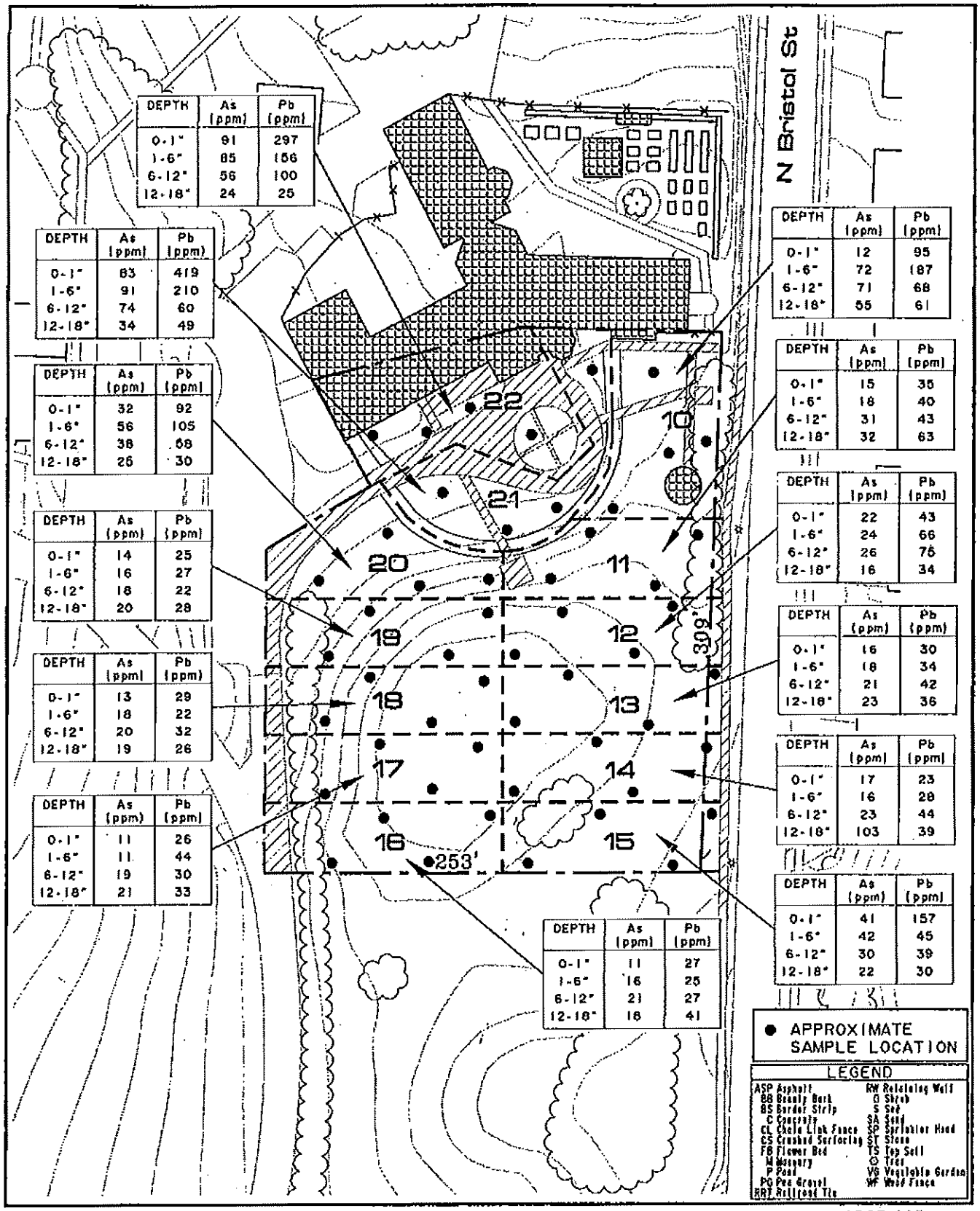
Asarco Consulting, Inc.

PROPERTY SITE CODE: AD03-1

SITE ADDRESS: 5335 N Vassault St

PROPERTY OWNER: Franke Tobey Jones (Ed Mawe)

PROPERTY RESIDENT:



11/14/05

AD03-2C5

NORTH

0 20 40 60 80

SCALE IN FEET

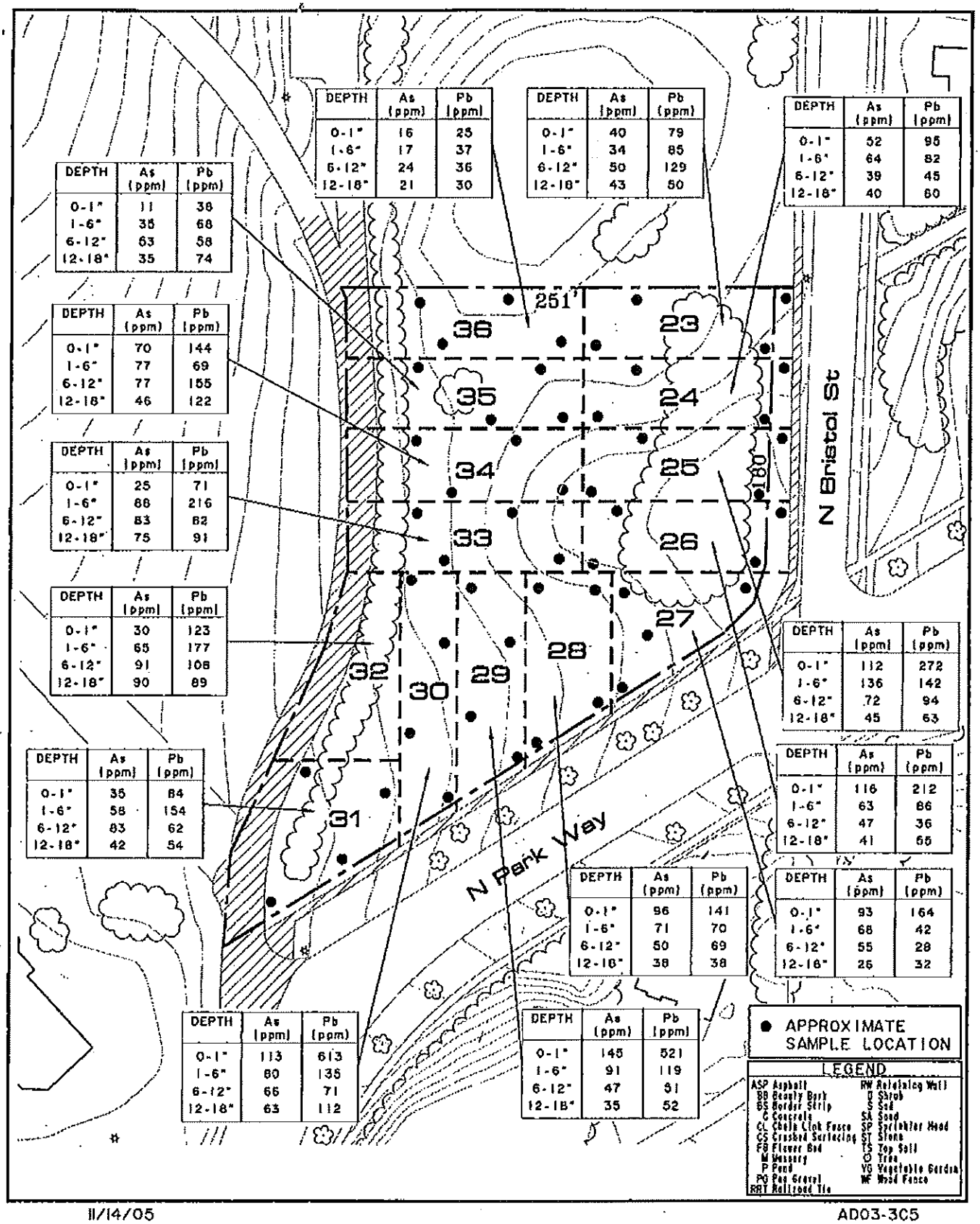
Asarco Consulting, Inc.

PROPERTY SITE CODE: AD03-2

SITE ADDRESS: 5335 N Vassault St

PROPERTY OWNER: Franke Tobey Jones Home (Ed Mawe)

PROPERTY RESIDENT:



11/14/05

AD03-3C5

NORTH

0 20 40 60 80

SCALE IN FEET

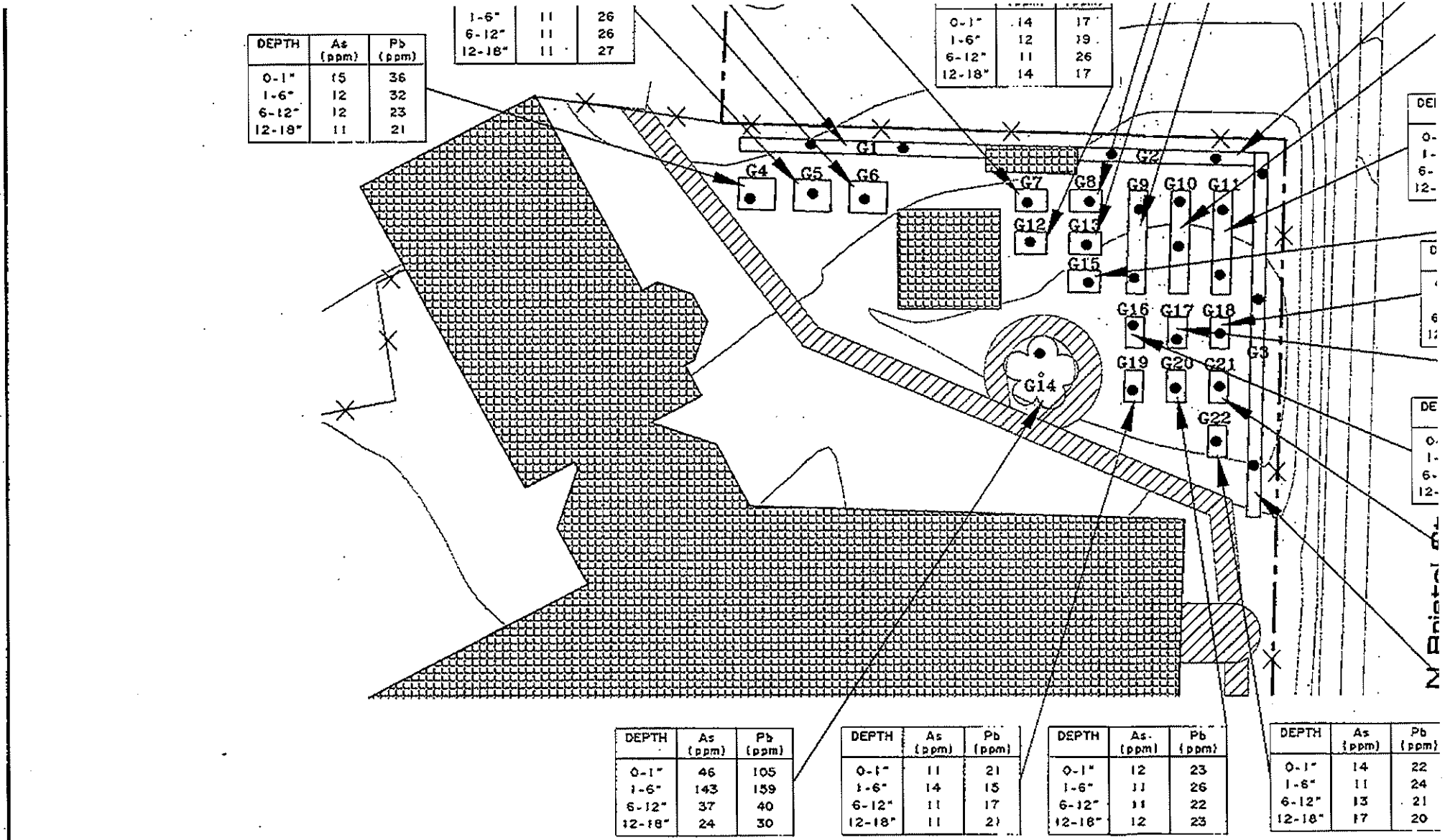
Asarco Consulting, Inc.

PROPERTY SITE CODE: AD03-3

SITE ADDRESS: 5335 N Vassault St

PROPERTY OWNER: Franke Tobey Jones Home (Ed Mawe)

PROPERTY RESIDENT:



DEPTH	As (ppm)	Pb (ppm)
0-1"	15	36
1-6"	12	32
6-12"	12	23
12-18"	11	21

1-6"	11	26
6-12"	11	26
12-18"	11	27

0-1"	14	17
1-6"	12	19
6-12"	11	26
12-18"	14	17

DEPTH	As (ppm)	Pb (ppm)
0-1"	46	105
1-6"	143	159
6-12"	37	40
12-18"	24	30

DEPTH	As (ppm)	Pb (ppm)
0-1"	11	21
1-6"	14	15
6-12"	11	17
12-18"	11	21

DEPTH	As (ppm)	Pb (ppm)
0-1"	12	23
1-6"	11	26
6-12"	11	22
12-18"	12	23

DEPTH	As (ppm)	Pb (ppm)
0-1"	14	22
1-6"	11	24
6-12"	13	21
12-18"	17	20

11/14/05

NORTH

0 10 20 30

SCALE IN FEET

SITE ADDRESS	NAME	SITE CODE
5335 No Vassault St	Franke Tobey Jones Home (Owner) (253)752-6621	AD03

SUBUNIT	DEPTH (Inches)	ARSENIC (mg/kg)	LEAD (mg/kg)	EPA RECOMMENDED REMOVAL DEPTH (Inches)
01	0 - 1	11	26	NONE
01	1 - 6	15	27	
01	6 - 12	18	25	
01	12 - 18	13	27	
02	0 - 1	11	28	NONE
02	1 - 6	12	33	
02	6 - 12	19	25	
02	12 - 18	17	28	
03	0 - 1	15	28	NONE
03	1 - 6	21	27	
03	6 - 12	21	30	
03	12 - 18	16	26	
04	0 - 1	14	24	NONE
04	1 - 6	16	23	
04	6 - 12	23	34	
04	12 - 18	20	31	
05	0 - 1	13	17	NONE
05	1 - 6	15	24	
05	6 - 12	74	117	
05	12 - 18	73	137	
06	0 - 1	15	37	NONE
06	1 - 6	39	62	
06	6 - 12	53	64	
06	12 - 18	26	36	
07	0 - 1	32	77	NONE
07	1 - 6	57	176	
07	6 - 12	40	71	
07	12 - 18	20	55	
08	0 - 1	12	27	NONE
08	1 - 6	20	30	
08	6 - 12	33	51	
08	12 - 18	36	66	
09	0 - 1	141	642	1
09	1 - 6	111	149	
09	6 - 12	71	106	
09	12 - 18	21	36	
10	0 - 1	23	95	NONE
10	1 - 6	72	187	
10	6 - 12	71	68	
10	12 - 18	55	61	
11	0 - 1	15	35	NONE
11	1 - 6	18	40	
11	6 - 12	31	43	
11	12 - 18	32	63	
12	0 - 1	22	43	NONE
12	1 - 6	24	66	
12	6 - 12	26	75	
12	12 - 18	16	34	
13	0 - 1	16	30	NONE

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

13	1 - 6	18	34	
13	6 - 12	21	42	
13	12 - 18	23	36	
14	0 - 1	17	23	NONE
14	1 - 6	16	28	
14	6 - 12	23	44	
14	12 - 18	103	39	
15	0 - 1	41	157	NONE
15	1 - 6	42	45	
15	6 - 12	30	39	
15	12 - 18	22	30	
16	0 - 1	11	27	NONE
16	1 - 6	16	25	
16	6 - 12	21	27	
16	12 - 18	18	41	
17	0 - 1	11	26	NONE
17	1 - 6	11	44	
17	6 - 12	19	30	
17	12 - 18	21	33	
18	0 - 1	13	29	NONE
18	1 - 6	18	22	
18	6 - 12	20	32	
18	12 - 18	19	26	
19	0 - 1	14	25	NONE
19	1 - 6	16	27	
19	6 - 12	18	22	
19	12 - 18	20	28	
20	0 - 1	32	92	NONE
20	1 - 6	56	105	
20	6 - 12	38	58	
20	12 - 18	25	30	
21	0 - 1	83	419	NONE
21	1 - 6	91	210	
21	6 - 12	74	60	
21	12 - 18	34	49	
22	0 - 1	91	297	NONE
22	1 - 6	85	156	
22	6 - 12	56	100	
22	12 - 18	24	25	
23	0 - 1	40	79	NONE
23	1 - 6	34	85	
23	6 - 12	50	129	
23	12 - 18	43	50	
24	0 - 1	52	95	NONE
24	1 - 6	64	82	
24	6 - 12	39	45	
24	12 - 18	40	60	
25	0 - 1	112	272	NONE
25	1 - 6	136	142	
25	6 - 12	72	94	
25	12 - 18	45	63	
26	0 - 1	116	212	NONE
26	1 - 6	63	86	
26	6 - 12	47	36	
26	12 - 18	41	55	
27	0 - 1	93	164	NONE
27	1 - 6	68	42	

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

27	6 - 12	55	28	
27	12 - 18	26	32	
28	0 - 1	96	141	NONE
28	1 - 6	71	70	
28	6 - 12	50	69	
28	12 - 18	38	38	
29	0 - 1	145	521	1
29	1 - 6	91	119	
29	6 - 12	47	51	
29	12 - 18	35	52	
30	0 - 1	113	613	1
30	1 - 6	80	135	
30	6 - 12	66	71	
30	12 - 18	63	112	
31	0 - 1	35	84	NONE
31	1 - 6	58	154	
31	6 - 12	83	62	
31	12 - 18	42	54	
32	0 - 1	30	123	NONE
32	1 - 6	65	177	
32	6 - 12	91	108	
32	12 - 18	90	89	
33	0 - 1	25	71	NONE
33	1 - 6	88	216	
33	6 - 12	83	82	
33	12 - 18	75	91	
34	0 - 1	70	144	NONE
34	1 - 6	77	69	
34	6 - 12	77	155	
34	12 - 18	46	122	
35	0 - 1	11	38	NONE
35	1 - 6	35	68	
35	6 - 12	53	58	
35	12 - 18	35	74	
36	0 - 1	16	25	NONE
36	1 - 6	17	37	
36	6 - 12	24	36	
36	12 - 18	21	30	
G1	0 - 1	11	25	NONE
G1	1 - 6	11	22	
G1	6 - 12	11	28	
G1	12 - 18	11	21	
G2	0 - 1	11	21	NONE
G2	1 - 6	14	19	
G2	6 - 12	11	27	
G2	12 - 18	22	73	
G3	0 - 1	11	25	NONE
G3	1 - 6	13	26	
G3	6 - 12	11	24	
G3	12 - 18	13	20	
G4	0 - 1	15	36	NONE
G4	1 - 6	12	32	
G4	6 - 12	12	23	
G4	12 - 18	11	21	
G5	0 - 1	17	38	NONE
G5	1 - 6	11	26	
G5	6 - 12	11	26	

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

G5	12 - 18	11	27	
G6	0 - 1	11	35	NONE
G6	1 - 6	14	24	
G6	6 - 12	13	25	
G6	12 - 18	13	19	
G7	0 - 1	11	26	NONE
G7	1 - 6	11	20	
G7	6 - 12	11	21	
G7	12 - 18	11	24	
G8	0 - 1	13	21	NONE
G8	1 - 6	12	22	
G8	6 - 12	11	27	
G8	12 - 18	19	26	
G9	0 - 1	14	23	NONE
G9	1 - 6	12	26	
G9	6 - 12	11	24	
G9	12 - 18	18	25	
G10	0 - 1	15	21	NONE
G10	1 - 6	11	29	
G10	6 - 12	11	27	
G10	12 - 18	11	22	
G11	0 - 1	13	24	NONE
G11	1 - 6	11	24	
G11	6 - 12	11	22	
G11	12 - 18	15	25	
G12	0 - 1	14	17	NONE
G12	1 - 6	12	19	
G12	6 - 12	11	26	
G12	12 - 18	14	17	
G13	0 - 1	13	27	NONE
G13	1 - 6	11	27	
G13	6 - 12	11	22	
G13	12 - 18	11	24	
G14	0 - 1	46	105	NONE
G14	1 - 6	143	159	
G14	6 - 12	37	40	
G14	12 - 18	24	30	
G15	0 - 1	13	24	NONE
G15	1 - 6	11	27	
G15	6 - 12	11	25	
G15	12 - 18	15	17	
G16	0 - 1	11	56	NONE
G16	1 - 6	21	49	
G16	6 - 12	15	19	
G16	12 - 18	12	20	
G17	0 - 1	15	19	NONE
G17	1 - 6	11	21	
G17	6 - 12	11	23	
G17	12 - 18	14	20	
G18	0 - 1	11	27	NONE
G18	1 - 6	16	25	
G18	6 - 12	12	26	
G18	12 - 18	11	24	
G19	0 - 1	11	32	NONE
G19	1 - 6	14	15	
G19	6 - 12	11	17	
G19	12 - 18	11	21	

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

G20	0 - 1	12	23	NONE
G20	1 - 6	11	26	
G20	6 - 12	11	22	
G20	12 - 18	12	23	
G21	0 - 1	19	41	NONE
G21	1 - 6	11	23	
G21	6 - 12	11	26	
G21	12 - 18	11	29	
G22	0 - 1	14	22	NONE
G22	1 - 6	11	24	
G22	6 - 12	13	21	
G22	12 - 18	17	20	

DEPTH (Inches)	ARSENIC MEAN (mg/kg)	LEAD MEAN (mg/kg)
0 - 1	33	94
1 - 6	37	64
6 - 12	33	47
12 - 18	28	42

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

MRC CONSTRUCTION, LLC
SITEWORK UTILITIES & ENVIRONMENTAL
RUSTON, WA. (253)759-4829

July 25, 2008

City of Tacoma
747 Market St.
Tacoma, WA 98407

Re: ADS1, ADS2, AEA1, AES2, AFA1, AFS2, AGS1, AIS1, AJA1, AJS4, AKS1, AKS4, ALS1, ALS4, BCA1, BEA1, BES1, BFS5, BFS5-Flower Beds, BFS6, BLA1, BLS2, B LS4, BMA1, BMS1, BNA1, BNS3, BNS4, BOA1, BOS1, CCS3, CDS4, CES7, CFA1, CGA1, CGS1, CGS4, CNS1, COA1, CPS1, CPS4, CQS1, DAS1, DDA1, DDS2, DEA1, DES2, DIS3, DIS3-Flower Beds, DJA1, DJS1, DKS3, DKS5, DLS3, DLS4

Thank you for your cooperation during the remediation of your property at the above miscellaneous properties. Exposed soils requiring remediation under the Ruston-North Tacoma Residential Soils Work Plan that are above the Environmental Protection Agency action levels (arsenic – 230 part per million, lead – 500 part per million) have been removed from the property. Please refer to the enclosed map of your property for specific details.

Sampling was performed after excavation of the property and the results are attached to this letter. This information should be retained for your reference in case any future questions arise concerning your property.

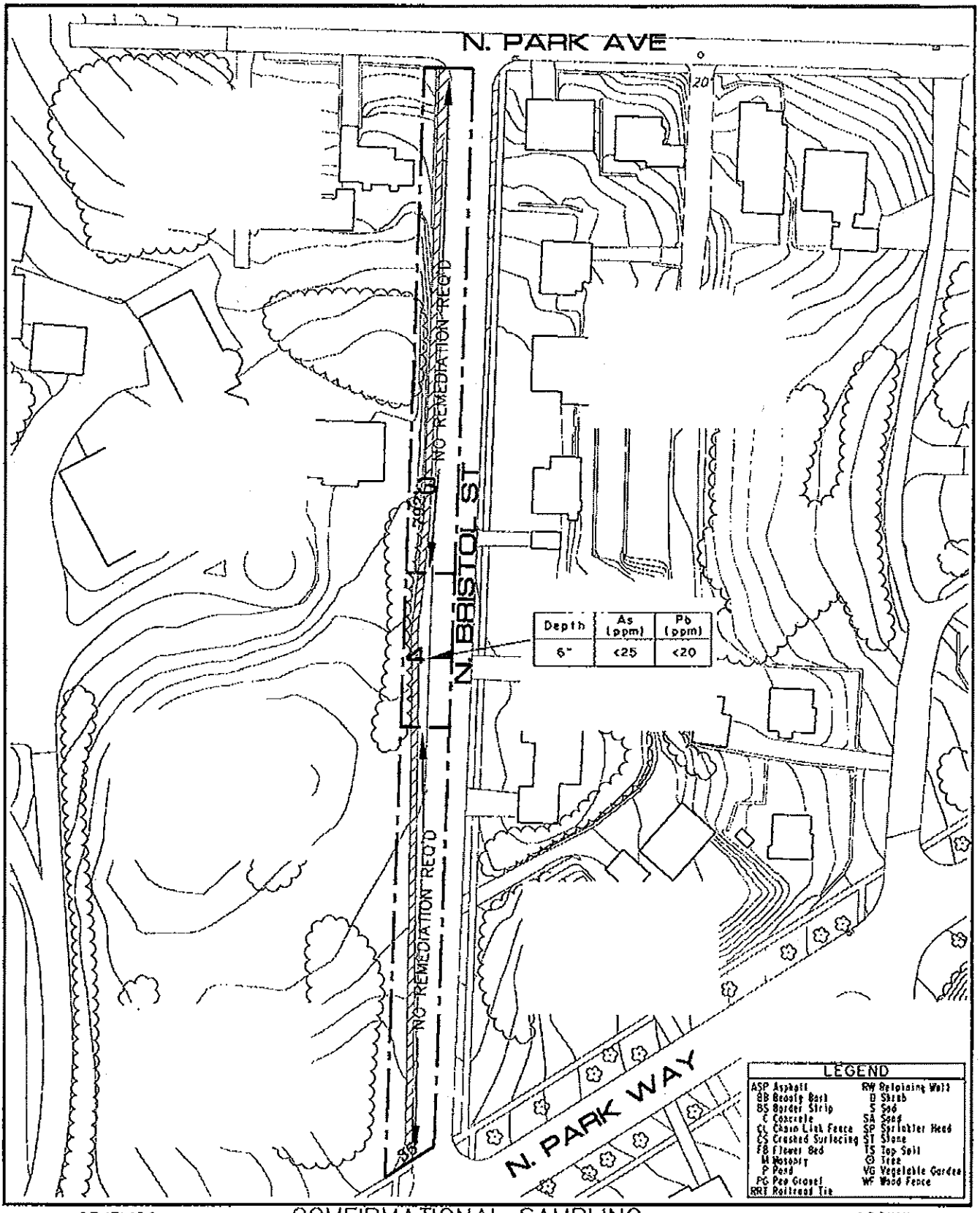
We appreciate your consideration throughout this period of sampling and remediation. If you have any questions, please contact Michele Wilkins of the Asarco Information Center at (253) 759-6015.

Sincerely,

Ric Rademacher
Project Manager

5219 North Shirley Street Suite 003
Tacoma, WA 98407

(253) 759-4829
Fax: (253) 759-1088



03/31/08 COMFIRMATIONAL SAMPLING ADSIWI

NORTH

0 50 100

SCALE IN FEET

MRC Construction, LLC

PROPERTY SITE CODE: ADSI

SITE ADDRESS: RW, N. Bristol St. / Park Ave. ParkWay

PROPERTY OWNER: City of Tacoma

PROPERTY RESIDENT:

Ruston Soils Post Remediation Report

Address
R/W NO Bristol/Park way,N.ParkAv

Owner
City of Tacoma (Owner)

Site Code
ADS1

SubUnit	Sample Number	Lab Number	Sample Date	Sample Time	Excvt Depth(inches)	Sample Depth(inches)	Analysis Date	Arsenic (ppm)	Lead (ppm)	Comments
4	ADS1-PST-04-B1		3/25/2008	10:36	1	1 - 6 inches		< 25	< 20	

Notes: (1) Depth at which samples were taken

Print Date 3/28/2008

ASARCO

Thomas E. Martin
Site Manger
Tacoma Plant

December 10, 2001

City of Tacoma
Mike Dalin, Engineering
747 Market St. Fifth Floor
Tacoma, WA 98402

Re: AES2 AKS4 JRA1 JVA1 PAA1 PHA1 OTA1 AJS4 ADS1 AKS1 BES1 OYA1

Dear Mr. Dalin,

As you know, your property at various locations was recently tested for arsenic and lead content in connection with the Ruston/North Tacoma Soil Removal Project. Asarco has reached an agreement with EPA that requires testing of properties in Ruston and North Tacoma to determine which properties might require soil replacement. This agreement states that properties will require remediation if the arsenic concentrations exceed 230 parts per million or the lead concentrations exceed 500 parts per million.

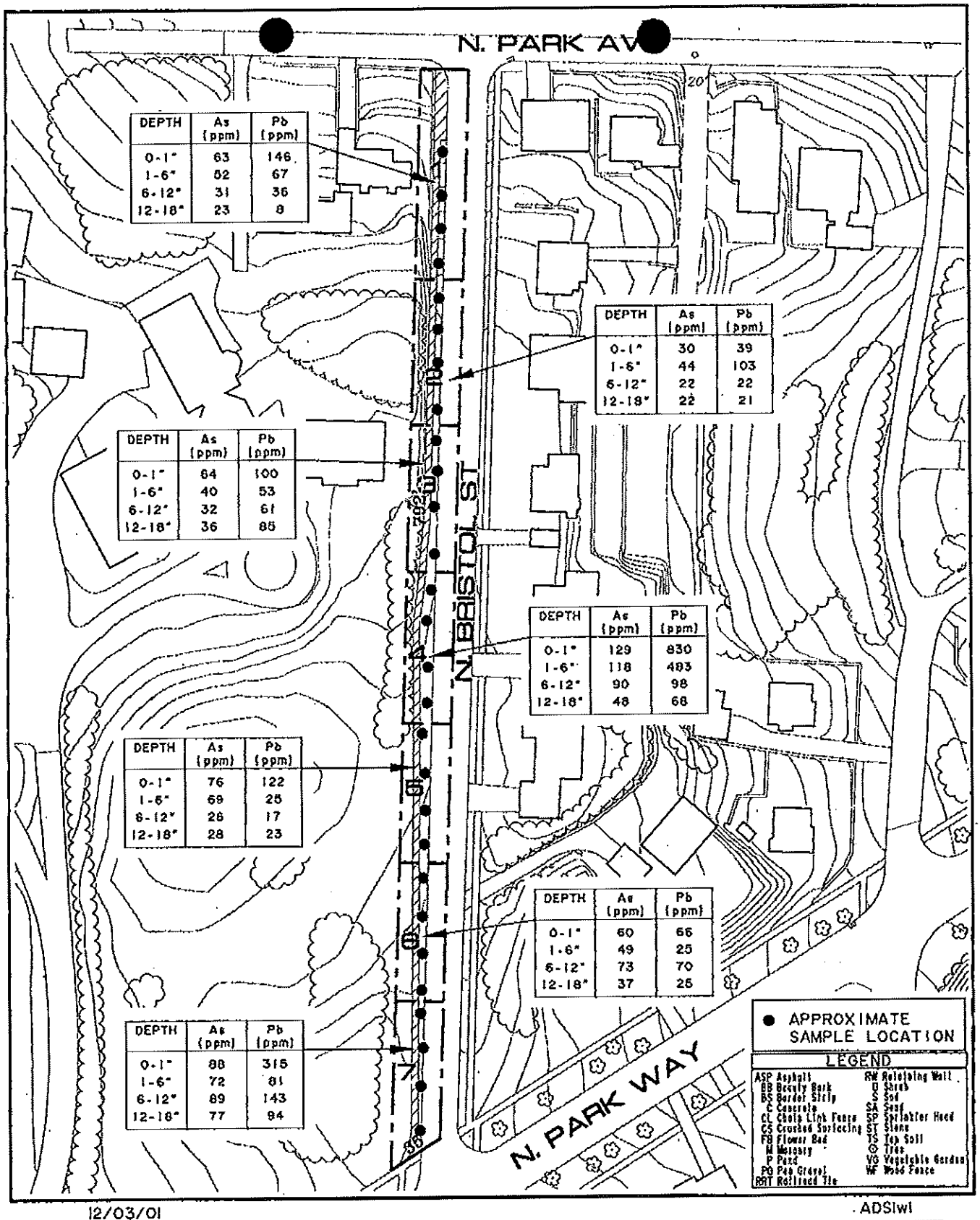
Composite samples were collected in a number of subunits from your property and analyzed for arsenic and lead concentrations. Each composite was obtained by combining samples collected from the same depths at four different locations within each subunit. Depth intervals from which samples were collected are 0"-1", 1"-6", 6"-12", 12"-18". Results of these samples are listed on the attached table (see next page).

Some or all of these samples are above the EPA action levels for arsenic or lead (see table), and your property will need remediation. A representative from Asarco or Hydrometrics, Inc., will be contacting you to discuss activities planned for the property when a date has been scheduled for remediation. Also enclosed is an informational brochure from the Community Protection Measures Program that applies to your property. In the meantime, if you have questions, please call Karen Pickett at 756-5436. Thank you for your cooperation.

Sincerely,

Thomas E. Martin

ASARCO Incorporated P.O. Box 1677 Tacoma, WA 98401 (253) 756-0201
INFORMATION CENTER (253) 756-5436 FAX: (253) 756-0250
email: tmartin@asarco.com



12/03/01

ADSIwl

NORTH

0 50 100

SCALE IN FEET

Hydrometrics, Inc.

PROPERTY SITE CODE: ADSI

SITE ADDRESS: RW, N. Bristol St. / Park Ave, Park Way

PROPERTY OWNER: City of Tacoma

PROPERTY RESIDENT:

SITE ADDRESS	NAME	SITE CODE
R/W NO Bristol/Park	City of Tacoma (Owner)	ADS1

SUBUNIT	DEPTH (Inches)	ARSENIC (mg/kg)	LEAD (mg/kg)	EPA RECOMMENDED REMOVAL DEPTH (Inches)
		0	0	NONE
1	0 - 1	63	146	NONE
1	1 - 6	52	67	
1	6 - 12	31	36	
1	12 - 18	23	8	
2	0 - 1	30	39	NONE
2	1 - 6	44	103	
2	6 - 12	22	22	
2	12 - 18	22	21	
3	0 - 1	64	100	NONE
3	1 - 6	40	53	
3	6 - 12	32	61	
3	12 - 18	36	85	
4	0 - 1	129	830	1
4	1 - 6	118	483	
4	6 - 12	90	98	
4	12 - 18	48	68	
5	0 - 1	76	122	NONE
5	1 - 6	69	25	
5	6 - 12	26	17	
5	12 - 18	28	23	
6	0 - 1	60	66	NONE
6	1 - 6	49	25	
6	6 - 12	73	70	
6	12 - 18	37	25	
7	0 - 1	88	315	NONE
7	1 - 6	72	81	
7	6 - 12	89	143	
7	12 - 18	77	94	

DEPTH (Inches)	ARSENIC MEAN (mg/kg)	LEAD MEAN (mg/kg)
0 - 1	73	231
1 - 6	63	120
6 - 12	52	64
12 - 18	39	46

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

MRC CONSTRUCTION, LLC
SITEWORK UTILITIES & ENVIRONMENTAL
RUSTON, WA. (253)759-4829

July 25, 2008

City of Tacoma
747 Market St.
Tacoma, WA 98407

Re: ADS1, ADS2, AEA1, AES2, AFA1, AFS2, AGS1, AIS1, AJA1, AJS4, AKS1, AKS4, ALS1, ALS4, BCA1, BEA1, BES1, BFS5, BFS5-Flower Beds, BFS6, BLA1, BLS2, B LS4, BMA1, BMS1, BNA1, BNS3, BNS4, BOA1, BOS1, CCS3, CDS4, CES7, CFA1, CGA1, CGS1, CGS4, CNS1, COA1, CPS1, CPS4, CQS1, DAS1, DDA1, DDS2, DEA1, DES2, DIS3, DIS3-Flower Beds, DJA1, DJS1, DKS3, DKS5, DLS3, DLS4

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Sincerely,

Ric Rademacher
Project Manager

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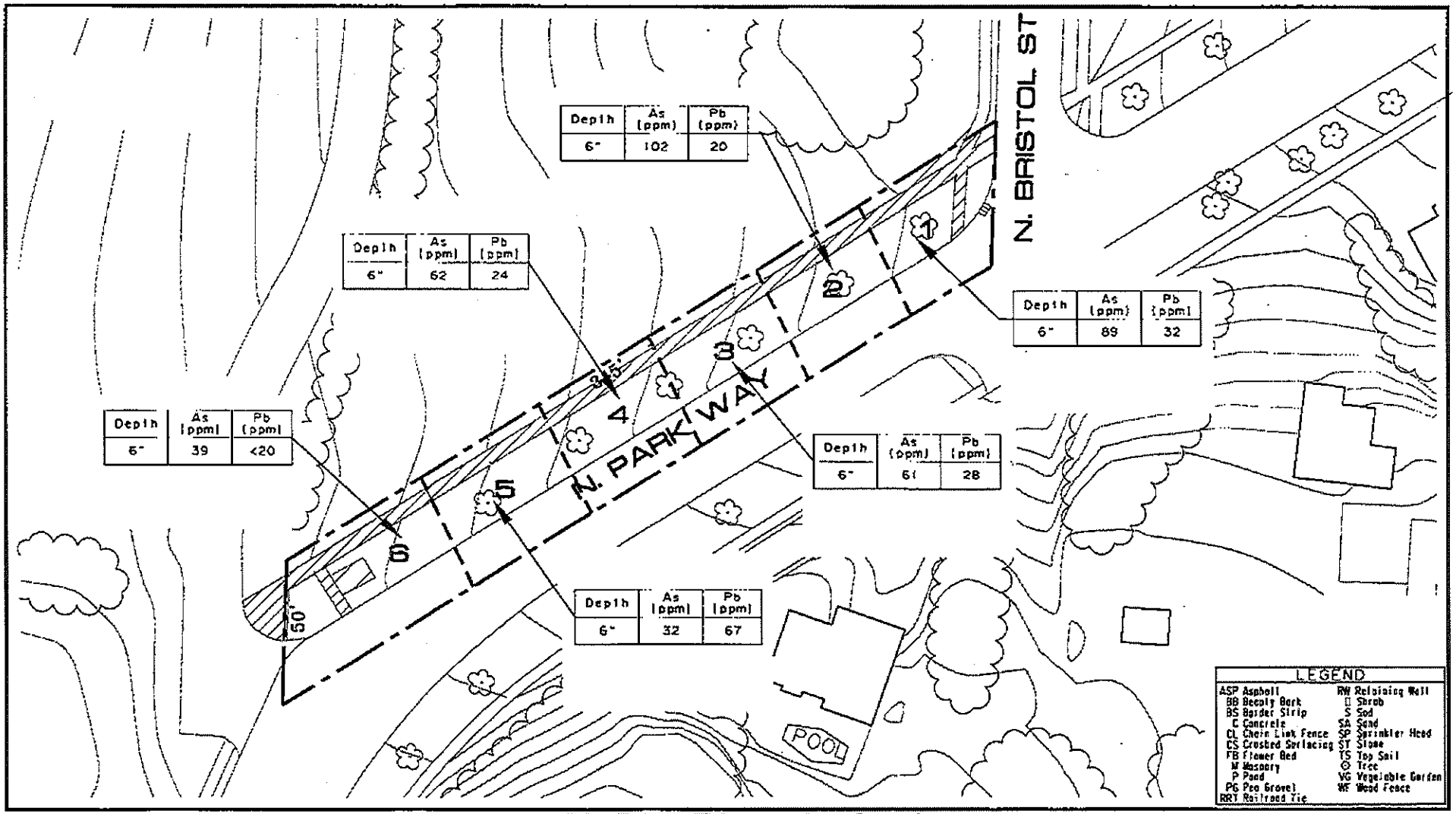

04/14/08 CONFIRMATIONAL SAMPLING ADS2WI

NORTH

0 30 60

SCALE IN FEET

MRC Construction, LLC

PROPERTY SITE CODE: ADS2

SITE ADDRESS: RW, N. Park Way. / Bristol St.

PROPERTY OWNER: City of Tacoma

PROPERTY RESIDENT:

Ruston Soils Post Remediation Report

Address
R/W NO Park/Vasault,Bristol

Owner
City of Tacoma (Owner)

Site Code
ADS2

SubUnit	Sample Number	Lab Number	Sample Date	Sample Time	Excvt Depth(inches)	Sample Depth(inches)	Analysis Date	Arsenic (ppm)	Lead (ppm)	Comments
1	ADS2-PST-01-B1		4/8/2008	10:16	1	1 - 6 inches		89	32	
2	ADS2-PST-02-B1		4/7/2008	12:35	1	1 - 6 inches		102	20	
3	ADS2-PST-03-B1		4/4/2008	13:56	1	1 - 6 inches		61	28	
4	ADS2-PST-04-B1		4/4/2008	11:41	1	1 - 6 inches		62	24	
5	ADS2-PST-05-B1		4/4/2008	07:23	1	1 - 6 inches		32	67	
6	ADS2-PST-06-B1		4/3/2008	13:13	1	1 - 6 inches		39	< 20	

Notes: (1) Depth at which samples were taken

Print Date 4/11/2008

ASARCO

Thomas E. Martin
Site Manger
Tacoma Plant

December 11, 2001

Mr. Mike Dalin, Engineering
City of Tacoma
747 Market St. Fifth Floor
Tacoma, WA 98402

Re: ~~ADS2~~ ALS1

Dear Mr. Dalin:

As you know, your property at various locations was recently tested for arsenic and lead content in connection with the Ruston/North Tacoma Soil Removal Project. Asarco has reached an agreement with EPA that requires testing of properties in Ruston and North Tacoma to determine which properties might require soil replacement. This agreement states that properties will require remediation if the arsenic concentrations exceed 230 parts per million or the lead concentrations exceed 500 parts per million.

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Sincerely,

Thomas E. Martin

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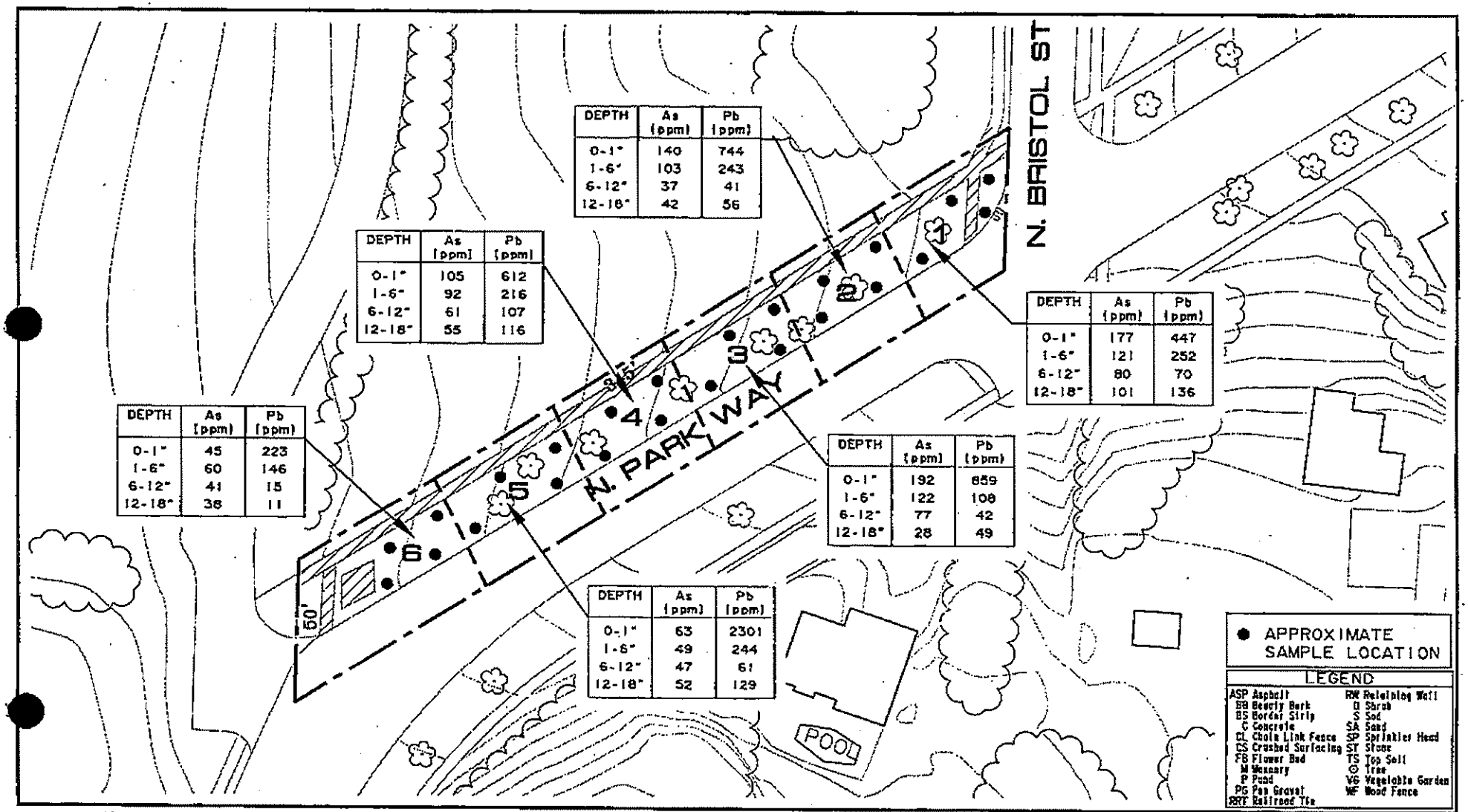
INFORMATION CENTER (253) 756-5436 FAX: (253) 756-0250
email: tmartin@asarco.com



12/10/01

ADS2wl

NORTH

0 30 60

SCALE IN FEET

Hydrometrics, Inc.

PROPERTY SITE CODE: ADS2

SITE ADDRESS: RW, N. Park Way / Bristol St.

PROPERTY OWNER: City of Tacoma

PROPERTY RESIDENT:

SITE ADDRESS	NAME	SITE CODE
R/W NO Park/Vasault,Bristol WY	City of Tacoma (Owner)	ADS2

SUBUNIT	DEPTH (Inches)	ARSENIC (mg/kg)	LEAD (mg/kg)	EPA RECOMMENDED REMOVAL DEPTH (Inches)
1	0 - 1	177	447	1
1	1 - 6	121	252	
1	6 - 12	80	70	
1	12 - 18	101	136	
2	0 - 1	140	744	1
2	1 - 6	103	243	
2	6 - 12	37	41	
2	12 - 18	42	56	
3	0 - 1	192	859	1
3	1 - 6	122	108	
3	6 - 12	77	42	
3	12 - 18	28	49	
4	0 - 1	105	612	1
4	1 - 6	92	216	
4	6 - 12	61	107	
4	12 - 18	55	116	
5	0 - 1	63	2301	1
5	1 - 6	49	244	
5	6 - 12	47	61	
5	12 - 18	52	129	
6	0 - 1	45	223	1
6	1 - 6	60	146	
6	6 - 12	41	15	
6	12 - 18	38	11	

DEPTH (Inches)	ARSENIC MEAN (mg/kg)	LEAD MEAN (mg/kg)
0 - 1	120	864
1 - 6	91	202
6 - 12	57	56
12 - 18	53	83

NOTE: Arsenic Action Level = 230 mg/kg Lead Action Level = 500 mg/kg

Enclosure D

Summary of Sampling for Petroleum Hydrocarbons, PAHs, Other Metals and VOCs in Soil

ENCLOSURE D

Summary of Petroleum Hydrocarbons, PAHs, Other Metals and VOCs - Soil[1]

Franke Tobey Jones Master Plan Phase I & II Expansion

Tacoma, Washington

Sample Identification	DP1-2-2.5	DP4-2-2.5	DP6-2-2.5	DP13-6-6.5F	DP16-8.5-9F	DP16-9-9.5F	DP21-2-2.5	DP25-8-8.5F	TP2-2.5-3F	
Sample Date	11/1/2016	11/1/2016	11/1/2016	11/2/2016	11/2/2016	11/2/2016	11/2/2016	11/2/2016	11/9/2016	
Sample Depth (feet bgs)	2 to 2.5	2 to 2.5	2 to 2.5	6 to 6.5	8.5 to 9	9 to 9.5	2 to 2.5	8 to 8.5	2.5 to 3	
Field Screening	SS	SS	SS	SS	SS	NS	SS	SS	SS	
Soil Type	Fill	Native	Native	Fill	Fill	Fill	Fill	Fill	Fill	MTCA Method A Cleanup Level
Building Location	Sound View Apartments			Skilled Nursing Facility				None	Duplex	
Petroleum Hydrocarbons (mg/kg)[3]										
Hydrocarbon Identification (NWTPH-HCID)										
Gasoline-range hydrocarbons	23 U	24 U	25 U	28 U	26 U	--	24 U	24 U	27 U	30/100[13]
Diesel-range hydrocarbons	58 U	61 U	62 U	69 U	64 U	--	60 U	60 U	65 U	2,000
Lube oil-range hydrocarbons	120 U	120 U	120 U	140 U	DET	--	120 U	120 U	130	2,000
NWTPH-Dx[4]										
Diesel-range hydrocarbons	--	--	--	--	90	35 UJ	--	--	32 U	2,000
Lube oil-range hydrocarbons	--	--	--	--	700	160 J	--	--	220	2,000
RCRA Metals (mg/kg)[5]										
Barium	110	59	160	130	110	--	130	150	100	16,000
Cadmium	0.58 U	0.61 U	0.62 U	1.6	1.0	--	0.60 U	0.60 U	1.0	2
Chromium	83	35	40	71	40	--	63	46	49	2,000
Mercury	0.29 U	0.30 U	0.31 U	1.1	0.43	--	0.30 U	0.30 U	0.35	2
Selenium	12 U	12 U	12 U	14 U	13 U	--	12 U	12 U	13 U	400[14]
Silver	1.2 U	1.2 U	1.2 U	1.4 U	1.3 U	--	1.2 U	1.2 U	1.3 U	400[14]
VOCs (mg/kg)[6]										
Benzene	--	--	--	0.0013 U	0.0012 UJ	--	--	0.00087 U	--	0.03
Ethylbenzene	--	--	--	0.0013 U	0.0051 J	--	--	0.00087 U	--	6
Toluene	--	--	--	0.0097	0.0062 UJ	--	--	0.0043 U	--	7
Total Xylenes[7]	--	--	--	0.0026 U	0.0025 UJ	--	--	0.0017 U	--	9
2-Butanone (MEK)[8]	--	--	--	0.078	0.13 J	--	--	0.0043 U	--	48,000[14]
Acetone[8]	--	--	--	0.99	0.58 J	--	--	0.064	--	72,000[14]
Carbon Disulfide[8]	--	--	--	0.0045	0.0015 J	--	--	0.00087 U	--	8,000[14]
Methylene Chloride[8]	--	--	--	0.013 U	0.085 J[12]	--	--	0.0087 U	--	0.02
PAHs[9] (mg/kg)										
Acenaphthene	0.0078 U	0.0081 U	0.0082 U	0.0092 U	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	4,800[14]
Acenaphthylene	0.0078 U	0.0081 U	0.0082 U	0.0092 U	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	NE
Anthracene	0.0078 U	0.0081 U	0.0082 U	0.0092 U	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	24,000[14]
Fluoranthene	0.0078 U	0.0081 U	0.0082 U	0.018	0.013	0.016 J	0.0080 U	0.0081 U	0.020	3,200[14]
Fluorene	0.0078 U	0.0081 U	0.0082 U	0.0092 U	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	3,200[14]
Phenanthrene	0.0078 U	0.0081 U	0.0082 U	0.010	0.011	0.016 J	0.0080 U	0.0081 U	0.016	NE
Benzo(g,h,i)perylene	0.0078 U	0.0081 U	0.0082 U	0.013	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	NE
Pyrene	0.0078 U	0.0081 U	0.0082 U	0.017	0.012	0.0093 J	0.0080 U	0.0081 U	0.016	2,400[11]
Naphthalenes[9,10] (mg/kg)										
Naphthalene	0.0078 U	0.0081 U	0.0082 U	0.017	0.013	0.016 J	0.0080 U	0.0081 U	0.0086 U	MTCA Method A ULU cleanup level for the sum of all Naphthalenes is 5 mg/kg
1-Methylnaphthalene	0.0078 U	0.0081 U	0.0082 U	0.010	0.0085 U	0.0094 J	0.0080 U	0.0081 U	0.0086 U	
2-Methylnaphthalene	0.0078 U	0.0081 U	0.0082 U	0.018	0.0085 U	0.011 J	0.0080 U	0.0081 U	0.0086 U	
Total Naphthalenes[5]	--	--	--	0.045	0.013	0.036 J	--	--	--	
cPAHs[9] (mg/kg)										
Benzo (a) anthracene (TEF 0.1)	0.0078 U	0.0081 U	0.0082 U	0.0092 U	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0088	MTCA Method A ULU cleanup level for the sum of all cPAHs is 0.1 mg/kg
Chrysene (TEF 0.01)	0.0078 U	0.0081 U	0.0082 U	0.018	0.015	0.01 J	0.0080 U	0.0081 U	0.012	
Benzo (b) fluoranthene (TEF 0.1)	0.0078 U	0.0081 U	0.0082 U	0.022	0.018	0.0092 UJ	0.0080 U	0.0081 U	0.015	
Benzo (j,k) fluoranthene (TEF 0.1)	0.0078 U	0.0081 U	0.0082 U	0.0092 U	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	
Benzo (a) pyrene (TEF 1)	0.0078 U	0.0081 U	0.0082 U	0.015	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0065 U	
Indeno (1,2,3-cd) pyrene (TEF 0.1)	0.0078 U	0.0081 U	0.0082 U	0.013	0.0086	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	
Dibenz (a,h) anthracene (TEF 0.1)	0.0078 U	0.0081 U	0.0082 U	0.0092 U	0.0085 U	0.0092 UJ	0.0080 U	0.0081 U	0.0086 U	
Total TTEC of cPAHs[11] (ND=0.5 RL)	0.006 UT	0.006 UT	0.006 UT	0.02 T	0.008 T	0.007 JT	0.006 UT	0.006 UT	0.008 T	

Notes:

[1] Chemical analysis performed by OnSite Environmental, Inc. of Redmond, Washington.

[2] Sample identification is the boring number - starting depth - ending depth in feet (i.e., soil sample B1-5-6 was collected from boring B1 from 5 to 6 feet bgs.

[3] Petroleum hydrocarbons were analyzed by Ecology-approved method NWTPH-HCID.

[4] Ecology-approved method NWTPH-Dx with acid/silica gel cleanup.

[5] Metals analyzed by United States Environmental Protection Agency (EPA) 6000/7000 series method.

[6] Volatile organic compounds (VOCs) analyzed by United States Environmental Protection Agency (EPA) method 8260B. Only detected analytes shown. See lab report in Appendix C for full list of analytes.

[7] Total xylenes is the sum of m,p xylene and o-xylene. The lower detection limit is shown.

[8] Acetone, 2-Butanone, Carbon Disulfide, and methylene chloride are common laboratory contaminants.

[9] Polycyclic aromatic hydrocarbons (PAHs) were analyzed by United States Environmental Protection Agency (EPA) method 8270D/SIM.

[10] Total naphthalenes consists of 1-methylnaphthalene, 2-methylnaphthalene and naphthalene.

[11] Total Toxic Equivalent Concentration (TTEC) is the sum of each individual cPAH concentration multiplied by its corresponding Toxicity Equivalency Factor (TEF).

[12] The laboratory noted that the sample vials for Sample DP16-8.5-9F contained grit between the lip and cap septum, rendering them unusable; therefore, the samples were extracted from 8 ounce jars and analyzed. Consequently, some loss of volatiles may have occurred and methylene chloride may have been introduced into the samples during sample preparation. For these reasons, the positive results and reporting limits for all volatile target analytes were qualified as estimated (J and UJ) in this sample.

[13] Model Toxics Control Act (MTCA) Method A cleanup level for gasoline is 30 mg/kg if benzene is detected or if the sum of toluene, ethylbenzene and xylenes are greater than or equal to 1% of the total gasoline detection.

[14] MTCA Method B criteria level represented because MTCA Method A cleanup level has not been established.

Ecology = Washington State Department of Ecology

EPA = United States Environmental Protection Agency

PAHs = polycyclic aromatic hydrocarbons

cPAHs = carcinogenic polycyclic aromatic hydrocarbons

ULU = unrestricted land use

TTEC = Total Toxic Equivalent Concentration

TEF = Toxicity Equivalency Factor as defined in WAC 173-340-900 Table 708-2

T = Total Sum

J = Estimated result

U = Analyte was not detected at or greater than the listed practical quantitative limit

SS = Slight Sheen

NE = not established

N/A = not applicable

bgs = below ground surface

MTCA = Model Toxics Control Act

mg/kg = milligram per kilogram

-- = sample not analyzed for this compound

Bold font type indicates that the analyte was detected.

Detected concentration is greater than Ecology's Reuse Criteria for commercial fill above the water table.

Detected concentration is greater than the respective MTCA Method A cleanup level or Method B screening level