ALTA GEOSCIENCES, Inc.

Environmental & Geotechnical Solutions

SITE CLEANUP PLAN
FORMER COASTAL DRILLING SITE, SOLDOTNA ALASKA
ADEC FILE NO. 2333.38.013

Prepared for:

Reeves Amodio LLC

April 2014

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Source: Google Earth

FORMER COASTAL DRILLING SITE

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1.0 INTRODUCTION

This Site Cleanup Plan presents a proposed approach to site remediation for the former Coastal Drilling Site (Site) in Soldotna, Alaska. It has been prepared in accordance with the requirements of the Alaska Department of Environmental Conservation (ADEC) as presented in Title 18 Alaska Administrative Code (AAC) 75.360. This Site Cleanup Plan has been prepared by ALTA Geosciences of Bothell, Washington on behalf of Reeves Amodio LLC and Mr. Donald Jack, owner of the property

1.1 SITE LOCATION

The former Coastal Drilling facility is located at mile 0.5 Kenai Spur Road, Soldotna, Alaska. The legal description of the Property is described as the eastern half of Section 29, T5N, R10W, Seward Meridian as shown on Figure 1. The entire property includes several adjacent parcels totaling approximately 7 acres as shown on Figure 2. The proposed site cleanup described in this report is focused primarily on the area within the chain link fence also shown on Figure 2.

1.2 BACKGROUND

The site was first developed by Coastal Drilling Company in 1957. Coastal Drilling Company conducted their oil and gas well drilling business from the site. Operations at the site consisted of drill rig maintenance and cleaning. Drilling company operations at the site ceased about 1981, although various companies have continued to operate the machine shop (presently vacant). The Coastal Drilling Company has since gone bankrupt. Mr. Donald Jack acquired the property in 1988. Mr. Jack had no prior ownership or operational involvement with the Coastal Drilling Company.

Prior reports indicate that site development included digging a debris disposal pit and constructing a machine shop, a drilling shop, and an office building. During the time the drilling companies operated the site, scrap iron, engines, lumber, and other drilling rig junk were placed in the debris disposal pit. A grate and drain associated with the drilling shop (now demolished) is also reported to have received rig wash water which was conducted to the disposal pit via a 6-inch pipe (referred to as the “grate area”). This pit was subsequently filled and is referred to as the “covered pit”. A second pit was excavated and remains open. This second pit is referred to as the “open pit” and is visible on the air photo in the frontispiece to this report.

2.0 SUMMARY OF PRIOR INVESTIGATIONS

2.1 PRIOR INVESTIGATIONS

Prior reports on the site include the following:

- 1988: *Preliminary Site Investigation*. ENSR Consulting and Engineering, Inc. (ENSR) performed an investigation for property transfer for the Federal Savings and Loan Insurance Corporation that included a geophysical survey, backhoe test pits, soil borings, and installation of monitoring wells.

- 1987: *Preliminary Assessment Report*. Tryck, Nyman, Hayes. This was primarily a site reconnaissance with no sampling or laboratory analyses.

- June, 1990: *Final Report Coastal Drilling Site Investigation, Soldotna, Alaska*. Harding Lawson Associates (HLA). HLA's investigation program included test pits and borings for soils sampling and installation of groundwater monitoring wells.

- August 1992*: Environmental Site Investigation Coastal Drilling Facility Soldotna, Alaska.* Shannon & Wilson, Inc. (S&W). S&W's site investigation included more test pits, soil borings, and monitoring wells.

- December, 1993: *Feasibility Study, Coastal Drilling Site, Soldotna, Alaska*. This study by HLA evaluated various remediation strategies for the site.

- 2010: *Focused Site Investigation Report*. ALTA Geosciences, Inc. (ALTA). The ALTA investigation included test pits in the open and covered pit areas with soil sampling and analysis for GRO, DRO, RRO, volatile organic compounds (VOCs, including BTEX), polychlorinated biphenyls (PCBs), total lead, total chromium, and hexavalent chromium. In addition, a site topographic survey was conducted to provide a baseline map for future work and the density and relative compaction of the fill soils in the covered pit was evaluated.

- In addition, a number of groundwater monitoring events have been performed on behalf of ADEC. The most recent report which we have found was performed in 2006 by Hart Crowser (*Groundwater Sampling, Coastal Drilling Facility, Soldotna, Alaska*).

The reports from 1992 and earlier are of limited usefulness due to:

- Poor to nonexistent documentation of sample locations

- Questionable sampling procedures, such as collecting water samples from test pits

- Outdated analytical methodologies for petroleum hydrocarbons (quantified as "Total Petroleum Hydrocarbons" (TPH) rather than Gasoline-range, Diesel-range, or Residual Range Organics (GRO, DRO, or RRO)) and benzene, toluene, ethylbenzene, and xylenes (BTEX) which are sometimes reported as "Total BTEX" rather than speciated to individual compounds.

Analysis results from investigations prior to 2009 are summarized on Table 1.

2.2 SUMMARY PRIOR INVESTIGATIONS

Based on these prior investigations, three areas of concern warrant consideration for site remediation:

- Covered Pit area
- Open Pit area
- Drill Shop Sump area

Analytical results from prior investigations from these areas are summarized on Table 1. This data is then reorganized and presented by area of concern on Table 2.

2.2.1 Covered Pit

Prior investigations indicate that the covered pit includes approximately five feet of imported fill placed on top of mixed soil and waste material and debris. Compounds of concern (COCs) exceeding ADEC Method 2 criteria include:

- **PCBs:** PCBs were detected at a maximum concentration of 33 mg/kg in one sample. One sample contained 13 mg/kg PCBs, while the other seven samples contained PCB concentrations ranging from non-detect to 2.5 mg/kg.
- **Lead:** Lead was detected eight samples at a concentration ranging from 9 mg/kg to 1,260 mg/kg. Six of the eight samples contained Lead at less than 400 mg/kg (ADEC method 2 criteria for direct contact/ingestion).
- **Volatile Organic Compounds (VOCs):** Trichloroethene (TCE) and tetrchloroethene (TCE) were detected in two of eight samples at concentrations of up to 0.88 mg/kg. Six samples contained less than 0.018 mg/kg, with five samples being non-detect.
- **Petroleum hydrocarbons:** Seven of the ten analyses for petroleum hydrocarbons were made using EPA method 418.1, which does not quantitate the carbon range of the analytes and may include hydrocarbons beyond the GRO/DRO/RRO range. Nevertheless, some results were quite high, ranging up to 260,000 parts per million (ppm). The three analyses which were performed

using ADEC methods AK101, AK103, and AK103 showed GRO concentrations up to 41 mg/kg, DRO concentrations up to 1,240 mg/kg and RRO concentrations up to 2,620 mg/kg. Considering the site history and the later analyses, it is likely that the early TPH analyses reflect high levels of DRO and RRO.

The geotechnical data for the covered pit soil cap shows that it is a silty sand with a maximum density of 130 pounds per cubic foot.

2.2.2 Open Pit

The Open Pit is 10 to 11 feet deep and contains a heterogeneous mix of debris including large amounts of pallets, tires, drums, lumber, cables, and scrap iron as well as miscellaneous items such as a desk and miscellaneous parts of vehicles and other machinery. The debris generally appears to be uncontaminated solid waste except in one location where several vehicle batteries and battery parts were observed and hydrocarbon-impacted soils were encountered at a depth of about 10 feet. COCs exceeding ADEC Method 2 criteria include:

- **Lead:** Of the six analyses performed, only one exceeded 100 mg/kg (Shannon & Wilson sample PS-2, 800 mg/kg). The presence of lead-acid batteries and battery parts is also significant.

- **Petroleum hydrocarbons:** Two of the seven samples analyzed indicate levels of petroleum hydrocarbons at levels of concern: Shannon & Wilson sample B6-S1 (10,800 mg/kg as TPH); and ALTA sample 09TP-03 (323 mg/kg GRO and 9,650 mg/kg DRO).

2.2.3 Drill Shop Sump

The drill shop sump itself is a comparatively small feature approximately two feet square. Samples taken from around the sump identified the following COCs:

- **PCBs:** Three of eight samples from this area detected PCBs in excess of 1 mg/kg, however only one sample contained greater than 10 mg/kg PCBs (Harding Lawson sample MW01, 21 mg/kg from one foot deep).

- **Petroleum hydrocarbons:** Seven samples have been analyzed for petroleum hydrocarbons, all of which were analyzed only for total petroleum hydrocarbons by EPA method 418.1. Six of the seven samples contained significantly elevated TPH results, with reported concentrations as high as 140,000 mg/kg. Considering the past use of the sump it is likely that these represent predominantly DRO and RRO range constituents.

2.3 GROUNDWATER

A shallow perched zone of water is reported to be present beneath the site, and creates occasional flooding of the pit(s). It is likely that this perched water condition results from the prior dumping of drilling mud into the pits which has effectively sealed the pits, creating a "bathtub" effect. Over a broader area outside the pits, the normal groundwater depth is approximately 31 to 34 feet below the ground surface.

Previous groundwater sampling events have not encountered any contaminant impacts in groundwater monitoring wells.

3.0 REMEDIAL ACTION OBJECTIVES

Remedial Action Objectives for the site are summarized as follows:

- Prevent migration of COCs to groundwater that would result in exceedances of ADEC/EPA criteria for drinking water.
- Prevent contact, ingestion or inhalation (directly or via fugitive dust) of COCs in site soils which may contain COCs above ADEC and EPA criteria
- Remove Lead-acid batteries, battery debris, and Lead impacted soils that could potentially constitute hazardous waste under the Resource Conservation and Recovery Act (RCRA).
- To the extent practicable, remove and properly recycle or dispose of the miscellaneous debris (solid waste) presently in the open pit.

4.0 PROPOSED CLEANUP PLAN

4.1 GENERAL CONSIDERATIONS

The three distinct impacted areas of the site (Covered Pit, Open Pit, and Drill Shop Sump) present different challenges for successfully achieving the remedial action objectives at the site. All site remediation work will be performed under the direction of a qualified person as required by ADEC regulations.

4.2 COVERED PIT

The Covered Pit represents, in effect, an unpermitted solid waste landfill of small size. Previous studies (HLA, 1993) evaluated several remedial alternatives for the site including:

1. No action with site monitoring
2. Dewatering plus capping
3. Dewatering plus excavation and stabilization
4. Dewatering plus excavation and off-site disposal
5. Dewatering plus soil washing

Costs for alternatives 3, 4, and 5 were estimated to range from $2.4 to $5.8 million (1993 dollars) and are considered prohibitively expensive.

In our opinion, dewatering is not required for the capping alternative, based on the results of the 2009-2010 investigation (ALTA, 2010). Further, capping is considered a "presumptive remedy" for such landfills by EPA (see for example *Landfill Presumptive Remedy Saves Time and Cost*, USEPA Office of Solid Waste and Emergency Response, January 1997).

Therefore it is proposed that the Covered Pit be capped using an asphalt pavement capping system to the approximate limits shown on Figure 4. The asphalt cap would preclude surface water infiltration thus further reducing the potential for migration of COPCs to groundwater and prevent inhalation/ingestion/contact exposure pathways. The asphalt cap provides several advantages over other capping systems including future beneficial reuse for light vehicle parking or storage and ease of inspection. The lack of groundwater impacts after the site has lain uncapped for nearly three decades indicates that this capping system would provide adequate protection for human health and the environment.

As presently envisioned, the implementation of the remedy would include the following steps:

- Excavate and properly dispose of the PCB impacted soils near the discharge point of the pipe from the Drill Shop Sump.
- Clear and grub vegetation from the cap area
- Lightly grade the area to remove topsoil and establish a uniform, gently sloping surface. Provide additional imported fill material if needed.

- Compact the subgrade using a roller.
- Place and compact approximately 4 inches of suitable base material (e.g., Alaska Department of Transportation "D1" crushed rock).
- Grade the final base course to provide a gentle slope to allow the pavement cap to drain
- Place approximately 2 inches of asphaltic concrete pavement

Institutional controls would be needed to provide periodic inspection and maintenance of the capped area.

4.3 OPEN PIT

The open pit area will be cleared of brush and trees (if any), which will be recycled elsewhere on the site or offsite. Non-hazardous debris will be excavated and placed in trucks for offsite disposal in a municipal landfill. Any large metallic objects (e.g. engine blocks, drill pipes, etc.) that can be separated and recycled, will be recycled if practical or disposed of at the local landfill.

Known potentially hazardous materials, such as Lead vehicle batteries, will be recycled at a licensed battery recycling facility, if in whole condition. Broken batteries, Lead plates, battery sludge and battery parts which cannot be accepted for recycling will be drummed and sent under manifest for disposal at a permitted hazardous waste disposal facility. Any treatment required to meet Federal Land Disposal Regulations for Lead will be completed at the landfill site. Soils beneath locations where broken batteries, Lead plates, battery sludge and battery parts are found will be sampled and analyzed for Lead. Soils which fail the Toxicity Characteristic Leaching Criteria for Lead will be excavated, containerized (drums or bulk lift bags) and sent under manifest for disposal at a permitted hazardous waste disposal facility.

The open pit will be evaluated for DRO and GRO impacts after removal of the above described debris in accordance with ADECs guidance document *Guidance for Cleanup of Petroleum Contaminated Sites* (September, 2000). All samples will be analyzed for DRO/GRO and Lead.

Soil found to exceed the DRO and/or GRO cleanup criteria (250 mg/kg DRO and 300 mg/kg GRO per 18 AAC 75.341) will be excavated, tested in stockpile for disposal purposes, and ultimately shipped for thermal treatment.

After the cleanup is completed, the open pit will be backfilled with clean imported soil to conform to the surrounding grades.

4.4 DRILL SHOP SUMP AREA

The grate and associated sump are quite small, no more than two feet square. Construction of the sump is uncertain. The soils from three feet from all sides of the grate area (including the grate and associated sump) will be excavated to the depth of the sump and at least two feet below the present ground surface. Soils and grate/sump materials will be placed in a separate stockpile area and sampled and

analyzed to evaluate appropriate disposal options. The resultant excavation will be sampled debris in accordance with ADECs guidance document *Guidance for Cleanup of Petroleum Contaminated Sites* (September, 2000). At least one sample will be collected from each excavation sidewall and immediately below the former sump location. All samples will be analyzed for GRO/DRO/RRO and PCBs. If any results exceed ADEC Method 2 criteria, the excavation will be expanded in one-foot increments and the affected area resampled and analyzed.

Once the excavation has achieved the cleanup criteria, the stockpiled soils will be sampled and analyzed as needed to evaluate disposal options. If the soils are found to contain greater than one mg/kg PCBs but less than 50 mg/kg PCBs they will be transported to and disposed of at an appropriately permitted Subtitle D facility in the lower 48 states. If the soils are found to contain 50 mg/kg PCBs or greater, they will be transported under hazardous waste manifest to a landfill permitted under the provisions of 40 CFR 761.

4.5 SOIL STOCKPILES

Stockpile areas will be needed for excavated soils. Soil stockpiles will conform to ADEC requirements. Separate stockpile areas will be constructed for these soils depending on waste characterization and disposal considerations. Stockpile areas will be designated on the existing vacant concrete slab. Stockpiles will be covered with a geomembrane daily or when rainfall is imminent.

5.0 SAMPLING & ANALYSIS PLAN

A sampling and analysis plan will be submitted for ADEC review prior to beginning the site cleanup activities.

6.0 REPORTING

Following completion of the site remediation and receipt of all disposal certificates a Construction Completion Report will be prepared and submitted to ADEC. The report will document the remediation work undertaken and will include copies of all laboratory reports, ADEC Laboratory Data Review Checklists, and disposal certificates.

7.0 CONCLUSIONS

Upon completion of the proposed cleanup, all portions of the site with the exception of the covered pit area will meet ADEC's Method Two cleanup levels as defined in 18 AAC 75 and no institutional controls will be needed for these areas. The covered pit area will then also qualify for a determination of *Cleanup Complete – Institutional Controls*. It is anticipated that the institutional controls will require maintenance of the asphalt cap and preclude excavation in that area without ADEC approval. This will apply to only one of the parcels comprising the property as shown on Figure 2.

8.0 REFERENCES

ALTA Geosciences, Inc., 2010: *Focused Site Investigation Report, Former Coastal Drilling Site, Soldotna, Alaska*.

ENSR, Inc., 1988: *Preliminary Site Investigation*.

Harding Lawson Associates, June 1990: *Final Report Coastal Drilling Site Investigation, Soldotna, Alaska*.

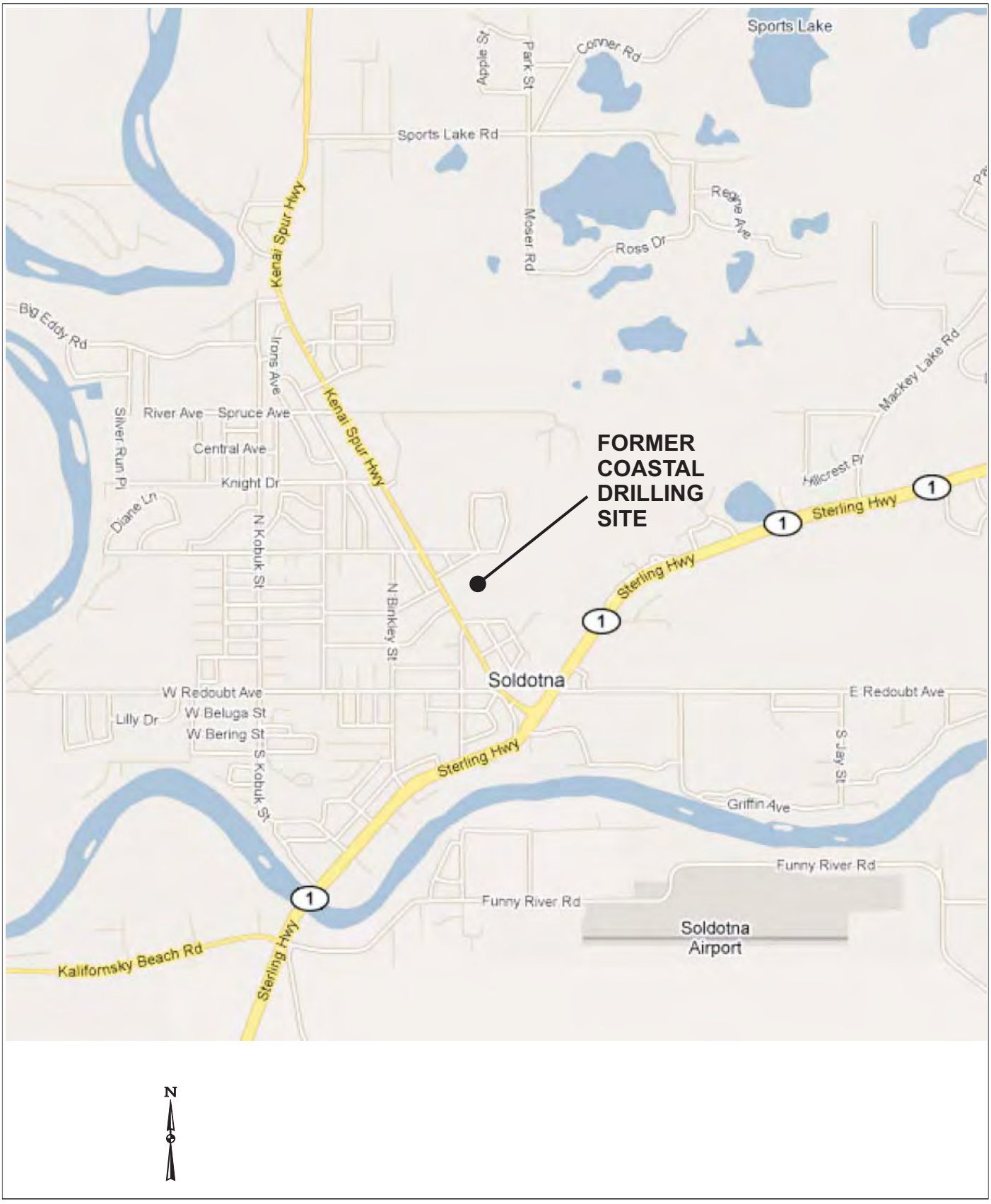
Harding Lawson Associates, December, 1993: *Feasibility Study, Coastal Drilling Site, Soldotna, Alaska.*

Hart Crowser, 2006: *Groundwater Sampling, Coastal Drilling Facility, Soldotna, Alaska*

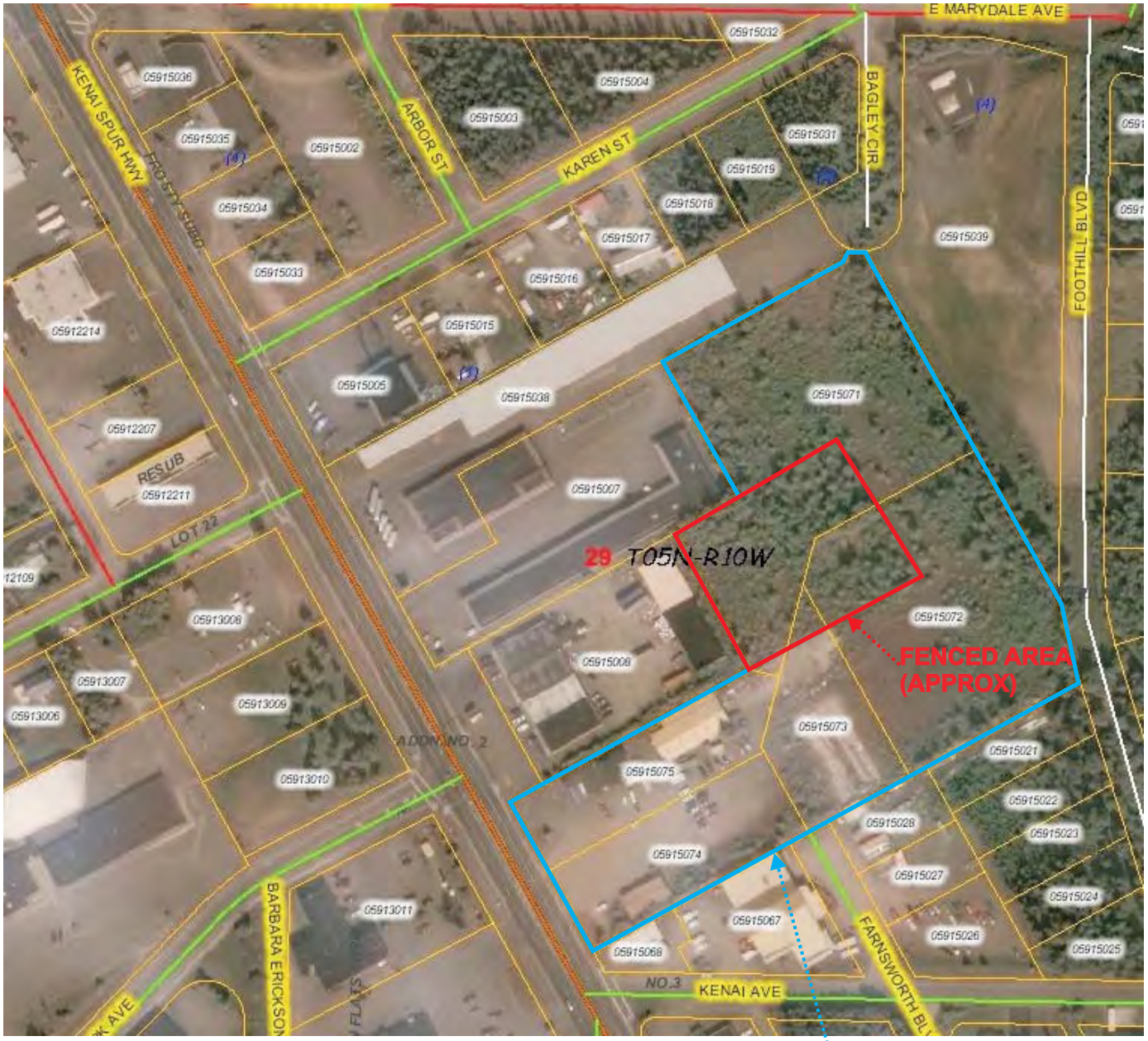
Shannon & Wilson, Inc., August 1992*: Environmental Site Investigation Coastal Drilling Facility Soldotna, Alaska.*

Tryck, Nyman, Hayes, Inc., 1987: *Preliminary Assessment Report*.

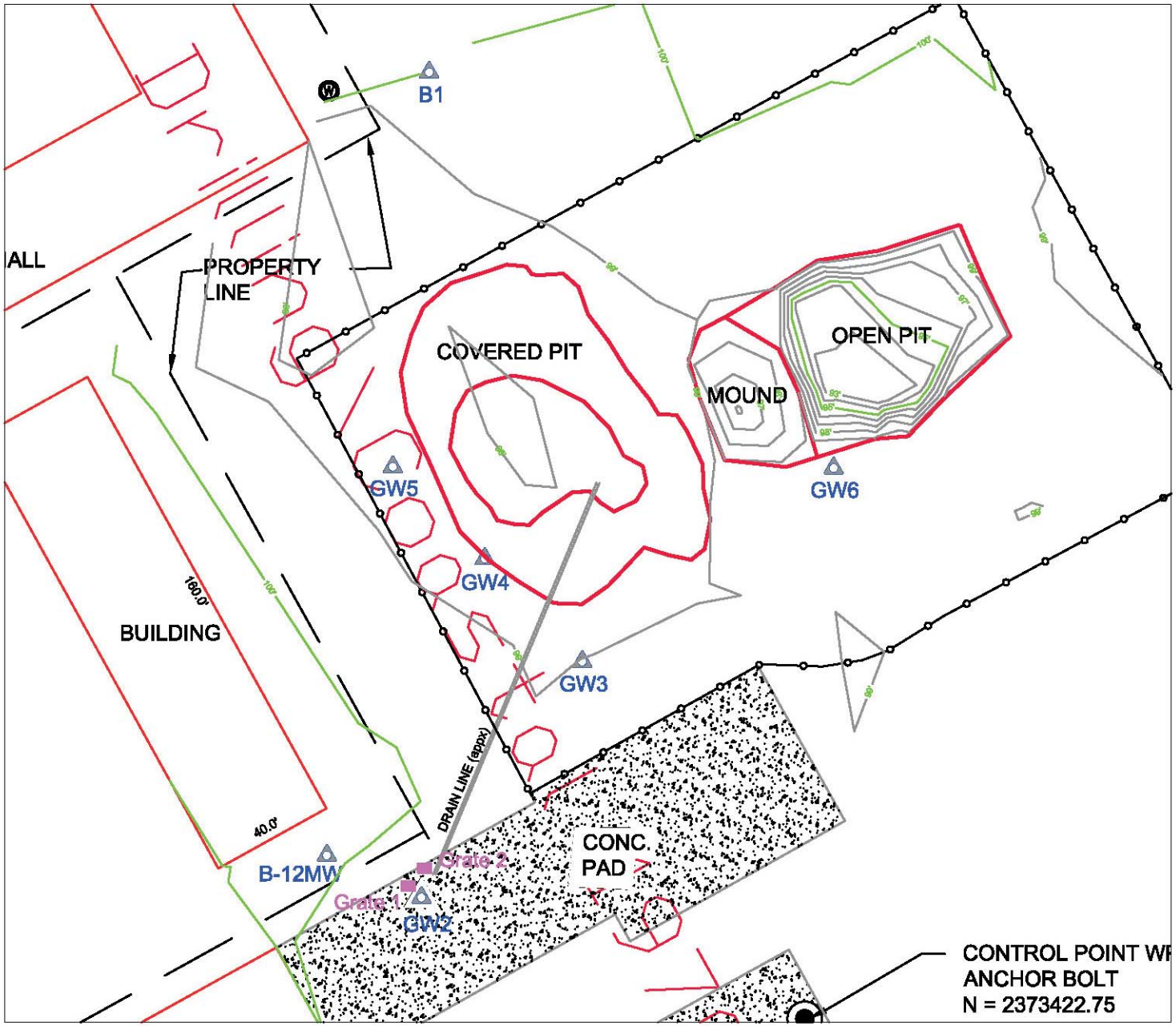
FIGURES



ALTA GEOSCIENCES, INC. Bothell, Washington *Prepared For:* *Reeves Amodio LLC*	**FORMER COASTAL DRILLING SITE** **SOLDOTNA, ALASKA** **SITE LOCATION**	**FIGURE** **1**



ALTA GEOSCIENCES, INC. Bothell, Washington *Prepared For:* *Reeves Amodio LLC*	**FORMER COASTAL DRILLING SITE** **SOLDOTNA, ALASKA** **SITE PLAN**	**FIGURE** **2**



Explanation

- GW5 — Monitoring well location
- Water well location
- Survey Monument
- 09TP-2 — 2009 test pit location with orientation and approximate length indicated
- Disposal pit boundaries, top and deepest part, based on airphoto mapping
- Fence
- 98' — Elevation, 1-ft contour interval
- Shallow soil sample location

NORTH

Scale

0 50 100 feet

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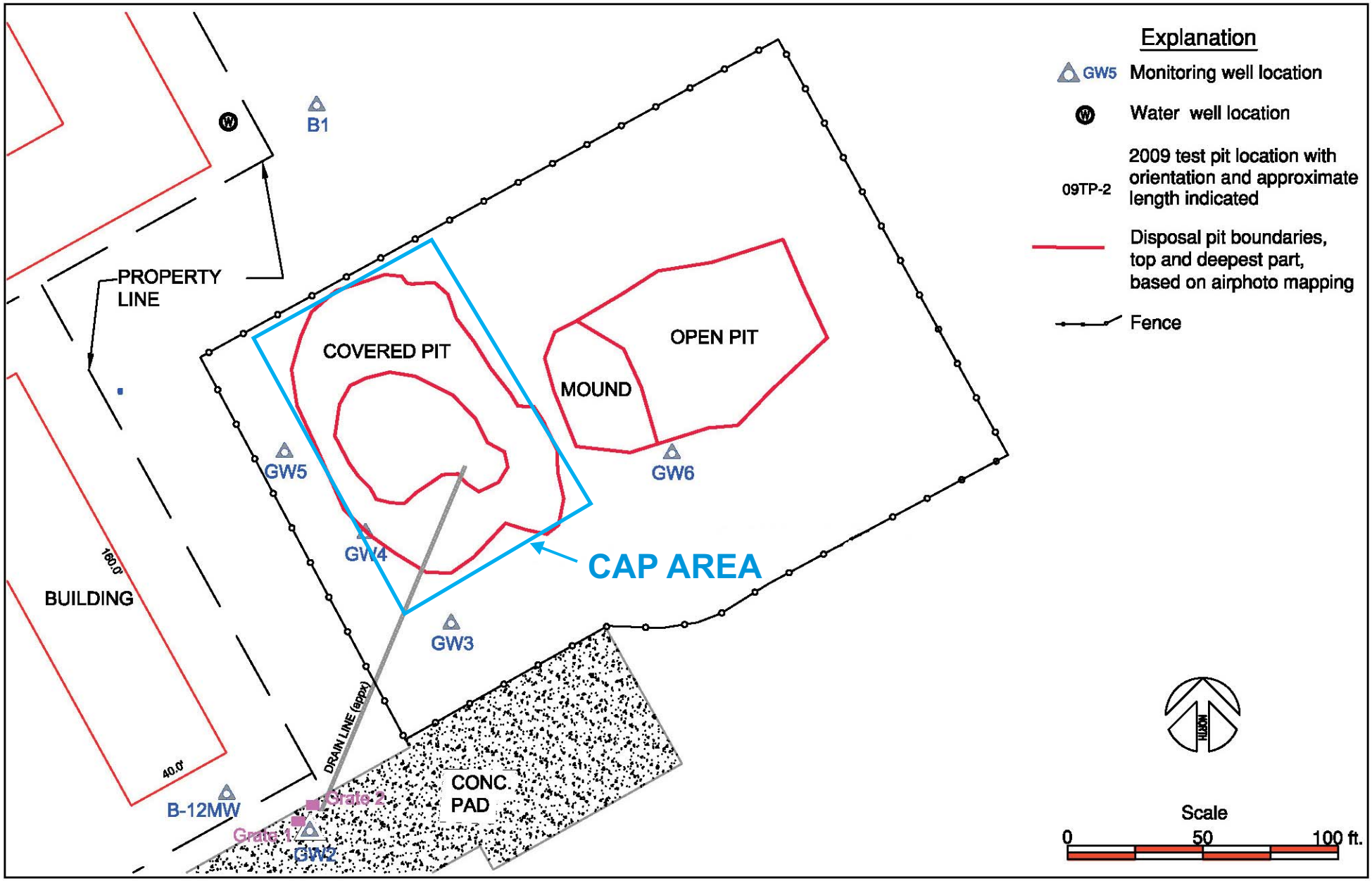
Former Coastal Drilling Site

SITE CLEANUP PLAN

SITE SURVEY DATA

FIGURE 3



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Coastal Drilling Site
SITE CLEANUP PLAN
CAP AREA

FIGURE
4

TABLES

Table 1 - Summary of soil analytical data (ppm or mg/kg)

SAMPLE LOCATION	SAMPLE POSITION	DEPTH (feet)	SAMPLE MEDIA	Petroleum Hydrocarbons TOTAL	GRO	DRO	RRO	BTEX TOTAL	Benzene	Toluene	Ethylbenzene	Xylenes	PCBS	TCE	PCE	LEAD
Soil Cleanup Levels (ADEC Method 2)					300	250	11000		0.025	6.5	6.9	63	1	0.027	0.03	400
ENSR Phase II Report																
Trench 2	SW edge of CP see note	?		138000				370					**33**			
Trench 9	NE edge of CP	?		2740				ND								
HLA 1990 SI Report																
Trench 13	Inside SW CP	5	Soil	8800				0.01					0.6	ND	0.018	287
Trench 15	Inside SW CP	4	"Sludge"	260000				25.17					**13**	**0.88**	**0.32**	**872**
Trench 15	Inside SW CP	5	Soil	71000				38.38					**2.5**	**0.37**	**0.66**	306
Trench 15	Inside SW CP	11	Soil	2700				5.597					0.33	ND	ND	**1,250**
Trench 16	Drilling Shop Grate	0	Soil	86000				179.8					**2.36**	ND	ND	**1,190**
Trench 16	Drilling Shop Grate	2	Soil	NA				3.657					NA	0.002	0.001	NA
Trench 16	Drilling Shop Grate	5	Soil	NA				15.72					NA	0.003	0.001	NA
Trench 16	Drilling Shop Grate	7	Soil	120				2.215					0.045	ND	ND	12
Machine Shop	Outside NW Corner	0	Soil	140000				0.084					2.9	ND	ND	**4,660**
Drill Shop	Shop Sump	0	"Sludge"	130000				71.7					ND	ND	ND	**2,410**
MW01	W. of Outside Grate	1	Soil	23000				3.625					**21**	**0.082**	**0.87**	227
MW02	W. of Outside Grate	5	Soil	NA				0.871					NA	ND	**0.044**	NA
MW04	S. OP	2	Soil	NA				0.354					NA	ND	ND	NA
S&W 1992 ESI Report																
SS-1	W. of Outside Grate	0	Soil	64,300					ND	0.180	ND	0.152	**2.15**	ND	**0.038**	**820**
SS-2	W. Side of CP	0	Soil	2,280					ND	0.071	ND	0.024	**2.01**	ND	ND	160
SS-3	S.E. of Outside Grate	0	Soil	128,000					ND	0.025	ND	0.221	ND	ND	ND	**1276**
B6-S1	S. OP	1	Soil	10,800					ND	0.035	ND	0.088	NA	ND	ND	79
PS1	E. Side of OP	?	Soil	967					ND	ND	ND	ND	1	ND	ND	37
PS2	W. Side of OP	?	Soil	903					ND	ND	ND	ND	0.28	ND	ND	**800**
ALTA 2010 SI Report																
09TP-01	Inside SE OP	10	Soil		ND	90.7	655		ND	ND	ND	ND	ND	ND	ND	86.2
09TP-02	Inside NW OP	12	Soil		ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	6.64
09TP-03	Inside NE OP	10	Soil		323J	**9650**	7630		ND	ND	0.216	0.582	ND	ND	ND	95.5
09TP-05	Inside SE CP	8	Soil		41.4J	**1240**	2620		ND	ND	0.054	0.42	0.154	ND	ND	26.1
09TP-06-6	Inside CP center	6	Soil		39.6J	177	1020		ND	ND	ND	0.135J	ND	ND	ND	9.22
09TP-06-9	Inside CP center	9	Soil		5.06	98.2	416		0.0145J	ND	0.0153J	ND	ND	ND	ND	8.96
Grate 1	SW of grate	2	Soil		NA	NA	NA		NA	NA	NA	NA	0.553	NA	NA	NA
Grate 2	NE of grate	2	Soil		NA	NA	NA		NA	NA	NA	NA	ND	NA	NA	NA

Notes: ENSR Sample Trench 2 taken at discharge point of pipe from shop grate
CP = Covered Pit; OP = Open Pit
ND = Analyte not detected in sample
NA = Not Analyzed
J= Estimated value

at discharge of pipe from shop grate

Table 2 - Summary of soil analytical data by area (ppm or mg/kg)

SAMPLE LOCATION	SAMPLE POSITION	DEPTH (feet)	SAMPLE MEDIA	Petroleum Hydrocarbons TOTAL	GRO	DRO	RRO	BTEX TOTAL	Benzene	Toluene	Ethylbenzene	Xylenes	PCBS	TCE	PCE	LEAD	SOURCE REPORT
Soils Cleanup Levels (ADEC Method 2)					300	250	11000		0.025	6.5	6.9	63	1	0.027	0.03	400	
COVERED PIT																	
Trench 2	SW edge of CP	?		138000				370					**33**				ENSR Phase II Report
Trench 9	NE edge of CP	?		2740				ND									ENSR Phase II Report
Trench 13	Inside SW CP	5	Soil	8800				0.01					0.6	ND	0.018	287	HLA 1990 SI Report
Trench 15	Inside SW CP	4	"Sludge"	260000				25.17					**13**	**0.88**	**0.32**	**872**	HLA 1990 SI Report
Trench 15	Inside SW CP	5	Soil	71000				38.38					**2.5**	**0.37**	**0.66**	306	HLA 1990 SI Report
Trench 15	Inside SW CP	11	Soil	2700				5.597					0.33	ND	ND	**1,250**	HLA 1990 SI Report
SS-2	W. Side of CP	0	Soil	2,280					ND	0.071	ND	0.024	**2.01**	ND	ND	160	S&W 1992 ESI Report
09TP-05	Inside SE CP	8	Soil		41.4J	**1240**	2620		ND	ND	0.054	0.42	**0.154**	ND	ND	26.1	ALTA 2010 SI Report
09TP-06-6	Inside CP center	6	Soil		39.6J	177	1020		ND	ND	ND	0.135J	ND	ND	ND	9.22	ALTA 2010 SI Report
09TP-06-9	Inside CP center	9	Soil		5.06	98.2	416		0.0145J	ND	0.0153J	ND	ND	ND	ND	8.96	ALTA 2010 SI Report
OPEN PIT																	
MW04	S. OP	2	Soil	NA				0.354					NA	ND	ND	NA	HLA 1990 SI Report
B6-S1	S. OP	1	Soil	10,800					ND	0.035	ND	0.088	NA	ND	ND	79	S&W 1992 ESI Report
PS1	E. Side of OP	?	Soil	967					ND	ND	ND	ND	0.86	ND	ND	37	S&W 1992 ESI Report
PS2	W. Side of OP	?	Soil	903					ND	ND	ND	ND	0.28	ND	ND	**800**	S&W 1992 ESI Report
09TP-01	Inside SE OP	10	Soil		ND	90.7	655		ND	ND	ND	ND	ND	ND	ND	86.2	ALTA 2010 SI Report
09TP-02	Inside NW OP	12	Soil		ND	ND	ND		ND	ND	ND	ND	ND	ND	ND	6.64	ALTA 2010 SI Report
09TP-03	Inside NE OP	10	Soil		**323J**	**9650**	7630		ND	ND	0.216	0.582	ND	ND	ND	95.5	ALTA 2010 SI Report
GRATE/SUMP																	
Trench 16	Drilling Shop Grate	0	Soil	86000				179.8					**2.36**	ND	ND	**1,190**	HLA 1990 SI Report
Trench 16	Drilling Shop Grate	2	Soil	NA				3.657					NA	0.002	0.001	NA	HLA 1990 SI Report
Trench 16	Drilling Shop Grate	5	Soil	NA				15.72					NA	0.003	0.001	NA	HLA 1990 SI Report
Trench 16	Drilling Shop Grate	7	Soil	120				2.215					0.045	ND	ND	12	HLA 1990 SI Report
Machine Shop	Outside NW Corner	0	Soil	140000				0.084					2.9	ND	ND	**4,660**	HLA 1990 SI Report
Drill Shop	Shop Sump	0	"Sludge"	130000				71.7					ND	ND	ND	**2,410**	HLA 1990 SI Report
MW01	W. of Outside Grate	1	Soil	23000				3.625					**21**	**0.082**	**0.87**	227	HLA 1990 SI Report
MW02	W. of Outside Grate	5	Soil	NA				0.871					NA	ND	**0.044**	NA	HLA 1990 SI Report
SS-1	W. of Outside Grate	0	Soil	64,300					ND	0.180	ND	0.152	**2.15**	ND	**0.038**	**820**	S&W 1992 ESI Report
SS-3	S.E. of Outside Grate	0	Soil	128,000					ND	0.025	ND	0.221	ND	ND	ND	**1276**	S&W 1992 ESI Report
Grate 1	SW of grate	2	Soil		NA	NA	NA		NA	NA	NA	NA	0.553	NA	NA	NA	ALTA 2010 SI Report
Grate 2	NE of grate	2	Soil		NA	NA	NA		NA	NA	NA	NA	ND	NA	NA	NA	ALTA 2010 SI Report

Notes: CP = Covered Pit; OP = Open Pit
ND = Analyte not detected in sample
NA = Not Analyzed
J= Estimated value