STATE OF ALASKA

SEAN PARNELL, GOVERNOR

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

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File: 1525.38.024

February 29, 2012

Ms Lynnette Campbell
Division of Airport Leasing
Alaska Department of Transportation & Public Facilities
P.O. Box 112506
Juneau, Alaska USA 99811-2506

Re: Decision Document: ADOT&PF Sitka Airport S&C Building -- Cleanup Complete

Dear Ms Campbell,

The Alaska Department of Environmental Conservation, Contaminated Sites Program (DEC) has completed a review of the environmental records associated with the ADOT&PF Sand and Chemical (S&C) Building contaminated site at the Sitka Rocky Gutierrez Airport. Based on the information provided to date, the DEC has determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment. No future remedial action is required.

This decision for the ADOT&PF Sitka Airport S&C Building site is based on the administrative record which is located in the DEC offices in Juneau, Alaska. The following summarizes the decision process used to determine the environmental status of this site and provides a summary of the regulatory issues considered in the Cleanup Complete determination.

Site Name and Location:
ADOT&PF
Sitka Airport S&C Building
605 Airport Road
Sitka, Alaska 99501
Lot 1, Block 400
Sitka Rocky Gutierrez Airport

Name and Mailing Address of Contact Party:
Ms. Lynnette Campbell
Alaska Department of Transportation & Public Facilities Airport Leasing Division
P.O. Box 112506
Juneau, Alaska USA 99811-2506

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Ms. Lynnette Campbell
ADOT&PF Aviation Leasing Division

February 29, 2012

Database Record Key and File Number:
DEC Reckey: 2002120115401
File: 1525.38.024
Hazard ID: 3867

Regulatory authority for this cleanup:
18 AAC 75

Background

The contaminated site is Lot 1, Block 400, Sitka Airport, owned by the State of Alaska and managed by the Alaska Department of Transportation and Public Facilities (ADOT&PF). The site is located at the aircraft-parking apron on the northern end of Sitka International Airport. The property has a history of aviation operator lessees, most recently Mountain Aviation, a fixed wing airplane and helicopter charter business. Aviation, gasoline and diesel fuels were stored and handled as part of business operations using two underground storage tanks until 1992 and from mobile trucks until 1995.

The contaminated site is bordered to the north by vehicular approach from Airport Way; to the east by the ADOT&PF Sitka Airport Maintenance Shop; to the south by an aircraft runway apron; and to the west by a utility corridor separating the site property from the aircraft runway apron leading to the United States Coast Guard (USCG) Sitka Air Station hanger facility. The USCG aircraft hanger facility was formerly occupied by the US Navy and is a contaminated site listed on the department database. The utility corridor diverts storm water from each aircraft apron to the south, terminating at the ocean shoreline. A rip-rap rock retaining wall extends down the middle of the corridor just east of the course taken by the storm water runoff.

In accordance with each requirement in Title 18 Alaska Administrative Code (AAC) 75.350, DEC determined that groundwater at each of the Sitka Naval Operations Base former military-use properties on Japonski Island are not a current or future drinking water source and does not contribute to a current or future drinking water source area. The determination resulted in a restriction against installing water wells on any of the former military properties to access groundwater that may have contamination in concentration to present an exposure risk to human health or the environment. This determination includes the ADOT&PF Sitka Rocky Gutierrez Airport properties.

Although no potable water wells are identified at the ADOT&PF Sitka Airport S&C Building site or elsewhere in the airport, the ADOT&PF agreed in 2002 to apply the 18 AAC 75.350 ruling to properties owned by the State of Alaska under ADOT&PF management at the Sitka Rocky Gutierrez Airport. Potable water and sewer on the property is supplied by Sitka Public Works and no water wells or septic tank drain-fields are identified in the area. Other than storm water ditches between properties, marine waters are the surface water body closest to the site.

Historical Site Characterization and Cleanup Activity

Between 1995 and 1999, former property lease holder Mountain Aviation (MA) made arrangements with the consulting firm Smith Bayliss LeResche (SBL) to perform site characterization activities that included sampling for potential petroleum contamination of subsurface soil. The source areas investigated by SBL included regulated underground storage tanks (USTs) east of the hanger, a heating oil tank west of the hanger, and a mobile fuel truck parking area in the utility corridor where a fuel truck reportedly rolled on its side releasing aviation gasoline. Subsurface soil sampling conducted by SBL revealed elevated levels for petroleum compounds; however the DEC UST Program concluded that the contamination at the former UST site was unrelated to fuel stored in the former USTs and issued a corrective action complete determination to MA. Site activities resumed when MA made arrangement to have the consulting firm Carson Dorn Inc (CDI) perform contamination cleanup operations starting in October 1999 and ending in 2001.

Soil

During the late-1990's investigation conducted by SBL, subsurface soil samples were analyzed for benzene, ethylbenzene, toluene, total xylenes (BTEX); gasoline (GRO), diesel (DRO), and total petroleum (TPH) range petroleum hydrocarbons; and Resource Conservation and Recovery Act (RCRA) total metals silver, arsenic, barium, cadmium, chromium, mercury, lead and selenium. Total metals concentrations in soil were typical for the area and were eliminated from concern. Total BTEX volatile petroleum compounds were detected at elevated levels-- the highest at 16.7 mg/kg. GRO, DRO and TPH range hydrocarbons were also found above applicable criteria, with the highest concentrations reported at 7,500 mg/kg, 5,600 mg/kg and 11,000 mg/kg, respectively. The TPH (residual range hydrocarbons (RRO)) result was apparently due to drum storage at the surface near the UST site.

During the 1999 site work by CDI, the firm investigated subsurface soil for petroleum and conducted an interim removal of contaminated material in three main source areas both on and off the property, as previously identified by SBL. The sites included the fuel drum storage area on the east side of the hanger, the heating oil tank site on the west side of the hanger, and the mobile truck parking area located in the offsite storm water drainage utility corridor between a retaining wall and the aircraft apron on the west side of the property. Excavation of the contaminated soil from the various sites produced a volume of 320 cubic yards which was transported by barge to United Soil Recycling in Juneau where it was thermally remediated.

The excavation of contaminated soil was halted at the hanger foundation and the concrete pad to protect those structures and was halted at the mobile truck parking area in the storm water drainage corridor to avoid a subsurface electrical

conduit under the edge of the aircraft apron. Since access to this pocket of contamination would require turning off electrical power to the entire airport, DEC approved leaving the residual contaminated soil in place. The volume of contaminated soil left along the conduit was estimated to be limited to 4 to 5 cubic yards. Confirmatory sampling from this area reported a GRO concentration of 1,200 mg/kg and a DRO concentration of 3,100 mg/kg. After the 1999 excavations, residual soil contamination remained under the hanger's foundation on the east and west sides and beneath the aircraft apron south of the hanger.

In the fall of 2000, MA demolished the hanger and the concrete pad and relocated the security fence in the storm water drainage corridor between the USCG and ADOT&PF properties to allow access to any remaining contaminated material associated with the mobile truck parking site. Site investigation trenching identified a layer of petroleum contaminated soil between three and seven foot below ground surface in the storm water drainage corridor and in two locations beneath the hanger foundation. In the spring of 2001, a volume of 310 cubic yards of contaminated soil was excavated and transported for remedial treatment at the Rabanco Regional Landfill in Washington. Soil confirmation samples collected from the excavation were analyzed for GRO, DRO and RRO range hydrocarbons, volatile organic compounds (VOCs) including BTEX and the RCRA eight total metals. The highest concentration in soil for each analyte in this excavation is displayed in the following table.

Hydrocarbon range and/or compound of concern	Greatest concentration in soil milligram per kilogram (mg/kg)	Cleanup Level Method Two Migration to Groundwater mg/kg
GRO	< 2.9	260
DRO	120	230
RRO	380	9700
Benzene	0.023	0.025
Toluene	0.029	6.5
Ethylbenzene	<0.089	36.9
Total Xylenes	0.086	69
Total chromium	37	23
Total arsenic	30	1.8

In the site characterization, CDI recognized the concentrations of total arsenic in confirmation samples of remaining soil at the site were typical for soil in the area and the total chromium concentration in one confirmation sample was a de minimis quantity not representing an unacceptable risk to receptors at the site. The petroleum analytes were each in concentrations below the respective soil cleanup levels in 18 AAC 75.341 Table B1 and B2.

Groundwater
At the close of the fall of 1999 soil removal activities, a monitoring well was installed along the west perimeter of the excavation at the mobile fuel truck parking site directly opposite the buried electrical utility line. Recognizing the effect of nearby ocean tides, the well was screened across a wide interval to account for the higher than normal fluctuating water table. In March 2001, water samples were collected and analyzed for hydrocarbon ranges GRO, DRO, and RRO, BTEX compounds and polycyclic aromatic hydrocarbon compounds (PAHs). The detectable petroleum concentrations that exceeded Table C groundwater cleanup levels are shown in the following table. BTEX and PAHs concentrations were all below instrument reporting limits.

Hydrocarbon range above instrument reporting limits	Greatest mg/L concentration in groundwater	18 AAC 75.345 Table C groundwater cleanup levels
DRO	1.6	1.5
RRO	1.2	1.1

The samples from well MW-1 analyzed later the same year, had greatly reduced hydrocarbon range concentrations; GRO was below instrument detection and concentrations of DRO were 0.26 mg/L. BTEX and PAH compounds were each below instrument detection that were below the respective groundwater cleanup levels listed in 18 AAC 75.345 Table C.

Surface Water
On the west side of the retaining wall in the storm water drainage corridor was a channel of surface water periodically flowing to the south in the direction of the aircraft runway and marine waters. The results of water sample analysis of the intermittent channel were below 18 AAC 70 regulatory action levels for total aromatic hydrocarbon and total aqueous hydrocarbon concentrations.

Soil and groundwater characterization at the site verified that exposure pathways from soil to ground and surface water were incomplete for the remaining soil contamination left under the electrical conduit located in the offsite storm water drainage corridor. Based on this and the extent of the contaminated soil removal and completion of offsite remedial treatment, DEC issued a No Further Remedial Action Planned determination to MA in June, 2002.

Additional Characterization and Cleanup Activities
In June of 2002, ADOT&PF began new construction on the property to warehouse sand and chemicals for aircraft runway maintenance. The relocation of a subsurface water supply line across the property required digging new trenches. By the time the depth of excavation approached bedrock, the operator observed a

layer of stained soil in the bottom of the trench. The construction contractor notified the DEC which in turn asked that they make arrangements for an environmental contractor to submit a work plan for approval before proceeding with additional excavation. D.G. Jones/Associates submitted a plan to begin field screening contaminated soil from clean soil in the trenches and for temporarily storing it between liners on-site.

In the work plan review and approval process, DEC requested that the weathered petroleum contaminated soil be transported to a secure but vacant ADOT&PF property on Charcoal Island adjacent to the southeast end of the aircraft runway. A bioremediation treatment option requiring periodic fertilizing and tilling of the contaminated soil to promote attenuation of the weathered petroleum was adopted into the D.G. Jones/Associates work plan and was then approved by DEC.

In July of 2002, D.G. Jones/Associates resumed cleanup work in the trenches. The excavation was advanced to bedrock, with depth averaging seven feet below the surface. The extent of the contamination was completely removed to the on-site lined contaminated soil stockpile. Field screening segregated an estimated volume of 480 cubic yards of petroleum contaminated soil from the clean soil which was returned to the bedding of the old waterline and the trench for the new water line.

Thirteen confirmation soil samples were collected from the completed excavation prior to backfilling. The samples were analyzed for GRO, DRO and RRO and BTEX. All the results were below the most conservative migration to groundwater soil cleanup levels in 18 AAC 75.341 Tables B1 and B2. The highest concentrations detected are reported in the table below. Groundwater was not encountered and was not investigated since all contaminated soil was removed down to bedrock.

Hydrocarbons above or at instrument reporting limit	Greatest Concentration in soil milligrams per kilogram (mg/kg)	Cleanup Level Method Two Migration to Groundwater (mg/kg)
DRO	99.2	230
RRO	203	9700
GRO	<5.0	260
benzene	<0.02	0.025

After screening out >2" material, the final volume in the bioremediation stockpile on Charcoal Island was estimated by D.G. Jones at 200 cubic yards. Stockpile characterization sample results showed a DRO concentration of 3,460 mg/kg and a GRO concentration of 396 mg/kg.

In fall 2006, DEC provided approval for ADOT&PF engineering staff to use the treated stockpile soil as sub-base in an airport construction project. In 2007, the DEC term contractor SLR visited the site and confirmed that the stockpile footprint

was thoroughly vegetated and DEC waived collecting samples for residual contamination of native soil.

Contaminants of Concern (soil)

- Benzene
- DRO
- GRO
- RRO

Cleanup Levels

The soil cleanup levels for this site are established in 18 AAC 75.341, Method Two, Tables B1 and B2 Over 40-inch Zone, Migration to Groundwater.

Contaminant	Migration to Groundwater (mg/kg)	Direct Contact/ Ingestion (mg/kg)	Outdoor Inhalation (mg/kg)
Benzene	0.025	120	8.5
Toluene	6.5	6,600	220
Ethylbenzene	6.9	8,300	81
Xylenes (total)	63	16,600	63
GRO	260	1,400	1,400
DRO	230	8,250	12,500
RRO	9700	8,300	22,000

The groundwater cleanup levels for this site are established in 18 AAC 75.345 Table C

Contaminant	Site Cleanup Level (mg/L)
Benzene	0.005
Toluene	1.0
Ethylbenzene	0.7
Xylenes (total)	10
GRO	1.3
DRO	1.5
RRO	1.1

Pathway Evaluation

In evaluating pathways at this facility the following area-wide factors were considered:

- The current and future land use at the ADOTPF Sitka Airport Maintenance Station and other airport facilities is industrial. As a result, potential receptors are commercial or industrial workers, site visitors, and construction workers.

- Potable water and sewer at the ADOTPF Sitka Airport Maintenance Station and other airport facilities is supplied by the City and Borough of Sitka Public Works and no water wells are identified in the area.

- An area-wide 350 determination restricting installation of water wells, including the Sitka Rocky Gutierrez Airport where the Maintenance Station is located, has been agreed upon by State-owned property managers (including ADOT&PF) on Japonski Island, the City and Borough of Sitka, and the general public.

Elevated levels of contamination are present in an isolated area along an electrical conduit serving the airport facility. Following investigation and cleanup at the site, exposure to the remaining contaminants was evaluated using DEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure or Pathway Incomplete. A summary of this pathway evaluation is included in Table 1 as Attachment A to this document.

DEC Decision

The DEC has determined there is no unacceptable risk to human health or the environment, and this site will be granted a Cleanup Complete determination subject to the following:

1. As stated in a letter dated February 20, 2002 (Attachment B), ADOT&PF will establish a deed restriction for the Sitka Rocky Gutierrez Airport property including the leased parcels therein. This restriction is necessary to establish in the property record that groundwater throughout Japonski Island has been approved for alternative cleanup levels based on DEC's determination under 18 AAC.350 that the groundwater is not a potential current or future drinking water source. The restriction will document ADOT&PF's responsibility for prohibiting the installation of any drinking water wells throughout the airport property.

2. The monitoring well currently installed at the property must be decommissioned in accordance with DEC guidance when it is no longer needed.

3. Any proposal to transport, store or dispose of soil or groundwater off site requires DEC approval in accordance with 18 AAC 75.325(i). A "site" [as defined by 18 AAC 75.990(115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership (i.e. the storm water drainage corridor).

4. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited.

The DEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above. This determination is in accordance with 18 AAC 75.380(d) and does not preclude DEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Appeal
Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 -18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

Please provide documentation to DEC within 30 days of receipt of this letter that a deed restriction has been established for the Sitka Rocky Gutierrez Airport.

If you have questions about this closure decision, please contact the DEC project manager, Bruce Wanstall at (907) 465-5210 or by electronic mail at bruce.wanstall@alaska.gov.

Approved By,

Sally Schlichting
Environmental Manager

Recommended By,

Bruce Wanstall
Environmental Program Specialist

Attachments:
A - Table I – Exposure Pathway Evaluation
B - ADOT&PF letter February 20, 2002
C – Site Figure

Attachment A: Table 1 – Exposure Pathway Evaluation

Pathway	Result	Explanation
Surface Soil Contact	Pathway Incomplete	Surface soil contamination has not been identified and the surface is paved with asphalt.
Sub-Surface Soil Contact	De-minimis exposure	Contamination remains in the subsurface, but is below migration to groundwater levels.
Inhalation – Outdoor Air	Pathway Incomplete	Volatile compound concentrations in any remaining contamination are below migration to groundwater cleanup levels.
Inhalation – Indoor Air (vapor intrusion)	Pathway Incomplete	There are buildings at the site and any remaining volatile hydrocarbon compound contamination is below migration to groundwater cleanup levels.
Groundwater Ingestion	Pathway Incomplete	A 350 determination by the DEC is in effect for Japonski Island properties. Groundwater, if present, is not a current or future potable drinking water source at the site. The area is currently served by the Sitka Public Water System.
Surface Water Ingestion	Pathway Incomplete	There is no potable surface water body located within ¼ mile of the site.
Wild Foods Ingestion	Pathway Incomplete	Wild foods harvest areas are not present within the restricted airport properties.
Exposure to Ecological Receptors	Pathway Incomplete	Ecological receptor pathways are not present within the restricted airport properties.

Notes to Table 1: "De-minimis exposure" means that in DEC's judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. "Pathway incomplete" means that in DEC's judgment contamination has no potential to contact receptors. "Exposure controlled" means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

Attachment B: Sitka Rocky Gutierrez Airport –Groundwater Contamination, ADOT&PF letter February 20, 2002

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STATEWIDE DESIGN & ENGINEERING SERVICES DIVISION
PRELIMINARY DESIGN & ENVIRONMENTAL

TONY KNOWLES, GOVERNOR

6860 GLACIER HIGHWAY
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February 20, 2002

Re: Sitka Airport Ground Water Contamination

Anne Marie Palmieri
Department of Environmental Conservation
Contaminated Sites Remediation Program
Post Office Box 1542
Haines, Alaska 99827

Dear Ms. Palmieri:

This is in response to your request that the Department of Transportation & Public Facilities (DOT&PF) consider agreeing to a deed restriction for future development on the Sitka Airport, owned by the State of Alaska and operated by DOT&PF. The deed restriction would prohibit the development of drinking water wells on Sitka Airport property.

Following consultation with staff in our Environmental and Right of Way sections, I have determined that such a deed restriction would be in the best interest of the state and would not have an adverse impact on the future operation of the airport. The department's Right of Way section will prepare a conforming deed restriction and have the document recorded when you inform us the cleanup has been completed.

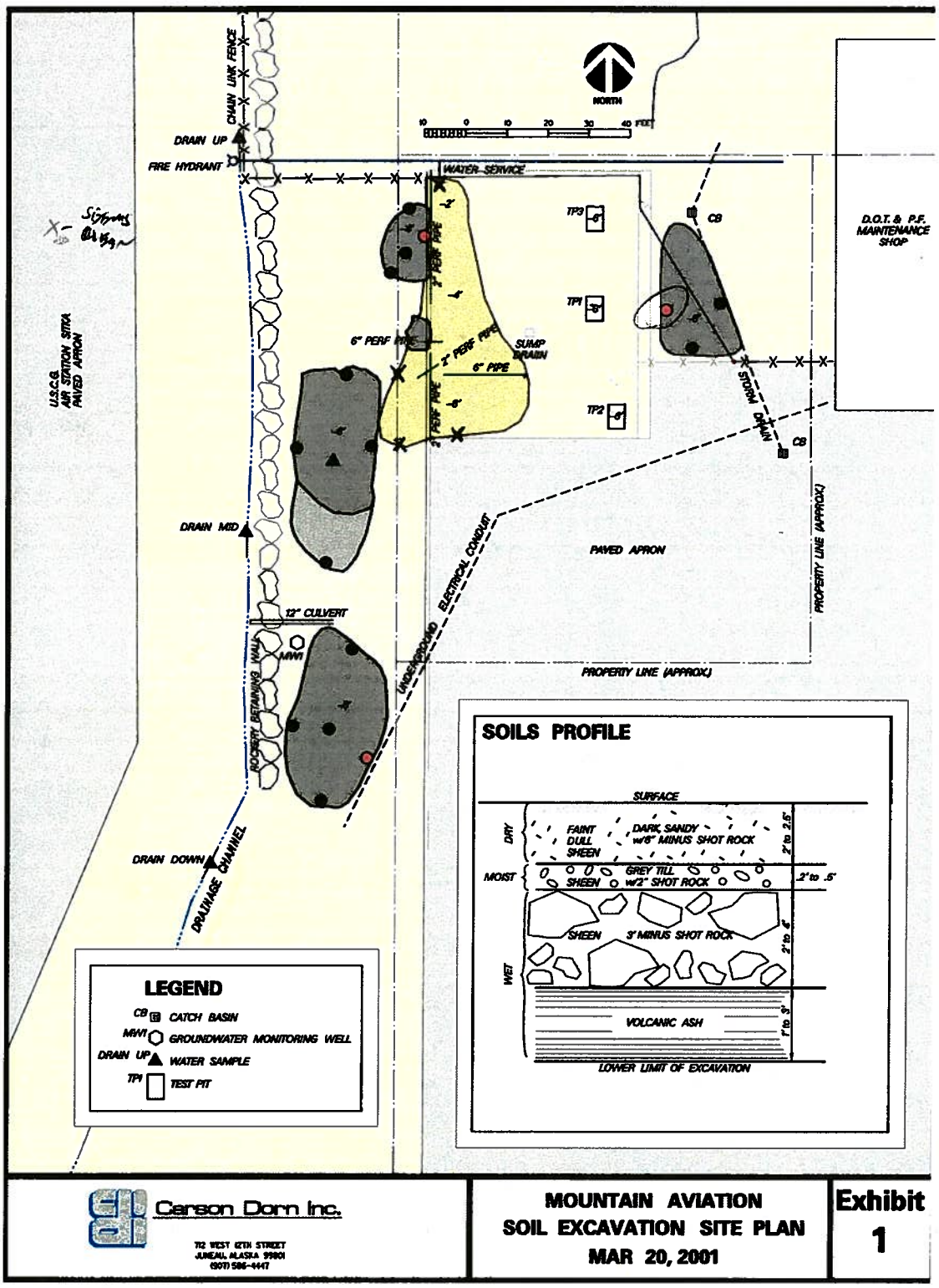
If you have any questions, please contact Reuben Yost, our Regional Environmental Coordinator, at 465-4498.

Sincerely,

Gary Hayden
Director, Southeast Region Construction and M&O

cc: Frank Mielke, DOT&PF Right of Way Chief
Reuben Yost, DOT&PF Regional Environmental Coordinator

Attachment C - Site figure of site investigation excavations



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