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Request for No Further Remedial Action Planned

Site: Former Power Plant (FPP), also known as Two Party Agreement (TPA) Site 9b and National Oceanic and Atmospheric Administration (NOAA) Site 17.

Location: The FPP site is situated on the northeastern slope of Village Hill on the southerly side of the intersection of Tolstoi Boulevard and Short Road. The site is approximately 50 feet north of the Pribilof Islands School Administrative Offices (Figure 1).

Legal Property Description: The Former Power Plant site is located on Lots 1& 2, Block 1, U.S. Survey No. 4943, Alaska Tract "A", St. Paul Townsite, accepted by the Bureau of Land Management August 2, 1968 (Figure 2). The property is currently owned by the St. Paul Tribal Government.

Type of Release: Diesel range organics (DRO), residual range organics (RRO), and oily sludge

History and Background:
The FPP served as an electrical power generating facility for the village of St. Paul between 1940 and 1960, after which time it was decommissioned. The structure burned subsequent to decommissioning.

A 1948 Department of the Interior aerial village photograph depicts nine 1,000-gallon and one approximately 2,500-gallon aboveground storage tanks (ASTs) at the site (Department of the Interior 1951). These tanks were located within 10 feet west of the FPP building (Figure 3). It is not known when these tanks were decommissioned; however, previous investigations verified that residual contamination from the tanks existed at the site.

The Tribal Government on St. Paul Island constructed a U.S. Post Office on the site in 1972. An underground storage tank (UST) was installed at the south end of the building to store heating fuel. In 1997, the post office was moved to a new location causing the building to remain unoccupied for four years until the Tribal Government converted the building into a café and delicatessen named Duna's Kitchen. Duna's moved to a new location in 2004, and the building is currently unoccupied.

Summary of Site Investigations:
Ecology & Environment, Inc. (E&E) performed a site reconnaissance at the FPP site in 1992. Site reconnaissance activities did not identify this site as one of concern (E&E 1993).

Hart Crowser Inc. conducted an expanded site investigation in 1996. DRO were detected in surface samples at concentrations up to 3,900 milligrams per kilogram (mg/kg). DRO were encountered in subsurface samples at concentrations up to 4,100 mg/kg, and RRO were detected at concentrations up to 3,100 mg/kg. Evidence of pooled petroleum product was encountered at the soil basalt interface, approximately 3 feet below ground surface (bgs). Gasoline-range organics (GRO), benzene, toluene, ethylbenzene and xylenes (BTEX), heavy

metals, and polychlorinated biphenyls (PCBs) were analyzed for, but not detected at the site. Findings of this investigation resulted in a recommendation to excavate an estimated 260 cubic yards (yd^3) of contaminated soils beneath the former AST storage site (Hart Crowser Inc. 1997).

Columbia Environmental Sciences, Inc. (CESI) collected additional soil samples during site activities conducted in 2000 and 2001. These samples further verified the presence of DRO soil contamination beneath the former AST storage area. CESI recommended treating the contaminated soils in place (CESI 2001).

NOAA contractors conducted quarterly groundwater monitoring from September 2000 to September 2001 and from October 2003 to July 2004 in the vicinity of the FPP (Figure 4). During 2000-2001 sampling events, DRO was detected in MWA-3, an on-site well, at a concentration of 17,000 ug/L, exceeding the Alaska Department of Environmental Conservation (ADEC) Table C cleanup criterion of 1,500 ug/L (IT Alaska Corp. 2002). DRO was also detected below its cleanup criterion in two nearby wells, MW46-3 and MWA-2. During the first three quarters of 2003-2004 sampling, DRO was again detected above its Table C cleanup level in MWA-3, with a maximum concentration of 13,000 ug/L. MW46-3 and MWA-2 contained DRO below its cleanup criterion. A full report on 2003-2004 sampling events will be available late in 2004.

Mitretek Systems (2002) evaluated the 2000-2001 groundwater data for the St. Paul Village area, which includes the FPP. The Mitretek report demonstrated that groundwater in the vicinity of St. Paul Village has high total dissolved solids and can be brackish. Consequently, the groundwater in the area is not suitable for drinking water. The evaluation, in part, provided a rationale for using alternative groundwater cleanup levels that are protective of human health and the environment where the groundwater is not potable. Mitretek concluded in accordance with 18 AAC 75.350 (ADEC 2003) that groundwater in the Village area is not currently used and does not afford any potential future use as a drinking water source. These findings provided the basis for the application of the Ten Times Rule discussed below.

Summary of Applied Cleanup Levels:
NOAA employed ADEC Method Two cleanup criteria, discussed at 18 AAC 75.341(c) (ADEC 2003). Alternative cleanup levels were also applied for some compounds. For benzene, under the TPA, NOAA had the option to cleanup to the less stringent State of Alaska cleanup level in effect in 1991 (ADEC 1991). Additionally, NOAA proposed and ADEC approved the use of alternative cleanup levels under 18 AAC 75.345 and 18 AAC 75.350, commonly referred to as the Ten Times Rule (ADEC 2002, Mitretek Systems 2002). According to these regulations, if groundwater beneath a site contains contaminant concentrations above the cleanup levels provided in ADEC Table C, then the soil may be remediated to levels ten times higher than those provided in Method Two Tables B1 and B2 for the migration to groundwater pathway for those contaminants found in groundwater at concentrations above the cleanup levels provided in ADEC Table C; however, if the inhalation or ingestion pathway values are more stringent than the migration to groundwater

pathway, then the more stringent value is to be applied. ADEC uses 15 feet bgs to define subsurface soil to which residents will have a reasonable potential to be exposed through the inhalation or ingestion pathways (ADEC 2003; 18 AAC 75.340 (j)(2)). Therefore, NOAA is not obligated to excavate contaminated soil occurring at depths deeper than 15 feet to address the inhalation and ingestion pathways. Cleanup criteria were applied to the maximum extent practicable (18 AAC 75.325 (f), 18 AAC 75.990).

Summary of Clean up Actions:
Bering Sea Eccotech (BSE) initiated cleanup actions at the FPP on July 18, 2002 (NOAA 2003, Figure 5). Contaminated soils were excavated and removed from the site following the direction of a field engineer (Figures 6 and 7). The soils were loaded directly into trucks and transported to the petroleum-contaminated soil (PCS) stockpile at the St. Paul Blubber Dump Site pending treatment by NOAA's on-site enhanced thermal conduction (ETC) system (BSE 2003).

During the excavation, a concrete structure containing a chase and sump was uncovered (Figure 8). It contained a significant amount of sludge and oily debris. At the direction of the field engineer, sludge from the concrete chase and sump were removed and placed in 55-gallon drums for characterization and disposal.

A total of 420 yd^3 of soil was removed from the FPP site. After excavation activities were completed, confirmation soil samples were collected and analyzed for the petroleum-related compounds identified in the project corrective action plan (NOAA 2002; Figure 3). The site was backfilled with clean soil and restored to grade, and large boulders were placed against the slope to prevent erosion (Figure 9).

Confirmation sample results verified the removal of all soil contamination to alternative cleanup levels or better with the exception of one area (Table 1, Figure 3). Sample SNP9BSS24-010, collected below a concrete slab north of Duna's Kitchen, contained 2,690 mg/kg DRO, exceeding the alternative cleanup level of 2,500 mg/kg. DRO contamination above the more stringent Method Two criterion of 250 mg/kg remains in several locations including at refusal, below the steep slope supporting Short Street, and under portions of the former Post Office building. Therefore, soils were removed from this location to the maximum extent practical. All other target analytes were detected below cleanup levels established for this site.

Recommend Action:
In accordance with paragraph 59 of the Two Party Agreement (NOAA 1996), NOAA requests written confirmation that NOAA completed all corrective action at the Former Power Plant, TPA Site 9b/Site 17 in accordance with the Agreement and that ADEC requires no further remedial action plan from NOAA.

References:
Alaska Department of Environmental Conservation (ADEC). 1991. *Interim Guidance for Non-UST Contaminated Soil Cleanup Levels, Contaminated Sites Program.* July 17, 1991.

ADEC. 2003. Title 18 of the *Alaska Administrative Code* 75, Articles 3 and 9. *Oil and Hazardous Substances Pollution Control Regulations.* State of Alaska. Amended through October 28, 2000.

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Bering Sea Eccotech. 2003. *Enhanced Thermal Conduction Yearly Report, St. Paul Island, Initial Draft.* Bering Sea Eccotech. February 2003.

Columbia Environmental Sciences, Inc. 2001. *Draft Site Characterization Report, Tract 46 and Vicinity (TPA Site 9), St. Paul Island, Alaska.* Version 2.1 December 16, 2001. Columbia Environmental Sciences, Inc. Kennewick, WA.

Department of the Interior. 1951. Map of St. Paul Village, St. Paul Island Reservation. New Water Distribution System, New Sewage Disposal System. U.S. Department of the Interior, Fish and Wildlife Service Branch of Alaska Fisheries. Scale 1 inch = 50 ft. Ronald W. Bishop Civil Engineer. April 1951.

Ecology and Environment, Inc. 1993. *Preliminary Assessment of National Oceanic and Atmospheric Administration Sites, Pribilof Islands, Alaska.* Contract No. DACA85-91-D-0003, Delivery Order No. 0027. Prepared by Ecology & Environment for Alaska District U.S. Army Corps of Engineers, February 1993.

Hart Crowser Inc. 1997. *Expanded Site Inspection of St. Paul Island, Pribilof Islands, Alaska.* January.

IT Alaska Corporation. 2002. *Draft Annual Groundwater Monitoring Report 2001, St. Paul Island, Alaska.* March.

Mitretek Systems. 2002. *Groundwater Use and Classification in the Vicinity of Tract 46, St. Paul Island, Pribilof Islands, Alaska.* Prepared by Mitretek Systems, for the National Oceanic and Atmospheric Administration. June 5.

National Oceanic and Atmospheric Administration (NOAA). 1996. *Pribilof Islands Environmental Restoration Two-Party Agreement*, Attorney General's Office File No. 66 1-95-0126. National Oceanic and Atmospheric Administration. January 26, 1996.

NOAA. 2002. *Corrective Action Plan, St. Paul Island, Alaska, TPA Site 9-B – Former Power Plant.* NOAA Pribilof Project Office, July 2002

NOAA. 2004. *Corrective Action Report, St. Paul Island Alaska, TPA Site 9-B –Former Power Plant.* NOAA Pribilof Project Office, Bering Sea Eccotech. February 5, 2004.

For the National Oceanic and Atmospheric Administration

John Lindsay
NOAA, Pribilof Project Office

9/30/09
Date

Approvals: In accordance with Paragraph 59 of the Two Party Agreement, this is to confirm that all corrective action has been completed at the Former Power Plant, TPA Site 9b/Site 17 in accordance with the Agreement and that no plan for further remedial action is required.

For the Alaska Department of Environmental Conservation

Louis Howard
Alaska Department of Environmental Conservation
Remedial Project Manager

10/11/09
Date

Tables and Figures

Table 1: Excavation Confirmation Sample Results (mg/kg) for the Former Power Plant, TPA 9b/Site 17

							BTEX						PAHs		
PSI Sample No.	Sample Location	Sample Depth (ft bgs)	Sample Type (PR/QC)	DRO [2500]	GRO [300]	RRO [10,000]	Benzene [0.02]	Toluene [5.4]	Ethylbenzene [5.5]	P&M-Xylene	o-Xylene	Total Xylenes [78]	Fluoranthene	Pyrene	PCB Reported
SNP9BSS01-120	Bottom NW Corner	12	PR	ND (126)	ND (3.44)	159	ND (0.0172)	ND (0.0689)	ND (0.0689)	ND (0.0689)	ND (0.0689)	ND	NA	NA	NA
SNP9BSS02-090	North Sidewall	9	PR	ND (24.6)	ND (4.57)	ND (24.6)	ND (0.0228)	ND (0.0914)	ND (0.0914)	ND (0.0914)	ND (0.0914)	ND	NA	NA	NA
SNP9BSS03-135	Bottom-North	13.5	PR	75.2	ND (4.63)	71	ND (0.0232)	ND (0.0927)	ND (0.0927)	ND (0.0927)	ND (0.0927)	ND	NA	NA	NA
SNP9BSS04-135	Duplicate of Sample -03	13.5	PR	38	ND (4.38)	38.1	ND (0.0241)	ND (0.0966)	ND (0.0966)	ND (0.0966)	ND (0.0966)	ND	NA	NA	NA
SNP9BSS05-085	Bottom -South (@ refusal due to large rocks)	8.5	PR	66.5	ND (5.25)	28.7	ND (0.0263)	ND (0.0105)	ND (0.0105)	ND (0.0105)	ND (0.0105)	ND	NA	NA	NA
SNP9BSS06-100	Bottom-Center (@refusal due to large rocks)	10	PR	2150	ND (4.12)	1680	ND (0.0206)	ND (0.0823)	ND (0.0823)	ND (0.0823)	ND (0.0823)	ND	NA	NA	NA
SNP9BSS07-090	W. Sidewall-South	9	PR	847	ND (3.88)	1290	ND (0.0194)	ND (0.0775)	ND (0.0755)	ND (0.0755)	ND (0.0775)	ND	NA	NA	NA
SNP9BSS08-050	W. Sidewall-North	5	PR	38.1	ND (4.94)	43.7	ND (0.0247)	ND (0.0988)	ND (0.0988)	ND (0.0988)	ND (0.0988)	ND	NA	NA	NA
SNP9BSS09-170	Bottom	16.5	PR	37.8	ND (5.69)	38.1	ND (0.0248)	ND (0.114)	ND (0.114)	ND (0.114)	ND (0.114)	ND	NA	NA	NA
SNP9BSS10-110	South wall	11	PR	103	ND (5.61)	36.4	ND (0.0281)	ND (0.112)	ND (0.112)	ND (0.112)	ND (0.112)	ND	NA	NA	NA
SNP9BSS11-130	East wall	13	PR	ND (25.5)	ND (4.63)	ND (25.5)	ND (0.232)	ND (0.0926)	ND (0.0926)	ND (0.0926)	ND (0.0926)	ND	NA	NA	NA
SNP9BSS12-020	W. Sidewall-South	2	PR	ND (24.9)	ND (5.33)	ND (24.9)	ND (0.0266)	ND (0.107)	ND (0.107)	ND (0.107)	ND (0.107)	ND	NA	NA	NA
SNP9BSS13-030	W. Sidewall-South	3	PR	ND (23.9)	ND (4.56)	ND (23.9)	ND (0.0228)	ND (0.0913)	ND (0.0913)	ND (0.0913)	ND (0.0913)	ND	NA	NA	NA
SNP9BSS14-035	W. Sidewall-South	3.5	PR	ND (24.0)	ND (6.03)	ND (24.0)	ND (0.0302)	ND (0.121)	ND (0.121)	ND (0.121)	ND (0.121)	ND	NA	NA	NA
SNP9BSS15-040	E. Sidewall-South	4	PR	ND (23.6)	ND (3.97)	ND (23.6)	ND (0.0199)	ND (0.0795)	ND (0.0795)	ND (0.0795)	ND (0.0795)	ND	NA	NA	NA
SNP9BSS16-060	E. Sidewall-South	6	PR	ND (22.9)	ND (5.30)	ND (22.9)	ND (0.0265)	ND (0.106)	ND (0.106)	ND (0.106)	ND (0.106)	ND	NA	NA	NA
SNP9BSS17-060	Center Sidewall	6	PR	582	ND (5.75)	1110	ND (0.0287)	ND (0.115)	ND (0.115)	ND (0.115)	ND (0.115)	ND	NA	NA	NA

							BTEX						PAHs		
PSI Sample No.	Sample Location	Sample Depth (ft bgs)	Sample Type (PR/QC)	DRO [2500]	GRO [300]	RRO [10,000]	Benzene [0.02]	Toluene [5.4]	Ethylbenzene [5.5]	P&M-Xylene	o-Xylene	Total Xylenes [78]	Fluoranthene	Pyrene	PCB Reported
SNP9BS S18-020	N. Sidewall-East	2	PR	954	ND (4.80)	1560	ND (0.0240)	ND (0.0960)	ND (0.0960)	ND (0.0960)	ND (0.0960)	ND	NA	NA	NA
SNP9BS S19-070	N.Sidewall-North	7	PR	1030	ND (5.61)	1720	ND (0.0281)	ND (0.112)	ND (0.112)	ND (0.112)	ND (0.112)	ND	NA	NA	NA
SNP9BS S20-070	Dup. of 19	7	PR	2440	ND (4.81)	2840	ND (0.0241)	ND (0.0962)	ND (0.0962)	ND (0.0962)	ND (0.0962)	ND	NA	NA	NA
SNP9BS S21-090	Below concrete sump trough	-	PR	644	ND (4.84)	1090	ND (0.0242)	ND (0.0967)	ND (0.0967	ND (0.0967)	ND (0.0967)	ND	ND (61.2)	ND (61.2)	ND (.0380)
SNP9BS S22-075	Bottom - W of concrete slab	-	PR	42.2	ND (5.30)	58.1	ND (0.0265)	ND (0.106)	ND (0.106)	ND (0.106)	ND (0.106)	ND	NA	NA	NA
SNP9BS S23-060	Bottom - W of concrete slab	-	PR	120	ND (3.97)	232	ND (0.0199)	ND (0.0794)	ND (0.0794)	ND (0.0794)	ND (0.0794)	ND	NA	NA	NA
SNP9BS S24-010	1 foot below slab north of Dunas kitchen	3	PR	**2690**	ND (4.13)	2140	ND (0.0207)	ND (0.0827)	ND (0.0827)	ND (0.0827)	ND (0.0827)	ND	ND (59.8)	ND (59.8)	ND(.0364)
SNP9BS S25-020	2 foot below slab north of Dunas kitchen	4	PR	85.9	ND (5.19)	149	ND (0.0259)	ND (0.104)	ND (0.104)	ND (0.104)	ND (0.104)	ND	NA	NA	NA
SNP9BS S26-020	Bottom - Northern limit of exc. W of concrete slab	-	PR	99.7	ND (4.09)	159	ND (0.0204)	ND (0.0818)	ND (0.0818)	ND (0.0818)	ND (0.0818)	ND	NA	NA	NA
SNP9B99 TB-03	-	-	QC	NA	ND (2.51)	NA	ND (0.0126)	ND (0.0503)	ND (0.0503)	ND (0.0503)	ND (0.0503)	ND	NA	NA	NA

[###] = Site Cleanup level per Corrective Action Plan (NOAA 2002)
PR = Project Sample
QC = Quality Control Sample
ND = Compound was analyzed but not detected within the limit shown in parenthesis
NA = Sample was not analyzed for that compound
Notes: Analytical results shown in **BOLD** exceed the site cleanup level stated in the Corrective Action Plan (NOAA 2002)
Various compounds analyzed but not detected have been omitted from this spreadsheet for clarity

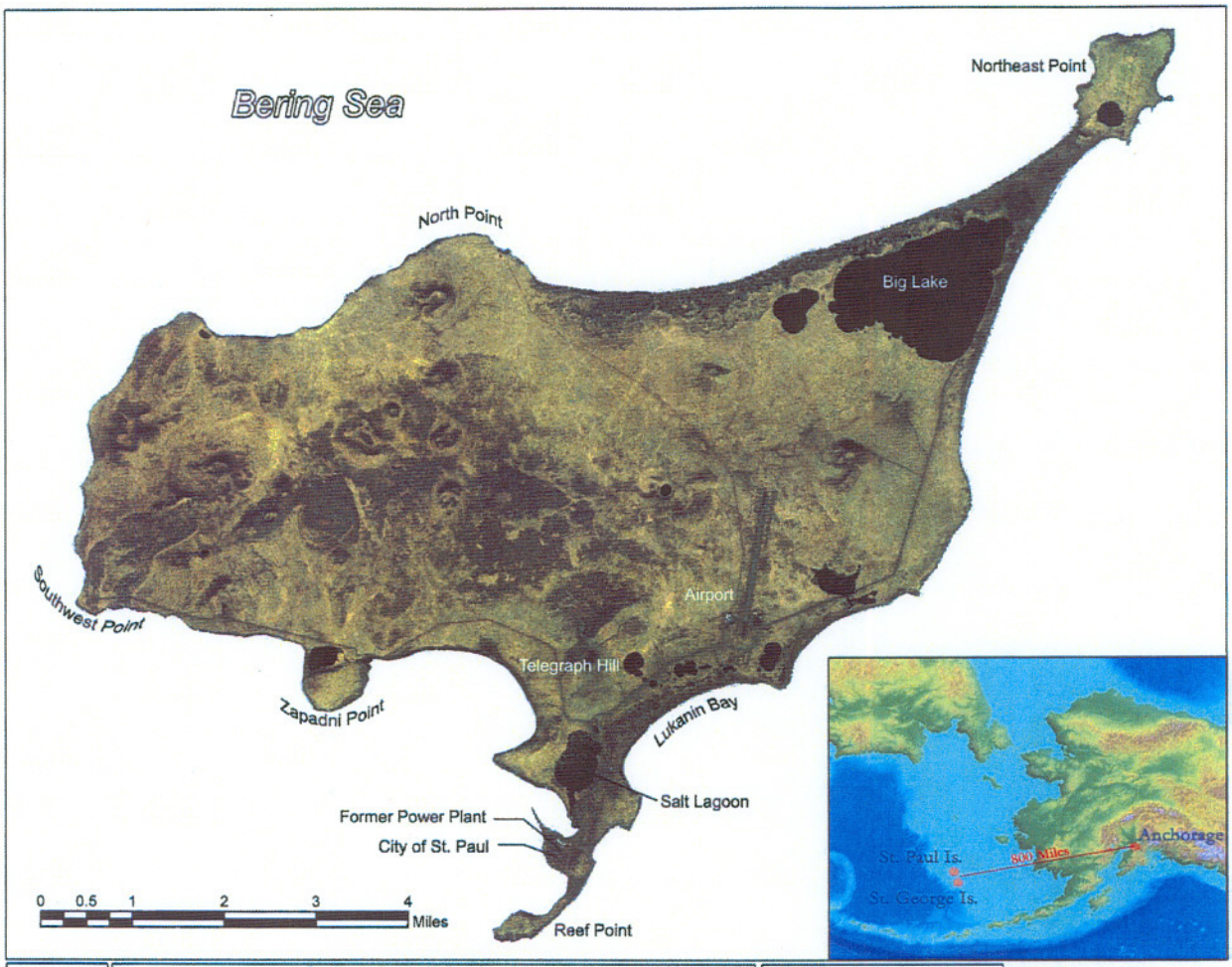

Figure 1	St. Paul Island Vicinity Map Location of the Former Power Plant NOAA Site 17/TPA Site 9b St. Paul Island, Alaska	Source: Ikonos Satellite Imagery, 2001	Pribilof Islands Restoration Project

Figure 2	Legal Property Description Map Former Fuel Drum Storage Site NOAA Site 17/TPA Site 9b St. Paul Island, Alaska	Sources: BLM Tracts (BLM MTPs 1983), TPA 9b Boundary (NOAA GIS 2004), Aerial Photo (Aeromap US 1996).

Pribilof Islands Restoration Project

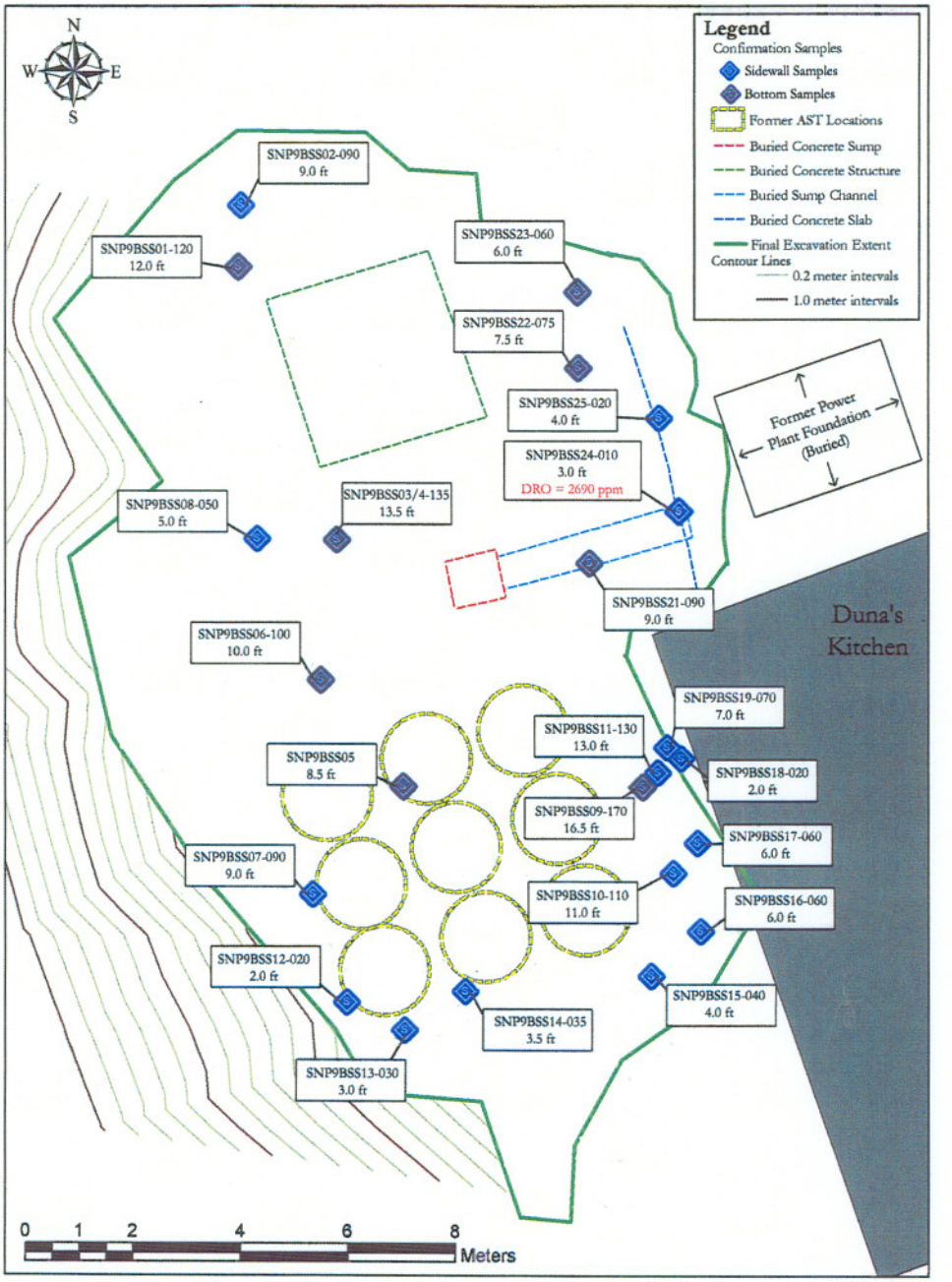

Figure 3	Site Map Former Power Plant NOAA Site 17/TPA Site 9b St. Paul Island, Alaska	Source: NOAA Pribilof Project Office GIS, 2002.	Pribilof Islands Restoration Project

Figure 4	Groundwater Sampling Results Former Power Plant NOAA Site 17/TPA Site 9b St. Paul Island, Alaska	Sources: Well locations and Excavation Extent (NOAA GPS 2002/2004), Aerial photo (Aeromap US 1996).

Pribilof Islands Restoration Project

Figure 5. Former Power Plant site prior to excavation

Figure 6. Excavating petroleum contaminated soils northwest of Duna's Kitchen

Figure 7. Excavation of petroleum contaminated soils west and south of Duna's Kitchen

Figure 8. Waste oil trough west of FPP slab – north of Duna's Kitchen

Figure 9. Final grade and rock wall to prevent erosion.