

Request for No Further Remedial Action Planned

OCT 8 2004

Site: Former Gasoline/Diesel Fuel Drum Storage Site, also known as Two Party Agreement (TPA) Site 9o, National Oceanic and Atmospheric Administration (NOAA) Site 50, the Former Gasoline/Diesel Drum Storage Area, the Former Drum Storage Site (DSS), the Former Drum Storage Area (DSA), and the Barrel Storage Area. The site will be referred to as the Former DSS herein.

DEPT. OF ENVIRONMENTAL
CONSERVATION

Location: St. Paul Island, Alaska is approximately 800 miles southwest of Anchorage in the Bering Sea. On the island, the Former DSS is situated in St. Paul Village atop Village Hill (Figures 1 and 2), west of the Machine Shop building (57°07'22.18" North Latitude, 170°16'56.74" West Longitude).

Legal Property Description: The area of excavation is located in Tract 3, Township 35 South, Range 132 West, of the Seward Meridian, Alaska as shown on the plat of rectangular survey officially filed May 14, 1986 (Figure 2). Tanadgusix Corporation (TDX) purportedly owns the property. [Note: TPA site boundaries are not defined in the TPA. At its discretion, NOAA established a boundary for this TPA site based on site characterization data and historic information. The boundary for this site extends beyond the area of excavation but is found wholly within the Tract 3 property described above.]

Type of Release: Potential release mechanisms include: 1) leaks associated with the storage of 55-gallon fuel storage drums; 2) spills associated with the manual fuel transfers from storage drums to above ground fuel transfer pipelines; and 3) leaks associated with fuel transfers in the pipelines.

History and Background:

The Former DSS is located on the northeastern prominence of Village Hill (Figures 3 and 4) about 150 feet (ft) west of the Machine Shop, 150 ft northwest of the AST Saddle Complex (TPA Site 9k/NOAA Site 26), and 900 ft east of the Former Diesel Tank Farm site (TPA 11/NOAA Site 30).

Drums of gasoline and diesel stored on the Former DSS filled the tanks at the AST Saddles Complex using a funnel and pipelines. According to Hart Crowser (1997), 55-gallon drums of gasoline and diesel fuels were reportedly stored at this site prior to the 1960's. Based upon an interview with a former island employee, Hart Crowser stated that a funnel fabricated from a 55-gallon drum allowed for the emptying of fuel drums. An archived photo from the 1950's (Figure 5) suggests that a large tank with a ramp leading onto it was used to dump the fuels. Regardless, gravity transported diesel fuel through above ground pipelines running easterly and downslope to a former above ground storage tank (AST) complex currently known as the AST Saddle Complex (Figure 4). Other than a schematic depicting "Existing Barrel Storage Area" prepared in 1959, NOAA has not yet found any historical aerial or ground view photodocumentation demonstrating activities at the Former DSS. The PCS found at the site by Hart Crowser (1997) is thought to result from spillage or leakage during storage and transfer operations.

Once fuel transfer operations at the site ceased, the pipelines served the City as an electrical line conduit. The Former DSS is located in a recreational area of St. Paul Village, but in close proximity to residences and the industrial area (Figure 4).

Summary of Site Investigations:

Hart Crower (1997) excavated nine (9) test pits (TP) in the vicinity of the Former DSS (Figure 3) to characterize the extent of soil contamination due to diesel range organics (DRO), gasoline range organics (GRO), residual range organics (RRO), and lead. Basaltic bedrock was encountered throughout the site area at relatively shallow depths (0.0 to 5.5 ft below ground surface (bgs)). DRO, including kerosene, exceeded the Method Two cleanup level of 250 milligrams per kilogram (mg/kg) at five of the test pit sites (Figure 3). Sample concentrations exceeding the Alaska Department of Environmental Conservation (ADEC) Method Two cleanup levels varied from 940 mg/kg to 15,000 mg/kg.

Samples taken at the Former DSS did not reveal any GRO or BTEX (benzene, toluene, ethylbenzene or total xylenes). RRO detected in a single sample was only 66 mg/kg and below the ADEC Method Two 10,000 mg/kg level of concern. Lead was detected in five of five samples analyzed, but the maximum value reached only 11 mg/kg, well below the ADEC level of concern at 400 mg/kg.

Hart Crowser estimated a range of PCS exceeding the ADEC Category C [regulatory level of concern in effect at the time for DRO was 1,000 mg/kg] from 910 to 1,950 cubic yards (yd³). However, Hart Crowser also estimated a figure of 1,300 yd³ of PSC exceeding 1,000 mg/kg, including the PCS on the inaccessible eastern slope.

Columbia Environmental Sciences, Inc. (CESI) installed a groundwater monitoring well (MWA-1) near Hart Crowser's TP- 9 (Figures 3 and 4). A thick clay sequence was logged in MWA-1 at the water table similar to one encountered at MW46-22. CESI analyzed drill cuttings and found DRO at concentrations of 2,500 mg/kg at 6-7 ft bgs and 4,800 mg/kg at 38-40 ft bgs (CESI 2000). A single soil boring at the site (ASTSB-2) located near Hart Crowser's test pit 16, contained DRO at a concentration of 13,000 mg/kg, similar to Hart Crowser's finding of 15,000 mg/kg. Petroleum products were detected in groundwater monitoring wells near the fuel pipeline.

NOAA contractors conducted quarterly groundwater monitoring from September 2000 to September 2001 and from October 2003 to July 2004 in the vicinity of the Former DSS. During the sampling events, DRO were detected above their ADEC Table C cleanup level of 1,500 micrograms per liter (µg/L) in well MWA-1, with a maximum detected concentration of 4,000 µg/L (Figure 4). No other contaminants were encountered in MWA-1 above their ADEC Table C cleanup levels. Groundwater in the vicinity of the site is thought to flow radially away from the site and eventually toward the Bering Sea or St. Paul Harbor (Figure 6), according to Mitretek Systems (Mitretek 2002). The depth to groundwater at MWA-1 is approximately 80 ft bgs.

Monitoring well MWA-2, located downgradient and easterly of MWA-1, as well as downgradient of the AST Saddle Complex Site, did not reveal DRO contamination above Table C levels of concern (Figure 4). However monitoring wells MW46-5, MW46-6 and MW46-7,

located downgradient and north or northeasterly of MWA-1, revealed contaminants above ADEC Table C levels of concern. At MW46-5, DRO were found at a maximum concentration of 7,200 µg/L and benzene was found at a maximum concentration of 10 µg/L (Figure 4); no other contaminants were found at MW46-5 above their ADEC Table C cleanup levels. The ADEC Table C cleanup level for benzene is 5 µg/L. At MW46-6, DRO were found at a maximum concentration of 11,000 µg/L, GRO were found at a maximum concentration of 4,500 µg/L, and benzene was found at a maximum concentration of 530 µg/L (Figure 4); no other contaminants were found at MW46-6 above their ADEC Table C cleanup levels. The ADEC Table C cleanup level for GRO is 1,300 µg/L. At MW46-7, DRO were found at a maximum concentration of 5,500 µg/L; no other contaminants were found at MW46-7 above their ADEC Table C cleanup levels (Figure 4). One should note that these three wells, while downgradient of the Former DSS (Figure 6), are also within or potentially downgradient of other potential source areas including the active St. Paul Delta Western above ground fuel storage tank farm, TPA Site 10 (Former Gasoline Tank Farm), TPA Site 9e (Municipal Garage/Machine Shop), TPA Site 9f (Cascade Building), TPA Site 9g (Former Fouke Bunkhouse), and TPA 9b (Former Power Plant).

Mitretek Systems (2002) evaluated the 2000-2001 groundwater data for the St. Paul Village area, which includes the Former DSS. 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 below ground surface (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 Cleanup Actions:

Corrective action activities for the Former DSS were initiated on July 7, 2003 and completed on July 18, 2003 (NOAA 2003, Tetra Tech 2004a). The initial area of excavation was selected based on suspected contamination identified during previous investigations, while the extent of excavation was determined based upon thin-layer chromatography (TLC) screening sample analyses, as well as visual and olfactory observations. Excavation of contaminated soil was conducted to the maximum extent practicable. If contaminant concentrations remained above ADEC Method Two cleanup levels based on TLC screening sample analyses, additional excavation was conducted even if the concentrations were below alternative cleanup levels unless further excavation was prevented by the presence of obstructions. The excavated PCS was temporarily stockpiled atop a liner at the Blubber Dump, then was relocated and stockpiled at the ADEC-approved short-term stockpile at NOAA's Tract 42 landfill site in October 2003. The PCS will undergo final disposal at the National Weather Service land spreading site, or other ADEC approved disposal alternative.

Before and during excavation activities, miscellaneous large tires were placed near the top of the slope along the eastern edge of the site to prevent boulders from rolling downhill from the excavation. Excavation activities were initiated at the Former DSS in the area south of monitoring well MWA-1, and progressed to the north, east, and west based on TLC screening sample analyses, as well as, visual and olfactory observations (Figure 7). Signs of contamination, including petroleum staining and odors, were noted throughout the excavation including beneath the suspected location of the former transfer tank and pipelines. Depth of excavation ranged from approximately 2 feet bgs along the east side to approximately 6 feet bgs on the west side and was limited because of refusal caused by the presence of large boulders; when necessary, personnel used hand tools to shovel heavily contaminated material into the excavator bucket. The excavation was expanded laterally in all directions until TLC screening sample analyses indicated that concentrations of contaminants were below ADEC Method Two cleanup levels. The excavation could not be expanded further to the east due to safety concerns regarding the steep slopes of Village Hill (Figure 7). Excavation in the north portion of the site was limited by the presence of large boulders as well as the need to maintain a safe distance from the gazebo atop Village Hill (Figures 7 and 8). In addition, the former fuel transfer pipeline, once used as a conduit to supply electricity to the gazebo atop Village Hill, was removed and contaminated soil beneath it was excavated in areas accessible to the excavator. A small lava tube was also identified during excavation activities. Twelve confirmation samples and 2 field duplicate samples were collected from the bottom of the excavation for laboratory analyses including BTEX, GRO, DRO, RRO, select polynuclear aromatic hydrocarbons (PAHs), and lead (Figure 8). Table 1 provides a summary of the non-PAHs confirmation sample data. PAHs are not presented in Table 1 as no samples contained PAHs above their ADEC Method Two cleanup levels. Numeric PAHs results can be found in the corrective action report for this site (Tetra Tech 2004a). Stockpile samples were not collected during the corrective action. The lack of stockpile samples for this site does not impact data usability (Tetra Tech 2004b).

The excavation was backfilled after TLC screening sample analyses indicated contaminant concentrations were below Method Two cleanup levels, and the collection of fixed laboratory confirmation samples. Backfill operations involved transporting clean fill material from portions

of the Telegraph Hill quarry owned by NOAA to the site (Tetra Tech 2004c), dumping the material into the excavation, and compacting the fill material with the excavator bucket or by track-walking the excavator over the area. The area of excavation was restored to its original grade. Backfilling and site restoration activities were completed on July 18, 2003.

During this corrective action, a total of approximately 1,160 yd³ of PCS were removed from the excavation at the Former DSS.

Confirmation samples collected from the bottom of the excavation at the Former DSS indicated DRO concentrations varying from 200 mg/kg to 19,000 mg/kg. Ten of the twelve samples collected from this area contained concentrations of DRO above the ADEC Method Two cleanup level of 250 mg/kg, and seven of the twelve samples were above the alternative cleanup level of 2,500 mg/kg for DRO (Figure 8). The samples exceeding the alternative cleanup level for DRO were collected at refusal (i.e. excavation equipment could not remove additional contaminated material). Although no further excavation could be conducted in this area because of equipment limitations (i.e., excavator reach from accessible areas), as discussed above, the excavation depth of 2 to 6 ft bgs is sufficient to mitigate inhalation and ingestion pathways given the site land use as recreational and the use of 2 to 6 ft of clean backfill material over the contamination.

Concentrations of all other contaminants were below the ADEC Method Two cleanup levels.

Laboratory reporting limits were below ADEC Method Two cleanup levels for all contaminants except benzene. For benzene, reporting limits of 0.1 mg/kg or lower were achieved, which is above the ADEC Method Two cleanup level of 0.02 mg/kg, but below the alternative cleanup level of 0.5 mg/kg. Concentrations of all other contaminants in confirmation samples collected were below the ADEC Method Two cleanup levels.

Recommended Action:

In accordance with paragraph 59 of the Two Party Agreement (NOAA 1996), NOAA requests written confirmation that NOAA completed all appropriate corrective action at the Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 9o/NOAA Site 50 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. 2002. Letter from Louis Howard, Project Manager, Alaska Department of Environmental Conservation, to John Lindsay, Project Manager, NOAA Pribilof Project Office regarding ADEC conditional approval for applying the Ten Times Rule. May 30.

ADEC. 2003. Title 18 of the Alaska Administrative Code 75, Articles 3 and 9. Oil and Hazardous Substances Pollution Control Regulations. State of Alaska. January 30.

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

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. 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.

NOAA. 2003. *Draft Corrective Action Plan for Petroleum Contaminated Soil Removal at the Former Gasoline/Diesel Drum Storage Site (Site 9o), St. Paul Island, Alaska*. June 3.

Tetra Tech EM Inc. (Tetra Tech). 2004a. *Final Corrective Action Report, Site 50/TPA Site 9o-Former Gasoline/Diesel Drum Storage Area, St. Paul Island, Alaska*. August 27.

Tetra Tech. 2004b. *Letter Report, Summary of 2003 Field Season Stockpile Activities, St. Paul Island, Alaska*. July 23.

Tetra Tech. 2004c. *Letter Report, Summary of 2003 Field Season Backfill Activities, St. Paul Island, Alaska*. July 23.

U.S. Department of the Interior. 1959. *Plan, St. Paul Island, Diesel Fuel and Gasoline Storage and Distribution System*. Sheet 10 of 15, signed by D.D. Powell (1959), approved by C.R. Lucas (1961).

Woodward-Clyde Consultants, Inc. 1994. *Site Inspection Report, St. Paul Island, Alaska*. Contract No. DACA67-92-D-1017. Delivery Order No. 36. November.

Request for NFRAP
Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 9o/Site 50
St. Paul Island, Alaska

For the National Oceanic and Atmospheric Administration

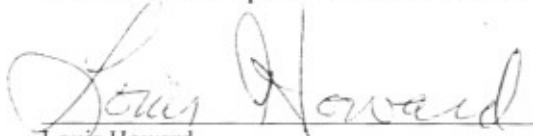


John Lindsay
NOAA, Pribilof Project Office

9/30/04
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 Gasoline/Diesel Drum Storage Site, TPA Site 9o/NOAA Site 50, 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

10/11/04
Date

Tables and Figures

Request for NFRAP
Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 9o/Site 50
St. Paul Island, Alaska

Table 1. Analytical Data Summary for Confirmation Samples from the Former Gasoline/Diesel Drum Storage Site, TPA Site 9o/Site 50, St. Paul Island, Alaska

Sample Number	Sample Depth (feet bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	RRO (mg/kg)	Lead (mg/kg)
Site 50/TPA Site 9o Confirmation Samples									
SP50-CS-919-050	5	0.05 U	0.05 U	0.05 U	0.05 U	3 U	13,000	990	2.80
SP50-CS-920-030	3	0.06 U	0.06 U	0.06 U	0.06 U	4 U	11,000	860	7.22
SP50-CS-921-020	2	0.06 U	0.06 U	0.06 U	0.06 U	4 U	10,000	710	8.69
SP50-CS-922-020	2	0.03 U	0.03 U	0.03 U	0.03 U	2 U	1,800	470	17.50
SP50-CS-923-040	4	0.03 U	0.03 U	0.03 U	0.03 U	2 U	710	94	1.63
SP50-CS-924-030	3	0.02 U	0.02 U	0.02 U	0.03	3	3,700	270 J	7.97
SP50-CS-925-030 ^a	3	0.02 U	0.02 U	0.02 U	0.03	2	2,100	140	3.22
SP50-CS-926-050	5	0.03 U	0.03 U	0.03 U	0.03 U	2 U	1,900	320	2.27
SP50-CS-927-040	4	0.03 U	0.03 U	0.03 U	0.03 U	2 U	200	50 U	3.37
SP50-CS-928-050	5	0.03 U	0.03 U	0.03 U	0.03 U	2 U	310	50 U	2.48
SP50-CS-929-040	4	0.03 U	0.03 U	0.03 U	0.03 U	2 U	3,400	230	3.35
SP50-CS-930-040	4	0.07 U	0.07 U	0.07 U	0.07 U	4 U	19,000	1,100	3.10
SP50-CS-931-060	6	0.10 U	0.10 U	0.10 U	0.10 U	5 U	13,000	500 U	3.74
SP50-CS-932-060 ^b	6	0.09 U	0.09 U	0.09 U	0.09 U	5 U	14,000	500 U	4.77
Trip Blank Sample									
Trip blank	--	0.02 U	0.02 U	0.02 U	0.02 U	1 U	--	--	--
ADEC Method Two Cleanup Level ^c		0.02	5.4	5.5	78	300	250	10,000	400 ^d
Alternative Cleanup Level ^e		0.5 ^f	NA	NA	NA	NA	NA	NA	NA

Notes:

bold Indicates concentration above cleanup levels. Although reporting limits for benzene sometimes exceeded the ADEC Method Two cleanup level of 0.02 mg/kg, reporting limits did not exceed the alternative cleanup level of 0.5 mg/kg.

ADEC Alaska Department of Environmental Conservation

bgs Below ground surface

BTEX Benzene, toluene, ethylbenzene, and total xylenes

DRO Diesel-range organic compounds

GRO Gasoline-range organic compounds

J Analyte was positively identified, but concentration is estimated; result is considered qualitatively acceptable, but quantitatively unreliable.

mg/kg Milligram per kilogram

-- Not analyzed

NA Not available

PAH Polynuclear aromatic hydrocarbon

RRO Residual-range organic compounds

TPA Two-Party Agreement

U The analyte was analyzed for, but was not detected above the sample reporting limit.

a Duplicate of Sample No. SP50-CS-924-030

b Duplicate of Sample No. SP50-CS-931-060

c Cleanup level is from Title 18 of the *Alaska Administrative Code* 75 "Oil and Hazardous Substances Pollution Control Regulations," published by the State of Alaska and amended through October 28, 2000. Contaminants of concern for this site are limited to BTEX, DRO, and select PAHs; although not identified as contaminants of concern in the corrective action plan, GRO, RRO, and lead are included because these analyses were performed on some samples.

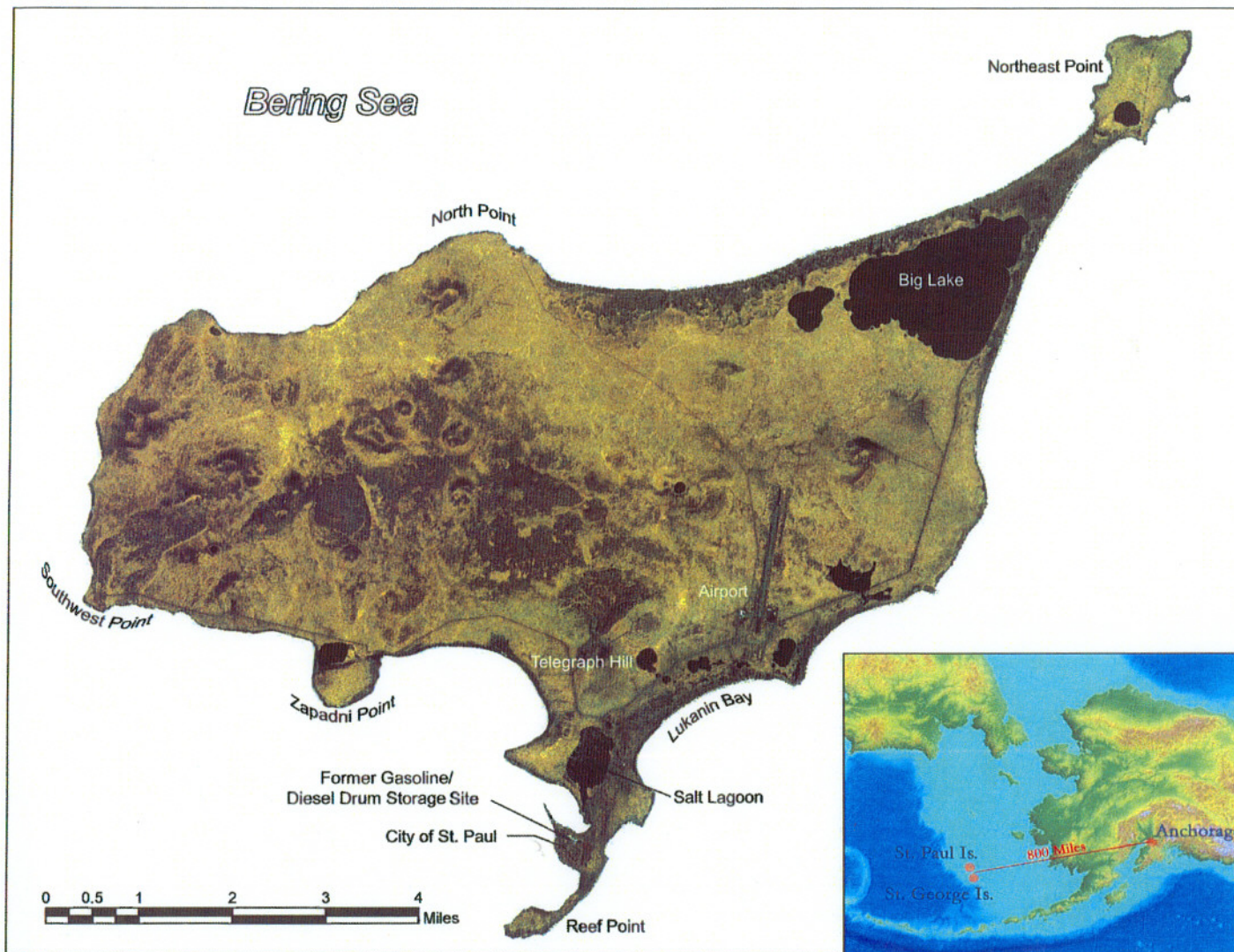
d Cleanup level obtained from ADEC Method Two based on the 1991 cleanup level, as referenced in Section 5.0 of the corrective action plan (National Oceanic and Atmospheric Administration [NOAA] 2003a).

e Under the TPA, NOAA is required to comply with the 1991 ADEC cleanup level for benzene (0.5 mg/kg).

f Cleanup level selected is based on more stringent value associated with ingestion and inhalation pathways.

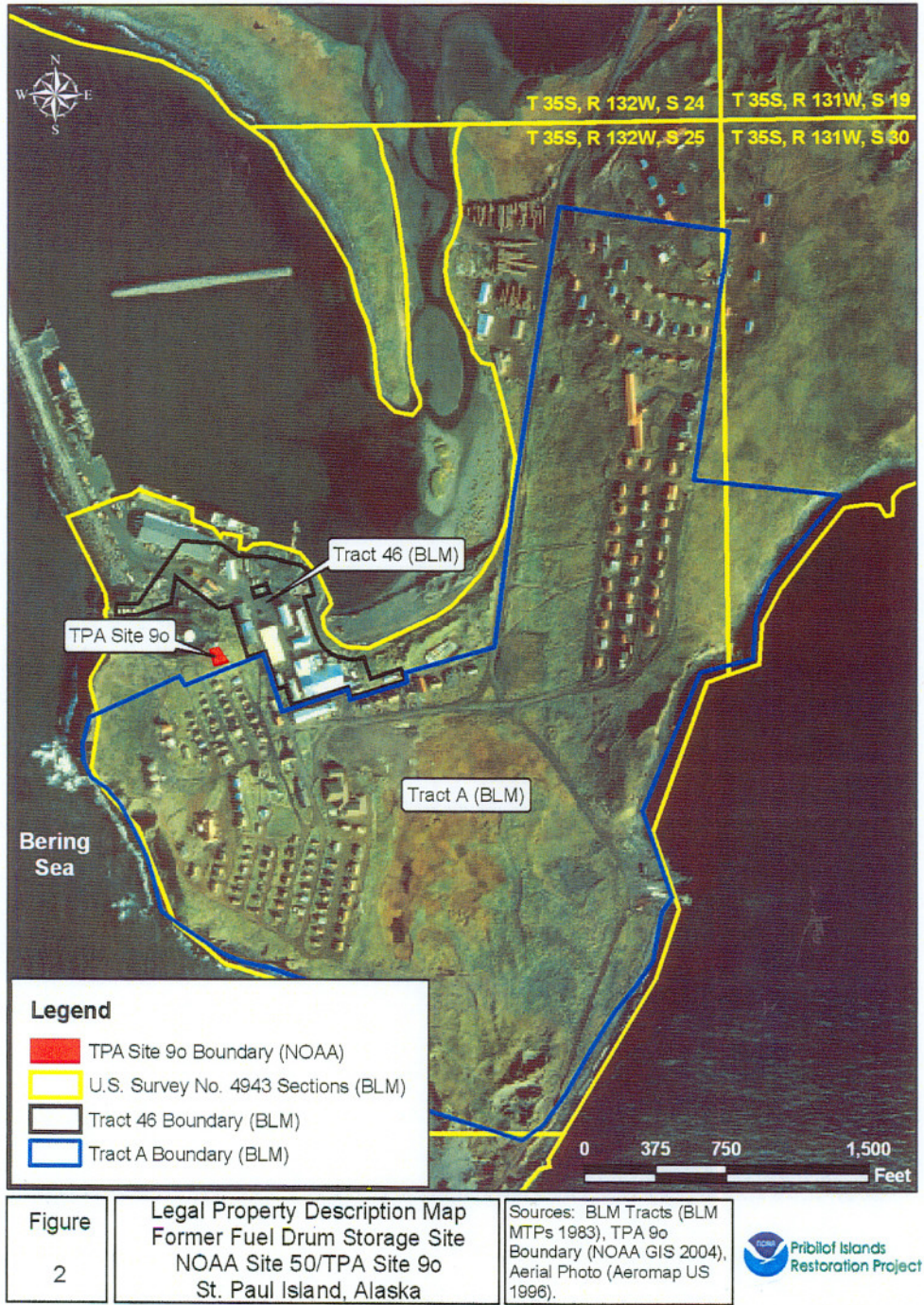
g Although this site is located in an industrial area, NOAA is using the residential cleanup level for lead (400 mg/kg).

Request for NFRAP
 Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 9o/Site 50
 St. Paul Island, Alaska



<p>Figure 1</p>	<p>St. Paul Island Vicinity Map Former Gasoline/Diesel Drum Storage Site NOAA Site 50/TPA Site 9o St. Paul Island, Alaska</p>	<p>Source: Ikonos Satellite Imagery, 2001</p>	
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Request for NFRAP
 Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 90/Site 50
 St. Paul Island, Alaska



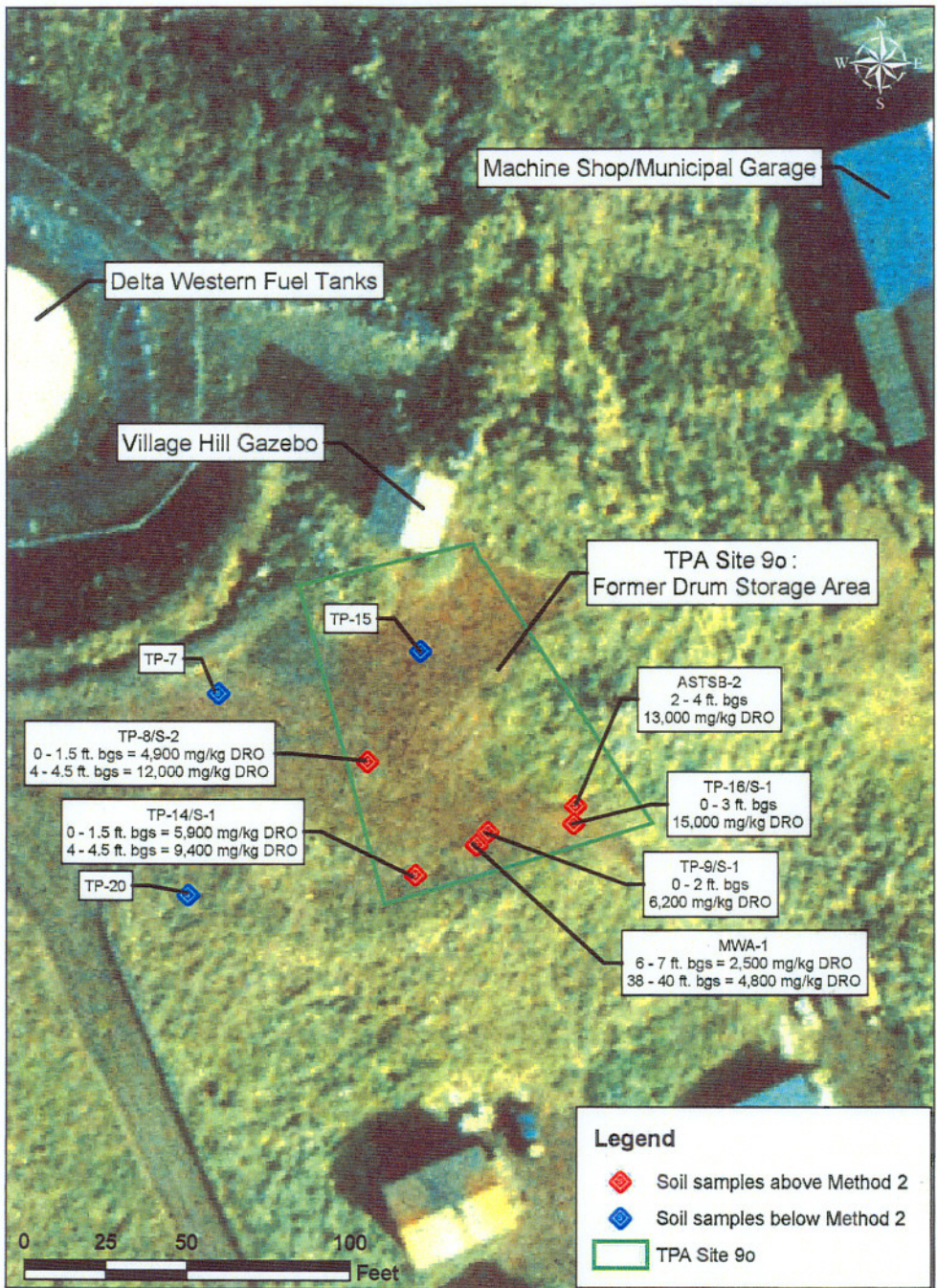


Figure 3 Historical Sampling Locations Former Fuel Drum Storage Site NOAA Site 50/TPA Site 90 St. Paul Island, Alaska

Sources: Aerial Photo (Aeromap, 1996), Sample Locations (Pribilof Project Sample Database), Building and TPA Locations (Pribilof Project GIS Database).



Request for NFRAP
Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 90/Site 50
St. Paul Island, Alaska

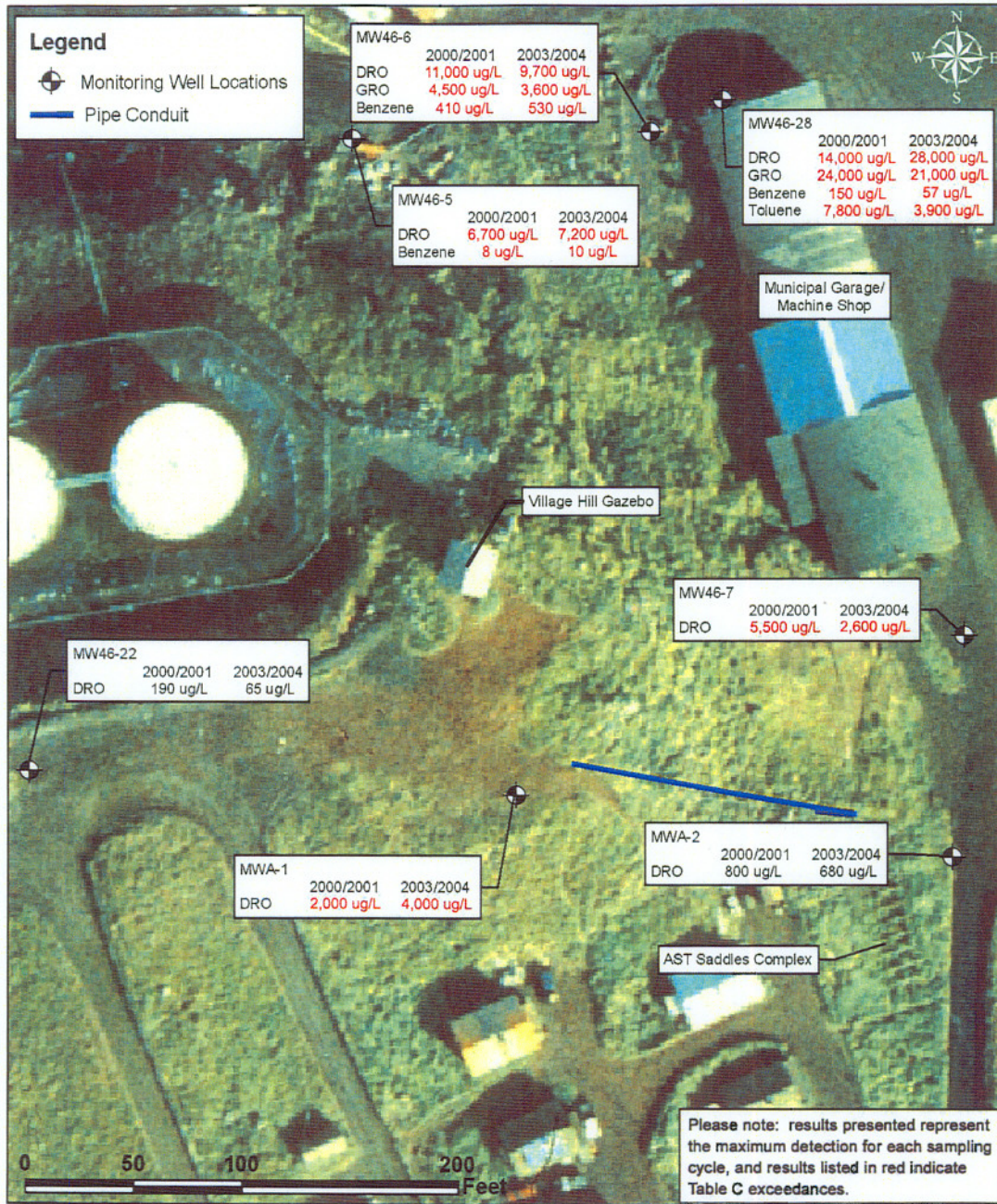


Figure
4

Groundwater Sampling Results
Former Gasoline/Diesel Drum Storage Site
NOAA Site 50/TPA Site 90
St. Paul Island, Alaska

Sources: Excavation Extent (NOAA GPS 2003), Monitoring Wells (Pribilof Project GIS Database), Aerial Photo (Aeromap US 1996).





Figure

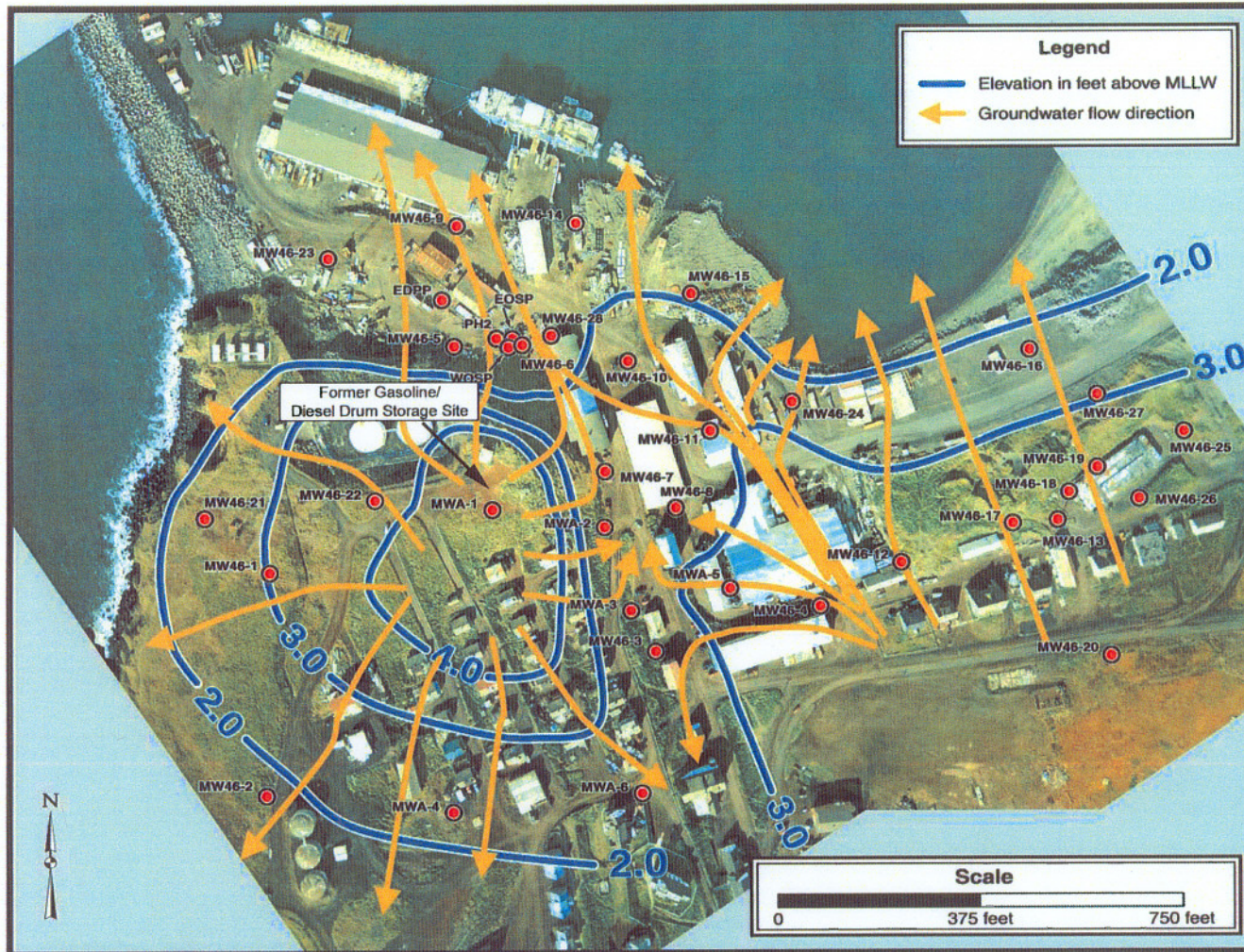
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View of AST Saddles Complex Site and Former Gasoline/Diesel Drum Storage Site from the north side of the Fur Seal Plant, circa 1950s. NOAA Site 50/TPA Site 90 St. Paul Island, Alaska


Source: Historical Photo (NOAA).



Request for NFRAP
 Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 9a/Site 50
 St. Paul Island, Alaska




From CESI 2001b

<p>Figure 6</p>	<p>Mean Groundwater Level Contours and Flow Direction Former Gasoline/Diesel Drum Storage Site NOAA Site 50/TPA Site 9a St. Paul Island, Alaska</p>	<p>Source: Mitretek, 2002.</p>	
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Request for NFRAP
 Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 90/Site 50
 St. Paul Island, Alaska



<p>Figure 7</p>	<p>Area of Excavation Former Gasoline/Diesel Drum Storage Site NOAA Site 50/TPA Site 90 St. Paul Island, Alaska</p>	<p>Sources: Excavation Extent (NOAA GPS 2003), Monitoring Wells (Pribilof Project GIS Database), 1-Meter Contour Intervals (USGS DEM 2001) Aerial Photo (Aeromap US 1996).</p>	
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Request for NFRAP
Former Gasoline/Diesel Fuel Drum Storage Site, TPA Site 9o/Site 50
St. Paul Island, Alaska

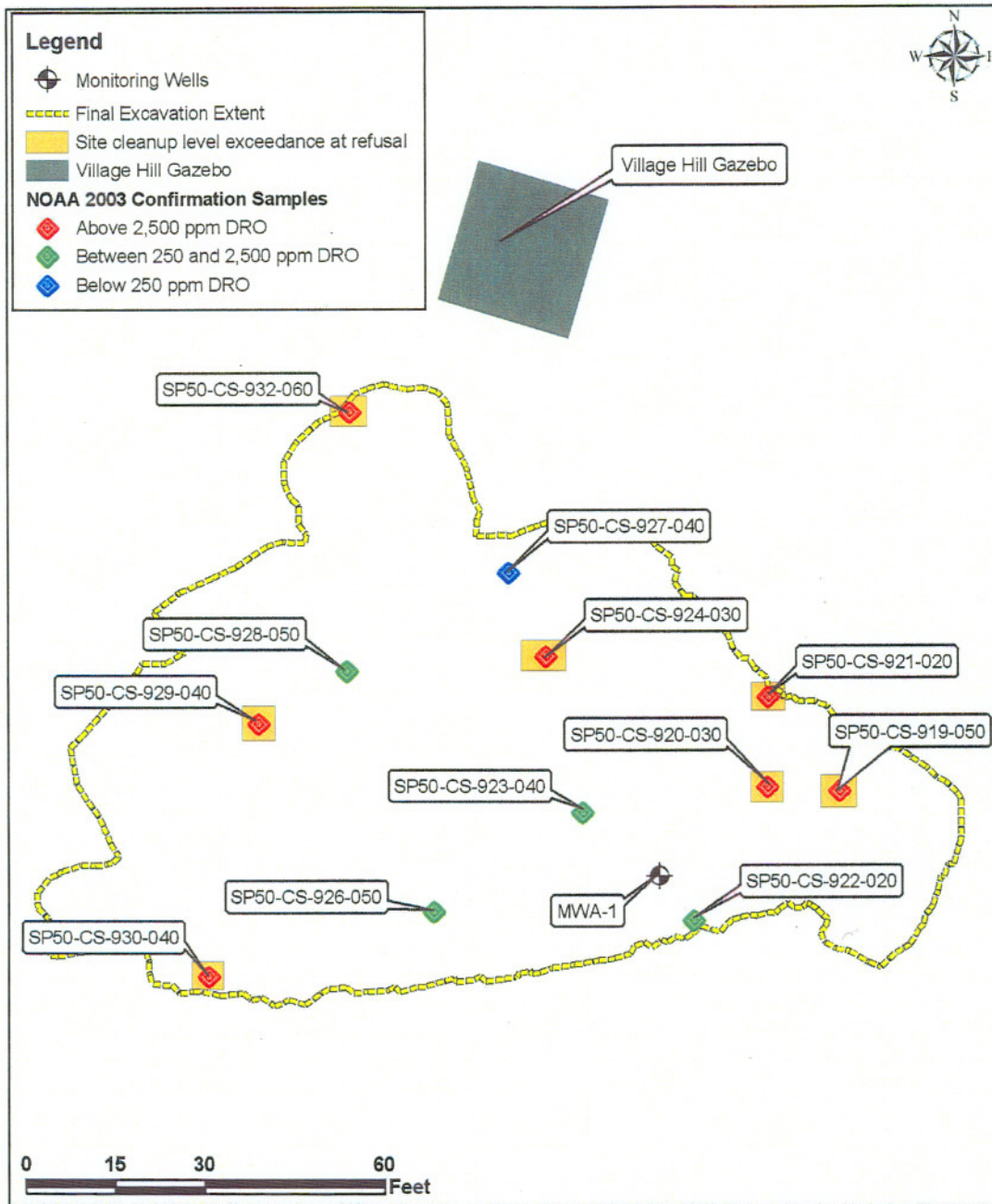


Figure 8	Sampling Location Map Former Gasoline/Diesel Drum Storage Area Site 50/TPA Site 9o St. Paul Island, Alaska	Sources: Excavation Extent and Confirmation Sample Locations (NOAA GPS 2003), Monitoring Wells and Building Footprint (Pribilof Project GIS Database).
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