



**FINAL**

14 JANUARY 2014

# **Remedial Action Summary Report Free Product Recovery**

SWMU 62 New Housing Fuel Leak Area,  
Area 303, and Additional Sites

## **Former Naval Complex**

Adak, Alaska

**Department of the Navy**

**Naval Facilities Engineering Command Northwest**

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FINAL  
REMEDIAL ACTION SUMMARY REPORT  
FREE PRODUCT RECOVERY

JANUARY 14, 2014

SWMU 62 NEW HOUSING FUEL LEAK AREA, AREA 303,  
AND ADDITIONAL SITES

FORMER NAVAL COMPLEX  
ADAK ISLAND, ALASKA

SEALASKA ENVIRONMENTAL SERVICES, LLC  
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## **EXECUTIVE SUMMARY**

The U.S. Navy, through Naval Facilities Engineering Command Northwest, tasked Sealaska Environmental Services, LLC with monthly monitoring and remedial action recovery of free product petroleum from groundwater and with boom placement and maintenance for surface water protection at six sites located at the Former Naval Complex, Adak, Alaska. All site activities were performed in accordance with the Operations and Maintenance Plan (Navy 2012a) and Quality Control Plan (Navy 2012b) for Free Product Recovery at Former Naval Complex, Adak, Alaska. This report summarizes the monitoring and remedial action activities completed during the period from October 2012 through September 2013 and whether endpoint criteria were achieved as established by the Navy, U.S. Environmental Protection Agency, and Alaska Department of Environmental Conservation in Records of Decision.

### **SOLID WASTE MANAGEMENT UNIT 62, NEW HOUSING FUEL LEAK AREA**

During monthly free product recovery activities for the reporting period, a total of 12.64 gallons of free product were recovered from monitoring wells and recovery sumps at Solid Waste Management Unit 62, New Housing Fuel Leak Area. The maximum rolling 6-month average of product recovered during this period was 1.55 gallons. Free product was detected at or greater than 0.01 feet at least once in four of the six recovery sumps. During the reporting period, measurable free product was recovered from two of the recovery sumps and two of the monitoring wells.

Wells at this site met the practical endpoint criteria of less than 5 gallons per month for the 6-month rolling average recovery of free product over a 12-month period. However, the site did not meet the remedial objectives of less than 0.01 feet of detectable free product in the recovery trench sumps.

### **Summary of Recommended Changes**

The following changes to the free product activities are recommended at the Solid Waste Management Unit 62, New Housing Fuel Leak Area:

- Because of the continued observance of free product, continue to conduct periodic monitoring and free product recovery activities at all six recovery sumps and the following eight wells: 03-101, 03-102, HMW-303-03, HMW-303-11, MW-15, MW-303-12, RW-303-4, and RW-303-15.

- During the 2103 LTM field event, 0.08 feet of product was observed in well MW-303-8. It is recommended that free product recovery be initiated at this well during the October 2013 event.

### **AREA 303**

During monthly free product recovery activities for the reporting period, free product was recovered from one (MW-303-28) of the 17 wells monitored during one or more monitoring events. The total volume of recovered product during the 4-month reporting period was 0.22 gallons. Only three wells had measureable product; MW-303-28, MW-303-39, and MW-303-42.

#### **Summary of Recommended Changes**

The following changes to the free product activities are recommended at Area 303:

- Continue free product recovery at MW-303-28, MW-303-39, and MW-303-42.
- Discontinue free product recovery at the remaining 14 wells currently monitored since no measureable product was detected during the 4-month monitoring period.

### **ADDITIONAL SITES**

During monthly free product recovery activities for the reporting period, a total of 7.52 gallons of free product were recovered from monitoring wells at the four additional petroleum sites: Naval Mobile Construction Battalion Building T-1416 Expanded Area; Source Area 80, Steam Plant 4; Solid Waste Management Unit 60, Tank Farm A; and Former Power Plant, Building T-1451.

#### **Summary of Recommended Changes**

The following changes to the free product activities are recommended for the additional sites:

- At Solid Waste Management Unit 60 Tank Farm A, although the volume of free product observed in the wells was too small (thin layer only) for recovery, measureable product was detected in one or more wells during two of the six monitoring events. It is recommended that monitoring continue for one additional reporting period (one year) and the results be evaluated to determine if monitoring can be discontinued at this site.

- Continue free product recovery at all wells at SA 80, Steam Plant 4 and Naval Mobile Construction Battalion Expanded Area during the October 2013 through September 2014 reporting period.
- During the 2103 LTM field event, 0.21 feet of product was observed in well 04-155 at SA 80, Steam Plant 4. It is recommended that free product recovery be initiated at this well during the October 2013 event.
- At Former Power Plant, Building T-1451, continue free product recovery at MW-1451-1 and MW-1451-7 since measurable product was detected at these two wells during the 4-month monitoring period. In addition, activities should be continued at MW-1451-6 since free product was observed in this well during the groundwater monitoring event in April 2013.
- At Former Power Plant, Building T-1451, discontinue free product recovery at the remaining seven wells currently monitored since no measureable product was detected during the 4-month monitoring period or the April 2013 LTM monitoring event.

#### **FREE PRODUCT MONITORING UNDER THE ADAK LTM PROGRAM**

To ensure that free product does not migrate and that groundwater flows do not significantly change in the future, annual monitoring for free product will be conducted for the entire set of wells under the Adak LTM Program.

#### **BOOM INSPECTION AND MAINTENANCE**

Nine booms were maintained in East Canal, West Canal, and South Sweeper Creek to prevent the migration of petroleum sheen from shoreline seeps to downgradient surface water bodies. Each boom was maintained and inspected on a monthly basis throughout the reporting period or until it was discontinued and removed. Sheen was observed at boom locations in East Canal and one location in South Sweeper Creek lagoon during most inspections, but the booms effectively controlled the surface water sheen and prevented downstream migration.

#### **Summary of Recommended Changes**

The following changes to boom maintenance activities are recommended:

- Continue periodic inspection and maintenance activities for all current booms located in East Canal, West Canal and South Sweeper Creek.

- Expand Booms 2 and 11 by two boom lengths each. Additional boom sections are necessary at Boom 2 to help prevent it from being displaced during high water events in East Canal. The seep at Boom 11 has expanded about 4 feet south of the existing extent of the boom along the shoreline and the surface water sheen is very pronounced. Boom 11 should be expanded to cover the entire length of the seep. Since no seep has been observed at the Booms 9/12, the four boom sections composing the small leg that is right in front of the culverts should be removed. These would provide four boom sections to expand Booms 2 and 11, but not change the total number of boom sections deployed.
- High water events have been occurring more frequently in the East and West Canals. During the high water periods, monitoring of the seeps and boom maintenance are often difficult. The pumps used to moderate the water levels in the Canals are operated by Alaska Department of Transportation (ADOT) to prevent water from flowing over the airport runways. The Navy will work with ADOT to determine an appropriate schedule for dewatering the Canals that will less impact the free product monitoring and maintenance events.

## CONTENTS

EXECUTIVE SUMMARY	ES-1
1. INTRODUCTION	1-1
1.1 PRODUCT RECOVERY REQUIREMENTS	1-1
1.2 PURPOSE OF REPORT	1-2
2. SWMU 62, NEW HOUSING FUEL LEAK AREA	2-1
2.1 SITE DESCRIPTION	2-1
2.2 GEOLOGY AND GROUNDWATER	2-1
2.3 RELEASE HISTORY	2-2
2.4 REMEDIAL ACTIONS	2-3
2.5 GROUNDWATER ELEVATIONS AND PRODUCT THICKNESSES	2-4
2.6 RECOVERED VOLUMES	2-4
2.7 COMPARISON OF PRODUCT RECOVERY TO ENDPOINT CRITERIA	2-5
3. AREA 303	3-1
3.1 SITE DESCRIPTION	3-1
3.2 GEOLOGY AND GROUNDWATER	3-1
3.3 RELEASE HISTORY	3-2
3.4 REMEDIAL ACTIONS	3-2
3.5 GROUNDWATER ELEVATIONS AND PRODUCT THICKNESSES	3-3
3.6 RECOVERED VOLUMES	3-3
4. ADDITIONAL SITES	4-1
4.1 SITE DESCRIPTION	4-1
4.1.1 NMCB Expanded Area	4-2
4.1.2 SA 80, Steam Plant 4	4-3
4.1.3 SWMU 60, Tank Farm A	4-3
4.1.4 Former Power Plant, Building T-1451	4-4
4.2 GROUNDWATER ELEVATIONS AND PRODUCT THICKNESSES	4-4
4.3 RECOVERED VOLUMES	4-5
5. BOOM INSPECTION AND MAINTENANCE	5-1
6. CONCLUSIONS AND RECOMMENDATIONS	6-1
6.1 FREE PRODUCT RECOVERY CONCLUSIONS	6-1
6.2 BOOM OPERATION AND MAINTENANCE CONCLUSIONS	6-2
6.3 RECOMMENDATIONS	6-2
6.3.1 SWMU 62, New Housing Fuel Leak Area	6-2
6.3.2 Area 303	6-3
6.3.3 Additional Sites	6-3
6.3.4 Boom Maintenance	6-3
7. REFERENCES	7-1

## CONTENTS (continued)

### APPENDICES

APPENDIX A	FIELD FORMS (PROVIDED ON COMPACT DISC)
APPENDIX B	PHOTOGRAPHS OF BOOM LOCATIONS
APPENDIX C	2013 LONG-TERM MONITORING FIELD MEASUREMENTS
APPENDIX D	RESPONSE TO REGULATOR COMMENTS

### TABLES

<b>Table 2-1.</b>	Historical Free Product Recovery Data, SWMU 62, New Housing Fuel Leak Area	2-6
<b>Table 2-2.</b>	Corrected Groundwater Elevation Summary from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area	2-7
<b>Table 2-3.</b>	Product Thickness Summary from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area	2-9
<b>Table 2-4.</b>	Recovered Product Volume Summary from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area	2-11
<b>Table 3-1.</b>	Corrected Groundwater Elevation Summary from June 2013 through September 2013, Area 303	3-4
<b>Table 3-2.</b>	Product Thickness Summary from June 2013 through September 2013, Area 303	3-5
<b>Table 3-3.</b>	Recovered Product Volume Summary from June 2013 through September 2013, Area 303	3-6
<b>Table 4-1.</b>	Corrected Groundwater Elevation Summary from October 2012 through September 2013, Additional Sites	4-7
<b>Table 4-2.</b>	Product Thickness Summary from October 2012 through September 2013, Additional Sites	4-9
<b>Table 4-3.</b>	Recovered Product Volume Summary from October 2012 through September 2013, Additional Sites	4-11
<b>Table 5-1.</b>	October 2012 through September 2013 Boom Maintenance Summary	5-4

## CONTENTS (continued)

### FIGURES

<b>Figure 1-1.</b>	Location Map, Adak Island, Alaska	1-3
<b>Figure 1-2.</b>	Free Product Recovery Sites	1-4
<b>Figure 2-1.</b>	SWMU 62 New Housing Fuel Leak Area Site Detail Map	2-13
<b>Figure 2-2.</b>	SWMU 62, New Housing Fuel Leak Area (Eagle Bay Housing) and Area 303 Potentiometric Surface Map	2-15
<b>Figure 2-3.</b>	Free Product Thickness in SWMU 62, New Housing Fuel Leak Area Recovery Sumps	2-17
<b>Figure 2-4.</b>	Historical Product Recovery, October 2006 through September 2013, SWMU 62, New Housing Fuel Leak Area	2-18
<b>Figure 2-6.</b>	Comparison of Average Groundwater Elevation, Average Product Thickness, and Total Recovered Product Volume from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area	2-20
<b>Figure 3-1.</b>	Site Features – Area 303	3-7
<b>Figure 4-1.</b>	Site Features - NMCB Expanded Area	4-13
<b>Figure 4-2.</b>	Site Features - SA 80, Steam Plant 4	4-14
<b>Figure 4-3.</b>	Site Features - SWMU 60, Tank Farm A	4-15
<b>Figure 4-4.</b>	Site Features - Former Power Plant, Building T-1451	4-17
<b>Figure 5-1.</b>	East Canal Boom Locations	5-5
<b>Figure 5-2.</b>	West Canal and South Sweeper Creek Boom Locations	5-6

## ACRONYMS AND ABBREVIATIONS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AST	aboveground storage tank
bgs	below ground surface
BLM	Bureau of Land Management
BTOC	below top of casing
°C	degrees Celsius
CY	contract year
DOI	U.S. Department of the Interior
GCI	General Communication, Inc.
JP-5	jet propellant 5
kg/m <sup>3</sup>	kilograms per cubic meter
LNAPL	light non-aqueous phase liquid
LTM	long-term monitoring
mg/L	milligrams per liter
mS/cm	milliSiemens per centimeter
MLLW	mean lower low water
MNA	Monitored Natural Attenuation
MPT	measured product thickness
mV	millivolt
NA	not applicable
Navy	U.S. Navy
NM	not measured
NMCB	Naval Mobile Construction Battalion
NORPAC	North Pacific
NP	not planned
NTU	nephelometric turbidity unit
O&M	operation and maintenance
ORP	oxidation-reduction potential
OU	Operable Unit
PVC	polyvinyl chloride

## **ACRONYMS AND ABBREVIATIONS (continued)**

ROD	Record of Decision
SA	Source Area
Sealaska	Sealaska Environmental Services, LLC
SAERA	State-Adak Environmental Restoration Agreement
SU	standard unit
SWMU	solid waste management unit
TAC	The Aleut Corporation
TO	task order
TtEC	Tetra Tech EC, Inc.
URS	URS Group, Inc.
URSG	URS Greiner, Inc.

## **1. INTRODUCTION**

On May 30, 2012, Naval Facilities Engineering Command Northwest awarded Task Order (TO) 60 under Contract N44255-09-D-4005 to Sealaska Environmental Services, LLC (Sealaska). This TO includes:

- Operation and maintenance (O&M) activities related to fuel recovery at: Solid Waste Management Unit (SWMU) 62, New Housing Fuel Leak Area and several other wells at various sites.
- Boom maintenance activities (for protection of surface waters) at selected locations at the Former Naval Complex, Adak, Alaska (Figure 1-1).

### **1.1 PRODUCT RECOVERY REQUIREMENTS**

Final decision documents for South of Runway 18-36 Area and SWMU 62, New Housing Fuel Leak Area were approved on August 15, 2006 and August 7, 2006, respectively. In July 2006, additional monitoring wells were installed at both sites. In September 2006, recovery trenches were installed at both South of Runway 18-36 Area and SWMU 62, New Housing Fuel Leak Area. Although the South of Runway 18-36 Area achieved the practical endpoint for the completed interim actions, the final decision document required that product recovery be restarted and continued until the technically practicable endpoint for free product recovery was achieved. As defined in the Operable Unit (OU) A Record of Decision (ROD):

“The practicable endpoint for recovery will be reached when the monthly volume of recovered product, averaged over the most recent 6 months (6-month moving average), is less than 5 gallons per month for a period of 12 months of product recovery.”

In addition, the final decision documents required that recovery from the free product recovery trenches continue for South of Runway 18-36 Area and SWMU 62, New Housing Fuel Leak Area until free product had been reduced to thicknesses less than 0.01 feet or until no sounding of the oil/water interface probe had been experienced for 1 year or more.

With approval by Alaska Department of Environmental Conservation (ADEC), in February 2012 free product recovery was discontinued at South of Runway 18-36 Area because the site effectively met both practical endpoint criteria.

Free product recovery activities are also conducted at four additional petroleum sites located throughout the Former Naval Complex. These sites include Naval Mobile Construction

Battalion (NMCB); Source Area (SA) 80, Steam Plant 4; SWMU 60, Tank Farm A; and Former Power Plant, Building T-1451. The locations of these free product recovery petroleum sites are shown in Figure 1-2. Monitoring at Former Power Plant, Building T-1451 was initiated in June 2013.

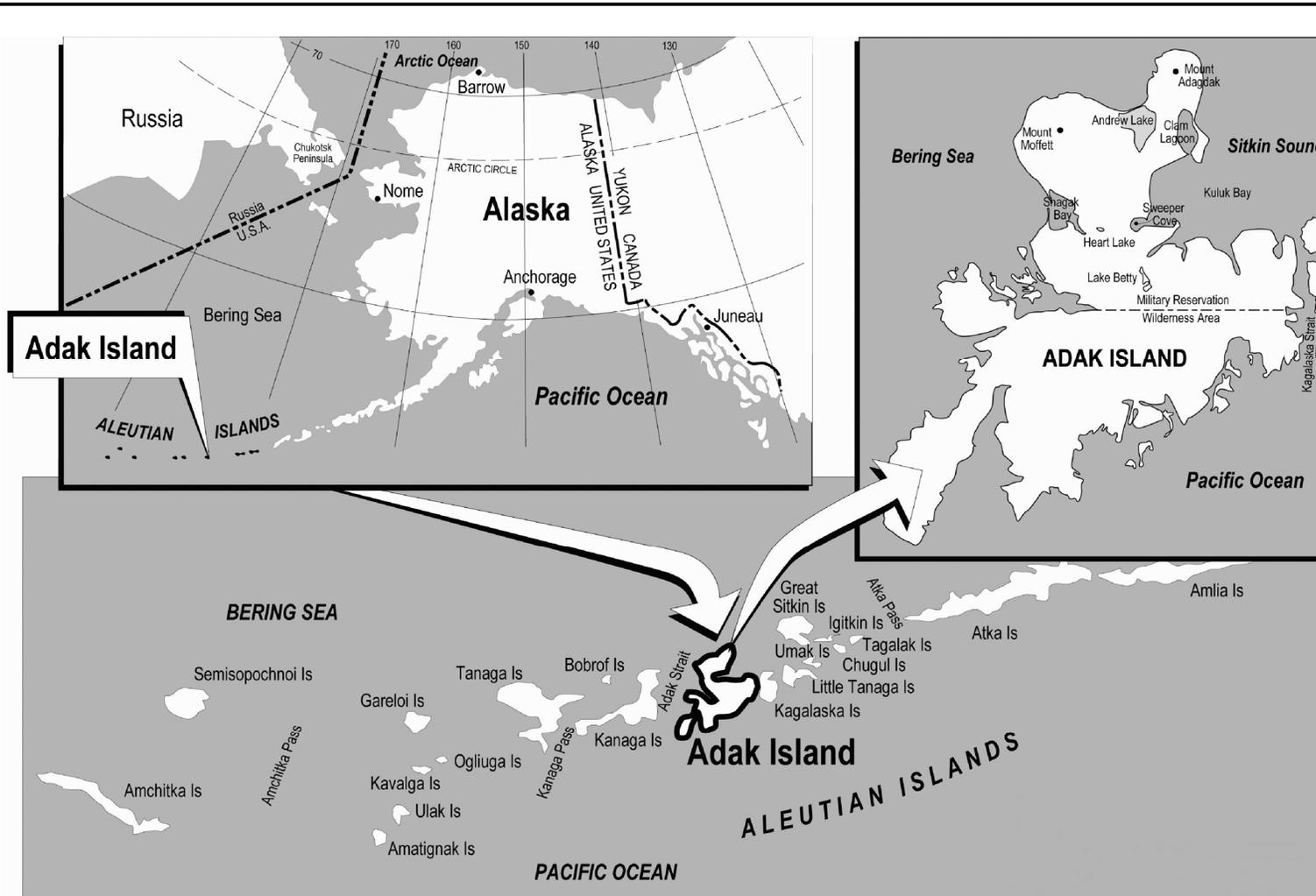
Free product recovery was discontinued at SWMU 58/SA 73 as of October 2012 per the recommendations presented in the Final Annual Groundwater Monitoring Report, 2011 Long-Term Monitoring, Operable Unit A (Navy 2012c). However, Area 303 was added to the program beginning in June 2013 as required in the Final Decision Document (Navy 2012d).

Per approval by ADEC, the monthly free product recovery was reduced to six events per year beginning in October 2011.

## **1.2 PURPOSE OF REPORT**

This report summarizes and documents product recovery activities that occurred between October 2012 and September 2013 for SWMU 62, New Housing Fuel Leak Area; Area 303; and four additional petroleum sites at the Former Naval Complex, Adak, Alaska. Results are measured against the technically practicable endpoints established in the final decision documents where applicable. In addition, information presented in previously prepared reports on removal actions at the sites are summarized, as are the boom maintenance activities that occurred during the reporting period.

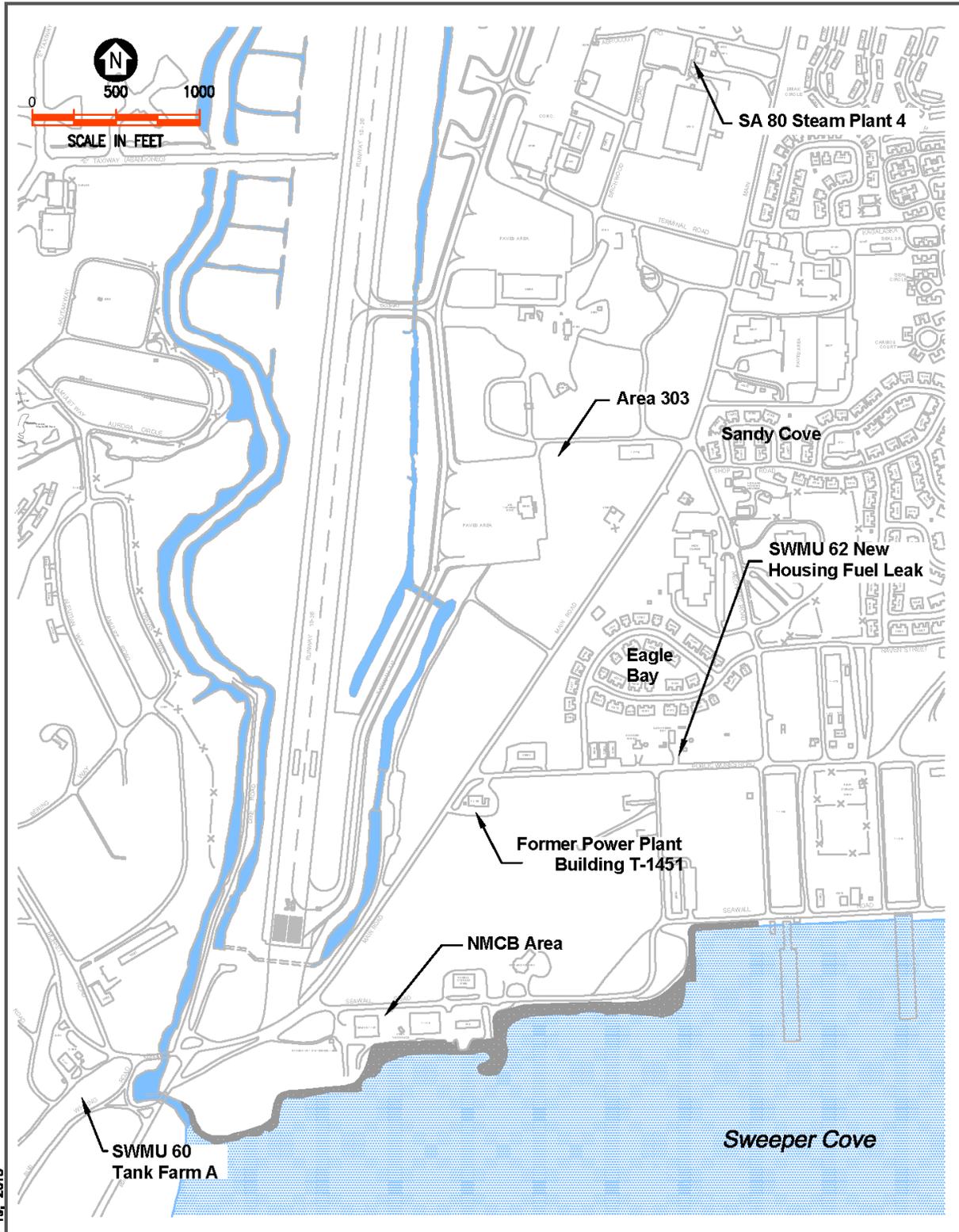
1-3



**SEALASKA**

**Figure 1-1  
 Location Map, Adak Island, Alaska**

Task Order 60  
 2013 Remedial Action  
 Summary Report  
 Adak, AK



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<p><b>U.S.NAVY</b></p>	<p><b>SEALASKA</b></p>	<p align="center"><b>Figure 1-2</b>  <b>Free Product Recovery Sites</b></p>	<p>Task Order 60                  Remedial Action                  Summary Report                  Adak, Alaska</p>
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## **2. SWMU 62, NEW HOUSING FUEL LEAK AREA**

### **2.1 SITE DESCRIPTION**

The SWMU 62, New Housing Fuel Leak Area is located in the downtown area of Adak Island (Figure 1-2). It is east of Runway 18-36, north of Public Works Road, west of Bayshore Highway, and south of Kagalaska Drive. The SWMU 62, New Housing Fuel Leak Area consists primarily of personnel housing units; Sandy Cove Housing (88 units), Eagle Bay Housing (33 units), and Turnkey Housing (15 units). Each housing unit contains of between two and four condos. Eagle Bay Housing and Turnkey Housing are no longer occupied. All three housing areas occupy approximately 100 acres that include open areas between the separate housing complexes. Two school buildings (one unoccupied), their associated play yards, and miscellaneous public facilities are adjacent to the SWMU 62, New Housing Fuel Leak Area but are not included as part of the site itself. Free product recovery activities occur on the Eagle Bay Housing portion of the site located south of the airport terminal (Figure 2-1).

The ground surface surrounding the housing units at SWMU 62, New Housing Fuel Leak Area consists of grass-covered residential lawns, paved streets, sidewalks, and driveways. The general topography of the site is flat to slightly undulating, with surface drainage predominantly collected and discharged to surface water bodies by ditches and the storm sewer system. Ground surface elevations in this area are generally about 24 to 30 feet above mean lower low water (MLLW). The more regional topography typically slopes gently downward toward the west and southwest. However, the topography in the northeast portion of the Sandy Cove Housing and Turnkey Housing areas slopes downward toward the northeast.

Prior to the military use of Adak Island during World War II, the western portion of the downtown area was occupied by a back-beach lagoon. The lagoon was separated from Kuluk Bay by a series of sand dunes located in the eastern portion of the downtown area, a section of which is currently occupied by the SWMU 62, New Housing Fuel Leak Area. Aerial photos of Adak Island taken before the arrival of military forces indicate the presence of small lakes or ponds within low-lying areas between the dunes. The lagoon was filled with sand and rock by the military forces to construct the airfield. The site occupied by the SWMU 62, New Housing Fuel Leak Area was the source of a substantial portion of the fill material placed into the lagoon. The low-lying areas containing small lakes or ponds within the boundaries of the site were also filled as military construction progressed.

### **2.2 GEOLOGY AND GROUNDWATER**

Groundwater is found as both a perched aquifer (laterally discontinuous) and a regional aquifer beneath the SWMU 62, New Housing Fuel Leak Area. Perched groundwater occurs

approximately 8 to 12 feet below ground surface (bgs) beneath Sandy Cove Housing and Turnkey Housing. This perched groundwater collects on top of the lower permeability, organic-rich silt layers believed to represent bottom sediments deposited within small lakes or ponds formerly located at the site. Boring logs from investigations conducted in the area indicated that perched water-bearing zones are less prevalent beneath Eagle Bay Housing (URSG 1999b). In this area the regional aquifer is encountered between approximately 18 feet bgs in the vicinity of Unit 139 (northeast of the Elementary School) to about 30 feet bgs west of Eagle Bay Housing.

Groundwater within the regional aquifer beneath Eagle Bay Housing appears to flow generally west toward East Canal of the airport ditch system (Figure 2-2). In the southeast portion of Sandy Cove Housing, groundwater flow becomes more southward, toward Sweeper Cove. In the northeast portion of Sandy Cove Housing and some or all of Turnkey Housing, groundwater appears to flow east-northeast toward Kuluk Bay based on depth to groundwater measured during the previous long-term monitoring (LTM) field events. The 2013 LTM field measurements and the resulting calculated groundwater surface elevations are presented in Appendix C, Table C-1. A more detailed description of the hydrogeology at the site is provided in the Focused Feasibility Study (URS 2005).

The downtown aquifer that underlies SWMU 62, New Housing Fuel Leak Area is not currently used as a source of drinking water, nor is it reasonably expected to serve as a potential future source of drinking water (URS 2005). In addition, there is a land use restriction prohibiting the domestic use of groundwater in the downtown area (DOI, BLM, and TAC 2004).

### **2.3 RELEASE HISTORY**

During 1988 and 1989, the U.S. Navy (Navy) conducted inventory record reviews and visual site inspections in housing units and crawl spaces after occupants reported hydrocarbon-like odors. Five leaks in the heating fuel piping were discovered and repaired. The heating fuel distribution system was subsequently pressure tested to assess the extent of potential releases. Sixteen additional piping leaks were detected and repaired as a result of the pressure testing: 13 in Sandy Cove Housing, two in Eagle Bay Housing, and one in Turnkey Housing. On the basis of these findings, further investigation of the identified releases was undertaken.

Fuel-oil burning furnaces and water heaters located in each housing unit provide heating for living space and water, respectively. Jet Propellant 5 (JP-5) was formerly distributed from large aboveground storage tanks (ASTs) to individual housing units by underground iron piping coated with polyvinyl chloride (PVC). The pipelines include an aviation gasoline distribution system formerly used to provide fuel to truck fill stands along the airfield as well as the primary JP-5 pipelines and associated ASTs that stored fuel for distribution to the

individual housing units. Fuel for SWMU 62, New Housing Fuel Leak Area was stored as follows (EMCON 1996):

- For Sandy Cove Housing: two 30,000-gallon ASTs constructed on raised earthen pads at the junction of Raven Street and Bayshore Highway
- For Eagle Bay Housing: two 12,000-gallon ASTs constructed on raised earthen pads located along Main Road, approximately 400 feet southwest of the high school
- For Turnkey Housing: two 37,000-gallon ASTs constructed on raised earthen pads located north of Kagalaska Drive and northwest of Turnkey Housing

The piping that distributed fuel to the individual housing units consisted of 2-inch diameter main trunk line piping connected to 0.75- or 1-inch diameter lateral lines to housing units. A 0.5-inch diameter copper pipe supplied fuel from the lateral lines to individual units. The fuel distribution system was designed to provide fuel to the housing units under gravity flow. However, booster pumps were reportedly installed to increase fuel flow to housing units near the end of the distribution system.

## **2.4 REMEDIAL ACTIONS**

During 1989, the Navy conducted soil removal actions from under selected housing units where heating fuel was released through piping leaks. Surface soil sampling activities associated with these removal actions consisted primarily of field screening soil samples collected from crawl spaces beneath the housing units where the pipelines had been repaired. Field screening consisted of soil vapor headspace and sheen testing. These activities resulted in the removal of approximately 102 cubic yards of soil (URSG 1999a). The excavated material was replaced with clean sand, and vapor barriers sealed to the housing unit foundations were installed. These remedial actions eliminated surface exposure to released petroleum hydrocarbons in the housing area.

As a result of the release investigations conducted by the Navy, a free product recovery trench and 16 free product recovery sumps were installed in 1989. The recovery system was extensively modified from a dual-stage recovery system to a lower maintenance total-fluids recovery system during October 1996. The recovery system operated until May 2000 when it was determined to have met the negotiated product recovery endpoints in the OU A ROD for systems dependent on water table depression and thus was shut down (URS 2004).

In July 2006, additional recovery/monitoring wells were installed at the site. Final decision documents for SWMU 62, New Housing Fuel Leak Area were approved on August 7, 2006. In September 2006, a recovery trench was installed at SWMU 62, New Housing Fuel Leak

Area. The final decision document for SWMU 62, New Housing Fuel Leak Area, required that product recovery be restarted and be continued until the technically practicable endpoint for free product recovery is achieved. Currently, free product recovery is accomplished using manual recovery methods (see Section 2.6).

Free product volumes historically recovered from the site through September 2013 are presented in Table 2-1.

## 2.5 GROUNDWATER ELEVATIONS AND PRODUCT THICKNESSES

During product recovery activities at SWMU 62, New Housing Fuel Leak Area, monitoring wells were measured for groundwater elevations and the presence of free product. Monthly and average groundwater elevations for each well from October 2012 through September 2013 are presented in Table 2-2. Groundwater elevations were corrected for the presence of free product, where observed, by using the following equation:

$$DTW_C = DTW_M - [ (\rho_{lnapl} / \rho_{water}) * MPT ]$$

Where:  $\rho_{lnapl}$  = density of light non-aqueous phase liquid (diesel - 850 kilograms per cubic meter [kg/m<sup>3</sup>])  
 $\rho_{water}$  = density of water (1,000 kg/m<sup>3</sup>)  
 $DTW_C$  = corrected depth to water  
 $DTW_M$  = measured depth to water  
 $MPT$  = measured product thickness

Monthly average groundwater elevations ranged from a low of 2.87 feet above MLLW in September 2013 to a high of 3.80 feet above MLLW in April 2013.

Free product thickness measurements, including minimum, maximum, and average, are presented in Table 2-3. The maximum thickness of measured free product in a monitoring well at SWMU 62, New Housing Fuel Leak Area was 0.51 feet in well 03-101 in December 2012. Average monthly product thicknesses ranged from 0.02 feet in October 2012 to 0.06 feet in December 2012. From October 2012 through September 2013, free product was detected at least once in 12 of the 14 wells and sumps monitored. Detectable free product was observed in recovery sumps SWMU62-R2, SWMU62-R3, SWMU62-R4, and SWMU62-R5 up to a maximum of 0.22 feet in SWMU62-R3. Recovery sumps SWMU62-R3 and SWMU62-R4 were observed to have detectable product during all 6 field events during the reporting period. Figure 2-3 shows the thicknesses of product observed in the recovery sumps over the last 12 months.

## 2.6 RECOVERED VOLUMES

Free product recovery at the site is currently conducted using a combination of hand bailing, passive canisters, and sorbent socks installed in site wells. Table 2-1 provided the volumes recovered since

1989. Prior to the restart of free product recovery in September 2006, both free product and purge water were recovered and included in the gallons recovered in Table 2-1. Beginning in September 2006, product recovery protocols were modified so only free product was recovered from the wells. The total volume of product recovered from the site since the September 2006 startup is approximately 110 gallons. The trend of recovered product volume over time for this site has decreased since product recovery activities were resumed in September 2006 (Figure 2-4).

Table 2-4 lists the average and monthly volume of product recovered from each well. Free product was recovered from four of the 14 wells/sumps monitored (see Table 2-3) during one or more monitoring events. The maximum total volume of recovered product during the 12 months in any well or sump was 6.38 gallons in sump SWMU62-R3. The total volume of free product recovered October 2012 through September 2013 reporting period was 12.64 gallons, and the maximum volume recovered in one month was 2.53 gallons during the April 2013 event. Figure 2-5 illustrates the 6-month moving average for product recovered at SWMU 62, New Housing Fuel Leak Area during the reporting period. The 6-month moving average of recovery volumes did not exceed the ROD practical endpoint of 5 gallons during the reporting period.

Monthly average groundwater elevation was compared with monthly average product thickness and monthly total recovered product volume (Figure 2-6) to determine whether a relationship exists between fluctuating groundwater elevation and free product observed in the monitored wells. In general, there appears to be a weak correlation between increased product recovery level and thickness with decreased water table elevation in this area.

## **2.7 COMPARISON OF PRODUCT RECOVERY TO ENDPOINT CRITERIA**

Free product recovery information obtained from September 2006 through September 2013 was used to determine whether product recovery activities have been effective. The monthly volume of product recovered has been decreasing since September 2006 (Figure 2-5).

Monthly average free product recovery has been below 5 gallons since November 2006. The 6-month moving average for the reporting period ranged from 0.56 gallons in March 2013 to 1.55 gallons in September 2013 (Table 2-4). Therefore, the technically practical endpoint of less than five gallons per monthly recovery state in the ROD has been met at this site.

However, the practicable endpoint for the recovery trenches has not met the remedial objectives; therefore, free product recovery will continue. In four of the six recovery sumps, product was observed at greater than the ROD endpoint of 0.01 during at least one sampling event throughout the reporting period.

**Table 2-1.** Historical Free Product Recovery Data, SWMU 62, New Housing Fuel Leak Area

<b>Date</b>	<b>Gallons Recovered</b>	<b>Date</b>	<b>Gallons Recovered</b>	<b>Date</b>	<b>Gallons Recovered</b>
CY 1989	70,000	Jan-06	---	Jan-07	0.49
CY 1990	12,000	Feb-06	---	Feb-07	0.26
CY 1991	6,500	Mar-06	---	Mar-07	1.73
CY 1992	3,000	Apr-06	---	Apr-07	1.42
CY 1993	---	May-06	---	May-07	1.36
CY 1994	26,000	Jun-06	---	Jun-07	1.39
CY 1995	11,000	Jul-06	---	Jul-07	1.81
CY 1996	13,400	Aug-06	---	Aug-07	2.09
CY 1997	9,500	Sep-06	15.75	Sep-07	2.21
CY 1998	1,600	Oct-06	5.59	Oct-07	1.58
CY 1999	500	Nov-06	4.63	Nov-07	0.90
CY 2000 - 2005	---	Dec-06	3.88	Dec-07	0.72
<b>Total</b>	<b>153,500</b>	<b>2006 Total</b>	<b>29.85</b>	<b>2007 Total</b>	<b>15.95</b>
Jan-08	0.47	Jan-09	0.36	Jan-10	0.58
Feb-08	1.66	Feb-09	0.13	Feb-10	0.92
Mar-08	0.58	Mar-09	4.09	Mar-10	0.30
Apr-08	1.09	Apr-09	0.33	Apr-10	0.21
May-08	0.24	May-09	0.14	May-10	0.50
Jun-08	0.53	Jun-09	0.97	Jun-10	1.77
Jul-08	0.33	Jul-09	0.68	Jul-10	0.82
Aug-08	0.36	Aug-09	0.43	Aug-10	1.90
Sep-08	0.68	Sep-09	0.81	Sep-10	2.63
Oct-08	0	Oct-09	0.29	Oct-10	2.20
Nov-08	0.11	Nov-09	0.51	Nov-10	1.91
Dec-08	0.24	Dec-09	0.43	Dec-10	1.69
<b>2008 Total</b>	<b>6.29</b>	<b>2009 Total</b>	<b>9.73</b>	<b>2010 Total</b>	<b>15.43</b>
Jan-11	NM	Jan-12	NM	Jan-13	NM
Feb-11	1.50	Feb-12	NM	Feb-13	NM
Mar-11	1.48	Mar-12	NM	Mar-13	NM
Apr-11	NM	Apr-12	1.41	Apr-13	2.53
May-11	1.82	May-12	NM	May-13	NM
Jun-11	0.88	Jun-12	1.47	Jun-13	2.32
Jul-11	0.39	Jul-12	0.45	Jul-13	2.22
Aug-11	2.33	Aug-12	NM	Aug-13	NM
Sep-11	2.35	Sep-12	0.80	Sep-13	2.22
Oct-11	1.88	Oct-12	1.12		
Nov-11	NM	Nov-12	NM		
Dec-11	0.63	Dec-12	2.23		
<b>2011 Total</b>	<b>13.26</b>	<b>2012 Total</b>	<b>7.48</b>	<b>2013 Total</b>	<b>9.29</b>

*Notes:*

Gallons recovered for years between 1989 through 1999 include purged water.

CY – contract year

NM – not measured

SWMU – solid waste management unit

Source: URS Group (2005), TtEC (2005), and current report

**Table 2-2.** Corrected Groundwater Elevation Summary from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area

Monitoring Well	Well Elevation (ft above MLLW)	Total Depth of Well (ft bgs)	Oct-12 (ft above MLLW)	Nov-12 (ft above MLLW)	Dec-12 (ft above MLLW)	Jan-13 (ft above MLLW)	Feb-13 (ft above MLLW)	Mar-13 (ft above MLLW)	Apr-13 (ft above MLLW)	May-13 (ft above MLLW)	Jun-13 (ft above MLLW)	Jul-13 (ft above MLLW)	Aug-13 (ft above MLLW)	Sep-13 (ft above MLLW)	Minimum Groundwater Elevation (ft above MLLW)	Maximum Groundwater Elevation (ft above MLLW)	Average Groundwater Elevation (ft above MLLW)
03-101	26.01	26	3.86	NM	3.88	NM	NM	NM	4.77	NM	3.97	3.56	NM	3.44	3.44	4.77	3.91
03-102	17.27	18.5	3.40	NM	3.38	NM	NM	NM	3.88	NM	-0.50	3.17	NM	3.13	-0.50	3.88	2.74
HMW-303-3	31.64	31.2	4.45	NM	4.50	NM	NM	NM	5.58	NM	4.41	3.85	NM	3.66	3.66	5.58	4.41
HMW-303-11	30.35	32.5	4.10	NM	4.16	NM	NM	NM	5.10	NM	4.26	3.79	NM	3.64	3.64	5.10	4.17
MW-15	20.96	22	3.56	NM	3.52	NM	NM	NM	4.34	NM	3.63	3.25	NM	3.21	3.21	4.34	3.58
MW-303-12	25.80	35.5	5.07	NM	5.20	NM	NM	NM	6.47	NM	5.12	4.47	NM	4.13	4.13	6.47	5.08
RW-303-4	27.89	38	6.47	NM	6.60	NM	NM	NM	7.84	NM	6.50	5.85	NM	4.54	4.54	7.84	6.30
RW-303-15	31.26	34.1	4.04	NM	4.08	NM	NM	NM	5.03	NM	4.17	3.75	NM	3.58	3.58	5.03	4.11
<b>Sumps</b>																	
SWMU62-R1	6.52	10.30	4.45	NM	4.50	NM	NM	NM	5.58	NM	4.41	3.85	NM	3.66	3.64	5.10	4.17
SWMU62-R2	6.80	10.34	4.10	NM	4.16	NM	NM	NM	5.10	NM	4.26	3.79	NM	3.64	3.21	4.34	3.58
SWMU62-R3	7.47	10.48	3.56	NM	3.52	NM	NM	NM	4.34	NM	3.63	3.25	NM	3.21	4.13	6.47	5.08
SWMU62-R4	8.04	10.19	5.07	NM	5.20	NM	NM	NM	6.47	NM	5.12	4.47	NM	4.13	4.54	7.84	6.30
SWMU62-R5	8.97	9.30	6.47	NM	6.60	NM	NM	NM	7.84	NM	6.50	5.85	NM	4.54	3.58	5.03	4.11
SWMU62-R6	9.52	9.90	4.04	NM	4.08	NM	NM	NM	5.03	NM	4.17	3.75	NM	3.58	-0.47	-0.12	-0.29
<b>Average Elevation</b>	NA	NA	3.05	NM	3.09	NM	NM	NM	3.80	NM	2.91	2.95	NM	2.87	NA	NA	NA

Notes:  
 Groundwater elevations were corrected for free product if present.  
 bgs – below ground surface  
 ft – feet  
 MLLW – mean lower low water  
 NA – not applicable  
 NM – not measured  
 SWMU – solid waste management unit

**Table 2-3.** Product Thickness Summary from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area

Monitoring Well	Oct-12 (feet)	Nov-12 (feet)	Dec-12 (feet)	Jan-13 (feet)	Feb-13 (feet)	Mar-13 (feet)	Apr-13 (feet)	May-13 (feet)	Jun-13 (feet)	Jul-13 (feet)	Aug-13 (feet)	Sep-13 (feet)	Minimum Product Thickness (feet)	Maximum Product Thickness (feet)	Average Product Thickness (feet)	Total Months Product Found
<b>03-101</b>	<b>0.02</b>	NM	<b>0.51</b>	NM	NM	NM	<b>0.02</b>	NM	0	<b>0.06</b>	NM	0	0	<b>0.51</b>	<b>0.10</b>	<b>4</b>
<b>03-102</b>	0	NM	0	NM	NM	NM	0	NM	<b>0.01</b>	0	NM	0	0	<b>0.01</b>	<b>0.00</b>	<b>1</b>
<b>HMW-303-3</b>	0	NM	0	NM	NM	NM	0	NM	0	<b>0.01</b>	NM	0	0	<b>0.01</b>	<b>0.00</b>	<b>1</b>
<b>HMW-303-11</b>	0	NM	0	NM	NM	NM	0	NM	<b>0.01</b>	0	NM	0	0	<b>0.01</b>	<b>0.00</b>	<b>1</b>
<b>MW-15</b>	0	NM	0	NM	NM	NM	0	NM	0	0	NM	<b>0.03</b>	0	<b>0.03</b>	<b>0.01</b>	<b>1</b>
<b>MW-303-12</b>	<b>0.02</b>	NM	0	NM	NM	NM	0	NM	0	0	NM	<b>0.04</b>	0	<b>0.04</b>	<b>0.01</b>	<b>2</b>
<b>RW-303-4</b>	0	NM	0	NM	NM	NM	0	NM	0	0	NM	<b>0.07</b>	0	<b>0.07</b>	<b>0.01</b>	<b>1</b>
<b>RW-303-15</b>	0	NM	<b>0.01</b>	NM	NM	NM	<b>0.29</b>	NM	<b>0.18</b>	<b>0.03</b>	NM	0	0	<b>0.29</b>	<b>0.08</b>	<b>4</b>
<b>Sumps</b>																
SWMU62-R1	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>SWMU62-R2</b>	0	NM	<b>0.01</b>	NM	NM	NM	0	NM	0	0	NM	0	0	<b>0.01</b>	<b>0.00</b>	<b>1</b>
<b>SWMU62-R3</b>	<b>0.11</b>	NM	<b>0.13</b>	NM	NM	NM	<b>0.16</b>	NM	<b>0.22</b>	<b>0.16</b>	NM	<b>0.16</b>	<b>0.11</b>	<b>0.22</b>	<b>0.16</b>	<b>6</b>
<b>SWMU62-R4</b>	<b>0.09</b>	NM	<b>0.12</b>	NM	NM	NM	<b>0.06</b>	NM	<b>0.13</b>	<b>0.18</b>	NM	<b>0.15</b>	<b>0.06</b>	<b>0.18</b>	<b>0.12</b>	<b>6</b>
<b>SWMU62-R5</b>	<b>0.03</b>	NM	<b>0.01</b>	NM	NM	NM	<b>0.01</b>	NM	0	0	NM	0	0	<b>0.03</b>	<b>0.01</b>	<b>3</b>
SWMU62-R6	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>Average Product Thickness</b>	<b>0.02</b>	NM	<b>0.06</b>	NM	NM	NM	<b>0.04</b>	NM	<b>0.04</b>	<b>0.03</b>	NM	<b>0.03</b>	NA	NA	NA	NA

*Notes:*

**Bolded well IDs** indicate monitoring wells that had product observed during the reporting period.

Disc - discontinued

NA – not applicable

NM – not measured

SWMU – solid waste management unit

**Table 2-4.** Recovered Product Volume Summary from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area

Monitoring Well	Oct-12 (gallons)	Nov-12 (gallons)	Dec-12 (gallons)	Jan-13 (gallons)	Feb-13 (gallons)	Mar-13 (gallons)	Apr-13 (gallons)	May-13 (gallon)	Jun-13 (gallon)	Jul-13 (gallons)	Aug-13 (gallons)	Sep-13 (gallons)	Minimum Volume of Recovered Product (gallons)	Maximum Volume of Recovered Product (gallons)	Average Volume of Recovered Product (gallons)	Total Volume of Recovered Product (gallons)
<b>03-101</b>	0	NM	<b>0.33</b>	NM	NM	NM	<b>0.03</b>	NM	0	0	NM	0	0	<b>0.33</b>	<b>0.06</b>	<b>0.36</b>
03-102	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
HMW-303-3	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
HMW-303-11	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
MW-15	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
MW-303-12	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
RW-303-4	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>RW-303-15</b>	0	NM	0	NM	NM	NM	<b>0.41</b>	NM	<b>0.10</b>	0	NM	0	0	<b>0.41</b>	<b>0.09</b>	<b>0.51</b>
<b>Sumps</b>																
SWMU62-R1	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
SWMU62-R2	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>SWMU62-R3</b>	<b>1.11</b>	NM	<b>0.95</b>	NM	NM	NM	<b>0.99</b>	NM	<b>1.11</b>	<b>1.11</b>	NM	<b>1.11</b>	<b>0.95</b>	<b>1.11</b>	<b>1.06</b>	<b>6.38</b>
<b>SWMU62-R4</b>	<b>0.01</b>	NM	<b>0.95</b>	NM	NM	NM	<b>1.10</b>	NM	<b>1.11</b>	<b>1.11</b>	NM	<b>1.11</b>	<b>0.01</b>	<b>1.11</b>	<b>0.90</b>	<b>5.39</b>
SWMU62-R5	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
SWMU62-R6	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>Total Volume of Recovered Product (gallons)</b>	<b>1.12</b>	NM	<b>2.23</b>	NM	NM	NM	<b>2.53</b>	NM	<b>2.32</b>	<b>2.22</b>	NM	<b>2.22</b>	NA	NA	NA	<b>12.64</b>
<b>6-Month Moving Average</b>	<b>0.64</b>	<b>0.64</b>	<b>0.77</b>	<b>0.69</b>	<b>0.69</b>	<b>0.56</b>	<b>0.79</b>	<b>0.79</b>	<b>0.81</b>	<b>1.18</b>	<b>1.18</b>	<b>1.55</b>	NA	NA	NA	NA

*Notes:*

**Bolded well IDs** indicate monitoring wells that had product recovered during the reporting period.

Disc - discontinued

NA – not applicable

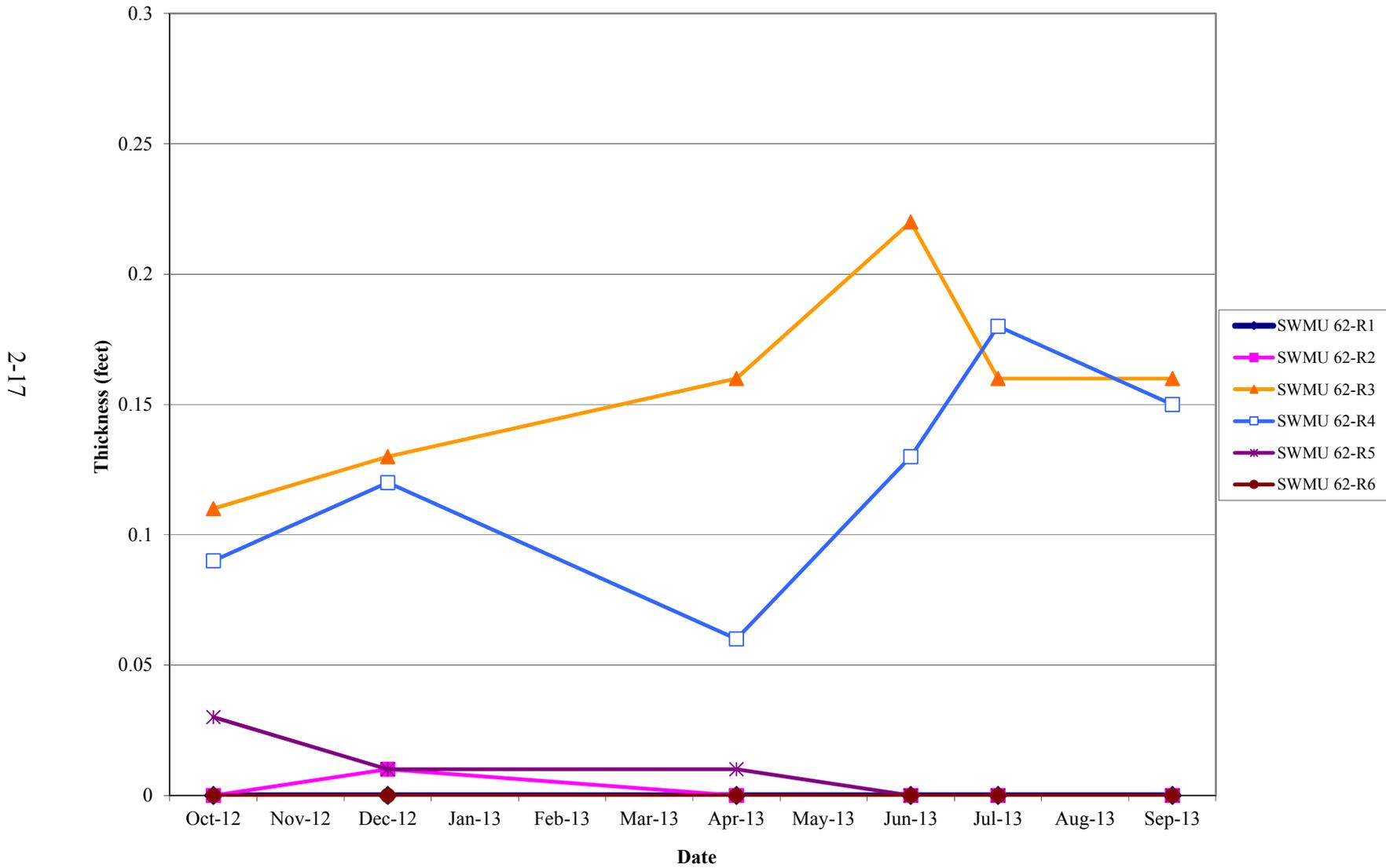
NM – not measured

SWMU – solid waste management unit

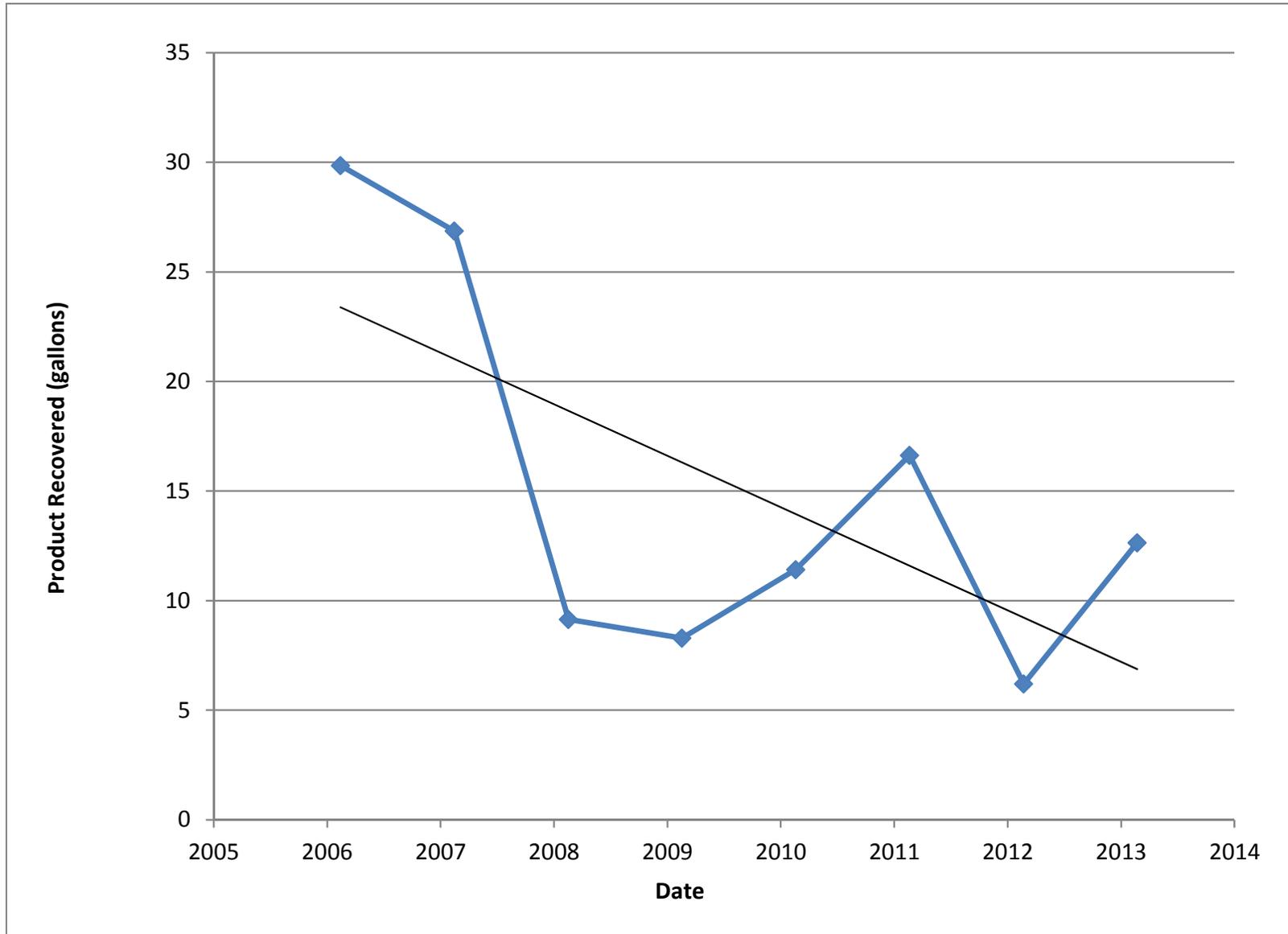




**Figure 2-3.** Free Product Thickness in SWMU 62, New Housing Fuel Leak Area Recovery Sumps

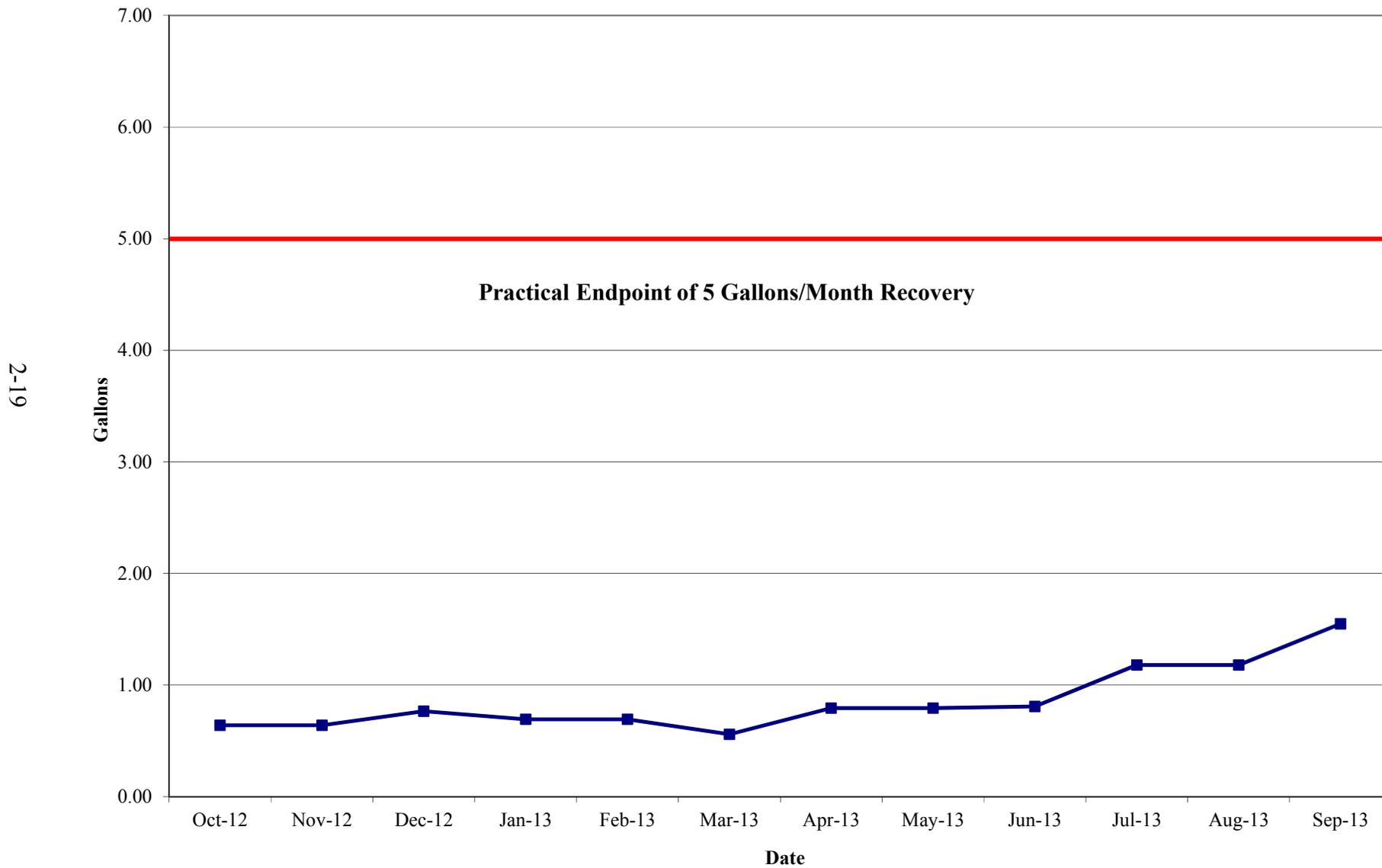


**Figure 2-4.** Historical Product Recovery, October 2006 through September 2013, SWMU 62, New Housing Fuel Leak Area

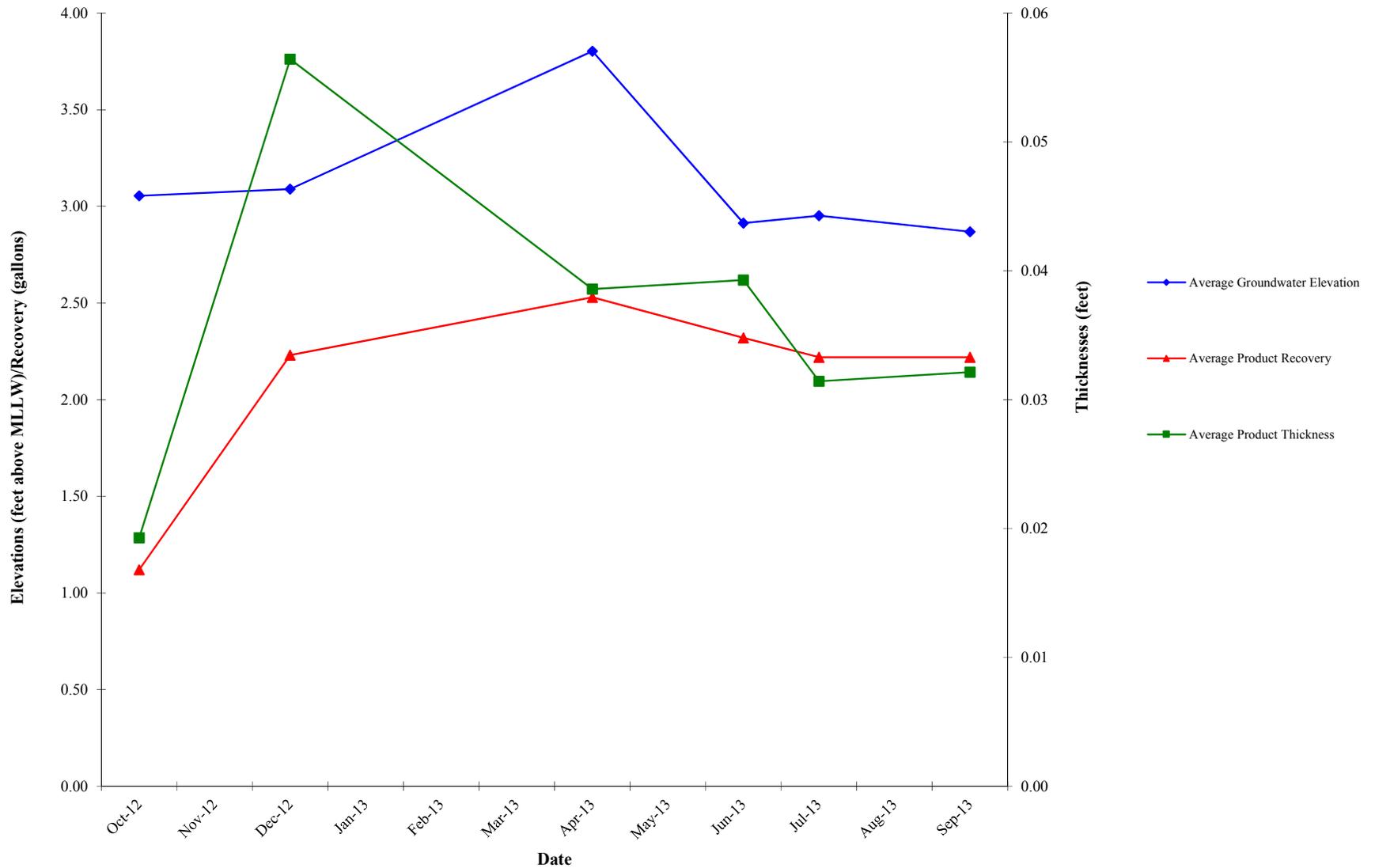


2-18

**Figure 2-5.** Six-Month Moving Average of Product Recovered, SWMU 62, New Housing Fuel Leak Area



**Figure 2-6.** Comparison of Average Groundwater Elevation, Average Product Thickness, and Total Recovered Product Volume from October 2012 through September 2013, SWMU 62, New Housing Fuel Leak Area



2-20

### **3. AREA 303**

#### **3.1 SITE DESCRIPTION**

Area 303 is located east of the air terminal and west of the high school building in downtown Adak (Figure 3-1). The general topography of the site is relatively flat with surface drainage directed to the west. The ground surface of Area 303 consists of the asphalt-paved Main Road, multiple small gravel-covered lots in developed areas near existing structures, and an extensive area covered with native grasses composing the less disturbed areas. Elevations of the ground surface in this area are generally 26 to 30 feet above MLLW.

Prior to military use of Adak Island during World War II, the western portion of the downtown area was occupied by a back-beach lagoon. The lagoon was separated from Kuluk Bay by a series of sand dunes. Military forces filled the lagoon with sand and rock to construct the airfield. The sand dunes were leveled to create the relatively flat area occupied by downtown Adak today. Area 303 is believed to be situated near the eastern shoreline of the former lagoon.

#### **3.2 GEOLOGY AND GROUNDWATER**

The geology and hydrogeology at the site are characterized by sandy soils derived from stream, wind, and wave action. The subsurface soils have variable permeability and generally consist of sands and gravels with occasional layers of organic silt and clay. The saturated sands typical in the downtown portion of Adak Island have a high water-bearing capacity. The organic silts and clays have low water-bearing capacity and typically cause shallow water in the subsurface to pond above the primary aquifer as small perched groundwater zones.

Groundwater in the primary aquifer beneath the downtown area of Adak, situated west of Main Road, flows generally west toward the East Canal of the airport ditch system (see Figure 2-2). During the 2006 site characterization activities, groundwater in the primary aquifer was measured at depths ranging from 5 feet bgs to as much as 28 feet bgs, depending on the location. The 2013 LTM field measurements and the resulting calculated groundwater surface elevations are presented in Appendix C, Table C-2. The hydraulic gradient is fairly consistent across the site at 0.0027 foot/foot.

Layers of lower permeability material, such as organic silt and clay, are present within the sandy soils at several locations. These layers are believed to represent the position of either

the former lagoon bottom, or small lakes that occurred within low-lying areas between the sand dunes that were present in the downtown area prior to military arrival on Adak. These lower permeability layers retard the downward percolation of groundwater, which may result in localized zones of perched groundwater. Perched groundwater has been found in the northeast portion of Area 303 at depth ranging from approximately 2 to 5 feet bgs.

The closest surface water body in the vicinity of Area 303 is the East Canal, which is located near the southwestern boundary of the site.

### **3.3 RELEASE HISTORY**

The following potential sources of the petroleum hydrocarbons present at Area 303 include portions of major fuel distribution pipelines located within Area 303:

- An aviation gasoline pipeline distribution system formerly used to provide fuel to truck-fuel stands along the airfield and transfer fuel from the former Fuel Dock No. 7 to Tank Farm B.
- A diesel pipeline formerly used to transfer fuel from the former Fuel Dock No. 7 to Tank Farm C.
- The JP-5 pipelines, including the Main Road Pipeline, formerly used to transfer fuel from the Fuels Facility to Steam Plant No. 4 and various aboveground storage tanks that stored fuel for distribution to individual housing units at SWMU 62.

None of these pipelines are currently active, and all pipelines within the vicinity of Area 303 have been decommissioned (Navy 2011). Based on the results of the 2006 remedial investigation and the 2009 pipeline integrity testing performed as part of pipeline decommissioning, the source of gasoline-range hydrocarbons was likely the aviation gasoline pipeline distribution system. The diesel and JP-5 pipelines are not considered potential sources, because these pipelines were used to transport heavier petroleum products.

### **3.4 REMEDIAL ACTIONS**

The selected remedy for Area 303 is monitored natural attenuation, institutional controls, and free product recovery. Institutional controls, including excavation notification and a groundwater use restriction, will remain in effect to protect human health and the environment until groundwater cleanup levels in 18 Alaska Administrative Code (AAC) 75.345, Table C, have been achieved for gasoline and diesel products. Passive free product recovery will be used to reduce the risk of exposure to free product and of free product migrating to East Canal surface water.

### **3.5 GROUNDWATER ELEVATIONS AND PRODUCT THICKNESSES**

At Area 303, monitoring wells were measured for groundwater elevations and the presence of free product beginning in June 2013. Monthly and average groundwater elevations for each well from June 2013 through September 2013 are presented in Table 3-1. Groundwater elevations were corrected for the presence of free product, as needed, by using the equation presented in Section 2.5. Monthly average groundwater elevations ranged from a low of 4.23 feet above MLLW in September 2013 to a high of 5.37 feet above MLLW in June 2013.

Free product thickness measurements, including minimum, maximum, and average are presented in Table 3-2. Between June and September 2013, free product was detected at least once in three of the 17 wells monitored. Detectable free product was only observed in MW-303-28, MW-303-39, and MW-303-42. No free product was observed in any of the monitoring wells during the September 2013 free product recovery event. The maximum thickness of measured free product in a monitoring well at the site was 0.32 feet in well MW-303-28 in July 2013.

### **3.6 RECOVERED VOLUMES**

Free product recovery at the site has been conducted through a combination of hand bailing, passive canisters, and sorbent socks installed in site wells. Table 3-3 lists the average and monthly volume of product recovered from each well. One (MW-303-28) of the 17 wells monitored had a total monthly volume of recovered product greater than zero for one or more months (see Table 3-3). The total volume of recovered product during the 4-month period from MW-303-28 was 0.22 gallons.

**Table 3-1.** Corrected Groundwater Elevation Summary from June 2013 through September 2013, Area 303

Monitoring Well	Well Elevation (ft above MLLW)	Total Depth of Well (ft bgs)	Jun-13 (ft above MLLW)	Jul-13 (ft above MLLW)	Aug-13 (ft above MLLW)	Sep-13 (ft above MLLW)	Minimum Groundwater Elevation (ft above MLLW)	Maximum Groundwater Elevation (ft above MLLW)	Average Groundwater Elevation (ft above MLLW)
03-107	31.30	30.5	4.46	3.95	3.72	3.77	3.72	4.46	3.98
MRP-MW2	26.99	25.9	6.83	6.39	5.51	5.20	5.20	6.83	5.98
04-211	28.45	30.0	5.53	4.85	4.54	4.48	4.48	5.53	4.85
MW-303-28	32.83	34.5	5.46	4.80	4.43	4.40	4.40	5.46	4.77
MW-303-32	29.16	28.5	5.94	5.21	4.86	4.76	4.76	5.94	5.19
MW-303-33	26.57	27.5	NM	4.10	3.78	3.73	3.73	4.10	3.87
MW-303-42	32.13	30.0	4.50	3.75	3.42	3.28	3.28	4.50	3.74
MW-303-43	32.50	30.0	4.92	4.14	3.75	3.57	3.57	4.92	4.10
MW-303-44	32.91	30.0	4.68	3.96	3.59	3.43	3.43	4.68	3.92
03-012	9.27	9.0	1.88	1.87	1.64	2.04	1.64	2.04	1.86
MW-303-37	16.23	17.5	3.58	3.24	3.04	3.21	3.04	3.58	3.27
MW-303-30	31.20	32.5	4.30	3.82	3.58	3.66	3.58	4.30	3.84
MW-303-31	31.82	33.0	5.07	4.45	4.17	4.16	4.16	5.07	4.46
MW-303-38	27.68	27.0	3.18	2.61	2.37	2.39	2.37	3.18	2.63
MW-303-39	23.43	26.0	2.64	2.19	1.98	2.06	1.98	2.64	2.22
MW-303-40	17.68	14.0	10.87	10.35	10.15	10.25	10.15	10.87	10.40
MW-303-41	30.73	25.0	12.16	10.09	6.84	5.47	5.47	12.16	8.64
<b>Average Elevation</b>	NA	NA	5.37	4.82	4.32	4.23	NA	NA	NA

*Notes:*

Groundwater elevations were corrected for free product if present.

bgs – below ground surface

ft – feet

MLLW – mean lower low water

NA – not applicable

NM – not measured

3-4

**Table 3-2.** Product Thickness Summary from June 2013 through September 2013, Area 303

Monitoring Well	Jun-13 (feet)	Jul-13 (feet)	Aug-13 (feet)	Sep-13 (feet)	Minimum Product Thickness (feet)	Maximum Product Thickness (feet)	Average Product Thickness (feet)	Total Months Product Found
03-107	0	0	0	0	0	0	0	0
MRP-MW2	0	0	0	0	0	0	0	0
04-211	0	0	0	0	0	0	0	0
<b>MW-303-28</b>	0	<b>0.32</b>	<b>0.31</b>	0	0	<b>0.32</b>	<b>0.16</b>	<b>2</b>
MW-303-32	0	0	0	0	0	0	0	0
MW-303-33	NM	0	0	0	0	0	0	0
<b>MW-303-42</b>	<b>0.02</b>	0	<b>0.02</b>	0	0	<b>0.02</b>	<b>0.01</b>	<b>2</b>
MW-303-43	0	0	0	0	0	0	0	0
MW-303-44	0	0	0	0	0	0	0	0
03-012	0	0	0	0	0	0	0	0
MW-303-37	0	0	0	0	0	0	0	0
MW-303-30	0	0	0	0	0	0	0	0
MW-303-31	0	0	0	0	0	0	0	0
MW-303-38	0	0	0	0	0	0	0	0
<b>MW-303-39</b>	<b>0.01</b>	0	0	0	0	<b>0.01</b>	<b>0.00</b>	<b>1</b>
MW-303-40	0	0	0	0	0	0	0	0
MW-303-41	0	0	0	0	0	0	0	0
<b>Average Product Thickness</b>	<b>0.00</b>	<b>0.02</b>	<b>0.02</b>	0	NA	NA	NA	NA

*Notes:*

**Bolded well IDs** indicate monitoring wells that had product observed during the reporting period.

NA – not applicable

NM – not measured

**Table 3-3.** Recovered Product Volume Summary from June 2013 through September 2013, Area 303

<b>Monitoring Well</b>	<b>Jun-13 (gallon)</b>	<b>Jul-13 (gallons)</b>	<b>Aug-13 (gallons)</b>	<b>Sep-13 (gallons)</b>	<b>Minimum Volume of Recovered Product (gallons)</b>	<b>Maximum Volume of Recovered Product (gallons)</b>	<b>Average Volume of Recovered Product (gallons)</b>	<b>Total Volume of Recovered Product (gallons)</b>
03-107	0	0	0	0	0	0	0	0
MRP-MW2	0	0	0	0	0	0	0	0
04-211	0	0	0	0	0	0	0	0
<b>MW-303-28</b>	0	<b>0.07</b>	<b>0.15</b>	0	0	<b>0.15</b>	<b>0.06</b>	<b>0.22</b>
MW-303-32	0	0	0	0	0	0	0	0
MW-303-33	0	0	0	0	0	0	0	0
MW-303-42	0	0	0	0	0	0	0	0
MW-303-43	0	0	0	0	0	0	0	0
MW-303-44	0	0	0	0	0	0	0	0
03-012	0	0	0	0	0	0	0	0
MW-303-37	0	0	0	0	0	0	0	0
MW-303-30	0	0	0	0	0	0	0	0
MW-303-31	0	0	0	0	0	0	0	0
MW-303-38	0	0	0	0	0	0	0	0
MW-303-39	0	0	0	0	0	0	0	0
MW-303-40	0	0	0	0	0	0	0	0
MW-303-41	0	0	0	0	0	0	0	0
<b>Total Volume of Recovered Product (gallons)</b>	0	<b>0.07</b>	<b>0.15</b>	0	NA	NA	NA	<b>0.22</b>

Notes:

**Bolded well IDs** indicate monitoring wells that had product recovered during the reporting period.

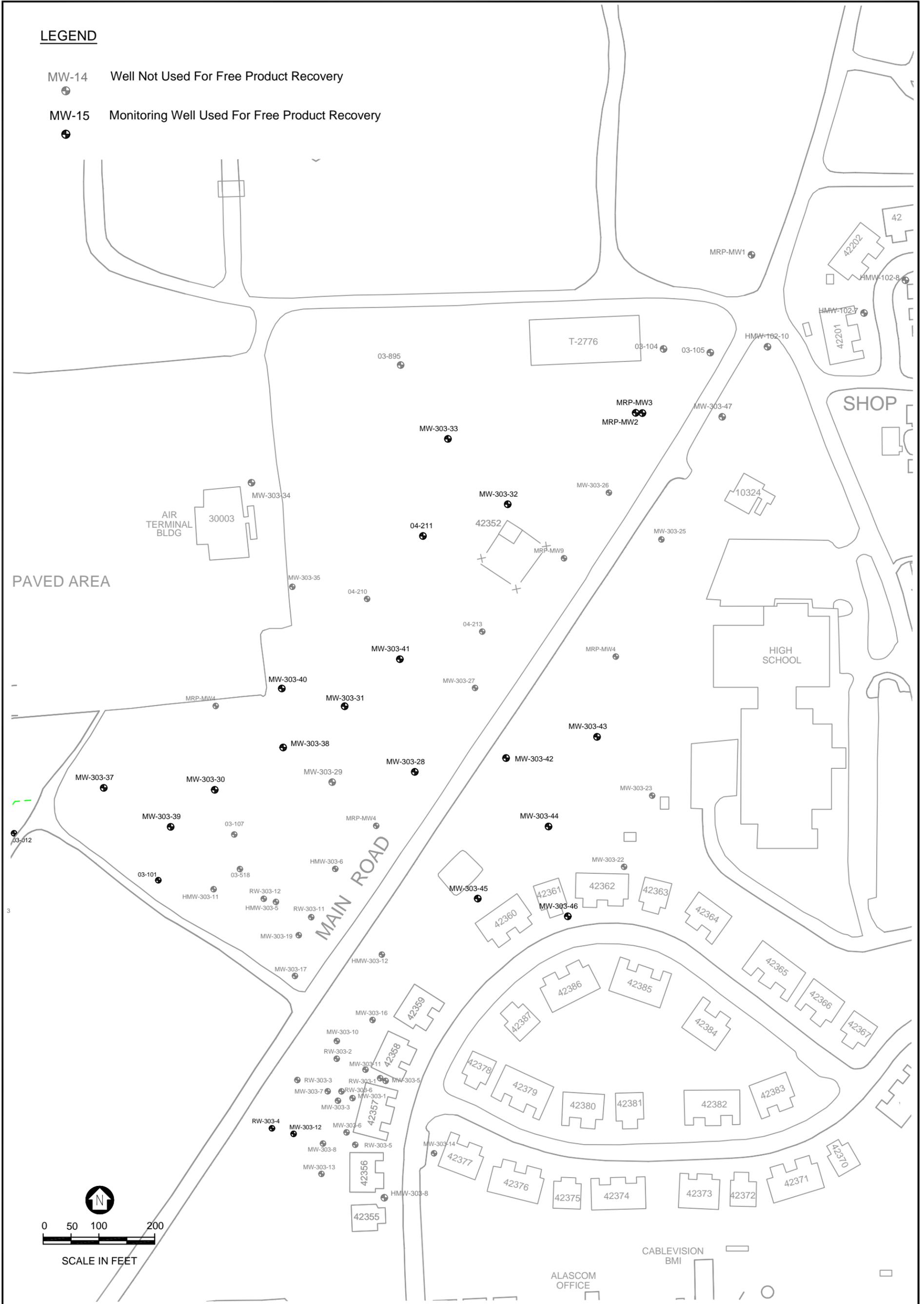
NA – not applicable

NM – not measured

3-6

**LEGEND**

- MW-14 Well Not Used For Free Product Recovery
- MW-15 Monitoring Well Used For Free Product Recovery



**U.S. NAVY SEALASKA**

**Figure 3-1  
Site Features - Area 303**

Task Order 60  
Remedial Action  
Summary Report  
Adak, Alaska

## **4. ADDITIONAL SITES**

### **4.1 SITE DESCRIPTION**

In 2006, specific wells at several additional sites were identified for free product recovery based on September 2006 LTM field observations. In May of 2007, during comment resolution for the 2006 Annual Groundwater Monitoring Report, ADEC and the Navy agreed to resume free product recovery at these wells. Free product activities were conducted at 23 additional wells located at the following 11 sites:

- GCI (General Communication, Inc.) Compound
- NMCB Expanded Area
- North Pacific (NORPAC) Hill Seep Area
- SA 78, Old Transportation Building
- SA 80, Steam Plant 4
- SA 82, P-80/P-81 Buildings
- SA 88, P-70 Energy Generator
- South of Runway 18-36 Area
- SWMU 58/SA 73, Heating Plant 6
- SWMU 62, New Housing Fuel Leak Area
- Tanker Shed

In October 2008, free product activities were discontinued at the NMCB Expanded Area because practical endpoints for monthly volume of product recovery had been achieved (SES-TECH 2009). In November 2009, ADEC granted conditional closure at SA 82, P-80/P-81 Buildings so free product activities ceased. In May of 2010, during comment resolution for the 2009 Annual Groundwater Monitoring Report, ADEC and the Navy agreed to resume free product recovery at select NMCB Expanded Area wells for surface water protection due to the observation of free product on the groundwater. It was additionally agreed to discontinue free product recovery activities at GCI Compound; SA 78, Old Transportation Building; and Tanker Shed sites because no or very small quantities of free product were recovered during the previous monitoring year October 2008 to September 2009 (SES-TECH 2010). In May 2011, during comment resolution for the 2010 Annual Groundwater Monitoring Report, ADEC agreed to grant conditional closure at

NORPAC Hill Seep Area and SA 88, P-70 Energy Generator because the practical endpoint criteria specified in the OU A ROD add been achieved.

In 2010, four additional monitoring wells were installed at SWMU 60, Tank Farm A downgradient of the site. Free product monitoring at two of these wells was initiated in April 2012.

For the 2012/2013 reporting period, SWMU 58/SA 73, Heating Plant 6 was eliminated from the free product recovery program as approved by ADEC. Former Power Plant, Building T-1451 was added to the monitoring program beginning in June 2013.

Free product recovery activities occurred at the following four sites during the sampling period October 2012 through September 2013:

- NMCB Expanded Area
- SA 80, Steam Plant 4
- SWMU 60, Tank Farm A
- Former Power Plant, Building T-1451

Product recovery was conducted during the 2012/2013 reporting period to fulfill surface water protection criteria under the ROD at NMCB Expanded Area, SWMU 60, Tank Farm A, and Former Power Plant T-1451. Product recovery was conducted at SA 80, Steam Plant 4 during the reporting period because of the observance of free product on groundwater and increasing trends in petroleum concentrations in downgradient wells. Each site is discussed in more detail below.

#### **4.1.1 NMCB Expanded Area**

The NMCB Expanded Area consists of lowlands between Seawall Road and Sweeper Cove, just east of the South of Runway 18-36 Area (Figure 4-1). Topography is flat, low-lying land, with elevations generally less than 15 feet above MLLW. Groundwater forms a regional unconfined aquifer with a tidally-influenced water table that is encountered approximately 5 to 10 feet bgs beneath the site (commonly referred to as the downtown aquifer). South of Seawall Road, the groundwater flow direction is to the south, toward Sweeper Cove. North of Seawall Road, the groundwater flow direction is generally to the northwest, toward East Canal. Groundwater at NMCB Expanded Area is not considered to be a potential future water source due to the potential for salt water intrusion, as per Alaska regulations (18 AAC 75.345[b][2]).

The Navy and ADEC selected the remedial alternatives of institutional controls, free-product recovery, and monitored natural attenuation (MNA) in 2005 under the State-Adak Environmental Restoration Agreement (SAERA). In 2008, free product recovery was discontinued because endpoint criteria were met. However during annual LTM activities, surface water protection criteria were observed to be exceeded based on the presence of free product in shoreline wells. Exceedances included the continued observance of free product and endpoint exceedances in shoreline wells, endpoint exceedances in shoreline sediment, and stable but not decreasing concentrations of petroleum constituents in groundwater. Therefore, monthly product recovery activities were re-started at this site in June 2010. The total of product removed from site wells October 2012 through September 2013 was 4.24 gallons.

#### **4.1.2 SA 80, Steam Plant 4**

The SA 80, Steam Plant 4 site is located in the northern downtown area between the Main Road and Runway 18-36 taxiway (Figure 4-2). Topography is relatively flat, low-lying land, with elevations between 25 and 30 feet above MLLW. Groundwater forms a regional unconfined aquifer with a water table that is encountered approximately 15 to 20 feet bgs beneath the site (commonly referred to as the downtown aquifer). The groundwater flow direction is to the west, toward the East Canal. A shallow perched aquifer zone has also been identified to occur in the area of the removed underground storage tanks (URS 2004). The groundwater at this site is not reasonably expected to be a potential future source of drinking water.

Product recovery endpoint for this site are not defined by the ROD; however, product recovery activities have been performed at this site at the request of ADEC because of the continued observance of free product in onsite wells. The total of product removed from site wells October 2012 through September 2013 was 0.91 gallons.

#### **4.1.3 SWMU 60, Tank Farm A**

The SWMU 60 site consists of Tank Farm A, located on an east-facing hill west of the lower reach of South Sweeper Creek (Figure 4-3). The portion of the site subject to this investigation is the lower elevation eastern end adjacent to South Sweeper Creek. Two monitoring wells installed in 2010 encountered floating product upgradient of the oil seep on the west bank of South Sweeper Creek. Boom 10 is maintained at this seep to control the migration of sheen to surface water.

During annual LTM activities, surface water protection criteria were observed to be exceeded. Exceedances included the observance of free product in newly installed monitoring wells, endpoint exceedances in groundwater, endpoint exceedances in shoreline sediment, and continued observance of a petroleum shoreline seep downgradient of the site. No product was removed from any of the site wells in October 2012 through September 2013.

#### **4.1.4 Former Power Plant, Building T-1451**

Former Power Plant, Building T-1451 is located along Main Road near the south end of Runway 18-36 near downtown Adak (Figure 4-4). Former Power Plant, Building T-1451 is bounded by Main Road to the West, Public Works Road to the north, and undeveloped land to the east and south.

The Former Power Plant site consist of a level gravel lot at an elevation of approximately 20 feet above MLLW and an area dominated by native grasses which slope down to the west towards East Canal. Overhead power lines run along the roadways to the north and west of the site. Underground utilities run along the roadway and in the area west of Building T-1451.

The ROD-required remedy for Former Power Plant, Building T-1451 is MNA. However in 2012, a removal action was completed to address petroleum in surface water. Free product recovery is currently conducted at nine wells (Table 4-2) as a follow-up to the removal action.

Product recovery endpoints for this site are not defined by the ROD; however, product recovery activities have been performed at this site at the request of ADEC. Monthly product recovery activities were started at this site in June 2013. Free product was observed in two of the wells (MW-1451-1 and MW-1451-7). However, the product layer observed in MW-1451-1 was too thin for recovery, so free product was removed from MW-1451-7 only. The total of product removed from site wells June 2013 through September 2013 was 2.37 gallons.

#### **4.2 GROUNDWATER ELEVATIONS AND PRODUCT THICKNESSES**

During product recovery activities at the additional sites, monitoring wells were measured for groundwater elevations and the presence of free product. Monthly groundwater elevations for each well from June through September 2013 are presented in Table 4-1. Groundwater elevations were corrected for the presence of free product, where observed, by using the equation presented in Section 2.5. Free product thickness measurements, including minimum, maximum, and average are presented in Table 4-2.

### **4.3 RECOVERED VOLUMES**

Free product recovery at the additional sites has been conducted through a combination of hand bailing, passive canisters, and sorbent socks installed in site wells. Table 4-3 lists the average and monthly volume of product recovered from each well. Five of the 19 wells monitored had recoverable product in one or more months during the reporting period (see Table 4-3). The maximum total volume of recovered product during the 12 months in any well was 3.81 gallons from NMCB-07 at the NMCB Expanded Area. The total volume of free product recovered from NMCB Expanded Area was 4.24 gallons; from SA 80, Steam Plant 4 was 0.91 gallons; from SWMU 60, Tank Farm A was 0 gallons; and from Former Power Plant, Building T-1451 was 2.37 gallons during October 2012 through September 2013 reporting period. The total volume of recovered product from all four sites for the 12 months of product recovery was 7.52 gallons and the maximum volume recovered in one month was 2.19 gallons in June 2013.

**Table 4-1.** Corrected Groundwater Elevation Summary from October 2012 through September 2013, Additional Sites

Monitoring Well	Well Elevation (ft above MLLW)	Total Depth of Well (ft bgs)	Oct-12 (ft above MLLW)	Nov-12 (ft above MLLW)	Dec-12 (ft above MLLW)	Jan-13 (ft above MLLW)	Feb-13 (ft above MLLW)	Mar-13 (ft above MLLW)	Apr-13 (ft above MLLW)	May-13 (ft above MLLW)	Jun-13 (ft above MLLW)	Jul-13 (ft above MLLW)	Aug-13 (ft above MLLW)	Sep-13 (ft above MLLW)	Minimum Groundwater Elevation (ft above MLLW)	Maximum Groundwater Elevation (ft above MLLW)	Average Groundwater Elevation (ft above MLLW)
<b>NMCB Expanded Area</b>																	
02-300	11.99	14.0	2.52	NM	2.75	NM	NM	NM	2.18	NM	2.70	2.26	NM	2.60	2.18	2.75	2.50
02-497	9.15	14.0	2.66	NM	2.74	NM	NM	NM	2.34	NM	2.78	2.41	NM	2.79	2.34	2.79	2.62
02-815	16.35	17.5	2.74	NM	2.74	NM	NM	NM	2.58	NM	3.01	2.65	NM	3.03	2.58	3.03	2.79
02-818	11.55	15.0	2.67	NM	2.66	NM	NM	NM	2.36	NM	2.81	2.55	NM	3.02	2.36	3.02	2.68
NMCB-07	11.85	19.3	2.52	NM	2.68	NM	NM	NM	2.17	NM	2.63	2.28	NM	2.60	2.17	2.68	2.48
NMCB-10	12.95	17.8	2.57	NM	2.40	NM	NM	NM	2.12	NM	2.47	2.16	NM	2.55	2.12	2.57	2.38
<b>SA 80 Steam Plant 4</b>																	
04-157	28.18	25.0	10.93	NM	10.58	NM	NM	NM	12.37	NM	10.46	9.61	NM	8.34	8.34	12.37	10.38
04-158	27.36	30.0	10.33	NM	10.53	NM	NM	NM	13.19	NM	9.07	7.74	NM	7.58	7.58	13.19	9.74
<b>SWMU 60 Tank Farm A</b>																	
652	12.37	15.3	3.10	NM	3.22	NM	NM	NM	2.90	NM	2.99	3.04	NM	3.31	2.90	3.31	3.09
653	15.14	15.3	6.52	NM	5.60	NM	NM	NM	6.28	NM	3.60	3.65	NM	4.21	3.60	6.52	4.98
<b>Former Power Plant, Building T-1451</b>																	
MW-1451-1	6.56	12.0	NM	-0.07	-0.01	-0.27	0.27	-0.27	0.27	-0.02							
MW-1451-2	6.24	11.5	NM	0.12	0.21	-0.09	0.44	-0.09	0.44	0.17							
MW-1451-3	5.09	11.0	NM	-0.24	-0.05	-0.46	0.21	-0.46	0.21	-0.13							
MW-1451-4	5.99	11.0	NM	-0.15	0.04	-0.35	0.27	-0.35	0.27	-0.05							
MW-1451-5	7.50	11.0	NM	-0.22	0.66	0.58	0.88	-0.22	0.88	0.48							
MW-1451-6	6.15	11.5	NM	0.94	0.81	0.73	1.01	0.73	1.01	0.87							
MW-1451-7	7.33	11.0	NM	0.87	0.79	0.67	0.98	0.67	0.98	0.83							
MW-1451-8	8.07	13.0	NM	1.36	1.14	1.10	1.28	1.10	1.36	1.22							
MW-1451-9	9.91	13.5	NM	1.32	1.13	1.10	1.27	1.10	1.32	1.20							

Notes:  
 Groundwater elevations were corrected for free product if present.  
 bgs – below ground surface  
 ft – feet  
 MLLW – mean lower low water  
 NM – not measured  
 NMCB – Naval Mobile Construction Battalion  
 SA – Source Area  
 SWMU – solid waste management unit

**Table 4-2.** Product Thickness Summary from October 2012 through September 2013, Additional Sites

Monitoring Well	Oct-12 (feet)	Nov-12 (feet)	Dec-12 (feet)	Jan-13 (feet)	Feb-13 (feet)	Mar-13 (feet)	Apr-13 (feet)	May-13 (feet)	Jun-13 (feet)	Jul-13 (feet)	Aug-13 (feet)	Sep-13 (feet)	Minimum Product Thickness (feet)	Maximum Product Thickness (feet)	Average Product Thickness (feet)	Total Months Product Found
<i>NMCB Expanded Area</i>																
<b>02-300</b>	<b>0.21</b>	NM	<b>0.13</b>	NM	NM	NM	<b>0.08</b>	NM	<b>0.23</b>	<b>0.11</b>	NM	<b>0.54</b>	<b>0.08</b>	<b>0.54</b>	<b>0.22</b>	<b>6</b>
<b>02-497</b>	<b>0.04</b>	NM	<b>0.01</b>	NM	NM	NM	0	NM	<b>0.01</b>	<b>0.02</b>	NM	<b>0.01</b>	0	<b>0.04</b>	<b>0.02</b>	<b>5</b>
<b>02-815</b>	0	NM	<b>0.03</b>	NM	NM	NM	<b>0.01</b>	NM	0	<b>0.02</b>	NM	0	0	<b>0.03</b>	<b>0.01</b>	<b>3</b>
<b>02-818</b>	<b>0.27</b>	NM	<b>0.38</b>	NM	NM	NM	<b>0.35</b>	NM	<b>0.25</b>	<b>0.21</b>	NM	<b>0.06</b>	<b>0.06</b>	<b>0.38</b>	<b>0.25</b>	<b>6</b>
<b>NMCB-07</b>	<b>0.07</b>	NM	<b>0.03</b>	NM	NM	NM	<b>0.03</b>	NM	<b>0.02</b>	<b>0.02</b>	NM	<b>0.01</b>	<b>0.01</b>	<b>0.07</b>	<b>0.03</b>	<b>6</b>
<b>NMCB-10</b>	<b>0.21</b>	NM	<b>0.13</b>	NM	NM	NM	<b>0.08</b>	NM	<b>0.23</b>	<b>0.11</b>	NM	<b>0.54</b>	<b>0.08</b>	<b>0.54</b>	<b>0.22</b>	<b>6</b>
<i>SA 80 Steam Plant 4</i>																
<b>04-157</b>	<b>0.06</b>	NM	<b>0.11</b>	NM	NM	NM	<b>0.49</b>	NM	<b>0.10</b>	<b>0.04</b>	NM	<b>0.01</b>	<b>0.01</b>	<b>0.49</b>	<b>0.14</b>	<b>6</b>
<b>04-158</b>	<b>0.02</b>	NM	<b>0.26</b>	NM	NM	NM	<b>0.53</b>	NM	<b>0.04</b>	0	NM	0	0	<b>0.53</b>	<b>0.14</b>	<b>4</b>
<i>SWMU 60 Tank Farm A</i>																
<b>652</b>	0	NM	0	NM	NM	NM	0	NM	0	0	NM	<b>0.02</b>	0	<b>0.02</b>	<b>0.00</b>	<b>1</b>
<b>653</b>	<b>0.02</b>	NM	0	NM	NM	NM	0	NM	0	0	NM	<b>0.03</b>	0	<b>0.03</b>	<b>0.01</b>	<b>2</b>
<i>Former Power Plant, Building T-1451</i>																
<b>MW-1451-1</b>	NM	<b>0.03</b>	0	<b>0.04</b>	0	0	<b>0.04</b>	<b>0.01</b>	<b>2</b>							
MW-1451-2	NM	0	0	0	0	0	0	0	0							
MW-1451-3	NM	0	0	0	0	0	0	0	0							
MW-1451-4	NM	0	0	0	0	0	0	0	0							
MW-1451-5	NM	0	0	0	0	0	0	0	0							
MW-1451-6	NM	0	0	0	0	0	0	0	0							
<b>MW-1451-7</b>	NM	<b>0.52</b>	<b>0.32</b>	<b>0.74</b>	<b>0.43</b>	<b>0.32</b>	<b>0.74</b>	<b>0.17</b>	<b>4</b>							
MW-1451-8	NM	0	0	0	0	0	0	0	0							
MW-1451-9	NM	0	0	0	0	0	0	0	0							

Notes:

**Bolded well IDs** indicate monitoring wells that had product observed during the reporting period.

NM – not measured

NMCB – Naval Mobile Construction Battalion

SA – Source Area

SWMU – solid waste management unit

**Table 4-3.** Recovered Product Volume Summary from October 2012 through September 2013, Additional Sites

Monitoring Well	Oct-12 (gallons)	Nov-12 (gallons)	Dec-12 (gallons)	Jan-13 (gallons)	Feb-13 (gallons)	Mar-13 (gallons)	Apr-13 (gallons)	May-13 (gallon)	Jun-13 (gallon)	Jul-13 (gallons)	Aug-13 (gallons)	Sep-13 (gallons)	Minimum Volume of Recovered Product (gallons)	Maximum Volume of Recovered Product (gallons)	Average Volume of Recovered Product (gallons)	Total Volume of Recovered Product (gallons)
<b>NMCB Expanded Area</b>																
<b>02-300</b>	<b>0.03</b>	NM	<b>0.03</b>	NM	NM	NM	0	NM	<b>0.27</b>	<b>0.03</b>	NM	<b>0.07</b>	0	<b>0.27</b>	<b>0.07</b>	<b>0.43</b>
02-497	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
02-815	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
02-818	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>NMCB-07</b>	<b>0.95</b>	NM	<b>0.29</b>	NM	NM	NM	<b>0.85</b>	NM	<b>1.29</b>	<b>0.40</b>	NM	<b>0.03</b>	<b>0.03</b>	<b>1.29</b>	<b>0.64</b>	<b>3.81</b>
NMCB-10	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>Total Volume of Recovered Product (gallons)</b>	<b>0.98</b>	NA	<b>0.32</b>	NA	NA	NA	<b>0.85</b>	NA	<b>1.56</b>	<b>0.43</b>	NA	<b>0.10</b>	NA	NA	NA	<b>4.24</b>
<b>SA 80 Steam Plant 4</b>																
<b>04-157</b>	0	NM	<b>0.05</b>	NM	NM	NM	<b>0.32</b>	NM	<b>0.04</b>	0	NM	0	0	<b>0.32</b>	<b>0.07</b>	<b>0.41</b>
<b>04-158</b>	0	NM	0	NM	NM	NM	<b>0.50</b>	NM	0	0	NM	0	0	<b>0.50</b>	<b>0.08</b>	<b>0.50</b>
<b>Total Volume of Recovered Product (gallons)</b>	0	NA	<b>0.05</b>	NA	NA	NA	<b>0.82</b>	NA	<b>0.04</b>	0	NA	0	NA	NA	NA	<b>0.91</b>
<b>SWMU 60 Tank Farm A</b>																
652	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
653	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	0	0	0	0
<b>Total Volume of Recovered Product (gallons)</b>	0	NM	0	NM	NM	NM	0	NM	0	0	NM	0	NA	NA	NA	0
<b>Former Power Plant, Building T-1451</b>																
MW-1451-1	NM	NM	0	0	0	0	0	0	0	0						
MW-1451-2	NM	NM	0	0	0	0	0	0	0	0						
MW-1451-3	NM	NM	0	0	0	0	0	0	0	0						
MW-1451-4	NM	NM	0	0	0	0	0	0	0	0						
MW-1451-5	NM	NM	0	0	0	0	0	0	0	0						
MW-1451-6	NM	NM	0	0	0	0	0	0	0	0						
<b>MW-1451-7</b>	NM	NM	<b>0.59</b>	<b>0.69</b>	<b>0.44</b>	<b>0.65</b>	<b>0.44</b>	<b>0.69</b>	<b>0.40</b>	<b>2.37</b>						
MW-1451-8	NM	NM	0	0	0	0	0	0	0	0						
MW-1451-9	NM	NM	0	0	0	0	0	0	0	0						
<b>Total Volume of Recovered Product (gallons)</b>	NM	NM	<b>0.59</b>	<b>0.69</b>	<b>0.44</b>	<b>0.65</b>	NA	NA	NA	<b>2.37</b>						

Notes:

**Bolded well IDs** indicate monitoring wells that had product recovered during the reporting period.

NA – not applicable

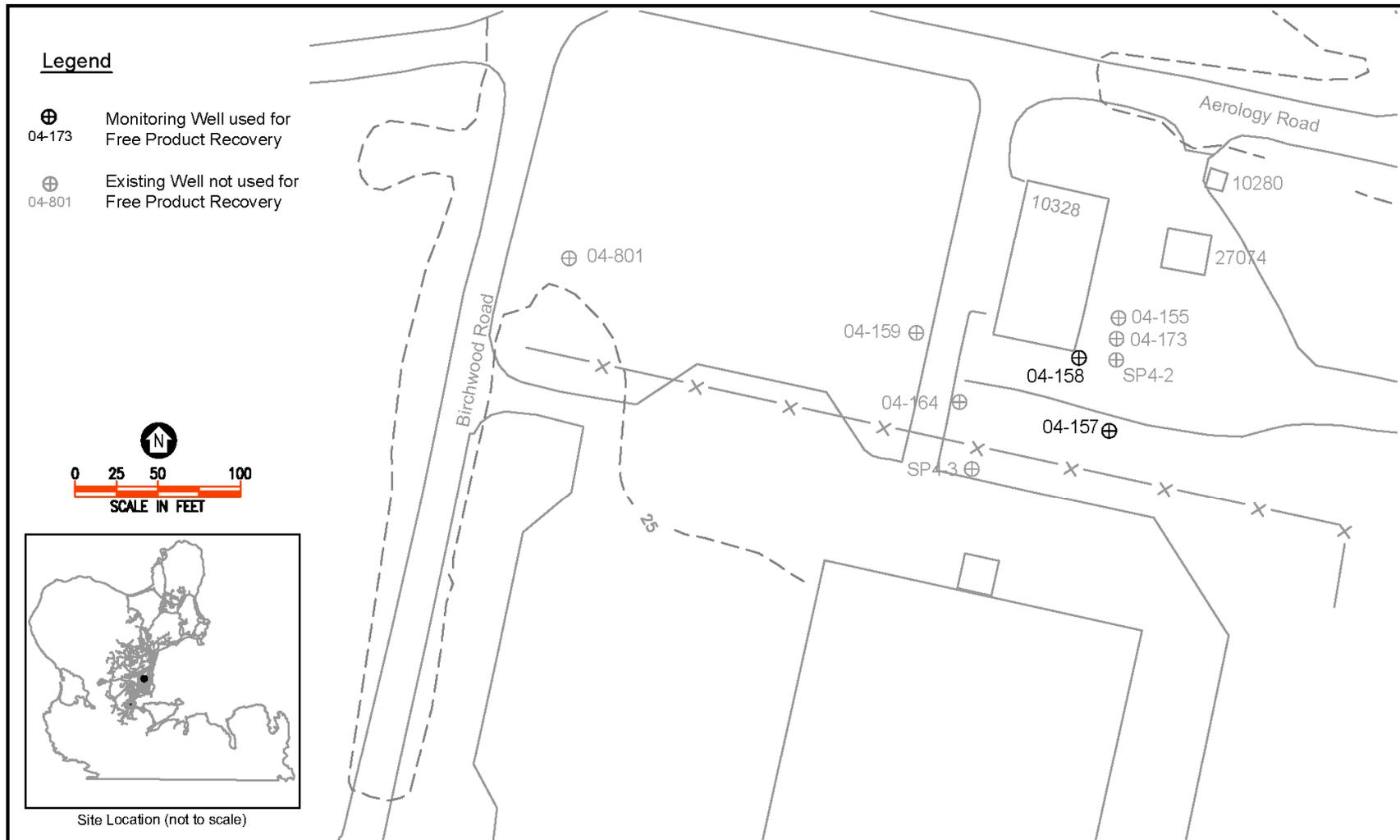
NM – not measured

NMCB – Naval Mobile Construction Battalion

SA – Source Area

SWMU – solid waste management unit



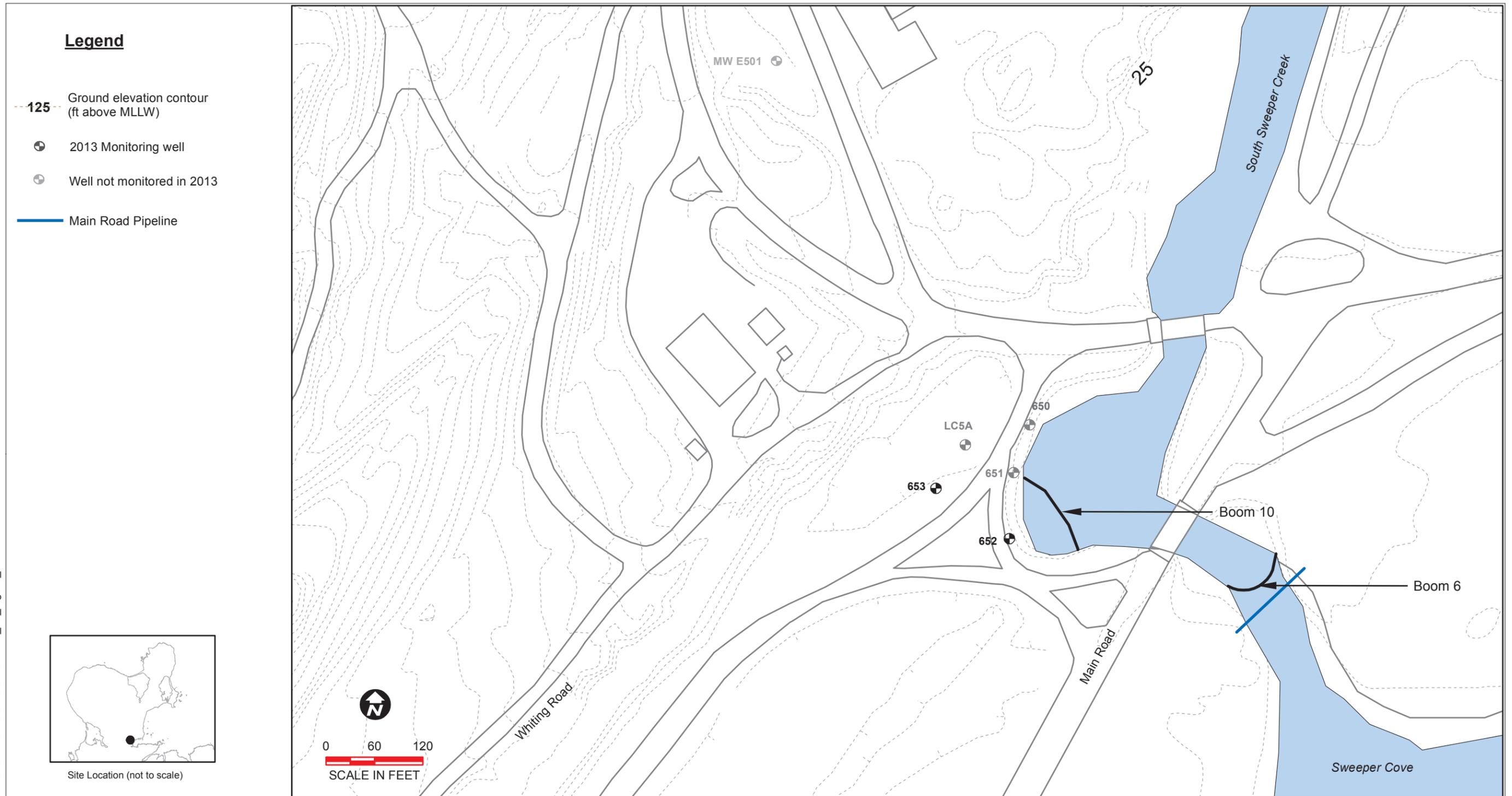


4-14

<p><b>U.S. NAVY SEALASKA</b></p>	<p align="center"><b>Figure 4-2</b>  <b>Site Features - SA 80, Steam Plant 4</b></p>	<p align="center">Task Order 60                  Remedial Action                  Summary Report                  Adak, AK</p>
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P:\SEALASKA\ADAK\T080\08M\FIG 4-2 SA 80.DWG  
 PLOT/UPDATE: AUG 23, 2013

Date: 10/24/2013  
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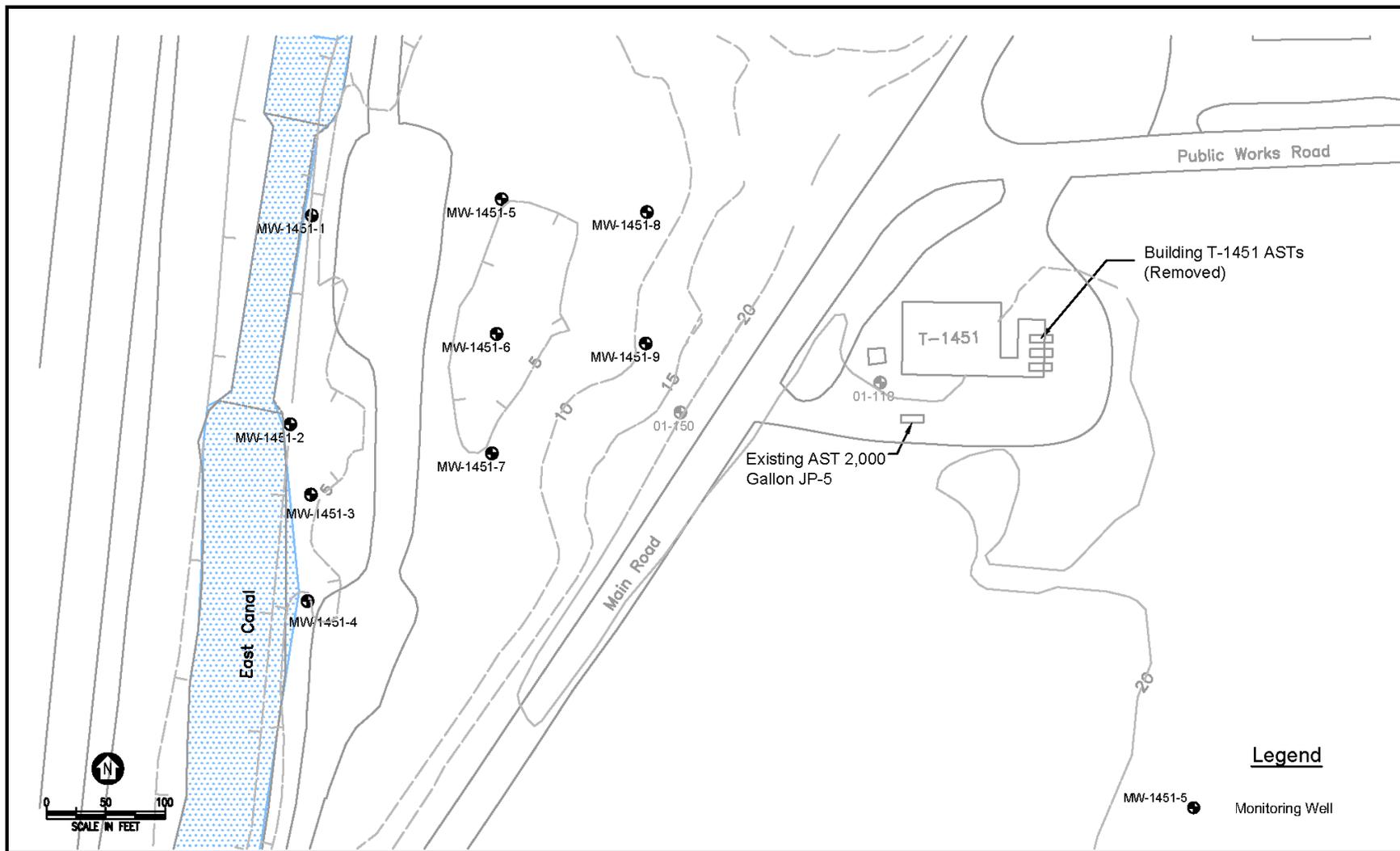
**U.S. NAVY**

**SEALASKA**

**Figure 4-3**  
**Site Features**  
**SWMU 60, Tank Farm A**

Task Order 60  
Remedial Action Summary Report  
Adak, Alaska

4-17



<p><b>U.S. NAVY</b></p>	<p><b>SEALASKA</b></p>	<p><b>Figure 4-4                  Site Features                  Former Power Plant Building T-1451</b></p>	<p>Task Order 60                  Remedial Action                  Summary Report                  Adak, AK</p>
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P:\SEALASKA\ADAK\TO 60\2013 DSR\FIG 4-4.DWG  
 PLOT/UPDATE: OCT 24, 2013

## 5. BOOM INSPECTION AND MAINTENANCE

During the reporting period, sorbent booms have been maintained in the surface water bodies of East Canal, West Canal, and South Sweeper Creek. The locations of the boom placements are shown in Figures 5-1 and 5-2. Currently, six sorbent booms are located in East Canal: three (Booms 2, 3, and 8) near the SWMU 62 product recovery trench; one (Boom 9/12) downgradient of Former Power Plant, Building T-1451; and one (Boom 11) approximately 85 feet downgradient of Boom 9/12. East Canal Booms 8 and 9 were installed in 2007 at the request of ADEC. In the spring of 2009, Boom 9/12 was lengthened and a third section was added to better prevent sheen migration due to an observed increase in the petroleum seep at this location. Boom 11 was added in November 2009 in response to the discovery of a new shoreline petroleum seep. Two sorbent booms (Booms 6 and 10) are located within South Sweeper Creek near South of Runway 18-36 Area, and one (Boom 4) is located in West Canal at the pump station. Boom 10 was added during October 2009 in response to the observance of an oil shoreline seep downgradient of SWMU 60, Tank Farm A site.

The purposes of the floating booms are to:

- Adsorb petroleum directly at the identified shoreline seeps (Booms 8, 9/12, 10, and 11),
- Prevent migration of sheen and oil to the extent practicable from shoreline seeps downstream in East Canal (Booms 3, 8, 9/12, and 11),
- Prevent sheen from shoreline seeps in East Canal from migrating upstream (Boom 2),
- Prevent potential sheen in East Canal from migrating to West Canal and South Sweeper Creek (Boom 4),
- Prevent sheen from migrating from shoreline seeps into Sweeper Cove (Boom 10), and
- Prevent potential sheen from South Sweeper Creek from entering Sweeper Cove (Boom 6).

Booms were inspected monthly for effective placement, product saturation, and overall condition and effectiveness. Sections of booms were replaced if required (i.e., saturated with product, waterlogged, or damaged). Booms were also repositioned or repaired if they became unattached from the shoreline or twisted because of weather or tide events. The observation and location of any observed sheen or seep at each boom location were

documented on field forms and with photographs (Appendices A and B). Table 5-1 summarizes the inspection and maintenance of the booms for the reporting period.

Boom locations were inspected for evidence of contamination, including sheen on surface water, iron staining, oily soil or sediment, stressed vegetation, and pooled product (see Appendix A). Sheen was observed at least once during the reporting period at Booms 2, 3, and 8 through 11. Sheen was not observed at Booms 4 or 6 during any monthly inspection.

Sheen, oil saturated soils, stressed vegetation, and pooled product along the shoreline typically occurred at the petroleum shoreline seep in East Canal downgradient of the SWMU 62 product recovery trench. Booms deployed to control sheen at this seep include locations 2, 3, and 8 (see Figure 4-1). Sheen was observed during 10 monthly inspections at Boom 8 located along the shoreline and during 10 monthly maintenance events at Boom 3, which is downstream of Boom 8. Pooled product was removed by hand using sorbent pads at Boom 8 during three monthly maintenance events. Booms 2 and 3 appear to have effectively prevented sheen that escapes from Boom 8 from migrating further downstream in East Canal or upstream during flood events.

Similar to the seep at SWMU 62, the petroleum seep on the shoreline of East Canal downgradient from Former Power Plant, Building T-1451 has previously been characterized by sheen, oil saturated soils, stressed vegetation, and pooled product along the shoreline. To control sheen at this seep, Boom 9/12 was placed across the culvert, along the shoreline, and spanning the East Canal (see Figure 5-1).

In June and July 2012, remedial action was conducted in the area of Boom 9/12 to remove sources of petroleum contamination in the soil and seeps along the shoreline on East Canal. The shoreline was excavated, replaced with clean fill amended with Oxygen-Releasing Compound, and re-contoured. Boom 9/12 remains in place and will be monitored monthly to evaluate the effectiveness of the remediation. Sheen was observed during one of the 12 monthly inspections at Boom 9/12 during this period of performance and only twice (September 2012 and September 2013) since completion of remedial action in July 2012.

A smaller shoreline petroleum seep is located in East Canal approximately 85 feet downstream (south) from Boom 9/12 (see Figure 5-1). At this seep, sheen, oily sediments, and stressed vegetation were observed during 11 of 12 monthly inspections of Boom 11. Free product was not observed in March 2013 due to the presence of ice and snow covering the East Canal and shoreline.

Sheen was not observed at Boom 6 (see Figure 5-2) in South Sweeper Creek during the period of performance. Sheen was observed during 11 of 12 monthly inspections at Boom 10 in South Sweeper Creek lagoon downgradient of SWMU 60, Tank Farm A site. Free product was not observed in March 2013 due to the presence of ice and snow that covered South Sweeper Creek and associated shoreline.

The booms placed in East Canal and West Canal have effectively controlled the migration of sheen on surface water, as shown by the field forms and the observance of minimal petroleum sheen at downstream Booms 4 and 6 (Table 5-1). Therefore, it is recommended that boom replacement be continued at all locations (2 through 4, 6, and 8 through 12) as needed (i.e., as they become saturated, waterlogged, or damaged).

It is also recommended that Boom 2 and Boom 11 be expanded by two boom lengths each. Additional boom sections are necessary at Boom 2 to help prevent it from being displaced during high water events in East Canal. The seep at Boom 11 has expanded about 4 feet south of the existing extent of the boom along the shoreline and the surface water sheen is very pronounced. Since no seeps have been observed at the Boom 9/12 location during the performance period, the four boom sections composing the small leg that is right in front of the culverts would be removed. This would provide four boom sections to expand Booms 2 and 11, but not change the total number of boom sections deployed.

All spent booms and socks, recovered product, used personal protective equipment, and other contaminated material used to conduct task order activities were incinerated in a Smart-Ash burner at the bunker storage unit as per the Operations and Maintenance Plan (Navy 2012a) and the Quality Assurance Plan (Navy 2012b).

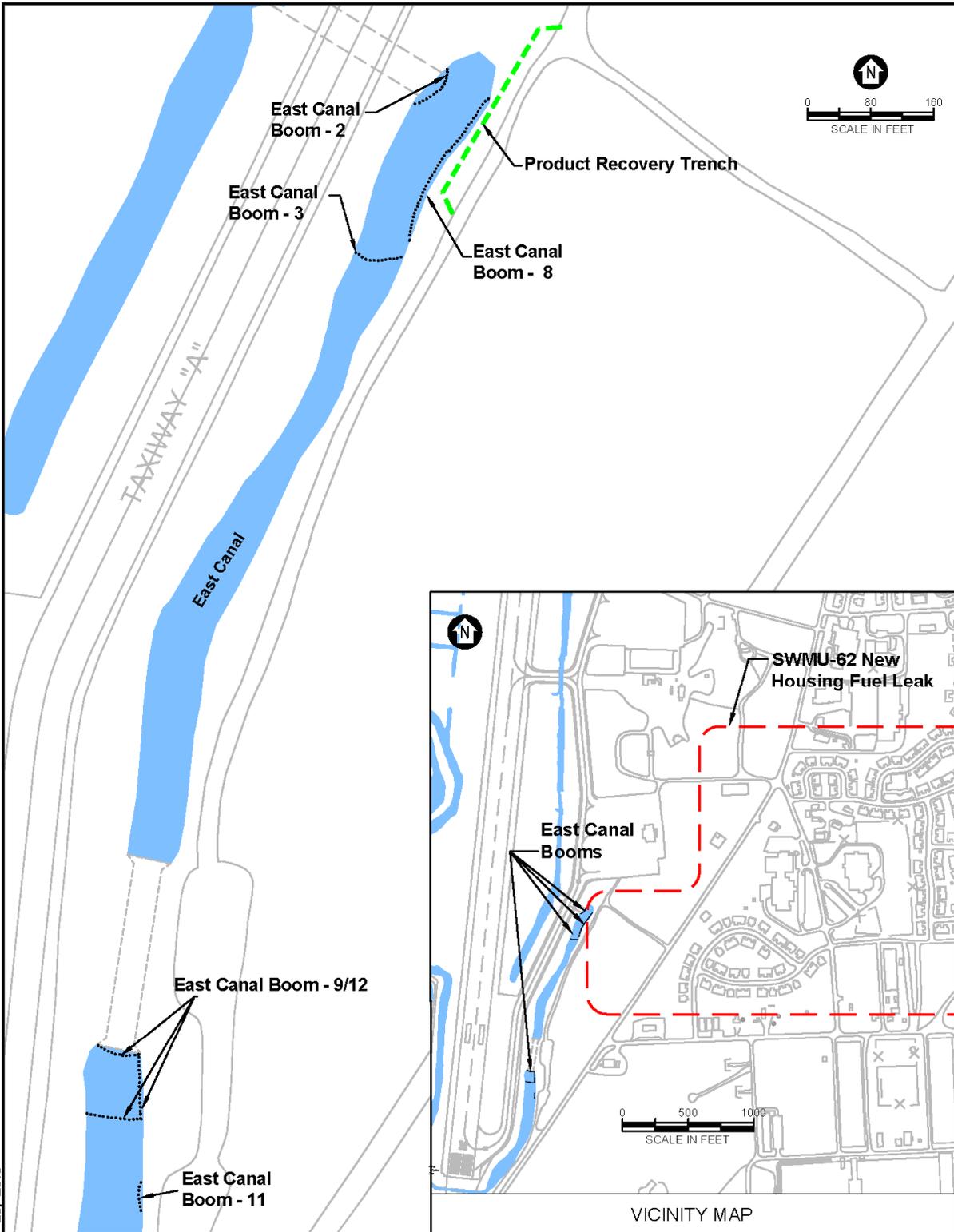
**Table 5-1.** October 2012 through September 2013 Boom Maintenance Summary

<b>Location</b>	<b>Boom No.</b>	<b>Length (feet)</b>	<b>Boom Purpose</b>	<b>No. of Months Contamination Observed<sup>1</sup></b>	<b>No. of Months Boom Maintenance Required</b>	<b>Total No. of 10-Foot Long Sections of Boom Replaced</b>
East Canal (SWMU 62 Recovery Trench)	2	20	Prevent sheen migration upstream of SWMU 62 shoreline seep	3	10	4
East Canal (SWMU 62 Recovery Trench)	3	70	Prevent sheen migration downstream of SWMU 62 shoreline seep	10	1	8
West Canal Culvert	4	30	Prevent sheen migration from East Canal into West Canal	0	1	2
South Sweeper Creek Main Road Bridge	6	60	Prevent sheen migration to Sweeper Cove	0	5	11
East Canal (SWMU 62 Recovery Trench)	8	120	Adsorb sheen and oil at SWMU 62 shoreline seep	10	3	11
East Canal (Building T-1451)	9/12	270	Adsorb sheen and oil at Building T-1451 shoreline seep	1	4	11
South Sweeper Creek Lagoon, SWMU 60 Seep	10	90	Adsorb sheen and oil at SWMU 60 shoreline seep	11	3	3
East Canal Shoreline Seep, 85 feet downstream of Boom 9	11	40	Adsorb sheen and oil at East Canal shoreline seep	11	1	4

*Note:*

<sup>1</sup> Contamination observed includes any of the following: sheen on surface water, oily sediment or soil, stressed vegetation, or pooled product.

SWMU – solid waste management unit

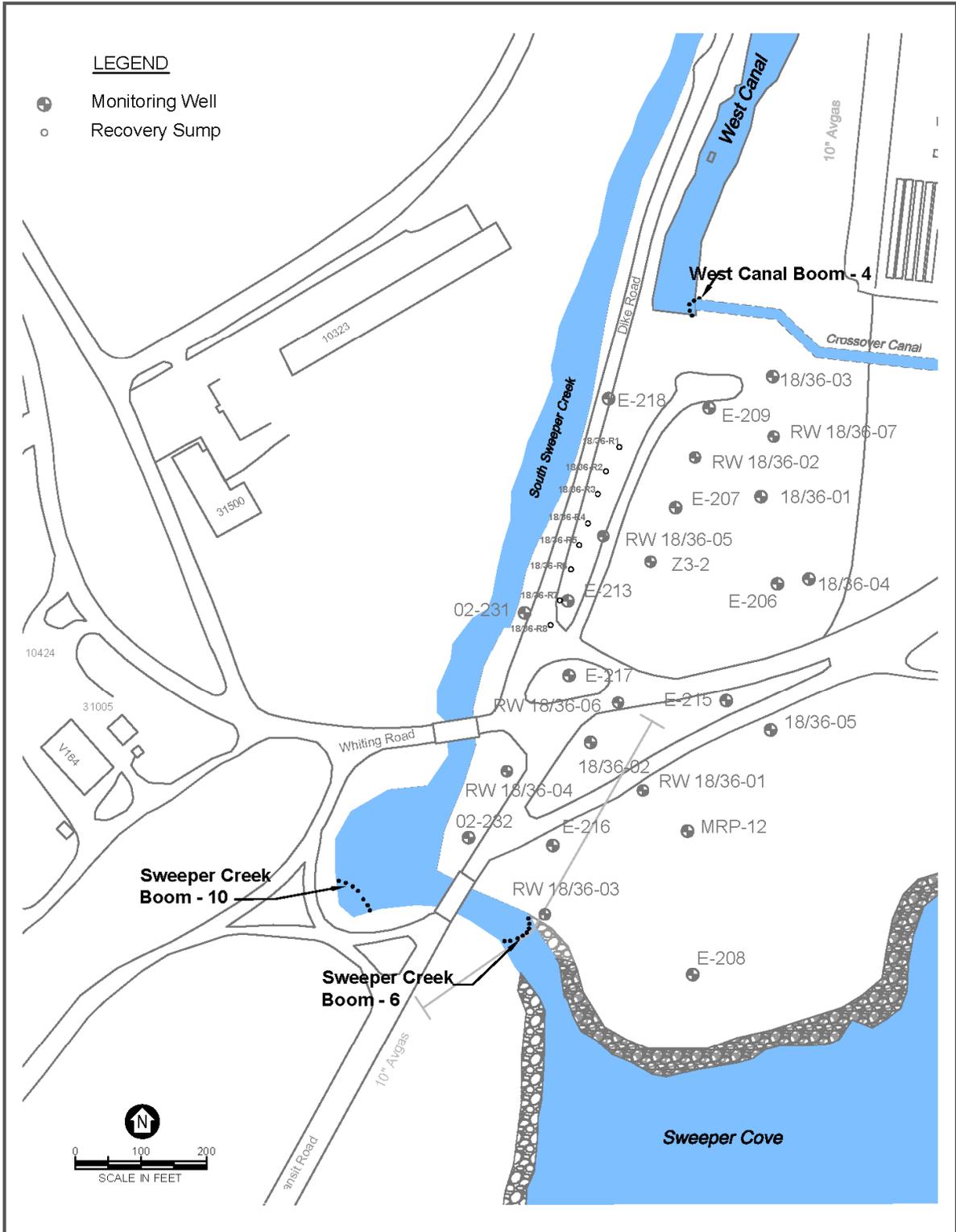


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 PLOT/UPDATE: OCT 23, 2013

**U.S.NAVY SEALASKA**

**Figure 5-1  
 East Canal Boom Locations**

Task Order 60  
 Remedial Action  
 Summary Report  
 Adak, Alaska



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 PLOT/UPDATE OCT 24, 2013

<p><b>U.S. NAVY</b></p>	<p><b>SEALASKA</b></p>	<p><b>Figure 5-2</b>  <b>West Canal and South Sweeper Creek</b>  <b>Boom Locations</b></p>	<p>Task Order 60              Remedial Action              Summary Report              Adak, Alaska</p>
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## **6. CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 FREE PRODUCT RECOVERY CONCLUSIONS**

Free product recovery and monitoring was conducted from October 2012 through September 2013 on Adak Island, Alaska at SWMU 62, New Housing Fuel Leak Area; Area 303; and four additional petroleum sites.

As detailed in Section 2.0, the SWMU 62 site has achieved the OU A ROD technically practical endpoint for a passive recovery system. The monthly volume of recovered product, averaged over the most recent 6 months (6-month moving average), was less than 5 gallons per month for a period of 12 months of product recovery. The overall historic free product recovery rate appears to be decreasing.

Free product is present at levels greater than 0.01 feet in one or more of the recovery sumps located in the recovery trenches at SWMU 62, New Housing Fuel Leak Area. Therefore, this site has not met the requirements as stated in the final decision document and product monitoring and recovery site visits are still warranted at this area.

In most instances during the year, product thickness fell to below 0.1 feet by the end of the recovery event each month so canister skimmers were removed from wells at the end of the field event. Occasionally, product thickness in wells exceeded 0.1 feet and canister skimmers were left in those wells until the next scheduled field event. These occurred periodically mainly at recovery sumps SWMU62-R3 and SWMU62-R4. The effectiveness of the canister skimmers was assessed by reviewing the maximum volumes recovered during the reporting period versus the capacity of the canister skimmers. In most cases, product volumes recovered did not fill the canister skimmers to more than 75 percent capacity, indicating that they were effective.

For Area 303, only three (MW-303-28, MW-303-39, and MW-303-42) of the 17 monitoring wells had measurable product during the 4-month monitoring period (June through September 2013). MW-303-42 was the only well where free product was recovered (0.22 gallons).

At the additional petroleum sites, a total of 7.52 gallons of free product was recovered at NMCB Expanded Area (4.24 gallons); SA 80, Steam Plant 4 (0.91 gallons); and Former Power Plant, Building T-1451 (2.37 gallons). No free product was recovered at SWMU 60, Tank Farm A during the 12-month reporting period.

Review of the reporting period data indicates that the rates of product recovery and product thickness vary over the 12-month monitoring period. At the monitoring wells that have not had measurable product over the last 12 months, the cessation of free product recovery activities at these locations (excluding recovery sumps) is warranted. To ensure that free product does not migrate and that groundwater flows do not significantly change in the future, annual monitoring for free product will be conducted for the entire set of wells under the Adak LTM Program.

## **6.2 BOOM OPERATION AND MAINTENANCE CONCLUSIONS**

Booms were placed and maintained at nine locations in East Canal, West Canal, and South Sweeper Creek to keep petroleum sheen from migrating away from seeps and to prevent the contamination from migrating to other downstream surface water bodies. Booms were maintained and inspected on a monthly basis throughout the reporting period. Petroleum sheen was observed in South Sweeper Creek frequently at Boom 10, but never downgradient of Boom 6. Sheen was typically observed monthly at boom locations in East Canal, but the booms controlled the downstream migration of the sheen. Booms located in East Canal are regularly replaced due to the quantity of petroleum flowing from shoreline seeps here.

Sheen was not observed at the locations of Boom 4 or 6 during the 12-month reporting period. Placement of Boom 4 is needed to ensure that any sheen that may migrate downstream from East Canal does not enter West Canal and South Sweeper Creek, particularly when East Canal floods. At the Boom 6 location, sheen has only been observed once in the last two years of monitoring.

Since completion of remedial action in July 2012, sheen has only been observed twice at the Boom 9/12 location in East Canal.

The Navy will continue to monitor the seeps along the shoreline of East Canal downgradient of SWMU 62 and will implement remedial action as necessary.

## **6.3 RECOMMENDATIONS**

Based on the above conclusions, the following recommendations are made for future free product recovery activities and for boom maintenance:

### **6.3.1 SWMU 62, New Housing Fuel Leak Area**

- Because of the continued observance of free product, continue to conduct periodic monitoring and free product recovery activities at all six recovery sumps and the

following eight wells: 03-101, 03-102, HMW-303-03, HMW-303-11, MW-15, MW-303-12, RW-303-4, and RW-303-15.

- During the 2103 LTM field event, 0.08 feet of product was observed in well MW-303-8. It is recommended that free product recovery be initiated at this well during the October 2013 event.

### **6.3.2 Area 303**

- Only three wells had measureable product; MW-303-28, MW-303-39, and MW-303-42. Continue free product recovery at these three wells.
- Discontinue free product recovery at the remaining 14 wells currently monitored since no measureable product was detected during the 4-month monitoring period.

### **6.3.3 Additional Sites**

- At SWMU 60, Tank Farm A, although no product was recovered from the two wells monitored, measureable product was detected during two of the six monitoring events. It is recommended that monitoring continue for one additional reporting period (one year) and the results be evaluated to determine if monitoring can be discontinued at this site.
- Continue free product recovery at all wells at SA 80, Steam Plant 4 and NMCB Expanded Area during the October 2013 through September 2014 reporting period.
- During the 2103 LTM field event, 0.21 feet of product was observed in well 04-155 at SA80, Steam Plant 4. It is recommended that free product recovery be initiated at this well during the October 2013 event.
- At Former Power Plant, Building T-1451, continue free product recovery at MW-1451-1 and MW-1451-7 since measurable product was detected at these two wells during the 4-month monitoring period. In addition, activities should be continued at MW-1451-6 since free product was observed in this well during a groundwater monitoring event in April 2013.
- At Former Power Plant, Building T-1451, discontinue free product recovery at the remaining seven wells currently monitored since no measureable product was detected during the 4-month monitoring period.

### **6.3.4 Boom Maintenance**

- Continue periodic inspection and maintenance activities for all current booms located in East Canal, West Canal, and South Sweeper Creek.

- Expand Booms 2 and 11 by two boom lengths each. Additional boom sections are necessary at Boom 2 to help prevent it from being displaced during high water events in East Canal. The seep at Boom 11 has expanded about 4 feet south of the existing extent of the boom along the shoreline and the surface water sheen is very pronounced. Boom 11 should be expanded to cover the entire length of the seep. Since no seep has been observed at the Boom 9/12, the four boom sections composing the small leg that is right in front of the culverts would be removed. This would provide four boom sections to expand Booms 2 and 11, but not change the total number of boom sections deployed.
- High water events have been occurring more frequently in the East and West Canals. During the high water periods, monitoring of the seeps and boom maintenance are often difficult. The pumps used to moderate the water levels in the Canals are operated by Alaska Department of Transportation (ADOT) to prevent water from flowing over the airport runways. The Navy will work with ADOT to determine an appropriate schedule for dewatering the Canals that will less impact the free product monitoring and maintenance events.

## 7. REFERENCES

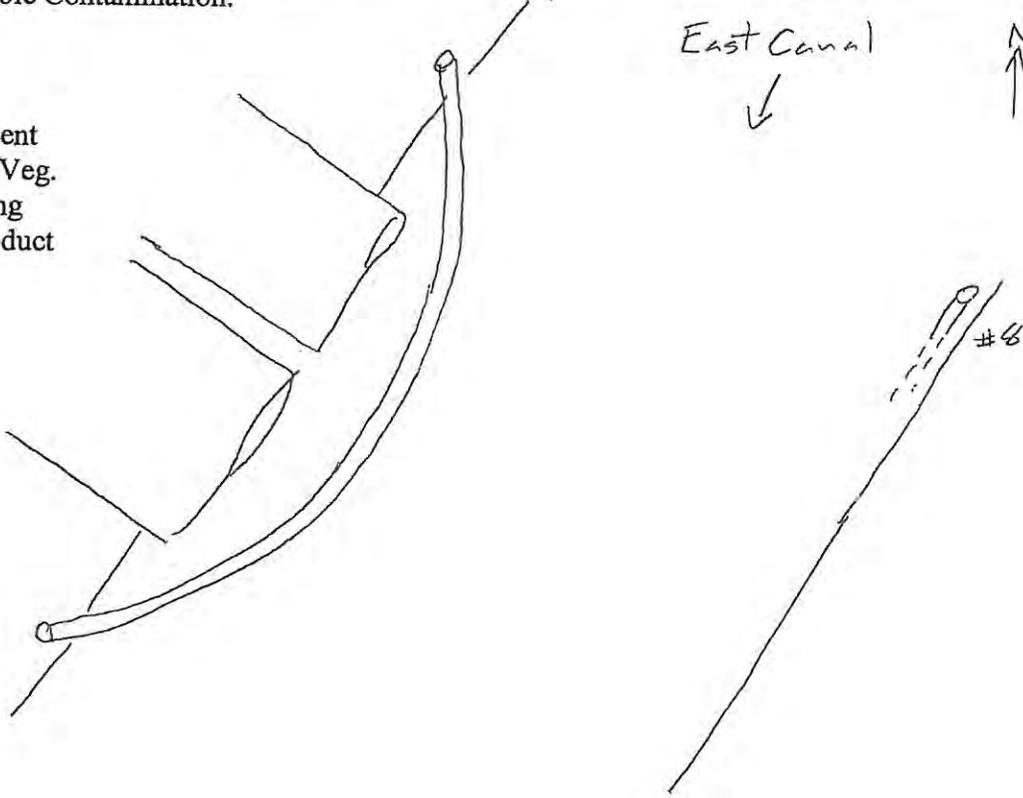
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**APPENDIX A**  
**FIELD FORMS**  
**(Provided on compact disc)**

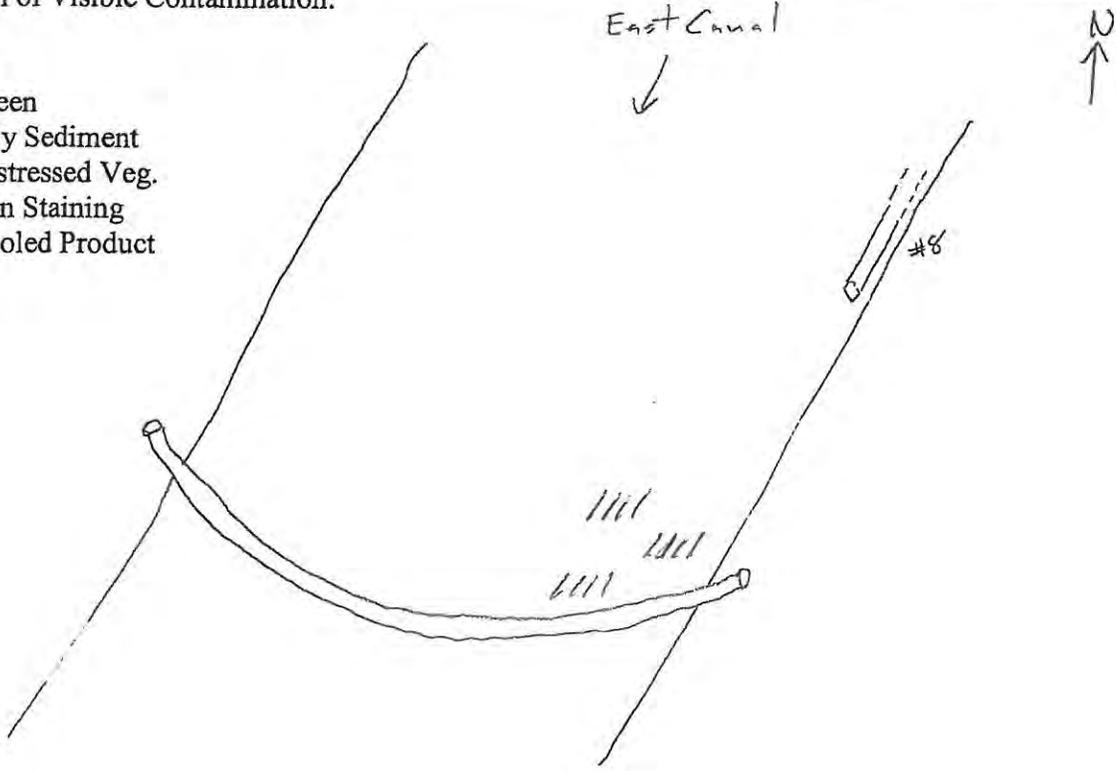
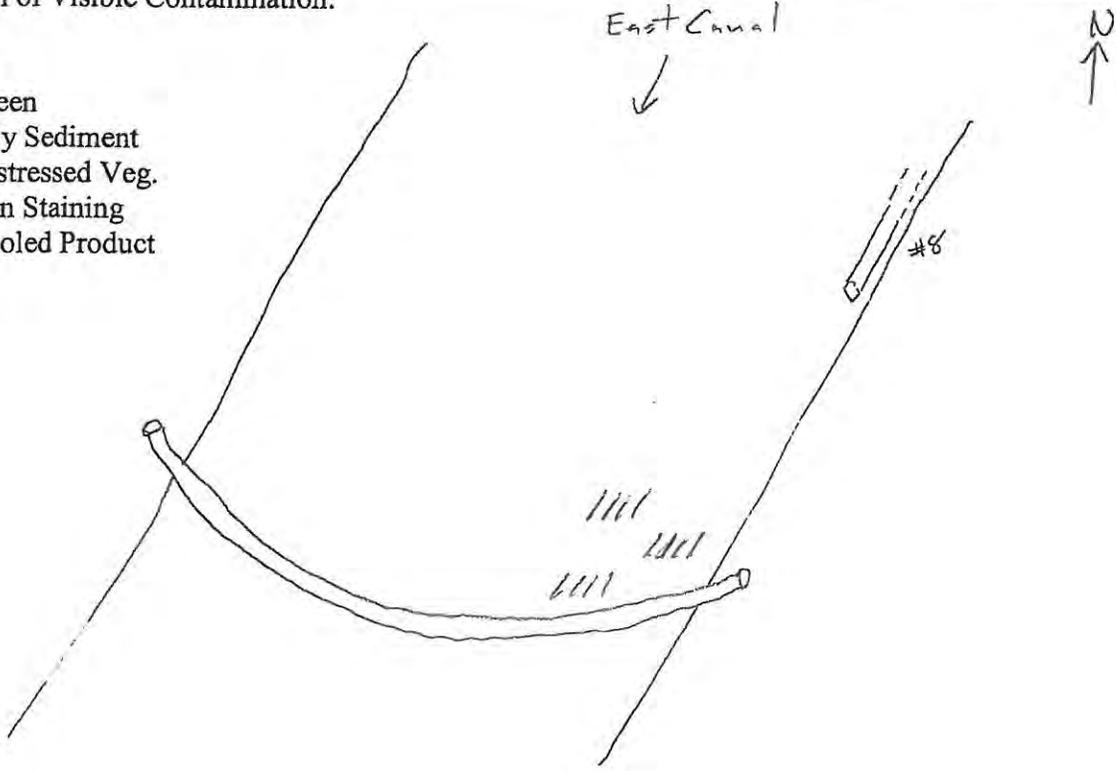
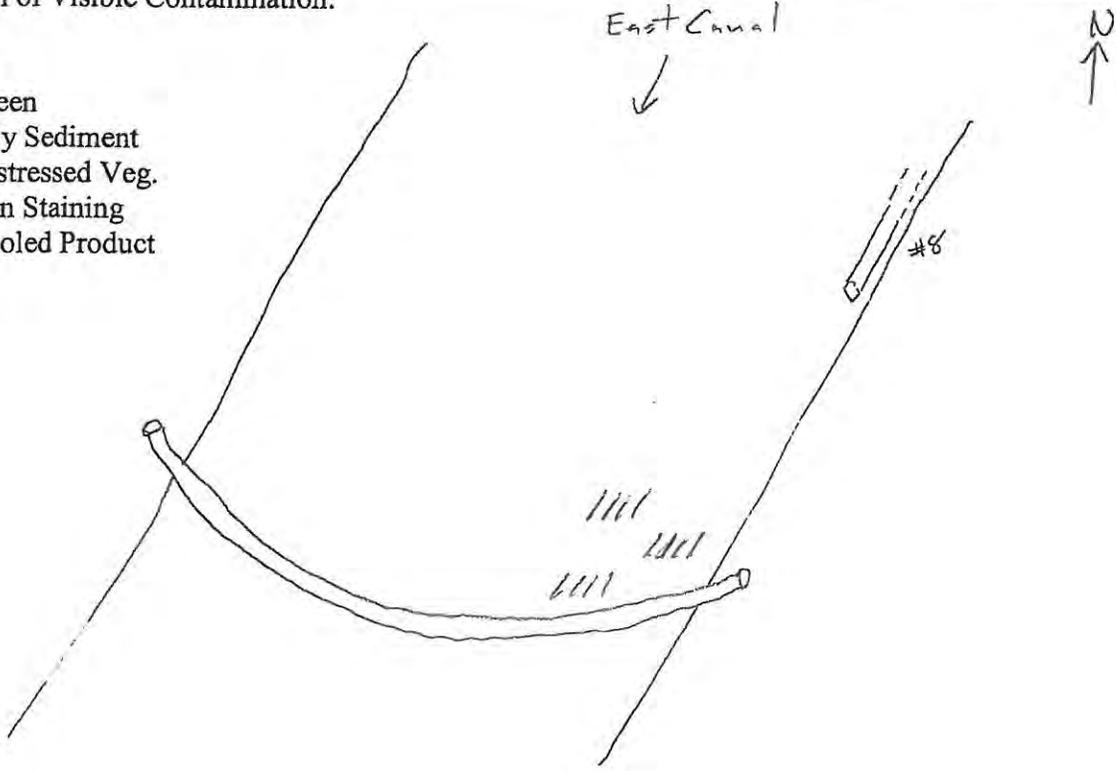
## Boom Inspection Form

Task Order 60

<b>Boom Location: 2</b>	Time/Date: 1418 / 10.16.12
Description of Boom Before Maintenance: UNSATISFACTORY - BOOM OUT OF POSITION DUE TO HIGH WATER LEVELS	Photograph (s) Time/Date Stamp:  1418 / 10.16.12
Boom Repaired (Y/N): Description: MOVED BOOM BACK INTO POSITION ONTO POSTS	Boom Replaced (Y/N) / Number of Sections: Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
Location of Visible Contamination:  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%; text-align: center;">  <p style="text-align: right;">East Canal</p> <p style="text-align: right;">N ↑</p> </div> </div>	
Inspector: JOHN HIGHSTONE	Signature: <i>John Highstone</i>

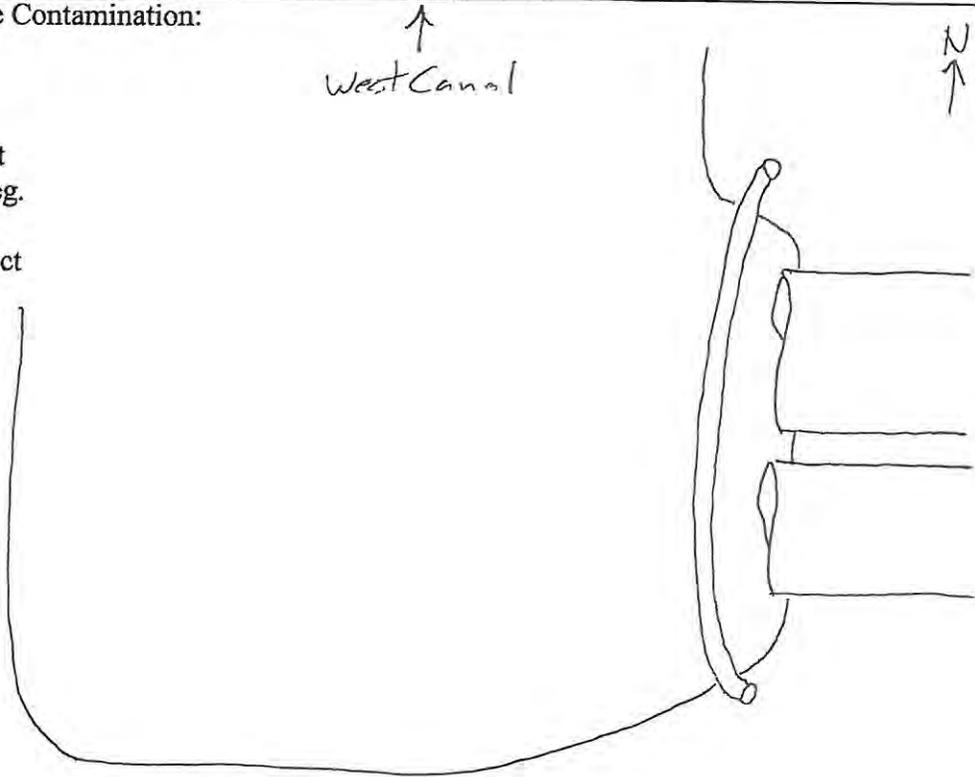
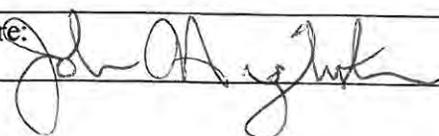
## Boom Inspection Form

Task Order 60

<b>Boom Location: 3</b>	Time/Date: 1421 / 10.16.12		
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  1421 / 10.16.12		
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; border: none;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N)             </td> <td style="width: 50%; vertical-align: top; border: none;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N)	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N)	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:			
<table style="width: 100%; border: none;"> <tr> <td style="width: 20%; vertical-align: top; border: none;"> <p><u>Legend</u></p>                 /// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 80%; border: none;">  </td> </tr> </table>		<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: JOHN HIGGSTONE	Signature: <i>John Higstone</i>		

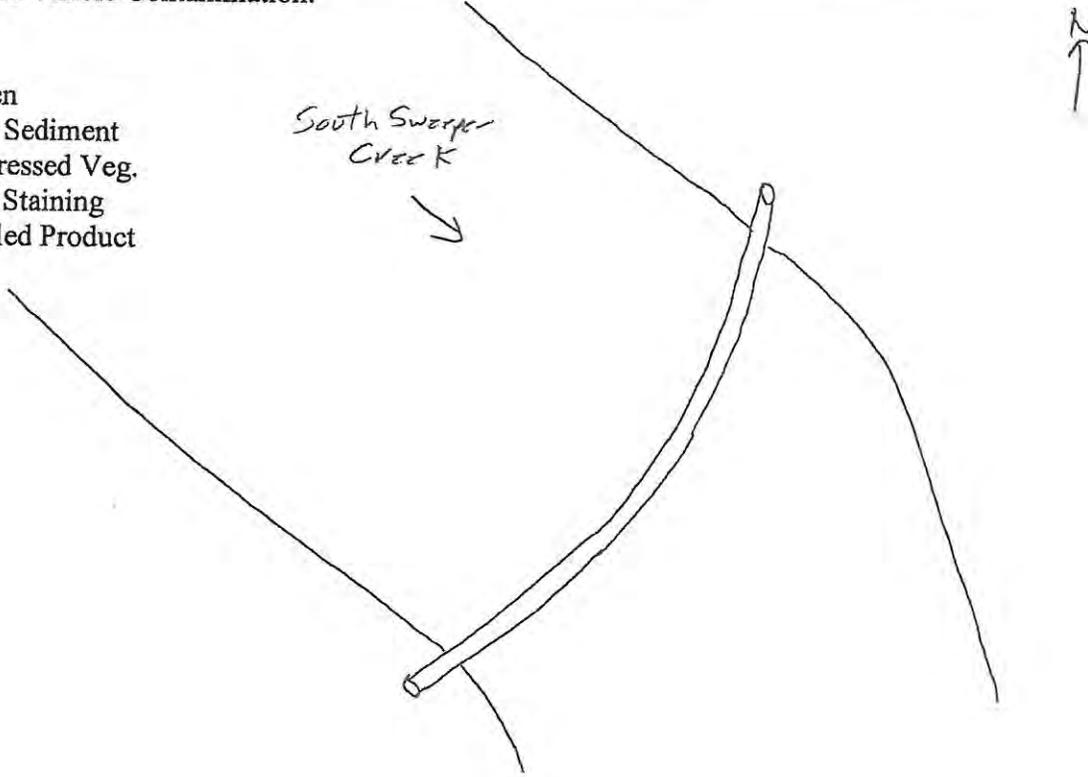
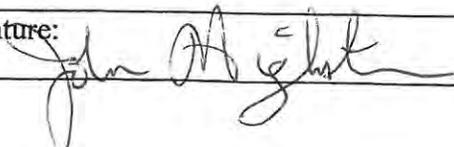
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 4	<b>Time/Date:</b> 1447 / 10.16.12		
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1447 / 10.16.12		
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N)                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N) If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N) If yes, was product removed with sorbent pads?		
<p><b>Location of Visible Contamination:</b></p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 60%; text-align: center;"> <p>↑ West Canal</p>  </div> </div>			
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 		

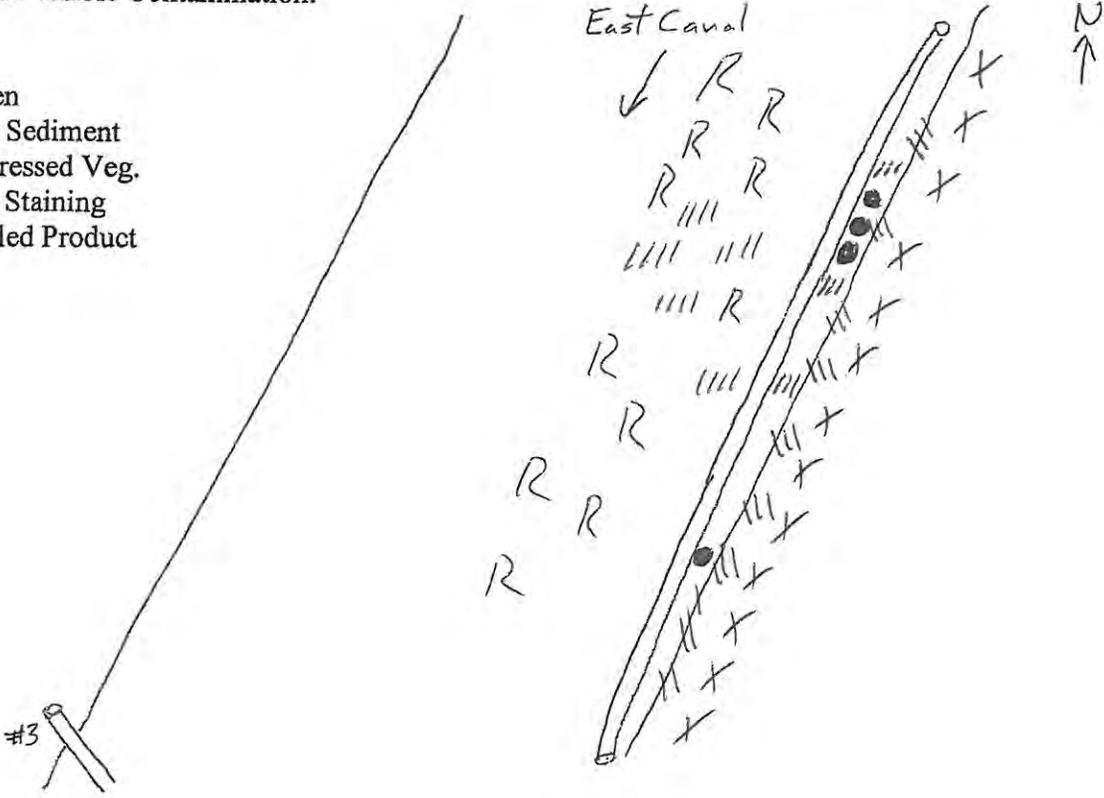
## Boom Inspection Form

Task Order 60

<b>Boom Location: 6</b>	Time/Date: 1508 / 10-16-12		
Description of Boom Before Maintenance: UNSATISFACTORY - (2) BAD SECTIONS	Photograph (s) Time/Date Stamp: 1508 / 10-16-12		
Boom Repaired (Y/N): Description: REPLACED (2) BOOM SECTIONS ON SOUTH END OF BOOM RUN	Boom Replaced (Y/N) / Number of Sections: 2 Description: REPLACED (2) WATER LOGGED SECTIONS		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="margin-top: 20px;"> <p><u>Legend</u></p> <ul style="list-style-type: none"> <li>//// Sheen</li> <li>\\ \\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> <div style="text-align: center; margin-top: 20px;">  </div> </div>			
Inspector: JOHN HIGGINS	Signature: 		

## Boom Inspection Form

Task Order 60

<b>Boom Location: 8</b>	Time/Date: 1420 / 10.16.12
Description of Boom Before Maintenance:  <span style="font-size: 1.2em; font-family: cursive;">SATISFACTORY</span>	Photograph (s) Time/Date Stamp:  1420 / 10.16.12
Boom Repaired (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N Description:	Boom Replaced (Y/N) / Number of Sections: Description:
<b>Visual Observations</b>	
Visible Contamination (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N Iron Staining (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N Distressed Vegetation (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N	Sheen Present on Water (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N Is the Boom Containing the Sheen? (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N Pooled Product (Y/N): <input checked="" type="radio"/> Y / <input type="radio"/> N If yes, was product removed with sorbent pads? YES-
Location of Visible Contamination:	
<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	
Inspector: JOHN HIGHSTONE	Signature: <i>John Highstone</i>

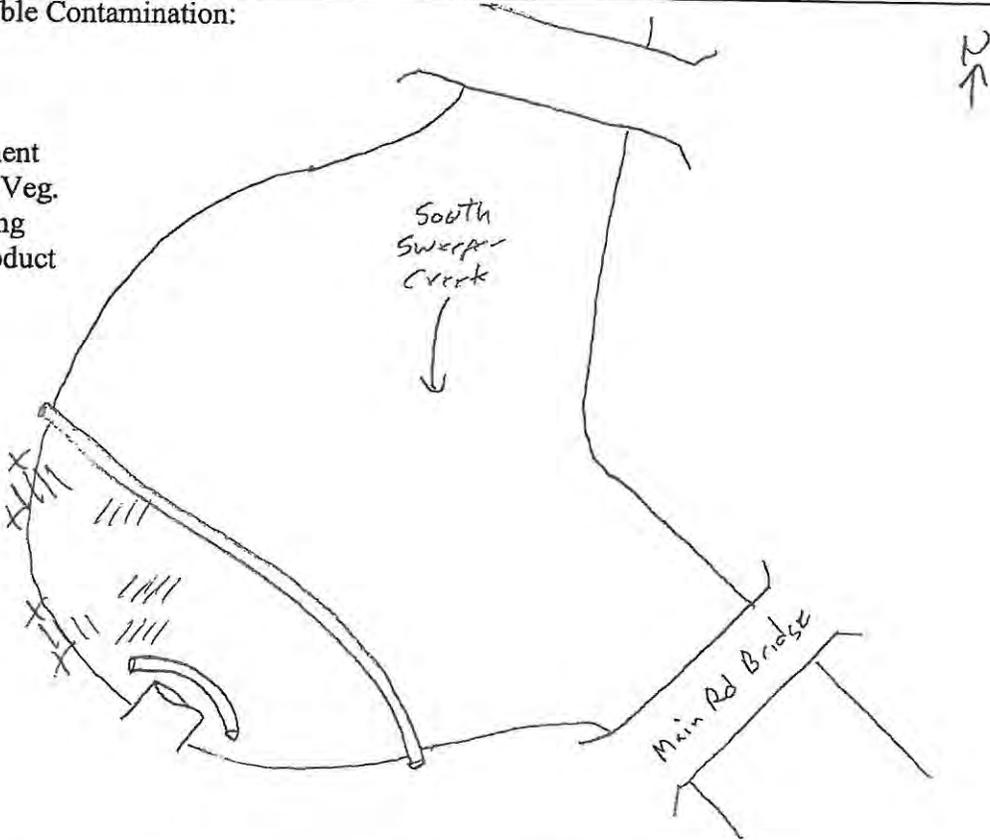
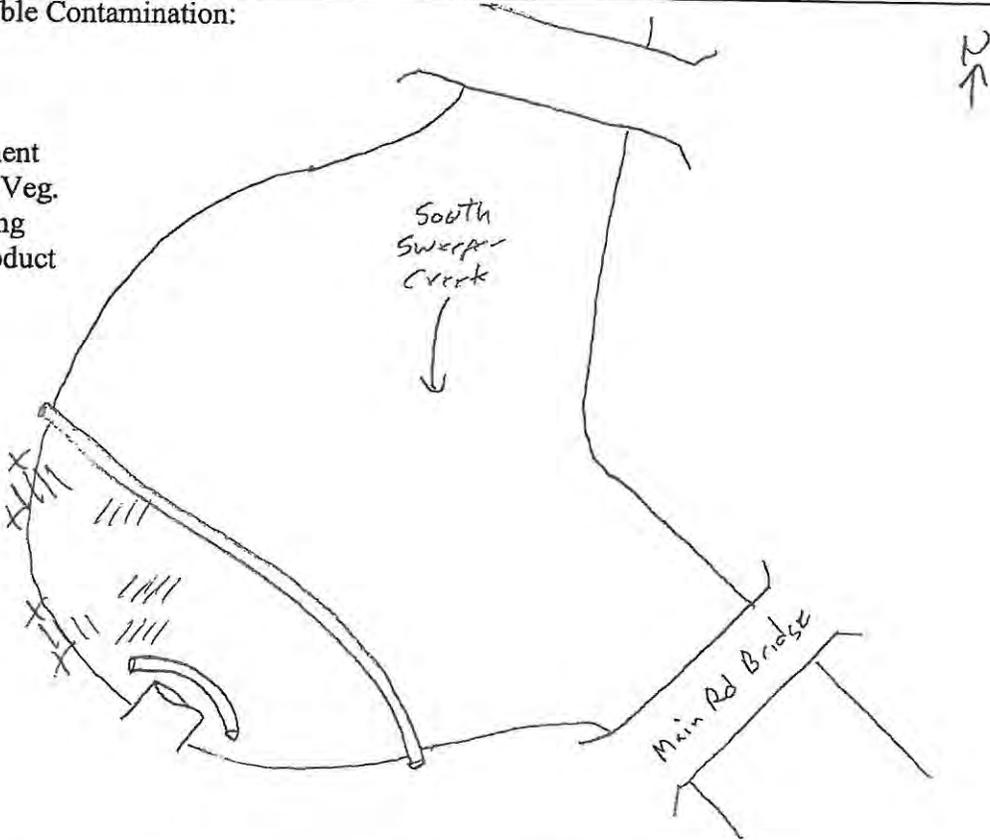
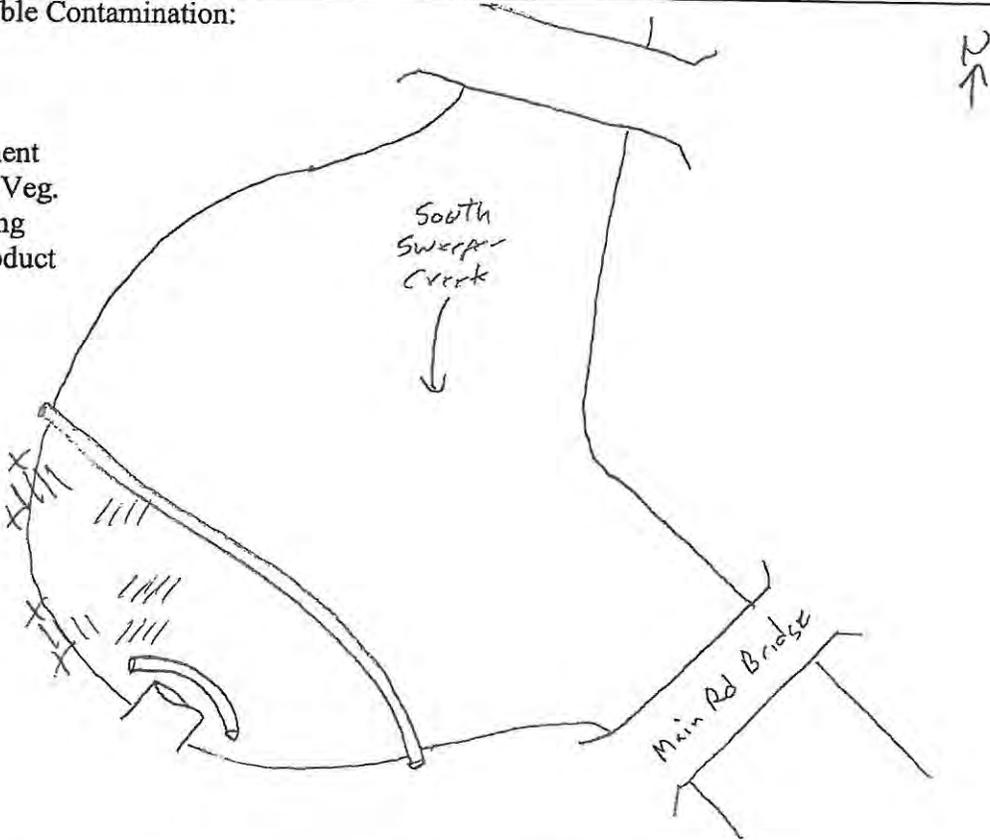
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 1434 / 10.16.12
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY - BOOM OUT OF POSITION DUE TO HIGH WATER LEVELS	<b>Photograph (s) Time/Date Stamp:</b>  1434 / 10.16.12
<b>Boom Repaired (Y/N):</b> Description: MOVED BOOM BACK INTO POSITION ONTO POSTS	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b>	
Visible Contamination (Y/N): <input checked="" type="radio"/> N	Sheen Present on Water (Y/N): <input checked="" type="radio"/> N <sup>DKB</sup>
Iron Staining (Y/N): <input checked="" type="radio"/> N	Is the Boom Containing the Sheen? (Y/N)
Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> N	Pooled Product (Y/N): <input checked="" type="radio"/> N
Distressed Vegetation (Y/N): <input checked="" type="radio"/> N	If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> <i>John Highstone</i>

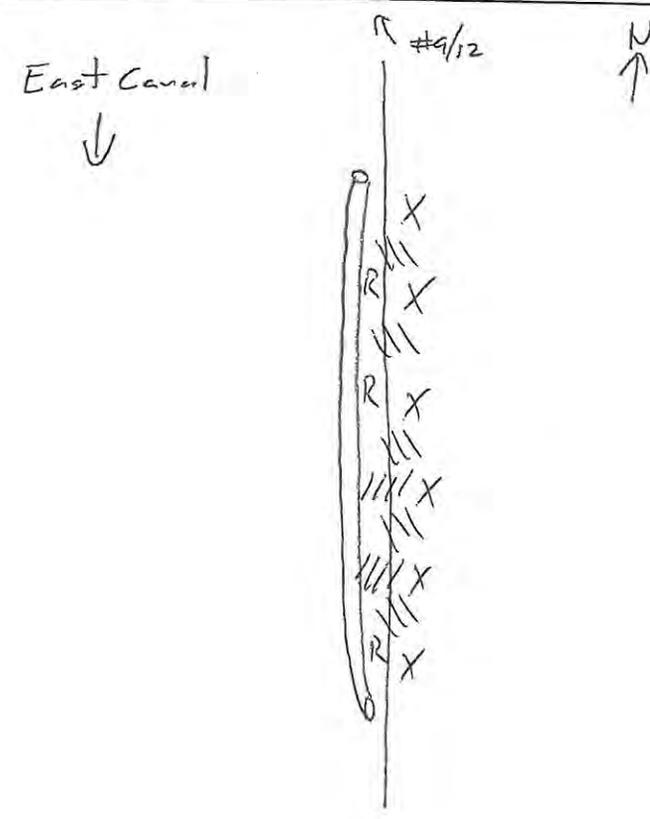
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 10	Time/Date: 1452 / 10.16.12		
Description of Boom Before Maintenance: SATISFACTORY	Photograph (s) Time/Date Stamp: 1452 / 10.16.12		
Boom Repaired (Y/N): Description: MOVED BACK INTO POSITION OFF THE SHORELINE	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%; border: none;"> <tr> <td style="width: 20%; border: none; vertical-align: top;"> <p><u>Legend</u></p>                 //// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 80%; border: none; text-align: center;">  </td> </tr> </table>		<p><u>Legend</u></p> //// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<p><u>Legend</u></p> //// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: JOHN HIGASTONE	Signature: <i>John Higastone</i>		

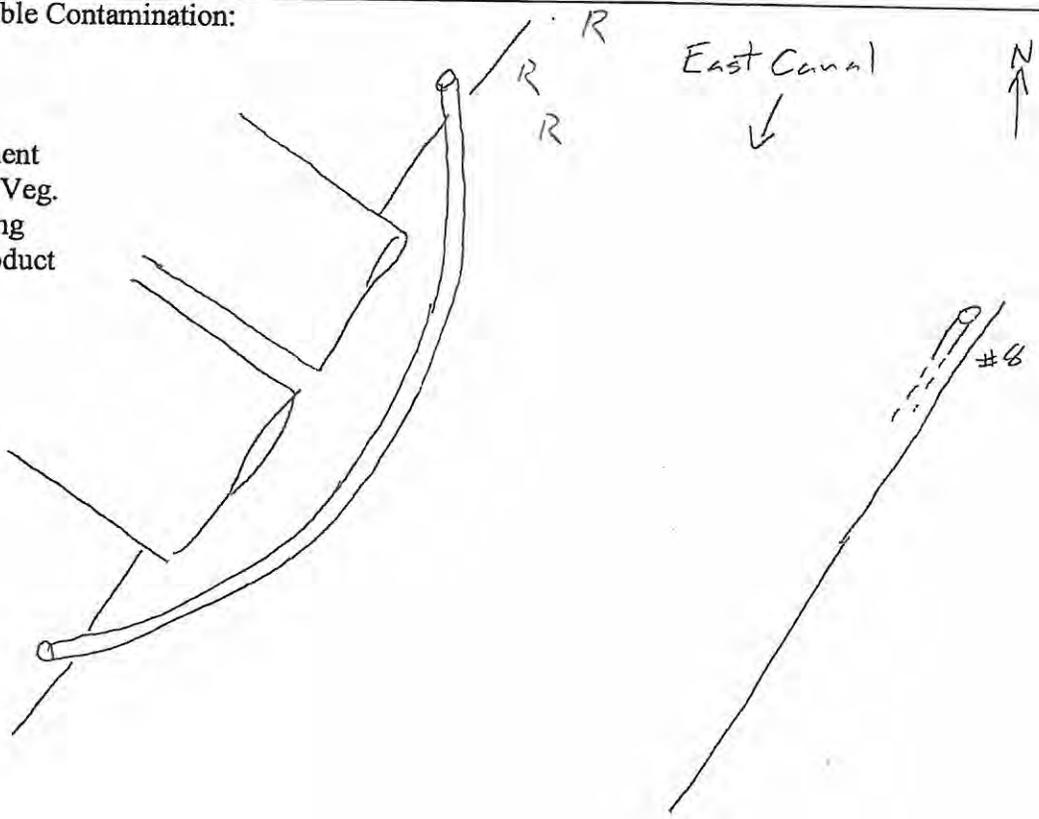
## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 11</b>	Time/Date: 1436 / 10.16.12		
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  1436 / 10.16.12		
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:			
<p><u>Legend</u></p> <ul style="list-style-type: none"> <li>/// Sheen</li> <li>\\ \\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul>			
Inspector: JOHN HIGHESTONE	Signature: <i>John Highestone</i>		

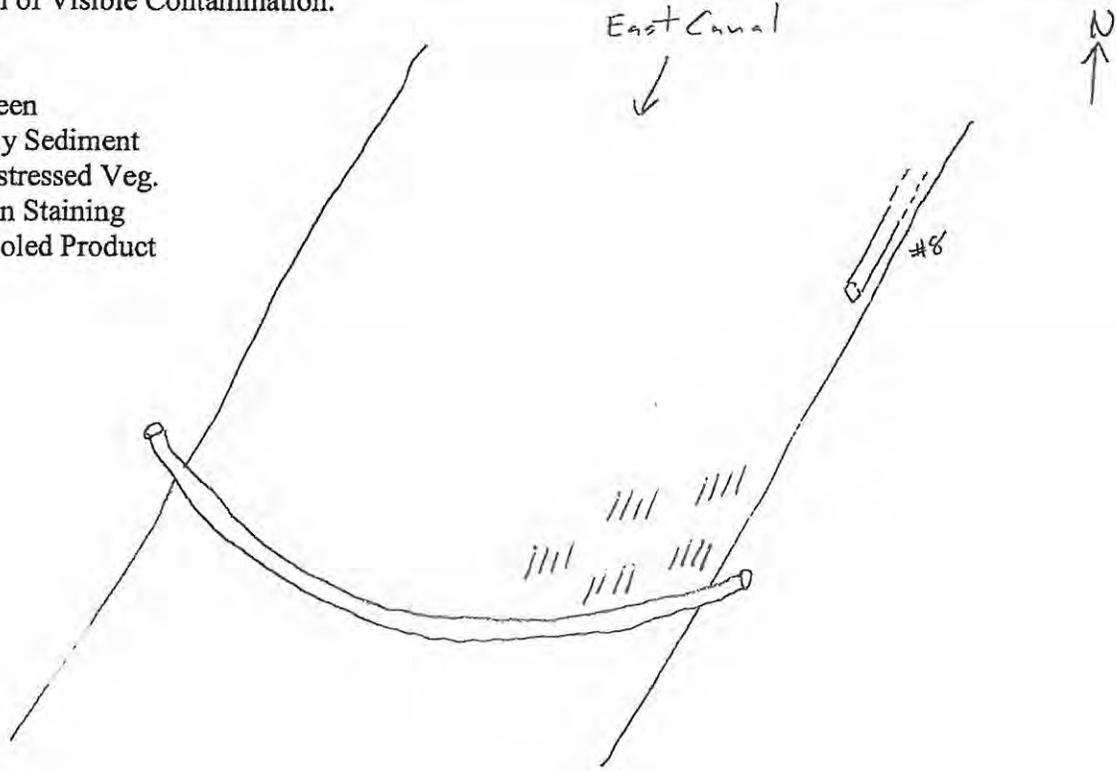
## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 2</b>	Time/Date: 1410 / 11.10.12		
Description of Boom Before Maintenance:  <i>SATISFACTORY</i>	Photograph (s) Time/Date Stamp:  1410 / 11.10.12		
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="display: flex; align-items: flex-start; margin-top: 10px;"> <div style="width: 20%; border: 1px solid black; padding: 5px;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 80%; text-align: center;">  </div> </div>			
Inspector: <i>JOHN HIGHSTONE</i>	Signature: <i>John Highstone</i>		

## Boom Inspection Form

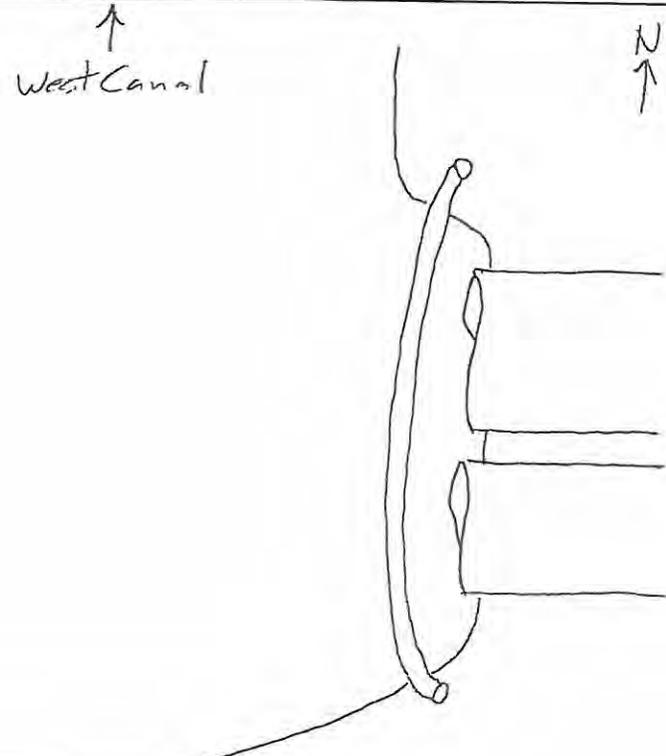
Task Order 60

<b>Boom Location: 3</b>	Time/Date: 1420/11.10.12		
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  1420/11.10.12		
Boom Repaired (Y/N) (N) Description:	Boom Replaced (Y/N) (N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">                 Visible Contamination (Y/N) (Y):                  Iron Staining (Y/N) (N):                  Oily Sediment/Soil (Y/N) (N):                  Distressed Vegetation (Y/N) (N):             </td> <td style="width: 50%; border: none;">                 Sheen Present on Water (Y/N) (Y):                  Is the Boom Containing the Sheen? (Y/N) (Y):                  Pooled Product (Y/N) (N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N) (Y): Iron Staining (Y/N) (N): Oily Sediment/Soil (Y/N) (N): Distressed Vegetation (Y/N) (N):	Sheen Present on Water (Y/N) (Y): Is the Boom Containing the Sheen? (Y/N) (Y): Pooled Product (Y/N) (N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N) (Y): Iron Staining (Y/N) (N): Oily Sediment/Soil (Y/N) (N): Distressed Vegetation (Y/N) (N):	Sheen Present on Water (Y/N) (Y): Is the Boom Containing the Sheen? (Y/N) (Y): Pooled Product (Y/N) (N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 30%;"> <p><u>Legend</u></p> <ul style="list-style-type: none"> <li>//// Sheen</li> <li>\\ \\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> </div> <div style="width: 60%; text-align: center;">  </div> </div>			
Inspector: JOHN MIGHSTONE	Signature: <i>John Mighstone</i>		



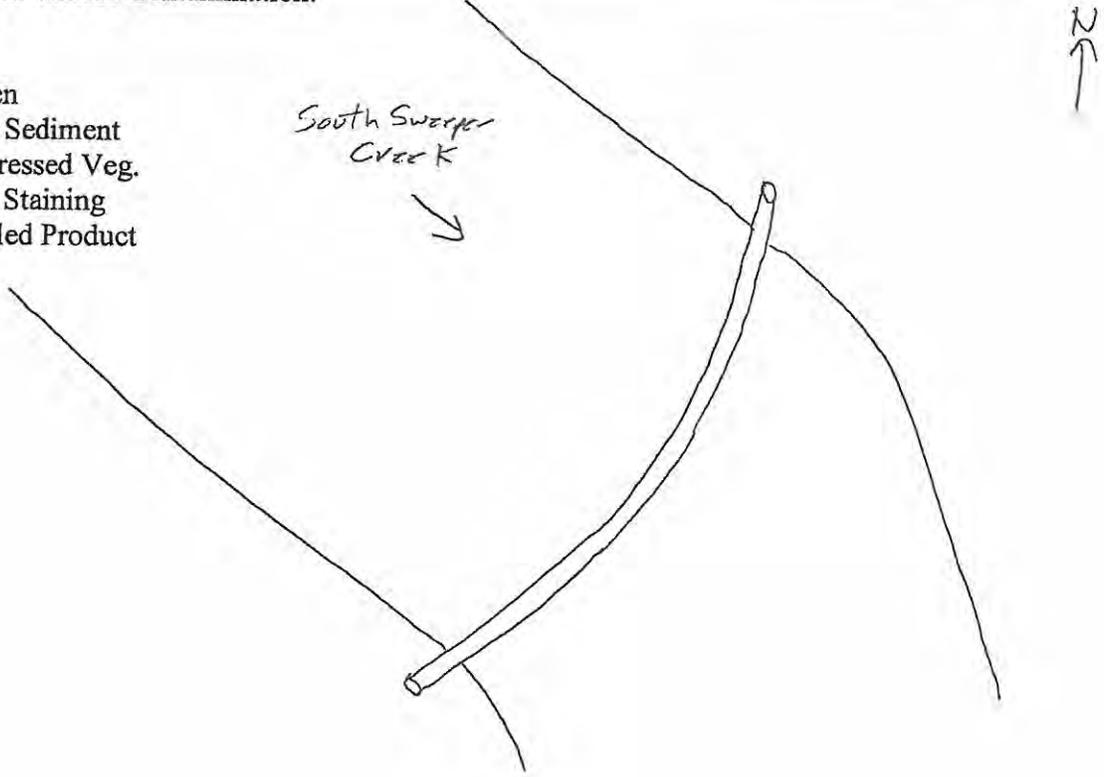
## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 4</b>	Time/Date: 1438 / 11.10.12		
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  1438 / 11.10.12		
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 55%; text-align: center;"> <p>↑ West Canal</p>  </div> </div>			
Inspector: JOHN HIGHSTONE	Signature: <i>John Highstone</i>		

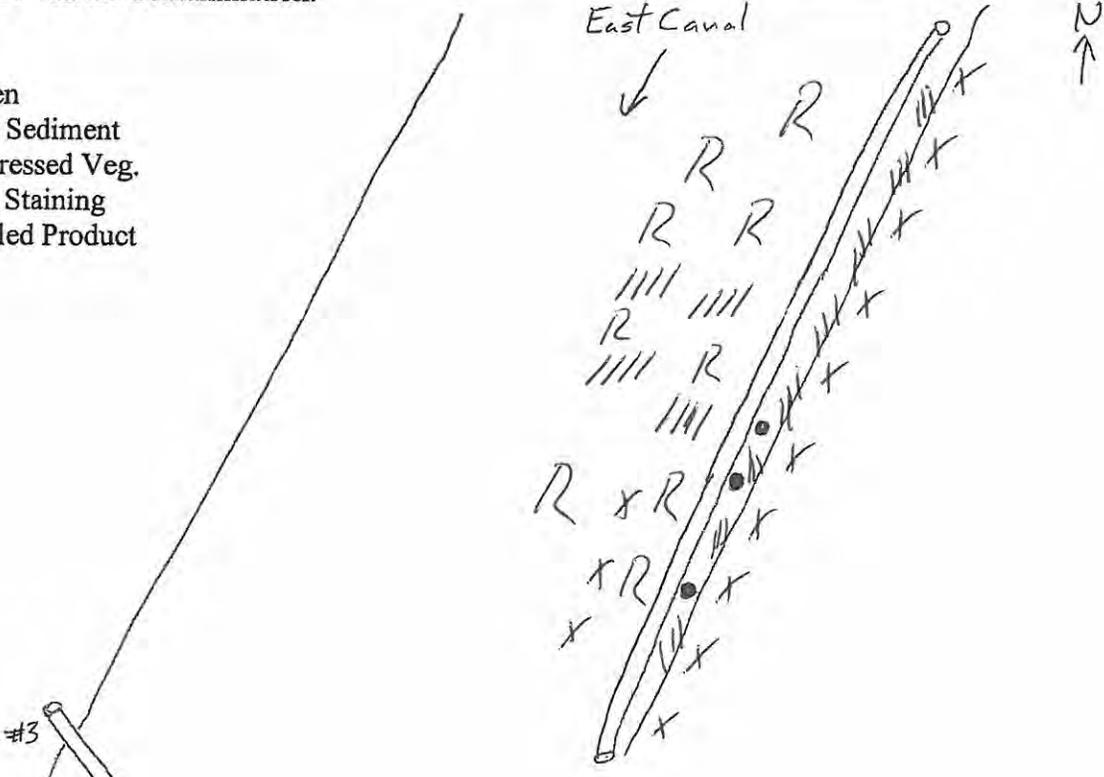
## Boom Inspection Form

Task Order 60

<b>Boom Location: 6</b>	Time/Date: 1445 / 11.10.12		
Description of Boom Before Maintenance: <i>SATISFACTORY</i>	Photograph (s) Time/Date Stamp: 1445 / 11.10.12		
Boom Repaired (Y/N): <input checked="" type="radio"/> N Description:	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N): <input checked="" type="radio"/> N                  Iron Staining (Y/N): <input checked="" type="radio"/> N                  Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> N                  Distressed Vegetation (Y/N): <input checked="" type="radio"/> N             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N): <input checked="" type="radio"/> N                  Is the Boom Containing the Sheen? (Y/N): <input checked="" type="radio"/> N                  Pooled Product (Y/N): <input checked="" type="radio"/> N                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): <input checked="" type="radio"/> N Iron Staining (Y/N): <input checked="" type="radio"/> N Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> N Distressed Vegetation (Y/N): <input checked="" type="radio"/> N	Sheen Present on Water (Y/N): <input checked="" type="radio"/> N Is the Boom Containing the Sheen? (Y/N): <input checked="" type="radio"/> N Pooled Product (Y/N): <input checked="" type="radio"/> N If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): <input checked="" type="radio"/> N Iron Staining (Y/N): <input checked="" type="radio"/> N Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> N Distressed Vegetation (Y/N): <input checked="" type="radio"/> N	Sheen Present on Water (Y/N): <input checked="" type="radio"/> N Is the Boom Containing the Sheen? (Y/N): <input checked="" type="radio"/> N Pooled Product (Y/N): <input checked="" type="radio"/> N If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="margin-top: 20px;"> <p><b>Legend</b></p> <ul style="list-style-type: none"> <li>/// Sheen</li> <li>\\ \\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> </div> <div style="margin-top: 20px;">  </div>			
Inspector: <i>JOHN HIGHSTONE</i>	Signature: <i>John Highstone</i>		

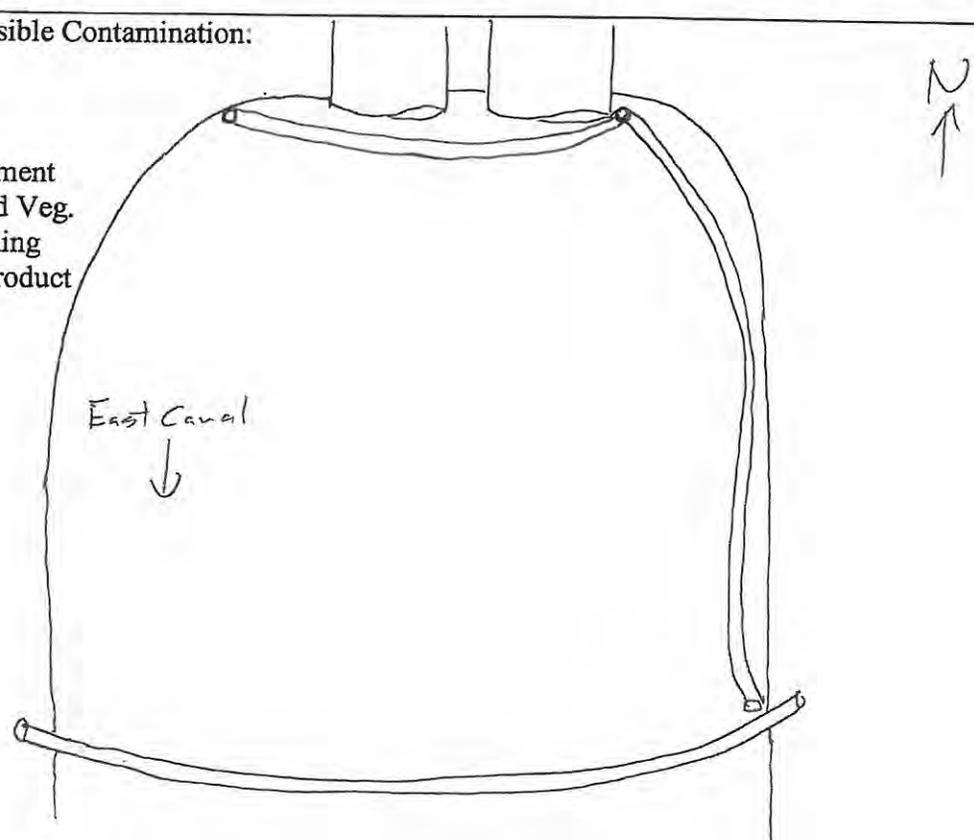
## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 8</b>	Time/Date: 14/9/11.10.12
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  14/9/11.10.12
Boom Repaired (Y/N): Description: MOVED BACK INTO POSITION	Boom Replaced (Y/N) / Number of Sections: Description:
<b>Visual Observations</b>	
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads? YES - SOAKED UP (5) ABSORBS OF PRODUCT
Location of Visible Contamination:	
<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	
Inspector: JOHN HIGHTSTONE	Signature: John Hightstone

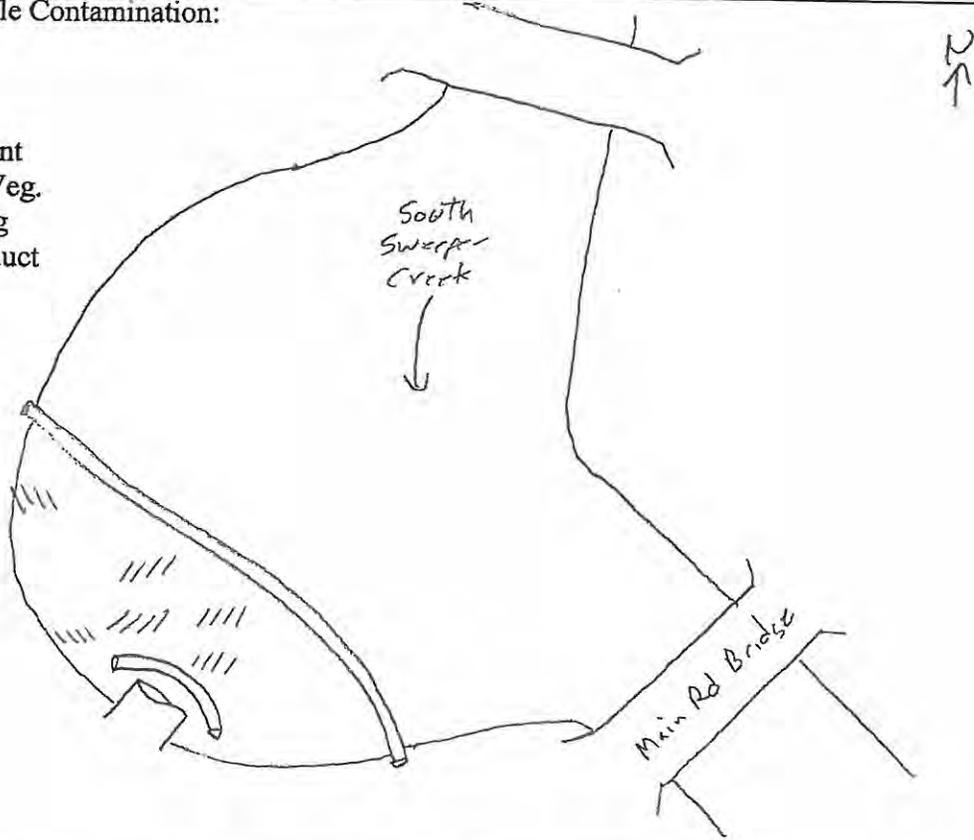
## Boom Inspection Form

**Task Order 60**

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 1426 / 11.10.12		
<b>Description of Boom Before Maintenance:</b>  SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b>  1426 / 11.10.12		
<b>Boom Repaired (Y / (N)):</b> Description:	<b>Boom Replaced (Y / (N)) / Number of Sections:</b> Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p>Visible Contamination (Y / (N)):</p> <p>Iron Staining (Y / (N)):</p> <p>Oily Sediment/Soil (Y / (N)):</p> <p>Distressed Vegetation (Y / (N)):</p> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p>Sheen Present on Water (Y / (N)):</p> <p>Is the Boom Containing the Sheen? (Y / N)</p> <p>Pooled Product (Y / (N)):</p> <p>If yes, was product removed with sorbent pads?</p> </td> </tr> </table>		<p>Visible Contamination (Y / (N)):</p> <p>Iron Staining (Y / (N)):</p> <p>Oily Sediment/Soil (Y / (N)):</p> <p>Distressed Vegetation (Y / (N)):</p>	<p>Sheen Present on Water (Y / (N)):</p> <p>Is the Boom Containing the Sheen? (Y / N)</p> <p>Pooled Product (Y / (N)):</p> <p>If yes, was product removed with sorbent pads?</p>
<p>Visible Contamination (Y / (N)):</p> <p>Iron Staining (Y / (N)):</p> <p>Oily Sediment/Soil (Y / (N)):</p> <p>Distressed Vegetation (Y / (N)):</p>	<p>Sheen Present on Water (Y / (N)):</p> <p>Is the Boom Containing the Sheen? (Y / N)</p> <p>Pooled Product (Y / (N)):</p> <p>If yes, was product removed with sorbent pads?</p>		
<p><b>Location of Visible Contamination:</b></p> <div style="display: flex; align-items: flex-start;"> <div style="width: 20%; padding-right: 10px;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 80%; text-align: center;">  <p style="margin-left: 100px;">East Canal ↓</p> <p style="margin-right: 100px;">N ↑</p> </div> </div>			
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> <i>John Highstone</i>		

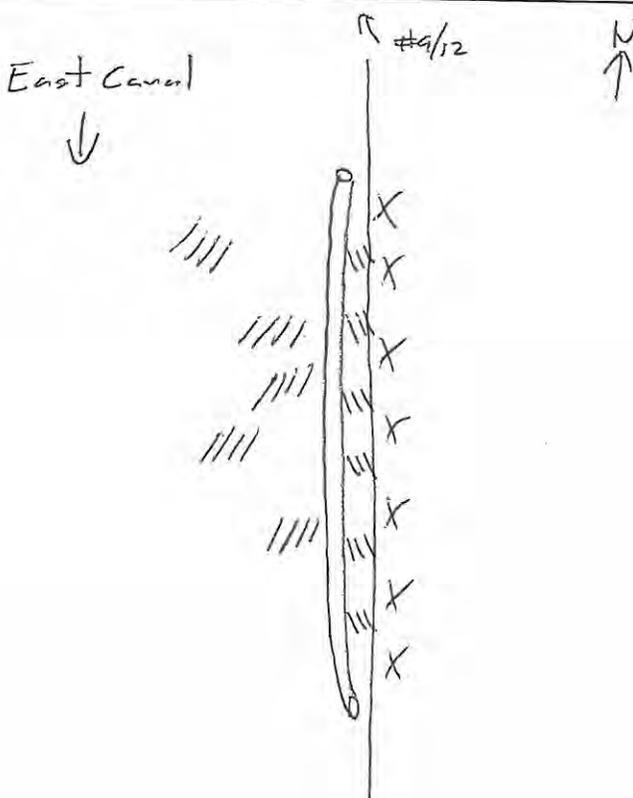
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 10	<b>Time/Date:</b> 1442 / 11-10-12		
<b>Description of Boom Before Maintenance:</b>  SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b>  1442 / 11-10-12		
<b>Boom Repaired (Y/N):</b> Description: MOVED (2) SECTIONS OFF OF ROCKS BACK INTO POSITION	<b>Boom Replaced (Y (N)) / Number of Sections:</b> Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p>Visible Contamination (Y/N):</p> <p>Iron Staining (Y (N)):</p> <p>Oily Sediment/Soil (Y/N):</p> <p>Distressed Vegetation (Y (N)):</p> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p>Sheen Present on Water (Y/N):</p> <p>Is the Boom Containing the Sheen? (Y/N)</p> <p>Pooled Product (Y (N)):</p> <p>If yes, was product removed with sorbent pads?</p> </td> </tr> </table>		<p>Visible Contamination (Y/N):</p> <p>Iron Staining (Y (N)):</p> <p>Oily Sediment/Soil (Y/N):</p> <p>Distressed Vegetation (Y (N)):</p>	<p>Sheen Present on Water (Y/N):</p> <p>Is the Boom Containing the Sheen? (Y/N)</p> <p>Pooled Product (Y (N)):</p> <p>If yes, was product removed with sorbent pads?</p>
<p>Visible Contamination (Y/N):</p> <p>Iron Staining (Y (N)):</p> <p>Oily Sediment/Soil (Y/N):</p> <p>Distressed Vegetation (Y (N)):</p>	<p>Sheen Present on Water (Y/N):</p> <p>Is the Boom Containing the Sheen? (Y/N)</p> <p>Pooled Product (Y (N)):</p> <p>If yes, was product removed with sorbent pads?</p>		
<p><b>Location of Visible Contamination:</b></p> <div style="display: flex; align-items: flex-start;"> <div style="width: 20%; padding-right: 10px;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="flex-grow: 1;">  </div> </div>			
<b>Inspector:</b> JOHN HIGGSTONE	<b>Signature:</b> <i>John Higginson</i>		

## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 11</b>	Time/Date: 1429 / 11.10.12		
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  1429 / 11.10.12		
Boom Repaired (Y/N): (N) Description:	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="display: flex; justify-content: space-between; align-items: flex-start; margin-top: 10px;"> <div style="width: 30%; border-right: 1px solid black; padding-right: 10px;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%; text-align: center;"> <p>East Canal</p> <p>↓</p>  </div> </div>			
Inspector: JOHN MICHSTONE	Signature: John A. Highster		



SEALASKA ENVIRONMENTAL

## Boom Inspection Form

Task Order 60

<b>Boom Location: 2</b>	<b>Time/Date:</b> 1445 / 12-4-12
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1056 / 12-5-12
<b>Boom Repaired (Y/N):</b> Description: MOVED BACK INTO POSITION ONTO POSTS	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%;"> </div> </div>	
<b>Inspector:</b> J. HIGHSTONE, A. LEWIS	<b>Signature:</b> 



# Boom Inspection Form

Task Order 60

Boom Location: 3	Time/Date: 1505 / 12-4-12
Description of Boom Before Maintenance: SATISFACTORY	Photograph (s) Time/Date Stamp: 1057 / 12-5-12
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:

**Visual Observations**

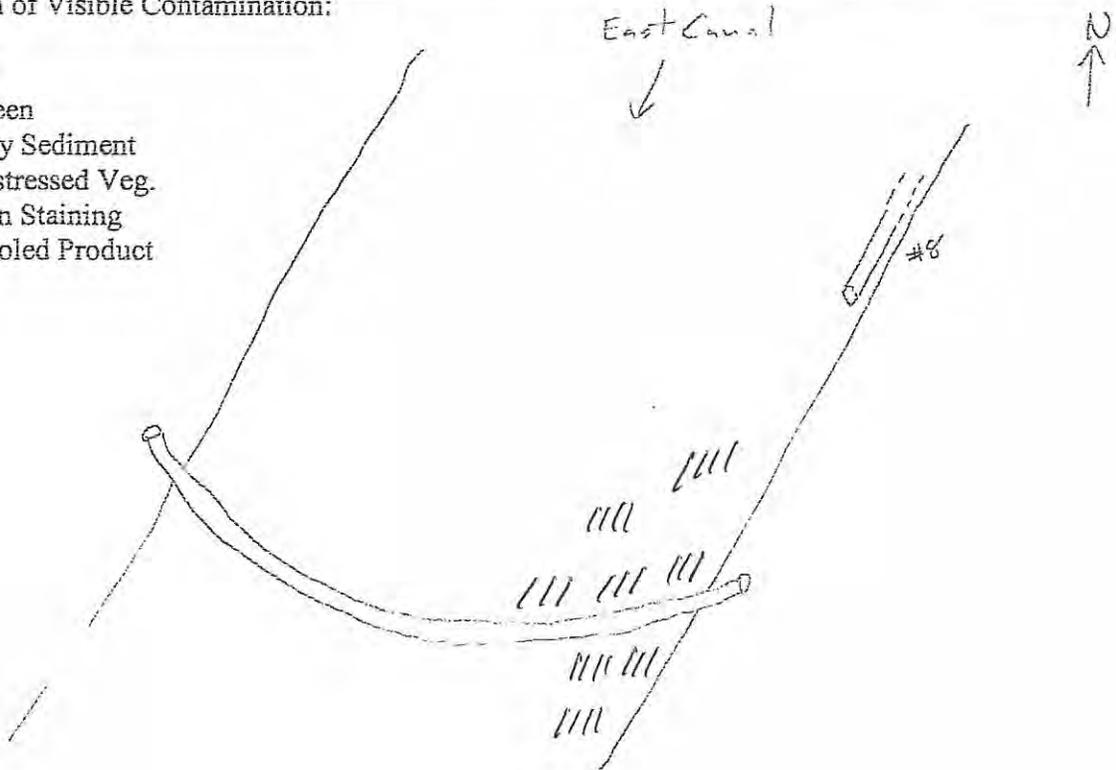
Visible Contamination (Y/N):  
 Iron Staining (Y/N):  
 Oily Sediment/Soil (Y/N):  
 Distressed Vegetation (Y/N):

Sheen Present on Water (Y/N):  
 Is the Boom Containing the Sheen? (Y/N)  
 Pooled Product (Y/N):  
 If yes, was product removed with sorbent pads?

Location of Visible Contamination:

Legend

- /// Sheen
- \\ \\ Oily Sediment
- xxx Distressed Veg.
- RRR Iron Staining
- Pooled Product

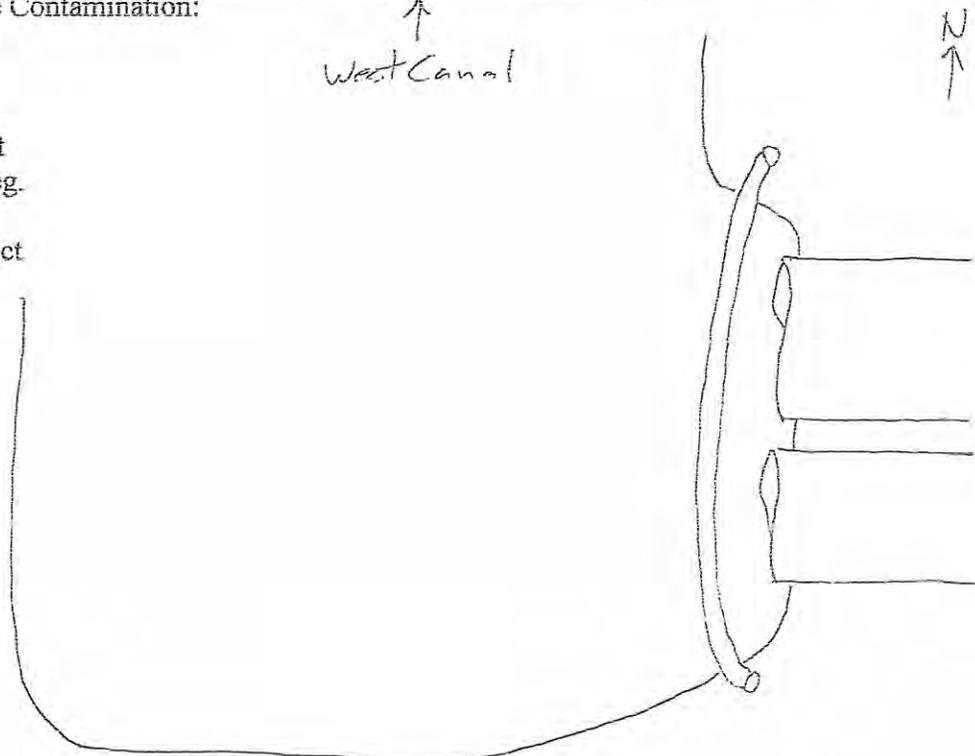


Inspector: J. HIGSTOWE, A. LEWIS	Signature: <i>John Hight</i>
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\* SHEEN PRESENT OUTSIDE OF BOOM DUE TO HIGH WATER LEVELS \*

## Boom Inspection Form

Task Order 60

Boom Location: 4	Time/Date: <span style="font-size: 1.2em;">1535 / 12.4.12</span>		
Description of Boom Before Maintenance: <span style="font-size: 1.2em;">SATISFACTORY</span>	Photograph (s) Time/Date Stamp: <span style="font-size: 1.2em;">1325 / 12.5.12</span>		
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y <input checked="" type="radio"/> N):                  Iron Staining (Y <input checked="" type="radio"/> N):                  Oily Sediment/Soil (Y <input checked="" type="radio"/> N):                  Distressed Vegetation (Y <input checked="" type="radio"/> N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y <input checked="" type="radio"/> N):                  Is the Boom Containing the Sheen? (Y / N)                  Pooled Product (Y <input checked="" type="radio"/> N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="text-align: center; margin-top: 10px;"> <span style="font-size: 1.5em;">↑</span>  <span style="font-size: 1.2em;">West Canal</span> </div> <div style="text-align: right; margin-top: 10px;"> <span style="font-size: 1.5em;">N</span>  <span style="font-size: 1.2em;">↑</span> </div> <div style="margin-top: 20px;">  </div>			
Inspector: <span style="font-size: 1.2em;">J. HIGHESTONE, A. LEWIS</span>	Signature: 		

# Boom Inspection Form

Task Order 60

Boom Location: 6	Time/Date: 1600 / 12.4.12
Description of Boom Before Maintenance: UNSATISFACTORY	Photograph (s) Time/Date Stamp: 1333 / 12.5.12
Boom Repaired (Y) (N): Description: REPLACED (6) BOOM SECTIONS DUE TO METAL OBSTRUCTION IN CANAL WATERWAY	Boom Replaced (Y) (N) / Number of Sections: (6) Description: REPLACED BOOM SECTIONS DUE TO METAL OBSTRUCTION IN CANAL WATERWAY
<p><b>Visual Observations</b></p> <p>Visible Contamination (Y) (N):          Iron Staining (Y) (N):          Oily Sediment/Soil (Y) (N):          Distressed Vegetation (Y) (N):</p> <p>Sheen Present on Water (Y) (N):          Is the Boom Containing the Sheen? (Y / N)          Pooled Product (Y) (N):          If yes, was product removed with sorbent pads?</p>	
<p>Location of Visible Contamination:</p> <p><b>Legend</b>          /// Sheen          \\\ Oily Sediment          xxx Distressed Veg.          RRR Iron Staining          ● Pooled Product</p> <p>South Swager Creek</p> <p>Metal Debris removed by Rotor</p> <p>N ↑</p>	
Inspector: J. HIGHSTONE, A. LEWIS	Signature: <i>John Highstone</i>

## Boom Inspection Form

Task Order 60

Boom Location: 8	Time/Date: 1500 / 12.4.12
Description of Boom Before Maintenance: SATISFACTORY	Photograph (s) Time/Date Stamp: 1056 / 12.5.12
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:

**Visual Observations**

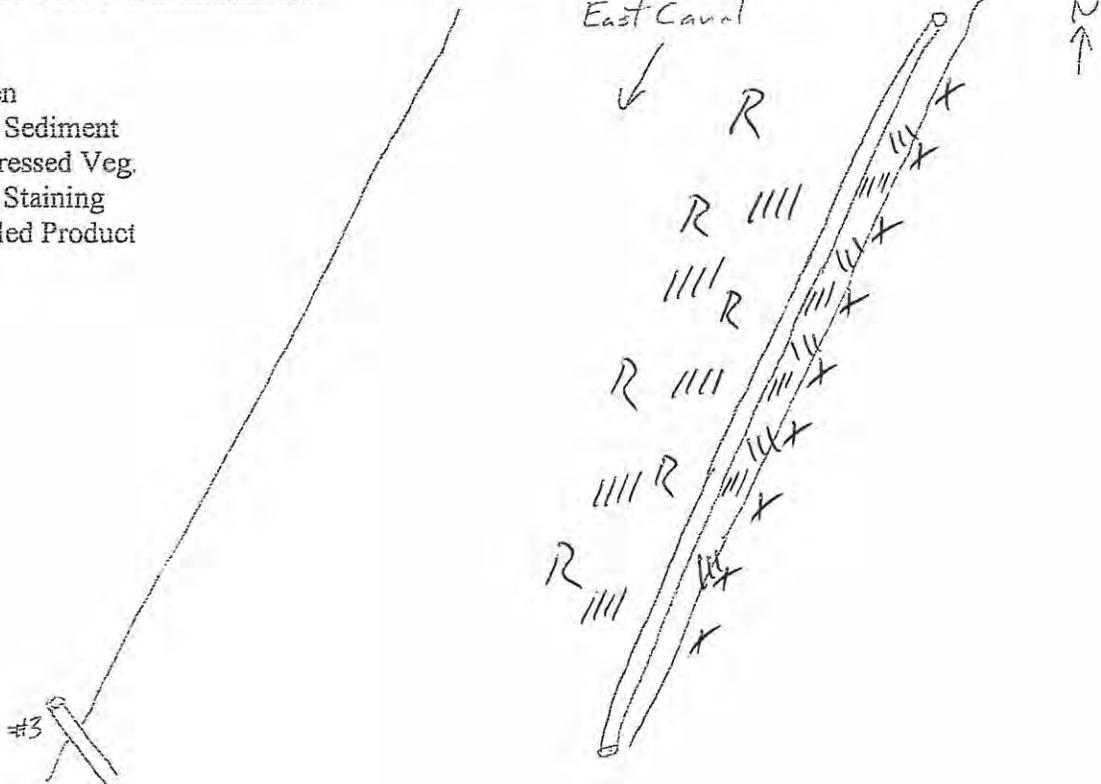
Visible Contamination (Y/N):  
 Iron Staining (Y/N):  
 Oily Sediment/Soil (Y/N):  
 Distressed Vegetation (Y/N):

Sheen Present on Water (Y/N):  
 Is the Boom Containing the Sheen? (Y/N)  
 Pooled Product (Y/N):  
 If yes, was product removed with sorbent pads?

Location of Visible Contamination:

Legend

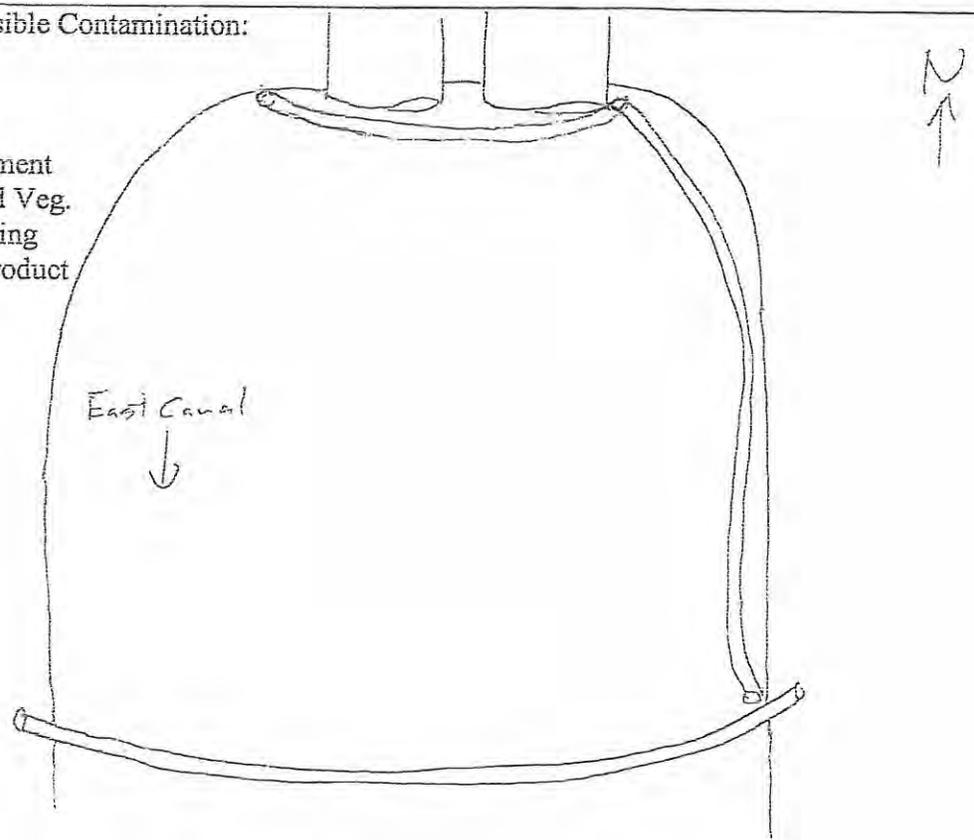
- //// Sheen
- \\ \\ Oily Sediment
- xxx Distressed Veg.
- RRR Iron Staining
- Pooled Product



Inspector: J. HIGSTONE, A. LEWIS	Signature: <i>John Higstone</i>
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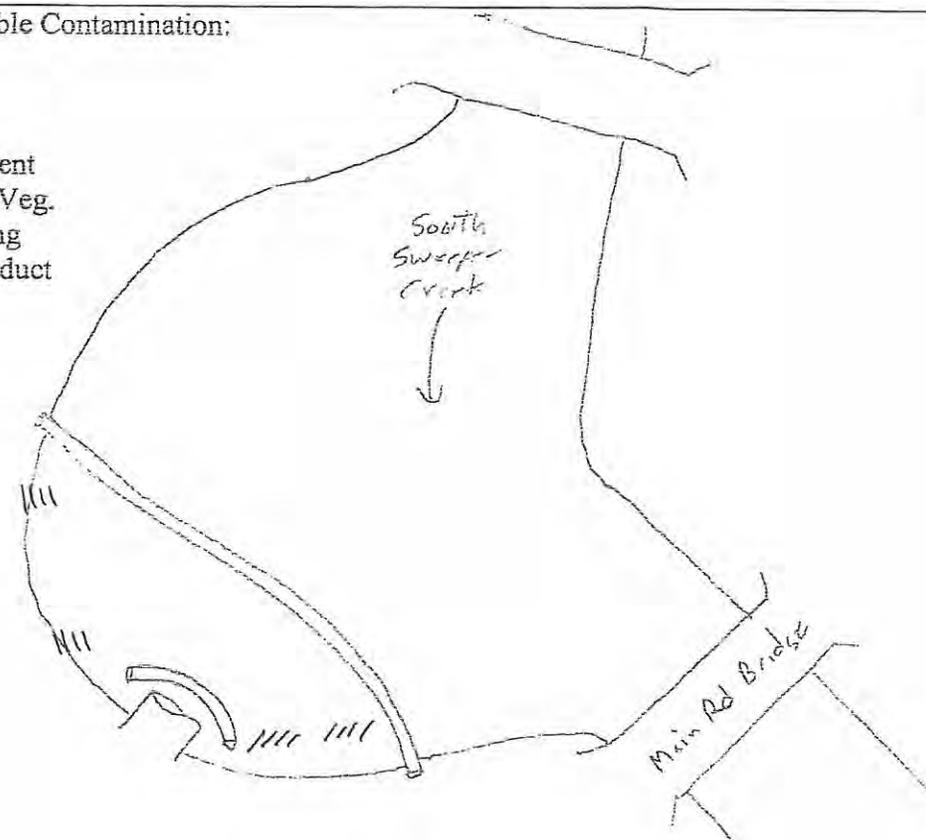
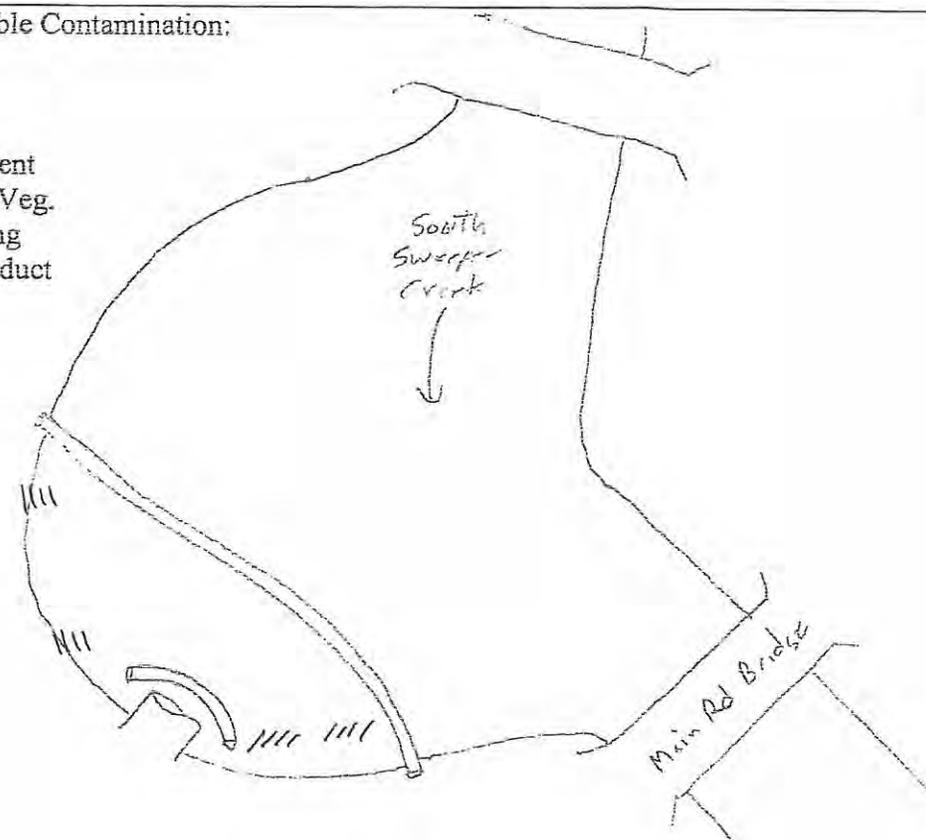
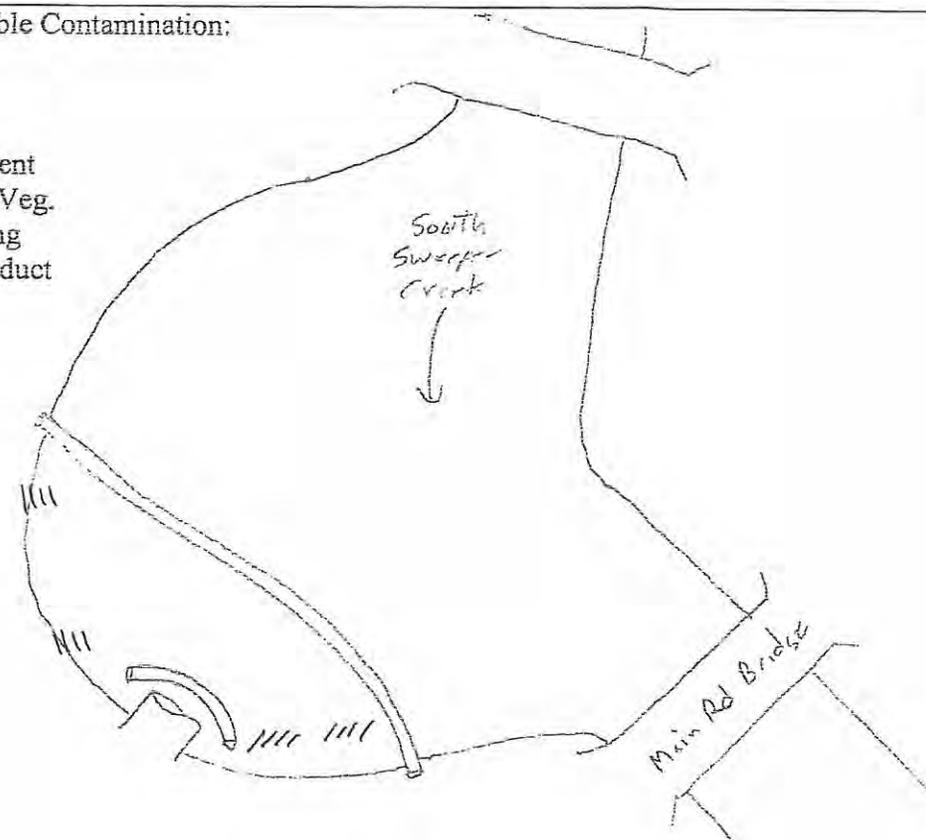
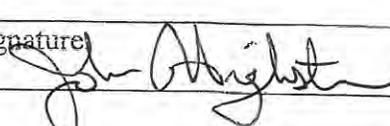
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 1515/12.4.12
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1103/12.5.12
<b>Boom Repaired (Y/N):</b> Description: MOVED BOOM BACK INTO POSITION ONTO POSTS	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Inspector:</b> J. HIGHSTONE, A. LEWIS	<b>Signature:</b> 

## Boom Inspection Form

Task Order 60

Boom Location: 10	Time/Date: 1545 / 12.4.12		
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 1331 / 12.5.12		
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y <input checked="" type="radio"/> N):                  Iron Staining (Y <input checked="" type="radio"/> N):                  Oily Sediment/Soil (Y <input checked="" type="radio"/> N):                  Distressed Vegetation (Y <input checked="" type="radio"/> N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y <input checked="" type="radio"/> N):                  Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)                  Pooled Product (Y <input checked="" type="radio"/> N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N) Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N) Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%; border: none;"> <tr> <td style="width: 20%; border: none; vertical-align: top;"> <p><u>Legend</u></p>                 //// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 80%; border: none; text-align: center;">  </td> </tr> </table>		<p><u>Legend</u></p> //// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<p><u>Legend</u></p> //// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: J. HIGHSTONE, A. LEWIS	Signature: 		

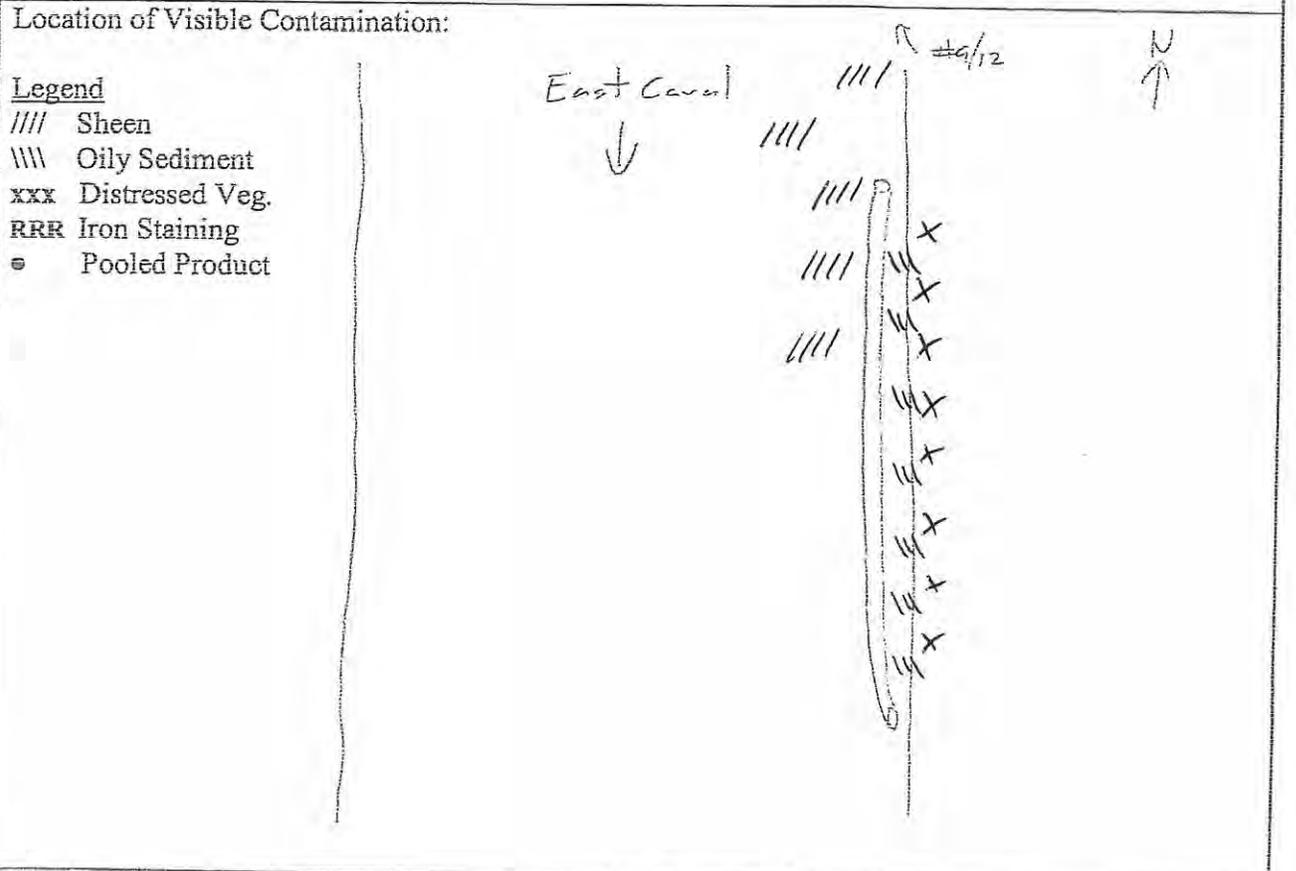
### Boom Inspection Form

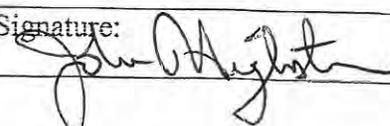
Task Order 60

Boom Location: 11	Time/Date: 1520/12.4.12
Description of Boom Before Maintenance: SATISFACTORY	Photograph (s) Time/Date Stamp: 1105/12.5.12
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:

**Visual Observations**

Visible Contamination <input checked="" type="radio"/> N):	Sheen Present on Water <input checked="" type="radio"/> N):
Iron Staining (Y <input checked="" type="radio"/> N):	Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)
Oily Sediment/Soil <input checked="" type="radio"/> N):	Pooled Product (Y <input checked="" type="radio"/> N):
Distressed Vegetation <input checked="" type="radio"/> N):	If yes, was product removed with sorbent pads?



Inspector: J. HIGHSTONE, A. LEWIS	Signature: 
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## Boom Inspection Form

Task Order 60

<b>Boom Location: 2</b>	<b>Time/Date:</b> 1159 / 1.9.13
<b>Description of Boom Before Maintenance:</b>	<b>Photograph (s) Time/Date Stamp:</b> 1159 / 1.9.13
<b>UNSATISFACTORY</b> <b>Boom Repaired (Y/N):</b> (Y) (N) <b>Description:</b> MOVED BACK INTO POSITION OFF OF COLVERTS	<b>Boom Replaced (Y/N) / Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y (N)): Iron Staining (Y (N)): Oily Sediment/Soil (Y (N)): Distressed Vegetation (Y (N))	
Sheen Present on Water (Y (N)): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y (N)): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Inspector:</b> JOHN HIGHESTONE	<b>Signature:</b> 

Sealaska Environmental Services, LLC  
 Poulsbo, Washington



# Boom Inspection Form

Task Order 60

Boom Location: 3	Time/Date: 1201 / 1. 9. 13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 1201 / 1. 9. 13
Boom Repaired (Y <input checked="" type="radio"/> N) Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:
<p><b>Visual Observations</b></p> <p>Visible Contamination (Y <input checked="" type="radio"/> N):</p> <p>Iron Staining (Y <input checked="" type="radio"/> N):</p> <p>Oily Sediment/Soil (Y <input checked="" type="radio"/> N):</p> <p>Distressed Vegetation (Y <input checked="" type="radio"/> N):</p> <p>Sheen Present on Water (Y <input checked="" type="radio"/> N):</p> <p>Is the Boom Containing the Sheen? (Y / N)</p> <p>Pooled Product (Y <input checked="" type="radio"/> N):</p> <p>If yes, was product removed with sorbent pads?</p>	
<p>Location of Visible Contamination:</p> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	
Inspector: <b>John Highstone</b>	Signature: <i>John Highstone</i>

Sealaska Environmental Services, LLC  
Poulsbo, Washington



SEALASKA ENVIRONMENTAL

### Boom Inspection Form

Task Order 60

Boom Location: 4	Time/Date: 12.5 / 1.9.13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 12.5 / 1.9.13
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:
<b>Visual Observations</b> Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	
Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?	
Location of Visible Contamination:  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 50%; text-align: center;"> <p>↑ West Canal</p> </div> </div>	
Inspector: <b>JOHN HUGHSTONE</b>	Signature: <i>John A. Hughstone</i>

\* DIKE PUMPS OPERATING AND ON \*

Sealaska Environmental Services, LLC  
Poulsbo, Washington



## Boom Inspection Form

Task Order 60

Boom Location: <b>6</b>	Time/Date: <b>1222 / 1.9.13</b>		
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: <b>1222 / 1.9.13</b>		
Boom Repaired (Y/N): <input checked="" type="radio"/> N Description:	Boom Replaced (Y/N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;">                 Visible Contamination (Y/N): <input checked="" type="radio"/> N                  Iron Staining (Y/N): <input checked="" type="radio"/> N                  Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> N                  Distressed Vegetation (Y/N): <input checked="" type="radio"/> N             </td> <td style="width: 50%; vertical-align: top;">                 Sheen Present on Water (Y/N): <input checked="" type="radio"/> N                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N): <input checked="" type="radio"/> N                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): <input checked="" type="radio"/> N Iron Staining (Y/N): <input checked="" type="radio"/> N Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> N Distressed Vegetation (Y/N): <input checked="" type="radio"/> N	Sheen Present on Water (Y/N): <input checked="" type="radio"/> N Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): <input checked="" type="radio"/> N If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): <input checked="" type="radio"/> N Iron Staining (Y/N): <input checked="" type="radio"/> N Oily Sediment/Soil (Y/N): <input checked="" type="radio"/> N Distressed Vegetation (Y/N): <input checked="" type="radio"/> N	Sheen Present on Water (Y/N): <input checked="" type="radio"/> N Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): <input checked="" type="radio"/> N If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%;"> <tr> <td style="width: 30%; vertical-align: top;"> <p><u>Legend</u></p>                 /// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 70%; text-align: center; vertical-align: middle;"> </td> </tr> </table>		<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: <b>JOHN HIGHSTONE</b>	Signature: <i>John Highstone</i>		

Sealaska Environmental Services, LLC  
Poulsbo, Washington



SEALASKA  
ENVIRONMENTAL

### Boom Inspection Form

Task Order 60

Boom Location: 8	Time/Date: 12 <sup>00</sup> / 1-9-13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 12 <sup>00</sup> / 1-9-13
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:
<p><b>Visual Observations</b></p> <p>Visible Contamination (Y <input checked="" type="radio"/> N):</p> <p>Iron Staining (Y <input checked="" type="radio"/> N):</p> <p>Oily Sediment/Soil (Y <input checked="" type="radio"/> N):</p> <p>Distressed Vegetation (Y <input checked="" type="radio"/> N):</p> <p>Sheen Present on Water (Y <input checked="" type="radio"/> N):</p> <p>Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)</p> <p>Pooled Product (Y <input checked="" type="radio"/> N):</p> <p>If yes, was product removed with sorbent pads?</p>	
<p>Location of Visible Contamination:</p> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	
Inspector: <b>John Highstone</b>	Signature: <i>John Highstone</i>

Sealaska Environmental Services, LLC  
Poulsbo, Washington

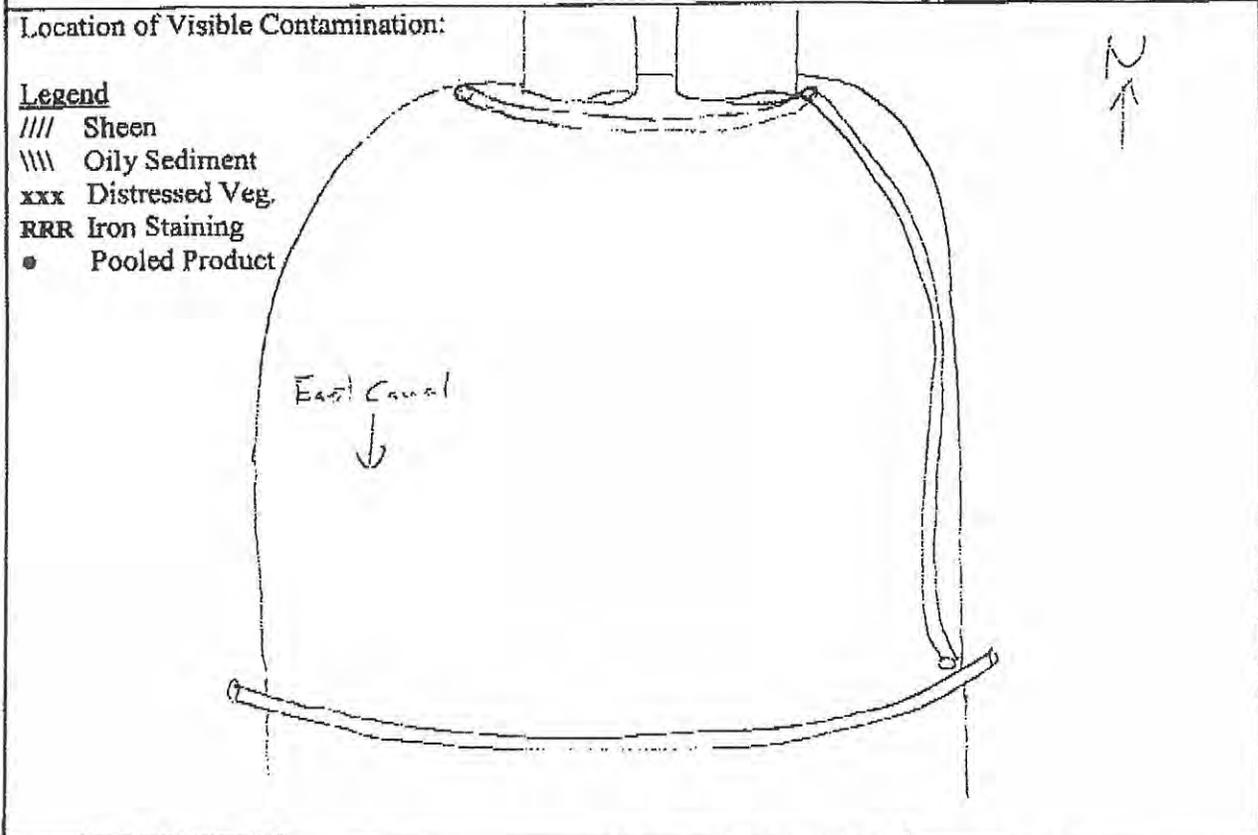


## Boom Inspection Form

Task Order 60

Boom Location: 9/12	Time/Date: 12/04/1.9.13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 12/04/1.9.13
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:

<b>Visual Observations</b> Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?
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Inspector: <b>JOHN HIGHTSTONE</b>	Signature: <i>John Hightstone</i>
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## Boom Inspection Form

Task Order 60

Boom Location: 10	Time/Date: 12/8/1.9.13		
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 12/8/1.9.13		
Boom Repaired (Y <input checked="" type="radio"/> N <input type="radio"/> ): Description:	Boom Replaced (Y <input type="radio"/> N <input checked="" type="radio"/> / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y <input checked="" type="radio"/> N <input type="radio"/>):                  Iron Staining (Y <input type="radio"/> N <input checked="" type="radio"/>):                  Oily Sediment/Soil (Y <input checked="" type="radio"/> N <input type="radio"/>):                  Distressed Vegetation (Y <input checked="" type="radio"/> N <input type="radio"/>):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y <input checked="" type="radio"/> N <input type="radio"/>):                  Is the Boom Containing the Sheen? (Y <input type="radio"/> N <input checked="" type="radio"/>):                  Pooled Product (Y <input type="radio"/> N <input checked="" type="radio"/>):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N <input type="radio"/> ): Iron Staining (Y <input type="radio"/> N <input checked="" type="radio"/> ): Oily Sediment/Soil (Y <input checked="" type="radio"/> N <input type="radio"/> ): Distressed Vegetation (Y <input checked="" type="radio"/> N <input type="radio"/> ):	Sheen Present on Water (Y <input checked="" type="radio"/> N <input type="radio"/> ): Is the Boom Containing the Sheen? (Y <input type="radio"/> N <input checked="" type="radio"/> ): Pooled Product (Y <input type="radio"/> N <input checked="" type="radio"/> ): If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N <input type="radio"/> ): Iron Staining (Y <input type="radio"/> N <input checked="" type="radio"/> ): Oily Sediment/Soil (Y <input checked="" type="radio"/> N <input type="radio"/> ): Distressed Vegetation (Y <input checked="" type="radio"/> N <input type="radio"/> ):	Sheen Present on Water (Y <input checked="" type="radio"/> N <input type="radio"/> ): Is the Boom Containing the Sheen? (Y <input type="radio"/> N <input checked="" type="radio"/> ): Pooled Product (Y <input type="radio"/> N <input checked="" type="radio"/> ): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%; border: none;"> <tr> <td style="width: 20%; border: none; vertical-align: top;"> <b>Legend</b>                  //// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 80%; border: none; text-align: center;"> </td> </tr> </table>		<b>Legend</b> //// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Legend</b> //// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: JOHN HIGSTONE	Signature: John Higstone		

Sealaska Environmental Services, LLC  
Poulsbo, Washington



## Boom Inspection Form

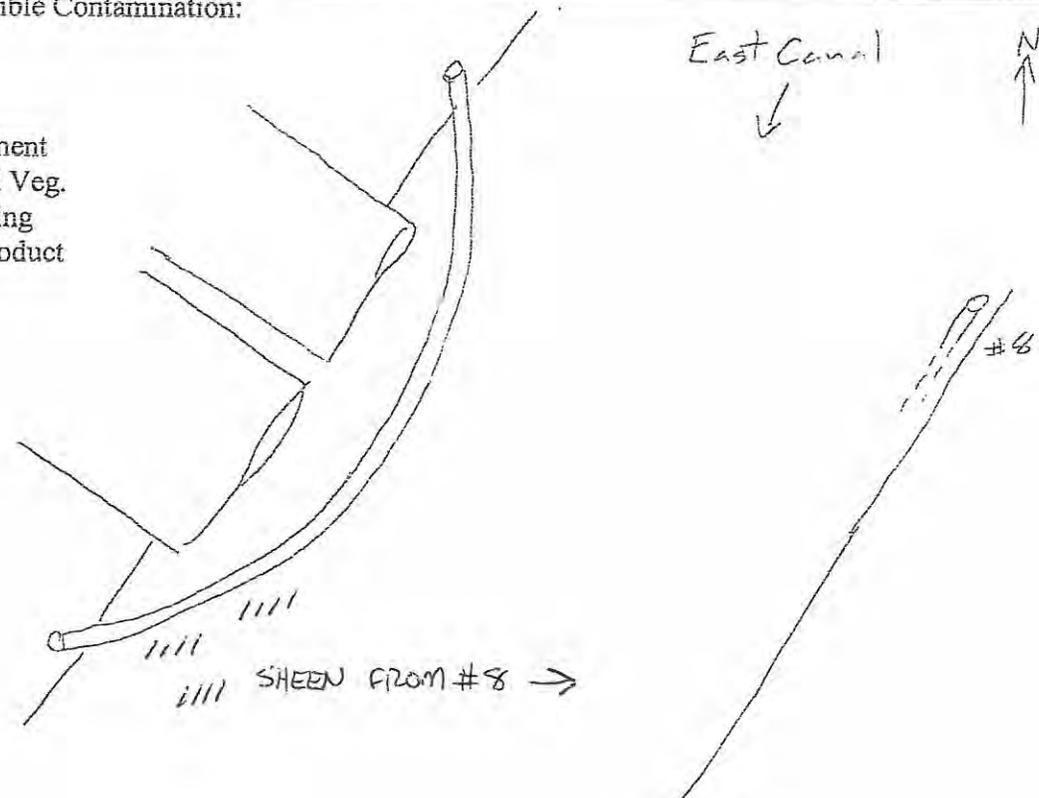
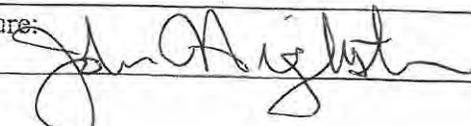
Task Order 60

<b>Boom Location:</b> 11	<b>Time/Date:</b> 12 <sup>07</sup> / 1.9.13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 12 <sup>07</sup> / 1.9.13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> (Y) <b>Iron Staining (Y/N):</b> (N) <b>Oily Sediment/Soil (Y/N):</b> (Y) <b>Distressed Vegetation (Y/N):</b> (Y)	<b>Sheen Present on Water (Y/N):</b> (Y) <b>Is the Boom Containing the Sheen? (Y/N):</b> (N) <b>Pooled Product (Y/N):</b> (N) If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;">           East Canal            ↓         </div> <div style="text-align: right; margin-top: 20px;">           #4/12            ↑         </div>
<b>Inspector:</b> John HIGGESTONE	<b>Signature:</b> 

Sealaska Environmental Services, LLC  
 Poulsbo, Washington

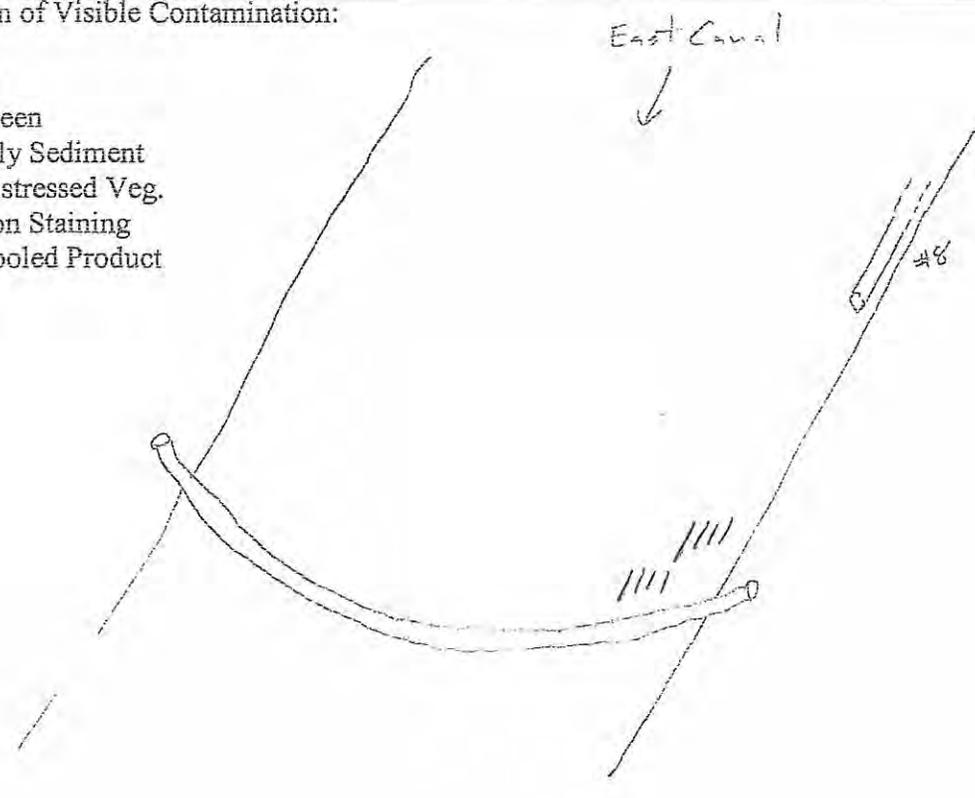
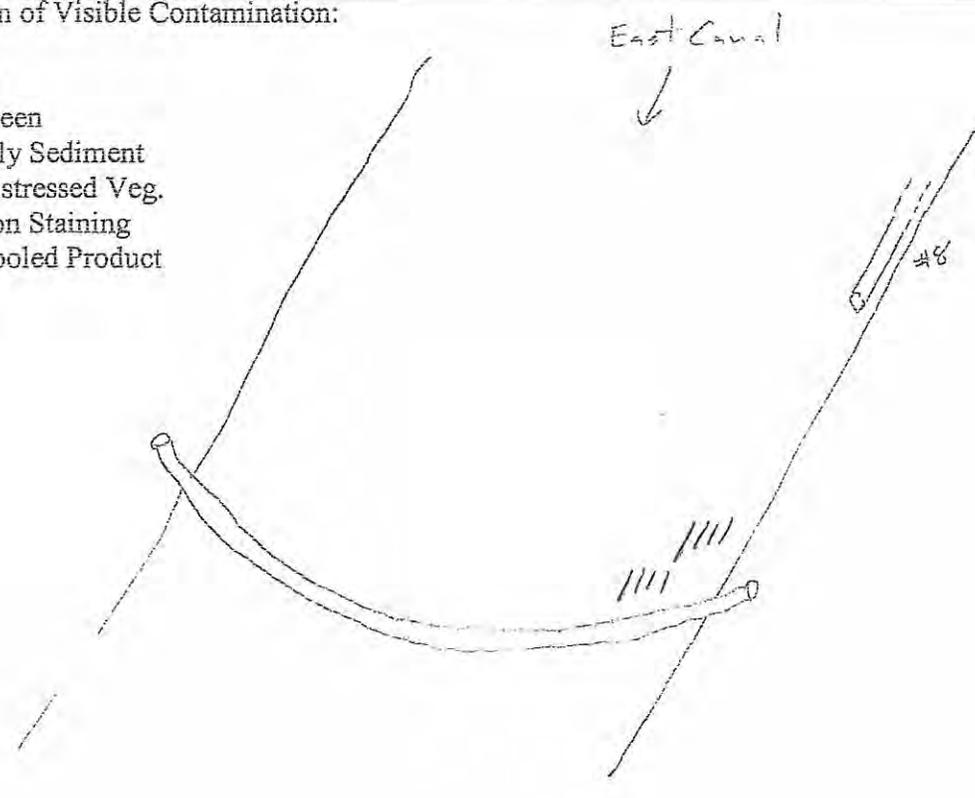
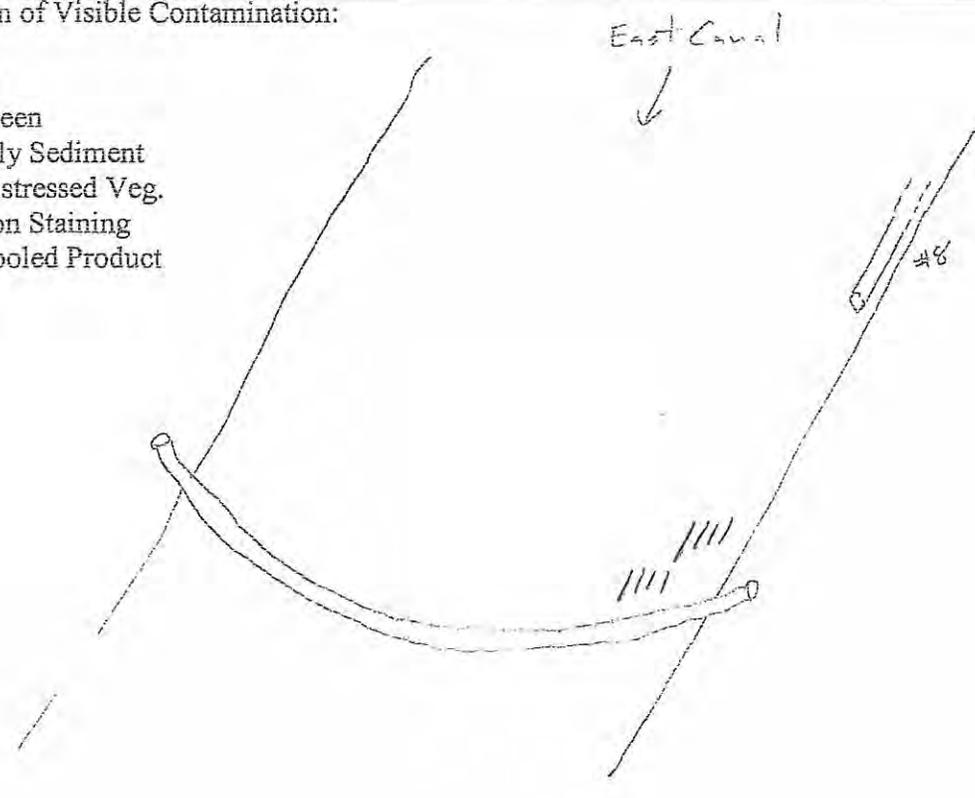
## Boom Inspection Form

Task Order 60

<b>Boom Location: 2</b>	<b>Time/Date:</b> <span style="font-size: 1.2em;">1408-2/6/13</span>
<b>Description of Boom Before Maintenance:</b>  <span style="font-size: 1.2em;">UNSATISFACTORY</span>	<b>Photograph (s) Time/Date Stamp:</b>  <span style="font-size: 1.2em;">1408-2/6/13</span>
<b>Boom Repaired (Y/N):</b> Description: <span style="font-size: 1.2em;">PUT BOOM BACK INTO POSITION OFF OF CULVERTS</span>	<b>Boom Replaced (Y/N) Number of Sections:</b> Description:
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> Iron Staining (Y (N): Oily Sediment/Soil (Y (N): Distressed Vegetation (Y (N):	<b>Sheen Present on Water (Y/N):</b> Is the Boom Containing the Sheen? (Y (N) Pooled Product (Y (N): If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	 <p style="text-align: right; margin-right: 50px;">East Canal ↓</p> <p style="text-align: right; margin-right: 50px;">N ↑</p> <p style="text-align: center; margin-top: 20px;">/// SHEEN FROM #8 →</p>
<b>Inspector:</b> <span style="font-size: 1.2em;">JOHN HIGHSTONE</span>	<b>Signature:</b> 

## Boom Inspection Form

Task Order 60

<b>Boom Location: 3</b>	Time/Date: 1410/2.6.13		
Description of Boom Before Maintenance:  <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp:  1410/2.6.13		
Boom Repaired (Y/N) <input checked="" type="radio"/> (N) Description:	Boom Replaced (Y/N) <input checked="" type="radio"/> (N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N):                  Iron Staining (Y/N) <input checked="" type="radio"/> (N):                  Oily Sediment/Soil (Y/N) <input checked="" type="radio"/> (N):                  Distressed Vegetation (Y/N) <input checked="" type="radio"/> (N)             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N):                  Is the Boom Containing the Sheen? <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N)                  Pooled Product (Y/N) <input checked="" type="radio"/> (N)                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N): Iron Staining (Y/N) <input checked="" type="radio"/> (N): Oily Sediment/Soil (Y/N) <input checked="" type="radio"/> (N): Distressed Vegetation (Y/N) <input checked="" type="radio"/> (N)	Sheen Present on Water <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N): Is the Boom Containing the Sheen? <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N) Pooled Product (Y/N) <input checked="" type="radio"/> (N) If yes, was product removed with sorbent pads?
Visible Contamination <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N): Iron Staining (Y/N) <input checked="" type="radio"/> (N): Oily Sediment/Soil (Y/N) <input checked="" type="radio"/> (N): Distressed Vegetation (Y/N) <input checked="" type="radio"/> (N)	Sheen Present on Water <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N): Is the Boom Containing the Sheen? <input checked="" type="radio"/> (Y) <input checked="" type="radio"/> (N) Pooled Product (Y/N) <input checked="" type="radio"/> (N) If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%; border: none;"> <tr> <td style="width: 20%; border: none; vertical-align: top;"> <p><u>Legend</u></p>                 /// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 80%; border: none; text-align: center;"> <p>East Canal</p>  </td> </tr> </table>		<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<p>East Canal</p> 
<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<p>East Canal</p> 		
Inspector: <b>JOHN HIGHSTONE</b>	Signature: 		



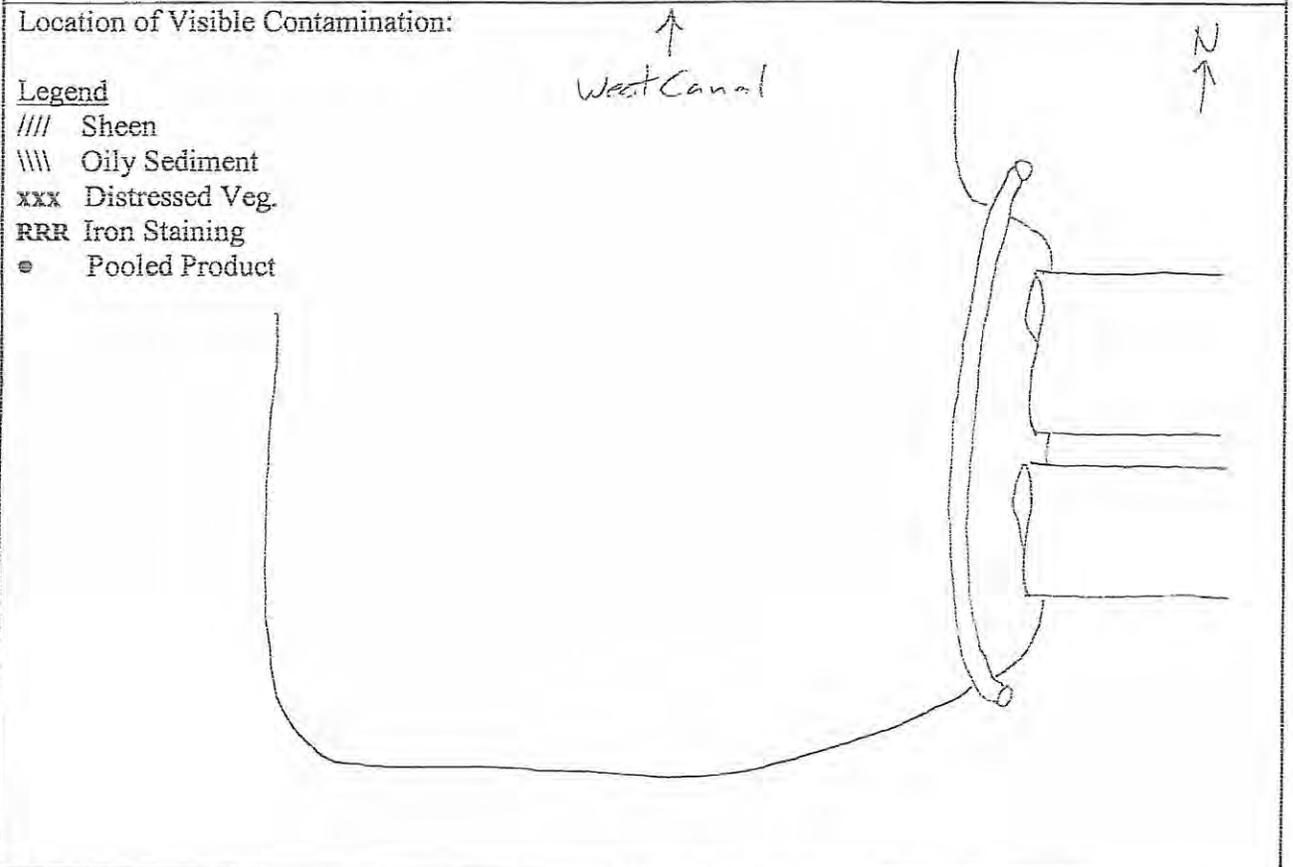
## Boom Inspection Form

Task Order 60

Boom Location: 4	Time/Date: 1428 / 2.6.13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 1428 / 2.6.13
Boom Repaired (Y/N) <input checked="" type="radio"/> (N) Description:	Boom Replaced (Y/N) <input checked="" type="radio"/> (N) / Number of Sections: Description:

**Visual Observations**

Visible Contamination (Y <input checked="" type="radio"/> (N) <input checked="" type="radio"/> )	Sheen Present on Water (Y <input checked="" type="radio"/> (N) <input checked="" type="radio"/> )
Iron Staining (Y <input checked="" type="radio"/> (N) <input checked="" type="radio"/> )	Is the Boom Containing the Sheen? (Y / N)
Oily Sediment/Soil (Y <input checked="" type="radio"/> (N) <input checked="" type="radio"/> )	Pooled Product (Y <input checked="" type="radio"/> (N) <input checked="" type="radio"/> )
Distressed Vegetation (Y <input checked="" type="radio"/> (N) <input checked="" type="radio"/> )	If yes, was product removed with sorbent pads?

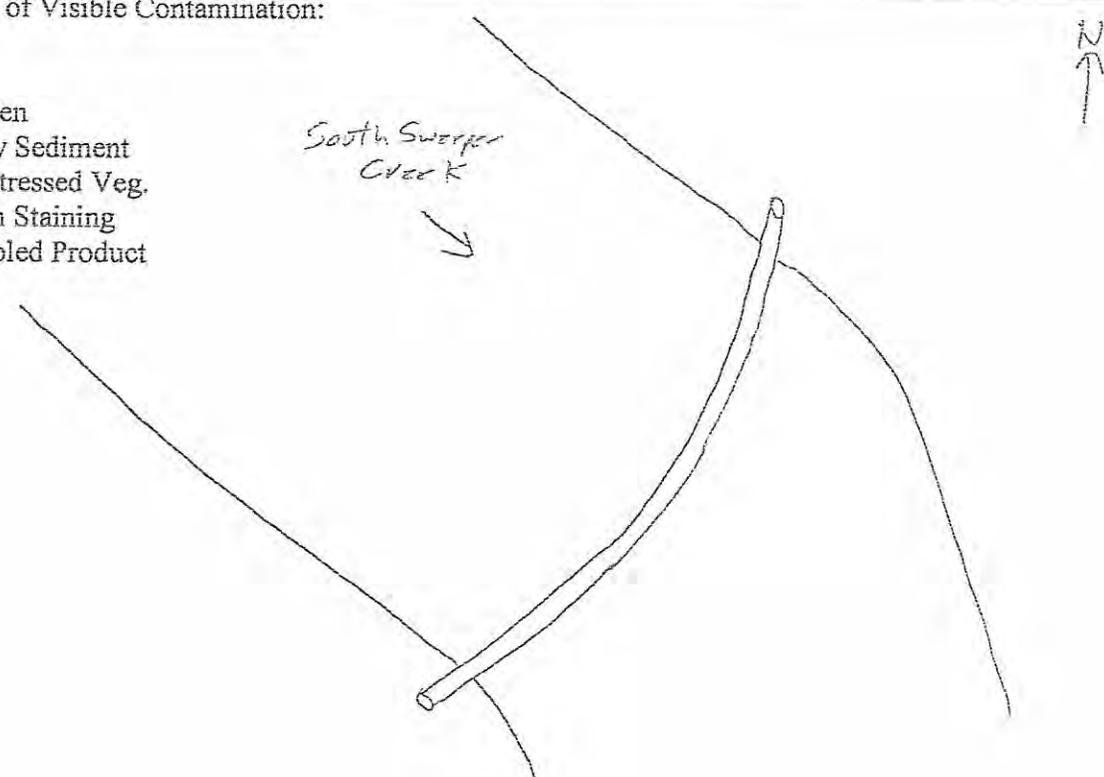
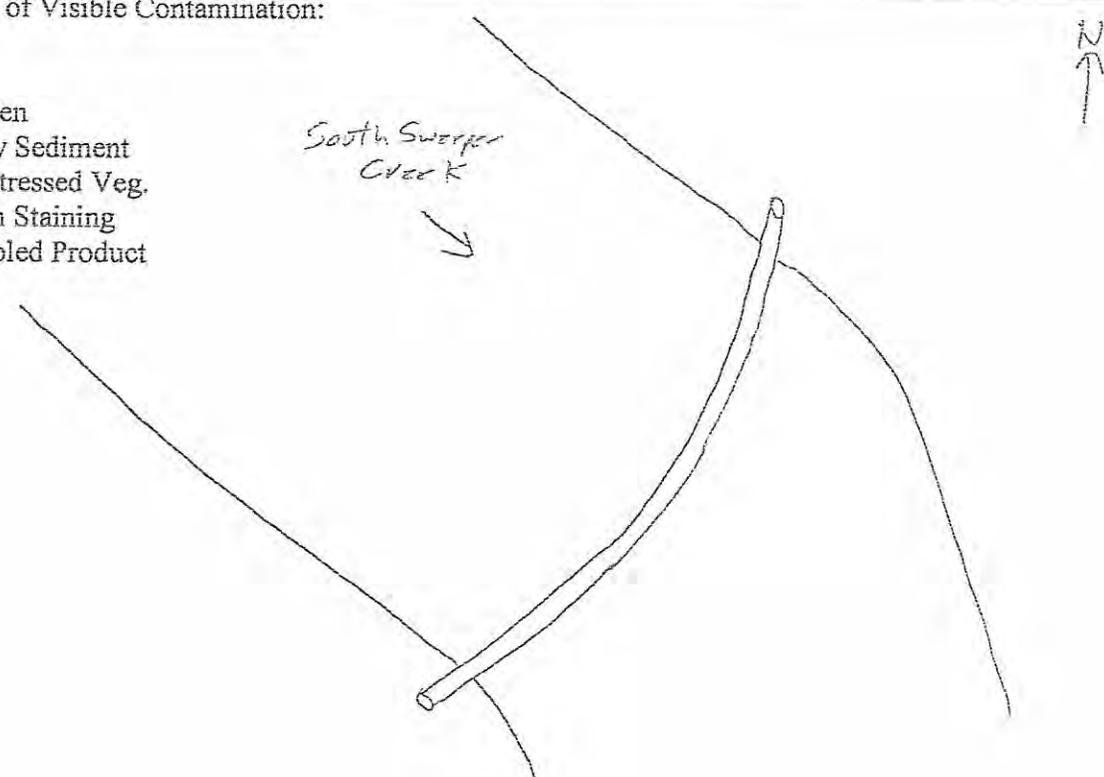
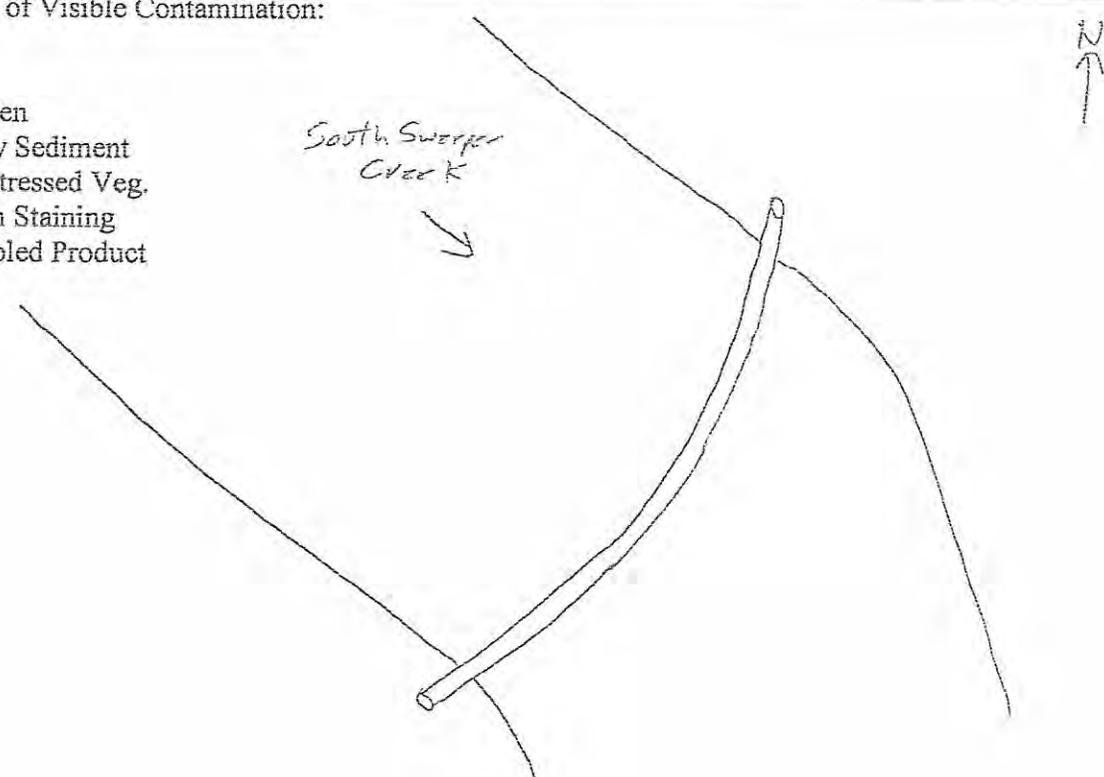


Inspector: <b>JOHN HIGHTSTONE</b>	Signature: <i>John Hightstone</i>
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**\* DIKE PUMPS ON AND OPERATING**

## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 6	<b>Time/Date:</b> <div style="font-size: 1.2em; font-family: cursive;">1433 / 2-6-13</div>		
<b>Description of Boom Before Maintenance:</b>  <div style="font-size: 1.2em; font-family: cursive;">SATISFACTORY</div>	<b>Photograph (s) Time/Date Stamp:</b>  <div style="font-size: 1.2em; font-family: cursive;">1433 / 2-6-13</div>		
<b>Boom Repaired (Y/N) Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections: Description:</b>		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">           Visible Contamination (Y/N):            Iron Staining (Y/N):            Oily Sediment/Soil (Y/N):            Distressed Vegetation (Y/N):         </td> <td style="width: 50%; border: none;">           Sheen Present on Water (Y/N):            Is the Boom Containing the Sheen? (Y/N)            Pooled Product (Y/N)            If yes, was product removed with sorbent pads?         </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N) If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N) If yes, was product removed with sorbent pads?		
<b>Location of Visible Contamination:</b>			
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%; border: none;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </td> <td style="width: 70%; border: none; text-align: center;"> <div style="font-size: 1.2em; font-family: cursive;">South Swapper Creek</div>  </td> </tr> </table>		<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	<div style="font-size: 1.2em; font-family: cursive;">South Swapper Creek</div> 
<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	<div style="font-size: 1.2em; font-family: cursive;">South Swapper Creek</div> 		
<b>Inspector:</b> <div style="font-size: 1.2em; font-family: cursive;">John Highstone</div>	<b>Signature:</b> <div style="font-size: 1.2em; font-family: cursive;">John Highstone</div>		



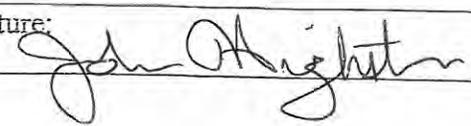
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 8	<b>Time/Date:</b> <div style="font-size: 1.2em; font-family: cursive;">1409/2.6.13</div>
<b>Description of Boom Before Maintenance:</b>  <div style="font-size: 1.5em; font-family: cursive;">SATISFACTORY</div>	<b>Photograph (s) Time/Date Stamp:</b>  <div style="font-size: 1.2em; font-family: cursive;">1409/2.6.13</div>
<b>Boom Repaired (Y/N):</b> (Y) <b>Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): (Y) Iron Staining (Y/N): (Y) Oily Sediment/Soil (Y/N): (Y) Distressed Vegetation (Y/N): (Y)	
Sheen Present on Water (Y/N): (Y) Is the Boom Containing the Sheen? (Y/N): (N) Pooled Product (Y/N): (N) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining o Pooled Product	<div style="text-align: right; margin-bottom: 10px;">           East Canal            ↓            N ↑         </div>
<b>Inspector:</b> <div style="font-size: 1.2em; font-family: cursive;">John Highstone</div>	<b>Signature:</b> <div style="font-size: 1.5em; font-family: cursive;">John Highstone</div>

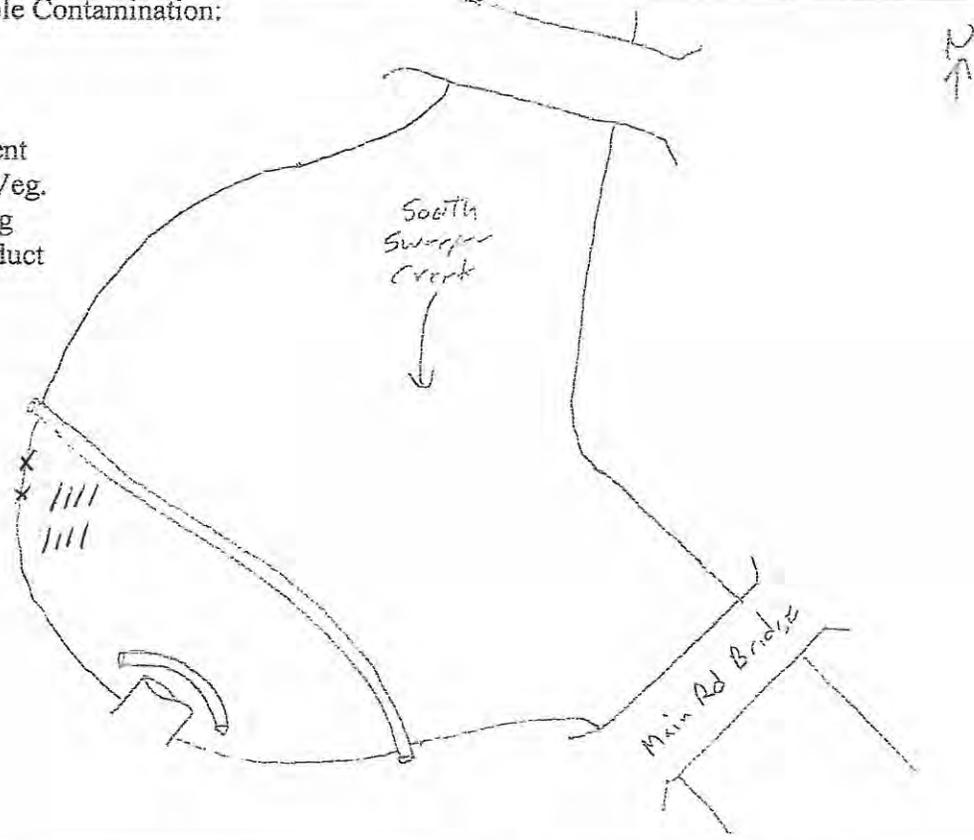
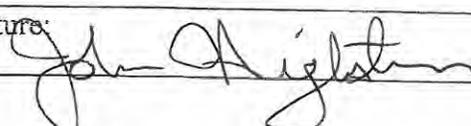
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 1414 / 2.6.13
<b>Description of Boom Before Maintenance:</b>  SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b>  1414 / 2.6.13
<b>Boom Repaired (Y (N):</b> Description:	<b>Boom Replaced (Y (N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y (N): Iron Staining (Y (N): Oily Sediment/Soil (Y (N): Distressed Vegetation (Y (N):	
Sheen Present on Water (Y (N) Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y (N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 

## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 10	<b>Time/Date:</b> 1430 / 2.6.13
<b>Description of Boom Before Maintenance:</b>  SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b>  1430 / 2.6.13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N):</b> (N) / <b>Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 



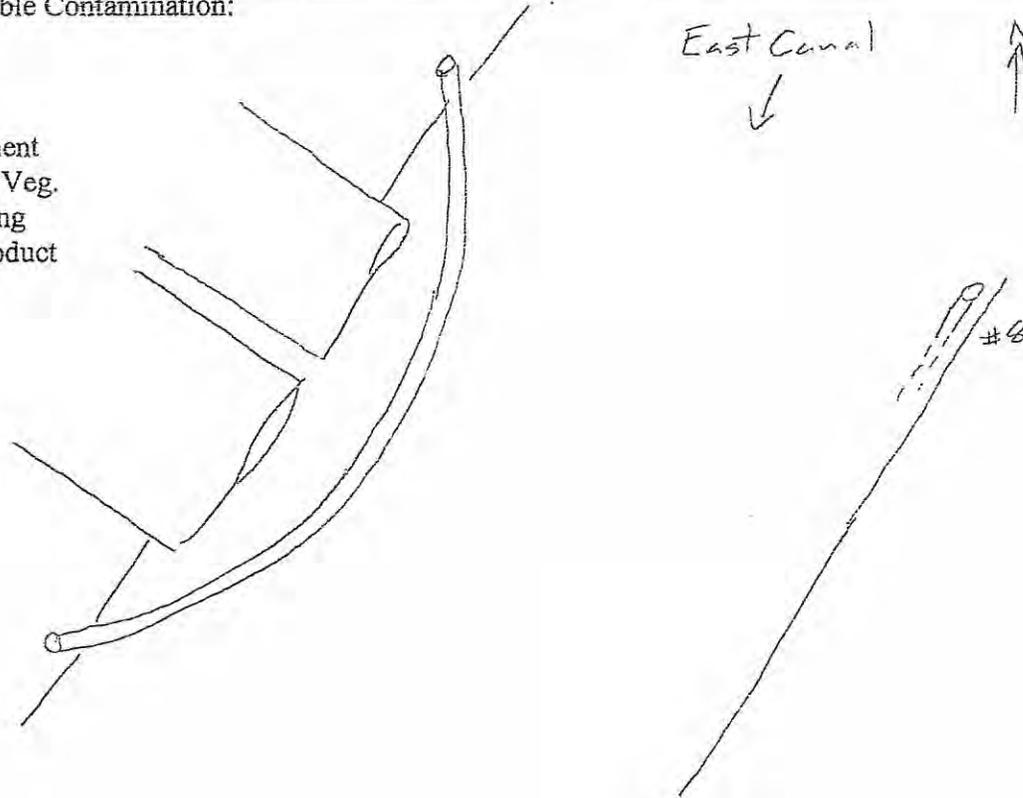
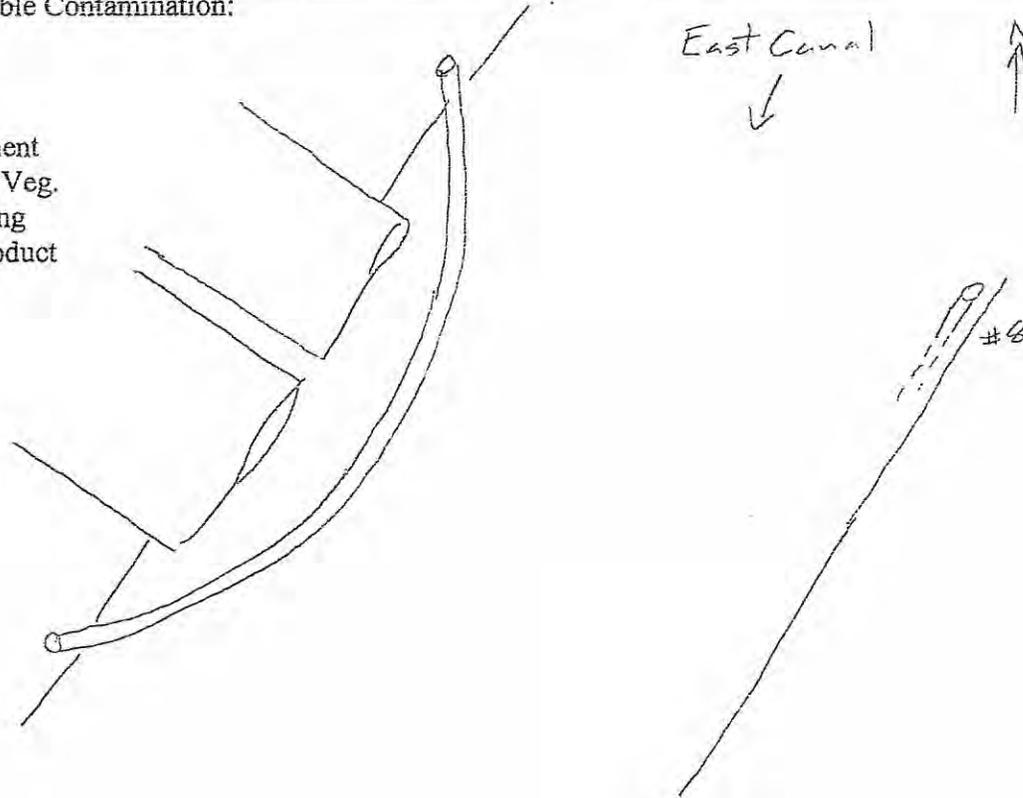
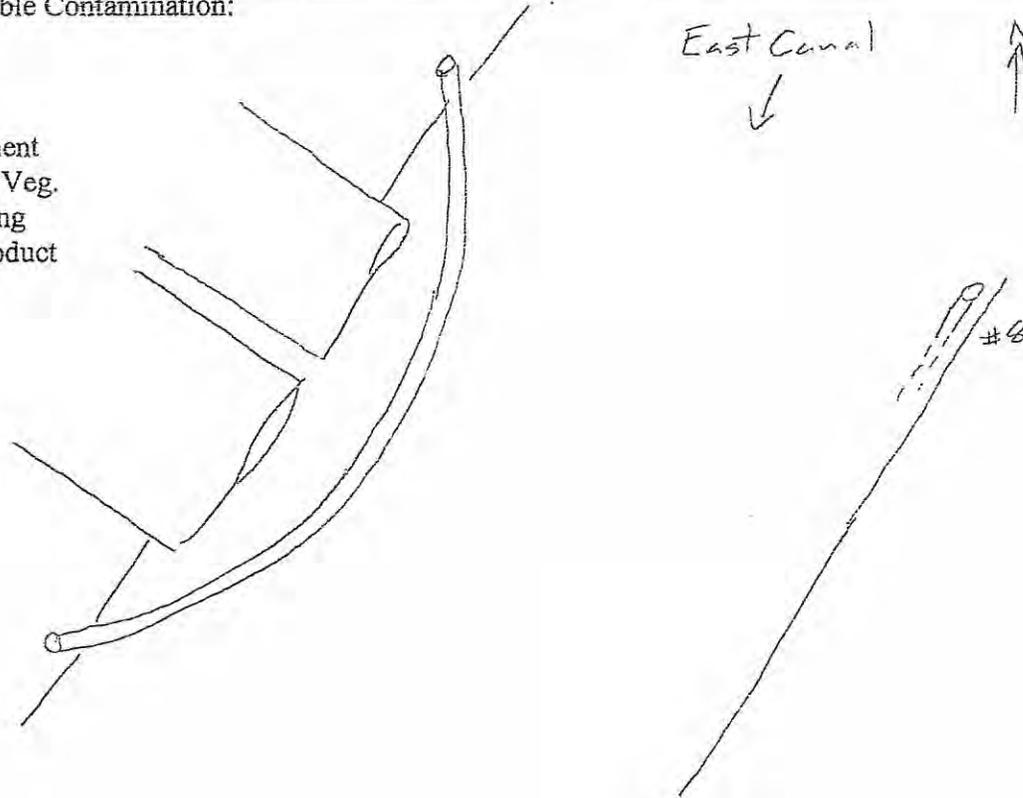
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 11	<b>Time/Date:</b> <div style="font-size: 1.2em; text-align: center;">1419/2.6.13</div>
<b>Description of Boom Before Maintenance:</b>  <div style="font-size: 1.2em; text-align: center;">SATISFACTORY</div>	<b>Photograph (s) Time/Date Stamp:</b>  <div style="font-size: 1.2em; text-align: center;">1419/2.6.13</div>
<b>Boom Repaired (Y/N):</b> (Y) (N) <b>Description:</b>	<b>Boom Replaced (Y/N):</b> (Y) (N) / <b>Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y) (N): Iron Staining (Y) (N): Oily Sediment/Soil (Y) (N): Distressed Vegetation (Y) (N):	
Sheen Present on Water (Y) (N): Is the Boom Containing the Sheen? (Y) (N) Pooled Product (Y) (N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 60%; text-align: center;"> <p>East Canal</p> <p>↓</p> </div> </div>	
<b>Inspector:</b> <div style="font-size: 1.2em; text-align: center;">JOHN HIGSTONE</div>	<b>Signature:</b> <div style="font-size: 1.5em; text-align: center;">John Higstone</div>

## Boom Inspection Form

Task Order 60

Boom Location: 2	Time/Date: 1333 / 3-6-13		
Description of Boom Before Maintenance:  UNSATISFACTORY	Photograph (s) Time/Date Stamp:  1333 / 3-6-13		
Boom Repaired (Y/N): Description: BOOM NOT IN POSITION, ACROSS COVERTS, UNDER SNOW AND ICE	Boom Replaced (Y/N)/ Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%; border: none;"> <tr> <td style="width: 30%; border: none; vertical-align: top;"> <p><u>Legend</u></p>                 /// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 70%; border: none; text-align: center;">  </td> </tr> </table>		<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<p><u>Legend</u></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: JOHN HIGHTON	Signature: <i>John Highton</i>		



## Boom Inspection Form

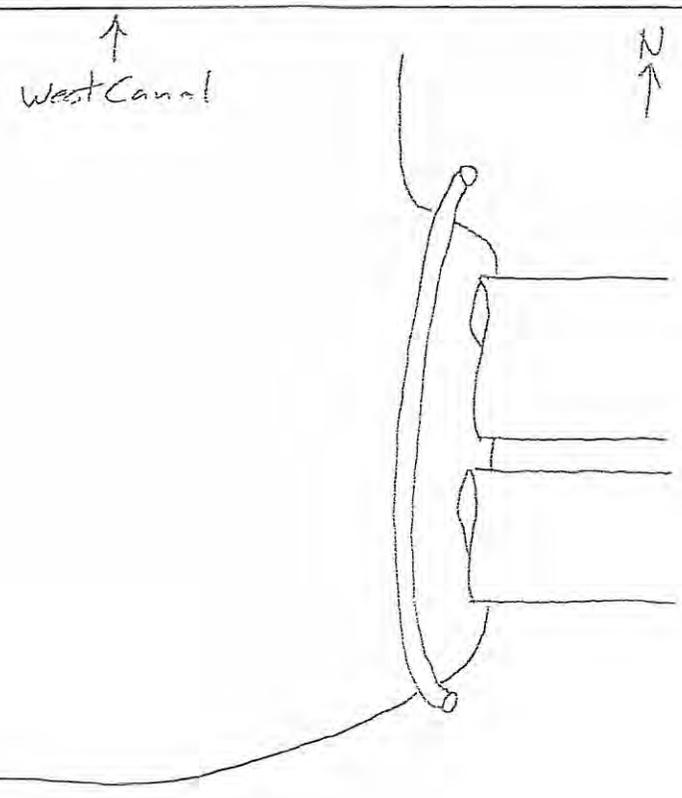
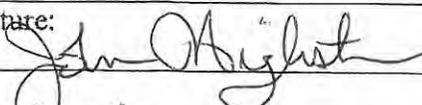
Task Order 60

<b>Boom Location: 3</b>	<b>Time/Date:</b> <span style="font-size: 1.2em;">1335 / 3.6.13</span>
<b>Description of Boom Before Maintenance:</b> SATISFACTORY - BURIED IN PLACE UNDER SNOW AND ICE.	<b>Photograph (s) Time/Date Stamp:</b> <span style="font-size: 1.2em;">1335 / 3.6.13</span>
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;">             East Canal              ↓           </div> <div style="text-align: right;">             N              ↑           </div>
<b>Inspector:</b> JOHN HIGHTSTONE	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 4	<b>Time/Date:</b> 1348 / 3.6.13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1348 / 3.6.13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N):</b> (N) / <b>Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): (N) Iron Staining (Y/N): (N) Oily Sediment/Soil (Y/N): (N) Distressed Vegetation (Y/N): (N)	
Sheen Present on Water (Y/N): (N) Is the Boom Containing the Sheen? (Y/N): Pooled Product (Y/N): (N) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 40%;"> <p><u>Legend</u></p> <p>/// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 50%; text-align: center;"> <p>↑ West Canal</p>  </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 

\* DIKE PUMPS ON AND OPERATING \*



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 6	<b>Time/Date:</b> <div style="font-size: 1.2em; text-align: center;">1352 / 3.6.13</div>
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY - SOUTHSIDE CONNECTION UNDONE.	<b>Photograph (s) Time/Date Stamp:</b> <div style="font-size: 1.2em; text-align: center;">1352 / 3.6.13</div>
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b> UNABLE TO REPAIR AT THIS TIME DUE TO SAFETY CONCERNS.	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> (N) <b>Iron Staining (Y/N):</b> (N) <b>Oily Sediment/Soil (Y/N):</b> (N) <b>Distressed Vegetation (Y/N):</b> (N)	<b>Sheen Present on Water (Y/N):</b> (N) <b>Is the Boom Containing the Sheen? (Y/N):</b> <b>Pooled Product (Y/N):</b> (N) If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;"> </div>
<b>Inspector:</b> JOHN HIGHTSTONE	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> §	<b>Time/Date:</b> <div style="text-align: right; font-size: 1.2em;">1334 / 3.6.13</div>
<b>Description of Boom Before Maintenance:</b> SATISFACTORY - IN POSITION UNDER SNOW AND ICE	<b>Photograph (s) Time/Date Stamp:</b> <div style="text-align: right; font-size: 1.2em;">1334 / 3.6.13</div>
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	<b>Sheen Present on Water (Y/N):</b> Is the Boom Containing the Sheen? (Y/N) <b>Pooled Product (Y/N):</b> If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;">           East Canal            ↓         </div> <div style="text-align: right; margin-top: 20px;">           N            ↑         </div>
<b>Inspector:</b> JOHN MICHSTONE	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 1340 / 3.6.13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY - IN POSITION UNDER SNOW AND ICE	<b>Photograph (s) Time/Date Stamp:</b> 1340 / 3.6.13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N):</b> (N) / <b>Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> (N) <b>Iron Staining (Y/N):</b> (N) <b>Oily Sediment/Soil (Y/N):</b> (N) <b>Distressed Vegetation (Y/N):</b> (N)	<b>Sheen Present on Water (Y/N):</b> (N) <b>Is the Boom Containing the Sheen? (Y/N)</b> <b>Pooled Product (Y/N):</b> (N) <b>If yes, was product removed with sorbent pads?</b>
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 





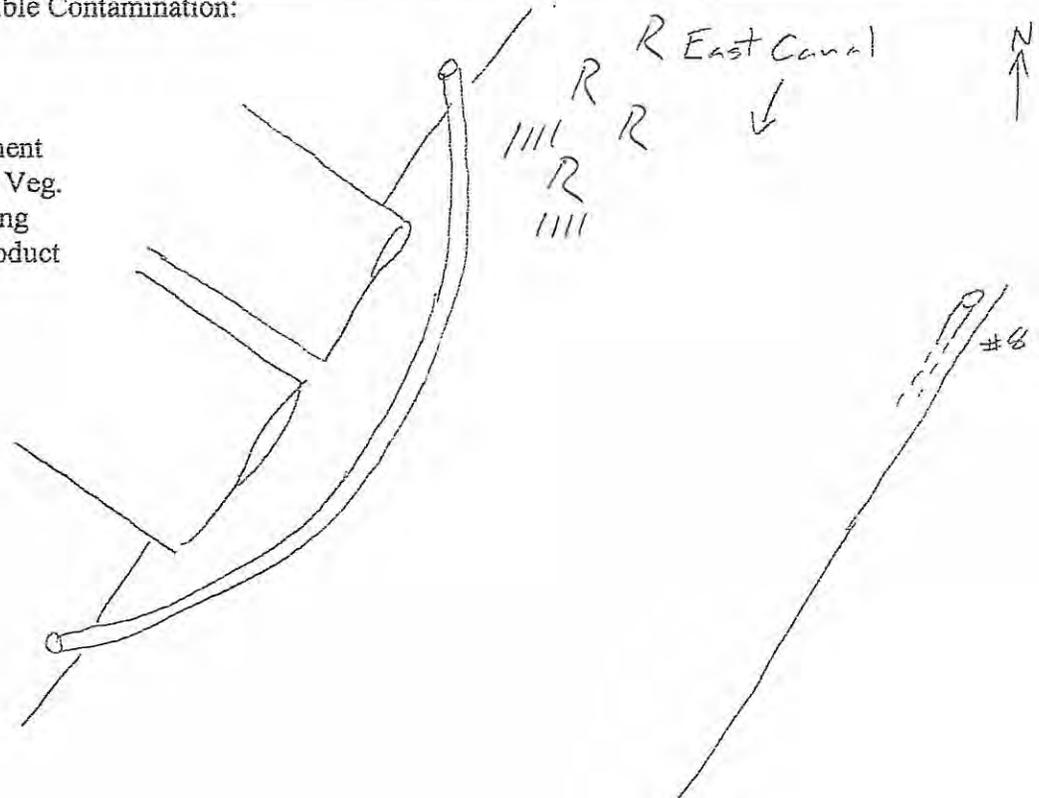
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 11	<b>Time/Date:</b> 1343 / 3.6.13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY - IN POSITION UNDER SNOW AND ICE	<b>Photograph (s) Time/Date Stamp:</b> 1343 / 3.6.13
<b>Boom Repaired (Y (N):</b> Description:	<b>Boom Replaced (Y (N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y (N): Iron Staining (Y (N): Oily Sediment/Soil (Y (N): Distressed Vegetation (Y (N):	
Sheen Present on Water (Y (N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y (N) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>• Pooled Product</p> </div> <div style="width: 60%; text-align: center;"> <p>East Canal</p> <p>↓</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border-left: 1px solid black; height: 150px; width: 20px;"></div> <div style="border-left: 1px solid black; height: 150px; width: 20px; position: relative;"> <div style="position: absolute; top: 10%; left: 50%; transform: translate(-50%, -50%);">#4/12</div> </div> <div style="border-left: 1px solid black; height: 150px; width: 20px;"></div> </div> <div style="text-align: right; margin-top: 20px;"> <p>N</p> <p>↑</p> </div> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 

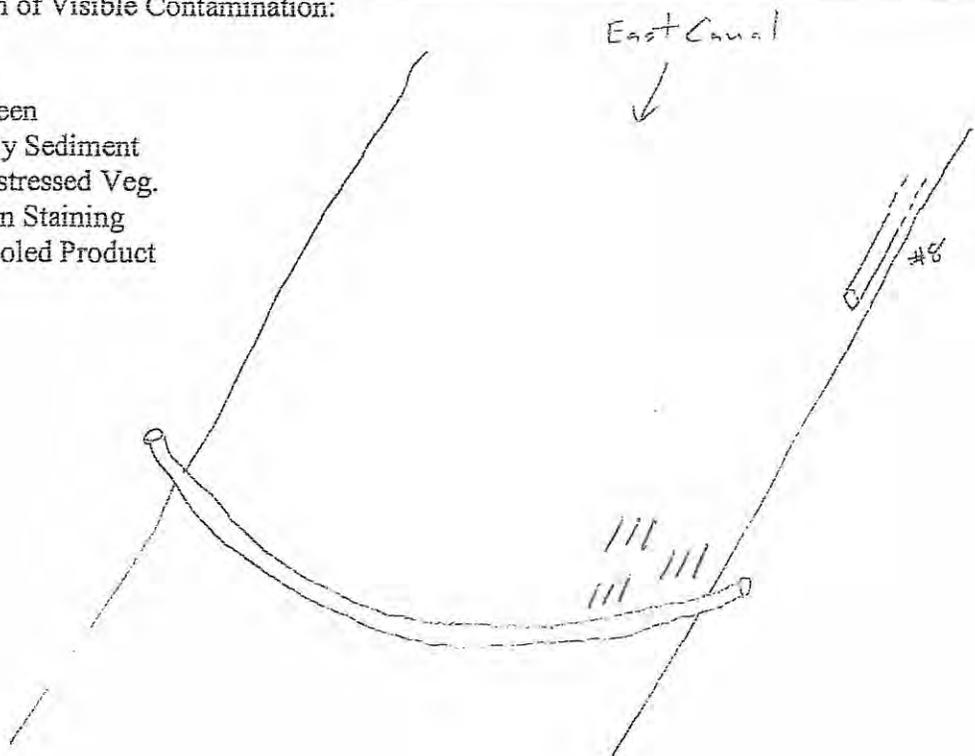
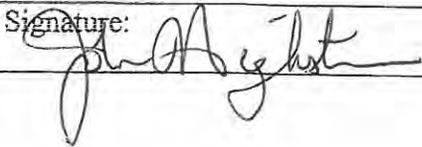
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 2	<b>Time/Date:</b> 1518 / 4-16-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY - BOOM OFF POSTS AND SATURATED WITH WATER	<b>Photograph (s) Time/Date Stamp:</b> 1518 / 4-16-13
<b>Boom Repaired (Y/N):</b> Description: REMOVED OLD BOOM SECTIONS AND INSTALLED NEW	<b>Boom Replaced (Y/N) / Number of Sections:</b> 2 Description: 2 SECTIONS SATURATED WITH WATER/OIL
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> Iron Staining (Y) (N): Oily Sediment/Soil (Y) (N): Distressed Vegetation (Y) (N):	<b>Sheen Present on Water (Y/N):</b> Is the Boom Containing the Sheen? (Y) (N) <b>Pooled Product (Y) (N):</b> If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	 <p style="text-align: right;">R East Canal          ↓          N ↑</p>
<b>Inspector:</b> JOHN HUGHSTONE	<b>Signature:</b> 

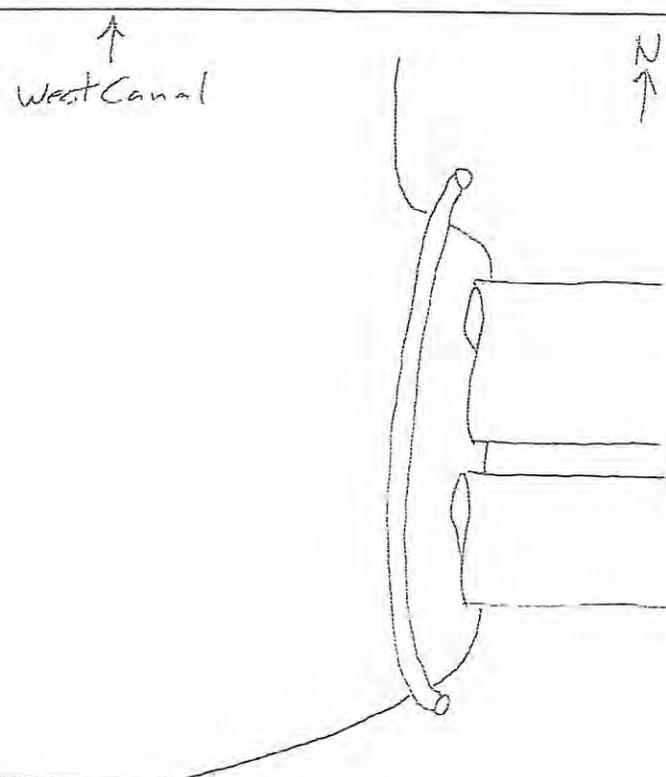
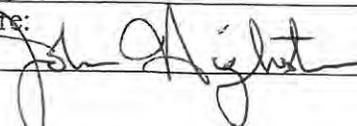
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 3	<b>Time/Date:</b> 1520 / 4-16-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY:	<b>Photograph (s) Time/Date Stamp:</b> 1520 / 4-16-13
<b>Boom Repaired (Y/N):</b> Description: REPLACED (8) BOOM SECTIONS	<b>Boom Replaced (Y/N) / Number of Sections:</b> 8 Description: REPLACED OLD BOOM
DUE TO OIL/WATER SATURATION	WITH NEW
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> Iron Staining (Y (N)) Oily Sediment/Soil (Y (N)) Distressed Vegetation (Y (N))	<b>Sheen Present on Water (Y/N):</b> Is the Boom Containing the Sheen? (Y (N)) Pooled Product (Y (N)) If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: right;">           East Canal            ↓         </div> <div style="text-align: right;">           N            ↑         </div>  <p>The diagram shows a curved boom structure crossing a diagonal line representing the East Canal. The boom is marked with '///' (Sheen) and 'xxx' (Distressed Veg.). A north arrow points upwards, and a label 'East Canal' with a downward arrow points to the canal line. A small rectangular area on the boom is labeled '#8'.</p>
<b>Inspector:</b> JOHN HITCHSTONE	<b>Signature:</b> 

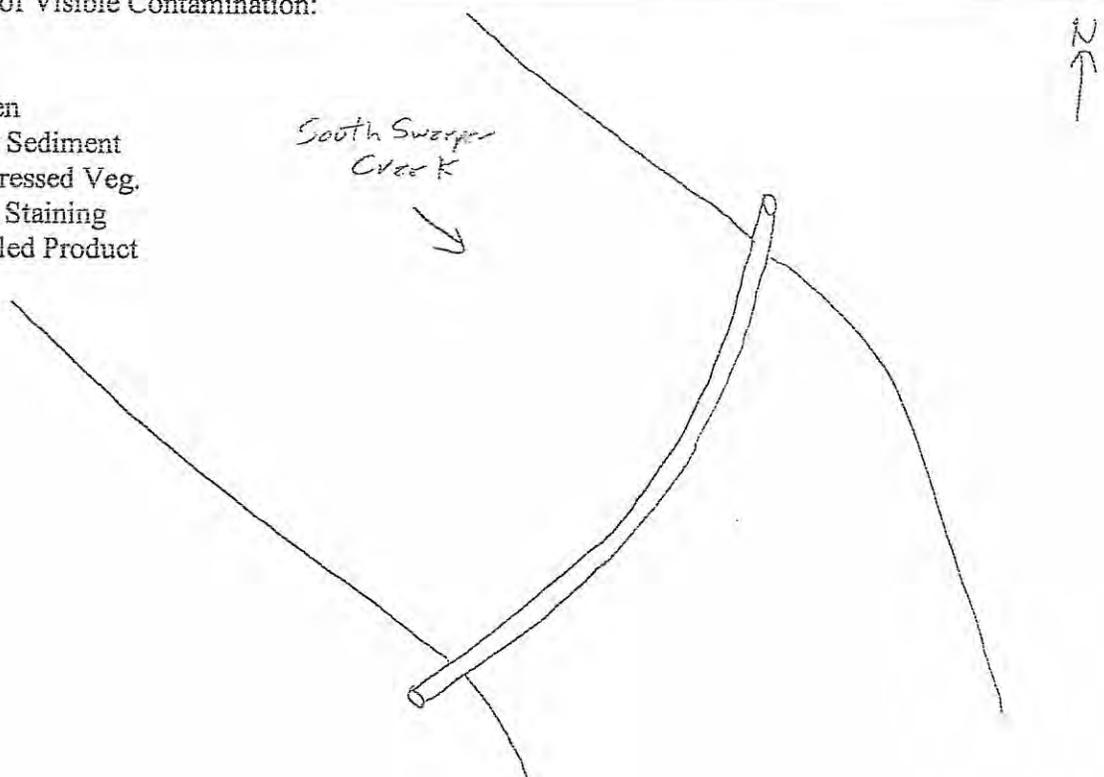
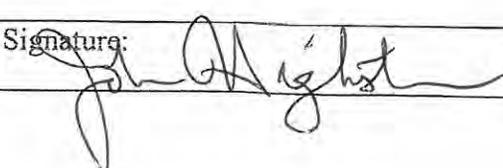
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 4	<b>Time/Date:</b> 1545 / 4-16-13
<b>Description of Boom Before Maintenance:</b>  SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b>  1545 / 4-16-13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b> <b>Visible Contamination (Y/N):</b> (N) <b>Sheen Present on Water (Y/N):</b> (N) <b>Iron Staining (Y/N):</b> (N) <b>Is the Boom Containing the Sheen? (Y/N)</b> <b>Oily Sediment/Soil (Y/N):</b> (N) <b>Pooled Product (Y/N):</b> (N) <b>Distressed Vegetation (Y/N):</b> (N) <b>If yes, was product removed with sorbent pads?</b>	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 55%; text-align: center;"> <p>↑ West Canal</p>  </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 

## Boom Inspection Form

Task Order 60

Boom Location: 6	Time/Date: 1550 / 4-16-13								
Description of Boom Before Maintenance: UNSATISFACTORY	Photograph (s) Time/Date Stamp: 1550 / 4-16-13								
Boom Repaired (Y/N): Description: REPLACED 1 SECTION AND RETIED SOUTH END OF SECTIONS	Boom Replaced (Y/N) / Number of Sections: 1 Description: REPLACED (1) SECTION DUE TO TIDAL CURRENTS CAUSING DAMAGE								
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Visible Contamination (Y/N):</td> <td style="width: 50%; border: none;">Sheen Present on Water (Y/N):</td> </tr> <tr> <td style="border: none;">Iron Staining (Y/N):</td> <td style="border: none;">Is the Boom Containing the Sheen? (Y/N):</td> </tr> <tr> <td style="border: none;">Oily Sediment/Soil (Y/N):</td> <td style="border: none;">Pooled Product (Y/N):</td> </tr> <tr> <td style="border: none;">Distressed Vegetation (Y/N):</td> <td style="border: none;">If yes, was product removed with sorbent pads?</td> </tr> </table>		Visible Contamination (Y/N):	Sheen Present on Water (Y/N):	Iron Staining (Y/N):	Is the Boom Containing the Sheen? (Y/N):	Oily Sediment/Soil (Y/N):	Pooled Product (Y/N):	Distressed Vegetation (Y/N):	If yes, was product removed with sorbent pads?
Visible Contamination (Y/N):	Sheen Present on Water (Y/N):								
Iron Staining (Y/N):	Is the Boom Containing the Sheen? (Y/N):								
Oily Sediment/Soil (Y/N):	Pooled Product (Y/N):								
Distressed Vegetation (Y/N):	If yes, was product removed with sorbent pads?								
<p>Location of Visible Contamination:</p> <div style="display: flex; align-items: flex-start;"> <div style="width: 20%; padding-right: 10px;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 80%; text-align: center;">  </div> </div>									
Inspector: JOHN HIGHSTONE	Signature: 								



SEALASKA ENVIRONMENTAL

### Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 8	<b>Time/Date:</b> 1519 / 4-16-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1519 / 4-16-13
<b>Boom Repaired (Y/N):</b> Description: REPLACED SECTIONS DUE TO OIL/WATER SATURATION	<b>Boom Replaced (Y/N) / Number of Sections:</b> 10 Description: REPLACED SATURATED SECTIONS WITH NEW
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N): Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads? YES - SOAKED 3 PADS	
<b>Location of Visible Contamination:</b> <div style="display: flex; justify-content: space-between;"> <div data-bbox="219 934 487 1144" style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div data-bbox="341 882 1445 1680" style="width: 65%;"> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> <i>John Highstone</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> <div style="font-size: 1.2em; text-align: center;">1535 / 4-16-13</div>		
<b>Description of Boom Before Maintenance:</b>  <div style="font-size: 1.2em;">UNSATISFACTORY</div>	<b>Photograph (s) Time/Date Stamp:</b>  <div style="font-size: 1.2em; text-align: center;">1535 / 4-16-13</div>		
<b>Boom Repaired (Y/N):</b> Description: REPLACED SECTIONS DUE TO OIL/WATER SATURATION	<b>Boom Replaced (Y/N) / Number of Sections:</b> 11 Description: REPLACED SATURATED SECTIONS WITH NEW		
<b>Visual Observations</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">           Visible Contamination (Y (N))            Iron Staining (Y (N))            Oily Sediment/Soil (Y (N))            Distressed Vegetation (Y (N))         </td> <td style="width: 50%; border: none;">           Sheen Present on Water (Y (N))            Is the Boom Containing the Sheen? (Y / N)            Pooled Product (Y (N))            If yes, was product removed with sorbent pads?         </td> </tr> </table>		Visible Contamination (Y (N)) Iron Staining (Y (N)) Oily Sediment/Soil (Y (N)) Distressed Vegetation (Y (N))	Sheen Present on Water (Y (N)) Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y (N)) If yes, was product removed with sorbent pads?
Visible Contamination (Y (N)) Iron Staining (Y (N)) Oily Sediment/Soil (Y (N)) Distressed Vegetation (Y (N))	Sheen Present on Water (Y (N)) Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y (N)) If yes, was product removed with sorbent pads?		
<b>Location of Visible Contamination:</b>  <div style="display: flex;"> <div style="flex: 1;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="flex: 2; text-align: center;"> <p style="font-size: 1.2em; margin-top: 20px;">East Canal</p> <p style="font-size: 1.2em; margin-top: 20px;">N</p> </div> </div>			
<b>Inspector:</b> <div style="font-size: 1.2em; text-align: center;">JOHN HIGHSTONE</div>	<b>Signature:</b> <div style="font-size: 1.2em; text-align: center;">John Highstone</div>		

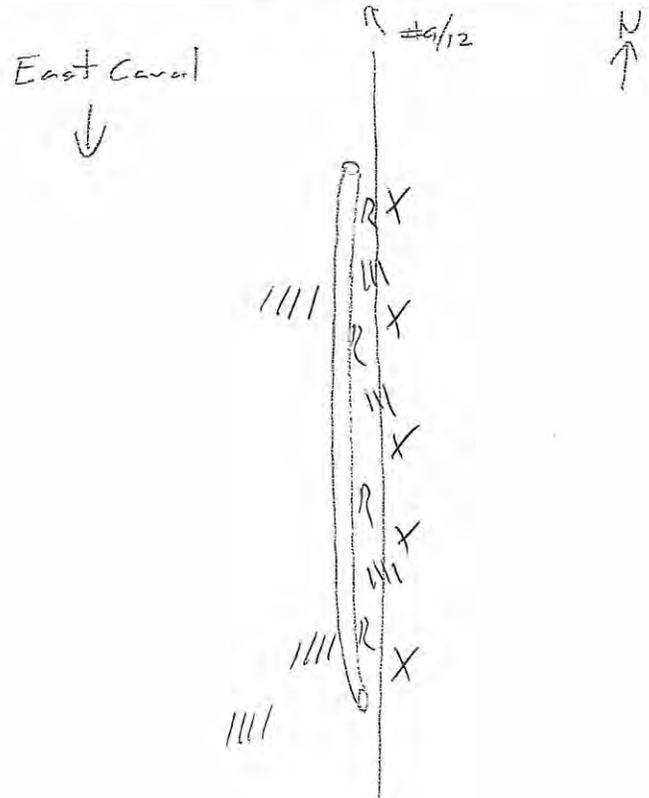
### Boom Inspection Form

Task Order 60

Boom Location: 10	Time/Date: 1547 / 4-16-13
Description of Boom Before Maintenance: UNSATISFACTORY	Photograph (s) Time/Date Stamp: 1547 / 4-16-13
Boom Repaired (Y/N): Description: REPLACED BAD SECTIONS AND PUT BACK INTO PLACE	Boom Replaced (Y / N) / Number of Sections: 3 Description: REPLACED (3) SECTIONS DUE TIDAL CURRENTS CAUSING DAMAGE
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
Location of Visible Contamination:  <div style="display: flex;"> <div style="flex: 1;"> <p><b>Legend</b></p> <ul style="list-style-type: none"> <li>//// Sheen</li> <li>\\ \\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> </div> <div style="flex: 2;"> <p>The map shows a large irregular shape representing the boom area. A line labeled 'South Sweeper Creek' runs through the upper part of the boom. At the bottom right, a line is labeled 'Main Rd Bridge'. Various symbols are placed on the boom: 'x' marks for distressed vegetation and '////' marks for sheen. A north arrow is in the top right corner.</p> </div> </div>	
Inspector: JOHN HIGHSTONE	Signature: [Handwritten Signature]

## Boom Inspection Form

Task Order 60

<b>Boom Location: 11</b>	<b>Time/Date:</b> <div style="text-align: right; font-size: 1.2em;">1537 / 4-16-13</div>
<b>Description of Boom Before Maintenance:</b>  <div style="font-size: 1.2em;">UNSATISFACTORY</div>	<b>Photograph (s) Time/Date Stamp:</b>  <div style="text-align: right; font-size: 1.2em;">1537 / 4-16-13</div>
<b>Boom Repaired (Y/N):</b> Description: REPLACED SECTIONS DUE TO OIL / WATER SATURATION	<b>Boom Replaced (Y / N) / Number of Sections: 4</b> Description: REPLACED (4) SECTIONS WITH NEW
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y (N)) Pooled Product (Y (N)): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%; text-align: center;"> <p>East Canal</p> <p>↓</p>  </div> </div>	
<b>Inspector:</b> <div style="font-size: 1.2em;">John Highstone</div>	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location: 2</b>	<b>Time/Date:</b> 1548 / 5-28-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 13 <sup>56</sup> / 5-22-13
<b>Boom Repaired (Y/N):</b> Description: INSTALLED (2) BOOM SECTIONS INSTALLED CLAMP ON POSTS TO KEEP BOOM IN PLACE	<b>Boom Replaced (Y/N) / Number of Sections: (2)</b> Description: INSTALLED (2) NEW BOOM SECTIONS
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%;"> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> <i>John Highstone</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location: 3</b>	<b>Time/Date:</b> 1546 / 5-28-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1359 / 5-22-13
<b>Boom Repaired (Y (N))</b> Description:	<b>Boom Replaced (Y (N)) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y (N)):      Sheen Present on Water (Y (N)): Iron Staining (Y (N)):                      Is the Boom Containing the Sheen? (Y (N)) Oily Sediment/Soil (Y (N)):              Pooled Product (Y (N)): Distressed Vegetation (Y (N))              If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>/// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>• Pooled Product</p> </div> <div style="width: 65%; text-align: center;"> <p>East Canal</p> </div> </div>	
<b>Inspector:</b> JOHN HIGGSTONE	<b>Signature:</b> <i>John Higgstone</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location: 4</b>	<b>Time/Date:</b> 1544 / 5-28-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1420 / 5-22-13
<b>Boom Repaired (Y/N):</b> Description: REPLACED (2) SECTIONS DUE TO SATURATION	<b>Boom Replaced (Y/N) / Number of Sections:</b> (2) Description: INSTALLED (2) NEW BOOM SECTIONS
<b>Visual Observations</b> Visible Contamination (Y (N)) Iron Staining (Y (N)) Oily Sediment/Soil (Y (N)) Distressed Vegetation (Y (N))	
Sheen Present on Water (Y (N)): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y (N)) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;">           ↑            West Canal         </div> <div style="text-align: right;">           N            ↑         </div>
<b>Inspector:</b> JOHN HIGGSTONE	<b>Signature:</b> John Higgstone



## Boom Inspection Form

Task Order 60

<b>Boom Location: 6</b>	<b>Time/Date:</b> 1542 / 5-28-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 14 <sup>36</sup> / 5-22-13
<b>Boom Repaired (Y/N):</b> Description: REPLACED (2) Boom SECTIONS	<b>Boom Replaced (Y/N) / Number of Sections: (2)</b> Description: INSTALLED (2) Boom SECTIONS
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 60%; text-align: center;"> <p>South Swager Creek</p> </div> </div>	
<b>Inspector:</b> JOHN HIGHTSTONE	<b>Signature:</b> <i>John Hightstone</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location: 8</b>	<b>Time/Date:</b> 1532 / 5-28-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY - 1 SECTION SATURATED	<b>Photograph (s) Time/Date Stamp:</b> 1358 / 5-22-13
<b>Boom Repaired (Y/N):</b> Description: MOVED BACK INTO POSITION	<b>Boom Replaced (Y/N) / Number of Sections (1):</b> Description: REPLACED (1) BOOM SECTION DUE TO SATURATION
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> Iron Staining (Y) (N): Oily Sediment/Soil (Y) (N): Distressed Vegetation (Y) (N):	<b>Sheen Present on Water (Y/N):</b> Is the Boom Containing the Sheen? (Y) (N) Pooled Product (Y) (N) If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> <i>John Highstone</i>



SEALASKA ENVIRONMENTAL

## Boom Inspection Form

Task Order 60

Boom Location: 9/12	Time/Date: 1537 / 5-28-13
Description of Boom Before Maintenance: SATISFACTORY	Photograph (s) Time/Date Stamp: 1406 / 5-22-13
Boom Repaired (Y/N): Description: MOVED BACK INTO POSITION	Boom Replaced (Y/N) / Number of Sections: Description:
<b>Visual Observations</b> Visible Contamination (Y/N) <input checked="" type="checkbox"/> (N) Iron Staining (Y/N) <input checked="" type="checkbox"/> (N) Oily Sediment/Soil (Y/N) <input checked="" type="checkbox"/> (N) Distressed Vegetation (Y/N) <input checked="" type="checkbox"/> (N) Sheen Present on Water (Y/N) <input checked="" type="checkbox"/> (N) Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N) <input checked="" type="checkbox"/> (N) If yes, was product removed with sorbent pads?	
Location of Visible Contamination: <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="flex: 2;"> </div> </div>	
Inspector: JOHN MIGHTSTONE	Signature: John Mightstone



## Boom Inspection Form

Task Order 60

<b>Boom Location: 10</b>	<b>Time/Date:</b> 1535 / 5-28-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1428 / 5-22-13
<b>Boom Repaired (Y/N):</b> (Y) <b>Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): (Y) Iron Staining (Y/N): (N) Oily Sediment/Soil (Y/N): (Y) Distressed Vegetation (Y/N): (Y)	
Sheen Present on Water (Y/N): (Y) Is the Boom Containing the Sheen? (Y/N): (Y) Pooled Product (Y/N): (N) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 20%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>     Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>■ Pooled Product</p> </div> <div style="width: 70%; text-align: center;"> </div> </div>	
<b>Inspector:</b> JOHN HIGHESTONE	<b>Signature:</b> <i>John Highestone</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location: 11</b>	Time/Date: 15 <sup>35</sup> / 5-28-13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 14 <sup>10</sup> / 5-22-13
Boom Repaired (Y/N) <input checked="" type="radio"/> (N) <input type="radio"/> Description:	Boom Replaced (Y/N) <input checked="" type="radio"/> (N) <input type="radio"/> / Number of Sections: Description:

**Visual Observations**

Visible Contamination <input checked="" type="radio"/> (Y) (N) <input type="radio"/>	Sheen Present on Water <input checked="" type="radio"/> (Y) (N) <input type="radio"/>
Iron Staining (Y/N) <input checked="" type="radio"/> (N) <input type="radio"/>	Is the Boom Containing the Sheen? (Y/N) <input checked="" type="radio"/> (N) <input type="radio"/>
Oily Sediment/Soil <input checked="" type="radio"/> (Y) (N) <input type="radio"/>	Pooled Product (Y/N) <input checked="" type="radio"/> (N) <input type="radio"/>
Distressed Vegetation <input checked="" type="radio"/> (Y) (N) <input type="radio"/>	If yes, was product removed with sorbent pads?

Location of Visible Contamination:

Legend

//// Sheen

\\\\ Oily Sediment

xxx Distressed Veg.

RRR Iron Staining

● Pooled Product

Inspector: <b>John Highstone</b>	Signature: <i>John Highstone</i>
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# Boom Inspection Form

Task Order 60

<b>Boom Location: 2</b>	<b>Time/Date:</b> 0820 / 6-8-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0820 / 6-8-13
<b>Boom Repaired (Y (N):</b> Description:	<b>Boom Replaced (Y (N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y (N): Iron Staining (Y (N): Oily Sediment/Soil (Y (N): Distressed Vegetation (Y (N): Sheen Present on Water (Y (N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y (N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p><b>Legend</b></p> <ul style="list-style-type: none"> <li>//// Sheen</li> <li>\\\\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> </div> <div style="flex: 2;"> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 



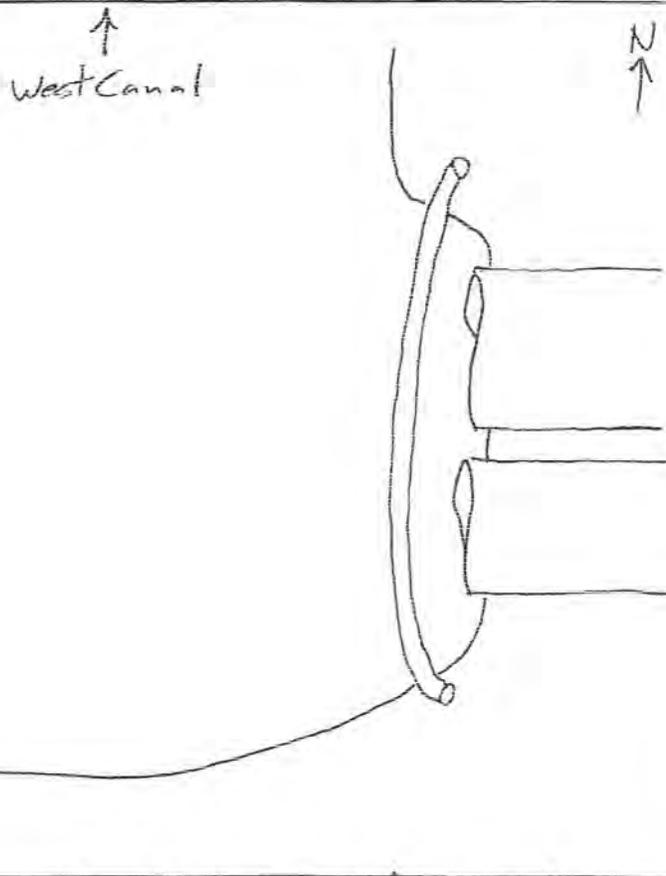
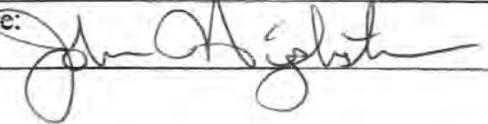
# Boom Inspection Form

Task Order 60

<b>Boom Location: 3</b>	<b>Time/Date:</b> 0821 / 6-8-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0821 / 6-8-13
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N): Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b> <div style="display: flex; justify-content: space-between;"> <div data-bbox="207 968 487 1178"> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div data-bbox="324 903 1429 1680"> <p style="text-align: center;">East Canal</p> <p style="text-align: right;">N ↑</p> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 

### Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 4	<b>Time/Date:</b> 0843 / 6-8-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0843 / 6-8-13
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N): Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b> <div style="display: flex; justify-content: space-between;"> <div data-bbox="196 968 487 1178"> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>• Pooled Product</p> </div> <div data-bbox="763 890 1429 1766">  </div> </div>	
<b>Inspector:</b> JOHN HIGHTSTONE	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location: 6</b>	<b>Time/Date:</b> 0851 / 6-8-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0851 / 6-8-13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): (N) Iron Staining (Y/N): (N) Oily Sediment/Soil (Y/N): (N) Distressed Vegetation (Y/N): (N)	
Sheen Present on Water (Y/N): (N) Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): (N) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\\\\\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>• Pooled Product</p> </div> <div style="width: 60%; text-align: center;"> <p>South Sweeper Creek</p> </div> </div>	
<b>Inspector:</b> JOHN HIGHTSTONE	<b>Signature:</b> <i>John Hightstone</i>



## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 8</b>	Time/Date: 0821 / 6-8-13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 0821 / 6-8-13
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:

**Visual Observations**

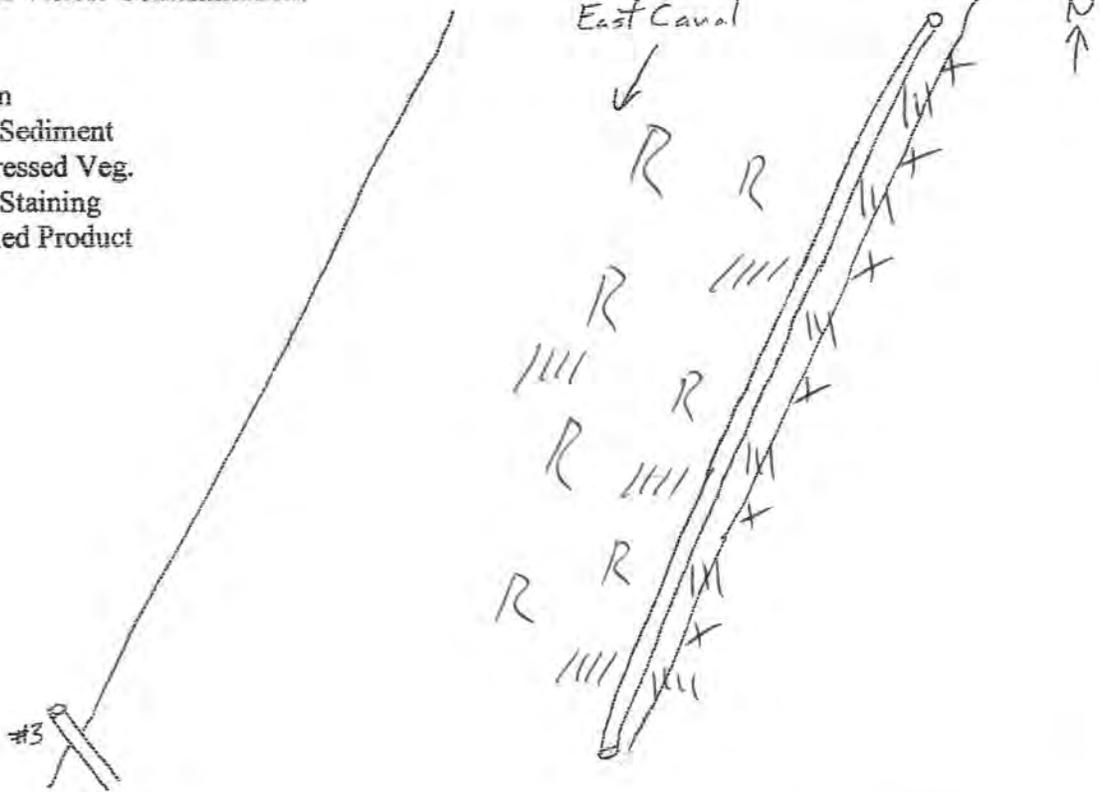
Visible Contamination (Y/N):  
 Iron Staining (Y/N):  
 Oily Sediment/Soil (Y/N):  
 Distressed Vegetation (Y/N):

Sheen Present on Water (Y/N):  
 Is the Boom Containing the Sheen? (Y/N)  
 Pooled Product (Y/N):  
 If yes, was product removed with sorbent pads?

Location of Visible Contamination:

Legend

- //// Sheen
- \\ \\ Oily Sediment
- xxx Distressed Veg.
- RRR Iron Staining
- Pooled Product



Inspector: <b>JOHN HIGGSTONE</b>	Signature: <i>John Hightone</i>
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SEALASKA ENVIRONMENTAL

## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 0826 / 6-8-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0826 / 6-8-13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N):</b> (N) <b>Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): (N) Iron Staining (Y/N): (N) Oily Sediment/Soil (Y/N): (N) Distressed Vegetation (Y/N): (N) Sheen Present on Water (Y/N): (N) Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): (N) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p><b>Legend</b></p> <ul style="list-style-type: none"> <li>//// Sheen</li> <li>\\ \\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> </div> <div style="flex: 2; text-align: center;"> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> <i>John Highstone</i>



# Boom Inspection Form

Task Order 60

<b>Boom Location: 10</b>	<b>Time/Date:</b> 0845 / 6-8-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0845 / 6-8-13
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N): Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 20px;"> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location: 11</b>	<b>Time/Date:</b> 0828 / 6-8-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0828 / 6-8-13
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\\\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%; text-align: center;"> <p>East Canal</p> <p>↓</p> </div> </div>	
<b>Inspector:</b> JOHN HIGGSTONE	<b>Signature:</b> <i>John Higginbotham</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location: 2</b>	<b>Time/Date:</b> 0834 / 7-4-13
<b>Description of Boom Before Maintenance:</b> UNSATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 0834 / 7-4-13
<b>Boom Repaired (Y/N):</b> Description: REPOSITIONED BACK ONTO POST, HIGH WATER LEVELS DUE TO DIKE PUMPS NOT RUNNING ON REGULAR BASIS	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b>	
<b>Visible Contamination (Y/N):</b> Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	<b>Sheen Present on Water (Y/N):</b> Is the Boom Containing the Sheen? (Y/N) <b>Pooled Product (Y/N):</b> If yes, was product removed with sorbent pads?
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<p style="text-align: right;">East Canal ↓</p> <p style="text-align: right;">↑ N</p>
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location: 3</b>	Time/Date: 0836 / 7-4-13		
Description of Boom Before Maintenance:  <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp:  0836 / 7-4-13		
Boom Repaired (Y <input checked="" type="radio"/> N) Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">                 Visible Contamination (Y <input checked="" type="radio"/> N):                  Iron Staining (Y <input checked="" type="radio"/> N):                  Oily Sediment/Soil (Y <input checked="" type="radio"/> N):                  Distressed Vegetation (Y <input checked="" type="radio"/> N):             </td> <td style="width: 50%; border: none;">                 Sheen Present on Water (Y <input checked="" type="radio"/> N):                  Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N):                  Pooled Product (Y <input checked="" type="radio"/> N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N): Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N): Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%; border: none;"> <tr> <td style="width: 20%; border: none;"> <b>Legend</b>                  /// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 80%; border: none;"> <p style="text-align: center;">East Canal</p> <p style="text-align: right;">N ↑</p> </td> </tr> </table>		<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<p style="text-align: center;">East Canal</p> <p style="text-align: right;">N ↑</p>
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<p style="text-align: center;">East Canal</p> <p style="text-align: right;">N ↑</p>		
Inspector: <b>JOHN HIGHSTONE</b>	Signature: <i>John Highstone</i>		



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 4	<b>Time/Date:</b> 0851 7-4-13
<b>Description of Boom Before Maintenance:</b>  SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b>  0851 / 7-4-13
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N)/ Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;">           ↑            West Canal         </div> <div style="text-align: right;">           N            ↑         </div>
<b>Inspector:</b> JOHN HIGASTONE	<b>Signature:</b> 



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 6	<b>Time/Date:</b> 0857 / 7-4-13
<b>Description of Boom Before Maintenance:</b>  SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b>  0857 / 7-4-13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): (N) Iron Staining (Y/N): (N) Oily Sediment/Soil (Y/N): (N) Distressed Vegetation (Y/N): (N)	
Sheen Present on Water (Y/N): (N) Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): (N) If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<p style="text-align: center;">South Swapper Creek</p>
<b>Inspector:</b> JOHN HIGASTONE	<b>Signature:</b> <i>John Higastone</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 8	<b>Time/Date:</b> 0835 / 7-4-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 7-4-13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N) / Number of Sections:</b> (N) <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%;"> </div> </div>	
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 

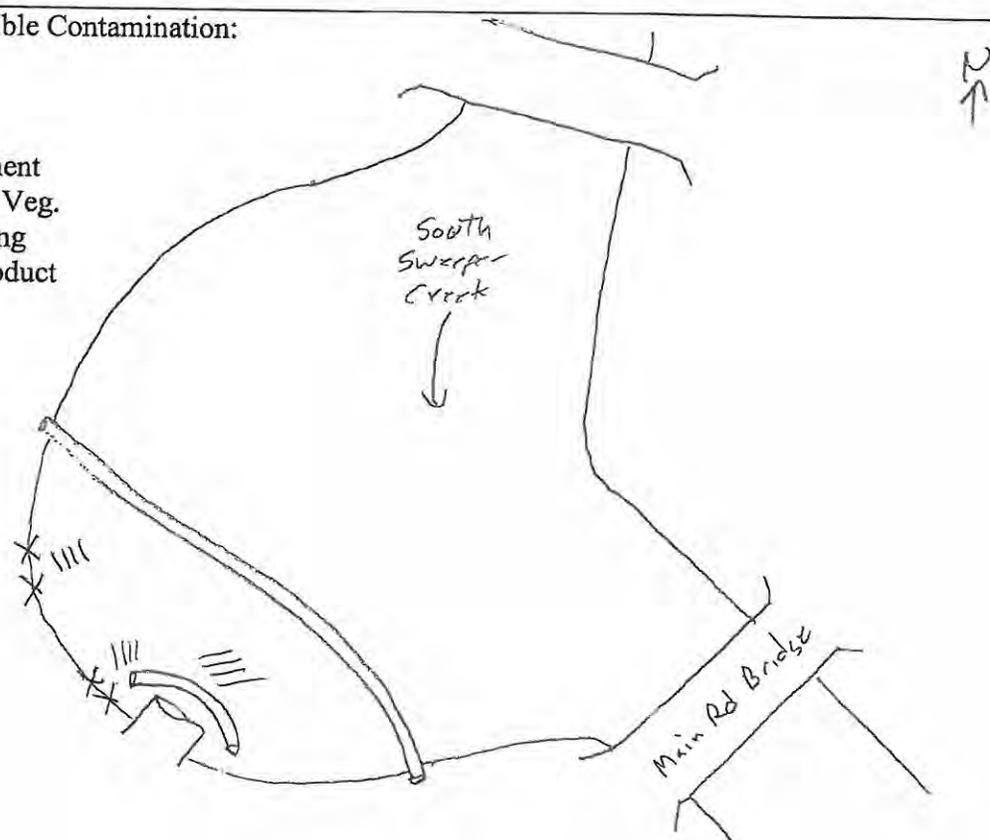
### Boom Inspection Form

Task Order 60

Boom Location: 9/12	Time/Date: 0839 / 7/4/13								
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 0839 / 7-4-13								
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:								
<p><b>Visual Observations</b></p> <table border="0"> <tr> <td>Visible Contamination (Y <input checked="" type="radio"/> N)</td> <td>Sheen Present on Water (Y <input checked="" type="radio"/> N)</td> </tr> <tr> <td>Iron Staining (Y <input checked="" type="radio"/> N)</td> <td>Is the Boom Containing the Sheen? (Y / N)</td> </tr> <tr> <td>Oily Sediment/Soil (Y <input checked="" type="radio"/> N)</td> <td>Pooled Product (Y <input checked="" type="radio"/> N)</td> </tr> <tr> <td>Distressed Vegetation (Y <input checked="" type="radio"/> N)</td> <td>If yes, was product removed with sorbent pads?</td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N)	Sheen Present on Water (Y <input checked="" type="radio"/> N)	Iron Staining (Y <input checked="" type="radio"/> N)	Is the Boom Containing the Sheen? (Y / N)	Oily Sediment/Soil (Y <input checked="" type="radio"/> N)	Pooled Product (Y <input checked="" type="radio"/> N)	Distressed Vegetation (Y <input checked="" type="radio"/> N)	If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N)	Sheen Present on Water (Y <input checked="" type="radio"/> N)								
Iron Staining (Y <input checked="" type="radio"/> N)	Is the Boom Containing the Sheen? (Y / N)								
Oily Sediment/Soil (Y <input checked="" type="radio"/> N)	Pooled Product (Y <input checked="" type="radio"/> N)								
Distressed Vegetation (Y <input checked="" type="radio"/> N)	If yes, was product removed with sorbent pads?								
<p>Location of Visible Contamination:</p> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p><b>Legend</b></p> <ul style="list-style-type: none"> <li>//// Sheen</li> <li>\\ \\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> </div> <div style="flex: 2; text-align: center;">  <p>The diagram shows a U-shaped boom structure. A label 'East Canal' with a downward arrow points to the left side of the boom. A north arrow is drawn on the right side of the diagram.</p> </div> </div>									
Inspector: <b>John Highstone</b>	Signature: <i>John Highstone</i>								

## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 10</b>	Time/Date: <i>0855 / 7-4-13</i>		
Description of Boom Before Maintenance: <i>Satisfactory</i>	Photograph (s) Time/Date Stamp: <i>0854 / 7-4-13</i>		
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">                 Visible Contamination (Y/N):                  Iron Staining (Y/N):                  Oily Sediment/Soil (Y/N):                  Distressed Vegetation (Y/N):             </td> <td style="width: 50%; border: none;">                 Sheen Present on Water (Y/N):                  Is the Boom Containing the Sheen? (Y/N)                  Pooled Product (Y/N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="margin-top: 10px;"> <p><u>Legend</u></p> <ul style="list-style-type: none"> <li>//// Sheen</li> <li>\\\\ Oily Sediment</li> <li>xxx Distressed Veg.</li> <li>RRR Iron Staining</li> <li>● Pooled Product</li> </ul> </div> <div style="margin-top: 20px;">  <p style="text-align: center;"><i>South Swapper Creek</i></p> <p style="text-align: right;"><i>Main Rd Bridge</i></p> </div>			
Inspector: <i>John Highstone</i>	Signature: <i>[Signature]</i> for John Highstone		



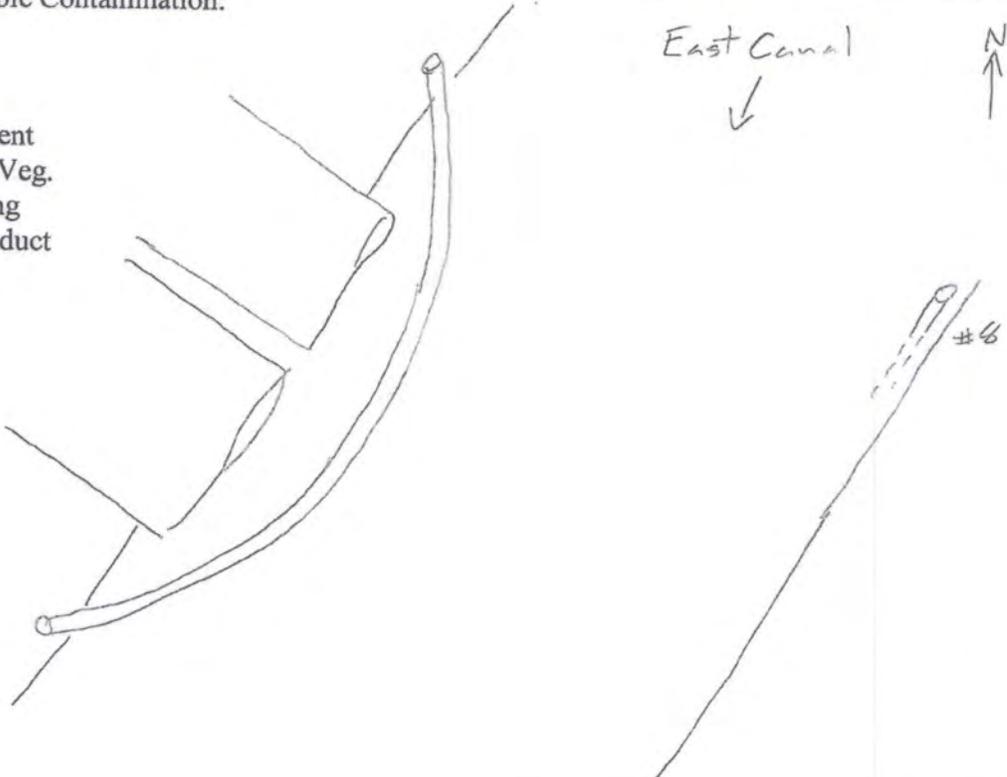
## Boom Inspection Form

Task Order 60

<b>Boom Location: 11</b>	Time/Date: 0841 / 7-4-13								
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  0841 / 7-4-13								
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N)/ Number of Sections: Description:								
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;">Visible Contamination (Y <input checked="" type="radio"/> N):</td> <td style="width: 50%; border: none;">Sheen Present on Water (Y <input checked="" type="radio"/> N):</td> </tr> <tr> <td style="border: none;">Iron Staining (Y <input checked="" type="radio"/> N):</td> <td style="border: none;">Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)</td> </tr> <tr> <td style="border: none;">Oily Sediment/Soil (Y <input checked="" type="radio"/> N):</td> <td style="border: none;">Pooled Product (Y <input checked="" type="radio"/> N):</td> </tr> <tr> <td style="border: none;">Distressed Vegetation (Y <input checked="" type="radio"/> N):</td> <td style="border: none;">If yes, was product removed with sorbent pads?</td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N):	Iron Staining (Y <input checked="" type="radio"/> N):	Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)	Oily Sediment/Soil (Y <input checked="" type="radio"/> N):	Pooled Product (Y <input checked="" type="radio"/> N):	Distressed Vegetation (Y <input checked="" type="radio"/> N):	If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N):								
Iron Staining (Y <input checked="" type="radio"/> N):	Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)								
Oily Sediment/Soil (Y <input checked="" type="radio"/> N):	Pooled Product (Y <input checked="" type="radio"/> N):								
Distressed Vegetation (Y <input checked="" type="radio"/> N):	If yes, was product removed with sorbent pads?								
<p>Location of Visible Contamination:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 60%; text-align: center;"> <p>East Canal</p> <p>↓</p> </div> </div>									
Inspector: JOHN HIGHTSTONE	Signature: 								

## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 2</b>	Time/Date: 1238 / 8/2/13
Description of Boom Before Maintenance:  Unsatisfactory	Photograph (s) Time/Date Stamp:  1238
Boom Repaired (Y/N): Description: Connected back to tie off post High water levels due to dike pumps not Running on a regular schedule.	Boom Replaced (Y/N) / Number of Sections: Description:
<b>Visual Observations</b>	
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Location of Visible Contamination:	
<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	 <p style="text-align: right;">East Canal</p> <p style="text-align: right;">N ↑</p>
Inspector: Andy Lewis	Signature: 



# Boom Inspection Form

Task Order 60

<b>Boom Location: 3</b>	<b>Time/Date:</b> 1146 / 8-2-13
<b>Description of Boom Before Maintenance:</b> Satisfactory	<b>Photograph (s) Time/Date Stamp:</b> 1146
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N):</b> / Number of Sections: Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N): Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N): Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b> <div style="display: flex; justify-content: space-between;"> <div data-bbox="227 945 487 1155"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div data-bbox="341 903 1429 1638"> </div> </div>	
<b>Inspector:</b> Andy Lewis	<b>Signature:</b> <i>[Handwritten Signature]</i>



# Boom Inspection Form

Task Order 60

<b>Boom Location: 4</b>	<b>Time/Date:</b> 1020 / 8-2-13
<b>Description of Boom Before Maintenance:</b>  Satisfactory	<b>Photograph (s) Time/Date Stamp:</b>  1042
<b>Boom Repaired (Y / <input checked="" type="radio"/> N):</b> <b>Description:</b>	<b>Boom Replaced (Y / <input checked="" type="radio"/> N) / Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y / <input checked="" type="radio"/> N): Iron Staining (Y / <input checked="" type="radio"/> N): Oily Sediment/Soil (Y / <input checked="" type="radio"/> N): Distressed Vegetation (Y / <input checked="" type="radio"/> N): Sheen Present on Water (Y / <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y / <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex; justify-content: space-between;"> <div data-bbox="228 951 487 1155"> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div data-bbox="779 892 1429 1638"> </div> </div>	
<b>Inspector:</b> Andy Lewis	<b>Signature:</b>



SEALASKA ENVIRONMENTAL

### Boom Inspection Form

Task Order 60

<b>Boom Location: 6</b>	Time/Date: 1100 / 8-2-13
Description of Boom Before Maintenance: <i>Satisfactory</i>	Photograph (s) Time/Date Stamp: 1103
Boom Repaired (Y / <input checked="" type="radio"/> N): Description:	Boom Replaced (Y / <input checked="" type="radio"/> N) / Number of Sections: Description:
<b>Visual Observations</b> Visible Contamination (Y / <input checked="" type="radio"/> N): Iron Staining (Y / <input checked="" type="radio"/> N): Oily Sediment/Soil (Y / <input checked="" type="radio"/> N): Distressed Vegetation (Y / <input checked="" type="radio"/> N): Sheen Present on Water (Y / <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y / <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?	
Location of Visible Contamination:  <b>Legend</b> //// Sheen \\ \\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<p>South Swapper Creek</p>	
Inspector: <i>Andy Lewis</i>	Signature: <i>[Signature]</i>



# Boom Inspection Form

Task Order 60

Boom Location: <b>8</b>	Time/Date: 1200
Description of Boom Before Maintenance: <i>Satisfactory</i>	Photograph (s) Time/Date Stamp: 1147
Boom Repaired (Y/N): Description:	Boom Replaced (Y/N) / Number of Sections: Description:

**Visual Observations**

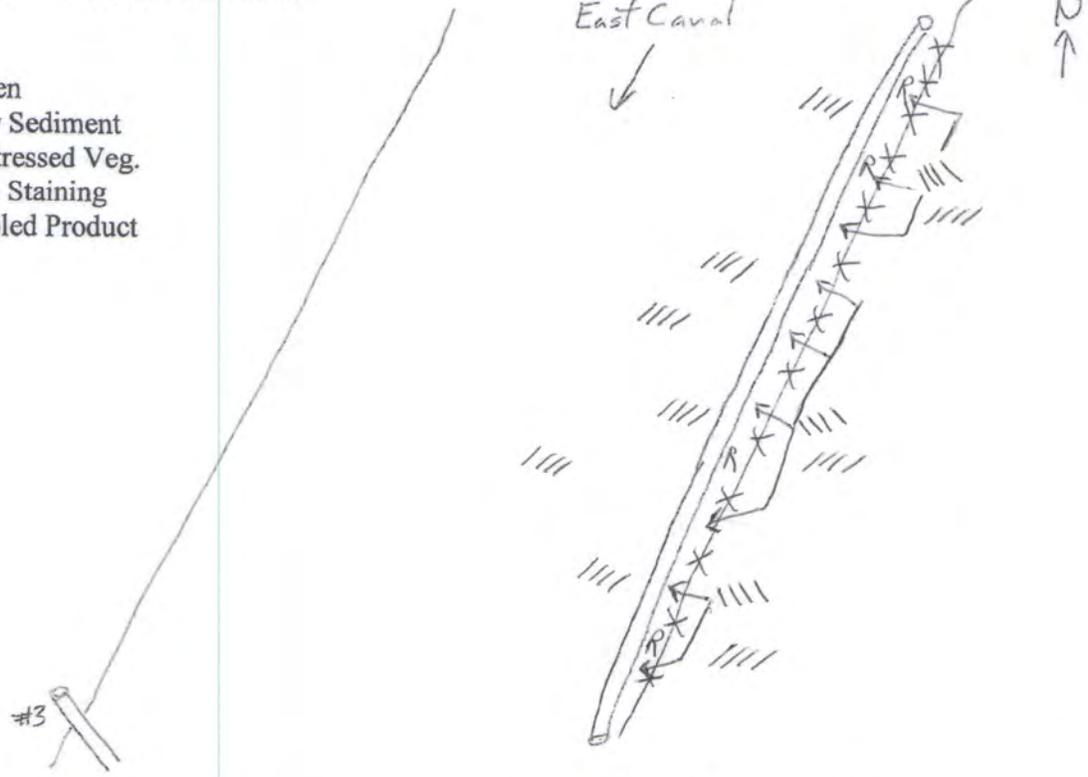
Visible Contamination (Y/N):	Sheen Present on Water (Y/N):
Iron Staining (Y/N):	Is the Boom Containing the Sheen? (Y/N)
Oily Sediment/Soil (Y/N):	Pooled Product (Y/N):
Distressed Vegetation (Y/N):	If yes, was product removed with sorbent pads? (Y)

*Removed product w/ sorbent pads (6).*

Location of Visible Contamination:

Legend

- //// Sheen
- \\ \\ Oily Sediment
- xxx Distressed Veg.
- RRR Iron Staining
- Pooled Product



Inspector: <i>Andy Lewis</i>	Signature: <i>[Signature]</i>
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SEALASKA ENVIRONMENTAL

## Boom Inspection Form

**Task Order 60**

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 1138 / 8/2/13		
<b>Description of Boom Before Maintenance:</b>  Satisfactory	<b>Photograph (s) Time/Date Stamp:</b>  1138		
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p>Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):</p> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p>Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?</p> </td> </tr> </table>		<p>Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):</p>	<p>Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?</p>
<p>Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):</p>	<p>Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?</p>		
<p><b>Location of Visible Contamination:</b></p> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="flex: 2; text-align: center;"> </div> </div>			
<b>Inspector:</b> Andy Lewis	<b>Signature:</b>		

## Boom Inspection Form

Task Order 60

<b>Boom Location: 10</b>	<b>Time/Date:</b> 1045   8-2-13
<b>Description of Boom Before Maintenance:</b>  <i>Satisfactory</i>	<b>Photograph (s) Time/Date Stamp:</b>  1051
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>  <div style="display: flex;"> <div style="flex: 1;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\\\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="flex: 2;">  </div> </div>	
<b>Inspector:</b> <i>Andy Lewis</i>	<b>Signature:</b> 



SEALASKA ENVIRONMENTAL

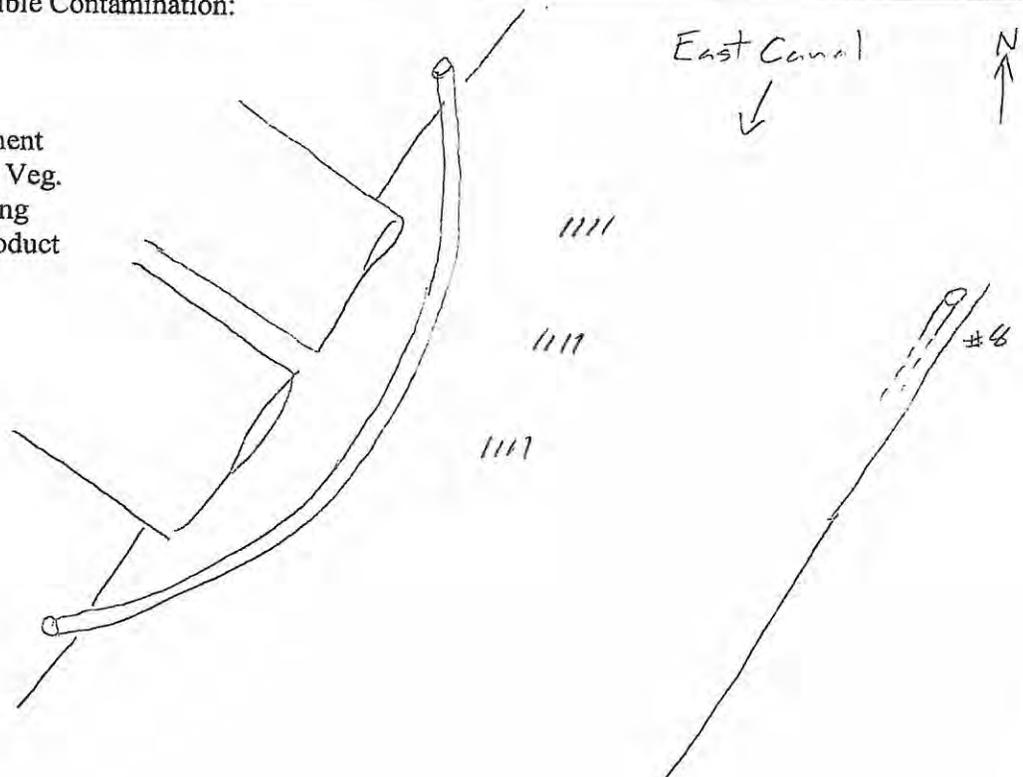
### Boom Inspection Form

Task Order 60

<b>Boom Location: 11</b>	<b>Time/Date:</b> 11/26
<b>Description of Boom Before Maintenance:</b> <i>Satisfactory</i>	<b>Photograph (s) Time/Date Stamp:</b> 11/26
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): <i>Sheen</i> If yes, was product removed with sorbent pads? <i>*Removed sheen along sediment w/ pad</i>	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;"> <i>East Canal</i>  </div>
<b>Inspector:</b> <i>Andy Lewis</i>	<b>Signature:</b>

## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 2</b>	Time/Date: 1138 / 9-4-13
Description of Boom Before Maintenance:	Photograph (s) Time/Date Stamp:
UNSATISFACTORY	1138 / 9-4-13
Boom Repaired (Y/N): Description: NORTH END OF BOOM OFF STAKE DUE TO HIGH WATER LEVELS. INSTALL NEW STAKE + PLACE INTO POSITION	Boom Replaced (Y/N) / Number of Sections: Description:
<b>Visual Observations</b>	
Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?
Location of Visible Contamination:	
<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	
Inspector: JOHN HUGHSTONE	Signature: 



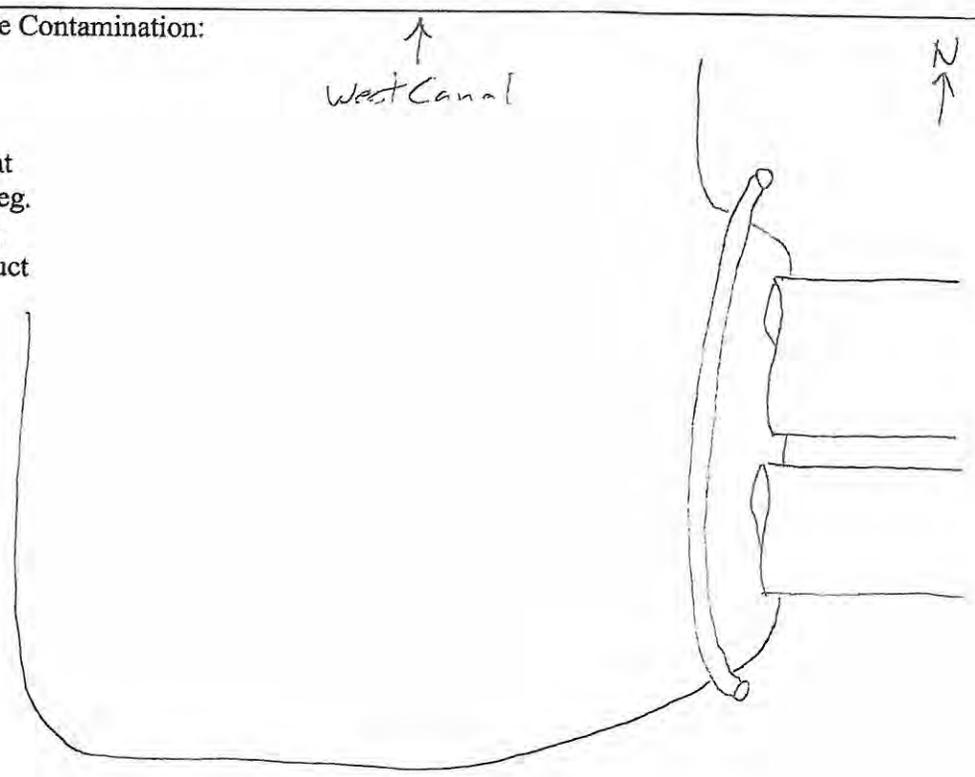
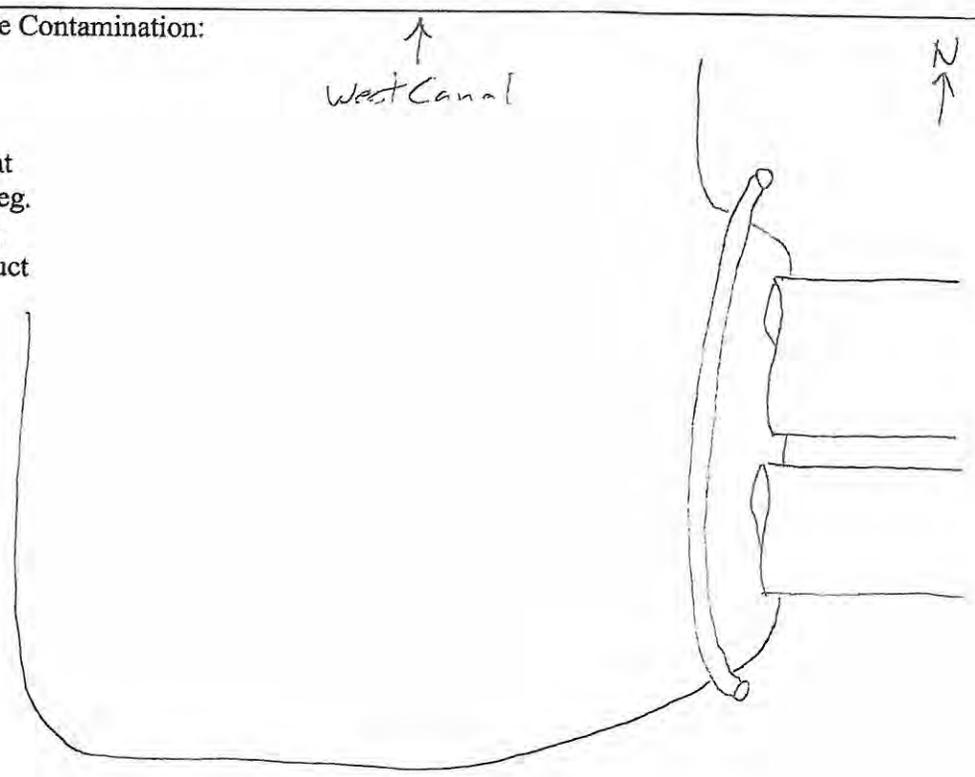
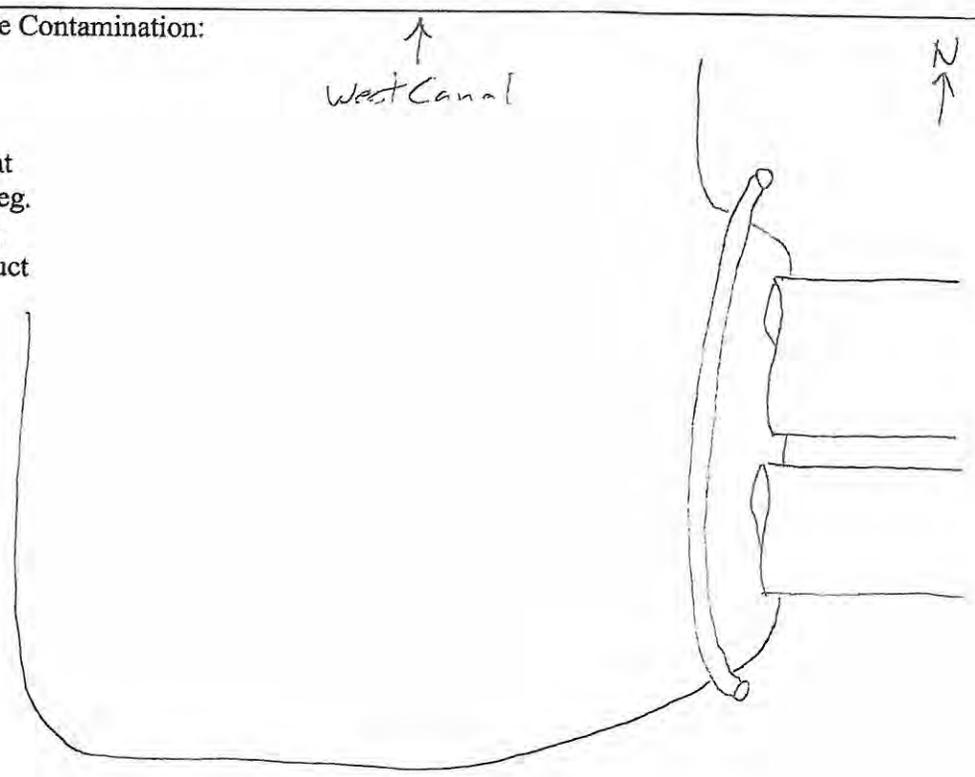
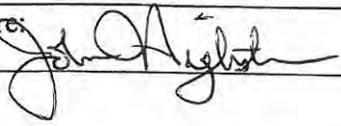
## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 3</b>	Time/Date: 1140 / 9-4-13		
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 1140 / 9-4-13		
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y <input checked="" type="radio"/> N):                  Iron Staining (Y <input checked="" type="radio"/> N):                  Oily Sediment/Soil (Y <input checked="" type="radio"/> N):                  Distressed Vegetation (Y <input checked="" type="radio"/> N):             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y <input checked="" type="radio"/> N):                  Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N):                  Pooled Product (Y <input checked="" type="radio"/> N):                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N): Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N): Iron Staining (Y <input checked="" type="radio"/> N): Oily Sediment/Soil (Y <input checked="" type="radio"/> N): Distressed Vegetation (Y <input checked="" type="radio"/> N):	Sheen Present on Water (Y <input checked="" type="radio"/> N): Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N): Pooled Product (Y <input checked="" type="radio"/> N): If yes, was product removed with sorbent pads?		
Location of Visible Contamination:  <table style="width: 100%; border: none;"> <tr> <td style="width: 20%; border: none; vertical-align: top;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </td> <td style="width: 80%; border: none; text-align: center;"> <p>East Canal</p> </td> </tr> </table>		<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	<p>East Canal</p>
<p><u>Legend</u></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p>	<p>East Canal</p>		
Inspector: <b>JOHN HIGHSTONE</b>	Signature: <i>John Highstone</i>		

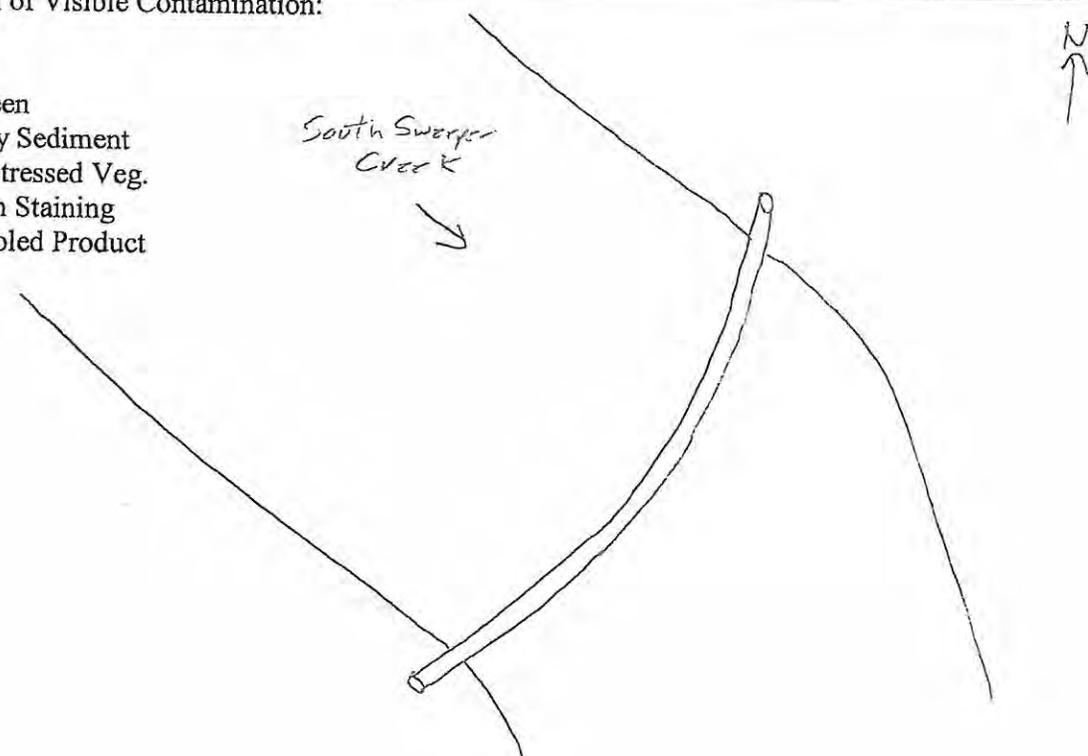
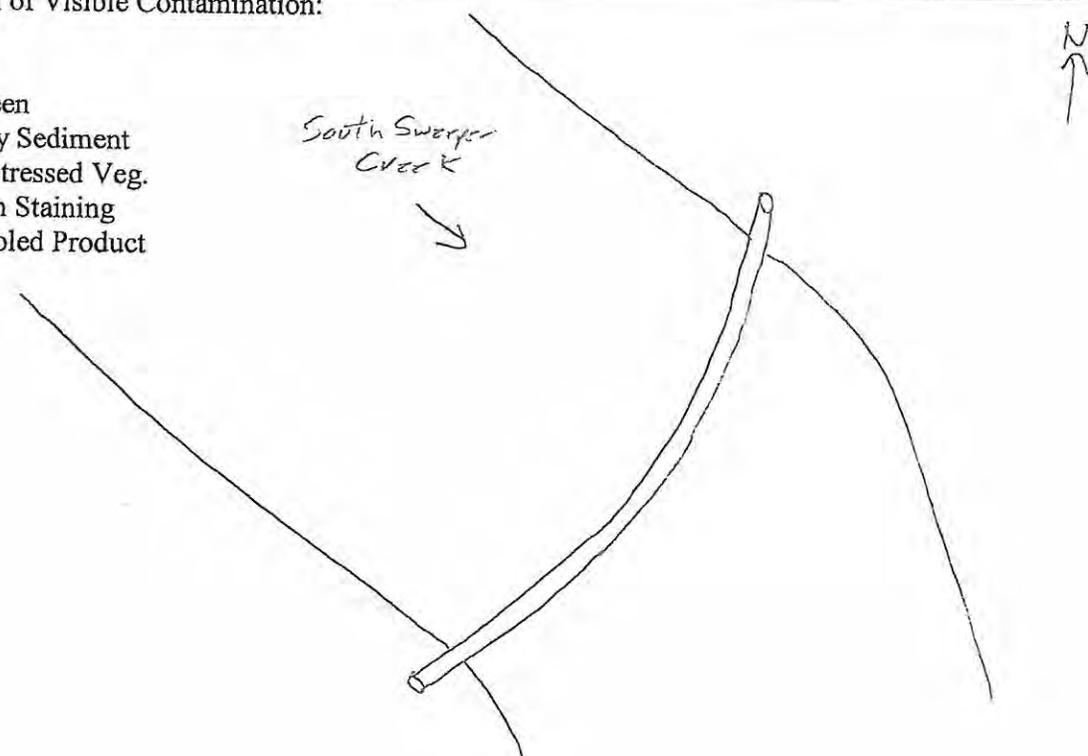
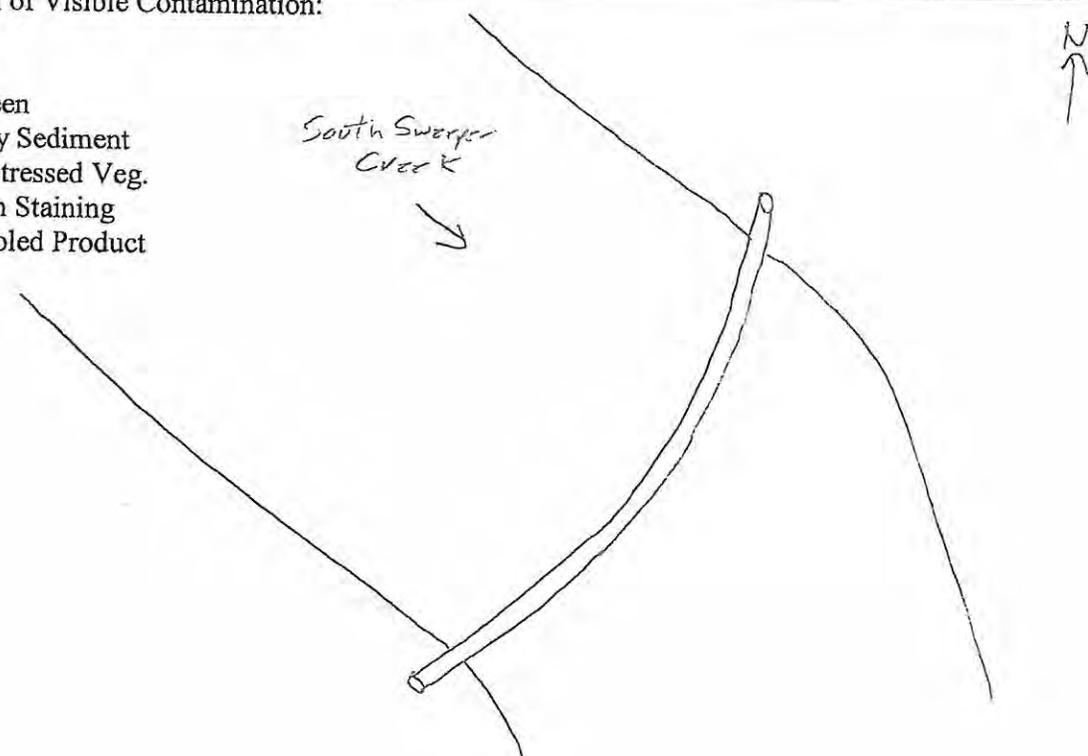
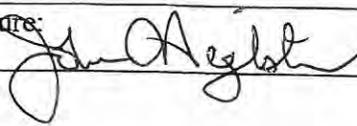
## Boom Inspection Form

**Task Order 60**

<b>Boom Location: 4</b>	Time/Date: 1155 / 9-4-13		
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 1155 / 9-4-13		
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N)/ Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y <input checked="" type="radio"/> N)                  Iron Staining (Y <input checked="" type="radio"/> N)                  Oily Sediment/Soil (Y <input checked="" type="radio"/> N)                  Distressed Vegetation (Y <input checked="" type="radio"/> N)             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y <input checked="" type="radio"/> N)                  Is the Boom Containing the Sheen? (Y / N)                  Pooled Product (Y <input checked="" type="radio"/> N)                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N) Iron Staining (Y <input checked="" type="radio"/> N) Oily Sediment/Soil (Y <input checked="" type="radio"/> N) Distressed Vegetation (Y <input checked="" type="radio"/> N)	Sheen Present on Water (Y <input checked="" type="radio"/> N) Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N) If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N) Iron Staining (Y <input checked="" type="radio"/> N) Oily Sediment/Soil (Y <input checked="" type="radio"/> N) Distressed Vegetation (Y <input checked="" type="radio"/> N)	Sheen Present on Water (Y <input checked="" type="radio"/> N) Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N) If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="text-align: center; margin-top: 10px;">                     ↑                      West Canal                 </div>			
<table style="width: 100%; border: none;"> <tr> <td style="width: 30%; border: none; vertical-align: top;"> <p><b>Legend</b></p>                 /// Sheen                  \\\ Oily Sediment                  xxx Distressed Veg.                  RRR Iron Staining                  ● Pooled Product             </td> <td style="width: 70%; border: none; text-align: center;">  </td> </tr> </table>		<p><b>Legend</b></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<p><b>Legend</b></p> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: <b>John HIGHSTONE</b>	Signature: 		

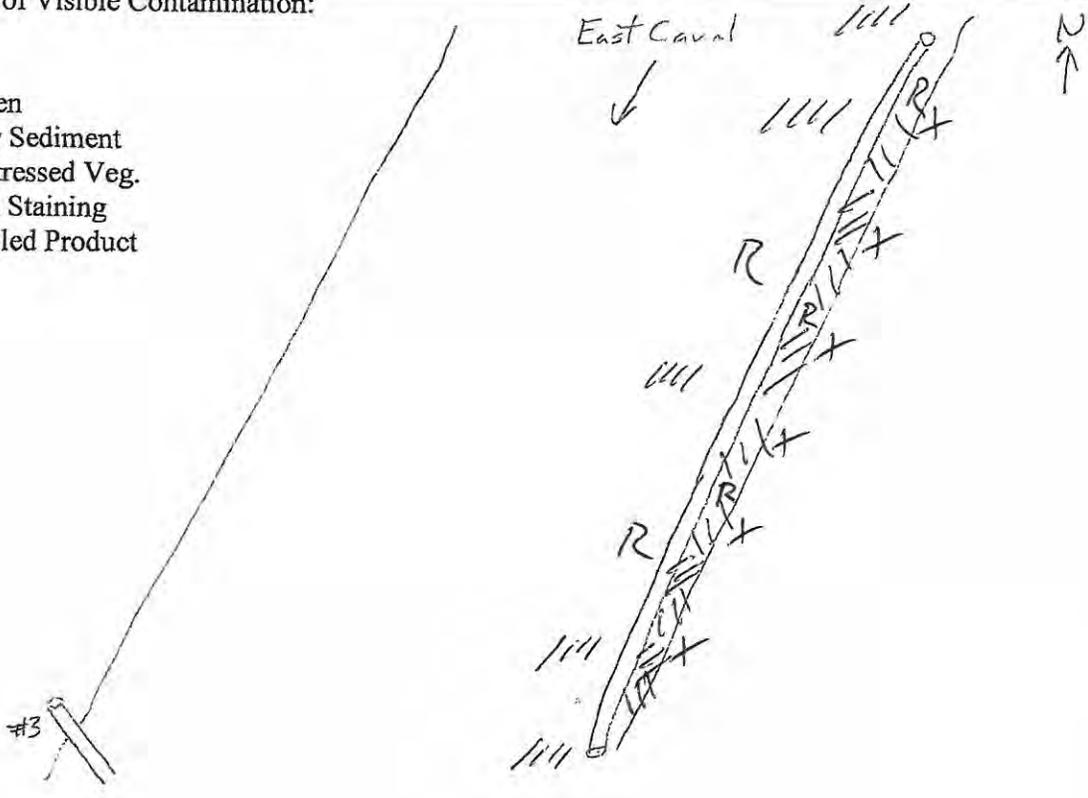
## Boom Inspection Form

Task Order 60

<b>Boom Location: 6</b>	Time/Date: 1200 / 9-4-13		
Description of Boom Before Maintenance:  <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp:  1200 / 9-4-13		
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) / Number of Sections: Description:		
<p><b>Visual Observations</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;">                 Visible Contamination (Y <input checked="" type="radio"/> N)                  Iron Staining (Y <input checked="" type="radio"/> N)                  Oily Sediment/Soil (Y <input checked="" type="radio"/> N)                  Distressed Vegetation (Y <input checked="" type="radio"/> N)             </td> <td style="width: 50%; border: none; vertical-align: top;">                 Sheen Present on Water (Y <input checked="" type="radio"/> N)                  Is the Boom Containing the Sheen? (Y / N)                  Pooled Product (Y <input checked="" type="radio"/> N)                  If yes, was product removed with sorbent pads?             </td> </tr> </table>		Visible Contamination (Y <input checked="" type="radio"/> N) Iron Staining (Y <input checked="" type="radio"/> N) Oily Sediment/Soil (Y <input checked="" type="radio"/> N) Distressed Vegetation (Y <input checked="" type="radio"/> N)	Sheen Present on Water (Y <input checked="" type="radio"/> N) Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N) If yes, was product removed with sorbent pads?
Visible Contamination (Y <input checked="" type="radio"/> N) Iron Staining (Y <input checked="" type="radio"/> N) Oily Sediment/Soil (Y <input checked="" type="radio"/> N) Distressed Vegetation (Y <input checked="" type="radio"/> N)	Sheen Present on Water (Y <input checked="" type="radio"/> N) Is the Boom Containing the Sheen? (Y / N) Pooled Product (Y <input checked="" type="radio"/> N) If yes, was product removed with sorbent pads?		
Location of Visible Contamination: <div style="margin-top: 10px;"> <table style="width: 100%; border: none;"> <tr> <td style="width: 20%; border: none; vertical-align: top;"> <b>Legend</b>                      /// Sheen                      \\\ Oily Sediment                      xxx Distressed Veg.                      RRR Iron Staining                      ● Pooled Product                 </td> <td style="border: none; text-align: center;">  </td> </tr> </table> </div>		<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product			
Inspector: <b>John Highstone</b>	Signature: 		

## Boom Inspection Form

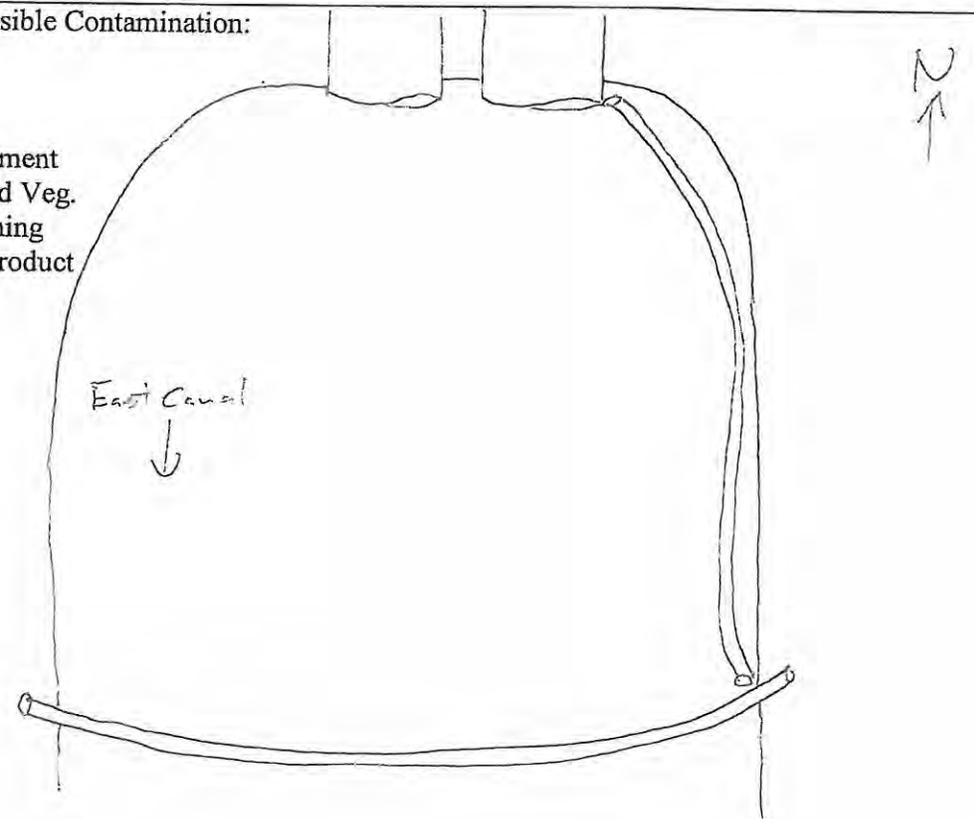
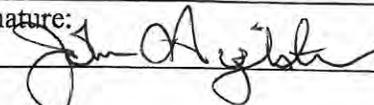
Task Order 60

<b>Boom Location: 8</b>	Time/Date: 1139 / 9-4-13
Description of Boom Before Maintenance: <b>SATISFACTORY</b>	Photograph (s) Time/Date Stamp: 1139 / 9-4-13
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) Number of Sections: Description:
<p><b>Visual Observations</b></p> <p>Visible Contamination (Y <input checked="" type="radio"/> N):          Iron Staining (Y <input checked="" type="radio"/> N):          Oily Sediment/Soil (Y <input checked="" type="radio"/> N):          Distressed Vegetation (Y <input checked="" type="radio"/> N):</p>	
<p>Sheen Present on Water (Y <input checked="" type="radio"/> N):          Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)          Pooled Product (Y <input checked="" type="radio"/> N)          If yes, was product removed with sorbent pads?</p>	
<p>Location of Visible Contamination:</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%; padding: 5px;"> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\\\\\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 65%; text-align: center;">  </div> </div>	
Inspector: JOHN HIGGINS	Signature: <i>John Higgins</i>

\* EXCESSIVE SHEENING DUE TO D.O.T. NOT OPERATING DIKE PUMPS ON REGULAR BASIS.  
 Sealaska Environmental Services, LLC  
 Poulsbo, Washington

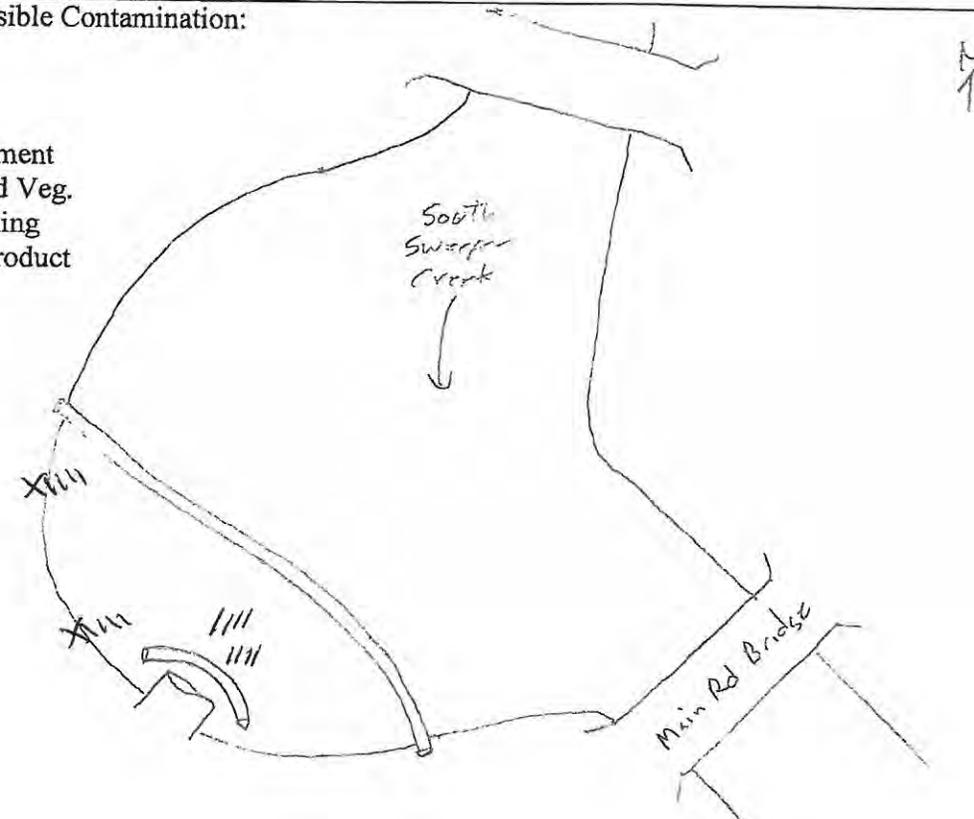
## Boom Inspection Form

Task Order 60

<b>Boom Location:</b> 9/12	<b>Time/Date:</b> 1144 / 9-4-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1144 / 9-4-13
<b>Boom Repaired (Y/N):</b> Description:	<b>Boom Replaced (Y/N) / Number of Sections:</b> Description:
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p><u>Legend</u></p> <p>//// Sheen</p> <p>\\\\\\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="width: 60%; text-align: center;">  <p style="margin-left: 100px;">East Canal ↓</p> <p style="text-align: right; margin-right: 50px;">N ↑</p> </div> </div>	
<b>Inspector:</b> JOHN HUGHSTONE	<b>Signature:</b> 

## Boom Inspection Form

Task Order 60

<b>Boom Location: 10</b>	Time/Date: 1157 / 9-4-13
Description of Boom Before Maintenance:  SATISFACTORY	Photograph (s) Time/Date Stamp:  1157 / 9-4-13
Boom Repaired (Y <input checked="" type="radio"/> N): Description:	Boom Replaced (Y <input checked="" type="radio"/> N) Number of Sections: Description:
<p><b>Visual Observations</b></p> <p>Visible Contamination (Y <input checked="" type="radio"/> N):</p> <p>Iron Staining (Y <input checked="" type="radio"/> N):</p> <p>Oily Sediment/Soil (Y <input checked="" type="radio"/> N):</p> <p>Distressed Vegetation (Y <input checked="" type="radio"/> N):</p> <p style="text-align: right;">Sheen Present on Water (Y <input checked="" type="radio"/> N):</p> <p style="text-align: right;">Is the Boom Containing the Sheen? (Y <input checked="" type="radio"/> N)</p> <p style="text-align: right;">Pooled Product (Y <input checked="" type="radio"/> N):</p> <p style="text-align: right;">If yes, was product removed with sorbent pads?</p>	
<p>Location of Visible Contamination:</p> <div style="display: flex;"> <div style="flex: 1;"> <p><b>Legend</b></p> <p>//// Sheen</p> <p>\\ \\ Oily Sediment</p> <p>xxx Distressed Veg.</p> <p>RRR Iron Staining</p> <p>● Pooled Product</p> </div> <div style="flex: 2;">  </div> </div>	
Inspector: JOHN HIGHSTONE	Signature: <i>John Highstone</i>



## Boom Inspection Form

Task Order 60

<b>Boom Location: 11</b>	<b>Time/Date:</b> 1146 / 9-4-13
<b>Description of Boom Before Maintenance:</b> SATISFACTORY	<b>Photograph (s) Time/Date Stamp:</b> 1146 / 9-4-13
<b>Boom Repaired (Y/N):</b> (N) <b>Description:</b>	<b>Boom Replaced (Y/N):</b> (N) / <b>Number of Sections:</b> <b>Description:</b>
<b>Visual Observations</b> Visible Contamination (Y/N): Iron Staining (Y/N): Oily Sediment/Soil (Y/N): Distressed Vegetation (Y/N):	
Sheen Present on Water (Y/N): Is the Boom Containing the Sheen? (Y/N) Pooled Product (Y/N): If yes, was product removed with sorbent pads?	
<b>Location of Visible Contamination:</b>	
<b>Legend</b> /// Sheen \\\ Oily Sediment xxx Distressed Veg. RRR Iron Staining ● Pooled Product	<div style="text-align: center;"> <p>East Canal</p> <p>↓</p> </div>
<b>Inspector:</b> JOHN HIGHSTONE	<b>Signature:</b> 

**APPENDIX B**  
**PHOTOGRAPHS OF BOOM LOCATIONS**



Photo 1 – East Canal Boom 2, May 2013, view west; new boom sections



Photo 2 – East Canal Boom 2, March 2013, view west; high water level in canal while the canal pumps were off



Photo 3 – West Canal Boom 3, October 2012, view west; visible sheen behind boom



Photo 4 – West Canal Boom 4, May 2013, view east; old boom section prior to change-out



Photo 5 – Sweeper Creek Boom 6, March 2013, view east; boom disconnected from west shoreline



Photo 6 – East Canal Boom 8, October 2012, view north; boom with iron staining visible



Photo 7 – East Canal Boom 9/12, February 2013, view north; snow along bank



Photo 8 – East Canal Boom 9/12, November 2012, view west; showing sheen



Photo 9 – Sweeper Creek Boom 10, March 2013, view southeast; ice behind boom



Photo 10 – East Canal Boom 11, April 2013, view north; following replacement

**APPENDIX C**  
**2013 LONG-TERM MONITORING FIELD MEASUREMENTS**

**Table C-1.** 2013 Field Measurements for SWMU 62, New Housing Fuel Leak, Eagle Bay Housing

Well Location	Physical Measurements				Groundwater Parameters						
	Casing Elevation (ft MLLW)	Depth to Water (ft BTOC)	Groundwater Surface Elevation (ft MLLW)	Measured Product Thickness (ft)	pH (SU)	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Salinity (%)	ORP (mV)
03-101	26.01	22.43	3.58	0	NP	NP	NP	NP	NP	NP	NP
03-102	17.27	13.99	3.28	0	NP	NP	NP	NP	NP	NP	NP
03-103	18.93	15.78	3.15	0	NP	NP	NP	NP	NP	NP	NP
03-109	33.69	30.03	3.66	0	NP	NP	NP	NP	NP	NP	NP
03-502	28.04	24.40	3.64	0	5.80	0.151	2.2	0.00	10.99	0.01	-7
03-898	14.83	12.46	2.37	0	NP	NP	NP	NP	NP	NP	NP
AMW-704	8.21	6.51	1.70	0	5.53	0.136	0.0	0.00	8.54	0.01	87
CTO-124-MW15	20.96	17.60	3.36	0	NP	NP	NP	NP	NP	NP	NP
HMW-303-3	31.64	27.82	3.82	0	NP	NP	NP	NP	NP	NP	NP
HMW-303-4	30.20	26.17	4.03	0	NP	NP	NP	NP	NP	NP	NP
HMW-303-11	30.35	26.60	3.75	0	NP	NP	NP	NP	NP	NP	NP
MW-303-7	26.78	21.80	4.98	0	5.80	0.301	1.5	0.00	8.60	0.01	-54

C-1

**Table C-1.** 2013 Field Measurements for SWMU 62, New Housing Fuel Leak, Eagle Bay Housing (continued)

Physical Measurements					Groundwater Parameters						
Well Location	Casing Elevation (ft MLLW)	Depth to Water (ft BTOC)	Groundwater Surface Elevation (ft MLLW)	Measured Product Thickness (ft)	pH (SU)	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Salinity (%)	ORP (mV)
MW-303-12	25.80	21.54	4.26	0	NP	NP	NP	NP	NP	NP	NP
RW-303-4	27.89	22.28	5.64	0.03	NP	NP	NP	NP	NP	NP	NP
RW-303-13	8.98	6.44	2.54	T	5.64	0.113	0.0	2.68	9.30	0.01	108
RW-303-14	10.53	7.73	2.80	0	NP	NP	NP	NP	NP	NP	NP
RW-303-15	31.26	27.55	3.71	0	NP	NP	NP	NP	NP	NP	NP
RW-303-16	11.02	7.79	3.23	0	5.85	0.222	0.0	0.00	8.57	0.01	-39

*Notes:*

Casing elevation is that reported in the Naval Installation Restoration Information Solution (NIRIS) database.

The water quality parameters measured prior to sample collection are reported.

BTOC – below top of casing

ft – feet

mS/cm – milliSiemens per centimeter

mV – millivolt

NTU – nephelometric turbidity unit

SU – standard unit

T – trace product

°C – degrees Celsius

mg/L – milligrams per liter

MLLW – mean lower low water

NP - not planned

ORP – oxidation-reduction potential

SWMU – solid waste management unit

C-2

**Table C-2.** 2013 Field Measurements for Area 303

Well Location	Physical Measurements				Groundwater Parameters						
	Casing Elevation (ft MLLW)	Depth to Water (ft BTOC)	Groundwater Surface Elevation (ft MLLW)	Measured Product Thickness (ft)	pH (SU)	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Salinity (%)	ORP (mV)
03-107	31.30	27.61	3.63	0	6.22	0.209	5	0.66	11.71	0.0	-5
MRP-MW2	26.99	21.69	5.30	0	6.24	0.275	2	0.00	9.40	0.0	-24
04-211	28.45	24.08	6.19	0	6.07	0.312	0.2	5.02	5.78	0.0	209
MW-303-28	32.83	28.54	4.36	0.07	NC	NC	NC	NC	NC	NC	NC
MW-303-32	29.16	24.54	4.62	0	5.95	0.269	0.0	0.00	7.01	0.01	-88
MW-303-33	28.71	22.92	5.79	0	5.99	0.263	52.2	5.02	9.57	0.0	-42
MW-303-42	32.13	28.90	3.24	0.01	6.20	0.272	11	1.01	8.32	0.0	59
MW-303-43	32.50	29.01	3.49	0	5.47	0.335	1.1	0.00	8.31	0.0	80
MW-303-44	32.91	29.54	3.37	0	5.83	0.387	5.4	0.00	8.02	0.0	11
03-012	9.27	7.41	1.86	0	5.46	0.128	0	3.84	11.19	0.0	288
MW-303-37	16.23	13.07	3.16	0	5.53	0.105	0.0	5.74	10.17	0.0	164
MW-303-30	31.20	27.62	3.59	0.01	6.14	0.495	49.9	0.00	8.05	0.0	-89
MW-303-31	31.82	27.27	4.55	0	5.63	0.135	0.0	0.00	7.30	0.01	-33
MW-303-38	27.68	25.40	2.28	0	5.53	0.096	0.0	1.28	8.18	0.0	72
MW-303-39	23.43	21.41	2.02	0	5.99	0.205	0.0	6.40	7.44	0.0	105
MW-303-40	17.68	6.96	10.72	T	5.95	0.348	9.9	0.00	9.77	0.0	48
MW-303-41	30.73	Dry	-	0	NC	NC	NC	NC	NC	NC	NC

*Notes:*

Casing elevation is that reported in the Naval Installation Restoration Information Solution (NIRIS) database.

The water quality parameters measured prior to sample collection are reported.

BTOC – below top of casing

ft – feet

mS/cm – milliSiemens per centimeter

mV – millivolt

NP - not planned

ORP – oxidation-reduction potential

T – trace product

°C – degrees Celsius

mg/L – milligrams per liter

MLLW – mean lower low water

NC – not collected

NTU – nephelometric turbidity unit

SU – standard unit

C-3

**APPENDIX D**  
**RESPONSE TO REGULATOR COMMENTS**

