

**ExxonMobil Pipeline Company**

**SCAT Area Transition Report for  
B37**

Silvertip Pipeline Incident  
Laurel, Montana

October 20, 2011



## **SCAT Area Transition Report for B37**

Silvertip Pipeline Incident  
Laurel, Montana

Prepared for:  
ExxonMobil Pipeline Company

Prepared by:  
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Our Ref.:  
B0085883.1103

Date:  
October 20, 2011

*The observations described in this Report were made exclusively under the conditions at the time and subject to the limitations stated therein. It is understood by Client that ARCADIS has relied on the accuracy of documents, oral information, and other material and information provided by sources documented in this report, including but not limited to information provided by Client and Client's other contractors. ARCADIS has not independently verified any such information. The conclusions presented in the Report are based solely upon the observations and representations made by others.*

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## **1. Executive Summary of Oil Removal Activities**

This Shoreline Cleanup Assessment Technique (SCAT) Area Transition Report provides a summary of the SCAT surveys conducted to determine the extent of oiling along the riverbanks and floodplain within SCAT Area B37, as well as the oil remediation activities completed in this area based on the SCAT Team recommendations. This report also summarizes the environmental samples collected in SCAT Area B37. This report is intended to be read and used in conjunction with the Summary of Assessment and Oil Removal Activities report.

### **1.1 Land Ownership and Access Issues**

Figure 1 provides an aerial map of SCAT Area B37, along with the (a) SCAT Area boundary, (b) parcel boundaries and respective property owners, and (c) access constraints identified during the oil cleanup process. The acreage surveyed in Area B37 is 4.3. There were no access issues for this segment; however, a large portion of the right bank is a cliff and could not be surveyed on foot.

### **1.2 Cultural, Historic, and Natural Resource Constraints**

No historic properties or cultural resources have been identified within this segment that would affect oil removal activities.

Figure 2 summarizes the natural resources identified in this segment. International Bird Rescue and Resource Advisors from U.S. Fish and Wildlife Service conducted regular inspections of Area B37. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. No active migratory bird nests were identified in Area B37.

### **1.3 Summary of Environmental Sampling**

Table 1 (below) summarizes samples collected within Area B37. The analytical results for the samples collected can be accessed through a publicly accessible database on the United States Environmental Protection Agency's (USEPA's) website. The approximate locations of samples collected within Area B37 are provided on Figure 3.

**Table 1 Environmental Sampling Summary**

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
CTEH	BIMT0725SW601	25-Jul-11	Water_Surface	B37	45.755051	-108.484084

Appendix A contains a summary of sample results with detections for this sample set. Detections with a result above the screening level are highlighted; for this set, there was one exceedance for arsenic.

#### **1.4 Summary of Initial SCAT Surveys**

The SCAT teams used systematic evaluation criteria and treatment method tables approved by the National Oceanic and Atmospheric Administration to provide a standard approach for data collection and conducting field surveys. The forms and sketches from the initial SCAT surveys performed along the river bank (water edge) and floodplain within Area B37 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area B37.

#### **1.5 Applicable Compiled Treatment Recommendations**

The SCAT team developed compiled treatment recommendations (CTRs) providing approved treatment methods (ATMs) for each oiling zone identified during the initial SCAT surveys ([CTR No. 28](#) and [CTR No. 29](#)).

#### **1.6 Oil Removal Activities**

Oil removal activities were conducted within Area B37 in accordance with the ATMs identified in the CTRs. [Appendix I](#) of the Summary of Assessment and Oil Removal Activities report presents this data including: date range/days worked, average number of people working per day, equipment used, and various types of bags removed: oily debris, personal protective equipment, plastic, trash, super sacks, wood chips, and contaminated wood.

### **1.7 Pre-Inspection Survey Transmittal**

A Pre-Inspection Survey Transmittal (PIST) was not conducted for this segment.

### **1.8 Post-Inspection Survey Transmittal**

A Post-Inspection Survey Transmittal (POST) was not conducted for this segment.

### **1.9 Summary of Final SCAT Surveys**

The SCAT team performed final surveys of the right bank within SCAT Area B37 to confirm the agreed-upon cleanup endpoints identified in the applicable CTRs had been achieved. Figure 5 shows the oiling conditions within Area B37 following the final SCAT survey. The final SCAT survey documentation is presented in Appendix E.

### **1.10 SCAT Area Conclusions**

Based on the final SCAT survey performed on the right bank within Area B37, no further treatment is recommended for this area. Based on the initial SCAT survey, no oiling was observed on the left bank of Area B37. A SCAT Segment Sign-Off Sheet is included as Appendix F.



**SCAT Area Transition  
Report for B37**

Silvertip Pipeline Incident  
Laurel, Montana

**2. Transition Sign-Off Form**

**SCAT Area Transition Report for B37**

**Prepared for:**

**Unified Command**

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Date

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Unified Command – RP



**SCAT Area Transition  
Report for B37**

Silvertip Pipeline Incident  
Laurel, Montana

2. Transition Sign-Off Form

**SCAT Area Transition Report for B37**

Prepared for:

Unified Command

10/11/2011

Date

*AB 2 S. MEANS*

Unified Command – RP



**SCAT Area Transition  
Report for B37**

Silvertip Pipeline Incident  
Laurel, Montana

**SCAT Area Transition Report for B37**

**Prepared for:**

**Unified Command**

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Date

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Unified Command – MDEQ

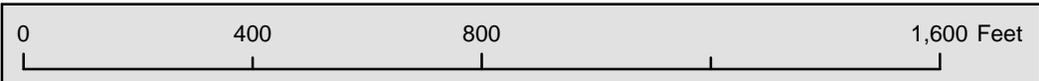
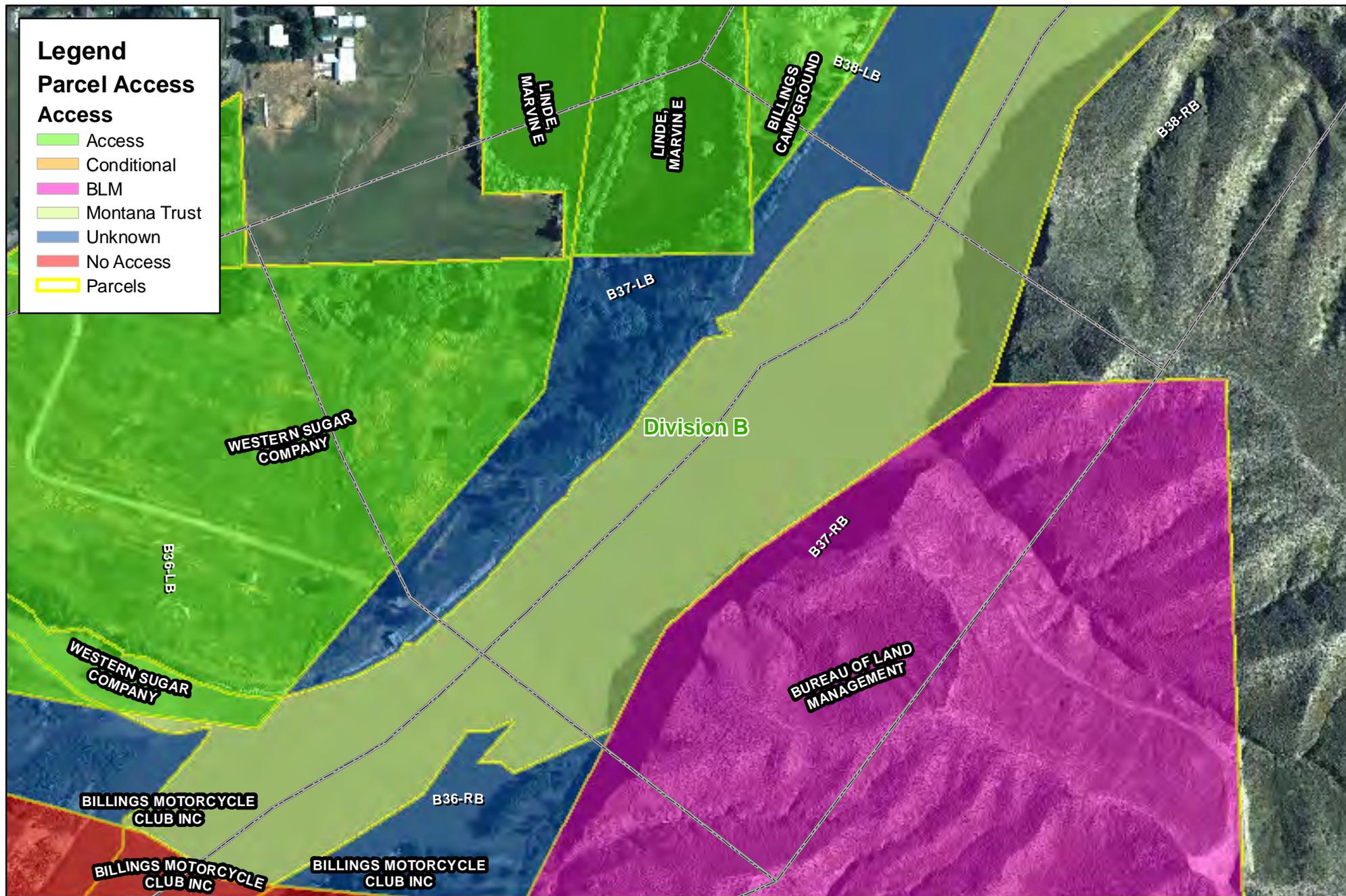
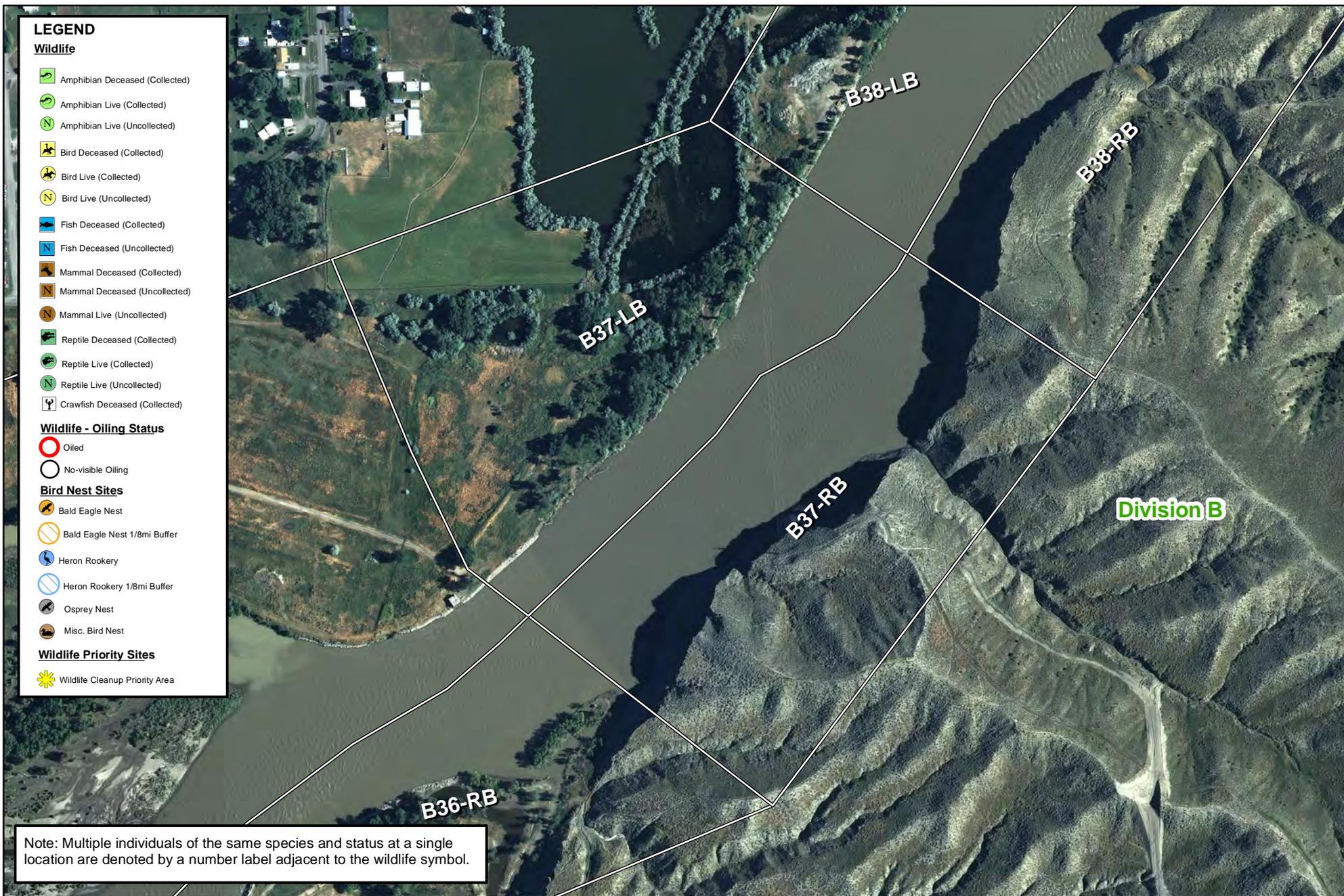


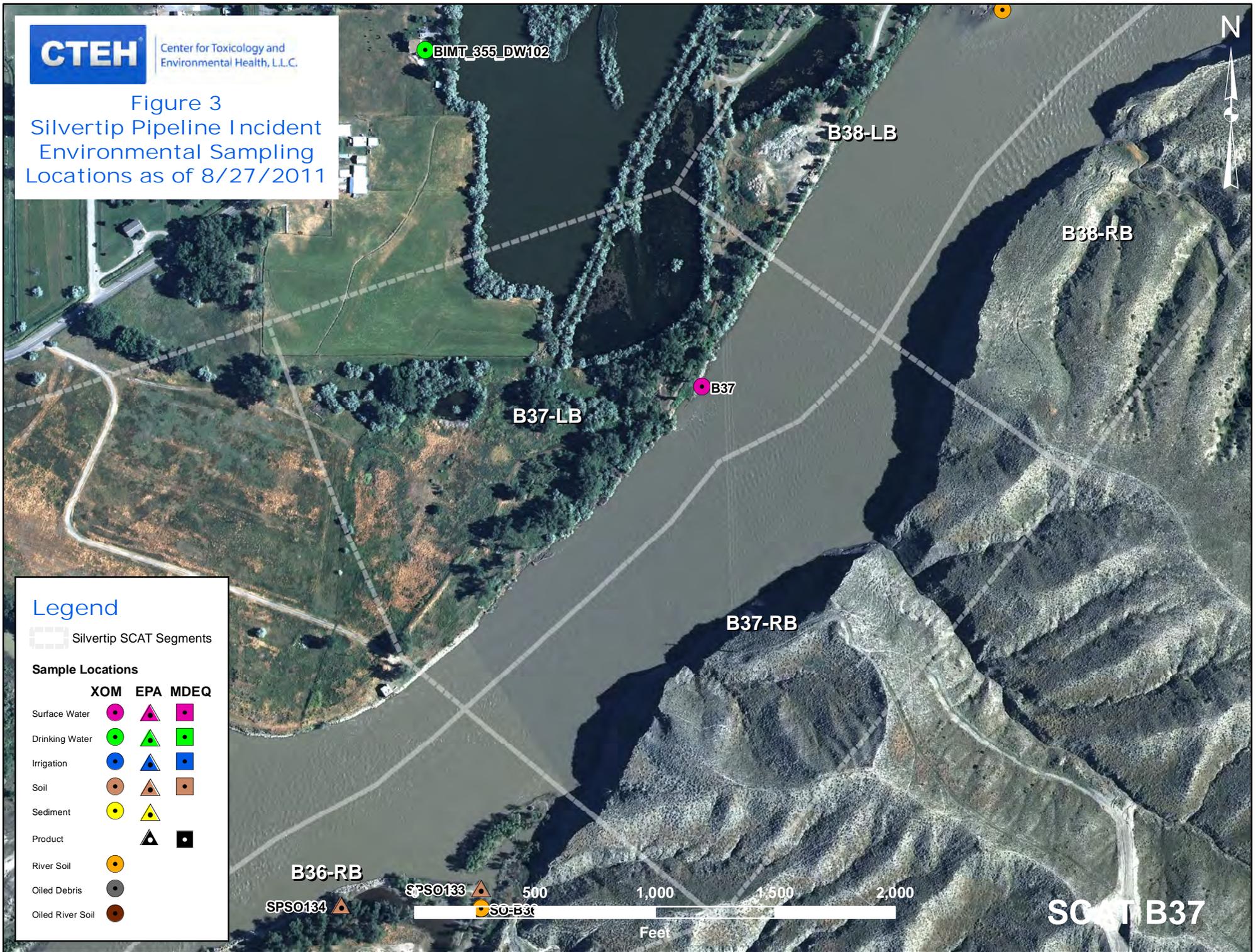
Figure 1





Center for Toxicology and Environmental Health, L.L.C.

Figure 3  
Silvertip Pipeline Incident  
Environmental Sampling  
Locations as of 8/27/2011





- 9999 Oiling Zone ID
- Heavy Oiling
- Moderate Oiling

- Light Oiling
- Very Light Oiling
- No Oil Observed

**Figure 4 - Maximum SCAT Observations  
For SCAT Area:**





- 9999 Oiling Zone ID
- Heavy Oiling
- Moderate Oiling

- Light Oiling
- Very Light Oiling
- No Oil Observed



**Figure 5 - Final SCAT Observations**  
**For SCAT Area: B37**





## Appendix A

### Sample Detections Summary



## Detections in Samples Collected in SCAT Area B37

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Arsenic	Y	15.5	10		ug/L	YES
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Barium	Y	77.2	1000		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Calcium	Y	34400	NA		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Chromium	Y	2.6	100		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Lead	Y	1.8	15		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Magnesium	Y	11200	NA		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 1631E	Mercury	Y	0.00000635	0.00005		mg/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Nickel	Y	3.8	100		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Potassium	Y	3540	NA		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Sodium	Y	19400	NA		ug/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	SM 2540D	Total Suspended Solids	Y	91.6	NA		mg/L	no
BIMT0725SW601	07/25/2011	Field	Water_Surface	EPA 6020	Vanadium	Y	4.7	NA		ug/L	no



## Appendix B

Initial SCAT Survey Forms and  
Sketches



108°29'25"W 108°29'20"W 108°29'15"W 108°29'10"W 108°29'5"W 108°29'0"W 108°28'55"W 108°28'50"W 108°28'45"W 108°28'40"W



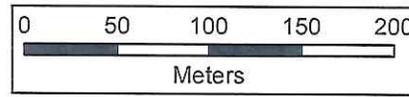
45°45'20"N  
45°45'15"N  
45°45'10"N  
45°45'5"N

108°29'25"W 108°29'20"W 108°29'15"W 108°29'10"W 108°29'5"W 108°29'0"W 108°28'55"W 108°28'50"W 108°28'45"W 108°28'40"W

**B37 -**  
(L/R/I)??

DATE:  
TEAM:

COMMENTS:



DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 19-Jul-2011	Time (24h): std / daylight 0935 hrs to 0943 hrs	<b>Water Level</b> low - mean - <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: B37 <u>Left Bank</u> / Right Bank / Island				
Operations Division: B				
Survey by: Foot / ATV / <u>Boat</u> / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / <u>Windy</u> / Calm		Air Temp +/- <u>31</u> deg C

<b>2 SURVEY TEAM # 1</b>	name	organization	contact phone number
Pete Lee	<u>PBL</u>	Polaris	
Larry Alheim		MTDEQ	
Andy Johnson	<u>Andrew Johnson</u>	USCG	<u>[Signature]</u>

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 486 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ Manmade: Solid Permeable S (type) Rip Rap \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed S \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: P Wooded Upland: S

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: \_\_\_\_\_ Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: mixed

Sloped: (>5°)(15°)(30°) straight P \_\_\_\_\_ braided S oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 160m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y/N point bar present Y/N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: Y/N oiled Y/N amount \_\_\_\_\_ bags or \_\_\_\_\_ trucks access restrictions

Oiled trees/shrubs Y/N River Current strong Y/N Other Features:

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)		
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO	
A				X	486	1	<u>100</u>													X	Grass, trees	

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)	
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Overbank Survey Required Y/N Overbank Survey Completed Y/N Shoreline Survey Completed Y/N

Oil band heights: NO

**Treatment Recommendations:**  
Zone A: No oil observed; no treatment required.

\*Refer to current approved treatment methods #1 (Cutting of Vegetation), #2 (Dead Vegetation and Small Debris), #3 (Large Woody Debris), #6 (Sorbent Use), # (Unconsolidated Sediments)

Sketch Yes / No Photos Yes / No Frames None

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RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy) 19-Jul-2011	Time (24h): std / daylight <u>3</u> <u>4</u> 0925 hrs to 0935 hrs	Water Level low - mean - <u>bankfull</u> - overbank <u>falling</u> - steady - rising
Segment/Reach ID: <u>BW</u> <u>Left Bank / Right Bank / Island</u>				
Operations Division: B				
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		<u>Sun / Clouds / Fog / Rain / Snow / Windy /</u> <u>Calm</u>	Air Temp +/- <u>31</u> deg C	

<b>2 SURVEY TEAM # 1</b>	name	organization	contact phone number
Pete Lee		Polaris	
Larry Alheim		MTDEQ	
Andy Johnson		USCG	

**3 SEGMENT** Total Segment/Reach Length \_\_\_\_\_ m Segment/Reach Length Surveyed 406 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_\_\_ Shelf \_\_\_\_\_ Manmade: Solid \_\_\_\_\_ Permeable X (type) Rip Rap \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed S \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank P Wooded Upland: S

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: \_\_\_\_\_ Est Height \_\_\_\_\_ m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: mixed

Sloped: \_\_\_\_\_ (>5°)(15°)(30°) straight P braided S oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 100 / 100 est. water depth: <1m 1-3m 3-10 m >10m \_\_\_\_\_ m

shoal(s) present Y/N point bar present Y/N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: Y/N oiled Y/N amount 4 bags or \_\_\_\_\_ trucks access restrictions

Oiled trees/shrubs Y(N) River Current strong Y/N Other Features:

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)			
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO	
A				X	70	1															X	Grass, trees
B				X	30	1	<1			X	X			X								Grass, trees
C				X	390	1															X	Grass, trees

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)	
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Overbank Survey Required Y/N Overbank Survey Completed Y/N Shoreline Survey Completed Y/N

Oil band heights: ~~Zone B - 80cm~~ NO

**Treatment Recommendations:**  
 Zone A: No oil observed; no treatment required.  
 Zone B: Cut & remove oil coated vegetation smaller than 1" diameter. Wipe larger oil coated vegetation.  
 Zone C: No oil observed; no treatment required.

\*Refer to current approved treatment methods #1 (Cutting of Vegetation), #2 (Dead Vegetation and Small Debris), #3 (Large Woody Debris), #6 (Sorbent Use), # (Unconsolidated Sediments)

Sketch Yes / No Photos Yes (No) Frames 1077-1079 (Lee)

A ~~304~~ 204 + 282



B37

Image © 2011 GeoEye

©2010 Google

Imagery Date: 7/31/2009

45°45'15.86" N 108°29'02.02" W elev 3121 ft

Eye alt 5601 ft

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 1

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy)	Time (24h): std / daylight	<b>Water Level</b>	
Segment/Reach ID: <u>B37</u> (Left Bank / Right Bank / Island)		<u>22/07/11</u>	<u>0851</u> hrs to <u>1255</u> hrs	low - mean - bankfull - overbank	
Operations Division: <u>B</u>		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		falling - steady - rising	
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>				Air Temp +/ - <u>24</u> deg C	

<b>2 SURVEY TEAM #</b> <u>6</u>	Name	Organization	Signature
	<u>Joe Boyle</u>	<u>Cardno ENTRIX</u>	<u>[Signature]</u>
	<u>JAMES ROBERTS</u>	<u>USCG PAC STRIKE TEAM</u>	<u>727-244-8292</u>
	<u>Danech Thaler</u>	<u>MT DEQ</u>	<u>406-444-1504</u>
	<u>Steve Kennedy</u>	<u>Cardno Entrix</u>	<u>281-723-1259</u>

**3 SEGMENT** Total Segment/Reach Length 470 m Segment/Reach Length Surveyed 470 m

Start GPS: LATITUDE 45.75086 deg. min. LONGITUDE 108.48737 deg. min. Datum: WGS 84

End GPS: LATITUDE 45.75622 deg. min. LONGITUDE 108.48357 deg. min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp \_\_\_ Shelf \_\_\_ Manmade: Solid \_\_\_ Permeable \_\_\_ (type) \_\_\_ Wetland: Swamp \_\_\_ Bog/Fen \_\_\_ Marsh \_\_\_

Sediment Bank: Clay/Mud S Sand \_\_\_ Mixed \_\_\_ Pebble/Cobble \_\_\_ Boulder \_\_\_ Peat/Organic \_\_\_ Vegetated Bank: P Wooded Upland: S

Sediment Flat: Clay/Mud \_\_\_ Sand \_\_\_ Mixed/Coarse \_\_\_ Other: \_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: \_\_\_ Est Height \_\_\_ m canyon \_\_\_ manmade \_\_\_ meander S confined or leveed \_\_\_ Substrate Type: mud

Sloped: (>5°)(15°)(30°) 10° straight \_\_\_ braided P oxbow \_\_\_ flood plain valley \_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 160m 200 est. water depth: <1m 1-3m 3-10m >10m \_\_\_ m

shoal(s) present Y point bar present Y bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low (mean) / bank full / overbank flow est. change over next 7 days: falling - same - rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y Access: Direct from backshore Y Alongshore from next segment Y

Debris: Y oiled Y amount \_\_\_ bags or \_\_\_ trucks access restrictions

Oiled trees/shrubs Y River Current strong Y Other Features: \_\_\_

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)		
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO
A				<u>P</u>	<u>470</u>	<u>25</u>	<u>0</u>														<u>P</u>

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench - e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER					WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF				

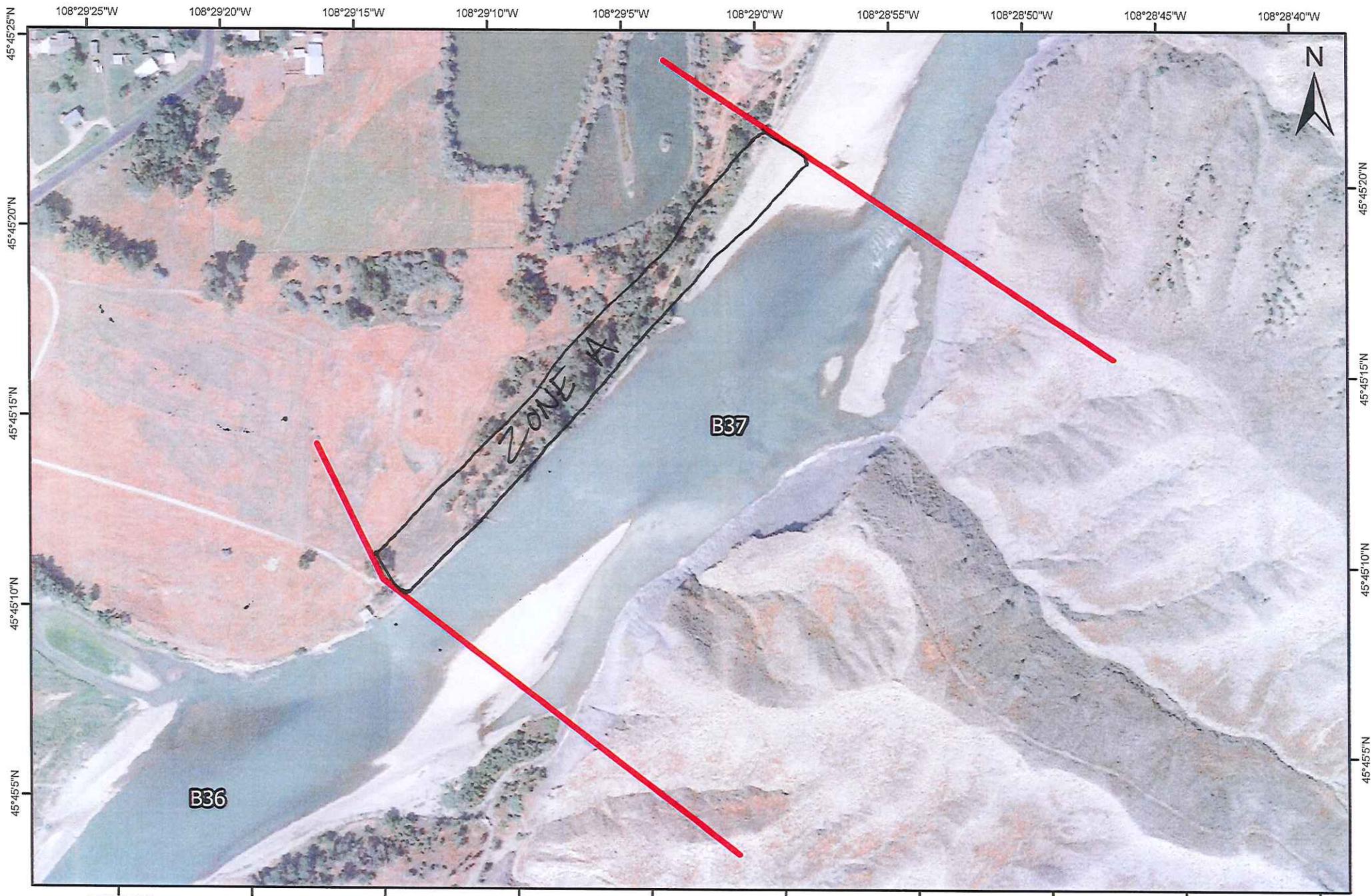
**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Overbank Survey Required Y / N Overbank Survey Completed Y / N Shoreline Survey Completed Y / N

B37 - only 2 zone - zone A. No oil observed

\*No further treatment\*

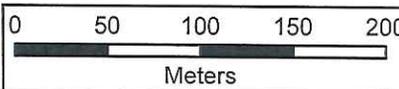
Sketch Yes / No Photos Yes / No Frames \_\_\_\_\_ Photographer \_\_\_\_\_



**B37 -**  
(L/R/I)??

DATE: 07/22/11  
TEAM: 6

COMMENTS: NOO





## Appendix C

Pre-Inspection Survey Transmittal

**A Pre-Inspection Survey was  
not conducted for this area**



## Appendix D

Post-Inspection Survey Transmittal

**A Post-Inspection Survey  
was not conducted for this area**



## Appendix E

Final SCAT Survey Forms and  
Sketches

DB/6

<b>1 GENERAL INFORMATION</b>		Date (dd/mm/yy)	Time (24h): std / daylight	<b>Water Level</b>
Segment/Reach ID: <u>B37</u> Left Bank / Right Bank / Island		<u>10/09/11</u>	<u>0950</u> hrs to <u>1005</u> hrs	low - mean - bankfull - overbank
Operations Division: <u>B</u>		<u>(Sun)</u> Clouds / Fog / Rain / Snow / Windy / Calm		falling / steady - rising
Survey by: <u>(Foot)</u> / ATV / Boat / Helicopter / Overlook /				Air Temp + / - <u>25</u> deg C
<b>2 SURVEY TEAM # 5</b>	Name	Organization	Signature	
	<u>Damien Korte</u>	<u>Cardno Entrix</u>	<u>[Signature]</u>	
	<u>Matthew Keat</u>	<u>DEC</u>	<u>[Signature]</u>	

**3 SEGMENT** Total Segment/Reach Length 480 m Segment/Reach Length Surveyed 40 m

Start GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. Datum: \_\_\_\_\_

End GPS: LATITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min. LONGITUDE \_\_\_\_\_ deg. \_\_\_\_\_ min.

**4A RIVER BANK TYPE** SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED

Bedrock: Cliff/Ramp R Shelf \_\_\_\_\_ Manmade: Solid \_\_\_\_\_ Permeable \_\_\_\_\_ (type) \_\_\_\_\_ Wetland: Swamp \_\_\_\_\_ Bog/Fen \_\_\_\_\_ Marsh \_\_\_\_\_

Sediment Bank: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed \_\_\_\_\_ Pebble/Cobble \_\_\_\_\_ Boulder \_\_\_\_\_ Peat/Organic \_\_\_\_\_ Vegetated Bank: \_\_\_\_\_ Wooded Upland: \_\_\_\_\_

Sediment Flat: Clay/Mud \_\_\_\_\_ Sand \_\_\_\_\_ Mixed/Coarse \_\_\_\_\_ Other: \_\_\_\_\_ If snow and ice use Winter River SOS

**4B RIVER VALLEY CHARACTER** select as appropriate complete for primary

Cliff or Bluff: X Est Height 30 m canyon \_\_\_\_\_ manmade \_\_\_\_\_ meander \_\_\_\_\_ confined or leveed \_\_\_\_\_ Substrate Type: Sandstone

Sloped 45 (>5°)(15°)(30°) straight \_\_\_\_\_ braided X oxbow \_\_\_\_\_ flood plain valley \_\_\_\_\_ Forested / Vegetated / Bare

**4C RIVER CHANNEL CHARACTER** circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m est. water depth: <1m 1-3m 3-10m >10m \_\_\_\_\_ m

shoal(s) present Y/N point bar present Y/N bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris

seasonal water level: low / mean / bank full / overbank flow est. change over next 7 days: falling — same — rising

**5 OPERATIONAL FEATURES** Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: Y/N oiled Y/N amount \_\_\_\_\_ bags or \_\_\_\_\_ trucks access restrictions

Oiled trees/shrubs Y/N River Current strong Y/N Other Features:

**6 SURFACE OILING CONDITIONS** begin with "A" in the lowest tidal zone - circle the zone/s that correspond to primary shoreline type

2294

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)	
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO
A				<u>X</u>	<u>40</u>	<u>10</u>	<u>0</u>														<u>✓</u> Sandstone

**7 SUBSURFACE OILING CONDITIONS** use letter for ZONE location plus Number of pit or trench — e.g., "A1"

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE	SUBSURFACE OIL CHARACTER					WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF				

**8 COMMENTS** ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Overbank Survey Required (Y) / N Overbank Survey Completed (Y) / N Shoreline Survey Completed (Y) / N

Zone A - NOO

Sketch (Y) / No Photos (Y) / No Frames/Photographer: \_\_\_\_\_

9/10/2011 12:28 pm

SCAT  
09/10/11  
Team 5  
B37-RB

B37-LB

B37

B37-RB

A/B

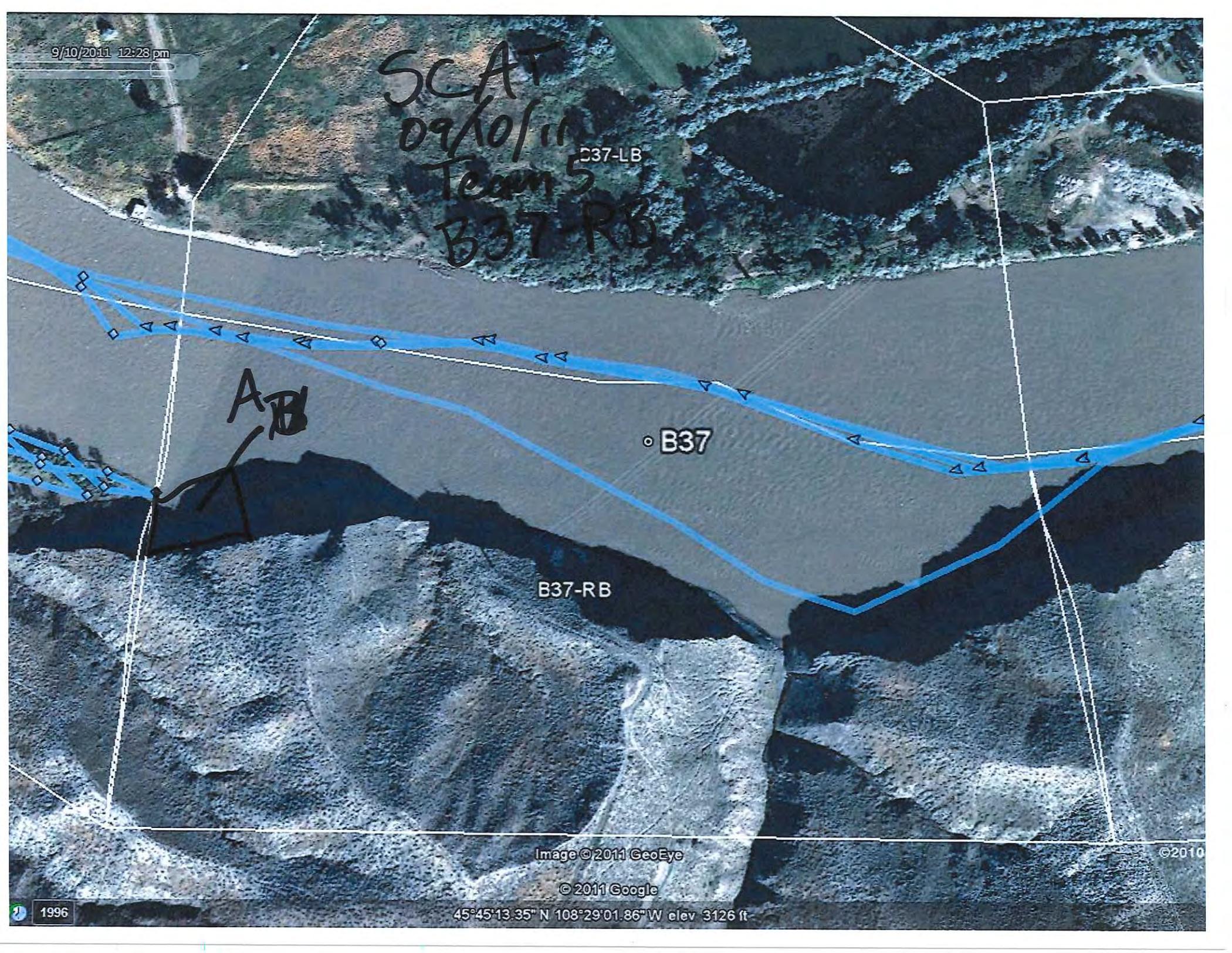
Image © 2011 GeoEye

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45°45'13.35" N 108°29'01.86" W elev 3126 ft

1996





## Appendix F

Completed SCAT Area Sign-Off  
Forms

# SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

## SILVERTIP PIPELINE RELEASE

Segment B37-RB Date of Survey 09/10/11

Dates of Initial SCAT Assessments 19 JUL 11 (E)  
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 29

Segment has been treated by Operations or an Operations Hotshot Team YES  NO

Segment Assessment Complete<sup>1</sup>  According to [Footnote 1] AA 9/11/11  
Partial Segment Assessment

*The undersigned are in agreement that the above segment or partial segment meets the Approved Treatment Methods Target Endpoints.*

This Segment is Conditionally Approved   
(See attached Post Inspection Survey Transmittal (POST))

*The undersigned are in agreement that the above segment meets the Approved Treatment Methods Target Endpoints conditional upon completion of the treatment identified in the attached Post Inspection Survey Transmittal (POST).*

No federal rep.

Sign Name \_\_\_\_\_ Print Name/ Affiliation \_\_\_\_\_ Date \_\_\_\_\_  
**Federal Representative (EPA/USCG)**

[Signature] MATTHEW KENT / DEQ 9/10/11  
Sign Name \_\_\_\_\_ Print Name/ Affiliation \_\_\_\_\_ Date \_\_\_\_\_  
**State Representative (DEQ/FWP)**

[Signature] Damien Korte / Cardno Entrez 9/10/11  
Sign Name \_\_\_\_\_ Print Name/ Affiliation \_\_\_\_\_ Date \_\_\_\_\_  
**RP Representative (SCAT RP Representative)**

Once all applicable SCAT Segments (i.e. LB, RB, and IS) within a particular SCAT Area (i.e. A21) have been successfully signed-off during a formal SCAT Assessment, the SCAT Area will achieve the Response Endpoints and an Area Transition Report will be completed and submitted to EPA and DEQ.

<sup>1</sup> A Segment Sign-Off Assessment is considered complete when all accessible lands that have not already been signed-off by a claims liaison have been surveyed. If any previous SCAT Assessments were conducted, all lands that were originally recommended for treatment must be re-surveyed in the Sign-Off Assessment. If the conducted survey does not meet these conditions it is considered a Partial Assessment. Multiple Partial Assessments that meet the conditions of a Complete Assessment may together constitute a Complete Sign-Off Assessment.