

ExxonMobil Pipeline Company

**SCAT Area Transition Report for
B38**

Silvertip Pipeline Incident
Laurel, Montana

October 20, 2011



SCAT Area Transition Report for B38

Silvertip Pipeline Incident
Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

Prepared by:
ARCADIS G&M of North Carolina, Inc.
11000 Regency Parkway
West Tower, Suite 205
Cary, North Carolina 27518-8518
Tel 919.469.1952
Fax 919.469.5676

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.

1. Executive Summary of Oil Removal Activities	1
1.1 Land Ownership and Access Issues	1
1.2 Cultural, Historic, and Natural Resource Constraints	1
1.3 Summary of Environmental Sampling	1
1.4 Summary of Initial SCAT Surveys	2
1.5 Applicable Compiled Treatment Recommendations	2
1.6 Oil Removal Activities	2
1.7 Pre-Inspection Survey Transmittal	2
1.8 Post-Inspection Survey Transmittal	3
1.9 Summary of Final SCAT Surveys	3
1.10 SCAT Area Conclusions	3
2. Transition Sign-Off Form	4
Tables	
Table 1 Environmental Sampling Summary	2
Figures	
Figure 1 Aerial Map with Parcel Boundaries	
Figure 2 Wildlife Resources	
Figure 3 Sample Location Map	
Figure 4 Maximum SCAT Observations	
Figure 5 Final SCAT Observations	
Appendices	
A Sample Detections Summary	
B Initial SCAT Survey Forms and Sketches	
C Pre-Inspection Survey Transmittal	
D Post-Inspection Survey Transmittal	
E Final SCAT Survey Forms and Sketches	
F Completed SCAT Segment Sign-Off Forms	

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 B38, 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 B38. 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 B38, 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 B38 is 13.2. There were no access issues for this area, however the right bank is a cliff and could not be accessed by foot.

1.2 Cultural, Historic, and Natural Resource Constraints

No historic properties or cultural resources have been identified within this area 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 B38. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. No active migratory bird nests were identified in Area B38.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area B38. 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 B38 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
CTEH	BIMT0824S0507	24-Aug-11	Soil River	SO-B38	45.758043	-108.480659

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 were no exceedances.

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 B38 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area B38.

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 28](#) and [CTR 29](#)).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area B38 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 the area.

1.8 Post-Inspection Survey Transmittal

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

1.9 Summary of Final SCAT Surveys

Figure 5 shows the oiling conditions within Area B38 following completion of oil removal activities. The SCAT team performed final surveys of the left bank within SCAT Area B38 to confirm the agreed-upon cleanup endpoints identified in the applicable CTRs had been achieved. The final SCAT survey documentation is presented in Appendix E.

1.10 SCAT Area Conclusions

Based on the final SCAT survey performed on the left bank within Area B38, no further treatment is recommended for this area. Based on the initial SCAT surveys, no oiling was observed on the right bank of Area B38. A SCAT Segment Sign-Off Form is included as Appendix F.



**SCAT Area Transition
Report for B38**

Silvertip Pipeline Incident
Laurel, Montana

2. Transition Sign-Off Form

SCAT Area Transition Report for B38

Prepared for:

Unified Command

Date

Unified Command – RP



**SCAT Area Transition
Report for B38**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for B38

Prepared for:

Unified Command

10/11/2011

Date

A handwritten signature in black ink, appearing to be "S. Williams", written over a horizontal line.

S. Williams

Unified Command – FOSC



**SCAT Area Transition
Report for B38**

Silvertip Pipeline Incident
Laurel, Montana

SCAT Area Transition Report for B38

Prepared for:

Unified Command

Date

Unified Command – MDEQ

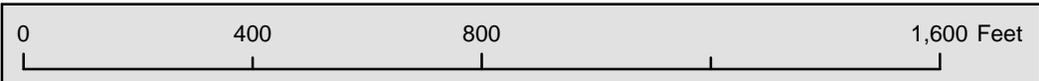


Figure 1

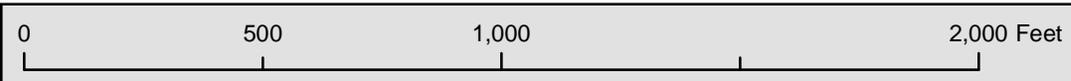
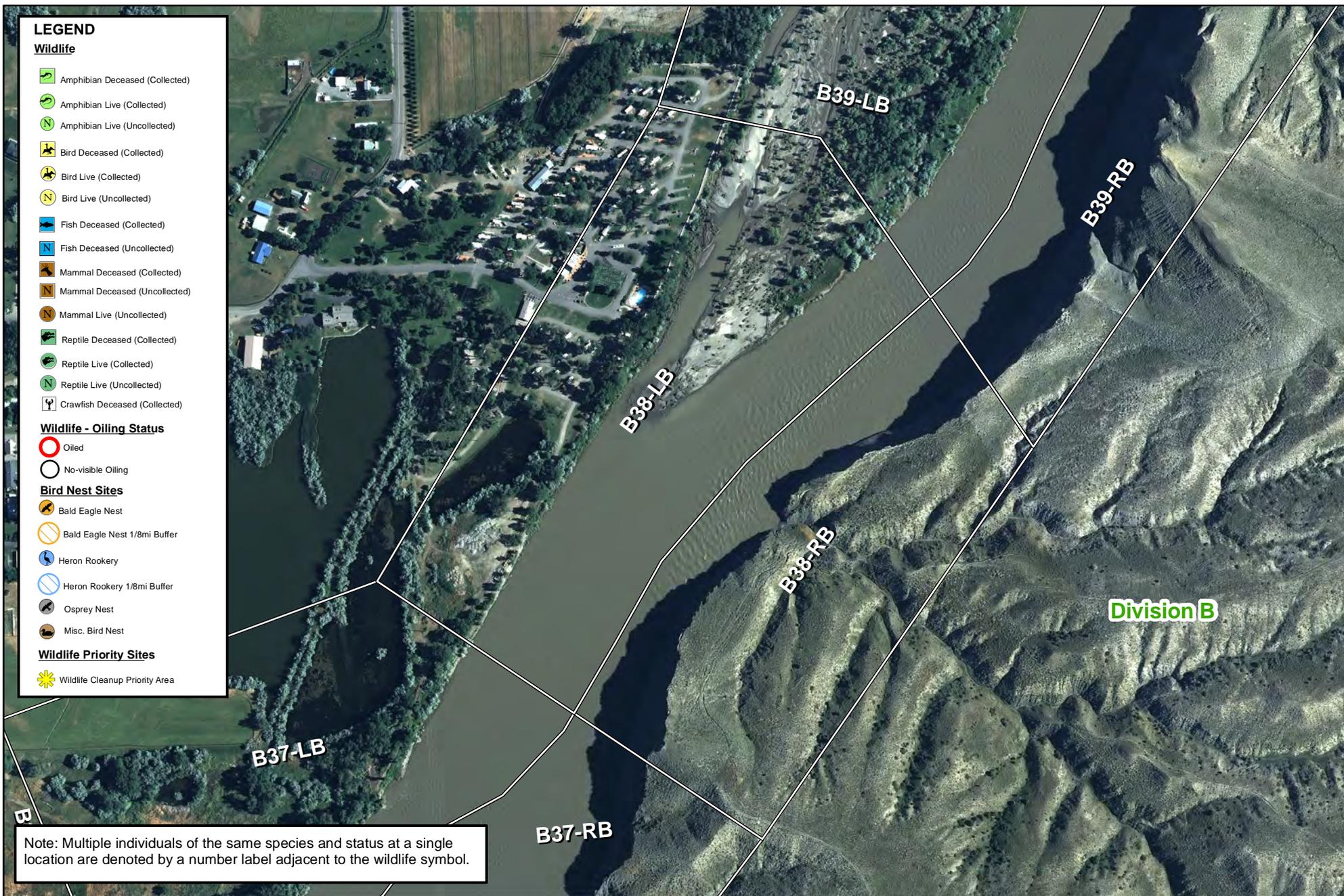
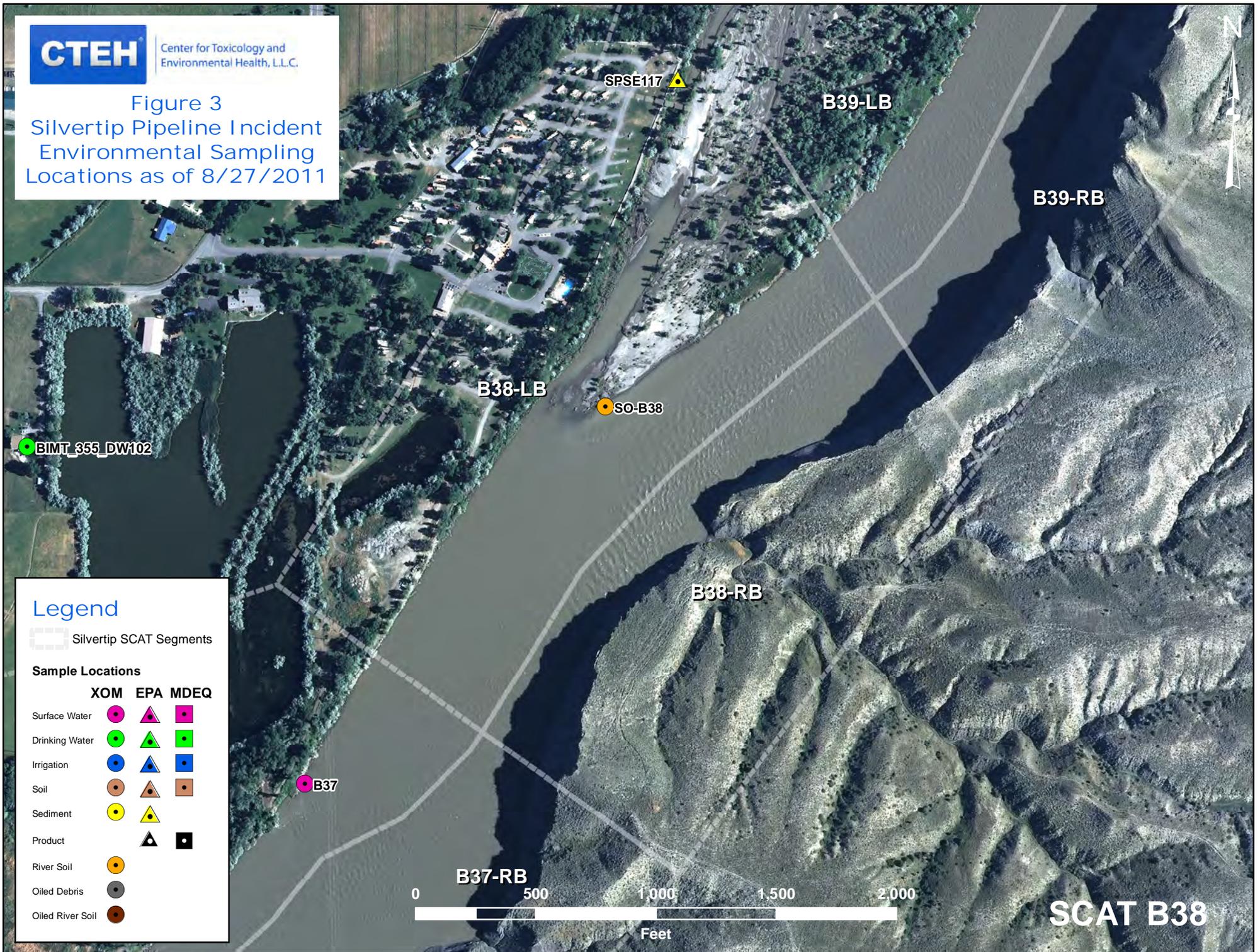


Figure 2
Wildlife Resources



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

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



Legend

Silvertip SCAT Segments

Sample Locations

	XOM	EPA	MDEQ
Surface Water			
Drinking Water			
Irrigation			
Soil			
Sediment			
Product			
River Soil			
Oiled Debris			
Oiled River Soil			



SCAT B38

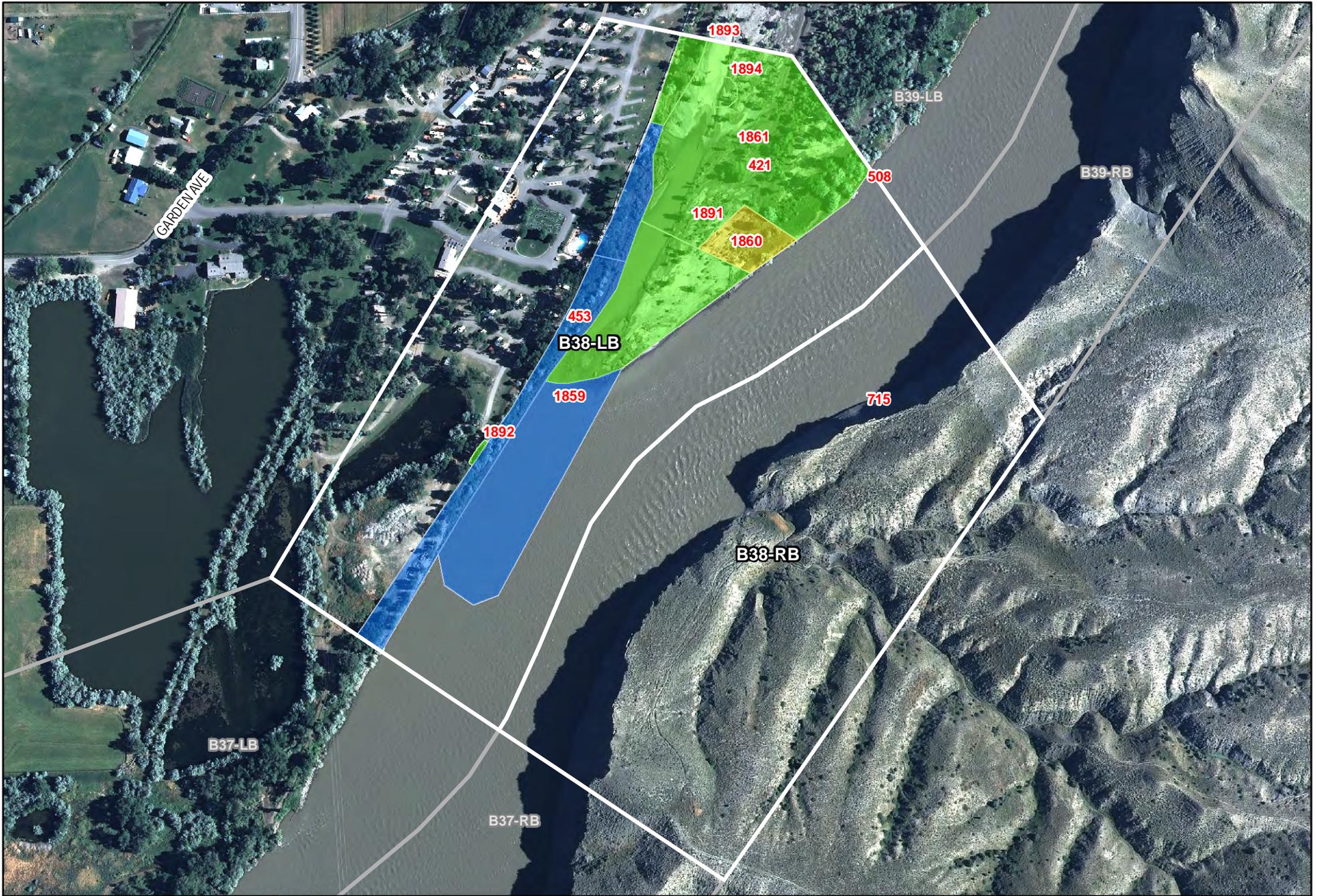
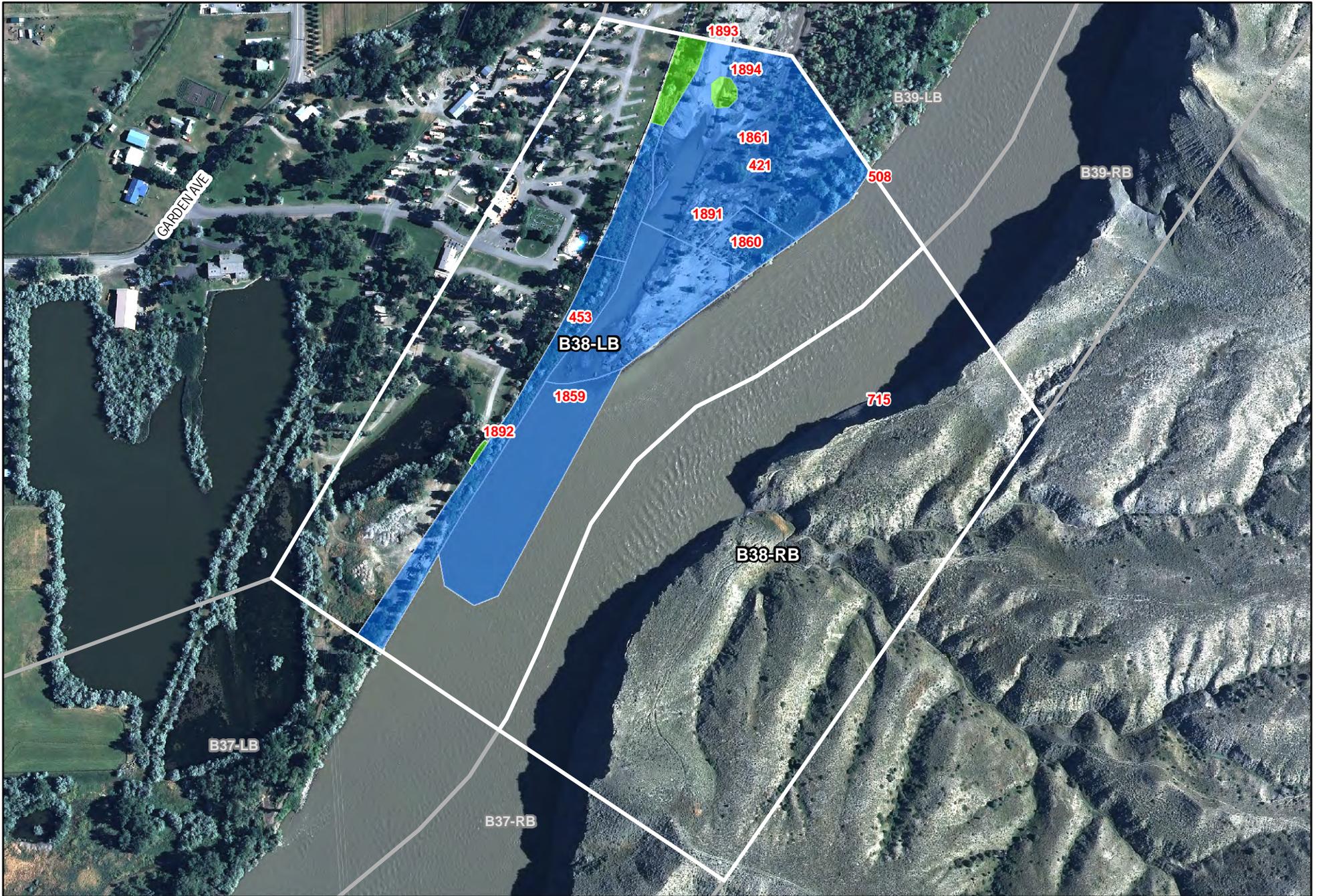


Figure 4 - Maximum SCAT Observations For SCAT Area: B38

9999 Oiling Zone ID
 Heavy Oiling
 Moderate Oiling
 Light Oiling
 Very Light Oiling
 No Oil Observed

0 270 540 Feet

B38 POLARIS APPLIED SCIENCES, INC.





Appendix A

Sample Detections Summary



Detections in Samples Collected in SCAT Area B38

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 6010	Arsenic	Y	13.9	40		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 6010	Barium	Y	95.3	820		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 6010	Cadmium	Y	0.86	3.8		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 6010	Chromium	Y	13.5	280		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 6010	Lead	Y	6.6	400		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 9060	Mean Total Organic Carbon	Y	705	NA		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 6010	Nickel	Y	10.7	150		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 9060	RSD%	Y	5.4	NA		%	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 9060	Total Organic Carbon	Y	743	NA		mg/kg	no
BIMT0824SO507	08/24/2011	Field	Soil_River	EPA 6010	Vanadium	Y	29.6	39		mg/kg	no



Appendix B

Initial SCAT Survey Forms and
Sketches

DB/G/S

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>B38</u>	Left Bank / <u>Right Bank</u> / Island	<u>19 / 07 / 11</u>	<u>9:46</u> / <u>9:47</u> <u>0946</u> hrs to <u>0945</u> hrs	low - mean / <u>bankfull</u> / overbank falling / steady - rising
Operations Division: <u>B</u>		Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		Air Temp + / - <u>35</u> deg C
		<u>(Sun)</u> Clouds / Fog / Rain / Snow / Windy / Calm		

2 SURVEY TEAM # 5	name	organization	contact phone number
	Bob Nailon	Cardno ENTRIX	713 817 2469
	John Beach	EPA	707 364 0491
	Ken Frazer	FWP	406 247 2961

3 SEGMENT Total Segment/Reach Length 502 m Segment/Reach Length Surveyed 502 m

Start GPS: LATITUDE N deg. _____ min. LONGITUDE W deg. _____ min. Datum: WGS 84

End GPS: LATITUDE N deg. _____ min. LONGITUDE W 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 P Shelf _____ Manmade: Solid _____ Permeable _____ (type) _____ Wetland: Swamp _____ Bog/Fen _____ Marsh _____

Sediment Bank: Clay/Mud _____ Sand _____ Mixed P Pebble/Cobble _____ Boulder _____ Peat/Organic _____ Vegetated Bank: P 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: _____ Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: _____

Sloped: _____ (>5°)(15°)(30°) straight X braided _____ oxbow _____ flood plain valley _____ Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 150 m 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 NA bags or NA 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	
<u>715</u> A				<u>X</u>	<u>502</u>																<u>X</u>	talus-scrub

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

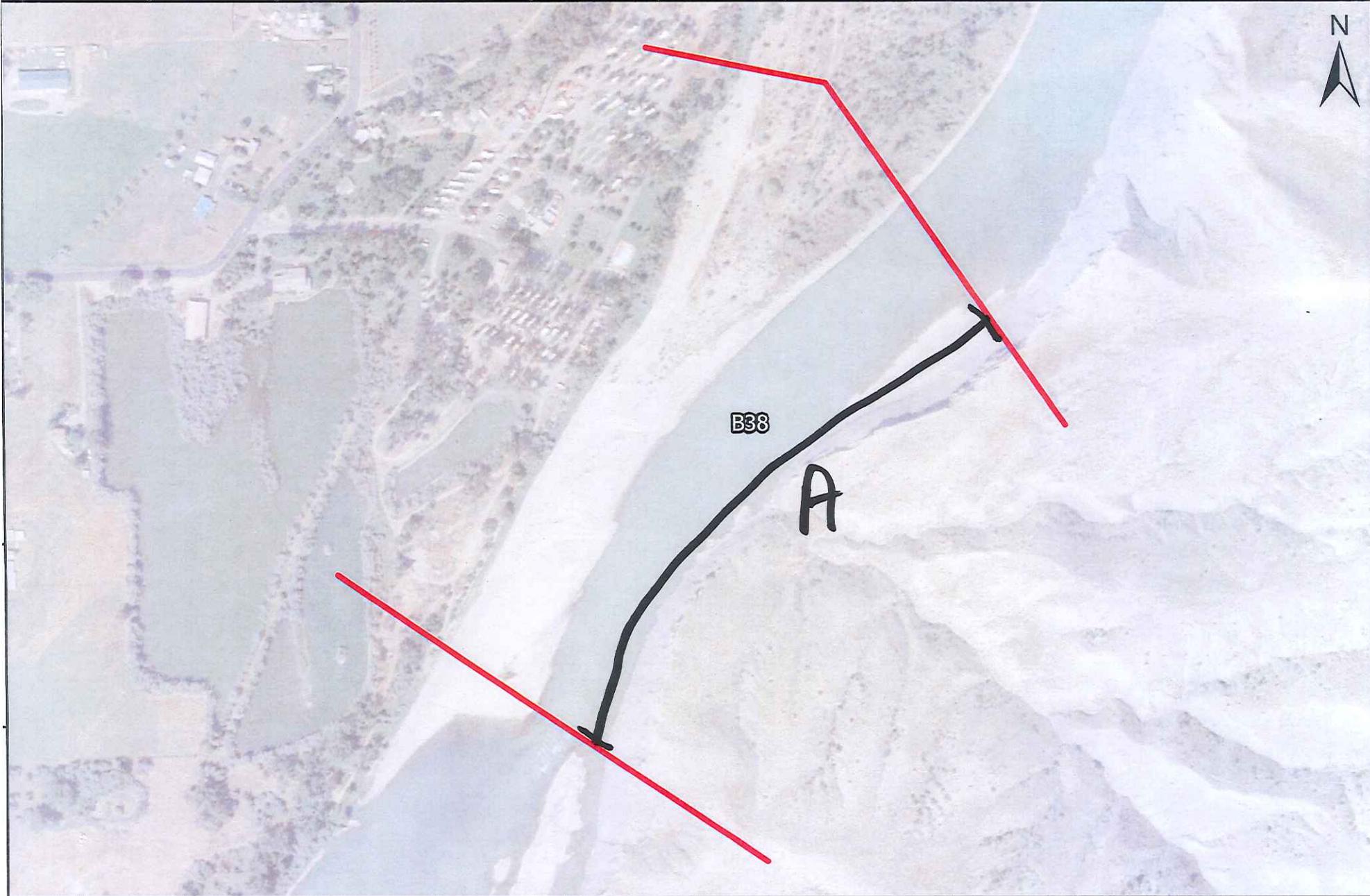
OSR = N OSC SSR

No photographs were taken, only oiled areas were photographed

(for ALL sub-segments record: sub-segment ID, length, length surveyed, and GPS start/end fixes)

Sketch Yes/No Photos Yes/No (Roll # _____) Frames _____ Video Tape Yes/No (tape # _____)

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 108°28'35"W 108°28'30"W 108°28'25"W



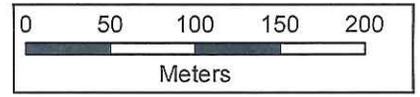
45°45'35"N
45°45'30"N
45°45'25"N
45°45'20"N
45°45'15"N

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 108°28'35"W 108°28'30"W 108°28'25"W

B38 -
(L/R/I)??

DATE:
TEAM:

COMMENTS:



1 GENERAL INFORMATION		Date (dd/mm/yy) 19-Jul-2011	Time (24h): std / daylight 0930 0925 hrs to 0935 hrs	Water Level low - mean - <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: <u>B41</u> Left Bank / Right Bank / Island				
Operations Division: B				
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>31</u> deg C

2 SURVEY TEAM # 1	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 490 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 Banks: 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 105m || S 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 5 bags or _____ trucks access restrictions

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

6 SURFACE OILING CONDITIONS 580 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	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=60cm~~ 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 122 + 293 + 166



Image © 2011 GeoEye

©2010 Google

Imagery Date: 7/31/2009

45°45'26.91" N 108°28'45.08" W elev 3138 ft

Eye alt 5709 ft

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>B38</u> Left Bank / Right Bank / Island		<u>22/07/11</u>	<u>0857</u> hrs to <u>1255</u> hrs	low - mean - bankfull - overbank
Operations Division:				falling - steady - rising
Survey by: <u>Foot/ATV/Boat/Helicopter/Overlook/</u>		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air-Temp + / - <u>24</u> deg C

2 SURVEY TEAM # <u>6</u>	Name	Organization	Signature
	<u>Joe Boyle</u>	<u>Cardno ENTRIX</u>	<u>[Signature]</u>
	<u>JAMES BOUERS</u>	<u>USCG PAC STRIKE TEAM</u>	<u>727-244-8292</u>
	<u>Darnach Turner</u>	<u>MT DER</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 560 m Segment/Reach Length Surveyed 325 m

Start GPS: LATITUDE 45.75614 deg. min. LONGITUDE 108.48357 deg. min. Datum: WGS 84

End GPS: LATITUDE 45.75838 deg. min. LONGITUDE 108.48167 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 P 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: Gravel

Sloped: ___ (>5°)(15°)(30°) 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 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				<u>P</u>	<u>325</u>	<u>25</u>	<u>0</u>														<u>P</u>	<u>med</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	TR					NO					

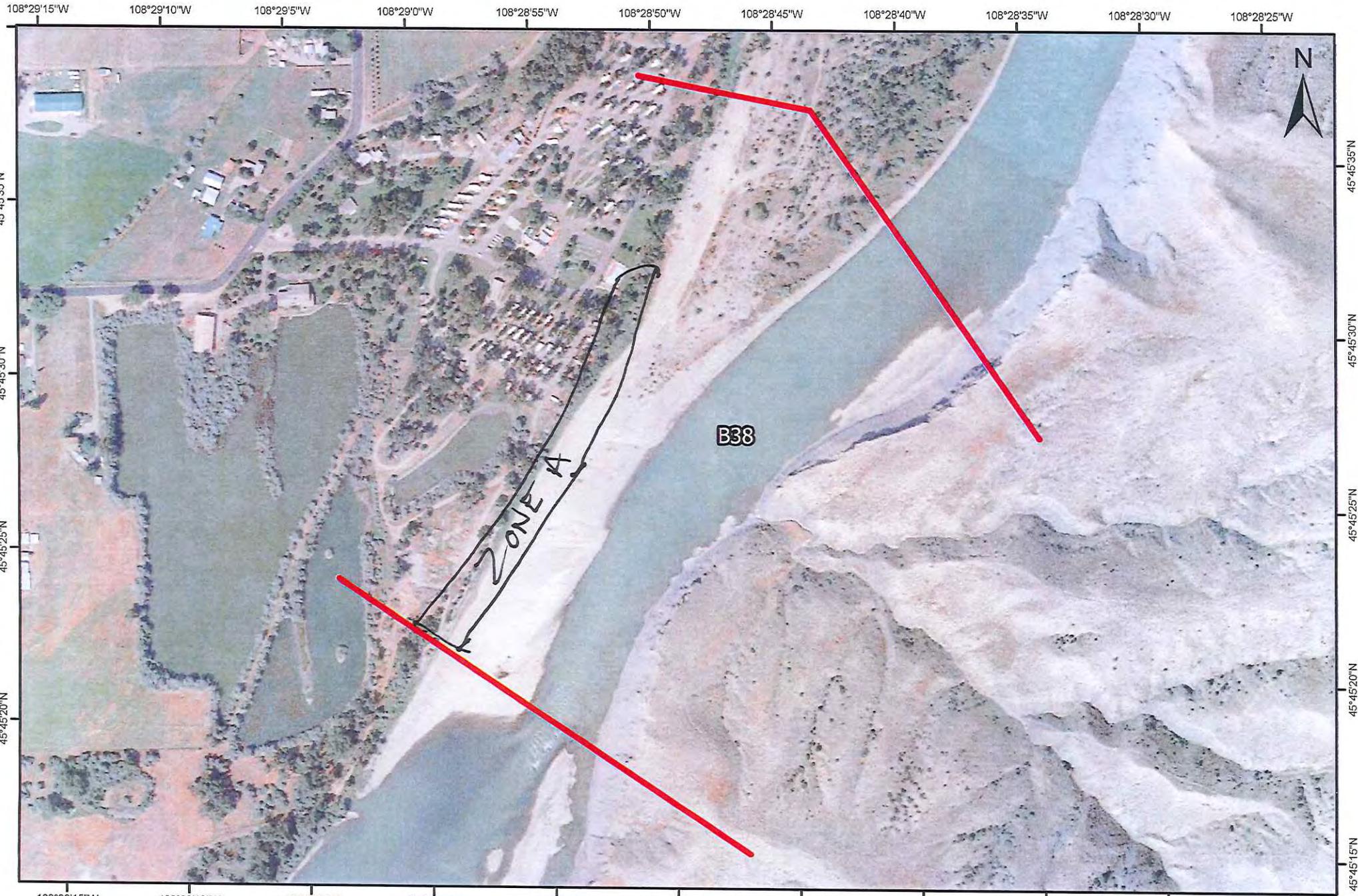
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

B38 only 7 zone - zone A. no oil observed.

No further treatment

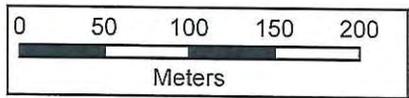
Sketch Yes/No Photos Yes/No Frames _____ Photographer _____



B38 -
(L/R/I)??

DATE: 07/22/11
TEAM: 6

COMMENTS: NOO



DB/16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy) 22/07/11	Time (24h): std / daylight 11:36 hrs to 13:20 hrs	Water Level low - mean - bankfull <input checked="" type="checkbox"/> overbank falling <input checked="" type="checkbox"/> steady - rising
Segment/Reach ID: B 38 <input checked="" type="checkbox"/> Left Bank / Right Bank / Island				
Operations Division:				
Survey by: <input checked="" type="checkbox"/> Foot / ATV / Boat / Helicopter / Overlook / _____		<input checked="" type="checkbox"/> Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - 20 deg C

2 SURVEY TEAM # <u>2</u>	name	organization	contact phone number
	<i>Chuck Post</i>	<i>Cudno ENTRIX</i>	<i>813-973-8389</i>
	<i>Ed. Kinky</i>	<i>M DEQ</i>	<i>406-461-5389</i>
	<i>Peter J. Krusker</i>	<i>USCG</i>	<i>415-320-5248</i>

3 SEGMENT Total Segment/Reach Length 580 m Segment/Reach Length Surveyed 320 m

Start GPS: LATITUDE 45 deg. 45.810 min. LONGITUDE 108 deg. 28.608 min. Datum: WGS84

End GPS: LATITUDE 45 deg. 45.487 min. LONGITUDE 108 deg. 28.880 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 _____ Sand P Mixed S Pebble/Cobble S 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: _____ Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed _____ Substrate Type: _____

Sloped: (>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 210 m est. water depth: <1m 1-3m 3-10m >10m _____ m

shoal(s) present N point bar present 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 N Alongshore from next segment N

Debris: N oiled N amount 15 bags or _____ trucks access restrictions

Oiled trees/shrubs Y/N River Current strong 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)		
					Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC		SR	AP
ID	MS	LB	UB	OB*	m	m	%													
A			<u>X</u>		<u>320</u>	<u>160</u>	<u><1</u>			<u>P</u>	<u>S</u>		<u>X</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	OILED ZONE	SUBSURFACE OIL CHARACTER						WATER TABLE	SHEEN COLOUR	CLEAN BELOW	SUBST. TYPE(S)
							SAP	OP	PP	OR	OF	TR				
	MS	LB	UB	OB	cm	cm-cm										

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

Zone has very sparse coating + shrub vegetation and debris. *Debris*

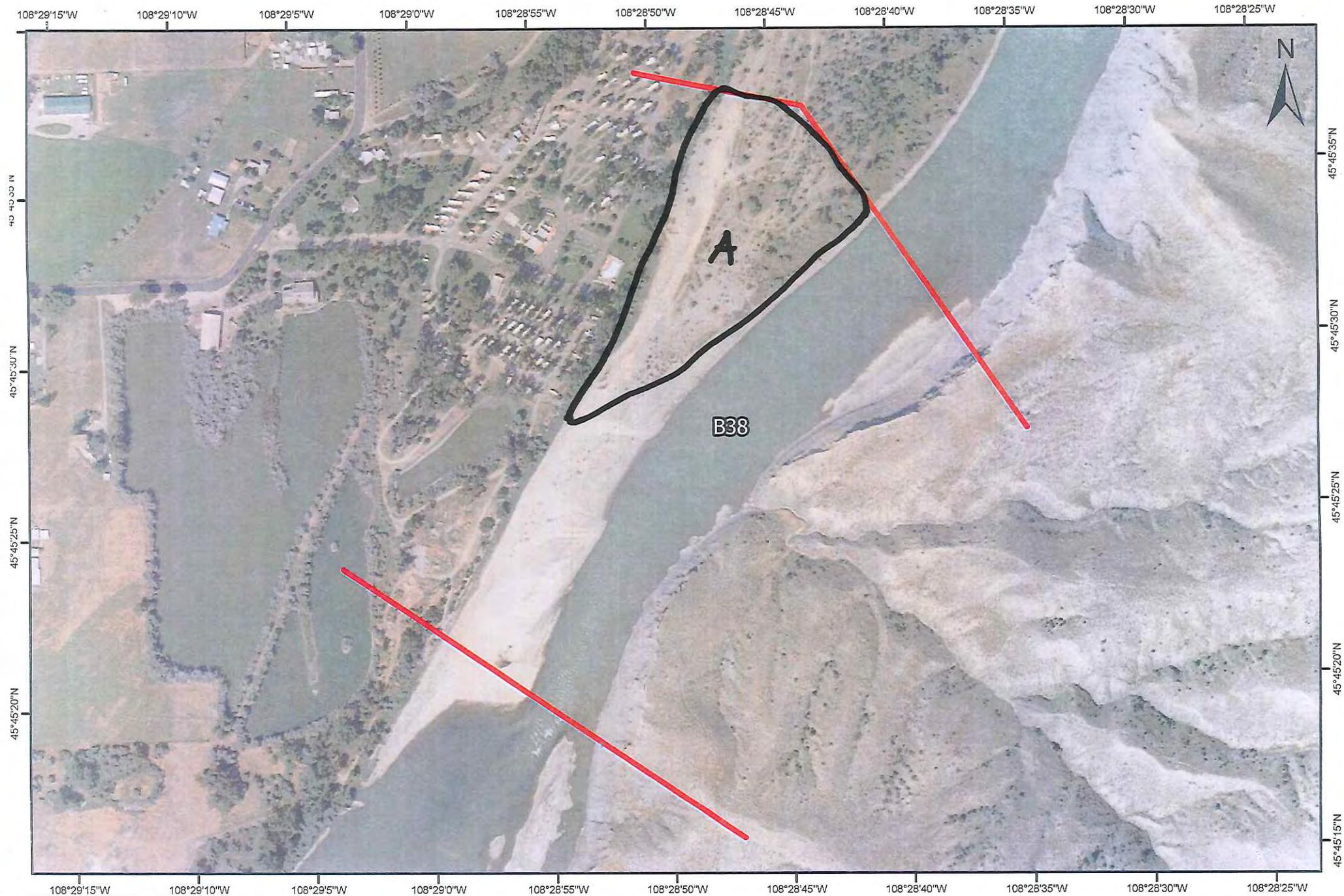
Debris needs to be bagged and removed.

Veget cut and removed

Survey Complete

(for ALL sub-segments record: sub-segment ID, length, length surveyed, and GPS start/end fixes)

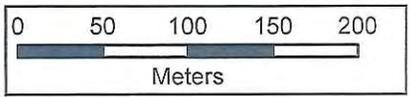
Sketch Yes/No Photos Yes/No (Roll # _____ Frames _____) Video Tape Yes/No (tape# _____)



B38 -
(L/R/I)??

DATE:
TEAM:

COMMENTS:



3/2011 3:15 pm
3 pm

ACTIVE LOG 003

044 B38-LB

ACTIVE LOG 005

Current Track: 23 AUG 2011 12:11

410 043
411

B38-RB

B38
SCAT 5
23 Aug 2011

© 2011 Europa Technologies
© 2011 Google

Image © 2011 GeoEye

45° 45.485' N 108° 28.780' W elev 3124 ft

B38-LB 2 of 2



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/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION

Segment/Reach ID: B38 Left Bank / Right Bank / Island

Operations Division: B

Date (dd/mm/yy): 8-26-11

Time (24h): std / daylight 0:80 hrs to 9:30 hrs

Water Level: low - mean - bankfull - overbank
falling - steady - rising

Survey by: (Foot) / ATV / Boat / Helicopter / Overlook / (Sun) Clouds / Fog / Rain / Snow / Windy / Calm

Air Temp + / - 70 deg C

2 SURVEY TEAM # 1

name	organization	contact phone number
<u>Charles Poir</u>	<u>Condo ENTAVX</u>	<u>[Signature]</u>
<u>Justin Hawkaluk</u>	<u>MEWP</u>	<u>[Signature]</u>
<u>Robert Ashton</u>	<u>MOEA</u>	<u>[Signature]</u>
<u>Linda Watson</u>	<u>EPA</u>	<u>[Signature]</u>

3 SEGMENT

Total Segment/Reach Length 580 m Segment/Reach Length Surveyed 580 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 _____ (type) _____ Wetland: Swamp _____ Bog/Fen _____ Marsh _____

Sediment Bank: Clay/Mud _____ Sand S Mixed P Pebble/Cobble S Boulder _____ Peat/Organic _____ Vegetated Bank: S 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

Cliff or Bluff: _____ Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed _____

Sloped: (>5°)(15°)(30°) straight _____ braided X oxbow _____ flood plain valley _____

Substrate Type: Silt

Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m <100m _____ m 250 est. water depth: <1m 1.3m 3-10m >10m _____ m

shoal(s) present N point bar present 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 Access: Direct from backshore Y Alongshore from next segment Y N

Debris: Y N oiled Y N amount 1 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)			
					Length	Width	Distrib.															
	MS	LB	UB	OB	m	m	%	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO	
<u>1891</u> A				<u>X</u>	<u>580</u>	<u>100</u>	<u>0</u>														<u>OX</u>	<u>Silt</u>
<u>1892</u> B				<u>X</u>	<u>25</u>	<u>3</u>	<u><1</u>					<u>P</u>	<u>[Signature]</u>				<u>P</u>					<u>Silt</u>
<u>1893</u> C				<u>X</u>	<u>70</u>	<u>3</u>	<u><1</u>					<u>P</u>	<u>[Signature]</u>				<u>P</u>					<u>Silt</u>
<u>1894</u> D				<u>X</u>	<u>10</u>	<u>5</u>	<u><1</u>			<u>S</u>	<u>P</u>						<u>P</u>					<u>Silt</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)
							SAP	OP	PP	OR	OF	TR				

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

Zone A - No oil obs'd
 Zone B+C no shells ch'd silt a mixture of organic oil sheen.
 Zone D small area of silt + coated shrubs.
 All coated material was cut and removed by hot shot crew
 No further tracers

(for ALL sub-segments record: sub-segment ID, length, length surveyed, and GPS start/end fixes)

Sketch Yes/No Photos Yes/No (Roll # _____ Frames _____) Video Tape Yes/No (tape# _____)

8/26/2011 4:53 pm

W108°29'9.6"

N45°45'34.53"

B38-2

32

B38-LB

031

B38-1

B38 W108°28'43.68"

26-AUG-11 11:16:34 AM

ACTIVE LOG 014

ACTIVE LOG 013

B38-RB

8-26-11
B38L
T-1

© 2011 Google

Image © 2011 GeoEye

©2010 GOC

1996

45°45'28.21" N 108°28'51.65" W elev 3123 ft

Eye alt 5



Appendix F

Completed SCAT Segment Sign-Off
Forms

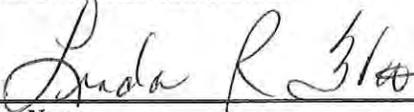
Silvertip Pipeline Spill SCAT Segment Sign-Off Sheet

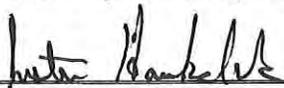
COMPLETED

Operations Division: A <input type="checkbox"/> B <input checked="" type="checkbox"/> C <input type="checkbox"/>
SCAT Area Number (i.e. A12): <u>B38</u>
SCAT Segment Number (i.e. A12-LB/IS/RB): <u>B38LB</u>

- Check if Complete:**
1. Completion Date for Initial SCAT Assessment: 22 JUL 11
 2. Combined Treatment Recommendations (CTRs) Developed/Issued: Yes/No
List CTRs Applicable to SCAT Segment: 28
 3. Clean-Up Operations Conducted:
 4. Meets Qualitative Approved Treatment Methods Target Endpoints: Yes/No

5. SCAT Reassessment:

	Linda B. Watson	8/26/11
Sign Name Federal Representative (EPA/USCG)	Print Name	Date

	Justin Hawke	8/26/11
Sign Name State Representative (DEQ/FWP)	Print Name	Date

	Chris Poy	8-26-11
Sign Name RP Representative (SCAT Contractor)	Print Name	Date

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 Reassessment, the SCAT area will achieve the response endpoints and an Area Transition Report will be completed and submitted to EPA and DEQ upon completion.