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ExxonMobil Pipeline Company

SCAT Area Transition Report for B15

Silvertip Pipeline Incident
Laurel, Montana

October 19, 2011

SCAT Area Transition Report for B15

Silvertip Pipeline Incident
Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

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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 B15, 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 B15. 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 B15, 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 B15 is 50.8. There were no access issues for this area.

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 B15. No oiled wildlife was observed or recovered. One deceased carp (unknown species) with no visible oiling was identified and retained. No Wildlife Priority Cleanup Areas were identified. A portion of a bald eagle (*Haliaeetus leucocephalus*) nesting buffer zone extended into Area B15; this buffer zone was provided to Operations.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area B15. 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 B15 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
CTEH	BIMT0820SO201	8/20/11	Soil_Surface	BIMT_551_SO201	45.72479	-108.57917
CTEH	BIMT0820SO202	8/20/11	Soil_Surface	BIMT_551_SO202	45.72371	-108.57925
CTEH	BIMT0820SO210	8/20/11	Soil_Surface	BIMT_551_SO210	45.72569	-108.57891
CTEH	BIMT0820SOBKG211	8/20/11	Soil_Surface	BIMT_551_SOBKG211	45.725038	-108.579383
CTEH	LAMT0709DW101	7/9/11	Water_Drinking	LAMT_320_DW101	45.7252693	-108.5799255
MDEQ	ST-071611-GZ1	7/16/11	Soil_Surface	ST-GZ-01	45.72573	-108.57906
MDEQ	ST-071611-GZ2	7/16/11	Soil_Surface	ST-GZ-02	45.72415	-108.57906
EPA	SPSO125D01_071411	7/14/11	Soil_Surface	SPSO125	45.72379	-108.5791491

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 seven exceedances: one for vanadium; and two for C9-C18 aliphatics, C11-C22 aromatics, and total extractable hydrocarbons.

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 B15 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area B15.

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. 8, CTR No. 18, and CTR No. 47).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area B15 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

SCAT Operations liaisons performed an inspection of the remediated areas of SCAT Area B15 and developed a Pre-Inspection Survey Transmittal (PIST) associated with the right bank and island within Area B15, which is presented in Appendix C.

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 B15 following completion of oil removal activities. The SCAT team performed final surveys of the right and left banks and island within SCAT Area B15 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 surveys performed on the right and left banks and island within Area B15, no further treatment is recommended for these segments. SCAT Segment Sign-Off Forms are included as Appendix F.

2. Transition Sign-Off Form

SCAT Area Transition Report for B15

Prepared for:

Unified Command

_____

Date

_____

Unified Command – RP

SCAT Area Transition Report for B15

Prepared for:

Unified Command

10/11/2011
Date

S. Merritt
Unified Command – FOSC

SCAT Area Transition Report for B15

Prepared for:

Unified Command

_____

Date

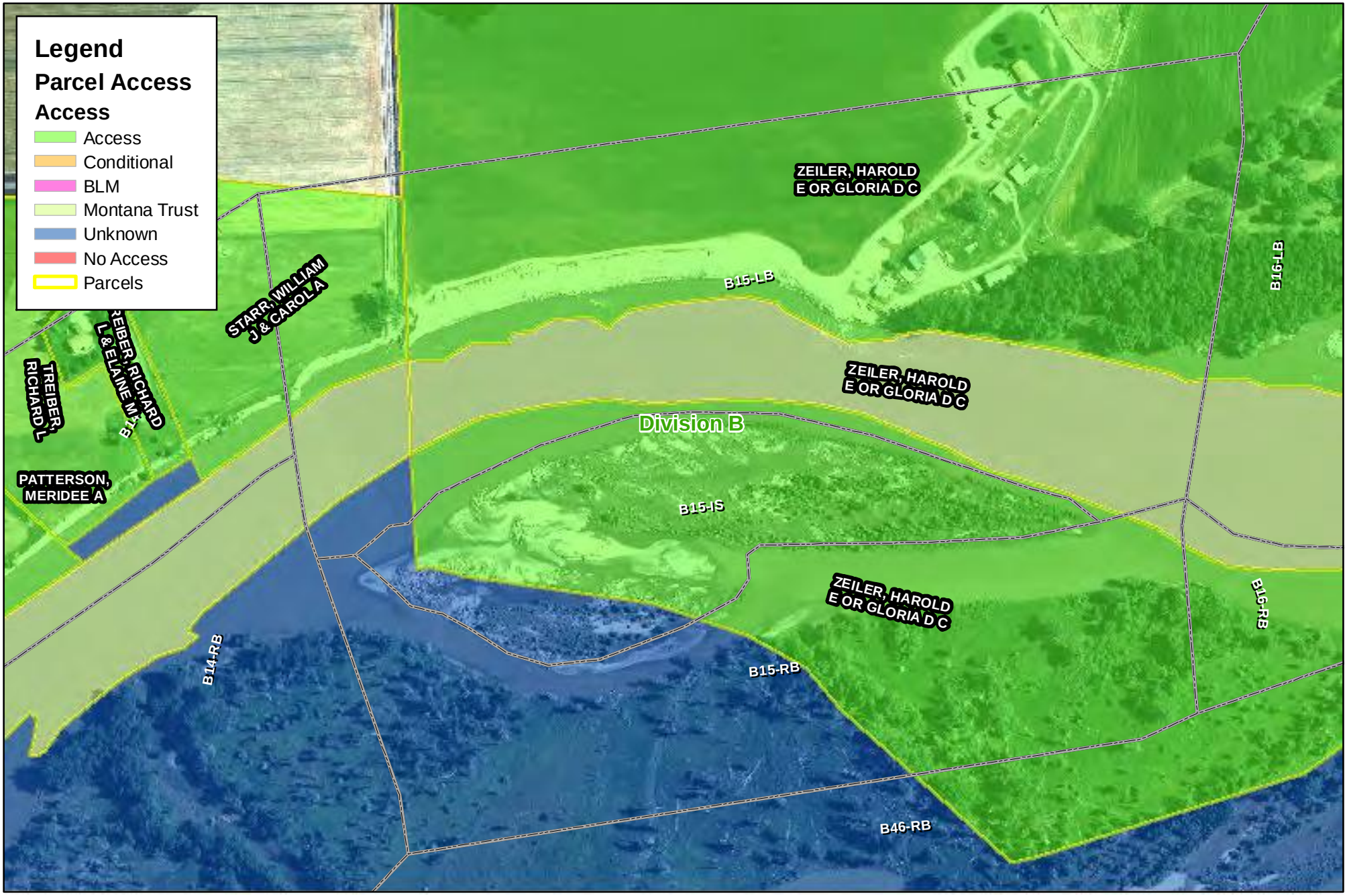
_____

Unified Command – MDEQ

Silvertip Pipeline Incident
Area Transition Report Map - Parcels
Segment - B15

9/27/2011

1:4,000



0 400 800 1,600 Feet

Figure 1

Date: 9/27/2011 Time: 12:17:47 PM

Path: P:\GIS\MXD's\Area_Transition_Figures\A1-Fig1-Parcels.mxd

Silvertip Pipeline Incident
SCAT Area Transition Report Map
Area - B15

ExxonMobil Pipeline

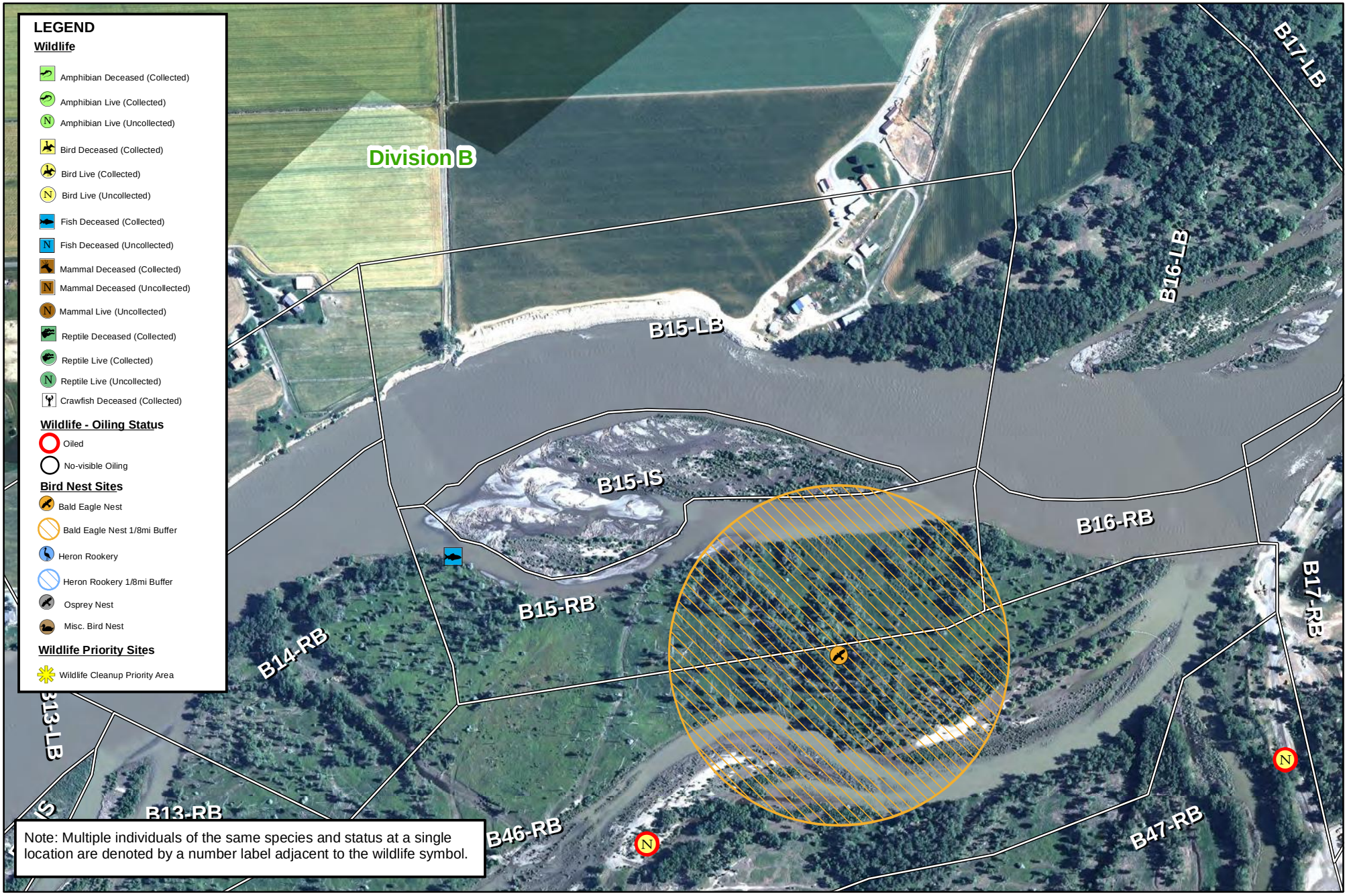
N

1:6,000

9/25/2011

The Response Group

Path: P:\GIS\MXD's\Wildlife\ATR Maps - Figure 2\ATR Map_Div.B_Fig2_09252011.mxd

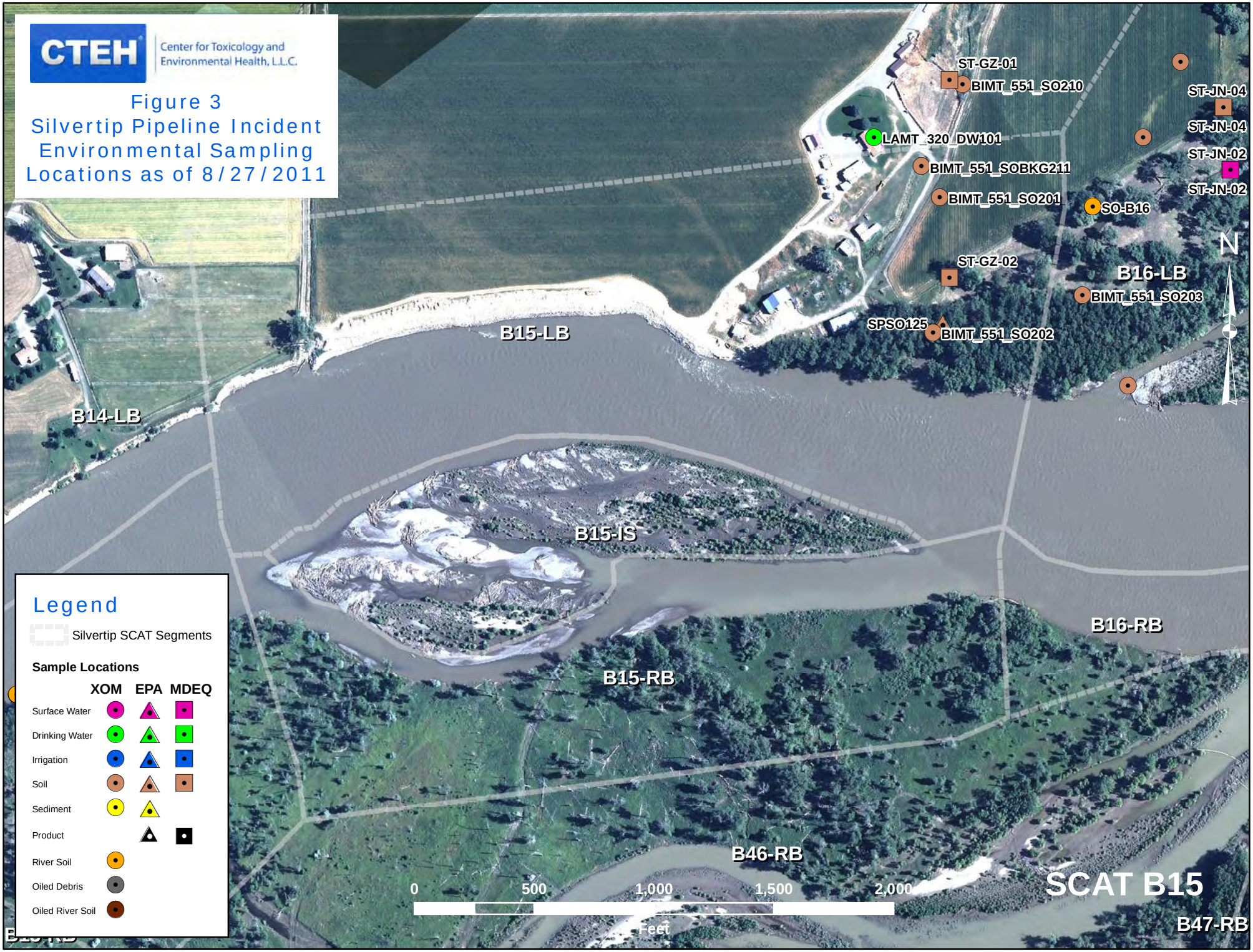


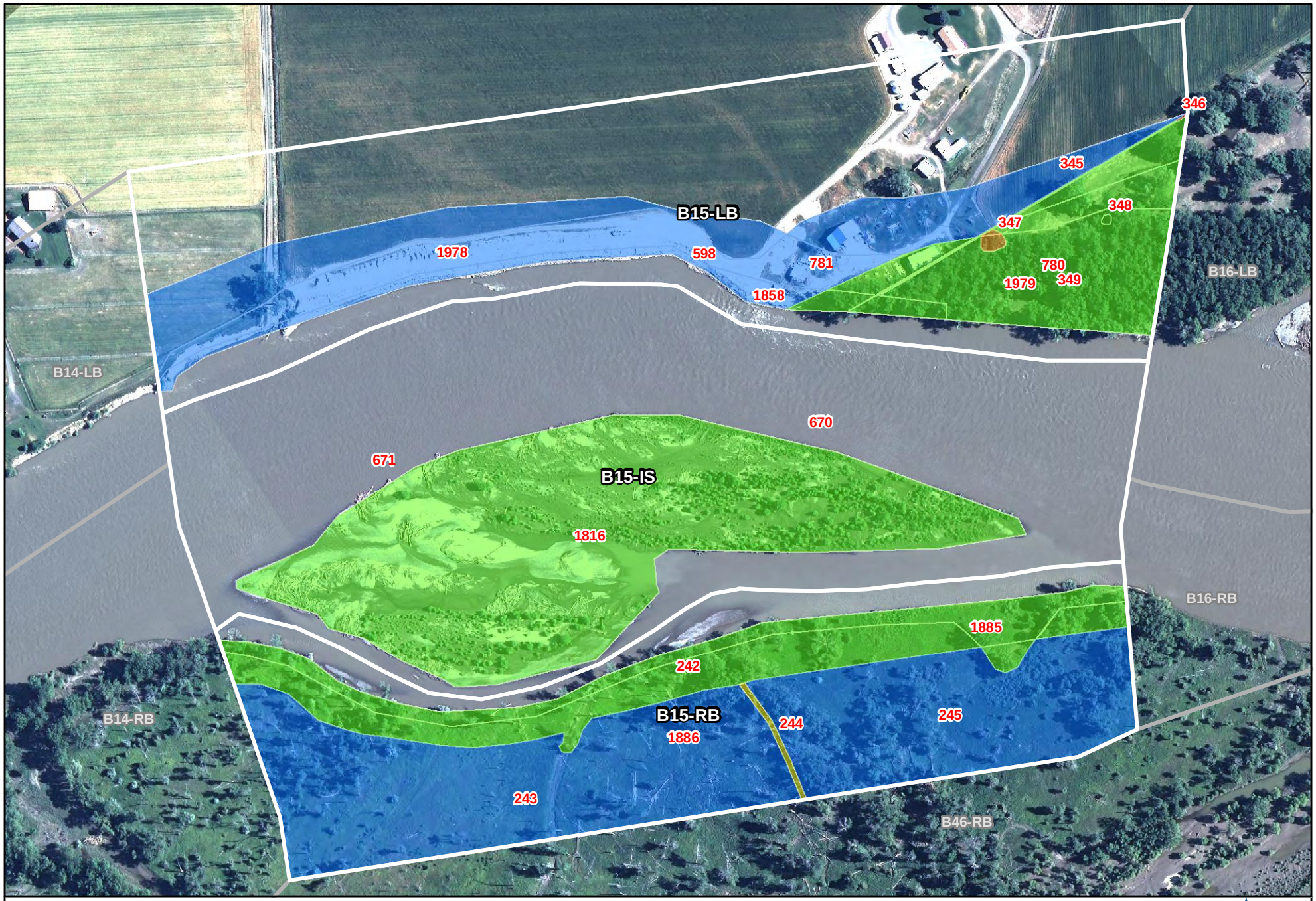
Note: Multiple individuals of the same species and status at a single location are denoted by a number label adjacent to the wildlife symbol.

0 625 1,250 2,500 Feet

Figure 2
Wildlife Resources

Date: 9/25/2011 Time: 12:30:59 PM


CTEH
Center for Toxicology and Environmental Health, L.L.C.
Figure 3
Silvertip Pipeline Incident Environmental Sampling Locations as of 8/27/2011
ST-GZ-01
BIMT_551_SO210
ST-JN-04
ST-JN-04
LAMT_320_DW101
ST-JN-02
BIMT_551_SOBKG211
ST-JN-02
BIMT_551_SO201
SO-B16
N
ST-GZ-02
B16-LB
BIMT_551_SO203
SPSO125
BIMT_551_SO202
B15-LB
B14-LB
B15-IS
B16-RB
B15-RB
B46-RB
SCAT B15
B47-RB
0
500
1,000
1,500
2,000
Feet
Legend
Silvertip SCAT Segments
Sample Locations
XOM
EPA
MDEQ
Surface Water
Drinking Water
Irrigation
Soil
Sediment
Product
River Soil
Oiled Debris
Oiled River Soil



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

240 0 240 480 Feet

Figure 4 - Maximum SCAT Observations For SCAT Area: B15

POLARIS APPLIED SCIENCES, INC.

Aerial Photography Dated July 20, 2011

O:\GIS\SCAT Mapping\Maps\Area Transition Reports MXD\ATR Fig 4 - Max_SCAT_Observations_DataPages.mxd

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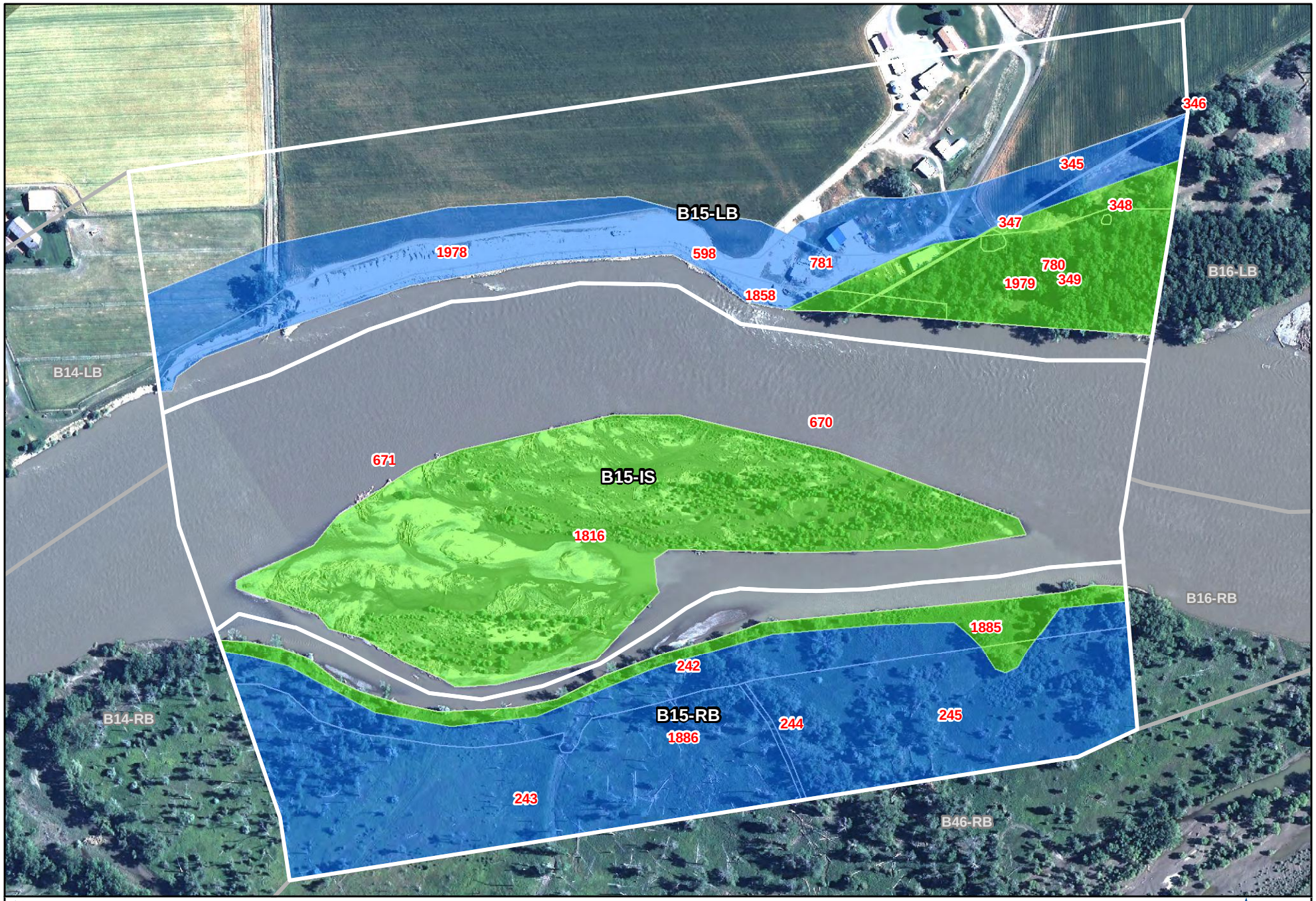

9999 Oiling Zone ID
Heavy Oiling
Moderate Oiling
Light Oiling
Very Light Oiling
No Oil Observed

240 0 240 480 Feet

Figure 5 - Final SCAT Observations For SCAT Area: B15

POLARIS APPLIED SCIENCES, INC.

Aerial Photography Dated July 20, 2011

O:\GIS\SCAT Mapping\Maps\Area Transition Reports MXD\ATR Fig 5 - Final_SCAT_Observations_DataPages.mxd

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Appendix A

Sample Detection Summary

Detections in Samples Collected in SCAT Area B15

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	7.8	40		mg/kg	no
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Barium	Y	158	820		mg/kg	no
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.34	3.8		mg/kg	no
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	25.3	280		mg/kg	no
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Lead	Y	18.7	400	J-	mg/kg	no
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	19.3	150		mg/kg	no
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	1.6	2.6		mg/kg	no
BIMT0820SO201	08/20/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	**42.3**	39		mg/kg	YES
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	7.6	40		mg/kg	no
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Barium	Y	134	820		mg/kg	no
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.13	3.8		mg/kg	no
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	19	280		mg/kg	no
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Lead	Y	14.7	400	J-	mg/kg	no
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	13.9	150		mg/kg	no
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	1.5	2.6		mg/kg	no
BIMT0820SO202	08/20/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	36.8	39		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	7.8	40		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Barium	Y	141	820		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.31	3.8		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	22.5	280		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Lead	Y	16.5	400	J-	mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 7471	Mercury	Y	0.023	1		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	17.4	150		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	1.2	2.6		mg/kg	no
BIMT0820SO210	08/20/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	37.7	39		mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Arsenic	Y	5.1	40		mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Barium	Y	94	820		mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 8270 by SIM	Benzo(b)fluoranthene	Y	12.3	200		ug/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Cadmium	Y	0.25	3.8		mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Chromium	Y	12.3	280		mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 8270 by SIM	Fluoranthene	Y	10.4	300000		ug/kg	no

Detections in Samples Collected in SCAT Area B15

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Lead	Y	26.7	400	J-	mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Nickel	Y	10.3	150		mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 8270 by SIM	Pyrene	Y	11.9	200000		ug/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Selenium	Y	1.1	2.6		mg/kg	no
BIMT0820SOBKG211	08/20/2011	Field	Soil_Surface	EPA 6010	Vanadium	Y	24.5	39		mg/kg	no
ST-071611-GZ1		Field	Soil_Surface	8260B	1,2-Dichloroethane-d4	Y	77	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8270C	2,4,6-Tribromophenol	Y	86	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Bromonaphthalene	Y	119	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8270C	2-Fluorobiphenyl	Y	74	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Fluorobiphenyl	Y	122	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	C11-C22 Aromatics	Y	**2150**	400		mg/kg	YES
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	C19-C36 Aliphatics	Y	3060	20000		mg/kg	no
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	C9-C18 Aliphatics	Y	**797**	200		mg/kg	YES
ST-071611-GZ1		Field	Soil_Surface	8260B	Dibromofluoromethane	Y	83	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8270C	Nitrobenzene-D5	Y	70	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	Octadecane, 1-chloro-	Y	86	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8270C	o-Fluorophenol	Y	70	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	o-Terphenyl	Y	147	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8260B	p-Bromofluorobenzene	Y	93	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8270C	Phenol-d5	Y	70	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8270C	Terphenyl-d14	Y	81	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	8260B	Toluene-d8	Y	86	NA		%	no
ST-071611-GZ1		Field	Soil_Surface	MA-EPH-MDEQ-REM	Total Extractable Hydrocarbons	Y	**7170**	200		mg/kg	YES
ST-071611-GZ2		Field	Soil_Surface	8260B	1,2-Dichloroethane-d4	Y	82	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8270C	2,4,6-Tribromophenol	Y	90	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Bromonaphthalene	Y	103	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Fluorobiphenyl	Y	115	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8270C	2-Fluorobiphenyl	Y	78	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	C11-C22 Aromatics	Y	**3080**	400		mg/kg	YES
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	C19-C36 Aliphatics	Y	2540	20000		mg/kg	no
ST-071611-GZ2		Field	Soil_Surface	MA-VPH-MDEQ-REM	C9-C10 Aromatics	Y	6.7	100		mg/kg	no

Detections in Samples Collected in SCAT Area B15

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
ST-071611-GZ2		Field	Soil_Surface	MA-VPH-MDEQ-REM	C9-C12 Aliphatics	Y	5.6	100		mg/kg	no
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	C9-C18 Aliphatics	Y	**1020**	200		mg/kg	YES
ST-071611-GZ2		Field	Soil_Surface	8260B	Dibromofluoromethane	Y	92	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8270C	Nitrobenzene-D5	Y	73	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	Octadecane, 1-chloro-	Y	77	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8270C	o-Fluorophenol	Y	73	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	o-Terphenyl	Y	168	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8260B	p-Bromofluorobenzene	Y	95	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8270C	Phenol-d5	Y	73	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8270C	Terphenyl-d14	Y	70	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	8260B	Toluene-d8	Y	89	NA		%	no
ST-071611-GZ2		Field	Soil_Surface	MA-EPH-MDEQ-REM	Total Extractable Hydrocarbons	Y	**7910**	200		mg/kg	YES
ST-071611-GZ2		Field	Soil_Surface	MA-VPH-MDEQ-REM	Total Purgeable Hydrocarbons	Y	65	200		mg/kg	no

Appendix B

Initial SCAT Survey Forms and Sketches

DB | G | Sc #

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 1

1 GENERAL INFORMATION

Segment/Reach ID: B15 Left Bank / Right Bank / Island

Operations Division: B

Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____

Date (dd/mm/yy): 16/07/11

Time (24h): std / daylight 0940 hrs to 1107 hrs

Sun / Clouds / Fog / Rain / Snow / Windy / Calm

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

Air Temp + / - 27 deg C

2 SURVEY TEAM # 4

name	organization	contact phone number
John Williams / Connor Kokeski	Cardno ENTRIX	361·676·8138
Patrick Kriske	USCG	415·596·6587
Ken Frazier	MT FWP	406·245·0590

3 SEGMENT Total Segment/Reach Length 660 m Segment/Reach Length Surveyed 675 m

Start GPS: LATITUDE N 45° deg. 43.287 min. LONGITUDE W 108 deg. 35.217' min. Datum: WGS 84

End GPS: LATITUDE N 45° deg. 43.289' min. LONGITUDE W 108 deg. 34.708' 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____ 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

Cliff or Bluff: ___ Est Height 0 m | canyon____ manmade____ meander ____ confined or leveed ____

Sloped: 0 (>5°)(15°)(30°) | straight____ braided ✓ oxbow____ flood plain valley____

complete for primary: Substrate Type: Vegetated / Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1–10 m 10–100 m >100m ____m | est. water depth: <1 m 1-3 m 3-10 m >10 m ____ 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 15 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 MS	LB	UB	OB	OIL COVER Length m	Width m	Distrib. %	OIL THICKNESS TO	CV	CT	ST	FL	OIL CHARACTER FR	MS	TB	PT	TC	SR	AP	NO	SUBST. TYPE(S)
242	A			S	P	675	30	<1			P	S		P								Veg
243	B				P	370	120	0													P	Veg
244	C			P		130	4	30	S			P	S	P								Veg
245	D				P	260	100	0													P	Veg

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

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

Oil Zone A: Isolated patches of coated vegetation primarily within 3m of shoreline but up to 30m. Cut/removal recommended for lat: 45°43.287 long: 108°34.791 area of coated veg

Oil Zone B: No recommendations

Oil Zone C: Isolated patches of free oil with sheen within temporary waterbody. Removal of free oil and debris, by hand, recommended for 48°43.256"N, 108°34.921'W

Oil Zone D: no recommendations

(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#

DB | G | Sc #

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 1

1 GENERAL INFORMATION

Segment/Reach ID: B15 Left Bank / Right Bank / Island

Operations Division: B

Date (dd/mm/yy): 14/07/11

Time (24h): std / daylight 0940 hrs to 1107 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 + / - 27 deg C

2 SURVEY TEAM # 4

name	organization	contact phone number
John Williams / Connor Kokeski	Cardno ENTRIX	361.674.8138
Patrick Kiske	USCG	415.596.6587
Ken Frazier Ken Frazier 8/29/11	MT FWP	406.245.0590

3 SEGMENT Total Segment/Reach Length 660 m Segment/Reach Length Surveyed 675 m

Start GPS: LATITUDE N 45° deg. 43.287 min. LONGITUDE W 108 deg. 35.217' min. Datum: WGS 84

End GPS: LATITUDE N 45° deg. 43.289' min. LONGITUDE W 108 deg. 34.708' 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 ____ 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 0 m | canyon ____ manmade ____ meander ____ confined or leveed ____ | Substrate Type: Vegetated

Sloped: 0 (>5°)(15°)(30°) | straight ____ braided ✓ oxbow ____ flood plain valley ____ | Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1–10 m 10–100 m >100m ____ m | est. water depth: <1 m 1-3 m 3-10 m >10 m ____ 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 ID	RIVER BANK ZONE MS	LB	UB	OB	OIL COVER Length m	Width m	Distrib. %	OIL THICKNESS TO	CV	CT	ST	FL	OIL CHARACTER FR	MS	TB	PT	TC	SR	AP	NO	SUBST. TYPE(S)
242	A			S	P	675	30	<1			P	S		P								Veg
243	B				P	370	120	0													P	Veg
244	C			P		130	4	30	S			P	S	P								Veg
245	D				P	260	100	0													P	Veg

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

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

Oil Zone A: Isolated patches of coated vegetation primarily within 3m of shoreline but up to 30m. Cut/removal recommended for lat: 45°43.287 long: 108°34.791 area of coated veg

Oil Zone B: No recommendations

Oil Zone D: no recommendations

Oil Zone C: Isolated patches of free oil with sheen within temporary waterbody. Removal of free oil and debris, by hand, recommended for 48°43.256"N, 108°34.921'W

(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#

Ver. 04 July 2011

B15 - R
(L/R/I)??

DATE: 16 Jul 2011

TEAM: 4

COMMENTS:

0 50 100 150 200
Meters

DB/G/S

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident — Page 1 of 1

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: B15 Left Bank / Right Bank / Island	19 / 07 / 11	1202 hrs to 1203 hrs	low - mean - bankfull - overbank
Operations Division: B			falling / steady - rising
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - 35 deg C

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 734 m Segment/Reach Length Surveyed 734 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 ____ Shelf ____ | Manmade: Solid ____ Permeable ____ (type) ____ | Wetland: Swamp ____ Bog/Fen ____ Marsh ____

Sediment Bank: Clay/Mud X Sand X Mixed X 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 X confined or leveed ____ | Substrate Type: mixed

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

4C RIVER CHANNEL CHARACTER — circle or select as appropriate

est. width: < 1m 1–10 m 10–100 m >100 m 150 m | est. water depth: <1 m 1-3 m 3-10 m >10 m ____ 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 500 bags or ____ trucks | access restrictions ~~required~~ no trails river access likely

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	
670 A				X	502		30			P	S		✓								Veg bank
671 B				X	232															✓	Veg bank

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)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / No	

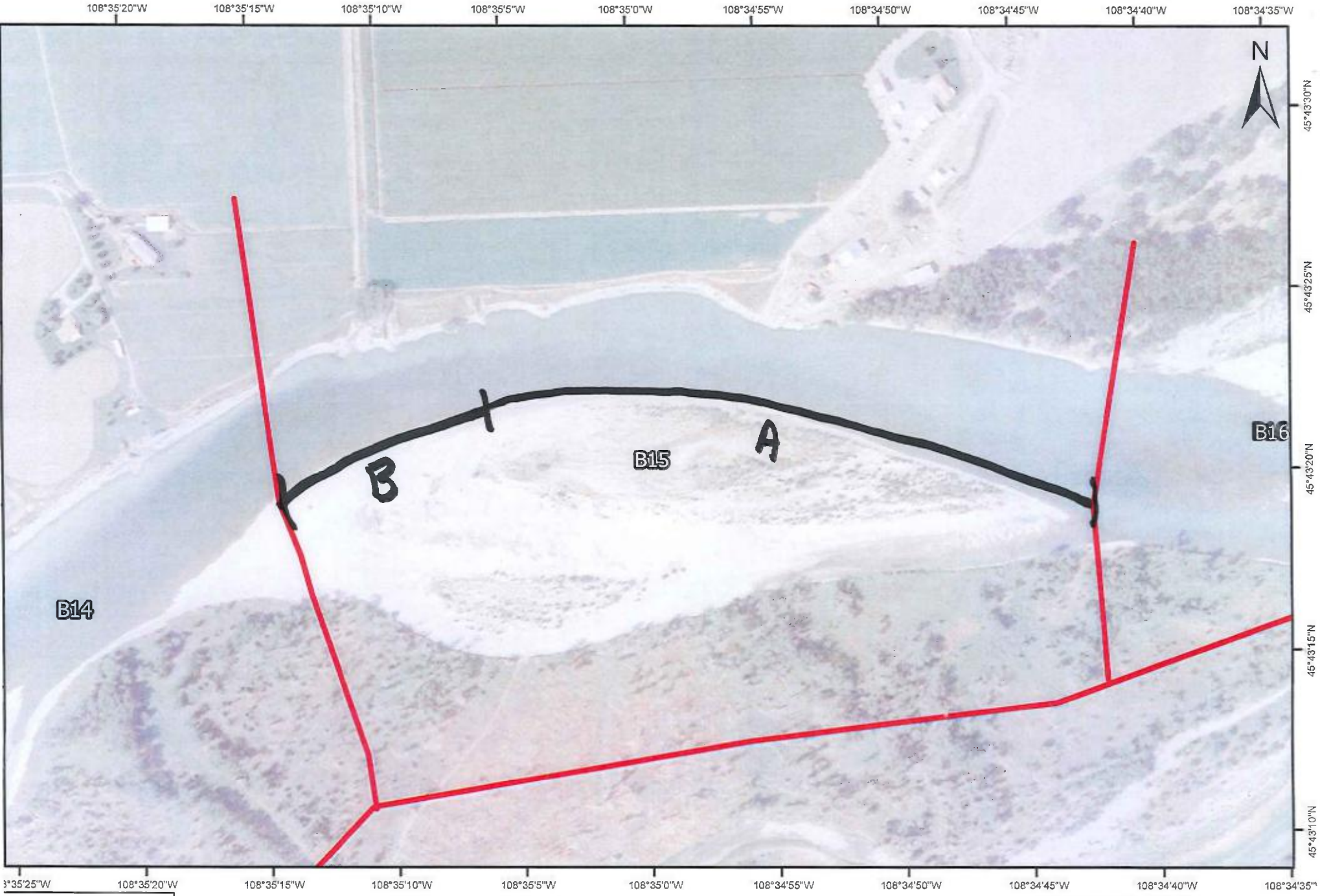
8 COMMENTS — ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

OSR = 4 OSC = unk SSC = unk

5299 - 5322

(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# ____



B15 - (L/R/I)??

DATE:

TEAM:

COMMENTS:

0 50 100 150 200
Meters

08/6

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 1

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: B15 **Left Bank** / Right Bank / Island	19-Jul-2011	1101 1105 ~~1061~~ hrs to ~~1005~~ hrs	low - mean - **bankfull** - overbank
Operations Division: B			**falling** - steady – rising
Survey by: Foot / ATV / **Boat** / Helicopter / Overlook / _____	**Sun** / Clouds / Fog / Rain / Snow / **Windy**/ Calm		Air Temp + / - 31 deg C

2 SURVEY TEAM # 1	name	organization	contact phone number
Pete Lee PBL		Polaris	
Larry Alheim		MTDEQ	
Andy Johnson / Austin West		USCG	

3 SEGMENT *Total Segment/Reach Length* _____ *m* *Segment/Reach Length Surveyed* 745 *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____ 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 1–10 m **10–100 m** >100m **70m** | **est. water depth :** <1 m 1-3 m **3-10 m** >10 m ____ 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: **Farm/residence adjacent to north**

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	
598 A				X	745	1	~~100~~													X	Grass, trees, debris

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)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / 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.

Sketch **Yes** / No **Photos** Yes / **No** **Frames** None

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 1

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: B1~~0~~5 Left Bank / Right Bank / Island	19-Jul-2011	61 6~~0~~5	low - mean - bankfull - overbank
Operations Division: B		10~~55~~ hrs to 10~~21~~ hrs	falling - steady – rising
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - 31 deg C

2 SURVEY TEAM # 1	name	organization	contact phone number
	Pete Lee	Polaris	
	Larry Alheim	MTDEQ	
	Andy Johnson	USCG	
			745

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 6~~5~~45 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) Riprap | 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 1–10 m 10–100 m ~~>100m~~ 170m | est. water depth : <1 m 1-3 m 3-10 m >10 m ____ 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: Farm / Residence adjacent to north

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~~	~~X~~	~~545~~ 745	1	100			X	X		X								Grass, trees, debris

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)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / 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.

Sketch Yes / No Photos Yes / No Frames None

A = 320 + 122 + 303

Ver. 04 July 2011

236.JPG
A
B15
©2010 Google
Imagery Date: 4/30/2004
45°43'25.94" N 108°34'59.26" W elev 3178 ft
Eye alt 6123 ft

DB / G / S

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 5

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: B15 Left Bank / Right Bank/Island	19/07/2011	11:00 hrs to 13:30 hrs	low - mean - bankfull - overbank
Operations Division: B			falling - steady - rising
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____	Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - 34 deg C

2 SURVEY TEAM # 3	Name:	Organization:	Signature:
	Jenni Nelson	Polaris	
	Jay Watson	Montana Fish Wildlife and Parks	
	Janice Witul	EPA	
	Rebecca Ridenour	MDEQ	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 265 m

Start GPS: #2 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____ 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 P__ confined or leveed ____ | Substrate Type: Mud/Sand

Sloped: ___ (>5°)(15°)(30°) | straight____ braided ____ oxbow____ flood plain valley____ | Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width : < 1m 1–10 m 10–100 m >100m ____m | est. water depth : <1 m 1-3 m 3-10 m >10 m ____ 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 20 bags or ____trucks | Access restrictions: Area is wet, and has some running channels,

Oiled trees/shrubs Y / N River Current strong Y / N | Other Features: areas of deep mud and wet unstable sand; fences; thick veg.

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	
345	A				X	300	0.5	1-5		X	(X)	X										veg
346	B				X	10	0.25	60		(X)	X	X										veg
347	C				X	25	15	5	X	(X)	X											veg
348	D				X	0.5	0.5			X	(X)											veg
349	E				X	265	110	<1		X	X	X										veg

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)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / No	
NONE																	

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

A - Area along fence & boundary of wheat field oiled grass (bathtub ring) & intermittent sporadic oiling with discreet patches of wood debris at base of fence. Recommend collect oiled sticks & cut areas of oiled grass - potential livestock grazing & farm use/access. area.

B - area of heavy oiling in wood debris at base of fence (south) - Collect. (flagged)

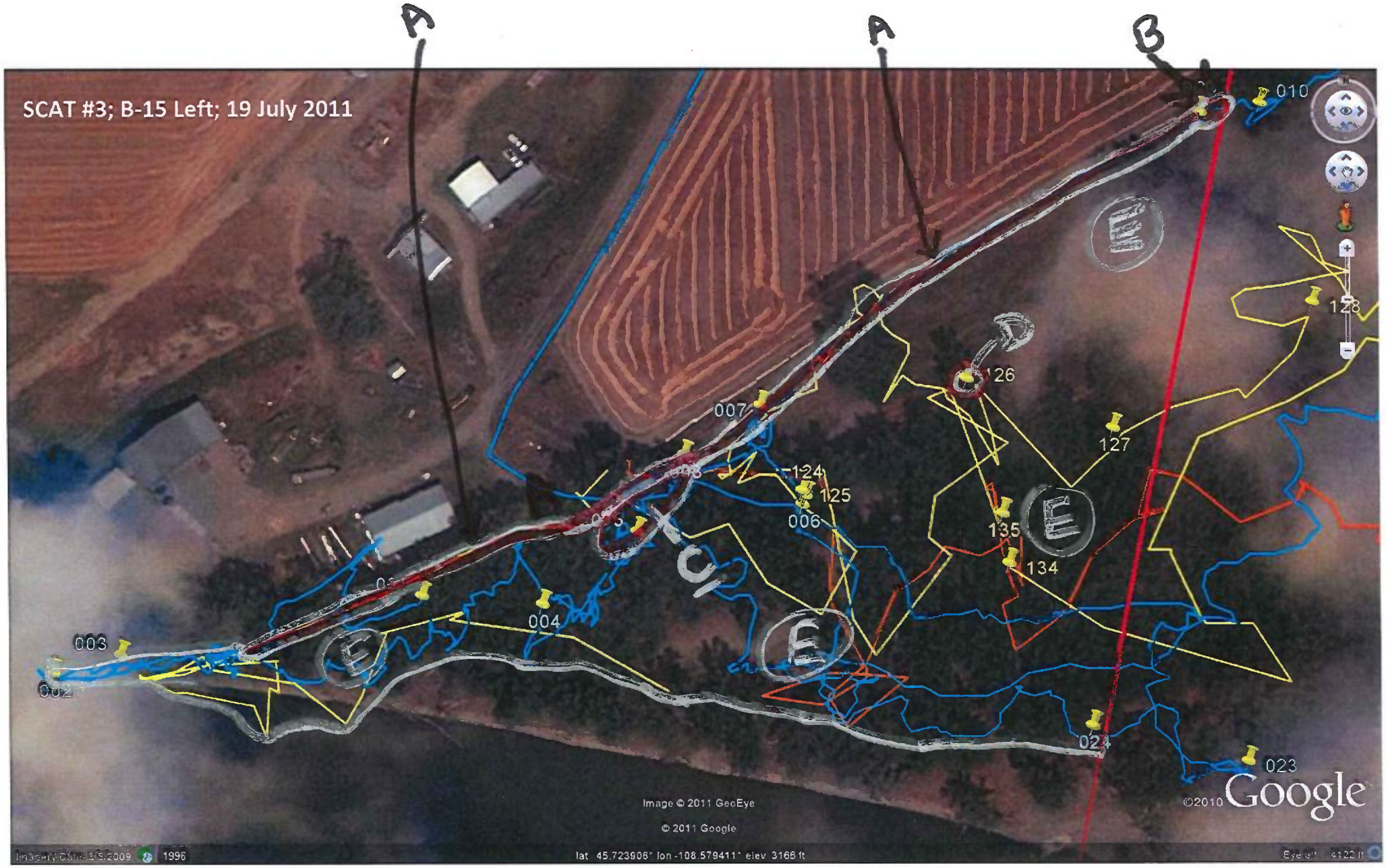
C - hot spots flagged for collection. Wood piles with cover & Thick oil soaked in veg debris under logs - several different piles.

D - hot spot flagged for collection. Patches mostly on ground - moderate [illegible]

(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#

E - open lightly wooded drainage area & shoals with intermittent discreet patches of oiled debris. Channel crew could walk area & collect sizable [illegible]


A
A
B
SCAT #3; B-15 Left; 19 July 2011
010
128
126
127
007
124
125
006
135
134
004
003
002
021
023
Image © 2011 GeoEye
© 2011 Google
©2010 Google
1996
lat 45.723908° lon -108.579411° elev 3166 ft

B-15 L

ZONE A

bathtub ring on grass

RR

typical oiled wood debris

JN

B-15L

ZONE B

continuous area of oiled debris JV

JV

B-15L

ZONE C

JD

oil soaking into debris pile

JD

DB/G/S

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 1

1 GENERAL INFORMATION

Segment/Reach ID: B15 Left Bank / ~~Right Bank~~ / Island

Operations Division:

Date (dd/mm/yy): 26/07/11

Time (24h): std / daylight 8:30 hrs to 11:00 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 + / - 30 deg C

2 SURVEY TEAM # 4

Name	Organization	Signature
John Matousek	Cedar ENTRIX	[illegible]
Ken Fraser	MT FWP	[illegible]
Janice Nitsch	US EPA	[illegible]

3 SEGMENT Total Segment/Reach Length 740 m Segment/Reach Length Surveyed 740 m

Start GPS: LATITUDE 45 deg. 43.400 min. LONGITUDE 108 deg. 35.254 min. Datum: WGS84

End GPS: LATITUDE 45 deg. 43.400 min. LONGITUDE 108 deg. 34.684 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 P 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 P confined or leveed____ | Substrate Type: Veg

Sloped: ___(>5°)(15°)(30°) | straight____ braided S oxbow____ flood plain valley____ | Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: < 1m 1–10 m 10–100 m >100m 160m | est. water depth: <1 m 1-3 m 3-10 m >10 m ____ 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 MS	LB	UB	OB	OIL COVER Length m	Width m	Distrib. %	OIL THICKNESS TO	CV	CT	ST	FL	OIL CHARACTER FR	MS	TB	PT	TC	SR	AP	NO	SUBST. TYPE(S)
780	A			S	P	270	100	1			S	P						P				Veg
781	B		S	P		740	20	0													NOO	Veg

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

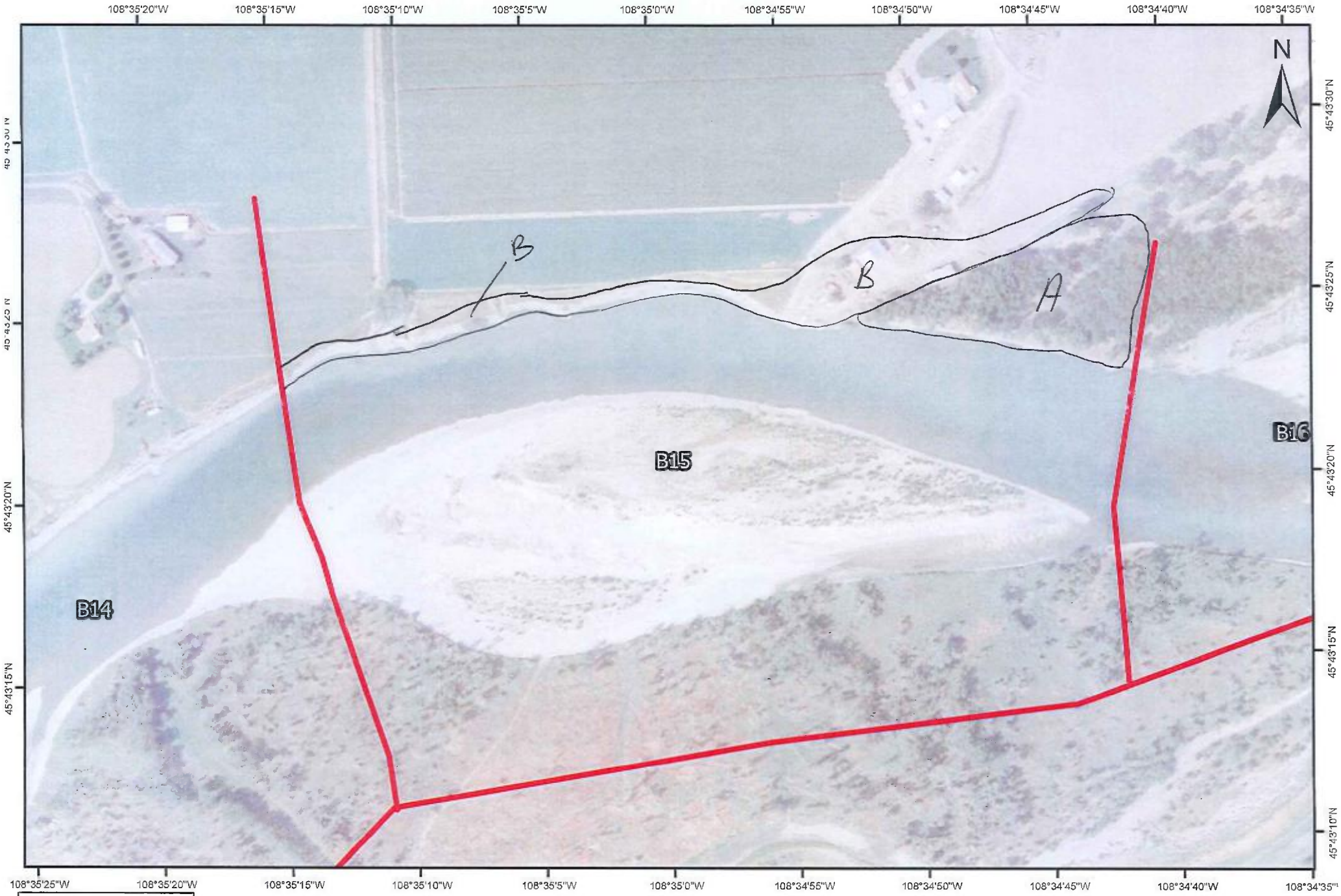
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Zone A - Recommend natural attenuation (no action). Also recommend some removal of obvious oil spotting and removal of flagging

Zone B - no oil

Sketch Yes / No Photos Yes / No Frames_____ Photographer_____



B15 -
(L/R/I)??

DATE:

TEAM:

COMMENTS:

0 50 100 150 200
Meters

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 2

1 GENERAL INFORMATION

Segment/Reach ID: B15 (Left Bank) / Right Bank / Island
Operations Division: B
Date (dd/mm/yy): 25/08/11
Time (24h): std / daylight 0913 hrs to 1535 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 + / - 26 deg C

2 SURVEY TEAM # 02

Name	Organization	Signature
Joe Boyle	Cardno Entrix	[signature]
Dave Hergenrider	FWP	[signature]
Nathan Hammond	Cardno Entrix	[signature]

3 SEGMENT Total Segment/Reach Length 750 m Segment/Reach Length Surveyed 560 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) P Rip Rap | 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: ___ Est Height ____m | canyon____ manmade____ meander ____ confined or leveed ____ | Substrate Type: _____
Sloped: 50° (>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 1–10 m 10–100 m (>100m) ~~>100m~~ | est. water depth: <1 m (1-3 m) 3-10 m >10 m ____ 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: Agriculture Land

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	
1858 A		P	S	P	560	5	0													✓	
				OK 8/26/11																	

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

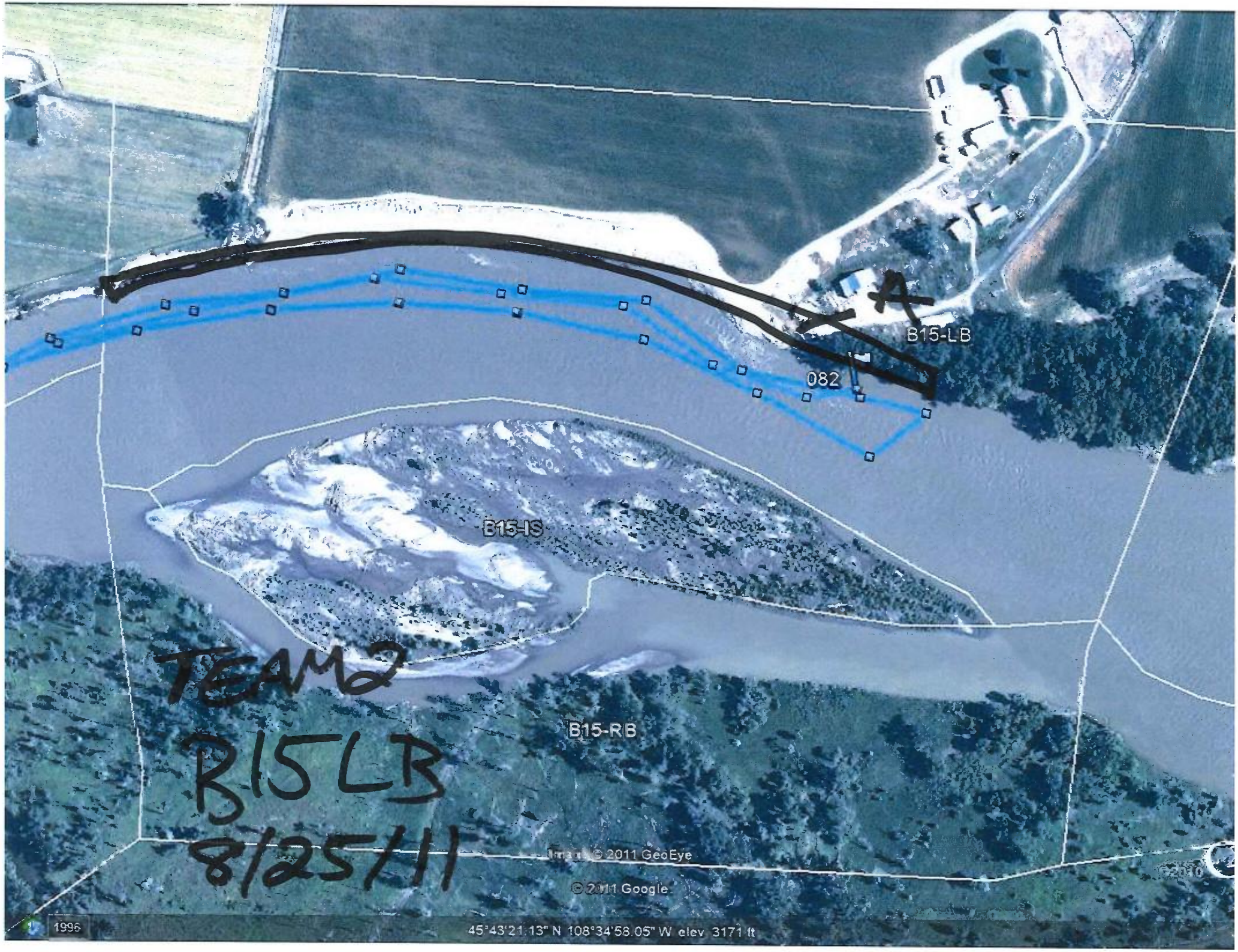
TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH	OILED ZONE	SUBSURFACE OIL CHARACTER							WATER TABLE	SHEEN COLOUR	CLEAN BELOW	SUBST. TYPE(S)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / No	

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

Zone A - NOO

Sketch (Yes) / No Photos Yes / (No) Frames_____ Photographer_____


B15-LB
082
B15-IS
B15-RB
TEAM 2
B15LB
8/25/11
Image © 2011 GeoEye
© 2011 Google
1995
45°43'21.13" N 108°34'58.05" W elev 3171 ft

Appendix C

Pre-Inspection Survey Transmittal

SCAT – Pre Inspection Survey Transmittal (PIST) Memo

Survey Date: 23 AUG 2011

Segment: 13-15 RB

Team: SCAT Liaison PETE PRITCHARD Signed: [illegible]

Observer JUAN PATINO USCG Signed: [illegible]

Observer _____ Signed: _____

Observer _____ Signed: _____

Segment meets criteria? YES X NO ____

RBOS attached? YES ____ NO X

If NO:
Location Sketch attached? YES ____ NO X

CTR continue? YES ____ NO X

Comments:

SCAT – Pre Inspection Survey Transmittal (PIST) Memo

Survey Date: 20 August, 2011

Segment: B15 Island

Team: SCAT Liaison: John Spenik (Polaris) _ Signed: _____

USCG Observer: TRUMAN SKANG Signed: _____

Observer _____ Signed: _____

Observer _____ Signed: _____

Segment meets criteria? YES X NO ____

RBOS attached? YES ____ NO X

If NO:
Location Sketch attached? YES ____ NO X

CTR continue? YES ____ NO X

Comments: The segment passed with help with of a hotshot cleanup crew.

Appendix D

Post-Inspection Survey Transmittal

ARCADIS

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

1 GENERAL INFORMATION

Segment/Reach ID: B15 Left Bank / Right Bank / Island

Operations Division:

Date (dd/mm/yy): 26/08/11

Time (24h): std / daylight 1000 hrs to 1100 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 + / - 30 deg C

2 SURVEY TEAM #1

Name	Organization	Signature
Bob Nailon	Cardno ENTRIX	
Pete Lee	Polaris	
Josh Hofkes	Cardno ENTRIX	
Lance Richman	USEPA	
Betsy Hovda	MTDEQ	Betsy Hovda

3 SEGMENT

Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 670 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____ Mixed X 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

Cliff or Bluff:____Est Height ____m

Sloped:___(>5°)(15°)(30°)

canyon____ manmade____ meander ____ confined or leveed ____

straight____ braided X oxbow____ flood plain valley X

complete for primary

Substrate Type: _____

Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER

circle or select as appropriate

est. width : < 1m 1–10 m 10–100 m >100m m

est. water depth : <1 m 1-3 m m >10 m _____ 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: Private Landowners

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	
1885 A				X	670	10	<1			X	X						X				Grass, trees, debris
1886 B				X	670	90														X	"

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)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / 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 height: 0 - 30 cm

Treatment recommendations:

Zone A : No treatment required. (NFT)

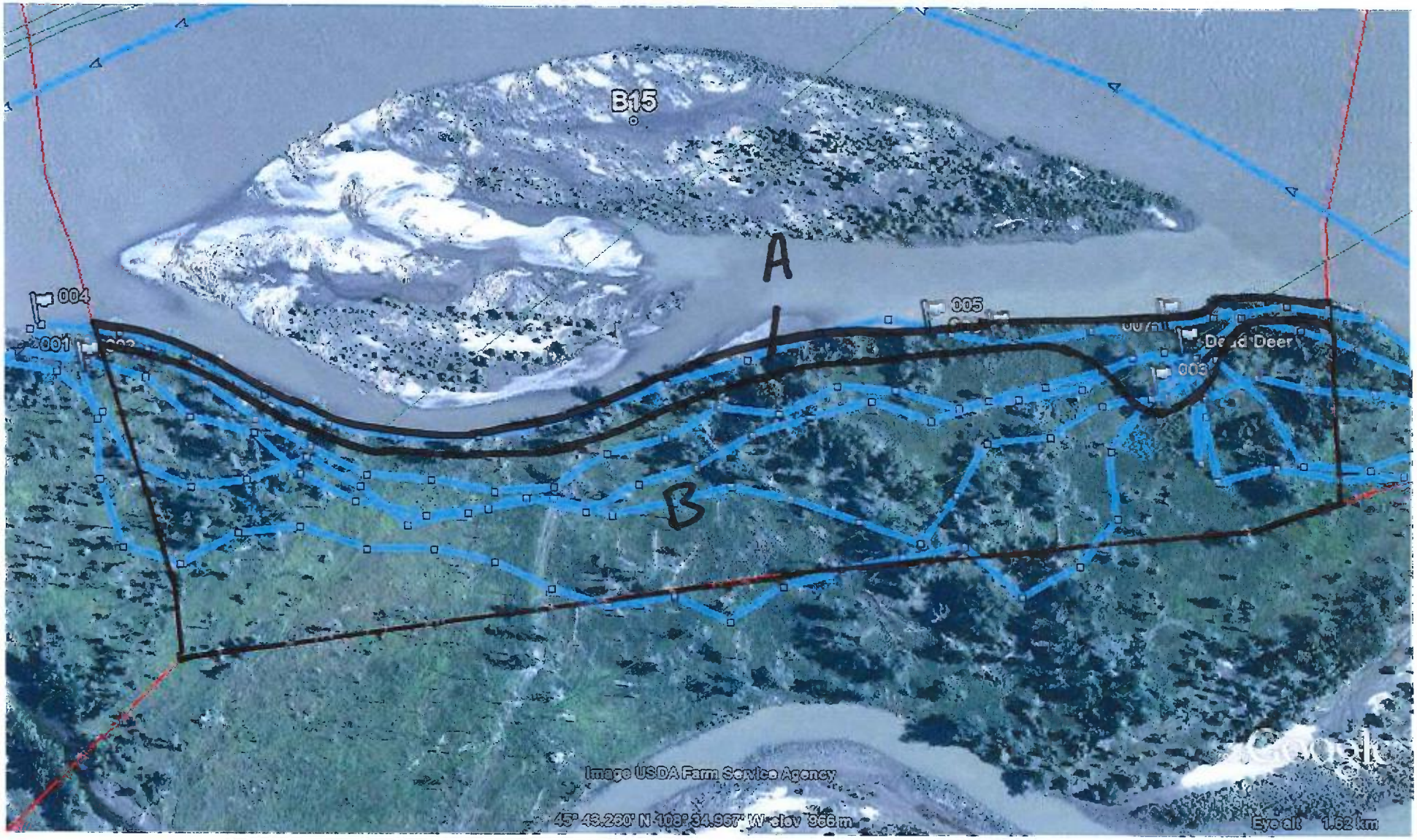
B : N.O.O-(NFT)

Ops Hot Shot Team (Alex Barboza)

CTR: 8

Removed 2 bags of contaminated debris/veg.

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



Segment 15 RB
August 26, 2011
TEAM 4

A: Less than 1% - NFT

B: NOO

DB

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 2

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: B 1 5 (Left Bank) / Right Bank / Island	31/08/11	1215 hrs to 1310 hrs	low - (mean) - bankfull - overbank
Operations Division: 3			(falling) - steady – rising
Survey by: (Foot) / ATV / Boat / Helicopter / Overlook / _____	(Sun) / (Cloud) / Fog / (Rain) / Snow / (Windy) (Calm)		Air Temp + / - 27 deg C

2 SURVEY TEAM # 6	Name	Organization	Signature
	Nathan Hammond	Cardno Entrix	[signature]
	Justin Hawkalok	FWP	[signature]
	Austin West	USCG	[signature]

3 SEGMENT Total Segment/Reach Length 735 m Segment/Reach Length Surveyed 735 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) Rip Rap | Wetland: Swamp_____ Bog/Fen_____ Marsh _____

Sediment Bank: Clay/Mud_____ Sand_____ Mixed X Pebble/Cobble_____ Boulder_____ Peat/Organic_____ | Vegetated Bank:_____ | Wooded Upland: P

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 1–10 m (10–100 m) >100m | est. water depth : <1 m (1-3 m) 3-10 m >10 m ____ 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 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)
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP	NO	
1978 A				X	550	25	0													✓	
1979 B				X	185	90	<1				P						X				Veg. Debris

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)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / No	

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

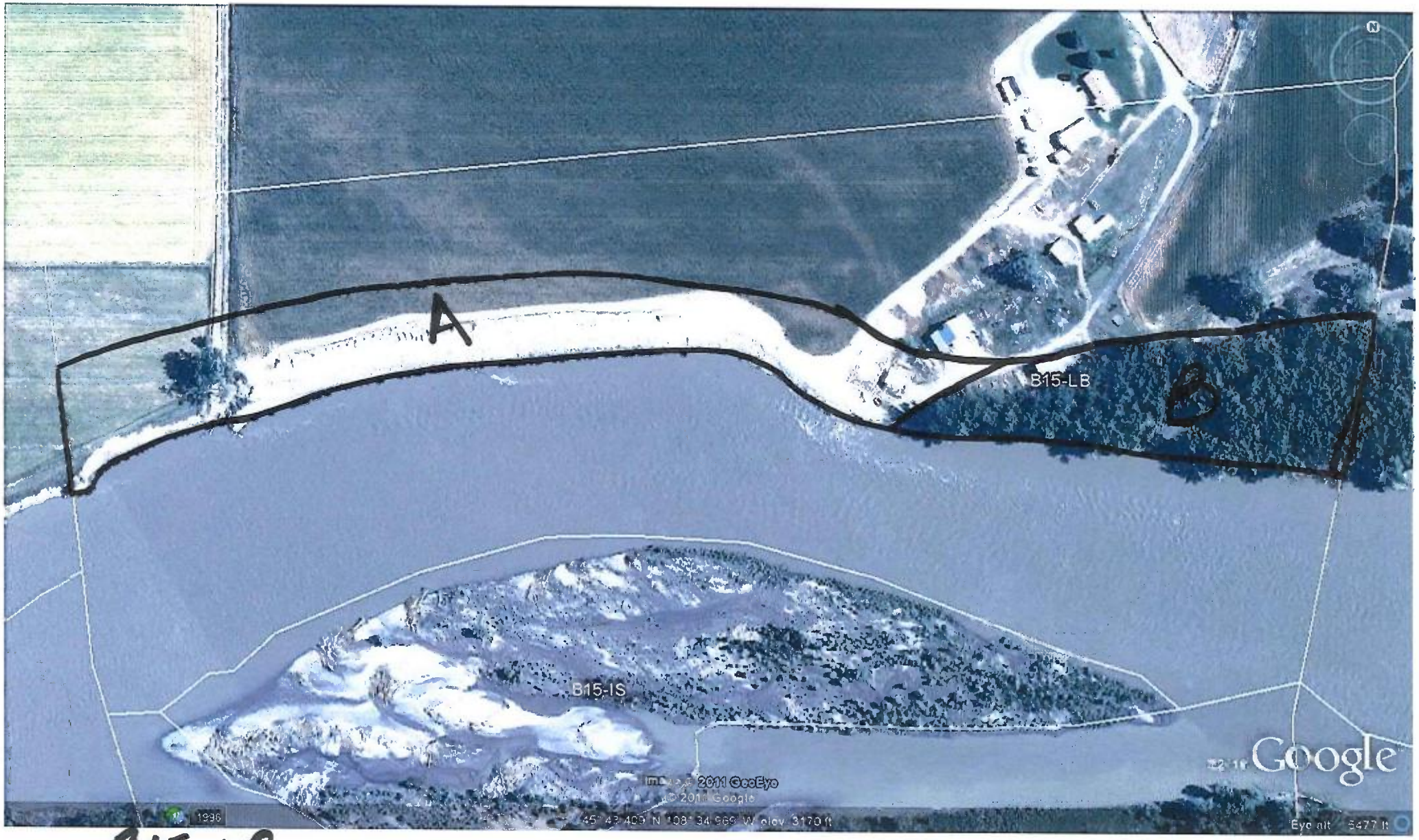
Overbank Survey Required (Y) / N Overbank Survey Completed (Y) / N Shoreline Survey Completed (Y) / N

Zone A - NOO - No Treatment required

Zone B - Trace oiling - No Further Treatment

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

Ver. 31 July 2011



B15-LB
SCAT 6
8/31/2011

DB16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 2

R

1 GENERAL INFORMATION	Date (24/08/11)	Time (24h): std / daylight	Water Level
Segment/Reach ID: B15 Left Bank / Right Bank / Island			low - mean - bankfull - overbank
Operations Division: B		14h00 hrs to 14h40 hrs	falling - steady - rising
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - 35 deg C

2 SURVEY TEAM # 3	name	organization	contact phone number
	Merlo Gauvreau	Polaris	
	Rich Marty	Polaris	
	Rachelle Thompson	EPA	
	Mark Ewanic	DEQ	

3 SEGMENT Total Segment/Reach Length 624 m Segment/Reach Length Surveyed 624 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 S ____ Sand S ____ Mixed S ____ Pebble/Cobble P ____ 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 | complete for primary

Cliff or Bluff: ____ Est Height ____ m | canyon ____ manmade ____ meander ____ confined or leveed ____ | Substrate Type: MIXED

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: < 1m 1–10 m 10–100 m >100m 77 m | est. water depth: <1 m 1-3 m 3-10 m >10 m ____ 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	624	184	<1%				P							P			DB,VG,LG

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)
	MS	LB	UB	OB	cm	cm-cm	SAP	OP	PP	OR	OF	TR	NO	cm	B, R, S, N	Yes / No	

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

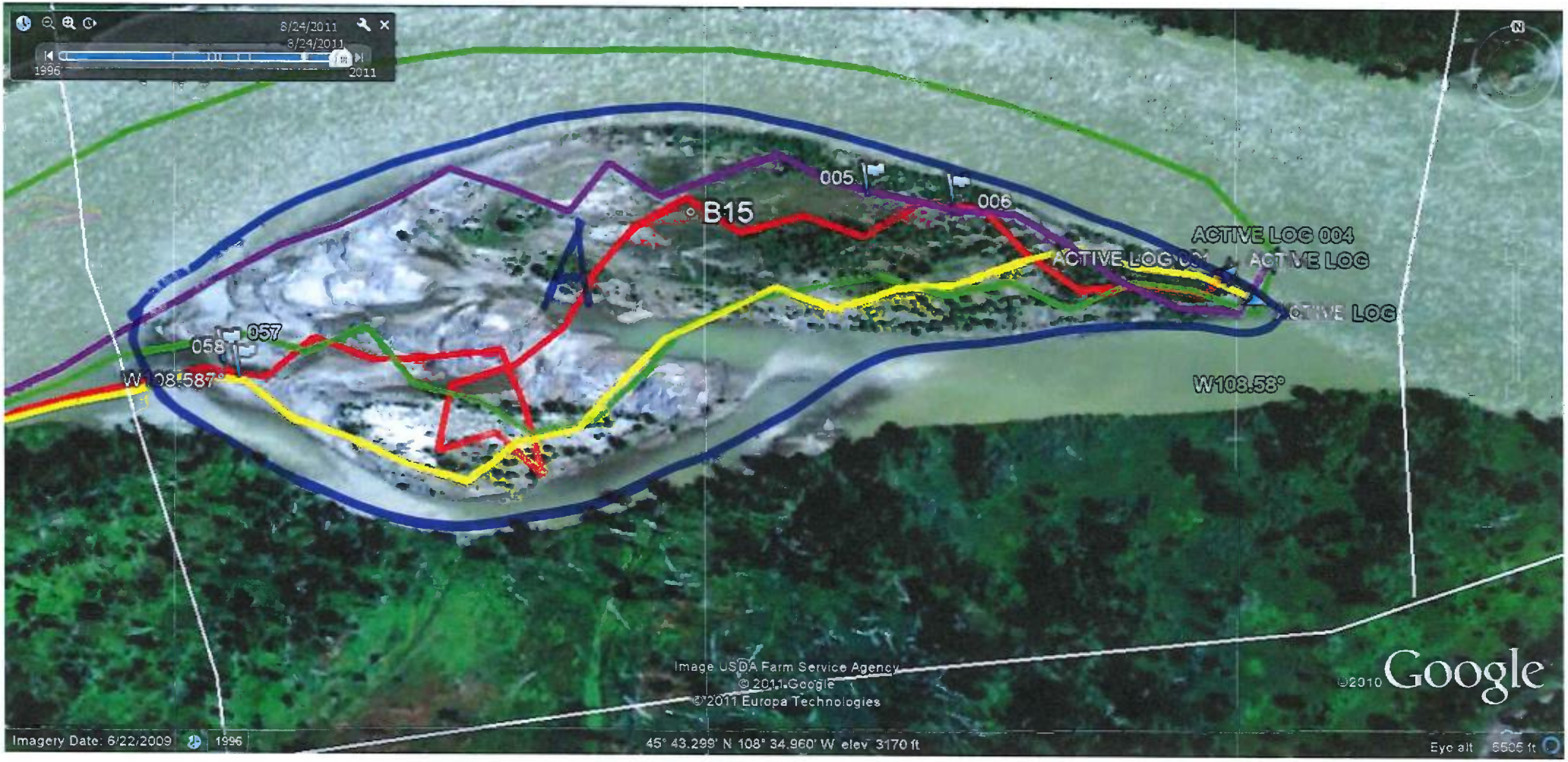
A: ReSCAT segment B15 IS; Stain on the trees and vegetation and large debris, meets the conditions of the CTR, NFT.

(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# ____

24 August
Team #3

B15/IS ReSCAT



2/2

Appendix F

Completed SCAT Segment Sign-Off Forms

Silvertip Pipeline Spill
SCAT Segment Sign-Off Sheet

COMPLETED

Operations Division:	**A** ___	**B** ✓	**C** ___
SCAT Area Number (i.e. A12):	B15		
SCAT Segment Number (i.e. A12-LB/IS/RB):	B15 RB		

Check if Complete:

1. **Completion Date for Initial SCAT Assessment:** 16JUL11 (IV) ☐
2. **Combined Treatment Recommendations (CTRs) Developed/Issued:** (Yes)/No
   List CTRs Applicable to SCAT Segment: CTR-8
3. **Clean-Up Operations Conducted:** ☑
4. **Meets Qualitative Approved Treatment Methods Target Endpoints:** (Yes)/No
5. **SCAT Reassessment:**

Sign Name	Print Name	Date
	Lance Robinson	8/26/11
Federal Representative (EPA/USCG)		
Betsy Hovda	Betsy Hovda	8/26/2011
State Representative (DEQ/EWP)		
Robert Nelson	Robert Nelson	8/26/11
RP Representative (SCAT Contractor)		
Pete Lee	Pete Lee	8/26/11
	Josh Hopkes	8/26/11

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.

SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

SILVERTIP PIPELINE RELEASE

Segment B15LB Date of Survey 08/31/11

Dates of Initial SCAT Assessments _____ (to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 18

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

Segment Assessment Complete[1] ☒

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).

Sign Name	Print Name/ Affiliation	Date
	AUSTIN WEST USCG	8/31/11

Federal Representative (EPA/USCG)

Sign Name	Print Name/ Affiliation	Date
	Justin Hawkalak MFWP	8/31/11

State Representative (DEQ/FWP)

Sign Name	Print Name/ Affiliation	Date
	NATHAN HAMMOND/CARDNO ENTRIX	8/31/11

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.

[1] 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.

Silvertip Pipeline Spill
SCAT Segment Sign-Off Sheet

Operations Division:	A ___	B 15 C ___
SCAT Area Number (i.e. A12):	B 15	
SCAT Segment Number (i.e. A12-LB/IS/RB):	B15/IS	

Complete

Check if Complete:

1. **Completion Date for Initial SCAT Assessment:** 2 August ☒
2. **Combined Treatment Recommendations (CTRs) Developed/Issued:** **Yes/No**

   List CTRs Applicable to SCAT Segment: 47

3. **Clean-Up Operations Conducted:** ☒
4. **Inspection (CTR Objectives and CTR Addendums Complete):** ☐

RP Representative (SCAT/Ops Liaison Contractor) Date

5. **SCAT Reassessment:** **Yes/No**

Rachelle Thompson 24/08/2011
Federal Representative (EPA/USCG) Date

Mark Ewanic 24/08/2011
State Representative (DEQ/FWP) Date

Pierlo Gauvreau 24/08/2011
RP Representative (SCAT Contractor) Date

Richard Marty Richard Marty 24/08/2011

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.

Revised: 8.3.2011