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ExxonMobil Pipeline Company

SCAT Area Transition Report for A26

Silvertip Pipeline Incident
Laurel, Montana

October 28, 2011

SCAT Area Transition Report for A26

Silvertip Pipeline Incident
Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

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October 28, 2011

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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 A26, 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 A26. 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 A26, 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 A26 is 83.6. There was an access issue for the right bank but access was granted for SCAT, operations, and SCAT reassessment at scheduled times.

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 A26. Three lightly oiled wood ducks (*Aix sponsa*) (a pair and a solitary male) and a lightly oiled Canada goose (*Branta canadensis*) were observed; none were captured and cleaned. A moderately oiled deceased wild turkey (*Meleagris gallopavo*) was identified and retained. Three deceased animals with no visible oiling were also identified and retained: a fish (unknown species), a crayfish, and a wild turkey. A Wildlife Priority Cleanup Area (WPCA) was identified in Area A26. The WPCA consisted of woody debris and vegetation with transferable oil. The WPCA was treated to reduce the potential for wildlife oiling and is no long considered a wildlife hazard. A portion of a great blue heron (*Ardea herodias*) rookery is located in Area A26, and a $^{1}/_{8}$-mile buffer zone was provided to Operations to protect active nests.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area A26. 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 A26 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
MDEQ	5T-071411-KW2	14-Jul-11	Soil_Surface	5T-KW-02	45.68413	-108.66086
MDEQ	5T-071411-KW3	14-Jul-11	Soil_Surface	5T-KW-03	45.68426	-108.66399
MDEQ	5T-071811-KW5	18-Jul-11	Soil_Surface	5T-KW-07	45.68571	-108.66224

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 eight exceedances: one each for C9-C12 aliphatics, C9-C18 aliphatics, C19-C36 aliphatics, C9-C10 aromatics, C11-C22 aromatics, and total purgeable hydrocarbons; and two for 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 A26 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area A26.

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. 13, CTR No. 15, and CTR No. 23).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area A26 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 (PPE), 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 A26 and developed a Pre-Inspection Survey Transmittal (PIST) associated with the islands within Area A26, which is presented in Appendix C.

1.8 Post-Inspection Survey Transmittal

SCAT Operations liaisons performed an inspection of the remediated areas of SCAT Area A26 and developed a Post-Inspection Survey Transmittal (POST) associated with the islands within Area A26, which is presented in Appendix D.

1.9 Summary of Final SCAT Surveys

Figure 5 shows the oiling conditions within Area A26 following completion of oil removal activities. The SCAT team performed final surveys of the islands, left bank, and right bank within SCAT Area A26 to confirm that 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 islands, left bank, and right bank within Area A26, no further treatment is recommended for these segments. SCAT Segment Sign-Off Forms are included as Appendix F.

A Wildlife Exception Memo was created to identify wildlife hazards in Area A26. The areas identified in the Wildlife Exception Memo were treated and are no longer considered a wildlife hazard. No additional work is required in this area. Details of the action taken are described in Appendix G.

2. Transition Sign-Off Form

SCAT Area Transition Report for A26

Prepared for:

Unified Command

_____

Date

_____

Unified Command – RP

SCAT Area Transition Report for A26

Prepared for:

Unified Command

_____

Date

_____

Unified Command – FOSC

SCAT Area Transition Report for A26

Prepared for:

Unified Command

_____

Date

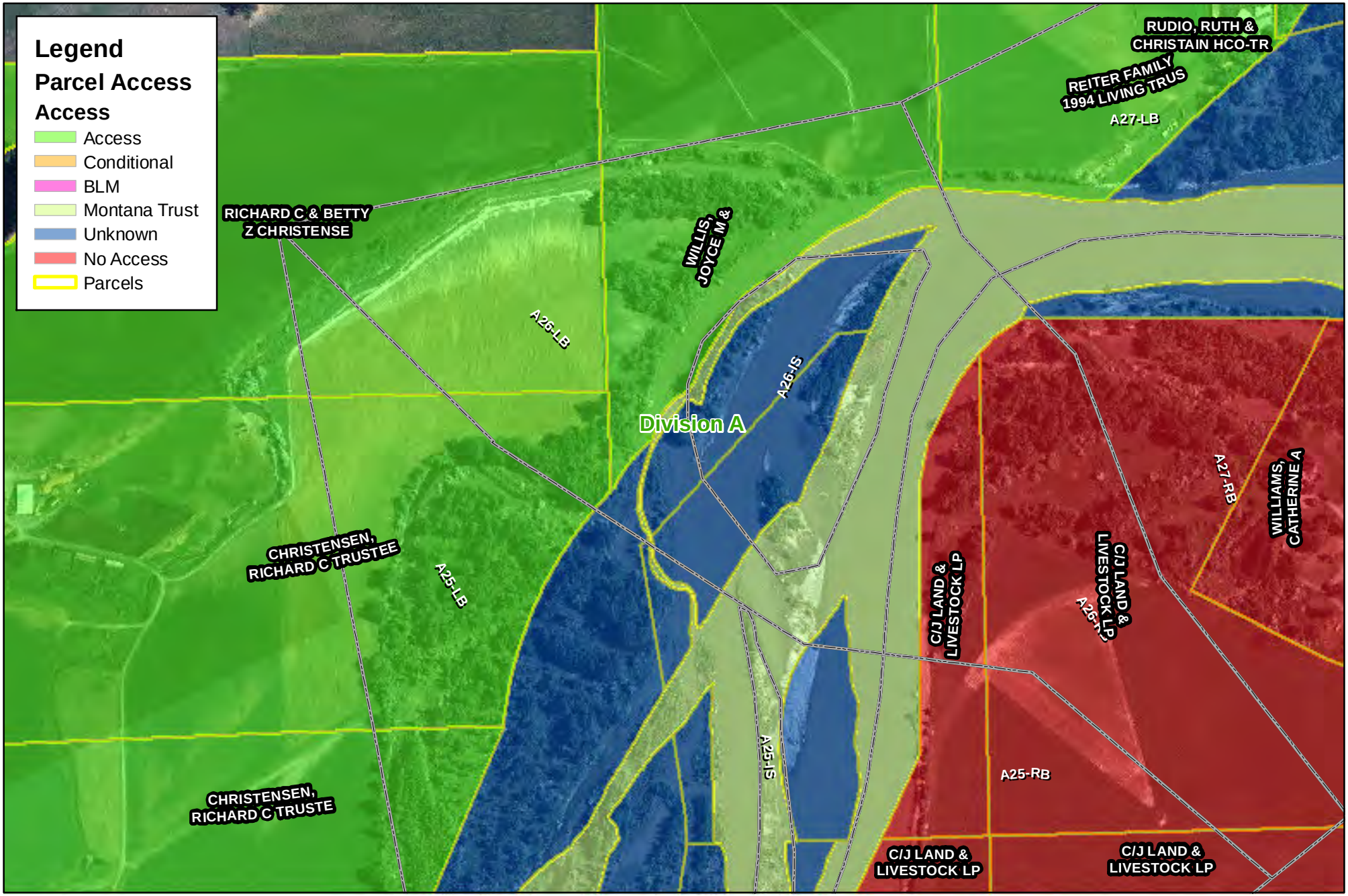
_____

Unified Command – MDEQ

Silvertip Pipeline Incident
Area Transition Report Map - Parcels
Segment - A26

9/27/2011

1:6,000



0 600 1,200 2,400 Feet

Figure 1

Date: 9/27/2011 Time: 11:30:33 AM

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

Silvertip Pipeline Incident
SCAT Area Transition Report Map
Area - A26

ExxonMobil Pipeline

N

1:7,200

9/27/2011

The Response Group

Path: P:\GIS\MXD's\Wildlife\ATR Maps - Figure 2\ATR Map_Div.A_Fig2_09242011.mxd

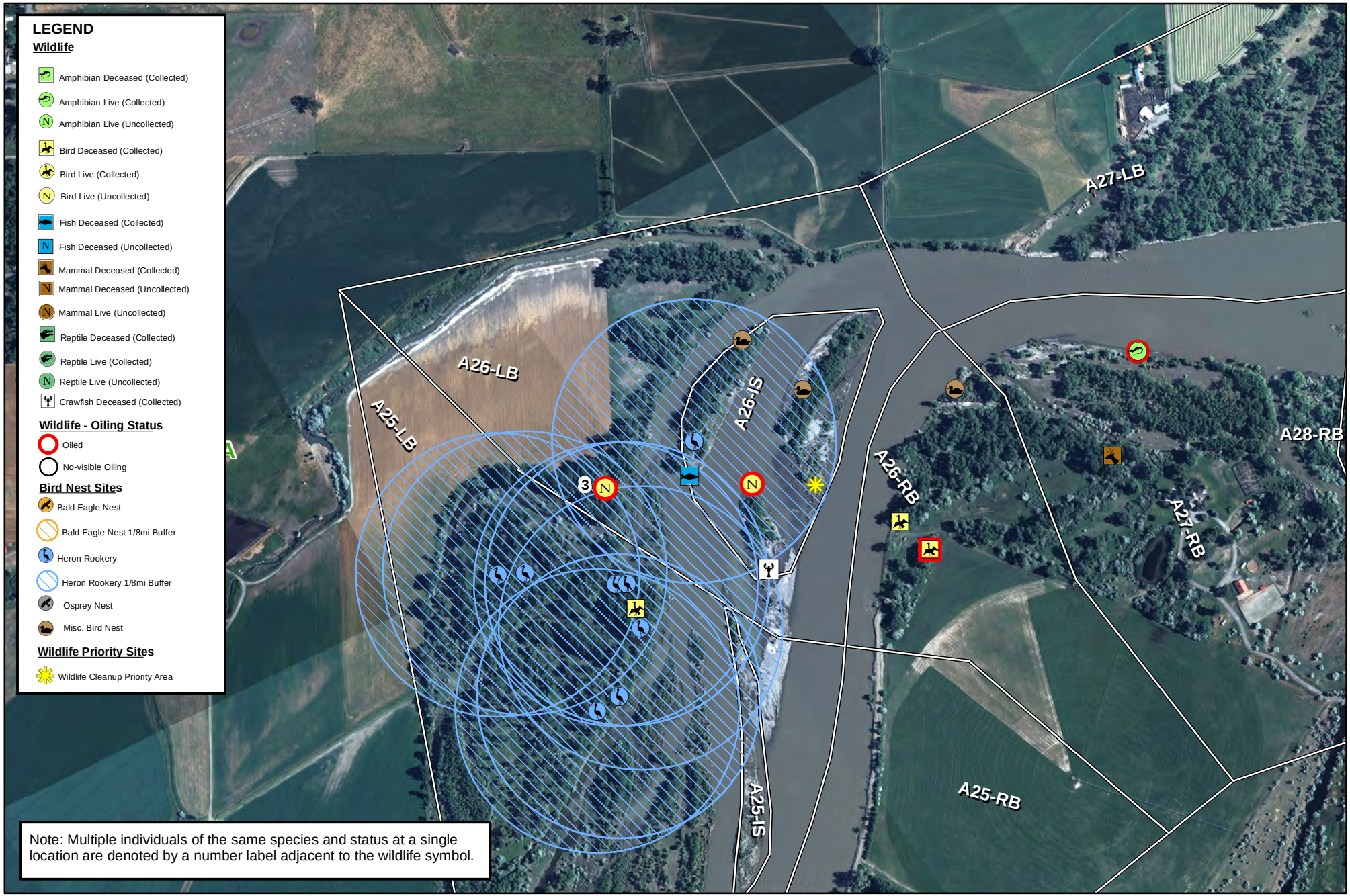


Figure 2
Wildlife Resources

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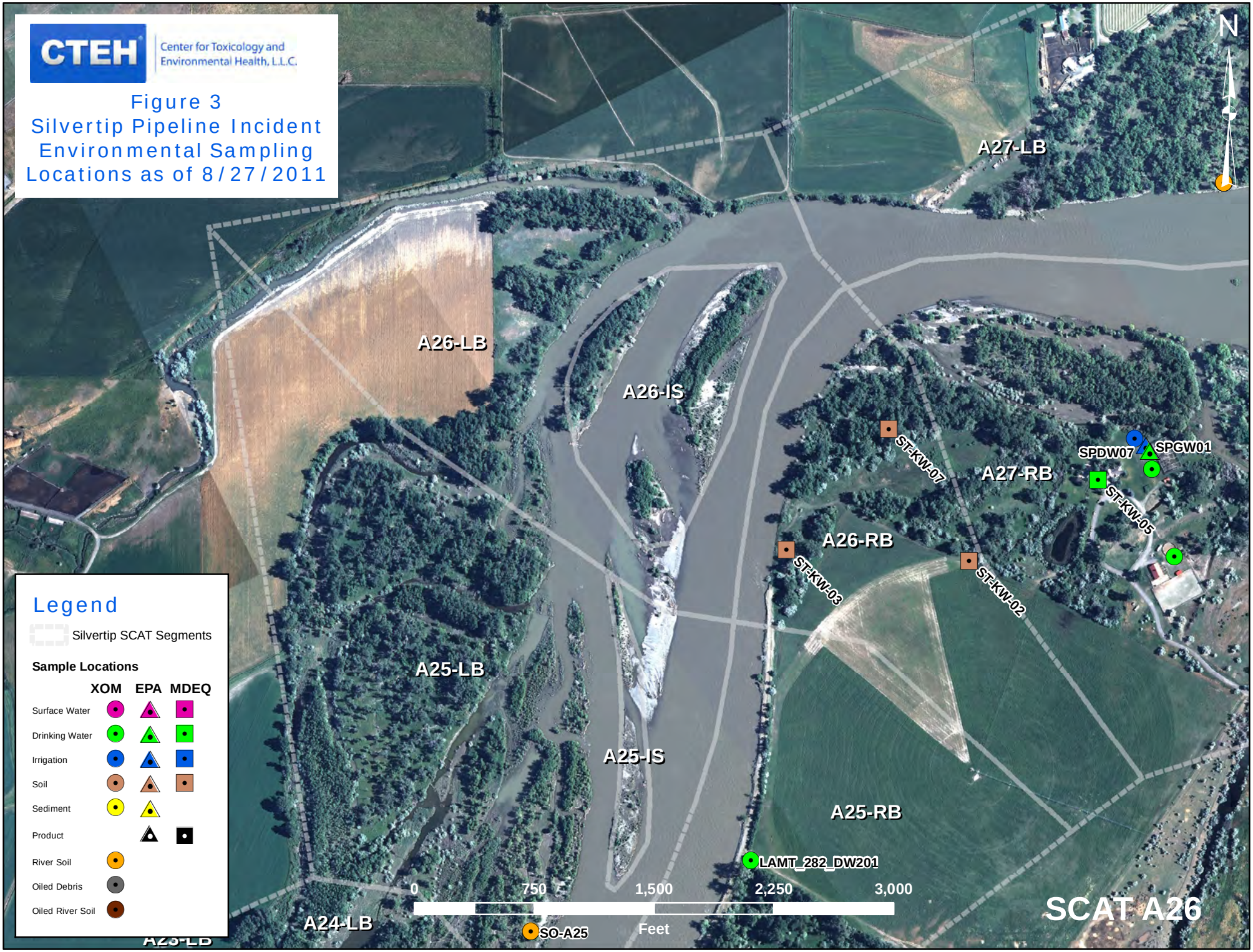
CTEH
Center for Toxicology and Environmental Health, L.L.C.
Figure 3
Silvertip Pipeline Incident
Environmental Sampling
Locations as of 8/27/2011
N
A27-LB
A26-LB
A26-IS
A27-RB
A26-RB
A25-LB
A25-IS
A25-RB
A24-LB
A23-LB
ST-KW-07
SPDW07
SPGW01
ST-KW-05
ST-KW-03
ST-KW-02
LAMT_282_DW201
SO-A25
Legend
Silvertip SCAT Segments
Sample Locations
XOM EPA MDEQ
Surface Water
Drinking Water
Irrigation
Soil
Sediment
Product
River Soil
Oiled Debris
Oiled River Soil
0 750 1,500 2,250 3,000
Feet
SCAT A26

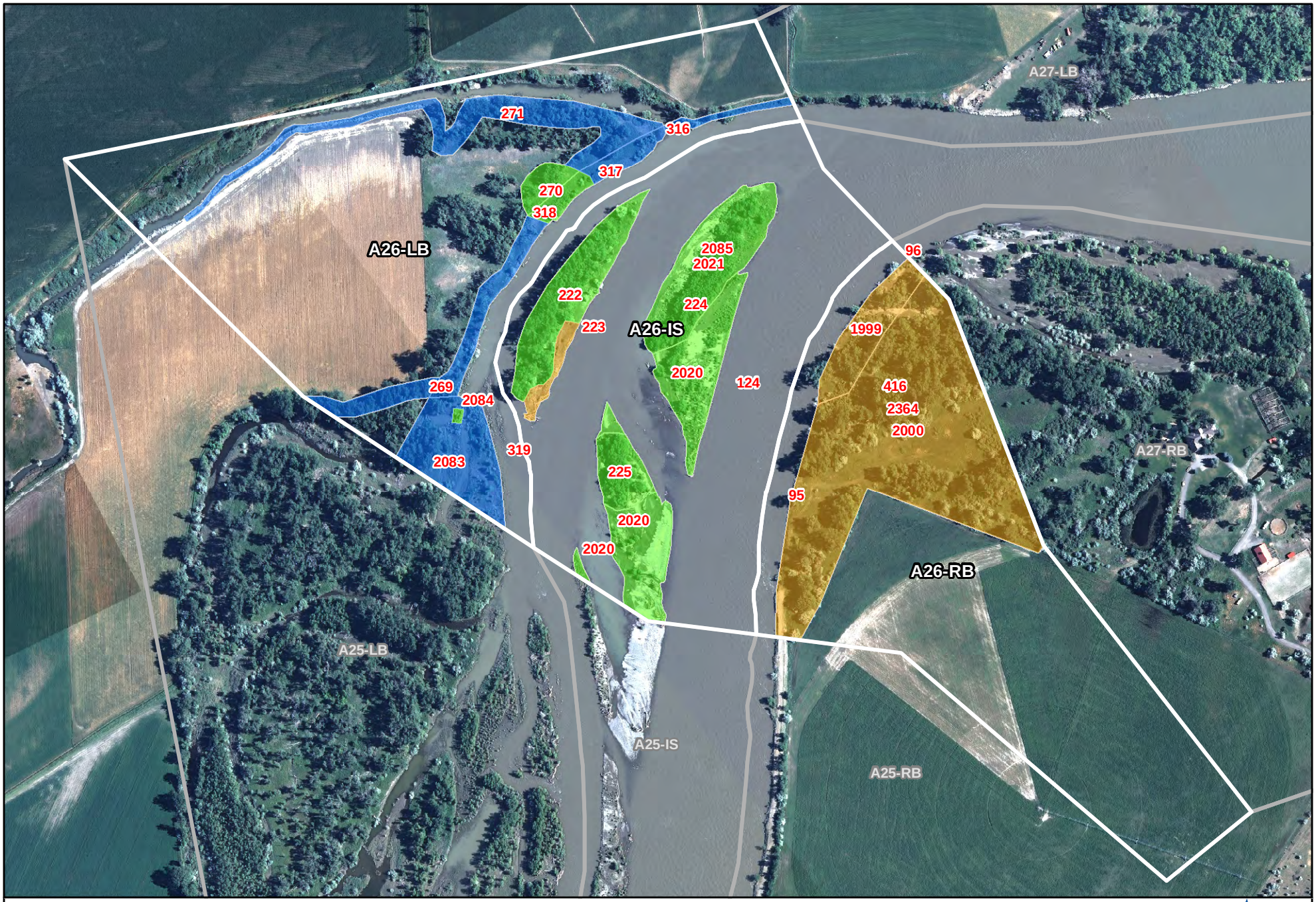

Figure 4 - Maximum SCAT Observations For SCAT Area: A26

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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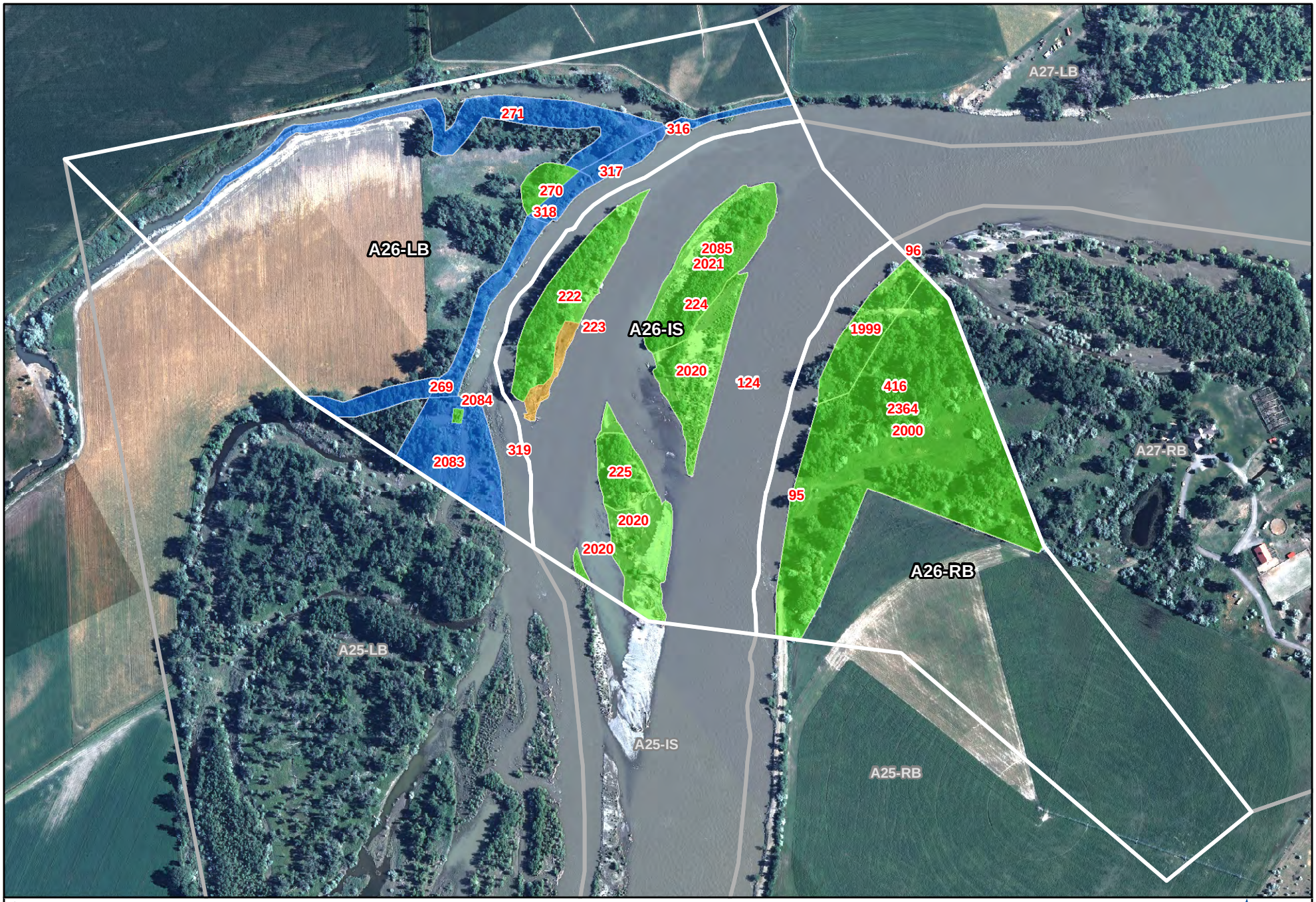

Figure 5 - Final SCAT Observations For SCAT Area: A26

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 A26

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-071411-KW2		Field	Soil_Surface	8260B	1,2-Dichloroethane-d4	Y	76	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8270C	2,4,6-Tribromophenol	Y	74	NA		%	no
ST-071411-KW2		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Bromonaphthalene	Y	94	NA		%	no
ST-071411-KW2		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Fluorobiphenyl	Y	87	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8270C	2-Fluorobiphenyl	Y	69	NA		%	no
ST-071411-KW2		Field	Soil_Surface	MA-EPH-MDEQ-REM	C11-C22 Aromatics	Y	70	400		mg/kg	no
ST-071411-KW2		Field	Soil_Surface	MA-EPH-MDEQ-REM	C19-C36 Aliphatics	Y	126	20000		mg/kg	no
ST-071411-KW2		Field	Soil_Surface	8260B	Dibromofluoromethane	Y	86	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8270C	Nitrobenzene-D5	Y	63	NA		%	no
ST-071411-KW2		Field	Soil_Surface	MA-EPH-MDEQ-REM	Octadecane, 1-chloro-	Y	82	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8270C	o-Fluorophenol	Y	59	NA		%	no
ST-071411-KW2		Field	Soil_Surface	MA-EPH-MDEQ-REM	o-Terphenyl	Y	86	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8260B	p-Bromofluorobenzene	Y	80	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8270C	Phenol-d5	Y	69	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8270C	Terphenyl-d14	Y	69	NA		%	no
ST-071411-KW2		Field	Soil_Surface	8260B	Toluene-d8	Y	97	NA		%	no
ST-071411-KW2		Field	Soil_Surface	MA-EPH-MDEQ-REM	Total Extractable Hydrocarbons	Y	**269**	200		mg/kg	YES
ST-071411-KW3		Field	Soil_Surface	8260B	1,2-Dichloroethane-d4	Y	64	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8270C	2,4,6-Tribromophenol	Y	72	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8270C	2-Fluorobiphenyl	Y	68	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8260B	Dibromofluoromethane	Y	69	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8270C	Nitrobenzene-D5	Y	66	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8270C	o-Fluorophenol	Y	66	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8015M-MDEQ-REM	o-Terphenyl	Y	80	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8260B	p-Bromofluorobenzene	Y	69	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8270C	Phenol-d5	Y	70	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8270C	Terphenyl-d14	Y	56	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8260B	Toluene-d8	Y	79	NA		%	no
ST-071411-KW3		Field	Soil_Surface	8015M-MDEQ-REM	Total Extractable Hydrocarbons	Y	122	200		mg/kg	no
ST-071811-KW5		Field	Soil_Surface	8260B	1,2-Dichloroethane-d4	Y	103	NA		%	no
ST-071811-KW5		Field	Soil_Surface	8270C	2,4,6-Tribromophenol	Y	67	NA	D	%	no

Detections in Samples Collected in SCAT Area A26

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-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Bromonaphthalene	Y	98	NA		%	no
ST-071811-KW5		Field	Soil_Surface	8270C	2-Fluorobiphenyl	Y	67	NA	D	%	no
ST-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	2-Fluorobiphenyl	Y	108	NA		%	no
ST-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	C11-C22 Aromatics	Y	**75000**	400		mg/kg	YES
ST-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	C19-C36 Aliphatics	Y	**89700**	20000		mg/kg	YES
ST-071811-KW5		Field	Soil_Surface	MA-VPH-MDEQ-REM	C9-C10 Aromatics	Y	**584**	100	D	mg/kg	YES
ST-071811-KW5		Field	Soil_Surface	MA-VPH-MDEQ-REM	C9-C12 Aliphatics	Y	**1720**	100	D	mg/kg	YES
ST-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	C9-C18 Aliphatics	Y	**51200**	200		mg/kg	YES
ST-071811-KW5		Field	Soil_Surface	8260B	Dibromofluoromethane	Y	107	NA		%	no
ST-071811-KW5		Field	Soil_Surface	8270C	Nitrobenzene-D5	Y	78	NA	D	%	no
ST-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	Octadecane, 1-chloro-	Y	82	NA		%	no
ST-071811-KW5		Field	Soil_Surface	8270C	o-Fluorophenol	Y	60	NA	D	%	no
ST-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	o-Terphenyl	Y	227	NA		%	no
ST-071811-KW5		Field	Soil_Surface	8260B	p-Bromofluorobenzene	Y	97	NA		%	no
ST-071811-KW5		Field	Soil_Surface	8270C	Phenol-d5	Y	62	NA	D	%	no
ST-071811-KW5		Field	Soil_Surface	8270C	Terphenyl-d14	Y	65	NA	D	%	no
ST-071811-KW5		Field	Soil_Surface	MA-VPH-MDEQ-REM	Toluene	Y	4.5	10	D	mg/kg	no
ST-071811-KW5		Field	Soil_Surface	8260B	Toluene	Y	3.5	10	J	mg/kg	no
ST-071811-KW5		Field	Soil_Surface	8260B	Toluene-d8	Y	91	NA		%	no
ST-071811-KW5		Field	Soil_Surface	MA-EPH-MDEQ-REM	Total Extractable Hydrocarbons	Y	**248000**	200		mg/kg	YES
ST-071811-KW5		Field	Soil_Surface	MA-VPH-MDEQ-REM	Total Purgeable Hydrocarbons	Y	**5280**	200	D	mg/kg	YES

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Appendix B

Initial SCAT Survey Forms and Sketches

DB / a / Sc

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: A26 Left Bank / Right Bank / Island	11-Jul-2011	1044 hrs to 1045 hrs	low - mean - bankfull - **overbank**
Operations Division: A			**falling** - steady – rising
Survey by: Foot / ATV / **Boat** / Helicopter / Overlook / _____	**Sun** / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - **29.4** deg C

2 SURVEY TEAM # 2 & 4	name	organization	contact phone number
	Andrew Milanes	Polaris	
	Tom Freeman	Polaris	
	Andrew Johnson	USCG	
	Travis Olson	USCG	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 486 m

Start GPS: LATITUDE _____ deg. _____ min. LONGITUDE _____ deg. _____ min. Datum: _____

End GPS: LATITUDE _____ deg. _____ min. LONGITUDE _____ deg. _____ min.

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

Bedrock: Cliff/Ramp_____ Shelf_____ | Manmade: Solid___ Permeable___ (type)_____ | Wetland: Swamp_____ Bog/Fen_____ Marsh _____

Sediment Bank: Clay/Mud_____ Sand_____ Mixed S___ Pebble/Cobble S___ 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 _____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 1 ____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	X	486	1	60			X	X		X								Grass, trees, debris

124

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

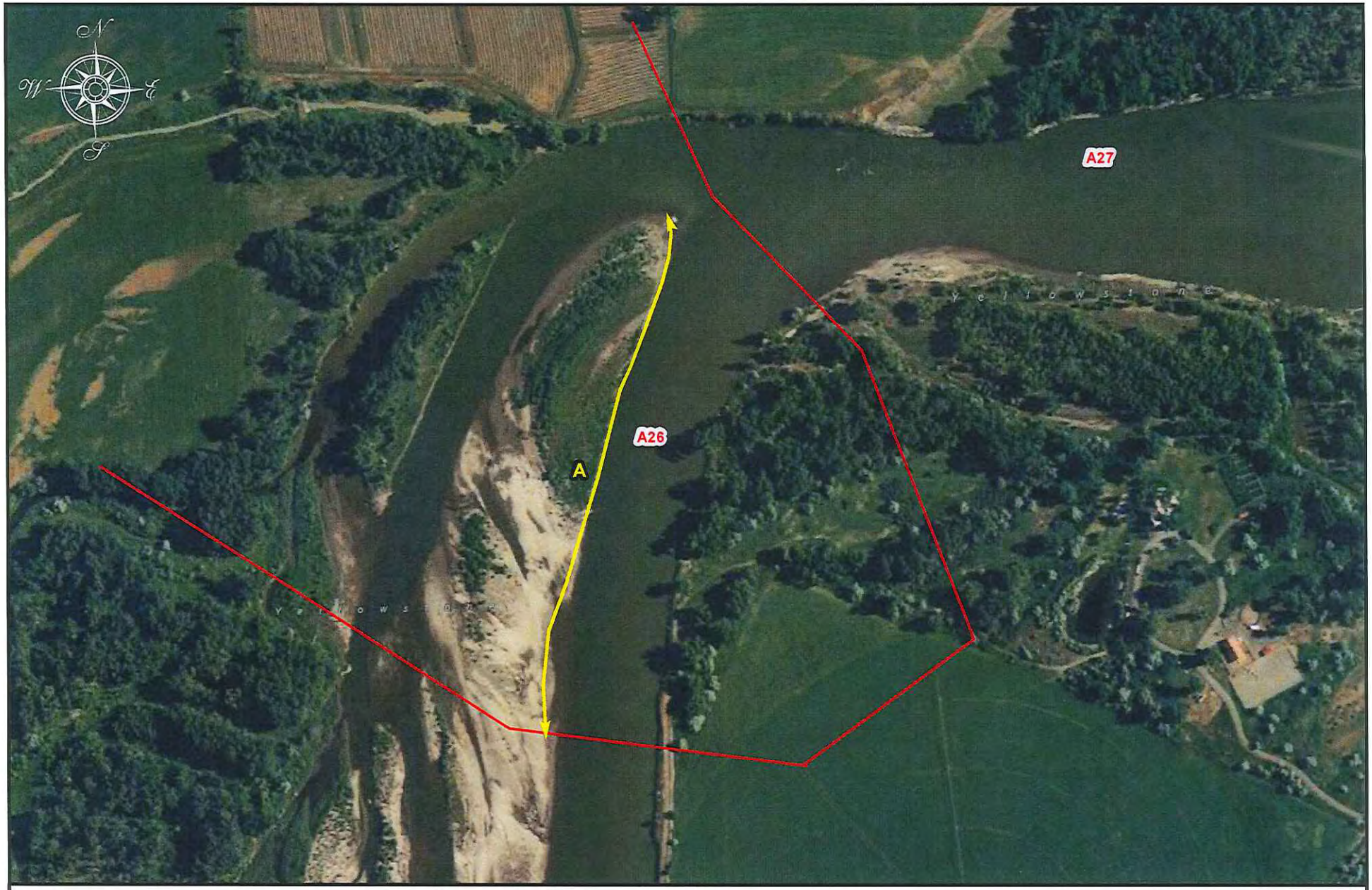
Oiled Band Heights: Zone A - 40cm

Due to survey platform (jet-drive boat) oil band width and heights are estimates. Unable to verify by foot.

Cleanup Recommendations: Trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees;

(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#_____



SCAT Teams 2 & 4 Survey

Segment A26 Left Bank

11-Jul-2011

400 0 400

Feet

Legend

Oil Zones

Segment Boundaries

DB/6/15c

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: A26 Left Bank / Right Bank / **Island**	15-Jul-2011	1105 hrs to 1200 hrs	low - mean - bankfull - **overbank**
Operations Division: A			**falling** - steady – rising
Survey by: **Foot** / ATV / Boat / Helicopter / Overlook / _____		**Sun** / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - 32 deg C

2 SURVEY TEAM # 1 & 2	name	organization	contact phone number
Andrew Milanes	ANM	Polaris	
Tom Freeman	THF	Polaris	
Bruce Kvam	BBK	Polaris	
Pete Lee	PDL	Polaris	
Travis Olson		USCG	
Aaron Anderson	AA	MTDEQ	406-841-5049 Betsy Hordal for AA DEQ
Darrick Turner		MTDEQ	406-444-1504 Betsy Hordal for DT DEQ

3 SEGMENT *Total Segment/Reach Length* _____ m *Segment/Reach Length Surveyed* 680 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 S___ Boulder_____ Peat/Organic_____ ***Vegetated Bank:*** S ***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: 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 117m** **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 5 ___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	
222 A				X	240	50	5			X	X		X								Grass, trees, debris
223 B				X	130	15	15	X	X	X	X		X								Grass, trees, debris, water
224 C				X	240	50	5		X	X	X		X								Grass, trees, debris
225 D				X	70	40	5		X	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*

Oil band heights: Zone A – 30cm; Zone B – 40cm; Zone C – 20cm; Zone D – 20cm

Treatment Recommendations:

Zones A, C, D: Cut & remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.

Zone B: Remove pooled oil with sorbents. Cut & remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris. Due to the size and quantity of oil coated debris in this zone, alternative methods, such as burning, could be considered.

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

Sketch **Yes** / No **Photos** **Yes** / No **Photo Numbers** 4174-4210 (Milanes); 0474-0518 (Freeman)

DB/6/Se

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: A26 Left Bank / Right Bank / Island	15-Jul-2011	1105 hrs to 1200 hrs	low - mean - bankfull - overbank
Operations Division: A			falling - steady -- rising
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____	Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - 32 deg C

2 SURVEY TEAM # 1 & 2	name	organization	contact phone number
Andrew Milanes	ANM	Polaris	
Tom Freeman	THF	Polaris	
Bruce Kvam	BBK	Polaris	
Pete Lee	PDL	Polaris	
Travis Olson		USCG	
Aaron Anderson	AA	MTDEQ	406-841-5049
Darrick Turner	Darrick Turner	MTDEQ	406-444-1504

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 680 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 S ____ Boulder ____ Peat/Organic ____ | Vegetated Bank: S | 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: 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 117m — 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 6 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	240	50	5			X	X		X								Grass, trees, debris
B				X	130	15	15	X	X	X	X		X								Grass, trees, debris, water
C				X	240	50	5		X	X	X		X								Grass, trees, debris
D				X	70	40	5		X	X	X		X								Grass, trees, debris

222 223 224 225

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

Oil band heights: Zone A – 30cm; Zone B – 40cm; Zone C – 20cm; Zone D – 20cm

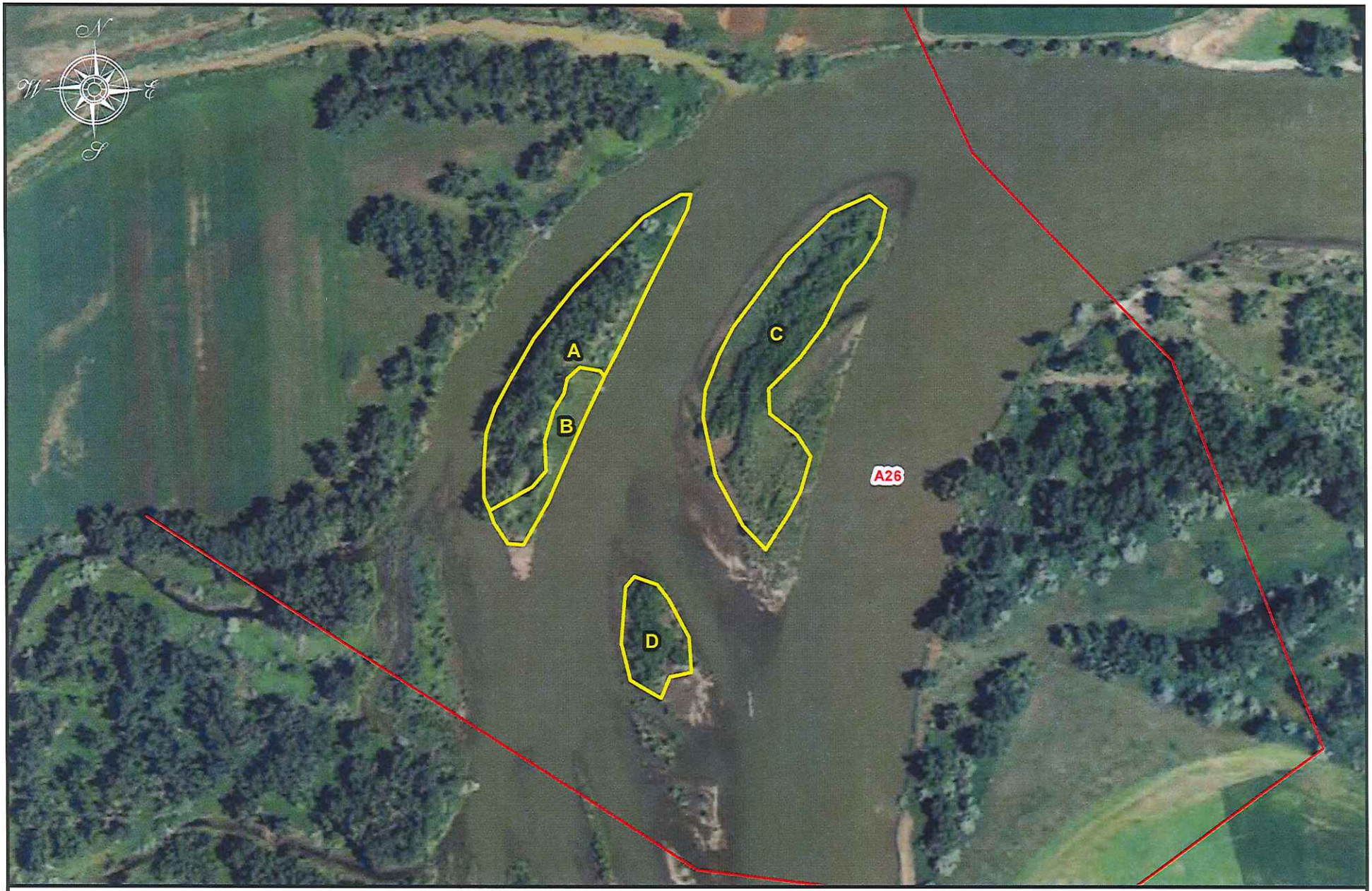
Treatment Recommendations:

Zones A, C, D: Cut & remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.

Zone B: Remove pooled oil with sorbents. Cut & remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris. Due to the size and quantity of oil coated debris in this zone, alternative methods, such as burning, could be considered.

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

Sketch Yes / No Photos Yes / No Photo Numbers 4174-4210 (Milanes); 0474-0516 (Freeman)



SCAT Teams 1 & 2 Survey

Segment A26 - Island

15 July 2011

300 0 300

Feet

Legend

Segment Boundaries

Oiling Zones

DB16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION

Segment/Reach ID: A 26 Left Bank / Right Bank / Island

Operations Division:

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

Date (dd/mm/yy): 1/9/11

Time (24h): std / daylight: 13:00 hrs to 14:00 hrs

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

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

Air Temp + / - 21 deg C

2 SURVEY TEAM # 1

Name	Organization	Signature
Tom Freeman	Polaris	Tom Freeman
Griff Miller	EPA	
Jeffrey Herrick	MT DEQ	

3 SEGMENT Total Segment/Reach Length 380 m Segment/Reach Length Surveyed 380 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 S Pebble/Cobble S 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: mixed

Sloped: ___ (>5°)(15°)(30°) | straight_____ braided X oxbow ~~X~~ flood plain valley X | 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 ~~X~~ 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	
A				X	335	90	<1			S	P						X				Debris/Veg
B				X	150	80	<1			P	S						X				Debris/Veg
~~B~~				~~X~~	~~200~~	~~100~~															

2020
2021

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	

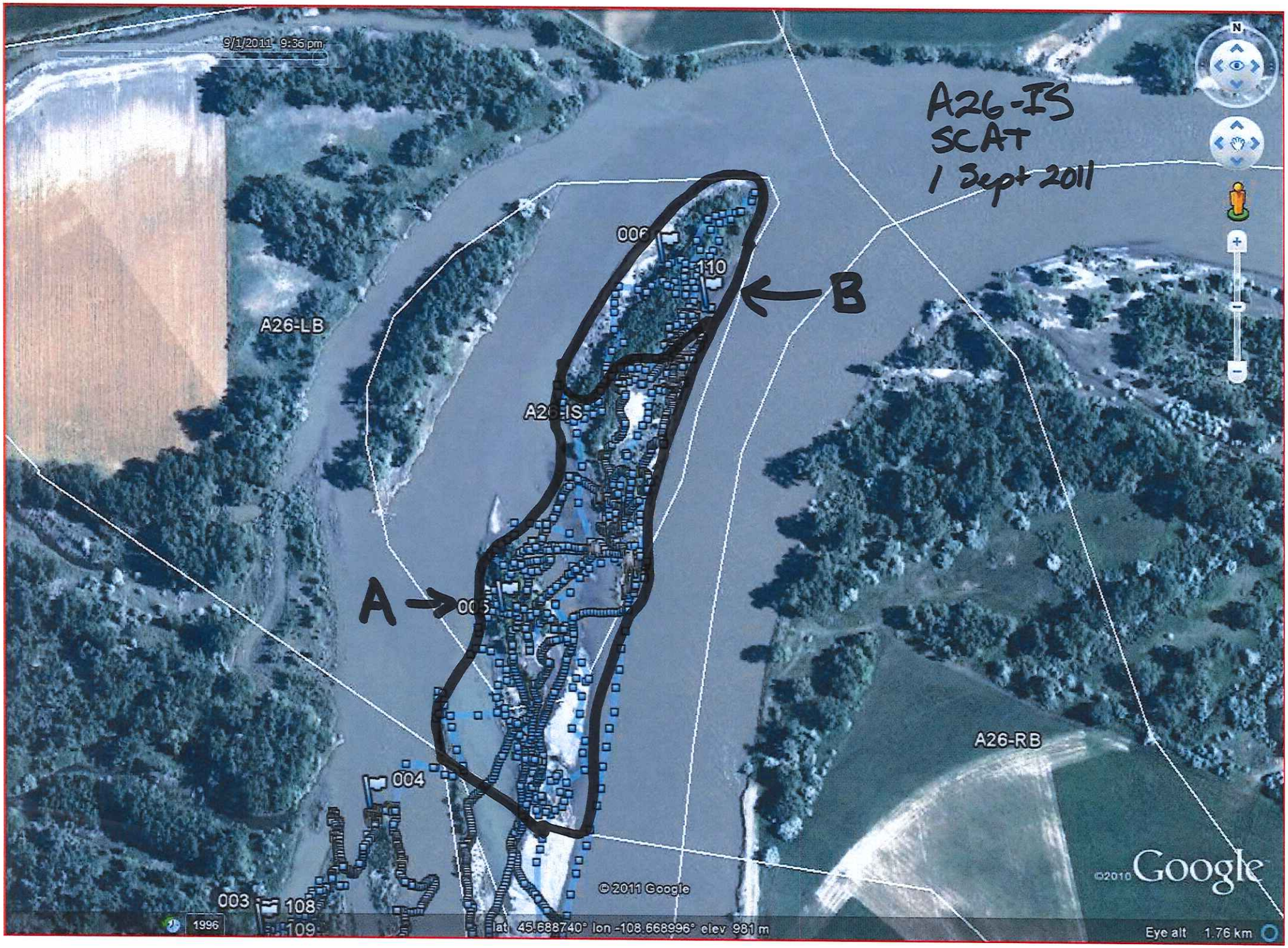
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Zone A: NFT

Zone B: Operations currently active, dusting and removing CT from vegetation, estimate 2 days to ~~clean~~ clear area. Currently 10 man crew on site.

Sketch Yes / No Photos Yes / No Frames_____ Photographer_____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A26-IS
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A26-LB
A26-RB
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006
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109
© 2011 Google
©2010 Google
1996
lat 45.688740° lon -108.668996° elev 981 m
Eye alt 1.76 km

DB/B/Sc

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of _____

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: A26 (Left Bank) / Right Bank/Island	17/07/2011	1420 hrs to 1530 hrs	low - mean - bankfull - **overbank**
Operations Division: A			**falling** - steady - rising
Survey by: **Foot** / ATV / Boat / Helicopter / Overlook / _____	**Sun** / Clouds / Fog / Rain / Snow / Windy / **Calm**		Air Temp + / - 33 deg C

2 SURVEY TEAM # 3	Name:	Organization:	Signature:
Jenni Nelson	JN	Polaris	
Mike Ruggles	MR	Montana Fish Wildlife and Parks	
Janice Witul	JW	EPA	
Rebecca Ridenour	RR	MDEQ	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 1055 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_____ 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
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 200__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 0 bags or ___ trucks access restrictions: Area is wet & heavily vegetated, fences around fields.

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	360	—	0													X	veg
B				X	70	50	41				X										veg
C				X	625	—	0													X	veg

269 270 271

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*

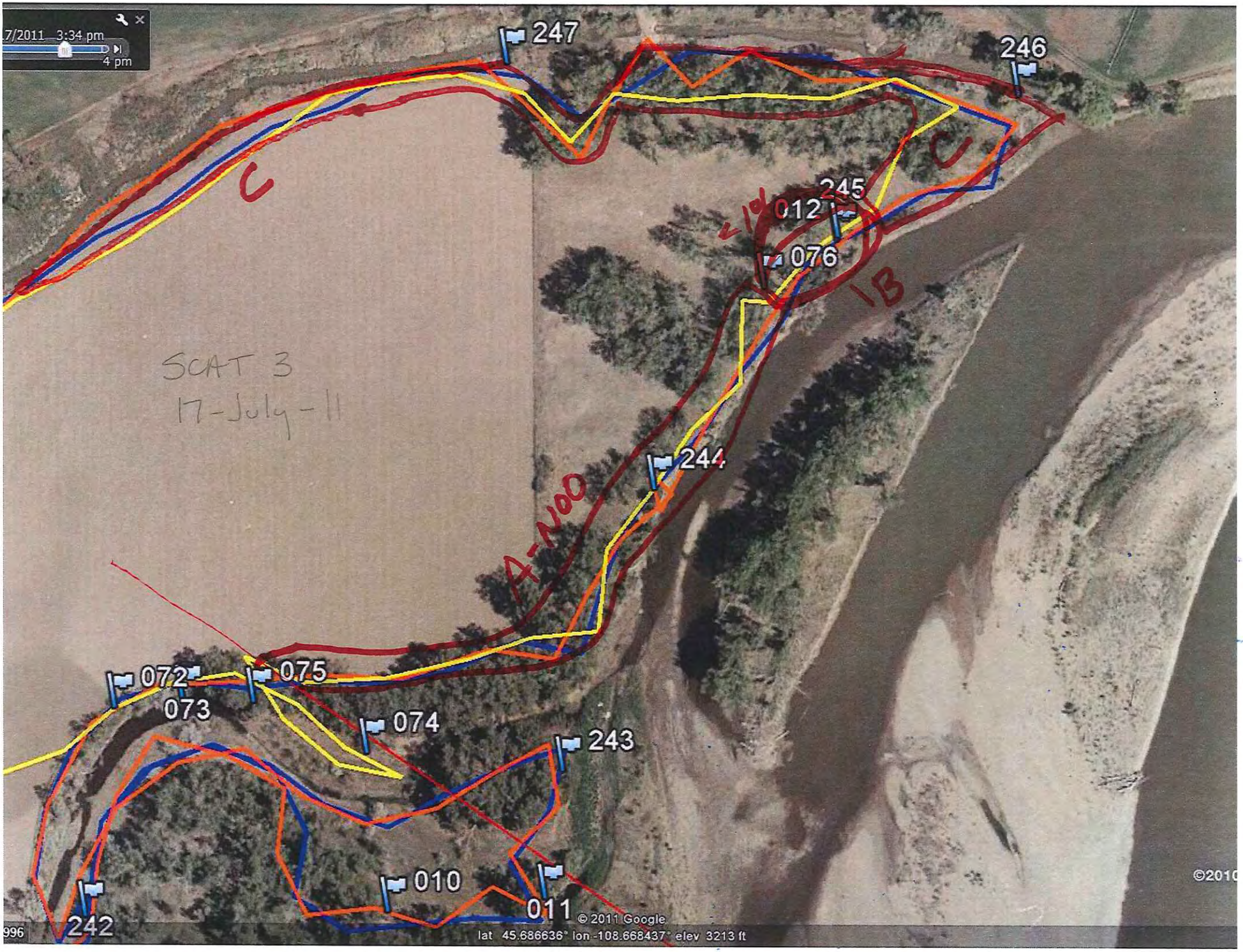
A – no oil observed – bank of channel & overwash

B – area of grass, flattened, some bath tub ring oil stain on blades

C – No oil observed – bank of channel & along irrigation ditch into farm fields, & through wooded area along side channel. 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#_____)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SCAT 3
17-July-11
© 2011 Google
lat 45.686636° lon -108.668437° elev 3213 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: A26 **Left Bank** / Right Bank / Island	18-Jul-2011	1044 hrs to 1045 hrs	low - mean - **bankfull** - overbank
Operations Division: A			**falling** - steady – rising
Survey by: Foot / ATV / **Boat** / Helicopter / Overlook / _____	**Sun** / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - 32 deg C

2 SURVEY TEAM # 1 & 2	name	organization	contact phone number
	Andrew Milanes	Polaris	
	Bruce Kvam	Polaris	
	Pete Lee	Polaris	
	Andy Johnson	USCG	
	Travis Olson	USCG	
	Aaron Anderson	MTDEQ	
	Larry Elheim	MTDEQ	

3 SEGMENT *Total Segment/Reach Length* _____ *m* *Segment/Reach Length Surveyed* 455 *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) 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 _____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		103	1														X	Grass, trees
B			X		51	1	25			X	(X)		X								Grass, trees
C			X		170	1														X	Grass, trees
D			X	X	131	1														X	Grass, trees

316
317
318
319

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*

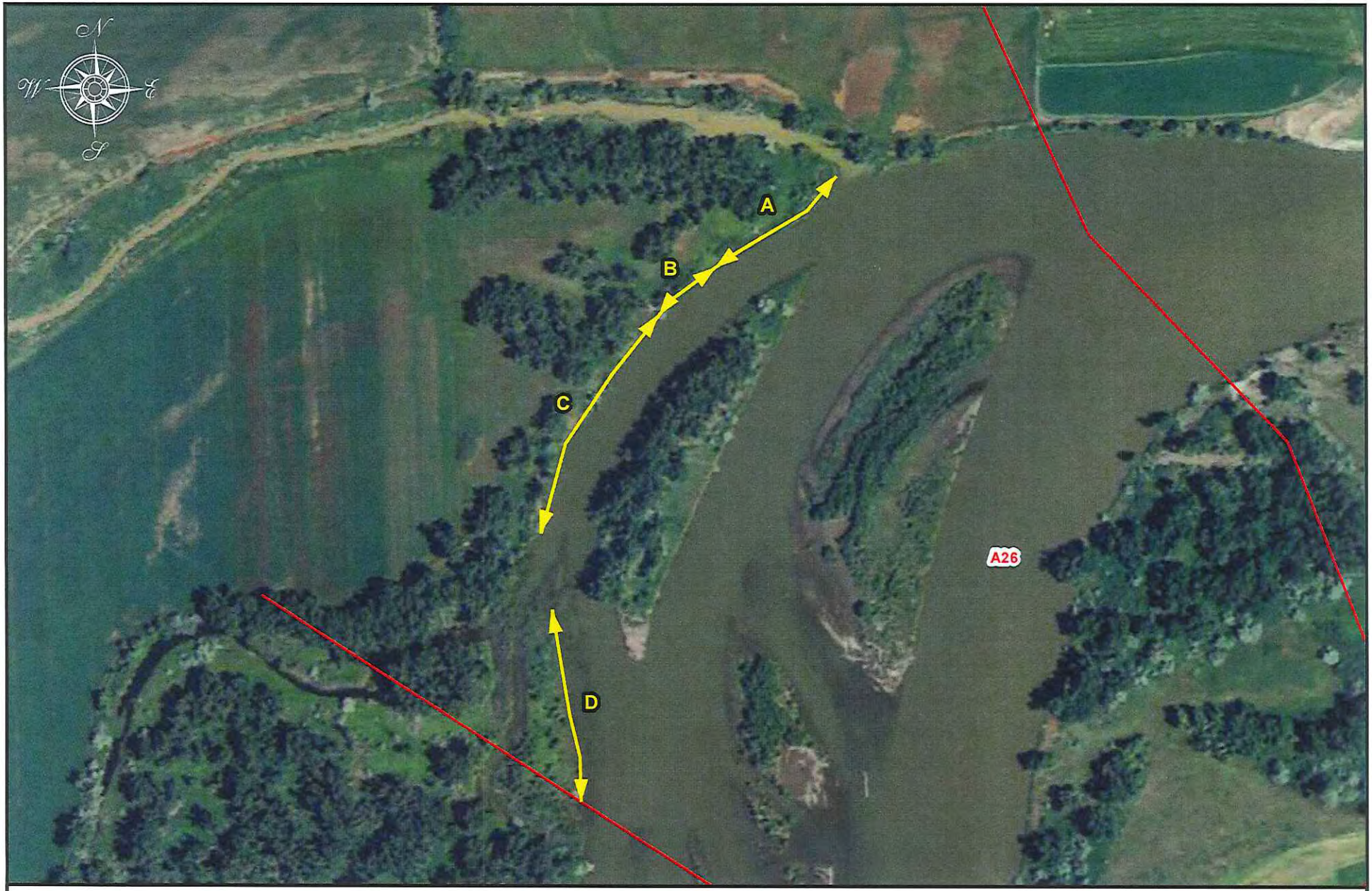
Height of oiled band on vegetation: Zone B – 10cm

Treatment Recommendations:

Zones A, C, D: No oil observed along the shoreline. No treatment required along shoreline.

Zone A: Patchy distributions of stained vegetation observed along riverbank shoreline. No further treatment recommended along shoreline.

Sketch **Yes** / No **Photos** **Yes** / No **Frames** 4843 (Milanes)



SCAT Teams 1 & 2 Survey

Segment A26 - Left Bank

18 July 2011

300 0 300

Feet

Legend

Segment Boundaries

Oiling Zones

06 / G

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: A26 Left Bank / **Right Bank** / Island	11-Jul-2011	1046 hrs to 1047 hrs	low - mean - bankfull - **overbank**
Operations Division: A			**falling** - steady – rising
Survey by: Foot / ATV / **Boat** / Helicopter / Overlook / _____	**Sun** / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - 29.4 deg C

2 SURVEY TEAM # 2 & 4	name	organization	contact phone number
	Andrew Milanes	Polaris	
	Tom Freeman	Polaris	
	Andrew Johnson	USCG	
	Travis Olson	USCG	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 445 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 S___ 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: mixed

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 95 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 1 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	
95 A			X		269	1	95			X	X		X								Grass, trees, debris
96 B			X		176	1														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 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

Zone A Oiled Band Height: 30cm

Due to survey platform (jet-drive boat) oil band width and heights are estimates. Unable to verify by foot.

Cleanup Recommendations: Trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees

(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# _____

3326 - 3333

SCAT Teams 2 & 4 Survey

Segment A26 Right Bank

11-Jul-2011

300 0 300

Feet

Legend

Oil Zones

Segment Boundaries

DB/G

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

1 GENERAL INFORMATION			
Segment/Reach ID: A20 Left Bank / Right Bank / Island	Date (dd/mm/yy) 21/07/11	Time (24h): std / daylight 1100 hrs to 1142 hrs	Water Level: low - mean - bankfull / overbank; falling - steady - rising
Operations Division: A			
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm	Air Temp + / - 27 deg C

2 SURVEY TEAM # 16	name	organization	contact phone number
Chelsea Murphy	Cardno ENTRIX	Cardno ENTRIX	775-313-3976
Josh Rodgers	Josh Rodgers	USCG PRE STRIKE TEAM	727-244-8292
Derrick Turner	Derrick Turner	MT DEQ	406 444 1504
Steve Kennedy	Steve Kennedy	Cardno Entrix	281 723-1259

3 SEGMENT Total Segment/Reach Length ~420 m Segment/Reach Length Surveyed ~420 m

Start GPS: LATITUDE 45.668387 deg. _____ min. LONGITUDE 108.666416 deg. _____ min. Datum: WGS84

End GPS: LATITUDE 45.668686 deg. _____ min. LONGITUDE 108.666277 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____ Pebble/Cobble S 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 S confined or leveed____ | Substrate Type: Sand/Cobble/mud

Sloped: 8° (>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 1–10 m ~~10–100 m~~ >100m 230 m — est. water depth: <1 m 1-3 m 3-10 m >10 m ____ m

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

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 property - work area dense with veg

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	
A				P	420	~~1000~~ 200	15	~~CM~~	~~P~~ S	~~S~~ P	S		P								veg / mud

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

Zone A recommendations: Cutting & mowing of grasses - bag & remove.

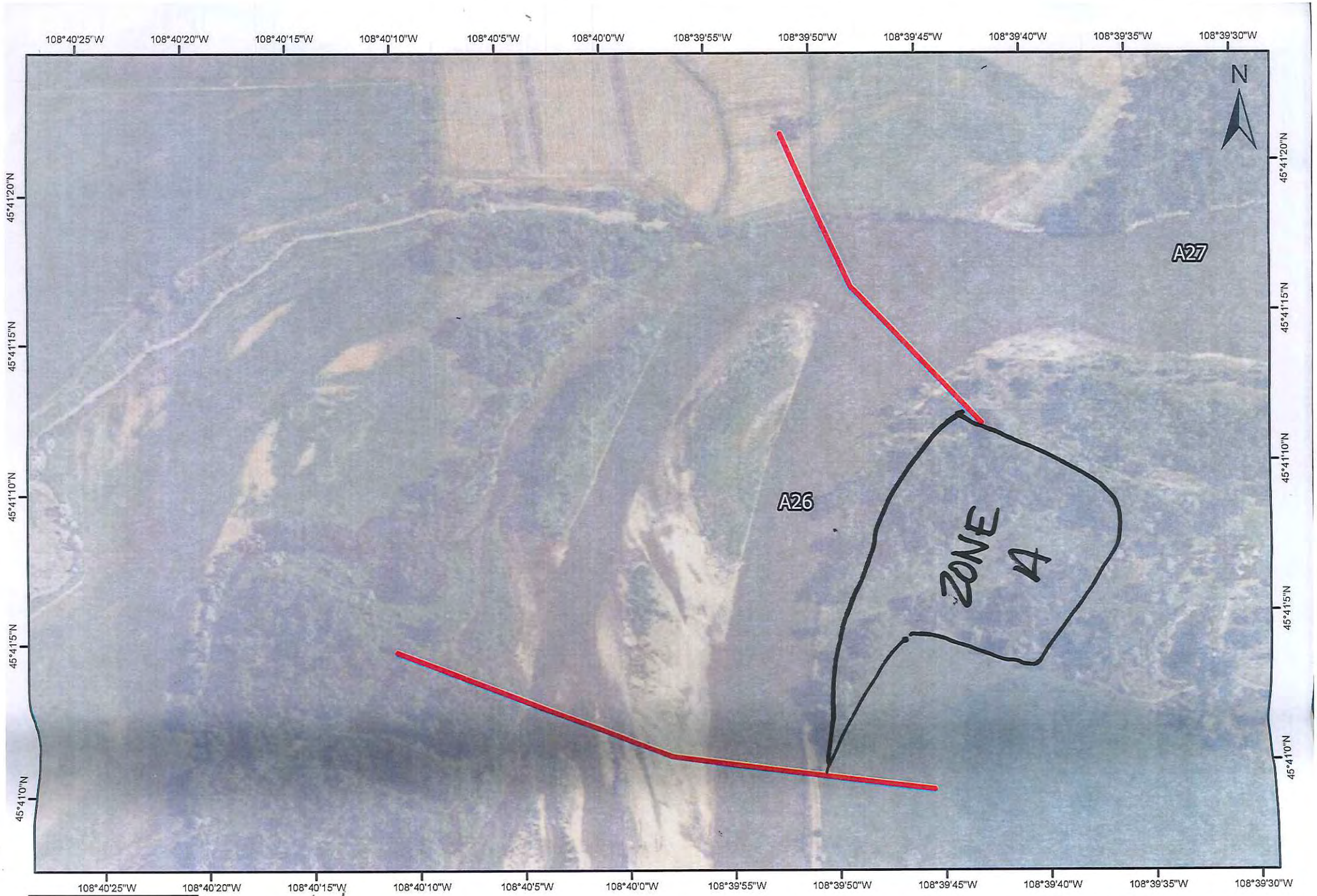
- hand removal of small oiled debris, raking & scrapping w/ hand tools to remove oiled sediment & debris. Small (less than 10') trees - where oiled may be cut. * spotted dead oiled goose - (45.668715, 108.666403) - called in to Wildlife hotline

→ Note: Segment splits private property & game preserve.

(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# _____

Pic # 8-10



A26 - A
(L/R/I)??

DATE: 7/21/11

TEAM: Seattle

COMMENTS:

overbank only

0 60 120 180 240
Meters

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION	Date (09/01/11)	Time (24h): std / daylight	Water Level
Segment/Reach ID: A26 Left Bank / Right Bank / Island			low - mean - bankfull - overbank
Operations Division: A		800 hrs to 1035 hrs	falling - steady – rising
Survey by: Foot / ATV / Boat / Helicopter / Overlook / _____	Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - 65 F _ deg C

2 SURVEY TEAM # 2	Name	Organization	Signature
	David Eric Harlow	Cardno ENTRIX	
	Pete Lee	Polaris	
	Stephen Ball	EPA	
	Larry Alheim	DEQ	
	Daryl Reed	DEQ	

3 SEGMENT Total Segment/Reach Length 415 m Segment/Reach Length Surveyed 415 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 x___ Mixed_____ Pebble/Cobble x___ Boulder_____ Peat/Organic_____ | Vegetated Bank: S___ | 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 x___	confined or leveed x___
Sloped:___(>5°)(15°)(30°)	straight_____	braided ____	oxbow_____	flood plain valley_____

Substrate Type: Sand

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 _____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	172	35	5			S	P						X				Shrubs, trees, grass
B				X	389	233	10			S	P						X				Shrubs, trees, grass
C				X	225	45	<1			S	P						X				Agricultural field
D				X	500	167														X	Agricultural field

1999
2000
2001
2002

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

RESCAT on property with claim issues.

Zone A: Area along bank with < 5% distribution of stains and coats, tar consistency, slightly transferable. ATM #1 and ATM #2

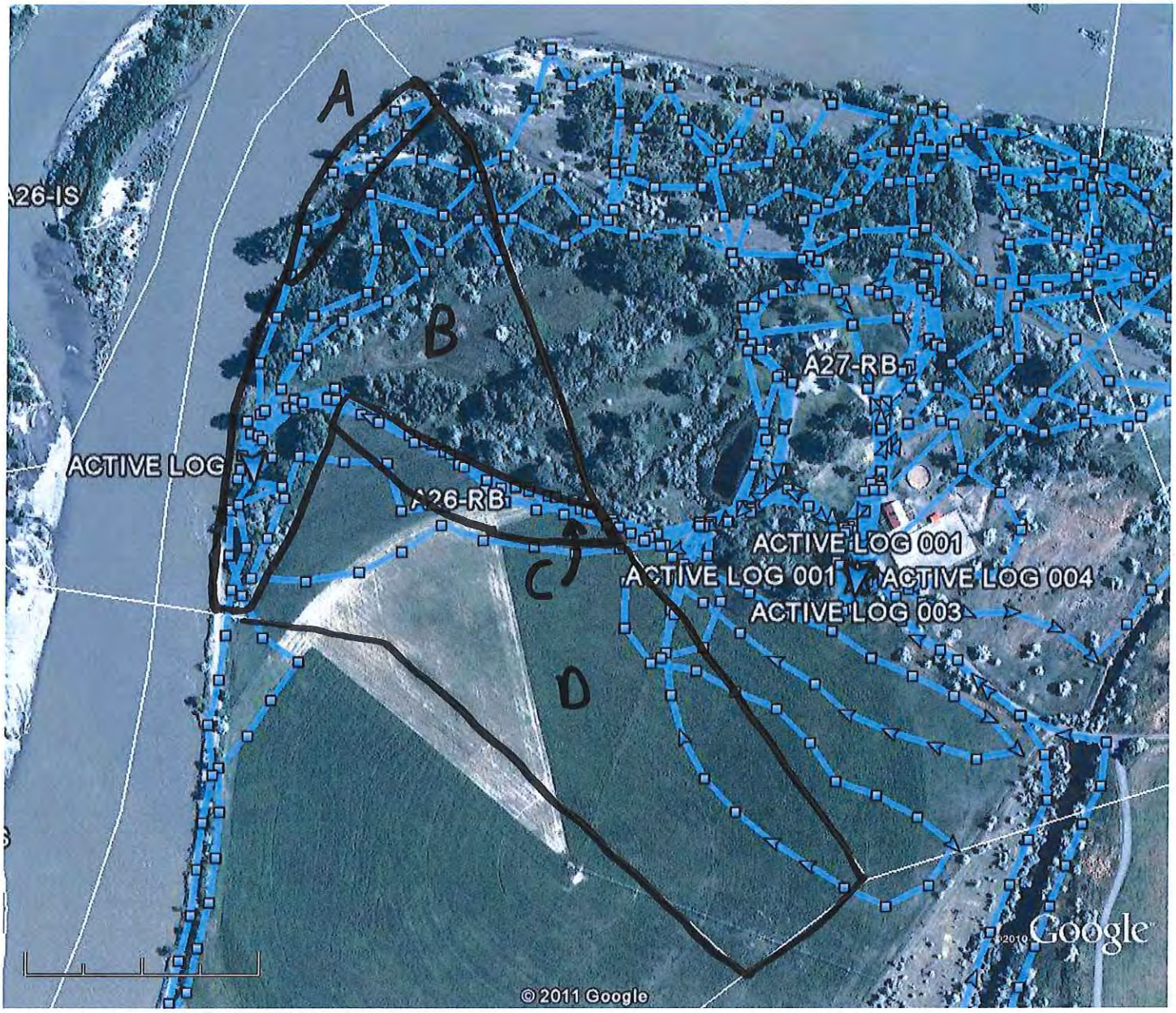
Zone B: Overbank area with 5 to 10% distribution of stains and coats, tar consistency, slightly transferable. ATM #1 and ATM #2.

~~Zone C: Agricultural field with less than 1% distribution of stains and coats. Treat in accordance with agricultural prescriptions.~~

~~Zone D: Agricultural field with no oil observed. NFT.~~

*Removed Zones C + D - Agricultural field - Claims

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



A26 RB

9/1/11

Team 2

ARCADIS

Appendix C

Pre-Inspection Survey Transmittal

PIST
Pre Inspection Survey Transmittal

Segment A26 IS

Date of Survey 9-3-11

SCAT/Ops Liaison Ray McKelvey Signed: [signature]

~~SCAT/Ops Liaison~~ State/DEQ Daryl Reed Signed: [signature]

SCAT/Ops Liaison _____ Signed: _____

SCAT/Ops Liaison _____ Signed: _____

Segment meets Approved Treatment Methods Target Endpoints Criteria and is ready for a ReSCAT Assessment (Mark Yes or No)?

☒ **YES** → **Segment Referred to SCAT for Sign-Off Assessment**

Comments for SCAT:

_____

_____

_____

☐ **NO** → **Segment Referred to Ops for Further Treatment**

Describe the areas requiring further treatment. Based on the CTR(s), comment on oiling conditions, the appropriate ATMs to use, GPS waypoints, additional comments, attach a map, etc.

_____

_____

_____

_____

_____

_____

Zone Dimensions: Length _____ Width _____ (required) **GPS Waypoint:** Lat. _____ Long. _____ (center of zone)

ARCADIS

Appendix D

Post-Inspection Survey Transmittal

POST

Post Inspection Survey Transmittal

Segment A-26 Island

Date of Survey 1/9/11

SCAT Team Member Tom Freeman Signed: Tom Freeman

SCAT Team Member Griff Miller Signed:

SCAT Team Member Jeffrey Herrick Signed:

Segment FAILED ReSCAT ☒

Segment Conditionally PASSES ReSCAT ☐

→ **Referred to Ops For Further Treatment**

IF the *Segment FAILED ReSCAT*, another ReSCAT is required after treatment has been completed.
IF the *Segment Conditionally PASSES ReSCAT*, a SCAT/Ops Liaison will verify treatment completion.

Describe the zone requiring further treatment. Comment on oiling conditions, relevant portions of the CTR(s), the appropriate ATMs to use, GPS waypoints, additional comments, etc. Attach map.

Zone B requires further treatment. Cutting of small oiled shrub stems, dusting of small tree trunks, removal (manual) of small patches of oiled debris

Zone Dimensions: Length 100 Width 80 (required) **GPS Waypoint**: Lat. 45.686679° (center of zone) Long. -108.665165

Estimated Work Effort: Number of People 10 Hours of Work 16 **Applicable CTR(s)** CTR # 23 (required)

The undersigned attests that the above treatment has been completed and the identified area meets the Approved Treatment Methods Target Endpoints.

Sign Name	Print Name/ Affiliation	Date
Sign Name	Print Name/ Affiliation	Date

ARCADIS

Appendix E

Final SCAT Survey Forms and Sketches

DB16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION

Segment/Reach ID: A 26 Left Bank / Right Bank / Island

Operations Division:

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

Date (dd/mm/yy): 1/9/11

Time (24h): std / daylight: 13:00 hrs to 14:00 hrs

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

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

Air Temp + / - 21 deg C

2 SURVEY TEAM # 1

Name	Organization	Signature
Tom Freeman	Polaris	Tom Freeman
Griff Miller	EPA	
Jeffrey Herrick	MT DEQ	

3 SEGMENT Total Segment/Reach Length 380 m Segment/Reach Length Surveyed 380 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 S Pebble/Cobble S 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: mixed

Sloped: ___ (>5°)(15°)(30°) | straight_____ braided X oxbow ~~X~~ flood plain valley X | 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 ~~X~~ 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	
A				X	335	90	<1			S	P						X				Debris/Veg
B				X	150	80	<1			P	S						X				Debris/Veg
~~B~~				~~X~~	~~200~~	~~100~~															

2020
2021

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	

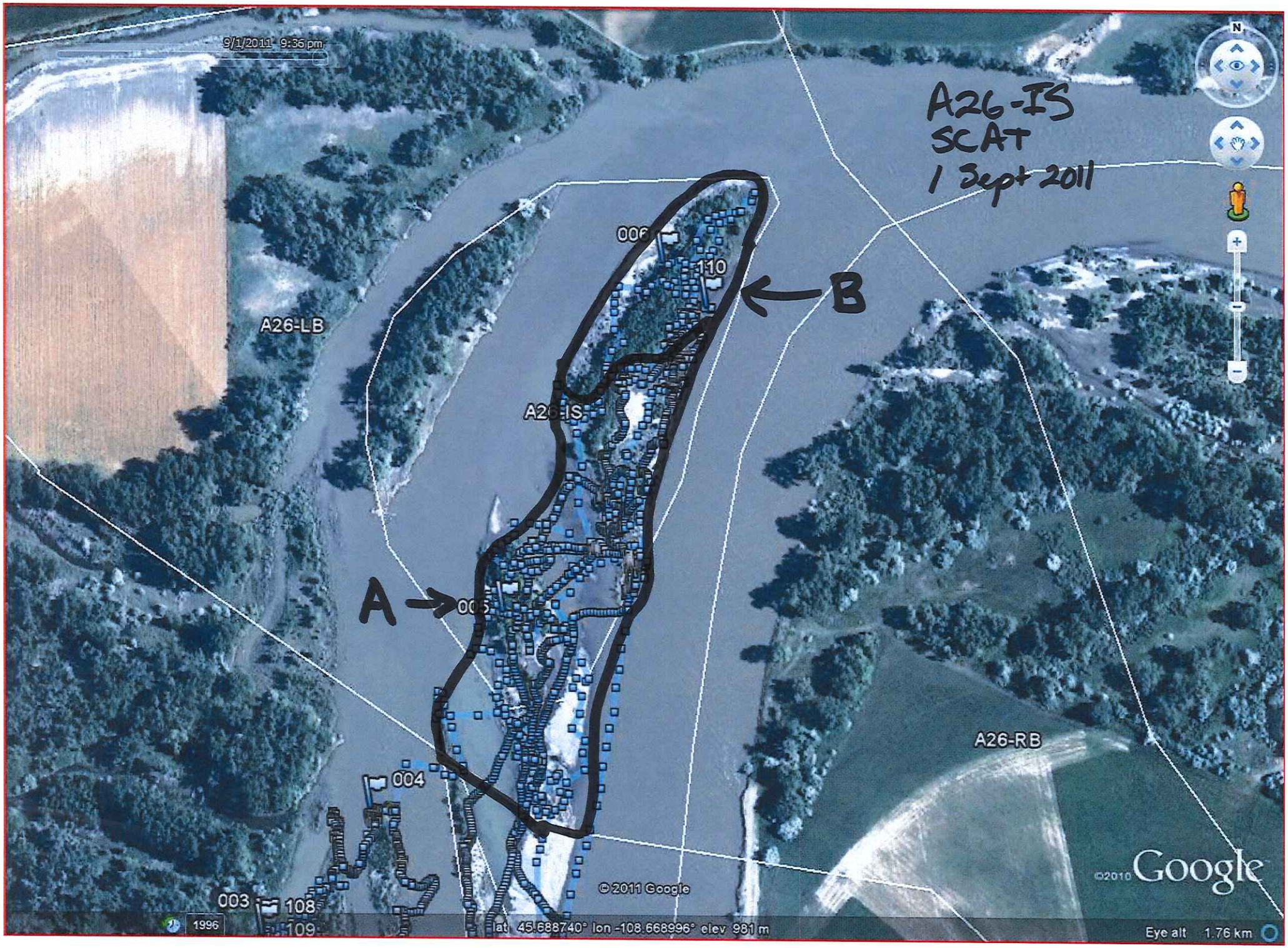
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Zone A: NFT

Zone B: Operations currently active, dusting and removing CT from vegetation, estimate 2 days to ~~clean~~ clear area. Currently 10 man crew on site.

Sketch Yes / No Photos Yes / No Frames_____ Photographer_____


9/1/2011 9:36 pm
A26-IS
SCAT
1 Sept 2011
A26-LB
A26-RB
A
B
006
110
004
003
108
109
© 2011 Google
©2010 Google
1996
lat 45.688740° lon -108.668996° elev 981 m
Eye alt 1.76 km

DB16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident Page 1 of 3

1 GENERAL INFORMATION	Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: A-26 Left Bank / Right Bank / Island	03/09/11	11:10 hrs to 11:55 hrs	low - MEAN - bankfull - overbank
Operations Division:			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 # 1	name	organization	contact phone number
	Tom Freeman	Polaris	Tom Freeman
	Jeffrey Herrick	MT DEQ	Jeffrey Herrick
	Griff Miller	EPA	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 200 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 X Mixed (X) Pebble/Cobble (X) Boulder_____ Peat/Organic_____ | Vegetated Bank: Yes | 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: MIXED

Sloped:___(>5°)(15°)(30°) | straight_____ braided (X) oxbow_____ flood plain valley (X) | 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 _____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	200	60	<1				P						X				Veg/Debris
																					Veg/Debris

2085

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	

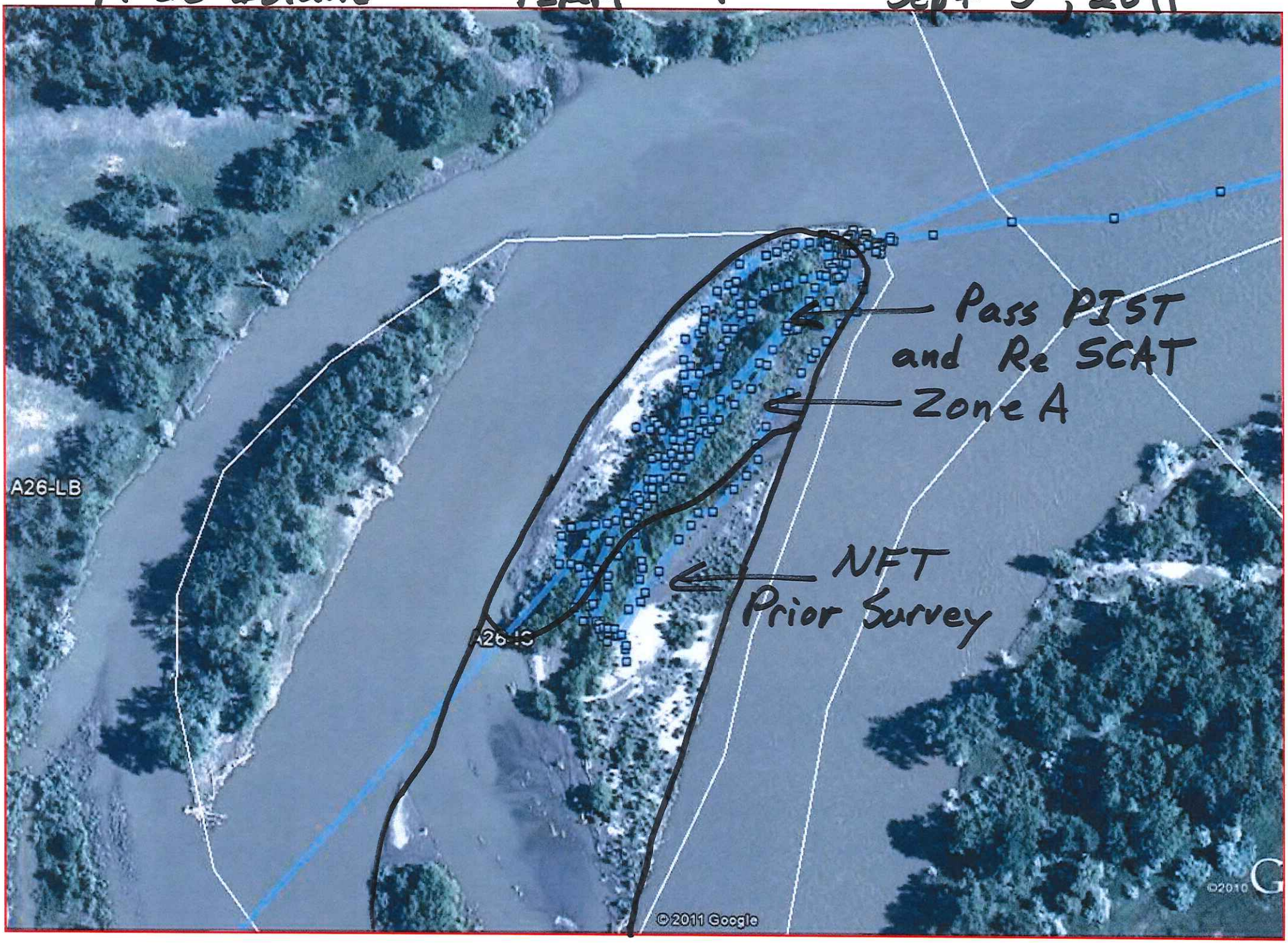
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

Zone A: NFT, Passes PIST & Re-SCAT. Pist team Lead was Ray Mckelvey.

(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#_____

A-26 Island TEAM #1 Sept 3, 2011



DB/G

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: A026 (Left Bank) / Right Bank / Island	03/09/11	0930 hrs to 1150 hrs	low - mean - bankfull - overbank
Operations Division: A			(falling) - steady – rising
Survey by: (Foot) / ATV / Boat / Helicopter / Overlook / _____		(Sun) / (Clouds) / Fog / Rain / Snow / (Wind) / (Calm)	Air Temp + / - 22 deg C

2 SURVEY TEAM # 6	Name	Organization	Signature
	Nathan Hammond	Cardno Entrix	Nathan Hammond
	Austin West	USCG	Austin West
	Matthew Kent	DEQ	Matthew Kent

3 SEGMENT Total Segment/Reach Length 564 m Segment/Reach Length Surveyed 564 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 X Sand____ Mixed____ 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____ 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 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)
2083 A		S	P		564	70	10				P						X			✓	Veg
2084 B	S	P			15	10	<1				P						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 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

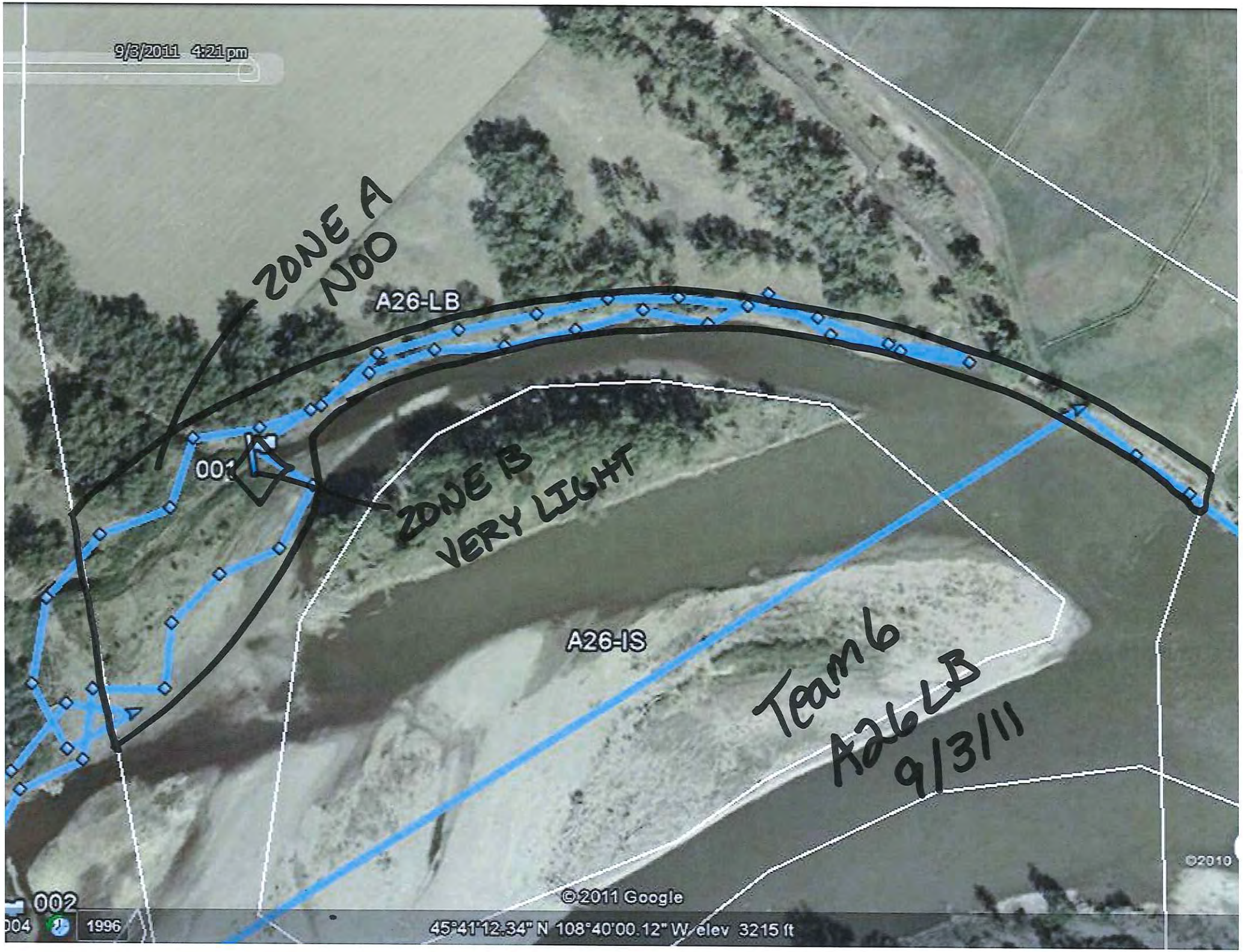
Overbank Survey Required Y / N Overbank Survey Completed Y / N Shoreline Survey Completed Y / N

Zone A - NOO - No Treatment Required

Zone B - Hot Shot crew utilized ATM1; No Further Treatment.

ReSCAT

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


9/3/2011 4:21 pm
ZONE A
NOO
A26-LB
001
ZONE B
VERY LIGHT
A26-IS
Team 6
A26LB
9/3/11
©2010
002
©2011 Google
1996
45°41'12.34" N 108°40'00.12" W elev 3215 ft

DB/6

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION

Segment/Reach ID: A 26 Left Bank / Right Bank (Y) Island

Operations Division: A

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

Date (dd/mm/yy): 22/09/11

Time (24h): std / daylight: 1100 hrs to 1500 hrs

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

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

Air Temp + / - 30 deg C

2 SURVEY TEAM #2

Name	Organization	Signature
Merlo Gauvreau	Polaris	
Pete Lee	Polaris	
Jeffrey Frank Herrick	MTDEQ	

3 SEGMENT Total Segment/Reach Length 400 m Segment/Reach Length Surveyed 400 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 | complete for primary

Cliff or Bluff:___ Est Height 4 m | canyon_____ manmade_____ meander ____ confined or leveed X | Substrate Type: _____

Sloped:___(>5°)(15°)(30°) | straight_____ braided P oxbow_____ flood plain valley X | 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) >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: Williams property

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)
A				X	400	250	<1			5	P							X			Grass, trees, debris

2364

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

Oil height: 30-90 cm

Treatment recommendations:

Zone A : Treated by Ops; No Further Treatment; CTR 63

Zone :

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


10:49
22/9/2011 16:38
17
2/2
22/09/2011
Team #2
A26 RB (Williams)
NFT
043
044
A
A26-RB
Agricu Hure
© 2011 Google
1996
45°41'06.50"N 108°39'45.72"O élév. 980 m

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Appendix F

Completed SCAT Segment Sign-Off Forms

SCAT Segment Operations Completion Sign-Off Sheet

Silvertip Pipeline Release

Segment A-26 Island Date of Survey Sept 3, 2011

Dates of Initial SCAT Assessments 11JUL11 (EL)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 23

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
	Giff Miller / EPA	9-3-11

Federal Representative (EPA/USCG)

Sign Name	Print Name/ Affiliation	Date
Philip Paul Hennig	Jeffrey Frank Herrick MT DEQ	03 Sep 2011

State Representative (DEQ/FWP)

Sign Name	Print Name/ Affiliation	Date
Tom Freeman	Tom Freeman / Polaris	Sept 3, 2011

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.

SCAT Segment Operations Completion Sign-Off Sheet

Silvertip Pipeline Release

Segment A26 LB Date of Survey 9/3/11

Dates of Initial SCAT Assessments 12 JUL 11 (IC)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 13

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
[signature]	AUSTIN WEST USCG	9/3/2011

Federal Representative (EPA/USCG)

Sign Name	Print Name/ Affiliation	Date
[signature]	DEQ	9/3/2011

State Representative (DEQ/FWP)

Sign Name	Print Name/ Affiliation	Date
[signature]	Nathan Hammond / Cardno Entrix	9/3/11

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.

SCAT Segment Operations Completion Sign-Off Sheet

Silvertip Pipeline Release

Segment A26 RB

Date of Survey 9/22/11

Dates of Initial SCAT Assessments 11 Jul 2011 (B)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 63

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
	No Federal Rep Present	

Federal Representative (EPA/USCG)

Sign Name	Print Name/ Affiliation	Date
	Jeffrey Frank Herrick MT DEQ	22 Sep 2011

State Representative (DEQ/FWP)

Sign Name	Print Name/ Affiliation	Date
PB Lee	Pete Lee / Polaris	9/22/11

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.

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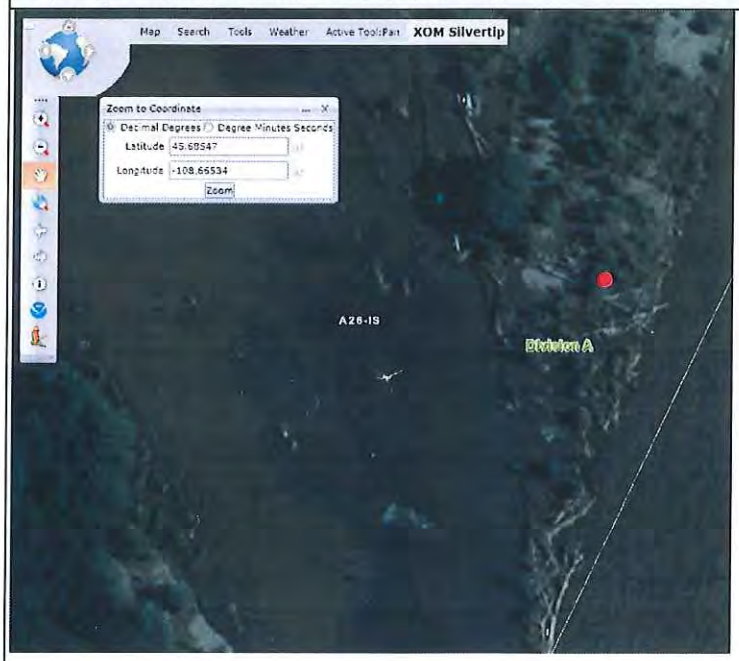
Appendix G

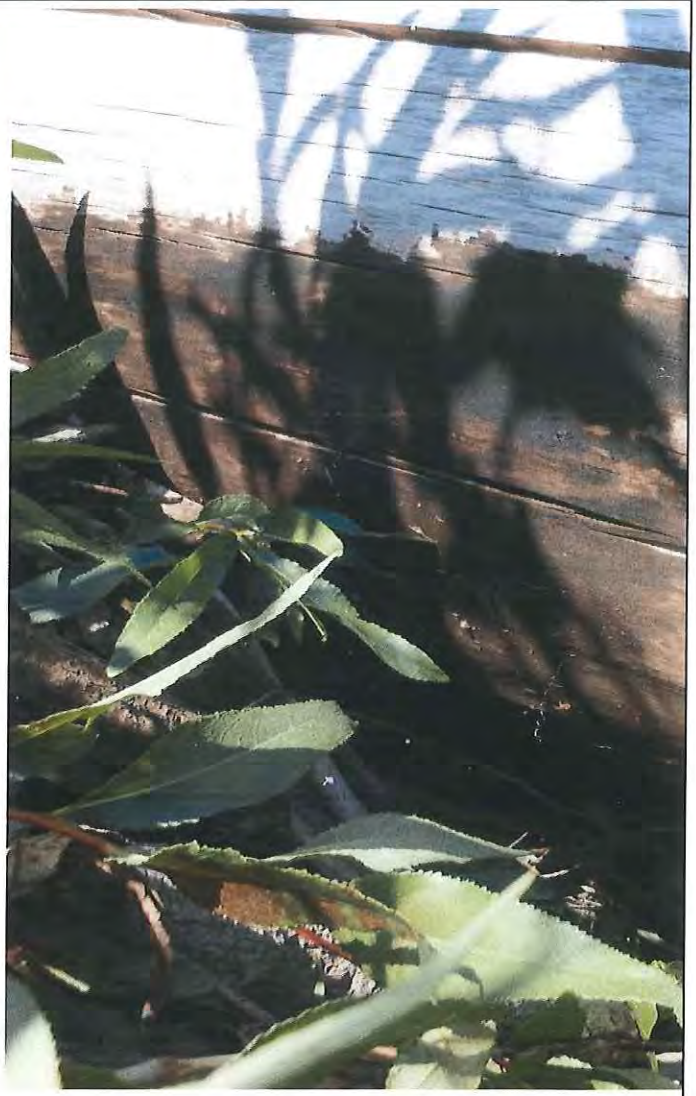
Exception Memos

GENERAL MESSAGE - WILDLIFE AND OPERATIONS GUIDANCE FOR A-26 IS

TO:	Jimmie James, RPIC Jenny Chambers, SOSC	**POSITION:**	ExxonMobil Montana DEQ State On-Scene Coordinator EPA Federal On-Scene Coordinator
FROM:	Wildlife Branch	**POSITION:**	Wildlife Deputy Chief
SUBJECT:	A-26 IS	**DATE:** 09.08.2011	**TIME:** 1503

MESSAGE: International Bird Rescue and Resource Advisors with the USFWS identified a large fallen tree partially covered with oil. Concern for oil dripping into clay covered basin located underneath that may result in wildlife exposure after the next rain event. This segment has passed SCAT but requires further response to reduce wildlife exposure risks. This area is a moderate priority. The location of the tree is N45.68547 by W 108.66534. Also on this island, but listed a low priority, was a stand of approximately 20 trees that have oil rings that are still transferable. These trees appear to have been treated but not stabilized with "DUST." The location of the grove of trees is N 45.68678 by W 108. 66493. When crews are on this island they might want to check this area as well.





SIGNATURE:	Karen J. Nelson, USFWS	**POSITION:**	Wildlife Deputy

REPLY: SCAT and Operations

Complete

The Unified Command is aware of this area within SCAT Segment A-26 IS. ExxonMobil will coordinate any future remediation activities at this site with MTDEQ. In the meantime, this segment will be flagged and noted in the close-out segment report. If the work is not completed and signed off by the Wildlife Branch prior to closeout. Then this document will be included as an attachment to the Area Transition Report to document the need for additional work within this segment, and this report will be updated to document that the exception was addressed and no further follow-up will be needed.

DATE:	TIME:	SIGNATURE/POSITION:
9/10/11	1600	JE GRONECK 9/11/11 CN BOND OF Jimmie James, RPIC
		Jenny Chambers, SOSC

NATE COOK 9/15/11

*To be used after exception has been addressed and closed.

WILDLIFE AND OPERATIONS GUIDANCE FOR B02 LB (B-1 Island) - CLOSEOUT REVIEW

COMMENT:

JE 9/16/11
JE GRONECK
- AFTER SITE VERIFICATION

FROM:	POSITION:	DATE: 9.09.2011
SIGNATURE:	POSITION:	