

ExxonMobil Pipeline Company

**SCAT Area Transition Report for
C13**

Silvertip Pipeline Incident
Laurel, Montana

October 25, 2011



SCAT Area Transition Report for C13

Silvertip Pipeline Incident
Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

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Our Ref.:
B0085883.1103

Date:
October 25, 2011

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

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1. Executive Summary of Oil Removal Activities

This Shoreline Cleanup Assessment Technique (SCAT) Area Transition Report provides a summary of the SCAT surveys conducted to determine the extent of oiling along the riverbanks and floodplain within SCAT Area C13, 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 C13. 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 C13, 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 C13 is 141.3. There were widespread access issues for the the majority of the left bank, island and approximately half of the right bank.

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 limited inspections of Area C13 due to the low level of oiling in Zone C. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. No active migratory bird nests were identified in Area C13.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area C13. 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 C13 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Area	Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
C13		No Samples Collected*					

Appendix A contains a summary of sample results with detections for this sample set. Detections with a result above the screening level are highlighted; for this set, there were no detections in this area.

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 C13 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area C13.

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. 60](#)).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area C13, 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, PPE, plastic, trash, super sacks, wood chips, and contaminated wood.

1.7 Pre-Inspection Survey Transmittal

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

1.8 Post-Inspection Survey Transmittal

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

1.9 Summary of Final SCAT Surveys

Figure 5 shows the oiling conditions within Area C13 following completion of oil removal activities. The SCAT team performed final surveys of the right and left banks and island within SCAT Area C13 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 initial SCAT surveys performed on the right and left banks and island within Area C13, very light oiling was observed on the left bank, no oiling, very light oiling or light oiling was observed on the island portions, and no oiling was observed for the majority of the right bank with small areas of very light oiling. The very light oiling zones will be addressed through natural attenuation. Based on the final SCAT surveys performed on the right and left banks and island within Area C13, no further treatment is recommended for these segments. SCAT Segment Sign-Off Forms are included as Appendix F.



**SCAT Area Transition
Report for C13**

Silvertip Pipeline Incident
Laurel, Montana

Transition Sign-Off Form

SCAT Area Transition Report for C13

Prepared for:

Unified Command

Date

Unified Command – RP

SCAT Area Transition Report for C13

Prepared for:

Unified Command

Date

Unified Command – FOSC



**SCAT Area Transition
Report for C13**

Silvertip Pipeline Incident
Laurel, Montana

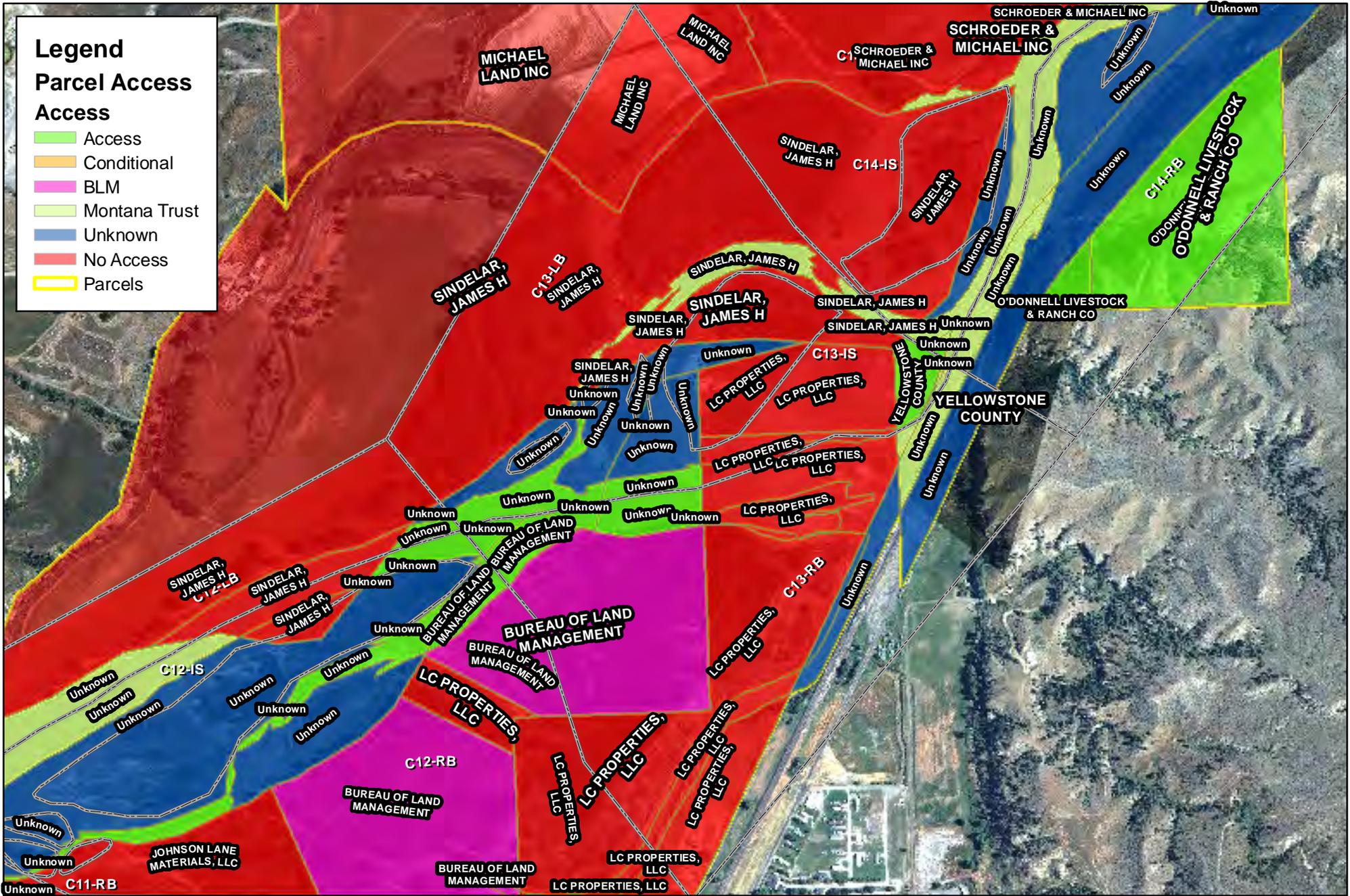
SCAT Area Transition Report for C13

Prepared for:

Unified Command

Date

Unified Command – MDEQ



Legend

Parcel Access

- Access
- Conditional
- BLM
- Montana Trust
- Unknown
- No Access
- Parcels

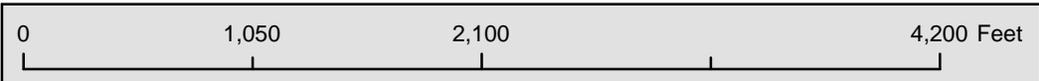


Figure 1

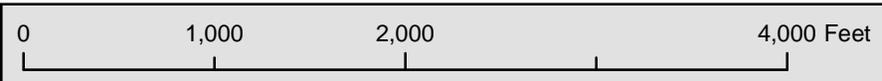
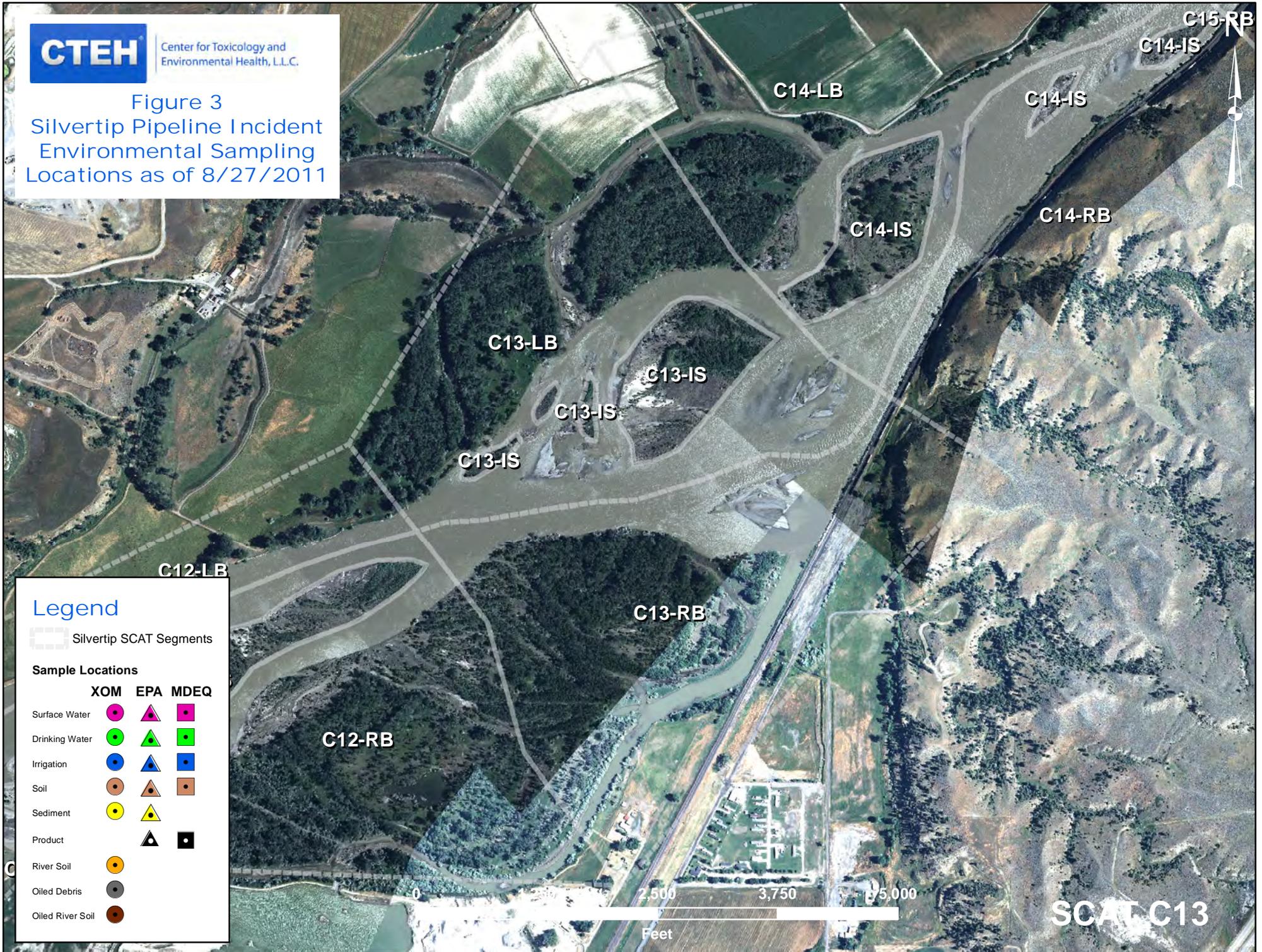


Figure 2
Wildlife Resources



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

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



Legend

Silvertip SCAT Segments

Sample Locations

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

SCAT C13

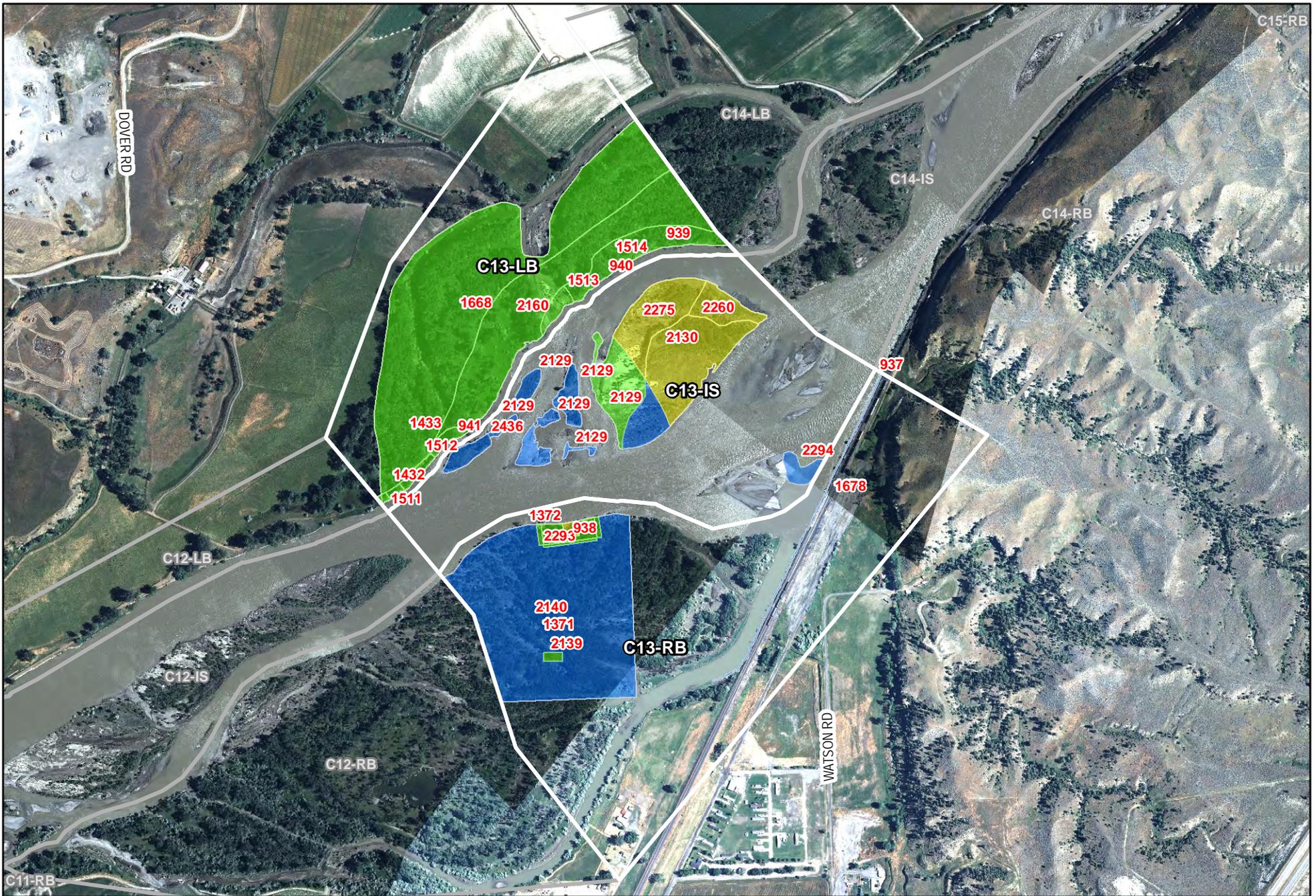
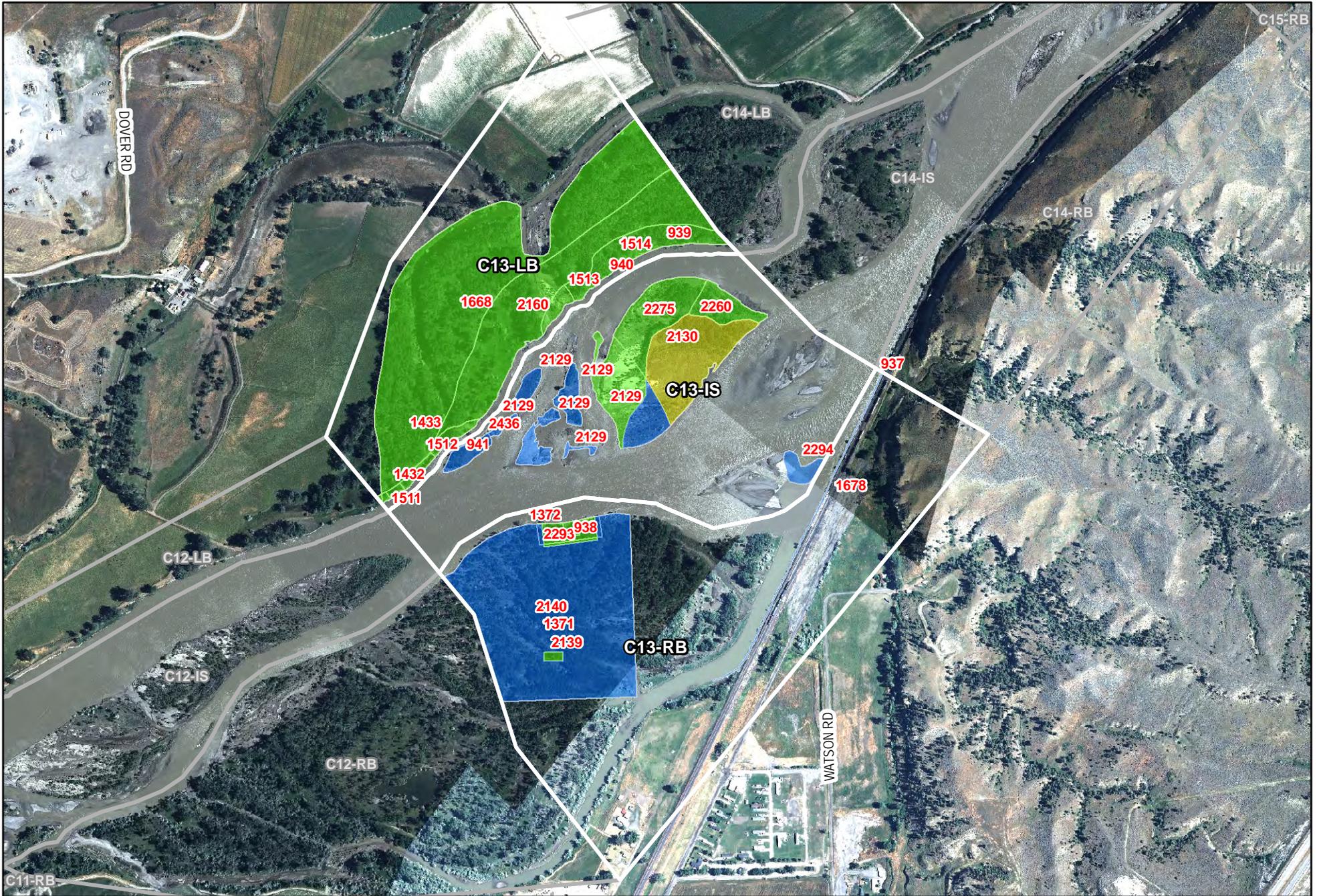


Figure 4 - Maximum SCAT Observations For SCAT Area: C13

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

710 0 710 1,420 Feet

POLARIS
APPLIED SCIENCES, INC.



 <p>9999 Oiling Zone ID Red Heavy Oiling Yellow Moderate Oiling</p>	<p>Yellow Light Oiling Green Very Light Oiling Blue No Oil Observed</p>	<p>Figure 5 - Final SCAT Observations For SCAT Area: C13</p> <p>710 0 710 1,420 Feet</p>	
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Appendix A

Sample Detection Summary



Sample Results For
SCAT Area C13

Printed 10/13/2011

NA - Not Available

Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
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No Samples Taken



Appendix B

Initial SCAT Survey Forms and
Sketches

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>C13</u>	Left Bank <u>(Right Bank)</u> / Island	<u>27/07/11</u>	<u>1100</u> hrs to <u>1112</u> hrs	low - mean - <u>(bankfull)</u> - overbank
Operations Division:				<u>(falling)</u> steady - rising
Survey by: Foot / ATV <u>(Boat)</u> / Helicopter / Overlook / _____		<u>(Sur)</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>30</u> deg C

2 SURVEY TEAM #	Name	Organization	Signature
	<u>Chuck Pons</u>	<u>Cardno Entrix</u>	<u>See attached</u>
	<u>Jay Watson</u>	<u>MFWP</u>	
	<u>Ernie McKenzie</u>	<u>BLM</u>	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 920 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 P Mixed _____ Pebble/Cobble S Boulder _____ Peat/Organic _____ Vegetated Bank: X Wooded Upland: X

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 160m 110 est. water depth: <1m 1-3m 3-10m >10m _____ m

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

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

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

Debris: (Y) / (N) oiled (Y) / (N) amount _____ bags or _____ trucks access restrictions

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

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

937

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)		
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO
A			<u>X</u>	<u>X</u>	<u>920</u>	<u>2</u>	<u>-</u>														<u>✓</u>

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

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

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

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

A - NOO

**Removed from Foot/Boat survey done on 27 Jul 2011*

AA 18 Oct 2011

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



108°23.75'W

45°51.5'N

108°23.5'W

45°51.25'N

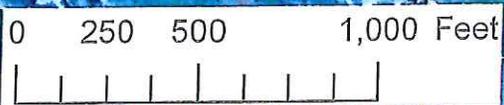
45°51'N

108°23.75'

45°50.75'N

45° 51.424' N
108° 23.439' W

45° 51.262' N
108° 23.178' W



D13/6

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>C13</u>	Left Bank / <u>Right Bank</u> / Island	<u>27/10/11</u>	<u>1100</u> hrs to <u>1112</u> hrs	low - mean - bankfull - overbank
Operations Division: <u>C</u>				falling - steady - rising
Survey by: <u>Foot / ATV / Boat</u> / Helicopter / Overlook / _____		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>30</u> deg C

2 SURVEY TEAM # <u>1</u>	Name	Organization	Signature
	<u>Chuck Pons</u>	<u>Coastal ENTRIX</u>	<u>[Signature]</u>
	<u>Jay Watson</u>	<u>MFWP</u>	<u>[Signature]</u>
	<u>Ernie McKenzie</u>	<u>US BLM</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 920 m Segment/Reach Length Surveyed 920 m

Start GPS: LATITUDE 45 deg. 51'16.09 min. LONGITUDE 108 deg. 27'12.02 min. Datum: WGS 84

End GPS: LATITUDE 45 deg. 51'05.84 min. LONGITUDE 108 deg. 23'58.29 min.

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

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

Sediment Bank: Clay/Mud _____ Sand P Mixed _____ Pebble/Cobble S Boulder _____ Peat/Organic _____ Vegetated Bank: [X] Wooded Upland: [X]

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m (100m) 160m 110 est. water depth: <1m (1-3m) 3-10m >10m _____ m

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

Debris: [X] / N oiled [X] / N amount 3 bags or 0 trucks access restrictions _____

Oiled trees/shrubs [X] / N River Current strong [X] / 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	920	2	0														X	Sand/gy
B				X	135	45	cl			S	P			X								Cobbles

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

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

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

Overbank Survey Required [X] / N Overbank Survey Completed Y / [X] Shoreline Survey Completed [X] / N

Zone A - No oil observed

Zone B - Partial survey w/ BLM rep. Small isolated areas of stand + could debris + veg in the zone

Pick up debris + remove cut and/or stand veg and remove

* Split Boat + Foot zones into separate datasheets

AA 18 Oct 2011

Sketch [X] / No Photos [X] / No Frames _____ Photographer _____



108°23.75'W

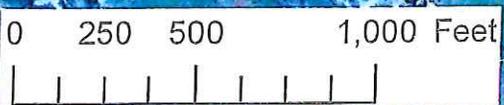
45°51.5'N

108°23.5'W



45° 51.424' N
108° 23.439' W

45° 51.262' N
108° 23.173' W



RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy) <u>27/07/11</u>	Time (24h): std / daylight <u>1100</u> hrs to <u>1112</u> hrs	Water Level low - mean <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: <u>C13</u> Left Bank / <u>Right Bank</u> / Island		Operations Division:		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		<u>(Sun)</u> Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>30</u> deg C

2 SURVEY TEAM # <u>1</u>	Name	Organization	Signature
	<u>Chuck Pons</u>	<u>Cardno ENTRIX</u>	<u>See attached</u>
	<u>Jay Watson</u>	<u>MFWP</u>	
	<u>Ernie McKenzie</u>	<u>BLM</u>	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 135 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 P Mixed _____ Pebble/Cobble S Boulder _____ Peat/Organic _____ Vegetated Bank (X) Wooded Upland: (X)

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m (100m) 160m 110 est. water depth: <1m (1-3m) 3-10m >10m _____ m

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

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

5 OPERATIONAL FEATURES Suitable backshore staging (Y) N Access: Direct from backshore (Y) N Alongshore from next segment (Y) N

Debris: (Y) N oiled (Y) N amount (3) 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	
938 A				<u>(X)</u>	135	45	41		<u>(S)</u>	<u>(S)</u>	<u>(P)</u>		<u>(X)</u>									Cobb/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 cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER						WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes/No	SUBST. TYPE(S)	
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR					NO

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

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

(S) Zone A - Partial survey with BLM rep. Small isolated amounts of stained + coated debris + veg. Pick up debris + remove.

*Removed from Boat survey done on 27 Jul 2011. AA 18 Oct

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



108°23.75'W

45°51.5'N

108°23.5'W

45°51.25'N

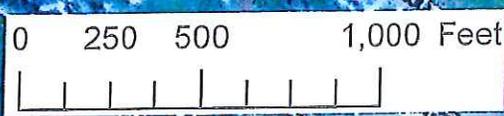
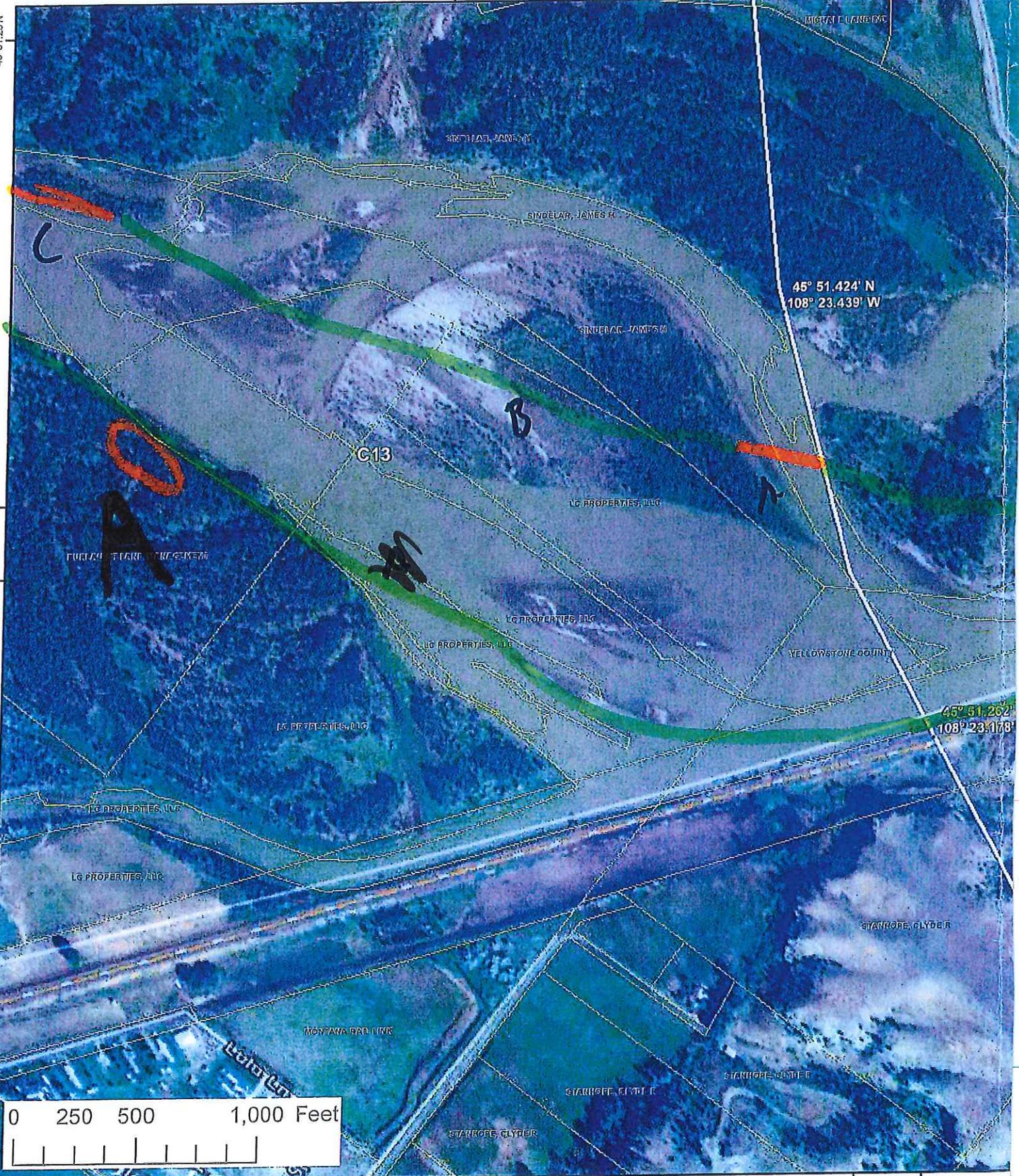
45°51'N

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45° 51.424' N
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45° 51.262' N
108° 23.178' W



108°23.5'W

45°50.75'N

108°23.25'W

45°51'N

108°23'W

D13/6

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

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Operations Division: <u>C</u>				<u>falling</u> - steady - rising
Survey by: <u>Foot</u> / <u>ATV</u> / <u>Boat</u> / Helicopter / Overlook / _____		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>30</u> deg C

2 SURVEY TEAM #	Name	Organization	Signature
<u>1</u>	<u>Chuck Pans</u>	<u>Cardno ENTRIX</u>	<u>[Signature]</u>
	<u>Joy Watson</u>	<u>MFWP</u>	<u>[Signature]</u>
	<u>Ernie McKenzie</u>	<u>US BLM</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 920 m Segment/Reach Length Surveyed 920 m

Start GPS: LATITUDE 45 deg. 51'16.09 min. LONGITUDE 108 deg. 23'12.02 min. Datum: WGS 84

End GPS: LATITUDE 45 deg. 51'05.87 min. LONGITUDE 108 deg. 23'58.29 min.

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Sediment Bank: Clay/Mud _____ Sand P Mixed _____ Pebble/Cobble S Boulder _____ Peat/Organic _____ Vegetated Bank: [Circle] Wooded Upland: [Circle]

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m [Circle] 100m 160m 110 est. water depth: <1m [Circle] 1-3m 3-10m >10m _____ m

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

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

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

Debris: [Circle] / N oiled [Circle] / N amount 3 bags or 1 trucks access restrictions

Oiled trees/shrubs [Circle] / N River Current strong [Circle] / 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

937
938

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	920	2	0														X	Sand / lg
B				X	135	45	cl			S	P		X									lg / s / v

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

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

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

Overbank Survey Required [Circle] / N Overbank Survey Completed Y / [Circle] / N Shoreline Survey Completed [Circle] / N

Zone A - No oil observed

Zone B - Partial survey w/ BLM rep. Small island area of shrub + coral debris + veg in the zone

Pick up debris + remove cut and/or stum veg and remain

* Split Boat + Foot ZONES into separate datasheets

AA 18 Oct 2011



108°23.75'W

45°51.5'N

108°23.5'W

45°51.25'N

45°51'N

108°23.75'W

45°50.75'N

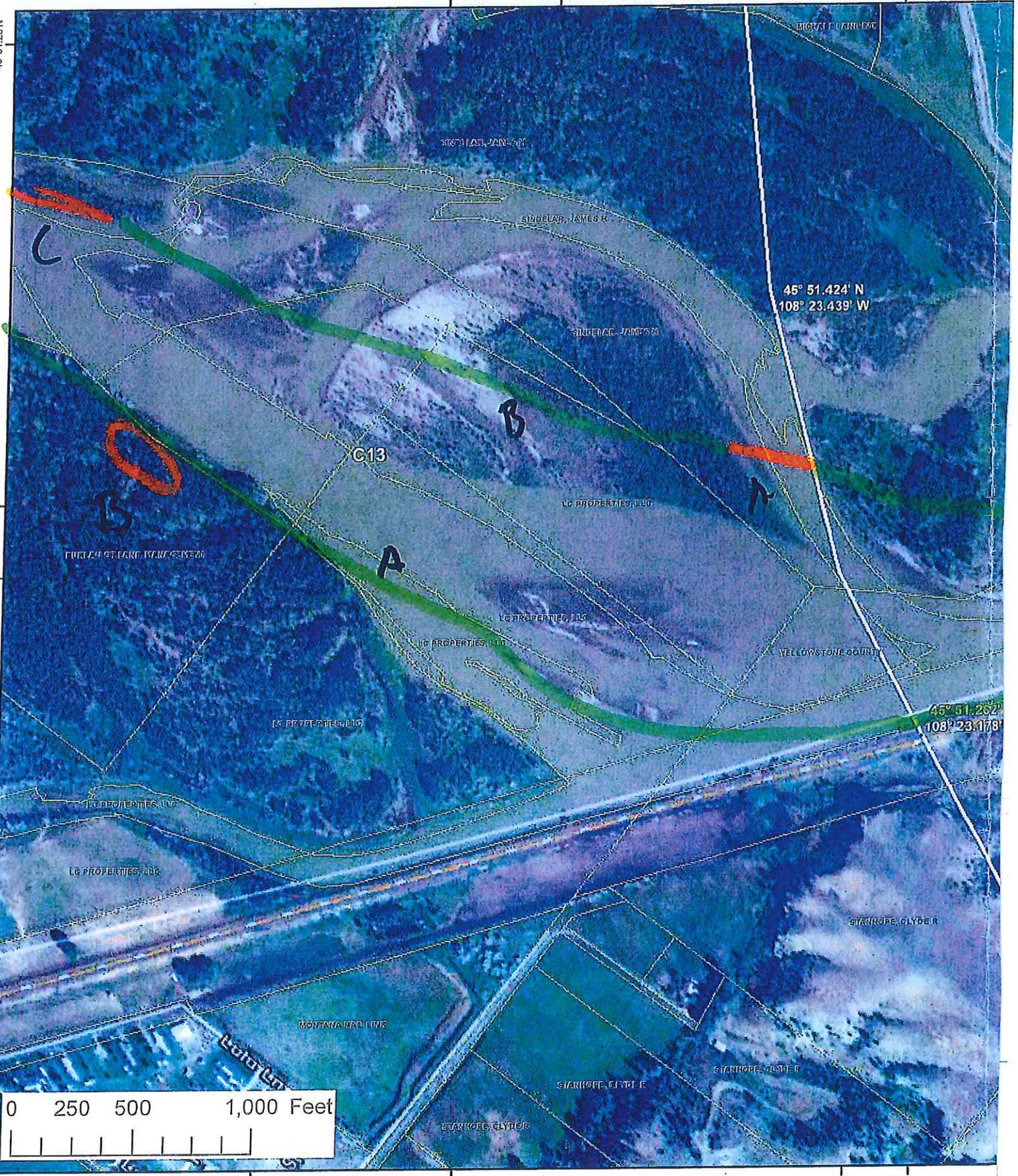
108°23.5'W

45°50.75'N

108°23.25'W

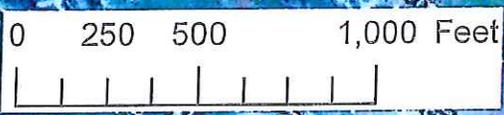
45°51'N

108°23'W



45° 51.424' N
108° 23.439' W

45° 51.262' N
108° 23.178' W



DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 08/09/2011 09/08/2011 #6 Oct	Time (24h): std / daylight 1215 hrs to 1305 hrs	Water Level low - mean - <u>bankfull</u> - overbank <u>(falling)</u> steady - rising
Segment/Reach ID: C13 Left Bank / <u>Right Bank</u> / Island		Operations Division:		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook /		<u>(Sun)</u> Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- 33 deg C

2 SURVEY TEAM # <u>6</u>	Name	Organization	Signature
	Chris Arredondo	CardnoENTRIX	
	Dominic Ventura	EPA	
	Jay Watson	FWP	
	Mark Denny	THPO Crow Tribe	
	Ernie McKenzie	BLM	

3 SEGMENT Total Segment/Reach Length 945 m Segment/Reach Length Surveyed 507 m

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

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

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

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

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

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

4B RIVER VALLEY CHARACTER select as appropriate 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 _____ Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

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

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

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

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

Debris: Y / N oiled Y / N amount 0 bags or 0 trucks access restrictions Segment C13 can be accessed from C12 but you need to check with the foreman of the gravel quarry to the south that must be traversed in order to gain access to C12. Refer to map and C12 data sheet.

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	318	407															X	
B				X	30	30	5			X							X					Shrubs

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

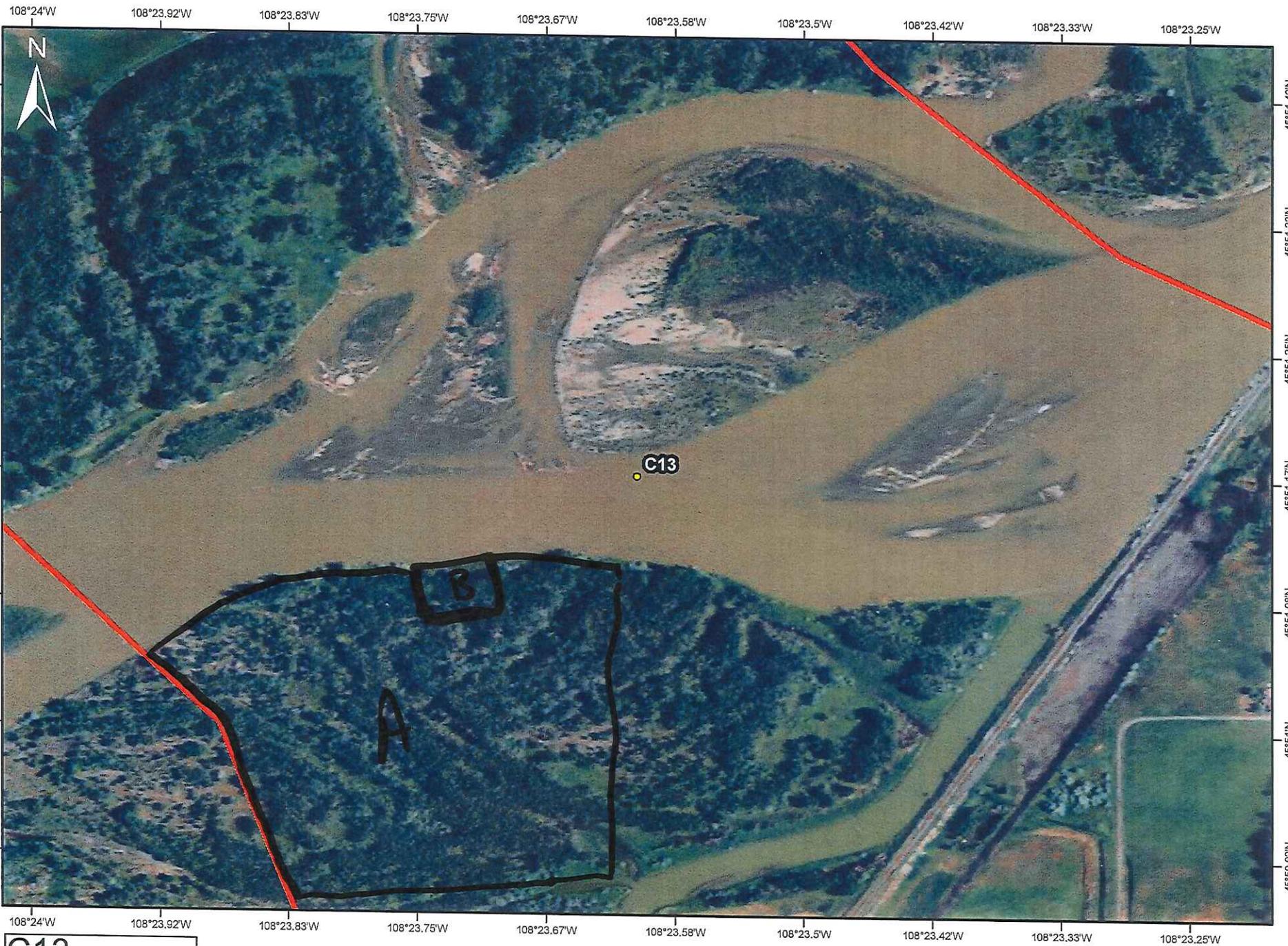
8 COMMENTS ecological/recreational/cultural/economic constraints - shorezone biota and wildlife observations - cleanup recommendations

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

Zone A: No treatment required.

Zone B: Cut and remove oil coated vegetation smaller than 1" diameter. Wipe larger oil coated vegetation.

Sketch Yes / No Photos Yes / No Frames _____ Photographer Chris Arredondo/Jay Watson



C13-
←
(L/R/I)??

Segments 8/9/2011 Team 6



DB/9

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: <u>C13</u>	Left Bank / Right Bank / Island	<u>20/08/11</u>	<u>1159</u> hrs to <u>210</u> 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 + / - <u>28</u> deg C

2 SURVEY TEAM # <u>1</u>	Name	Organization	Signature
	<u>Armel Blanc</u>	<u>Polaris</u>	<u>[Signature]</u>
	<u>Joe Busalacchi</u>	<u>Cardno Enviro</u>	<u>[Signature]</u>
	<u>Jessica</u>	<u>MT DEG</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 1185 m Segment/Reach Length Surveyed 700 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 P Shelf _____ Manmade: Solid _____ Permeable P (type 2) Wetland: Swamp _____ Bog/Fen _____ Marsh _____

Sediment Bank: Clay/Mud _____ Sand _____ Mixed _____ Pebble/Cobble _____ Boulder P Peat/Organic _____ Vegetated Bank: S 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: Y Est Height 5 m canyon _____ manmade _____ meander S confined or leveed _____ Substrate Type: _____

Sloped: >5° (15°) (30°) 360 straight _____ braided P oxbow _____ flood plain valley _____ Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 160m 300 est. water depth: <1m 1-3m 3-10m >10m _____ m

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

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

5 OPERATIONAL FEATURES Suitable backshore staging Y (N) Access: Direct from backshore Y (N) Alongshore from next segment Y (N)

Debris: Y / N oiled Y / N amount _____ bags or _____ trucks access restrictions low road

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

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

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)	
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO
A		<u>P</u>	<u>S</u>		<u>700</u>	<u>2</u>	<u>0</u>														<u>P</u>

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

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

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: No oil observed → NFT

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

C18 RB

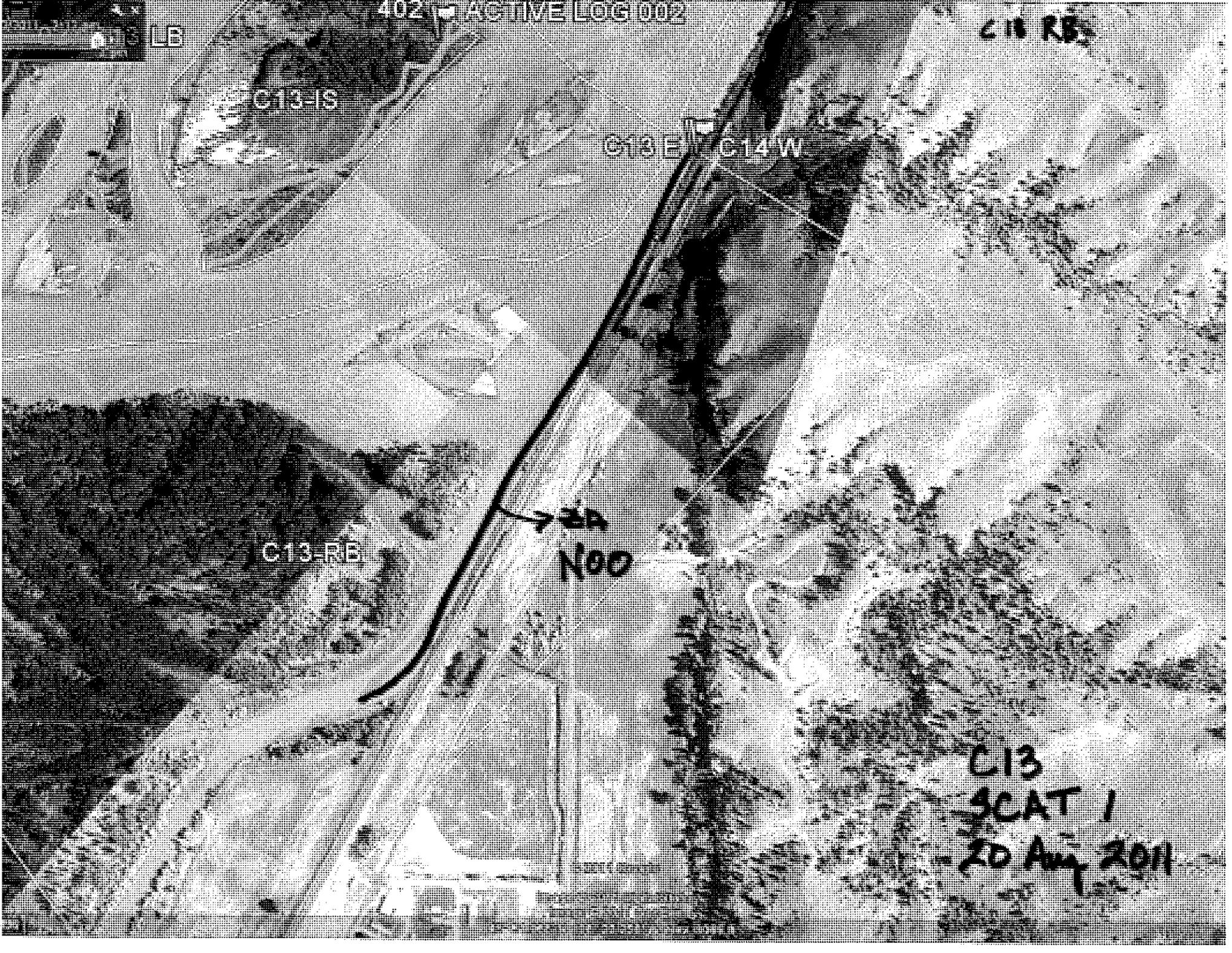
C13-1S

C13 E C14 W

C13-RB

→ 2A
N00

C13
SCAT 1
20 Aug 2011



DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 06/09/2011	Time (24h): std / daylight 1030 hrs to 1050 hrs	Water Level low - mean - <u>bankfull</u> - overbank falling - steady - rising
Segment/Reach ID: C13 Left Bank / <u>Right Bank</u> / Island				
Operations Division: C				
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>28</u> deg C

2 SURVEY TEAM # <u>NA</u>	Name	Organization	Signature
Richard Marty		Polaris	<i>Richard Marty</i>
Ernie McKenzie		US Bureau of Land Management	<i>[Signature]</i>
Lee Burroughs		Montana FWP	<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 430 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 _____ 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/grv

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

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

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

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

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

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

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

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)				
					Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO		
ID	MS	LB	UB	OB	m	m	%																
A				X	40	20	<1			X								X					Debris, plants
B				x	390	420	0															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)							
							SAP	OP	PP	OR	OF	TR					NO	cm	B, R, S, N	Yes / No			
None					cm	cm-cm																	

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

Land is primarily BLM ownership.

A – small pile of oiled debris. Oiling is at trace levels. Natural attenuation is recommended for this oiling.

B- no oil observed. No treatment is required.

Sketch Yes / No Photos Yes / No Frames None Photographer _____

C 13 Right Bank
06 Sept. 2011
Team 2



A = NOO
B = ~~Natural~~ Att Very Light Oiling

DB/G/S

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>C13</u>	<input checked="" type="checkbox"/> Left Bank / <input type="checkbox"/> Right Bank / Island	<u>27/07/11</u>	<u>932</u> hrs to <u>9:33</u> hrs	low - mean - bankfull - overbank
Operations Division: <u>C</u>				<input checked="" type="checkbox"/> falling - <input type="checkbox"/> steady - <input type="checkbox"/> rising
Survey by: <input checked="" type="checkbox"/> Foot / ATV / <input checked="" type="checkbox"/> Boat / <input type="checkbox"/> Helicopter / <input type="checkbox"/> Overlook / _____	<input checked="" type="checkbox"/> Sun / <input type="checkbox"/> Clouds / <input type="checkbox"/> Fog / <input type="checkbox"/> Rain / <input type="checkbox"/> Snow / <input type="checkbox"/> Windy / <input type="checkbox"/> Calm			Air Temp +/- <u>30</u> deg C

2 SURVEY TEAM # <u>1</u>		Name	Organization	Signature
		<u>Chuck Pans</u>	<u>Cardno ENTRIX</u>	<u>Chuck Pans</u>
		<u>Jay Watson</u>	<u>MFWP</u>	
		<u>Ernie McKenzie</u>	<u>US BLM</u>	

3 SEGMENT Total Segment/Reach Length 920 m Segment/Reach Length Surveyed 920 m

Start GPS: LATITUDE 45 deg. 51'27.75 min. LONGITUDE 108 deg. 23'21.22 min. Datum: WGS 84

End GPS: LATITUDE 45 deg. 51'07.67 min. LONGITUDE 108 deg. 24'01.25 min.

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

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

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

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m 100m 160m 110 est. water depth: <1m 1-3m 3-10m >10m _____ m

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

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

5 OPERATIONAL FEATURES

Suitable backshore staging / N Access: Direct from backshore / N Alongshore from next segment / N

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

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

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

939
940
941

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS								OIL CHARACTER								SUBST. TYPE(S)
	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP	NO				
																					m	m	%	
A			X	Y	130	2	60			S	P		X										Sand/Veg	
B			X	Y	75	2	0													X				
C			X	Y	65	2	60			S	P		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 cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER								WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR	NO					

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

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

Zones A+C have stumps + coated veg (primarily grass)
Veg needs to be cut out or trimmed and removed

Sketch / No Photos / No Frames _____ Photographer _____



DB/E

RIVER BANK OILING SUMMARY FORM for **Silvertip Pipeline Incident** PARTIAL SURVEY

1 GENERAL INFORMATION		Date (dd/mm/yy) 11/08/2011	Time (24h): std / daylight 1037 hrs to 1115 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: C13 <u>Left Bank</u> / Right Bank / Island		Operations Division:		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>25</u> deg C

2 SURVEY TEAM # 3	Name	Organization	Signature
Richard Marty		Polaris	<i>Richard Marty</i>
Travis Cain		USEPA	<i>Travis Cain</i>
Tom Bovington		State of Montana, DEQ	<i>Tom Bovington</i>

3 SEGMENT Total Segment/Reach Length 930 _____ m Segment/Reach Length Surveyed 283 _____ m

Start GPS: LATITUDE N45 deg. 51.139 min. LONGITUDE W108 deg. 24.035 min. Datum: _____

End GPS: LATITUDE N45 deg. 51.224 min. LONGITUDE W108 deg. 23.848 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 _____ confined or leveed X Substrate Type: Silt/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 1-10m 10-100m >100m 100 m est. water depth: <1m 1-3 m 3-10m >10m _____ m

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

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

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

Debris: Y / N oiled Y / N amount _____ bags or _____ trucks access restrictions: Must have landowner permission

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

1432
133
1433

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)				
					Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO			
ID	MS	LB	UB	OB	m	m	%																	
A				X	50	10	5					X												Grass
B			x	<u>X</u>	<u>220</u>	<u>20</u>	0																X	All

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

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

Oiling in Zones A is primarily staining on vegetation. Natural Attenuation is appropriate for this zone.

* Split Zone B (1433) into LB + IS
AA 17 Oct 2011

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

DB16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident PARTIAL SURVEY

1 GENERAL INFORMATION		Date (dd/mm/yy) 11/08/2011	Time (24h): std / daylight 1037 hrs to 1115 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: C13 <u>Left Bank</u> / Right Bank / Island				
Operations Division:				
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>25</u> deg C

2 SURVEY TEAM # 3	Name	Organization	Signature
Richard Marty		Polaris	<i>Richard Marty</i>
Travis Cain		USEPA	<i>Travis Cain</i>
Tom Bovington		State of Montana, DEQ	<i>Tom Bovington</i>

3 SEGMENT Total Segment/Reach Length 930 m Segment/Reach Length Surveyed 283 m

Start GPS: LATITUDE N45 deg. 51.139 min. LONGITUDE W108 deg. 24.035 min. Datum: _____

End GPS: LATITUDE N45 deg. 51.224 min. LONGITUDE W108 deg. 23.848 min.

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

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

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

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

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

Cliff or Bluff: Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed X Substrate Type: Silt/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 1-10m 10-100m >100m 100 m est. water depth: <1m 1-3 m 3-10m >10m _____ m

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

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

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

Debris: Y / N oiled Y / N amount _____ bags or _____ trucks access restrictions: Must have landowner permission

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	50	10	5				X						X				Grass
B			x	<u>X</u>	220	80	0													X	All

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				
None																

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

Oiling in Zones A is primarily staining on vegetation. Natural Attenuation is appropriate for this zone.

* Split Zone B (1433) into LB + 15
AA 17 Oct 2011

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

C13LB
Team #3
11/08/11



Start $45^{\circ} 51.139' N$ $108^{\circ} 24.035' W$

End $45^{\circ} 51.224' N$ $108^{\circ} 23.848' W$

A = Very Light 5% cover 10m band. 50m-long

B = NOO 80m wide 220m-long

DIB/GIS

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 2

1 GENERAL INFORMATION	Date (dd/mm/yy) <u>13/08/11</u>	Time (24h): std / daylight <u>1100</u> hrs to <u>1235</u> hrs	Water Level low - near bankfull - overbank <u>(falling)</u> steady - rising
Segment/Reach ID: <u>C13</u> <small>(Left Bank / Right Bank / Island)</small>			
Operations Division: <u>C</u>			
Survey by: <u>(Foot) ATV / Boat / Helicopter / Overlook /</u>	<u>(Sun)</u> Clouds / Fog / Rain / Snow / Windy / <u>(Calm)</u>		Air Temp +/- <u>30</u> deg C

2 SURVEY TEAM # <u>4</u>	Name	Organization	Signature
	<u>Nathan Hammond</u>	<u>Cardno Entry</u>	<u>[Signature]</u>
	<u>Damien Koete</u>	<u>Cardno Entry</u>	<u>[Signature]</u>
	<u>John Hunziker</u>	<u>FLWP</u>	<u>[Signature]</u>
	<u>Lance Richmond</u>	<u>EPA</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 9.32 m Segment/Reach Length Surveyed 9.32 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 P 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: _____

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m (10-100m) >100m est. water depth: <1m (1-3m) 3-10m >10m _____ m

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

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

5 OPERATIONAL FEATURES Suitable backshore staging (Y) N Access: Direct from backshore (Y) N Alongshore from next segment (Y) N

Debris: (Y) N oiled (Y) N amount _____ bags or _____ trucks access restrictions Water channels; Agriculture land

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

1511
1512
1513
1514
515

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER					SUBST. TYPE(S)					
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC		SR	AP	NO		
A			<u>P</u>	<u>S</u>	<u>25</u>	<u>15</u>	<u>0</u>															✓	
B			<u>P</u>		<u>100</u>	<u>10</u>	<u>21</u>			<u>S</u>	<u>P</u>		<u>X</u>										Grass
C			<u>P</u>	<u>S</u>	<u>490</u>	<u>345</u>	<u>0</u>															✓	
D			<u>P</u>		<u>354</u>	<u>45</u>	<u>21</u>			<u>S</u>	<u>P</u>		<u>X</u>										Grass, Trees, Shrubs, Debris
E			<u>P</u>		<u>290</u>	<u>240</u>	<u>5</u>			<u>P</u>	<u>S</u>		<u>X</u>										Trees, Grass, Shrubs

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				

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

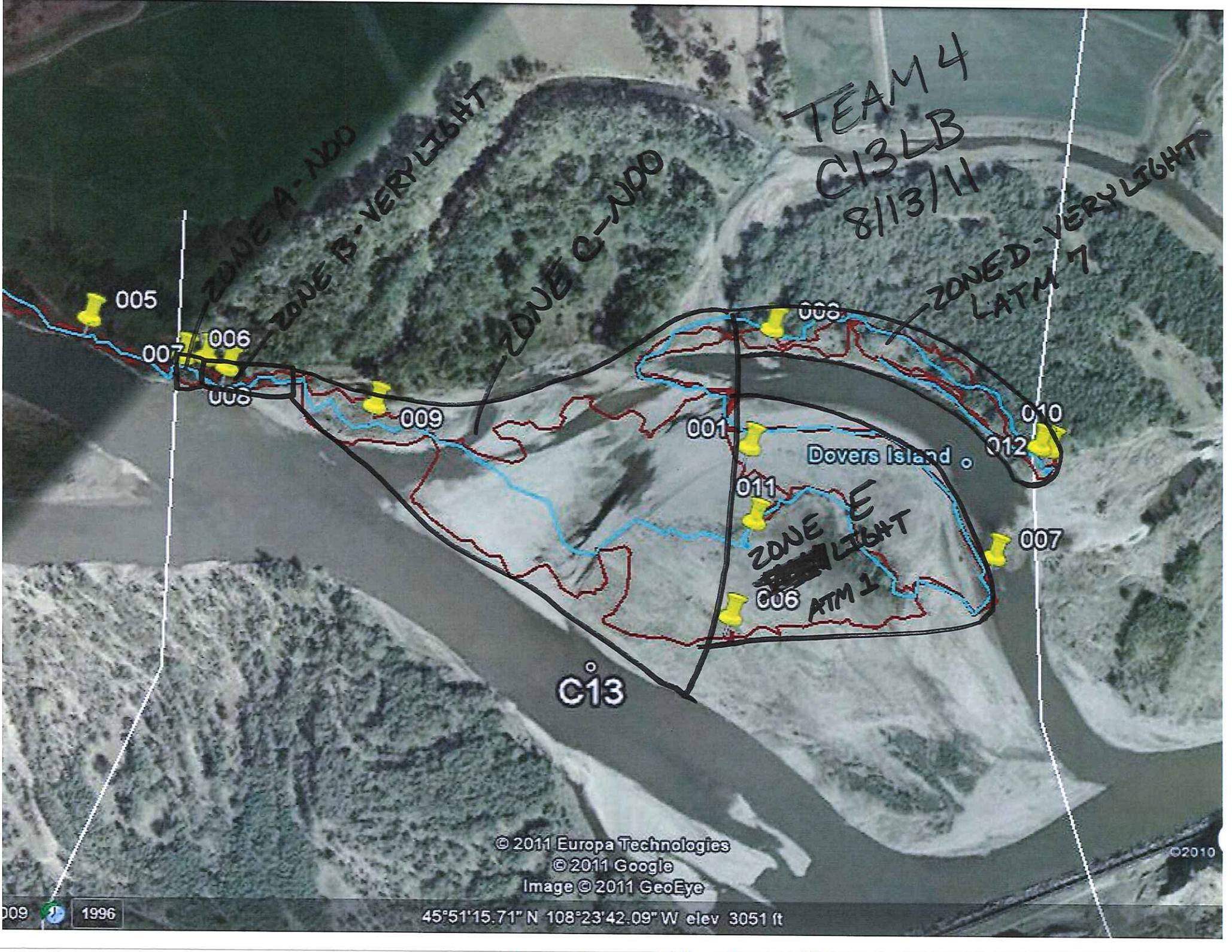
Zone A + C - NOO

Zone B - ATM 7 = Natural Attenuation

Zone D - ATM 7 = Natural Attenuation

~~Zone E - ATM 1 = Cutting of vegetated and shrub @ about 1m above ground level - Do not cut to the ground - culturally sensitive willows within area.~~

Sketch Yes / No Photos (Yes) / No Frames/Photographer: [Signature]



TEAM 4
C13LB
8/13/11

ZONE A - NDD
ZONE B - VERY LIGHT
ZONE C - NDD

ZONE D - VERY LIGHT
LATM 7

ZONE E
LIGHT
ATM 1

Dovers Island

C13

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© 2011 Google
Image © 2011 GeoEye

©2010

009 1996

45°51'15.71" N 108°23'42.09" W elev 3051 ft

DB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 2

1 GENERAL INFORMATION		Date (dd/mm/yy) <u>20/08/11</u>	Time (24h): std / daylight <u>12:00</u> hrs to <u>13:00</u> hrs	Water Level low - mean - bankfull - overbank falling - steady - rising
Segment/Reach ID: <u>C13</u> <input checked="" type="radio"/> Left Bank / <input type="radio"/> Right Bank / <input type="radio"/> Island		Operations Division: <u>C</u>		
Survey by: <input checked="" type="radio"/> Foot / <input type="radio"/> ATV / <input type="radio"/> Boat / <input type="radio"/> Helicopter / <input type="radio"/> Overlook /		<input checked="" type="radio"/> Sun / <input type="radio"/> Clouds / <input type="radio"/> Fog / <input type="radio"/> Rain / <input type="radio"/> Snow / <input type="radio"/> Windy / <input type="radio"/> Calm		Air Temp +/- <u>27</u> deg C

2 SURVEY TEAM # <u>192</u>		Name	Organization	Signature
		<u>Joe Busalacchi</u>	<u>Cardno ENTRIX</u>	<u>[Signature]</u>
		<u>Joe Boyle</u>	<u>Cardno ENTRIX</u>	<u>[Signature]</u>
		<u>DANIEL FLEFANT</u>	<u>"</u>	<u>[Signature]</u>
		<u>JAY WATSON</u>	<u>MFWP</u>	<u>[Signature]</u>
		<u>Cindy E. Santiago</u>	<u>EPA</u>	<u>Cindy E. Santiago</u>

3 SEGMENT Total Segment/Reach Length 930 m Segment/Reach Length Surveyed 920 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 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

Cliff or Bluff: Est Height 2-3 m canyon _____ manmade _____ meander confined or leveed _____

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

Substrate Type: md
Forested / Vegetated / Bare

4C RIVER CHANNEL CHARACTER circle or select as appropriate

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

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

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

5 OPERATIONAL FEATURES

Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris: N oiled Y/N amount 4-5 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	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO		
	m	m	%	m	m	%																	
1668 A				X	920	300	<1			P	B												md/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 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

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: Infrequent oiling on vegetation and debris, wp.397 recommend ATM 2 for small area ^(1x3m area) of cv on debris. Oiled debris is sticky. Area has been flagged. Two workers, 1-2 bags of debris wp.317 is only area in segment needing treatment

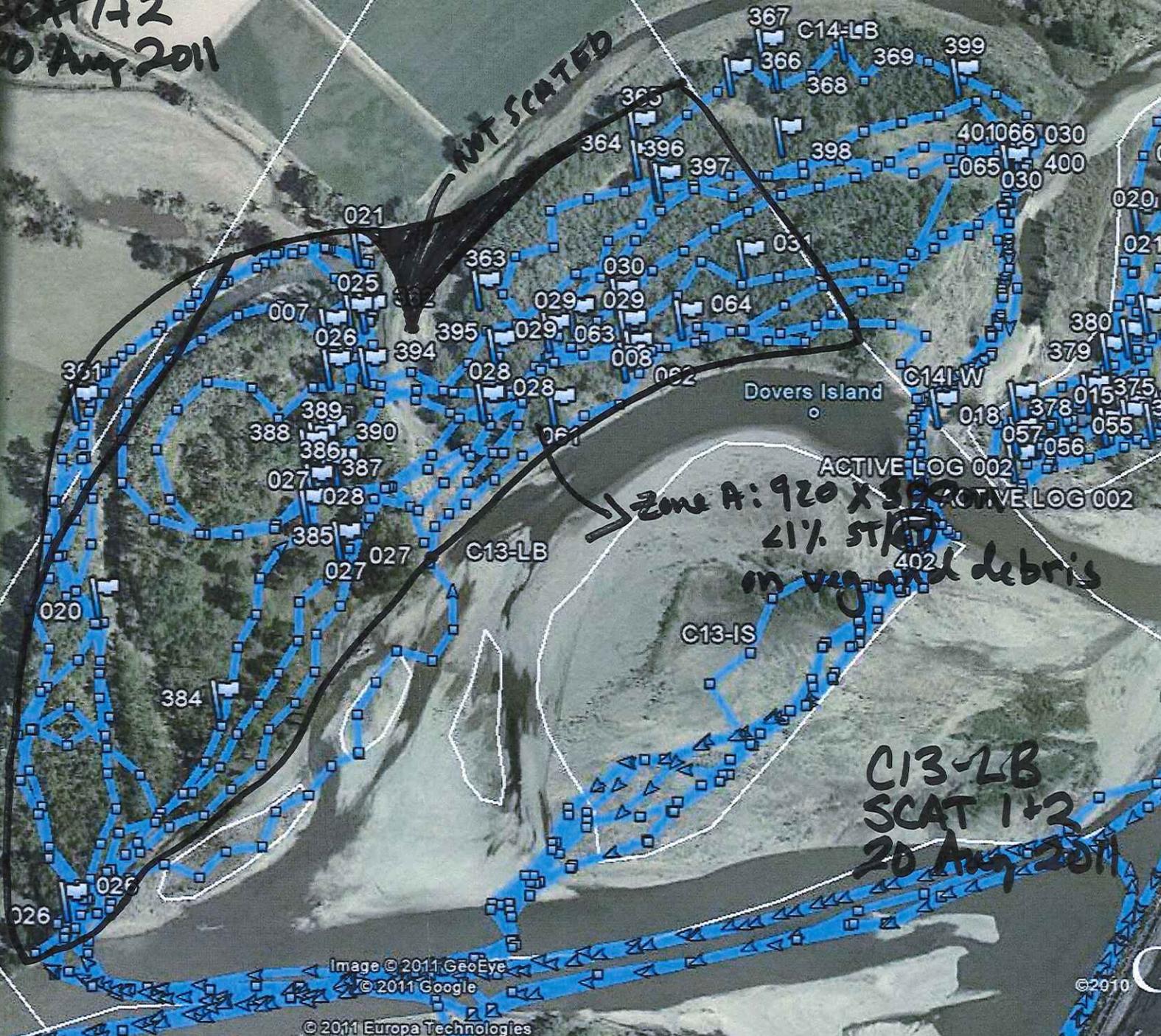
Sketch Yes / No Photos Yes / No Frames _____ Photographer _____

C13 LB Page 2 of 2

SCAT 1+2

20 Aug 2011

NOT SCATED



Zone A: 920 x 390 ft
21% ST/100
on vegetation debris

ACTIVE LOG 002

C13-LB
SCAT 1+2
20 Aug 2011

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page _____ of _____

1 GENERAL INFORMATION		Date (dd/mm/yy) 11/08/11	Time (24h): std / daylight 1037 hrs to 1115 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: C13 Left Bank / Right Bank / Island		Operations Division: AA		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		<input checked="" type="checkbox"/> Sun / <input type="checkbox"/> Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>25</u> deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
	Rich Marty	Polaris	See attached
	Travis Cain	OSEPA	
	Tom Bovington	DEQ	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 285 115 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 _____ 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 _____ confined or leveed X Substrate Type: Silt/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 1-10m 10-100m >100m 160m 100m est. water depth: <1m 1-3m 3-10m >10m _____ m

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

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

5 OPERATIONAL FEATURES

Suitable backshore staging Y/N Access: Direct from backshore Y/N Alongshore from next segment Y/N

Debris Y/N oiled Y/N amount _____ bags or _____ trucks access restrictions - Must have landowner permission

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	<u>X</u>	115	30	—														✓

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				

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

A - NOO

* Removed from C13 LB 11 Aug 2011 AA 17 Oct 2011

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

C13-LB

C13-IS



A

C13 IS
11/08/11
Team 3

C13-RB

DB16

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident PARTIAL SURVEY

1 GENERAL INFORMATION		Date (dd/mm/yy) 11/08/2011	Time (24h): std / daylight 1037 hrs to 1115 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: C13 <u>Left Bank</u> / Right Bank / Island		Operations Division:		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook /		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>25</u> deg C

2 SURVEY TEAM # 3	Name	Organization	Signature
Richard Marty		Polaris	<i>Richard Marty</i>
Travis Cain		USEPA	<i>Travis Cain</i>
Tom Bovington		State of Montana, DEQ	<i>Tom Bovington</i>

3 SEGMENT Total Segment/Reach Length 930 m Segment/Reach Length Surveyed 283 m

Start GPS: LATITUDE N45 deg. 51.139 min. LONGITUDE W108 deg. 24.035 min. Datum: _____

End GPS: LATITUDE N45 deg. 51.224 min. LONGITUDE W108 deg. 23.848 min.

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

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

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

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

Cliff or Bluff: Est Height _____ m canyon _____ manmade _____ meander _____ confined or leveed X Substrate Type: Silt/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 1-10m 10-100m >100m 100 m est. water depth: <1m 1-3m 3-10m >10m _____ m

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

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

5 OPERATIONAL FEATURES

Suitable backshore staging Y / N Access: Direct from backshore Y / N Alongshore from next segment Y / N

Debris: Y / N oiled Y / N amount _____ bags or _____ trucks access restrictions: Must have landowner permission

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	50	10	5				X						X					Grass
B			x	(X)	220	80	0														X	All

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
None																	

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

Oiling in Zones A is primarily staining on vegetation. Natural Attenuation is appropriate for this zone.

*Split into LB + IS

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

C13LB
Team #3
11/08/11



Start $45^{\circ} 51.139' N$ $108^{\circ} 24.035' W$

End $45^{\circ} 51.224' N$ $108^{\circ} 23.848' W$

A = Very Light 5% cover 10m band. 50m-long

B = NOO
80m wide 220m-long

D13/G15

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 2

1 GENERAL INFORMATION

Segment/Reach ID: C13 (Left Bank / Right Bank / Island) Date (dd/mm/yy) 13/08/11 Time (24h): std / daylight 1100 hrs to 1235 hrs Water Level low - mean bankfull - overbank

Operations Division: C Survey by: Foot / DATV / Boat / Helicopter / Overlook / (Sun) Clouds / Fog / Rain / Snow / Windy / (Calm) Air Temp + / - 30 deg C

2 SURVEY TEAM # 4

Name	Organization	Signature
Nathan Hammond	Cardno Entry	<i>[Signature]</i>
Damien Karte	Cardno Entry	<i>[Signature]</i>
John Hunziker	FLUP	<i>[Signature]</i>
Lance Richman	EPA	<i>[Signature]</i>

3 SEGMENT Total Segment/Reach Length 932 m Segment/Reach Length Surveyed 932 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 P 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: _____

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m (10-100m) >100m est. water depth: <1m (1-3m) 3-10m >10m _____ m

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

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

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

Debris: (Y) / N oiled (Y) / N amount _____ bags or _____ trucks access restrictions Water channels; Agriculture land

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		P	S		25	15	0														✓
B		P			100	10	21			S	P		X								Grass
C		P	S		490	345	0														✓
D		P			354	45	41			S	P		X								Grass, Trees, Shrubs, Debris
E		P			290	240	5			P	S		X								Trees, Grass, Shrubs

2129
511
1512
513
1514
515
2130

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				

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 + C~~ - NOO
 Zone ~~B~~ - ATM 7 = Natural Attenuation
 Zone ~~D~~ - ATM 7 = Natural Attenuation
 Zone E - ATM 1 = Cutting of vegetated and shrub @ about 1m above ground level - Do not cut to the ground - culturally sensitive willows within area.

Sketch Yes / No Photos (Yes) / No Frames/Photographer: *[Signature]*



TEAM 4
C13LB
8/13/11

ZONE B - VERY LIGHT

ZONE C - NDO

ZONE D - VERY LIGHT
L ATM 7

Dovers Island

ZONE E
ATM 1

C13

005

006

007

008

009

008

001

012

007

011

006

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Image © 2011 GeoEye

©2010

1996

45°51'15.71" N 108°23'42.09" W elev 3051 ft



Appendix C

Pre-Inspection Survey Transmittal

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



Appendix D

Post-Inspection Survey Transmittal

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



Appendix E

Final SCAT Survey Forms and
Sketches

BB/G

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

Page 1 of 2

1 GENERAL INFORMATION

Segment/Reach ID: C13 Left Bank Right Bank Island Date (dd/mm/yy) 14/09/11 Time (24h): std / daylight 0945 hrs to 1030 hrs Water Level low mean bankfull overbank
 Operations Division: C Air Temp + / - 20 deg C

Survey by: Foot ATV Boat Helicopter / Overlook / _____ Sun Cloudy Fog / Rain / Snow / Windy Calm falling steady rising

2 SURVEY TEAM # 3

Name	Organization	Signature
<u>Nathan Howard</u>	<u>Cardno Entrix</u>	<u>[Signature]</u>
<u>Jeffery Frank Herrick</u>	<u>DEO</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length 1071 m Segment/Reach Length Surveyed 205 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: 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: _____
 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 1-10m 10-100m >100m est. water depth: <1m 1-3m 3-10m >10m _____ m
 shoal(s) present Y N point bar present Y N bar-shoal substrate silt sand gravel cobble / boulder / bedrock / debris
 seasonal water level: low mean / bank full / overbank flow est. change over next 7 days: falling - same - rising

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

Debris Y / N oiled Y / N amount <1 bags or _____ trucks access restrictions _____
 Oiled trees/shrubs N / N River Current strong Y / N Other Features: _____

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

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER								SUBST. TYPE(S)		
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP	NO			
<u>A</u>			<u>S</u>	<u>P</u>	<u>15</u>	<u>50</u>	<u><1</u>			<u>S</u>	<u>P</u>						<u>X</u>						<u>veg</u>
B	S	P			90	40	0																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 cm	OILED ZONE cm-cm	SUBSURFACE OIL CHARACTER								WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)					
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	TR	NO										

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

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

Zone A - ATM1 and ATM9 utilized by hot shot crew to collect < 1 bag of oiled material. No Further Treatment

Zone B - NDD - No Treatment required.

Removed Zone B (2294)
 * Split into RB + IS
 AA 17 Oct 2011

ReSCAT

Sketch No Photos Yes Frames/Photographer: _____



Team 3
C13RB
9/14/11

48 am 9/14/2011 3:47 pm
4 pm

C13-LB

C13-IS

ZONE A
VERY LIGHT

ZONE B
NOO

C13-RB

Team 3
C13 RB
9/14/11

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Image ©2011 GeoEye

©2010

1996

45°51'07.44" N 108°23'32.68" W elev 3053 ft

9/6/2011 5:14 pm

Team 6
C13LB
9/6/11

ZONE A
VERY LIGHT

C14-L

003

C04

C13-LB

C13-IS

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Image © 2011 GeoEye

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1996

45°51'22.84"N 108°23'48.91"W elev 3050 ft

9/11/2011 6:21 pm

9/11/2011

SCAT
Team 1
9/11/11
C13-IB
C13-IS

o Dovers Island

C13-IS

ACTIVE LOG 006-142

o C13

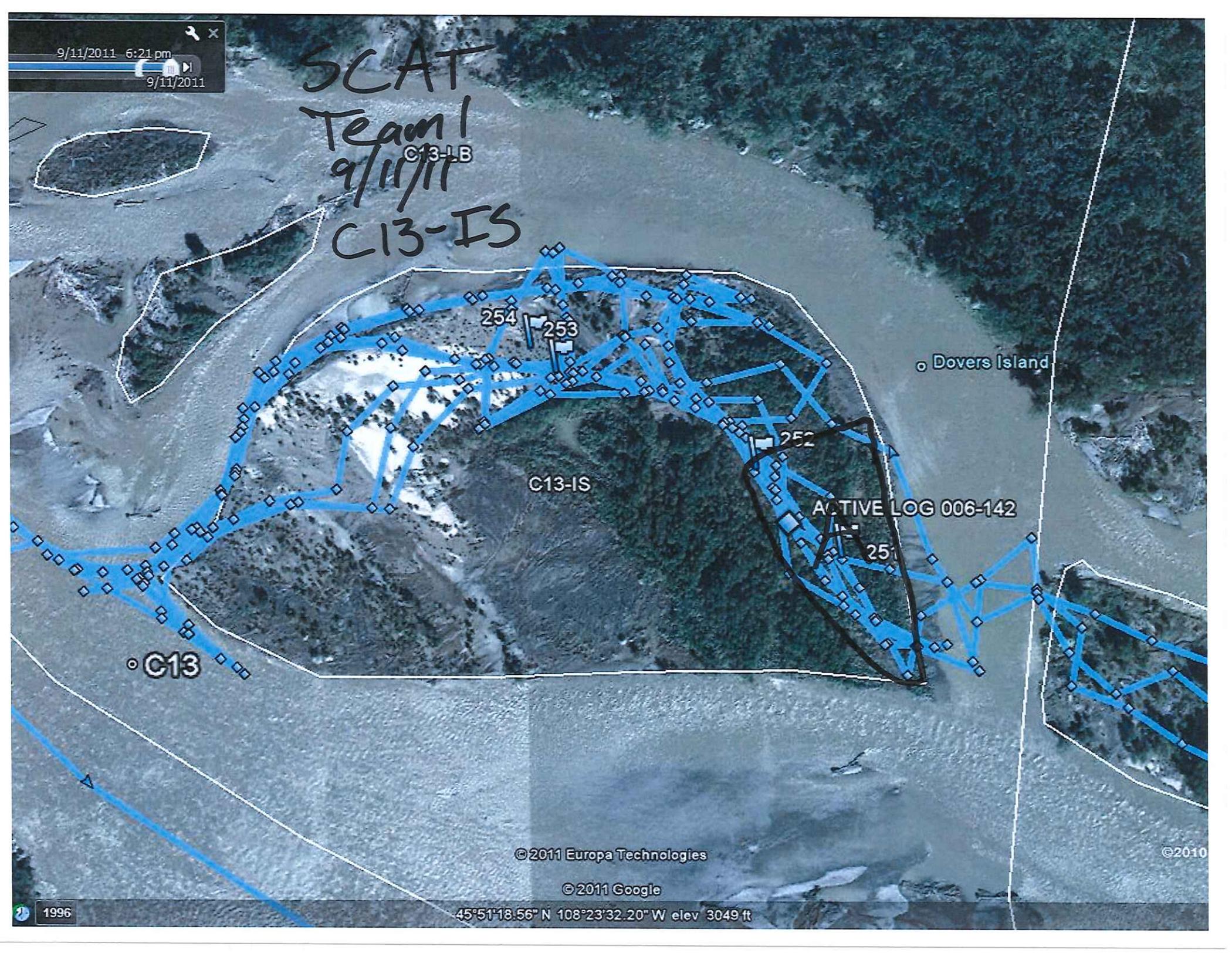
©2011 Europa Technologies

©2010

©2011 Google

45°51'18.56" N 108°23'32.20" W elev 3049 ft

1996



C13 Island

Dovers Island

Team 1

Zone A

C13-LB

C13-IS

Image © 2011 GeoEye
© 2011 Europa Technologies
© 2011 Google

GOO

C13 Island
Dovers Island
Team

C13-LB

Zone A

C13-IS

Image © 2011 GeoEye
© 2011 Europa Technologies
© 2011 Google

©2011 Google

1996

45°51'17.40"N-108°23'30.47"W elev 3048 ft

Eye alt

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy)	Time (24h): std / daylight	Water Level
Segment/Reach ID: <u>C13</u>	Left Bank / Right Bank (<u>Island</u>)	<u>14/09/11</u>	<u>0945</u> hrs to <u>1020</u> hrs	low - <u>mean</u> - bankfull - overbank
Operations Division:				<u>(falling)</u> steady - rising
Survey by: (<u>Foot</u>) <u>ATV</u> / (<u>Boat</u>) <u>Helicopter</u> / Overlook / _____		Sun / (<u>Clouds</u>) / Fog / Rain / Snow / Windy / (<u>Calm</u>)	Air Temp +/- <u>20</u> deg C	

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
	<u>Nate Hammond</u>	<u>Cardno Entrix</u>	<u>See attached</u>
	<u>Jeffery Frank Herrick</u>	<u>DEQ</u>	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 90 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: 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: _____

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m (100m) 160m est. water depth: <1m (1-3m) 3-10m >10m _____ m

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

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

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

Debris: Y / N oiled Y / N amount 21 bags or _____ trucks access restrictions

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

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

2294

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)			
	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR		AP	NO	
A	S	P			90	40	-														/	

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

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

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

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

A-NOO

* Removed from
C13 RB 14 Sept 2011
AA 17 Oct 2011

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

C13-LB

C13-IS

C13-RB

~~ZONE A
VERY HIGH~~

ZONE A
NOO

Team 3
C13-IB IS
9/14/11

C13-LB

C13-IS

ZONE A
VERY LIGHT

ZONE B
NOO

C13-RB

Team 3
C13RB
9/14/11





Appendix F

Completed SCAT Segment Sign-Off
Forms

* SPLIT INTO RB + IS AA 17 Oct 2011

SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

SILVERTIP PIPELINE RELEASE

Segment C13RB

Date of Survey 9/14/11

Dates of Initial SCAT Assessments

27 Jul 2011 (B)

(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment

60

Segment has been treated by Operations or an Operations Hotshot Team

YES

NO

Segment Assessment Complete¹

Partial Segment Assessment

Along with previous surveys, this segment is complete.

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

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

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

No Federal Representative

Sign Name _____ Print Name/ Affiliation _____ Date _____

Federal Representative (EPA/USCG)

Jeffrey Frank Herrick Jeffrey Frank Herrick 14 Sept 2011
Sign Name _____ Print Name/ Affiliation _____ Date _____

State Representative (DEQ/FWP)

Nathan Hammond Nathan Hammond/Carino Entix 9/14/11
Sign Name _____ Print Name/ Affiliation _____ Date _____

RP Representative (SCAT RP Representative)

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

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 C13RB Date of Survey 9/14/11

Dates of Initial SCAT Assessments 27 Jul 2011 (B)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 60

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

Segment Assessment Complete¹

Partial Segment Assessment

Along with previous surveys, this segment is complete.

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

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

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

No Federal Representative
Sign Name _____ Print Name/ Affiliation _____ Date _____

Federal Representative (EPA/USCG)

Jeffrey Frank Herrick Jeffrey Frank Herrick 14 Sept 2011
Sign Name _____ Print Name/ Affiliation _____ Date _____

State Representative (DEQ/FWP)

Nathan Hammond Nathan Hammond/Carina Entix 9/14/11
Sign Name _____ Print Name/ Affiliation _____ Date _____

RP Representative (SCAT RP Representative)

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

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.

*Split into RB + IS

SCAT SEGMENT OPERATIONS COMPLETION SIGN-OFF SHEET

SILVERTIP PIPELINE RELEASE

Segment C13RB Date of Survey 9/14/11

Dates of Initial SCAT Assessments 27 Jul 2011 (B)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 60

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

Segment Assessment Complete¹
Partial Segment Assessment

Along with previous surveys, this segment is complete.

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

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

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

No Federal Representative
Sign Name _____ Print Name/ Affiliation _____ Date _____

Federal Representative (EPA/USCG)

Jeffrey Frank Herrick Jeffrey Frank Herrick 14 Sept 2011
Sign Name _____ Print Name/ Affiliation _____ Date _____

State Representative (DEQ/FWP)

Nathan Hammond Nathan Hammond / Carbon Entix 9/14/11
Sign Name _____ Print Name/ Affiliation _____ Date _____

RP Representative (SCAT RP Representative)

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

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 C13 LB Date of Survey 9/6/11

Dates of Initial SCAT Assessments 27 JUL 11 (IL)
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment N/A

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

Segment Assessment Complete¹

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).

Austin West Austin West USCG 9/6/11
Sign Name Print Name/ Affiliation Date
Federal Representative (EPA/USCG)

Betsy Hovda Betsy Hovda DEQ 9/16/11
Sign Name Print Name/ Affiliation Date
State Representative (DEQ/FWP)

Nathaniel Hammond Nathaniel Hammond / Cardio Entrix 9/6/11
Sign Name Print Name/ Affiliation Date
RP Representative (SCAT RP Representative)

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

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 C-13 ISLAND Date of Survey 9/11/11

Dates of Initial SCAT Assessments _____
13 AUG 11 FD
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment _____
CTR # 60

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

Segment Assessment Complete¹
Partial Segment Assessment

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

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

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

No federal rep.

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

Dave Hergenrider Dave Hergenrider 9/11/2011
Sign Name Print Name/ Affiliation Date
State Representative (DEQ/FWP)

Todd Farrar Todd Farrar / Polaris 9/11/11
Sign Name Print Name/ Affiliation Date
RP Representative (SCAT RP Representative)

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

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 C-13 Island Date of Survey 9/12/11

Dates of Initial SCAT Assessments

13 AUG 11 IV
(to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment

CTR 60

Segment has been treated by
Operations or an Operations Hotshot Team

YES NO

Segment Assessment Complete¹

There is a portion of the
segment with restricted
Access

Partial Segment Assessment

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

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

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

No federal rep.

Sign Name _____ Print Name/ Affiliation _____ Date _____
Federal Representative (EPA/USCG)

Sheila McAtee Sheila McAtee/DNRC 9/12/11
Sign Name _____ Print Name/ Affiliation _____ Date _____
State Representative (DEQ/FWP)

Tedd Fawcett Tedd Fawcett (Polaris) 9/12/11
Sign Name _____ Print Name/ Affiliation _____ Date _____
RP Representative (SCAT RP Representative)

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

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 C13 RB IS AA 17 Oct Date of Survey 9/14/11

Dates of Initial SCAT Assessments 27 Jul 2011 (to be filled out by SCAT Data Management)

CTR(s) Associated with SCAT Segment 60

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

Segment Assessment Complete¹
 Partial Segment Assessment *Along with previous surveys, this segment is complete.*

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

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

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

No Federal Representative
 Sign Name _____ Print Name/ Affiliation _____ Date _____
Federal Representative (EPA/USCG)

Jeffrey Paul Francis Gregory Frank Herrick 14 Sept 2011
 Sign Name _____ Print Name/ Affiliation MT DEC Date _____
State Representative (DEQ/FWP)

Nathan Hammond Cardon Entix 9/14/11
 Sign Name _____ Print Name/ Affiliation _____ Date _____
RP Representative (SCAT RP Representative)

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

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.