

ExxonMobil Pipeline Company

**SCAT Area Transition Report for
A15**

Silvertip Pipeline Incident
Laurel, Montana

October 18, 2011



SCAT Area Transition Report for A15

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Laurel, Montana

Prepared for:
ExxonMobil Pipeline Company

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

Our Ref.:
B0085883.1103

Date:
October 18, 2011

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

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

1. Executive Summary of Oil Removal Activities

This Shoreline Cleanup Assessment Technique (SCAT) Area Transition Report provides a summary of the SCAT surveys conducted to determine the extent of oiling along the riverbanks and floodplain within SCAT Area A15, 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 A15.

1.1 Land Ownership and Access Issues

Figure 1 provides an aerial map of SCAT Area A15, 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 A15 is 32.3. There were access issues for a partial section of the left bank of A15.

1.2 Cultural, Historic, and Natural Resource Constraints

No historic properties or cultural resources have been identified on the right bank within this segment that would affect oil removal activities. The left bank and island portions were not investigated due to land access not being granted by the property owner and the lack of impacts from the Silvertip Pipeline Incident requiring treatment, respectively.

Figure 2 summarizes the natural resources identified in this segment. International Bird Rescue and Resource Advisors from U.S. Fish and Wildlife Service conducted regular inspections of areas in A15 that did not have access issues. No oiled wildlife was observed or recovered. No Wildlife Priority Cleanup Areas were identified. No active migratory bird nests were identified in Area A15.

1.3 Summary of Environmental Sampling

Table 1 (below) summarizes samples collected within Area A15. 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 A15 are provided on Figure 3.

Table 1 Environmental Sampling Summary

Agency	Sample Num	Date	Matrix	Location	Latitude	Longitude
Z8DY_CTEH	LAMT0824SO606	24-Aug-11	Soil_River	SO-A15	45.653148	-108.714312

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

1.4 Summary of Initial SCAT Surveys

The SCAT teams used systematic evaluation criteria and treatment method tables approved by the National Oceanic and Atmospheric Administration to provide a standard approach for data collection and conducting field surveys. The forms and sketches from the initial SCAT surveys performed along the river bank (water edge) and floodplain within Area A15 are included in Appendix B. Figure 4 provides the maximum oiling zones observed by the SCAT team during the initial surveys of Area A15.

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. 1](#) and [CTR No. 10](#), included as Appendix C).

1.6 Oil Removal Activities

Oil removal activities were conducted within Area A15 in accordance with the ATMs identified in the CTRs. [Appendix I](#) of the Summary of Assessment and Oil Removal Activities report presents this data including: date range/days worked, average number of people working per day, equipment used, and various types of bags removed: oily debris, personal protective equipment, plastic, trash, super sacks, wood chips, and contaminated wood.

1.7 Pre-Inspection Survey Transmittal

SCAT Operations liaisons performed an inspection of the remediated areas of SCAT Area A15 and developed a Pre-Inspection Survey Transmittal (PIST) associated with the right bank within Area A15, which is presented in Appendix D.

1.8 Post-Inspection Survey Transmittal

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

1.9 Summary of Final SCAT Surveys

Figure 5 shows the oiling conditions within Area A15 following completion of oil removal activities. The SCAT team performed final surveys of the right bank within SCAT Area A15 to confirm the agreed-upon cleanup endpoints identified in the applicable CTRs had been achieved. The final SCAT survey documentation is presented in Appendix F.

1.10 SCAT Area Conclusions

Based on the final SCAT survey performed on the right bank within Area A15, no further treatment is recommended for this area. Based on the initial SCAT survey, no oiling was observed on the left bank or the island of Area A15. A SCAT Segment Sign-Off Sheet is included as Appendix G.



**SCAT Area Transition
Report for A15**

Silvertip Pipeline Incident
Laurel, Montana

2. Transition Sign-Off Form

SCAT Area Transition Report for A15

Prepared for:

Unified Command

Date

Unified Command – RP



**SCAT Area Transition
Report for A15**

Silvertip Pipeline Incident
Laurel, Montana

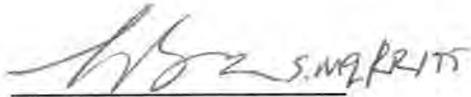
SCAT Area Transition Report for A15

Prepared for:

Unified Command

9/27/2014

Date

A handwritten signature in black ink, appearing to read "S. MARRITI".

Unified Command – FOOSC



**SCAT Area Transition
Report for A15**

Silvertip Pipeline Incident
Laurel, Montana

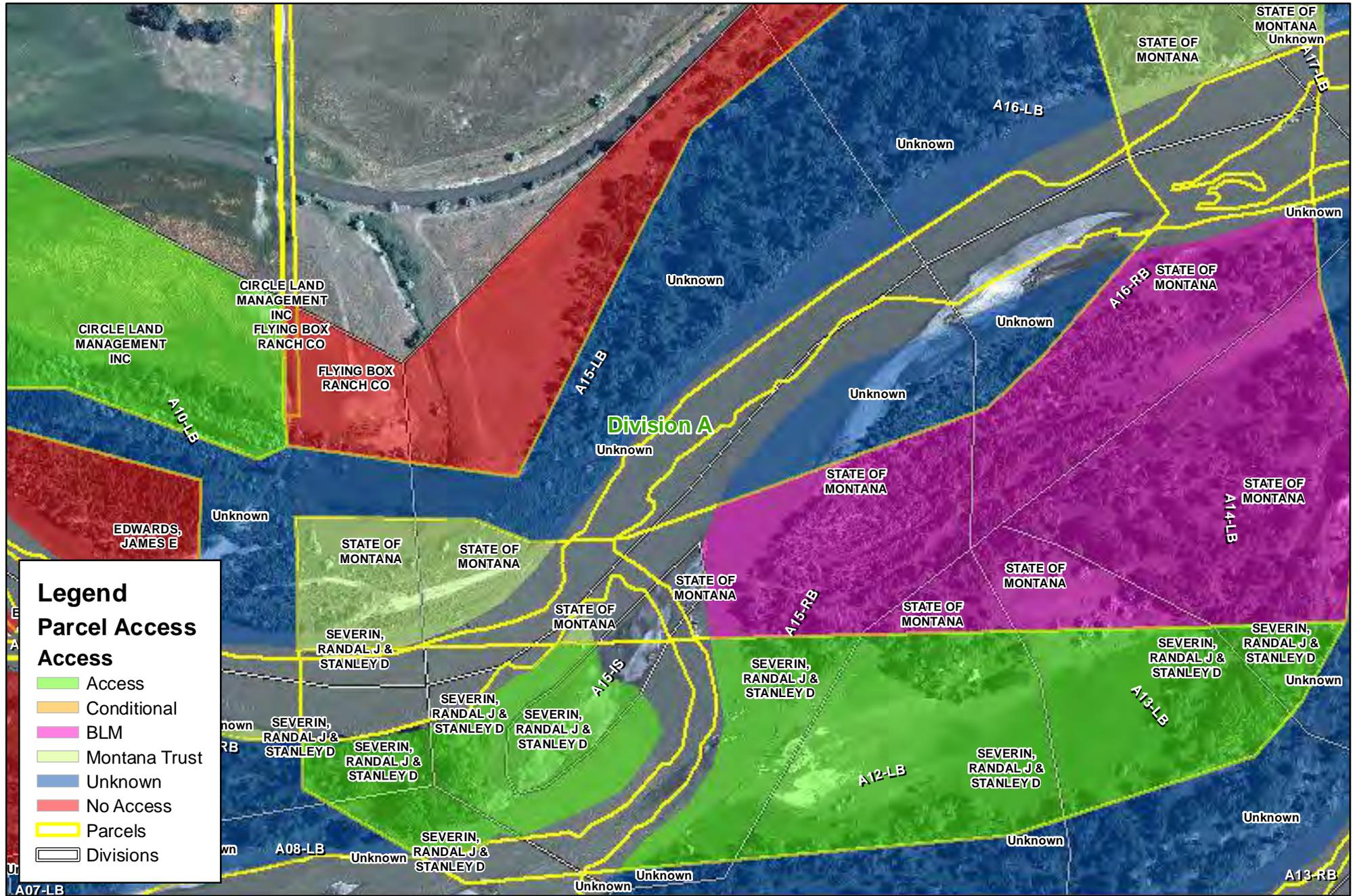
SCAT Area Transition Report for A15

Prepared for:

Unified Command

9/27/11
Date

Lawrence
Unified Command – MDEQ



Legend

Parcel Access

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

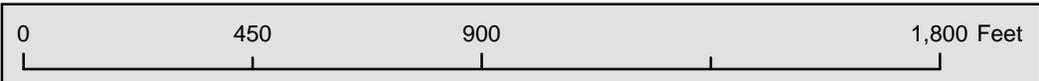


Figure 1

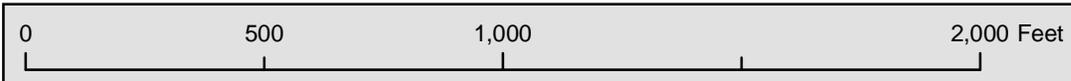
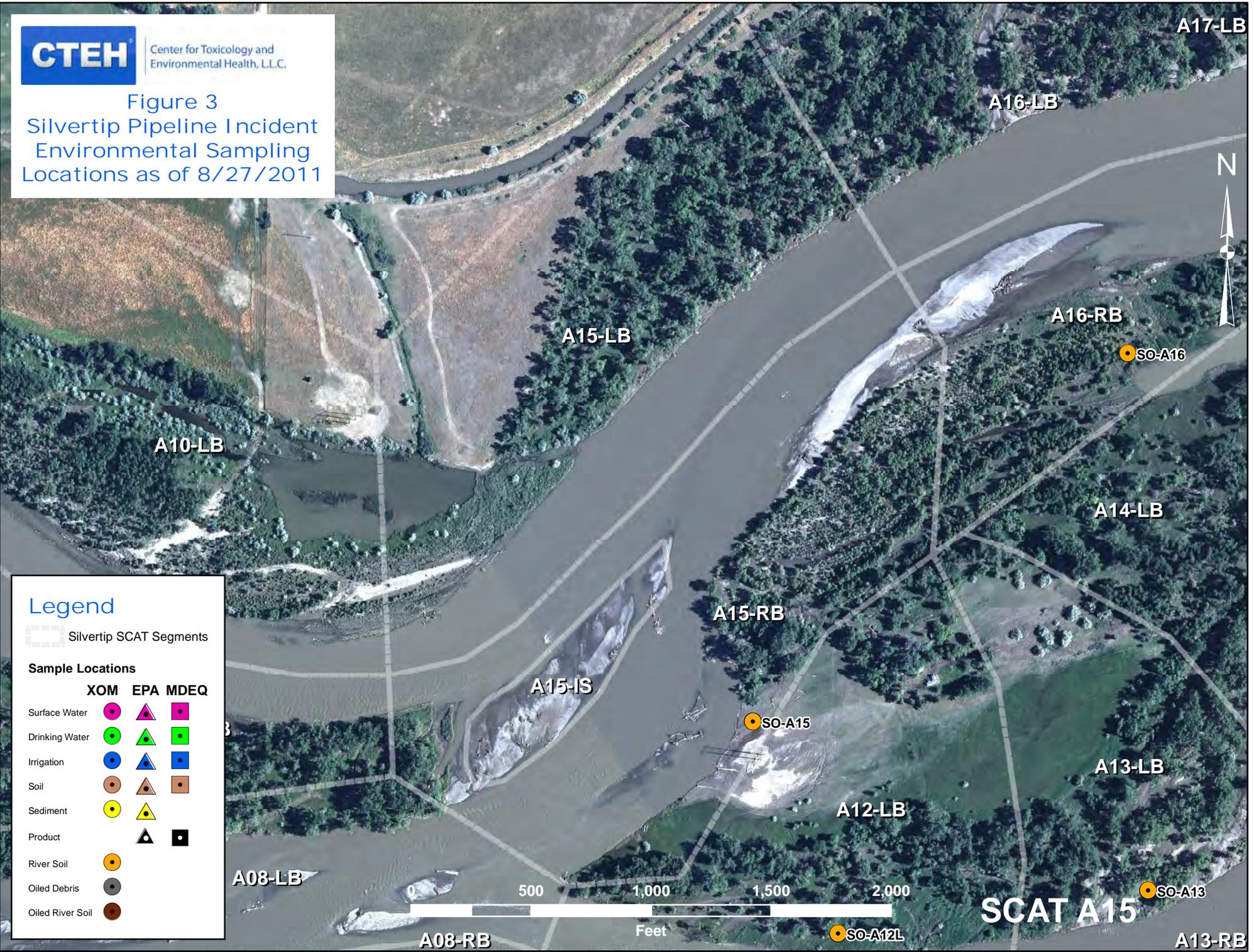


Figure 2
Wildlife Resources

CTEH 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			



A17-LB

A16-LB

A16-RB

2107

A15-LB

1778

138

116

A10-LB

A14-LB

185

A15-RB

1917

A10-IS

A15-IS

115

1744

A10-RB

A13-LB

A14-RB

184

A12-LB

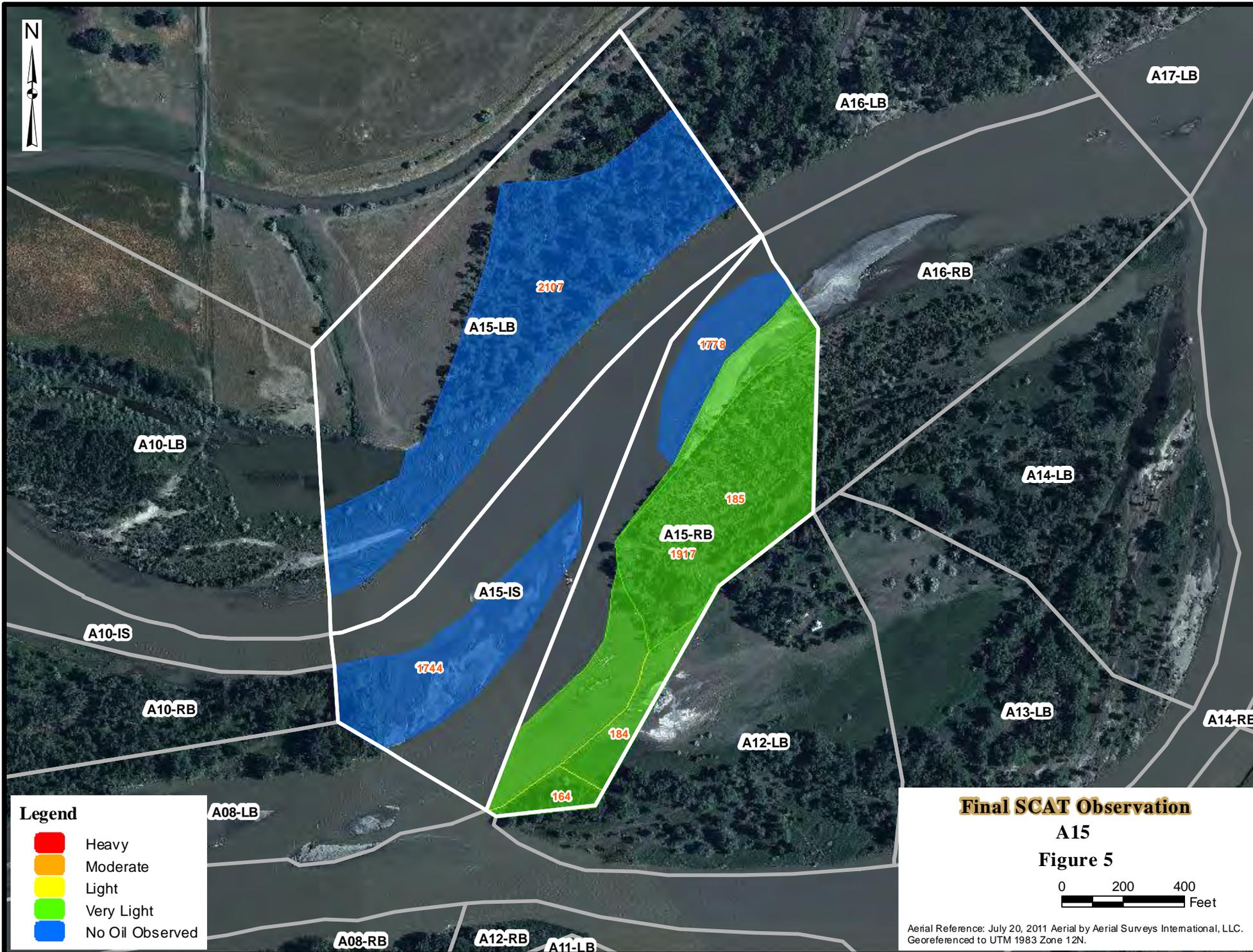
A08-LB

164

A08-RB

A12-RB

A11-LB



Legend

- Heavy
- Moderate
- Light
- Very Light
- No Oil Observed

Final SCAT Observation

A15

Figure 5



Aerial Reference: July 20, 2011 Aerial by Aerial Surveys International, LLC. Georeferenced to UTM 1983 Zone 12N.



Appendix A

Sample Detections Summary



Detections in Samples Collected in SCAT Area A15

Printed 9/7/2011

NA - Not Available

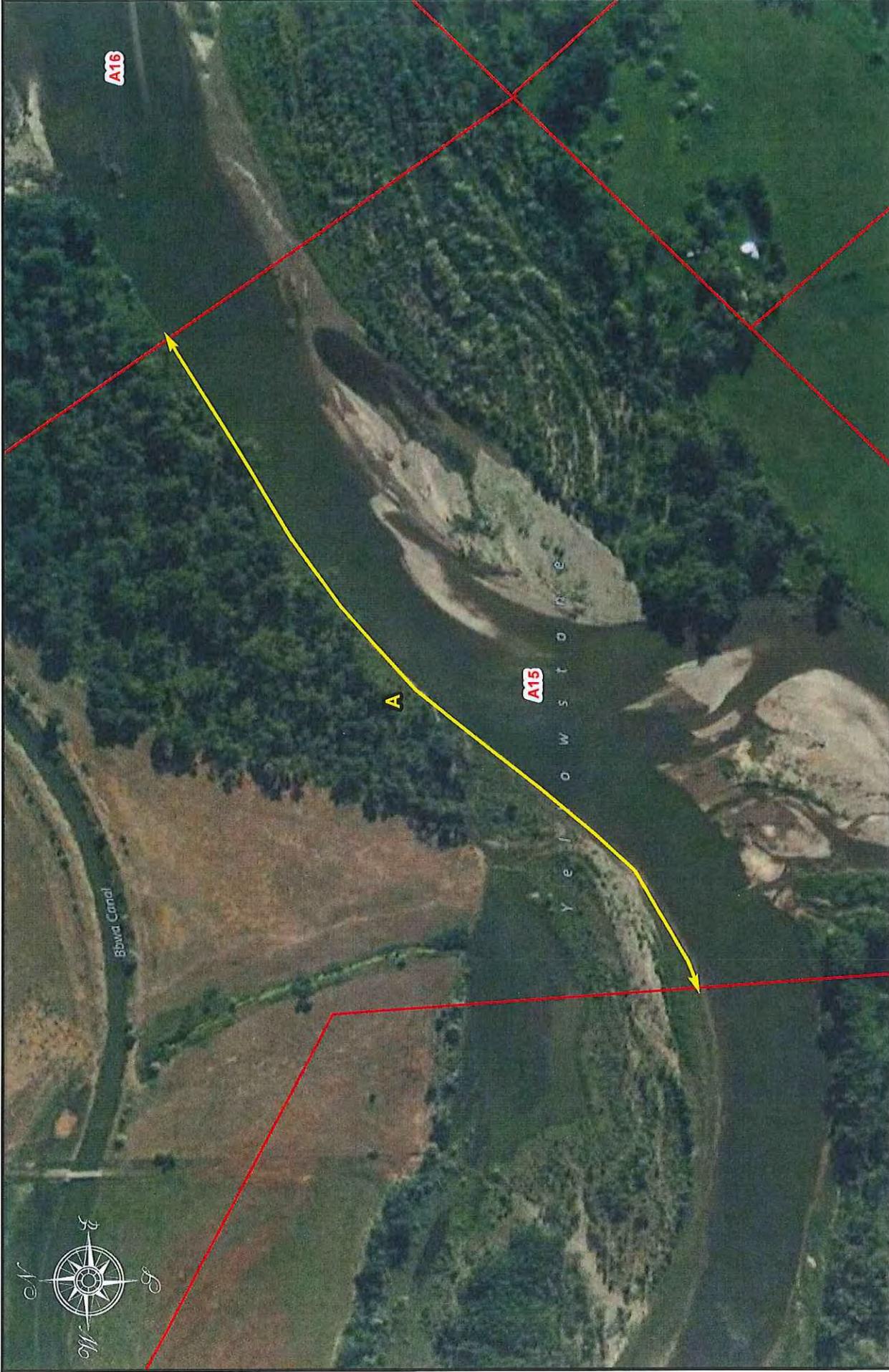
Detected Above Screening Level

Sample Num	Date	Sample Type	Matrix	Analytical Method	Analyte	Detected	Result	Screening Level	Result Qualifier	Units	Above?
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 6010	Arsenic	Y	19.4	40		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 6010	Barium	Y	135	820		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 6010	Cadmium	Y	1.1	3.8		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 6010	Chromium	Y	21.4	280		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 6010	Lead	Y	10.7	400		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 6010	Nickel	Y	16.1	150		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 6010	Vanadium	Y	38.4	39		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 9060	Mean Total Organic Carbon	Y	3500	NA		mg/kg	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 9060	RSD%	Y	5.6	NA		%	no
LAMT0824SO606	24-Aug-11	Field	Soil_River	EPA 9060	Total Organic Carbon	Y	3780	NA		mg/kg	no



Appendix B

Initial SCAT Survey Forms and
Sketches



Legend

Oil Zones

Segment Boundaries



SCAT Teams 2 & 4 Survey

Segment A15 Left Bank

11-Jul-2011

DBIG

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 05/09/11	Time (24h): std / daylight 1030 hrs to 1230 hrs	Water Level low - <u>mean</u> - bankfull - overbank falling - steady - rising
Segment/Reach ID: <u>A15</u> (Left Bank / Right Bank / Island)				
Operations Division: <u>A</u>				
Survey by: <u>Foot / ATV / Boat / Helicopter / Overlook /</u>		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>22</u> deg C

2 SURVEY TEAM # 2	Name	Organization	Signature
	Pete Lee	Polaris	
	Lee Burroughs	MTFWP	
	Steve Merritt	USEPA	

3 SEGMENT Total Segment/Reach Length 550 m Segment/Reach Length Surveyed 550 m

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

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

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

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

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

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m m est. water depth: <1m 1-3m >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)			
	ID	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>550</u>	<u>120</u>															<u>X</u>	Grass, trees, debris

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

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

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

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

Oil height:

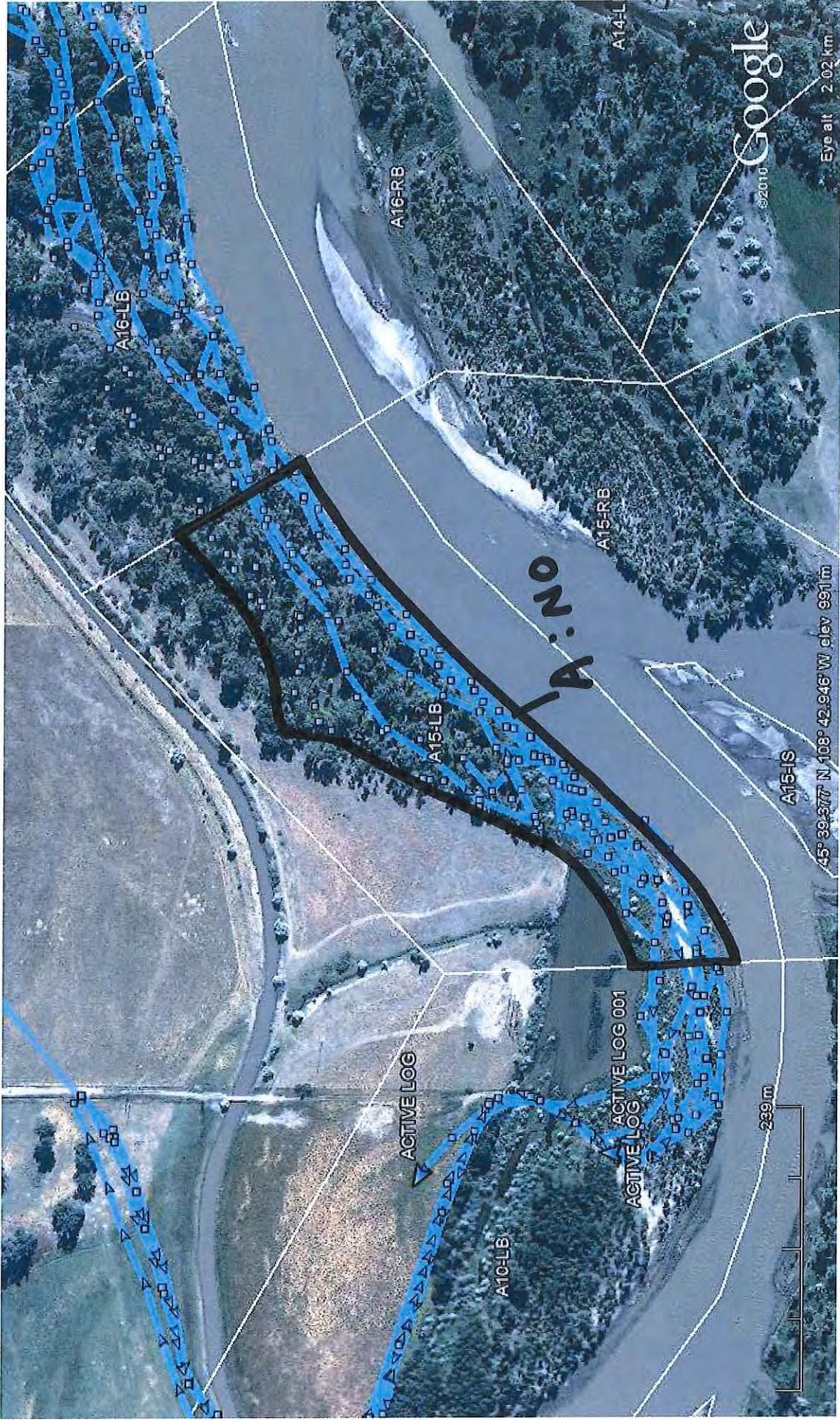
Treatment recommendations:

Zone A : No oil ; no treatment required

Zone :

Ops Hot Shot team (Ed Jessup)

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



A15 LB
T2 9/5/11

DD/G/1sc

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 11-Jul-2011	Time (24h): std / daylight 1123 hrs to 1124 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A15 Left Bank / <u>Right Bank</u> / Island		Operations Division: A		
Survey by: Foot / ATV / <u>Boat</u> / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		
Air Temp + / - <u>29.4</u> deg C				

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

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 410 m

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

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

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

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

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

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 133m 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 1 trucks access restrictions

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

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

OIL ZONE ID	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER							SUBST. TYPE(S)			
	MS	LB	UB	OB	Length	Width	Distrib.	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC	SR	AP		NO		
	m	m	%																				
A			X		64	1	65			X	X		X										Grass, trees, debris
B			X		346	1															X	Grass, trees, debris	

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

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

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

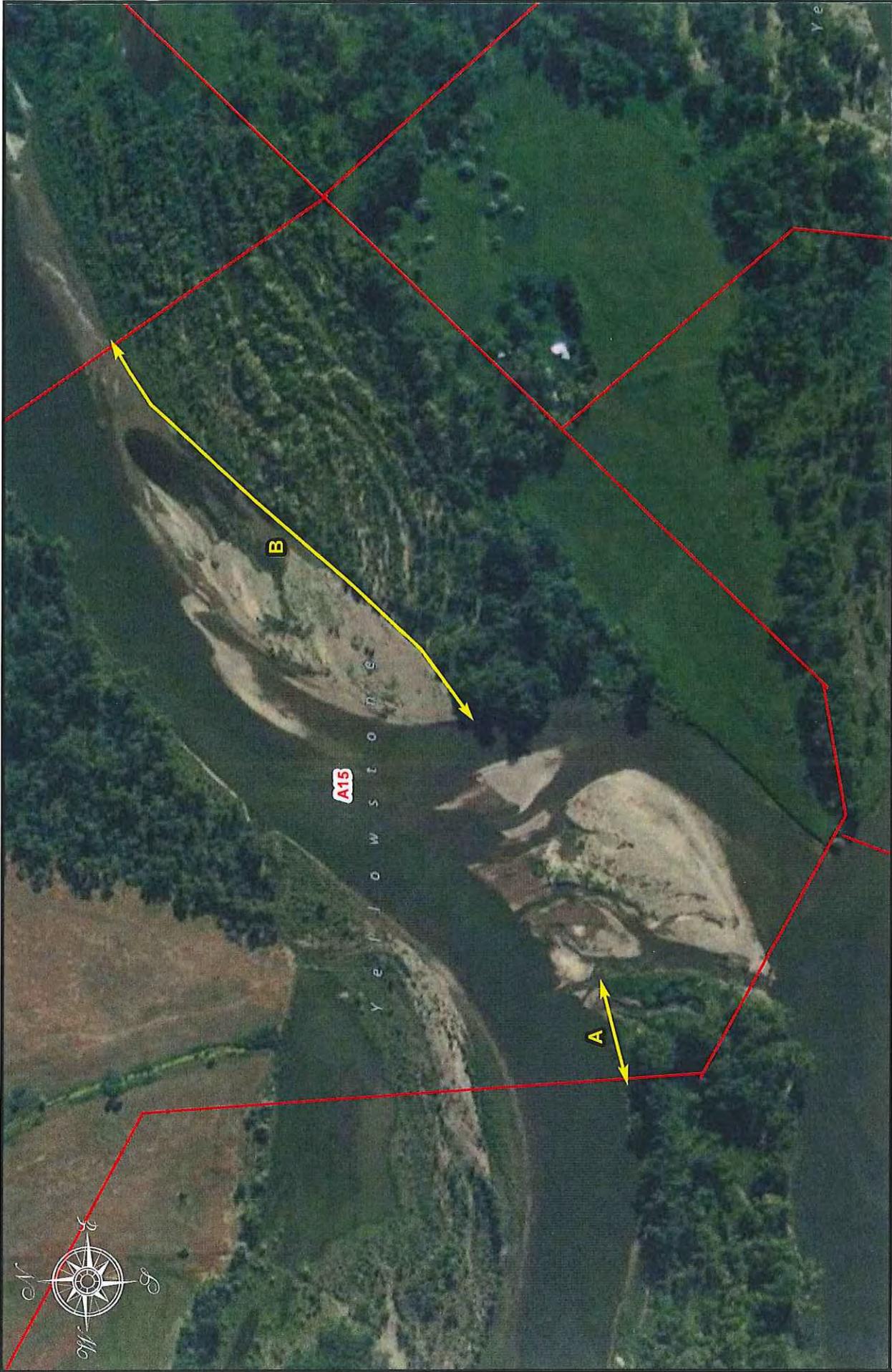
Oiled Band Heights: Zone A - 20cm

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

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

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

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



Legend

-  Oil Zones
-  Segment Boundaries



SCAT Teams 2 & 4 Survey

Segment A15 Right Bank

11-Jul-2011

DB/6/Sc

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 13-Jul-2011	Time (24h): std / daylight 0941 hrs to 0950 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A15 Left Bank / <u>Right Bank</u> / Island				
Operations Division: A				
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook /		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- <u>32</u> deg C

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

3 SEGMENT	Total Segment/Reach Length _____ m	Segment/Reach Length Surveyed <u>112</u> m
Start GPS: LATITUDE _____ deg. _____ min.	LONGITUDE _____ deg. _____ min.	Datum: _____
End GPS: LATITUDE _____ deg. _____ min.	LONGITUDE _____ deg. _____ min.	

4A RIVER BANK TYPE		SELECT only one primary (P) shoreline type and any number of secondary (S) types. CIRCLE those OILED	
Bedrock: Cliff/Ramp _____ Shelf _____	Manmade: Solid _____ Permeable _____ (type) _____	Wetland: Swamp _____ Bog/Fen _____ Marsh _____	
Sediment Bank: Clay/Mud _____ Sand _____ Mixed S _____ Pebble/Cobble _____ Boulder _____ Peat/Organic _____	Vegetated Bank: <u>P</u>	Wooded Upland: <u>S</u>	
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: <u>mixed</u>		
Sloped: (>5°)(15°)(30°)	straight <u>P</u> braided <u>S</u> oxbow _____ flood plain valley _____	Forested / <u>Vegetated</u> / Bare		

4C RIVER CHANNEL CHARACTER		circle or select as appropriate	
est. width: <1m 1-10m 10-100m >100m <u>133m</u>	est. water depth: <1m 1-3m <u>3-10m</u> >10m _____ m	bar-shoal substrate: silt / sand / gravel / cobble / boulder / bedrock / debris	
shoal(s) present <u>Y/N</u>	point bar present <u>Y/N</u>	seasonal water level: low / mean / bank full / <u>overbank flow</u>	
est. change over next 7 days: <u>falling</u> — same — rising		Access: Direct from backshore <u>Y/N</u> Alongshore from next segment <u>Y/N</u>	

5 OPERATIONAL FEATURES		Suitable backshore staging <u>Y/N</u>		Access: Direct from backshore <u>Y/N</u> Alongshore from next segment <u>Y/N</u>	
Debris: <u>Y/N</u> oiled <u>Y/N</u> amount _____ bags or <u>1</u> trucks		access restrictions		Other Features:	
Oiled trees/shrubs <u>Y/N</u>		River Current strong <u>Y/N</u>			

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	75	35	60			X	X		X								Grass, trees, debris		

7 SUBSURFACE OILING CONDITIONS														use letter for ZONE location plus Number of pit or trench — e.g., "A1"		
TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH 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

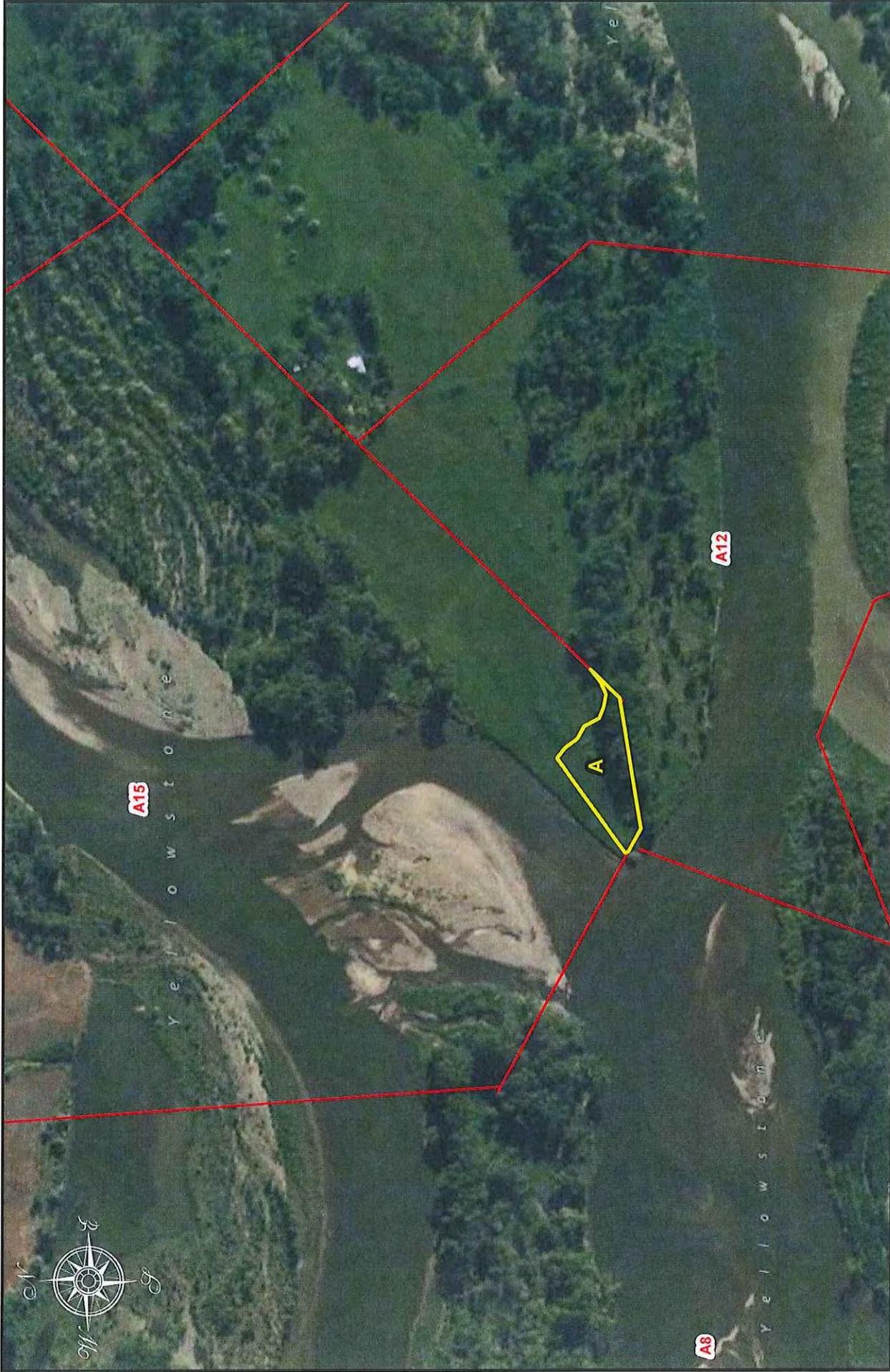
Oiled Band Heights: Zone A - 15cm

Cleanup Recommendations: For substrates with oiling greater than stain, trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees. No treatment for stained substrates is recommended.

STR to be developed.

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

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



Legend

 Oiling Zones

 Segment Boundaries



SCAT Teams 2 & 4 Survey

Segment A15 - Right Bank

13-Jul-2011

DB/6/SC

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 14-Jul-2011	Time (24h): std / daylight 1220 hrs to 1238 hrs	Water Level low - mean - bankfull - <u>overbank</u> falling - steady - rising
Segment/Reach ID: A15 Left Bank / <u>Right Bank</u> / Island		Operations Division: A		
Survey by: <u>Foot</u> / ATV / Boat / Helicopter / Overlook / _____		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp + / - <u>32</u> deg C

2 SURVEY TEAM # 1 & 2	name	organization	contact phone number
Andrew Milanes	<u>AMM</u>	Polaris	
Tom Freeman	<u>TF</u>	Polaris	
Andrew Johnson		USCG	
Travis Olson	<u>TWO</u>	USCG	
Aaron Anderson	<u>AA</u>	MTDEQ	406-841-5049
Darrick Turner	<u>DT</u>	MTDEQ	406-444-1504

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 425 m

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

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

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

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

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

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

est. width: <1m 1-10m 10-100m >100m 133m 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 1 trucks access restrictions

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

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

184
185

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	175	27	25			X	X		X								Grass
B				X	250	130	<1			X	X		X								Grass, trees, debris

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

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH 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

Oiled Band Heights: Zone A - 10cm; Zone B - 5cm

Cleanup Recommendations: For substrates with oiling greater than stain, trim oiled vegetation; wipe large oiled debris; remove small oiled debris; wipe oiled trees. No treatment for stained substrates is recommended.

STR to be developed.

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

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

4042-4067 (Milanes); 0362-0366 (Freeman)



Legend

— Segment Boundaries

□ Oiling Zones



SCAT Teams 1 & 2 Survey

Segment A15 - Right Bank

14 July 2011

DB/9

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>R15</u>	Left Bank / <u>Right Bank</u> / Island	<u>22/08/11</u>	<u>9:45</u> hrs to <u>10:25</u> hrs	low - mean - bankfull - overbank
Operations Division: <u>A</u>				<u>falling</u> - steady - rising
Survey by: <u>Foot</u> / ATV / <u>Boat</u> / Helicopter / Overlook /		<u>Sun</u> / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- ___ deg C

2 SURVEY TEAM # <u>3</u>	Name	Organization	Signature
	<u>Todd Farrar</u>	<u>Polaris</u>	<u>[Signature]</u>
	<u>Rachelle Thompson</u>	<u>EPA</u>	<u>[Signature]</u>
	<u>Jay Watson</u>	<u>FWP</u>	<u>[Signature]</u>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 211 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 _____ Pebble/Cobble P Boulder _____ Peat/Organic _____ Vegetated Bank: _____ Wooded Upland: _____

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

4B RIVER VALLEY CHARACTER select as appropriate complete for primary

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

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

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

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

5 OPERATIONAL FEATURES

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

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

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>X</u>			<u>211</u>	<u>62</u>															<u>X</u>	<u>Cobble</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

Zone A - Part of New Emerging Island - No oil observed
No further Treatment Required

A15-LB

A15-TS
SLKT 3
22 Aug 2011

A15-RB

Zone A

@ 2011 Google

45°39'20.11" N 108°42'49.39" W elev 3246 ft



DB/9

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION

Segment/Reach ID: A15 Left Bank / Right Bank / Island

Operations Division: _____ Date (dd/mm/yy) 2010811 Time (24h): std / daylight 1210 hrs to 1230 hrs Water Level falling - steady - rising

Survey by: Foot/ATV/Boat / Helicopter / Overlook / _____ Sun / Clouds / Fog / Rain / Snow / Windy / Calm Air Temp + / - _____ deg C

2 SURVEY TEAM # 3

Name	Organization	Signature
<u>Todd Farvar</u>	<u>Polaris</u>	<u>Todd Farvar</u>
<u>Lisa Geremacher</u>	<u>ENR</u>	<u>Lisa Geremacher</u>
<u>Jeffrey Herriek</u>	<u>DEQ</u>	<u>Jeffrey Herriek</u>
<u>Rachelle Thompson</u>	<u>EPA</u>	<u>Rachelle Thompson</u>
<u>Ethan Stapp</u>	<u>DNRC</u>	<u>Ethan Stapp</u>

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 254 m

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

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

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

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

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

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

4B RIVER VALLEY CHARACTER select as appropriate

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

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

4C RIVER CHANNEL CHARACTER circle or select as appropriate

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

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

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

5 OPERATIONAL FEATURES

Suitable backshore staging Y (N) Access: Direct from backshore (Y) 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) 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>X</u>			<u>254</u>	<u>58</u>															<u>X</u>	

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

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH cm	OILED ZONE	SUBSURFACE OIL CHARACTER							WATER TABLE cm	SHEEN COLOUR B, R, S, N	CLEAN BELOW Yes / No	SUBST. TYPE(S)
	MS	LB	UB	OB			SAP	OP	PP	OR	OF	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 - N500 - NFT

p. 2 of 2

8/20/2011 9:05 am 8/20/2011 1:57 pm 1 pm

A16-RB

A15-LB

A15-RB

A15-IS

A13-LB

A12-LB

SEGMENT A R
 SCAT 3
 20 Aug 2011



GOO

© 2011 Google

45°39'16.44" N 108°42'49.93" W elev 3246 ft

1996

Eye alt



Appendix C

Applicable Compiled Treatment
Recommendations

Compiled Treatment Recommendations – 10

SCAT Segments Covered:

A3 (Left Bank), A4 (Left Bank), A5 (Left Bank), A6 (Left Bank), A7 (Left Bank), A8 (Left Bank), A9 (Right Bank), A10 (Right Bank), A15 (Island)

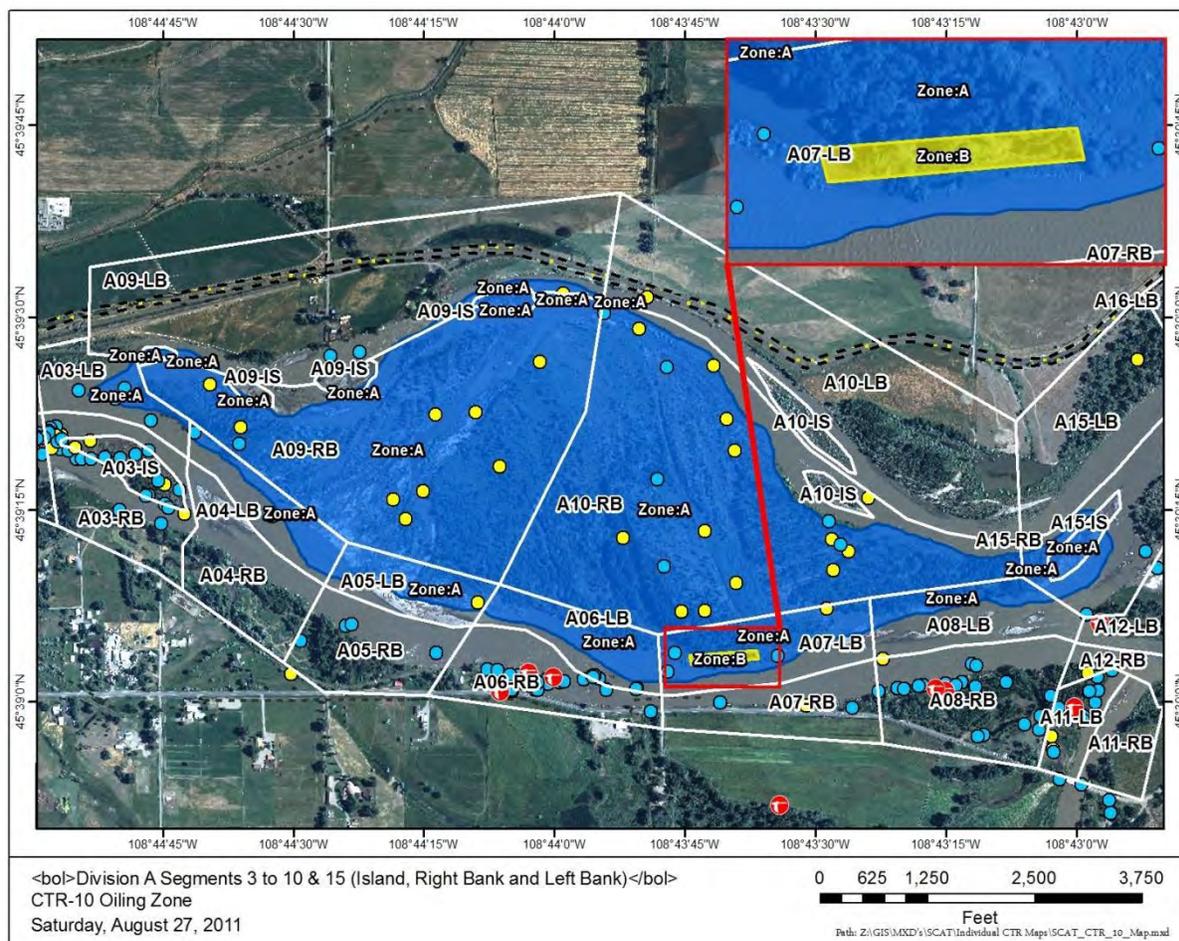
SCAT Survey Dates: 20-July-2011 (See attached Riverine SCAT Forms)

Ops Sites Covered:

3b

Refer to current approved treatment methods:

#6 Sorbent Use



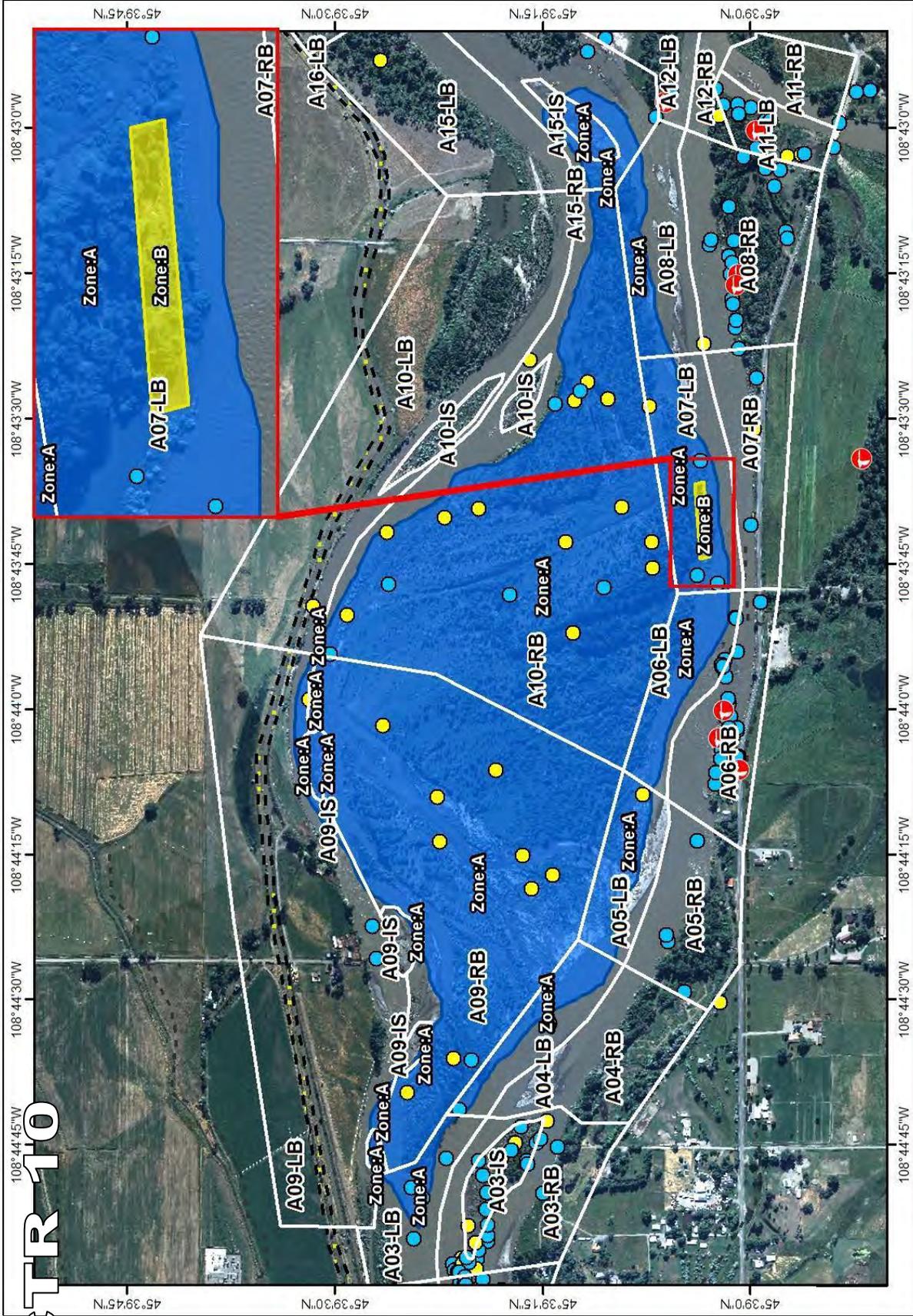
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Zone A:

Primary Oiling Conditions: No Oil Observed

Cleanup Recommendations: No Further Treatment





<bol>Division A Segments 3 to 10 & 15 (Island, Right Bank and Left Bank)</bol>
 CTR-10 Oiling Zone

Saturday, August 27, 2011

Feet
 Path: Z:\GIS\MXD's\SCAT\Individual_CTR_Maps\SCAT_CTR_10_Map.mxd

CTR 10

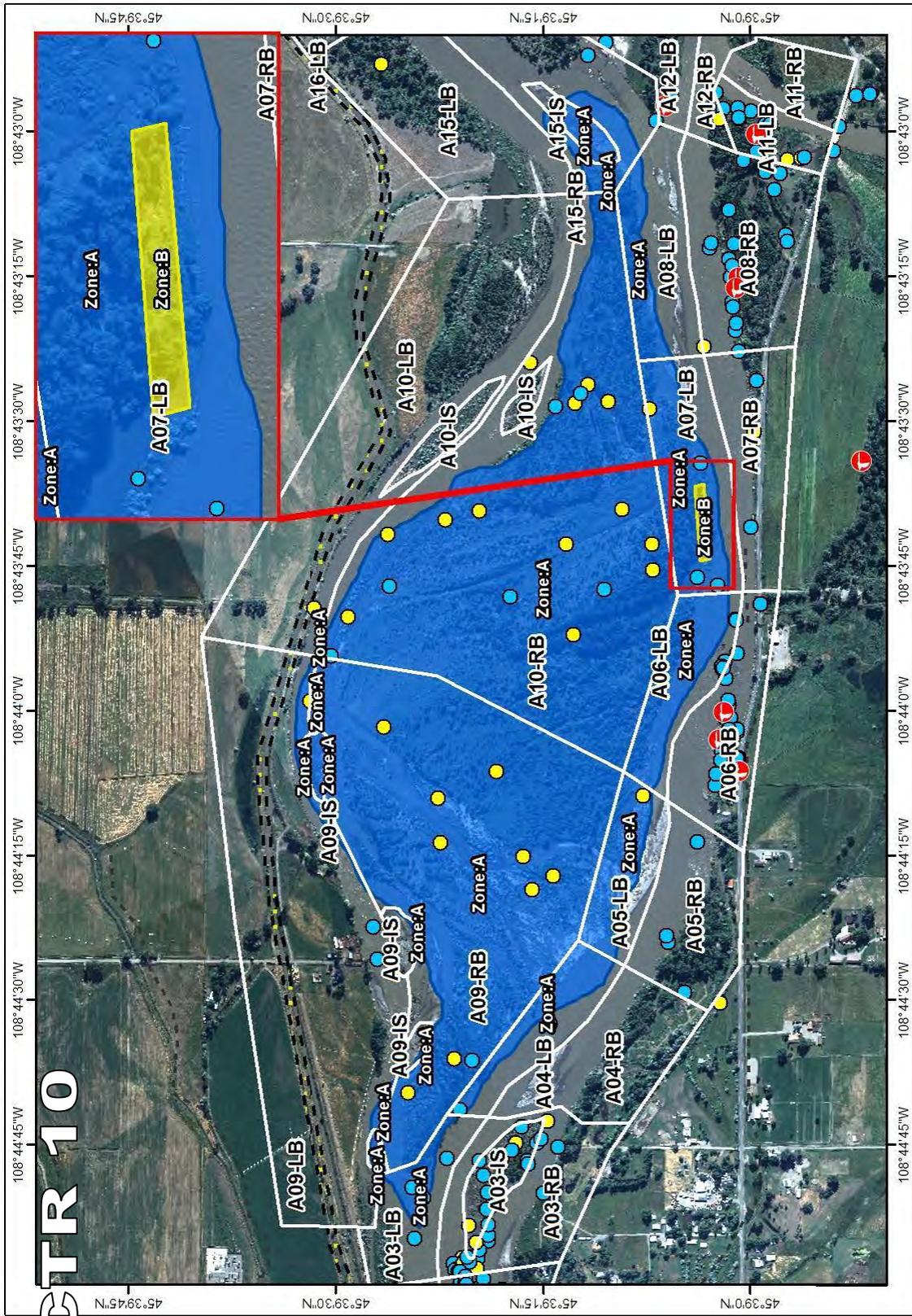
Zone B:

An area approximately 200m in width near the shoreline centered around
N45°39.038',W108°43.689'

Primary Oiling Conditions: ~15% distribution of fresh oil debris (coat) on water surface.

Cleanup Recommendations: Deploy sorbents on water surface.





CTR 10

<bol>Division A Segments 3 to 10 & 15 (Island, Right Bank and Left Bank) </bol>
 CTR-10 Oiling Zone
 Saturday, August 27, 2011

Feet
 Path: Z:\GIS\MXD's\SCAT\Individual_CTR_Maps\SCAT_CTR_10_Map.mxd

Compiled Treatment Recommendations – 1 (Revised)

SCAT Segments Covered:

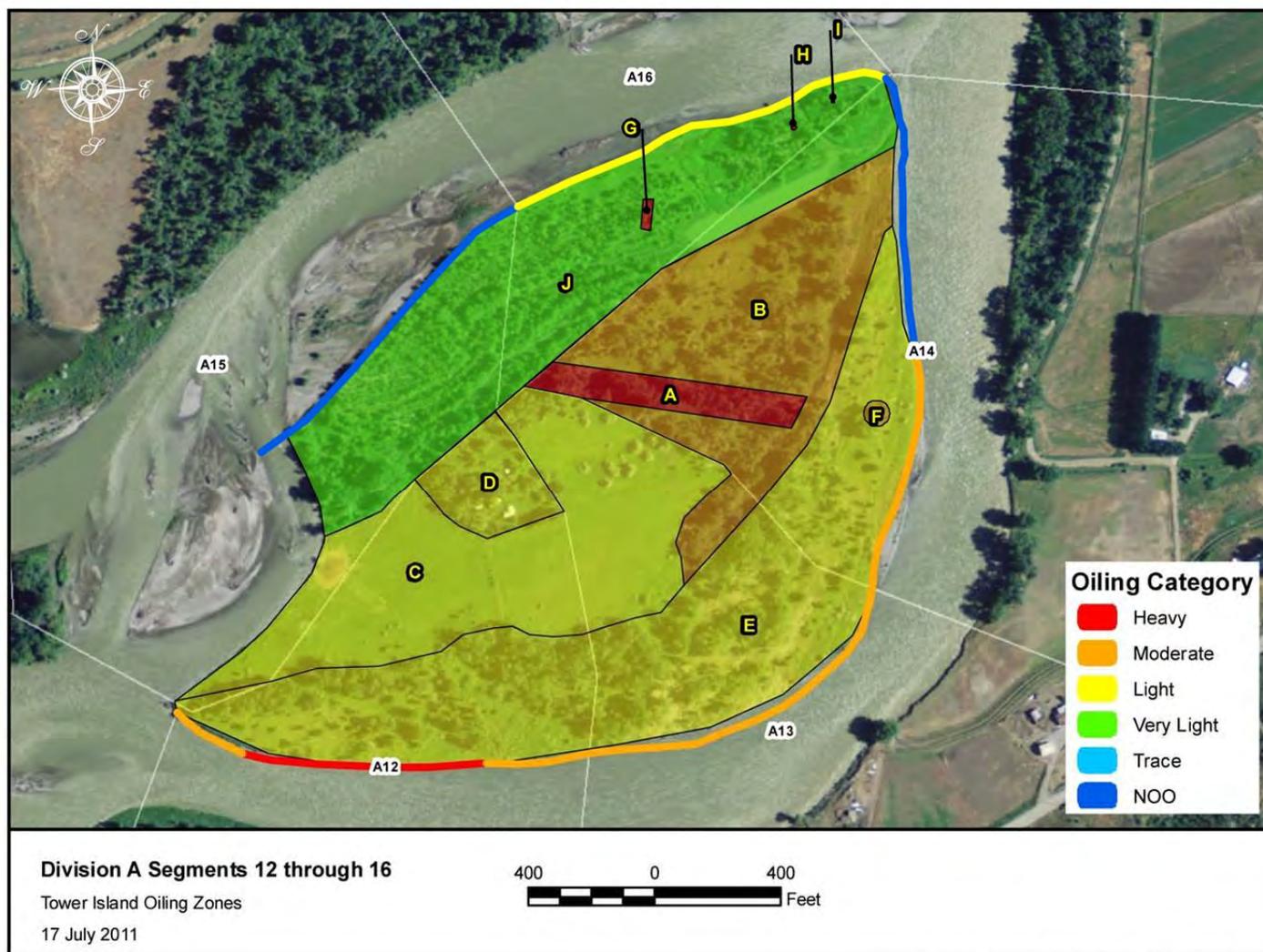
A12 (Left Bank), A13 (Left Bank), A14 (Left Bank), A15 (Right Bank), A16 (Right Bank)

SCAT Survey Dates: 11-Jul-2011, 13-Jul-2011, 14-Jul-2011 (See attached Riverine SCAT Forms)

Refer to current approved treatment methods:

#1 Cutting of Vegetation, #2 Dead Vegetation and Small Debris, #3 Large Woody Debris, #6 Sorbent Use, #9 Fixatives.

Consult with Cultural Heritage representatives for guidance on areas that have been identified.



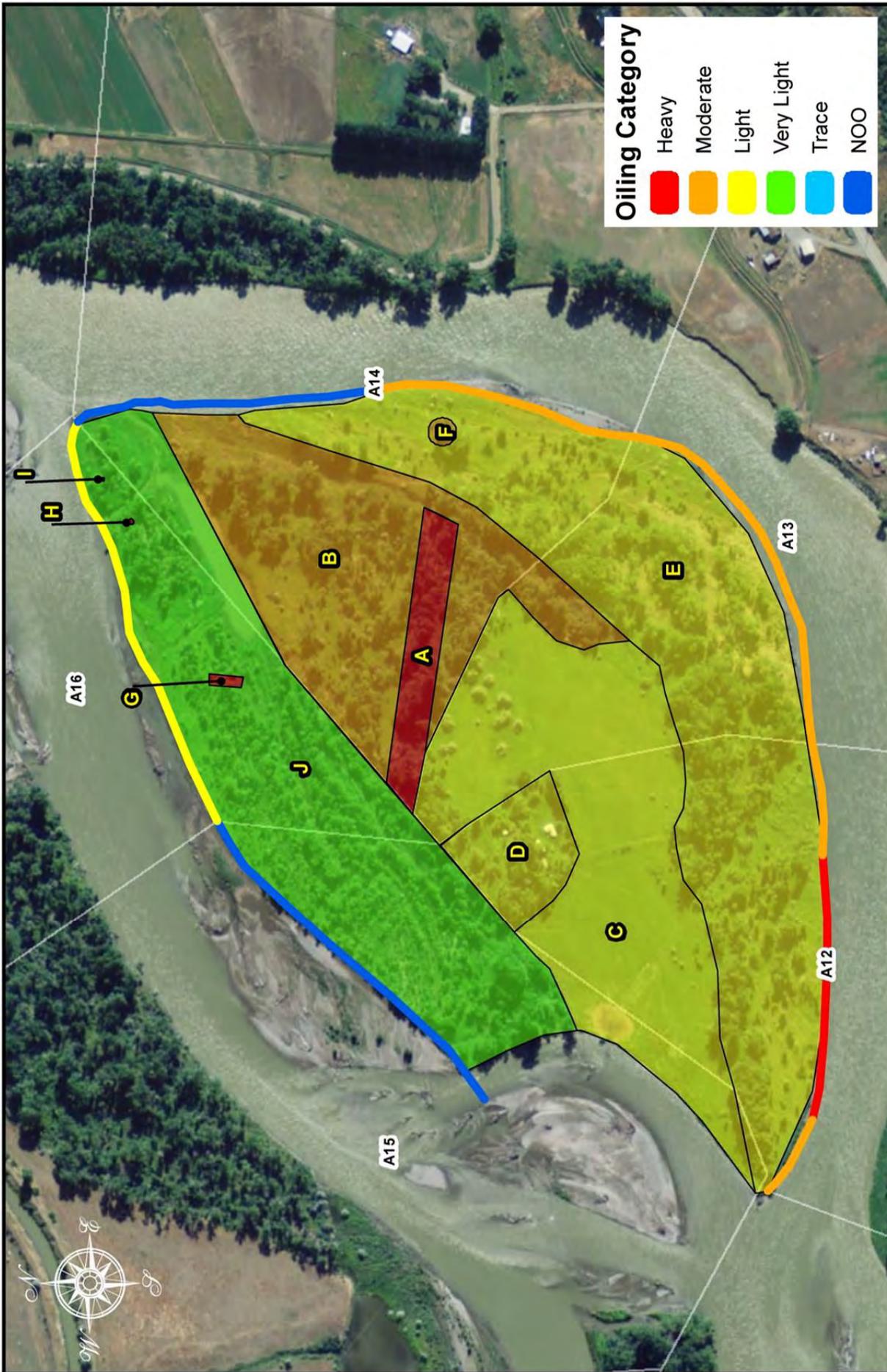
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Zone A:

Primary Oiling Conditions: ~45% distribution of oiled debris (coat/cover), pooled oil on water, oil coat/stain on vegetation. Note: Quantity of oil-coated debris exceeds 10 roll-offs.

Cleanup Recommendations: Remove pooled oil with sorbents. Cut and remove oil-coated vegetation smaller than 1" diameter. Do not cut grass shorter than 1". Remove oil-coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris. The size and quantity of oil coated debris in this zone may warrant the use of fixatives. Consult SCAT Ops Liaison for use and applicability.





Division A Segments 12 through 16

Tower Island Oiling Zones

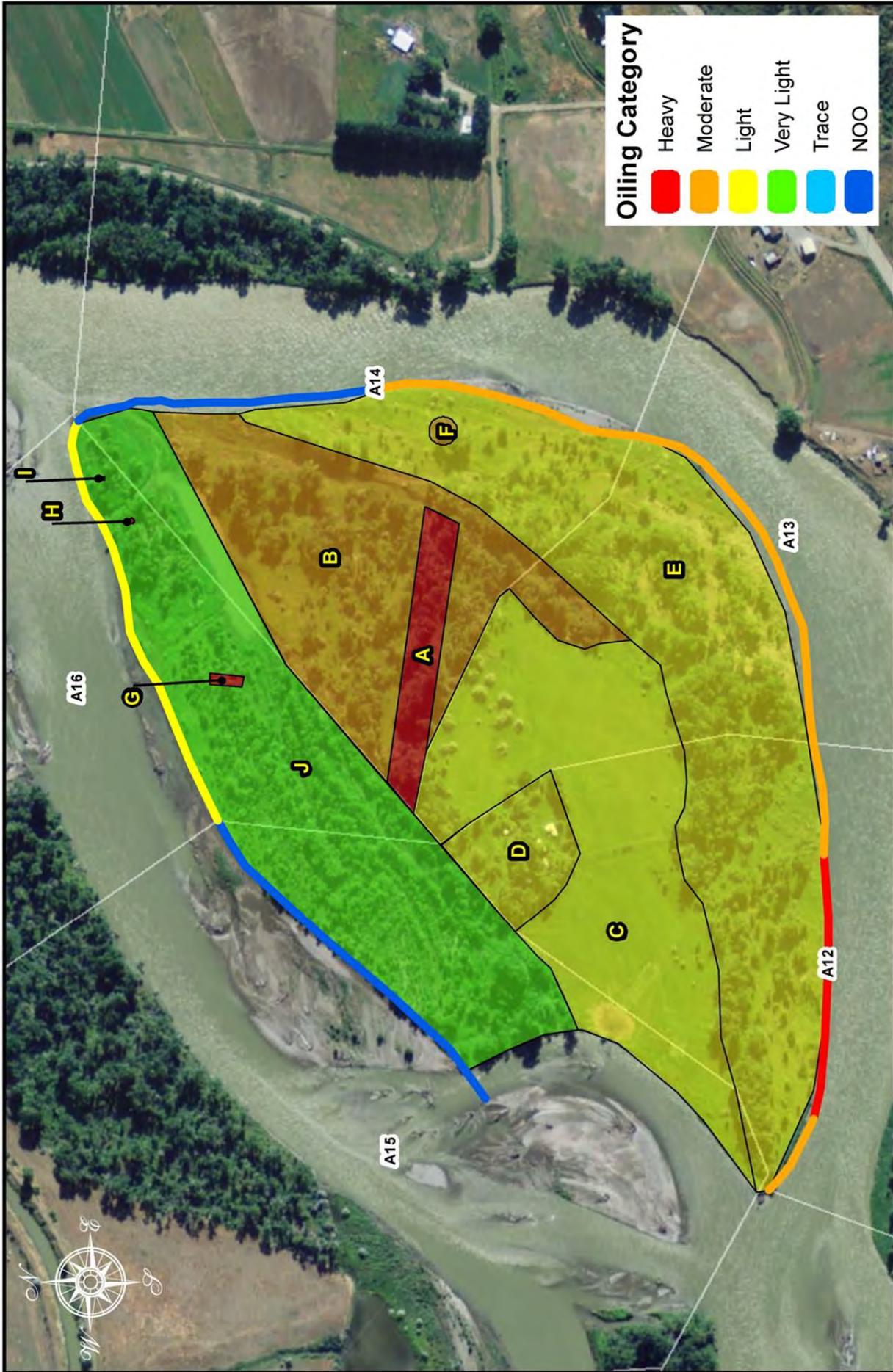
17 July 2011

Zone B:

Primary Oiling Conditions: ~15% distribution of oiled debris (coat) and oil coat/stain on vegetation.

Cleanup Recommendations: Cut and remove oil coated vegetation smaller than 1" diameter. Wipe oil coated vegetation larger than 1" diameter. Only remove oil coated debris smaller than 4" diameter. Wipe oil coated debris larger than 4" diameter.





Oiling Category

Heavy	Moderate	Light	Very Light	Trace	NOO
Red	Orange	Yellow	Green	Light Blue	Dark Blue

Division A Segments 12 through 16

Tower Island Oiling Zones

17 July 2011

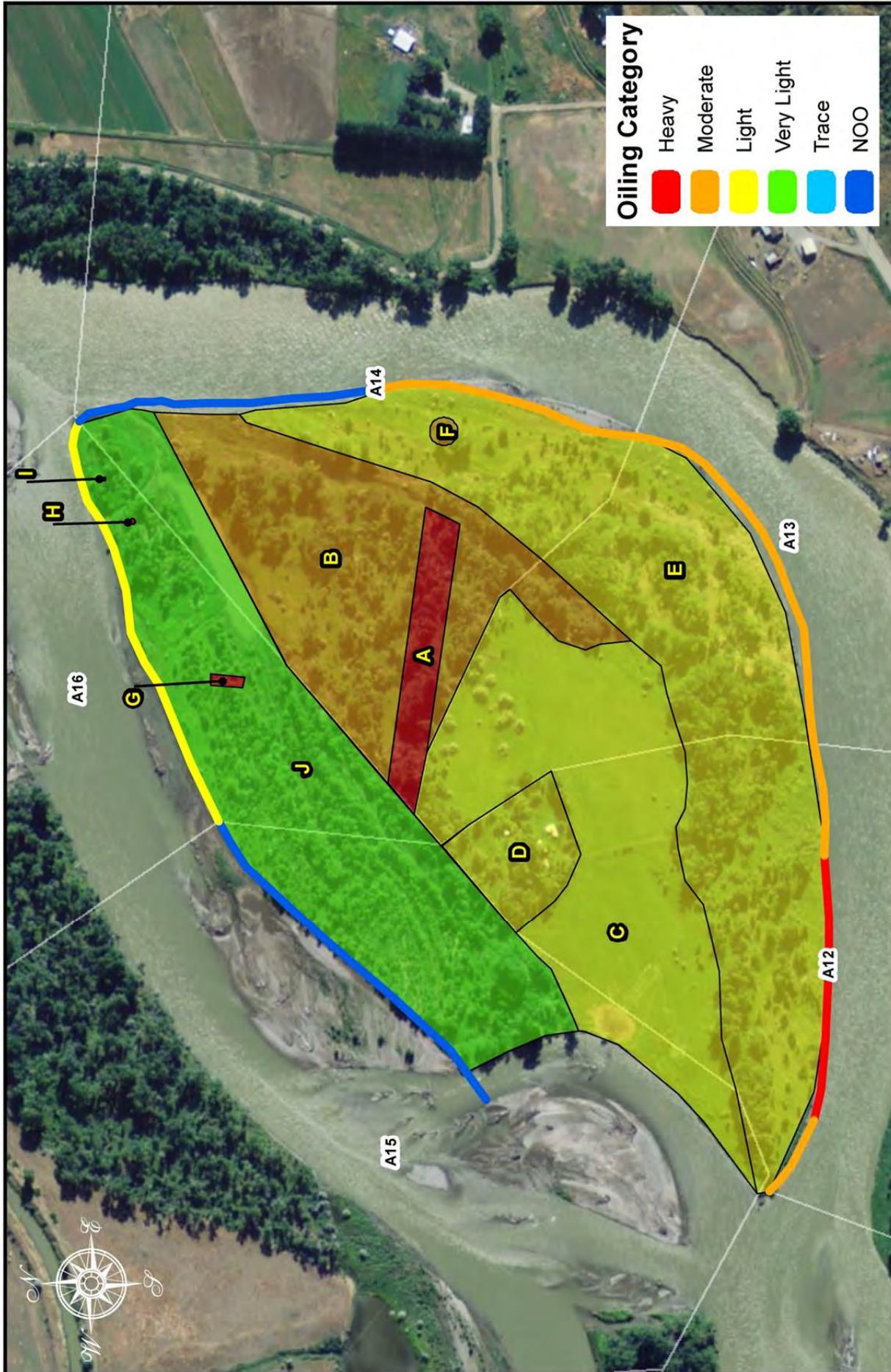


Zone C:

Primary Oiling Conditions: ~25% distribution of oil coat/stain on vegetation in field.

Cleanup Recommendations: Cut and remove oil coated vegetation smaller than 1" diameter. Portions of this zone contain cultural resources requiring recordation and assessment. Refer to the Cultural Heritage field teams for guidance.





Division A Segments 12 through 16

Tower Island Oiling Zones

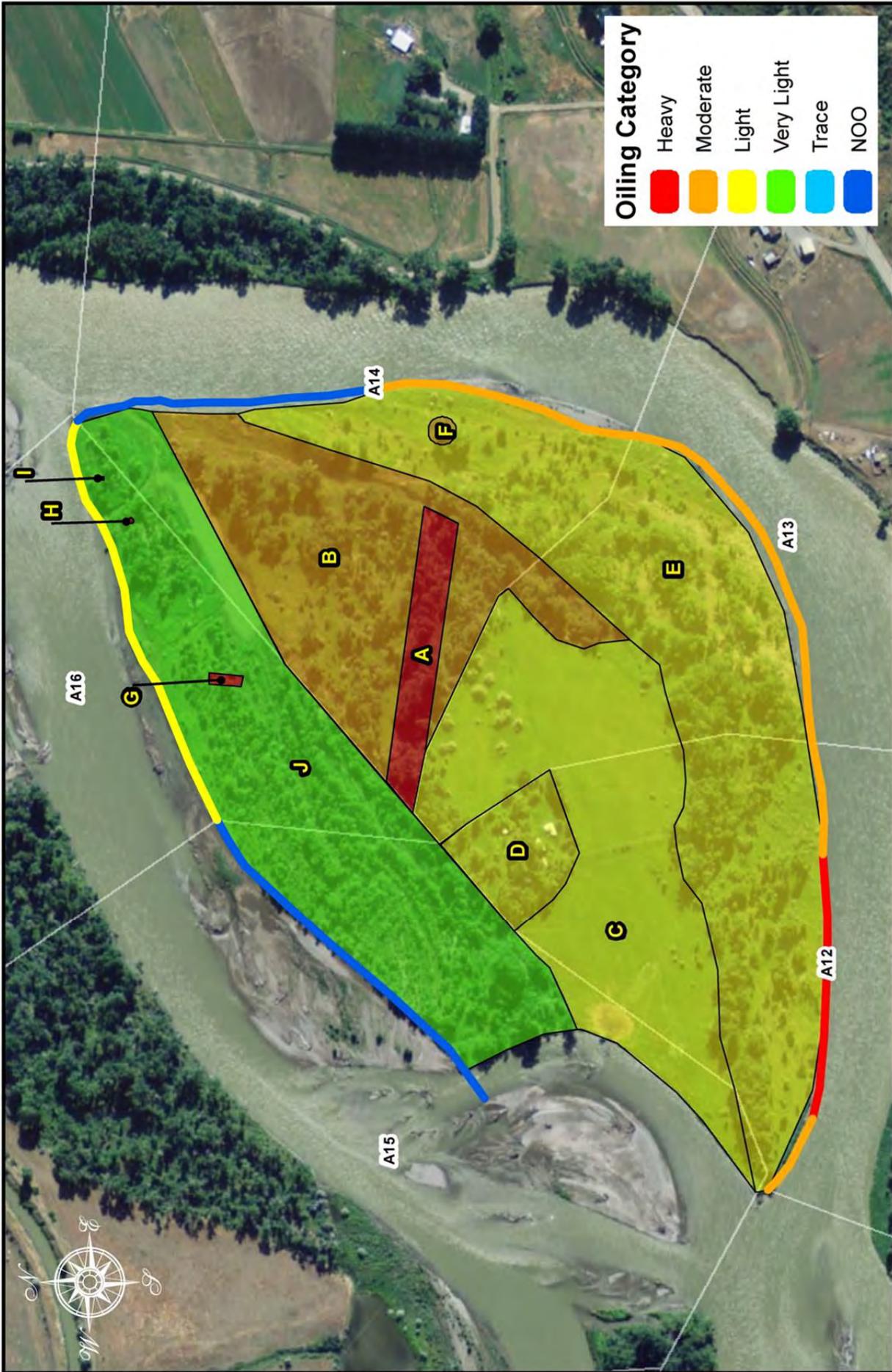
17 July 2011

Zone D:

Primary Oiling Conditions: Private homestead consisting of living quarters, barns, and other farm structures. ~5% distribution of oil cover/coat/stain on vegetation, trees, debris, and structures.

Cleanup Recommendations: Cut and remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris. Wipe oil-coated structures. In consideration of private property, this zone may require treatment of oil stained vegetation, debris, and structures in coordination with the land owner. Portions of this zone contain cultural resources requiring recordation and assessment. Refer to the Cultural Heritage field teams for guidance.





Division A Segments 12 through 16

Tower Island Oiling Zones

17 July 2011

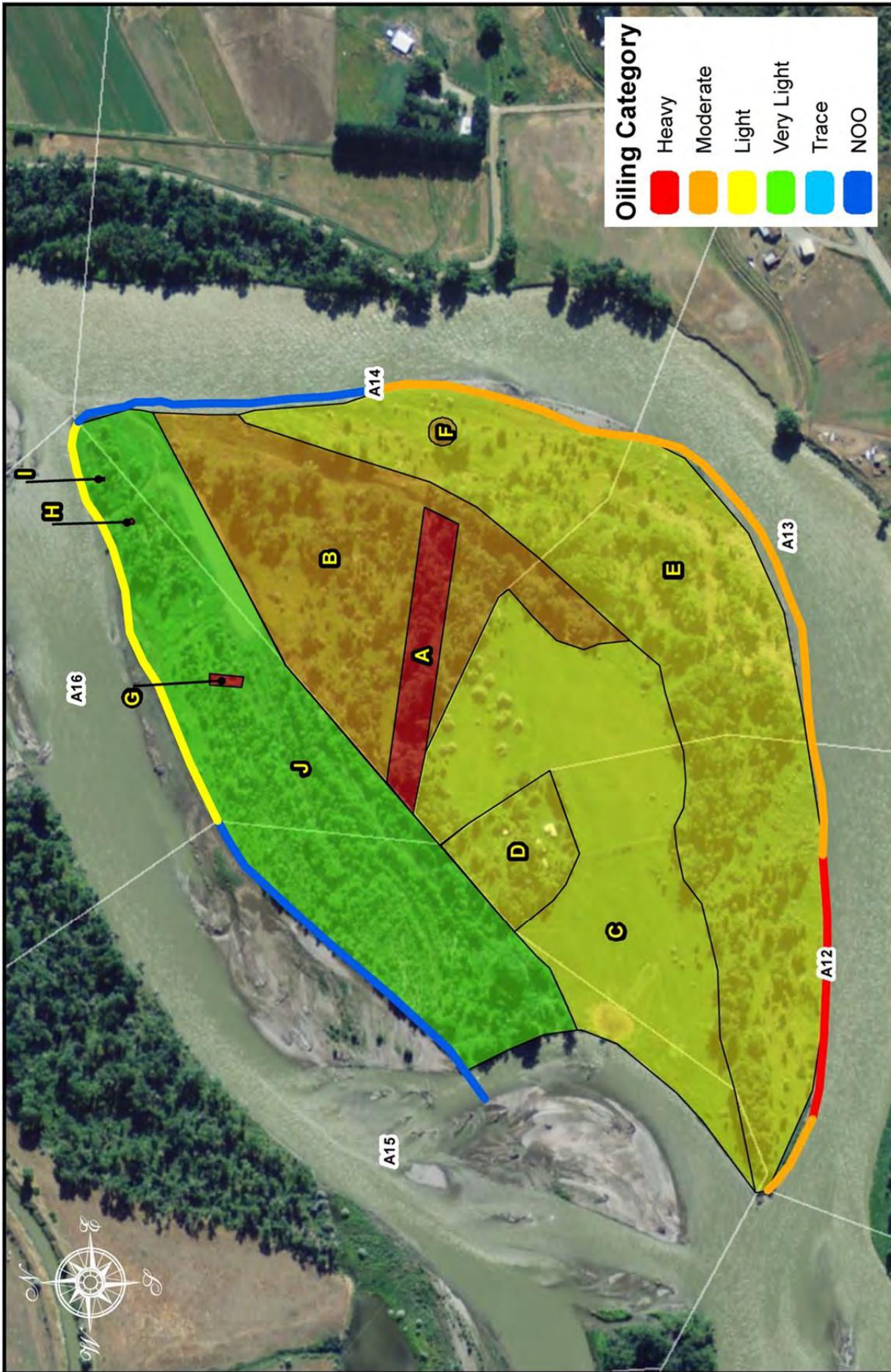


Zone E:

Primary Oiling Conditions: ~20% distribution of oil stained (primary) / coated vegetation and debris.

Cleanup Recommendations: Cut and remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.





Division A Segments 12 through 16

Tower Island Oiling Zones

17 July 2011

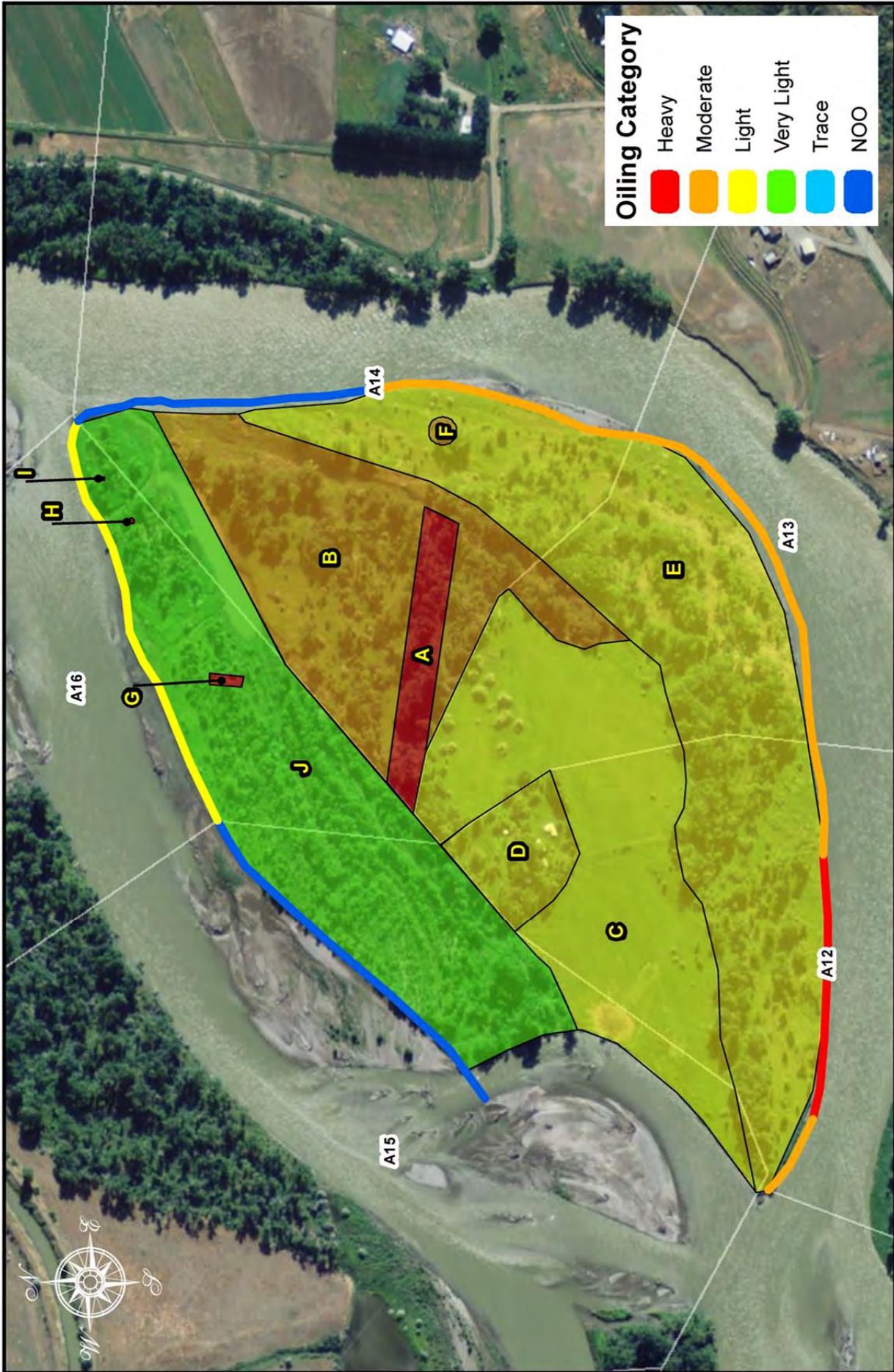


Zone F:

Primary Oiling Conditions: Discrete areas of oiled debris (coat/cover), pooled oil on water, oil coat/stain on vegetation.

Cleanup Recommendations: Remove pooled oil with sorbents. Cut and remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.





Division A Segments 12 through 16

Tower Island Oiling Zones

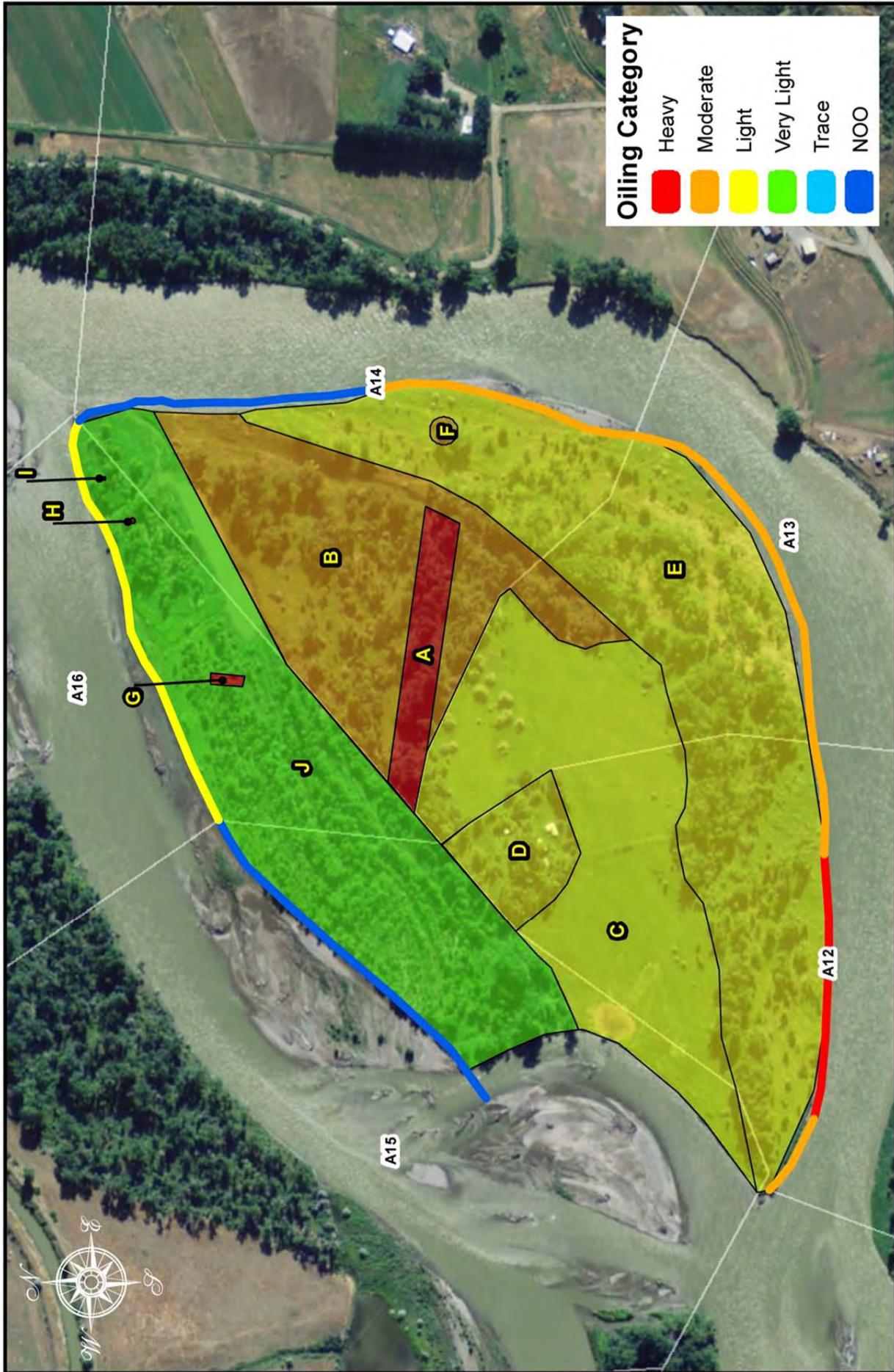
17 July 2011

Zone G:

Primary Oiling Conditions: Discrete areas of oiled debris (coat/cover), pooled oil on water, oil coat/stain on vegetation.

Cleanup Recommendations: Remove pooled oil with sorbents. Cut and remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.





Division A Segments 12 through 16

Tower Island Oiling Zones

17 July 2011

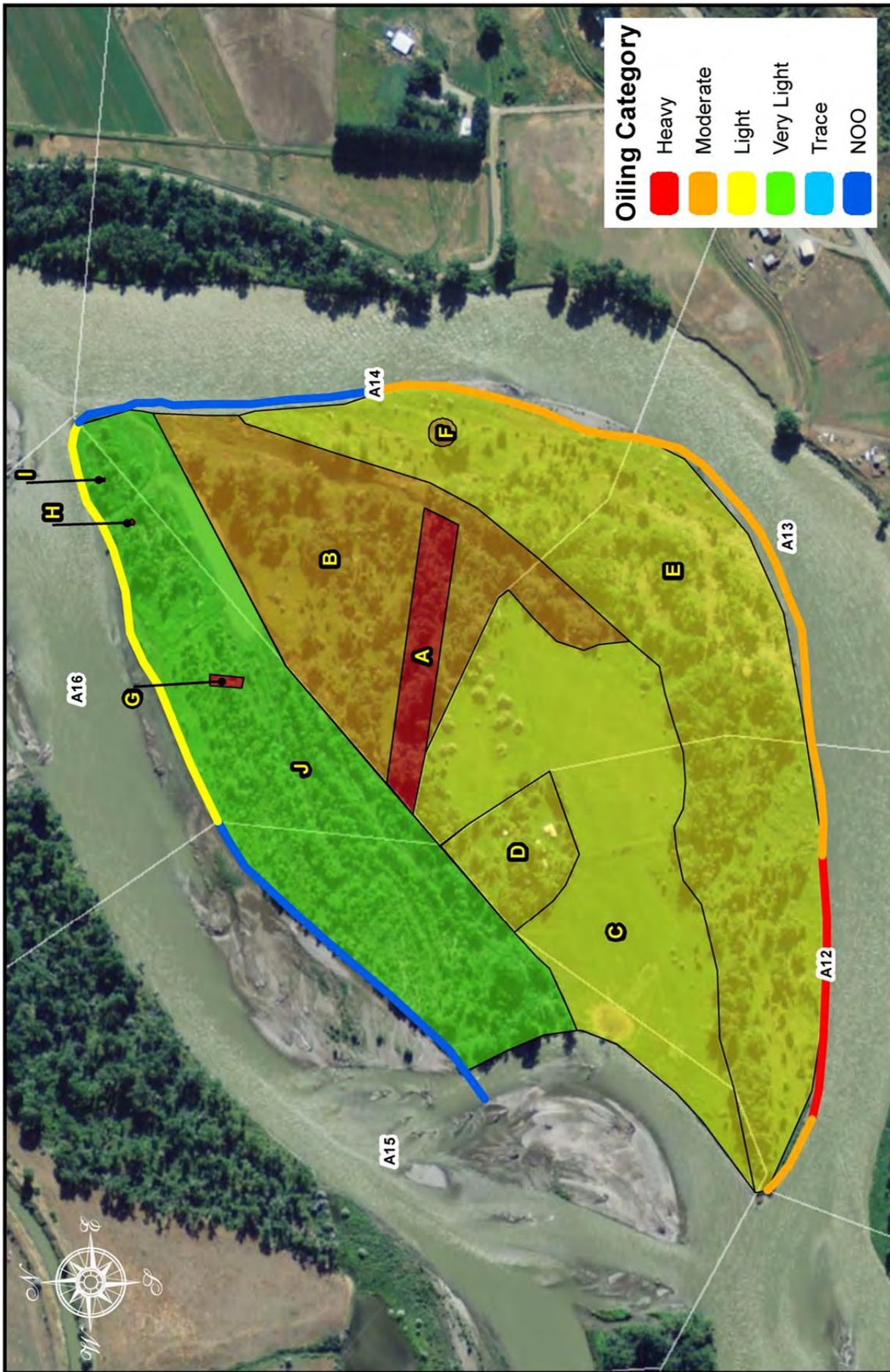


Zone H:

Primary Oiling Conditions: Discrete areas of oiled debris (coat/cover), pooled oil on water, oil coat/stain on vegetation.

Cleanup Recommendations: Remove pooled oil with sorbents. Cut and remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.





Division A Segments 12 through 16

Tower Island Oiling Zones

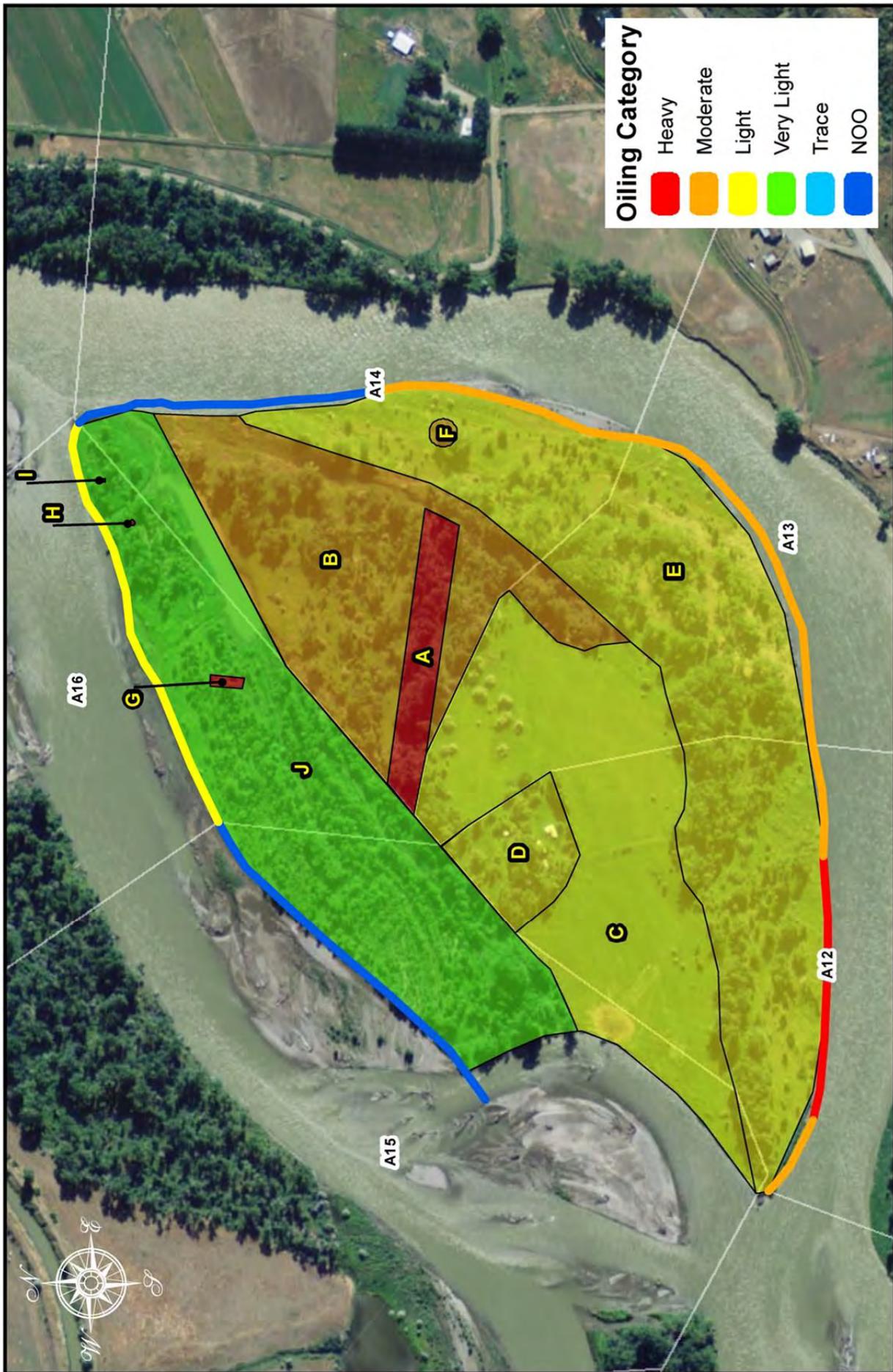
17 July 2011

Zone I:

Primary Oiling Conditions: Discrete areas of oiled debris (coat/cover), pooled oil on water, oil coat/stain on vegetation.

Cleanup Recommendations: Remove pooled oil with sorbents. Cut and remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.





Division A Segments 12 through 16

Tower Island Oiling Zones

17 July 2011

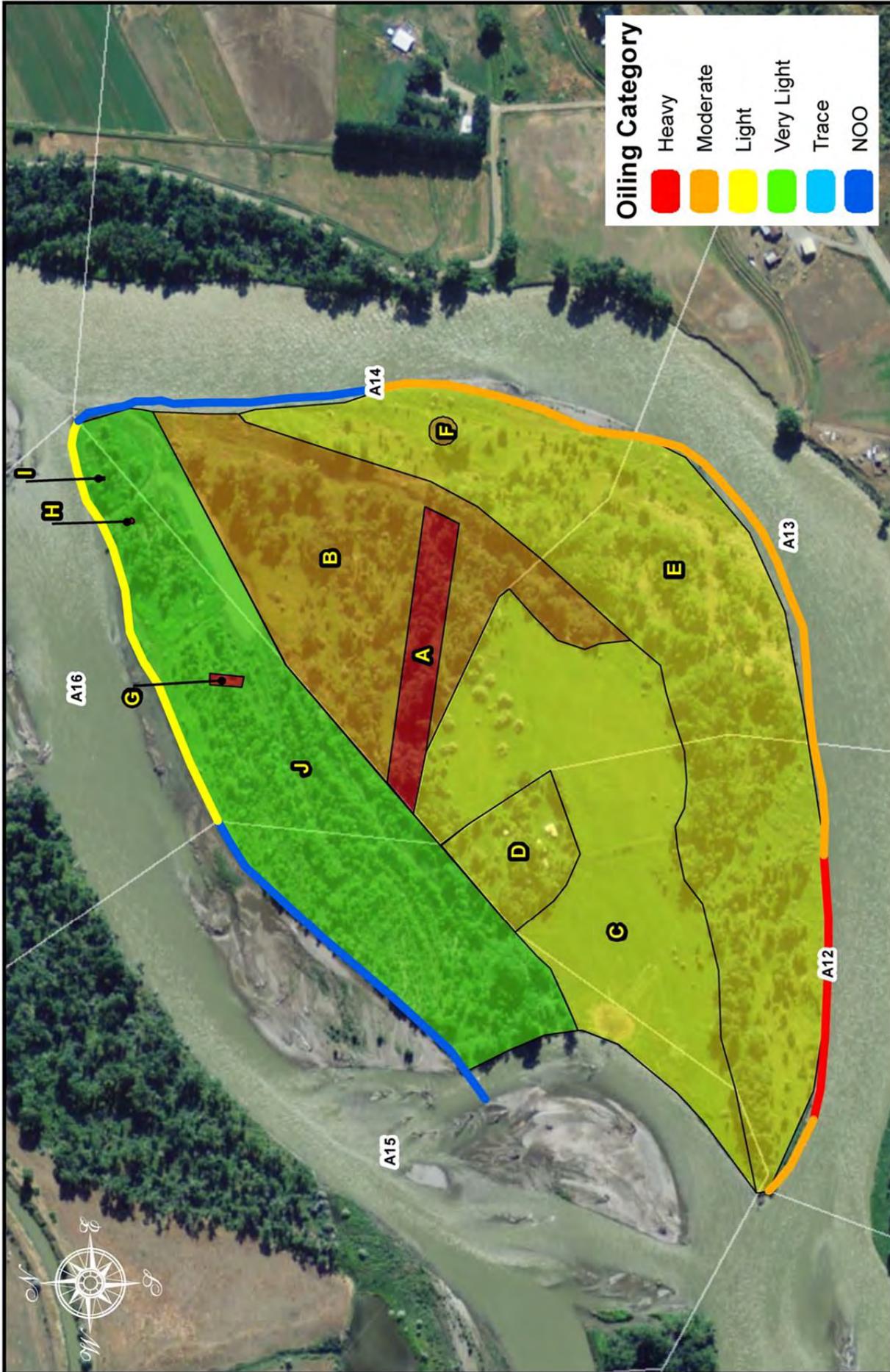


Zone J:

Primary Oiling Conditions: <1% distribution of narrow (~5cm) band of oil coat/stain on vegetation and trees. <1% distribution of oil coated debris.

Cleanup Recommendations: Cut and remove oil coated vegetation smaller than 1" diameter. Remove oil coated debris smaller than 4" diameter. Wipe larger oil coated vegetation and debris.





Division A Segments 12 through 16

Tower Island Oiling Zones

17 July 2011



Appendix D

Pre-Inspection Survey Transmittal

SCAT – Pre Inspection Survey Transmittal (PIST) Memo

Survey Date: 22 August 2011

Segment: section of A15 on Tower Island (CTR 1), not including area
marked off for cultural heritage site A15 RB

Team: SCAT Liaison Lauren Glushik-Polaris Signed: 
Observer _____ Signed: _____
Observer _____ Signed: _____
Observer _____ Signed: _____

Segment meets criteria? YES NO

RBOS attached? YES NO

If NO:

Location Sketch attached? YES NO

CTR continue? YES NO – do not continue for the
portion of the segment as denoted under this PIST

Comments:

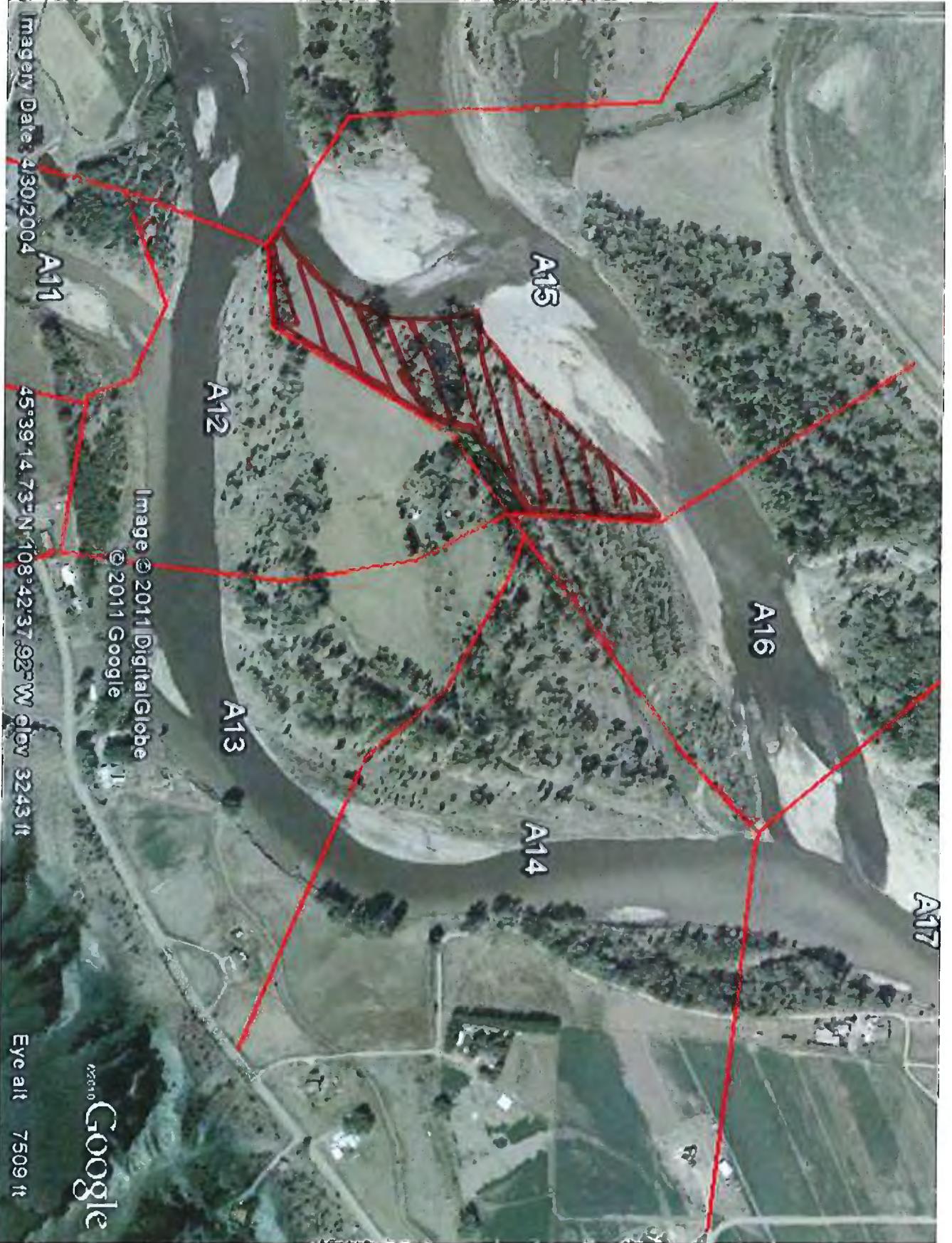
This PIST applies to only the portion of A15 on Tower Island (CTR1).

There is an area designated under cultural heritage on the island. A portion of that site is located within segment A15. This area was not included in this PIST. Site-specific treatment recommendations were developed for that area and a cultural representative was on site during work.

A debris pile with light visible oiling is located at the southwestern end of the segment and is partially located in segment A12. This debris pile is not accessible due to access and associated safety issues.

RED = DIST AREA

GREEN = CULTURAL HERITAGE SITE



SCAT – Pre Inspection Survey Transmittal (PIST) Memo

Survey Date: 24 Aug 2011

Segment: A15RB Tower Island CTR1

Team: SCAT Liaison Lauren Glushik-Polaris Signed: [Signature]

Observer Tom Freeman Signed: [Signature]

Observer Harb Wood Signed: [Signature]

Observer Arnie Meade Signed: [Signature]

(CH)

Segment meets criteria? YES NO

RBOS attached? YES NO

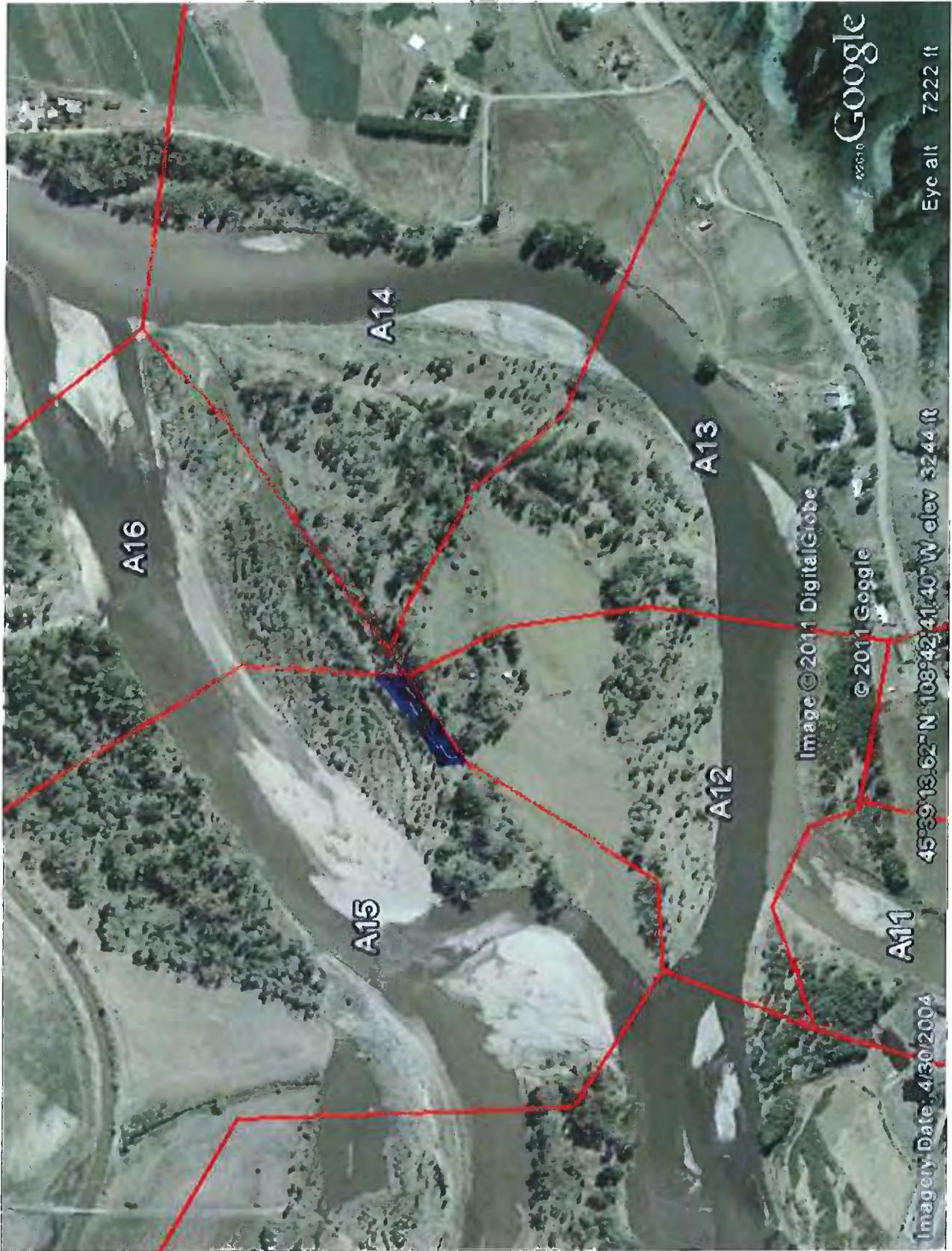
If NO:

Location Sketch attached? YES NO

CTR continue? YES NO

Comments:

This PIST covers the Cultural Heritage site in segment A15RB Tower Island. Cultural Heritage representatives accompanied SCAT Ops Liaison for the PIST and verified the site meets their completion criteria.



A16

A14

A13

Image © 2011 DigitalGlobe

© 2011 Google

45°39'13.62\" N 108°42'41.40\" W elev 3244 ft

Google

Eyc alt 7222 ft

A15

A12

A11

Imagery Date: 4/30/2004



Appendix E

Post-Inspection Survey Transmittal

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



Appendix F

Final SCAT Survey Forms and
Sketches

DB16

R

RIVER BANK OILING SUMMARY FORM for Silvertip Pipeline Incident

1 GENERAL INFORMATION		Date (dd/mm/yy) 26/AUG/2011	Time (24h): std / daylight 11:40 hrs to 12:12 hrs	Water Level low - mean - bankfull - overbank falling - steady - rising
Segment/Reach ID: A15 Left Bank / Right Bank / Island		Operations Division: A15 RB		
Survey by: Foot / ATV / Boat / Helicopter / Overlook /		Sun / Clouds / Fog / Rain / Snow / Windy / Calm		Air Temp +/- 29 deg C

2 SURVEY TEAM # 3 & 5	name	organization	contact phone number
Merlo Gauvreau		Polaris	
Tom Freeman		Polaris	
Ariel Blanc		Polaris	
Daniel Elefant		Cardno ENTRIX	
Larisa Leonova		EPA	
Rachelle Thompson		EPA	
Donnie McCurry		DEQ	
Darrick Turner		DEQ	
Ernie McKenzie		BLM	

3 SEGMENT Total Segment/Reach Length _____ m Segment/Reach Length Surveyed 586 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 P Mixed _____ Pebble/Cobble S Boulder _____ 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: Est Height 2 m canyon _____ manmade _____ meander P confined or leveed _____ Substrate Type: sand/sed

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 _____ 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: ISLAND

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

1917

OIL ZONE	RIVER BANK ZONE				OIL COVER			OIL THICKNESS					OIL CHARACTER						SUBST. TYPE(S)				
	ID	MS	LB	UB	OB	Length m	Width m	Distrib. %	TO	CV	CT	ST	FL	FR	MS	TB	PT	TC		SR	AP	NO	
A					X	586	205	<1			X	(X)						X					Veg/debris

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

TRENCH or PIT NO.	RIVER BANK ZONE				MAX. PIT DEPTH 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

ReSCAT

Zone A: Trace oiled vegetation and natural debris. Hotshot crew accompanied ReSCAT Team. Remaining transferable oil removed during ReSCAT. Segment meets operational endpoints. NFT.

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

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

26 August ReSCAT
A15-RB
TEAM # 3,5



e/e



Appendix G

Completed SCAT Segment Sign-Off
Forms

Silvertip Pipeline Spill SCAT Segment Sign-Off Sheet

COMPLETED

Operations Division: A B C

SCAT Area Number (i.e. A12): A15

SCAT Segment Number (i.e. A12-LB/IS/RB): A15 RB

*Footnote
CK 8/24/11*

Check if Complete:

1. Completion Date for Initial SCAT Assessment: 11-13-14 July 2011

2. Combined Treatment Recommendations (CTRs) Developed/Issued:

 Yes /No

List CTRs Applicable to SCAT Segment: 1

3. Clean-Up Operations Conducted:

4. Meets Qualitative Approved Treatment Methods Target Endpoints:

 Yes /No

5. SCAT Reassessment:

Rachel Thompson

Rachelle Thompson

26/08/2011

Sign Name
Federal Representative (EPA/USCG)

Print Name

Date

Donnie McCurry

Donnie McCurry

26/08/2011

Sign Name
State Representative (DEQ/FWP)

Print Name

Date

[Signature]

Hector Gaurique (Polaris)

26/08/2011

Sign Name
RP Representative (SCAT Contractor)

Print Name

Date

Ariel Blanc

Ariel Blanc (Polaris)

26/08/2011

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