

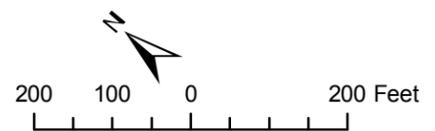
Chemistry Legend

Chloride - Surface Water		Chloride - Transition Water		Chloride - Ground Water	
total_or_dissolved	Exceedance_class	total_or_dissolved	Exceedance_class	total_or_dissolved	Exceedance_class
Orange square	D, Acute (860 mg/l)	Orange circle	D, Acute (860 mg/l)	Orange triangle	D, Acute (860 mg/l)
Light orange square	T, Acute (860 mg/l)	Light orange circle	T, Acute (860 mg/l)	Light orange triangle	T, Acute (860 mg/l)
Yellow square	D, Chronic (230 mg/l)	Yellow circle	D, Chronic (230 mg/l)	Yellow triangle	D, Chronic (230 mg/l)
Light yellow square	T, Chronic (230 mg/l)	Light yellow circle	T, Chronic (230 mg/l)	Light yellow triangle	T, Chronic (230 mg/l)
White square	D, None Exceeded	White circle	D, None Exceeded	White triangle	D, None Exceeded
Light gray square	T, None Exceeded	Light gray circle	T, None Exceeded	Light gray triangle	T, None Exceeded
Dark gray square	D, Not Detected	Dark gray circle	D, Not Detected	Dark gray triangle	D, Not Detected
Light gray square	T, Not Detected	Light gray circle	T, Not Detected	Light gray triangle	T, Not Detected
Screening Level Contours					
- ? - Queried Where Approximate					

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Notes:
1) If both Total and Dissolved values occur coincidentally at a sampling location, the dissolved value will appear on top.

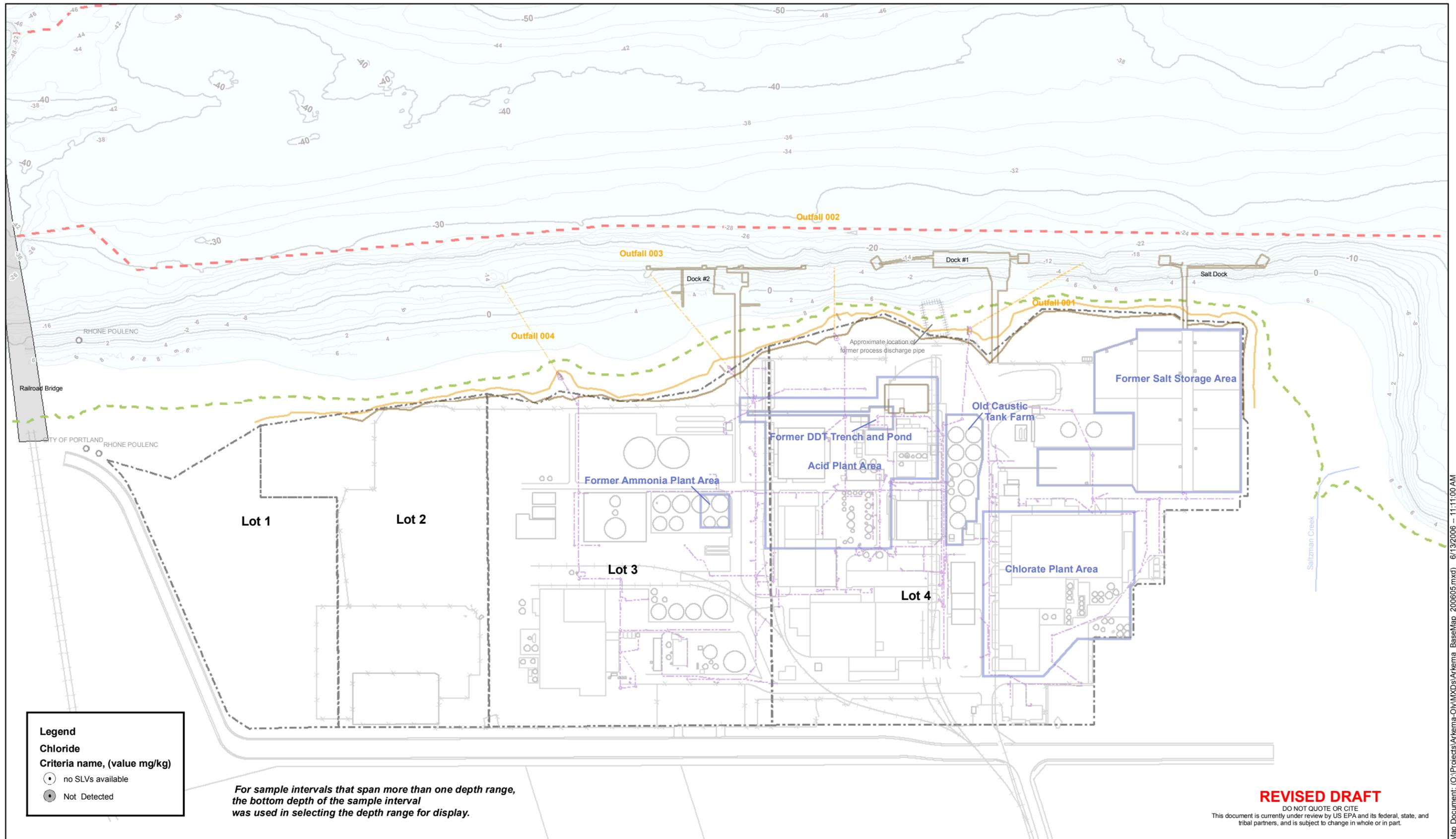


FEATURE SOURCES:
Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
Vertical Datum: North American Vertical Datum of 1988 (NAVD88).
Horizontal Datum: North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.
Units: International Feet.
Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006.

Orange line	Ordinary High Water	Green dashed line	12ft_Contour	Red dashed line	Navigation Channel
Dark blue line	Top of Bank	Black dashed line	Property Lines	Blue line	River
Purple dashed line	E-Sewer-L	Blue square	Outfalls		
Yellow dashed line	Storm Drain				

Map-102
Arkema Site
Surface Water, Transition Zone Water,
and Groundwater Samples
Chloride

Map Document: (O:\Projects\Arkema-01\MXDs\ArkemaSW_DotMap_Screened_20060622.mxd) 6/23/2006 - 6:06:12 PM



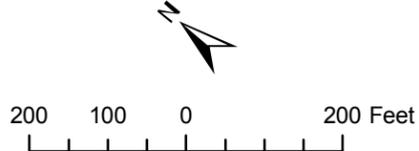
Legend
Chloride
Criteria name, (value mg/kg)

- no SLVs available
- Not Detected

For sample intervals that span more than one depth range, the bottom depth of the sample interval was used in selecting the depth range for display.

REVISED DRAFT

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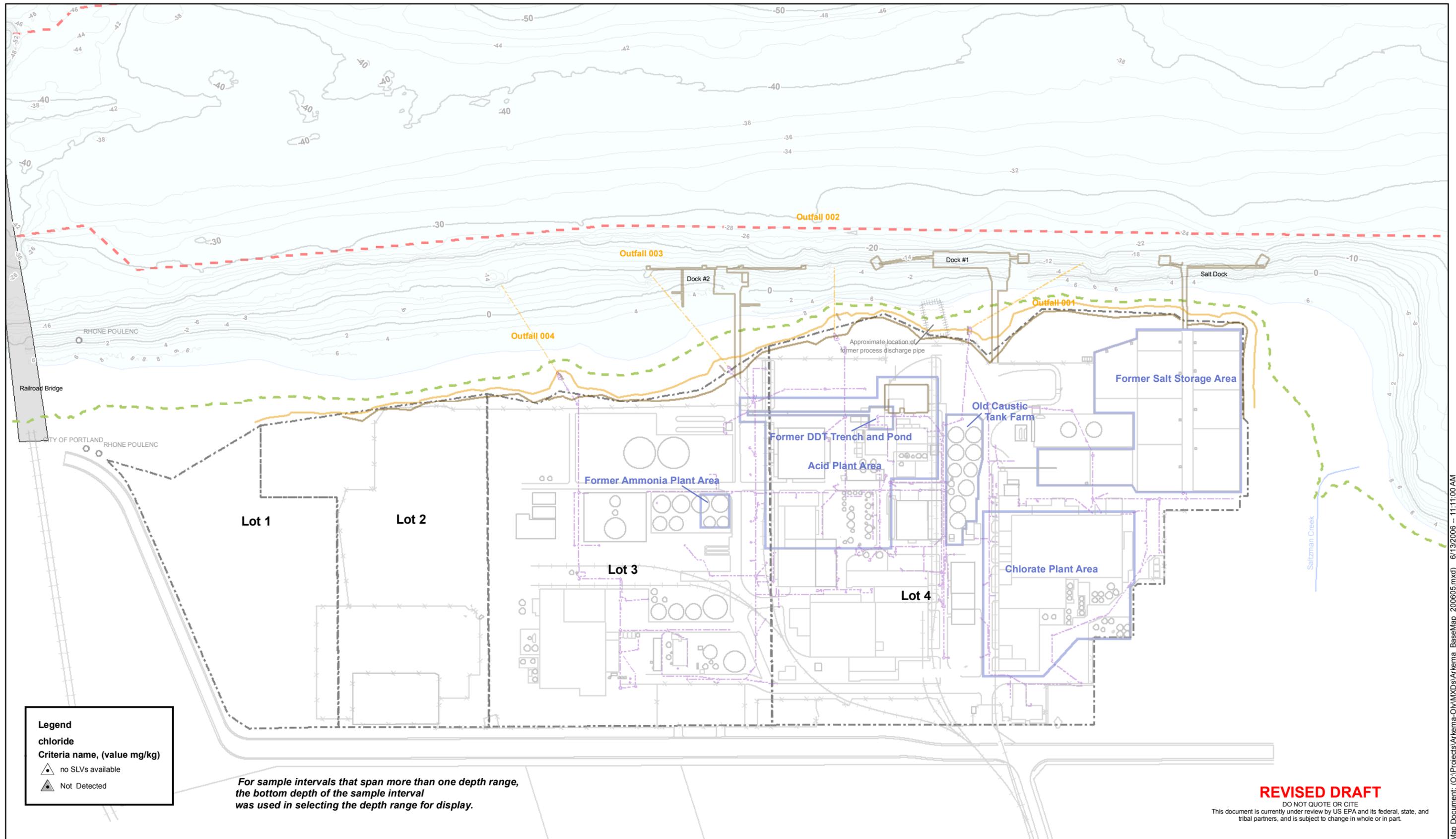


FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum of 1988 (NAVD88).
 Horizontal Datum: North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.
 Units: International Feet.
 Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006. Most buildings and structures on the Arkema site have been demolished or removed.
 OHW and Top of Slope lines were created from the April 2006 DEA survey, the +12ft contour line was derived from the combined lidar/bathymetry grid.
 Lot Lines: Created by importing pdf file from ERM, georeferencing to CAD lines (RMS error = 2.3042) and heads-up digitizing the lot lines.

- Ordinary High Water
- Top of Bank
- E-Sewer-L
- Storm Drain
- 12ft Contour
- Bridges
- Property Lines
- Navigation Channel
- River
- Outfalls

Map-103
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Surface (0-1 ft)
Chloride

Map Document: (O:\Projects\Arkema-01\MapDocs\Arkema_BaseMap_200605.mxd) 6/13/2006 11:11:00 AM



Legend

chloride

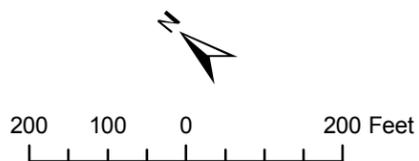
Criteria name, (value mg/kg)

- ▲ no SLVs available
- ▲ Not Detected

For sample intervals that span more than one depth range, the bottom depth of the sample interval was used in selecting the depth range for display.

REVISED DRAFT

DO NOT QUOTE OR CITE
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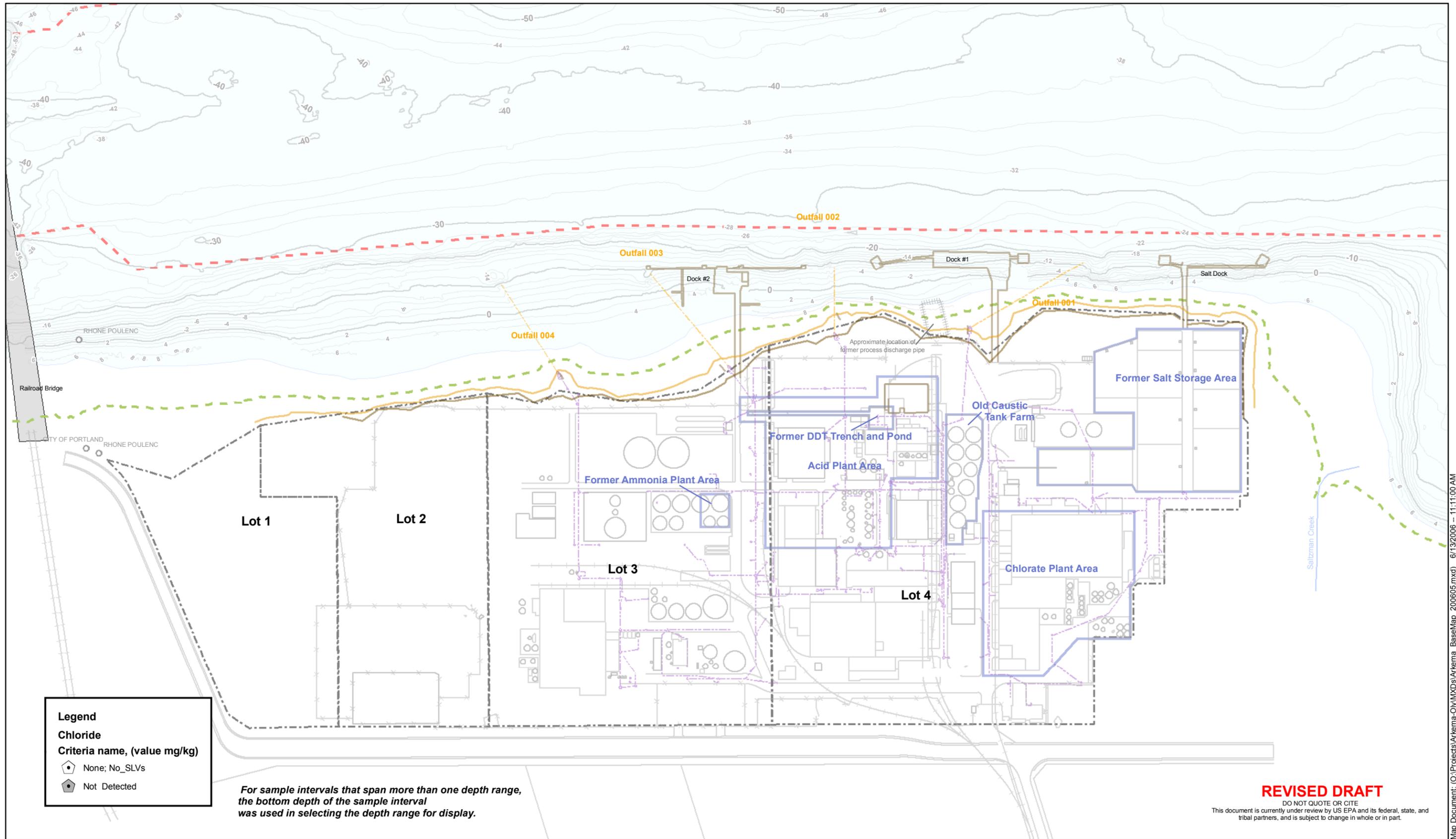


FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum of 1988 (NAVD88).
 Horizontal Datum: North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.
 Units: International Feet.
 Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006. Most buildings and structures on the Arkema site have been demolished or removed.
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 Lot Lines: Created by importing pdf file from ERM, georeferencing to CAD lines (RMS error = 2.3042) and heads-up digitizing the lot lines.

- Ordinary High Water
- Top of Bank
- E-Sewer-L
- Storm Drain
- 12ft Contour
- Bridges
- Property Lines
- Navigation Channel
- River
- Outfalls

Map-104
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Shallow Subsurface (1-4 ft)
Chloride

Map Document: (O:\Projects\Arkema-01\MapDocs\Arkema_BaseMap_200605.mxd) 6/13/2006 11:11:00 AM

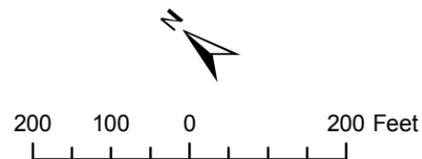


Legend	
Chloride	
Criteria name, (value mg/kg)	
	None; No_SLVs
	Not Detected

For sample intervals that span more than one depth range, the bottom depth of the sample interval was used in selecting the depth range for display.

REVISED DRAFT

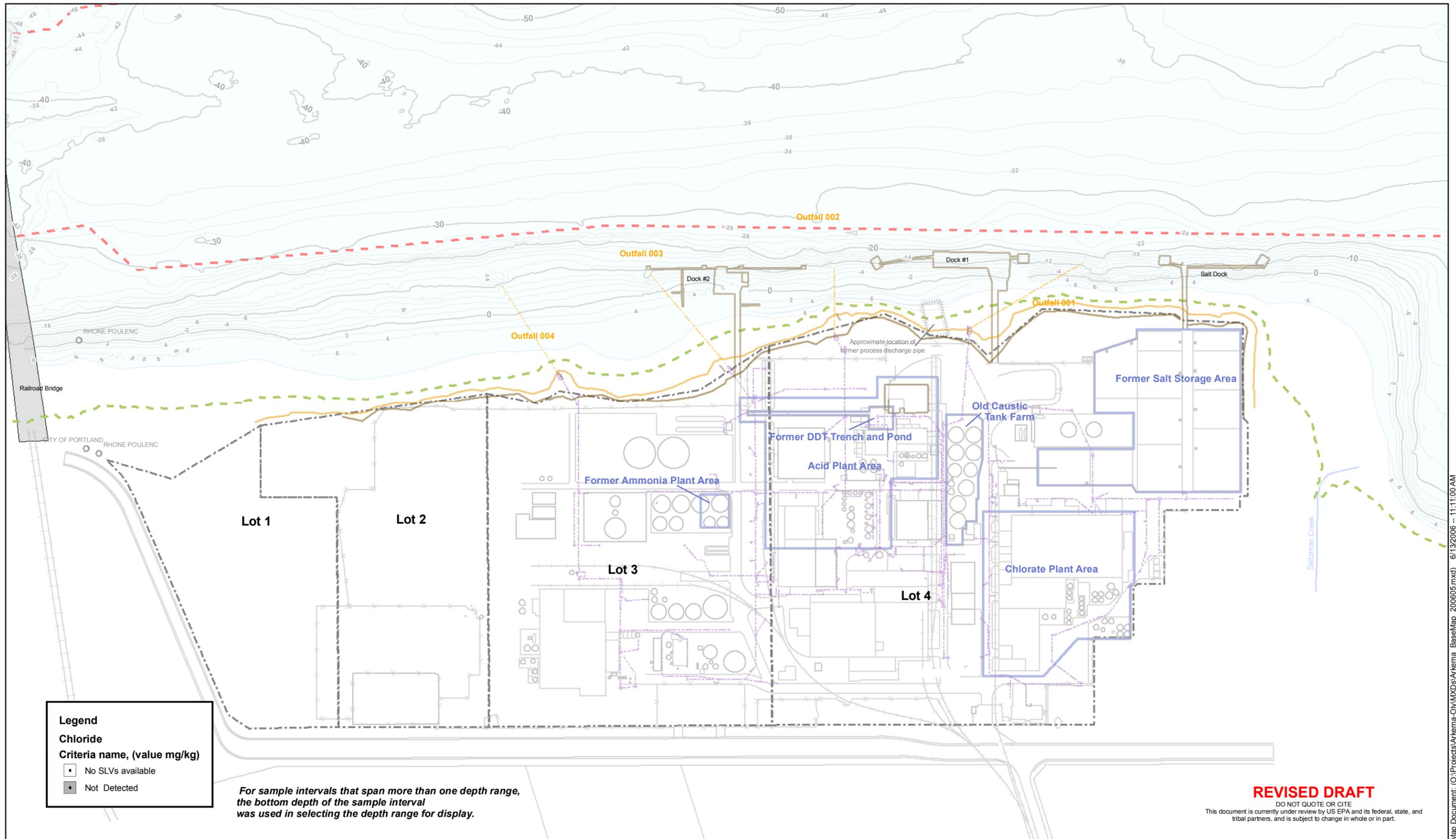
DO NOT QUOTE OR CITE
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FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum of 1988 (NAVD88).
 Horizontal Datum: North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.
 Units: International Feet.
 Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006. Most buildings and structures on the Arkema site have been demolished or removed.
 OHW and Top of Slope lines were created from the April 2006 DEA survey, the +12ft contour line was derived from the combined lidar/bathymetry grid.
 Lot Lines: Created by importing pdf file from ERM, georeferencing to CAD lines (RMS error = 2.3042) and heads-up digitizing the lot lines.

	Ordinary High Water		12ft_Contour		Navigation Channel
	Top of Bank		Bridges		River
	E-Sewer-L		Property Lines		Outfalls
	Storm Drain				

Map-105
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Intermediate Subsurface (4-8 ft)
Chloride



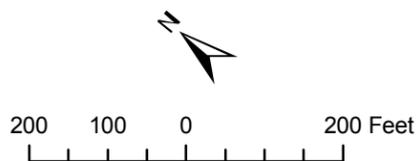
Legend
Chloride
Criteria name, (value mg/kg)

- No SLVs available
- Not Detected

For sample intervals that span more than one depth range, the bottom depth of the sample interval was used in selecting the depth range for display.

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FEATURE SOURCES:
 Bathymetric Information: Multibeam bathymetric survey conducted by David Evans and Associates, Inc. from February 6 - March 6, 2004. Contours were derived from a Digital Terrain Model (DTM) based on a three-foot grid of multibeam data.
 Vertical Datum: North American Vertical Datum of 1988 (NAVD88).
 Horizontal Datum: North American Datum of 1983 - 91 adjusted (NAD83/91), State Plane Coordinate System (SPCS), Oregon North Zone.
 Units: International Feet.
 Basemap: Basemap features updated in 2006 by David Evans and Associates. Ordinary high water line, top of bank, and other site features surveyed in April 2006. Most buildings and structures on the Arkema site have been demolished or removed.
 OHW and Top of Slope lines were created from the April 2006 DEA survey, the +12ft contour line was derived from the combined lidar/bathymetry grid.
 Lot Lines: Created by importing pdf file from ERM, georeferencing to CAD lines (RMS error = 2.3042) and heads-up digitizing the lot lines.

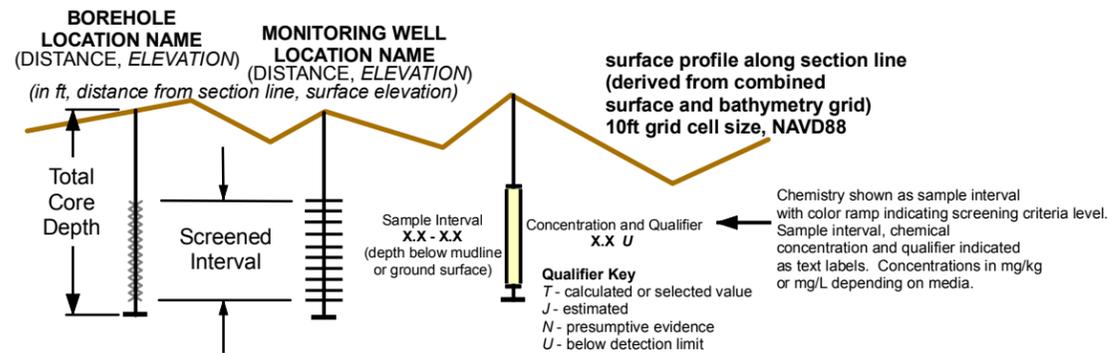
- Ordinary High Water
- Top of Bank
- E-Sewer-L
- Storm Drain
- 12ft_Contour
- Bridges
- Property Lines
- Navigation Channel
- River
- Outfalls

Map-106
Arkema Site
Surface & Sub-Surface Sediment Samples
Depth Range: Deep Subsurface (> 8 ft)
Chloride

Map Document: (O:\Projects\Arkema-01\MapDocs\Arkema_BaseMap_200605.mxd) 6/13/2006 11:11:00 AM

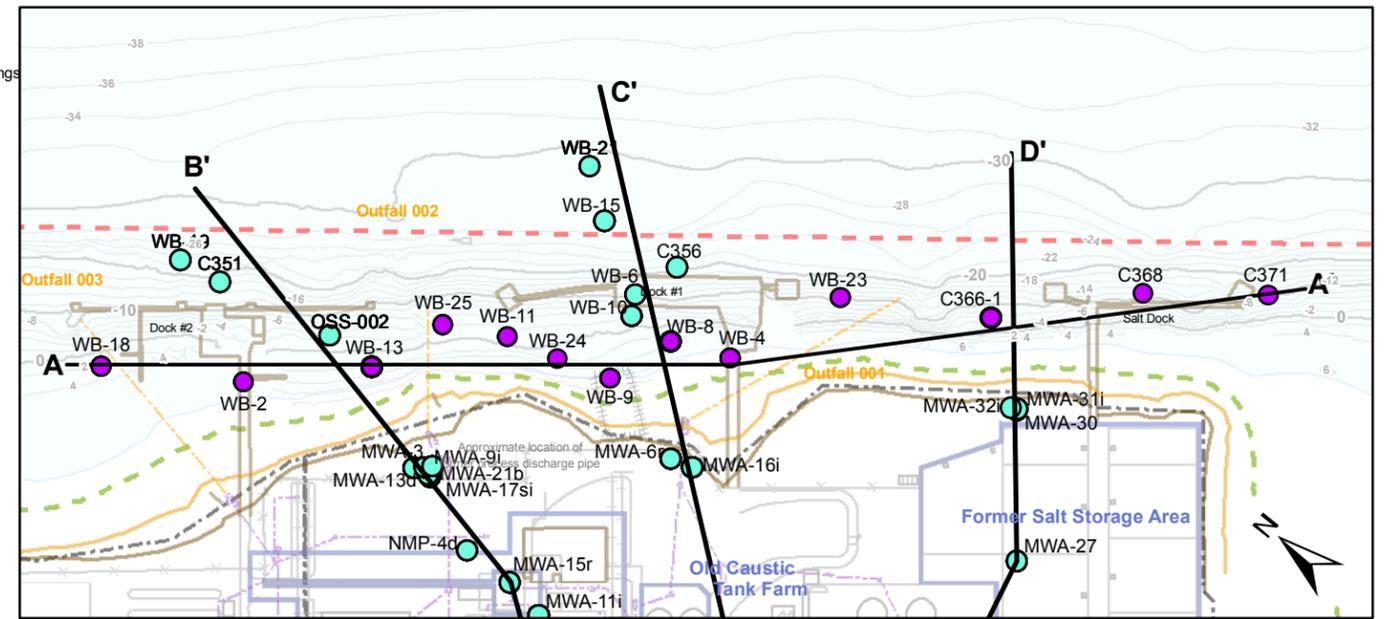
Notes:

- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



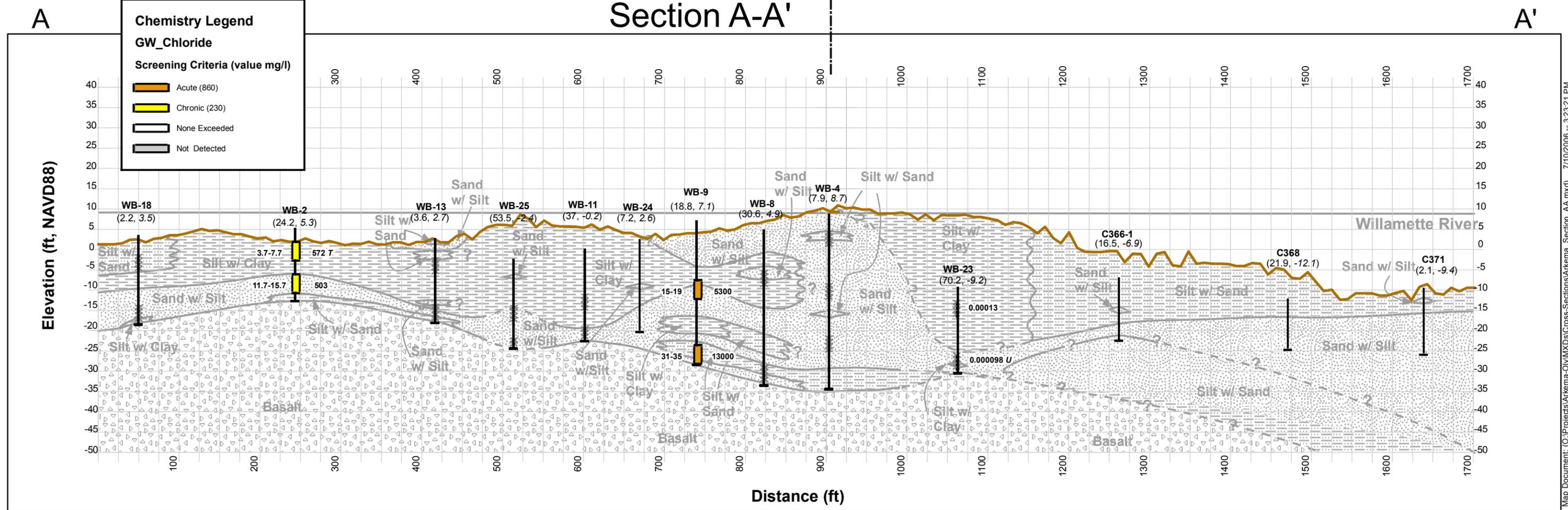
Map View Legend

- Section_AA Selected Wells and Borings
- Section_BB
- Section_CC
- Section_DD
- Navigation Channel
- River
- 12ft Contour
- Ordinary High Water
- Top of Bank
- Bathymetry (2, 10 ft)
- Index Contour
- 2' contour



Plant North

Plant South



Section View: Vertical Exaggeration: 5X

- Fill
- Sand with varying amounts of silt
- Silt with varying amounts of fine sand
- Silt with some clay and fine sand
- Basalt
- Inferred soil or geologic contact (queried where uncertain)
- Shallow-zone groundwater surface (approximate) June 2003; based on monitoring well data only.

DRAFT
DO NOT QUOTE OR CITE
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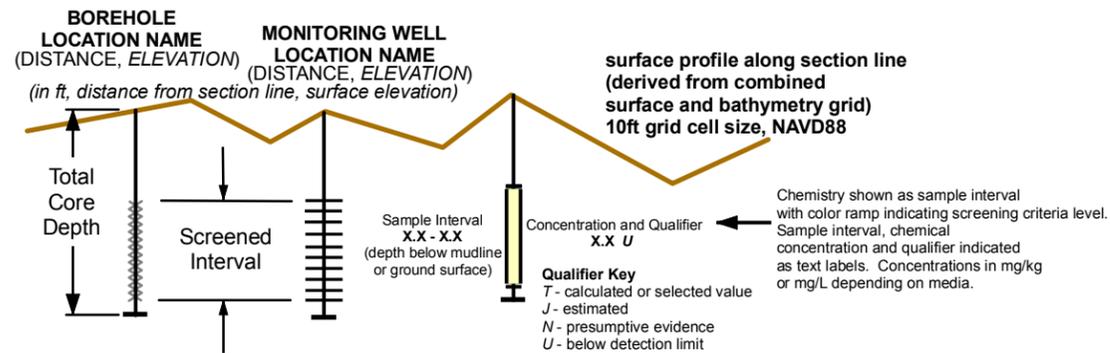
0 50 100 200 Feet

Map-107
Cross-Section A-A'
Groundwater Chemistry
Chloride

Map Document: (C:\Projects\Arkema-Oily\MXDs\Cross-Sections\Arkema_Section_AA.mxd) 7/10/2006 -- 3:23:21 PM

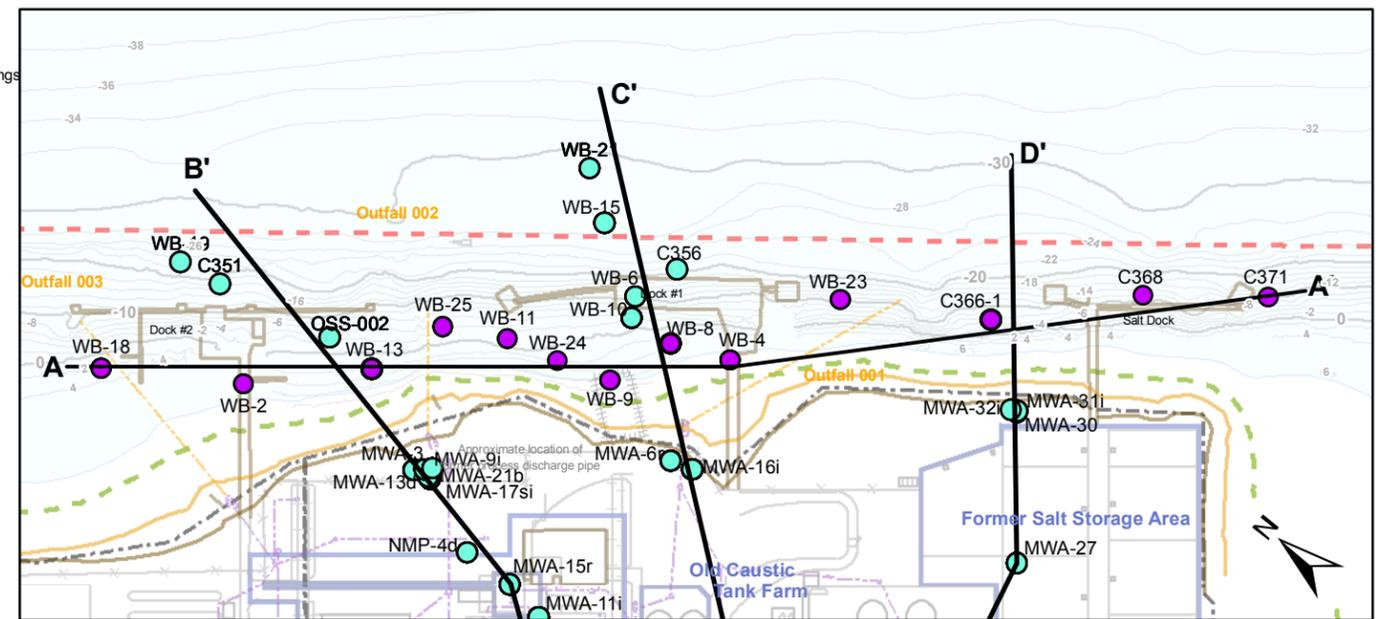
Notes:

- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



Map View Legend

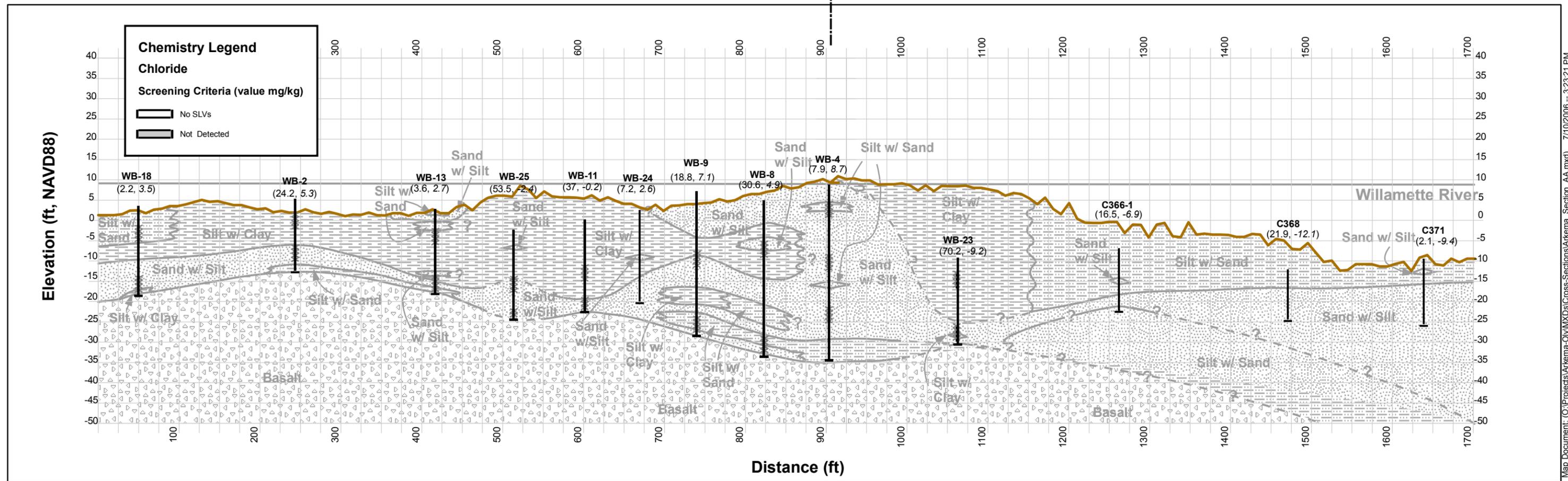
- Section_AA Selected Wells and Borings
- Section_BB
- Section_CC
- Section_DD
- Navigation Channel
- River
- 12ft Contour
- Ordinary High Water
- Top of Bank
- Bathymetry (2, 10 ft)
- Index Contour
- 2' contour



Plant North
A

Plant South
A'

Section A-A'

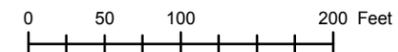


Section View: Vertical Exaggeration: 5X

- Fill
- Sand with varying amounts of silt
- Silt with varying amounts of fine sand
- Silt with some clay and fine sand
- Basalt
- Inferred soil or geologic contact (queried where uncertain)
- Shallow-zone groundwater surface (approximate) June 2003; based on monitoring well data only.

REVISED DRAFT

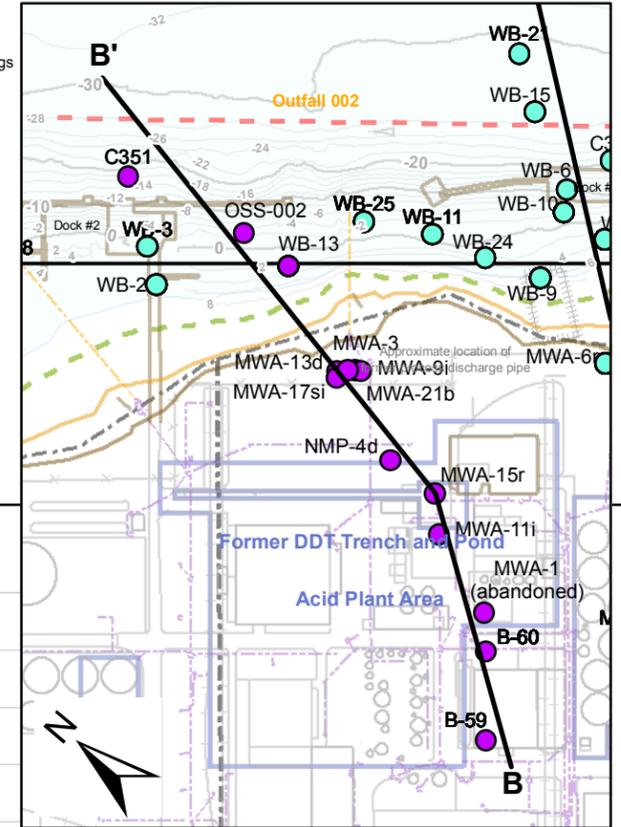
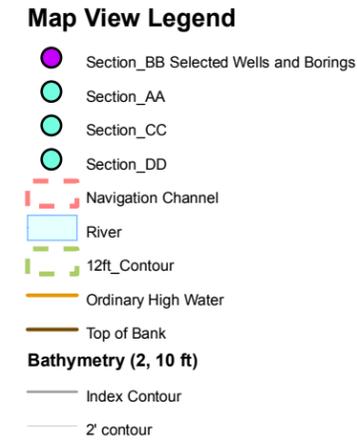
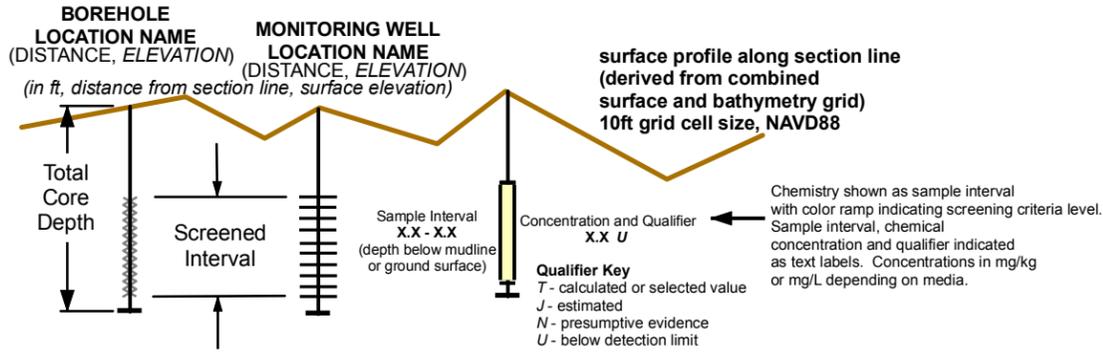
DO NOT QUOTE OR CITE
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Map-108
Cross-Section A-A'
Sediment Chemistry
Chloride

Notes:

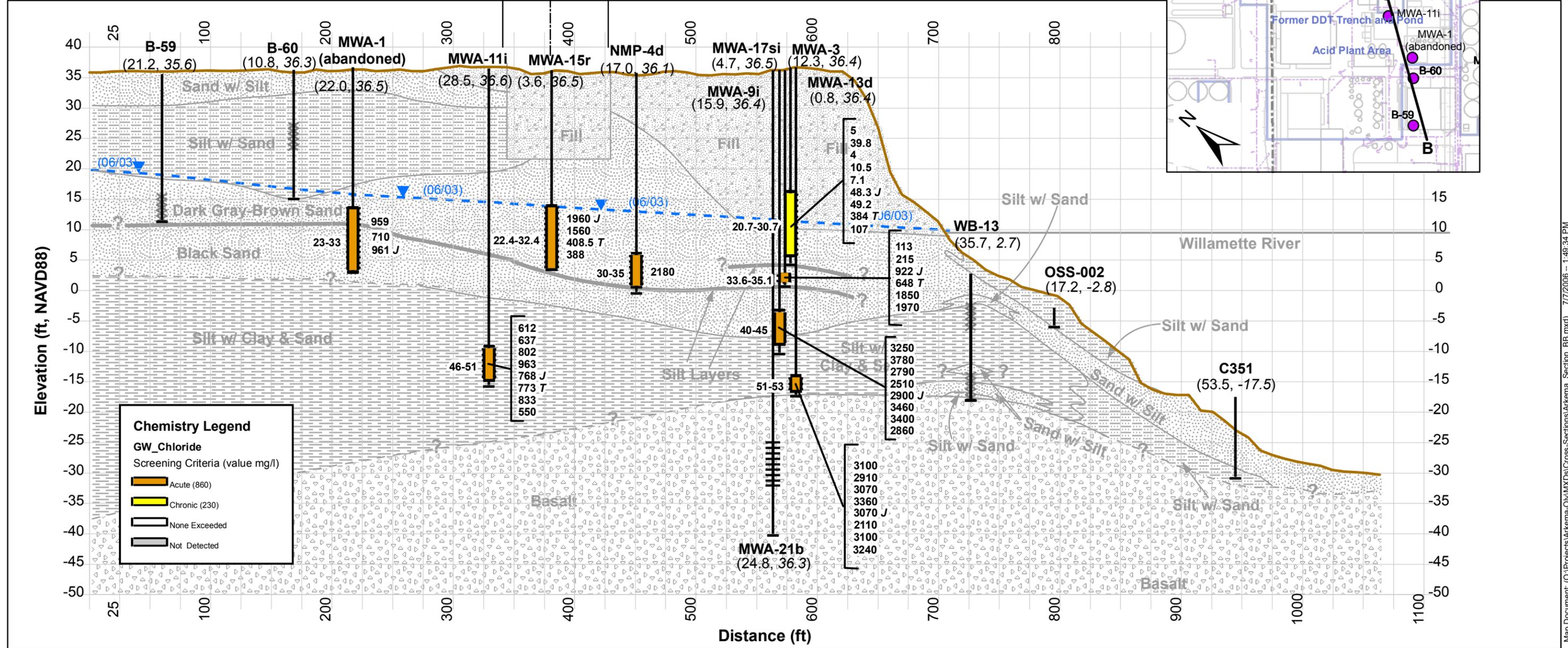
- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



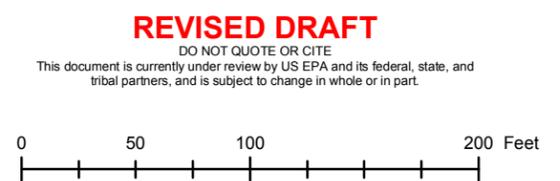
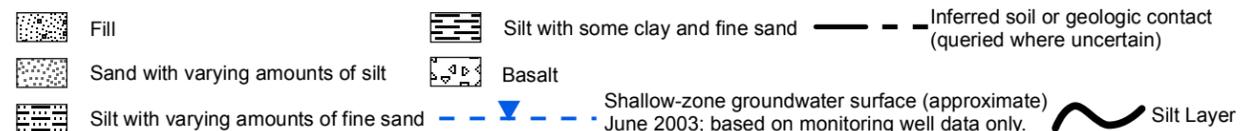
Plant West
B

Plant East
B'

Section B-B'



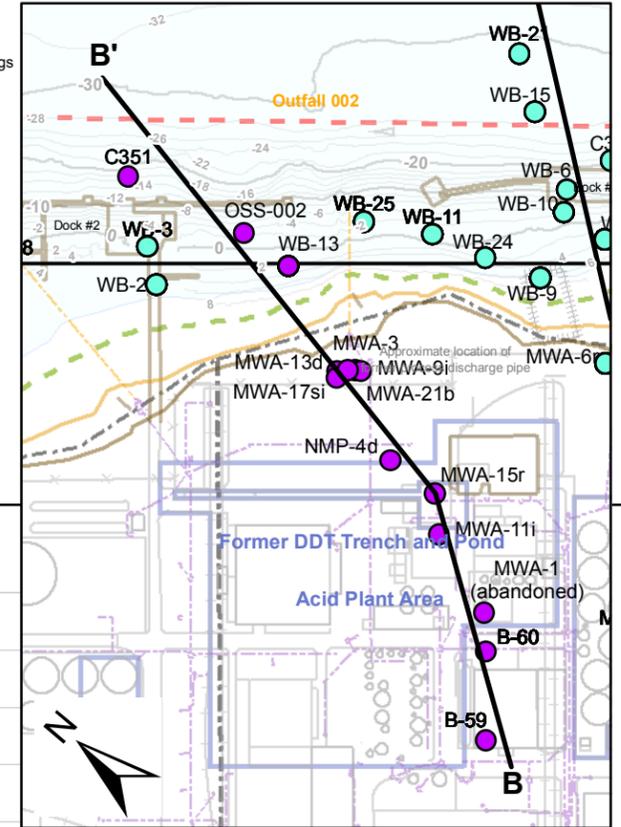
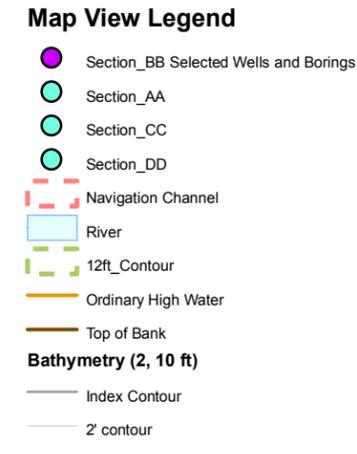
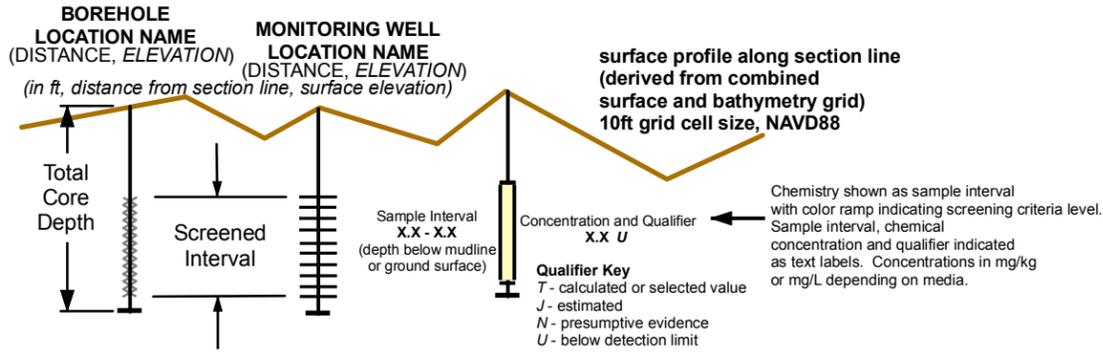
Section View: Vertical Exaggeration: 5X



Map-109
Cross-Section B-B'
Groundwater Chemistry
Chloride

Notes:

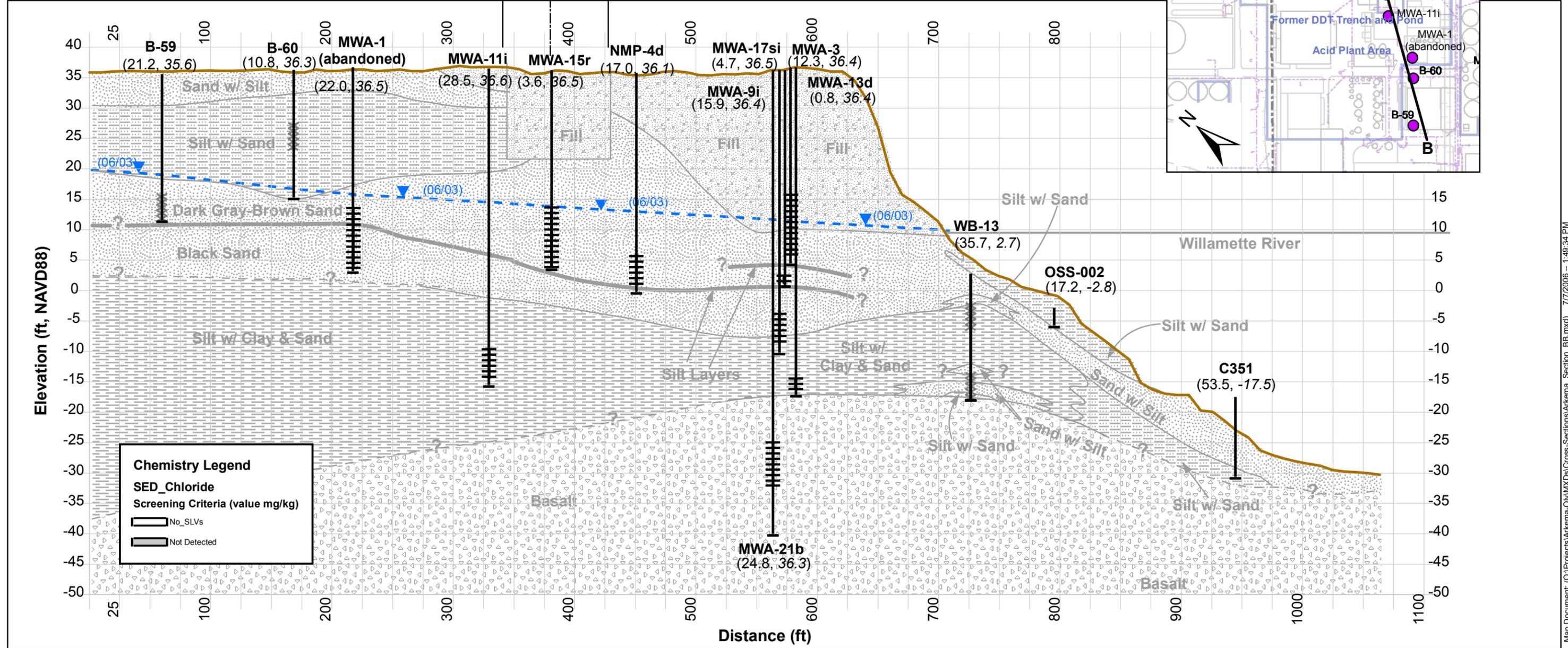
- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



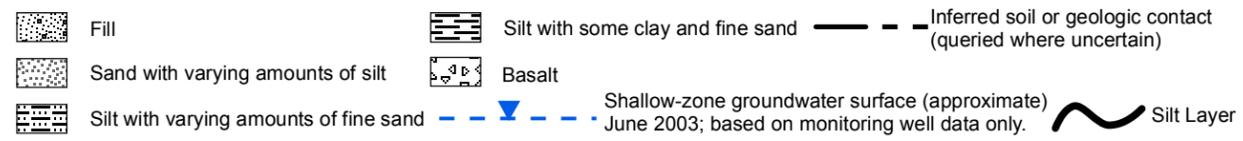
Plant West
B

Plant East
B'

Section B-B'

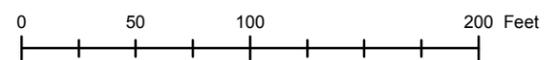


Section View: Vertical Exaggeration: 5X



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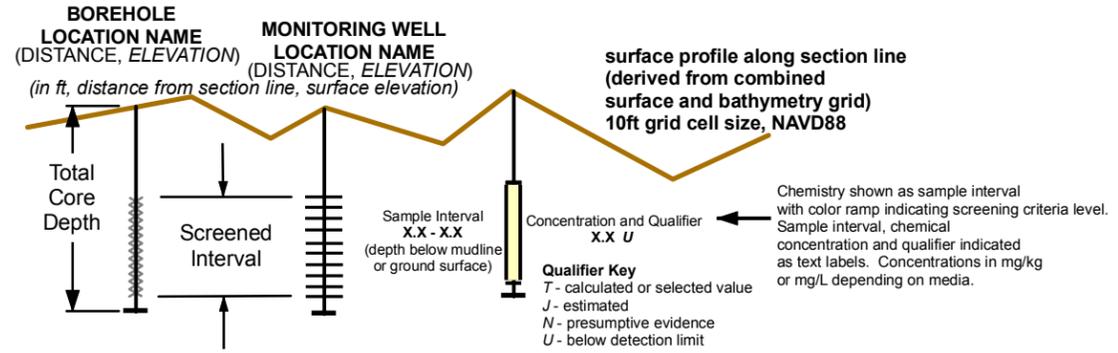
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Map-110
Cross-Section B-B'
 Soil/Sediment Chemistry
 Chloride

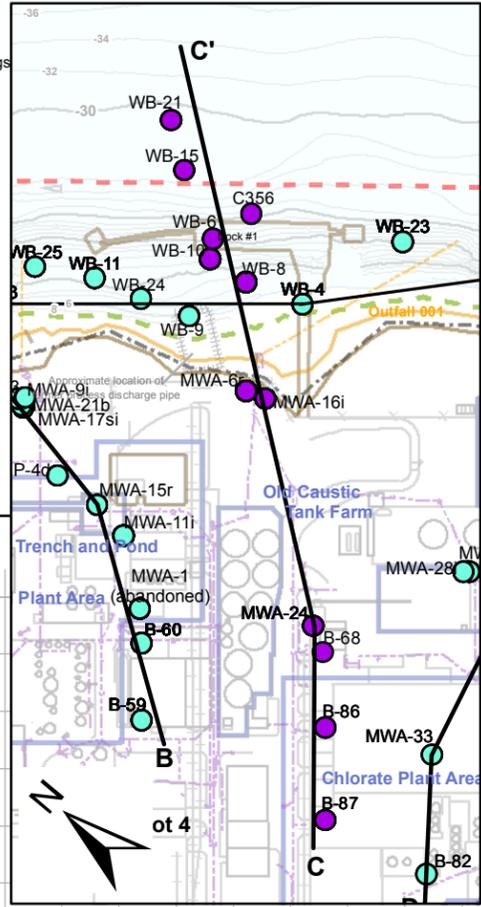
Notes:

- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



Map View Legend

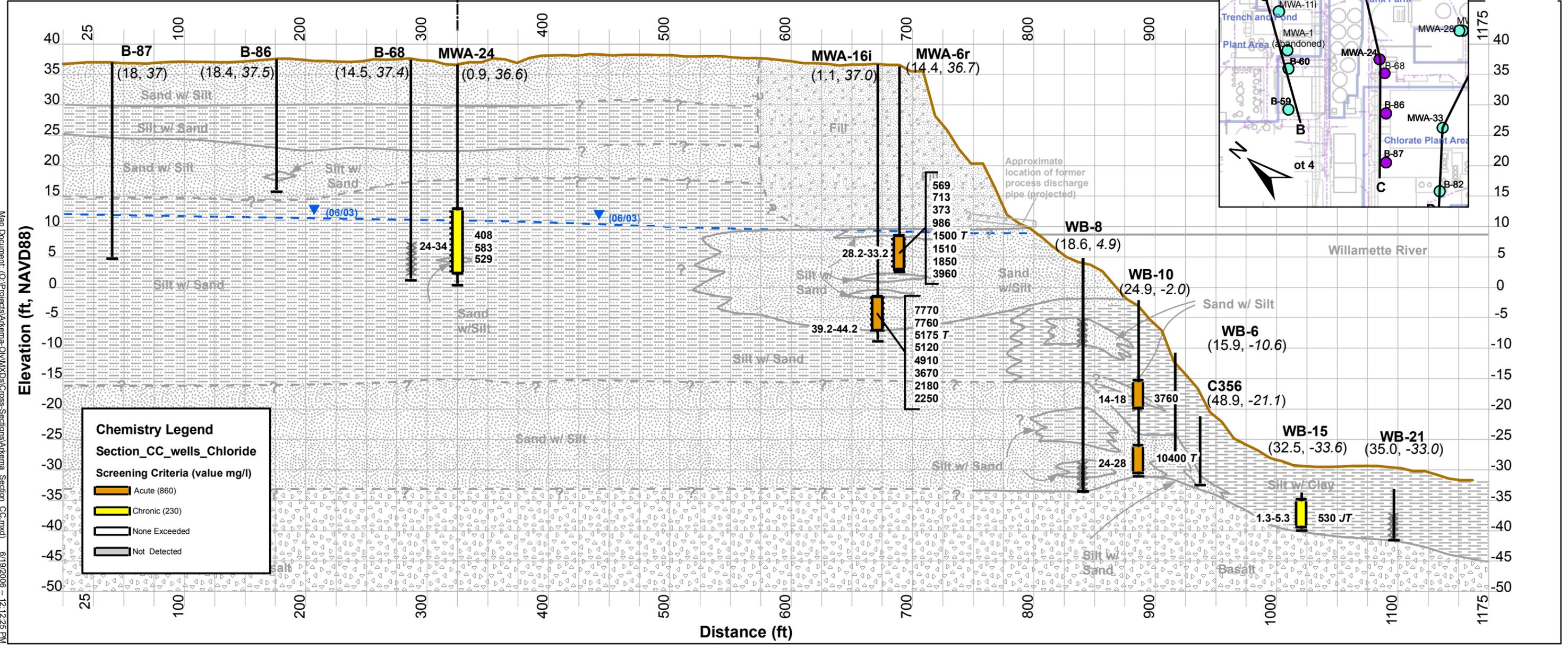
- Section_CC Selected Wells and Borings
- Section_AA
- Section_BB
- Section_DD
- Navigation Channel
- River
- 12ft Contour
- Ordinary High Water
- Top of Bank
- Bathymetry (2, 10 ft)
- Index Contour
- 2' contour



Plant West
C

Plant East
C'

Section C-C'



Map Document: (O:\Projects\Arkema-Oily\WMD\DC\Cross-Sections\Arkema_Section_CC.mxd) 6/19/2006 - 12:12:25 PM



- Section View: Vertical Exaggeration: 5X
- Fill
 - Sand with varying amounts of silt
 - Silt with varying amounts of fine sand
 - Silt with some clay and fine sand
 - Basalt
 - Inferred soil or geologic contact (queried where uncertain)
 - Shallow-zone groundwater surface (approximate) June 2003; based on monitoring well data only.

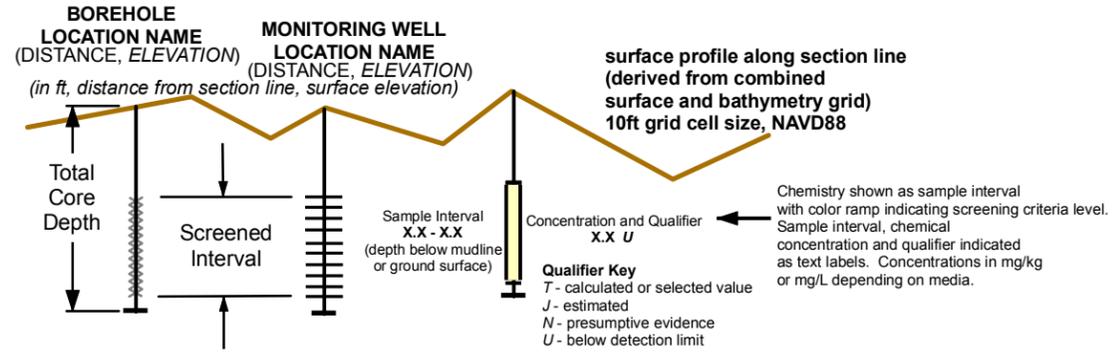
REVISED DRAFT
DO NOT QUOTE OR CITE
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0 50 100 200 Feet
1 inch equals 80 feet

Map-111
Cross-Section C-C'
Groundwater Chemistry
Chloride

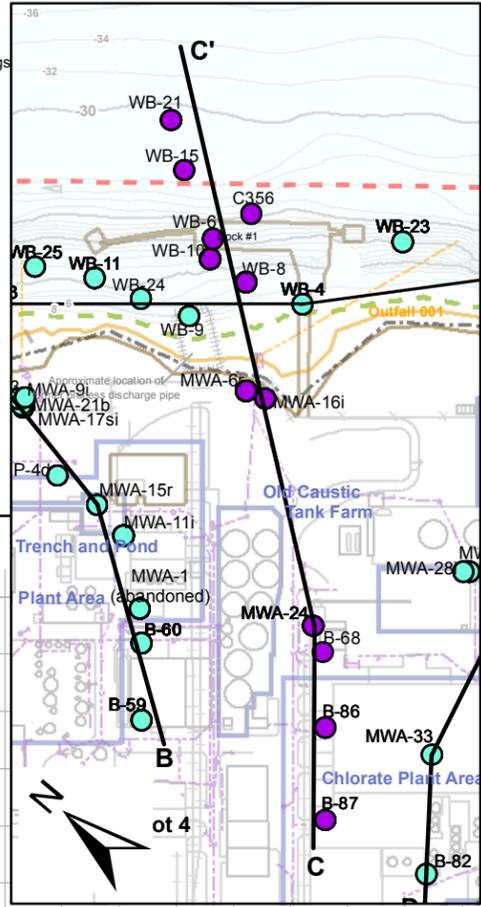
Notes:

- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



Map View Legend

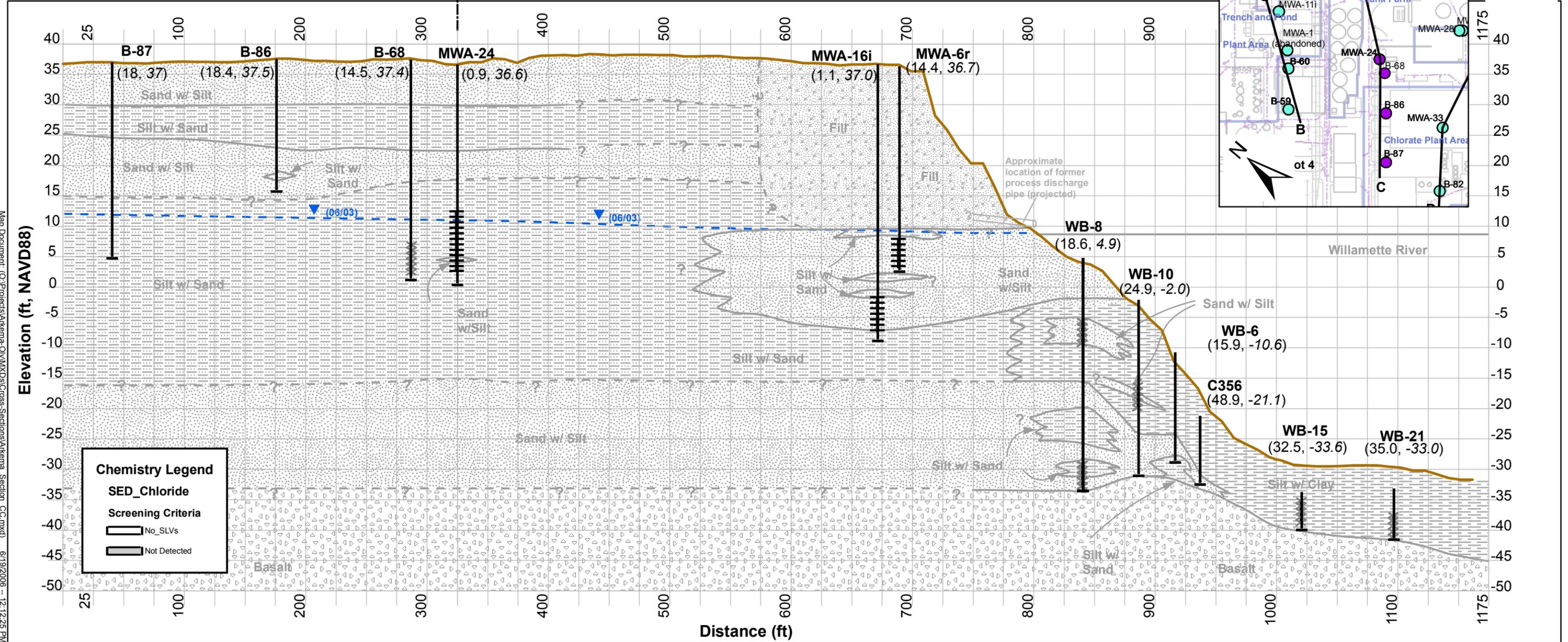
- Section_CC Selected Wells and Borings
- Section_AA
- Section_BB
- Section_DD
- Navigation Channel
- River
- 12ft Contour
- Ordinary High Water
- Top of Bank
- Bathymetry (2, 10 ft)
- Index Contour
- 2' contour



Plant West
C

Plant East
C'

Section C-C'

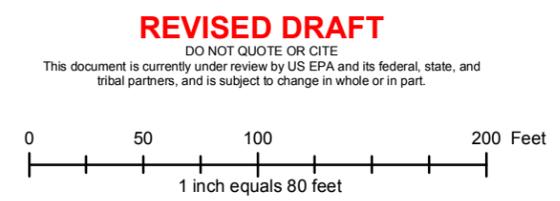


Map Document: (O:\Projects\Arkema-Oily\WMD\SD\Cross-Sections\Arkema_Section_CC.mxd) 6/19/2006 - 12:12:25 PM



Section View: Vertical Exaggeration: 5X

- Fill
- Sand with varying amounts of silt
- Silt with varying amounts of fine sand
- Silt with some clay and fine sand
- Basalt
- Inferred soil or geologic contact (queried where uncertain)
- Shallow-zone groundwater surface (approximate) June 2003; based on monitoring well data only.



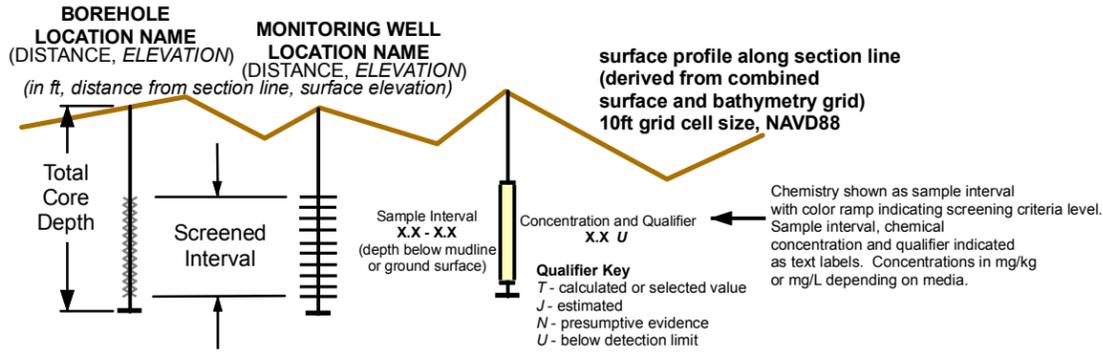
REVISED DRAFT

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Map-112
Cross-Section C-C'
Soil/Sediment Chemistry
Chloride

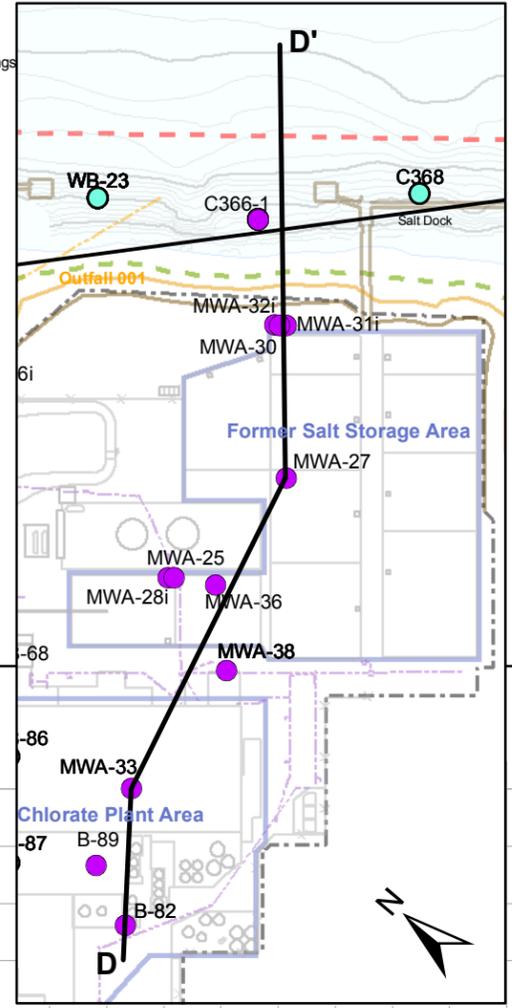
Notes:

- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



Map View Legend

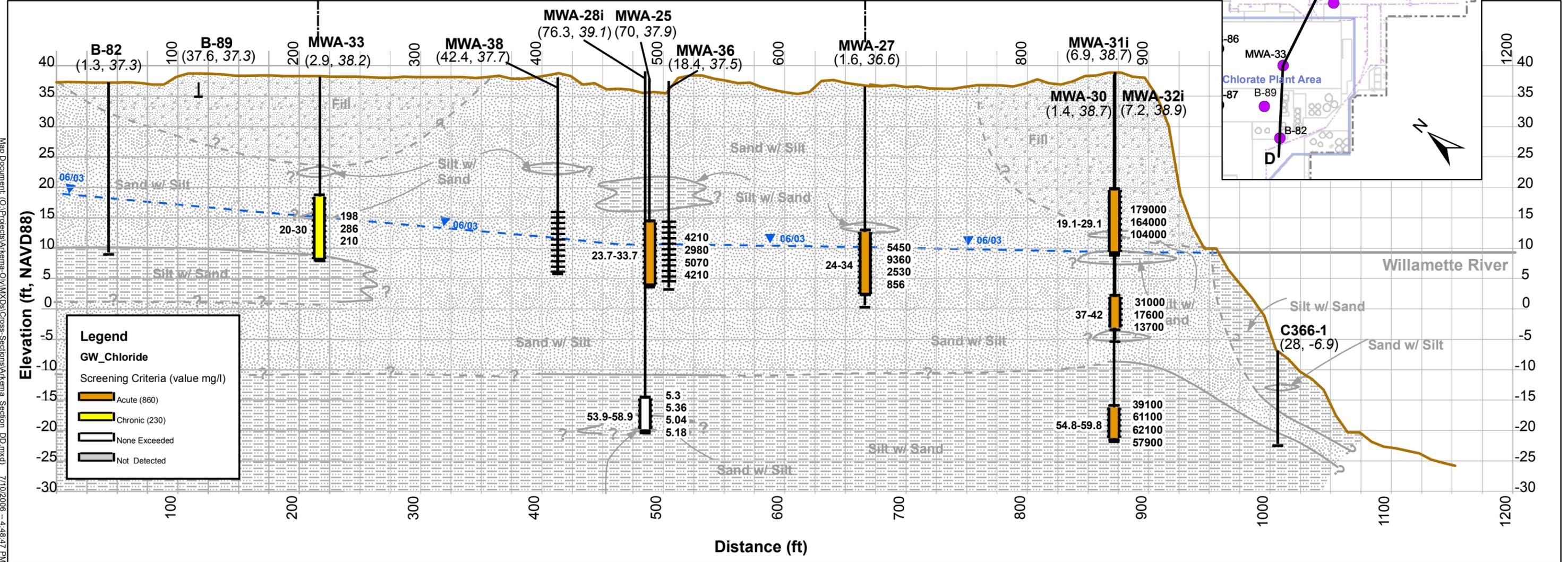
- Section_DD_Selected_Wells and Borings
- Section_AA
- Section_BB
- Section_CC
- Navigation Channel
- River
- 12ft_Contour
- Ordinary High Water
- Top of Bank
- Bathymetry (2, 10 ft)
- Index Contour
- 2' contour



Plant West
D

Plant East
D'

Section D-D'



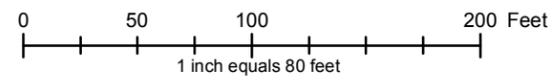
Map Document: (O:\Projects\Arkema-Oil\WXD\Cross-Sections\Arkema_Section_DD.mxd) 7/10/2006 - 4:48:47 PM

Section View: Vertical Exaggeration: 5X

- Fill
- Sand with varying amounts of silt
- Silt with varying amounts of fine sand
- Silt with some clay and fine sand
- Basalt
- Inferred soil or geologic contact (queried where uncertain)
- Shallow-zone groundwater surface (approximate) June 2003; based on monitoring well data only.

DRAFT

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 This document is currently under review by US EPA and its federal, state, and tribal partners, and is subject to change in whole or in part.

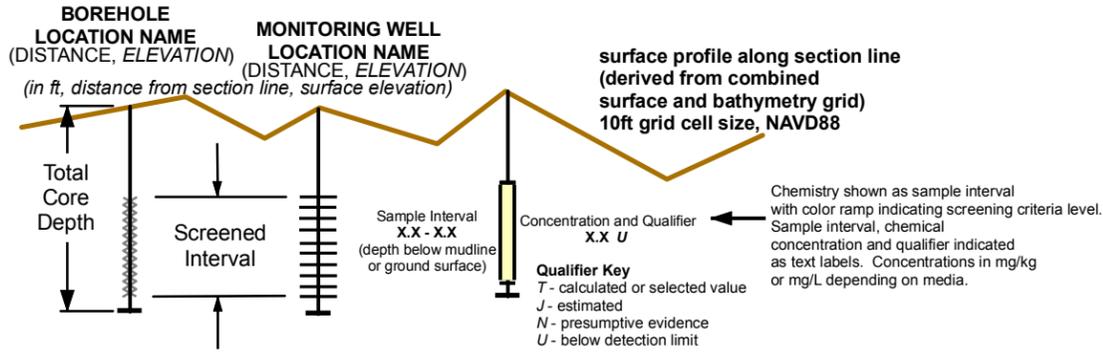


Map-113
Cross-Section D-D'
Groundwater Chemistry
Chloride



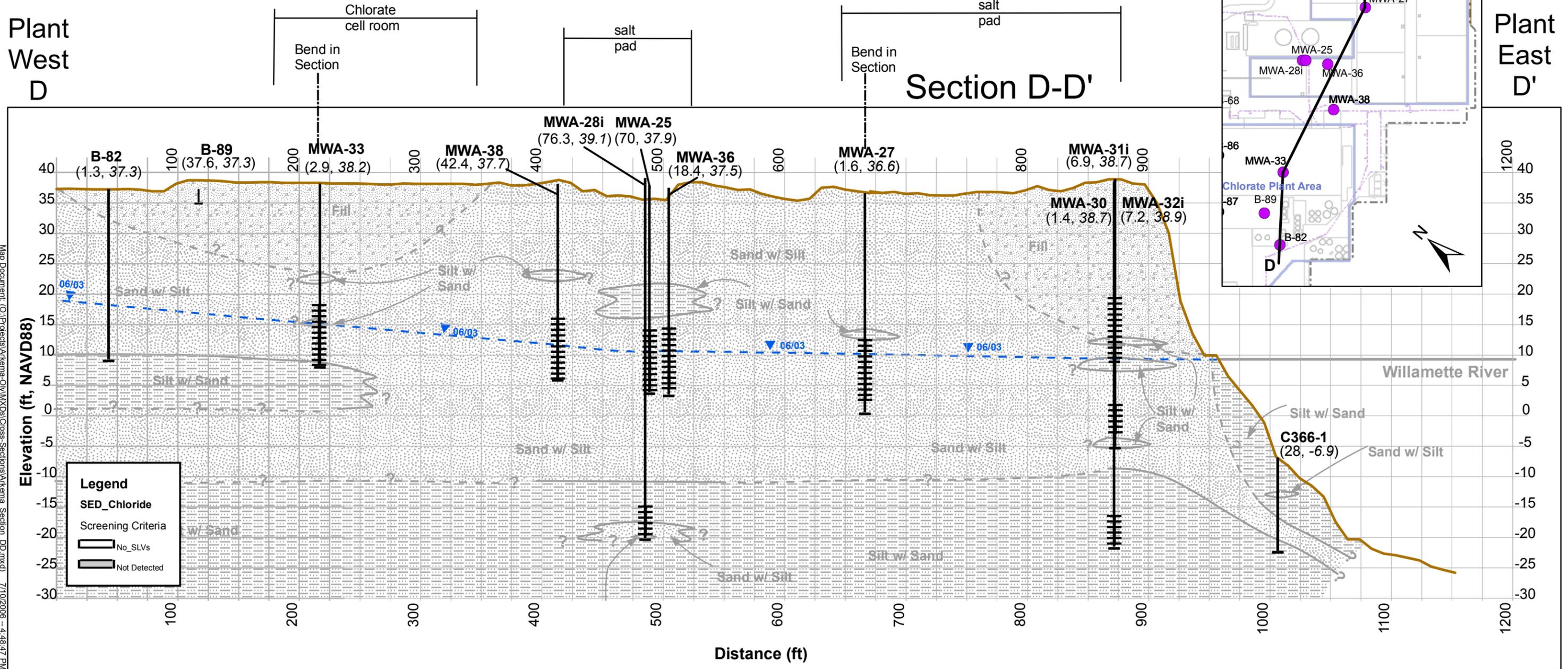
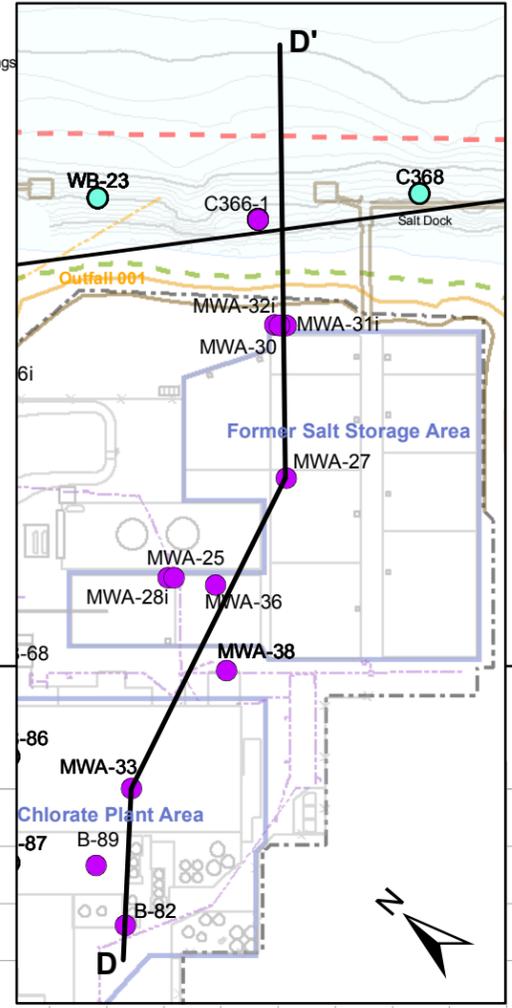
Notes:

- 1) Due to projection onto the section line, lithology was estimated at some well and borehole stations based on best professional judgment
- 2) Groundwater samples were not filtered. Reconnaissance groundwater sample concentrations may be biased high since they are generally more turbid than monitoring well groundwater samples.



Map View Legend

- Section_DD_Selected_Wells and Borings
- Section_AA
- Section_BB
- Section_CC
- Navigation Channel
- River
- 12ft_Contour
- Ordinary High Water
- Top of Bank
- Bathymetry (2, 10 ft)
- Index Contour
- 2' contour



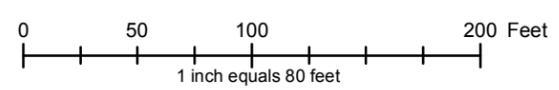
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Section View: Vertical Exaggeration: 5X

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Map-114
Cross-Section D-D'
 Soil/Sediment Chemistry
 Chloride