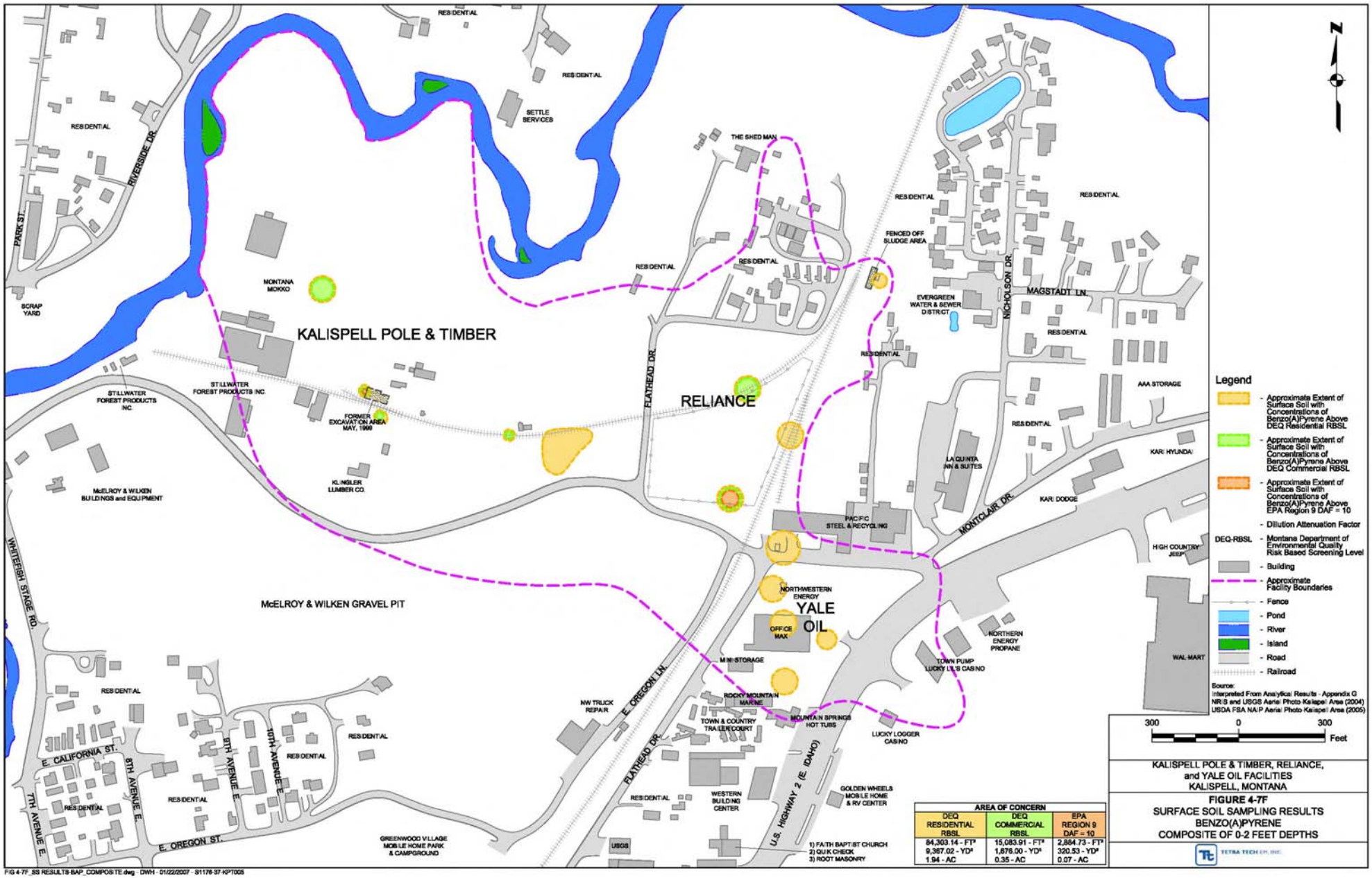


AREA OF CONCERN		
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL	EPA REGION 9 DAF = 10
84,303.14 - FT²	15,083.91 - FT²	2,884.73 - FT²
9,367.02 - YD²	1,676.00 - YD²	320.53 - YD²
1.94 - AC	0.35 - AC	0.07 - AC

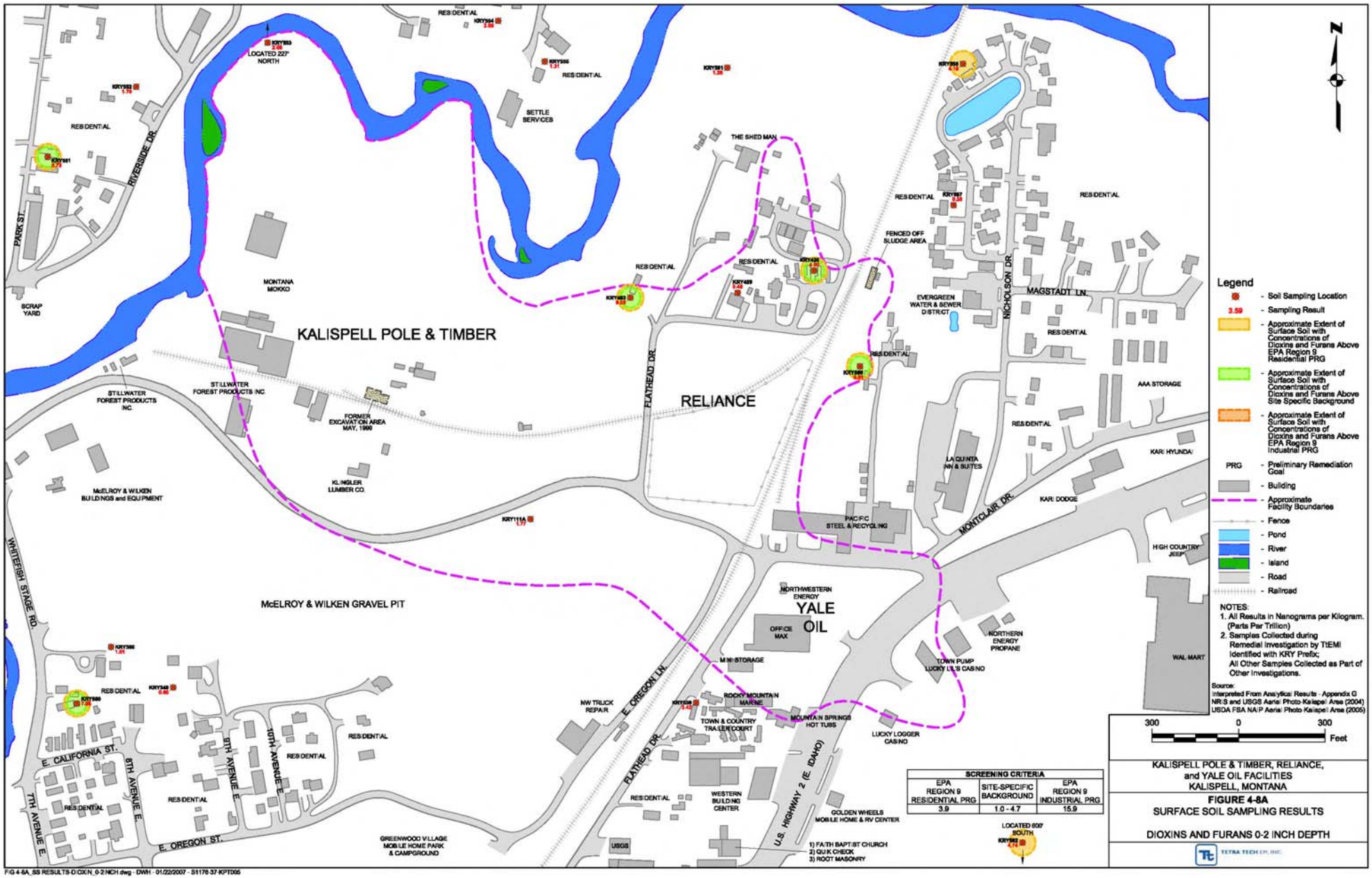


FIG 4-8A_SS RESULTS D OXIN_0-2 INCH dwg - DWH - 01/22/2007 - S1176-37-KPT005

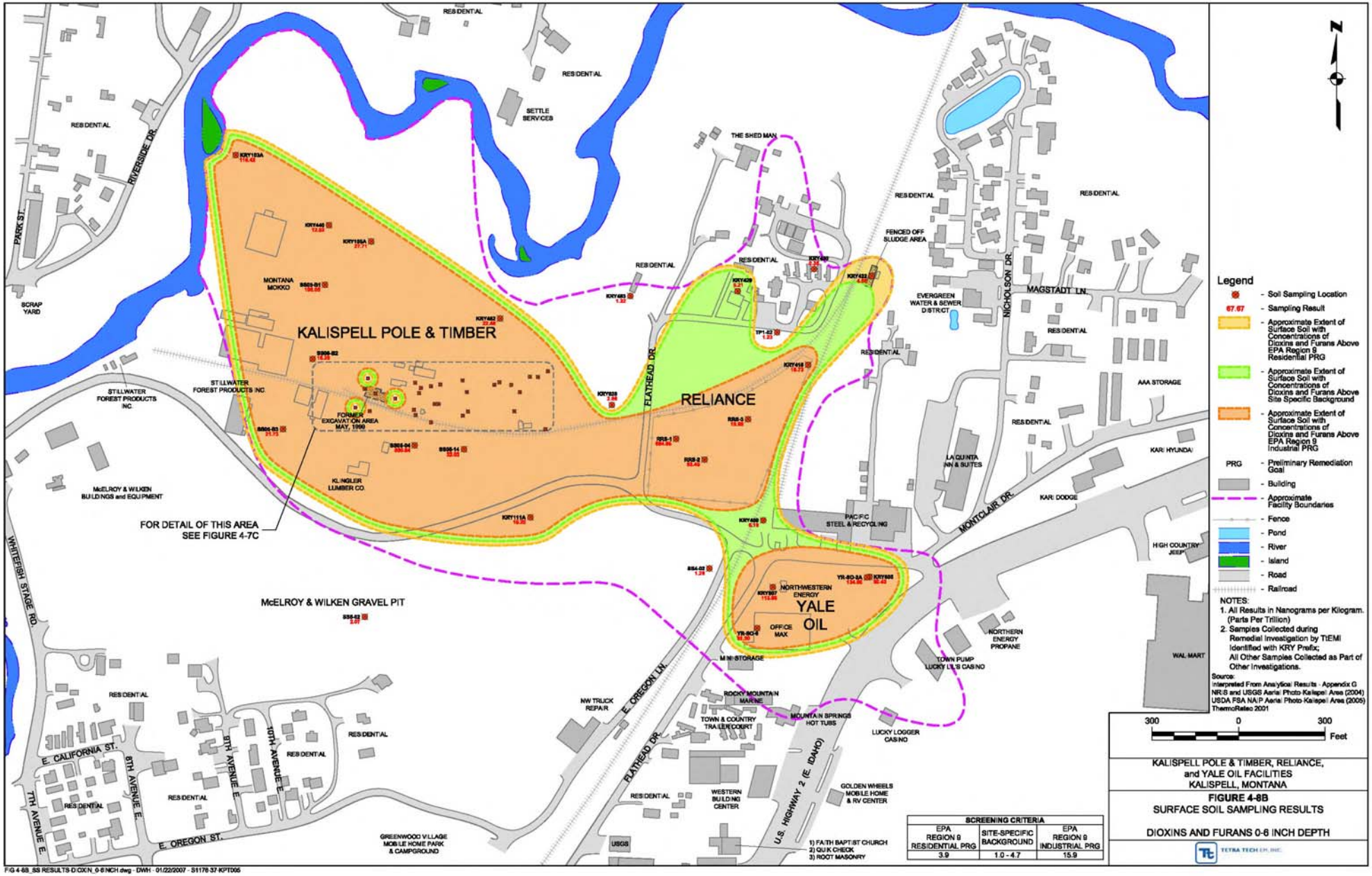
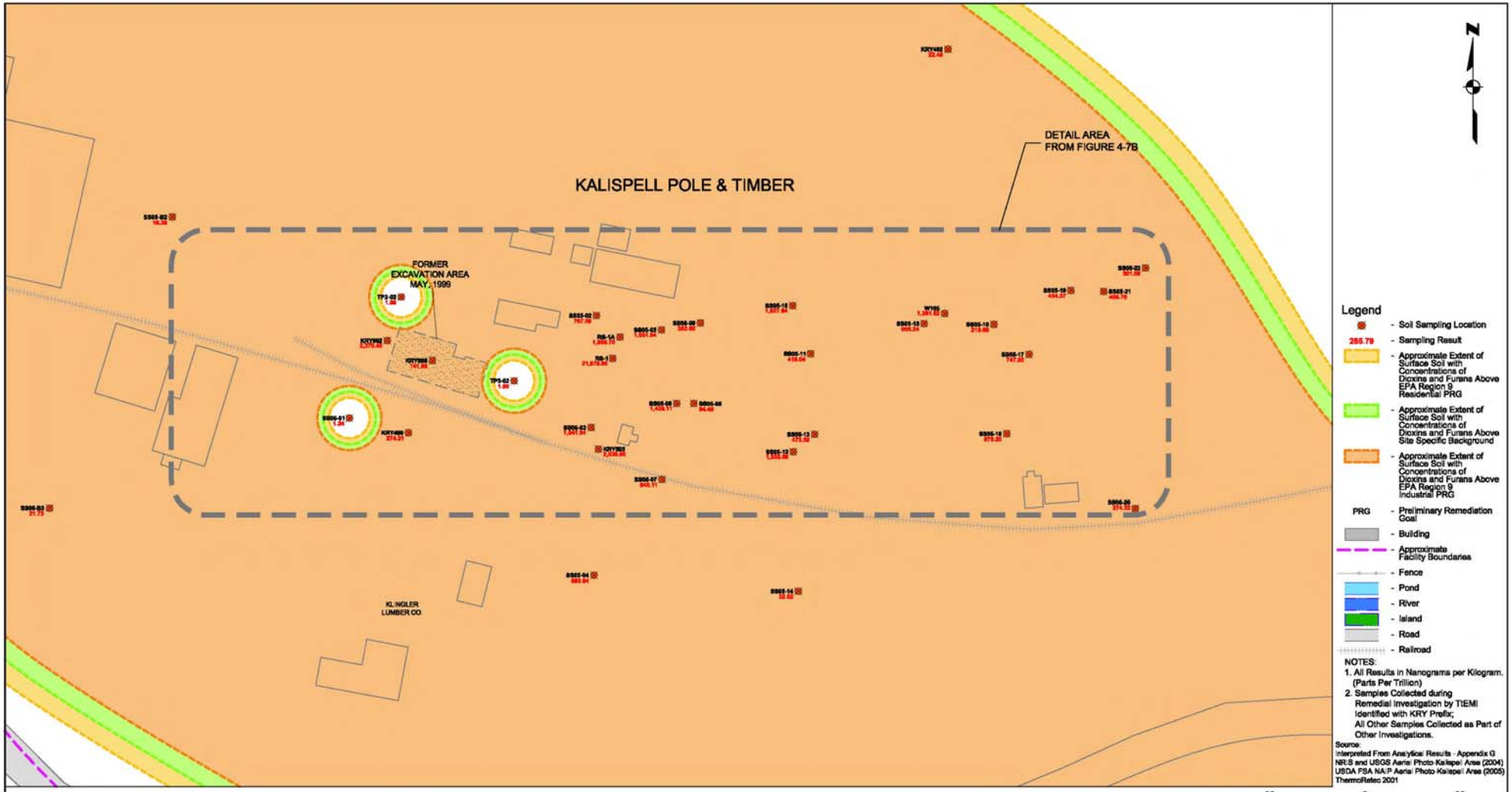


FIG 4-8B_SS RESULTS D OXIN_0-6 INCH.dwg - DWH - 01/22/2007 - S1176-37-KPT005



SCREENING CRITERIA		
EPA REGION 9 RESIDENTIAL PRG	SITE-SPECIFIC BACKGROUND	EPA REGION 9 INDUSTRIAL PRG
3.9	1.0 - 4.7	15.9

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-8C
SURFACE SOIL SAMPLING RESULTS
KPT AREA
DIOXINS AND FURANS 0-6 INCH DEPTH

TETRA TECH EM, INC.

FIG 4-8C_SS RESULTS-DIOXIN_0-6INCH_KPT.dwg - DWH - 01/22/2007 - S1178-37-KPT005

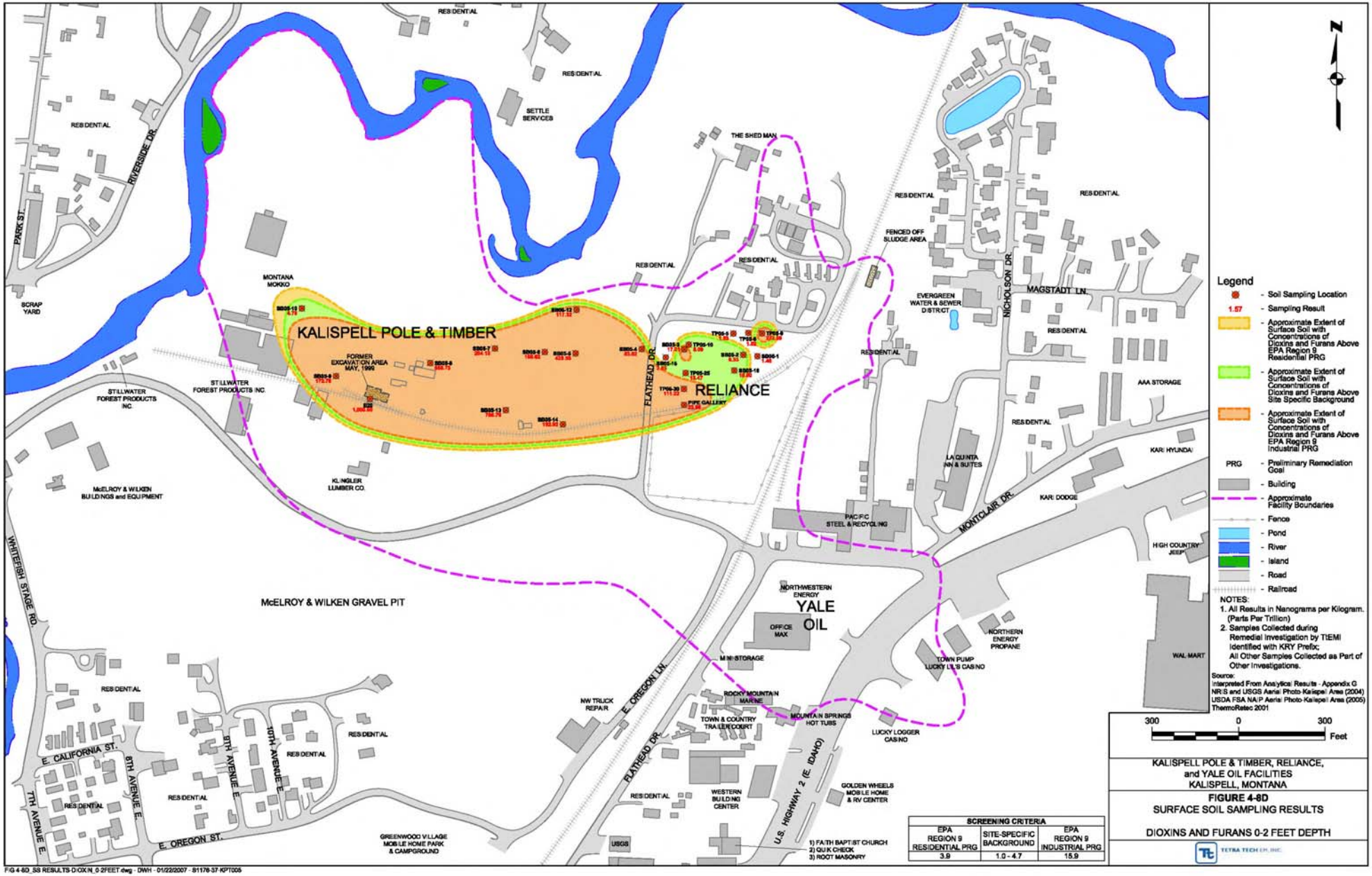
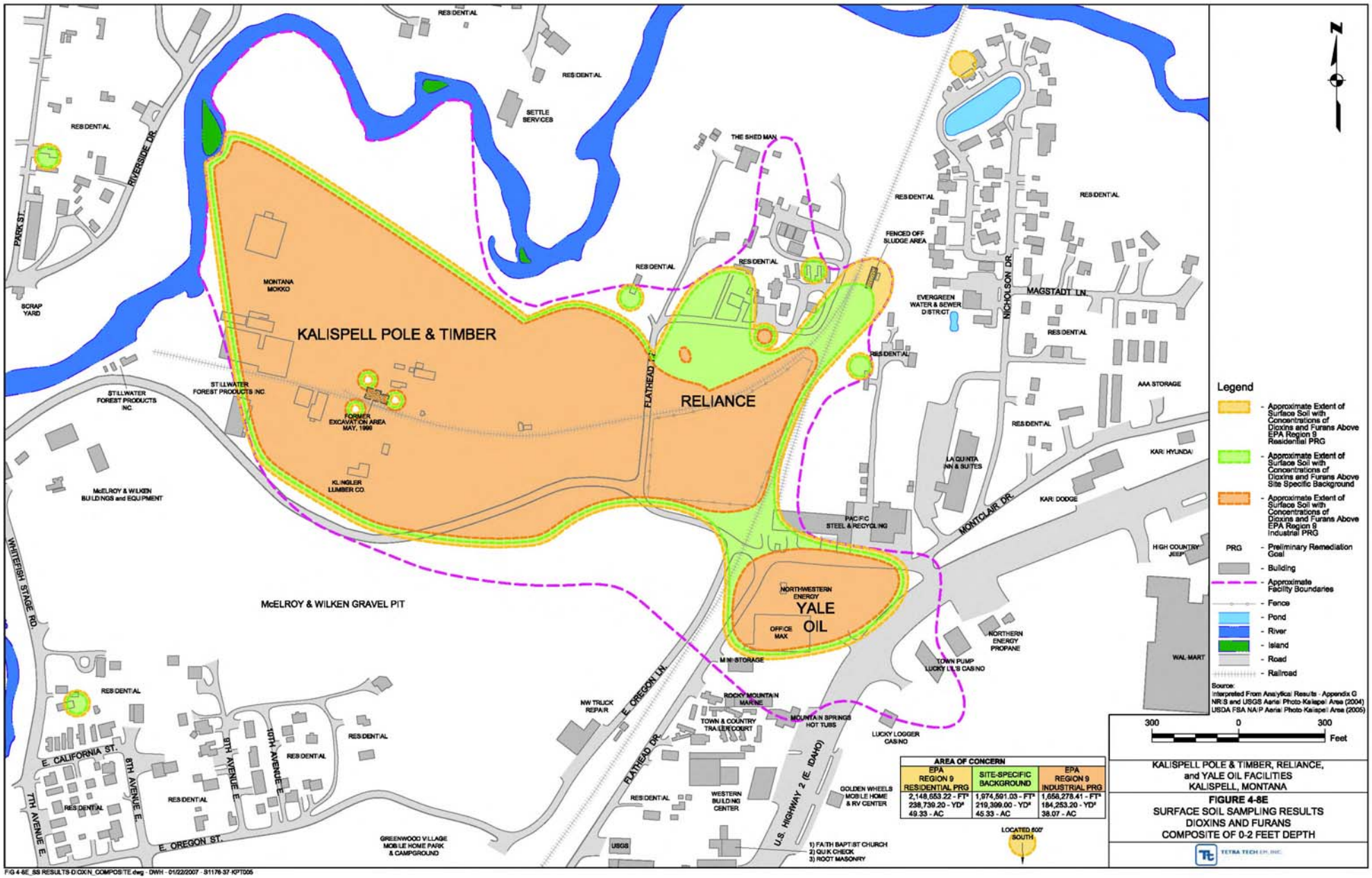


FIG 4-8D_SS RESULTS-DIOXIN_0-2FEET.dwg - DWH - 01/22/2007 - 811176-37-KPT005



AREA OF CONCERN		
EPA REGION 9 RESIDENTIAL PRG	SITE-SPECIFIC BACKGROUND	EPA REGION 9 INDUSTRIAL PRG
2,149,653.22 - FT²	1,974,591.03 - FT²	1,658,278.41 - FT²
238,739.20 - YD²	219,399.00 - YD²	184,253.20 - YD²
49.33 - AC	45.33 - AC	38.07 - AC

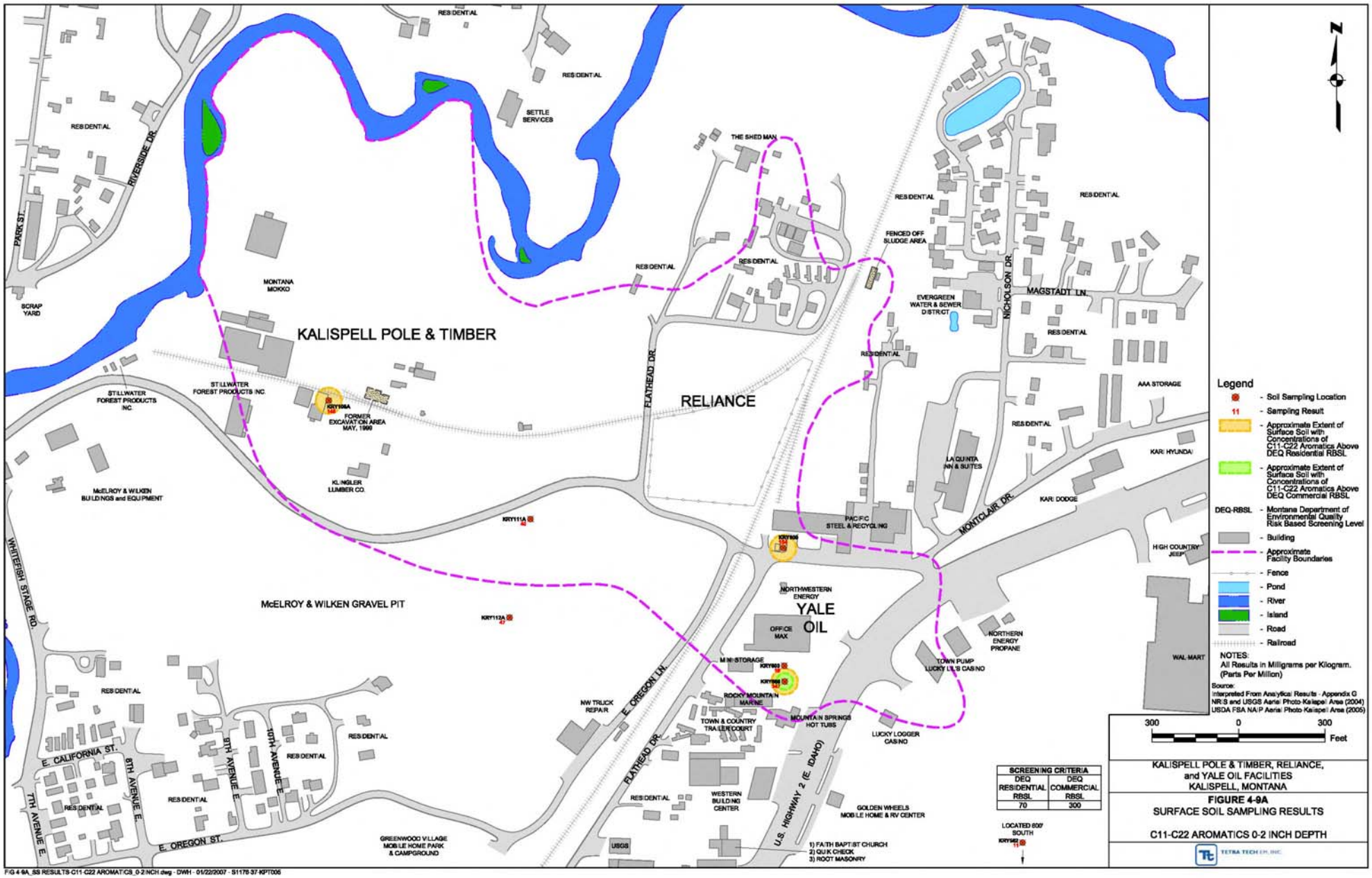


FIG 4-9A_SS RESULTS-C11-C22 AROMATICS_0-2 INCH.dwg - DWH - 01/22/2007 - S1176 37-KPT005

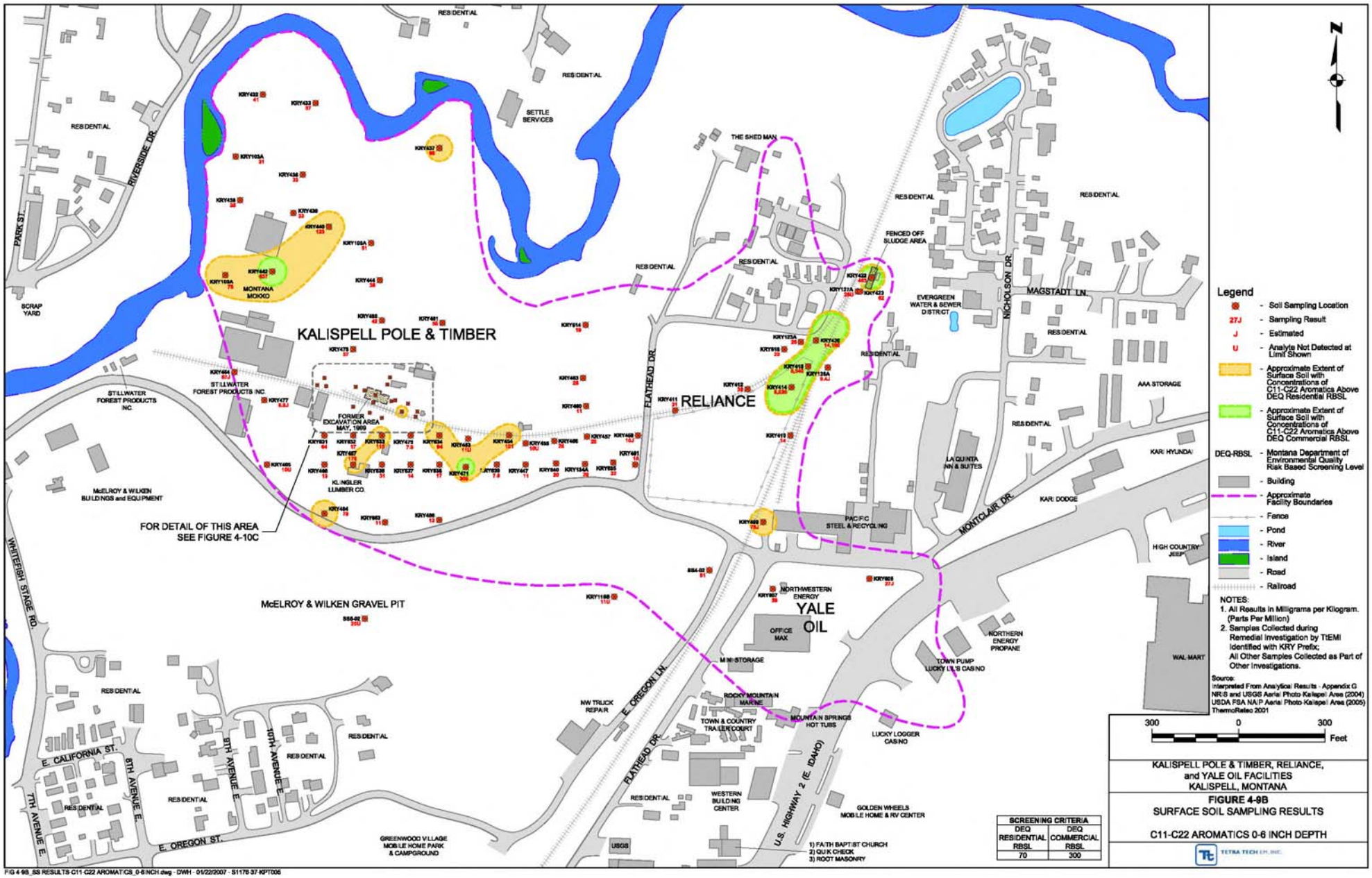
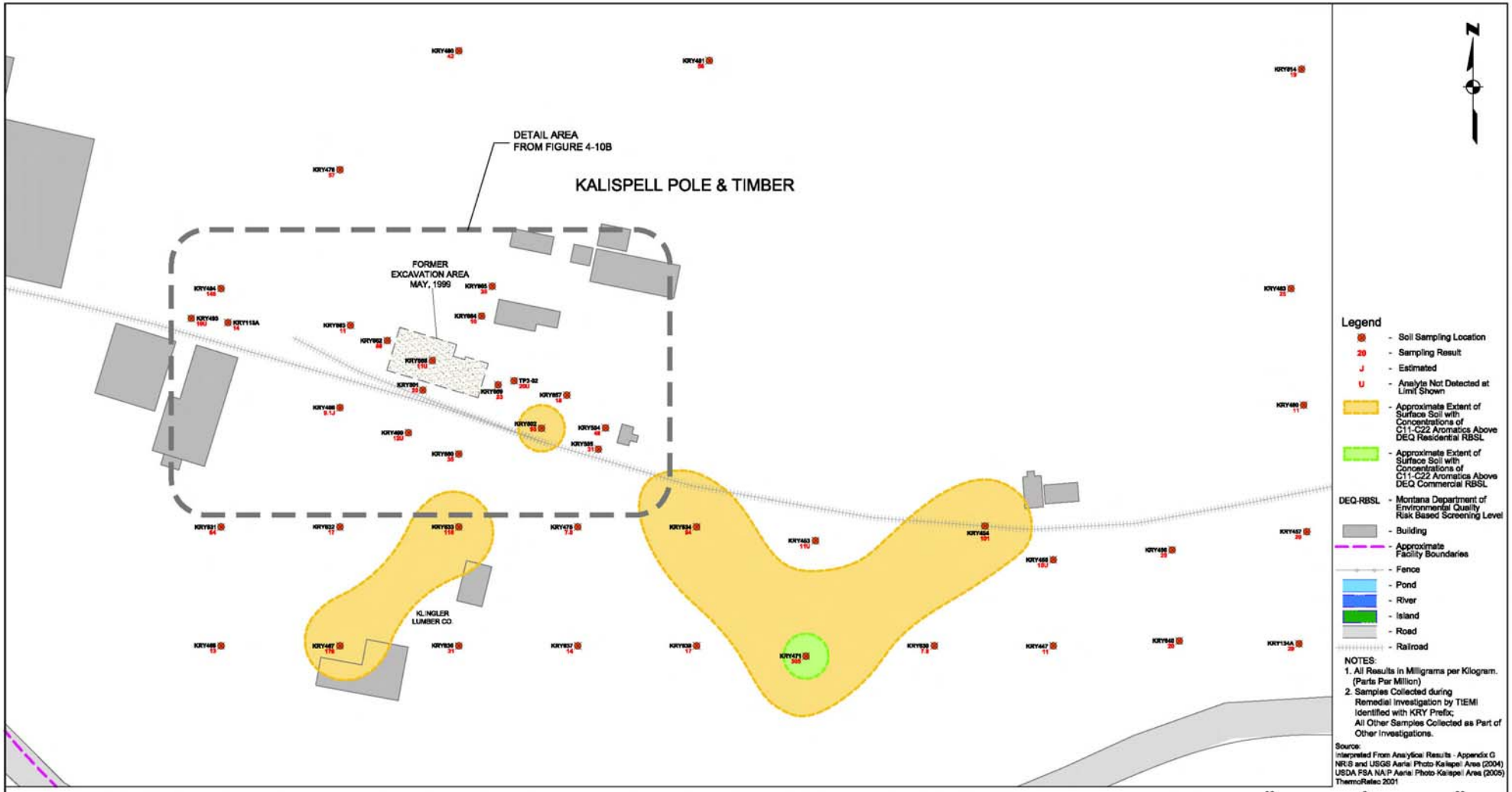


FIG 4-9B_SS RESULTS-C11-C22 AROMATICS_0-6INCH.dwg - DWH - 01/22/2007 - S1176 37-KPT005



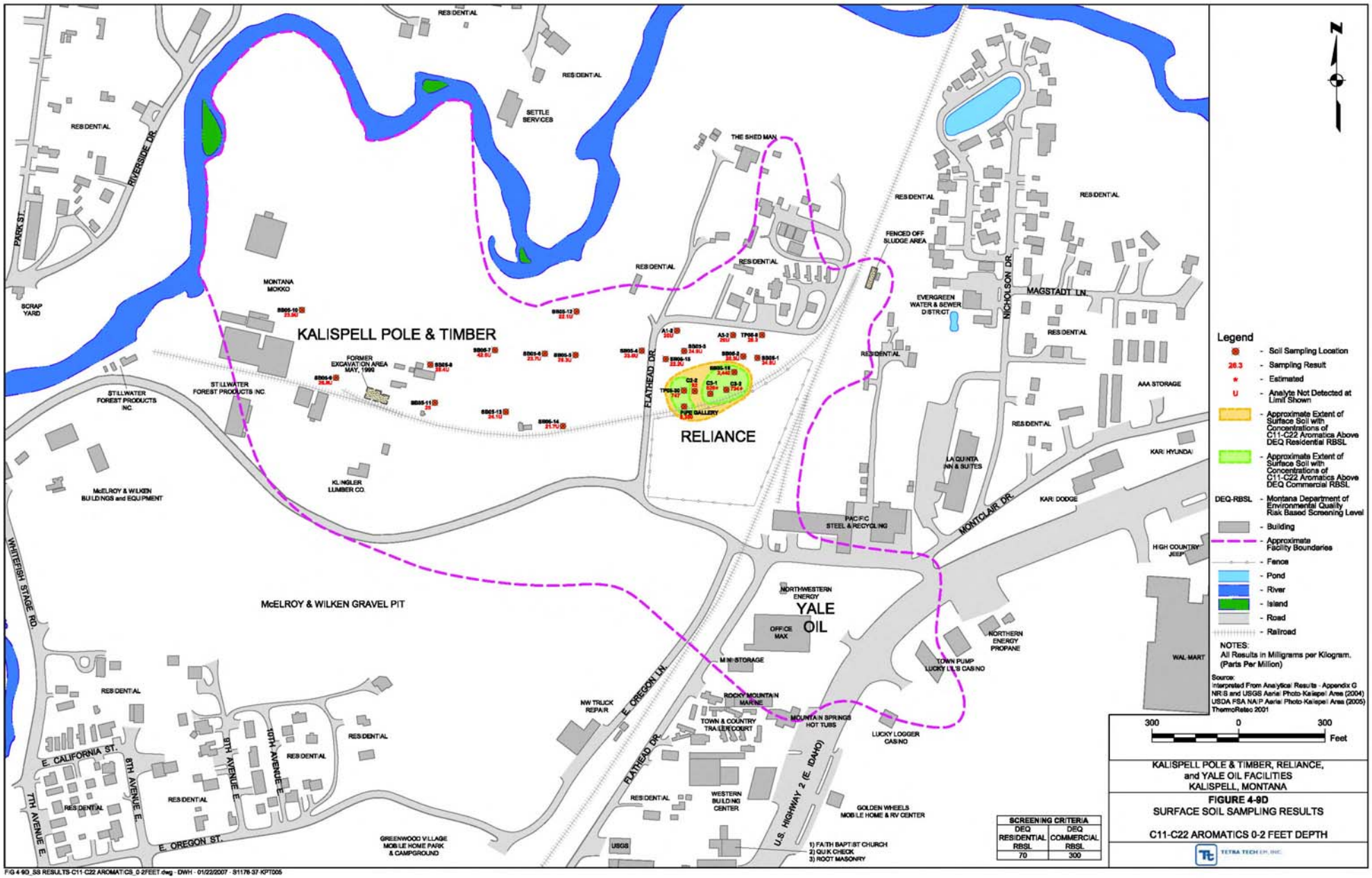
SCREENING CRITERIA	
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL
70	300

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-9C
SURFACE SOIL SAMPLING RESULTS
KPT AREA
C11-C22 AROMATICS 0-6 INCH DEPTH

TETRA TECH EM, INC.

FIG 4-9C_SS RESULTS-C11-C22 AROMATICS_0-6INCH_KPT.dwg - DWH - 01/22/2007 - S1178-37-KPT005



SCREENING CRITERIA	
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL
70	300

FIG 4-9D_SS RESULTS-C11-C22 AROMATICS_0-2FEET.dwg - DWH - 01/22/2007 - S1178-37-KPT005

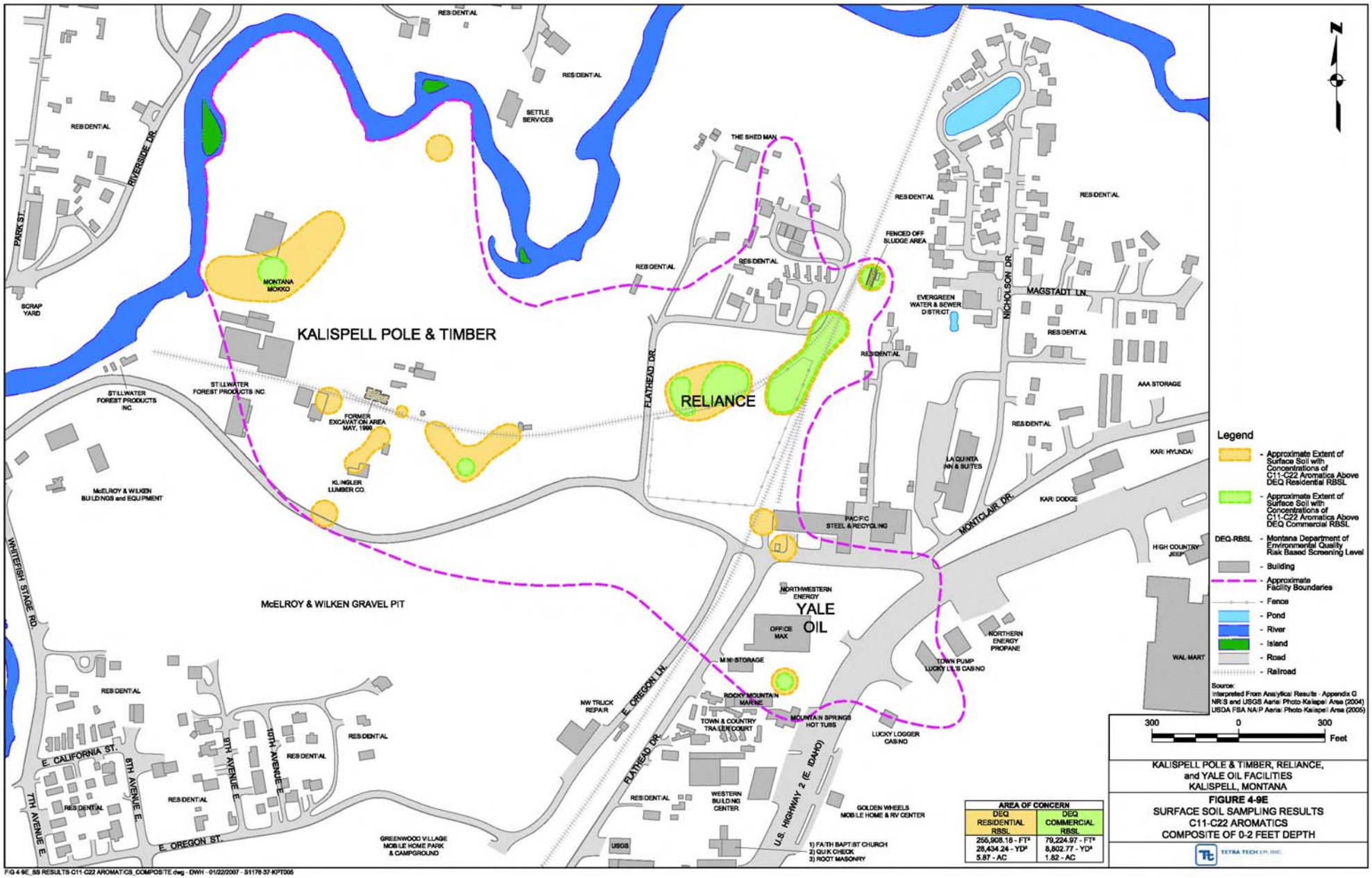
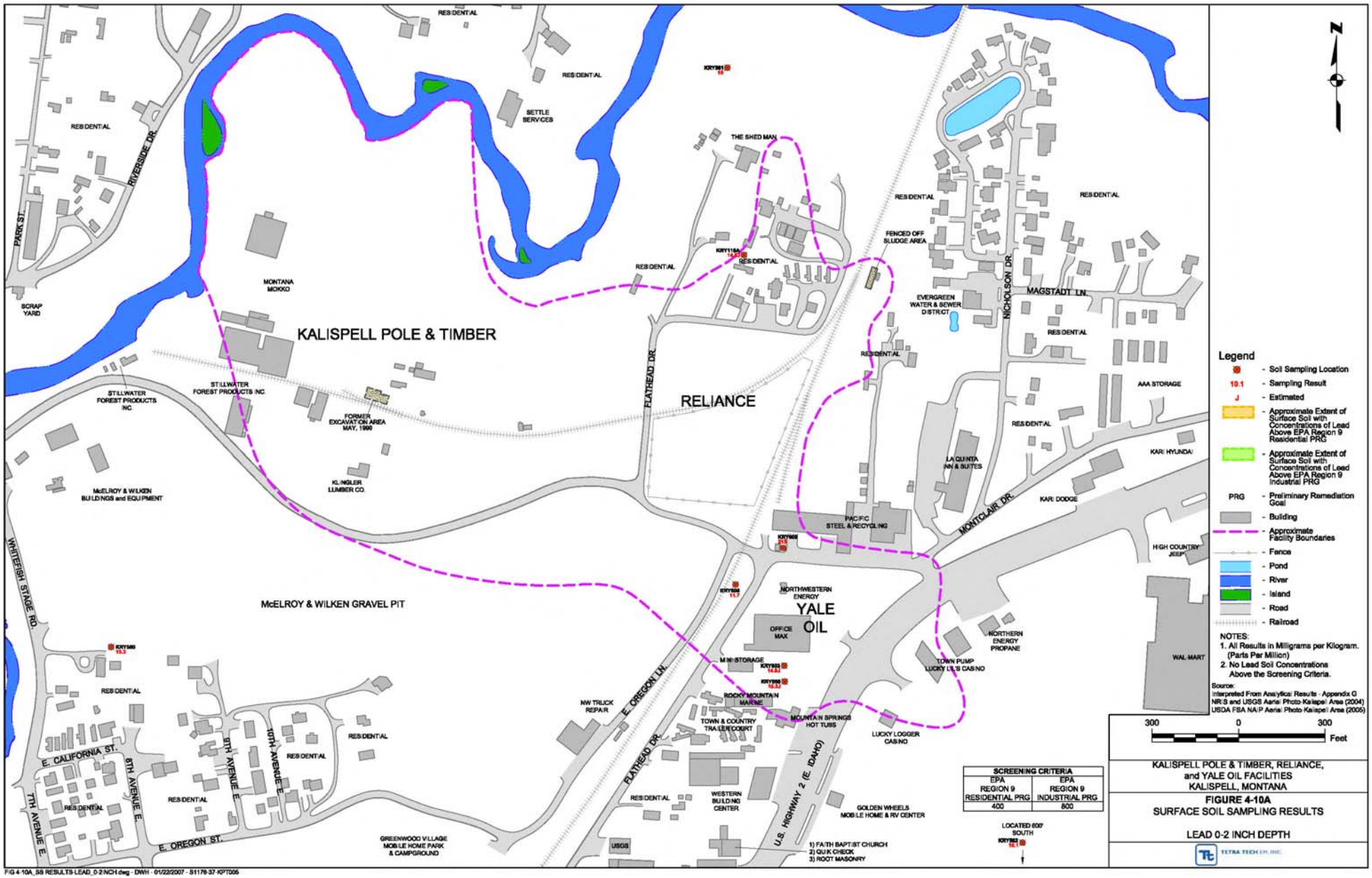


FIG 4-9E_SS RESULTS-C11-C22 AROMATICS_COMPOSITE.dwg - DWH - 01/22/2007 - S1178-37-KPT006



SCREENING CRITERIA	
EPA REGION 9 RESIDENTIAL PRG	EPA REGION 9 INDUSTRIAL PRG
400	800

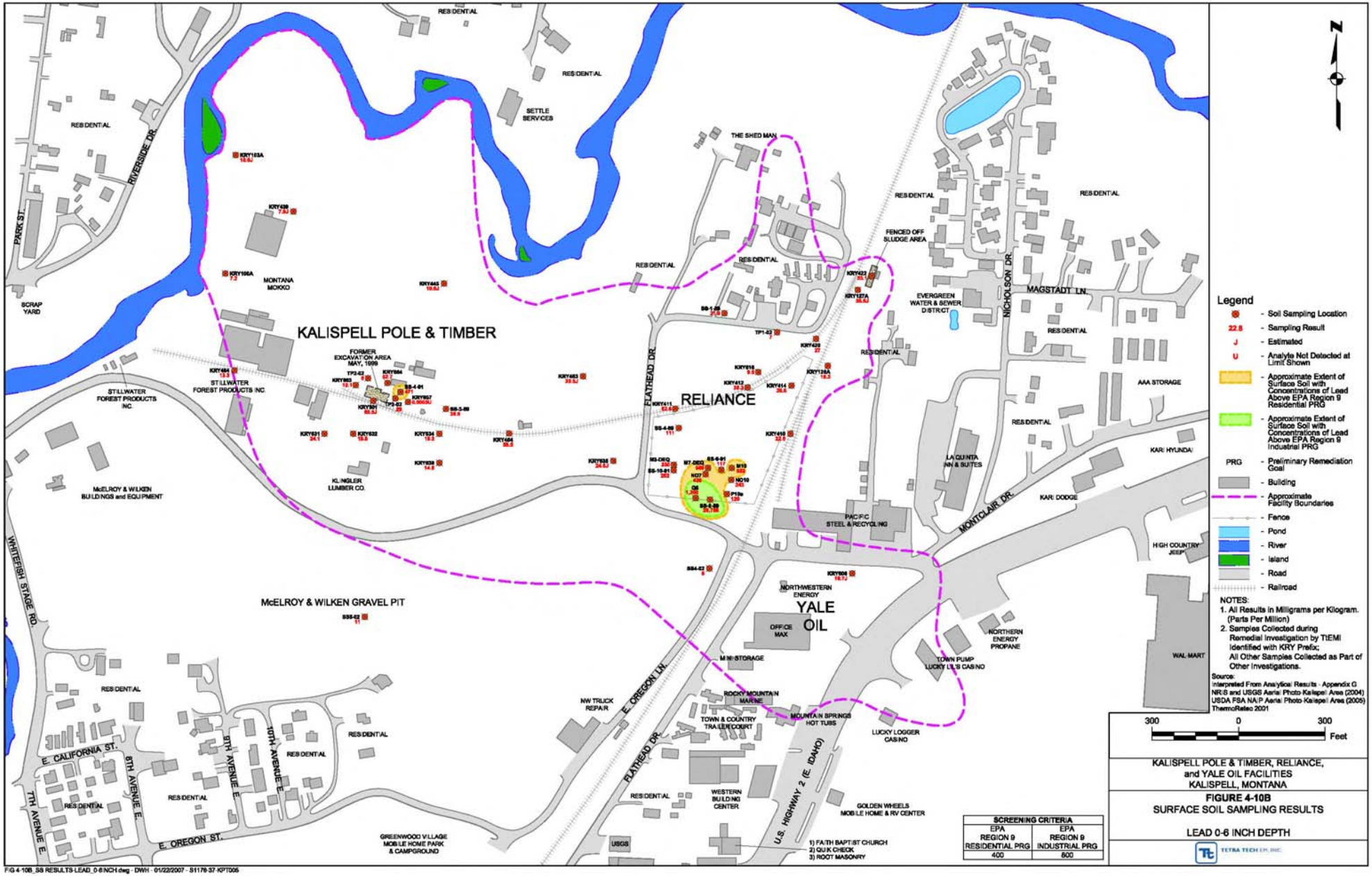
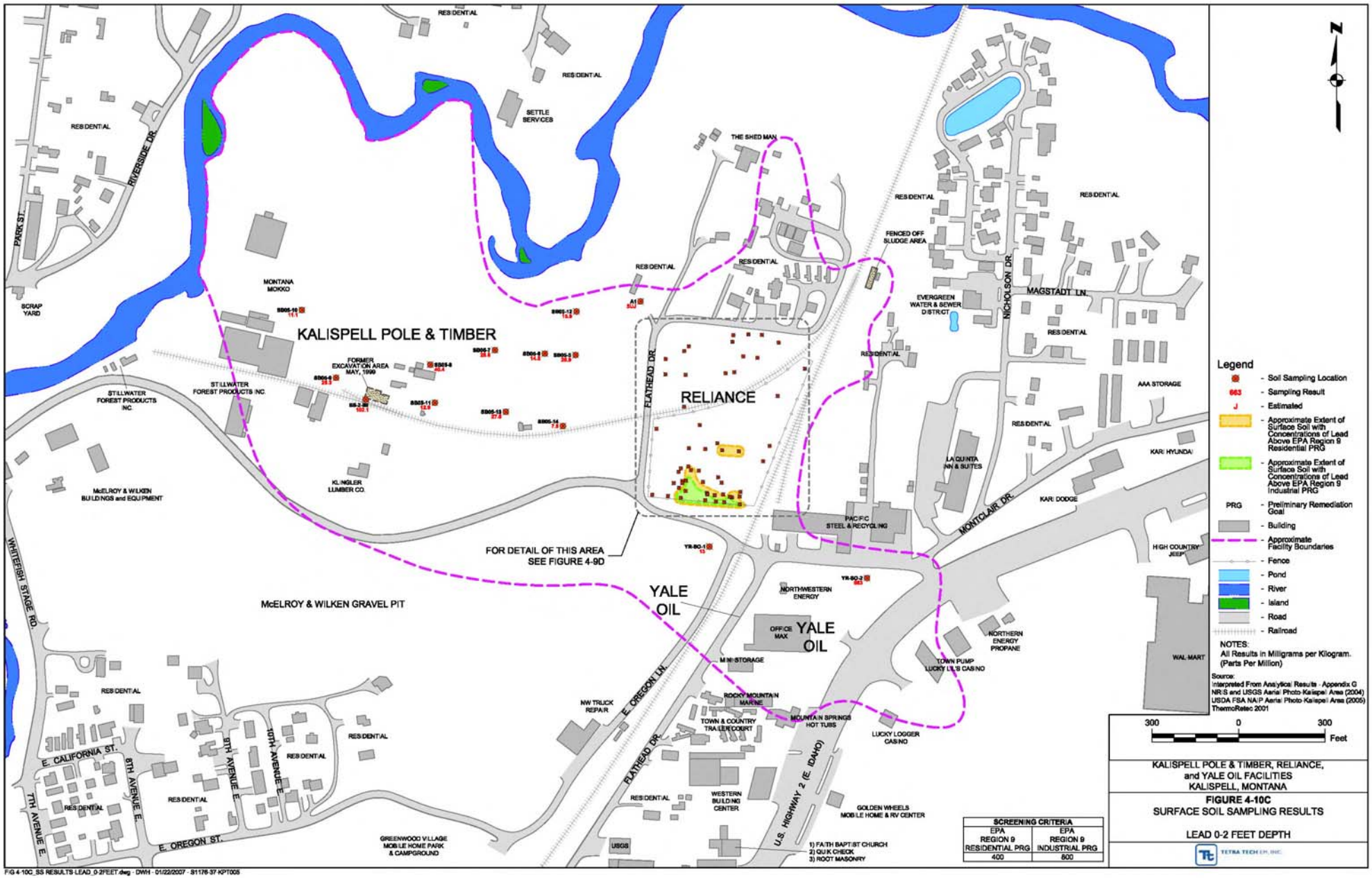


FIG 4-10B_SS RESULTS-LEAD_0-6INCH.dwg - DWH - 01/22/2007 - S1178-37-KPT005



SCREENING CRITERIA	
EPA REGION 9 RESIDENTIAL PRG	EPA REGION 9 INDUSTRIAL PRG
400	800

FIG 4-10D_SS RESULTS-LEAD_0-2FEET_RELIANCE.dwg - DWH - 01/22/2007 - S1178-37-KPT005

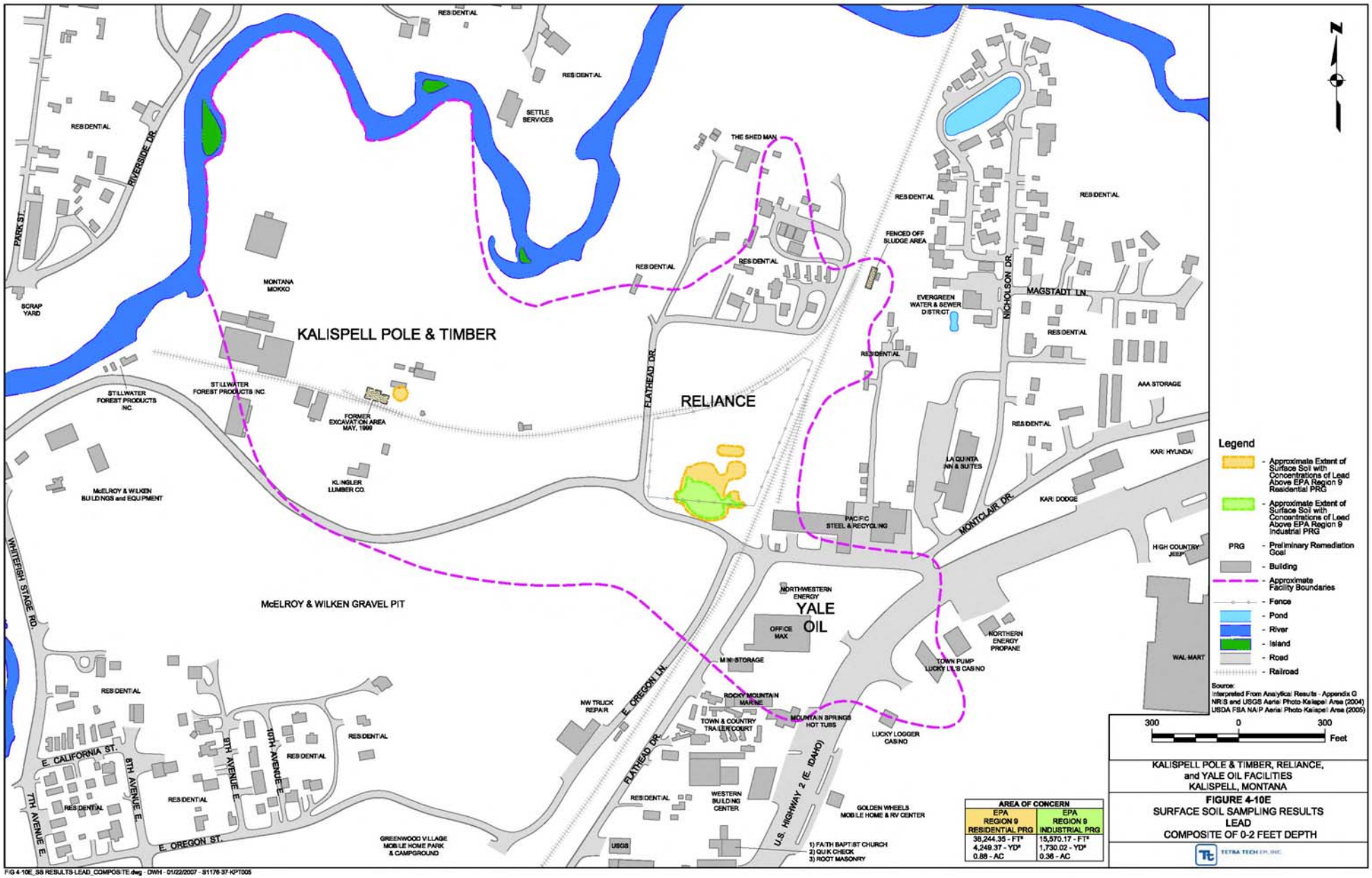
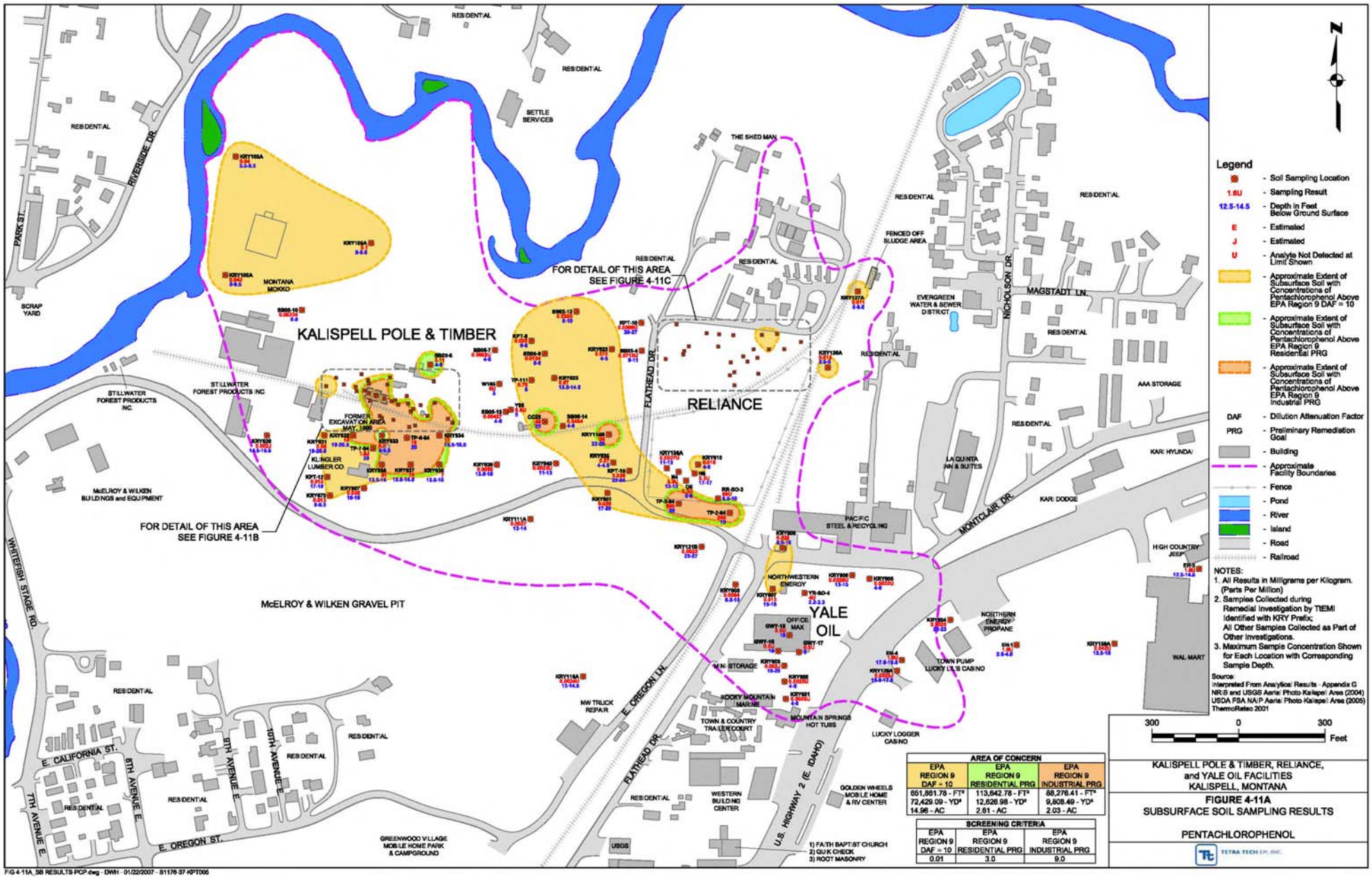
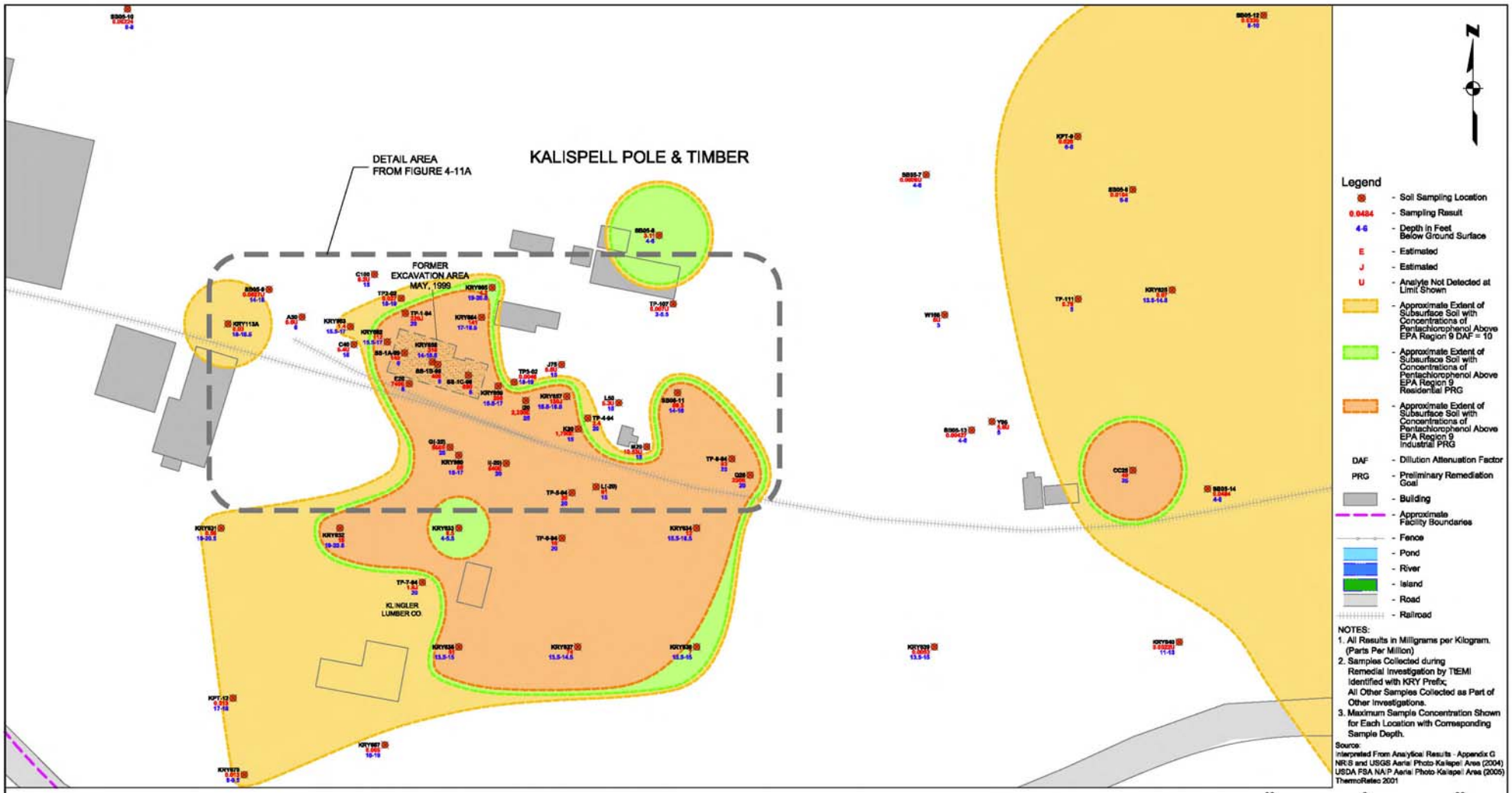


FIG 4-10E_SS RESULTS-LEAD_COMPOSITE.dwg - DWH - 01/22/2007 - S1176-37-KPT005


KALISPELL POLE & TIMBER
RELIANCE
YALE OIL
McELROY & WILKEN GRAVEL PIT
MONTANA MOKKO
STILLWATER FOREST PRODUCTS INC.
KLINGLER LUMBER CO.
FORMER EXCAVATION AREA MAY 1999
FOR DETAIL OF THIS AREA SEE FIGURE 4-11C
FOR DETAIL OF THIS AREA SEE FIGURE 4-11B
RESIDENTIAL
SETTLE SERVICES
THE SHED MAN
FENCED OFF SLUDGE AREA
EVERGREEN WATER & SEWER DISTRICT
MAGSTADT LN.
NICHOLSON DR.
AAA STORAGE
LA QUINTA INN & SUITES
KAR: HYUNDAI
KAR: DODGE
MONTCLAIR DR.
HIGH COUNTRY JEEP
WAL-MART
PACIFIC STEEL & RECYCLING
NORTHWESTERN ENERGY
NORTHERN ENERGY PROPANE
TOWN PUMP
LUCKY LIL'S CASINO
LUCKY LOGGER CASINO
MOUNTAIN SPRINGS HOT TUBS
ROCKY MOUNTAIN MARINE
TOWN & COUNTRY TRAILER COURT
MINI STORAGE
NW TRUCK REPAIR
E. OREGON LN.
FLATHEAD DR.
U.S. HIGHWAY 2 (E. IDAHO)
WESTERN BUILDING CENTER
GOLDEN WHEELS MOBILE HOME & RV CENTER
1) FAITH BAPTIST CHURCH
2) QUICK CHECK
3) ROOT MASONRY
USGS
GREENWOOD VILLAGE MOBILE HOME PARK & CAMPGROUND
E. OREGON ST.
E. CALIFORNIA ST.
7TH AVENUE E.
8TH AVENUE E.
10TH AVENUE E.
WHITEFISH STAGE RD.
PARK ST.
RIVERSIDE DR.
SCRAP YARD
Legend
- Soil Sampling Location
1.6U - Sampling Result
12.5-14.5 - Depth in Feet Below Ground Surface
E - Estimated
J - Estimated
U - Analyte Not Detected at Limit Shown
- Approximate Extent of Subsurface Soil with Concentrations of Pentachlorophenol Above EPA Region 9 DAF = 10
- Approximate Extent of Subsurface Soil with Concentrations of Pentachlorophenol Above EPA Region 9 Residential PRG
- Approximate Extent of Subsurface Soil with Concentrations of Pentachlorophenol Above EPA Region 9 Industrial PRG
DAF - Dilution Attenuation Factor
PRG - Preliminary Remediation Goal
- Building
- Approximate Facility Boundaries
- Fence
- Pond
- River
- Island
- Road
- Railroad
NOTES:
1. All Results in Milligrams per Kilogram. (Parts Per Million)
2. Samples Collected during Remedial Investigation by TtEMI Identified with KRY Prefix; All Other Samples Collected as Part of Other Investigations.
3. Maximum Sample Concentration Shown for Each Location with Corresponding Sample Depth.
Source:
Interpreted From Analytical Results - Appendix G
NRIS and USGS Aerial Photo-Kalispell Area (2004)
USDA FSA NAIP Aerial Photo-Kalispell Area (2005)
ThermoRetec 2001
300 0 300 Feet
AREA OF CONCERN
EPA REGION 9 DAF = 10: 651,861.78 - FT² / 72,429.09 - YD² / 14.96 - AC
EPA REGION 9 RESIDENTIAL PRG: 113,642.78 - FT² / 12,626.98 - YD² / 2.61 - AC
EPA REGION 9 INDUSTRIAL PRG: 88,276.41 - FT² / 9,808.49 - YD² / 2.03 - AC
SCREENING CRITERIA
EPA REGION 9 DAF = 10: 0.01
EPA REGION 9 RESIDENTIAL PRG: 3.0
EPA REGION 9 INDUSTRIAL PRG: 9.0
KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA
FIGURE 4-11A
SUBSURFACE SOIL SAMPLING RESULTS
PENTACHLOROPHENOL
TETRA TECH EM, INC.
FIG 4-11A_SB RESULTS-PCP.dwg - DWH - 01/22/2007 - 81176-37-KPT005



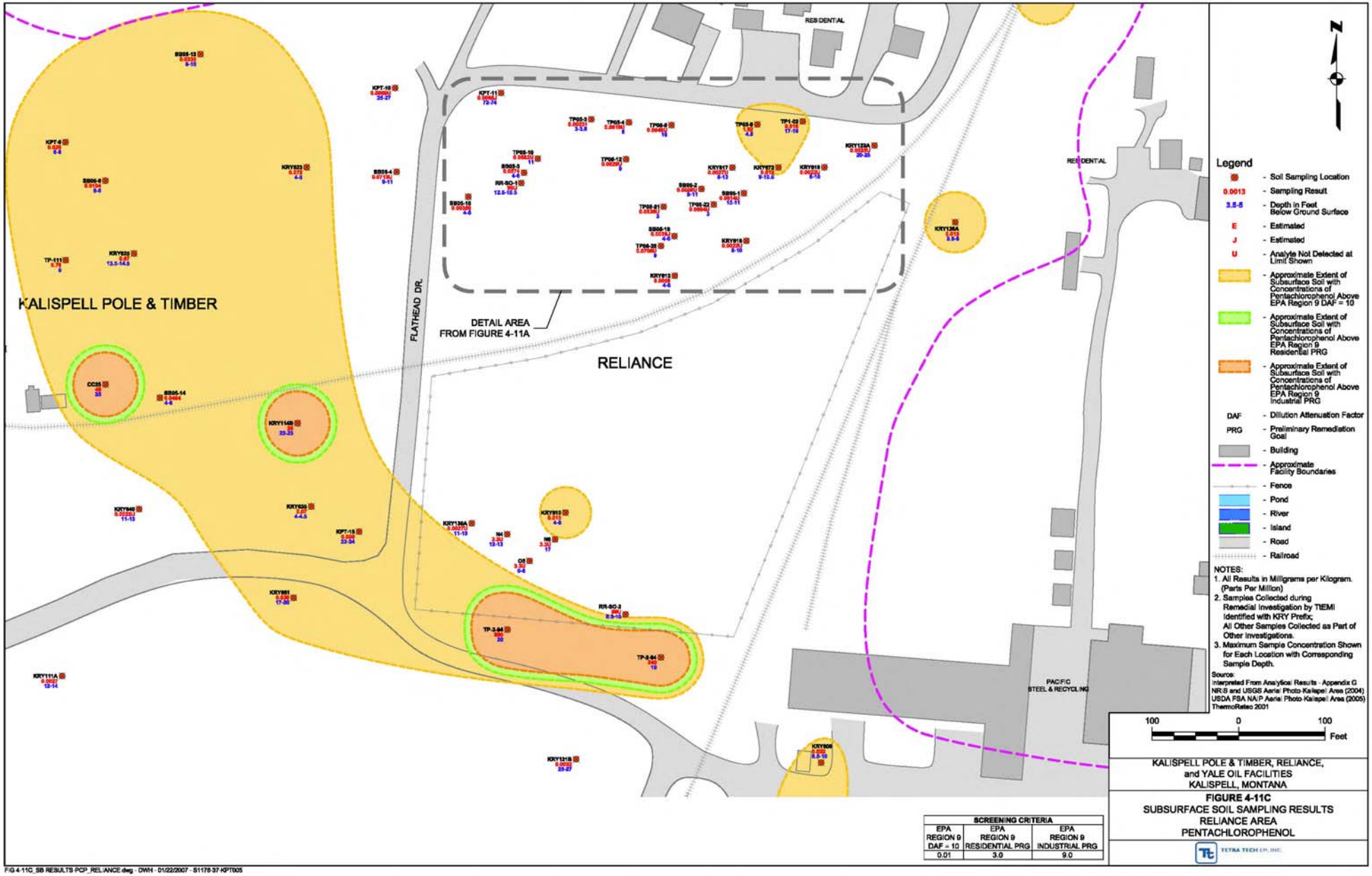
SCREENING CRITERIA		
EPA REGION 9 DAF = 10	EPA REGION 9 RESIDENTIAL PRG	EPA REGION 9 INDUSTRIAL PRG
0.01	3.0	9.0

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-11B
SUBSURFACE SOIL SAMPLING RESULTS
KPT AREA
PENTACHLOROPHENOL

TETRA TECH EM, INC.

FIG 4-11B_SS RESULTS-PCP_KPT.dwg - DWH - 01/22/2007 - 91176 37-KPT005



SCREENING CRITERIA		
EPA REGION 9 DAF = 10	EPA REGION 9 RESIDENTIAL PRG	EPA REGION 9 INDUSTRIAL PRG
0.01	3.0	9.0

FIG 4-11C_SB RESULTS-PCP_RELIANCE.dwg - DWH - 01/22/2007 - S1178-37-KPT005

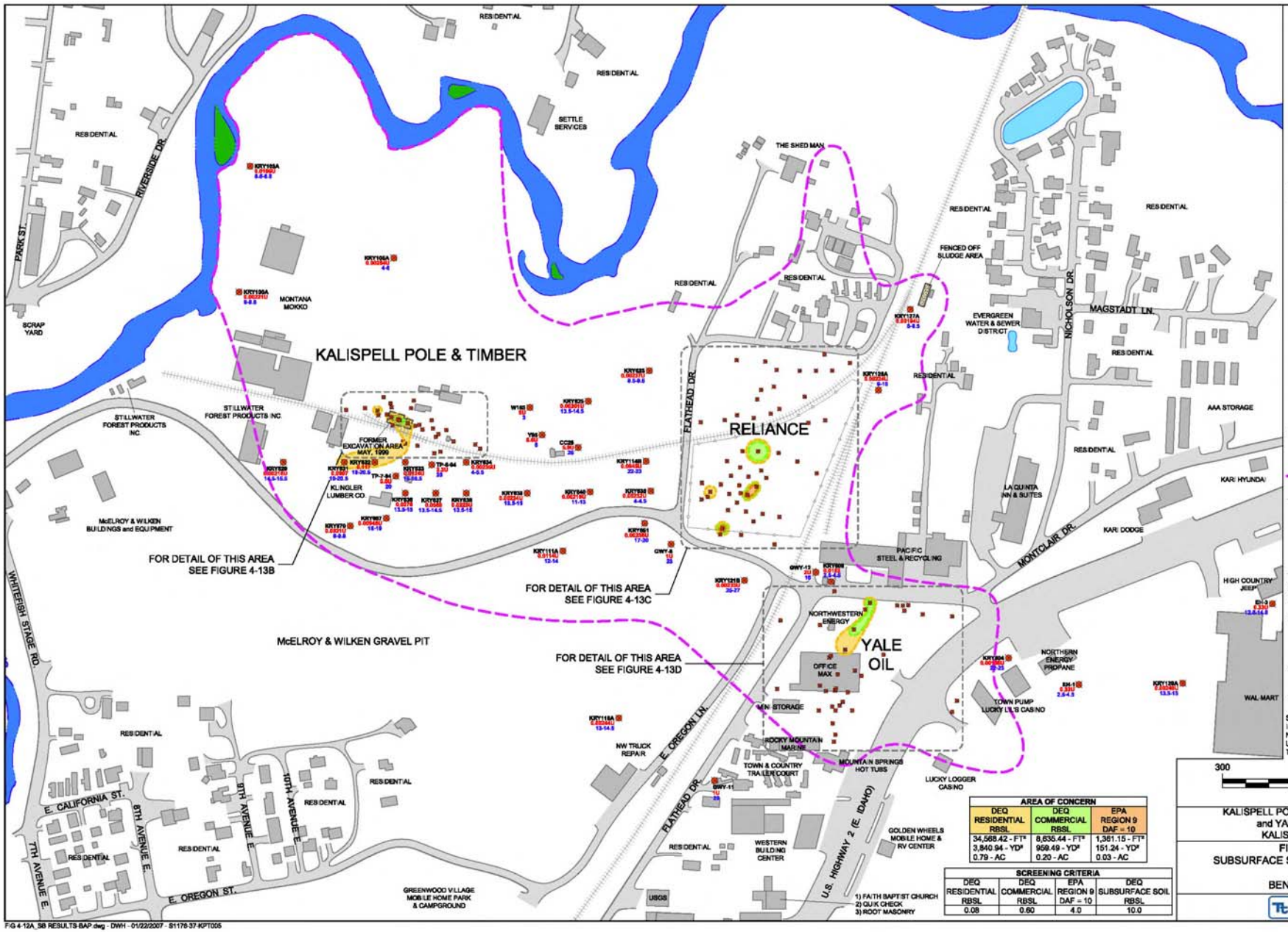
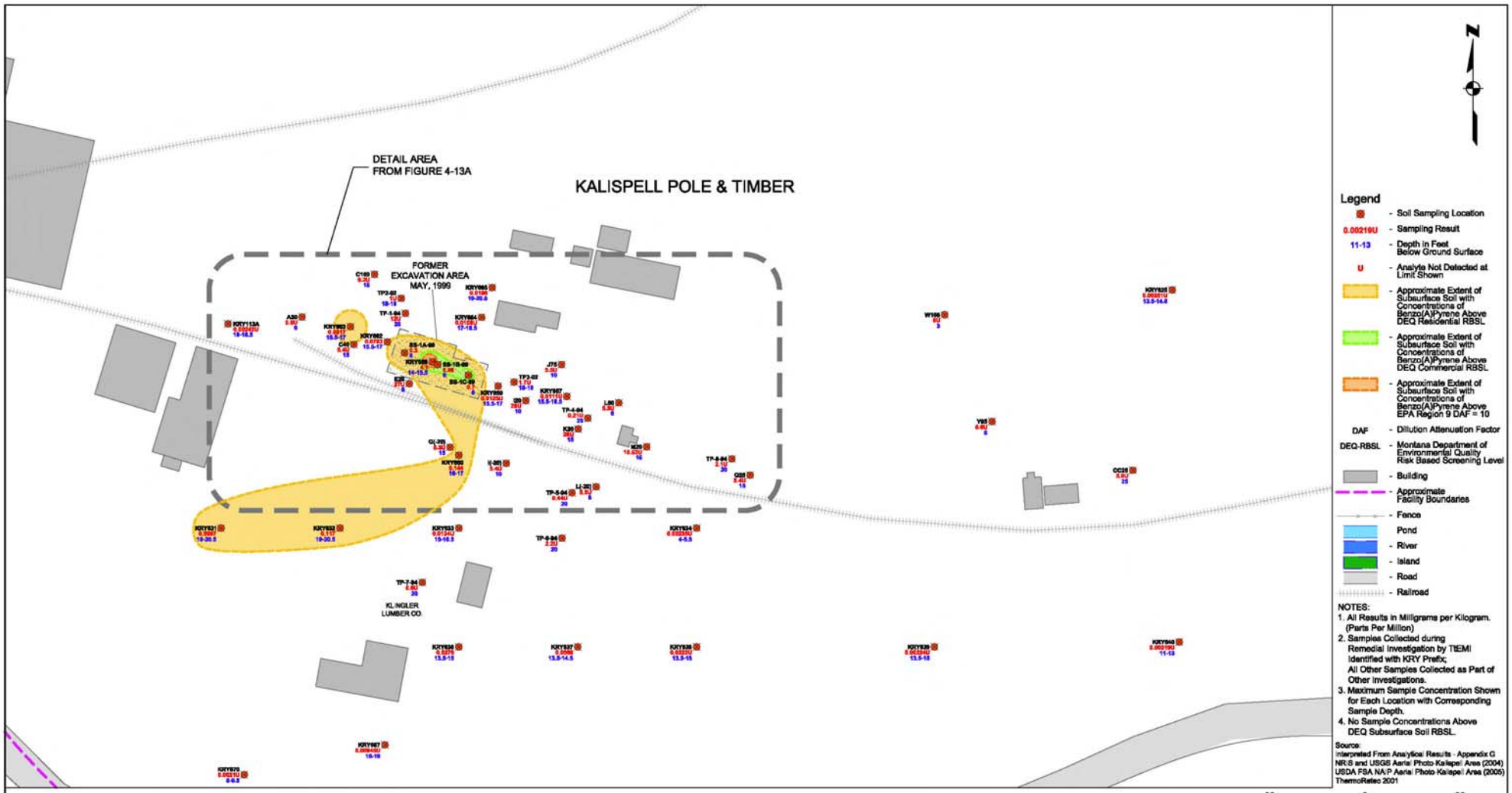


FIG 4-12A_SB RESULTS-BAP.dwg - DWH - 01/22/2007 - S1178 37-KPT005



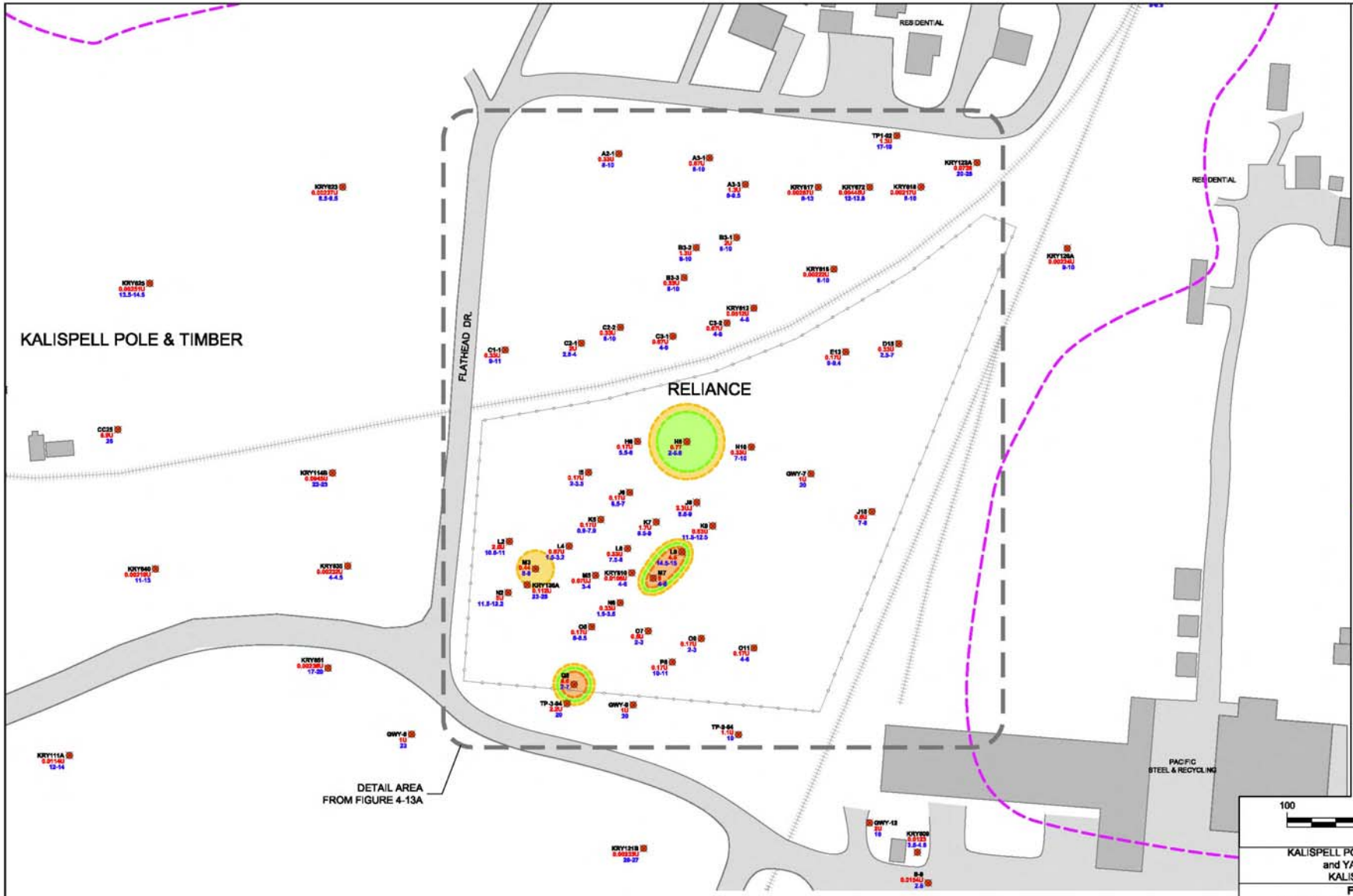
SCREENING CRITERIA			
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL	EPA REGION 9 DAF = 10	DEQ SUBSURFACE SOIL RBSL
0.08	0.60	4.0	10.0

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-12B
SUBSURFACE SOIL SAMPLING RESULTS
KPT AREA
BENZO(A)PYRENE

TETRA TECH EM, INC.

FIG 4-12B_SB RESULTS-BAP_KPT.dwg - DWH - 01/22/2007 - S1176-37-KPT005



Legend

- Soil Sampling Location
- 0.33U - Sampling Result
- 2.5-7 - Depth in Feet Below Ground Surface
- U - Analyte Not Detected at Limit Shown
- Approximate Extent of Subsurface Soil with Concentrations of Benzo(A)Pyrene Above DEQ Residential RBSL
- Approximate Extent of Subsurface Soil with Concentrations of Benzo(A)Pyrene Above DEQ Commercial RBSL
- Approximate Extent of Subsurface Soil with Concentrations of Benzo(A)Pyrene Above EPA Region 9 DAF = 10
- DAF - Dilution Attenuation Factor
- DEQ-RBSL - Montana Department of Environmental Quality Risk Based Screening Level
- Building
- Approximate Facility Boundaries
- Fence
- Pond
- River
- Island
- Road
- Railroad

NOTES:
1. All Results in Milligrams per Kilogram. (Parts Per Million)
2. Samples Collected during Remedial Investigation by TtEMI Identified with KRY Prefix; All Other Samples Collected as Part of Other Investigations.
3. Maximum Sample Concentration Shown for Each Location with Corresponding Sample Depth.
4. No Sample Concentrations Above DEQ Subsurface Soil RBSL.

Source:
Interpreted From Analytical Results - Appendix G
NRIS and USGS Aerial Photo-Kalispell Area (2004)
USDA FSA NAIP Aerial Photo-Kalispell Area (2005)
ThermoRetec 2001

100 0 100 Feet

SCREENING CRITERIA			
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL	EPA REGION 9 DAF = 10	DEQ SUBSURFACE SOIL RBSL
0.08	0.60	4.0	10.0

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-12C
SUBSURFACE SOIL SAMPLING RESULTS
RELIANCE AREA
BENZO(A)PYRENE

TETRA TECH EM, INC.

FIG 4-12C_SB RESULTS-BAP_RELIANCE.dwg - DWH - 01/22/2007 - S1179-37-KPT005

Legend

- Soil Sampling Location
- 0.33U - Sampling Result
- 2.5-4.5 - Depth in Feet Below Ground Surface
- U - Analyte Not Detected at Limit Shown
- Approximate Extent of Subsurface Soil with Concentrations of Benzo(A)Pyrene Above DEQ Residential RBSL
- Approximate Extent of Subsurface Soil with Concentrations of Benzo(A)Pyrene Above DEQ Commercial RBSL
- Approximate Extent of Subsurface Soil with Concentrations of Benzo(A)Pyrene Above EPA Region 9 DAF = 10
- DAF - Dilution Attenuation Factor
- DEQ-RBSL - Montana Department of Environmental Quality Risk Based Screening Level
- Building
- Approximate Facility Boundaries
- Fence
- Pond
- River
- Island
- Road
- Railroad

NOTES:
1. All Results in Milligrams per Kilogram. (Parts Per Million)
2. Samples Collected during Remedial Investigation by TtEMI Identified with KRY Prefix; All Other Samples Collected as Part of Other Investigations.
3. Maximum Sample Concentration Shown for Each Location with Corresponding Sample Depth.
4. No Sample Concentrations Above DEQ Subsurface Soil RBSL.

Source:
Interpreted From Analytical Results - Appendix G
NRIS and USGS Aerial Photo-Kalispell Area (2004)
USDA FSA NAIP Aerial Photo-Kalispell Area (2005)
ThermoRetec 2001

80 0 80 Feet

SCREENING CRITERIA			
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL	EPA REGION 9 DAF = 10	DEQ SUBSURFACE SOIL RBSL
0.08	0.60	4.0	10.0

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-12D
SUBSURFACE SOIL SAMPLING RESULTS
YALE OIL AREA
BENZO(A)PYRENE

TETRA TECH EM, INC.

FIG 4-12D_SB RESULTS-BAP_YALE.dwg - DWH - 01/22/2007 - S1176 37-KPT005

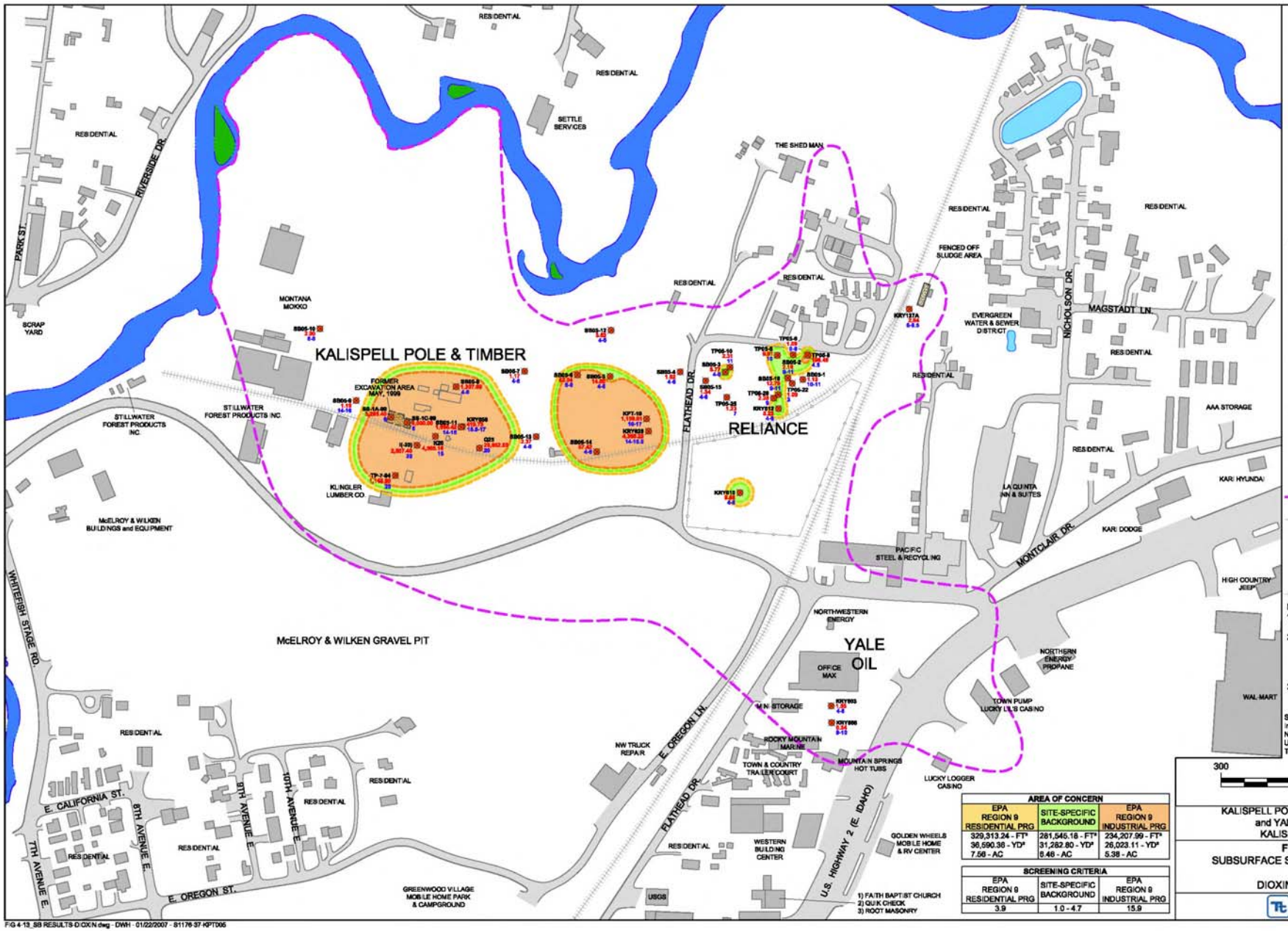


FIG 4-13_SS RESULTS-DIOXIN.dwg - DWH - 01/22/2007 - S1176-37-KPT005

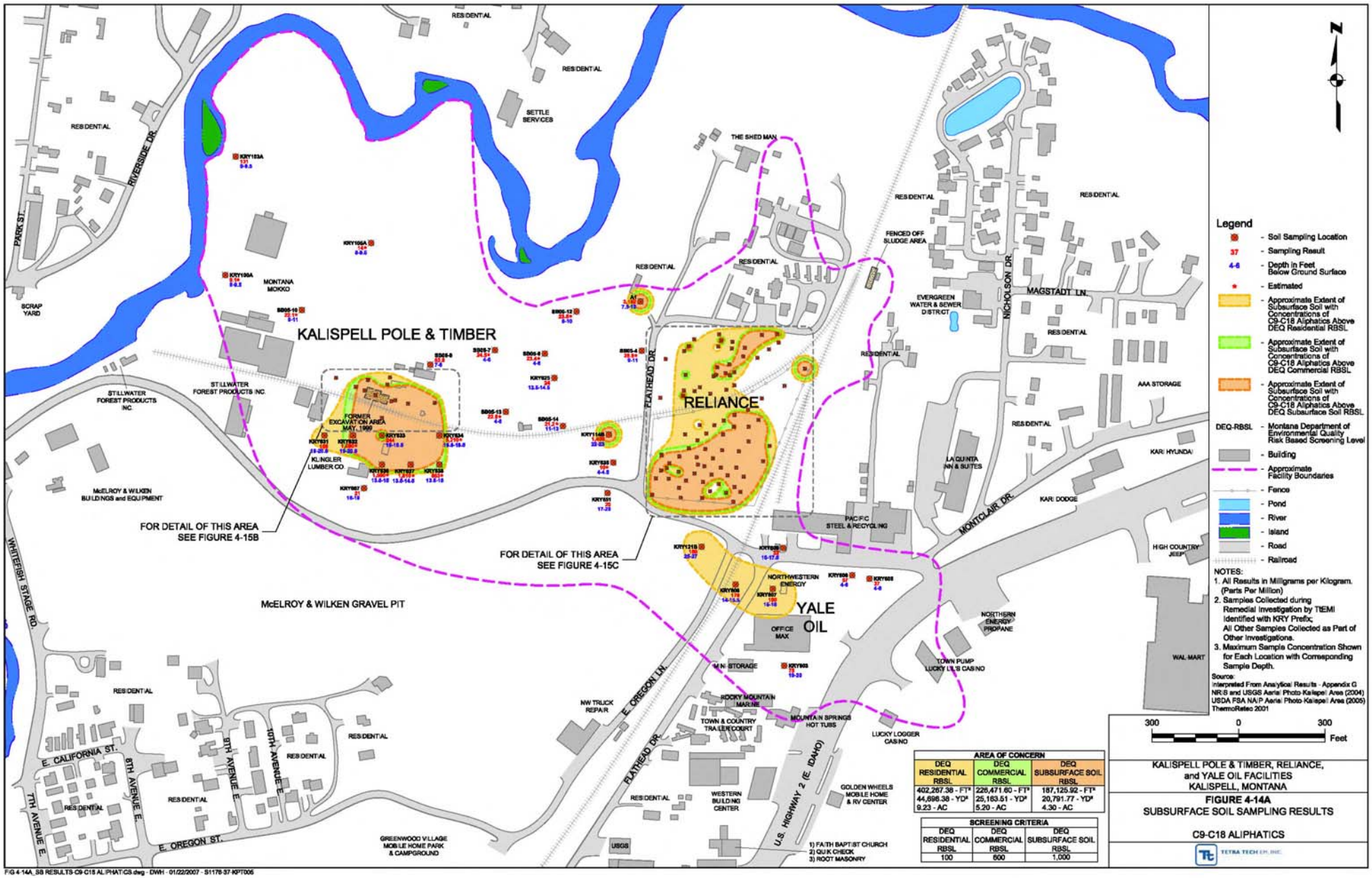
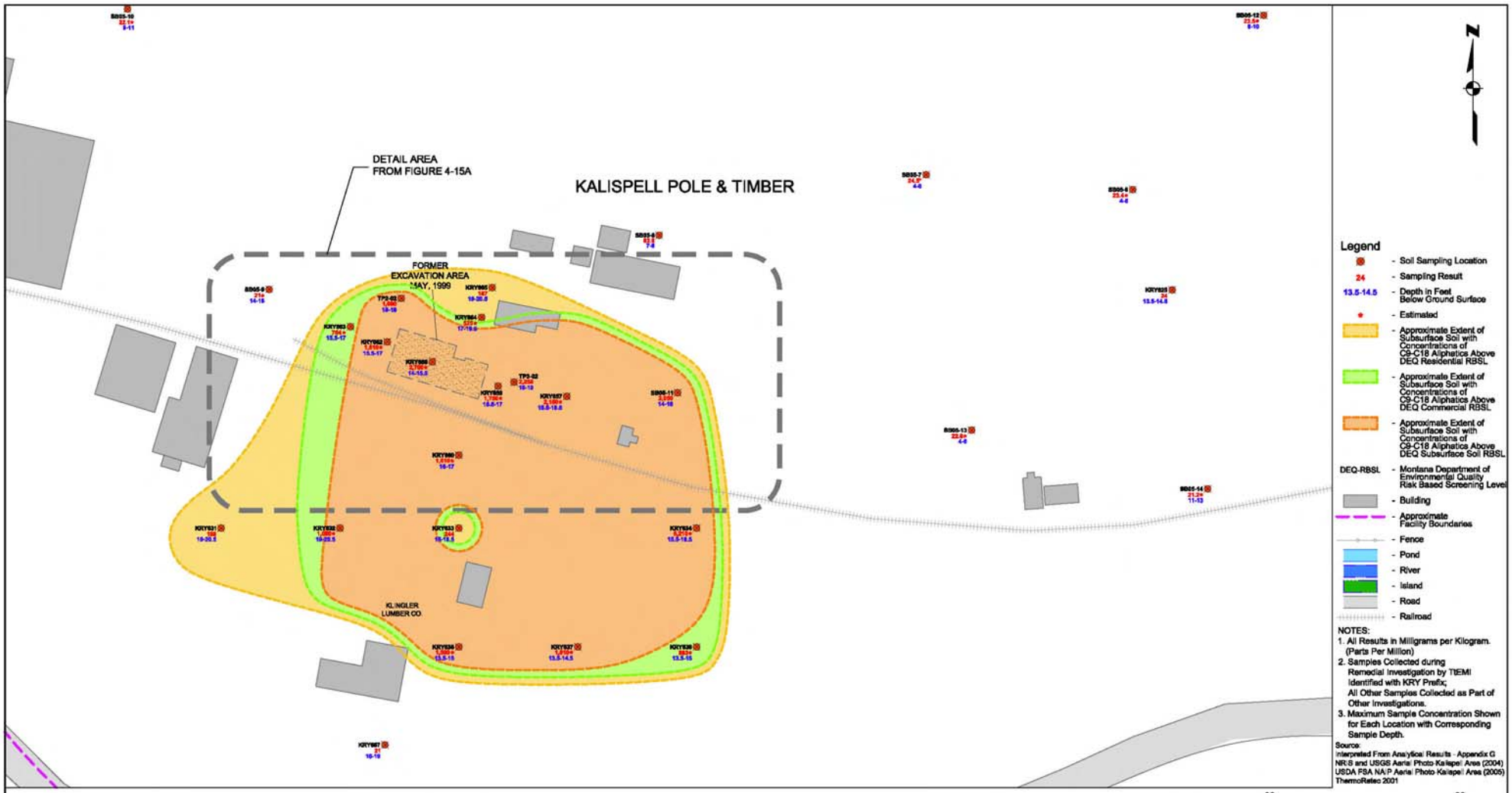


FIG 4-14A_SS RESULTS-C9-C18 ALIPHATICS.dwg - DWH - 01/22/2007 - S1176-37-KPT006



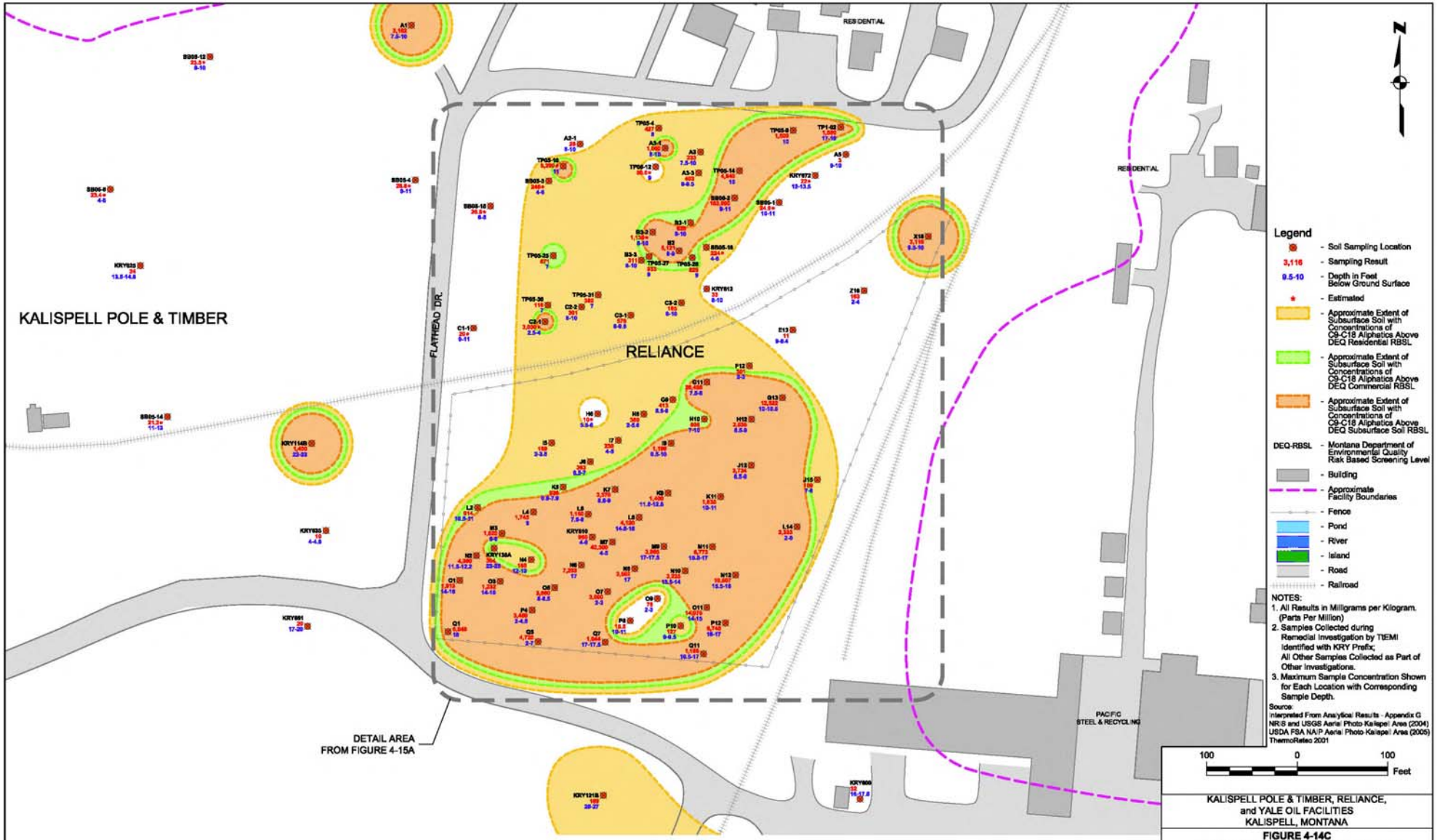
SCREENING CRITERIA		
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL	DEQ SUBSURFACE SOIL RBSL
100	600	1,000

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-14B
SUBSURFACE SOIL SAMPLING RESULTS
KPT AREA
C9-C18 ALIPHATICS

TETRA TECH EM, INC.

FIG 4-14B_SB RESULTS-C9-C18 ALIPHATICS_KPT.dwg - DWH - 01/22/20076 - 31176-37-KPT005



SCREENING CRITERIA		
DEQ RESIDENTIAL RBSL	DEQ COMMERCIAL RBSL	DEQ SUBSURFACE SOIL RBSL
100	600	1,000

FIG 4-14C_SB RESULTS C9-C18 ALIPHATICS_RELIANCE.dwg - DWH - 01/22/2007 - S1176-37-KPT005

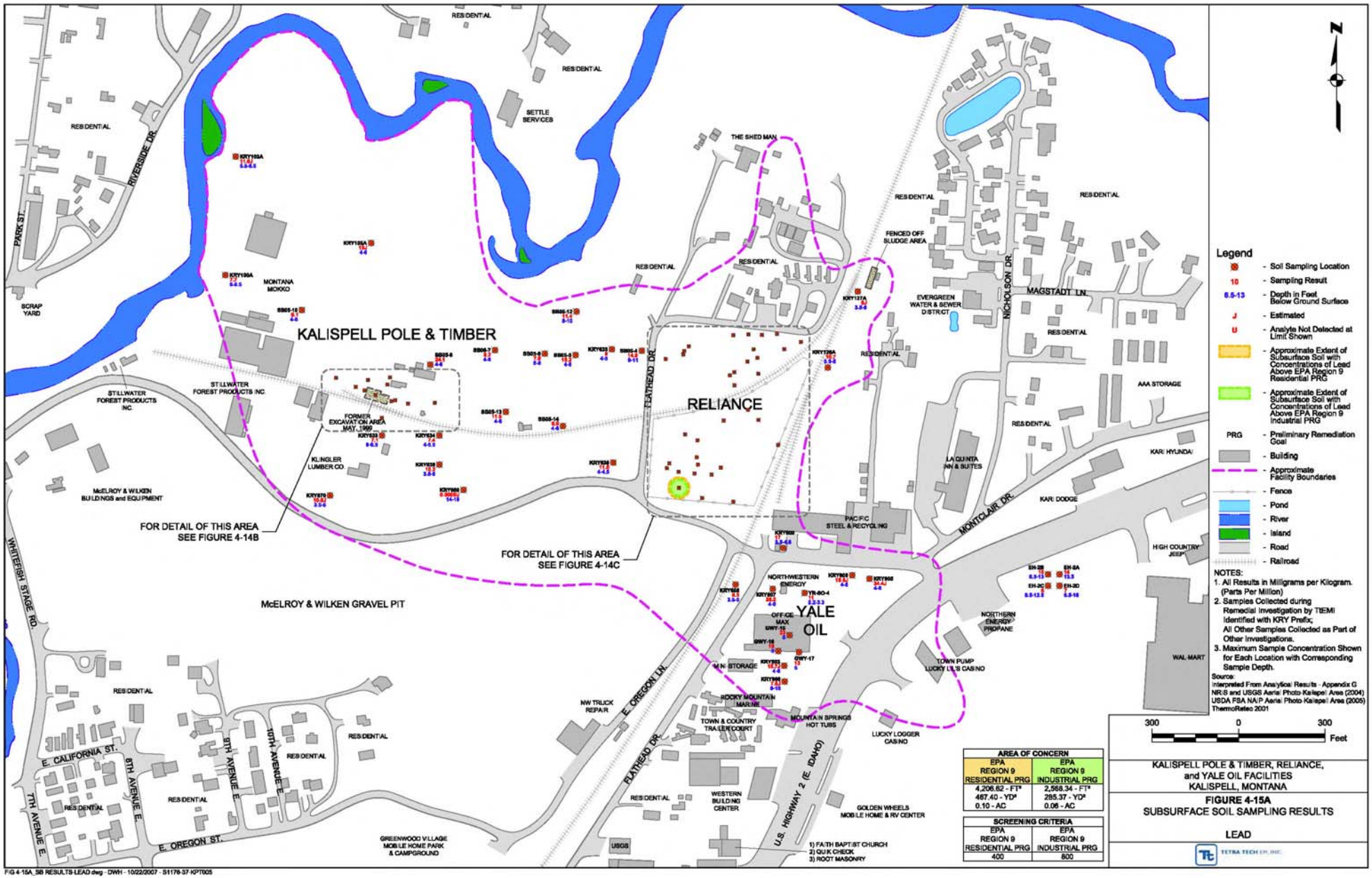
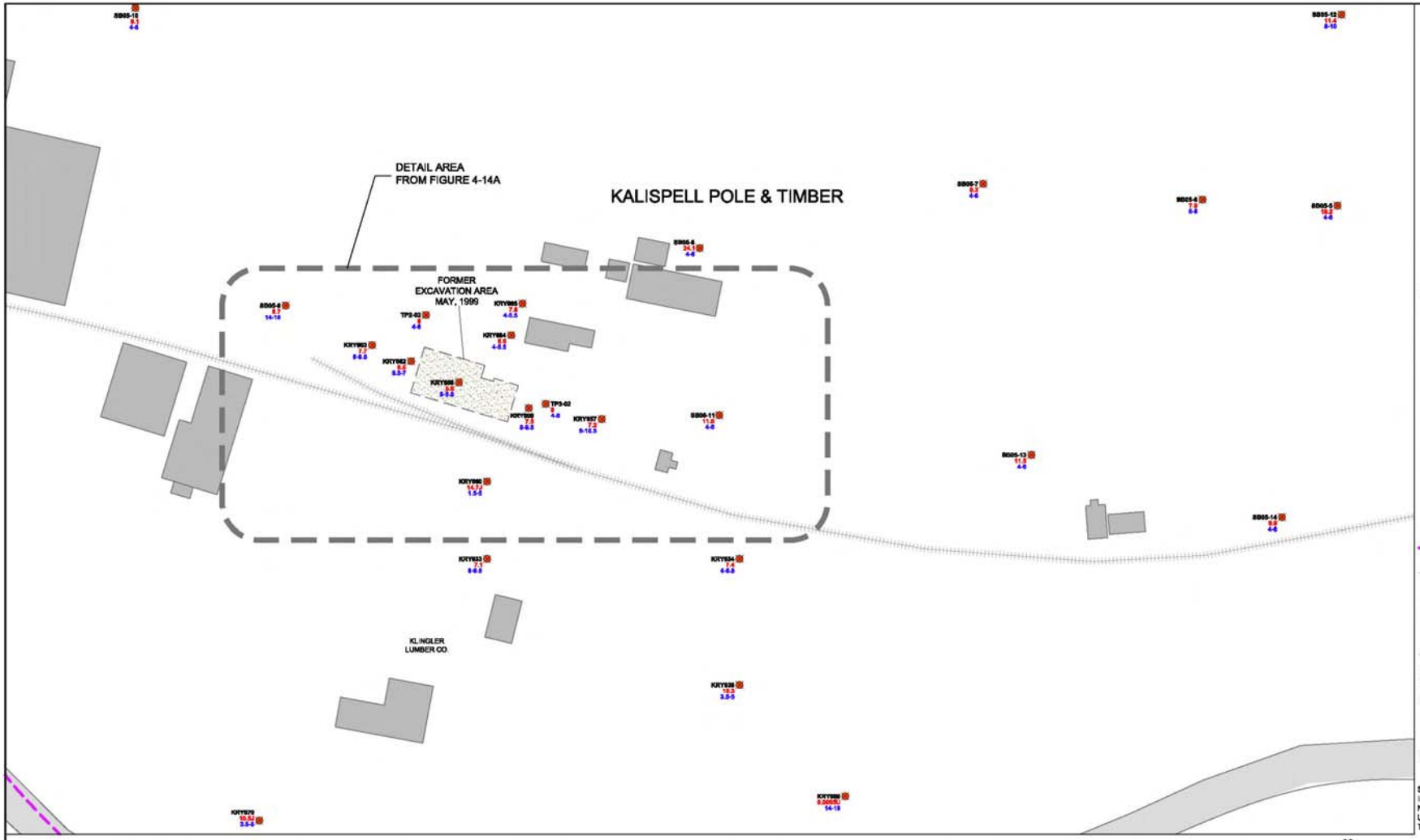


FIG 4-15A_SB RESULTS-LEAD.dwg - DWH - 10/22/2007 - S1176-37-KPT005



Legend

- Soil Sampling Location
- 9.9 - Sampling Result
- 4-6 - Depth in Feet Below Ground Surface
- J - Estimated
- U - Analyte Not Detected at Limit Shown
- Approximate Extent of Subsurface Soil with Concentrations of Lead Above EPA Region 9 Residential PRG
- Approximate Extent of Subsurface Soil with Concentrations of Lead Above EPA Region 9 Industrial PRG
- PRG - Preliminary Remediation Goal
- Building
- Approximate Facility Boundaries
- Fence
- Pond
- River
- Island
- Road
- Railroad

NOTES:
1. All Results in Milligrams per Kilogram. (Parts Per Million)
2. Samples Collected during Remedial Investigation by TtEMI Identified with KRY Prefix; All Other Samples Collected as Part of Other Investigations.
3. Maximum Sample Concentration Shown for Each Location with Corresponding Sample Depth.

Source:
Interpreted From Analytical Results - Appendix G
NRIS and USGS Aerial Photo-Kalispell Area (2004)
USDA FSA NAIP Aerial Photo-Kalispell Area (2005)
ThermoRetec 2001

80 0 80 Feet

SCREENING CRITERIA	
EPA REGION 9 RESIDENTIAL PRG	EPA REGION 9 INDUSTRIAL PRG
400	800

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 4-15B
SUBSURFACE SOIL SAMPLING RESULTS
KPT AREA
LEAD

TETRA TECH EM, INC.

FIG 4-15B_SB RESULTS-LEAD_KPT.dwg - DWH - 01/22/2007 - S1178-37-KPT005

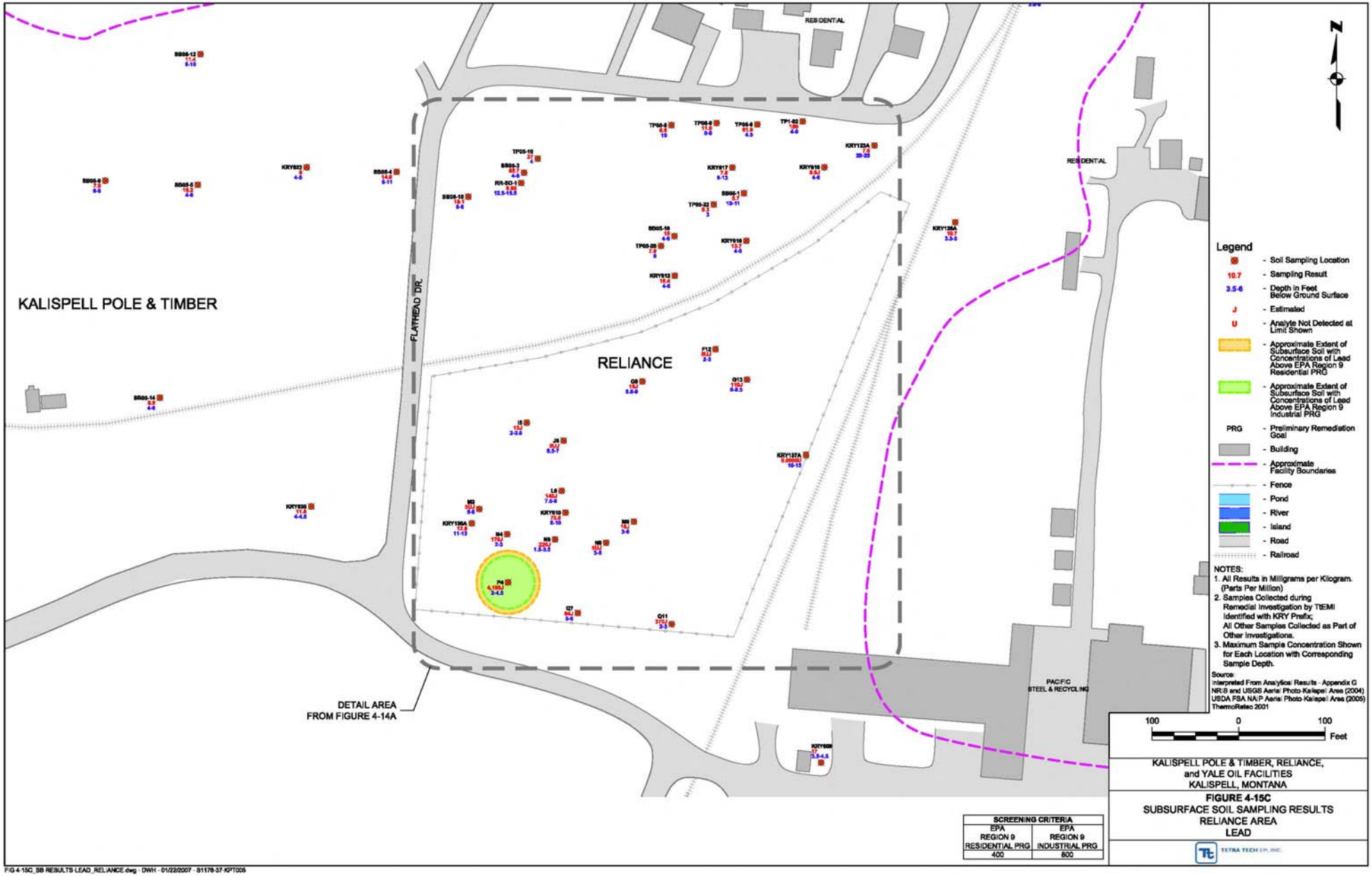
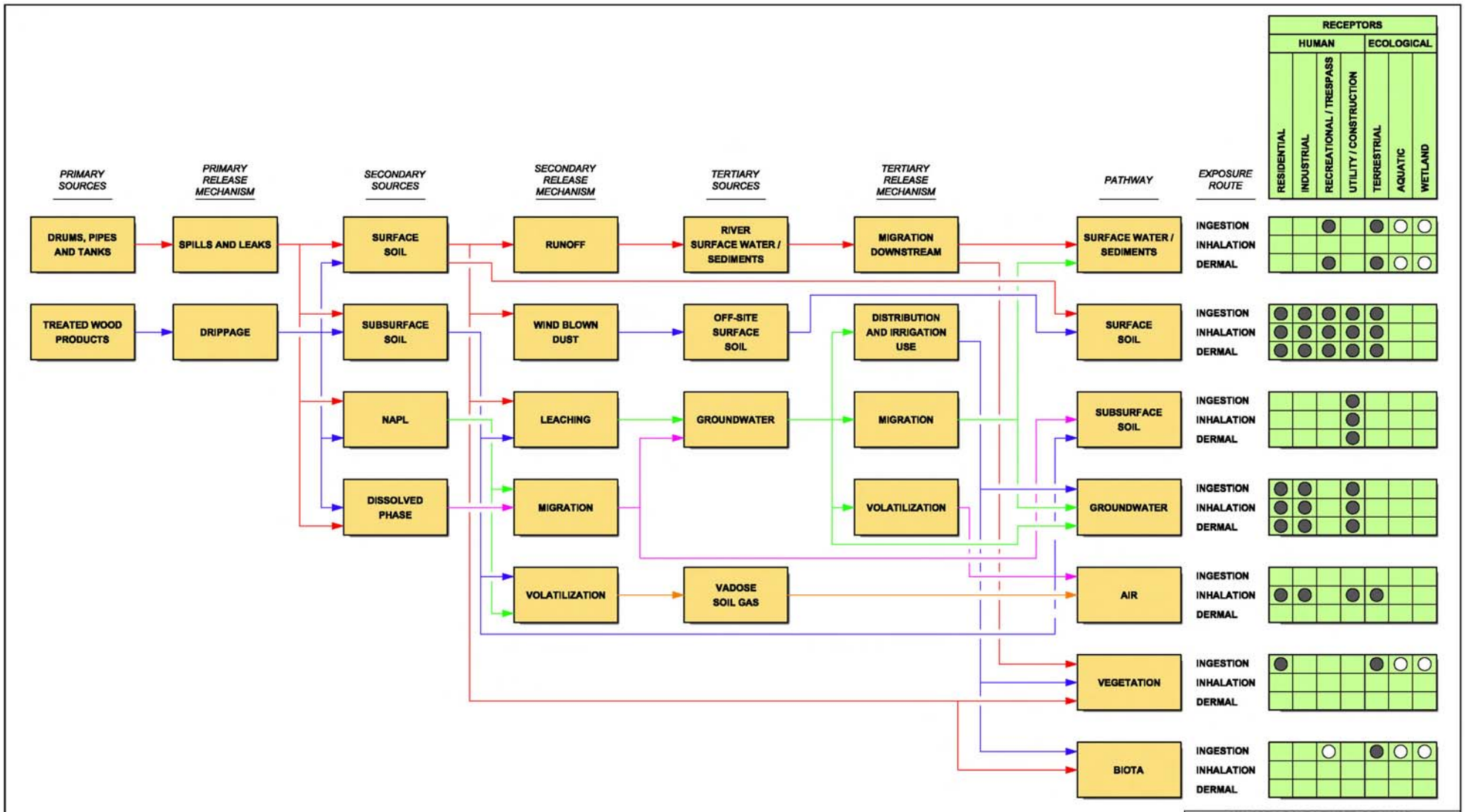


FIG 4-15C_SB RESULTS-LEAD_RELIANCE.dwg - DWH - 01/22/2007 - S1176-37-KPT005



NOTES:

○ Pathway has been evaluated and found to be incomplete.

● Pathways that may be assessed in the risk analysis.
A more in-depth conceptual site model will be evaluated as part of the risk analysis.

NAPL Non Aqueous Phase Liquid

KALISPELL POLE & TIMBER, RELIANCE, and YALE OIL FACILITIES
KALISPELL, MONTANA

FIGURE 5-1
PRELIMINARY
CONCEPTUAL SITE MODEL

TETRA TECH EM, INC.

FIG 5-1_SITE CONC MODEL.dwg - DWH - 12/07/2006 - 81178-37 KPT005

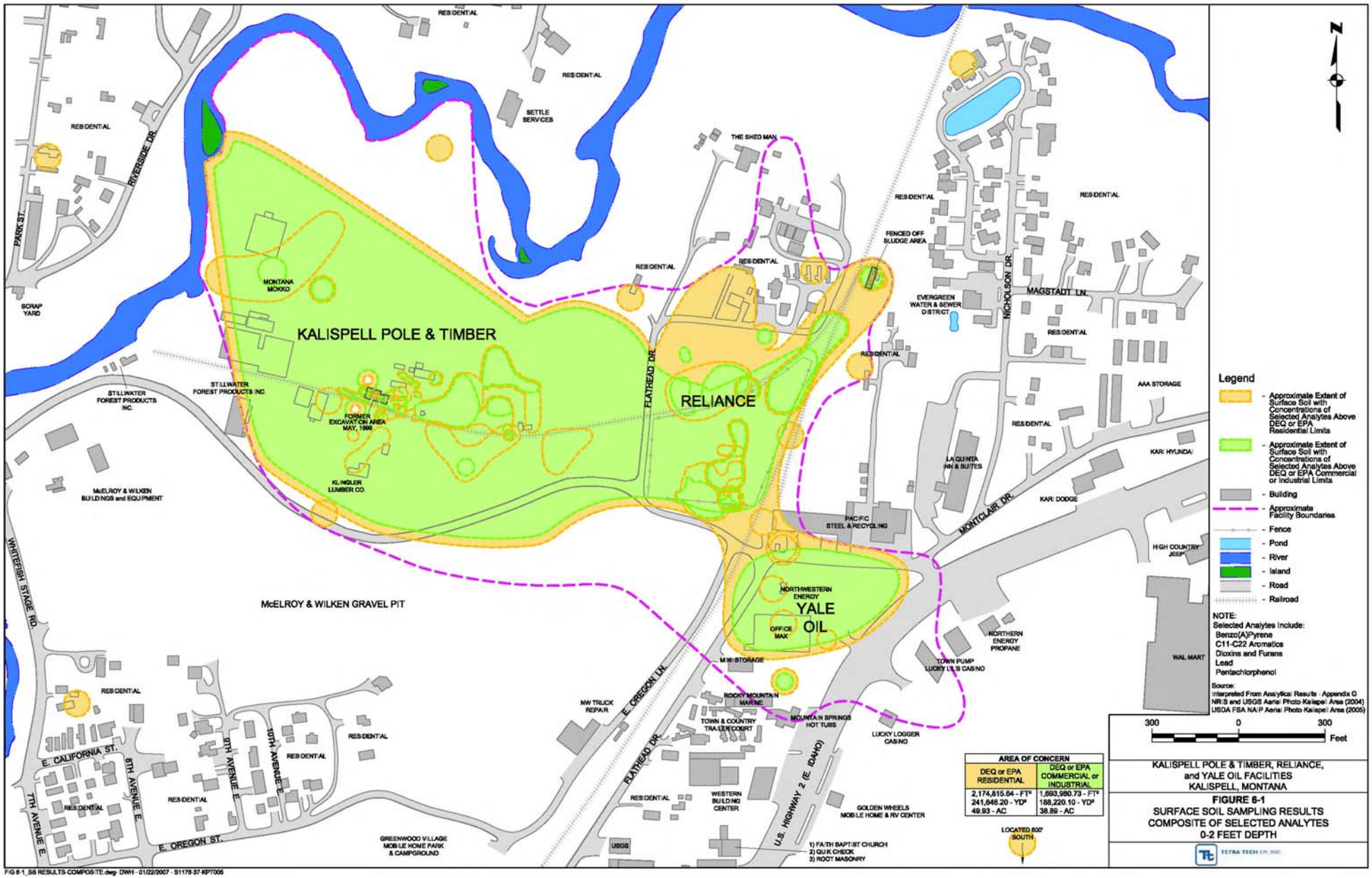


FIG 6-1_SS RESULTS COMPOSITE.dwg DWH - 01/22/2007 - S1178-37-KPT005

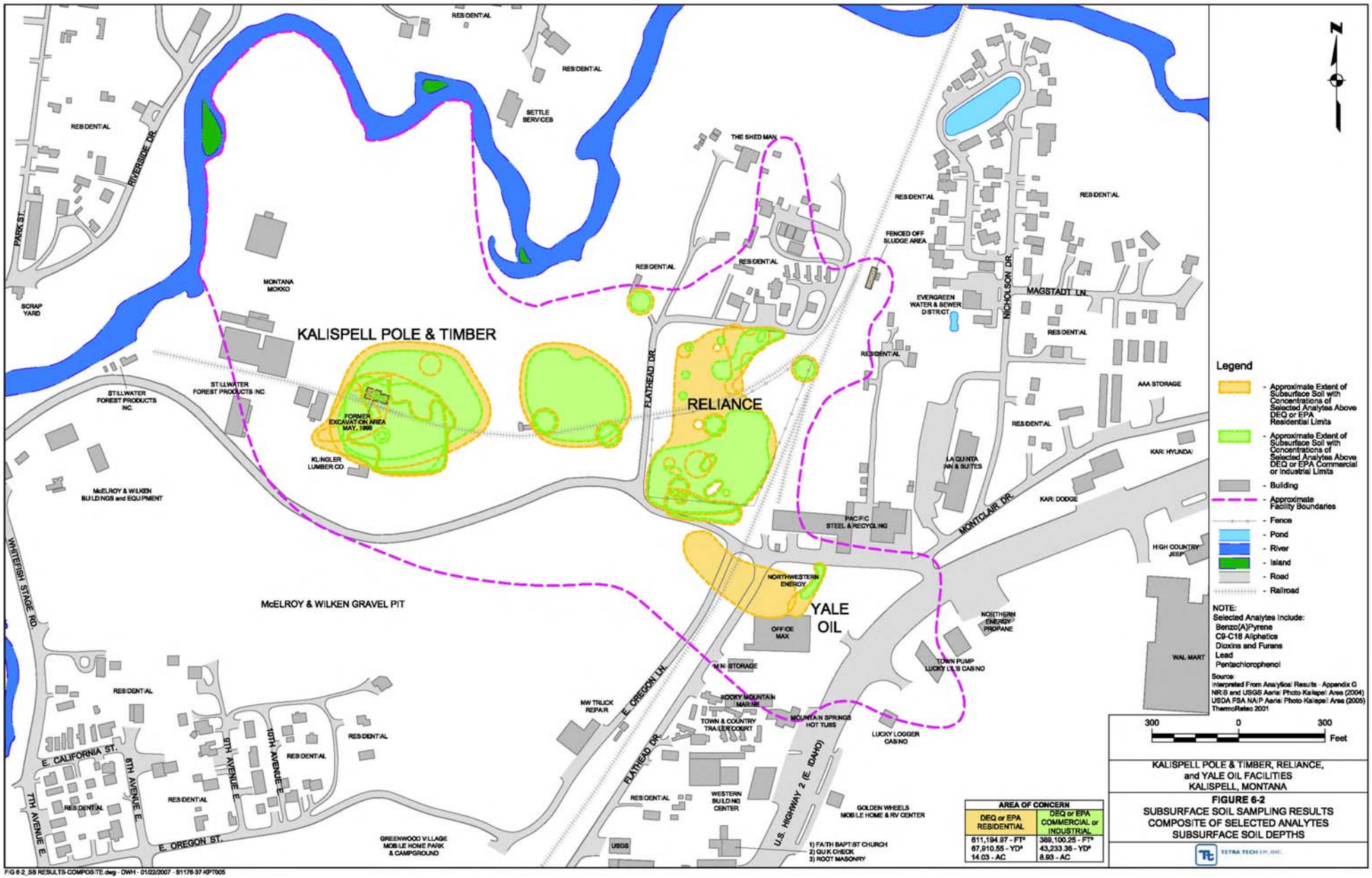


FIG 6-2_SS RESULTS COMPOSITE.dwg - DWH - 01/22/2007 - S1176-37-KPT005