

**CONTAMINANT CONCENTRATIONS
WITHIN SECTIONS 3, 4, AND 5
OF THE NSDD**

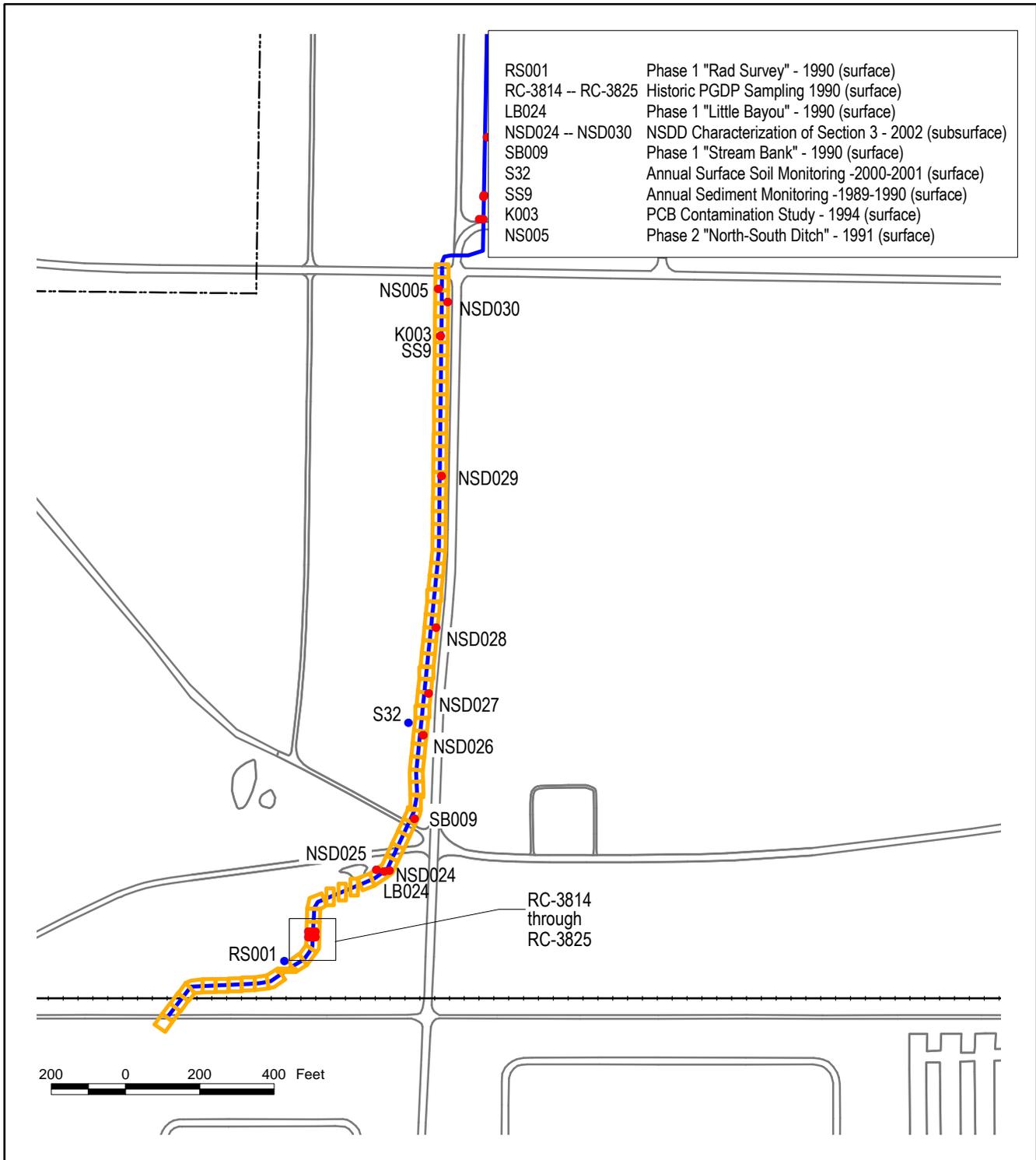
**Comparisons to
Risk-based Concentrations and Surface Soil
Background Concentrations**

PURPOSE

- Provide information on contaminant levels in Sections 3, 4, and 5 of the NSDD.
- Provide list of contaminants of potential concern (COPCs).

INFORMATION RESOURCES

- Samples collected between August 1989 and April 2002.
- Data used taken from PGDP OREIS in December 2002.
- Except for one location, all data from samples collected from 0 to 2 ft bgs.
 - H219 collected from 0 to 5 ft bgs.



LEGEND:

- Stations within RUs
- Stations within 50' of NSDD



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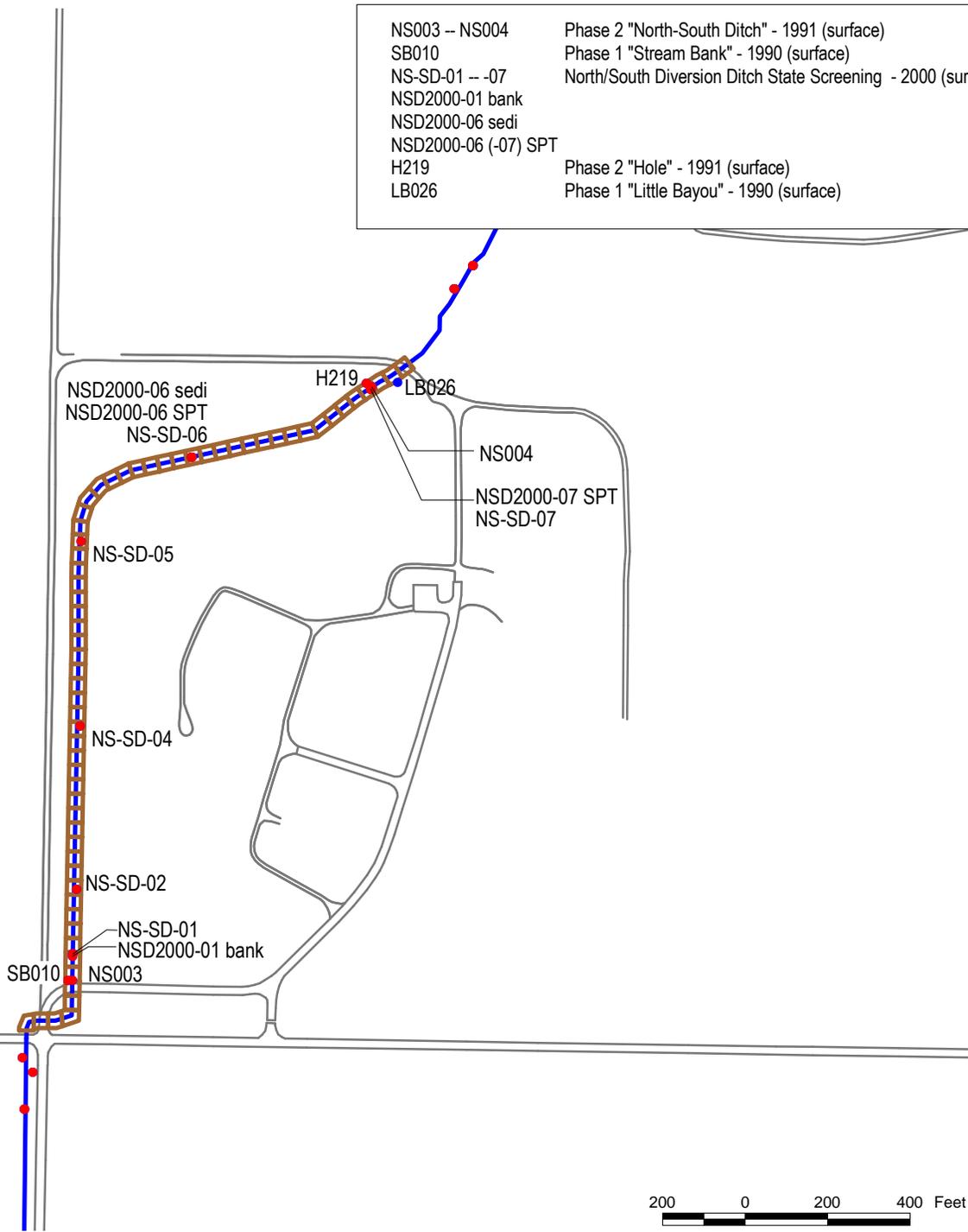
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Location of sample stations in Section 3 of the North-South Division Ditch (SWMU 58).

NS003 -- NS004	Phase 2 "North-South Ditch" - 1991 (surface)
SB010	Phase 1 "Stream Bank" - 1990 (surface)
NS-SD-01 -- -07	North/South Diversion Ditch State Screening - 2000 (surface)
NSD2000-01 bank	
NSD2000-06 sedi	
NSD2000-06 (-07) SPT	
H219	Phase 2 "Hole" - 1991 (surface)
LB026	Phase 1 "Little Bayou" - 1990 (surface)



LEGEND:

- Stations within RUs
- Stations within 50' of NSDD

 RU_SECT4



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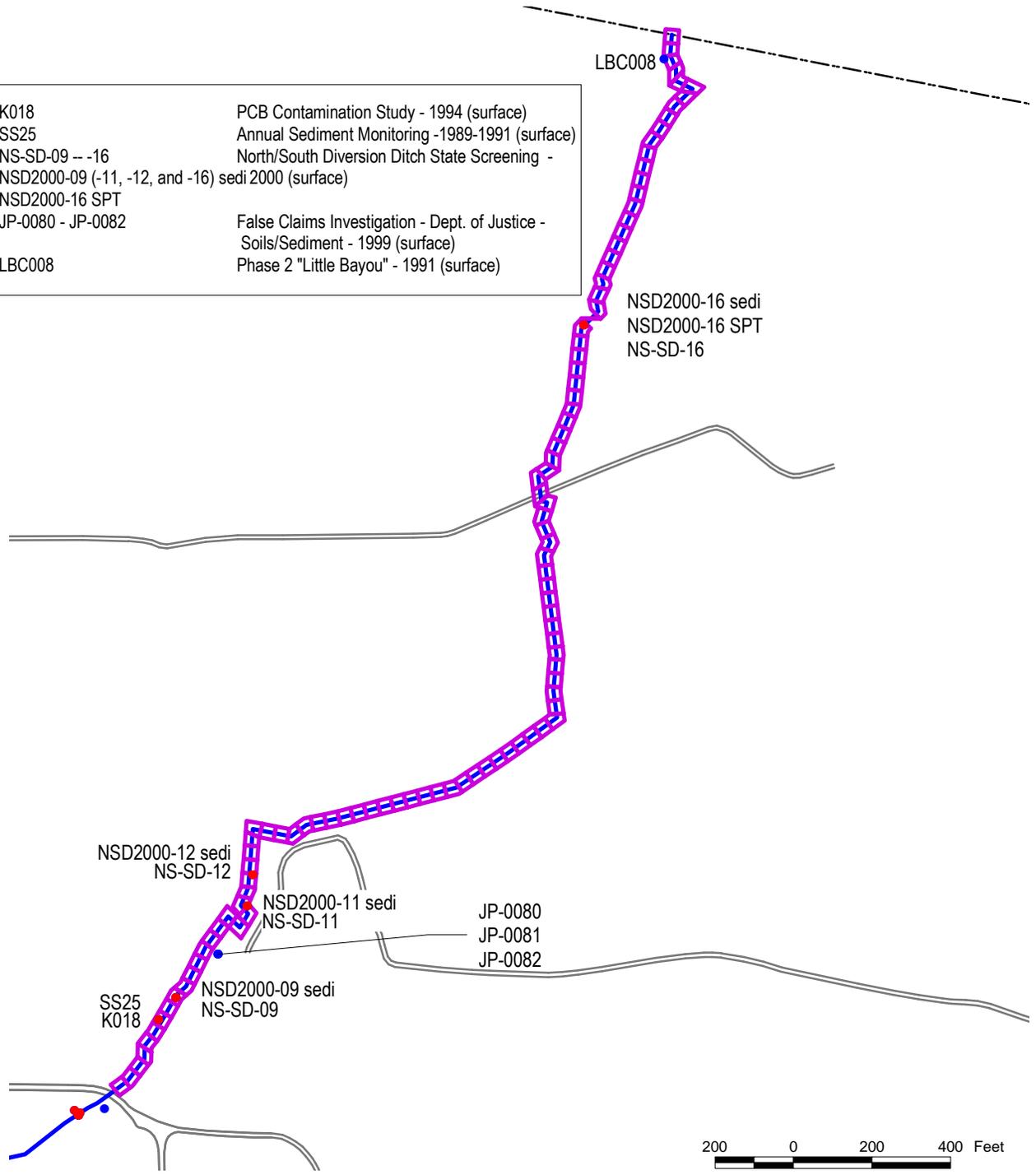
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Location of sample stations in Section 4 of the North-South Division Ditch (SWMU 58).

K018	PCB Contamination Study - 1994 (surface)
SS25	Annual Sediment Monitoring -1989-1991 (surface)
NS-SD-09 -- -16	North/South Diversion Ditch State Screening -
NSD2000-09 (-11, -12, and -16) sedi2000 (surface)	
NSD2000-16 SPT	
JP-0080 - JP-0082	False Claims Investigation - Dept. of Justice -
	Soils/Sediment - 1999 (surface)
LBC008	Phase 2 "Little Bayou" - 1991 (surface)



LEGEND:

- Stations within RUs
- Stations within 50' of NSDD

RU_SECT5



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**Location of sample stations in Section 5 of the
North-South Division Ditch (SWMU 58).**

METHODS

List of COPCs

- Retain analytes following methods in the PGDP Risk Methods Document
 - Detected at least one time.
 - Detected at a maximum concentration greater than the analyte's PGDP no action screening value for a child resident.
 - Detected at a maximum concentration greater than the surface soil background concentration.
 - From a sample collected after 01/01/95.

LIST OF COPCs

- List if all samples collected used

Aluminum*	Total PAHs*
Antimony*	Total PCBs
Arsenic	²⁴¹ Am
Barium*	¹³⁷ Cs
Beryllium	⁶⁰ Co*
Chromium	²³⁷ Np
Copper	²³⁹ Pu
Iron	⁹⁹ Tc
Manganese	²²⁸ Th**
Mercury	²³⁰ Th
Nickel	²³² Th
Potassium*	²³⁴ U
Silver	²³⁵ U
Sodium**	²³⁸ U
Thallium	
Uranium	
Vanadium	

- List if post 01/01/95 samples used

Arsenic	Total PCBs
Beryllium	²⁴¹ Am
Chromium	¹³⁷ Cs
Copper	²³⁷ Np
Iron	²³⁹ Pu
Manganese	⁹⁹ Tc
Mercury	²³⁰ Th
Nickel	²³² Th
Silver	²³⁴ U
Thallium	²³⁵ U
Uranium	²³⁸ U
Vanadium	

*Samples collected prior to 01/01/95

**Sodium and ²²⁸Th also removed

following Risk Methods guidance

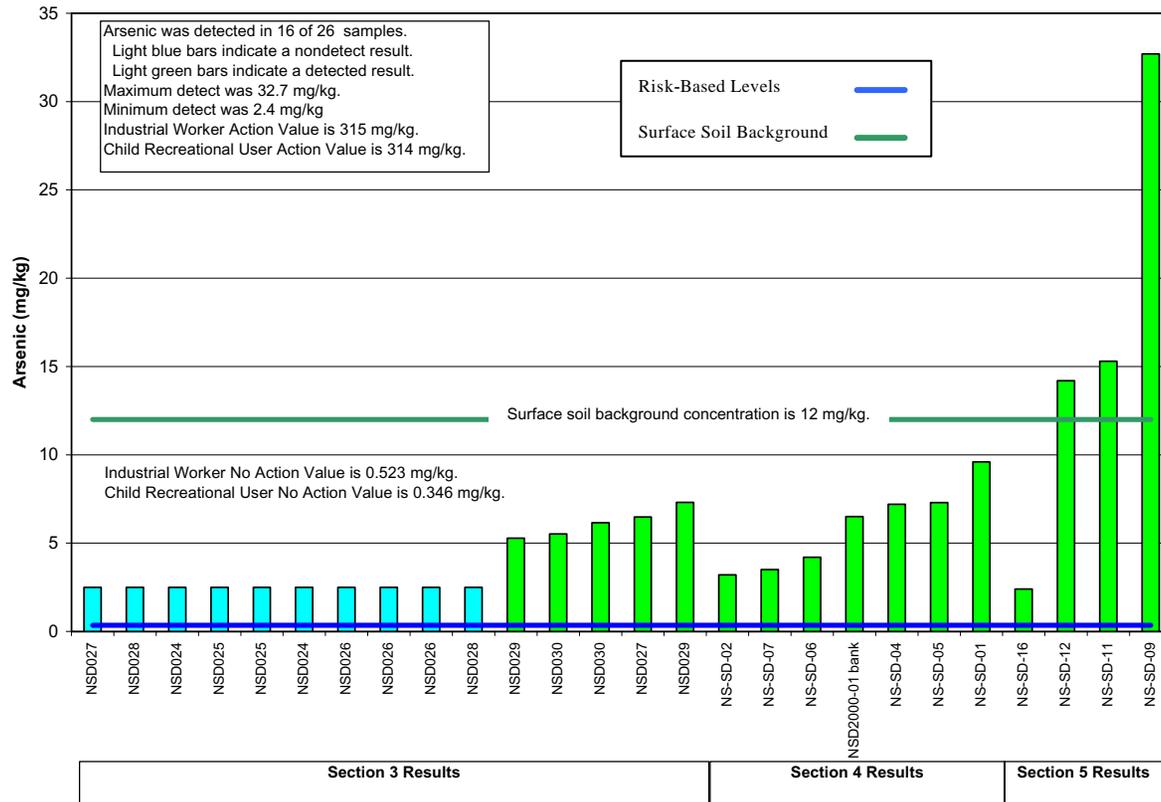
METHODS

Screening Values used in Graphs

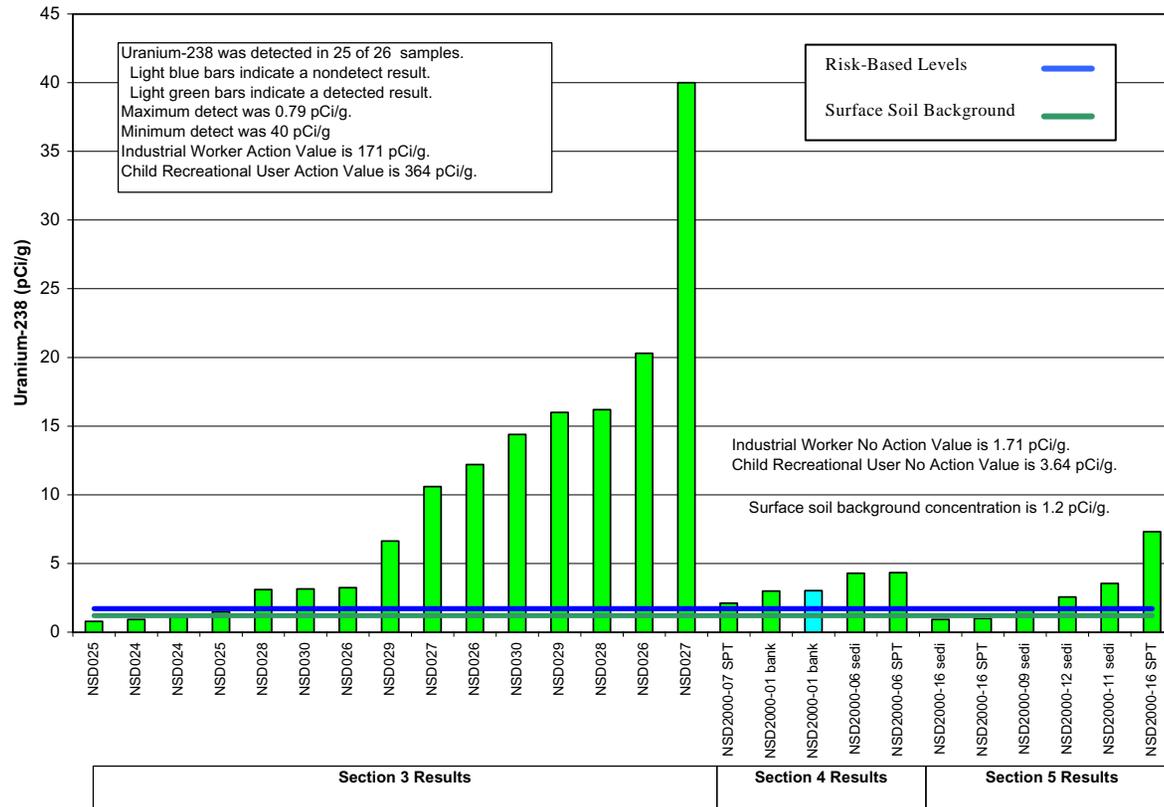
- Concentrations of all COPCs screened against values taken from the PGDP Risk Methods Document.
 - Industrial worker and child recreational user action values.
 - Industrial worker and child recreational user no action values.
 - Surface soil background concentrations.

RESULTS

- No COPC detected at a concentration greater than its action screening value as listed in the PGDP Risk Methods Document.
- 9 inorganic chemicals, 1 class organic compound (PCB), and 7 radionuclides detected at least once at a concentration greater than both their no action screening value and background concentration.



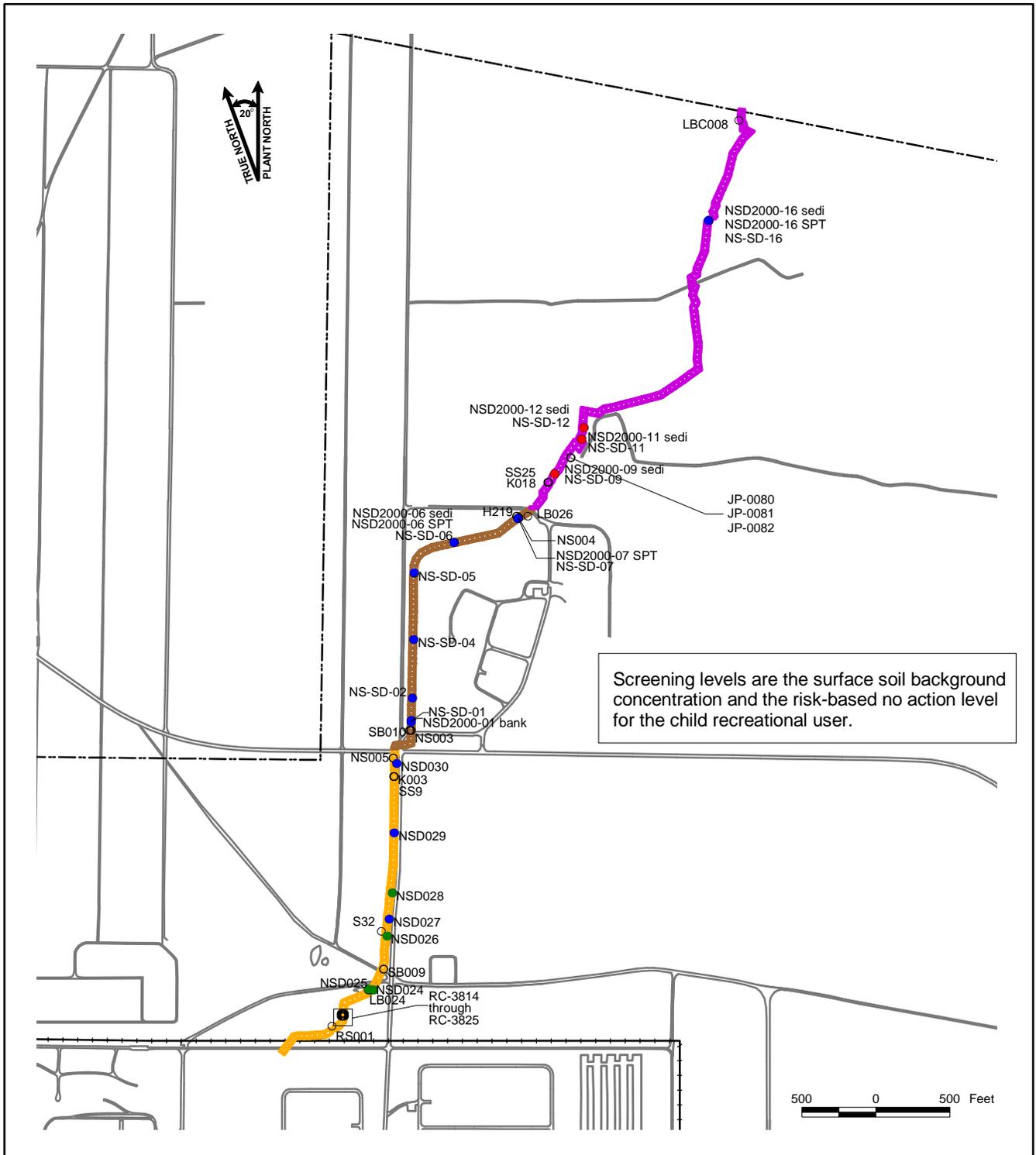
Comparison between arsenic concentrations reported in retained samples from Sections 3, 4, and 5 of the NSDD and risk-based levels and surface soil background concentrations.



Comparison between uranium-238 concentrations reported in retained samples from Sections 3, 4, and 5 of the NSDD and risk-based levels and surface soil background concentrations.

RESULTS

- Spatial distribution of COPCs not uniform over NSDD.
 - Metals contamination above screening levels most prevalent in Sections 3 and 5.
 - Radionuclide contamination above screening levels most prevalent in Section 3.
 - Section 4 has less contamination relative to Sections 3 and 5.



LEGEND:

- SAMPLE STATION (NOT ANALYZED FOR COPC)
- RU - SECTION 3
- RU - SECTION 4
- RU - SECTION 5
- *RU = REMEDIATION UNIT
- NON-DETECT
- DETECT < SCREENING LEVELS
- DETECT > SCREENING LEVELS

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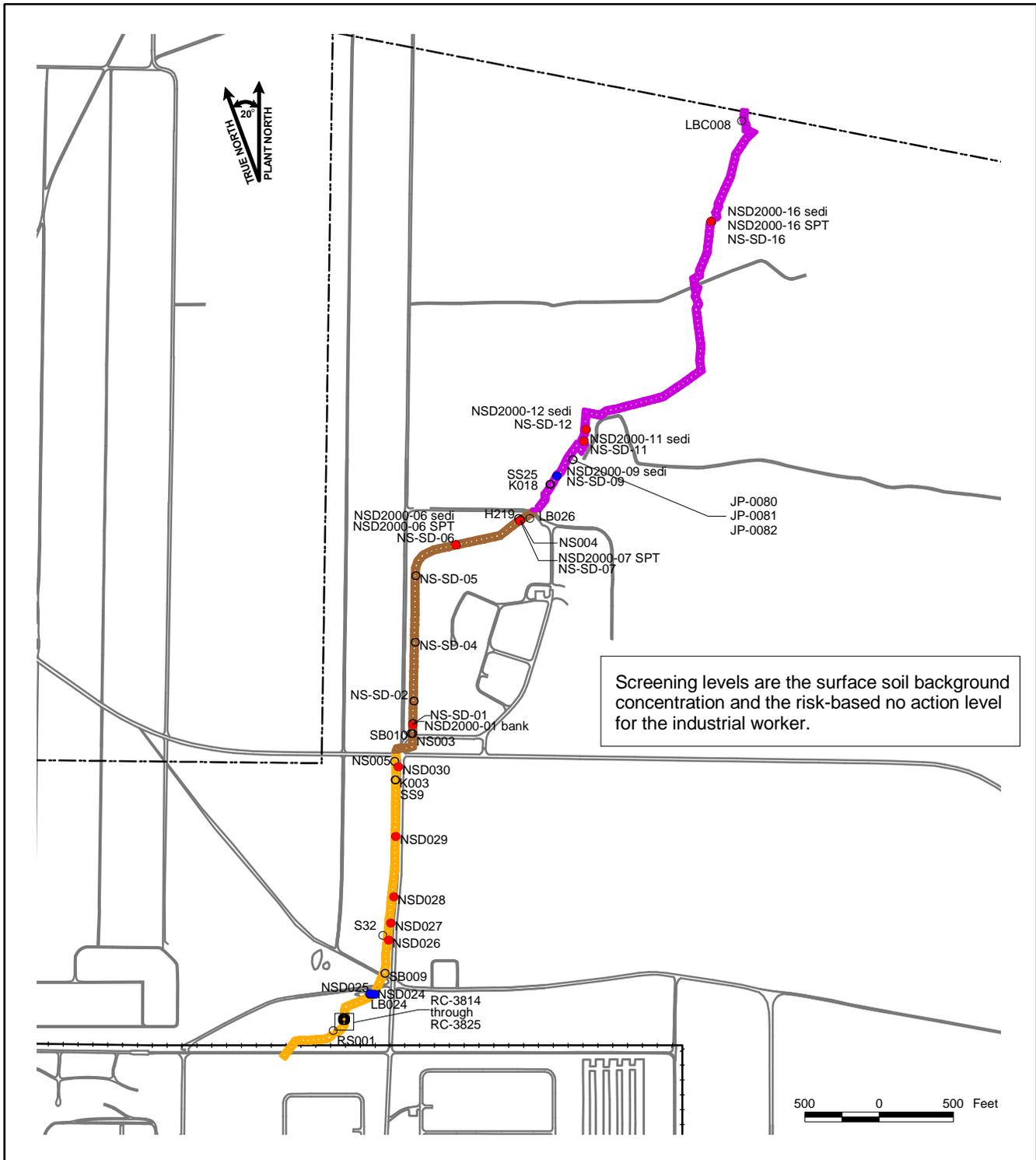
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Locations in Sections 3-5 of the NSDD where one or more sampling results have an arsenic concentration greater than screening levels.

FIGURE No. c5ac90001sk607.apr
DATE 02-06-03



LEGEND:

- SAMPLE STATION (NOT ANALYZED FOR COPC)
- RU - SECTION 3
- RU - SECTION 4
- RU - SECTION 5
- *RU = REMEDIATION UNIT
- NON-DETECT
- DETECT < SCREENING LEVELS
- DETECT > SCREENING LEVELS

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Locations in Sections 3-5 of the NSDD where one or more sampling results have a uranium-238 activity greater than screening levels.