

PLATES

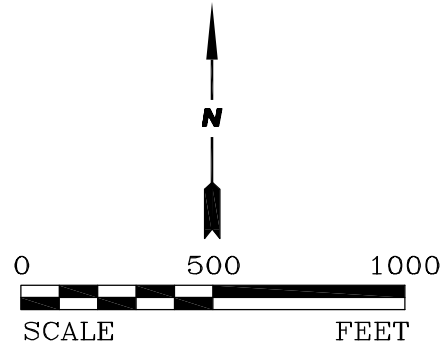
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- 3-3 Well/Piezometer Locations with Transducers

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Sampled for Metals

Please Note: The original version of this figure includes colorized features and shading. A black and white copy of this figure should not be used because it may not accurately represent the information presented.



SANTA SUSANA FORMATION
SMI CONGLOMERATE MEMBER

LEGEND

- PROPERTY BOUNDARY
- AREA BOUNDARY
- STREAM/DRAINAGE
- RD-29 CHATSWORTH GROUNDWATER MONITORING WELL
- C-4 COREHOLE LOCATION
- OS-12 SPRING LOCATION
- RS-27 NEAR-SURFACE GROUNDWATER MONITORING WELL
- PZ075 NEAR-SURFACE GROUNDWATER PIEZOMETER
- FINER GRAINED UNIT
- FAULT LOCATION
- INFERRED FAULT LOCATION BASED ON ONE OR A NUMBER OF THE FOLLOWING: DISPLACEMENT OF GEOLOGIC CONTACT, LINEAR TOPOGRAPHIC FEATURE ASSOCIATED WITH A DISPLACED GEOLOGIC CONTACT AND/OR SMALL SCALE STRUCTURES OBSERVED IN CORE
- SMALL-SCALE FAULT
- SHALE FLOAT OBSERVED
- OUTCROP OF SHALE OBSERVED
- LATERAL EXTENT OF NEAR-SURFACE GROUNDWATER OCCURRENCE (APRIL/MAY 2003)

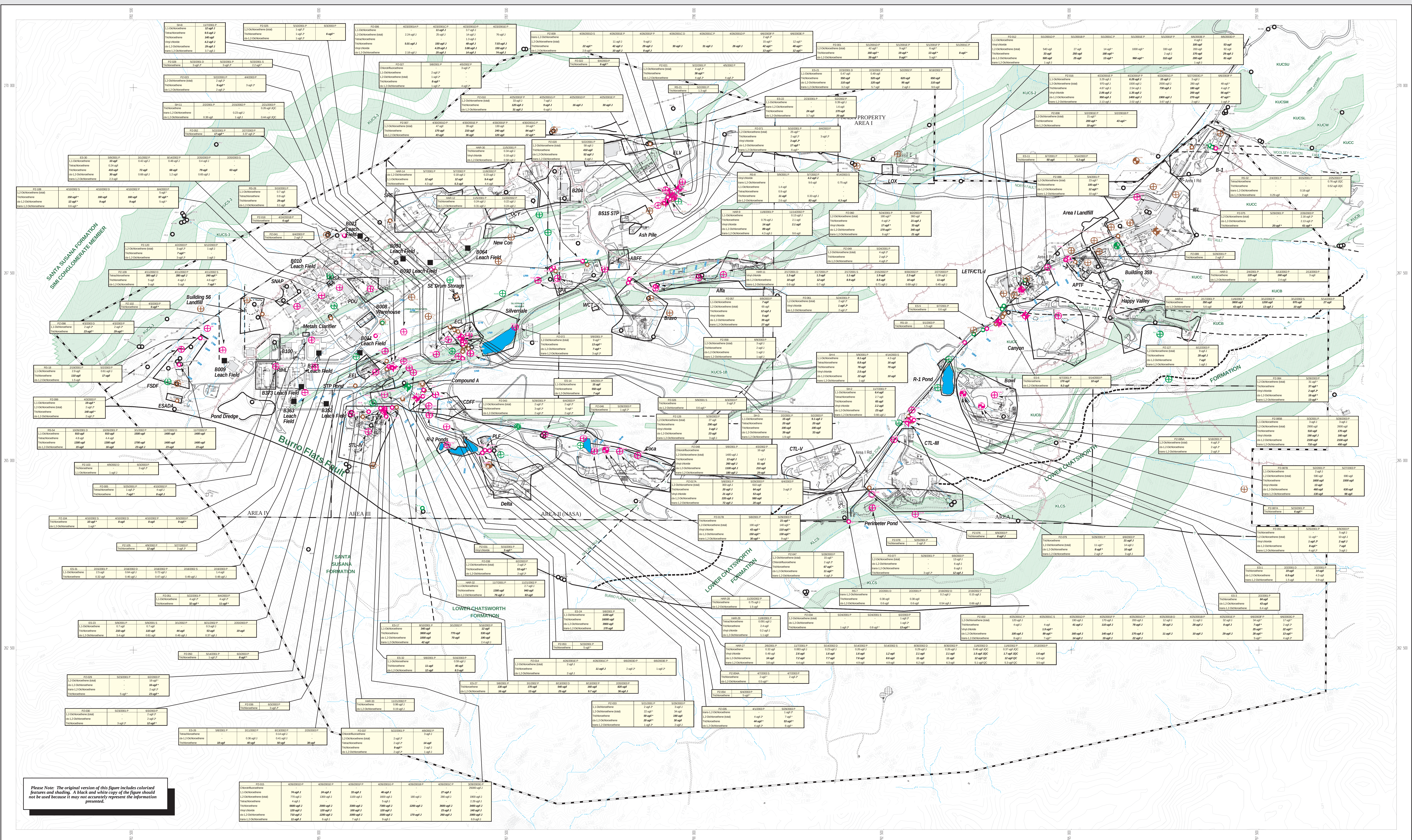
SANTA
SUSANA
FORMATION

LOWER CHATSWORTH
FORMATION

LOWER CHATSWORTH
FORMATION



SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA
NOVEMBER 2003
LOCATION OF RFI SITES AND COMPOSITE
OF LATERAL EXTENT OF
NEAR-SURFACE GROUNDWATER
PLATE 5-1



LEGEND

Existing Chatsworth Formation Groundwater Well

Near-Surface Wells, Sampled COC(s) detected

Alluvium Piezometer, Sampled COC(s) detected

Standard Piezometer, Sampled COC(s) detected

Paired Piezometer, Sampled COC(s) detected

Multilevel Piezometer, Sampled COC(s) detected

Approximate Location of Surface Water Divide

RFI Site Boundary

Approximate Near-Surface Groundwater Elevation Contours in Feet Above Mean Sea Level (Dashed where Inferred) - May 2003

Sample Location ID

612/2003A

Primary Sample

Duplicate Sample

Split Sample

mg/L

Micrograms Per Liter (ppb)

nanograms Per Liter (ppt)

Analyte Positively Identified, Associated Numerical Value is Considered Estimated

Analyte Tentatively Identified, Associated Numerical Value is Considered Estimated

Analyte Was Detected in Blank Sample

Result Exceeded Calibration Range

Sample Was Diluted Prior To Analysis

ND

Analyte Not Detected

NS

Not Sampled for VOCs

Not Analyzed or Rejected During Data Validation

REI SITES

AREA I

SWMU 4.1 - Old B-1 Area (B-1)

SWMU 4.2 - Area I Landfill

SWMU 4.3, 4.4 and AOC - Instrument and Equipment Laboratories (EL)

SWMU 4.5, 4.6 - Lox Plant Former Sump/Clarifier & Drum Disposal Area (LOX)

SWMU 4.7 - Component Test Laboratory III (CTL-III) Area

SWMU 4.8 - Thermal Treatment Facility (TTF) RCRA Permitted Unit

SWMU 4.9, AOC - Advanced Propulsion Test Facility (APTF) Area

SWMU 4.12 - Laser Engineering Test Facility (LETF)/Component Test Lab I (CTL-I) Area

SWMU 4.13 - Canyon Area

SWMU 4.15 and AOC - Bowl Area (Bowl) and Building 901 Leachfield

SWMU 4.16 - Area I Reservoir (R-1 Pond)

SWMU 4.17 - Perimeter Pond

AOC - Building 359 Sump (B-359)

AOC - Happy Valley Area

AOC - Component Test Laboratory IV (CTL-IV)

AREA II

SWMU 5.1 - Area II Landfill

AREA II (cont.)

SWMU 5.2 - ELV Final Assembly, Building 206 (ELV)

SWMU 5.5 and AOC - Building 204 Underground Storage Tanks (B204)

SWMU 5.6 - Former Incinerator Ash Pile (Ash Pile)

SWMU 5.7 - Hazardous Waste Storage Area/Waste Coolant Tank (WCT)

SWMU 5.8, 5.10, 5.11, 5.15 - Alfa/Bravo Skim Pond and Bravo Area

SWMU 5.12, 5.13, 5.14, 5.15 - Alfa/Bravo Skim Pond and Bravo Area

SWMU 5.16, 5.19 - Coca Area

SWMU 5.20, 5.21, 5.22 - Propellant Load Facility (PLF)

SWMU 5.23 - Delta Area

SWMU 5.26 - R-2A and R-2B Ponds

AOC - Building 515 Sewage Treatment Plant (B515 STP)

AOC - Storage Propellant Area (SPA)

AOC - Alfa/Bravo Fuel Farm (ABFF)

AOC - Coca/Delta Fuel Farm (CDF)

AREA III

SWMU 6.1, 6.3, AOC - Engineering Chemistry Laboratory (ECL) Area

SWMU 6.4 - Compound A Facility

SWMU 6.5 - Systems Test Laboratory IV (STL-IV) Area

SWMU 6.8 - Silverdale Reservoir

AREA III (cont.)

SWMU 6.9 - Environmental Effects Laboratory (EEL)

AOC - Sewage Treatment Plant (STP) Pond Area

AREA IV

SWMU 7.1 - Building 56 Landfill (B56 Landfill)

SWMU 7.3 - Former Sodium Disposal Facility (FSD)

SWMU 7.4 - Old Conservation Yard (Old Con)

SWMU 7.5 - Building 100 Trench (B100)

SWMU 7.8 - New Conservation Yard (New Con)

SWMU 7.9 - ESADA Compound Storage Area (ESADA)

SWMU 7.10 - Former Coal Gasification POU (PUG)

AOC - Hazardous Materials Storage Area (HMSA)

AOC - Metals Laboratory Clarifier

AOC - Pond Dredge Area

AOC - Sodium Reactor Experiment (SRE) Complex

AOC - SE Drum Storage Yard

AOC - SNAP Facility

Leach Fields (as individual RFI sites)

Base Map Legend

Existing or Removed Building or Structure

Surface Water Ponds

SFL Property Boundary

Administrative Area Boundary

A/C Curbing

Dirt Road

Possible Ponds (approx. location)

Geology Legend

Shale Units (KUCS, KUCS-1A, KUCS-1B, KUCS-2, KUCS-3)

Faults

Faults (Approximate)

Estimated Contact Line

Notes:

(1) Map coordinates in Stateplane, NAD 83, Zone 9.

(2) Geologic base map by MWH (in progress, 2002).

DATE: 11/15/03

FILE: /proj/rock/maps/figures/PZ200001 TASK

Analytical Results for Near-Surface Groundwater Wells and Piezometers Sampled for Halogenated Ethenes

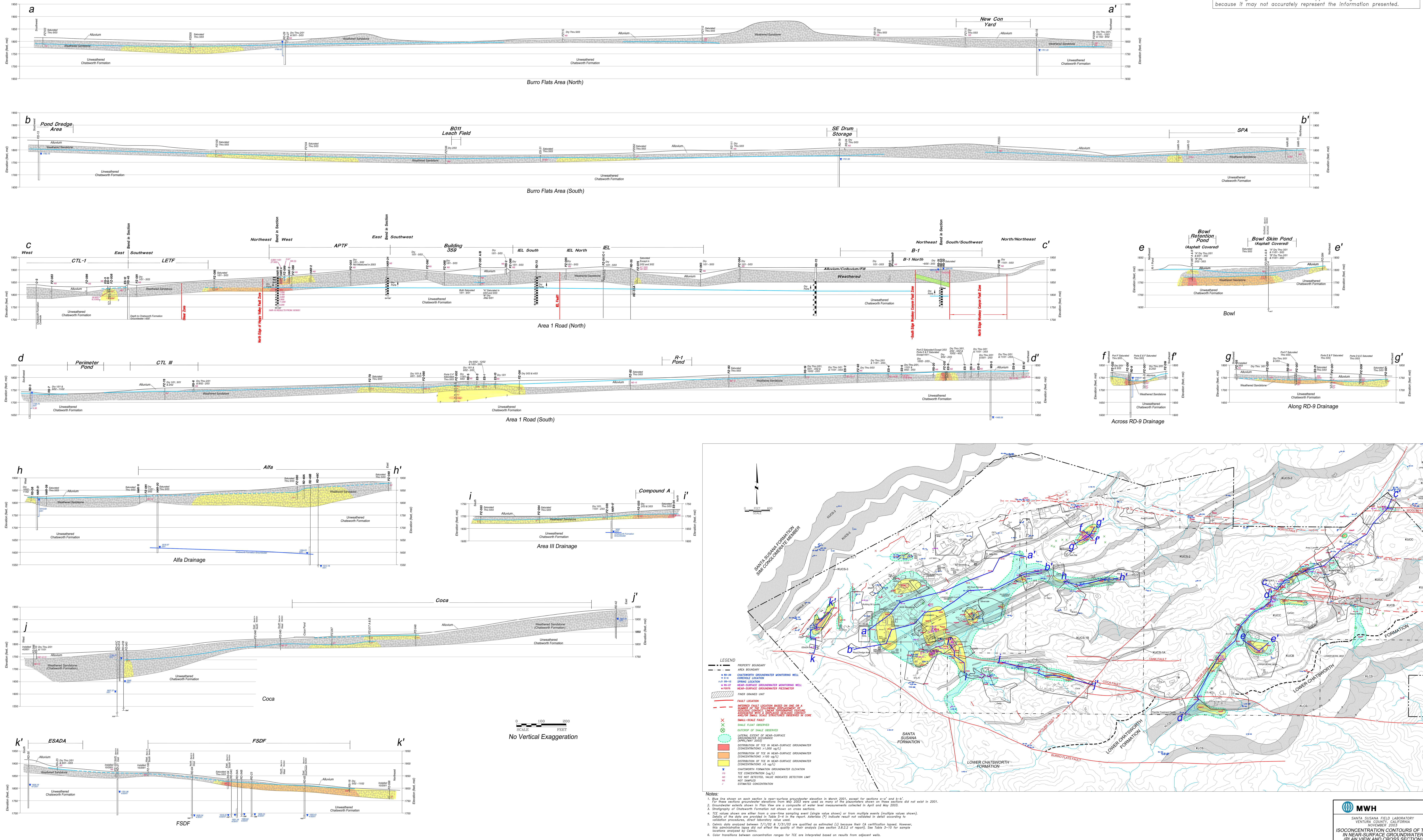
Santa Susana Field Laboratory

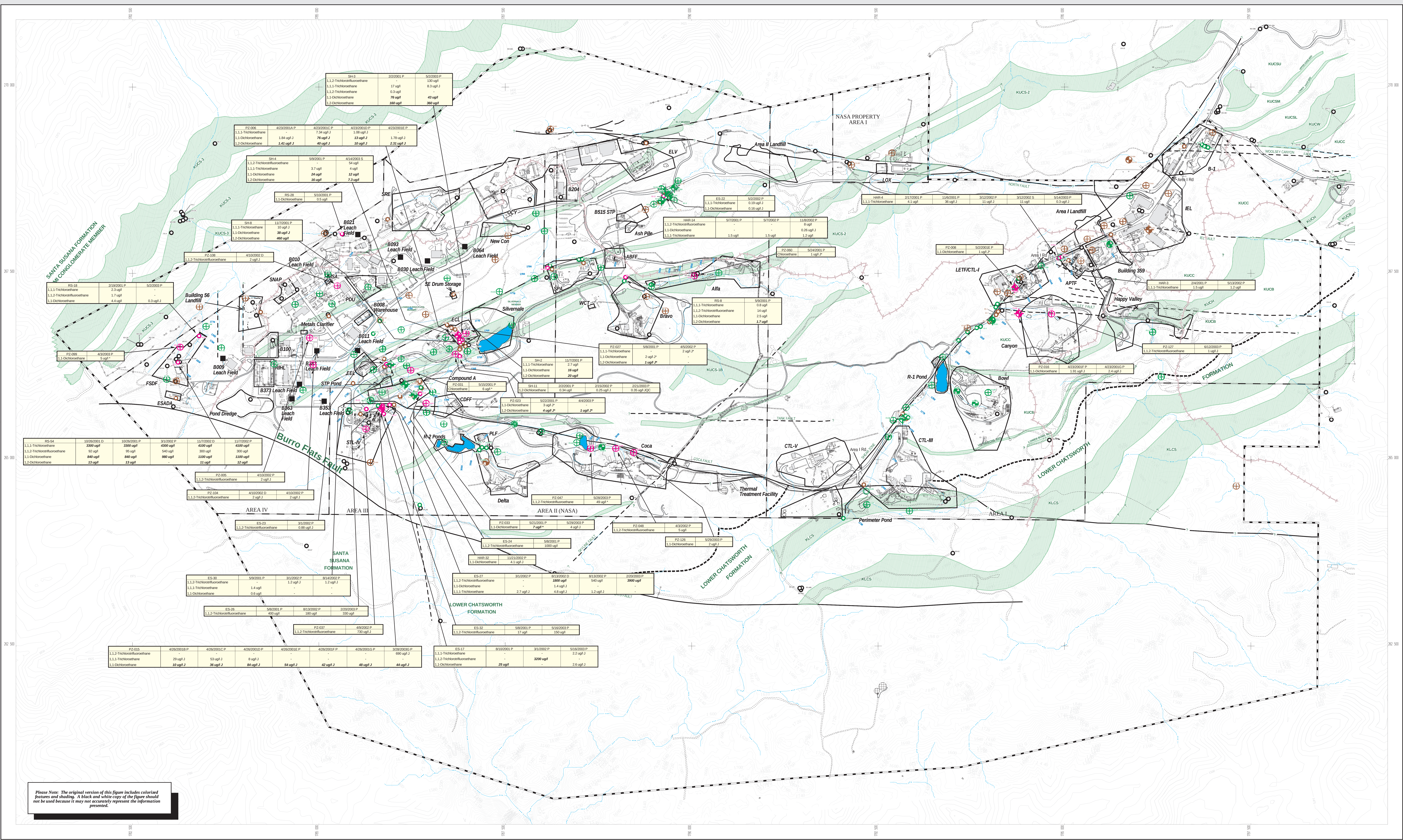
1 inch = 400 feet

MWH

PLATE 5-2

Please Note: The original version of this figure includes colorized features and shading. A black and white copy of this figure should not be used because it may not accurately represent the information presented.





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LEGEND

- Existing Chatsworth Formation Groundwater Well
- Near-Surface Wells, Sampled COPC(s) detected
- Alluvium Piezometer, Sampled COPC(s) detected
- Standard Piezometer, Sampled COPC(s) detected
- Paired Piezometer, Sampled COPC(s) detected
- Multilevel Piezometer, Sampled COPC(s) detected
- Approximate Location of Surface Water Divide
- RFI Site Boundary
- Approximate Near-Surface Groundwater Elevation Contours in Feet Above Mean Sea Level (Dashed Where Inferred) - May 2003

PZ-010	Sample Location ID
61/20003A	Drain Well Port Number
P	Primary Sample
D	Duplicate Sample
S	Split Sample
mg/L	Milligrams Per Liter (ppm)
ug/L	Micrograms Per Liter (ppb)
J	Analyte Positively Identified, Associated Numerical Value Is Considered Estimated
NU	Analyte Tentatively Identified, Associated Numerical Value Is Considered Estimated
B	Analyte Was Detected in Blank Sample
E	Result Exceeded Calibration Range
D	Sample Was Diluted Prior To Analysis
ND	Analyte Not Detected
NS	Not Sampled for VOCs
	Not Analyzed Or Rejected During Data Validation

Notes: (1) Analyte concentrations greater than Primary MCLs or DHS action levels are shown in bold.

(2) - Identifies locations in the geology where uncertainties exist. These uncertainties may or may not be important or resolvable. Resolving the uncertainties will be evaluated based on their potential importance in the overall understanding of the effect of these features on groundwater flow and contaminant transport.

(3) Seismic data analyzed between 7/2002 & 7/2003 are qualified as estimated (J) because their C_u certification lapsed. However, this administrative lapse did not effect the quality of their analyses (see section 3.8.2.2 of report). See Table 3-10 for sample locations analyzed by Geac.

REI SITES

AREA I

SWMU 4.1 - Old B-1 Area (B-1)

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SWMU 4.9, AOC - Advanced Propulsion Test Facility (APTF) Area

SWMU 4.12 - Laser Engineering Test Facility (LETFF)/Component Test Lab I (CTL-I) Area

SWMU 4.14 - Canyon Area

SWMU 4.15 and AOC - Building 204 Underground Storage Tanks (B204)

SWMU 4.16 - Area I Reservoir (R-1 Pond)

SWMU 4.17 - Perimeter Pond

AOC - Building 359 Sump (B-359)

AOC - Happy Valley Area

AOC - Component Test Laboratory V (CTL-V)

AREA II

SWMU 5.1 - Area II Landfill

AREA II (cont.)

SWMU 5.2 - ELV Final Assembly, Building 206 (ELV)

SWMU 5.5 and AOC - Building 204 Underground Storage Tanks (B204)

SWMU 5.6 - Former Incinerator Ash Pile (Ash Pile)

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SWMUs 5.9, 5.10, 5.11 - Alfa Area

SWMUs 5.12, 5.13, 5.14, 5.15 - Alfa Bravo Skim Pond and Bravo Area

SWMUs 5.16, 5.17 - Alfa Area

SWMUs 5.20, 5.21, 5.22 - Propellant Load Facility (PLF)

SWMU 5.23 - Delta Area

SWMU 5.26 - R-2A and R-2B Ponds

AOC - Building 515 Sewage Treatment Plant (B515 STP)

AOC - Storable Propellant Area (SPA)

AOC - Alfa/Bravo Fuel Farm (ABFF)

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AREA III

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SWMU 6.5 - Systems Test Laboratory IV (STL-IV) Area

SWMU 6.8 - Silvernale Reservoir

AREA III (cont.)

SWMU 6.9 - Environmental Effects Laboratory (EEL)

AOC - Sewage Treatment Plant (STP) Pond Area

AREA IV

SWMU 7.1 - Building 56 Landfill (B56 Landfill)

SWMU 7.3 - Former Sodium Disposal Facility (FSD)

SWMU 7.4 - Old Conservation Yard (Old Con)

SWMU 7.5 - Building 100 Trench (B100)

SWMU 7.7 - Rockwell International Hot Laboratory (RIHL)

SWMU 7.8 - New Conservation Yard (New Con)

SWMU 7.9 - ESADA Chemical Storage Area (ESADA)

SWMU 7.10 - Former Coal Gasification PDU (PDU)

AOC - Hazardous Materials Storage Area (HMSA)

AOC - Metals Laboratory Clarifier

AOC - Pond Dredge Area

AOC - Sodium Reactor Experiment (SRE) Complex

AOC - SE Drum Storage Yard

AOC - SNAP Facility

Leach Fields (as individual RFI sites)

Base Map Legend

- Existing or Removed Building or Structure
- Surface Water Ponds
- SSFL Property Boundary
- Administrative Area Boundary
- A/C Curbing
- Dirt Road
- Possible Ponds (approx. location)

Geology Legend

- Shale Units (KLCS, KUCS, KUCC, KUCCS, KUCCS-2, KUCCS-3)
- Faults
- Faults (Approximate)
- Estimated Contact Line

Notes:

(1) Map coordinates in Stateplane, NAD 83, Zone V.

(2) Geologic base map by MWH (in progress, 2002).

DATE: 11/15/03

FILE: /jrockrock/maps/figures/PZ300011 TASK

Analytical Results for Near-Surface Groundwater Wells and Piezometers Sampled for Halogenated Ethanes

Santa Susana Field Laboratory

1 inch = 400 feet

PLATE 5-3