Appendix G

Public Health and Environmental Hazards Technical Appendix

Appendix G.1

Public Health and Hazards: EDR Data Map Environmental Atlas

SCS ENGINEERS

Area-Wide Assessment Summary Report

Sacramento River Southport Early Implementation Project West Sacramento, California 92101

Presented to:

West Sacramento Area Flood Control Agency
Mr. Paul Dirksen
1110 West Capitol Avenue
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Presented by:

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August 7, 2012

Project Number: 01212113.00

August 7, 2012
Project Number: 0101205528.01

Mr. Paul Dirksen
West Sacramento Area Flood Control Agency
1110 West Capitol Avenue
West Sacrament, California 95691

Subject: **Area-Wide Assessment Summary Report**

Site: **Sacrament River Southport Early Implementation Project**
West Sacramento, California

Dear Mr. Dirksen:

SCS Engineers (SCS) is pleased to present this summary report (Report) of the Area-Wide Assessment (Assessment) conducted for the levee improvement project known as Sacramento River Southport Early Implementation Project (SRSEIP) at the above-described Site. This Report summarizes the results of the work that was conducted in order to evaluate the Site's current environmental conditions. The work described in this Report was performed by SCS in general accordance with Exhibit A to the Contract for Services (Contract) between the West Sacramento Area Flood Control Agency (Client) and SCS. Exhibit A and the Contract were fully executed on April 12, 2012

If we may assist you in any way, now or in the future, please call our office at (916) 361-1297.

Sincerely,

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1 BACKGROUND

The Site is an approximately 6-mile corridor along the Sacramento River consisting of portions of 121 parcels, South River Road, and the existing levees. The proposed Sacramento River Southport Early Implementation Project (SRSEIP) is part of a program established in 2005 by the City of West Sacramento (City) to improve the City's flood protection system and meet new Federal standards for levees. The West Sacramento Area Flood Control Agency (Client) is undertaking the levee improvements for the SRSEIP in order to achieve a minimum 200-year flood protection.

The SRSEIP will require the acquisition and development (levee improvements) of the Site, and SCS Engineers (SCS) has been contracted by the Client to provide as-needed due diligence and cleanup planning services as part of this project.

In addition to the Area-Wide Assessment (Assessment), due diligence services are anticipated to include conducting Phase I Environmental Site Assessments (Phase I ESAs) on any properties or portions of properties to be acquired by the Client for the SRSEIP, and Phase II Environmental Site Investigations (Phase IIs) on any properties or portions of properties to be acquired that are identified in the ESAs as having potential recognized environmental conditions (RECs).[1,2] Based on the findings of the Phase IIs, cleanup planning services will be provided for those properties within the SRSEIP where constituents of concern (CoCs) are found at levels which may impact levee improvement activities.

2 OBJECTIVES

The objectives of the scope of services were to:

- Assess the likelihood[3] that RECs are present at the Site as a result of the current or historical Site land use or from a known and reported off-Site source.
- Provide preliminary information in support of future Phase I ESAs.
- Collect sufficient information to evaluate the need for Phase IIs.
- Incorporate the findings of the Assessment into a Geographic Information System (GIS).

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1 *RECs*, as defined by the American Society for Testing and Materials (ASTM), include the presence or likely presence of hazardous substances or petroleum products on a property that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water on the property. However, the term is not intended to include *de minimis* conditions. A condition considered *de minimis* is not a REC.

2 *De minimis conditions*, as defined by ASTM, are environmental conditions that do not generally present a material risk of harm to the public health or the environment and that generally would not be subject to an enforcement action if brought to the attention of appropriate governmental agencies.

3 Statements of "likelihood" are made in this Report, based on the professional judgment of SCS. A description of likelihood statements, as made in this Report, is included on page 7.

3 SCOPE OF SERVICES

The scope of services included the following:

- Regulatory records review
- Historical research and land use review
- Limited Site reconnaissance
- GIS Integration

REGULATORY RECORDS REVIEW

Environmental FirstSearch™ Site Assessment Report

A Site Assessment Report[4] was prepared by the FirstSearch Technologies Corporation (FirstSearch) for the Site. Local, state, and federal regulatory databases were reviewed for the Site and for those facilities within up to 1 mile of the Site. The FirstSearch report was reported to have been prepared in general accordance with the ASTM standard for the regulatory database review for Phase I ESAs. The locations of the referenced facilities relative to the Site are shown on FirstSearch's "Map of Sites within One Mile," which is included in its report. A description of the various databases, as well as the date each database was most recently updated, is included in the FirstSearch report. The FirstSearch report is provided in Appendix A.

Based on a review of the FirstSearch Report, the following table summarizes the facilities within the selected search perimeters, and whether the Site or a facility that was interpreted to be adjacent to the Site was listed on each database.

Federal or State Government Database	Search Radius	Number of Reported Facilities	On Site	Adjacent to the Site
National Priorities List (NPL)	1.00 mile	0	No	No
NPL Delisted	0.50 mile	0	No	No
Comprehensive Environmental Response Compensation and Liability System (CERCLIS)	0.50 mile	0	No	No
No Further Remedial Action Planned (NFRAP)	0.50 mile	0	No	No
Resource Conservation and Recovery Act-Corrective Action (RCRA COR ACT)	1.00 mile	0	No	No
RCRA Treatment, Storage, and Disposal Facilities (RCRA TSD)	0.50 mile	0	No	No
RCRA Generators (RCRA GEN)	0.25 mile	0	No	No

4 *Environmental FirstSearch™ Report, South River Road, West Sacramento, CA 95691*, by FirstSearch Technologies Corporation, dated February 28, 2012.

Federal or State Government Database	Search Radius	Number of Reported Facilities	On Site	Adjacent to the Site
RCRA no longer listed facilities (RCRA NLR)	0.125 mile	0	No	No
Federal Brownfield	0.25	0	No	No
Federal Engineering and Institutional Controls (IC/EC)	0.25 mile	0	No	No
Emergency Response Notification System (ERNS)	0.125 mile	2	Yes	No
Tribal Lands	1.00 mile	0	No	No
State/Tribal Sites	1.00 mile	7	No	Yes
Spills-1990	0.125 mile	0	No	No
State/Tribal solid waste list (SWL)	0.50 mile	0	No	No
State/Tribal leaking underground storage tanks (LUST)	0.50 mile	2	No	No
State/Tribal underground/aboveground storage tanks (USTs/ASTs)	0.25 mile	0	No	No
State/Tribal deed-restriction site listing (EC/IC)	0.25 mile	0	No	No
State/Tribal voluntary cleanup program (VCP)	0.50 mile	0	No	No
State/Tribal Brownfields	0.50 mile	0	No	No
State Permits	0.25 mile	0	No	No
State Other	0.25 mile	2	No	Yes
HW Manifest	0.125 mile	0	No	No

Please note, while 13 listings on four different databases were included in the FirstSearch report, most of these Sites were reported or interpreted to be across the Sacramento River to the east of the Site or the deep water channel north of the Site. Only five of these listings were interpreted to possibly be at or adjacent to the Site, and therefore subject to further review. All of these facilities were non-geocoded due to incorrect or incomplete addresses. SCS personnel made an attempt to locate these non-geocoded facilities and placed them as accurately as possible on Figure 1. The five listings on the FirstSearch report interpreted to be within or adjacent to the Site are summarized in the following table

Facility	Address	Database (Source)	Interpreted Location
Stonegate Elementary School	Stonegate Drive and La Jolla Street	State (DTSC)	2500 La Jolla Street
Liberty Elementary School Site	North of Davis and of Antioch Road	Other (DTSC)	Same facility, adjacent to Site at portion of APN 046-100-09
Liberty Elementary School Site	North of Davis Road and East of Antioch Ave	State (DTSC)	
Unknown	Near Levy South River Road/.25 Miles South of Davis	ERNs (EPA)	Possibly same facility, within Site, potentially at APN 046-270-35
Yolo County Environmental Health Department	Sacramento River Near Davis and South River Road	ERNs (EPA)	

The files for the Liberty Elementary School Site were requested from the Department of Toxic Substances Control (DTSC), reviewed, and are discussed below. The files for the Stonegate Elementary School were not reviewed based on distance from the Site (while this facility is technically adjacent to one of the Site parcels, it is actually more than 2,000 feet from the SRSEIP project area). SCS attempted to request and review records for the ERNs releases; however, due to the incomplete addresses, the Yolo County Department of Environmental Health (DEH) could not locate files for these facilities. SCS has submitted a request to review files for all available Site addresses; however, this request is still being processed at the time of this Report. Information from the DEH files will be reviewed as it becomes available and incorporated into the Phase I ESA reports that will be prepared in subsequent phases of the SRSEIP. Please note, the interpreted locations of the non-geocoded facilities may not be correct, and should be verified during file reviews.

DTSC File Review

The DTSC files for the Liberty School Site were reviewed by SCS personnel on May 17, 2012. The facility was found to be located adjacent to the Site on a portion of APN 046-100-09. This file included several documents related to the evaluation of this parcel as a future school site. A Preliminary Environmental Assessment (PEA) report is referenced in the file, but was not received or reviewed by SCS. Based on a PEA report approval letter from the DTSC dated January 28, 2011, an unknown number of soil samples were collected from the Site and analyzed for arsenic and organochlorine pesticides. The soil samples were reported to have arsenic concentrations ranging from 8.1 to 11 milligrams per kilogram (mg/kg), and no detectable concentrations of organochlorine pesticides. The letter went on to state that "Based on review of the PEA report and consideration of public comments, neither a release of hazardous material nor the presence of a naturally occurring hazardous materials which would pose a threat to public health or the environment under unrestricted land use was indicated at the Site. Therefore, DTSC concurs with the conclusion of the PEA report that further environmental investigation of the site is not required and hereby approves the PEA report."

Based on the information reviewed in the DTSC files for this facility, there is a low likelihood that a release from this facility has resulted in a REC at the Site. Copies of the files for this facility have been included in Appendix B.

City of West Sacramento Records

On May 23, 2012, a records request was made to the City for records for all known Site addresses and parcels. Records from the City Building, Engineering, and Fire Departments were available for numerous Site parcels, and were provided to the SCS. SCS has reviewed this information and incorporated it into the land use database and GIS for the Site. Several records were found that indicated or were interpreted to indicate that land uses or features of potential concern were present with the potential to result in RECs at the Site. Copies of these records have been included in the Appendices C, D, and E.

HISTORICAL RECORDS REVIEW

In accordance with the American Society for Testing and Materials (ASTM) Standard and All Appropriate Inquiry (AAI) rule, numerous reasonably ascertainable standard historical information sources were reviewed, and an attempt was made to interpret the historical Site and Site vicinity land use back to the apparent first use of the Site. The following table summarizes the historical resources reviewed as part of this Assessment:

Resource	Location/Source	Years Available
Aerial Photographs	Environmental FirstSearch	1937, 1952, 1961, 1976, 1981, 1987
Aerial Photographs	NETR Online	1957, 1964, 2005
City Directories	Environmental FirstSearch	1982, 1987, 1992, 1997, 2002, 2006, 2012
Sanborn Fire Insurance Maps	Environmental FirstSearch	None available
Topographic Maps	Environmental FirstSearch	1913, 1949, 1967, 1975, 1980, 1992
Building Department Records	City of West Sacramento	2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007
Engineering Department Records	City of West Sacramento	2000, 2002, 2003, 2004, 2005, 2006, 2007, 2010, 2011, 2012
Fire Department Records	City of West Sacramento	1992, 1993, 1995, 1996, 1999, 2001, 2002, 2005, 2010, 2011

The information from review of these records has been incorporated into the land use database and GIS for the Site. Based on the historical research, the Site has historically been used for agriculture and residential land uses. Many parcels were identified through the historical research as having potential RECs. Figures 2-1 through 2-11 depict historical land uses for the Site parcels. Copies of the aerial photographs, city directories, and topographic maps have been included in the Appendices F, G, and H, respectively.

LIMITED SITE RECONNAISANCE

On June 19, 2012, Chad Peddy of SCS conducted a limited Site reconnaissance from public right-of-ways, mainly from South River Road, to observe and document current Site conditions. These observations were added to the land use database developed for the Site and incorporated into the GIS, along with numerous photographs taken during the Site reconnaissance. Figure 3 shows the locations where photographs were taken. To view photographs, please access the GIS files via the City's GIS.

GIS INTEGRATION AND DEVELOPMENT

The information gathered during the Assessment was entered into a historical land use and environmental database and integrated into a GIS. The base data for the GIS were obtained from publically available sources, such as the City of West Sacramento, Yolo County, and the State of California Cal Atlas Geospatial Clearinghouse. The limit of work boundary was provided to SCS

by HDR, Inc. Additional features and layers were created to depict the results of the Assessment. GIS files will be provided directly to the City for integration into the City's GIS.

4 FINDINGS

Based on the data obtained and reviewed as part of this Assessment, approximately 80 parcels were identified as having potential RECs and recommended for Phase II work. The vast majority of the potential RECs were associated with current or historical agriculture and related to the potential for metallic and/or organochlorine pesticides to be present. In addition, 14 parcels were identified as having or historically having had fuel tanks (aboveground or underground) and dispensers.

A truncated database table has been included in Appendix I. Land use information and potential RECs and contaminants by parcel have been summarized in the table. Figures 4-1 through 4-11 depict parcels recommended for Phase II work.

5 RECOMMENDATIONS

Based on the data obtained during this Assessment and our findings, SCS recommends the following:

- The results of the Assessment should be incorporated into a Phase II workplan(s).
- Site reconnaissance should be conducted of parcels recommended for Phase IIs to place sampling locations and verify actual Site conditions.
- The locations of any current or historical tank systems should be verified via Site reconnaissance, interviews, and geophysical surveys, as necessary.
- Shallow soil sampling should be conducted to assess the potential presence and concentration of metals and pesticides.
- Soil sampling should be conducted to assess the potential presence and concentration of petroleum hydrocarbons and associated constituents from releases of fuels from tank systems
- Lead and asbestos surveys should be conducted for any structures proposed for demolition within the Site.

6 REPORT USAGE AND FUTURE SITE CONDITIONS

This Report is intended for the sole usage of the Client and other parties designated by the Client. The methodology used during this Assessment was in general conformance with the requirements of the Client and the specifications and limitations presented in the Agreement between the Client and SCS. This Report contains information from a variety of public and other sources, and SCS makes no representation or warranty about the accuracy, reliability, suitability,

or completeness of the information. Any use of this Report, whether by the Client or by a third party, shall be subject to the provisions of the Agreement between the Client and SCS.

Assessments are qualitative, not comprehensive, in nature and may not identify all environmental problems or eliminate all risk. For every property, but especially for properties in older downtown or urban areas, it is possible for there to be unknown, unreported recognized environmental conditions, underground storage tanks, or other features of concern that might become apparent through demolition, construction, or excavation activities, etc. In addition, the scope of services for this project was limited to those items specifically named in the scope of services for this Report. Environmental issues not specifically addressed in the scope of services for this project are not included in this Report.

Land use, condition of the properties within the Site, and other factors may change over time. The information and conclusions of this Report are judged to be relevant at the time the work described in this Report was conducted. This Report should not be relied upon to represent future Site conditions unless a qualified consultant familiar with the practice of Phase I ESAs in the County of Yolo is consulted to assess the necessity of updating this Report.

The property owners at the Site are solely responsible for notifying all governmental agencies and the public of the existence, release, or disposal of any hazardous materials/wastes or petroleum products at the Site, whether before, during, or after the performance of SCS services. SCS assumes no responsibility or liability for any claim, loss of property value, damage, or injury that results from hazardous materials/wastes or petroleum products being present or encountered within the Site.

Although this Assessment has attempted to assess the likelihood that the Site has been impacted by a hazardous material/waste release, potential sources of impact may have escaped detection for reasons that include, but are not limited to: 1) inadequate or inaccurate information rightfully provided to SCS by third parties, such as public agencies and other outside sources; 2) the limited scope of this Assessment; and 3) the presence of undetected, unknown, or unreported environmental releases.

7 LIKELIHOOD STATEMENTS

Statements of “likelihood” have been made in this report. Likelihood statements are based on professional judgments of SCS. The term “likelihood,” as used herein, pertains to the probability of a match between the prediction for an event and its actual occurrence. The likelihood statement assigns a measure for a “degree of belief” for the match between the prediction for the event and the actual occurrence of the event.

The likelihood statements in this Report are made qualitatively (expressed in words). The qualitative terms can be approximately related to quantitative percentages. The term “low likelihood” is used by SCS to approximate a percentage range of 10 to 20 percent; the term “moderate likelihood” refers to an approximate percentage range of 40 to 60 percent; and the term “high likelihood” refers to an approximate percentage range of 80 to 90 percent.

Appendix G.2

Technical Memorandum Phase II Environmental Site Assessment, Subsurface Soil and Groundwater Investigation

SCS ENGINEERS







Technical Memorandum
Phase II Environmental Site Assessment
Subsurface Soil and Groundwater Investigation

1155 Linden Road
West Sacramento, Yolo County, California
Assessor's Parcel Number
046-040-008-000

Presented to:

West Sacramento Area Flood Control Agency
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July 17, 2014
Project Number: 01212113.00

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1 SITE BACKGROUND

In 2012, SCS Engineers was retained by West Sacramento Area Flood Control Authority (WSAFCA) to provide environmental services related to the Southport Early Implementation Project (SRSEIP). This is part of a program established in 2005 by the City of West Sacramento (City) to improve the City's flood protection system and meet new Federal standards for levees.

In 2012 a Corridor Assessment Summary Report was prepared for WSAFCA by SCS Engineers. This report identified above-ground storage tanks (ASTs) to historically be on the Site at 1155 Linden Road. However, a follow-up site inspection confirmed that there were no tanks remaining at the site, and no visual evidence of potential impacts from prior operations.

In 2012 a private consulting company working for WSAFCA excavated a test pit at the Site and collected soil samples for geotechnical purposes. During the geotechnical sampling, petroleum odors were detected in the test pit soil samples. Soil samples were retained and sent to a State certified laboratory and analyzed for petroleum products. According to the laboratory results, total petroleum hydrocarbons (TPH) were detected in the soil from the Site.

A more extensive historic documentation review was then completed and it was determined that Time Oil Co. (dba TOC Holdings) installed ASTs on-Site and utilized the ASTs for petroleum products storage from at least 1952 through 1975. Time Oil Co. built an associated pier and pipeline during 1952 and/or 1953. The pier and pipeline were installed to allow transport of petroleum products from barges, traveling on the Sacramento River, to the associated ASTs. It has been reported that trucks would haul the petroleum products from the ASTs to local fuel stations or other customers. According to the historic documentation, TOC Holdings discontinued operations on the Site sometime between 1972 and 1974. According to historic aerial photos, the ASTs were removed sometime between 1978 and 1980.

The Site location map is shown on Figure 1. A 1976 aerial photograph shows the ASTs, associated piping, and Site structures (Figure 2).

2 SITE SETTING

2.1 LOCATION

The Site is approximately 4.26 acres and located directly west of the Sacramento River. A levee is on the eastern portion of the Site which separates the majority of the Site from the Sacramento River. The Site is currently developed with one building and one mobile phone "monopine" tower. The surrounding area is comprised of single-family residential homes and agricultural land. According to the United States Geological Survey 7.5 Minute Topographic Quadrangle Map, Sacramento West, 1980, the Site is located in Township 8 North, Range 4 East, section 15.

2.2 SITE TOPOGRAPHY & DRAINAGE

The Site lies on relatively flat land, with the general Site topography sloping gently to the south. The surface elevation is approximately 13 feet above mean sea level and surface drainage is

generally to the south, toward the neighboring property. The levee is located on the eastern portion of the Site sloping east into the Sacramento River and west onto the Site. The surface elevation of the levee is approximately 25 feet above mean sea level.

2.3 GEOLOGY

During the Cretaceous Period to the early Miocene Epoch, the present Sacramento Valley trough was inundated by an inland sea, which deposited thousands of feet of marine sediments above the pre-Cretaceous granitic basement rocks. After withdrawal of the marine waters in the Miocene Epoch, there was a period dominated by the deposition of continental deposits. The Sacramento River subbasin is within the flood plain of the Sacramento River. Quaternary sediments consist of predominately fine-grained sands, silts, and clays.

According to the Geologic Map of California by Charles W. Jennings (1977), published by California Department of Conservation, Division of Mines and Geology (DMG); now California Geological Survey, the materials underlying the Site consist of Quaternary, Pleistocene-Holocene (Q) alluvium, lake, playa and terrace deposits, unconsolidated and semi-consolidated, mostly nonmarine.

2.4 HYDROGEOLOGY

This DWR bulletin identifies four separate groundwater basins within Yolo County. The Site is located within the Yolo Basin. The East Yolo Basin consists of low, poorly drained land between the alluvial fans of the Sacramento River. It extends from the Knights Landing Ridge to the southern County line. Deposits in the Basin are mainly clay and clay-adobe soils at the surface with some water bearing materials present, but the proportion of sand and gravel is generally less than that found in the adjoining river lands and low plains [v].

Based on the Phase II ESA work completed to date, depth to first groundwater beneath the Site is estimated to range from about 17 feet to about 35 feet below ground surface (bgs), depending on the existing surface elevations. Well measuring point surveying has not yet been completed so groundwater elevations have not yet been established.

Groundwater in the area of the Site likely flows toward the Sacramento River (southeast to south) under natural conditions, but may be restricted from flowing to the river, in whole or in part, by the existing levee system. Local well pumping may also affect groundwater flow direction.

3 SITE INVESTIGATION ACTIVITIES

3.1 STAGE 1

In April 2014, an initial Phase II Environmental Site Assessment (ESA) was completed for the Site which included 10 direct push sampling points; field evaluation of soils collected using a field photoionization detector (PID) to detect organic vapors, if present; laboratory evaluation of selected soil samples for total petroleum hydrocarbons and carbon chain analysis; collection of

groundwater samples using temporary wells through the direct push borings; and laboratory analysis of groundwater samples for volatile organic compounds (VOCs). This initial Phase II ESA was intended as a "first look" to determine if environmental impacts existed at the Site and, if so, in which areas of the site.

The ten direct push borings were located as shown on Figure 3, and designated DP-1 through DP-10. The borings collected continuous soil cores and the soils were screened for PID detections, and visual and odor impacts. Where impacts were noted, samples were retained for laboratory analysis. At least two soil samples were collected from each boring regardless of whether there was a field indication of potential impacts. It was intended that at least one sample from each boring would be collected just above groundwater, and one would be collected from the top of the saturated zone.

After each boring was advanced to below groundwater, a temporary ¾-inch diameter well screen and casing was placed in the boring. Groundwater samples were collected using small diameter, disposable bailers. It was recognized that the groundwater samples, since they were collected from temporary borings and not from properly designed monitoring wells, would be turbid and, therefore, not fully representative of groundwater conditions. The samples were appropriate for making a "first look" determination of whether groundwater impacts existed at the site.

All borings were abandoned by filling the boreholes with neat bentonite cement, in accordance with a Yolo County Environmental Health Department permit.

Soil samples were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline (TPH-G) and TPH-carbon chain analysis by EPA Methods 8015B and 8015CC. Groundwater samples were analyzed for VOCs by EPA Method 8260B.

As a result of this initial (Stage 1) Phase II ESA it was determined that environmental impacts did exist at the site in the form of soil and groundwater impacts, in some areas of the Site. Therefore, additional investigation of the Site was needed in order to further define these impacts and provide sufficient information to develop remediation plans, if necessary.

3.2 STAGE 2

Stage 2 of the ESA was designed to collect more soil samples, on a grid pattern, in order to further identify the type and locations of soil impacts, and to establish groundwater monitoring points in order to better characterize possible groundwater impacts. Thirty-five borings were originally planned on a grid pattern shown in Figure 4. These borings were drilled until groundwater was encountered. The borings were continuously cored and the cores inspected for indications of potential impacts using a PID, visual and odor indications. Where field observation detected potential impacts, samples were collected for laboratory analysis every two feet from the point of impact observation downward to groundwater. In addition, near-surface samples (within the upper five feet) were also collected, regardless of whether there was any field observation of potential impacts. These were collected to confirm whether near surface soils had been impacted. The Stage 2 borings were numbered according to the grid cell location (e.g., A-1, B-4, C-7, etc.). The 35 soil borings were limited to the eastern portion of the site,

including the levee area, because the initial Phase II ESA showed no impacts west of the ditch present at the site (Borings DP-1 and DP-2).

As the Stage 2 borings were drilled it was noted that impacts were present near the southeastern boundary of the Site (borings B-1, C-1, and D-1). It was decided that two additional borings would be drilled south of the property boundary, designated C-0 and D-0. These borings were drilled with permission of the adjacent property owner.

All Stage 2 borings were abandoned by filling the boreholes with neat bentonite cement, in accordance with a Yolo County Environmental Health Department permit.

Samples collected from the Stage 2 borings were analyzed for VOCs by EPA Method 8260B, and TPH carbon chain by Method 8015CC.

In addition to the 37 soil borings, five groundwater monitoring wells were drilled, constructed, developed, and sampled. These are shown on Figure 4 as MW-1 through MW-5. The wells were screened with 15 feet of well screen placed with approximately 10 feet of screen below the water table, and five feet above the water table. This was to allow for water table fluctuations and provide a means to observe whether light non-aqueous phase liquids (LNAPL – also known as floating free product) exists floating on groundwater.

After the wells were installed and developed, groundwater samples were collected using disposable Teflon® bailers. The samples were analyzed for VOCs by EPA Method 8260B, and organic lead by Method HMU-900.

4 SUMMARY OF RESULTS

The following discussion of results is provided as an initial summary of laboratory results obtained for the Stage 1 and Stage 2 ESAs. Some data collection, such as the monitoring well surveying and determination of groundwater direction of flow, and full evaluation of the data has yet to be completed. A complete analysis will be provided in a future Site Assessment Report.

Stage 1 soil analysis results are given in Table 1. Blank cells indicate there was no detection for that parameter. Borings DP-1 through DP-5, and DP-8 and DP-9, did not have any TPH compounds detected. Soil impacts were observed in the samples from DP-6, DP-7, and DP-10, with the highest total TPH detected in DP-10. The detection locations are along the eastern edge of the property next to the levee berm.

Stage 1 groundwater sample results are given in Table 2. No VOCs were detected in samples from borings DP-1, DP-2, and DP-9. Only trace detections (indicated with "J") were seen in DP-4 and DP-5. Of the remaining borings, the highest concentrations of VOCs were typically in DP-10, although DP-6 and DP-7 had the highest concentration of some VOCs. As with the Stage 1 soil results, the groundwater impacts appear to be mostly along the edge of the levee on the eastern side of the property. No VOCs were detected west of the ditch (DP-1 and DP-2). The relatively low concentration detection in groundwater at DP-3, DP-4 and DP-5 did not correlate to the soil samples from these locations. No TPH impacts were observed in these borings, but

that may be due to more sensitivity (lower detection limits) for VOCs in groundwater than TPH in soils.

Stage 2 soil sample analysis results are given in Table 3. Due to the size of the data set, this table is divided into separate tables for the rows along the grid pattern. These include rows B, C, D and E. No indications of impacts were observed in the row A borings, so no soil samples were collected for analysis. Also included in Table 3 (last page) are soil analysis results from soils collected during drilling of the monitoring wells, at points where field observations indicated an impact may be present.

Note that for Stage 2 soil analyses, a full VOC scan was completed, but only those VOCs detected in at least one sample are given in Table 3.

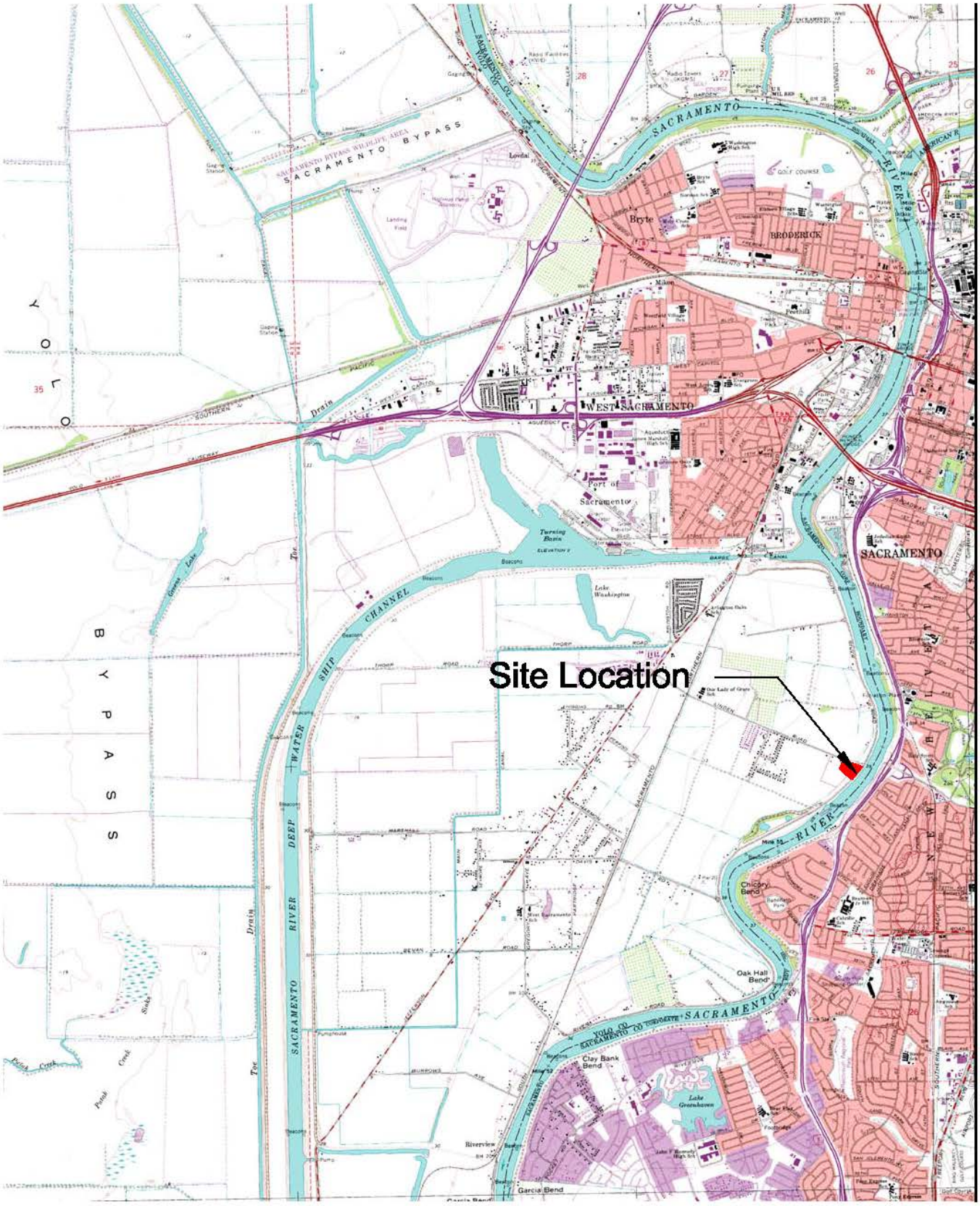
In general, soil impacts were confirmed in borings in the eastern portion of the site, next to the levee (Rows C and D), although boring B2 also had significant impacts. Individual VOC concentrations varied between borings, but the highest observed total purgeable petroleum hydrocarbons (>1,000 mg/kg) were observed in borings B2, C0, C1, C2, C7, D1 and D6. Borings drilled through the levee (Row E) did show some impacts, but generally only in samples collected at approximately groundwater level. In general, the highest concentrations were observed near groundwater, but some borings had soil impacts noted above groundwater, which may indicate an historic point of release. All near-surface soils (0-5 feet bgs) had little to no detectable VOCs.

Soil carbon chain analysis showed that most impacts were in the gasoline and diesel range (C4 to C22).

Stage 2 groundwater results are given in Table 4. No VOCs were detected in well MW-1, MW-2 or MW-5. The highest VOC concentrations were in MW-4 in the southeastern corner of the property. The absence of VOCs detected in the monitoring well installed through the levee (MW-5), and the highest concentrations being observed in MW-4, indicates that groundwater flow, and transportation of contaminants in groundwater, may be primarily moving south parallel to the levee, as opposed to flowing under the levee directly toward the river.

Because the highest groundwater impacts were observed next to the southern site boundary, additional investigation will be necessary to determine the extent of the impacts offsite to the south.

Figures



SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 852 NORTHPORT DRIVE, SUITE #8 WEST SACRAMENTO, CALIFORNIA 95691 PH. (916) 372-2014 FAX. (916) 372-2033	**SHEET TITLE:** SITE LOCATION MAP	**SCALE:** N.T.S
PROJ. NO: 01212113.00 **DWN. BY:** ATV **ACAD FILE:** FIGURE 1 **DATE:** 3/14/14 **CHK. BY:** MS **APP. BY:** EWP	**PROJECT TITLE:** 1155 LINDEN ROAD WEST SACRAMENTO, CALIFORNIA APN: 046-040-008-000	**FIGURE NO.:** 1

Source: Cartwright Aerial Surveys, Inc.

SCS ENGINEERS
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And Contractors

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PROJECT NO: 01212113.00		CHECKED BY: EWP
DESIGNED BY: MJS	SCALE: (1"-200')	APPROVED BY: EWP
DRAWN BY: MJS	DATE: 03/2014	FILE:

1976 Aerial Photo

1155 Linden Road
West Sacramento, California
APN: 046-040-008-000

Figure 2

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 852 NORTHPORT DRIVE, SUITE #5 WEST SACRAMENTO, CALIFORNIA 95691 PH. (916) 372-2014 FAX. (916) 372-2033	SHEET TITLE: SITE SAMPLE LOCATIONS	SCALE: 1"=100'
PROJ. NO.: 01212113.00 / DWN. BY: ATV / ACAD FILE: FIGURE 3 DATE: 5/19/14 / CHK. BY: MS / APP. BY: EWP	PROJECT TITLE: 1155 LINDEN ROAD WEST SACRAMENTO, CALIFORNIA APN: 046-040-008-000	FIGURE NO.: 3

LEGEND:

- BORING LOCATIONS
- MW-1 MONITORING WELLS

SCS ENGINEERS ENVIRONMENTAL CONSULTANTS 852 NORTHPORT DRIVE, SUITE #5 WEST SACRAMENTO, CALIFORNIA 95691 PH. (916) 372-2014 FAX. (916) 372-2033		
PROJ. NO. 01198143.00	DWN. BY: ATV	ACAD FILE: FIGURE 4
DSN. BY: MJS	CHK. BY: EWP	APP. BY: AAM

SHEET TITLE: SOIL SAMPLE LOCATIONS GRID

PROJECT TITLE:
1155 LINDEN ROAD
WEST SACRAMENTO, CALFORNIA
APN: 046-040-008-000

DATE: 6/30/14

SCALE: 1"=40'

FIGURE: 4

Tables

TABLE 1 - Initial Site Investigation (Stage 1) Soil Analysis Results

DPORING/DEPTH (feet DPgs)	Gasoline Range C-4 - C12	TPH C8 - C9	TPH C10 - C11	TPH C12 - C14	TPH C15 - C16	TPH C17 - C18	TPH C19 - C20	TPH C21 - C22	TPH C23 - C28	TPH C29 - C32	TPH C33 - C36	TPH C37 - C40	TPH C41 - C43	TPH C44+	TPH Total
	mg/kg														
DP-1 @14'															
DP-1 @19'															
DP-2 @15'															
DP-2 @19'															
DP-3 @14'															
DP-3 @19'															
DP-4 @14'															
DP-4 @20'															
DP-5 @14'															
DP-5 @20'															
DP-6 @14'	1.9		410	150	6.9										570
DP-6 @17'	3.7	3.6	2.6												6.7
DP-6 @23'	0.35 J														
DP-7 @14'															
DP-7 @17'	940	11	12	2.9	1.1	0.61 J									28
DP-7 @23'	2.4														
DP-8 @14'															
DP-8 @19'															
DP-8 @22'															
DP-9 @14'															
DP-9 @21'															
DP-10 @11'															
DP-10 @14'	36,000		1,600	540	52	19									2,300
DP-10 @19'	180	19	14	3.4	1.1										37

Blank cells indicate Not Detected

TABLE 2 - Initial Site Investigation (Stage 1) Groundwater Analysis Results

BORING	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	1,2-Dichloroethane	Ethylbenzene	Isopropylbenzene	P-Isopropyltoluene	Naphthalene	n-Propylbenzene	Tetrachloroethene	Toluene	Trichloroethene	1,1,2-Trichloro-1,2,2-trifluoroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes	p- & m-Xylenes	o-Xylenes
	ug/L																		
DP-1																			
DP-2																			
DP-3					0.30 J	0.23 J											**1.7**	**1**	**0.67**
DP-4					0.41 J							0.15 J							
DP-5						0.11 J											0.36 J	0.29 J	
DP-6	**4**	**12**	**5.8**		**2.5**	**89**	**12**	**2.2**	**16**	**36**		**4.4**			**69**	**35**	**210**	**180**	**35**
DP-7		**100**	**40**			0.29 J	**1.2**		**2.4**	**8.7**						0.25 J	0.68 J	**0.68**	
DP-8		**0.57**	0.20 J						**1.5**						0.15 J				
DP-9																			
DP-10	**140**	**14**	**14**	**0.76**		**130**	**120**	**3.8**	**9.3**	**270**	**1.1**	**19**	**1.9**	0.43 J	**16**	**19**	**100**	**85**	**16**
WQG	0.15	260	260	260	0.4	3.2	0.8	NE	21 (17)	260	0.06	42 (40)	1.7	1,200 (150)	330	15	17	NE	NE
CA Primary MCL	1	NE	NE	NE	0.5	300	NE	NE	NE	NE	5	150	5	1,200	NE	NE	1,750	NE	NE
ESL	1	NE	NE	NE	0.5	30	NE	NE	6.1	NE	5	40	5	NE	NE	NE	20	NE	NE

Above WQG and MCL (if established)

Above WQG, but below MCL

WQG = Water Quality Goal

ESL = Environmental Screening Levels: Groundwater Screening Levels for Drinking Water Source.

NE = Not Established

Blank cells indicate Not Detected

TABLE 3 - Site Investigation (Stage 2) Soil Analysis Results

ROW B BORINGS

BORING GRID #	**B1**					**B2**			**B4**	**B6**
Estimated DTW (ft. bgs)	**14**					**14**			**14**	**13.5**
DEPTH (ft. bgs)	**3.5-4.0**	**10**	**12**	**14**	**16**	**11**	**13**	**15**	**3.0-3.5**	**3.5-4.0**
VOCs (mg/kg)										
Benzene	ND	ND	0.11	0.18	0.17	0.56	0.25	0.29	ND	ND
n-Butylbenzene	ND	ND	6.7	0.16	0.018	32	0.24	0.025	ND	ND
sec-Butylbenzene	ND	ND	1.3	0.059	0.0076	9.8	0.092	0.014	ND	ND
2-Chlorotoluene	ND	ND	ND	ND	0.17	ND	ND	ND	ND	ND
1,2-Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	4.7	0.05	0.11	40	0.039	0.013	ND	ND
Isopropylbenzene	ND	ND	17	0.17	0.031	13	0.23	0.061	ND	ND
p-isopropyltoluene	ND	ND	0.0066	0.0074	ND	6.2	0.026	0.0031J	ND	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	9.7	0.027	ND	51	0.03	ND	ND	ND
n-Propylbenzene	ND	ND	8.3	5.1	0.11	55	6	0.18	ND	ND
Toluene	ND	ND	0.0066	0.032	0.0043J	0.013	0.0089	0.0058	ND	0.0015J
1,2,4-Trimethylbenzene	ND	ND	0.01	0.036	ND	240	0.0025J	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	0.0020J	0.013	ND	30	0.0048	ND	ND	ND
Total Xylenes	ND	ND	0.017	0.039	0.0056J	30	0.017	0.0092J	ND	ND
t-Butyl Alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p- & m-Xylenes	ND	ND	0.015	0.035	0.0049J	30	0.014	0.0084	ND	ND
o-xylene	ND	ND	0.0027J	0.0036J	ND	ND	0.003J	ND	ND	ND
Total Purgeable Petroleum Hydrocarbons (mg/kg)	ND	0.17J	270	180	2.1	2600	220	28	ND	ND
TPH (mg/kg)										
TPH C8-C9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C10-C11	0.89J	2.6	8.6	2.4	ND	62	21	1.4	ND	ND
TPH C12-C14	2	6.3	7.3	2.3	ND	37	12	1.3	ND	ND
TPH C15-C16	1.7	8.4	1.5	0.89J	ND	3.5	1	0.59J	ND	ND
TPH C17-C18	1.7	4.9	0.65J	0.5J	ND	1.6	0.63J	0.51J	ND	ND
TPH C19-C20	2.1	3.1	ND	ND	ND	0.94J	ND	ND	ND	ND
TPH C21-C22	2.8	2.6	ND	ND	ND	0.55J	ND	ND	ND	ND
TPH C23-C28	5.8	3.9	ND	ND	ND	ND	ND	ND	ND	2.3
TPH C29-C32	2.6	1.4	ND	ND	ND	ND	ND	ND	ND	4.1
TPH C33-C36	1.5	ND	ND	ND	ND	ND	ND	ND	ND	2
TPH C37-C40	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1
TPH C41-C43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C44+	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH (Total)	21	33	18	6.5	ND	110	35	4.1J	ND	9.5J

TABLE 3 - Site Investigation (Stage 2) Soil Analysis Results

ROW C BORINGS

BORING GRID #	**C0**		**C1**				**C2**						**C3**			**C4**	**C7**			
ESTIMATED DTW (ft. bgs)	**14**		**15**				**14**						**14**			**16**	**14**			
DEPTH (ft. bgs)	**14**	**16**	**11**	**13**	**15**	**17**	**5**	**7**	**9**	**11**	**13**	**15**	**3.5-4.0**	**14**	**16**	**3.5-4.0**	**3.5-4.0**	**12**	**14**	**16**
VOCs (mg/kg)																				
Benzene	0.0023J	ND	0.028	ND	7.2	0.17	ND	0.015	0.02	1.4	2.8	0.03	ND	ND	0.0055J	ND	ND	0.0025J	ND	0.0033J
n-Butylbenzene	0.094	110	0.49	1.4	100	ND	ND	0.17	51	5	2	0.46	ND	ND	0.15	ND	ND	24	6	0.034
sec-Butylbenzene	0.019	16	0.14	0.26	26	0.0048	ND	0.12	12	1.4	0.6	0.16	ND	ND	0.087	ND	ND	9.7	2.6	0.015
1,2-Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	0.0023J	81	1.2	1.1	310	0.014	ND	0.081	110	47	11	5	ND	0.0016J	0.045	ND	ND	0.27	0.42	0.0014J
Isopropylbenzene	0.013	47	0.17	0.26	43	0.035	ND	0.035	17	2.6	1.1	0.17	ND	ND	0.29	ND	ND	7.1	2.9	0.03
p-isopropyltoluene	0.013	8.6	0.1	0.13	13	0.0013J	ND	0.17	7.7	0.92	0.34	0.11	ND	ND	0.0029J	ND	ND	0.21	0.62	ND
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	0.0047	99	1.5	1.5	130	0.015	ND	70	57	6.4	7.6	5.6	ND	0.0034J	ND	ND	ND	29	ND	ND
n-Propylbenzene	0.062	140	0.7	1.3	130	0.075	0.0014J	0.084	64	7	3.8	3.9	ND	0.0015J	0.7	ND	ND	35	12	0.098
Toluene	0.0016J	ND	0.014	ND	3.4	0.0084	ND	0.042	0.35	0.87	0.047	0.026	ND	ND	ND	ND	ND	0.0017J	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.013	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	100	2.9	1.9	150	0.0062	ND	65	100	8.5	0.65	3	ND	0.0015J	ND	ND	ND	0.13	ND	ND
1,3,5-Trimethylbenzene	0.013	47	2.4	0.26	43	0.0027J	ND	2.8	17	2.6	1.1	0.98	ND	ND	ND	ND	ND	54	3.6	0.0014J
Total Xylenes	ND	24	4	4.2	540	0.026	ND	120	470	140	0.97	6.1	ND	0.0059J	0.0072J	ND	ND	0.62	0.44	ND
t-Butyl Alcohol	0.045	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.036J	ND	0.053
p- & m-Xylenes	ND	23	3.8	4.2	520	0.025	ND	85	310	110	0.96	5.9	ND	0.0046J	0.0053J	ND	ND	0.61	0.42	ND
o-xylene	ND	0.26	0.018	0.051	23	0.0015J	ND	39	160	25	0.02	0.22	ND	0.0014J	0.0019J	ND	ND	0.0063	ND	ND
Total Purgeable Petroleum Hydrocarbons (mg/kg)	220	8800	5.1	89	9000	170	ND	2800	11000	2000	610	290	ND	0.28	85	ND	ND	2700	970	16
TPH (mg/kg)																				
TPH C8-C9	ND	ND	20	ND	670	15	ND	ND	500	58	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C10-C11	18	290	39	ND	2100	13	0.90J	530	1700	29	4.3	15	ND	ND	2.9	ND	ND	150	360	1.2
TPH C12-C14	14	230	8.4	ND	760	1.5	2.9	260	550	3.3	1	8.7	ND	ND	1.2	ND	ND	290	450	3.5
TPH C15-C16	6.2	14	2.1	ND	27	ND	4.8	24	28	ND	ND	3.5	ND	ND	0.83J	ND	ND	95	110	5.2
TPH C17-C18	3.1	5.7	1.1	ND	ND	ND	3.2	7.9	ND	ND	ND	2.3	ND	ND	ND	ND	ND	49	50	5.4
TPH C19-C20	2.4	ND	0.81J	ND	ND	ND	1.7	4.7	ND	ND	ND	1.8	ND	ND	ND	ND	ND	21	23	2.9
TPH C21-C22	3.5	ND	ND	ND	ND	ND	0.98J	ND	ND	ND	ND	0.95J	ND	ND	ND	ND	ND	14	15	2.5
TPH C23-C28	9.3	ND	ND	ND	ND	ND	3.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.9	ND	4.6
TPH C29-C32	8.5	ND	ND	ND	ND	ND	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C33-C36	3.3	ND	ND	ND	ND	ND	0.69J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C37-C40	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C41-C43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C44+	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH (Total)	70	540	72	ND	3500	29	21	820	2800	90	5.3J	33	ND	ND	4.9J	ND	ND	630	1000	25

TABLE 3 - Site Investigation (Stage 2) Soil Analysis Results
ROW D BORINGS

BORING GRID #	**D1**				**D2**				**D4**	**D5**		**D6**				
Estimated DTW (ft. bgs)	**22**				**24**				**22**	**22**		**20**				
DEPTH (ft. bgs)	**3.5-4.0**	**21**	**23**	**24**	**18.5**	**20.5**	**22.5**	**24**	**3.5-4.0**	**3.5-4.0**	**23.5**	**3.5-4.0**	**13**	**15**	**17**	**19**
VOCs (mg/kg)																
Benzene	ND	ND	0.0047	0.008	0.0013J	0.1	0.093	0.0011J	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	0.54	0.018	0.058	0.27	0.091	ND	ND	ND	ND	ND	3.2	6.3	1.4	3
sec-Butylbenzene	ND	ND	0.12	0.021	0.01	0.085	0.051	0.0073	ND	ND	ND	ND	0.84	1.5	0.12	0.56
1,2-Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	0.0015J	ND	0.0093	ND	0.0041J	ND	ND	ND	ND	ND	2.4	9.3	ND	0.86
Isopropylbenzene	ND	ND	0.085	0.037	ND	0.14	ND	0.0024J	ND	ND	ND	ND	0.76	2.8	ND	0.72
p-isopropyltoluene	ND	ND	0.0011J	ND	0.0037J	0.032	ND	ND	ND	ND	ND	ND	1	1.2	0.13	0.25
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	0.045	ND	0.13	0.35	ND	ND	ND	ND	ND	ND	14	12	4.7	4.6
n-Propylbenzene	ND	ND	0.43	0.11	0.027	0.52	0.33	0.0019J	ND	ND	ND	ND	4.3	12	1.3	4
Toluene	ND	ND	0.0014J	ND	0.0018J	0.0092	0.0025J	ND	ND	ND	ND	ND	0.091	0.12	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	0.0021	0.21	ND	ND	ND	ND	ND	ND	13	16	1.9	4
1,3,5-Trimethylbenzene	ND	ND	0.085	0.037	0.0019J	0.14	0.12	0.0024J	ND	ND	ND	ND	0.76	2.8	ND	0.72
Total Xylenes	ND	ND	ND	ND	0.03	0.74	ND	ND	ND	ND	ND	ND	16	2236	0.84	3.3
t-Butyl Alcohol	ND	ND	0.035J	ND	0.042J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p- & m-Xylenes	ND	ND	ND	ND	0.03	0.73	ND	ND	ND	ND	ND	ND	14	33	0.84	3.2
o-xylene	ND	ND	ND	ND	ND	0.012	ND	ND	ND	ND	ND	ND	2.4	2.6	ND	ND
Total Purgeable Petroleum Hydrocarbons (mg/kg)	ND	0.3	2100	13	13	420	25	5.7	ND	ND	ND	ND	970	1100	140	440
TPH (mg/kg)																
TPH C8-C9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C10-C11	ND	1.1J	4.6	ND	ND	31	1.9	ND	0.83J	ND	ND	ND	1.8	270	0.97J	1.5
TPH C12-C14	ND	2.3	6	ND	1.5	62	1.3	ND	0.82J	ND	ND	ND	37	360	39	52
TPH C15-C16	ND	2.3	3.6	ND	1.7	11	ND	ND	ND	ND	ND	ND	21	140	26	26
TPH C17-C18	ND	2.3	1.8	ND	1.2	3.8	ND	ND	ND	ND	ND	ND	12	79	14	13
TPH C19-C20	ND	2.4	0.98J	ND	0.79J	2.1	ND	ND	ND	ND	ND	ND	5.2	33	6	5.3
TPH C21-C22	ND	8.4	ND	ND	0.78J	1.2	ND	ND	ND	ND	ND	ND	5.2	21	5.2	4.7
TPH C23-C28	ND	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.5	10	6.3	6.1
TPH C29-C32	ND	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.9	ND	ND	ND
TPH C33-C36	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C37-C40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C41-C43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C44+	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH (Total)	ND	42	17	ND	6.4	110	3.1	ND	ND	ND	ND	ND	87	910	97	110

TABLE 3 - Site Investigation (Stage 2) Soil Analysis Results

ROW E BORINGS

BORING GRID #	**E1**		**E2**		**E5**		**E6**			
Estimated DTW (ft. bgs)	**35**		**34**		**30.5**		**32**			
DEPTH (ft. bgs)	**33.5**	**35.5**	**3.5-4.0**	**35**	**30.5**	**32**	**3.5-4.0**	**30.5**	**32.5**	**34**
VOCs (mg/kg)										
Benzene	ND	0.0013J	ND	ND	ND	0.0033J	ND	0.0011J	0.019	0.0043J
n-Butylbenzene	ND	ND	ND	0.0061	ND	0.21	ND	0.0037J	0.043	0.023
sec-Butylbenzene	ND	ND	ND	0.0017J	ND	0.11	ND	0.0022J	0.022	0.019
1,2-Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	0.0025J	ND	ND	ND	0.01	ND	ND	0.005	ND
Isopropylbenzene	ND	0.11	ND	ND	ND	0.14	ND	0.0049	0.074	0.079
p-isopropyltoluene	ND	0.0026J	ND	ND	ND	0.03	ND	ND	0.0048	0.0014J
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	ND	0.35	ND	0.0044	ND	0.36	ND	0.017	0.24	0.21
Toluene	ND	ND	ND	ND	ND	0.001J	ND	ND	0.0021J	0.0024J
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	0.11	ND	ND	ND	0.14	ND	0.0049	0.074	0.079
Total Xylenes	ND	0.0027J	ND	ND	ND	0.0036J	ND	ND	ND	ND
t-Butyl Alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p- & m-Xylenes	ND	0.0017J	ND	ND	ND	0.0024J	ND	ND	ND	ND
o-xylene	ND	0.00089J	ND	ND	ND	0.0012J	ND	ND	ND	ND
Total Purgeable Petroleum Hydrocarbons (mg/kg)	0.3	400	ND	ND	1.4	380	ND	1.8	29	9.5
TPH (mg/kg)										
TPH C8-C9	ND	3.9	ND	ND	2.7	38	ND	ND	ND	ND
TPH C10-C11	ND	4.4	ND	ND	7.1	72	ND	ND	4.7	ND
TPH C12-C14	ND	3.3	ND	ND	5.7	39	ND	ND	6.8	ND
TPH C15-C16	ND	0.91J	ND	ND	3	9	ND	ND	2.5	ND
TPH C17-C18	ND	ND	ND	ND	2.1	4.1	ND	ND	1.8	ND
TPH C19-C20	ND	ND	ND	ND	2.1	2.2	ND	ND	0.98J	ND
TPH C21-C22	ND	ND	ND	ND	1.1	1.1	ND	ND	0.68J	ND
TPH C23-C28	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C29-C32	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C33-C36	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C37-C40	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C41-C43	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH C44+	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH (Total)	ND	12	ND	ND	24	160	ND	ND	18	ND

TABLE 3 - Site Investigation (Stage 2) Soil Analysis Results
MONITORING WELL SOILS

BORING GRID #	**MW-2**	**MW-3**			**MW-4**	
Estimated DTW (ft. bgs)	**18**	**18**			**18**	
DEPTH (ft. bgs)	**18**	**12**	**18**	**23**	**12**	**18**
VOCs (mg/kg)						
Benzene	ND	ND	ND	ND	0.13	ND
n-Butylbenzene	ND	29	ND	ND	5.7	0.0052
sec-Butylbenzene	ND	5.6	ND	ND	1.3	0.0017J
1,2-Dibromomethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	1.3	ND	ND	7.5	0.0031J
Isopropylbenzene	ND	8.7	ND	ND	0.15	0.0023J
p-isopropyltoluene	ND	77	ND	ND	0.026	ND
MTBE	ND	ND	ND	ND	ND	ND
Naphthalene	ND	0.33	ND	ND	12	ND
n-Propylbenzene	ND	ND	ND	0.0018J	6.7	0.009
Toluene	ND	ND	ND	ND	0.12	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	50	0.0015J
1,3,5-Trimethylbenzene	ND	8.7	ND	ND	15	ND
Total Xylenes	ND	ND	ND	ND	50	0.0035J
t-Butyl Alcohol	ND	ND	ND	ND	ND	ND
p- & m-Xylenes	ND	ND	ND	ND	37	0.0030J
o-xylene	ND	ND	ND	ND	13	ND
Total Purgeable Petroleum Hydrocarbons (mg/kg)	ND	1100	ND	0.13J	870	70
TPH (mg/kg)	ND	NA	NA	NA	NA	NA
TPH C8-C9	ND	NA	NA	NA	NA	NA
TPH C10-C11	ND	NA	NA	NA	NA	NA
TPH C12-C14	ND	NA	NA	NA	NA	NA
TPH C15-C16	ND	NA	NA	NA	NA	NA
TPH C17-C18	ND	NA	NA	NA	NA	NA
TPH C19-C20	ND	NA	NA	NA	NA	NA
TPH C21-C22	ND	NA	NA	NA	NA	NA
TPH C23-C28	ND	NA	NA	NA	NA	NA
TPH C29-C32	ND	NA	NA	NA	NA	NA
TPH C33-C36	ND	NA	NA	NA	NA	NA
TPH C37-C40	ND	NA	NA	NA	NA	NA
TPH C41-C43	ND	NA	NA	NA	NA	NA
TPH C44+	ND	NA	NA	NA	NA	NA
TPH (Total)	ND	NA	NA	NA	NA	NA

ND = Not Detected
NA = Not Analyzed
"J" indicates the parameter was detected by the laboratory below the Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL). As such, it is considered a "trace concentration"

TABLE 4 - Site Investigation (Stage 2) Initial Groundwater Results

BORING	Benzene	n-Butylbenzene	sec-Butylbenzene	Chloroform	Ethylbenzene	Isopropylbenzene	P-Isopropyltoluene	Naphthalene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Total Xylenes	p- & m-Xylenes	o-Xylenes	Organic Lead
	ug/L															mg/L
MW-1																
MW-2																
MW-3		0.24 J	0.83	0.28J	0.28 J	1.8	0.22J		4.9		0.13 J					
MW-4	78	36	16		590	35	9.2	93	87	40	590	210	1800	1700	120	
MW-5																
WQG	0.15	260	260	260	3.2	0.8	NE	21 (17)	260	42 (40)	330	15	17	NE	NE	NE
CA Primary MCL	1	NE	NE	NE	300	NE	NE	NE	NE	150	NE	NE	1,750	NE	NE	NE
ESL	1	NE	NE	NE	30	NE	NE	6.1	NE	40	NE	NE	20	NE	NE	NE

Above WQG and MCL (if established)

Above WQG, but below MCL

WQG = Water Quality Goal

ESL = Environmental Screening Levels: Groundwater Screening Levels for Drinking Water Source.

NE = Not Established

Blank cells indicate Not Detected