Second Five-Year Review Report

For

Lorentz Barrel and Drum Superfund Site

San Jose

Santa Clara County, California

September 2005

Prepared by:

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Date:

September 28, 2005

POOR LEGIBILITY

ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ DUE TO THE QUALITY OF THE ORIGINAL

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List of Acronyms

10th Street	10th Street Land Management
AOC	Administrative Order on Consent
ARARs	Applicable or Relevant and Appropriate Requirements
BAAQMD	Bay Area Air Quality Management District
bgs	Below Ground, Surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CoC	Contaminant of Concern
COPC	Contaminant of Potential Concern
DHS	Department of Health Services (State of California)
DTSC	Department of Toxic Substances Control (State of California)
EE/CA	Engineering Evaluation/Cost Analysis
EPA	Environmental Protection Agency
ESD	Explanation of Significant Differences
FYR	Five Year Review
FSP	Field Sampling Plan
GAC	Granular Activated Carbon
GPM	Gallons Per Minute
HASP	Health and Safety Plan
IAG	Interagency Agreement
ICs	Institutional Controls
LB&D	Lorentz Barrel and Drum Co.
LSGTF	Lorentz Shallow Groundwater Task Force
MCL	Maximum Contaminant Level
MNA	Monitored Natural Attenuation
MSL	Mean Sea Level
mg/l	milligrams per liter
µg/l	micrograms per liter
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
Newark	The Newark Group, Inc.
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
O&M	Operation and Maintenance
OU	Operable Unit
PCBs	Polychlorinated biphenyls
ppb	Parts per billion
ppm	Parts per million
PRP	Potentially Responsible Party
PRG	Preliminary Remediation Goal
RAL	Risk Action Level
RAO	Remedial Action Objective
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
RP	Responsible Parties

RPM	Remedial Project Manager
RWQCB	Regional Water Quality Control Board, San Francisco Bay Region
SCVWD	Santa Clara Valley Water District
SJSU	San Jose State University
SOP	Standard Operating Procedure
SVE	Soil Vapor Extraction
TAT	Technical Assistance Team
TCE	Trichloroethylene
USACE	U.S. Army Corps of Engineers
UV/Ox	Ultraviolet Oxidation
VOC	Volatile Organic Compound

Executive Summary

The U.S. Environmental Protection Agency (EPA) Region IX has conducted the second five-year review of the Lorentz Barrel and Drum (LB&D) Site in San Jose, California. The purpose of this five-year review is to determine whether the remedial actions implemented at the site are protective of human health and the environment. This five-year review is required because hazardous substances remain onsite above the risk-based levels determined in the Record of Decision (ROD), thereby preventing unlimited use and unrestricted exposure. The methods, findings, and conclusions of the review are documented in this report. In addition, this report summarizes issues identified during the review and includes recommendations and follow-up actions for them. The triggering action for this review was the completion of the first Five-Year Review (FYR) report on September 27, 2000.

The LB&D Site is located at 1515 South Tenth Street in San Jose, California, see Figure 1. The site includes 5.25 acres currently owned by 10th Street Land Management (10th Street), 1.47 acres owned by The Newark Group, Inc. (Newark), an adjacent city sidewalk, and a shallow ground-water plume extending north of the 10th Street and Newark properties, see Figures 2 and 4. The area north of the 10th Street and Newark properties includes sports fields and structures owned by San Jose State University (SJSU). The 10th Street and Newark properties are zoned for commercial and industrial use, as is most of the area within a one-mile radius of the site.

The former drum recycling facility accepted over 2 million drums from more than 3,000 parties beginning in 1947 until it was closed by a court action brought by the California Department of Health Services (DHS) in July 1987. The facility received drums that contained aqueous wastes, organic solvents, acids, oxidizers, and oils. The drums were reconditioned through a variety of methods such as caustic and acid washing, incineration, blasting with steel shot, and steam cleaning. The residues and cleaning materials were dumped into sumps and basins on-site, which drained into the site soils and into the local storm sewer. The drums were then resealed and repainted with substances such as phenolic epoxy resins, rust inhibitors and lead based paints. The drums were then either returned to the original owner or sold. Contaminated media includes site soils and the shallow groundwater aquifer beneath the northeastern portion of the site extending down gradient some 1500 feet north of the site.

The following chemical contaminants have been detected in the soil: volatile and semi-volatile organic compounds, pesticides, herbicides, polychlorinated biphenyls (PCBs), and inorganic compounds such as heavy metals. In addition, volatile and semi-volatile organic compounds have been found in the shallow groundwater. There was a concern during initial site characterization that the compounds could migrate further from the site, impacting drinking water aquifers, and adjacent surface waters (e.g., Coyote Creek).

Response actions at the site included a series of removal actions in which drums, heavily contaminated soils, buildings, tanks and sumps were removed and taken off-site for disposal. Concurrently with the removal activities, an Operable Unit-2 (OU-2) ROD (1988) was prepared to address the off-site shallow zone groundwater plume. The OU-2 ROD selected a pump and treat remedy consisting of 18 groundwater extraction wells and a granular activated carbon (GAC) treatment system, which is operated by the Lorentz Shallow Groundwater Task Force (LSGTF) PRP group. An OU-1 ROD (1993) addressed the Site soils remedy and deep zone groundwater monitoring.

The OU-1 remedial action,, conducted by the EPA, removed the most contaminated soils remaining on site through excavation and disposal, capped the LB&D property, installed a soil vapor extraction (SVE) system, and put in place a monitoring program for the deeper drinking water aquifer to determine if any downward migration of contamination from the shallow aquifer was occurring.

A five-year review site inspection took place on April 20, 2005. During the site visit, a discussion among operating contractors for both OUs, U.S. Army Corps of Engineers (USACE), and the EPA Remedial Project Manager (RPM) was held. The five-year review was advertised in local newspapers to solicit public input.

The remedies were evaluated as individual operable units. The OU-1 remedy has three components: 1) an asphalt cap, 2) a soil vapor extraction (SVE) system to remove volatile organic compounds (VOCs), and 3) monitoring the deeper Zone C and D aquifers. There are three technical issues associated with SVE operation: 1) Procedures need to be identified to clarify how the remediation goal of 1 ppm total VOCs in soil specified in the OU-1 ROD will be implemented, and to measure progress toward the cleanup goal; 2) A systems optimization evaluation should be conducted; and 3) There are no current site soil data available to determine if soil cleanup criteria have been met. Current owners of properties adjacent to the 10th Street and Newark properties (City of San Jose and SJSU) should incorporate standard procedures to address worker safety during any intrusive activities in soils overlying the shallow groundwater plume. The potential for vapor intrusion following future building development overlying the shallow groundwater plume on the SJSU sports field between Spartan Stadium and the track was not addressed. Current owners should incorporate standard procedures to ensure future building development is not subject to unacceptable risks from a vapor intrusion pathway.

OC-2 shallow groundwater cleanup goals have not been clearly defined for the LSGTF to accelerate cleanup and achieve site close out. Trend analysis of concentrations of contaminants detected in the shallow aquifer zone show the plume is stable and concentrations are slightly decreasing in general. However, LSGFT needs to optimize the current groundwater extraction system to improve extraction efficiency because a qualitative capture zone analysis indicates that current extraction operation may not fully capture the contaminated plume.

Low concentrations of contaminants were detected down gradient of the groundwater extraction system. LSGTF needs to evaluate whether the monitored natural attenuation (MNA) process can achieve the goal of preventing low concentrations of contaminants from reaching the Coyote Creek although current results indicate that the contaminants do not reach the creek.

The OU-1 ROD requires EPA to monitor deep aquifer zones including Zone C and Zone D. The only monitoring well (MW-44) located in the deeper aquifer (Zone D) was screened in six zones. In 1998, EPA abandoned MW-44 well due to potential cross contamination concerns. Currently, EPA conducts quarterly water quality monitoring only in the Zone C aquifer. EPA has not found any contaminants in the Zone C and. Zone D wells. There is a thick layer (approximately 150 feet) of marine clays separating the Zone C and Zone D aquifers. It is highly unlikely that contaminants will reach the deeper aquifer (Zone D) without contaminating Zone C first. EPA needs to conduct an assessment to determine whether a replacement monitoring well in zone D is necessary. If EPA determines that a monitoring well in the deeper aquifer is no longer necessary, an OU-1 ROD amendment or ESD will

be required to address deeper aquifer monitoring issues.

Current sampling techniques (e.g., bailer) for VOCs groundwater sampling may not produce representative results. Low-flow sampling technique should be considered in the future sampling activities.

The remedy is considered protective in the short-term since there is no evidence of currently complete exposure pathways to contaminated soils and groundwater. However, in order for the remedy to remain protective in the long term until performance standards specified in the RODs are met, institutional controls for the site must be fully implemented.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name *(from WasteLAN)*: Lorentz Barrel and Drum Site		
EPA ID *(from WasteLAN)*: CAD029295706		
Region: 9	**State: CA**	**City/County: San Jose/Santa Clara**

SITE STATUS	
NPL status: √ Final ☐ Deleted ☐ Other (specify)	
Remediation status (choose all that apply): ☐ Under Construction √ Operating ☐ Complete	
Site Wide FYR √ YES ☐ NO	**Construction completion date:** 09 / 29 / 1998
Has site been put into reuse? √ YES ☐ NO	

REVIEW STATUS
Lead agency: √ EPA ☐ State ☐ Tribe ☐ Other Federal Agency _____
Author name: Shiann-Jang Chern
Author title: Remedial Project Manager | **Author affiliation: U.S. EPA**
Review period: 04 / 13 / 2005 to 09 / 15 / 2005
Date(s) of site inspection: 04 / 19-20 / 2005
Type of review: √ Post-SARA ☐ Pre-SARA ☐ NPL-Removal only ☐ Non-NPL Remedial Action Site ☐ NPL State/Tribe-lead ☐ Regional Discretion
Review number: ☐ 1 (first) √ 2 (second) ☐ 3 (third) ☐ Other (specify) _____
Triggering action: ☐ Actual RA Onsite Construction at OU #____ ☐ Actual RA Start at OU#____ ☐ Construction Completion √ Previous Five-Year Review Report ☐ Other (specify)
Triggering action date *(from WasteLAN)*: 09 / 27 / 2000
Due date *(five years after triggering action date)*: 09 / 27 / 2005

Five-Year Review Summary Form, cont'd.

Issues:

Protectiveness Issues

1. Potential exposure of construction/utility workers during intrusive activities in soils overlying the shallow groundwater plume may not be adequately addressed in areas of the SJSU property or the sidewalk adjacent to the 10th Street and Newark properties.
2. Potential vapor intrusion following future building development in areas overlying the shallow groundwater plume may not be adequately addressed in areas of the SJSU property.
3. Selected ICs are not fully implemented.

Technical Improvement

4. Efficiency and cost effectiveness of current soils remediation needs to be improved.
5. Efficiency and cost effectiveness of current groundwater remediation needs to be improved.
6. Low concentrations of contaminants were detected down gradient of the groundwater extraction system. It is unclear whether natural attenuation can achieve the goal to prevent low concentrations of contaminant from reaching the creek.
7. Groundwater sampling techniques for VOCs may not produce representative sampling results.

Future Site Closeout

8. An evaluation to determine if SVE has met soils cleanup criteria is not addressed in the ROD.
9. Quantitative remediation (cleanup) goals for shallow groundwater are not specified in the (OU-2) ROD.
10. The only monitoring well (MW-44) in Zone D deeper aquifer was abandoned by the EPA in 1998 due to cross contamination concentrations. There is no replacement well in the Zone D aquifer.

Recommendations and Follow-up Actions:

Recommendations to Improve Protectiveness

1. Current owners in area of the SJSU property or side walk adjacent to 10th Street and Newark properties should incorporate procedures to ensure construction-worker safety during intrusive activities (e.g., subsurface excavation for utility work) involving potential exposure to site-contaminated soils or groundwater.
2. Future building development in areas overlying the shallow groundwater plume in the SJSU property should incorporate procedures to evaluate the vapor intrusion pathway prior to the construction.
3. ICs need to be evaluated and a comprehensive monitoring plan developed. Layering of ICs, including sign posting, is recommended to address properties not covered by existing covenants.

Five-Year Review Summary Form, cont'd.

Recommendations for Technical Improvement

4. Optimization evaluation of soil vapor extraction system operations and sampling soils as needed to document progress toward cleanup goals.
5. Optimization evaluation of groundwater extraction system and bringing additional extraction wells on line to improve efficiency of groundwater extraction.
6. LSGTF needs conduct a Monitored Natural Attenuation (MNA) assessment to determine if natural attenuation processes will prevent the low concentrations of contaminants down gradient of groundwater extraction well system from reaching Coyote Creek.
7. Groundwater sampling techniques (e.g., low-flow sampling technique) need to be applied to the shallow zone groundwater sampling to reduce sampling cost and improve the reliability of VOC sampling results.

Recommendations for Future Site Closeout

8. Regulatory agencies should determine if SVE has met the 1 ppm total VOC soils cleanup criteria discussed in the OU-1 ROD.
9. Regulatory agencies should review existing decision documents and clarify remediation (cleanup) goals for OU 2 shallow groundwater.
10. An assessment should be conducted to determine whether a replacement Zone D monitoring well is necessary. If a replacement well is no longer needed, a ROD amendment or ESD should be issued.

Protectiveness, Statement(s):

The remedy is considered protective in the short-term since there is no evidence of currently complete exposure pathways to contaminated soils and groundwater. However, in order for the remedy to remain protective in the long term until performance standards specified in the ROD are met, institutional controls for the site must be fully implemented..

1.0. INTRODUCTION

This is the second site-wide FYR report of Remedial Actions for the LB&D Site located in San Jose, California. Response actions at the site included a series of removal actions in which drums, heavily contaminated soils, buildings, tanks and sumps were removed and taken off-site for disposal. Concurrently with the removal activities, an EE/CA and OU-2 ROD (1988) were prepared to address the off-site shallow zone groundwater plume. The OU-2 ROD selected a pump and treat system consisting of 18 groundwater extraction wells and a GAC treatment system, which is operated by the LSGTF PRP group. The OU-1 ROD (1993) addressed the Site soils remedy and deep zone groundwater monitoring. The OU-1 remedial action, conducted by the EPA, removed the most contaminated soils remaining on site through excavation and disposal, installed a SVE system to treat remaining soils contaminated with volatile organics, capped the LB&D property, and implemented a monitoring program for the deeper drinking water aquifer to determine if downward migration of contamination from the shallow aquifer was occurring.

The purpose of FYRs is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and identify recommendations to address them.

The EPA is preparing this FYR report pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) § 121 and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). CERCLA § 121(c) states:

"If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in ' accordance with section [104] or [106], the President shall take such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews."

The EPA interpreted this requirement further in the NCP; 40 CFR § 300.430 (f) (4) (ii) states:

"If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such action no less often than every five years after initiation of the selected remedial action."

The purpose and focus of five-year reviews are further defined in United States Environmental Protection Agency (USEPA) Office of Solid Waste and Emergency Response (OSWER) Directive Q355.7-03B-P (USEPA, 2001).

The EPA Region IX has conducted a review of the remedial actions implemented at the LB&D Site, 1515 South 10th Street, San Jose, CA. This review was conducted between April and June 2005. This

report documents the results of the review. The U.S. Army Corps of Engineers (USACE) provided analyses in support of the FYR through an Interagency Agreement (IAG) with EPA Region IX.

This is the second FYR for the LB&D Site. The trigger date for this FYR was the completion of the first FYR report on September 27, 2000. Statutory review is required for sites where the selected remedy does not allow unlimited use and unrestricted exposure after the ROD clean-up actions are completed and the clean-up goals have been met. The selected soil remedy for the site includes a containment cap, which will not allow for unlimited use of the site in the future, even if the completion of the remedial action satisfies the clean-up goals described in the ROD.

2.0. SITE CHRONOLOGY

TABLE 1: CHRONOLOGY OF SITE EVENTS

EVENT	DATE
EPA performed a PA/SI	1984
EPA proposes Lorentz Site for NPL	1984
Lorentz Facility was permanently closed	1987
EPA begins drum removal, drains tanks and begins soils removal	1987
EE/CA Completed for OU-2 shallow groundwater	1988
EPA removes 26,000 drums and 3000 cubic yards (cy) of contaminated soil	1988
OU-2 ROD signed	1988
Lorentz Site placed on the NPL	1989
RI Report completed by the owner	1990
Consent Decree signed by LSGTF for OU-2	1990
RI/FS Report completed by the EPA	1990
Remedial design complete for OU-2	1991
Building structures, remaining debris, sumps, asbestos and drums are removed	1992
OU-2 Groundwater Treatment began	1992
Risk Assessment completed	1992
OU-1 ROD signed	1993
Remedial design complete for OU-1	1998
OU-2 ROD ESD signed	1998
OU-1 ROD ESD signed	1998
Remedial Action Construction completed	1998
First Five Year Review completed	2000
10^{th} Street purchases property at the Site; Covenant on Parcel No. 477-09-037	2002
Consent Decree (cost recovery) signed by PRPs	2004
Covenant on Newark Parcel No. 477-09-034 and 477-09-036	2005

3.0. BACKGROUND

3.1. Physical Characteristics

The original LB&D property covered 10.5 acres of land in San Jose, California, see Figure 1. A

3.78-acre area at the southeastern portion of the original property was not significantly involved in drum recycling operations. Recycling operations took place on the remaining 6.72 acres which includes the 1.47 acres currently owned by Newark and the 5.25 acres currently owned by 10th Street, see Figure 2. The site includes the Newark property, the 10th Street property, an adjacent city sidewalk and a groundwater plume extending several thousand feet to the north, see Figure 4. The site was listed on the National Priorities List (NPL) in 1989.

The LB&D Site is located at 1515 South Tenth Street (see Figure 1). The properties included in the site are zoned for commercial and industrial use, as is most of the area within a one-mile radius. The nearest residential use is SJSU student housing, which is approximately 700 feet to the north. Single-family residential housing is located 1,100 feet to the north of the site. Approximately 3,000 people are estimated to live within a one-mile radius of the site.

The subsurface sediments at the site are composed of alternating layers of granular and fine-grained cohesive soil. There are four predominantly granular water-bearing or potential water-bearing subsurface zones below the site. These zones have been designated with respect to increasing depth below ground surface (bgs) as Zone A, Zone B, Zone C, and Zone D, see Figure 3. Each of these zones is separated by fine-grained low permeability marine clay layers that function as aquitards. These zones are described below:

Zone A	**0-20 ft. bgs**	**Material: sand, silty sand** **Lenses: silt, clayey silt, silty clay**

Soil borings indicate that this zone is normally dry, however, the zone occasionally has seasonal perched groundwater. The clay/silty clay aquitard under Zone A is from 2 to 7 feet thick and soil boring logs indicate there may be local discontinuities near or under the site that connect Zone A soils to the underlying Zone B soils. The OU1 SVE system operates within this zone.

Zone B	**25-35 ft. bgs**	**Material: sand, silty sand, sandy gravel** **Lenses: silt, clayey silt, silty clay**

Zone B is a semi-confined aquifer, and contains the uppermost water-bearing soils under the site. Zone B was identified in the 1993 OU 1 ROD as the shallow groundwater aquifer, and the zone containing the VOC contaminant plume. An approximately 35-foot thick aquitard of very stiff clay/silty clay lies underneath Zone B, and it is found at about 35 to 70 feet bgs. General groundwater flow direction is to the north.

Zone C	**70-90 ft. bgs**	**Material: sand, gravel, silty sand** **Lenses: silt, clayey silt, silty clay**

Some of the deep aquifer groundwater monitoring wells are located in this zone. No contamination has been found in this zone to date. Zone C is underlain by an approximately 100 foot-thick aquitard. General groundwater flow direction is to the northwest.

Zone D	**230-1,000 ft. bgs**	**Material: sand, gravel, silty sand** **Lenses: silt, clayey silt, silty clay**

Zone D is the regional lower aquifer, which is used as a drinking water source. The producing zone is about 50 feet thick and contains the remaining deep aquifer groundwater monitoring wells. No contamination from the site has been found to date in this zone. General groundwater flow direction is to the north, and is influenced by pumping from the San Jose Water Company's 12th Street well field.

3.2. Land and Resource Use

The site is located at the edge of a large area zoned as an industrial area. The existing businesses to the south and the east of the site include a paper recycling facility, vehicle repair shops, metal plating and painting shops, and other similar types of industry. SJSU sports and recreation fields, a sports stadium, and an ice skating rink are to the northwest, north and east of the site, respectively. SJSU student housing is located 700 feet north of the site. The 10th Street property is now used as a fenced parking area for numerous auto dealers. No other land uses near the site have changed since the remedial actions were selected for the site. The resources potentially impacted by the site contamination are the intermediate and deep. aquifers and Coyote Creek, which meanders in a northerly direction approximately 0.5 miles east of the LB&D property (see Figure 4).

In 1968, a San Jose industrial waste inspector discovered hazardous waste in Coyote Creek. The waste source was traced to the LB&D property. Shallow groundwater from Zone B near the site can recharge Coyote Creek. Current site treatment technology operations that discharge to Coyote Creek are subject to National Pollutant Discharge Elimination System (NPDES) permitting requirements. Zone B aquifer monitoring wells at multiple locations, including the area between the plume and the creek, are sampled annually by the Lorentz Shallow Groundwater Task Force (LSGTF) to verify the contaminant plume is still contained. Semi-annual sampling is required by the OU-2 ROD.

The Santa Clara Valley Water District (SCVWD) uses the deeper Zones C and D as a water supply source. Deep Zone C groundwater is currently monitored quarterly by the EPA to verify that the shallow Zone B contamination has not migrated to the deeper zones. Future monitoring may revert back to a semi-annual basis as originally stated in the OU-1 ROD.

3.3. History of Contamination

The drum recycling facility accepted over 2 million drums from more than 3,000 parties until it was closed by a court action brought by the DHS in July 1987. The facility received drums that contained aqueous wastes, organic solvents, acids; oxidizers, and oils. The drums were reconditioned through a variety of methods such as: caustic and acid washing, incineration, blasting with steel shot, and steam cleaning. The residues and cleaning materials were dumped into sumps and basins on-site, which drained into the site soils and into the local storm sewer. The drums were then resealed and repainted with substances such as phenolic epoxy resins, rust inhibitors and lead based paints. The drums were then either returned to the original owner or sold.

3.4. Initial Response

Site operations at the LB&D property were temporarily shut down for three months in 1985 as a result of the Santa Clara County District Attorney obtaining a Temporary Restraining Order based on

multiple violations of California Codes and Federal Regulations. In 1987, the LB&D facilities were permanently closed.

Multiple removal actions took place at the site before, as well as after, EPA issued the 1988 OU-2 ROD for the shallow groundwater and the 1993 OU-1 ROD for soils, the deep aquifer, and other actions not completely addressed by the OU-2 ROD. The first of these removal actions included the initial drum and soil removal effort performed by the Department of Health Services (DHS) and the EPA Technical Assistance Team (TAT) in 1987. The EPA paved the site with a chip seal material to prevent rainwater and surface water runoff from infiltrating through the contaminated soil, and potentially leaching contaminants into the shallow groundwater. The surface seal also prevented direct contact with the contaminated soil. In 1988, the EPA and DHS removed approximately 3,000 cubic yards of highly contaminated soil from the northern part of the site and removed 26,000 drums containing hazardous and other wastes. The EPA and a group of responsible parties signed an administrative order on consent (AOC) in 1992 to remove the remaining drums, asbestos containing materials, general site debris, above ground structures, and sumps from the site. Work associated with the AOC was completed in 1994.

3.5. Basis for Taking Action

The following chemical contaminants have been detected in the soil: volatile and semi-volatile organic compounds, pesticides, herbicides, polychlorinated biphenyls (PCBs), and inorganic compounds such as heavy metals. In addition, volatile and semi-volatile organic compounds have been found in the shallow groundwater. The potential exists for the compounds to migrate further from the LB&D property, impact deep zone drinking water aquifers, and impact adjacent surface waters (i.e., Coyote Creek).

The shallow groundwater pump and treat system is removing and treating the following contaminants: vinyl chloride; 1,1-dichloroethene (1,1-DCE); cis-l, 2-dichloroethene (cis-1,2-DCE); 1,1-dichloroethane (1,1-DCA); 1,1,1-trichloroethane (TCA); 1,2-dichloroethane (1,2-DCA); trichloroethene (TCE); 1,2-dichloropropane (1,2-DCPA); and tetrachloroethene (PCE).

4.0. REMEDIAL ACTIONS

EPA started the Remedial Investigation and Feasibility Study (RI/FS) in 1988 and completed it in July 1990. EPA issued two RODs. The first ROD is the OU-2 ROD (1988), issued before completion of the RFFS, which addresses the contaminated shallow zone groundwater. The OU-2 ROD selected pump and treat technology for the shallow zone groundwater remedy at the Lorentz site. The remedy is to control the shallow groundwater plume's off-site migration. The second ROD, the OU-1 ROD (1993), addresses the Site soils, and deep zone groundwater. The OU-1 ROD calls for contaminated subsurface soil removal, vadose zone soil vapor extraction, capping the Site, and deep zone groundwater monitoring. The OU-1 ROD includes remedial actions to remediate VOC-contaminated soil on-site and to encapsulate the soils contaminated with metals and organics. The OU-1 ROD contains provisions to address all remaining sources of contamination not already addressed by the removal of barrels, drums, and soils completed in 1998: the removal of structures, sumps, drums and

debris in 1993 and 1994; and the OU-2 shallow groundwater extraction and treatment system. The OU-1 ROD is considered the "final remedy" for the LB&D site.

4.1. Operable Unit 1 - SVE System arid Containment Cap

4.1.1. Remedy Selection

On August 26, 1993, EPA signed the ROD for OU-1. The stated objective in the ROD is to protect human health and the environment from all remaining releases or threats of releases of hazardous substances that were not addressed by previous or current cleanup actions at the LB&D property; The principal threat considered in the ROD is soil contaminated with VOCs and hazardous inorganic materials. The ROD selected an SVE system coupled with an asphalt cap. The SVE system was selected to remove VOC contamination from the vadose zone. In addition to its primary cleanup goal of preventing exposure to the soils contaminated with non-mobile compounds (e.g., PCBs, pesticides, herbicides, and metals), the asphalt containment cap was selected to prevent infiltration of precipitation and protect shallow groundwater from further degradation by mobile VOCs.

The cleanup standard selected in the ROD is 1 ppm total VOCs (assumed to be in soils). The ROD also provides for implementation of institutional controls (ICs) at the 10th Street property, Newark property, as well as the adjacent city sidewalk area. The ICs will limit excavation in these three areas to prevent contact with contaminated soils. Monitoring of the deeper Zone C and D aquifers was included to ensure cross-contamination does not occur via vertical or horizontal conduits from the shallow aquifer addressed in OU-2. The OU-1 selected remedy also addresses monitoring vadose zone soil gas near residences located above the shallow groundwater contaminant plume, removal of structures and debris, and removal of incinerator ash residues and other hazardous materials accepted at the site.

An Explanation of Significant Differences (ESD) was approved in 1998. The ESD allowed off-site disposal of 900 cubic yards (CY) of PCB-contaminated soils with concentrations below the ROD-specified 50 ppm threshold. This was necessary due to the presence of debris in the stockpile, poor compaction qualities, and problems with incorporating this volume of soil into the grading scheme under the cap.

4.1.2. Remedy Implementation

The following activities occurred. as a result of enforcement actions, or activities specified in the OU-1 ROD:

- Hazardous residues were removed from the sumps and basins on the site by EPA. and DHS in 1987 as a result of 1985 violations cited by the state and federal governments. In addition, drums with hazardous residues were removed from the site in 1987 and 1988 by EPA and DHS.

- A second removal action involved excavation of highly contaminated soils containing PCBs greater than 50 ppm and other contaminants, which were removed and disposed of off-site in 1988 by EPA and DHS.

- As a result of an AOC signed in 1992, the PRP group completed the removal and off-site disposal of the structures and remaining drums, and sealed vertical and horizontal conduits in 1994.

- EPA completed design of the SVE system and asphaltic concrete cap in June 1998.

- EPA completed construction of the asphaltic concrete cap in September 1998.

- EPA completed construction of the SVE system in September 1998. The SVE system includes 7 vapor extraction wells, pumps, vapor-phase GAC units, and liquid-phase GAC units.

- An initial off-site soil gas survey was conducted by a contractor for the LB&D owner in 1987. The survey found that contaminated soil vapor had migrated down gradient of the LB&D property with the shallow groundwater plume. EPA expanded the area to be further studied in the OU-1 ROD and a subsequent soil-gas assessment was conducted in the residential areas above the shallow groundwater plume by an EPA contractor in 1996. The survey found that the contaminated soil vapor had not migrated to the residential areas near the site. In addition, evaluation of the results from the most recent shallow groundwater sampling round (conducted late 2004 by the LSGTF) using *EPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils* (EPA, 2002), *Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater, Interim Final* (RWQCB, February 2005) indicated TCE and VC concentrations in the vicinity of the student housing would not be of concern.

- An EPA contractor began semi-annual groundwater monitoring of the deep aquifer on-and off-site in 1990. Monitoring has been done on a quarterly basis since 2004, but the frequency will be reduced to semi-annually in 2006. Monitoring will continue until EPA confirms that the on-site VOC contamination in the soil has achieved the remedial goals identified in the OU-1 ROD, and groundwater remedial action objectives (RAOs) are also achieved. No contamination from the site has been detected in the deep aquifer through April 2005.

- ICs have been partially implemented. In 2002, a Restrictive Covenant was taken on the 10th Street property. In 2005, a Restrictive Covenant was taken on the Newark property. SCVWD well permitting procedures are functioning as ICs to prevent well construction for water supply purpose.

4.1.3. System Operations/Operation and Maintenance (O&M)

The SVE system started extracting contaminants from the soil in September 1998 and was operated effectively by an EPA contractor for 6 months. Due to a change in EPA contract support, the system was shut down temporarily. The EPA entered into an IAG with the USACE to resume OU-1 site operations. The USACE has successfully operated the SVE system from June 2001 to June 2004. The system has been functioning well with normal maintenance required. During the fall of 2001, the off-gas treatment system was modified to include a permanganate scrubber to destroy vinyl chloride present in concentrations greater than the vapor phase GAG units could handle in a cost effective manner The SVE system was turned off on June 6, 2004 due to low volatile organic compound

recovery from the system and concerns about system efficiencies. An optimization evaluation of the SVE system was done by USACE in conjunction with the five-year review, and recommendations concerning improvements to the SVE system are included in paragraph 7.1.1.2, The cleanup level in the OU-1 ROD is stated as 1 ppm of total VOCs, but implementation of clean up goals is not addressed. There are no current site soil data available to determine if soil cleanup criteria have been met.

The containment cap and security fencing were completed in September 1998 and are in excellent condition. Only minor repairs are necessary to several of the SVE well vaults, which were damaged by cars parking on the pit access covers.

In 1998, Zone D monitoring well MW-44 was abandoned by the EPA: MW-44 was 600 feet deep and screened in six zones. It was intended to mirror the construction of the San Jose Water Company wells with sampling in each zone individually using packers to isolate the zone of interest. In an email from the SCVWD to the U.S. Army Corps of Engineers dated February 14, 2001, SCVWD indicated that sources were sufficiently removed and plumes sufficiently contained supporting EPA's decision to destroy the well. Screening multiple zones in a non-pumping well is also undesirable as it may introduce cross contamination. Site contamination was never detected during the time Zone D was routinely monitored. There is a thick layer of marine clays (approximately 150 feet thickness) separating the Zone C and the Zone D aquifers and there is no conduit between two deep aquifers; therefore, EPA's current deep zone aquifer monitoring is focusing on the Zone C aquifer.

Current operational costs are included in Table 2. The annual cost identified in the OU-1 ROD for O&M for Zone C&D monitoring and cap maintenance in Alternative 2 was $63,000. Cost associated with the operation of the SVE system was assumed to average $47,000 per year over a two-year period. This brings the OU-1 ROD's estimated annual O&M cost for the selected remedy to $110,000 per year.

Table 2: Annual OU-1 System Operations/O&M Costs

Dates		Total Cost rounded to nearest $1,000
From	**To**	
July 2002	December 2002	$231,000
April 2003	April 2004	$329,000
April 2004	December 2004*	$79,000

* Note: No SVE system operation costs after June 2004

Costs in Table 2 reflect operations, maintenance, spare parts and labor for the SVE system, and monitoring costs for the Zones C and D aquifers.

4.2. Operable Unit 2 - Shallow Groundwater

4.2.1. Remedy Selection

On September 25, 1988, EPA signed the ROD for OU-2. Since there was an immediate need to proceed with containment of the shallow groundwater plume, the OU-2 ROD was issued before

completion of the risk assessment in the RI/FS (July 1990). A screening level risk assessment looked at only carcinogens in shallow Zone B groundwater. The 1990 RI/FS addressed ARARs and contained a baseline risk assessment, which evaluated both carcinogenic risk and non-carcinogenic hazard of site contaminants. The Remedial Investigation Report: Addendum No. 3 (June 19, 1992) further addressed soils and the potential for vapor intrusion in residential areas overlying the shallow groundwater plume. The OU-1 ROD contained provisions to address those groundwater issues (vapor intrusion and deep Zones C and D monitoring) that were not addressed in the OU-2 ROD for a shallow groundwater extraction and treatment system. The OU-1 ROD is considered the "final remedy" for the LB&D site.

The objectives for the OU-2 remedy are: prevent further migration of the shallow groundwater plume; prevent the shallow groundwater plume from discharging into Coyote Creek; and prevent contamination of the deep groundwater aquifer located beneath the shallow-zone plume. To accomplish these goals, the OU-2 ROD selected a containment remedy consisting of a groundwater extraction system, ultraviolet/oxidation (UV/Ox) treatment, and disposal of treated water to the storm sewer. The cleanup goals in the ROD are to "substantially reduce or eliminate all groundwater contamination from the shallow groundwater". EPA and the PRP group have agreed that the shallow groundwater cleanup activities at the site will continue until the contaminants of concern identified in the ROD are reduced to the remediation (clean up) goals. EPA and the PRP are currently using established federal and state drinking water limits as the basis for evaluating the sampling information.

The OU-2 ROD also contained provisions for remediating PCB and nickel in the groundwater if these compounds were found. The subsequent remedial investigation did not find PCBs in either the shallow groundwater or deep aquifer during the sampling events. Nickel was not found above the background level in either the shallow groundwater or deep aquifer. Based on these results, the final Remedial Investigation Report, dated July 1990, concluded that no further remedial action was required for either PCBs or nickel in either the shallow groundwater or deep aquifer. Sampling efforts as recently as 2004 have verified the absence of PCBs and nickel in the groundwater. The remedial design for the groundwater treatment system without metals treatment was approved by EPA in July 1991.

4.2.2. Remedy Implementation

The construction of the shallow groundwater remedy by the LSGTFs contractor began with the excavation of a shallow area near East Alma Street for the treatment facility foundation. The concrete foundation was completed and a pre-engineered steel building was constructed after installation of the treatment equipment. During this time, the groundwater wells were drilled and the pneumatic pumps, controllers, and piping to the treatment plant were installed. Construction of the treatment system was completed, and the system was inspected and accepted by EPA in March 1992. The system has been in continuous operation since that time.

The extraction system includes 18, 4-inch cased groundwater extraction wells, see Figure 4. Groundwater is extracted by pneumatic extraction pumps, which are powered by a timed compressed air system. Of the original 18 wells installed, only 3 have been in operation since August 2000: wells EX-9, EX-13, and EX-19. The groundwater is pumped to the site through 2-inch diameter pipes at an

average flow rate of 1.2 gallons per minute (gpm) and discharged into a 3000-gallon tank. When the high level is reached in the tank, the treatment cycle is initiated at a flow rate of 12-16 gpm until the tank reaches the low water level cut off. The original design selected for the groundwater treatment was an UV/Ox unit. This selection was based on the levels of vinyl chloride initially found in the groundwater samples. During operation, a GAC unit was added to the treatment process due to a lack of efficiency of the UV/Ox system. A system analysis showed the GAC system alone was more effective and less costly to operate than the combined UV/Ox, GAC system. The OU-2 ESD, approved by the EPA, eliminated the requirement to use the UV/Ox system and adopted GAC as the primary treatment process. Treated water is discharged to the storm sewer and eventually reaches Coyote Creek. Spent GAC is regenerated off-site in accordance with State and Federal regulations. Eleven piezometers are used to monitor the groundwater levels in the immediate vicinity of the extraction system.

4.2.3. System Operations/Operation and Maintenance (O&M)

The intent of the OU-2 ROD was to prevent groundwater contamination from migrating further from the 10th Street and Newark properties. To achieve compliance with the OU-2 ROD, the LSGTF group designed and constructed an extraction well field, which has successfully contained the plume and prevented further migration to the north and to the deep aquifer. Given the extensive existing extraction well network, EPA anticipates that completion of the groundwater remedial action (whether restoration or containment) can be implemented without further construction, unless new technologies are implemented to accelerate cleanup.

The LSGTF has been systematically shutting down wells in the extraction system in an effort to optimize operations intended to maintain plume containment. The operations contractor handles minor equipment malfunctions and routine maintenance, generally during their weekly 3-5 hour site visits. The current piping system is subject to the formation of mineral deposits (iron and manganese), also known as "scaling." The interior wall of the piping between the wells and treatment plant has been accumulating scale since the plant start up. To eliminate the potential for plugging the GAC and requiring filters prior to the GAG, the operators have installed strainers in several locations. The scale that flakes off is captured in the strainers. The strainers are cleaned during the weekly visit.

Current operational costs are included in Table 3. The annual cost identified in the ROD for the shallow groundwater (Zone B) extraction and treatment system O&M was $198,000. These costs were based on use of an UV/Ox system. The UV/Ox system was replaced with a GAC system, which operates at a substantial cost savings. Costs associated with monitoring the Zone B aquifer were not included in the ROD.

Table 3: Annual OU-2 System Operations/O&M Costs

Dates		Total Cost rounded to nearest $1,000
From	To	
January 2003	December 2003	$87,000
January 2004	December 2004	$85,000

Costs in Table 3 reflect operations, maintenance, spare parts and labor for the extraction and treatment system, and monitoring costs for the Zone B aquifer.

5.0. PROGRESS SINCE THE LAST REVIEW

Although formal protectiveness statements as identified in the 2001 EPA Guidance, OSWER No. 9355.7-03B-P were not made in the First Five Year review, the following statement was included which indicates the remedies in place were considered to be protective:

"The remedial actions selected and implemented at the Lorentz Barrel and Drum site remain protective of public health and the environment, however, the actions to date do not fully meet the objectives of the OU1 or OU 2 RODs. By continuing the planned actions, discussed in Section 4, Technology Review/Performance of Remedy, the EPA will fully meet the objectives discussed in both the OU I and OU 2 RODs. Subsequent five-year reviews will evaluate the success of this future work."

The recommendations suggested:

- The continued operation of the OU-2 pump and treat system.
- Resuming operation of the SVE system, which had been shut down due to the EPA changing contract strategy from the construction contractor to a long-term O&M contractor.
- Continued monitoring of the shallow groundwater to confirm that shallow plume contaminants do not reach Coyote Creek.
- Periodic inspection of the asphaltic concrete cap.

The above recommendations have been implemented. The OU-2 contractor has been systematically reducing the number of pumps and the extraction rate while continuing to monitor the plume boundaries. The OU-1 SVE system was restarted in 2001 and additional mass removed; however, the mass recovery rate of the system was declining significantly. The USACE evaluated the system to address operational issues in winter 2003. The system was shut down in June 2004. Monitoring Well 39 was removed due to construction in the vicinity of the Well, and replaced with MW-39A. Monitoring of the Zone C aquifer was resumed in 2004.

The 5.25 acre LB&D property was sold in 2002 and a restrictive covenant on the property was taken by DTSC. In 2005, a restrictive covenant on the Newark property was also taken by DTSC.

6.0. FIVE YEAR REVIEW PROCESS

6.1. Administrative Components, Community Notification, Document Review

This FYR consisted of the following activities: public notification in prominent San Jose area

newspapers that a FYR was under way; a review of relevant documents as listed in Attachment B; discussions with operation and maintenance contractors, the EPA RPM, and the PRP representative; and a site inspection, the RAOs, applicable or relevant and appropriate requirements (ARARs), and cleanup levels were obtained from the ROD for each OU. A copy of this completed report and an updated fact sheet will be available through the EPA Region IX Superfund Record Center located in San Francisco or from the information repository at the Martin Luther King, Jr. Library in San Jose. Notice of the completion of this report will also be announced in the local newspaper.

6.2. Data Review

Summary groundwater concentration data from the LSGTF Annual Groundwater Monitoring Report No. 36, November 2004, were reviewed for relevant trends. This report included historical monitoring results for most piezometers and monitoring wells at the site. Tabulated data that were evaluated may be found in Attachment C, Table C1. A qualitative capture zone analysis was also performed using aquifer transmissivity data from the 1990 RI report.

6.2.1. Relevant Trends

Concentrations of TCE have decreased slightly at piezometers P-6 and P-18, on and immediately downgradient of the LB&D property, respectively, see Figure 4. Concentrations of TCE have increased slightly at P-9 (further downgradient of the LB&D property) and at P-12 (in the middle of the plume) over the last five years. This tends to indicate reduced contaminant loading from the source and/or migration of the plume away from the LB&D property.

TCE concentrations in P-22 (due north of the LB&D property at Tenth Street and East Alma Avenue) have been increasing. Although the concentration increase has not been significant (from 1.5 to 7.8 µg/L, and the MCL is 5 µg/L), it could indicate potential transport of contamination from under the cap.

Generally, concentrations of 1,1-DCE are lower in wells downgradient of the extraction system as compared to wells upgradient of the system. Even so, concentrations of 1,1-DCE have increased slightly in piezometers P-28 and P-30 over the last five years to a maximum concentration of approximately four times the MCL. Piezometers P-28 and P-30 are located less than 75 feet downgradient of the extraction well system. All other volatile compounds assessed at these piezometers are less than their corresponding Federal or State MCL.

In piezometers P-26, P-28, and P-30, concentrations of 1,1-DCA exceed the State PRG of 2 by a factor of one to five over the last five years.

Concentrations of 1,1-DCE. in Well MW-38, located approximately 350 feet downgradient of the extraction system, have consistently been about four times the Federal MCL over the last five years. The latest sampling round in MW-38 shows concentrations for 1,1-DCA and 1,1-DCE to be about $l/20^{th}$ to $l/30^{th}$ the concentrations from samples collected the previous year (2003). This may indicate potential sampling or analytical error related to the 2004 sample collected from the well. It is unclear whether the chemical concentrations detected in the down gradient wells existed before the installation of groundwater extraction wells or after the initiation of extraction.

The plume appears bounded by wells MW-24, MW-41 and MW-42 on the north and east; wells MW-11 and MW-25 on the south; and by MW-22 to the west. The system has been successful in reducing contaminant concentrations at the downgradient end of the plume, but has not eliminated contamination completely. Low-level detections of site contaminants have been detected in Zone B wells downgradient of the extraction system, with some detections of 1,1-DCE exceeding Federal MCLs, and detections of 1,1-DCA exceeding the State-modified PRG. However, the system is considered protective due to the existence of institutional controls in the form of SCVWD permitting procedures (as described in Section 7 of this document) that prevent access to the Zone B aquifer.

The groundwater monitoring program also includes MW-45, a deep zone well located downgradient of the LB&D property to act as an early warning indicator of potential impacts to the existing SJSU Spartan Stadium irrigation well, and detect contamination in the Zone C and D aquifers.

After the start-up (December 7, 1998 to February 3, 1999) and shake down process for the SVE system, the mass removal rates trended significantly downward. Initial recovery rates were over 2 pounds per day of VOCs and Total Petroleum Hydrocarbons as Gasoline (TPH-G). Prior to temporary shutdown in December 2003, recovery rates dropped by an order of magnitude to less than 0.1 pounds per day.

6.2.2. Recommended Changes to Monitoring Programs

The current monitoring program frequency is sufficient to detect changes in trends. No changes are recommended to the sampling frequency. However, sampling methods for wells and piezometers should be standardized on the low-flow sampling method (EPA 540/S-95/504). The current practice is to use bailers to collect groundwater samples. Several studies have indicated that bailer sampling may result in loss of volatiles. Some unexplained decreases in volatile contaminant concentrations (e.g., P-18 in 2001, MW-38 in 2004) might be related to sampling or analytical problems. Standardizing on a more scientifically-defensible method such as low-flow sampling may reduce potential sampling artifacts.

6.3. Site Inspection

The USACE arrived at the site on April 19, 2005. The site inspection consisted of an inspection of the asphaltic concrete cap, the retaining walls, fencing, and SVE components visible from the surface of the cap. The primary monitoring wells were located, as well as the extraction wells north of the LB&D property. On April 20, 2005 the EPA, USACE, LSGTF operations contractor, and the SVE operations contractor participated in a site inspection. The list of attendees is included in Attachment D. The inspection involved discussions with the site operators, a tour of each of the treatment facilities, and a question-and-answer session concerning operations at each OU.

6.3.1. OU-1 Summary

The asphaltic containment cap was in excellent condition with no signs of cracking, or settlement visible in any of the cap components: the asphaltic concrete cap, concrete curbs and gutters, and the retaining walls (see photos in Attachment E). The SVE system components were inspected and found to be in fair condition. Many of the gauges, instruments, and piping have been impacted by the

continuous exposure to the sun. Many of the clear plastic lenses have become discolored due to sun exposure and are no longer readable. The above-ground piping systems have experienced some breakage and have been repaired as necessary. The SVE system was operated for two time periods; the first immediately following construction between December 1998 to April 1999; the second when the system was restarted again in April 2001 and shut down in June 2004 to enable the USACE to assess the reason for the low contaminant recovery. The SVE and. monitoring well vaults were in good condition with the exception of damage to the raised concrete curbing around two of the SVE vaults caused by automobiles running into the vaults and parking directly on top of them.

A permanent set of project documents including the health and safety plan, chemical quality assurance plan, operation and maintenance manual, and field sampling plan were not all present at the OU-1 treatment facility. The operator generally carried the documents in his vehicle for easier reference. The contractor was in the process of updating the plans to reflected current conditions. A set of the updated plans will be placed permanently at the plant.

6.3.2. OU-2 Summary

The site inspection of the groundwater pump and treat system found that it was operating in accordance with the current NPDES permit requirements. Three of the 18 wells used to contain the plume were in operation. The continuous flow rate to the plant is approximately 1.2 gpm. The current NPDES permit had a maximum allowable discharge rate to the storm drain/Coyote Creek of 14 gpm. The plant continues to operate free of discharge violations. The Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) approved the LSGTF request to remove PCBs and pesticides from the analyte list in 1996 based on non-detect concentrations over a five-year period. At the insistence of the EPA, the LSGTF included PCBs and pesticides in the most recent sampling effort to ensure the influent did not contain any PCBs and pesticides. Results confirmed the absence of those contaminants. The treatment facility building and components were functioning properly. The UV/Ox equipment originally installed when the facility was constructed was taken off line in 1998 as identified in the OU-2 ESD, and abandoned in place. The health and safety plan, chemical quality assurance plan, operation and maintenance manual, and field sampling plan were present at the site. The documents at the site reflected conditions at the plant when it was constructed. Following the site visit, the LSGTF updated the plans and replaced the outdated materials at the plant.

6.4. Interviews

The EPA contacted potential interested State of California and local agencies to discuss remedial activities at the site. No adverse comments were received. Representatives from the LSGTF and site contractors were interviewed to address various aspects of site operations. The USACE developed a series of questions that were deemed to be pertinent to operations at the site, and a telephone conference call was held to obtain input from site operators and responsible parties. The results of the call are included in the Attachment D.

7.0. TECHNICAL ASSESSMENT

The technical evaluations in this section of the review are addressed by OU. The 1988 OU-2 ROD was issued before completion of the baseline risk assessment in the 1990 RI/FS and the 1992 RI Addendum 3 which addressed vapor intrusion. The 1992 OU-1 ROD contained provisions to address those groundwater issues (vapor intrusion and deeper groundwater Zones C and D monitoring) that were not addressed in the OU-2 ROD for a shallow groundwater extraction and treatment system and is considered the "final remedy" for the LB&D site. Although vapor intrusion and the associated risks are of interest in both OUs, issues related to risk evaluation, recommended sampling activities, actions to assess the presence or absence of potential risks, and possible application of institutional controls were addressed in discussions pertaining to OU-1. Future work in this area will be dependent on screening level evaluations.

7.1. Operable Unit 1

7.1.1. Question A:

Is the remedy functioning as intended by the decision documents?

7.1.1.1. Remedial Action Performance and Operations

The existing cap system is functioning as expected. The cap was designed to seal the surface and have adequate strength to function as a parking facility. The LB&D property was sold to 10th Street in 2002 which leases the space to auto dealerships to stage cars in transit to the sales lot.

The soil vapor extraction system installed at the LB&D property was intended to reduce total VOC concentrations in soil to below 1 ppm. Since the startup of the system in 1999, approximately 330 pounds of VOCs and TPH have been removed by the system. Though the system has removed some mass from the subsurface, the extracted VOC concentrations from the seven SVE wells had declined to minimal levels and the system was shut down in June 2004. The system has remained shut down except for one sampling round in January 2005 to assess the rebound in site soils. An assessment of the SVE system is included in the following paragraph 7.1.1.2. below.

The deep aquifer (Zones C) monitoring has verified that efforts implemented during the OU-1 and OU-2 remedial actions have been successful in preventing contamination from reaching the deeper aquifer. The deep aquifer quarterly monitoring from the time period between the OU-1 RA completion in 1998 and April 2005 has not detected contamination in the aquifer. The EPA has recently approved revising the deep aquifer sampling frequency to semi-annually in accordance with the original OU-1 ROD requirement.

7.1.1.2. Opportunities for Optimization

The SVE system installed at the LB&D property was intended to reduce total VOC concentrations in soil to below 1 ppm (presumably 1 mg/kg). There have been concerns about the performance of the system given the relatively low VOC mass removal rates. Limited rebound of VQC concentrations

has been observed in the extraction wells following the system shut down in 2004. The design of the extraction system was assessed relative to the past documentation of the distribution of contamination, past removal actions, and past groundwater conditions to determine if the system should be dismantled, restarted as it currently exists, or modified to improve performance. The analysis assumes the cleanup goals identified in the ROD to reduce concentrations to less than 1 ppm is still relevant.

Past characterization efforts have suggested that the predominant mass remaining following various soil excavations existed at depths below 10 feet in the central and northeastern portion of the LB&D property. Groundwater was expected at depths between 15 and 20 feet below current grade. The SVE wells were screened from 6 to 21 feet below current grade (including cap).

The flow rates achieved from each extraction well are higher than expected and suggest there is some degree of short-circuiting. These short circuits likely exist at shallow depths where excavation and backfilling has occurred. If a substantial amount of relatively clean air is getting into the system, the contaminant mass removed from the deeper native soils will be minimal and the extracted concentrations will be significantly diluted. There are no soil-vapor monitoring points installed at the site to measure operational vacuums or soil gas concentrations. This limits the analysis of the performance of the system and the assessment of air-flow paths.

Excavations have occurred at the LB&D property during multiple cleanup activities. Some have occurred in the vicinity of the SVE system. These excavations have extended from 4 to 12 feet below grade and either removed contaminated soils associated with the various sumps and drain lines or, in the case of the construction of the existing cap, attempted to improve structural characteristics of the soil. The placement of materials with higher air-permeability than native soils is likely to have occurred. For example, the excavation and replacement of soft soils during the construction of the cap included placing extensive layers of coarse bedding materials.

Investigations supporting the RI indicated VOC concentrations above the remediation level of 1 ppm in the northeastern corner of the LB&D property. The nearest SVE well is EW-7, located over 100 feet to the south of the area. This SVE well had elevated VOC concentrations in sampling conducted in January 2005.

Based on these observations, the EPA may consider evaluating operation of the SVE system and optimizing it as appropriate. Optimization may include such items as equipment adjustments, evaluating rebound and extraction well radius^ f influence, potential installation of new SVE wells, and doing incremental VOC soil sampling between the asphalt cap and the groundwater surface to determine if soil clean up criteria have been met.

7.1.1.3. Implementation of Institutional Controls

The OU-1 ROD identified the need for institutional controls that would 1) limit exposure pathways to contaminated soil and groundwater, and 2) restrict changes in water well installation and use that might interfere with the groundwater remedy.

In order to ensure the integrity of the cap and limit exposure pathways, the OU-1 ROD specified land use restrictions to prevent well construction for water supply purposes in the source areas that remain

contaminated and deed restrictions for the 10th Street property (identified in the OU-1 ROD as the LB&D property), the Newark property (identified in the OU-1 ROD as the RFI property) and the adjacent city sidewalk area that contain contaminated soil exceeding cap action levels. The contemplated deed restrictions were expected to prohibit residential development and to limit industrial development to activities that do not breach the integrity of the cap or do not mobilize the soil contaminants. Restrictions would also prevent activities that could disturb the cap and underlying contaminated soils from occurring without prior review and approval by the CERCLA lead agency.

In 2002, DTSC took a restrictive covenant on the 10th Street property (parcel no. 477-09-037). In 2005, DTSC took a restrictive covenant on the Newark property (parcel nos. 477-09-034 and 477-09-036). These covenants were recorded in the Santa Clara County Assessor, Recorder's Office (tel. 408-299-7677). The DTSC website identifies hazardous waste sites with restrictive covenants. The URL for deed restricted properties is: http://www.dtsc.ca.gov/HazardousWaste/index.html#Deed. Copies of the restrictive covenants are included herein as Attachment G.

In addition to executing restrictive covenants, 10th Street and Newark also executed documents with EPA that provide for inspection, maintenance and reporting with respect to the caps on their respective properties. In 2002, 10th Street signed a Prospective Purchaser Agreement and in 2005, Newark signed a Consent Decree.

At the time of this FYR, there is no covenant in place on the adjacent city sidewalk area. Discussions to date between the EPA, State and the City of San Jose have not produced a recorded covenant with respect to the sidewalk. Existing governmental controls, as discussed below, may be functioning as institutional controls on the adjacent city sidewalk area. The layering of informational controls, such as warning signs on the site property fencing near the relevant sidewalk areas, may enhance institutional controls with respect to the sidewalk.

The San Jose City Department of Transportation has permitting responsibilities for sidewalk maintenance activities and for utility work beneath the sidewalk. In order for this or any other relevant permitting processes to function as an institutional control for the site, the LB&D site would have to be identified to the permitting authorities as a hazardous waste site with contamination left in place. In addition, San Jose Municipal Code Sections 14.16.2200 and 14.16.227 may help restrict exposure pathways at the site by requiring property owners to maintain adjacent sidewalks. Additional coordination with the San Jose City Department of Transportation with respect to the sidewalk areas of the site should be included in the development of an institutional controls monitoring plan as discussed below.

Institutional controls for groundwater exist in the form of SCVWD well permitting requirements. SCVWD requires a permit for any water well (monitoring or water supply) installed or removed within the district boundaries. Permitting criteria are summarized on the SCVWD Permits web link. As noted above, in order for a permitting process to function as an institutional control, the LB&D site should be identified to the permitting authorities as a hazardous waste site with contamination left in place. In connection, with this FYR, Bill Cameron of the SCVWD was contacted at 408-265-2654 (ext. 2654). Mr. Cameron is responsible for reviewing all water well permits and each monitoring well permit is reviewed either by Mr. Cameron or by his supervisor. Any questions concerning potential contaminated areas are referred to George Cook, the State/Federal liaison at 408-265-2607.

The effectiveness of the SCVWD permitting process as an institutional control at the site was verified during the abandonment and relocation of MW-39 in connection with development activities. The relevant property owner funded the MW-39 relocation effort while concurrently coordinating with the EPA Remedial Project Manager (RPM) and SCVWD.

The OU-1 remedy addresses monitoring vadose zone soil gas near residences located above the shallow groundwater contaminant plume. However, the vapor intrusion pathway for receptors in potential future building development above the shallow groundwater contaminant plume may not have been addressed. No institutional controls were selected to prevent the future construction of commercial or industrial building development on the SJSU sports field overlying the most-contaminated area of the groundwater plume (between Spartan Stadium and the track). As the vapor intrusion pathway is more fully evaluated, additional institutional controls may be suggested to address vapor intrusion pathway risks.

7.1.1.4. Early Indicators of Potential Issues

The OU-1 remedial action is functioning as proposed. There are some issues that require clarification to expedite site close out, or enhance the perceived protectiveness of the remedy. These items include:

- Definition of the soils cleanup criteria beneath the cap. The ROD identifies the criteria as 1 ppm total VOCs in soil. It is believed the 1 ppm value was selected to be protective of leaching to groundwater. The following language was recommended for inclusion in the ROD but was not included: "The VOC. standard is 1 ppm, unless it can be shown that an alternate clean up standard is appropriate and that there is no present or future impact to the groundwater."

- Optimization of the SVE system should be initiated as soon as possible. Annual weather cycles (i.e., rainy season, etc.) that contribute to potential system inefficiencies should be included in the optimization study. The VOC concentrations in the extracted gas are below levels which necessitate off-gas treatment. Following system revisions, the need for off-gas treatment should be reevaluated and a recommendation made to the EPA and Bay Area Air Quality Management District (BAAQMD) concerning its continued use.

- Damage to curbs surrounding the SVE vaults is evident. Curbing around vaults that has been damaged should be repaired, and/or pipe bollards placed around the vaults to Limit future damage to. the curbing once it is repaired.

- Current groundwater concentrations of trichloroethylene and vinyl chloride from available monitoring points on some portions of the SJSU sports fields (between Spartan Stadium and the track) are above EPA residential, but not above RWQCB industrial groundwater screening levels for evaluation of potential vapor intrusion. Further evaluation of the vapor intrusion pathway and institutional controls may be needed to prevent construction and occupation of occupied structures in this area.

- The 1996 Remedial Design Report No. 5 Soil Gas Survey determined that vapor intrusion was not of concern for current residences. Results from the latest shallow groundwater sampling round conducted by the LSGTF in late 2004 in the vicinity of the SJSU student housing area revealed the TCE and VC exposure point concentrations in the vicinity of the student housing were below EPA and RWQCB screening levels for the vapor intrusion pathway.

- The OU-1 ROD included an RAO to "Provide advance warning to drinking water suppliers and residents in the event that shallow groundwater contaminants begin significant migration to deeper aquifers..." The OU-1 ROD also states "Both the intermediate and deep aquifers will be monitored for VOCs on a semi-annual basis to alert the community if VOCs are ever detected." Monitoring well MW-44 fulfilled this purpose but was destroyed in 1998. It was the only well screened in the deeper (Zone D) aquifer. Information obtained from the SCVWD indicates the reason for destruction was that the well was no longer needed and the well was screened in multiple aquifers, which could provide a conduit for cross-contamination. In order to meet the RAOs described in the OU1 ROD and the requirement for monitoring the deep aquifer, EPA needs to assess whether a replacement well is necessary. If EPA determines that a replacement well is no longer needed, an OU-1 ROD amendment or ESD may be required.

- Steps to complete implementation of ICs should be taken. Specifically, institutional controls for the adjacent city sidewalk area should be finalized and a site-wide ICs monitoring plan should be developed.

7.1.2. Question B:

Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives (RAOs) used at the time of remedy selection still valid?

7.1.2.1. Changes in standards, newly promulgated standards, and TBCs

As stated in section 7.2 of the OU-1 ROD, only action specific ARARs were identified for the soils operable Unit remedy. It is assumed that, all action-specific ARARs listed in the ROD were complied with during the construction phase associated with soil remediation activities. Currently, only the BAAQMD Regulation 8 - Rule 47 (soil vapor extraction emissions) requires evaluation, as the other listed ARARs do not carry over to current operations.

BAAQMD Regulation 8 - Rule 47 was adopted on 12/20/89 with a most recent version of 6/15/1994. Since the OU-1 SVE system historically emitted more than one VOC listed in 8-47-109.1, the site did not meet the exemption criteria of 8-47-109. However, 8-47-113 allows a provision to petition for a "less than 1 pound per day" exemption. Total emissions of benzene, vinyl chloride, perchloroethylene, methylene chloride and/or trichloroethylene must be less than 1 lb/day and total organic compound emissions must be less than 15 lbs/day. Historically, emission control features of the SVE system have performed as required. The following is a trend analysis of SVE data abstracted from the summary section of the Seventh Quarterly Soil Vapor Extraction System Monitoring Reports. Data from the startup (12/7/98 - 2/3/99) timeframe are not included (i.e., period 1).

Table 4: OU-1 SVE System Summary (VOCs & TPH-G)

Time frame	Run Time (hrs)	VOCs Removed, Total (lbs)	TPH-G Removed, Total (lbs)	Lbs/day Removed Rate (avg.)
4/14 - 5/27 1999 (2nd)	669- ~1,500	89.4 "contaminants"	N/A	2.29
10/1 - 12/31 2001 (3rd)	2,000	61.8	23.9	1.1
2/1 - 10/31 2002 (4th)	2,581	44.42	32.29	0.7
11/1- 7/31 2003 (5th)	3,167	21.3	16.2	0.3
8/1- 12/31 2003 (6th)	3,714	13.5	12.00	0.2
1/1 - 6/5/2004 (7th)	3,730	6.5	5.3	0.1

The SVE system is currently shut down; however, given the above mass recoveries, the substantive requirements of BAAQMD for an exemption under BAAQMD 8-47-113 (< 1 lb/day) could likely be met after a short duration of data collection upon system restart. The standards under BAAQMD 8-47 remain unchanged.

7.1.2.2. Changes in Risk Assessment Methods

Numerous changes in toxicity and other contaminant characteristics have occurred as evidenced in Attachment C, Table C2. Significant changes in toxicity factors, exposure parameters and methodology (e.g., vapor intrusion) have evolved since the OU-1 and OU-2 risk assessments were developed. The short term protectiveness of both OU-1 and OU-2 remedies is based on meeting ARARS and effectiveness of institutional controls to prevent complete exposure pathways to contaminated soils and Zone B (shallow) groundwater. With the exception of the potential vapor intrusion pathway, changes in toxicity do not affect protectiveness of the remedy.

The OU-1 ROD provided for evaluation of the vapor intrusion pathway in residences located above the shallow groundwater plume down gradient of the LB&D property, but this pathway was not addressed for current or potential future indoor industrial/commercial workers in structures overlying the shallow groundwater plume on or down gradient of the LB&D property.

- Other non-residential properties overlying the shallow groundwater plume. In a phone conversation with SJSU South Campus Building personnel on 24 June 2005, USACE confirmed that a structure on the comer of East Humboldt and 10ch Street is currently used as offices by SJSU coaching staff. A metal structure used for recycling on the Newark property is not enclosed. The OU-1 ROD and first five-year review did not address the vapor intrusion pathway for indoor commercial/industrial workers. Current groundwater data and data in the 1996 Remedial Design Report No. 5 Soil Gas Survey indicate that vapor intrusion would not be of concern for receptors on the SJSU campus. However, this pathway should be evaluated prior to any construction on the SJSU sports field overlying the most-contaminated area of the

groundwater plume (between Spartan Stadium and the track) because VOC concentrations in the groundwater may be higher than groundwater screening levels for evaluation of potential vapor intrusion as cited in Federal and State agencies' guidance (EPA, 2002 and RWQCB, February 2005).

- The 1996 Remedial Design Report No. 5 Soil Gas Survey determined that vapor intrusion would not be of concern for current residences. In residential areas overlying the plume, evaluation of potential vapor intrusion using EPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (EPA, 2002) and Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater, Interim Final (RWQCB, February 2005) indicated most recent groundwater concentrations (October 2004) of trichloroethylene and vinyl chloride were not of concern for the vapor intrusion pathway.

Remaining exposure pathways have not changed/and the existing remedy for OU-1 remains protective for those pathways. Surrounding land use has not changed, and the limitations placed on the LB&D property as designated in the ROD have remained unchanged.

7.1.2.3. Expected Progress Towards Meeting Remedial Action Objectives (RAOs)

Since the waste above the ROD excavation action levels has been removed and the remaining waste will remain in place under the cap, the RAOs for that portion of the remedy have been met. Concentrations of VOCs below the cap previously subjected to SVE have not been measured to determine if concentrations are present above the stated RAO of 1 ppm. Sampling of VOC concentrations in soils should be conducted to verify the extent (if any) of the contamination above clean up goals. Only then will it be possible to ascertain if the SVE portion of the remedy is progressing as expected. Expected operation was to be 3 years.

7.1.3. Question C

Has any other information come to light that could call into question the protectiveness of the remedy?

There have been no newly identified ecological risks identified at the site. There is no evidence of any site impact due to natural disasters. There is no new information that might affect the protectiveness of the remedy with the exception of evaluation of potential vapor intrusion impacts prior to construction and occupation of future structures overlying the most contaminated areas of the shallow ground water plume as addressed above.

7.2. Operable Unit 2

7.2.1. Question A

Is the remedy functioning as intended by the decision documents?

7.2.1.1. Remedial Action Performance and Operations

The primary focus of this OU as indicated in the ROD is "to prevent existing contamination in the shallow aquifers from migrating deeper and farther from the site." This includes preventing discharge of VOC-contaminated water to Coyote Creek, and contamination of the deeper aquifers known as Zones C and D. A pump and treat system installed to contain the plume consists of a series of 18 wells constructed in two areas (see Figure 4). The first group of wells is located adjacent to the LB&D property along East Alma Avenue, and a second group of wells is installed in a line perpendicular to the flow axis of the plume beginning parallel to Humboldt Avenue and veering to the southeast between the SJSU running track and baseball diamond. During initial operations all 18 wells operated and discharged to the groundwater treatment plant. Shortly after startup, the group of wells near East Alma Avenue was shut down. As time went on, several of the extraction wells in the north line of wells were taken out of service. Currently there are only three (3) extraction wells operating. Based on a data trend analysis of the shallow groundwater monitoring network over the extraction system's period of operation, some contamination exceeding MCLs (e.g., 1,1-DCE) continues to be detected downgradient of the extraction well system. However, no contamination has been detected in well MW-24 (the furthest downgradient well), indicating contaminant movement towards Coyote Creek has not progressed. As discussed in the earlier OU-1 discussion, contaminant migration to the lower aquifers has not occurred.

Treatment facility operations have not changed since the last FYR. The GAC-based treatment system continues to provide effluent quality which meets the NPDES permit requirements.

7.2.1.2. Opportunities for Optimization

Given the stability of the plume over a long period of time, the PRPs may consider doing a monitored natural attenuation (MNA) assessment to ascertain if subsurface conditions are suitable for MNA application. Additional data needs should be evaluated to determine the viability of this option.

The regulatory agencies should revisit current language addressing clean up goals and clarify, as appropriate, remediation endpoints for PRP implementation.

If groundwater extraction will continue until site-related contaminants reach remediation goals, it may be beneficial to operate the existing extraction wells nearest the 10th Street property. This will provide greater mass removal and ultimately should decrease the operating time of the extraction system.

7.2.1.3. Implementation of Institutional Controls

Institutional controls for this OU are limited to restrictions on well drilling as already described for OU-1 (see paragraph 7.1.1.3 regarding well drilling permits required by the SCVWD).

7.2.1.4. Early Indicators of Potential Issues

The OU-2 remedial action is functioning as required. There are some issues that require clarification

to expedite site close out, or enhance the perceived protectiveness of the remedy. These items include:

- Remediation Goals - All stakeholders would benefit from a regulatory review and clarification of groundwater remediation goals in support of obtainable and reasonable beneficial uses.

- Capture Zone - A qualitative capture zone analysis indicates the extraction system may not obtain complete containment between extraction wells EX-13 and EX-19. Based on concentrations of 1,1-DCE in monitoring points P-12, P-26, and MW-38 (which all exceed the MCL), there may be insufficient contaminant containment which could result in the plume eventually migrating to Coyote Creek.

- Vapor Intrusion - Although current institutional controls prevent residential development, there should also be restrictions which prevent construction of occupied industrial/ commercial structures at the 10th Street SJSU sports field (between Spartan Stadium and the track) overlying the plume unless it is demonstrated that groundwater concentrations pose no unacceptable risk by vapor intrusion pathway. Current groundwater concentrations of trichloroethylene and vinyl chloride from available monitoring points on this portion of the SJSU property are above MCLs, but not above the RWQCB industrial groundwater screening levels for evaluation of potential vapor intrusion. However, this pathway should be evaluated further using the 1996 Soil Gas Survey and current USEPA or RWQCB vapor intrusion guidance prior to construction and occupation of new structures. The result of that review, including consideration of the detection limits achieved and proposed changes in toxicity factors for TCE, will determine whether a repeat of the 1996 survey is merited.

7.2.2. Question B

Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

7.2.2.1. Changes in Standards and TBCs

In the OU-2 ROD, Table 8.1 provides a summary of ARARs entitled "Federal and State of California Regulatory, Advisory, and Action Levels for Analytes in Groundwater." The OU-2 ROD also compiled a list of COC's in Table 6.1. Shallow groundwater cleanup objectives for OU-2 were identified in Table 8-2 of the 1988 ROD but the title of the table appears to be somewhat misleading, as the listed values appear to represent action specific treatment levels. While the relationship between Federal and State MCL values listed in Table 8-1 (ARARs) and the Federal MCLs listed in 8-2 ("cleanup objectives") is not entirely clear, a summary comparing the 1988 MCL values to current MCL values is provided in Attachment C, Table C6. Current NPDES permit effluent limits and those originally presented in the OU-2 ROD are also listed and compared in Attachment C, Table C6.

The Lorentz Shallow Groundwater Task Force is complying with both the substantive and administrative requirements of the RWQCB, San Francisco Bay Region Order NO. R2-2004-0055, NPDES No. CAG912003 for discharge of treated water. Attachment C, Table C6 has been compiled to compare original COCs and ARAR values to existing (i.e., currently issued) General NPDES Permit effluent limitations and originally listed maximum contaminant levels (MCLs).

The first column has both numbered and un-numbered compounds. Compounds 1-21 are existing effluent limitations established under permit CAG912003. Compounds listed in column 2 in bold face were constituents originally identified in the ROD. Column 2 and column 7 must be evaluated together in order to see the scope of the parameters list covered by CAG912003. Compounds 1-21 are required to be actively monitored and reported under provisions of the permit. The column 7 entries are trigger threshold values, not effluent limits, and if exceeded require further evaluation on the part of the permitee to determine if additional numerical limits are necessary. While antimony was not indicated as a COC in the 1988 OU-2 ROD nor identified in the ARARs table, antimony was discussed as a non-carcinogenic groundwater pathway constituent in section 6.4.2 of the OU-1 ROD. Antimony was not an original constituent of the self-monitoring program addressed by CAG912003, however it is now included as a trigger parameter requiring evaluation on a three (3) year cycle. Antimony is included in the summary table to further clarify this for later FYRs.

Shaded areas in column 6 and 7 indicate there are seven (7) compounds originally identified as a. COC or ARAR constituent that are not specifically covered by the NPDES permit provisions. However a review of analytical reports indicates that EPA 5030/8260B addresses chloroethane, 1,2-dichloropropane and Freon 113 (i.e. CFC 113) and these parameters are being analyzed for and reported. That leaves the four metals: barium, cobalt, molybdenum, and vanadium that may not be monitored.

As a matter of policy, ARARs are typically frozen at the ROD; however, from a protectiveness perspective it is useful to evaluate changes in standards or the emergence of new standards to ensure the remedy remains protective. All items highlighted in column 3 are new standards, except chloroform and arsenic. Those two compounds now have more stringent pending MCLs. There have been nine (9) new or more stringent MCLs promulgated since the original ROD for OU-2. However, all those additions are included in the effluent limitation parameter analysis suite or they are on the trigger list of the NPDES permit. A comparison of Federal vs. State MCL values outlined in column 3 indicates there are currently twelve parameters for which California DHS has a more stringent value than promulgated at the Federal level.

Since the receiving water, Coyote Creek, has multiple designated uses (see San Francisco Bay Basin Plan, Santa Clara Basin), it is no surprise the effluent limitation values authorized by CAG912003 are equal to or more stringent than federal MCLs. Based on Attachment C, Table C6 comparisons and the fact that the LSGTF is generally in substantive and administrative compliance with. the California General NPDES permit CAG912003, existing regulatory compliance goes beyond CERCLA compliance with ARARs requirement. An authorization to discharge to Coyote Creek under permit provisions should be considered protective of all designated uses assigned to the receiving surface water body. This protectiveness statement further applies to surface water discharges conducted in association with the OU-1 SVE system provided the substantive requirements of CAG912003 are met.

7.2.2.2. Changes in Exposure Pathways, Toxicity, Other Contaminant Characteristics

The 1988 OU-2 ROD screening level assessment looked at only carcinogens in Zone B groundwater, and was focused on treatment of volatiles. The 1990 RI and 1993 OU-1 ROD documented that

risk/hazard of some non-volatiles (i.e., antimony) was also unacceptable, and remedial activities have not addressed these compounds. Although groundwater COCs (VOCs only) concentrations downgradient of the extraction wells are for the most part acceptable, concentrations on and immediately downgradient of the 10th Street property still present unacceptable risk. Unless groundwater is treated in this area, institutional controls to prevent use of groundwater will be needed indefinitely.

7.2.2.3. Changes in Risk Assessment Methods

Numerous changes in toxicity and other contaminant characteristics have occurred as evidenced in Attachment C, Table C2-C6. Significant changes in toxicity factors, exposure parameters and methodology have evolved since the OU-1 and OU-2 risk assessments were developed. The short term protectiveness of both OU-1 and OU-2 RODs is based on meeting ARARs and the implementation of effective institutional controls to prevent complete exposure pathways to contaminated soils and Zone B (shallow) groundwater. With the exception of the vapor intrusion pathway, changes in toxicity do not affect protectiveness of the remedy. Table 8-2 in the 1988 OU-2 ROD does identify some shallow water cleanup objectives (see section 7.2.2.1), but risk-based cleanup goals based on current risk assessment methodology, toxicity and exposure factors may be needed for chemicals not identified as contaminants of potential concern (COPCs) or not having MCLs to achieve site closeout.

7.2.2.4. Expected Process Towards Meeting RAOs

Since the RAOs have not been clearly defined, status towards closure for the shallow groundwater operable unit cannot be measured. Elevated concentrations of COCs remain near the LB&D property boundary along East Alma Avenue. Under the current operation scenario where only a few extraction wells located near the downgradient end of the plume are operational, the travel time needed for the plume to reach the extraction wells will extend the time considerably until the plume contaminants meet MCLs, assuming MCLs are the cleanup standards.

7.2.3. Question C

Has any other information come to light that could call into question the protectiveness of the remedy?

There have been no newly identified ecological risks identified at the site. There is no evidence of any site impact due to natural disasters. There is no new information that might affect the protectiveness of the remedy with the exception of potential vapor intrusion impacts to residential and industrial/ commercial workers, and the presence of some VOCs downgradient of the extraction system (as discussed elsewhere). There are no other concerns.

8.0. ISSUES, RECOMMENDATIONS, AND FOLLOW-UP ACTIONS

Issues for the LB&D Site are presented in Table 5. This table summarizes some of the concerns raised in the previous sections. Corresponding recommendations and follow-up actions are discussed below. Recommendations are provided to increase system effectiveness and protectiveness, reduce costs, promote technical improvement, and to achieve site closeout.

Table 5: Issues

	Issue[1]	Affects Current Protectiveness (Y/N)?	Affects Future Protectiveness (Y/N)?	Responsible Entity[2] and Milestone[3]
Protectiveness Issues				
1	Potential exposure of construction/utility workers during intrusive activities in soils overlying the shallow groundwater plume may not be adequately addressed in areas of the SJSU property or sidewalk adjacent to the 10th Street and Newark properties (Sec. 8.1.1)	N	Y	EPA/DTSQ PRP (12/31/2006)
2	Vapor intrusion pathway for receptors in potential future building development may not be adequately evaluated and addressed (Sec. 8.1.2)	N	Y	EPA (12/31,2006)
3	Institutional controls need to be fully implemented (8.1.3).	N	Y	EPA/DTSQ PRP (12/31/2006)
Technical Improvement				
4	Optimize soil vapor extraction system operations (Sec. 8.2.1).	N	N	EPA (3/31/2006)
5	Optimize groundwater extraction system (Sec. 8.2.2).	N	N	PRP (9/30/2006)
6	Groundwater Natural Attenuation Study (Sec. 8.2.3)	N	N	PRP (12/31/2007)
7	Groundwater sampling technique to improve VOCs measurement (Sec. 8.2.4).	N	N	PRP (12/31/2005)
Future Site Closeout				
8	An evaluation to determine if SVE has met soils cleanup criteria is needed (Sec. 8.3.1).	N	N	EPA (12/31/2007)
9	Remediation goal for OU 2 shallow groundwater needs clarification (Sec. 8.3.2).	N	N	EPA (12/31/2007)
10	MW-44, the only monitoring well in the Zone D aquifer, was removed. The OU-1 ROD requires the Zone D aquifer be monitored semi-annually (Sec. 8.3.3).	N	Y	EPA/DTSC (12/31/2005)

[1] Reference to section where issue and recommendations are discussed.

[2] PRP = Potentially Responsible Party, EPA = US Environmental Protection Agency, DTSC = Department of Toxic Substances Control

[3] Milestones for implementing recommendations as determined by EPA Region 9

8.1. Recommendations to Improve Protectiveness

8.1.1. Potential Exposure of Construction/Utility Workers

There are ICs addressing worker health and safety for intrusive activities on the 10th Street and Newark properties. However, ICs have not been fully implemented on the adjacent city sidewalks and. SJSU sports fields. Since shallow Zone A aquifer is 20 ft bgs, it is unlikely that construction or utility workers would contact contaminated groundwater during intrusive activities in soils overlying the plume. However, VOC concentrations in these soils may be problematic for construction or utility workers during such intrusive activities as trenching, and additional protections for these construction or utility workers may be needed. Current owners, of land overlying the plume and/or potentially contaminated subsurface soils may need to ensure that construction activities include appropriate measures to ensure worker safety.

8.1.2. Evaluation of Vapor Intrusion Pathway

Current groundwater data and data in the 1996 Remedial Design Report No. 5 Soil Gas Survey indicate that vapor intrusion would not be of concern for current residential and commercial/ industrial receptors in occupied structures overlying the shallow groundwater plume. Consideration of the potential for vapor intrusion in future occupied buildings overlying the shallow groundwater plume may not be adequately addressed. No institutional controls have been selected to prevent construction of occupied structures on the SJSU sports fields between Spartan Stadium and the track. The vapor intrusion pathway should be more fully evaluated for new construction. If the pathway presents a risk, an additional remedy may need to be designed. Such a remedy may include the selection of new institutional controls.

8.1.3. Implement Institutional Controls

Institutional controls for the adjacent city sidewalk area need to be fully implemented. In addition to the recording of a restrictive covenant, layering of alternate institutional controls for the sidewalk areas may be desired and would enhance protectiveness. Further coordination with the San Jose City Department of Transportation, as described in 7.1.1.3, would allow existing governmental controls on sidewalk maintenance and utility work to be used as institutional controls. Signage should also be placed on 10th Street property fences to indicate that contaminated soils may be present under the adjacent city sidewalk.

As the vapor intrusion pathway is more fully evaluated, ICs related to vapor intrusion issues may be suggested.

An IC monitoring plan should be developed. This monitoring plan should identify the type and frequency of monitoring necessary to ensure the continued effectiveness of the implemented institutional controls. In connection with this FYR, a title search was completed for both the restrictive covenant on the 10th Street property and the restrictive covenant on the Newark property. These title searches verified that the covenants appear in their relevant chain of title and are not negatively impacted by any prior-in-time encumbrances. Copies of the title searches are included

herein as Attachment G.

8.2. Recommendations for Technical Improvement

8.2.1. Soils (OU-1)

The extent of VOC contamination in soil is not well-defined. The SVE system was shut down in December 2004 due to significant downward trends in the recovery rates and is not currently operating. Due to limited analytical data, it is uncertain if clean up criteria have been met. A systems operations optimization should be conducted. Based on findings of the optimization study, soil sampling may be needed to determine if cleanup goals have been reached.

8.2.2. Groundwater Extraction System Optimization (OU-2)

A qualitative capture zone analysis identified a potentially incomplete capture area between extraction wells EX-13 and EX-19. To ensure there is complete capture between extraction wells EX-13 and EX-19, the groundwater extraction system should be evaluated. It may be necessary to bring additional extraction well(s) on line to improve the extraction efficiency.

8.2.3. Groundwater Natural Attenuation Study (OU-2)

The current groundwater remediation may not be as efficient and cost effective as possible. The LSGTF may be able to accelerate source removal and/or possibly reduce cleanup time by initiating pumping from wells located adjacent to the LB&D property along Alma Avenue. The LSGTF also needs to conduct a MNA study to determine if down gradient low concentration plume is attenuating and therefore unlikely to impact Coyote Creek..

8.2.4 Sampling Technique

The monitoring program offers some potential for cost reduction and improvement in data quality. The current practice of using the purge and bail approach for sampling groundwater should be replaced with low-flow sampling. This would potentially reduce the field time needed for sampling, reduce turbidity (and the resulting interference with metals analysis), and would reduce the potential for loss of volatile organics. Low flow sampling should be applied to OU-2 groundwater sampling to ensure sample quality is consistent with the current state of the science.

8.3. Recommendations to Achieve Site Closeout

8.3.1. Soils (OU-1)

The remediation goal specified in the OU-1 ROD needs to be clarified. The goal is given as 1 ppm total VOCs in soil. Regulatory agencies should review existing decision documents and determine how to implement the remediation goals. Procedures to measure progress toward the goal also need to be identified and instituted. The SVE system is not currently operating, and due to limited analytical data, it is uncertain if clean up criteria have been met. Methodology to determine if SVE has met soils

cleanup criteria needs to be developed and appropriate samples to verify the achievement of clean up goal should be collected.

8.3.2. Groundwater (OU-2)

Cleanup goals for OU-2 shallow groundwater have not been clearly defined for the LSGTF to accelerate cleanup. Regulatory agencies should review existing decision documents and clarify quantitative remediation goals as appropriate.

8.3.3. Assessment of the necessity of MW-44 Replacement

In order to fulfill the OU-1 ROD requirement, an assessment of the necessity of MW-44 replacement is required. If EPA determines that a replacement well of MW-44 is no longer necessary, an OU-1 ROD amendment or ESD may be necessary.

8.4. Follow-Up Actions

The responsibility for follow-up actions is summarized in Table 5. Milestone dates are best estimates and will be further evaluated by EPA in consultation with the PRPs.

9.0. PROTECTIVENESS STATEMENT

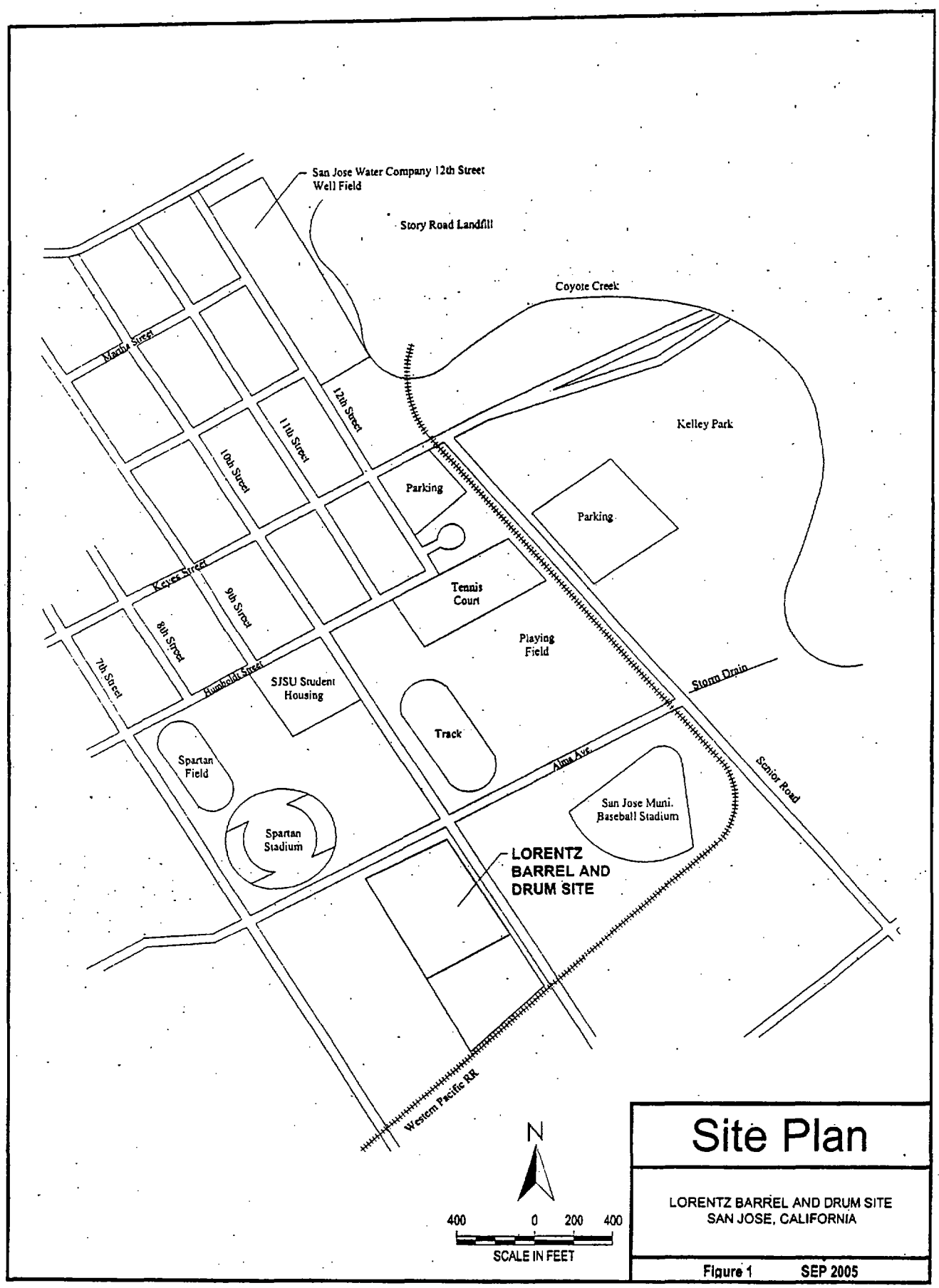
The remedy is considered protective in the short-term since there is no evidence of currently complete exposure pathways to contaminated soils and groundwater. However, in order for the remedy to remain protective in the long-term until performance standards specified in the ROD are met, institutional controls for the site must be fully implemented.

10.0. NEXT REVIEW

The next review will be performed in 2010, and will address both OU-1 and OU-2. The next Five Year Review will be due in September, 2010.

Attachment A

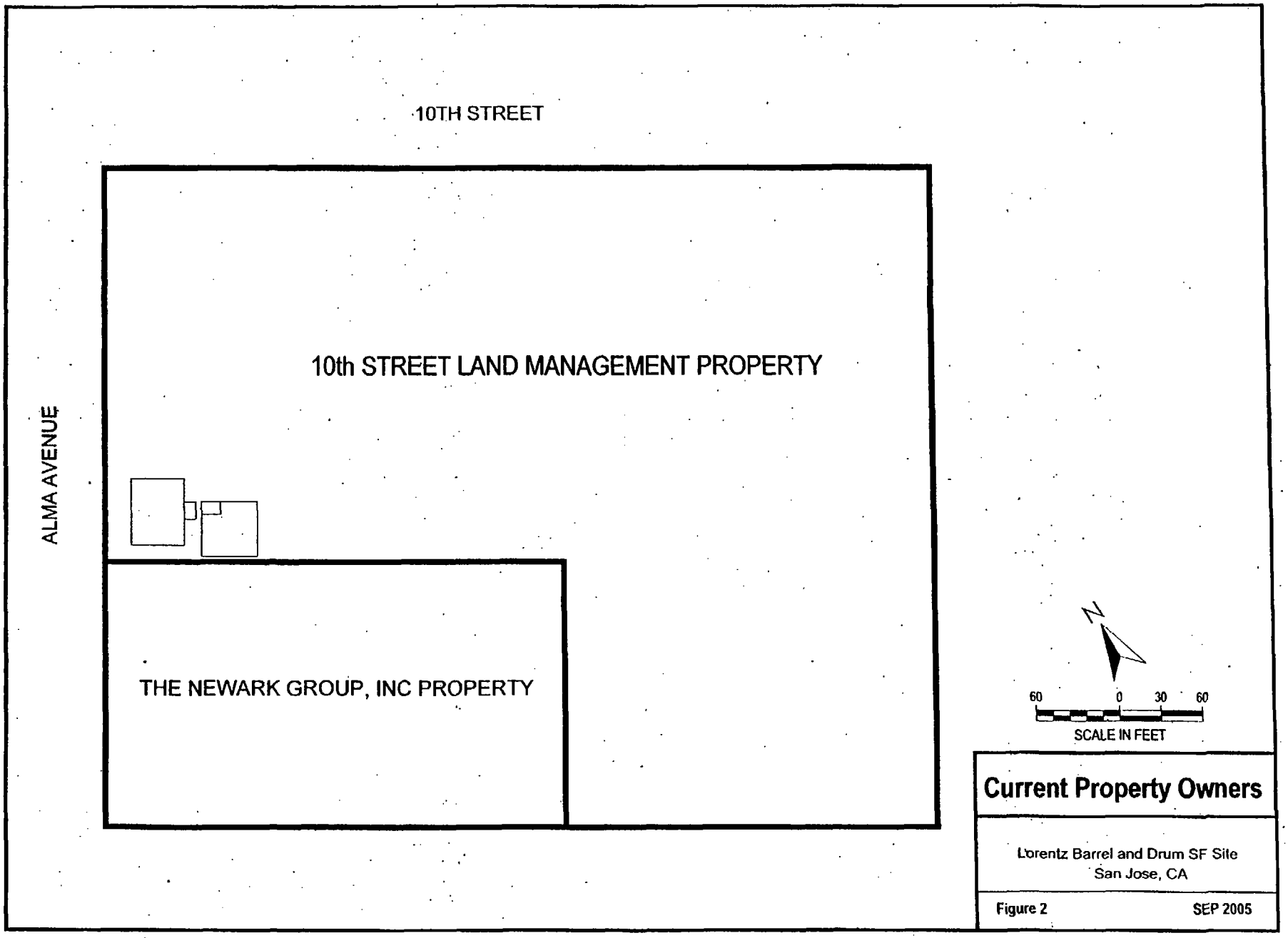
Figures



Site Plan

LORENTZ BARREL AND DRUM SITE
SAN JOSE, CALIFORNIA

Figure 1 SEP 2005



Current Property Owners

Lorentz Barrel and Drum SF Site
San Jose, CA

Figure 2 SEP 2005

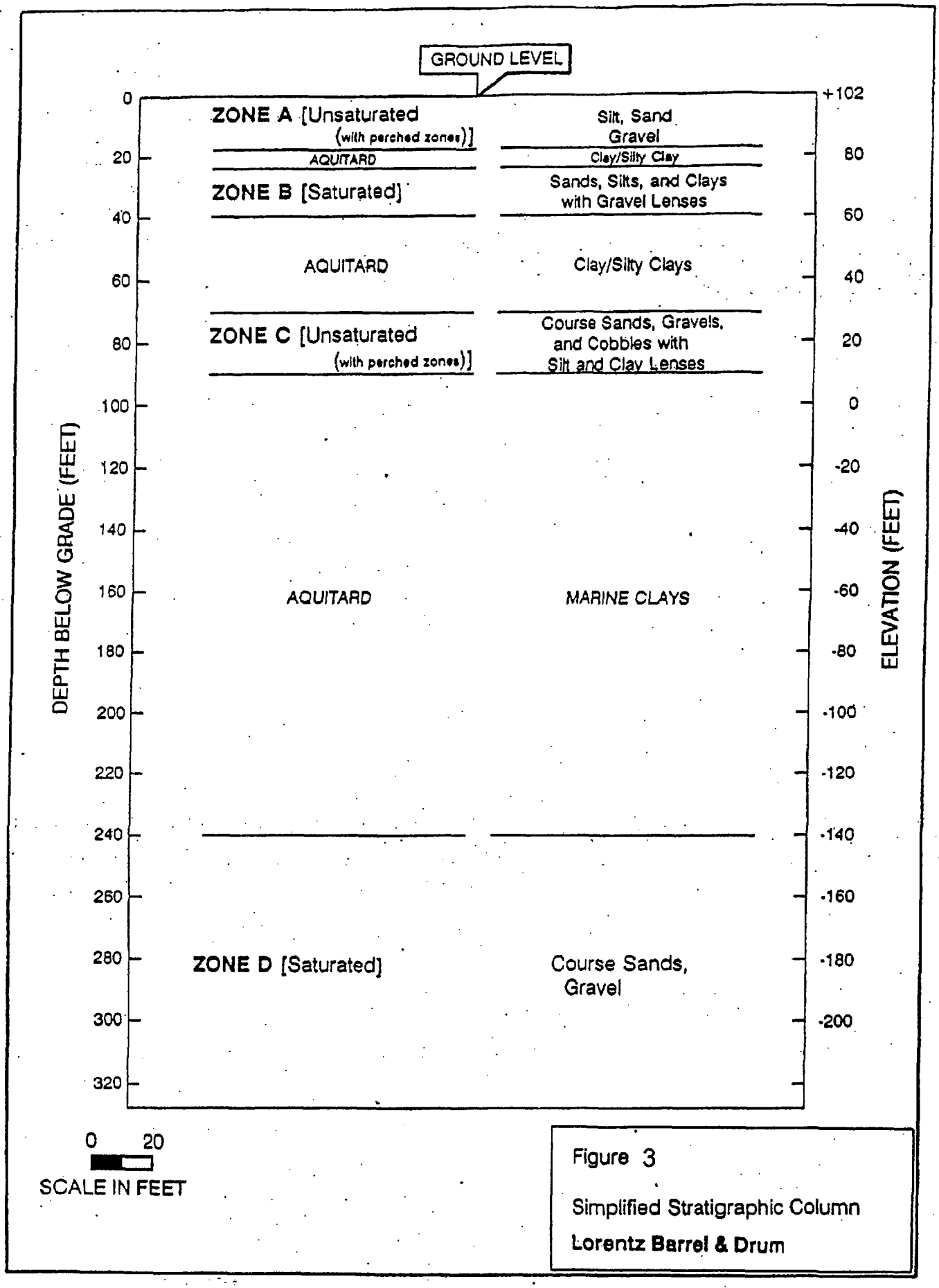
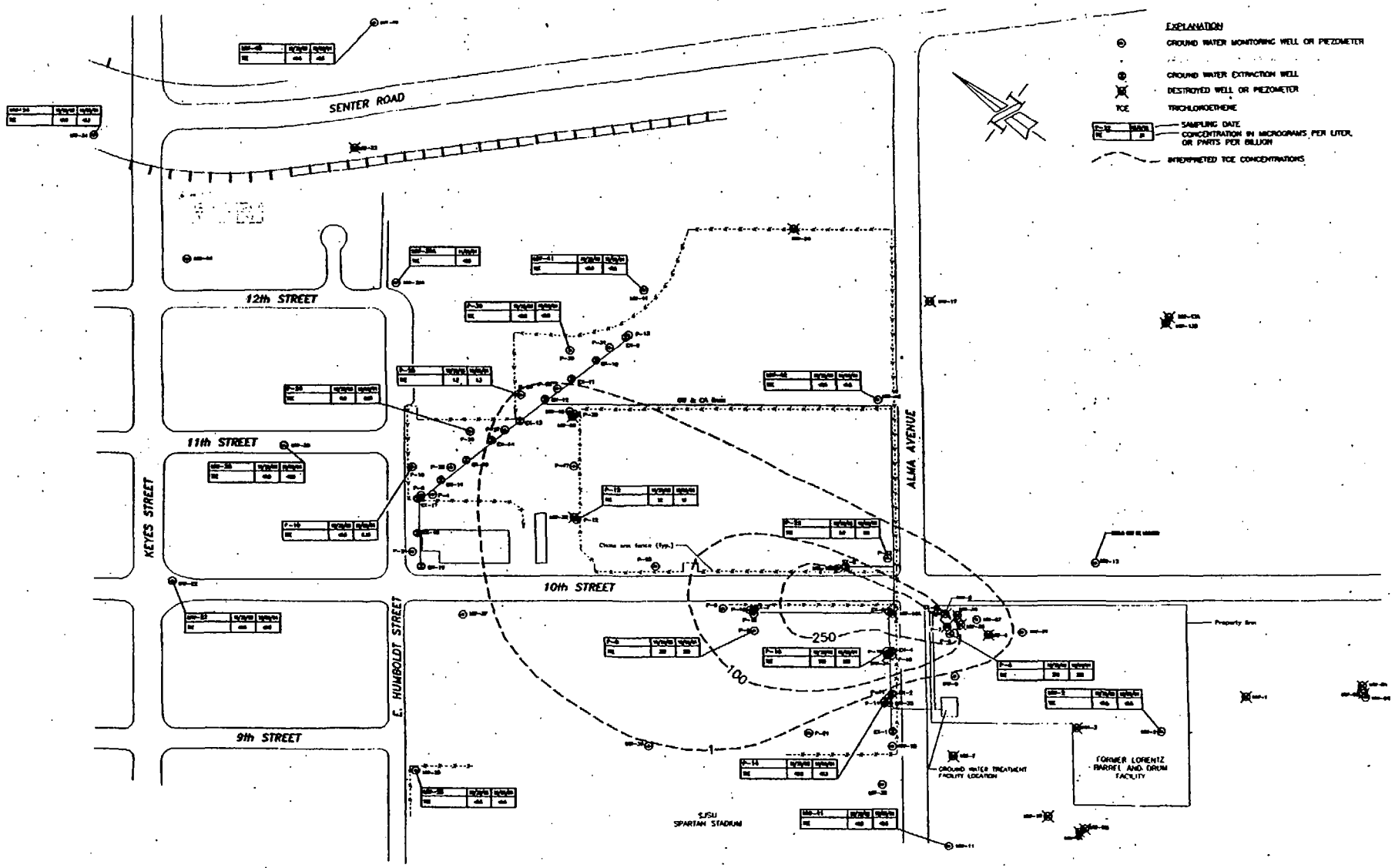


Figure 3

Simplified Stratigraphic Column

Lorentz Barrel & Drum



Lorentz Barrel and Drum Site — Figure 4

Well Locations/TCE Concentrations 2004

Attachment B

List of Documents Reviewed

Documents Reviewed
Lorentz Barrel and Drum SF Site Five Year Review, San Jose, CA.

OU1 Record of Decision, Lorentz Barrel and Drum Superfund Site, San Jose, CA, USEPA Region 9, August 26, 1993

OU1 Explanation of Significant Differences, Lorentz Barrel and Drum Superfund Site, San Jose, CA, USEPA Region 9, May 29, 1998

OU2 Record of Decision, Lorentz Barrel and Drum Superfund Site, San Jose, CA, USEPA Region 9, September 25, 1988

OU2 Explanation of Significant Differences Lorentz Barrel and Drum Superfund Site, San Jose, CA, USEPA Region 9, April 24, 1998

Consent Decree, US District Court for the Northern District of California, July 6, 1990

Five-Year Review Report, Lorentz Barrel and Drum Superfund Site, San Jose, CA, USEPA Region 9, September 27, 2000

Work Plan Shallow Ground-water Treatment Remedial Design, Lorentz Barrel and Drum, San Jose, CA, EMCON Associates Project 787-03.01, December, 1989

Final Quality Assurance Project Plan for C-zone Groundwater Sampling and Analysis, Lorentz Barrel and Drum Superfund Site, San Jose, CA Panacea, Inc, October 4, 2004

Final Field Sampling Plan, Lorentz Barrel and Drum Superfund Site, San Jose, CA Panacea, Inc, October 1, 2004

Draft Third Quarterly Soil Vapor Extraction System Monitoring Report for Lorentz Barrel and Drum Superfund Site, San Jose, CA Panacea, Inc, December 4, 2002

Draft Sixth Quarterly Soil Vapor Extraction System Monitoring Report for Lorentz Barrel and Drum Superfund Site, San Jose, CA Panacea, Inc, July 22, 2004

Draft Seventh Quarterly Soil Vapor Extraction System Monitoring Report for Lorentz Barrel and Drum Superfund Site, San Jose, CA Panacea, Inc, March. 22, 2005

Draft Quarterly Groundwater Sampling and Analysis Report for C-zone Groundwater Sampling and Analysis, Lorentz Barrel and Drum Superfund Site, San Jose, CA Panacea, Inc, November 18, 2004

Preliminary Close Out Report, Lorentz Barrel and Drum Superfund Site, San Jose, CA, USEPA, Region 9, September 29, 1998

100% Remedial Design Report, Lorentz Barrel and Drum Superfund Site, San Jose, CA URS Greiner, May 12, 1998

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Attachment C

Tables

Table C-1
Lorentz Barrel and Drum
Historical Ground Water Sampling Results

	MCLs	200	2[a]	7	5	5	70	5	5	2
WellID	**SamplingDate**	**1,1,1-TCA**	**1,1-DCA**	**1,1-DCE**	**1,2-DCA**	**1,2-DCPA**	**cis-1,2-DCE**	**PCE**	**TCE**	**Vinyl Chloride**
P-6	11/29/2000	4.2	35	18	18	31	490	15	670	260
P-6	10/5/2001	<18	41	24	18	27	520	<19	920	210
P-6	10/14/2002	7.6	29	33	13	22	260	49	430	170
P-6	10/29/2003	<0.33	16	16	7.4	10	200	17	370	140
P-6	10/6/2004	4.4	15	15	9.6	7.9	120	35	260	68
P-9	11/29/2000	26	24	85	9.9	13	75	11	140	63
P-9	10/4/2001	35	29	120	<17	<19	130	19	380	62
P-9	10/14/2002	25	24	84	15	15	83	30	300	56
P-9	10/29/2003	18	16	110	12	9.6	86	21	320	44
P-9	10/6/2004	14	12	100	9.2	5.9	54	17	230	19
P-10	11/29/2000	15	5.3	59	0.8	0.8	9.6	<0.5	<0.5	<0.5
P-10	10/4/2001	19	6	70	<4.3	<4.8	13	<4.7	<4.2	<6
P-10	10/14/2002	1.1	0.49	6.9	<0.5	<0.5	1.1	<0.5	<0.5	<0.5
P-10	10/29/2003	0.35	<0.24	1.9	<0.37	<0.14	0.39	<0.23	<0.19	<0.24
P-10	10/6/2004	0.81	0.24	2.8	<0.5	<0.5	0.56	<0.5	0.18	<0.5
P-12	11/29/2000	13	5.7	65	0.6	1.1	13	<0.5	11	<0.5
P-12	10/4/2001	17	<8	87	<8.6	<9.5	17	<9.4	16	<12
P-12	10/14/2002	14	6.3	66	0.63	1.1	15	<0.5	19	0.3
P-12	10/29/2003	13	5.4	67	0.61	1.1	14	<0.23	22	0.69
P-12	10/6/2004	12	5.5	69	0.58	1	14	<0.5	19	2.2
P-14	11/29/2000	66	6.4	62	43	<0.5	<0.5	<0.5	1.2	<0.5
P-14	10/4/2001	86	12	16	5.7	<4.8	<3.3	<4.7	<4.2	<6
P-14	10/14/2002	91	14	19	7.8	<0.5	<0.5	<0.5	<0.5	0.48
P-14	10/29/2003	73	11	21	8.2	<0.14	<0.16	<0.23	<0.19	0.59
P-14	10/6/2004	71	10	23	0.94	<0.5	<0.5	<0.5	<0.5	<0.5

Table C-1
Lorentz Barrel and Drum
Historical Ground Water Sampling Results

WellID	SamplingDate	1,1,1-TCA	1,1-DCA	1,1-DCE	1,2-DCA	1,2-DCPA	cis-1,2-DCE	PCE	TCE	Vinyl Chloride
MCLs		200	2[a]	7	5	5	70	5	5	2
P-18	11/29/2000	24	110	460	20	23	250	30	390	55
P-18	10/4/2001	1	2.7	21	<0.86	<0.95	4.2	<0.94	7.6	2.1
P-18	10/14/2002	39	82	560	20	<0.5	110	18	210	78
P-18	10/29/2003	23	50	590	14	8.2	89	15	210	55
P-18	10/6/2004	17	39	470	11	6.1	65	18	190	28
P-22	11/28/2000	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	1.5	<0.5
P-22	10/4/2001	<0.89	<0.8	1	<0.86	<0.95	0.68	<0.94	5.5	<1.2
P-22	10/14/2002	0.77	0.36	0.99	<0.5	<0.5	<0.5	<0.5	6.2	<0.5
P-22	10/29/2003	0.55	<0.24	0.76	<0.37	<0.14	0.49	<0.23	5.0	<0.24
P-22	10/6/2004	0.86	0.43	1.2	<0.5	0.2	1.5	<0.5	7.8	<0.5
P-26	10/4/2001	18	<8	50	<8.6	<9.5	7.8	<9.4	<8.4	<12
P-26	10/14/2002	1.2	0.42	4.7	<5	<0.5	1.1	<0.5	<0.5	<0.5
P-26	10/29/2003	4.7	7.0	25	<0.37	0.73	6.2	<0.23	0.8	8.5
P-26	10/6/2004	3.2	9.6	15	<0.5	0.84	3.1	<0.5	0.55	3.4
P-28	11/28/2000	8.1	2.7	22	<0.5	<0.5	1.8	<0.5	0.9	<0.5
P-28	10/8/2001	20	<8.0	56	<8.6	<9.5	<6.6	<9.4	<8.4	<12
P-28	10/14/2002	13	3.4	31	<0.5	0.28	2	<0.5	1.3	<0.5
P-28	10/29/2003	8.9	2.5	27	<0.37	0.29	1.9	<0.23	1.2	<0.24
P-28	10/6/2004	7.4	2.5	30	<0.5	0.33	2.2	<0.5	1.3	<0.5
P-30	11/28/2000	7.4	1.5	14	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
P-30	10/4/2001	19	3.3	32	<0.86	<0.95	<0.66	<0.94	<0.84	<1.2
P-30	10/14/2002	12	2.4	17	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
P-30	10/29/2003	9.5	1.7	16	<0.37	<0.14	0.16	<0.23	<0.19	<0.24
P-30	10/6/2004	13	2.3	25	<0.5	<0.5	0.22	<0.5	<0.5	<0.5
MW-22	11/27/2000	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-22	10/5/2001	<0.89	4.9	<0.98	<0.86	<0.95	<0.66	<0.94	<0.84	3.1
MW-22	10/11/2002	<0.5	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.5
MW-22	10/29/2003	<0.5	0.98	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8
MW-22	10/6/2004	<0.5	0.49	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

Table C-1

Lorentz Barrel and Drum
Historical Ground Water Sampling Results

WellID	SamplingDate	1,1,1-TCA	1,1-DCA	1,1-DCE	1,2-DCA	1,2-DCPA	cis-1,2-DCE	PCE	TCE	Vinyl Chloride
	MCLs	200	2[a]	7	5	5	70	5	5	2
MW-24	11/28/2000	<0.5	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-24	10/8/2001	<0.89	2.9	<0.98	<0.86	<0.95	<0.66	<0.94	<0.84	<1.2
MW-24	10/14/2002	<0.5	2.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-24	10/29/2003	<0.5	2.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-24	10/6/2004	<0.5	3.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-37	3/24/1993	39	28	70	8	6	22	<1	<1	14
MW-37	6/16/1993	38	27	88	9	8	32	<1	<1	30
MW-37	3/19/1998	8.2	7.9	16	3.8	1.4	7.7	<0.5	<0.5	4.6
MW-37	6/24/1998	6.8	8.9	18	4	2	6.4	<0.5	<0.5	1.1
MW-37	12/15/1999	19	22	61	15	8.1	42	<0.5	<0.5	<0.5
MW-38	10/23/1998	14	8	32	<0.5	<0.5	1.8	<0.5	<0.5	<0.5
MW-38	12/9/1998	21	7.9	31	<0.5	0.5	2.7	<0.5	<0.5	<0.5
MW-38	3/11/1999	8.9	5.4	13	<0.5	<0.5	1.1	<0.5	<0.5	<0.5
MW-38	6/4/1999	10	5.4	16	<0.5	<0.5	1.5	<0.5	<0.5	<0.5
MW-38	9/17/1999	8.7	5.2	22	<0.5	<0.5	1.2	<0.5	<0.5	<0.5
MW-38	12/15/1999	20	8.6	32	<0.5	0.5	3.6	<0.5	<0.5	<0.5
MW-38	11/28/2000	2.6	3.1	5.9	<0.5	<0.5	0.7	<0.5	<0.5	<0.5
MW-38	10/8/2001	12	6.3	28	<0.86	<0.95	2.5	<0.94	<0.84	<1.2
MW-38	10/14/2002	11	7.1	27	<0.5	0.36	3.2	<0.5	<0.5	<0.5
MW-38	10/29/2003	12	6.3	34	<0.5	0.47	5	<0.5	<0.5	<0.5
MW-38	10/6/2004	0.4	0.26	1.7	<0.5	<0.5	0.22	<0.5	<0.5	<0.5
MW-39	6/4/1999	3.8	11	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-39	9/17/1999	3.4	11	1.9	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-39	12/14/1999	2.7	9.6	1.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-39	11/28/2000	1.8	8.8	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-39	10/8/2001	4	15	2.7	<0.86	<0.95	<0.66	<0.94	<0.84	<1.2
MW-39	10/14/2002	2.8	12	2.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-39	10/29/2003	3.1	9.7	4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5

(a) Value represents California PRG

Shaded cell indicates value exceeds respective MCL or California PRG

Table C2
Changes in Toxicity Values Post OU-2 ROD Groundwater (Zone B)

	CSFo 1988 ROD ORIGINAL		RfDo ORIGINAL		CSFi ORIGINAL		RfDi ORIGINAL		CSFo CURRENT		RfDo CURRENT		CSFi CURRENT		RfDi CURRENT	
	1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d	
ORGANICS																
Benzene	2.90E-02	*h'89*		*nva*	2.90E-02	*h'89*	NVA		5.50E-02	I	4.00E-03	I	2.70E-02	I	8.60E-03	I
Chlordane	1.61E+00	*h'89*	6.00E-05	*h'89*	1.30E+00	*h'89*	ND		3.50E-01	i	5.00E-04	i	3.50E-01		2.00E-04	i
Chloroform	8.10E-02	*h'89*	1.00E-02	*h'89*	8.10E-02	*h'89*	ND				1.00E-02	i	8.10E-03	i	1.40E-02	n
1,1-Dichloroethane			*1.00E-02*	*i*			*1.43E-01*	*h*			2.00E-01	p			1.40E-01	h
1,2-Dichloroethane	9.10E-02				3.50E-02				9.10E-02	i	2.00E-02	n	9.10E-02	i	1.40E-03	n
1,1-Dichloroethene	5.80E-01	*h'89*	9.00E-03	*h'89*	1.16E+00	*h'89*	NA				5.00E-02	i			5.70E-02	i
1,2-dichloropropane																
PCBs (total)	7.70E+00															
PCB, unspeciated mix, low risk									7.00E-02	I	7.00E-05	i	7.00E-02	I	7.00E-05	r
PCB, unspeciated mix, high risk									2.00E+00	i	2.00E-05	i	2.00E+00	i	2.00E-05	r
1,1,2,2 Tetratchloroethane	2.00E-01				2.00E-01											
Tetrachloroethene	5.10E-02	*n*	1.00E-02	*i*	1.70E-03	*n*	1.10E-01	n	5.40E-01	c	1.00E-02	i	2.10E-02	c	1.00E-02	c
Toxaphene	1.10E+00								1.10E+00	i			1.10E+00	i		
1,1,1-Trichloroethane																
Trichloroethene	1.10E-02	*h'88*	NA		2.50E-02	*h'88*	NA		4.00E-01	n	3.00E-04	n	4.00E-01	n	1.00E-02	n
Trichloroethene (Cal-Modified PRG)									1.30E-02	c	5.00E-01	c	7.00E-03	c	1.70E-01	c
Vinyl Chloride	2.30E+00	*h'88*	NA		2.50E-02	*h'88*	NA		7.50E-01	i	3.00E-03	i	1.60E-02	i	2.90E-02	i
INORGANICS																
Antimony			*4.00E-04*	*h88*												
Arsenic	1.50E-01	*h'88*	1.00E-03	*h'88*	5.00E+01	*h'88*			1.50E+00	i	3.00E-04	i	1.50E+01	i		
Barium			*7.00E-02*	*i*							7.00E-02	i				
Chromium (VI)			*5.00E-03*	*i*	*4.10E+01*	*h'88*					3.00E-03	i				
Cobalt			*3.70E-02*	*h*							2.00E-02	p				
Nickel			*2.00E-03*	*i*	*8.40E-01*						2.00E-02	i				
Zinc			*2.00E-01*	*i*							3.00E-01	i				

Original = 1988 ROD: cited only CSFos and provided no sources; only carcinogenicity was evaluated.
Other original values and sources (italics) are from RI (Ebasco),1990; RI Addendum 3 (URS), June 19, 1992
Chemicals in italics were not listed as COCs but had NPDES discharge limits in the 1988 ROD.
Risk was addressed in 1990 RI; Sb had HI>1
Current = October 2004 Region 9 PRGs (as listed May 2005, online), May 2005 IRIS (online)

Key : CSFo,I = Cancer Slope Factor oral, inhalation; RfDo,I = Reference Dose oral, inhalation
I=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation
NA = Not Available

Table C3
Changes in Toxicity Values OU-1 Soils

	CSFo ORIGINAL		RfDo ORIGINAL		CSFi ORIGINAL		RfDi ORIGINAL		CSFo CURRENT		RfDo CURRENT		CSFi CURRENT		RfDi CURRENT	
	1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d	
ORGANICS																
PESTICIDES																
Aldrin	1.70E+01	h'89	3.00E-05	h'89	1.70E+01	h'89	NA		1.70E+01	i	3.00E-05	i	1.70E+01	i	3.00E-05	r
Chlordane	1.30E+00	h'89	6.00E-05	h'89	1.30E+00	h'89	ND		3.50E-01	i	5.00E-04	i	3.50E-01		2.00E-04	i
4,4-DDD	2.40E-01	h'89	5.00E-04	h'89	NA				2.40E-01	i			2.40E-01	r		
4,4-DDE	3.40E-01	h'89	5.00E-04	h'89	3.40E-01		NA		3.40E-01	i	NA	i	3.40E-01	r		
4,4-DDT	3.40E-01	h'89	5.00E-04	h'89	3.40E-01		ND		3.40E-01	j	5.00E-04	i	3.40E-01	i	5.00E-04	r
Dieldrin	1.60E+01	h'89	5.00E-05	h'89	1.60E+01	h'89	ND		1.60E+01	i	5.00E-05	i	1.60E+01	i	5.00E-05	r
Endosulfan	NA		5.00E-05	h'89	NA		ND				6.00E-03	i			6.00E-03	r
PCBs/Dioxins																
PCBs (total)	7.70E+00	h'89	ND		1.00E-05	h'89	1.00E-05	h'89	2.00E+00	i	3.00E-03	i	2.00E+00	i	2.90E-02	i
PCB, unspeciated mix, low risk									7.00E-02		7.00E-05	i	7.00E-02	i	7.00E-05	r
PCB, unspeciated mix, high risk									2.00E+00	i	2.00E-05	i	2.00E+00	i	2.00E-05	r
2,3,7,8-TCDD (eq.)(ppb)	1.56E+05	h'89	NA		1.56E+05	h'89	NA		1.50E+05	h			1.50E+05	h		
INORGANICS																
Arsenic	1.75E+00	h'88	1.00E-03	h'88	5.00E+01	h'88			1.50E+00	i	3.00E-04	i	1.50E+01	i		
Chromium (VI)			5.00E-03	i	4.10E+01	h'88					3.00E-03	i	2.90E-02	i	2.20E-06	i
Lead																

Original = RI (Ebasco),1990; RI Addendum 3 (URS), June 19, 1992
Current = October 2004 Region 9 PRGs (as listed May 2005, online), May 2005 IRIS (online)

Key : CSFo,I = Cancer Slope Factor oral, inhalation; RfDo,I = Reference Dose oral, inhalation
I=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation
NA = Not Available

Table C3
Changes in Toxicity Values OU-1 Soils

	CSFo ORIGINAL 1/mg/kg/d		RfDo ORIGINAL mg/kg/d		CSFi ORIGINAL 1/mg/kg/d		RfDi ORIGINAL mg/kg/d		CSFo CURRENT 1/mg/kg/d		RfDo CURRENT mg/kg/d		CSFi CURRENT 1/mg/kg/d		RfDi CURRENT mg/kg/d	
ORGANICS																
PESTICIDES																
Aldrin	1.70E+01	h'89	3.00E-05	h'89	1.70E+01	h'89	NA		1.70E+01	i	3.00E-05	i	1.70E+01	i	3.00E-05	r
Chlordane	1.30E+00	h'89	6.00E-05	h'89	1.30E+00	h'89	ND		3.50E-01	i	5.00E-04	i	3.50E-01		2.00E-04	i
4,4-DDD	2.40E-01	h'89	5.00E-04	h'89	NA				2.40E-01	i			2.40E-01	r		
4,4-DDE	3.40E-01	h'89	5.00E-04	h'89	3.40E-01		NA		3.40E-01	i	NA	i	3.40E-01	r		
4,4-DDT	3.40E-01	h'89	5.00E-04	h'89	3.40E-01		ND		3.40E-01	i	5.00E-04	i	3.40E-01	i	5.00E-04	r
Dieldrin	1.60E+01	h'89	5.00E-05	h'89	1.60E+01	h'89	ND		1.60E+01	i	5.00E-05	i	1.60E+01	i	5.00E-05	r
Endosulfan	NA		5.00E-05	h'89	NA		ND				6.00E-03	i			6.00E-03	r
PCBs/Dioxins																
PCBs (total)	7.70E+00	h'89	ND		1.00E-05	h'89	1.00E-05	h'89	2.00E+00	i	3.00E-03	i	2.00E+00	i	2.90E-02	i
PCB, unspeciated mix, low risk									7.00E-02		7.00E-05	i	7.00E-02	i	7.00E-05	r
PCB, unspeciated mix, high risk									2.00E+00	i	2.00E-05	i	2.00E+00	i	2.00E-05	r
2,3,7,8-TCDD (eq.)(ppb)	1.56E+05	h'89	NA		1.56E+05	h'89	NA		1.50E+05	h			1.50E+05	h		
INORGANICS																
Arsenic	1.75E+00	h'88	1.00E-03	h'88	5.00E+01	h'88			1.50E+00	i	3.00E-04	i	1.50E+01	i		
Chromium (VI)			5.00E-03	i	4.10E+01	h'88					3.00E-03	i	2.90E-02	i	2.20E-06	i
Lead																

Original = RI (Ebasco),1990; RI Addendum 3 (URS), June 19, 1992
Current = October 2004 Region 9 PRGs (as listed May 2005, online), May 2005 IRIS (online)

Key : CSFo,I = Cancer Slope Factor oral, inhalation; RfDo,I = Reference Dose oral, inhalation
I=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation
NA = Not Available

Table C3
Changes in Toxicity Values OU-1 Soils

	CSFo ORIGINAL		RfDo ORIGINAL		CSFi ORIGINAL		RfDi ORIGINAL		CSFo CURRENT		RfDo CURRENT		CSFi CURRENT		RfDi CURRENT	
	1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d		1/mg/kg/d		mg/kg/d	
ORGANICS																
PESTICIDES																
Aldrin	1.70E+01	h'89	3.00E-05	h'89	1.70E+01	h'89	NA		1.70E+01	i	3.00E-05	i	1.70E+01	i	3.00E-05	r
Chlordane	1.30E+00	h'89	6.00E-05	h'89	1.30E+00	h'89	ND		3.50E-01	i	5.00E-04	i	3.50E-01		2.00E-04	i
4,4-DDD	2.40E-01	h'89	5.00E-04	h'89	NA				2.40E-01	i			2.40E-01	r		
4,4-DDE	3.40E-01	h'89	5.00E-04	h'89	3.40E-01		NA		3.40E-01	i	NA	i	3.40E-01	r		
4,4-DDT	3.40E-01	h'89	5.00E-04	h'89	3.40E-01		ND		3.40E-01	i	5.00E-04	i	3.40E-01	i	5.00E-04	r
Dieldrin	1.60E+01	h'89	5.00E-05	h'89	1.60E+01	h'89	ND		1.60E+01	i	5.00E-05	i	1.60E+01	i	5.00E-05	r
Endosulfan	NA		5.00E-05	h'89	NA		ND				6.00E-03	i			6.00E-03	r
PCBs/Dioxins																
PCBs (total)	7.70E+00	h'89	ND		1.00E-05	h'89	1.00E-05	h'89	2.00E+00	i	3.00E-03	i	2.00E+00	i	2.90E-02	i
PCB, unspeciated mix, low risk									7.00E-02		7.00E-05	i	7.00E-02	i	7.00E-05	r
PCB, unspeciated mix, high risk									2.00E+00	i	2.00E-05	i	2.00E+00	i	2.00E-05	r
2,3,7,8-TCDD (eq.)(ppb)	1.56E+05	h'89	NA		1.56E+05	h'89	NA		1.50E+05	h			1.50E+05	h		
INORGANICS																
Arsenic	1.75E+00	h'88	1.00E-03	h'88	5.00E+01	h'88			1.50E+00	i	3.00E-04	i	1.50E+01	i		
Chromium (VI)			5.00E-03	i	4.10E+01	h'88					3.00E-03	i	2.90E-02	i	2.20E-06	i
Lead																

Original = RI (Ebasco),1990; RI Addendum 3 (URS), June 19, 1992
Current = October 2004 Region 9 PRGs (as listed May 2005, online), May 2005 IRIS (online)

Key : CSFo,I = Cancer Slope Factor oral, inhalation; RfDo,I = Reference Dose oral, inhalation
I=IRIS p=PPRTV c=California EPA n=NCEA h=HEAST x=Withdrawn r=Route-extrapolation
NA = Not Available

TABLE C4

Vapor Intrusion - Comparison of Groundwater Concentrations to Screening Values

	Oct 2004 Zone B Groundwater Concentration Downgradient of Extraction System (SJSU dorms)(C)				Oct 2004 Zone B Groundwater Concentration Upgradient of Extraction System (SJSU athletic fields)(D)	EPA (A) Question 1	EPA (A) Question 4	EPA (A) Question 5
	Minimum	Maximum	Mean	95%UCL	Maximum	Toxic?	Table 2c Target GW Concentration Risk=1E-06	Table 3c Target GW Concentration Risk=1E-06, α=2.0E-04
	ug/l	ug/l	ug/l	ug/l	ug/l		ug/l	ug/l
ORGANICS								
1,1-Dichloroethane	0.24	9.6	3	5.9	39	Yes	2.20E+03	1.10E+04
1,2-Dichloroethane	<0.5	<0.5	<0.5		**11**	Yes	5*	1.20E+01
1,1-Dichloroethene	1.7	51	20.9	36.2	**470**	Yes	1.90E+01	9.40E+02
cis-1,2-Dichloroethene	0.22	3.1	1.2	2.2	65	Yes	2.10E+02	1.00E+03
Tetrachloroethene	<0.5	<0.5	<0.5		18	Yes	5*	5.40E+00
1,1,1-TCA	0.4	13	6.1	10.7	71	Yes	3.10E+03	1.60E+04
Trichloroethene	<0.5	1.3	0.46	1.4	**250**	Yes	5*	5*
Vinyl Chloride	<.5	3.4	1.8	0.78	**28**	Yes	2*	2*

(A) Draft *Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* (EPA, November, 2002), Tables 1, 2c, 3c (R=E-06, HI=.1); **Bold**> MCL

(B) *Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater*, Interim Final (California Regional Water Quality Control Board, San Francisco Bay Region, February 2005) Table E-1a, Low/Moderate Permeability Vadose Zone Soil

(C) Wells P-10, P-26, P-28, P-30, MW-38, and MW39-A

(D) Wells P-9, P-14, P-18, P-22

* MCL

Lesser of 95% UCL or maximum used as exposure point concentration

Bold values are > MCls or EPA generic but < EPA Semi-site-specific or RWQCB residential and industrial values

Table C5
Vapor Intrusion - Comparison of Soil Gas Concentrations to Screening Values

	1996 Zone B Concentration	1996 Zone B Concentration	EPA Question 4 Table 2c (A)	EPA (A) Question 4 Table 2c	EPA (A) Question 5 Table 3c SG	EPA (A) Question 5 Table 3c SG	RWQCB (B)	RWQCB (B)
	Downgradient SJSU & Residential Maximum Detection Limit Depth <5'	Downgradient SJSU & Residential Maximum Detection Limit Depth 5-15'	Target Shallow Soil Gas Concentration Risk=1E-06	Target Deep Soil Gas Concentration Risk=1E-06	Target Soil Gas Concentration Risk=1E-06 α=2.0E-03 Loamy Sand Depth <5'	Target Soil Gas Concentration Risk=1E-06, α=7.0E-04 Loamy Sand Depth 5 -15'	Soil Gas SLs <3 m Residential	Soil Gas SLs <3m Industrial
	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
ORGANICS								
Trichloroethene	<11	<12	2.20E-01	2.20E+00	1.10E+01	3.20E+01	1.20E+03	4.10E+03
Vinyl Chloride	<5.1	<7	2.80E+00	2.80E+01	1.40E+02	4.00E+02	3.20E+01	1.10E+02

(A) Draft *Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* (EPA, November, 2002), Tables 2c and 3c

(B) *Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater*, Interim Final (California Regional Water Quality Board, San Francisco Bay Region, February 2005) Table E-1a, Low/Moderate Permeability Vadose Zone Soil

All TCE and VC soil gas samples were non-detects, but some samples had elevated detection limits

Bold Detection Limits > EPA Table 2c target generic but < EPA target semi-site specific and RWQCB soil gas screening levels

Notes for Table C-4 Vapor Intrusion – Ground Water and C-5 Vapor Intrusion – Soil Gas

The potential for vapor intrusion at the Lorentz Barrel and Drum (LB&D) Site was evaluated using Draft *Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance)* (EPA, November, 2002) Table 2c generic values at Risk = 1E-06 and Table 3c semi-site specific screening values at risk = 1E-06. Site values were also compared to screening values in *Screening for Environmental Concerns at Site with Contaminated Soil and Groundwater*, Interim Final (California Regional Water Quality Control Board, San Francisco Bay Region, February 2005) Table E-1a, Low/Moderate Permeability Vadose Zone Soil. There are current and potential occupied structures within 100' of the shallow ground-water plume, and toxicity of the chemicals present in the ground water merits evaluation.

On the basis of Figure 2-7, Geological Cross Section, North-South (EMCON Associates Workplan Shallow Ground Water Treatment Remedial Design, December 1989), attenuation factors suitable for sandy loam were used for evaluation of groundwater (depth of 20') and factors for loamy sand were used for evaluation of shallow soil gas (<5' depth) and deep soil gas (5'-15'depth).

See Table C-4 Vapor Intrusion Ground Water. The vapor intrusion pathway for currently occupied structures (SJSU housing complex southwest of the intersection of 10th Street and E. Humboldt Street and SJSU Athletic Offices northeast of this intersection) overlying the plume was evaluated. The lesser of the maximum or the 95% UCL of the October 2004 ground-water volatile organic compound concentrations in six wells (P-10, P-26, P-28, P-30, MW-38, and MW39-A) downgradient of the extraction system was used as an exposure point concentration. ProUCL was used to calculate the 95% UCL. Vinyl chloride was detected in only 1 of the six wells. Although the maximum concentration (3.4 ug/l) exceeded the MCL of 2 ug/l, the 95% UCL did not exceed the EPA or RWQCB residential and industrial ground-water screening levels. Exposure point concentrations of all other COCs were less than EPA Table 2c and Table 3c at risk = 1E-06) and RWQCB residential and industrial ground-water screening levels.

Potential vapor intrusion of future potential occupied structures on the SJSU athletic fields overlying the shallow ground-water plume upgradient of the extraction system was also evaluated using maximum detected October 2004 groundwater concentrations from P-9, P-14, P-18 and P-22. Trichloroethene, vinyl chloride, 1,2-dichloroethane, and 1,1-dichloroethene exceeded MCLs or EPA Table 2c Target Ground Water Concentrations at risk = 1E-06, did not exceed EPA semi-site-specific target ground water concentrations at risk = 1E-06 or RWQCB residential and industrial ground-water screening levels. Institutional controls to require further evaluation of the vapor intrusion pathway prior to construction and occupation of structures on the SJSU sports field between Spartan Stadium and the track area are recommended.

TABLE C6
OU-02 Chemical Specific Evaluations (MCLs and Surface Water Discharge)

No.	Compound	Federal/State MCLs (ug/l)		Discharge to Drinking Water Areas**		Discharge to Other Surface Water Areas		OU-2[1]/OU-2[2] ROD expected NPDES limits	2005 General Permit Trigger Levels
1	2	3		4		5		6	7
		1988	2005	Average Monthly Effluent Limitation*** (ug/L)	Maximum Daily Effluent Limitation (ug/L)	Average Monthly Effluent Limitation*** (ug/L)	Maximum Daily Effluent Limitation (ug/L)		
1	**Benzene**[1,2]	5	5/1[6]		1		5	0.5/5	
2	Carbon Tetrachloride		5	0.25*	0.50	4.4	5		
3	**Chloroform**[1,2]	100	80[4]		5		5	5/5	
4	**1,1-Dichloroethane**[2]		5[6]		5		5	--/5	
5	**1,2-Dichloroethane**[1,2]	5	5	0.38*	0.5		5	1/1	
6	**1,1-Dichloroethylene**[1,2]	7	7/6[6]	0.057*	0.11*	3.2	5	5/5	
7	Ethylbenzene		700/300[6]		5		5		
8	Methylene Chloride (Dichloromethane)		5	4.7	5		5		
9	**Tetrachloroethylene**[1,2]		5	0.8	1.6		5	5/5	
10	Toluene				5		5		

No. 1	Compound 2	Federal/State MCLs (ug/l) 3		Discharge to Drinking Water Areas** 4		Discharge to Other Surface Water Areas 5		OU-2[1]/OU-2[2] ROD expected NPDES limits 6	2005 General Permit Trigger Levels 7
11	Cis 1,2-Dichloroethylene		70/6[6]		5		5		
12	Trans 1,2-Dichloroethylene		100/10[6]		5		5	--/5	
13	**1,1,1-Trichloroethane**[2]	200	200		5		5		
14	1,1,2-Trichloroethane		5	0.6	1.2		5		
15	**Trichloroethylene**[1,2]	5	5	2.7	5		5	5	
16	**Vinyl Chloride**[1,2]	2	2/0.5[6]		0.5		5	2	
17	Total Xylenes				5		5		
18	Methyl Tertiary Butyl Ether (MtBE)				5		13		
19	Total Petroleum Hydrocarbons				50		50		
20	Ethylene Dibromide (1,2-Dibromoethane)				0.05*		5		
21	Trichloro-trifluoroethane				5		5		
	Chloroethane							-/5	
	1,2-Dichloropropane[2]							-/5	

No. 1	Compound 2	Federal/State MCLs (ug/l) 3		Discharge to Drinking Water Areas** 4		Discharge to Other Surface Water Areas 5		OU-2[1]/OU-2[2] ROD expected NPDES limits 6	2005 General Permit Trigger Levels 7
	1,1,2,2-Tetrachloroethane [1,2]							5	0.1
	Arsenic [1,2]	50	10[3]					20	10
	Antimony[5]		6					Not Listed	6
	Barium [2]	1000	2000/1000[6]						
	Chlordane [1,2]		2/0.1[6]					0.014	0.00057
	Cobalt [2]							Not listed	Not listed
	Chromium (total)[2]	50	100/50[6]					11	11
	Freon 113[2]							5	
	Molybdenum [2]							Not listed	Not listed
	Nickel[2]@		Remanded/100[6]					7.1	8.2
	Vanadium [2]							Not listed	Not listed

No.	Compound	Federal/State MCLs (ug/l)		Discharge to Drinking Water Areas**		Discharge to Other Surface Water Areas		OU-2[1]/OU-2[2] ROD expected NPDES limits	2005 General Permit Trigger Levels
1	2	3		4		5		6	7
	Zinc[2]							58	35
	PCBs (total)[1,2]		0.5					0.065	0.00017
	Toxaphene[1,2]	5	3					0.24	0.0002

* If reported detection level is greater than effluent limit, then a non-detect result using a 0.5 ug/L detection level is deemed to be in compliance.

** Drinking water areas are defined as surface waters with the existing or potential beneficial uses of "municipal and domestic supply" and "groundwater recharge" (the latter includes recharge areas to maintain salt balance or to halt salt water intrusion into fresh water aquifers).

*** Applicable when three or more days of effluent monitoring results are available

(1) Original OU-2 Contaminants of Concern (from Table 6-1; OU-2 ROD)

(2) Original OU-2 ARARs and TBCs for Groundwater (Table 8-1; OU-2 ROD)

(3) Effective 1/23/06

(4) As Total trihalomethanes (TTHM)

(5) Antimony (Sb) discussed in OU-01 ROD (6.4.2), but not a GW COC in 1988 OU-02 ROD

(6) California DHS value

@ Tentative value per OU-2 ROD

Permit Criteria not available; assumed equivalent to OU-2

Attachment D

Interview Report

Attachment D

The following list of questions was discussed among the identified people involved in the OU2 shallow groundwater remediation during a teleconference on May 9, 2005. The list of questions was provided in advance of the call to allow time for the participants to formulate responses.

Those participating:

S.J. Chern	**Region 9 RPM**
Joya Banerjee	**OU-2 Project Manager**
Robert Aaserude	**PRP Manager Montgomery Watson**
Pat Lacey	**OU-2 Site Manager Field Environmental Solutions**
Charles Orwig	**PRP Manager Dupont**
Lindsey Lien	**US Army Corps of Engineers**
Sam Bass	**US Army Corps of Engineers**

1. ***Do you have historical plume maps of the shallow zone?*** The Lorentz Shallow Groundwater Task Force (LSGTF) indicated a TCE plume map had been provided to the EPA RPM along with a table of data based on sampling in the housing areas to ensure TCE is not present in the residential areas. The document will be resent to the EPA RPM who will forward it on to the US Army Corps of Engineers (USACE). The USACE asked what the levels of concern were and they referred us to the annual monitoring report Table 3.

2. ***How have you been tracking the plume movement?*** There appears to be a limited number of wells available to track the plume. The ROD for OU1 states there appears to have been little movement over the 1988-1993 time frame. The plume boundary monitoring wells 24, 39 and 40 have shown reductions or stable trends in the contaminants of concern (CoC). The plume is stable and has not expanded in the last 10 years.

3. ***Has there been any sampling at the extraction wells in the plume and or piezometers?*** The basic monitoring strategy was developed during the field sampling plan developed in 1992 and had not changed significantly until this year (2005). USACE asked if the piezometers are screened at the same depth as the shallow zone extraction wells. The LSGTF indicated they were.

4. ***The sampling strategy is unclear for the monitoring well network?*** The FSP was revised and updated about January/February (I had March) of this year (2005). The EPA RPM mentioned that the plan was to address only the shallow groundwater plume, and the USEPA was responsible for the intermediate and deep aquifers. Figures 1 and 2 of the annual monitoring report did not reflect any data but the shallow aquifer.

5. ***PCB/Pesticides were to be collected, has that changed?*** PCBs/Pesticides were collected in the combined system influent until the NPDES permit was revised in 1996, when it was dropped. The NPDES permit was reissued again in July 2004 and the PCB/Pesticide monitoring was not included. Correspondence provided by the LSGTF dated March 18, 2005 indicated 1, 4 Dioxane, SVOCs, hardness, salinity, antimony, beryllium, and thallium. The San Francisco Regional Water Quality Control Board approves/issues the NPDES permit.

6. ***When were the Alma Street Wells last sampled and what were the results?*** Wells that are sampled are identified in the annual sampling report, along with the historic information. There was some concern regarding the boundary well location on the southwest portion of the plume. The LSGTF consultant indicated wells 22 and 25 were substituted for wells 36 and 37 that are closer to the edge of the plume about 1999 due to access issues. A letter from the EPA approved the change in 2000. However, concentrations of 1,1-DCE exceeded criteria in the last sampling round from well 37 in 1999. Student housing lies between well 37 and well 25, so it is unknown if contaminants currently exist beneath student housing.

7. ***Have you ever collected MNA data?*** No.

8. ***Why bailers vs low flow sampling?*** Bailers were in the original FSP in 1992, which were pre-low flow sampling protocols. The concern by the CX is the potential loss of VOCs. The LSGTF is in the process of evaluating the use of low flow sampling at the Lorentz OU2. area. The LSGTF is optimistic that low-flow sampling will become the standard, which should give more accurate results as well as save sample collection time.

9. ***Why are you limiting the shallow groundwater extraction to the relatively low concentration portion of plume and not extracting near the source?*** The LSGTF stated the OU2 ROD was limited to stopping the plume migration both horizontally and laterally. The other groups, in particular the source reduction group was responsible for removing the source, and the current thinking by the LSGTF is, the high concentration area adjacent to the site is a source control issue. The USACE asked who installed the extraction wells next to the site. The LSGTF replied they installed them concurrently with the wells in the center of the leading edge of the plume. Negotiations broke down between the various parties and the LSGTF decided to not pump from the wells along Alma Avenue. Others installed the monitoring wells along Alma Avenue.

   The USACE asked about the process the LSGTF used to gradually cut back on the number of extraction wells being pumped in the plume. The LSGTF indicated they stopped pumping and evaluated capture based on the potentiometric levels measured in subsequent monitoring events. The USACE asked if the LSGTF was developing a groundwater model. They responded they were. The model will verify plume containment is occurring, and also address contaminant degradation in the shallow plume.

10. ***What are the current clean up goals? Clean up schedule? The Preliminary Closeout Report gives 2004 as the shallow groundwater cleanup date.*** The clean up goals are tabulated in the annual monitoring report. The model addressed in question 9 will help estimate the time needed to meet clean up criteria.

11. ***Has a written exit strategy been developed with the regulators?*** The LSGTF is in the process of developing an exit strategy.

12. ***How have institutional controls been implemented in relation to the vertical conduits? Well 39 was removed, but by whom and a new well 39A installed by the Water District, but who coordinated the efforts?*** The USACE will investigate how the proper authorities were made aware of the situation with MW 39. Following the notification of the EPA RPM, and the Santa

Clara Regional Water Quality District, the process was done in accordance with standard procedures.

13. ***Who owns the site at the present time?*** The current owner is identified as the 10th Street Land Management, they purchased the parcel in February,' 2002 from the estate of Mr. Ernest Lorentz. Jr.

14. ***Who rents the site, and is there a management company involved? This information is unavailable***. The EPA RPM will attempt to find the renters.

15. ***Who is responsible for security, what is the company name, what is the frequency and the method of monitoring?*** A representative from the LSGTF will identify the company and provide the data to the EPA RPM.

16. ***Could you provide O&M cost data?*** The LSGTF will provide one-two years of data from the last years of operation.

17. ***Is there an updated site plan showing new well locations, cleanouts, strainers, and other pertinent features?*** The LSGTF will provide an updated plan to the EPA RPM showing revised site information.

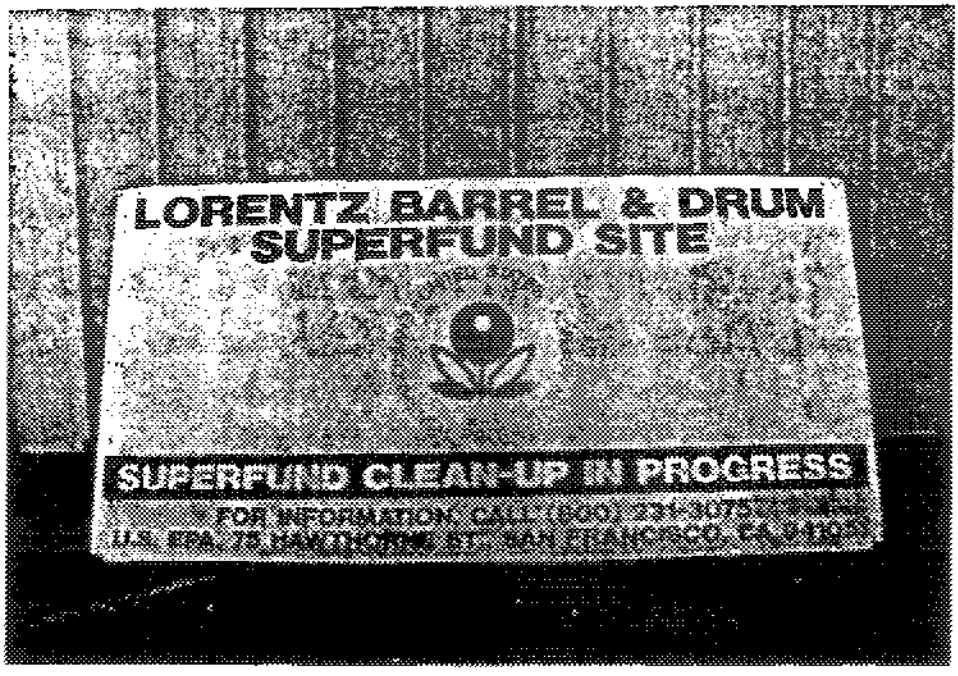
18. ***The EPA indicated the site related field sampling plan, Quality Assurance Project Plan, Health and Safety Plan, O&M manual, are over 10 years old, from another company, and should be updated. What is the status of this effort?*** The sampling and analysis plan and quality assurance project plans were updated in February 2005; the O&M manual was updated in 2004 (an addendum was generated); the LSGTF is in the process of updating the health and safety plan to reflect the new operating conditions at the plant and for the well field.

19. ***The reports do not identify the number of wells operating. How long has the . present operating condition been in place, and how was it determined that this was optimum, or adequate to capture the plume, especially with the influence of the irrigation system for the well in the baseball field outfield?*** There are currently 3 wells operating, wells 9, 13, and 19. Extraction well 9 pumps the most water potentially due to influences from its proximity to the irrigated baseball field. The LSGTF indicated the model was not set up to address the impacts from the irrigation system, but will be revised to do so. The response to question 9 addresses the issue pertaining to the number of pumps. Well 9 is a faster-recharger; the pump operates more often than wells 13 or 19.

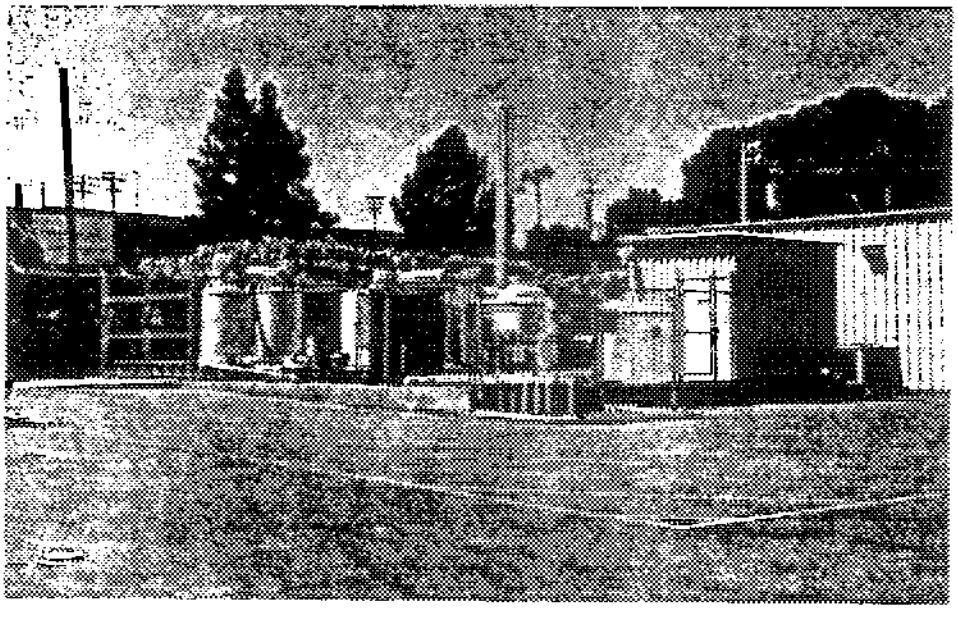
20. ***What flow rate does the batch plant operate during the treatment cycle?*** The influent flow rate from the extraction field averages 1.2 gpm with three wells operating. The wells fill the equalization tank and upon reaching the start liquid level in the tank, the treatment system pump is activated, and the system operates at a flow rate of 12-16 gpm until the tank liquid level reaches the shut off point.

Attachment E

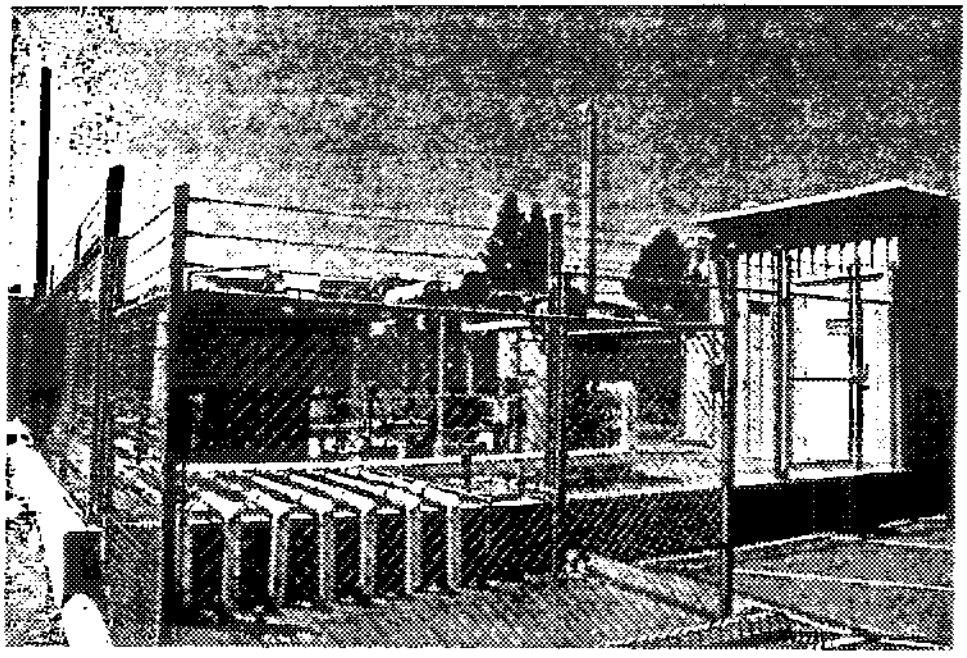
Site Photographs



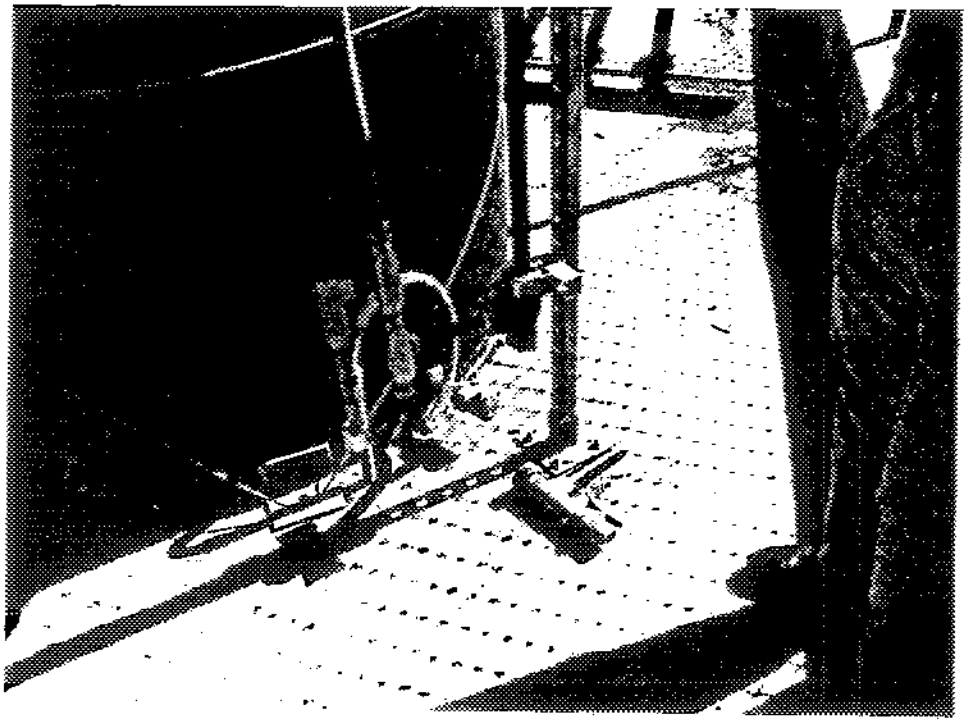
1. Project Sign leaning Against Northwest Side of Building



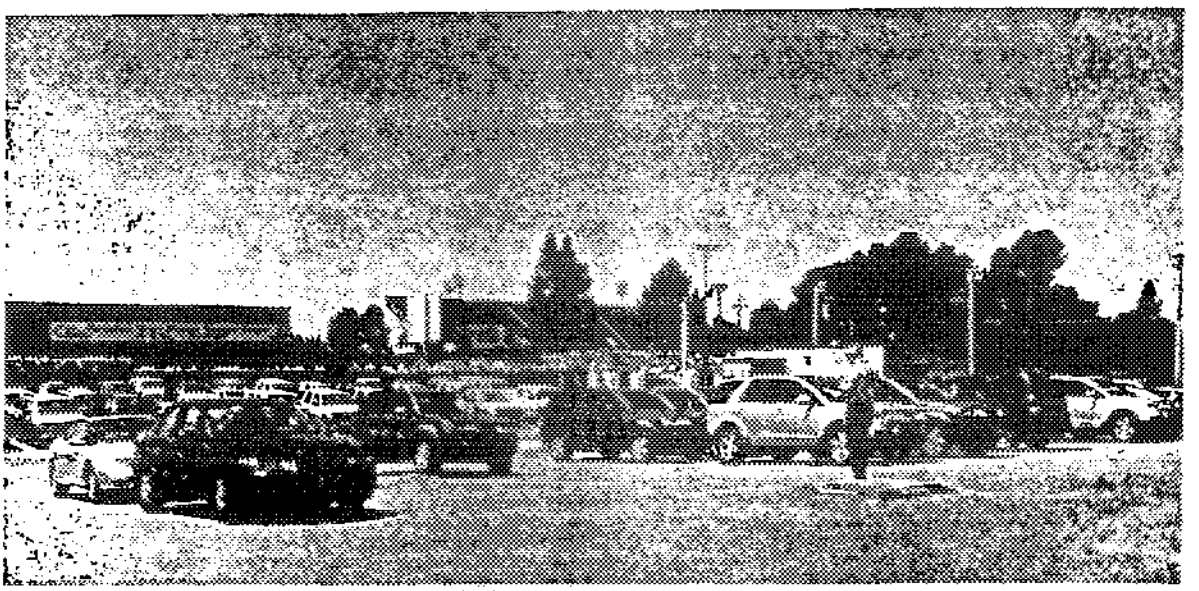
2. View of OU2 Treatment Facility in Foreground with the South Wall of the OU2 Treatment Facility in the Background. Also in Background is the RFI Facility



3. View of Individual Pipelines from the OU1 SVE Wells

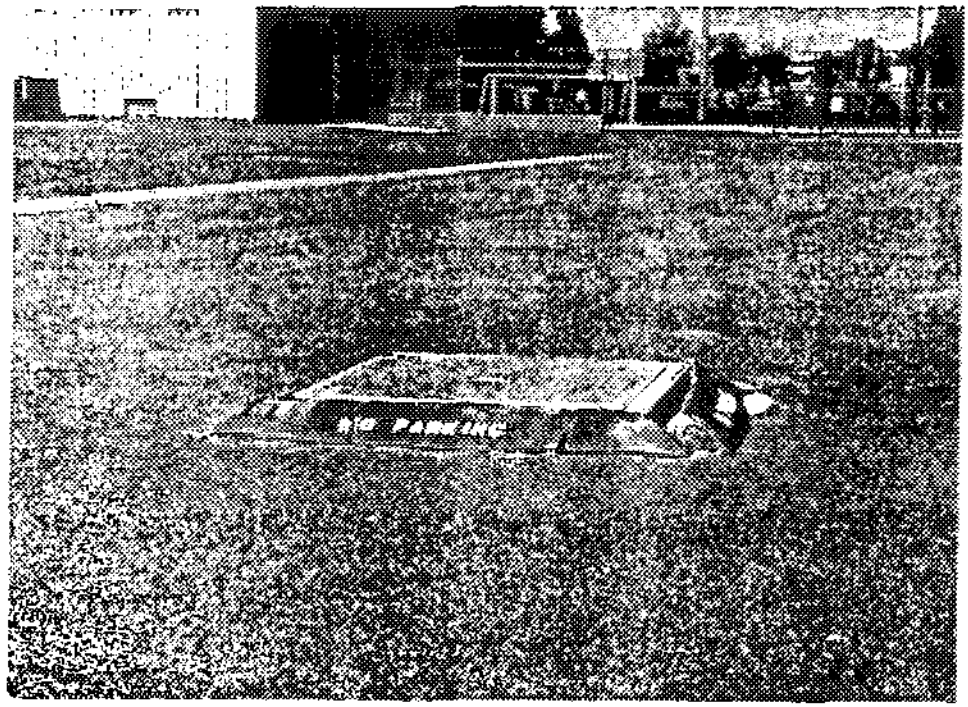


4. Damaged Piping at OU1 Condensate Holding Tank

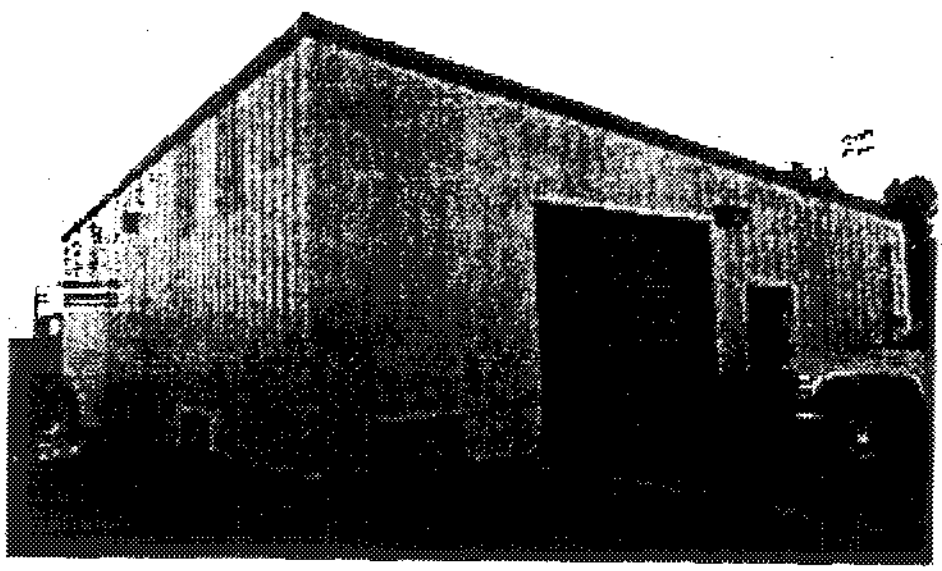


5. Treatment Facilities as well as Recycled Fibers Inc, in Background

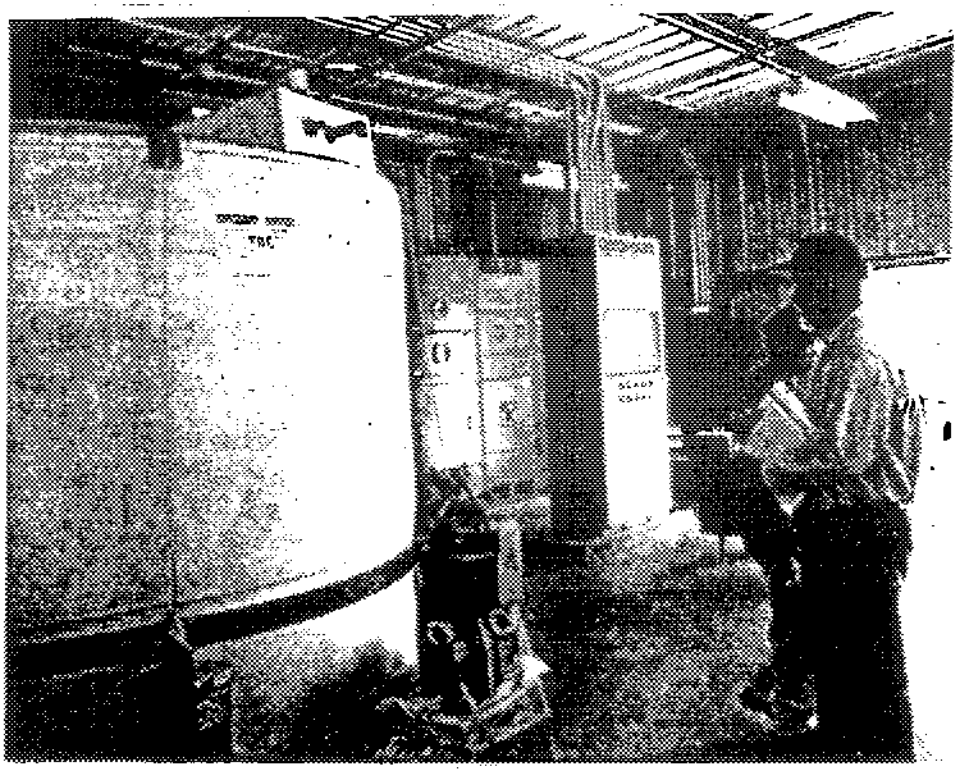
6. Cars Parking on Vault Covers
Crown on Landfill Evident, Ice Rink in Background



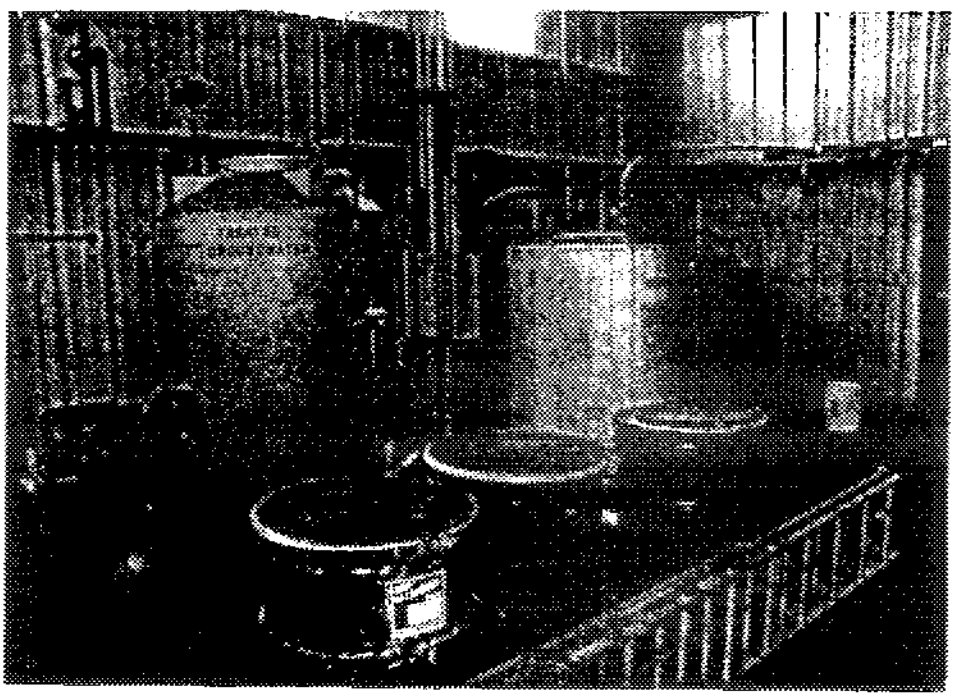
7. Damaged Curbing Surrounding SVE Vault Well No. 4
OU2 Treatment Building and Site Fencing in Background



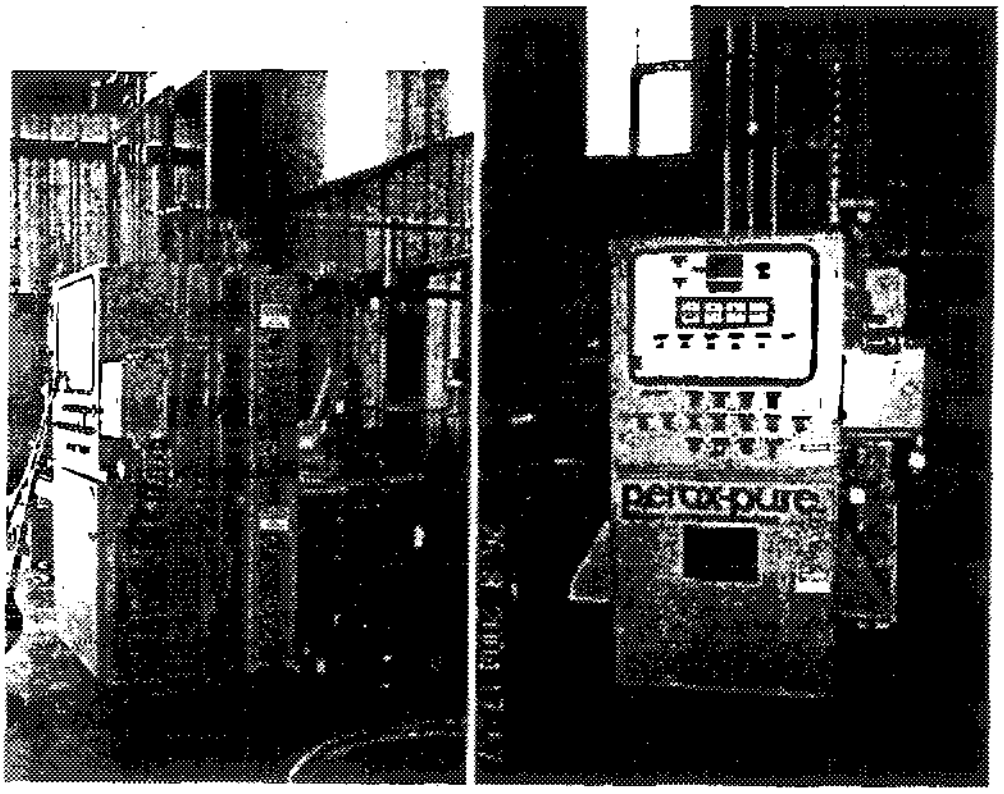
8. OU2 Treatment Building



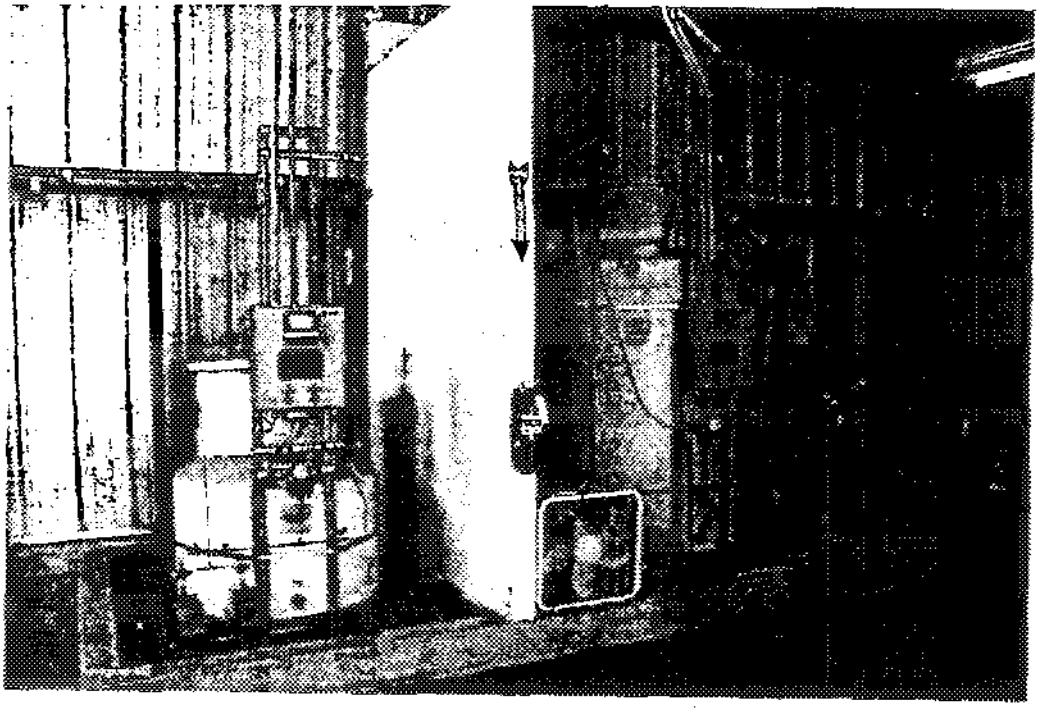
9. Influent Equalization Tank, Motor Control Center in Background along with UV/OX Control Panel (PeroxPure)



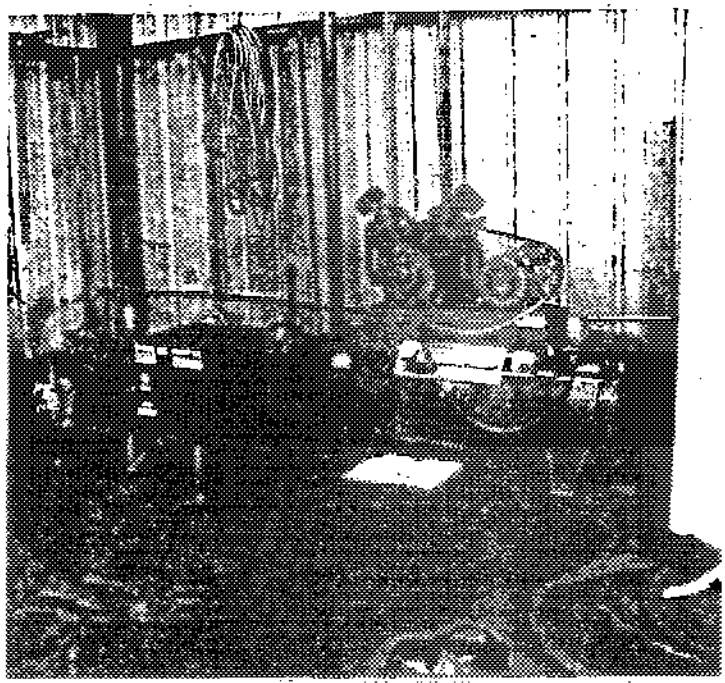
10. GAC Units in the OU2 Groundwater Treatment Plant



11. UV/Oxidation System (no Longer use in the OU2 Treatment Train



12. Caustic and Acid Storage for UV/Oxidation System



13. Extraction Well Pneumatic Controls and Sump in Background

Attachment F

Title Searches

DCN: 904-SAI-Lorentz-03-8177

DRAFT TITLE REPORT
LORENTZ BARREL & DRUM SUPERFUND SITE
388 E. Alma Avenue (APN 477-09-034)
384 E. Alma Avenue (APN 477-09-036)
1507 S. 10th Street (APN 477-09-037)
SAN JOSE, CA

September 14, 2005

Submitted To:

U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, California 94105

Submitted By:

Science Applications International Corporation
1000 Broadway, Suite 675
Oakland, California 94607

Contract No. GS-10F-0076J
Delivery Order 0906
SAIC Project No. 06-5026-01-2303

Table of Contents

Attachment G

Restrictive Covenants

10th Street Land Management

The Newark Group, Inc.

Restrictive Covenants

10th Street Land Management

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

IN THE MATTER OF: LORENTZ BARREL & DRUM SUPERFUND SITE	))))	EPA DOCKET NUMBER 2002-04
UNDER THE AUTHORITY OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980, 42 U.S.C. § 9601, et seq., as amended.	)))))	AGREEMENT AND COVENANT NOT TO SUE 10th STREET LAND MANAGEMENT

I. INTRODUCTION

This Agreement and Covenant Not to Sue ("Agreement") is made and entered into by and between the United States on behalf of the Environmental Protection Agency ("EPA") and 10th Street Land Management (Settling Respondent) (collectively the "Parties").

This Agreement is entered into pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 960 et seq., and the authority of the Attorney General of the United States to compromise and settle claims of the United States.

The purpose of this Agreement is to facilitate the maintenance of remedial facilities and the development of the Lorentz Barrel & Drum Superfund Site, CAD029295706, in San Jose, California (the "Site"). 10th Street Land Management is a California corporation formed to acquire the Site from the Lorentz Estate, which plans to operate the property as a parking and storage facility for commercial trucks, other vehicles and equipment.

The property was owned and operated for many years by Ernest Lorentz as an industrial container recycling facility, and is now opened by Mr. Lorentz's estate, which is insolvent. In 1988, EPA issued the Operable Unit 2 ROD for shallow groundwater extraction and treatment and in 1990 EPA and eleven Potentially Responsible Parties (PRPs) signed a Consent Decree requiring the PRPs to design, construct, and operate a shallow groundwater extraction and treatment system as specified in the 1988 ROD. In 1992, EPA and a different group composed of seven PRPs signed an Administrative Consent Order to remove and dispose of remaining barrels, sumps, drums and debris. In 1993, the EPA issued the Operable Unit 1 ROD to address all remaining sources of contamination not previously addressed at the property. Final construction of the Operable Unit 1 remedy, which included installation of an asphaltic cap, soil vapor extraction system and groundwater monitoring, was completed in September 1998.

The Parties agree to undertake all actions required by the terms and conditions of this Agreement. The purpose of this Agreement is to settle and resolve, subject to reservations and limitations contained in Sections VIII, IX, X, and XI, the potential liability of the Settling Respondent for the Existing Contamination at the Property which would otherwise result from Settling Respondent becoming the owner of the Property.

The Parties agree that the Settling Respondent's entry into this Agreement, and the actions undertaken by the Settling Respondent in accordance with the Agreement, do not constitute an admission of any liability by the Settling Respondent.

The resolution of this potential liability, in exchange for provision by the Settling Respondent to EPA of a substantial benefit, is in the public interest.

II. DEFINITIONS

Unless otherwise expressly provided herein, terms used in this Agreement which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations, including any amendments thereto.

1. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.

2. "Existing Contamination" shall mean

a. any hazardous substances, pollutants or contaminants present or existing on or under the Property as of the effective date of this Agreement;

b. any hazardous substances, pollutants or contaminants that migrated from the Property prior to the effective date of this Agreement; and

c. any hazardous substances, pollutants or contaminants presently at the Site that migrate onto or under or from the Property after the effective date of this Agreement.

3. "Institutional Controls" shall mean the obligations set forth in the Covenant to Restrict Use of Property/Environmental Restriction, a similar form of which is attached hereto as Exhibit 1, to be entered into between the Settling Respondent and the State of California Department of Toxic Substances Control ("DISC").

4. "Parties" shall mean the United States on behalf of EPA, and the Settling Respondent.

5. "Property" shall mean that portion of the Site, encompassing approximately five acres, located at 1507 South 10th Street, San Jose, Santa Clara County, California, which is described in Exhibit 2 of this Agreement.

6. "Settling Respondent" shall mean 10th Street Land Management, and its officers, directors, agents, representatives, and employees.

7. "Site" shall mean the Lorentz Barrel & Drum Superfund Site located at the comer of S. 10th Street and Alma in San Jose, California, approximately five acres depicted generally on the map attached as Exhibit 3. The Site shall include the Property, and all areas to which hazardous substances and/or pollutants or contaminants have come to be located.

8. "United States" shall mean the United States of America, its departments, agencies, and instrumentalities.

III. STATEMENT OF FACTS

9. Settling Respondent is not a PRP and has no current obligations with respect to the Site. As part of the consideration for the entering into of this Agreement, Settling Respondent has entered into a Prospective Purchaser Agreement with the California DTSC undertaking continuing obligations with respect to the ongoing inspection, maintenance, and improvement of the asphalt cap, retaining walls and concrete structures, and security fencing and gates at the Property. Additonally,

the Settling Respondent has agreed to pay DTSC the sum of $192,000 and agreed to DTSC's Covenant to Restrict Use of Property/Environmental Restriction (see Exhibit 1 hereto). Subject to approval of the Santa Clara County Probate Court, Settling Respondent has secured the agreement of the Estate and the known heir, Ms. Joyce Daniels, to sell the Property to it.

10. The Settling Respondent represents, and for the purposes of this Agreement EPA relies on those representations, that Settling Respondent has had no involvement with the Property or the Site.

IV. PAYMENT

11. In consideration of and in exchange for the United States' Covenant Not to Sue in Section IX herein and Removal of Lien in Section XXI, Settling Respondent agrees to pay to EPA the sum of $408,000, within 30 days of the effective date of this Agreement. The Settling Respondent shall make all payments required by this Agreement in the form of a certified check or Electronic Funds Transfer ("EFT" or wire transfer) made payable to "EPA Hazardous Substance Superfund," referencing EPA Region IX, EPA Docket number 2002-04, and Site ID#0989 and name and address of Settling Respondent. Wire transfer payments shall be made in accordance with instructions to be provided to Settling Respondent by EPA following the effective date of this Agreement.

12. Certified checks, along with a transmittal letter, shall be sent to:

EPA Region IX
Attn: Superfund Accounting
P.O. Box 360863M
Pittsburgh PA 15251

Notice of payment (including a copy of the checks and transmittal letter) shall be sent to those persons listed in Section XV (Notices and Submissions) and to:

Donald Loi
Financial Management Specialist (PMD-6)
U.S. EPA Region IX
75 Hawthorne Street
San Francisco, CA 94105

Section Chief
Environmental Enforcement Section
U.S. Department of Justice
P.O. Box 7611
Washington, D. C. 20044-7611
Attn: Bradley O'Brien

The cash amount paid by Settling Respondent pursuant to this Agreement shall be deposited into a Special Account and shall be retained and used to conduct or finance response actions at or in connection with the Site, or transferred by EPA to the EPA Hazardous Substance Superfund.

13. Amounts due and owing pursuant to the terms of this Agreement but not paid in accordance with the terms of this Agreement shall accrue interest at the rate established pursuant to

Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), compounded on an annual basis.

V. WORK TO BE PERFORMED

14. Settling Respondent agrees to perform the work described in the Statement of Work, attached as Exhibit 4 hereto, in consideration for this agreement. The work to be performed includes the routine inspection, maintenance, and improvement of the asphalt cap, retaining walls and concrete structures, and providing security fencing and gates at the Property.

VI. ACCESS/NOTICE TO SUCCESSORS IN INTEREST

15. Commencing upon the date that it acquires title to the Property, Settling Respondent agrees to provide to EPA, the California DTSC, and their authorized officers, employees, representatives, and all other persons performing response actions under EPA or DTSC oversight, an irrevocable right of access at all reasonable times to the Property for the implementation of response actions at the Site, for the purposes of performing and overseeing response actions at the Site under federal and state law. EPA agrees to provide reasonable notice to the Settling Respondent of the timing of response actions to be undertaken at the Property. Notwithstanding any provision of this Agreement, EPA retains all of its access authorities and rights, including enforcement authorities related thereto, under CERCLA, the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act, 42 U.S.C. § 6901,("RCRA") et seq., and any other applicable statute or regulation, including any amendments thereto.

16. With respect to any Property owned or controlled by the Settling Respondent that is located within the Site, within 15 days after the effective date of this Agreement or the date of acquisition of any Property, whichever date is later, the Settling Respondent shall submit to EPA for review and approval a notice to be filed with the Recorder's Office, Santa Clara County, State of California, which shall provide notice to all successors-in-title that the Property is part of the Site, that EPA selected remedies for the soil and groundwater contamination at the site on September 22, 1988 and August 26, 1993, and that potentially responsible parties have implemented part of the remedies pursuant to a Partial Consent Decree in United States v. E. I. duPont de Nemours & Co.. et al., filed on July 6, 1990 in the United States District Court for the Northern District of California, case number C 90 0488 EFL and an Administrative Order on Consent in United States v. Eastman Kodak Company, et al., issued in October, 1992, EPA Region 9 Order No. 92-29, Administrative Record Number AR0536. The Settling Respondent shall record the notice within 10 days of EPA's approval of the notice. The Settling Respondent shall provide EPA with a certified copy of the recorded notice(s) within 10 days of recording such notice.

17. The Settling Respondent shall ensure that assignees, successors in interest, lessees, and sublessees of the Property shall provide the same access and cooperation, including any Institutional Controls. The Settling Respondent shall ensure that a copy of this Agreement is provided to any current lessee or sublessee on the Property as of the effective date of this Agreement and shall ensure that any subsequent leases, subleases, assignments or transfers of the Property or an interest in the Property are consistent with this Section, and Section XII (Panics Bound/Transfer of Covenant), and Section V (Work to be Performed) of the Agreement.

VII. DUE CARE/COOPERATION

18. The Settling Respondent shall exercise due care at the Site with respect to the Existing Contamination and shall comply with all applicable local, State, and federal laws and regulations. The Settling Respondent recognizes that the implementation of response actions at the Site may interfere with the Settling Respondent's use of the Property, and may require closure of its operations or a part thereof. The Settling Respondent agrees to cooperate fully with EPA in the implementation of response actions at the Site and further agrees not to interfere with such response actions. EPA agrees, consistent with its responsibilities under applicable law, to use reasonable efforts to minimize any interference with the Settling Respondent's operations by such entry and response. In the event the Settling Respondent becomes aware of any action or occurrence which causes or threatens a release of hazardous substances, pollutants or contaminants at or from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, Settling Respondent shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall, in addition to complying with any applicable notification requirements under Section 103 of CERCLA, 42 U.S.C. § 9603, or any other law, immediately notify EPA of such release or threatened release.

VIII. CERTIFICATION

19. By entering into this agreement, the Settling Respondent certifies that to the best of its knowledge and belief it has fully and accurately disclosed to EPA all information known to Settling Respondent and all information in the possession or control of its officers, directors, employees, contractors and agents which relates in any way to any Existing Contamination or any past or potential future release of hazardous substances, pollutants or contaminants at or from the Site and to its qualification for this Agreement. The Settling Respondent also certifies that to the best of its knowledge and belief it has not caused or contributed to a release or threat of release of hazardous substances or pollutants or contaminants at the Site. If the United States determines that information provided by Settling Respondent is not materially accurate and complete, the Agreement, within the sole discretion of the United States, shall be null and void and the United States reserves all rights it may have.

IX. UNITED STATES' COVENANT NOT TO SUE

20. Subject to the Reservation of Rights in Section X of this Agreement, upon payment of the amount specified in Section IV (Payment) of this Agreement, the United States covenants not to sue or take any other civil or administrative action against Settling Respondent for any and all civil liability for injunctive relief or reimbursement of response costs pursuant to Sections 106 or 107(a) of CERCLA, 42 U.S.C. §§ 9606 or 9607(a) with respect to the Existing Contamination.

X. RESERVATION OF RIGHTS

21. The covenant not to sue set forth in Section IX above does not pertain to any matters other than those expressly specified in Section IX (United States' Covenant Not to Sue). The United States reserves and the Agreement is without prejudice to all rights against Settling Respondent with respect to all other matters, including but not limited to, the following:

(a) claims based on a failure by Settling Respondent to meet a requirement of this Agreement, including but not limited to Section IV (Payment), Section V (Work to be Performed), Section VI (Access/Notice to Successors in Interest), Section VII (Due Care/Cooperation), and Section XV (Payment of Costs);

(b) any liability resulting from past or future releases of hazardous substances, pollutants or contaminants, at or from the Site caused or contributed to by Settling Respondent, its successors, assignees, lessees or sublessees;

(c) any liability resulting from exacerbation by Settling Respondent, its successors, assignees, lessees or sublessees, of Existing Contamination;

(d) any liability resulting from the release or threat of release of hazardous substances, pollutants or contaminants, at the Site after the effective date of this Agreement, not within the definition of Existing Contamination;

(e) criminal liability;

(f) liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessment incurred by federal agencies other than EPA and which is not due to existing contamination;

(g) liability for violations of local, State or federal law or regulations; and

(h) liability for institutional controls as set forth in the Covenant to Restrict Use of Property/Environmental Restriction (see Exhibit 1), to be entered into between Settling Respondent and DISC.

22. With respect to any claim or cause of action asserted by the United States, the Settling Respondent shall bear the burden of proving that the claim or cause of action, or any part thereof, is attributable solely to Existing Contamination.

23. Nothing in this Agreement is intended as a release or covenant not to sue for any claim or cause of action, administrative or judicial, civil or criminal, past or future, in law or in equity, which the United States may have against any person, firm, corporation or other entity not a party to this Agreement.

24. Nothing in this Agreement is intended to limit the right of EPA to undertake future response actions at the Site or to seek to compel parties other than the Settling Respondent to perform or pay for response actions at the Site. Nothing in this Agreement shall in any way restrict or limit the nature or scope of response actions which may be taken or be required by EPA in exercising its authority under federal or state law. Settling Respondent acknowledges that it is purchasing Property where response actions may be required.

XI. SETTLING RESPONDENT'S COVENANT NOT TO SUE

25. In consideration of the United States' Covenant Not To Sue in Section IX of this Agreement, the Settling Respondent hereby covenants not to sue and not to assert any claims or causes of action against the United States, its authorized officers, employees, or representatives with respect to the Site or this Agreement, including but not limited to, any direct or indirect claims for reimbursement from the Hazardous Substance Superfund established pursuant to the Internal Revenue Code, 26 U.S.C. § 9507, through CERCLA Sections 106(b)(2), 111, 112, 113, or any other provision of law, any claim against the United States, including any department, agency or instrumentality of the United States under CERCLA Sections 107 or 113 related to the Site, or any claims arising out of response activities at the Site, including claims based on EPA's oversight of such activities or approval of plans for such activities.

26. The Settling Respondent reserves, and this Agreement is without prejudice to, actions against the United States based on negligent actions taken directly by the United States, not including oversight or approval of the Settling Respondent's plans or activities, that are brought pursuant to any statute other than CERCLA or RCRA and for which the waiver of sovereign immunity is found in a statute other than CERCLA or RCRA. Nothing herein shall be deemed to constitute preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

XII. PARTIES BOUND/TRANSFER OF COVENANT

27. This Agreement shall apply to and be binding upon the United States, and shall apply to and be binding upon the Settling Respondent, its officers, directors, and employees. The United States' Covenant Not to Sue in Section IX and Contribution Protection in Section XIX shall apply to Settling Respondent's officers, directors, or employees, to the extent that the alleged liability of the officer, director, or employee is based on its status and in its capacity as an officer, director, or employee of Settling Respondent, and not to the extent that the alleged liability arose independently of the alleged liability of the Settling Respondents. Each signatory of a Party to this Agreement represents that he or she is fully authorized to enter into the terms and conditions of this Agreement and to legally bind such Party.

28. Notwithstanding any other provisions of this Agreement, all of the rights, benefits and obligations conferred upon Settling Respondent under this Agreement may be assigned or transferred to any person with the prior written consent of EPA which shall exercise its discretion in accordance with applicable federal law, policies, and regulations.

29 The Settling Respondent agrees to pay the reasonable costs incurred by EPA to review any subsequent requests for consent to assign or transfer the benefits conferred by this Agreement.

30. In the event of an assignment or transfer of the Property or an assignment or transfer of an interest in the Property, the assignor or transferor shall continue to be bound by all the terms and conditions, and subject to all the benefits, of this Agreement except as EPA and the assignor or transferor agree otherwise and modify this Agreement, in writing, accordingly. Moreover, prior to or simultaneous with any assignment or transfer of the Property, the assignee or transferee must consent in writing to be bound by the terms of this Agreement including but not limited to the certification requirement in Section VIII of this Agreement in order for the Covenant Not to Sue in Section IX to be available to that party. The Covenant Not To Sue in Section IX shall not be effective with respect to any assignees or transferees who fail to provide such written consent to EPA.

XIII. DISCLAIMER

31. This Agreement in no way constitutes a finding by EPA as to the risks to human health and the environment which may be posed by contamination at the Property or the Site nor constitutes any representation by EPA that the Property or the Site is fit for any particular purpose.

XIV. DOCUMENT RETENTION

32. The Settling Respondent agrees to retain and make available to EPA all business and operating records, contracts, Site studies and investigations, and documents relating to hazardous

substances, pollutants or contaminants at the Property, for at least ten years, following the effective date of this Agreement unless otherwise agreed to in writing by the Parties. At the end often years, the Settling Respondent shall notify EPA of the location of such documents and shall provide EPA with an opportunity to copy any documents at the expense of EPA.

XV. PAYMENT OF COSTS

33. If the Settling Respondent fails to comply with the terms of this Agreement, it shall be liable for all litigation and other enforcement costs incurred by the United States to enforce this Agreement or otherwise obtain compliance.

XVI. NOTICES AND SUBMISSIONS

34. All notices to Settling Respondent shall be sent to:

Jerry Daniels, President
10th Street Land Management
6438 Berwickshire Way
San Jose, CA 95120
tel (408) 323-1708/fax (413) 647-2442

All notices to the United States should be sent to:

William Keener, ORC-1
Assistant Regional Counsel
U.S. EPA
75 Hawthorne Street
San Francisco, CA 94105

with a copy to:

Diane Strassmaier, SFD-7-4
Superfund Project Manager
U.S. EPA
75 Hawthorne Street San Francisco 94105

XVII. EFFECTIVE DATE

35. If the EPA and the Attorney General's designee approve this Agreement prior to the date Settling Respondents take possession or control of the Property, and EPA does not withdraw or modify its consent to this Agreement after reviewing public comments, then the effective date of this Agreement shall be the date upon which Settling Respondents take possession or control of the Property. If the EPA or the Attorney General's designee does not execute this Agreement, or if EPA withdraws or modifies its consent to this Agreement after reviewing public comments, or Settling Respondents take possession or control of the Property prior to the date the Regional Administrator and the Assistant Attorney General approve this Agreement, then there is no Agreement and no effective date.

XVIII. TERMINATION

36. If any Party believes that any or all of the obligations under Section VI (Access/Notice to Successors in Interest) are no longer necessary to ensure compliance with the requirements of the Agreement, that Party may request in writing that the other Party agree to terminate the provision(s) establishing such obligations; provided, however, that the provision(s) in question shall continue in force unless and until the party requesting such termination receives written agreement from the other parry to terminate such provision(s).

XIX. CONTRIBUTION PROTECTTION

37. With regard to claims for contribution against Settling Respondent, the Parties hereto agree that the Settling Respondent is entitled to protection from contribution actions or claims as provided by CERCLA Section 113(f) (2), 42 U.S.C. § 9613(f)(2) for matters addressed in this Agreement. The matters addressed in this Agreement include all response actions taken or to be taken and response costs incurred or to be incurred by the United States or any other person for the Site with respect to the Existing Contamination,

38. The Settling Respondent agrees that with respect to any suit or claim for contribution brought by it for matters related to this Agreement it will notify the United States in writing no later than 60 days prior to the initiation of such suit or claim.

39. The Settling Respondent also agrees that with respect to any suit or claim for contribution brought against it for matters related to this Agreement it will notify in writing the United States within 10 days of service of the complaint on them.

XX. EXHIBITS

40. Exhibit 1 shall mean a form similar to the Covenant to Restrict Use of Property/ Environmental Restriction to be entered into between Settling Respondent and DTSC.

41. Exhibit 2 shall mean the description of the Property which is the subject of this Agreement.

42. Exhibit 3 shall mean the map depicting the Site.

43. Exhibit 4 shall mean the Statement of Work.

XXI. REMOVAL OF LIEN

44. Subject to the Reservation of Rights in Section X of this Agreement, upon payment of the amount specified in Section IV (Payment), EPA agrees to remove any lien it may have on the Property under Section 107(1) of CERCLA, 42 U.S.C. § 9607(1), as a result of response action conducted by EPA at the Property.

XXII. PUBLIC COMMENT

45. This Agreement shall be subject to a thirty-day public comment period, after which EPA may modify or withdraw its consent to this Agreement if comments received disclose facts or considerations which indicate that this Agreement is inappropriate, improper or inadequate.

IT IS SO AGREED:
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

BY:

_____

Keith Takata, Director Date
Superfund Division
EPA Region IX

IT IS SO AGREED:
UNITED STATES DEPARTMENT OF JUSTICE

BY:

_____

John C. Cruden Date
Acting Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

IT IS SO AGREED:
10TH STREET LAND MANAGEMENT

BY:

_____

Jerry Daniels, President Date
10th Street Land Management

EXHIBIT 1
to the AGREEMENT
AND COVENANT NOT TO SUE
10TH STREET LAND MANAGEMENT
EPA Docket Number: 2002-04

RECORDING REQUESTED BY:
10th Street Land Management Corp.
6438 Berwickshire Way
San Jose, California 95120

WHEN RECORDED, MAIL TO:

Department of Toxic Substances Control
Berkeley Office
700 Heinz Avenue, Suite 200
Berkeley, California 94710
Attention: Barbara J. Cook, P.E., Chief
Northern California-Coastal Cleanup
Operations Branch

SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE

COVENANT TO RESTRICT USE OF PROPERTY

ENVIRONMENTAL RESTRICTION

(Re: Assessor's Parcel No. 477-09-037
Lorentz Barrel and Drum Superfund Site)

This Covenant and Agreement ("Covenant") is made by and between 10th Street Land Management (the "Covenantor"), the current owner of property situated in San Jose, County of Santa Clara, State of California, described in Exhibit "A", attached hereto and incorporated herein by this reference (the "Property"), and the Department of Toxic Substances Control (the "Department"). Pursuant to Civil Code section 1471(c), the Department has determined that this Covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials as defined in Health and Safety Code ("H&SC") section 25260. The Covenantor and the Department, collectively referred to as the "Parties", hereby agree that the use of the Property be restricted as set forth in this Covenant. The Parties further intend that the provisions of this Covenant also be for the benefit of, and be enforceable by, the U.S. Environmental Protection Agency ("U.S. EPA") as a third party beneficiary.

ARTICLE I
STATEMENT OF FACTS

1.01. The Property, totaling approximately 5 acres is more particularly described and depicted in Exhibit "A", attached hereto and incorporated herein by this reference. The Property is located at 1507 South 10th Street, at the intersection of Alma Avenue and 10th Street, San Jose, County of Santa Clara , State of California. This property is more specifically described as Santa Clara County Assessor's Parcel No. 477-09-037.

1.02. The Property commonly known as Lorentz Barrel and Drum Site was operated as a drum recycling facility from 1947-1987. Autowrecking facilities, a junkyard, a roofing company, a construction company and a sandblasting company also operated on the Property. Contamination was first identified in 1981. In late 1987 and 1988, the United States Environmental Protection Agency (US EPA) and the Department jointly conducted emergency response actions to remove contaminated soils.

Several remediation technologies have been employed to address the contamination on the Property, including without limitation, a groundwater pump and treat system, soil vapor extraction ("SVE") system, encapsulation of contaminated soil with a asphalt-concrete cap to prevent infiltration to groundwater, and removal and off-site disposal of contaminated soil, septic system and sewer lines. The Site was divided into two operable units (OU). OU 2 consisted of evaluation and remediation of the shallow groundwater. The Record of Decision for OU 2 was signed in September 1986 by U.S. EPA, and the remedy selected consisted of extraction of contaminated shallow groundwater and treatment. Currently, a group of potentially responsible parties, under a consent decree (C-90-0488) entered into in 1990, operates a pump and treatment system to remediate contaminated groundwater. The Record of Decision for Operable Unit 1 was signed in August 1993 by U.S. EPA and addresses a final action for the contaminated, soil and debris. The selected remedy includes treating contaminated soil using SVE, capping the remaining contaminated soil and debris with asphaltic concrete pavement, groundwater monitoring, removal and disposal of other contaminated materials, debris and stockpiled soils, and implementing institutional controls. US EPA operates a SVE system at the Property. The location of SVE system and groundwater treatment system are shown on Exhibit B.

The asphalt-concrete cap is continuous over the entire parcel. Reinforced, cast-in-place concrete retaining walls and cast-in-place concrete curbs and gutters are at the Site perimeter. An eight-foot high metal mesh fence with heavy gauge posts is continuous around the Site perimeter and two locked access gates (one on Alma Street and one on. 10th Street) have been installed. All surface water is collected within the Site perimeter and is collected in a large storm drain inlet near Alma Street. The storm water is then sent to the main City of San Jose storm drain located under Alma Street.

1.03. The primary contaminants of concern affecting groundwater are: arsenic, nickel, trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloropropane, cis-1,2-dichloroethene, 1,2-dichoroethane, 1,1,2,2 tetrchloroethane, benzene, chloroform, tetrachloroethene, trichloroethene, toluene, chlordane, toxaphene, PCBs (total) and vinyl chloride. Contaminants of concern identified in soil include: arsenic, chromium, lead, aldrin, chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, dieldrin, endosulfan, PCBs (total), 2,3,7,8-TCDD,. phenol, di(ethylhexyl) phthalate, bis (2-ethylhexyl) phthalate, di-n-butylphthalate, butylbenzylphthalate, phenanthrene, pentachlorophenol (PCP),

trichloroethene, and tetrachloroethene. The potential human health effects resulting from exposure to these contaminants are as described in the US Department, of Health and Human Services, Public Health Services, Agency for Toxic Substances and Disease Registry, Individual Toxicological Profiles. Based on the health risk assessment prepared by Ebasco in July 1990, the Department concluded that use of the Property as residence, hospital, school or day care center would entail an unacceptable cancer risk. The Department further concluded that the Property, as remediated, and subject to the restrictions of the Covenant, does not present an unacceptable threat to human safety or environment, if limited to commercial and industrial use.

ARTICLE II
DEFINITIONS

2.01. Department. "Department" means the California Department of Toxic Substances Control and includes its successor agencies,' if any.

2.02. U.S. EPA. "U.S. EPA" means the United States Environmental Protection Agency and includes its successor agencies, if any.

2.03. Owner. "Owner" means the Covenantor, its successors in interest, and their successors in interest, including heirs and assigns, who at any time hold title to all or any portion of the Property.

2.04. Occupant. "Occupant" means Owners and any person or entity entitled by ownership, leasehold, or other legal relationship to the right to occupy any portion of the Property.

2.05. CERCLA Lead Agency. "CERCLA Lead Agency" means the governmental entity having the designated lead responsibility to implement response action under. the National Contingency Plan ("NCP"), 40 C.F.R. Part 300. U.S. EPA is the CERCLA Lead Agency at the time of the recording of this instrument.

ARTICLE III
GENERAL PROVISIONS

3.01. Restrictions to Run with the Land. This Covenant sets forth protective provisions, covenants, restrictions, and conditions (collectively referred to as "Restrictions"), subject to which the property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. Each and every Restriction: (a) runs with the land. pursuant to H&SC section 25355.5 (a) (1) (C) and Civil Code section 1471; (b) inures to the benefit of and passes with each and every portion of the Property, (c) is for the benefit of, and is enforceable by U.S. EPA as a third party beneficiary and by the Department, and (d) is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof.

3.02. Binding upon Owners/Occupants. Pursuant to H&SC section 25355.5 (a) (1) (C) , this Covenant binds all owners of the Property, their heirs, successors, and assignees, and the agents, employees, and lessees of the owners, heirs, successors, and assignees. Pursuant to Civil Code section 1471 (b), all successive owners of the Property are expressly bound hereby for the benefit of the Department and U.S. EPA.

3.03. Written Notice of the Presence of Hazardous Substances. Prior to the sale, lease or sublease of the Property, or any portion thereof, the owner, lessor, or sublessor shall give the buyer, lessee, or sublessee notice that hazardous substances are located on or beneath the Property, as required by H&SC section 25359.7.

3.04. Incorporation into Deeds and Leases. The Restrictions set forth herein shall be incorporated by reference in each and all deeds and leases for any portion of the Property.

3.05. Conveyance of Property. The Owner shall provide notice to the Department and to U.S. EPA not later than thirty (30) days after any conveyance of any ownership interest in the Property (excluding mortgages, liens, and other non-possessory encumbrances). The Department and U.S. EPA shall not, by reason of this Covenant, have authority to approve, disapprove, or otherwise affect proposed conveyance, except as otherwise provided by law, by administrative order, or by a specific provision of this Covenant.

ARTICLE IV
RESTRICTIONS

4.01. Prohibited Uses. The Property shall not be used for any of the following purposes:

(a) A residence, including any mobile home or factory built housing, constructed or installed for use as residential human habitation.
(b) A hospital for humans.
(c) A public or private school for persons under 21 years of age.
(d) A day care center for children.
(e) A Public Park.

4.02. Soil Management

(a) Except as provided by Section 4.02(b) below, the Property shall not be used in such a way that will disturb or interfere with the integrity of the Cap, the SVE system, or the groundwater treatment system as noted in Section 4.04.
(b) The Property shall be used and developed in a way that preserves the integrity of the Cap installed on the Property, except that under the supervision of the CERCLA Lead Agency, the Cap may be removed or disturbed temporarily to install fixtures, repair or replace the Cap or install improvements on the Property. The capped soil shall not be disturbed without a Soil Management Plan and a Health and Safety Plan submitted to the CERCLA Lead Agency for review and approval.
(c) Any contaminated soils brought to the surface by grading, excavation, trenching or backfilling shall be managed in accordance with all applicable provisions of state and federal law.
(d) The Owner shall provide the CERCLA Lead Agency written notice at least fourteen (14) days prior, to any activities which will disturb the Cap, underlying soils, or soil and groundwater treatment systems.

4.03. Prohibited Activities. The following activities shall not be conducted at the Property

(a) Raising of food (cattle, food crops).
(b) Extraction of groundwater for purposes other than site remediation

4.04. Non-interference with Cap. SVE System or Groundwater Treatment System. Covenantor agrees:

(a) Activities that may disturb the Cap (e.g. excavation, grading, removal, trenching, filling, earth movement,, or mining) shall not be permitted on the Capped Property without prior review and approval by the CERCLA Lead Agency.
(b) All uses and development of the Capped Property shall preserve the integrity and physical accessibility of the Cap, SVE System and Groundwater Treatment System.
(c) The Cap shall not be altered without written approval by the CERCLA Lead Agency.
(d) Covenantor shall notify the CERCLA Lead Agency of each of the following: (i) the type, cause, location and date of any damage to the Cap and (ii) the type and date of repair of such damage. Notification to the CERCLA Lead Agency shall be made as provided below within ten (10) working days of both the discovery of any such disturbance and the completion of any repairs. Timely and accurate notification by any Owner or Occupant shall satisfy this requirement on behalf of all other Owners and Occupants.

4.05. Access for U.S. EPA and Department. U.S. EPA and the Department shall have reasonable right of entry and access to the Property for inspection, monitoring, and other activities consistent with the purposes of this Covenant as deemed necessary by U.S. EPA or the Department in order to protect the public health or safety, or the environment. Nothing in this instrument shall limit or otherwise affect U.S. EPA's right of entry and access, or U.S. EPA's authority to take response actions under CERCLA, the National Contingency Plan, 40 C.F.R. Part 300 and its successor provisions, or federal law.

4.06. Access for Implementing Operation and Maintenance. The entity or person responsible for implementing the Operation and Maintenance Plan shall have reasonable right of entry and access to the Property for the purpose of implementing the Operation and Maintenance Plan until the CERCLA Lead Agency determines that no further Operation and Maintenance is required.

ARTICLE V
ENFORCEMENT

5.01. Enforcement. Failure of the Covenantor, Owner or Occupant to comply with any of the Restrictions specifically applicable to it shall be grounds for the Department or U.S. EPA to require that the Covenantor or Owner modify or remove any improvements ("Improvements" herein shall mean all buildings, roads, driveways, and paved parking areas), constructed or placed upon any portion of the Property in violation of the Restrictions. Violation of this Covenant shall be grounds for the Department or U.S. EPA to file civil or criminal actions as provided by law.

ARTICLE VI
VARIANCE, TERMINATION, AND TERM

6.01. Variance. Covenantor, or any other aggrieved person, may apply to the Department for a written variance from the provisions of this Covenant. Such application shall be made in accordance with H&SC section 25233. Unless and until the State of California assumes CERCLA Lead Agency responsibility for Site operation and maintenance, no variance may be granted under this paragraph 6.01 without prior review and prior concurrence of the variance by U.S. EPA.

6.02 Termination. Covenantor, or any other aggrieved person, may apply to the Department for a termination of the Restrictions or other terms of this Covenant as they apply to all or any portion of the Property. Such application shall be made in accordance with H&SC section 25234. Unless and until the State of California assumes CERCLA Lead Agency responsibility for Site operation and maintenance, no termination may be granted under this Paragraph 6.02 without prior review and prior written concurrence of the termination by U.S. EPA.

6.03 Term. Unless ended in accordance with the Termination paragraph above, by law, or by the Department in the exercise of its discretion, after review and prior written concurrence by U.S. EPA, this Covenant shall continue in effect in perpetuity.

ARTICLE VII
MISCELLANEOUS

7.01. No Dedication or Taking. The Covenantor entered into this Agreement as part of a resolution with the Department and U.S. EPA of its potential liabilities upon becoming an owner of the Site. Nothing set forth in this Covenant shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Property, or any portion thereof to the general public or anyone else for any purpose whatsoever. Further, nothing set forth in this Covenant shall be construed to effect a taking under state or federal law.

7.02. Department References. All references to the Department include successor agencies/ departments or other successor entity.

7.03. Recordation. The Covenantor shall record this Covenant, with all referenced Exhibits, in the County of Santa Clara within ten (10) days of the Covenantor's receipt of a fully executed original.

7.04. Notices. Whenever any person gives or serves any Notice ("Notice" as used herein includes any demand or other communication with respect to this Covenant), each such Notice shall be in writing and shall be deemed effective: (1) when delivered, if personally delivered to the person being served or to an officer of a corporate party being served, or (2) three (3) business days after deposit in the mail, if mailed by United States mail, postage paid, certified, return receipt requested:

To Owner: 10th Street Land Management
c/o Jerry Daniels
6438 Berwickshire Way
San Jose, California 95120

To Department: Barbara J. Cook, P. E.,
Chief Department of Toxic Substances Control
Northern California - Coastal Cleanup
Operations Branch
700 Heinz Avenue, Suite 200
Berkeley, California 94710

To EPA: U.S. EPA, Region IX
Re: Lorentz Barrel & Drum Superfund Site
CERCLIS: CAD029295706
Attn: Diane Strassmaier
75 Hawthorne Street, SFD-7-4
San Francisco, California 94105-3901

Any party may change its address or the individual to whose attention a Notice is to be sent by giving written Notice in compliance with this paragraph.

7.05. Partial Invalidity. If any portion of the Restrictions or other term set forth herein is determined by a court of competent jurisdiction to be invalid for any reason, the surviving portions of this Covenant shall remain in full force and effect as if such portion found invalid had not been included herein.

7.06 Statutory References. All statutory references include successor provisions.

IN WITNESS WHEREOF, the Parties execute this Covenant.

Covenantor: _____
By: 10th Street Land Management
Title: Jerry Daniels, President
Date: _____

Department of Toxic Substances Control

By: _____
Title: Barbara J. Cook, P. E.,
Chief Northern California - Coastal Cleanup
Operations Branch

Date: _____

U.S. EPA as a Third Party Beneficiary

By: _____
Date: _____
Title: [*signatory's name and title*]

STATE OF CALIFORNIA)
)
COUNTY OF_____)

On this_____ day of _____ in the year _____,

before me _____ , personally appeared

_____

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature _____

EXHIBIT 4
to the AGREEMENT
AND COVENANT NOT TO SUE
10TH STREET LAND MANAGEMENT
EPA Docket Number: 2002-04

Statement of Work

Operable Unit 1 Remedial Action
Lorentz Barrel and Drum Superfund Site

Table of Contents

A. INTRODUCTION

The purpose of this Statement of Work for the Lorentz Barrel and Drum Superfund Site ("the Site") is to outline the tasks required of the Settling Respondent to the Agreement and Covenant Not to Sue 10th Street Land Management, EPA Docket #2002-04 (the Agreement), implementing portions of the remedial action constructed in accordance with the Record of Decision (ROD) for the Site which was signed by the Regional Administrator on August 26, 1993. The Record of Decision, this Statement of Work, any applicable guidance including guidance provided by Region 9 of the U.S. Environmental Protection Agency (EPA), and the Agreement to which this is appended, shall be followed in implementing the maintenance of the asphalt cap, retaining walls, surface drainage system and security fencing at the Site. Other remedial action work at the site, the soil vapor extraction system and the groundwater pump and treat system, will be maintained and operated by entities other than 10th Street Land Management (the Settling Respondent).

The Operable Unit 1 (OU 1) ROD for the Site includes multiple remedial activities, including the construction of a cap and the installation and operation of a soil vapor extraction (SVE) system. EPA signed an Administrative Consent Order with seven potentially responsible parties (PRPs) to remove and dispose of the remaining drums, asbestos, site debris, structures, and sumps in 1992. This work was later included in the ROD for OU 1, and was completed by the PRPs in 1994. The remaining preliminary tasks were completed prior to 1997 and the final construction phase of the OU 1 remedy, the asphaltic concrete cap and SVE system, were completed in September 1998.

B. GENERAL PROVISIONS

1. Definitions

Unless otherwise expressly provided herein, terms used in this Statement of Work are those defined in the Agreement, CERCLA or in regulations promulgated under CERCLA and shall have the meaning assigned to them in CERCLA or in such regulations.

2. EPA Approval

EPA approval of any submittals does not constitute a release of responsibility by the Settling Respondent for inspections and work to be performed pursuant to this Statement of Work.

3. Effective Date

The date commencing the schedule of the deliverables required under this Statement of work will be the effective date for the Agreement.

4. Notification

The Settling Respondent shall notify the CERCLA lead agency, in writing, of any future intention to cease operations, for reasons other than approved scheduled maintenance or unforseen emergency (such as earthquake or fire) at least 30 days in advance.

5. Coordination with other Federal, State, and local agencies

The Settling Respondent shall contact all appropriate federal, state, and local agencies with regulatory authority to determine requirements related to the site and the intended use of the site. The Settling Respondent shall furnish a copy of all correspondence and submittals made to federal (except EPA correspondence), state, and local agencies to EPA and the California Department of Toxic Substances Control (DTSC) in a timely manner. In addition to environmental regulatory compliance, the Settling Respondent shall provide copies of building permit applications and other permits for operation of facilities at the site to EPA and DTSC.

6. Proposed Changes or Alterations to the Existing Asphalt Cap, Security Fence, and/or Retaining Walls

The Settling Respondent must contact EPA and DTSC if changes in the use of the site, construction of new buildings, and/or modifications to the existing asphalt cap, fencing, or retaining walls are planned. The Settling Respondent must submit a description of the intended change to EPA and DTSC and receive written approval prior to initiating work. Depending on the nature of the proposed change, EPA and DTSC may require a submittal of detailed plans for review and approval.

C. WORK TO BE PERFORMED

1. Asphalt Cap

a. Routine Maintenance

The Settling Respondent shall maintain a minimum 3 inch thick asphalt cap. In areas where the pavement has cracked, the cracks shall be sealed. Maintenance of potholes or any other type of breach in the cap shall be repaired within one week of forming regardless of the size of the breach. The distressed asphalt area shall be sawcut and all of the debris shall be removed. The excavated area shall be repaired with .3 inches of asphalt or to a level flush with the surrounding cap. A slurry seal shall be applied over the repaired area. The Settling Respondent shall immediately install a temporary barrier over the breach in the asphalt cap which effectively prevents dust or soil from migrating and prevents human contact with the soils. This temporary barrier shall remain in place until the asphalt cap is repaired.

b. Inspections

The Settling Respondent shall conduct a monthly visual inspection of the entire cap during the winter months (October through March) and provide a monthly status report to EPA and DTSC. During the remaining portion of the year, the Settling Respondent shall inspect the entire cap every three months and provide a status report to EPA and DTSC. EPA may adjust this schedule based on the actual use of the site and the performance of the asphalt cap.

At the end of the first year, and every two years thereafter, a complete site inspection shall be made jointly by the facility manager, the pavement maintenance contractor, and a qualified engineer. The inspection should result in the identification of needed improvements above and beyond normal

pavement maintenance to minimize potential for distress to the asphaltic concrete with the goal of maintaining the integrity of the asphalt. A written report summarizing the finding of the joint inspection shall be submitted to both EPA and DTSC. At a minimum, the report shall include the field observations, conclusions, and recommended work tasks and the schedule for work that shall be performed.

c. Emergency Maintenance

In the event of a catastrophic event, such as an earthquake, the Settling Respondent shall immediately conduct a thorough site investigation and notify EPA and DTSC to discuss the condition of the asphalt cap. In the event the cap is significantly impacted, the Settling Respondent shall submit a proposal to EPA and DTSC for review and approval describing the actions which will be required to repair the damaged asphalt cap and a schedule for the repair work.

2. Retaining Walls and Concrete Structures

a. Routine Maintenance

The Settling Respondent shall repair cracks or spalls which measure over 1/4 inch wide in the portions of the retaining walls, concrete gutters and curbs which are in direct contact with the site soil with appropriate elastomeric compounds.

b. Inspections

The Settling Respondent shad have a qualified (California State licensed) structural engineer conduct an annual inspection of the retaining walls, curbs, and gutters at the site and provide a status report to EPA and DTSC describing the condition of the structures and identifying repair items. In the event that any displacement is found in the retaining walls the Settling Respondent shall submit an engineering analysis to determine if the movement indicates structural instability. In addition, the report shall identify interim repairs which will prevent the erosion of soil from under the asphalt cap.

c. Emergency Maintenance

In the event of a catastrophic event, such as an earthquake, the Settling Respondent shall immediately conduct a thorough site investigation and notify EPA and DTSC to discuss the condition of the retaining walls, curbs, and gutters. In the event that any of the structures was significantly impacted, the Settling Respondent shall submit a proposal to EPA and DTSC for review and approval describing the actions which will be required to repair the damaged structures and a schedule for the repair work.

3. Security Fencing and Gates

a. Routine Maintenance

The Settling Respondent shall repair breaches in the perimeter fencing at the site. The fence shall be free of holes, rust, and any other impairment to the structural integrity of the fence, support

posts, or gates. In the event the Settling Respondent change the locks on the gates, two copies of the new keys should be sent to each of the following parties: EPA, DTSC.

b. inspections

The Settling Respondent shall conduct an inspection of the entire perimeter fence annually and provide a status report to EPA and DISC. The report shall identify necessary repair needs for the upcoming year with a proposed schedule for the work.

c. Emergency Maintenance

In the event of a catastrophic event, such as an earthquake, the Settling Respondent shall immediately conduct a thorough site investigation and notify EPA and DTSC to discuss the condition of the security fencing. In the event the fencing is significantly impacted, the Settling Respondent shall submit a proposal to EPA and DTSC for review and approval describing the actions which will be required to repair the fence, and a schedule for the repair work. In the event that the fence allows access onto the site, and the asphalt cap and/or retaining walls have been damaged, or site soils are not contained, the Settling Respondent shall immediately provide a temporary fence, temporary ground cover, and/or a security guard at the site to prohibit human exposure to the site soils.

D. SUBMITTALS

One copy of each document shall be submitted to both EPA and DTSC:

a. Site Management Plan

b. Routine Status Reports (monthly, annual/bi-annual)

c. Emergency Preparedness Plan

d. Emergency Response Contacts

e. Emergency Repair Proposals (as required)

E. CONTACTS

EPA: Diane Strassmaier
US EPA, SFD-7-4,
75 Hawthorne Street
San Francisco, CA 94105
tel (415) 972-3247

DTSC: Ted Parks
California DTSC
700 Heinz Avenue, Suite 200, Bldg. F
Berkeley, CA 94710
tel (510) 540-3805

10th St.: Jerry Daniels, President
10th Street Land Management
6438 Berwickshire Way
San Jose, CA 95120
tel (408) 323-1708 fax (413) 647-2442

Restrictive Covenants

The Newark Group, Inc.

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Attorneys for Plaintiff United States

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

C05 02144

UNITED STATES OF AMERICA,

Plaintiff,

v.

THE NEWARK GROUP, INC.

Defendants

CIVIL ACTION NO.

NOTICE OF LODGING OF PROPOSED CONSENT DECREE PENDING SOLICITATION OF PUBLIC COMMENT BY U.S. DEPARTMENT OF JUSTICE

The United States has filed a Complaint, pursuant to Sections 106 and 107(a) of the Comprehensive Environmental Response, Compensation and Liability Act, ("CERCLA"), 42 U.S.C. §§ 9606 and 9607(a), for the performance of response actions and the reimbursement of

response costs.

Plaintiff, the United States, hereby notifies the Court that, contemporaneous with the filing of the Complaint, the United States lodged a Consent Decree for the above referenced matter (attached as Exhibit 1 hereto).

The Court should not sign the Consent Decree at this time. Instead, the proposed Consent Decree should remain lodged with the Court while the United States provides an opportunity for public comment as provided by the Consent Decree.

The Department of Justice will publish in the Federal Register a notice that the proposed Consent Decree has been lodged with the Court. The Notice will solicit public comment for a period of 30 days. During the comment period, no action is required of this Court.

Respectfully submitted,

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Acting Assistant Attorney General
Environment and Natural Resources Division

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75 Hawthorne Street
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Exhibit 1

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

UNITED STATES OF AMERICA, Plaintiff, v. THE NEWARK GROUP, INC. Defendant.	CIVIL ACTION NO. JUDGE

CONSENT DECREE

I. BACKGROUND

A. The United States of America ("United States"), on behalf of the Administrator of the United States Environmental Protection Agency ("EPA"), filed a Complaint in this matter against The Newark Group, Inc. ("Settling Defendant") pursuant to Sections 106 and 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C §§ 9606, 9607, as amended ("CERCLA"), seeking, inter alia: (i) reimbursement of response costs incurred or to be incurred for response actions taken or to be taken at or in connection with the release or threatened release of hazardous substances at the Lorentz Barrel and Drum Superfund Site in San Jose, Santa Clara County, California ("Site"), and (ii) performance of response work by Settling Defendant at the Site consistent with the National Contingency Plan, 40 C.F.R. Part 300 (as amended) ("NCP").

B. Settling Defendant does not admit any liability to Plaintiff arising out of the transactions or occurrences alleged in the complaint, nor does it acknowledge that the release or threatened release of hazardous substance(s) at or from the Site constitutes an imminent or substantial endangerment to the public health or welfare or the environment.

C. The decisions by EPA on the remedial actions to be implemented at the Site are embodied in two Records of Decision ("RODs"): ROD 1, executed on September 21, 1988, and

ROD 2, executed on August 26, 1993. The State of California, through the Department of Toxic Substances Control, has given its concurrence to the remedial actions embodied in the RODs. The RODs include summaries of EPA's responses to public comments. Notice of the final plans were published in accordance with Section 117(b) of CERCLA, 42 U.S.C. § 9617(b).

D. In accordance with the NCP and Section 121(f)(1)(F) of CERCLA, 42 U.S.C. § 9621(f)(1)(F), EPA notified the State of California, thorough the Department of Toxic Substances Control ("DTSC"), of negotiations with potentially responsible parties regarding implementation of the remedial design and remedial action for the Site, and EPA has provided DTSC with an opportunity to participate in such negotiations and be a party to this Consent Decree.

E. The United States and Settling Defendant agree, and this Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith, that settlement of this matter will avoid prolonged and complicated litigation between the Parties, and that this Consent Decree is fair, reasonable, and in the public interest.

THEREFORE, with the consent of the Parties to this Decree, it is ORDERED, ADJUDGED, AND DECREED:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. §§ 1331 and 1345 and 42 U.S.C. §§ 9606, 9607, 9613(b), and also has personal jurisdiction over Settling Defendant. Solely for the purposes of this Consent Decree and the underlying Complaint, Settling Defendant waives all objections and defenses that it may have to jurisdiction of the Court or to venue in this District. Settling Defendant shall not challenge the terms of this Consent Decree or this Court's jurisdiction to enter and enforce this Consent Decree.

III. PARTIES BOUND

2. This Consent Decree is binding upon the United States, and upon Settling Defendant and its successors and assigns. Except if agreed to in the future by EPA under Paragraph 7c, any change in ownership or corporate or other legal status including, but not limited to, any transfer of assets or real or personal property, shall in no way alter the status or responsibilities of Settling

Defendant under this Consent Decree.

IV. DEFINITIONS

3. Unless otherwise expressly provided herein, terms used in this Consent Decree that are defined in CERCLA or in regulations promulgated under CERCLA shall have the meanings assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Consent Decree or in any appendix attached hereto, the following definitions shall apply:

"CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601 *et seq*.

"Complaint" shall mean the pleading United States v. The Newark Group, Inc., filed concurrently with this Consent Decree and bearing the same Civil Action Number.

"Consent Decree" shall mean this Consent Decree and all appendices attached hereto.

"Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the close of business of the next working day.

"DOJ" shall mean the United States Department of Justice and any of its successor departments, agencies, or instrumentalities.

"DTSC" shall mean the California Department of Toxic Substances Control and any of its successor departments or agencies.

"Effective Date" shall be the date upon which this Consent Decree is entered by the Court, except as otherwise provided herein.

"EPA" shall mean the United States Environmental Protection Agency and any of its successor departments, agencies, or instrumentalities.

"EPA Hazardous Substance Superfund" shall mean the Hazardous Substance Superfund established by the Internal Revenue Code, 26 U.S.C. § 9507.

"Future Response Costs" shall mean all costs, including but not limited to direct

and indirect costs, that the United States incurs pursuant to Paragraph 45 of Section XIII (Work Takeover).

"Interest" shall mean interest at the rate specified for interest on investments of the EPA Hazardous Substance Superfund established by 26 U.S.C. § 9507, compounded annually on October 1 of each year, in accordance with 42 U.S.C. § 9607(a). The applicable rate of interest shall be the rate in effect at the time the interest accrues. The rate of interest is subject to change on October 1 of each year.

"National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, and codified at 40 C.F.R. Part 300, and any amendments thereto.

"Paragraph" shall mean a portion of this Consent Decree identified by an Arabic numeral or an upper or lower case letter.

"Past Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the United States paid at or in connection with the Site through the Effective Date.

"Parties" shall mean the United States and Settling Defendant.

"Plaintiff" shall mean the United States.

"Property" shall mean that portion of the Site, encompassing approximately 1.47 acres, formerly owned by Arata-Western, Inc., and currently owned by Settling Defendant, which is generally shown on the map included in Appendix A to this Consent Decree.

"RCRA" shall mean the Solid Waste Disposal Act, 42 U.S.C. § 6901, *et seq.* (also known as the Resource Conservation and Recovery Act).

"ROD 1" shall mean the EPA Record of Decision relating to Operable Unit 2 at the Site signed on September 21, 1988, by the Regional Administrator, EPA Region IX, as amended, and all attachments thereto.

"ROD 2" shall mean the EPA Record of Decision relating to Operable Unit 1 at the Site signed on August 26, 1993, by the Regional Administrator, EPA Region IX, as amended, and all attachments thereto.

"Section" shall mean a portion of this Consent Decree identified by a Roman numeral.

"Settling Defendant" shall mean The Newark Group, Inc. and its corporate successors and assigns.

"Site" shall mean the Lorentz facility Superfund site, encompassing approximately 6.72 acres, located at 1515 South Tenth Street in San Jose, Santa Clara County, California, and generally shown on the map included in Appendix B.

"State" shall mean the State of California.

"Statement of Work" or "SOW" shall mean the statement of work set forth in Appendix C to this Consent Decree and any modifications to Appendix C made in accordance with this Consent Decree.

"United States" shall mean the United States of America, including its departments, agencies and instrumentalities, including, without limitation EPA.

"Work" shall mean all activities Settling Defendant is required to perform under this Consent Decree, except those required by Section XVI (Retention of Records).

V. GENERAL PROVISIONS

4. Objectives of the Parties. The objectives of the Parties in entering into this Consent Decree are to protect public health or welfare or the environment at the Site by the implementation of response actions at the Site by the Settling Defendant, to reimburse response costs of the Plaintiff, and to resolve the claims of Plaintiff against Settling Defendant as provided in Sections XII through XIV of this Consent Decree.

5. Commitments by Settling Defendant. Settling Defendant shall finance and perform the Work in accordance with this Consent Decree, the RODs, the SOW and all work plans and other plans developed by Settling Defendant and approved by EPA pursuant to this Consent Decree. Settling Defendant shall also reimburse the United States for Past Response Costs and Future Response Costs as provided in this Consent Decree.

6. Compliance With Applicable Law. All activities undertaken by Settling Defendant pursuant to this Consent Decree shall be performed in accordance with the

requirements of all applicable Federal and state laws and regulations. Settling Defendant must also comply with all applicable or relevant and appropriate requirements of all Federal and state environmental laws as set forth in the RODs and the SOW. The activities conducted pursuant to this Consent Decree, if approved by EPA, shall be considered to be consistent with the NCP.

7. Notice to Successors-in Title.

a. Within 15 days after the entry of this Consent Decree, Settling Defendant shall submit to EPA for review and approval a notice to be filed with the Recorder's Office, Santa Clara County, State of California, which shall provide notice to all successors-in-title that the Property is part of the Site, and that Settling Defendant has entered into a Consent Decree requiring implementation of a portion of the remedy. Such notice shall identify the United States District Court in which the Consent Decree was filed, the name and civil action number of this case, and the date the Consent Decree was entered by the Court. Settling Defendant shall record the notice within 10 days of EPA's approval of the notice. Settling Defendant shall provide EPA with a certified copy of the recorded notice within 10 days of recording such notice.

b. At least 30 days prior to the conveyance of any interest in the Property including but not limited to fee interests, leasehold interests, and mortgage interests, Settling Defendant shall give the grantee written notice of (i) this Consent Decree, (ii) any instrument by which an interest in real property has been conveyed that confers a right of access to the Property (hereinafter referred to as "access easements") pursuant to Section VII (Access and Institutional Controls), and (iii) any instrument by which an interest in real property has been conveyed that confers a right to enforce restrictions on the use of the Property (hereinafter referred to as "restrictive easements") pursuant to Section VII (Access and Institutional Controls). At least 30 days prior to such conveyance, Settling Defendant shall also give written notice to EPA and DTSC of the proposed conveyance, including the name and address of the grantee, and the date on which notice of the Consent Decree, access easements, or restrictive easements was given to the grantee.

c. In the event of any conveyance of any interest in the Property, the Settling Defendant's obligations under this Consent Decree, including but not limited to its obligation to

provide or secure access and institutional controls, as well as to abide by such institutional controls, pursuant to Section VII (Access and Institutional Controls) of this Consent Decree, shall continue to be met by Settling Defendant. In no event shall such conveyance release or otherwise affect the liability of Settling Defendant to comply with all provisions of this Consent Decree, absent the prior written consent of EPA. If the United States approves, the grantee may perform some or all of the Work under this Consent Decree.

VI. PERFORMANCE OF WORK BY SETTLING DEFENDANT

8. Settling Defendant shall implement the SOW, including all inspection, maintenance, and reporting requirements contained therein. Within 30 days of the Effective Date of this Consent Decree, Settling Defendant shall begin implementing the SOW. Within 90 days of the Effective Date of this Consent Decree, Settling Defendant shall submit the initial Routine Status Report as required by the SOW.

9. Within 60 days of the Effective Date of this Consent Decree, Settling Defendant shall submit to EPA its Property Maintenance Plan and Emergency Response Plan as provided by the SOW.

10. Modification of the SOW or Related Work Plans

a. If EPA determines that modification to the work specified in the SOW or in work plans developed pursuant to the SOW is necessary to maintain the effectiveness of the remedy set forth in the RODs, EPA may require that such modification be incorporated in the SOW or such work plans; provided, however, that a modification may only be required pursuant to this Paragraph to the extent that it is consistent with the scope of the remedy selected in the RODs.

b. If Settling Defendant objects to any modification determined by EPA to be necessary pursuant to this Paragraph, it may seek dispute resolution pursuant to Section X (Dispute Resolution). The SOW or related work plans shall be modified in accordance with the final resolution of the dispute.

c. Settling Defendant shall implement any work required by any modifications incorporated in the SOW or in work plans developed pursuant to the SOW in

accordance with this Paragraph.

d. Nothing in this Paragraph shall be construed to limit EPA's authority to require performance of further response actions as otherwise provided in this Consent Decree.

VII. ACCESS AND INSTITUTIONAL CONTROLS

11. Commencing on the date of lodging of this Consent Decree, Settling Defendant shall provide the United States and its representatives, including EPA and its contractors, with access at all reasonable times to the Property, for the purpose of conducting any activity related to this Consent Decree, and the RODs, including but not limited to the following activities:

a. Monitoring the Work

b. Verifying any data or information submitted to the United States

c. Conducting inspections of the Property

d. Implementing the Work pursuant to the conditions set forth in Paragraph 45 of this Consent Decree

e. Assessing Settling Defendant's compliance with this Consent Decree

f. Determining whether the Property is being used in a manner that is prohibited or restricted, or that may need to be prohibited or restricted, by or pursuant to this Consent Decree

12. Commencing on the date of lodging of this Consent Decree, Settling Defendant shall refrain from using the Property in any manner that would interfere with or adversely affect the implementation, integrity, or protectiveness of the remedial measures to be performed pursuant to the RODs.

13. a. Settling Defendant shall execute and record in the Recorder's Office of Santa Clara County, State of California, a Covenant to Restrict Use of Property, Environmental Restriction, identical to the form attached hereto as Appendix D. Within 15 days of entry of this Consent Decree, Settling Defendant shall provide to EPA, for its review and approval, a current title insurance commitment or other evidence of title acceptable to EPA that shows title to the Property to be free and clear of all prior liens and encumbrances (except when those liens or encumbrances are approved by EPA, or when, despite its best efforts, Settling Defendant is

unable to obtain release or subordination of such prior liens or encumbrances). Within 15 days of EPA's approval and acceptance of the title evidence, Settling Defendant shall update the title search and, if it is determined that nothing has occurred since the effective date of the commitment to affect the title adversely, Settling Defendant shall record the Covenant to Restrict Use of Property, Environmental Restriction with the Recorder's Office of Santa Clara County.

b. Within 30 days of recording the Covenant to Restrict Use of Property, Environmental Restriction, Settling Defendant shall provide EPA with a final title insurance policy, or other final evidence of title acceptable to EPA, and a certified copy of the original recorded Covenant to Restrict Use of Property, Environmental Restriction, showing the clerk's recording stamps.

14. Notwithstanding any provision of this Consent Decree, the United States retains all of its access authorities and rights, as well as its rights to require land or water use restrictions, including enforcement authorities related thereto, under CERCLA, RCRA and any other applicable statute or regulation.

VIII. EPA APPROVAL OF PLANS AND OTHER SUBMISSIONS

15. After review of any plan, report or other item that is required to be submitted pursuant to this Consent Decree, EPA shall: (a) approve, in whole or in part, the submission; (b) approve the submission upon specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove, in whole or in part, the submission, directing that the Settling Defendant modify the submission; or (e) any combination of the above. However, EPA shall not modify a submission without first providing Settling Defendant at least one notice of deficiency and an opportunity to cure within 15 days, except where a previous submission or submissions have been disapproved due to material defects and the deficiencies in the submission or submissions under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

16. In the event of approval, approval upon conditions, or modification by EPA, pursuant to Paragraph 15(a), (b), or (c), Settling Defendant shall proceed to take any action required by the plan, report, or other item as approved or modified by EPA, subject only to its

right to invoke the dispute resolution procedures set forth in Section X (Dispute Resolution) with respect to the modifications or conditions made by EPA. In the event that EPA modifies the submission to cure deficiencies pursuant to Paragraph 15 (c) and the submission has a material defect, EPA retains its right to seek Stipulated Penalties, as provided in Section XI (Stipulated Penalties).

17. Re-submission of Plans.

a. Upon receipt of a notice of disapproval pursuant to Paragraph 15 (d), Settling Defendant shall, within 15 days or such longer time as specified by EPA in such notice, correct the deficiencies and resubmit the plan, report, or other item for approval.

b. Notwithstanding the receipt of a notice of disapproval pursuant to Paragraph 15(d), Settling Defendant shall proceed, at the direction of EPA, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve Settling Defendant of any liability for Stipulated Penalties under Section XI (Stipulated Penalties).

18. In the event that a resubmitted plan, report or other item, or portion thereof, is disapproved by EPA, EPA may again require the Settling Defendant to correct the deficiencies, in accordance with the preceding Paragraphs. EPA also retains the right to modify or develop the plan, report or other item. Settling Defendant shall implement any such plan, report, or item as modified or developed by EPA, subject only to its right to invoke the procedures set forth in Section X (Dispute Resolution).

19. If upon re-submission, a plan, report, or item is disapproved or modified by EPA due to a material defect, Settling Defendant shall be deemed to have failed to submit such plan, report, or item timely and adequately, unless Settling Defendant invokes the dispute resolution procedures set forth in Section X (Dispute Resolution), and EPA's action is overturned pursuant to that Section. The provisions of Section X (Dispute Resolution) and Section XI (Stipulated Penalties) shall govern the implementation of the Work and accrual and payment of any Stipulated Penalties during Dispute Resolution. If EPA's disapproval or modification is upheld, Stipulated Penalties shall accrue for such violation from the date on which the initial submission

was originally required, as provided in Section XI (Stipulated Penalties).

20. All plans, reports, and other items required to be submitted to EPA under this Consent Decree shall, upon approval or modification by EPA, be enforceable under this Consent Decree. In the event EPA approves or modifies a portion of a plan, report, or other item required to be submitted to EPA under this Consent Decree, the approved or modified portion shall be enforceable under this Consent Decree.

IX. PAYMENT FOR RESPONSE COSTS

21. Payment for Past Response Costs

a. Within 30 days of the Effective Date of this Consent Decree, Settling Defendant shall pay to EPA $15,000. Payment shall be made by FedWire Electronic Funds Transfer ("EFT") to the U.S. Department of Justice account in accordance with EFT instructions. These instructions shall be provided to Settling Defendant, following lodging of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney's Office in the Northern District of California.

b. At the time of payment, Settling Defendant shall also send notice that payment has been made to EPA and DOJ in accordance with Section XVII (Notices and Submissions). Such notice shall reference the EPA Region and Site-Spill ID Number 0989PS01, DOJ Case Number 90-11-2-467/5, and the civil action number of this case.

c. The total amount to be paid by Settling Defendant pursuant to Paragraph 21.a shall be deposited by the United States in the Lorentz Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

22. Payments for Future Response Costs.

a. In the event of a Work Takeover by EPA pursuant to Paragraph 45, Settling Defendant shall pay to EPA all Future Response Costs not inconsistent with the National Contingency Plan. On a periodic basis the United States will send Settling Defendants a bill requiring payment that includes a SCORPIOS cost summary. Settling Defendant shall make all

payments within 30 days of Settling Defendant's receipt of each bill requiring payment, except as otherwise provided in Paragraph 23. Settling Defendant shall make all payments required by this Paragraph by a certified or cashier's check or checks made payable to "EPA Hazardous Substance Superfund," referencing the name and address of the party making the payment, EPA Site/Spill ID Number 0989PS01, DOJ Case Number 90-11-2467/5, and the civil action number of this case. Settling Defendant shall send the check(s) to:

EPA - Cincinnati Accounting Operations
Attention: Region 9 Receivables
P.O. Box 371099M
Pittsburgh, PA 15251

b. At the time of payment, Settling Defendants shall send notice that payment has been made to the United States, to EPA and to the Regional Financial Management Officer, in accordance with Section XVII (Notices and Submissions).

c. The total amount to be paid by Settling Defendant pursuant to Paragraph 22.a shall be deposited by the United States in the Lorentz Special Account within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.

23. Settling Defendant may contest payment of any Future Response Costs under Paragraph 22 if it determines that the United States has made an accounting error or if it alleges that a cost item that is included represents costs that are inconsistent with the NCP. Such objection shall be made in writing within 30 days of receipt of the contested bill and must be sent to the United States pursuant to Section XVII (Notices and Submissions). Any such objection shall specifically identify the contested Future Response Costs and the basis for objection. In the event of an objection, Settling Defendant shall within the 30 day period pay all uncontested Future Response Costs to the United States in the manner described in Paragraph 22. Simultaneously, Settling Defendant shall establish an interest-bearing escrow account in a federally-insured bank duly chartered in the State of California and remit to that escrow account funds equivalent to the amount of the contested Future Response Costs. Settling Defendant shall

send to the United States, as provided in Section XVII (Notices and Submissions), a copy of the transmittal letter and the check remitting the uncontested Future Response Costs, together with a copy of the correspondence that establishes and funds the escrow account, which shall include information containing the identity of the bank and bank account under which the escrow account is established as well as a bank statement showing the initial balance of the escrow account. Simultaneously with establishment of the escrow account, Settling Defendant shall initiate the dispute resolution procedures in Section X (Dispute Resolution). If the United States prevails in the dispute, within 5 days of the resolution of the dispute, Settling Defendant shall pay the sums due (with accrued Interest) to the United States in the manner described in Paragraph 22. If Settling Defendant prevails concerning any aspect of the contested costs, Settling Defendant shall pay all contested costs (plus associated accrued Interest) as to which it did not prevail to the United States in the manner described in Paragraph 22; Settling Defendant shall be disbursed any balance of the escrow account. The dispute resolution procedures set forth in this Paragraph in conjunction with the procedures set forth in Section X (Dispute Resolution) shall be the exclusive mechanisms for resolving disputes regarding Settling Defendant's obligation to reimburse the United States for its Future Response Costs.

24. In the event that the payments required by Subparagraph 21.a are not made within 30 days of the Effective Date, or the payments required by Paragraph 22.a are not made within 30 days of the Settling Defendant's receipt of the bill requiring payment, Settling Defendant shall pay Interest on the unpaid balance. Interest to be paid on Past Response Costs under this Paragraph shall begin to accrue on the Effective Date. Interest on Future Response Costs shall begin to accrue on the date of the bill for those costs. Interest shall accrue through the date of Settling Defendant's payment. Payments of Interest made under this Paragraph shall be in addition to such other remedies or sanctions available to Plaintiff by virtue of Settling Defendant's failure to make timely payments under this Section, including but not limited to payment of Stipulated Penalties pursuant to Paragraph 28. Settling Defendant shall make all payments required by this Paragraph in the manner described in Paragraph 22.

X. DISPUTE RESOLUTION

25. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the United States to enforce obligations of the Settling Defendant that have not been disputed in accordance with this Section.

26. Any dispute that arises under or with respect to this Consent Decree shall in the first instance be the subject of informal negotiations between the Parties. The period for informal negotiations shall not exceed 20 days from the time the dispute arises, unless it is modified by written agreement of the Parties. The dispute shall be considered to have arisen when one Party sends the other a written Notice of Dispute.

27. Statement of Position.

a. In the event that the Parties cannot resolve a dispute by informal negotiations under the preceding Paragraph, then the position advanced by EPA shall be considered binding unless, within 10 days after the conclusion of the informal negotiation period, Settling Defendant invokes the formal dispute resolution procedures of this Section by serving on the United States a written Statement of Position on the matter in dispute, including but not limited to any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by Settling Defendant.

b. Following receipt of Settling Defendant's Statement of Position submitted pursuant to Paragraph 27.a, the Director of the Superfund Division, EPA Region IX, will issue a final decision resolving the dispute. The Superfund Division Director's decision shall be binding on Settling Defendant unless, within 10 days of receipt of the decision, Settling Defendant files with the Court and serves on the United States a motion for judicial review of the decision, setting forth the matter in dispute, the efforts made by the parties to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of the Consent Decree. The United States may file a response to Settling Defendant's motion.

c. The invocation of formal dispute resolution procedures under this Section

shall not extend, postpone, or affect in any way any obligation of Settling Defendant under this Consent Decree, not directly in dispute, unless EPA or the Court agrees otherwise. Stipulated Penalties with respect to the disputed matter shall continue to accrue, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 37. Notwithstanding the stay of payment, Stipulated Penalties shall accrue from the first day of noncompliance with any applicable provision of this Consent Decree. In the event that Settling Defendant does not prevail on the disputed issue, Stipulated Penalties shall be assessed and paid as provided in Section XI (Stipulated Penalties).

XI. STIPULATED PENALTIES

28. If any amounts due under Paragraphs 21.a and 22.a are not paid by the required date, Settling Defendant shall be in violation of this Consent Decree and shall pay, as a stipulated penalty, in addition to the interest required by Paragraph 24, $5,000 for each day that payment is late.

29. Stipulated Penalty Amounts – Work

The following Stipulated Penalties shall accrue per violation per day for failure to timely perform any routine or emergency maintenance work required under the SOW:

Penalty Per Violation Per Day	Period of Noncompliance
$1,000	1st through 14th day
$2,000	15th through 30th day
$3,000	31st day and beyond.

30. Stipulated Penalty Amounts – Reports.

The following Stipulated Penalties shall accrue per violation per day for failure to submit timely or adequate reports pursuant to Paragraphs 8, 9, 17, and 18:

Penalty Per Violation Per Day	Period of Noncompliance
$500	1st through 14th day
$1,000	15th through 30th day
$1,500	31st day and beyond.

31. In the event that EPA assumes performance of a portion or all of the Work pursuant to Paragraph 45 of Section XIII (Work Takeover), Settling Defendant shall be liable for a stipulated penalty in the amount of $50,000.

32. All penalties shall begin to accrue on the day after the complete performance is due or a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, Stipulated Penalties shall not accrue: (1) with respect to a deficient submission under Section VIII (EPA Approval of Plans and Other Submissions), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Settling Defendant of any deficiency; (2) with respect to a decision by the Director of the Superfund Division, EPA Region IX, under Paragraph 27.b of Section X (Dispute Resolution), during the period, if any, beginning on the 21st day after the date that Settling Defendant's Statement of Position is received until the date that the Director issues a final decision regarding such dispute; or (3) with respect to judicial review by this Court of any dispute under Section X (Dispute Resolution), during the period, if any, beginning on the 31st day after the Court's receipt of the final submission regarding the dispute until the date that the Court issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree.

33. All penalties accruing under this Section shall be due and payable to the United States within 30 days of Settling Defendant's receipt from EPA of a demand for payment of the penalties, unless Settling Defendant invokes the dispute resolution procedures under Section X (Dispute Resolution). All payments to EPA under this Paragraph shall be identified as "Stipulated Penalties" and shall be made by certified or cashier's check made payable to "EPA Hazardous Substance Superfund." The check, or a letter accompanying the check, shall reference the name and address of the party making payment, the Site name, the EPA Region and Site Spill ID Number 0989PS01, DOJ Case Number 90-11-2-467/5, and the civil action number of this case. Settling Defendant shall send the check (and any accompanying letter) to:

EPA - Cincinnati Accounting Operations
P.O. Box 371099M
Pittsburgh, PA 15251
Attention: Region 9 Superfund Site Collections Officer

Or if by overnight mail, then to:

Mellon Client Service Center
Attention : Government Supervisor (371099)
Room 0690
500 Ross Street
Pittsburgh, PA 15262
Phone # 412- 234-5805

34. At the time of each payment of a Stipulated Penalty, Settling Defendant shall also send notice that such payment has been made to EPA and DOJ in accordance with Section XVII (Notices and Submissions). Such notice shall reference the EPA Region and Site/Spill Id Number 0989PS01, DOJ Case Number 90-11-2-467/5, and the civil action number of this case.

35. Payment of Stipulated Penalties shall not excuse Settling Defendant from any payment required by Section IX or from performance of any other requirements of this Consent Decree.

36. Stipulated Penalties shall accrue as provided in this Paragraph regardless of whether EPA has notified Settling Defendant of any violation or made a demand for payment, but need only be paid upon demand.

37. Stipulated Penalties shall continue to accrue as provided in Paragraph 32 during any dispute resolution period, but need not be paid until the following:

a. if the dispute is resolved by agreement or by a decision of EPA that is not appealed to this Court, accrued penalties determined to be owing shall be paid to EPA within 15 days of the agreement or the receipt of EPA's decision or order;

b. if the dispute is appealed to this Court and the United States prevails in whole or in part, Settling Defendant shall pay all accrued penalties determined by the Court to be owed to EPA within 60 days of receipt of the Court's decision or order, except as provided in Paragraph 37.c, below;

c. if the District Court's decision is appealed by any Party, Settling Defendant shall pay all accrued penalties determined by the District Court to be owing to the United States into an interest-bearing escrow account within 60 days of receipt of the Court's

decision or order. Penalties shall be paid into this account as they continue to accrue, at least every 60 days. Within 15 days of receipt of the final appellate court decision, the escrow agent shall pay the balance of the account to EPA or to Settling Defendant in accordance with the Court's mandate.

38. If Settling Defendant fails to pay Stipulated Penalties when due, the United States may institute proceedings to collect the penalties, as well as Interest. Settling Defendant shall pay Interest on the unpaid balance, which shall begin to accrue on the date demand is made pursuant to Paragraph 33.

39. If the United States brings an action to enforce this Consent Decree, and the United States prevails in such action, Settling Defendant shall reimburse the United States for all costs of such action, including but not limited to costs of attorney time.

40. Payments made under this Section shall be in addition to any other remedies or sanctions available to Plaintiff by virtue of Settling Defendant's failure to comply with the requirements of this Consent Decree.

41. Nothing in this Consent Decree shall be construed as prohibiting, altering, or in any way limiting the ability of the United States to seek any other remedies or sanctions available by virtue of Settling Defendants' violation of this Consent Decree or of the statutes and regulations upon which it is based, including but not limited to penalties pursuant to Section 122 (l) of CERCLA; provided, however, that the United States shall not seek civil penalties pursuant to Section 122 (l) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of the Consent Decree.

42. Notwithstanding any other provision of this Section, the United States may, in its unreviewable discretion, waive payment of any portion of the Stipulated Penalties that have accrued pursuant to this Consent Decree.

XII. COVENANT BY PLAINTIFF

43. Covenant Not to Sue Settling Defendant by United States. Except as specifically provided in Section XIII (Reservation of Rights by United States), the United States covenants not to sue or to take administrative action against Settling Defendant pursuant to Sections 106

and 107(a) of CERCLA, 42 U.S.C. §§ 9606, 9607(a), or pursuant to Section 7003 of RCRA, 42 U.S.C. § 6973, with regard to the Site. This covenant not to sue shall take effect upon receipt by EPA of all payments from Settling Defendant required by Paragraph 21.a of Section IX (Payment of Response Costs) and any amount due under Section XI (Stipulated Penalties). This covenant not to sue is conditioned upon the satisfactory performance by Settling Defendant of its obligations under this Consent Decree. This covenant not to sue extends only to Settling Defendant and does not extend to any other person.

XIII. RESERVATION OF RIGHTS BY UNITED STATES

44. General Reservations of Rights by United States. The United States reserves, and this Consent Decree is without prejudice to, all rights against Settling Defendant with respect to all matters not expressly included within the Covenant by Plaintiff in Paragraph 43. Notwithstanding any other provision of this Consent Decree, the United States reserves all rights against Settling Defendant with respect to:

a. claims based on a failure by Settling Defendant to meet a requirement of this Consent Decree;

b. criminal liability;

c. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;

d. liability based upon Settling Defendant's transportation, treatment, storage, or disposal, or the arrangement for the transportation, treatment, storage, or disposal, of a hazardous substance or a solid waste, at or in connection with the Site, after signature of this Consent Decree by Settling Defendant;

e. liability arising from the past, present, or future disposal, release or threat of release of a hazardous substance, pollutant, or contaminant, other than at the Site.

44.1 Notwithstanding any other provision of this Consent Decree, the United States reserves, and this Consent Decree is without prejudice to, the right to institute proceedings in this action or in a new action, or to issue an administrative order, seeking to compel Settling Defendant (1) to perform response actions relating to the Site, or (2) to reimburse the United

States for additional costs of response if:

(i) conditions at the Site, previously unknown to EPA, are discovered, or

(ii) information, previously unknown to EPA, is received, in whole or in part,

and EPA determines that these previously unknown conditions or information, together with any other relevant information, indicates that the remedial actions specified in the RODs are not protective of human health or the environment.

44.2. For purposes of Paragraph 44.1, the information and the conditions known to EPA regarding the Site shall include only that information and those conditions known to EPA as of the date of issuance of the most recent Five-Year Review Report for the Site, dated September 27, 2000, and as set forth in the September 27, 2000 Five-Year Review Report, in the RODs for the Site, and in the administrative record supporting the RODs.

45. Work Takeover. In the event EPA determines that Settling Defendant has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner that may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portions of the Work as EPA determines necessary. Settling Defendant may invoke the procedures set forth in Section X (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Future Response Costs that Settling Defendant shall pay pursuant to Section IX (Payment for Response Costs).

46. Notwithstanding any other provision of this Consent Decree, the United States retains all authority and reserves all rights to take any and all response actions authorized by law.

XIV. COVENANT NOT TO SUE BY SETTLING DEFENDANT

47. Settling Defendant covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Site or this Consent Decree, including but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§

9606(b)(2), 9607, 9611, 9612, 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution; the Tucker Act, 28 U.S.C. § 1491; the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended; or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607, 9613, relating to the Site.

48. Except as provided in Paragraphs 50 and 54, these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraph 44 (c) - (e), or Paragraph 44.1, but only to the extent that Settling Defendant's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

49. Nothing in this Consent Decree shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

50. Settling Defendant agrees not to assert any claims and to waive all claims or causes of action that it may have for all matters relating to the Site, including for contribution, against any person that has entered into a final CERCLA § 122(g) *de minimis* settlement with EPA with respect to the Site as of the Effective Date of this Consent Decree. This waiver shall not apply with respect to any defense, claim, or cause of action that Settling Defendant may have against any person if such person asserts a claim or cause of action relating to the Site against Settling Defendant.

XV. EFFECT OF SETTLEMENT/CONTRIBUTION PROTECTION

51. Except as provided in Paragraph 50, nothing in this Consent Decree shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Decree. The preceding sentence shall not be construed to waive or nullify any rights that any person not a signatory to this Decree may have under applicable law. Except as provided in Paragraph 50, the Parties each expressly reserve any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and

causes of action that each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto.

52. The Parties agree, and by entering this Consent Decree this Court finds, that Settling Defendant is entitled, as of the date of entry of this Consent Decree, to protection from contribution actions or claims as provided by Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), for "matters addressed" in this Consent Decree. The "matters addressed" in this Consent Decree are all response actions taken or to be taken and all response costs incurred or to be incurred, at or in connection with the Site, by the United States or any other person. The "matters addressed" in this Consent Decree do not include those response costs or response actions as to which the United States has reserved its rights under this Consent Decree (except for claims for failure to comply with this Decree), in the event that the United States asserts rights against Settling Defendant coming within the scope of such reservations.

53. Settling Defendant agrees that, with respect to any suit or claim for contribution brought by it for matters related to this Consent Decree, it will notify EPA and DOJ in writing no later than 60 days prior to the initiation of such suit or claim. Settling Defendant also agrees that, with respect to any suit or claim for contribution brought against it for matters related to this Consent Decree, it will notify EPA and DOJ in writing within 10 days of service of the complaint or claim upon it. In addition, Settling Defendant shall notify EPA and DOJ within 10 days of service or receipt of any Motion for Summary Judgment, and within 10 days of receipt of any order from a court setting a case for trial, for matters related to this Consent Decree.

54. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, recovery of response costs, or other relief relating to the Site, Settling Defendant shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case;

provided, however, that nothing in this Paragraph affects the enforceability of the Covenant by Plaintiff set forth in Section XII.

XVI. RETENTION OF RECORDS

55. Until 3 years after the entry of this Consent Decree, Settling Defendant shall preserve and retain all records, reports, or information (hereinafter referred to as "records") now in its possession or control, or which come into its possession or control, that relate in any manner to response actions taken at the Site or the liability of any person for response actions or response costs at or in connection with the Site, regardless of any corporate retention policy to the contrary.

56. After the conclusion of the 3-year document retention period set forth in the preceding Paragraph, Settling Defendant shall notify EPA and DOJ at least 90 days prior to the destruction of any records and, upon request by EPA or DOJ, Settling Defendant shall deliver any such records to EPA. Settling Defendant may assert that certain records are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Settling Defendant asserts such a privilege, it shall provide Plaintiff with the following: 1) the title of the record; 2) the date of the record; 3) the name, title, affiliation (e.g., company or firm), and address of the author of the record; 4) the name and title of each addressee and recipient; 5) a description of the subject of the record; and 6) the privilege asserted. If a claim of privilege applies only to a portion of a record, the record shall be provided to EPA in redacted form to mask the privileged information only. Settling Defendant shall retain all records that it claims to be privileged until the United States has had a reasonable opportunity to dispute the privilege claim and any such dispute has been resolved in Settling Defendant's favor. However, no records created or generated pursuant to the requirements of this or any other settlement with the United States shall be withheld on the grounds that they are privileged.

57. Settling Defendant hereby certifies that, to the best of its knowledge and belief, after appropriate inquiry, it has not since notification of potential liability by the United States or the State or the filing of suit against it regarding the Site, altered,

mutilated, discarded, destroyed or otherwise disposed of any records, information, or reports relating to its potential liability regarding the Site which are the sole record of factual information, except as such documents are destroyed or altered in the ordinary course of Settling Defendants' business and in compliance with State and federal law, and that no such records have been destroyed for an improper purpose. Settling Defendant further certifies that it has fully complied with any and all EPA requests for information pursuant to Section 104(e) and 122(e) of CERCLA, 42 U.S.C. 9604(e), 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

XVII. NOTICES AND SUBMISSIONS

58. Whenever, under the terms of this Consent Decree, notice is required to be given or a document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below and, as to the Settling Defendant, to the individual specified by Settling Defendant as the agent authorized to accept service pursuant to Section XXI, unless those individuals or their successors give notice of a change to the other Parties in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of the Consent Decree with respect to the United States, EPA, DOJ, and the Settling Defendant, respectively.

As to the United States:

As to DOJ:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice (DJ # 90-11-2-467/5)
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044-7611

Matthew A. Fogelson
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
301 Howard Street, Suite 1050
San Francisco, CA 94105

As to EPA:

Ann C. Chan
Assistant Regional Counsel
Office of Regional Counsel (ORC-3)
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Shiann-Jang Chern
Remedial Project Manager
Superfund Division (SFD-7-1)
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

William Hanamoto
Policy and Management Division – Superfund Accounting
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Joe Schmidt
Regional Financial Management Officer (PMD-5)
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, CA 94105

XVIII. RETENTION OF JURISDICTION

59. This Court shall retain jurisdiction over this matter for the purpose of interpreting and enforcing the terms of this Consent Decree.

XIX. INTEGRATION/APPENDICES

60. This Consent Decree and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Decree. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree. The following appendices are attached to and incorporated into this Consent Decree:

"Appendix A" is a map of the Property;

"Appendix B" is a map of the Site;

"Appendix C" is the SOW;

"Appendix D" is the Covenant to Restrict Use of Property, Environmental Restriction.

XX. LODGING AND OPPORTUNITY FOR PUBLIC COMMENT

61. This Consent Decree shall be lodged with the Court for a period of not less than 30 days for public notice and comment and for opportunity for a public hearing pursuant to Section 7003(d) of the Resources Conservation and Recovery Act, 42 U.S.C. § 6973(d). The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations which indicate that this Consent Decree is inappropriate, improper, or inadequate. Settling Defendant consents to the entry of this Consent Decree without further notice.

62. If for any reason this Court should decline to approve this Consent Decree in the form presented, this agreement is voidable at the sole discretion of any Party and the terms of the agreement may not be used as evidence in any litigation between the Parties.

XXI. SIGNATORIES/SERVICE

63. The undersigned representative of Settling Defendant to this Consent Decree and the Assistant Attorney General of the United States Department of Justice certify that they are authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Parties they represent to this document.

64. Settling Defendant hereby agrees not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree, unless the United States has notified Settling Defendant in writing that it no longer supports entry of the Consent Decree.

65. Settling Defendant shall identify, on the attached signature page, the name and address of an agent who is authorized to accept service of process by mail on its behalf with respect to all matters arising under or relating to this Consent Decree. Settling Defendant hereby agrees to accept service in that manner and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable local rules of this Court, including but not limited to service of a summons. The

Parties agree that Settling Defendant need not file an answer to the Complaint in this action unless or until the Court expressly declines to enter this Consent Decree.

XXII. FINAL JUDGMENT

66. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute the final judgment between the United States and Settling Defendant. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED THIS ___ DAY OF _____, 2005.

_____
United States District Judge

THE UNDERSIGNED PARTIES enter into this Consent Decree in the matter of United States v. The Newark Group, Inc., (N.D. Cal.) relating to the Lorentz Superfund Site.

For THE UNITED STATES OF AMERICA

Date: 5/3/05

KELLY A. JOHNSON
Acting Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice
Washington, D.C. 20530

Date: 5/6/05

MATTHEW A. FOGELSON
Trial Attorney
Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
301 Howard Street
San Francisco, CA 94105

Date: 5-19-05

KEITH TAKATA
Director, Superfund Division
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

Date: 5/6/05

ANN C. CHAN
Assistant Regional Counsel
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, CA 94105

For Settling Defendant THE NEWARK GROUP, INC.

Date: 30 Mar '05 Robert H. Hullan

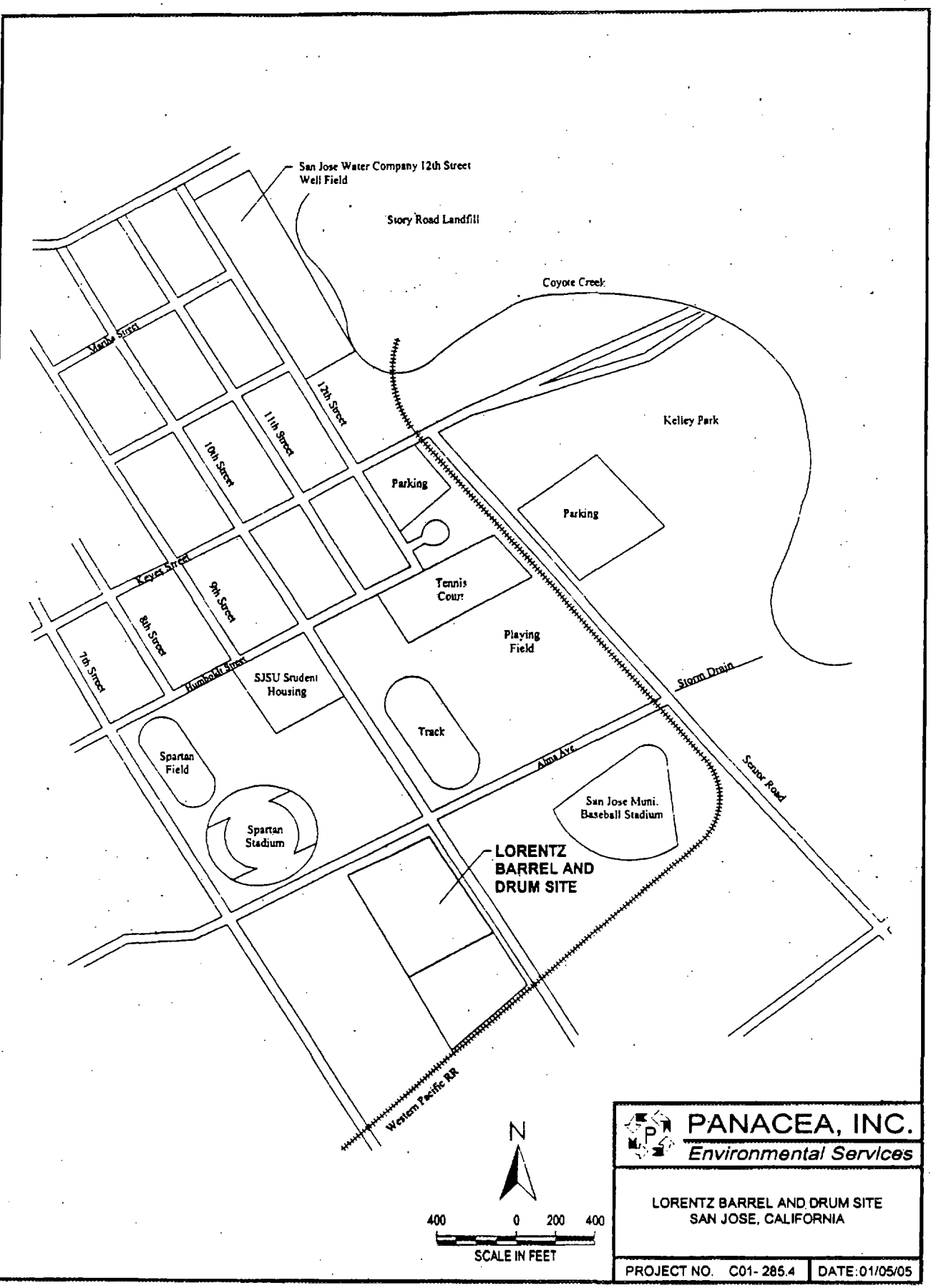
Title: President - CEO

Agent Authorized to Accept Service on Behalf of Above-signed Party:

Name: RICHARD RICCI, ESQ.

Title: DIRECTOR, LOWENSTEIN SANDLER PC

Address: 65 LIVINGSTON AVE.
ROSELAND, NJ 07068


San Jose Water Company 12th Street Well Field
Story Road Landfill
Coyote Creek
Kelley Park
Parking
Parking
Tennis Court
Playing Field
Storm Drain
Track
Alma Ave.
Senter Road
San Jose Muni. Baseball Stadium
LORENTZ BARREL AND DRUM SITE
Spartan Field
Spartan Stadium
SJSU Srudent Housing
Humboldt Street
Keyes Street
Martha Street
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PANACEA, INC.
Environmental Services
LORENTZ BARREL AND DRUM SITE
SAN JOSE, CALIFORNIA
PROJECT NO. C01- 285.4
DATE:01/05/05

Consent Decree in United States v. The Newark Group (N D. Cal.)
Appendix C
Statement of Work
Lorentz Barrel and Drum Superfund Site

Table of Contents

A. INTRODUCTION

This Statement of Work ("SOW") relates to the Lorentz Barrel and Drum Superfund Site in San Jose, California ("the Site"). The purpose of the SOW is to outline the tasks required of Settling Defendant by the Consent Decree, to which this SOW is appended, with respect to the approximately 1.47 acres of the Site currently owned by Settling Defendant (the "Property").

Two Records of Decision ("RODs") were issued for the Site.

ROD 1 (EPA/ROD/R09-88/023), for Site Operable Unit 2 ("OU-2"), was issued on September 21,1988 and described the shallow groundwater remedy. An Explanation of Significant Differences ("ESD") for OU-2 was issued on April 24, 1998. The ESD explained the decision to change the shallow groundwater remedy from the combination of Ultra Violet/Oxidation Unit ("UV/OX") and Granular Activated Carbon ("GAC") to the GAC system alone.

ROD 2 (EPA/ROD/R09-93/094), for Site Operable Unit 1 (OU-1), was issued on August 26, 1993 and defined the selected remedy for the remainder of the Site. OU-1 remedial tasks included the construction of a cap at the Site, maintaining the cap, and installation and operation of a soil vapor extraction system. An ESD for OU-1 ROD was issued on May 29, 1998.

Settling Defendant shall follow ROD 2 (as amended by the ESD for ROD 2), this SOW, the Consent Decree to which this SOW is appended, and any applicable guidance, including guidance provided by Region 9 of the U.S. Environmental Protection Agency ("EPA"), in implementing the maintenance requirements with respect to the concrete and asphalt caps on the Property (hereinafter referred to as the "Caps").

In accordance with Section 12l(c) of the Comprehensive Environment Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9021 (c), EPA will review the protectiveness of the selected remedy at least once every five years. Such review will include review of institutional control measures and long term operation and maintenance of the Site remedy.

B. GENERAL PROVISIONS

1. Definitions

Unless otherwise expressly provided herein, terms used in this Statement of Work that are defined in the Consent Decree, in CERCLA or in the regulations promulgated under CERCLA shall have the meaning assigned to them in the Consent Decree, CERCLA or in such regulations.

2. EPA Approval

EPA approval of any submittals does not constitute a release of responsibility by Settling Defendant for inspections and work to be performed pursuant to this SOW.

3. Notification

Settling Defendant shall notify the CERCLA lead agency, in writing, of any future intentions to cease operations for reasons other than approved scheduled maintenance or unforseen emergency (such as earthquake or fire), at least 14 days in advance of ceasing operations.

4. Coordination with other Federal, State, and Local Agencies

Settling Defendant shall contact all appropriate federal, state, and local agencies with regulatory authority to determine requirements related to the Property and the intended use of the Property. Settling Defendant shall furnish a copy of all correspondence and submittals relating to environmental regulatory compliance made to federal (except EPA correspondence), state, and local agencies to EPA and the California Department of Toxic Substances Control ("DTSC") in a timely manner. In addition to environmental regulatory compliance, the Settling/Defendant shall provide copies of building permit applications and other permits for operation of facilities at the Property to EPA and DTSC.

5. Proposed Changes or Alterations to the Existing Concrete and Asphalt Caps

Settling Defendant must contact EPA and DTSC in the planning stages if changes in the use of the Property, construction of new buildings, modifications of the Caps, subsurface drilling/excavation, or well installation activities are planned. Settling Defendant must submit a description of the intended change to EPA and DTSC and receive written approval prior to initiating work. Depending on the nature of the proposed change, EPA and DTSC may require a submittal of detailed plans and documentation for review and approval.

C. WORK TO BE PERFORMED

1. Routine Maintenance of Concrete and Asphalt Caps

On an on-going basis:

a. Settling Defendant shall repair or reseal the Caps in areas where the pavement has cracked.

b. If heavy equipment will be used on any portion of the Caps, Settling Defendant shall confirm that such portion of the Caps has adequate strength to support the loading of heavy equipment.

c. Settling Defendant shall repair any potholes, distressed areas, or other type of breach in the Caps within two weeks of the formation of such pothole the size of the pothole or breach.

d. Settling Defendant shall immediately install a temporary barrier over any pothole, distressed area, or other type of breach in the Caps and such temporary barrier must effectively prevent dust or soil migration and prevent human contact with the soils.

Such temporary barriers shall remain in place until the Caps are effectively repaired. Any excavated or repaired area shall be restored to pre-excavation thickness of the concrete and and/or asphalt so that the excavated or repaired area is level and flush with the surrounding Cap.

2. Inspections of Concrete and Asphalt Caps

a. Settling Defendant shall conduct a visual inspection of the Caps every (1) June, (ii) September, and (iii) in each month from October through the following march, provide a status report ("Routine Status Report") to EPA and to DTSC within 30 days after each such visual inspection documenting, at a minimum, the condition of the Caps, including a description of any cracks, breaches or other maintenance concerns. EPA may adjust the schedule for the submission of Routine Status Reports based on the actual use of the Property and the performance of the Caps. The initial Routine Status Report shall be submitted within ninety (90) days of the Effective Date of the Consent Decree. Routine Status Reports may be submitted in electronic format.

b. One year from the Effective Date of the Consent Decree, and every two years thereafter, a complete inspection of the Property shall be made jointly by the facility manager and a qualified engineer. The joint inspection should identify any need for improvements above and beyond normal pavement maintenance which are necessary to minimize the potential for distress to the Caps with the goal of maintaining the integrity of the Caps. Settling Defendant shall submit to EPA and to DTSC a written report certified by the qualified engineer ("Joint Inspection Report") summarizing the finding of the joint inspection, including any inspection photos of the Property which should be included as necessary. At a minimum, the report shall include the field observations, conclusions, recommended work tasks and the schedule for work that shall be performed to maintain the Caps. In any month in which a Joint Inspection Report is submitted, no Routine Status Report need be submitted.

3. Emergency Maintenance of Concrete and Asphalt Caps

In the event of a catastrophic event such as an earthquake or break of subsurface utility pipelines. Settling Defendant shall immediately conduct a thorough investigation of the Property and notify EPA and DTSC within forty-eight (48) hours after such event to discuss the condition of the Caps. Settling Defendant shall submit an incident report to EPA and DTSC within two weeks after each such event. In the event the Caps are significantly impacted, within 30 days after the event, Settling Defendant shall submit a proposal to EPA and DTSC, for review and approval, describing the actions which will be required to repair the Caps and setting forth a schedule for the repair work.

D. OTHER SUBMTTTALS

Within ninety (90) days of the Effective Date of the Consent Decree, Settling Defendant shall submit a Property Maintenance Plan to both EPA and DTSC. The Property Maintenance Plan shall include a Routine Property Maintenance Section and an Emergency Response Section.

1. Routine Property Maintenance Section

The Routine Property Maintenance Section of the Property Maintenance Plan, at a minimum, shall include a map of the Property, contact information for relevant personnel; a schedule and description of inspection and maintenance work to be performed; qualifications of inspection personnel; a sample form for the Routine Status Report which should include a section for the description of any maintenance work performed since submission of the last Routine Status Report; any existing maintenance or repair records generated prior to the Effective Date of the Consent Decree; a sample form for the Joint Inspection's Report; a description of record keeping practices relevant to maintenance of the Property and health, safety, and reporting protocols with respect to repairs of the Caps. The Property Maintenance Plan should be dated and referenced by version number.

2. Emergency Response Section

The Emergency Response Section of the Property Maintenance Plan, at a minimum, shall include a description of the Property and environmental contamination; maps names and contact information for relevant emergency response personnel (e.g. emergency contact person, Property manager, fire department, utility company); and emergency response protocol.

E. CONTACTS

Whenever under the terms of this SOW, notice is required to be given or a document is required to be sent by one party to another, it shall be directed to the individuals at the addresses specified below:

EPA:	Mr. Shiann-Jang Chern USEPA, Region IX, SFD-7-4 75 Hawthorne Street San Francisco, CA 94105 Telephone: (415-972-3268)
DTSC:	Mr. Ted Parks California Department of Toxic Substances Control 700 Heinz Avenue, Suite 200, Building F Berkeley, CA 94710 Telephone: (510-540-3805)
The Newark Group, Inc.	c/o Richard F. Ricci, Esq. Lowenstein Sandier PC 65 Livingston Avenue Roseland, NJ 07068 (973) 597-2463

David Asher
Vice President, General Counsel and Secretary
The Newark Group, Inc.
20 Jackson Drive
Cranford, NJ. 07016

xempt from Recording Fees per Goverment
ode Section 27383

DOCUMENT: 18414670

Pages 15

Fees ... * No Fees
Taxes...
Copies...
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BRENDA DAVIS
SANTA CLARA COUNTY RECORDER
Recorded at the request of
County Agency

RDE # 012
6/10/2005
10 50 AM

RECORDING REQUESTED BY

The Newark Group, Inc.
20 Jackson Drive
Cranford, New Jersey 07016

WHEN RECORDED, MAIL TO:

Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710
Attention: Barbara J. Cook, P.E., Chief
Northern California-Coastal Cleanup
Operations Branch

SPACE ABOVE THIS LINE

RESERVED FOR RECORDER'S USE

COVENANT TO RESTRICT USE OF PROPERTY

ENVIRONMENTAL RESTRICTION

(Re: Northwest Portion of Lorentz Barrel and Drum Superfund Site, Assessor's Parcel Nos. 477-09-034 and 477-09-036)

This Covenant and Agreement ("Covenant") is made by and between The Newark Group, Inc. (the"Covenantor"), the current owner of property situated in San Jose, County of Santa Clara, State of California, described in Exhibit "A", attached hereto and incorporated herein by this reference (the "Property"), and the Department of Toxic Substances Control (the "Department"). Pursuant to Civil Code section 1471 (c), the Department has determined that this Covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials as defined in Health and Safety Code ("H&SC") section 25260. The Covenantor and the Department, collectively referred to as the "Parties", hereby agree that the use of the Property be restricted as set forth in this Covenant. The Parties further intend that the provisions of this Covenant also be for the benefit of the U.S. Environmental Protection Agency ("U.S. EPA") as a third party beneficiary.

ARTICLE I
STATEMENT OF FACTS

1.01. The Property, totaling approximately 1.60 acres is more particularly described and depicted in Exhibit "A", attached hereto and incorporated herein by this reference. The Property is located at 384 and 388 East Alma Avenue, San Jose, County of Santa ' Clara, State of California. This property is more specifically described as Santa Clara County Assessor's Parcel Numbers 477-09-034 and 477-09-036.

1.02. The Property is the northwest portion of the Lorentz Barrel and Drum Superfund Site ("LB&D Site"), where a drum recycling facility operated from 1947 to 1987. Improper waste handling practices during the drum recycling operation resulted in chemical contamination of the soil and groundwater at the LB&D Site. The LB&D Site was added to U.S. EPA's National Priorities List on October 4, 1989 (Site ID No. 200061; CERCLIS ID No. CAD029295706). Remediation at the LB&D Site is being conducted under the authority and supervision of the U.S. EPA.

1.03. The two parcels that comprise the Property were grant deeded in 1981 and 1984 to Arata Western, which became The Newark Group, Inc. Prior to this property transfer, a portion of the Property was used for stockpiling drums in conjunction with the operations of Lorentz Barrel and Drum. In 1991, the Property was investigated as part of the Remedial Investigation of the LB&D Site conducted by U.S. EPA. Thirty soil borings were completed on the Property to depths of approximately 5.5 feet. The results of the sampling were summarized in the report "Remedial Investigation: Addendum No. 2, Recycled Fibers, Inc. Soils Investigation Report" (RI Addendum No. 2) prepared by URS Consultants for U.S. EPA and dated June 19, 1992.

1.04. Hazardous substances, as defined in HSC section 25316, CERCLA section 101(14), and 40 Code of Federal Regulations sections 261.3 and 302.4 remain on the Property. The hazardous substances identified in RI Addendum No. 2 include: 4,4-DDT, Aroclor 1260, bis (2-ethylhexyl) phthalate, and several polynuclear aromatic hydrocarbons including benzo(a) pyrene and benzo(a) anthracene. RI Addendum No. 2 indicated that the Property had concentrations of polychorinated biphenyls, pesticides, and semi-volatile organic compounds in soil at levels exceeding the 10^{-6} risk level, and in the case of Aroclor 1260, exceeding the 10^{-5} risk level.

1.05. The remedy selected for the LB&D Site by U.S. EPA in the Record of Decision (ROD) issued on August 26,1993 consists of groundwater and soil vapor extraction and treatment, construction of an engineered cap on the LB&D Site, except for the area comprised by the Property, and deed restrictions. The ROD concluded that there was minimal risk since the Property was covered with concrete or asphaltic-concrete and soil was not exposed. However, the ROD also concluded that there could be health risks if the soil were to be exposed in the future. The existing pavement and buildings on the Property shall hereafter be referred to as the "Cap." The remedy chosen by U.S. EPA in the ROD required that deed restrictions be placed on and Five-Year Reviews be conducted for the LB&D Site, including the Property.

1.06. The provisions, covenants, restrictions, and conditions (collectively referred to as

"Restrictions") set forth in this Covenant are necessary to preclude potential future users' exposure to hazardous substances Identified in Section 1.04.

ARTICLE II
DEFINITIONS

2.01. Department. "Department" means the California Department of Toxic Substances Control and includes its successor agencies, if any.

2.02. U.S. EPA. "U.S. EPA" means the United States Environmental Protection Agency and Includes its successor agencies, If any.

2.03. Owner. "Owner" means the Covenantor, Its successors in interest, and their successors in interest, including heirs and assigns, who at any time hold title to all or an ownership interest in, all or any portion of the Property.

2.04. Occupant. "Occupant" means Owners and any person or entity entitled by ownership, leasehold, or other legal relationship to the right to occupy any portion of the Property.

2.05. CERCLA Lead Agency. "CERCLA Lead Agency" means the governmental entity having the designated lead responsibility to implement response action under the National Contingency Plan ("NCR"), 40 C.F.R. Part 300. U.S. EPA is the CERCLA Lead Agency at the time of the recording of this instrument.

ARTICLE III
GENERAL PROVISIONS

3.01. Restrictions to Run with the Land. This Covenant sets forth protective provisions, covenants, restrictions, and conditions (collectively referred to as "Restrictions"), subject to which the Property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. Each and every Restriction: (a) runs with the land pursuant to H&SC section 25355.5(a)(1)(C) and Civil Code section 1471; (b) inures to the benefit of and passes with each and every portion of the Property; (c) is for the benefit of, and is enforceable by the Department; (d) is for the benefit of U.S. EPA as a third party beneficiary; and (e) is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof.

3.02. Binding upon Owners/Occupants. Pursuant to H&SC section 25355.5(a)(1)(C), this Covenant binds all owners of the Property, their heirs, successors, and assignees, and the agents, employees, and lessees of the owners, heirs, successors, and assignees. Pursuant to Civil Code section 1471 (b), all successive owners of the Property are expressly bound hereby for the benefit of the Department and U.S. EPA.

3.03. Written Notice of the Presence of Hazardous Substances. Prior to the sale, lease or sublease of the Property, or any portion thereof, the owner, lessor, sublessor, assignor or other transferor shall give the buyer, lessee, sublessee, assignee or other transferor written notice that hazardous substances are located at and adjacent to the Property, as required by H&SC section 25359.7.

3.04. Incorporation into Deeds and Leases. The Restrictions set forth herein shall be incorporated by reference in each and all deeds, leases, assignments, or other transfers of all or any portion of the Property which are hereafter executed or renewed. Further, each Owner or Occupant shall include in any Instrument conveying any interest in all or any portion of the Property, Including but not limited to deeds, leases, and mortgages, a notice which is insubstantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL RESTRICTION AND COVENANT TO RESTRICT USE OF PROPERTY, RECORDED IN THE PUBLIC LAND RECORDS ON [DATE]_____, IN BOOK ____, PAGE _____, IN FAVOR OF AND ENFORCEABLE BY THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL, AND FOR THE BENEFIT OF THE U.S. ENVIRONMENTAL PROTECTION AGENCY.

3.05. Conveyance of Property. The Owner shall provide notice to the Department and to U.S. EPA no later than thirty (30) days before any conveyance of any ownership interest in the Property (excluding mortgages, liens, and other non-possessor encumbrances). The Department and U.S. EPA shall not, by reason of this Covenant, have authority to approve, disapprove, or otherwise affect proposed conveyance, except as otherwise provided by Jaw, by administrative order, or by a specific provision of this Covenant.

ARTICLE IV
RESTRICTIONS

4.01. Prohibited Uses. The Property shall not be used for any of the following purposes:

(a) A residence, including any mobile home or factory-built housing, constructed or installed for use as residential human habitation.
(b) A hospital for humans.
(c) A public or private school for persons under 21 years of age.
(d) A day care center for children.
(e) A public park.

4.02. Soil Management

(a) Except as provided by Section 4.02(b) below, the Property shall not be used in such a way that will disturb or interfere with the integrity of the Cap installed at the Property.
(b) The Property shall be used and developed in a way that preserves the integrity of the Cap, except that under the supervision of the CERCLA Lead Agency, the Cap may be removed or disturbed temporarily to install fixtures, repair or replace the Cap or Install Improvements on the Property. The capped soil shall not be disturbed without a Soil Management Plan and a Health and Safety Plan submitted to the CERCLA Lead Agency for review and approval.
(c) Any contaminated soils brought to the surface by grading, excavation, trenching or backfilling shall be managed in accordance with all applicable provisions of state and federal law.
(d) The Owner shall provide the CERCLA Lead Agency written notice at least fourteen (14) days prior to any activities which will disturb the Cap and underlying soils.

4.03. Prohibited Activities. The following activities shall not be conducted at the Property:

(a) Raising of food (cattle, food crops), and
(b) Extraction of groundwater for purposes other than site remediation

4.04. Non-interference with Cap. Covenantor agrees:

(a) Activities that may disturb the Cap (e.g. excavation, grading, removal, trenching, filling, earth movement, or mining) shall not be permitted on the Capped Property without prior review and approval by the CERCLA Lead Agency.
(b) All uses and development of the Capped Property shall preserve the integrity and physical accessibility of the Cap.

(c) The Cap shall not be altered without written approval by the CERCLA Lead Agency.

(d) Covenantor shall notify the CERCLA Lead Agency of each of the following: (i) the type, cause, location and date of any damage to the Cap and (ii) the type and date of repair of such damage. Notification to the CERCLA Lead Agency shall be made as provided below within ten (10) working days of both the discovery of any such disturbance and the completion of any repairs. Timely and accurate notification by any Owner or Occupant shall satisfy this requirement on behalf of all other Owners and Occupants.

4.05. Access for the Department. The Department shall have reasonable right of entry and access to the Property for inspection, monitoring, and other activities consistent with the purposes of this Covenant as deemed necessary by the Department in order to protect the public health or safety, or the environment. Nothing in this Instrument shall limit or otherwise affect U.S. EPA's right of entry and access, or U.S. EPA's authority to take response actions under CERCLA, the National Contingency Plan, 40 C.F.R. Part 300 and its successor provisions, or federal law.

4.06. Access for Implementing Operation and Maintenance. The entity or person responsible for implementing the Operation and Maintenance Plan shall have reasonable right of entry and access to the Property for the purpose of implementing the Operation and Maintenance Plan until the CERCLA Lead Agency determines that no further Operation and Maintenance is required,

ARTICLE V
ENFORCEMENT

5.01. Enforcement. The Department shall be entitled to enforce the terms of this instrument by resort to specific performance or legal process. This Covenant shall be enforceable by the Department pursuant to H&SC, Division 20, Chapter 6.5, Article 8 (commencing with section 25180). Failure of the Covenantor, Owner or Occupant to comply with any of the Restrictions specifically applicable to it shall be grounds for the Department to require that the Covenantor or Owner modify or remove any improvements ("Improvements" herein shall mean all buildings, roads, driveways, and paved parking areas), constructed or placed upon any portion of the Property in violation of the Restrictions. All remedies available hereunder shall be in addition to any and all other remedies at law or in equity,

including CERCLA, and violation of this Covenant shall be grounds for the Department to file civil or criminal actions as provided by law.

ARTICLE VI
VARIANCE, TERMINATION, AND TERM

6.01. Variance. Covenantor, or any other aggrieved person, may apply to the Department for a written variance from the provisions of this Covenant. Such application shall be made in accordance with H&SC section 25233. Unless and until the State of California assumes CERCLA Lead Agency responsibility for Site operation and maintenance, no variance may be granted under this paragraph 6.01 without prior review and prior concurrence of the variance by U.S. EPA. If requested by the Department or U.S. EPA, any approved variance shall be recorded in the land records by the person or entity granted the variance.

6.02. Termination. Covenantor, or any other aggrieved person, may apply to the Department for a termination of the Restrictions or other terms of this Covenant as they apply to all or any portion of the Property. Such application shall be made in accordance with H&SC section 25234. Unless and until the State of California assumes CERCLA Lead Agency responsibility for Site operation and maintenance, no termination may be granted under this Paragraph 6.02 without prior review and prior written concurrence of the termination by U.S. EPA.

6.03. Term. Unless ended In accordance with the Termination paragraph above, by law, or by the Department in the exercise of its discretion, after review and prior written concurrence by U.S. EPA, this Covenant shall continue in effect in perpetuity.

ARTICLE VII
MISCELLANEOUS

7.01. No Dedication or Taking. Nothing set forth in this Covenant shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Property, or any portion thereof to the general public or anyone else for any purpose whatsoever. Further, nothing set forth in this Covenant shall be construed to effect a taking under state or federal law.

7.02. Department References. All references to the Department include successor agencies/ departments or other successor entity.

7.03. Recordation. The Covenantor shall record this Covenant, with all referenced Exhibits, in the County of Santa Clara within ten (10) days of the Covenantor's receipt of a fully executed original.

7.04. Notices. Whenever any person gives or serves any Notice ("Notice" as used herein includes any demand or other communication with respect to this Covenant), each such Notice shall be In writing and shall be deemed effective: (i) when delivered, if personally delivered to the person being served or to an officer of a corporate party being served, or (ii) three (3) business days after deposit in the mail, if mailed by United States mail, postage paid, certified, return receipt requested:

To Owner:

Robert H. Mullen President and CEO
The Newark Group, Inc.
20 Jackson Drive
Cranford, New Jersey 07016

To Department:

Barbara J. Cook, P.E., Chief
Department of Toxic Substances Control
Northern California - Coastal Cleanup Operations Branch
700 Heinz Avenue, Suite 200
Berkeley, California 94710

To U.S. EPA:

U.S. EPA, Region IX
Re: Lorentz Barrel & Drum Superfund Site
CERCLIS: CAD029295706
Attn: Loren Henning
75 Hawthorne Street, SFD-7-4
San Francisco, California 94105-3901

Any party may change Its address or the individual to whose attention a Notice is to be sent by giving written Notice In compliance with this paragraph.

7.05. Partial Invalidity. If any portion of the Restrictions or other term set forth herein is determined by a court of competent jurisdiction to be invalid for any reason, the surviving portions of this Covenant, or the application of such portions to persons or circumstances other than those to which it is found to be invalid, shall remain in full force and effect as If such portion found invalid had not been Included herein.

7.06. Liberal Construction. Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed to effect the purpose of this instrument and the policy and purpose of CERCLA. If any provision of this instrument is found to be ambiguous, an Interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any Interpretation that would render It invalid.

7.07. Third Party Beneficiary. U.S. EPA's right as a third party beneficiary of this Covenant shall be construed pursuant to principles of contract law under the statutory and common law of the State of California.

7.08. Statutory References. All statutory references include successor provisions.

IN WITNESS WHEREOF, the Parties execute this Covenant.

Covenantor:

By: Robert H. Mullen Date: 8 April 2005

Title: Robert H. Mullen, President and CEO
The Newark Group, Inc.

Department of Toxic Substances Control:

By: Barbara J Cook Date: April 29, 2005

Title: Barbara J. Cook, Chief
Northern California-Coastal Cleanup Operations Branch

STATE OF CALIFORNIA

COUNTY OF (Alameda)

On this 29th day of April, in the year 2005, before me Nicole Dee Thuemmler, Notary Public, personally appeared Barbara Cook personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is /are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Nicole Dee Thuemmler

NICOLE DEE THUEMMLER
Comm. # 1360260
NOTARY PUBLIC - CALIFORNIA
Alameda County
My Comm. Expires April 8, 2006

IN WITNESS WHEREOF, the Parties execute this Covenant.

Covenantor:

By: Robert H. Mullen Date: 6 June 2005

Title: Robert H. Mullen, President and CEO
The Newark Group, Inc.

Department of Toxic Substances Control:

By: _____ Date: _____

Title: Barbara J. Cook, Chief
Northern California-Coastal Cleanup Operations Branch

STATE OF NEW JERSEY

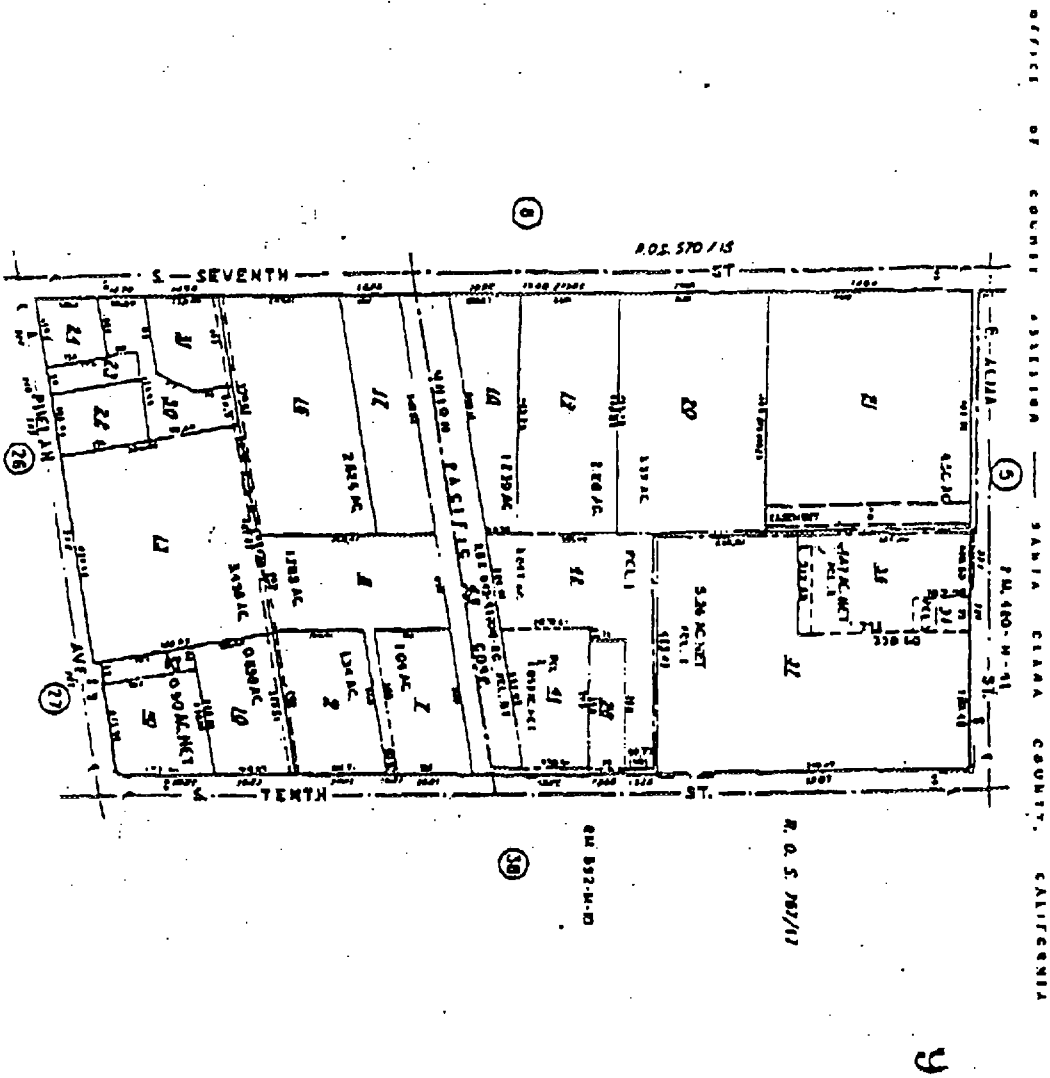
COUNTY OF (UNION)

On this 7th day of JUNE, in the year 2005, before me Victoria Naranjo, personally appeared ROBERT H. MULLEN, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is /are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Signature Victoria Naranjo

VICTORIA NARANJO
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires Feb. 9, 2010



NOTICE

THIS MAP MAY OR MAY NOT BE A SURVEY OF THE LAND DEPICTED HEREON. IT IS NOT TO BE RELIED UPON FOR ANY PURPOSE OTHER THAN ORIENTING ONE'S SELF AS TO THE GENERAL LOCATION OF THE PARCEL OR PARCELS OF INTEREST. FIRST AMERICAN TITLE COMPANY ASSUMES NO LIABILITY FOR LOSS OR DAMAGE RESULTING FROM RELIANCE THEREON.