



Phase One

Environmental Site Assessment

700 Acres

State of Oregon's Mill Creek District Surplus Property
Salem, Oregon

Prepared for:

Oregon Department of Administrative Services and
the City of Salem
Salem, Oregon

July 2003
Project #: 16912.000

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PBS Project No: 16912.000

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1.0 EXECUTIVE SUMMARY

A Phase One Environmental Site Assessment was conducted by PBS for the State of Oregon's Mill Creek District Surplus Property located in Salem, Oregon. The project was performed in general accordance with ASTM Standard E 1527-00, *Standard Practice for Environmental Site Assessments; Phase One Environmental Site Assessment Process*.

Historical sources indicate that the northern portion of the subject property was in agricultural use for field crops by 1936 and has continued in field crop use (grass seed, potato, turf and wheat) use to present. The southern portions of the site were in residential, agricultural and poultry farm use from at least 1936 to the 1960s when several buildings were constructed by the Oregon Department of Corrections (DOC) for use as an inmate vocational machine shop, welding, vehicle maintenance and parts storage for the adjoining Mill Creek Correctional Facility (MCCF). A livestock sewage waste pond was constructed on the site in the late-1960s and received waste streams from MCCF and several adjoining DOC facilities. The site remains in DOC vocational program use.

Petroleum-contaminated soil and groundwater was discovered near the machine shop during the removal of three USTs in the mid-1990s. Groundwater monitoring was initiated a few years later. The most recent groundwater sampling (June 2002) showed no detectable benzene, toluene, ethylbenzene or xylenes (BTEX), polynuclear aromatic hydrocarbons (PAHs), or diesel-fraction petroleum hydrocarbons. Over the past four quarters of groundwater monitoring, no samples exceeded risk-based cleanup levels for any compounds analyzed. A request for a No Further Action determination was made to Oregon DEQ in 2002.

Concurrently in 1999, PBS completed limited soil sampling in several areas of the site during a DEQ-mandated expanded preliminary assessment (XPA) of the facility. The sampling was completed around former underground and above-ground oil tanks, the machine shop wash pad, and a small refuse dump near the poultry buildings. Heavy oil and diesel (up to 1,100 and 4,600 milligrams per kilogram (mg/kg), respectively) were detected in the soils. No significant levels of volatile organic compounds, PAHs or metals were found in site soil samples.

Adjoining sites to the west and northwest were in agriculture use for field crops or pasture by 1936, prior to commercial development for a sand and gravel operation and residential development in the 1970s. Adjoining sites to the east, southeast and north were in residential and agriculture use for field crops by 1936, prior to development for the Western Baptist College and Department of Correction facilities in the 1950s and 1960s. Adjoining sites to the south were in dairy and agricultural use for field crops and pasture by 1936 and continue in that use at present.

EPA and state environmental databases were reviewed to identify sites that pose a potential environmental concern to the subject property due to contaminant migration. Based on a review of the listed sites, the following sites may pose an environmental concern to the subject property.

Open LUST file number 24-90-4322, Western Baptist College, 5000 Deer Park Dr. SE, located east adjacent and upgradient to the subject property. Gasoline impacted soils and water were reported during the decommissioning of a gasoline UST in 1990. No details are known about the extent of contamination.

State Cleanup Site No. 886, River Bend Sand and Gravel, 4105 Lancaster Drive SE, located west-adjacent across Kuebler Boulevard SE and east adjacent to Mill Creek; upgradient/crossgradient from the subject property. A 4,000-gallon diesel spill occurred to a gravel surface on this property in 1988. The present drainage/irrigation canal system on the subject property receives surface water from this site. A project manager with Oregon DEQ indicated that this issue has been given a low priority.

Recognized Environmental Conditions on the subject property:

No recognized environmental conditions were identified on the subject property.

Historical Recognized Environmental Conditions on the subject property:

- 1) Petroleum-contaminated soils have been identified adjacent to vehicle wash pad and waste oil AST, lead and volatile organic compounds have been detected in sediment samples from the livestock sewage pond, and petroleum contamination was detected in the soils around the former gasoline, diesel, and heating oil USTs at the machine shop.

These issues were addressed in the Expanded Preliminary Assessment (XPA) completed previously by PBS. Oregon Department of Corrections is awaiting a No Further Action determination by DEQ with regard to these issues.

Other issues of concern:

Contamination on Adjoining Properties

The open LUST site (Western Baptist College) and the open State Cleanup Site (River Bend Sand and Gravel) pose potential environmental concerns to the subject property. Groundwater-borne contaminants may migrate from the Western Baptist College site to the subject property. Petroleum impacted groundwater or surface waters from the River Bend Sand and Gravel site may have impacted the subject property via the irrigation/drainage canal during periods of high water. Very little information has been collected on either of these sites, therefore the potential risk of contamination to the subject property is difficult to assess.

Recommendation:

Contact both facilities and request additional information regarding the exact locations of the releases and any investigations or cleanups that have occurred since these incidents were reported. If no information is available, or the available information indicates potential impact to the subject property, sampling of soil and/or groundwater may be warranted.

Petroleum pipeline crossing the subject property: An eight-inch diameter steel petroleum pipeline crosses the northern portion of the subject property. The pipeline was installed in 1962 and, according to the pipeline owner (Kinder-Morgan), it is buried at a depth of 3 to 8 feet below the ground surface. There are no records indicating historic releases from the pipeline on the subject property.

Recommendation:

Retain qualified legal counsel to evaluate possible liabilities associated with the presence of the pipeline on the subject property.

Abandoned onsite water well: A water well exists on the northwest portion of the subject property. Water wells represent potential conduits for surface contaminants to enter the subsurface.

Recommendation:

If the water well will not be used in the near future, it should be properly decommissioned in accordance with Oregon Water Resources Department rules.

2.0 INTRODUCTION

2.1 Location and Client Information

Site Location:

700 Acres
Mill Creek District
Salem, Oregon 97302

Client Data:

Oregon Department of Administrative Services
and the City of Salem
Facilities Division
1225 Ferry Street SE, U100
Salem, Oregon 97301-4281

ATTN: Gregory Parker

2.2 Purpose

A Phase One Environmental Site Assessment was conducted by PBS for the above-referenced site. The purpose of the Phase One was to identify *recognized environmental conditions* associated with the subject property, that is, to assess the likelihood that contamination from *hazardous substances* or *petroleum products* may exist on the subject property either from past or present use of the subject property or nearby properties. The project was performed in general accordance with the ASTM Standard Practice for conducting Phase One Environmental Site Assessments (Designation E 1527-00).

2.3 Scope of Work

The scope of work for the project included the items listed below:

1. Subject property identification and visual survey for the presence of hazardous substances and petroleum products;
2. Review federal, state and local agency listings regarding the subject property and adjacent areas;
3. Review of historic maps, historic occupants and the nature of past property usage;
4. Review of available soils, geology or environmental reports for the subject property or in the vicinity of the subject property;
5. Interviews with persons knowledgeable about the subject property;
6. Preparation of the report which summarizes observations, sources utilized, and findings, conclusions and recommendations relating to the presence or likely presence of hazardous substances or petroleum products on the subject property.

The reader is referred to PBS's proposal/contract (Appendix A) to provide a Phase One Environmental Site Assessment for a detailed description of our Scope of Work.

2.4 Non-ASTM Method Scope of Work

The following non-ASTM method scope issues were addressed during this study:

- Conduct a non-invasive visual survey for asbestos containing building materials.

2.5 Significant Assumptions

This study is intended to reduce, but not eliminate, uncertainty regarding the potential for *recognized environmental conditions* in connection with the subject property, within reasonable limits of time and cost. It is assumed that the user has provided PBS with any specialized knowledge or experience that is material to *recognized environmental conditions* in connection with the property, including the reason why the property may have a significantly lower purchase price than comparable properties, if applicable. (ASTM 1527-00, Section 5.0)

In general, groundwater flow direction has been determined based on topography in the vicinity of the subject property, i.e. the assumption that shallow groundwater flow will follow topography, or on other available resources. No site-specific field measurements of groundwater flow direction, e.g. installation of groundwater monitoring wells, have been performed.

Based on this interpretation, PBS has reviewed regulatory agency information for sites that are located in a presumed upgradient direction, that, further based on proximity and knowledge of potential contaminant fate and transport, may present a potential to impact the subject property.

2.6 Limitations and Exceptions

Unless noted otherwise, the scope of work is limited to elements of the ASTM standard. Non-ASTM scope issues (e.g. asbestos, lead-based paint, radon, wetlands, compliance audits, geotechnical investigations, etc.) were not addressed unless noted above in Section 2.4 and in our contract provided in Appendix A.

The ASTM method does not require a search interval of less than 5 years. This search interval is not guaranteed to identify all prior tenants or occupants of the subject property.

"Recognized Environmental Conditions" are defined at paragraph 1.1.1 of ASTM E 1527-00 and the complete text is included in the Glossary of this document. The vague and ambiguous nature of *recognized environmental conditions* as defined by the ASTM may result in reasonable minds differing as to whether any observed condition at a site is a *recognized environmental condition*. There may be other conditions noted in this report that could be considered *recognized environmental conditions* by other persons. Accordingly, the user is advised that no warranty is given that other experts may agree as to whether site conditions noted herein are *recognized environmental conditions*. Users of this report are encouraged to review the report in its entirety and specifically to consider the existence of all site conditions described in this report and not merely those classified herein as *recognized environmental conditions*.

When an assessment is completed without surface exploration or chemical screening of soil and groundwater beneath the site, as in this study, no statement of scientific certainty can be made regarding latent subsurface conditions, which may be the result of on-site or off-site sources. PBS is not able to represent that the site or adjoining land contains no hazardous waste, oil, or other latent conditions beyond that detected or observed by PBS during the study.

The findings and conclusions of this report, therefore, are not scientific certainties, but rather, are based on professional judgment concerning the significance of the data gathered during the course of the Phase One. The conclusions in this report are not to be considered a legal opinion as to the client's duty concerning due diligence relating to potential liabilities in leasing, owning, or purchasing real estate.

The ASTM standard requires that the history of the subject property be traced to 1940 or prior to the first developed use, whichever is earlier. This requires that the investigator review sources that are *publicly available, are available within a reasonable time and cost, and are reasonably ascertainable and considered practically reviewable*, as defined under the ASTM standard. In addition, these criteria are applied keeping in mind sources that are likely to provide information concerning possible recognized environmental conditions at the subject property. PBS has reviewed all sources of information that we consider meeting these criteria. In cases where the history of the property is not traced to prior to its first developed use, this condition is considered a *data failure*, and not an exception to the required scope of work.

There were no exceptions to the referenced Scope of Work.

2.7 Special Terms and Conditions

PBS's standard Terms and Conditions may be found in Appendix A; there are no special terms and conditions.

2.8 User Reliance

PBS acknowledges that the client ("User") and lender may rely upon the information, findings, opinion and conclusions set forth in this report, subject to the conditions and limitations contained in this report and as set forth in our contract (see Appendix A). The report provides information on the property only as specified in the scope of work and is based on subject property conditions at the time of the study. It was prepared in accordance with the standard of care of our profession. No warranties, express or implied, are made.

3.0 SITE DESCRIPTION

3.1 Location and Legal Description

Address, City, State:	Mill Creek District Surplus Property; includes the property addressed to 5485 Turner Road SE, Salem, Oregon
Map, Tax Lot:	Marion County Map Nos. 8 2W 05, 8 2W 06, 8 2W 07, 8 2W 08, 8 2W 16 and 8 2W 17; Portions of Tax Lots 103, 104, 105 1900 and 2000
Township, Range, Section:	T8S, R2W, West ½ Section of 5, Southeast corner of Section 6, East ½ of Section 7, West ½ of Section 8, Southwest corner of Section 17 and Northeast ¼ of Section 18 (Willamette Meridian)
Acreage:	Approximately 700 acres

A Site Location Map is included with this report under Tab 1.

3.2 Site and Vicinity General Characteristics

The site is located in a rural area of southeastern Salem, Oregon east of Interstate-5 and Mill Creek. Properties in the local area are in residential, agricultural, vocational and industrial use and include several complexes associated with the Oregon Department of Corrections – Mill Creek Correctional Facility (including the subject property). The Site Vicinity Map is included under Tab 1. Photographs depicting the general character of the site are included under Tab 2.

3.3 Current Use of the Subject Property

The northern portion of the subject property is currently in leased agricultural use for the farming of grass seed, potatoes, wheat and turf. The southern portion of the site is in DOC vocational training facility (referred to as the “State Penitentiary Annex”) use for carpentry, welding, machine shop, paint booth and vehicle/farm equipment maintenance programs. Several vacant buildings associated with a former poultry calf farm are present north of the DOC buildings on elevated terrain hereafter referred to as “Pheasant Hill”.

3.4 Description of Structures, Roads, Other Improvements on the Site

There are several buildings on the southern portion of the subject property including two buildings fronting Turner Road SE that incorporate a machine shop, welding shop, paint booth, office, equipment maintenance shop, part storage areas and an oil shed. There are also several north-adjointing buildings associated with a former poultry farm and a smaller building used for pesticide and herbicide storage. In addition, a livestock sewage pond and two irrigation/drainage canals with seven pump houses are present on the site. Interconnected gravel roads are located throughout the property allowing access to the various buildings and agricultural fields.

4.0 USER-PROVIDED INFORMATION

4.1 Title Records

Review of a title report was not included in the scope of this project.

4.2 Environmental Liens or Activity and Use Limitations

The Property-Owner Representative Questionnaire was completed by Ron Oster, Production Coordinator III for the State Penitentiary Annex and is included in Tab 3. Mr. Oster indicated no knowledge of environmental liens against the subject property, or limitations related to environmental conditions.

4.3 Specialized Knowledge

Mr. Oster indicated no specialized knowledge or experience that may be material to PBS's identification of recognized environmental conditions on the subject property.

4.4 Valuation Reduction for Environmental Issues

Mr. Oster indicated that the property value or purchase price has not been devalued, compared to comparable properties, as a result of environmental conditions at the subject property or surrounding properties.

4.5 Owner, Property Manager and Occupant Information

The subject property is currently owned, managed and occupied by the State of Oregon, Department of Corrections. The northern portions of the property are leased to farmers for agricultural use.

4.6 Reason for Performing the Phase One

This Phase One has been requested by Oregon Department of Administrative Services and the City of Salem as part of their environmental due diligence prior to the sale and purchase of the property.

4.7 Other Information Provided by the User

No other information was provided by Oregon Department of Administrative Services and the City of Salem.

5.0 RECORDS REVIEW

5.1 Standard Environmental Record Sources

A search of State environmental agency and U.S. Environmental Protection Agency (EPA) listings was performed (a copy of the database search report is included in Appendix B). The purpose of this search is to identify potential, suspected, or known sources of contamination on, or in the area of, the subject property. The database searched the various agency listings for different approximate minimum search distances from the subject property, based upon the relative potential threat represented by each listing as established in the ASTM method.

Only those sites that appear to pose a potential environmental concern to the subject property are discussed below. All other listed sites are considered to be of low concern to the subject property based on presumed groundwater flow direction, distance from the site, regulatory status (e.g. the agency file is closed) or other physical factors.

Subject property:

LUST file No. 24-95-4068, Mill Creek Correctional Facility Machine Shop, 5485 Turner Road SE: A 1,500-gallon gasoline tank, a 1,500-gallon diesel tank, and a 1,500-gallon heating oil tank were formerly located at the machine shop. The tanks were decommissioned in May 1995. During decommissioning, contaminated soil was excavated and landfilled. Contaminated soils were reported to remain in the walls of the former excavation. Groundwater was encountered during decommissioning activities but sample results could not be located.

In 1999, soils were sampled around the former UST area by PBS using a Geoprobe direct-push sampler to determine the lateral extent of contaminated soils, and three groundwater monitoring wells were installed to the north and west of the former UST location.

No petroleum hydrocarbons were identified in the soil samples, and no impacts to groundwater were identified in the three monitoring wells, however none of the wells were located immediately downgradient from the former tank pit. In 2001, PBS installed one additional monitoring well immediately downgradient of the former UST. The four wells were sampled for four consecutive quarters; no significant impacts to groundwater were detected. DEQ is presently reviewing the file for consideration of a No Further Action determination.

State Cleanup Site No. 1175 (includes subject property and several adjoining DOC properties): In 1998, PBS completed limited soil sampling in several areas of the site during an expanded preliminary assessment (XPA) of various DOC facilities. The areas included the vehicle washdown pad and settling sump, areas adjacent to the waste oil AST, livestock sewage pond sediments and Pheasant Hill building material waste pile.

Washdown pad area: No significant impacts to soil were identified in the three test pits excavated on the three exposed sides of the wash pad. Soils near the solids settling sump contained high concentrations of TPH as diesel (4,600 milligrams per kilogram - mg/kg) and heavy oil (1,000 mg/kg). There are no cleanup standards for TPH in soil in Oregon outside of the Underground Storage Tank Cleanup rules, which is not directly applicable to this situation. The concentrations of other constituents (volatile organics, polynuclear aromatic hydrocarbons, metals and pesticides) were all below cleanup levels or natural background concentrations. PBS sampled the groundwater near the settling sump to determine whether the petroleum contamination in the soil has contaminated groundwater. No significant impacts were identified.

Waste oil AST area: Relatively low concentrations of diesel (99 mg/kg) and heavy oil (58 mg/kg) were detected in one soil sample. No related constituents (volatile organics, polynuclear aromatic hydrocarbons, metals) were identified in any of the samples in excess of the Oregon Numerical Soil Cleanup Levels (OAR 34-122-045) or natural background concentrations. No additional investigation or remediation was recommended in this area of the site.

Livestock sewage pond: One of two sediment samples collected from the pond near the drain line outfall contained an elevated concentration of lead (72 mg/kg) and the second contained 14 mg/kg lead which is within the range of natural background concentration for lead. Additional sediment samples collected from a distance of 15 feet to the east and west contained 7.9 and 9.4 mg/kg lead. Based on these findings, the lead concentration of 72 mg/Kg did not appear to represent a consistent, area-wide concentration. Volatile organic compounds were detected in the two outfall samples at concentrations only slightly above the analytical limits of detection and below soil cleanup levels (OAR 340-122-045). Petroleum hydrocarbons (as diesel and heavy oil) are present in the sediments at elevated concentrations (250-300 mg/kg diesel, 1,000-1,100 mg/kg heavy oil). While these concentrations are relatively high with respect to the Numeric Soil Cleanup Standards for Underground Storage Tanks (the only cleanup standards in Oregon for petroleum hydrocarbons), concentrations of related constituents, such as volatile organics, polynuclear aromatic hydrocarbons, and metals, are not present above cleanup levels. Based on these findings, no further investigation was recommended in this area.

Pheasant Hill building material waste pile: The items in the waste pile consisted of building materials (brick, concrete, wood fragments). Laboratory results of the three soil samples collected in the waste disposal area indicated that there has not been a detectable release of petroleum hydrocarbons, volatile organics, or semi-volatile organics into the soil in the areas explored. The concentrations of metals in the soil samples were below natural background concentrations. Based on these results, no additional investigation or was recommended in this area.

Sites adjoining the subject property:

State Cleanup Site 1178, LUST site 24-98-4144, Santiam Correctional Facility, 4005 Aumsville Highway, located east adjacent and upgradient to the subject property: An Expanded Preliminary Assessment (XPA) was completed by PBS on behalf of the Oregon Department of Corrections (DOC) for this facility in 1994. Field investigation of the site involved limited soil testing around a vehicle washdown pad and an outfall from an onsite vehicle shop sump for petroleum hydrocarbons, volatile organic compounds and metals. No groundwater was impacted. A No Further Action determination was issued for the LUST file by Oregon DEQ in 2001. DEQ is presently reviewing the State Cleanup Site listing for consideration of a No Further Action determination

LUST file number 24-95-4072, Mill Creek Correctional Facility (MCCF), addressed to the subject property address at 5485 Turner Road SE, however this file concerns two USTs that were decommissioned at the south-adjoining MCCF dormitory and slaughterhouse (not the subject property).

MCCF dormitory: located approximately 750-feet south and upgradient of the subject property. A 2,000-gallon and a 10,000-gallon boiler fuel tank were formerly located behind the Dormitory. The USTs contained fuel oil for the dormitory heating system but were taken out of service when the facility switched to natural gas. The USTs were removed in May 1995. When the tanks were removed, the 2,000-gallon tank displayed several holes up to 4 millimeters in diameter, and a loose fitting was observed on the 10,000-gallon tank. Soil containing heating oil was excavated to the extent possible and stockpiled in a bermed area, and covered with plastic pending treatment or disposal. Contamination was suspected to remain in the former tank pit although sample data to confirm this fact was not available. In 1999, PBS sampled soils around the former excavations using a direct-push sampler in an attempt to obtain site closure under the risk-based cleanup rules. No petroleum was detected in any of the soil or groundwater samples. The results were submitted to DEQ.

DEQ is presently reviewing the file for consideration for a No Further Action determination.

MCCF Slaughterhouse; located approximately 750-feet southeast and upgradient of the subject property. In July and August 1999, Three Kings Environmental of Longview, Washington, removed a 4,000-gallon oil tank from the northeast side of the slaughterhouse building. The tank had been used to heat water that was used in the meat processing, therefore the tank met the criteria for a heating oil tank. The ensuing cleanup and site assessment was therefore done under the heating oil tank cleanup rules.

Petroleum-contaminated soil was encountered and removed to a reported depth of 21 feet below ground surface. Groundwater was not encountered in the excavation. Final soil sampling showed contaminated soil remaining at a depth of 12 feet on the south sidewall, beneath the building basement foundation (5,500 mg/kg) and west sidewall

(4,200 mg/kg), and on the base of the excavation at a depth of 21 feet (3,600 mg/kg). Additional excavation was hindered by the presence of the slaughterhouse building and by the excessive depth of the base of the excavation. The concentrations of petroleum hydrocarbons in all other confirmatory samples (sidewalls and base) were below the Level Two Soil Matrix Cleanup Level (500 mg/kg).

The site was calculated as a Level Two Soil Matrix Cleanup site with a score of 28, which corresponds to a cleanup level of 500 mg/kg (heating oil). The excavation was backfilled with clean, crushed rock.

In April 2001, PBS sampled soils around the former excavation using a direct-push sampler in an attempt to obtain site closure under the risk-based cleanup rules. The approximate lateral extent of the remaining contaminated soil in excess of 500 mg/kg was identified. The total volume of petroleum-contaminated soil was estimated to be 17 cubic yards. BTEX and PAH levels in the most contaminated area were either non-detectable or below risk-based cleanup levels. Impact to groundwater on the downgradient side of the excavation (also in the most contaminated area) was also below the most stringent cleanup level under the Risk-Based Cleanup Rules.

PBS certified that the work performed meets the appropriate requirements of OAR 340-122-0205 through 340-122-0360 and OAR Chapter 340, Division 177.

LUST file number 24-90-4322, Western Baptist College, 5000 Deer Park Dr. SE, located east adjacent and upgradient to the subject property. Jim Parr of the Salem DEQ office, indicated that impacted soils and a petroleum sheen on water were reported during the decommissioning of a gasoline UST in 1990. It is not clear whether groundwater was impacted. No post-1990 environmental investigation has been completed for the site. No DEQ project manager has been assigned to the site and it remains open at this time.

State Cleanup Site No. 886, River Bend Sand and Gravel, 4105 Lancaster Drive SE, located west-adjacent across Kuebler Boulevard SE; upgradient/crossgradient from the subject property. The DEQ database indicates that a 4,000-gallon diesel spill occurred in 1988 to a gravel surface on the property. DEQ subsequently ordered cleanup of the gravel, certification of site cleanup to background levels and details of spill and spill-prevention procedures be instituted at the site. The last DEQ entry indicates that a site screening was recommended in 1994. Based on discussions with Oregon DEQ, no project manager has been assigned to the site and it is presently considered a low priority.

The present drainage/irrigation canal system on the subject property receives surface water from this site, which, along with western portions of the subject property, is located in the Mill Creek 100-year flood plain.

Unmappable Sites. Unmappable sites (*Environmental FirstSearch* “Non-Geocoded” sites) are sites that cannot be mapped because of inaccurate or missing locational information in the record provided by the agency. PBS has reviewed these unmappable sites and in some cases has generally located the site. Environmental risk associated with other sites cannot be determined.

Based on the estimated location or reported regulatory status, the listed unmappable sites are considered of *de minimis* concern.

5.2 Additional Environmental Record Sources

Oregon DEQ Online Facility Profiler. This DEQ web-page was reviewed on July 3, 2003; the subject property was not listed and no adjoining sites were listed other than reported by the database search.

State/Local Health Department. The Oregon State Fire Marshal Reported Drug lab database was searched on July 3, 2003 for information regarding the subject property address at 5485 Turner Road SE (http://159.121.82.250/CR2K_IncDB/Reported_Drug_Labs_1.asp). No records were found from this source.

Fire Department. The City of Salem and Marion County Fire Marshal maintain records of permits for underground fuel storage tanks (USTs) and above-ground fuel storage tanks (ASTs), as well as spills or hazardous materials incidents. Information was requested regarding past activity at the subject property address of 5485 Turner Road in Salem, Oregon.

Although there are active ASTs on the site, no records were found from these sources.

State-Registered Water Well Logs. Three monitoring well and several geotechnical logs were found addressed to the subject property at 5485 Turner Road SE and associated with subsurface investigations by PBS in 1998 and 1999. Four active monitoring wells are present on the subject property (see Figure 3, Tab 1 for approximate locations) in the area of the former USTs decommissioned adjacent to the machine shop. The logs indicate silty clays, sands and gravels and depth to groundwater as 15-18 feet below ground surface.

Local Electric Utility Company. There are approximately 20-30 pole-mounted transformers present on the subject property that are owned by Portland General Electric (PGE). During the site survey, it was noted that transformers were randomly labeled for PCB content. PGE is responsible for cleanup and/or remediation of areas adjacent to the transformers in the event of malfunction and/or associated leaks. The physical condition of the transformers are reported in 6.3.

5.3 Physical Setting Source(s)

Topography. The USGS 7.5 minute topographic map for the site indicates a general low gradient slope to the west-northwest toward Mill Creek. The majority of the property lies at an elevation of 230 to 270 above mean sea level (msl). Buildings associated with the State Penitentiary Annex on the southern portion of the site are located on a topographic high at an elevation of approximately 290 to 315 feet above msl. Other features include a sewage disposal pond, a northeast-southwest trending pipeline crossing the site, unimproved roads, a seasonal stream originating in a stream valley south of Aumsville highway and flowing west toward Mill Creek and delineation lines associated with donation land claim number 45. Surrounding features include Mill Creek Correctional Facility buildings to the south, Western Baptist College buildings to the east, Fairview Home Prigg Cottage to the northeast, a trailer park to the northwest and excavated ponds associated with the sand and gravel operation to the west along Mill Creek.

Soils and Geology. The subject property is located within the Mollala-Salem slope area of the Northern Willamette Valley in western Oregon. Geologic boring logs obtained from wells drilled in the vicinity of the Oregon State Correctional Institution (located approximately one-half mile northeast) indicate that the site is underlain by alluvial sediments composed of silt, clay, gravel, and sand with lesser amounts of conglomerate, sandstone, and vesicular basalt to depths of approximately 185 feet. Alluvial sediments overlie basaltic bedrock. Well records for the site vicinity indicate that unconfined groundwater is expected at approximately 15 feet below surface. The groundwater flow direction in the unconfined aquifer is expected to be toward the west-northwest but is likely variable across the 700-acre site.

Surface Water. Surface water was observed at the livestock sewage disposal pond on the southern portion of the site and two irrigation/drainage canals on the northern portion of the site. Mill Creek adjoins the subject property to the southwest.

Groundwater. Based on subject property monitoring well logs, shallow groundwater is expected to be present at approximately 10-15 feet below the ground surface. Based on topography, groundwater flow is expected to be towards the west-northwest, therefore, properties to the east and southeast are considered to be upgradient to the subject property. Shallow groundwater flow directions on the northern portions of the site are likely influenced by on site drainage/irrigation canals. It is unknown whether these canals are lined or unlined.

5.4 Historical Use Information

Aerial Photographs. Aerial photographs maintained by the University of Oregon Map Library in Eugene, Oregon and an aerial photograph supplied by the client were reviewed for the years 1936, 1948, 1955, 1963, 1970, 1976, 1980, 1994, and 2000. Photograph scales are typically small and detailed information is not generally obtained from the photographs. Due to the size of the subject property and the lack of overlapping coverage, the northern portion of the site is not shown in the majority of the photographs. However, the developed southern portions of the property are generally shown.

1936: Several buildings are present on the southern portion of the site and the northern portion appears to be in agricultural use for crops and/or pasture. A small orchard or nursery is seen west of the site buildings. Mill Creek adjoins the site to the southwest and appears to have once meandered further east onto the subject property. An irrigation/drainage canal originating from Mill Creek is seen near the middle of the property. Surrounding properties are in residential and agricultural use for crops and/or pasture.

1948: This photograph covers the southern portion of the site. No coverage of the northern portion is shown. New buildings appear to be present east of the structures shown on the 1936 photograph. A large multi-building complex is shown where the present-day Mill Creek Correctional Facility is located. Farm and/or residential buildings are present on southeast-adjointing properties and a small orchard or nursery adjoins the southern tip of the property. No other significant changes are noted to the subject property or adjoining sites.

1955: No significant changes are noted to the subject property or adjoining sites. Black markings on the photograph appear to be drawn on by a wax pencil or pen.

1963: Several new buildings are seen on the southern portion of the site in the location of the present machine shop, welding, maintenance and office buildings that front Turner Road SE. Portions of Mill Creek appear to be channeled or modified to facilitate irrigation/drainage on the subject property. Development is noted on west nearby properties.

1970: A partitioned pond is present north of the site buildings and two new smaller buildings are seen to the west and southeast. Additional development is seen on nearby properties west of Mill Creek. No other significant changes are noted to the subject property or adjoining sites.

1976: No significant changes are noted to the subject property. Clearing is seen on the west adjoining sand and gravel business property and continued development is seen on nearby properties along Turner Road NE. No other significant changes are noted to adjoining sites.

1980: No significant changes are noted to the subject property. Excavated areas at the west adjoining site have filled with water. No other significant changes are observed to adjoining sites.

1994: A new road now bounds the west side of the property (Kuebler Boulevard). No other significant changes are noted to the subject property or adjoining sites.

2000: The shape of the onsite pond structure north of the site buildings has changed and appears to be reduced in size. Buildings are present on the northeast adjoining property along Aumsville Highway (area not visible on previous photographs). Additional excavations filled with water are observed on the west adjoining sand and gravel site. No other significant changes are observed on the subject property or adjoining sites.

Fire Insurance Maps. Historical Sanborn Fire Insurance Maps are maintained at the Salem Public Library in Salem, Oregon. The maps include general historical information regarding occupants, addresses, and prior land uses. No Sanborn Map coverage was available for the subject property.

Local Street Directories. Polk City Directories for Salem, Oregon, are located at the Salem Public Library (Polk Directories prior to 1930 do not cross-reference addresses by street location). The directories were reviewed for information regarding past occupants at the subject property at 5485 Turner Road SE in Salem, Oregon and adjoining properties that may have been associated with the use of hazardous materials. The following range of street addresses was searched: Adjacent zip code 97301, 97302 and 97310 listings of Aumsville Highway, Deer Park Drive SE, Kuebler Boulevard SE, Turner Road SE and Santiam Highway SE. The first listing of properties in the local area was 1970. Addresses for the subject property are highlighted in bold font.

YEAR	ADDRESS	LISTING
1970	4005 Aumsville Highway SE	Prigg Apts.
	Deer Park Drive SE	Street not listed
	Kuebler Boulevard SE	Street not listed
	4246 Turner Road SE	Humane Society of the Willamette Valley
	4355 Turner Road SE	Residential
	Turner Road SE	No listings above 4355
	Santiam Highway SE	Street not listed
1980	Aumsville Highway SE	No listings
	Deer Park Drive SE	Street not listed
	Kuebler Boulevard SE	Street not listed
	4246 Turner Road SE	Humane Society of the Willamette Valley
	4355 Turner Road SE	Jack Largent Co., Inc. (roofing)
	4420 Turner Road SE	River Bend Sand and Gravel Co.
	Santiam Highway SE	Street not listed
1985	Aumsville Highway SE	Street not listed
	Deer Park Drive SE	Street not listed
	Kuebler Boulevard SE	Street not listed
	4246 Turner Road SE	Humane Society of the Willamette Valley
	4355 Turner Road SE	Pioneer Machining Inc.
	4370 Turner Road SE	SC Machinery Co. Castle & Cook (flour) CSC Properties Apke Medical Supplies
	4375 Turner Road SE	Thrower and Assoc.
	4420 Turner Road SE	River Bend Sand and Gravel Co.
	4605 Turner Road SE	Benzie's Foreign Auto Recyclers
	4655 Turner Road SE	Lopez Paving Inc.
	4657 Turner Road SE	Vacant

YEAR	ADDRESS	LISTING
1985	4725 Turner Road SE	Layton Manufacturing Co.
(cont'd)	Santiam Highway SE	Street not listed
1990	4000 Aumsville Highway SE	County Community Corrections (jail)
	4005 Aumsville Highway SE	State Corrections Department (release center)
	3250 Deer Park Drive SE	Salem Area Transfer Station
	3405 Deer Park Drive SE	Sate Corrections Department
	4750 Deer Park Drive SE	No return
	5000 Deer Park Drive SE	Western Baptist College
	Kuebler Boulevard SE	No listings >3091
	4420 Turner Road SE	Salem Road and Driveway (paving)
	4605 Turner Road SE	Benzie's Foreign Auto Recyclers
	4655 Turner Road SE	Lopez Paving Inc.
	4657 Turner Road SE	Tom Blaylock Inc. (roofing) United Freight Lines
	4705 Turner Road SE	Coleman Metals
	4725 Turner Road SE	Layton Manufacturing Co.
	4749 Turner Road SE	Residential
	4905 Turner Road SE	Salem pallet Co.
	4985 Turner Road SE	State Corrections Department
	Santiam Highway SE	Street not listed
1995-6	3950 Aumsville Highway SE	Marion County Corrections
	4000 Aumsville Highway SE	County Community Corrections (jail)
	4005 Aumsville Highway SE	State Corrections Department (release center)
	5560, 5637, 5798-6405 Aumsville Highway SE	Residential
	5785 Aumsville Highway SE	J & K Stables
	2800-3070 Deer Park Drive SE	Residential
	5000 Deer Park Drive SE	Western Baptist College
	Kuebler Boulevard SE	Street not listed
	4420 Turner Road SE	No listing
	4605 Turner Road SE	Benzie's Foreign Auto Recyclers
	4655 Turner Road SE	Lopez Paving Inc.
	4657 Turner Road SE	Tom Blaylock Inc. (roofing) United Freight Lines
	4705 Turner Road SE	Coleman Metals
	4725 Turner Road SE	Layton Manufacturing Co.
	4749 Turner Road SE	Residential
	4905 Turner Road SE	Salem pallet Co.
	5485 Turner Road SE	Oregon State Corrections Department
	6016-6340 Turner Road SE	Residential
	4985 Turner Road SE	State Corrections Department
	Santiam Highway SE	No 97302 listings
	4300 Santiam Highway SE	Saratoga Apartments

YEAR	ADDRESS	LISTING
1995-6	4320-4395 Santiam Highway SE	Residential
2000	3950-4000 Aumsville Highway SE	Not verified (two houses)
	4000 Aumsville Highway SE	Marion County Corrections (jail)
	4005 Aumsville Highway SE	CP & L Manufacturing
	3405 Deer Park Drive SE	Oregon Department of Corrections
	4772 Deer Park Drive SE	Residential
	5000 Deer Park Drive SE	Residential and Western Baptist College
	2767 Kuebler Boulevard SE	Residential
	2772 Kuebler Boulevard SE	Residential & Real Estate Assoc.
	2782-2862 Kuebler Boulevard SE	Residential
	2882-2891 Kuebler Boulevard SE	Not verified (2 houses)
	4495 Turner Road SE	Residential
	4605 Turner Road SE	Benzie's Foreign Auto Recyclers
	4655 Turner Road SE	Lopez Paving Inc.
	4657 Turner Road SE	Leslie Coach Motors United Freight Lines
	4705 Turner Road SE	Coleman Metals
	4715 Turner Road SE	Sante Fe Pacific Pipeline
	4725 Turner Road SE	Layton Manufacturing Co.
	4749 Turner Road SE	Not verified
	4905 Turner Road SE	Salem pallet Co.
	5465, 5585 Turner Road SE	Oregon State Corrections Department
	Santiam Highway SE	No 97302 listings
2002	3940 Aumsville Highway SE	Marion County Sheriff
	3950 Aumsville Highway SE	Marion County Work Release Center
	4000 Aumsville Highway SE	Marion County Corrections (jail)
	4005 Aumsville Highway SE	Manufacturing Country, Inc.
	4040 Aumsville Highway SE	Marion County Parole
	5502 Aumsville Highway SE	Residential
	5508 Aumsville Highway SE	Pru's Painting and Paper Hanging
	5560 Aumsville Highway SE	Residential
	5637 Aumsville Highway SE	Not verified
	3250 Deer Park Drive SE	Marion County Solid Waste Management
	3405 Deer Park Drive SE	Oregon Department of Corrections
	5000 Deer Park Drive SE	Residential and Western Baptist College
	2767 Kuebler Boulevard SE	Residential
	2772 Kuebler Boulevard SE	Residential & Real Estate Assoc.
	2782-2862, 2891 Kuebler Boulevard SE	Residential
	2882-2890 Kuebler Boulevard SE	Not verified
	4495 Turner Road SE	Not verified
	4605 Turner Road SE	Benzie's Foreign Auto Recyclers
	4655 Turner Road SE	Lopez Paving Inc.

YEAR	ADDRESS	LISTING
2002 (cont'd)	4657 Turner Road SE	All Seasons Weather Shield Central Valley Roofing Tom Blaylock Roofing United Freight Lines
	4705 Turner Road SE	Coleman Metals
	4715 Turner Road SE	Sante Fe Pacific Pipelines
	4725 Turner Road SE	Alexander, Art
	4749 Turner Road SE	Not verified
	4905 Turner Road SE	Salem pallet Co.
	5465 Turner Road SE	Oregon State Corrections Department
	6066, 6190, 6320-6400 Turner Road SE	Residential
	6196 Turner Road SE	Not verified
	Santiam Highway SE	No 97302 listings

Building Department Records. Records on file at the Marion County Building Inspection Department were requested for information regarding past activity at the subject property located at 5485 Turner Road SE, Salem, Oregon. The following information was found:

DATE	PERMIT NO.	DESCRIPTION
8/12/92	40756	Install PVC water line to barn (possibly associated with south-adjoining site)

Other Historical Records.

A Marion County tax map and a October 2002 *Valuation and Development Strategy Map* of the Mill Creek District were supplied by the client and reviewed for this report (see copies in Appendix C).

6.0 SITE RECONNAISSANCE

6.1 Methodology and Limiting Conditions

A site reconnaissance was conducted by Brian J. Haug of PBS on June 26, 2003, to observe and document site conditions and visible indications of existing environmental conditions. The reconnaissance was performed partially accompanied by Ron Oster, the on-site manager. All areas of the subject property were accessed. Site photographs are included under Tab 2.

6.2 General Site Setting

Topography. The topography of the site was generally flat with a gentle slope westward toward Mill Creek and a topographic high on the southeastern corner of the property.

Structures. Buildings on the southern portion of the property were constructed of the following:

- Machine, welding maintenance and office buildings: concrete foundation and floors, wood trusses, wood-framed and concrete cinder block walls (some with metal siding), corrugated sheet metal and composition roofing, pressboard and plywood interior wall coverings with florescent and incandescent lighting fixtures.
- Pheasant Hill buildings: concrete floor and foundation, wood framing and trusses, plywood and metal covered walls, incandescent lighting fixtures and composition shingle roofing.
- Pesticide/herbicide storage building: concrete foundation and floor, cinder block walls, wood trusses, incandescent lighting fixtures and composition shingle roofing.
- Well pump house buildings: concrete foundation and floors, wood trusses, wood framed, corrugated metal siding and roof covering.

Heating/Cooling System. Forced-air natural gas heat systems are present in the machine and welding shop and office/storage areas. No other heating or cooling systems was noted on the site.

Roads. An asphalt driveway allows site access from Turner Road SE and this surface continues north between the machine/welding shop and maintenance/office/storage buildings. A gravel equipment parking area is present north of the buildings and gravel roads are present throughout the site to allow access to irrigation pump station buildings and farmland on the northern portions of the site

Utilities.

Water Supply:	Marion County Public Works
Sewage System:	Marion County Public Works
Stormwater:	Marion County Public Works
Electrical Utility:	Portland General Electric
Natural Gas:	Northwest Natural

6.3 Exterior and Interior Observations

Hazardous Substances, Petroleum Products or Unidentified Containers.

The following were observed during the site survey (volumes are approximate):

Machine and welding shops: gear lube (10-gallons), small quantity cleaners, oils and degreasing compounds.

Paint booth: xytol (5-gallons), lacquer thinner (< 10-gallons), paint (30-gallons).

Waste oil AST shed: Ten 55-gallon drums (motor oil, tractor hydraulic oil, gear oil, waste oil transfer drum, one drum labeled "dirty gas", one unidentified drum, two PBS drums (groundwater and/or soil) and antifreeze (10-gallons).

Maintenance shop and storage area: small quantity containers of antifreeze, motor oil, gear oil and two flammable storage lockers with various 1-5-gallon containers of paint and paint-related chemicals.

Pesticide/herbicide storage building: Unknown quantity of various herbicides and pesticides stored on wooden pallets.

Oil Shed (south of office): Approximately fifteen 55-gallon drums of various petroleum products and various smaller containers.

Pheasant Hill: Seven 55-gallon drums are located on wood pallets adjacent to building C021. The sealed drums contain petroleum contaminated soils and/or groundwater from various onsite soil and groundwater investigations by PBS.

No floor drains or catch basins were observed in the vicinity of any of the above-referenced materials. All of the materials are stored on shelving, wood pallets in flammable storage lockers or directly on the concrete floor. Most of the containers were observed to be labeled, none appeared to be leaking, and the storage areas were generally observed to be well-maintained.

Minor petroleum staining was noted near the maintenance shop trench drain. No staining was noted adjacent to the wash pad catch basin located near the AST shed. No other floor drains or catch basins were observed in the vicinity of these materials.

Underground and Above-Ground Storage Tanks (USTs and ASTs)

Four ASTs were observed on the subject property:

- Two 4,000 gallon ASTs (diesel and gasoline), located south of the office. The ASTs appear to be relatively new and no petroleum odors and/or staining were noted in the area.
- One estimated 1,000 gallon AST is present north of the wash pad; the AST is enclosed by a roofed shed and concrete containment structure. Extensive petroleum staining was noted on the interior of the concrete containment structure. This area was sampled during the XPA in 1999.
- One estimated 500-gallon propane AST is located on the south edge of Pheasant Hill. The area surrounding the tank appeared well maintained with no odors.

Three USTs (1,500-gallon gasoline, 1,500-gallon diesel and a 1,500-gallon heating oil tank) were decommissioned by removal from an area adjacent to the machine shop in 1999 (see Section 5.0 for a detailed discussion).

PCBs

Fluorescent light fixtures were observed in the machine and welding shops, vehicle maintenance and storage shops and office area. Due to the age of the buildings, they are suspected to contain PCBs, however examination of individual light ballasts was not within the scope of this project.

Approximately 20-30 pole-mounted electrical transformers are present on powerlines traversing the subject property. All of the site transformers were not visually inspected. The majority of the observed transformers were not marked for PCB content, however they appeared to be in good condition with no observed leaks or staining. Portland General Electric owns the transformers and is responsible for cleanup and/or remediation in the event of their malfunction.

Floor drains, Catchbasins, Sumps, Oil-Water Separators

A recently installed catch basin/oil-water separator is present on the east side of the machine shop. A catch basin was noted in the center of the equipment wash down pad north of the paint shop which has a settling sump attached. A trench drain is present between the paint shop and the vehicle maintenance shop (see Figure 3; Tab 1 for approximate locations of catch basins and trench drain). Several floor drains were observed in the concrete floor of the building C018 tire storage area on Pheasant Hill. No odors or staining were noted in the vicinity of the floor drains.

Solid Waste Disposal

Small-quantities of wood debris, tires, metal framing, plastic barrels, wood pallets and various items were observed adjacent to buildings on the southern portion of the site.

Other Conditions of Concern

Minor oil stains were noted throughout the gravel, asphalt and concrete floor surfaces of the vehicle maintenance shop and gravel areas surrounding the waste oil AST north of the wash pad. Oil staining was also noted adjacent to the trench drain where it appeared that waste oil was being temporarily stored for transfer to the waste oil AST (see Photo 19; Tab 2). Minor staining was also noted in a areas adjacent to the oil storage shed south of the site office.

Visual Asbestos Survey: A visual asbestos survey was completed for the subject property during the course of the site survey. No interior insulation, acoustic or floor tiling, piping insulation, or other suspected asbestos containing materials (ACMs) were observed. Composition roofing materials were noted on several older buildings on the southern portions of the site. Based on their age, they are suspected to be ACMs. No other suspect ACMs were observed during the site reconnaissance.

6.4 Current Use of Adjoining Properties

North:	Santiam Highway; residential and farm use (NW across Kuebler Boulevard and N-NE across Santiam Highway)
South:	Turner Road SE, Deer Park Drive SE, Mill Creek Correctional Facility (MCCF) dormitories, dairy, slaughterhouse and rifle range
East:	Deer Park Drive SE; Aumsville Highway; Western Baptist College (SE), Santiam Correctional Institute (East mid-section), Marion County Offices (E-NE), farmland
West:	Kuebler Boulevard; River Bend Sand and Gravel, Mill Creek (SW)

These properties were viewed from the subject property or the nearest public right-of-way. No conditions of environmental concern were observed.

7.0 INTERVIEWS

7.1 Interview with Owner Representative/Site Manager

On June 26 and July 3, 2003, Ron Oster, Production Coordinator III, Department of Corrections, 503-378-2689, reported the following:

- He has been at the facility for approximately the last ten years.
- Mr. Oster believes that the facility has been a machine and welding shop since at least the 1940s-1950s.
- There are seven pump houses associated with the drainage/irrigation canals on the site. The canals are tied into a dam that is removed and replaced annually. No active wells are present on the site, but there is one abandoned well that is approximately 4 feet in depth.
- The buildings on Pheasant Hill were used to raise chickens and later calves. The concrete ramps that are attached to the buildings were used to help remove manure from the buildings.
- The livestock sewage pond has been used for the disposal of various waste streams over the years including discharge from MCCF slaughter house, dairy, beef department (“Hog Hill”), and vehicle wash down areas on the subject property.
- Mr. Oster confirmed that a underground pipeline does run across the northern portion of the site (farmland). He did not know who owned the pipeline.
- The concrete walled structure southeast of the livestock sewage pond was used to separate manure solids and liquids.
- Farmers leasing the agricultural land do not store and/or mix herbicides and/or pesticides on the property to his knowledge.
- There is an old septic system north of the machine shop. The system was decommissioned approximately one year ago.
- The oil/water separator located next to the machine shop was installed approximately three years ago.
- The “Round-up” herbicide stored on the trailer is used to control weeds in the parking areas and culverts along Turner Road SE.

7.2 Interview with Local Government Officials

On June 30, 2003, Jim Balen, City of Salem Fire Marshal, 503-588-6280, reported that although they had recently been given responsibility of this facility, he had no AST/UST permit information and recommended that I contact David Jones, the Deputy State Fire Marshal at 503-373-1540, X255. Mr. Jones said that there were no permits available for the MCCF Annex Facility (address of 5485 Turner Road SE).

7.3 Interview with Others

No other interviews were conducted for this report.

8.0 EVALUATION

8.1 Findings and Opinion

Recognized Environmental Conditions. No *recognized environmental conditions* were identified in connection with the subject property.

Historical Recognized Environmental Conditions on the subject property:

- 1) Petroleum-contaminated soils have been identified adjacent to vehicle wash pad and waste oil AST, lead and volatile organic compounds have been detected in sediment samples from the livestock sewage pond, and petroleum contamination was detected in the soils around the former gasoline, diesel, and heating oil USTs at the machine shop.

These issues were addressed in the Expanded Preliminary Assessment (XPA) completed previously by PBS. Oregon Department of Corrections is awaiting a No Further Action determination by DEQ with regard to these issues.

Other Issues of Concern. The following issues, although not included as *recognized environmental conditions*, were identified during this study. Although these issues could potentially result in adverse environmental impacts to the subject property, they are not included as *recognized environmental conditions* because insufficient evidence was collected during the course of this study to come to the conclusion that the condition(s) has resulted in the "presence or likely presence" of contamination to soil and/or groundwater on the subject property.

Contamination on Adjoining Properties

The open LUST file (Western Baptist College) and the open State Cleanup Site file (River Bend Sand and Gravel) pose potential environmental concerns to the subject property. Groundwater-borne contaminants may migrate from the Western Baptist College site to the subject property. Petroleum impacted groundwater or surface waters from the River Bend Sand and Gravel site may have impacted the subject property via the irrigation/drainage canal during periods of high water. Very little information has been collected on either of these sites, therefore the potential risk of contamination to the subject property is difficult to assess.

Petroleum pipeline crossing the subject property: An eight-inch diameter steel petroleum pipeline crosses the northern portion of the subject property. The pipeline was installed in 1962 and, according to the pipeline owner (Kinder-Morgan), it is buried at a depth of 3 to 8 feet below the ground surface. There are no records indicating historic releases from the pipeline on the subject property.

Abandoned onsite water well: A water well exists on the northwest portion of the subject property. Water wells represent potential conduits for surface contaminants to enter the subsurface, potentially contaminating groundwater.

Agricultural Property Use: The use of agricultural chemicals under applicable regulations is considered an acceptable agricultural practice. Due to their widespread use throughout the U.S., accumulation in soils is so common that it is generally not regarded as contamination requiring remedial action. Except in cases where these materials are present at high levels due to spillage, mixing, or handling of these materials in bulk quantities, or where agricultural uses have been particularly intense, it is not expected that contamination levels would be found at levels for which the State environmental agency or EPA would require remedial action. No information was found indicating these conditions exist on the subject property. In summary, while there is a possibility that these materials are present at some level on the subject property, their potential presence is considered a *de minimis* condition.

Asbestos-Containing Materials:

Asbestos-containing materials may be present in the roofing materials on buildings at the machine shop complex.

8.2 Conclusions/Recommendation and Signatures of Environmental Professionals

PBS has performed a Phase One Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-00 of State of Oregon's Mill Creek District Surplus Property, the *property*. Any exceptions to, or deletions from, this practice are described in Section 2.6 of this report.

Based on the findings of this study, PBS makes the following recommendations:

Contamination on Adjoining Properties

Recommendation: Contact the Western Baptist College and River Bend Sand and Gravel and request additional information regarding the exact locations of the releases and any investigations or cleanups that have occurred since these incidents were reported. If no information is available, or if the available information indicates potential impact to the subject property, sampling of soil and/or groundwater on the subject property may be warranted.

Petroleum Pipeline Crossing the Subject Property

Recommendation: Retain qualified legal counsel to evaluate possible liabilities associated with the presence of the pipeline on the subject property.

Abandoned onsite Water Well

Recommendation: If the water well will not be used in the near future, it should be properly decommissioned in accordance with Oregon Water Resources Department rules.

Agricultural Property Use

Recommendation: No additional investigation is recommended.

Asbestos-Containing Materials

Recommendation: A building pre-demolition asbestos survey may be required to meet Oregon Department of Environmental Quality and Oregon Occupational Safety and Health Administration's minimum sampling requirements prior to demolition. This would likely require additional samples (e.g. roofing material) be collected and analyzed prior to demolition of the structures.

Brian J. Haug, RG
Project Geologist

Date

Erik Anderson, RG
Senior Reviewer

Date

FIGURES

PHOTO DOCUMENTATION

DOCUMENTATION

Glossary

References

Questionnaire Completed by Property Owner Representative

Field Checklist

Resumes

Glossary

Adjoining Properties- Any real property or properties the border of which is contiguous or partially contiguous with that of the subject property, or that would be contiguous or partially contiguous with the subject property but for a street, road, or other public thoroughfare separating them.

Appropriate Inquiry- That inquiry constituting “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial and customary practice” as defined in CERCLA, 42 USC 9601 (35) (B), that will give a party to a commercial real estate transaction the innocent purchaser landowner defense to CERCLA liability (42 USC 9601 (A) and ((B) and 9607 (b)(3)), assuming compliance with other elements of the defense.

Approximate Minimum Search Distance- The area for which records must be obtained and reviewed pursuant to Section 7 of ASTM Standard Practice E 1527-00 subject to the limitations provided in that section. This may include areas outside the subject property and shall be measured from the nearest property boundary.

CERCLA- The Comprehensive Environmental Response, Compensation And Liability Act, as amended including amended by the Superfund Amendments and Reauthorization Act (SARA), 42 USC 9601 *et seq.*

Contaminated Aquifer Policy- Oregon and Washington environmental agencies will not hold a property owner liable for groundwater contamination that has migrated from an upgradient property. This indemnity is granted under the assumption that the property owner is not responsible for the release of the contamination, is not financially associated with the property from which the contamination originated, and did nothing to exacerbate the problem. Certain restrictions might be placed on the use of groundwater on the site (e.g. an irrigation or drinking water well could not be installed on the property). The property owner should ensure that the contamination does not present a health risk to onsite occupants.

De minimis condition- Condition that generally does not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis* are not *recognized environmental conditions*.

Hazardous Substance- A substance defined as a hazardous substance pursuant to CERCLA 42 USC 9601 (14), as interpreted by EPA regulations and the courts: “(A) any substance designated pursuant to Section 1321 (b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to Section 9602 of this title, (C) any hazardous waste having the characteristics identified under or pursuant to Section 3001 of the Solid Waste Disposal Act (42 USC 6921) (but not including any waste the regulation of which under the Solid Waste Disposal Act (42 USC 6901 *et seq.*) has been suspended by act of Congress), (D) any toxic pollutant listed under Section 1317(a) of Title 33, (E) any hazardous air pollutant listed under Section 112 of the Clean Air Act (42 USC 7412), and (F) any imminently hazardous chemical substance or mixture with respect to which the administrator (of EPA) has taken action pursuant to Section 2606 of Title 15.”

Note: The term *hazardous substances*, as it is used in this report, is used to describe both *hazardous substances* and *petroleum products*.

Historical recognized environmental condition- An environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently. If a past release of any hazardous substances or petroleum products has occurred in connection with the property and has been remediated, with such remediation accepted by the responsible regulatory agency (for example, as evidenced by the issuance of a no further action letter or equivalent), this condition should be considered an historical recognized environmental condition.

Innocent Purchaser Landowner Defense- A defense to CERCLA liability provided in 42 USC 9601 (35) and 9607(b)(3). One of the requirements of this defense is that the parties make “all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial and customary practice”. There are additional requirements to this defense.

Petroleum Products- Products included within the meaning of the terms within the *petroleum exclusion* to CERCLA, 42 USC 9601 (14), as interpreted by the courts and EPA, that is: petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed under Subparagraphs (A) through (F) of 42 USC 9601 (14), natural gas natural gas liquids, liquefied natural gas, and synthetic gas usable for fuel (or mixtures of natural gas and synthetic gas). (The word “fraction” refers to certain distillates of crude oil including gasoline, kerosene, diesel oil, jet fuels, and fuel oil pursuant to *Standard Definitions of Petroleum Statistics, American Petroleum Institute, Fourth Edition, 1988*).

Practically Reviewable- Information that is practically reviewable means that information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the subject property without the need for extraordinary analysis of irrelevant data. The form of the data shall be such that the user can review the records for a limited geographical area.

Recognized Environmental Condition- The presence or likely presence of any *hazardous substances* or *petroleum products* on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any *hazardous substances* or *petroleum products* into structures on the property or into the ground, groundwater, or surface water of the property. The term includes *hazardous substances* or *petroleum products* even under conditions in compliance with laws.

Subject Property- The real property that is the subject of this environmental site assessment. Real property includes buildings and other fixtures and improvements located on the property and affixed to the land.

References

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Questionnaire Completed by Property Owner Representative

Field Checklist

Resumes

APPENDIX A

PBS Proposal/Contract to Provide a Phase One Environmental Site Assessment

APPENDIX B

Standard Environmental Records Search Report
Environmental FirstSearch

APPENDIX C

Research Documentation

