Volume III - Appendix C, D and E
Phase II Environmental Site Assessment - December 2011 through November 2012

Hazardous Materials Investigation
120th Avenue NE Widening Project
NE 7th Street to NE 12th Street
Bellevue, Washington

for
City of Bellevue
c/o Parsons Brinckerhoff

April 15, 2013

GeoEngineers
Earth Science + Technology

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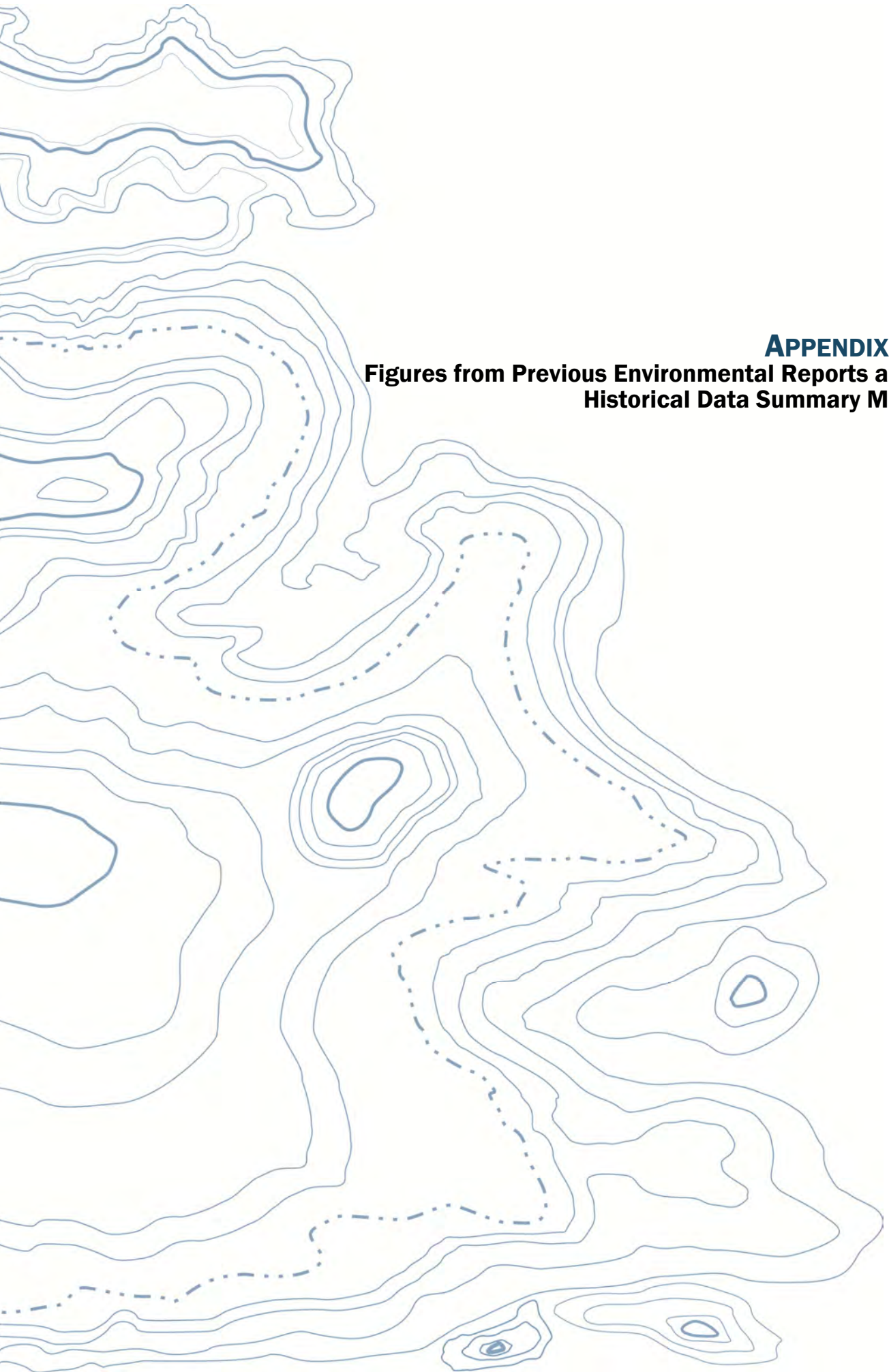
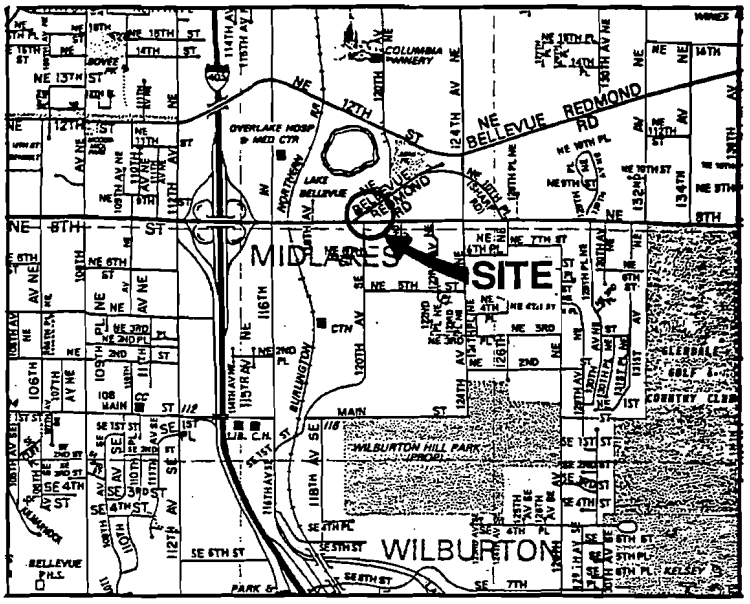
8410 154th Avenue NE
Redmond, Washington 98052
425.861.6000

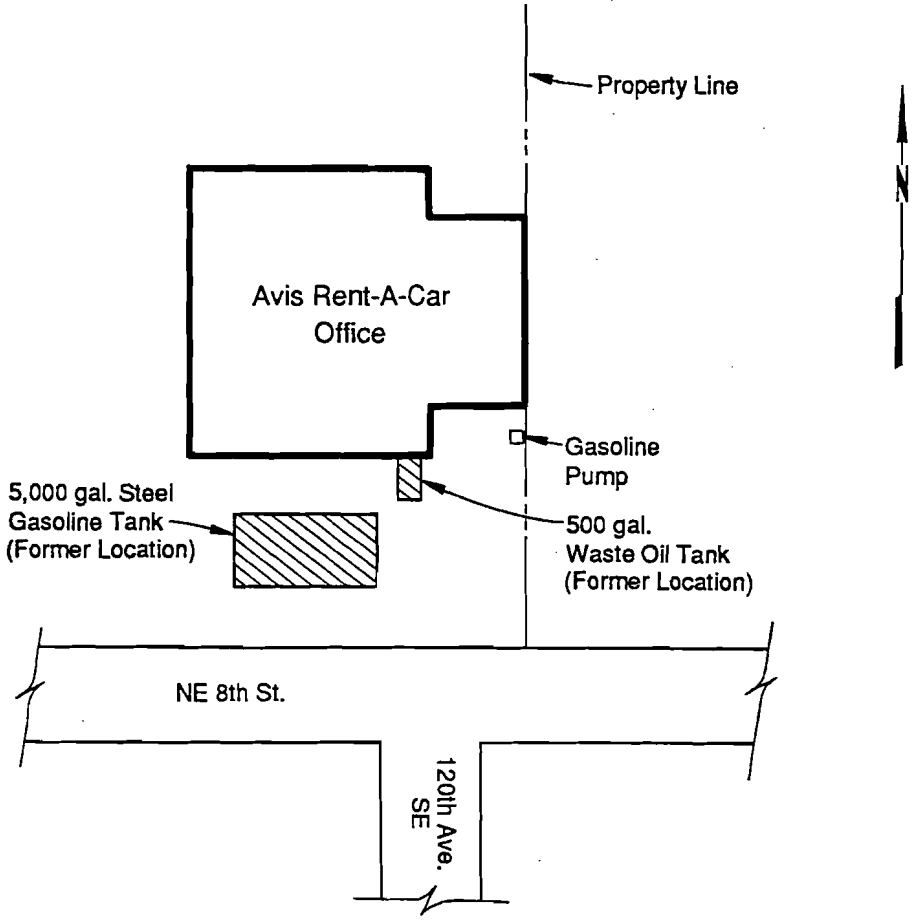


APPENDIX C

Figures from Previous Environmental Reports and Historical Data Summary Map



Vicinity Map
NO SCALE



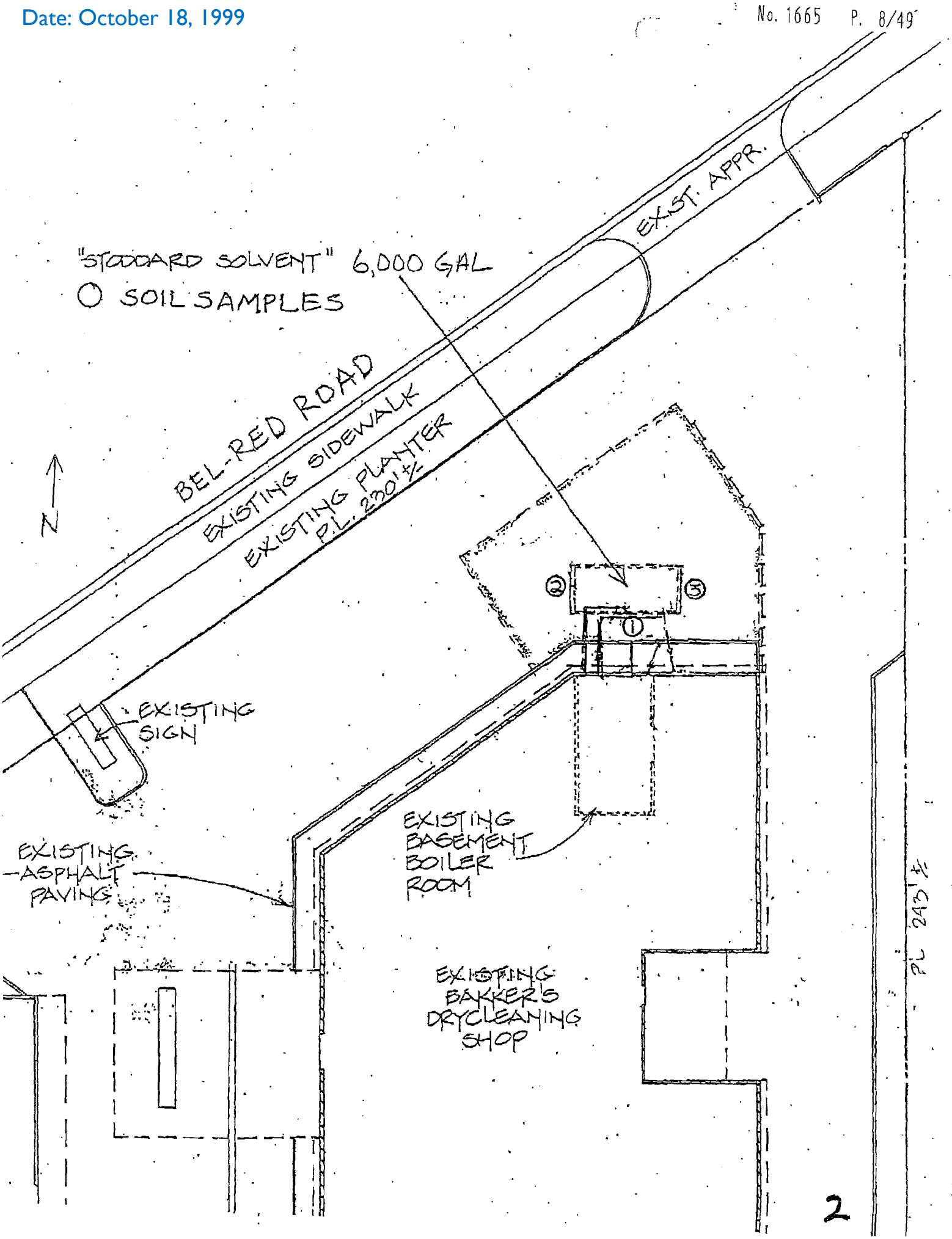
Site Plan
NOT TO SCALE

Source: Landau Associates
Date: June 2, 1989

LANDAU ASSOCIATES, INC.	Site Plan

Figure 1

Source: Fuel Tank Installation Co. Inc.
Date: October 18, 1999



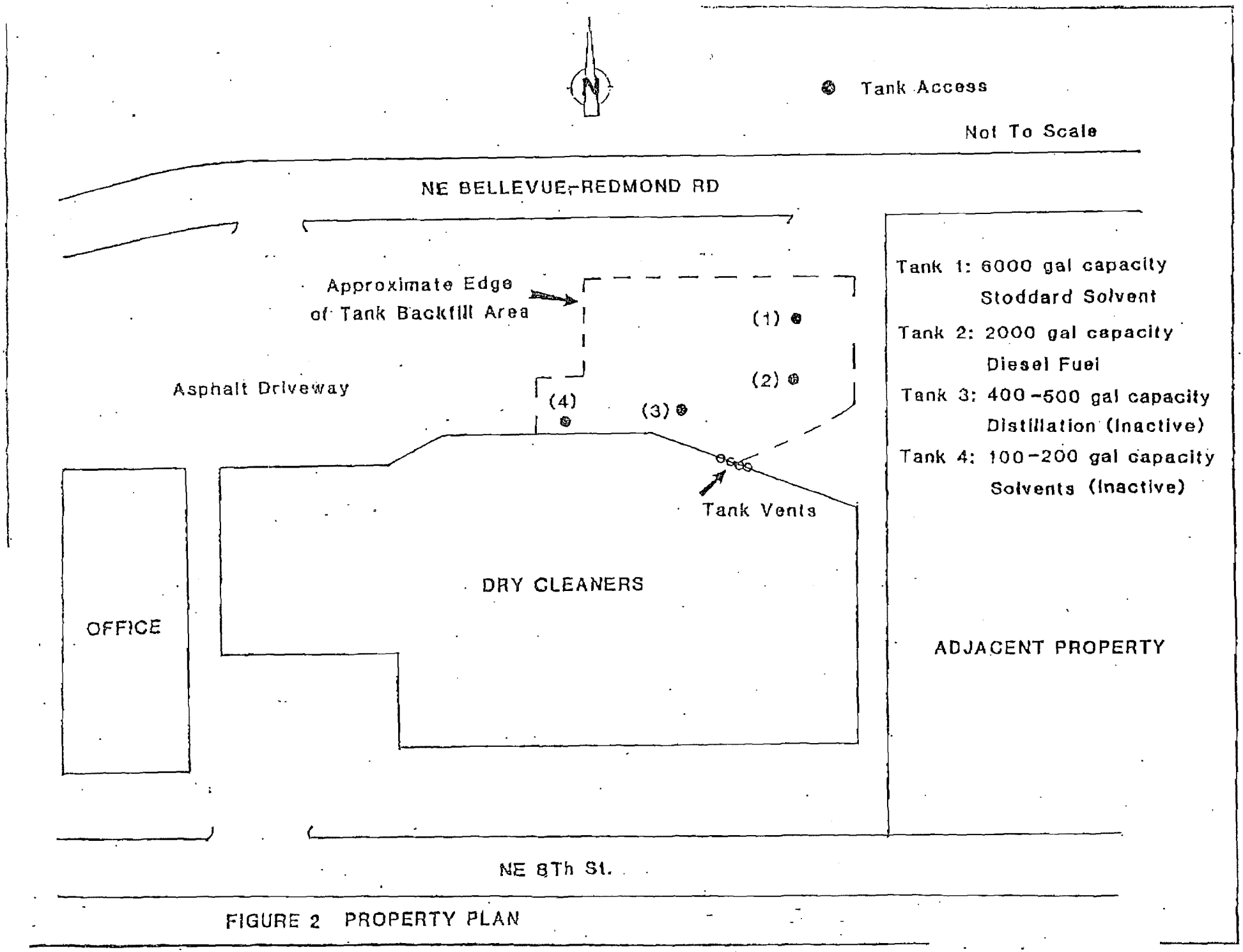
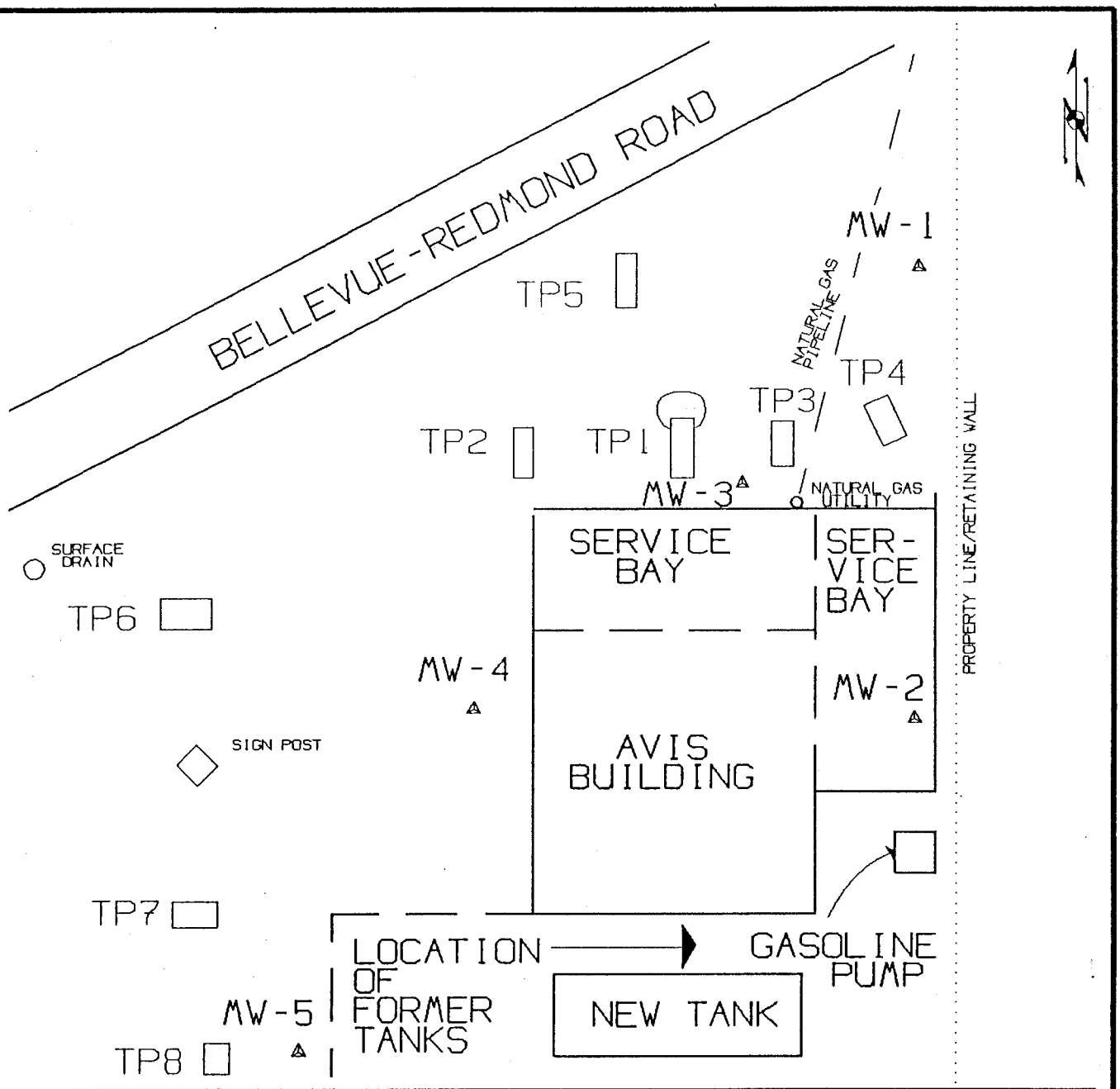


FIGURE 2 PROPERTY PLAN

Source: Geotech Consultants
Date: October 18, 1999



AVIS CAR SALES LOT

11969 BELLEVUE-REDMOND ROAD
BELLEVUE, WASHINGTON

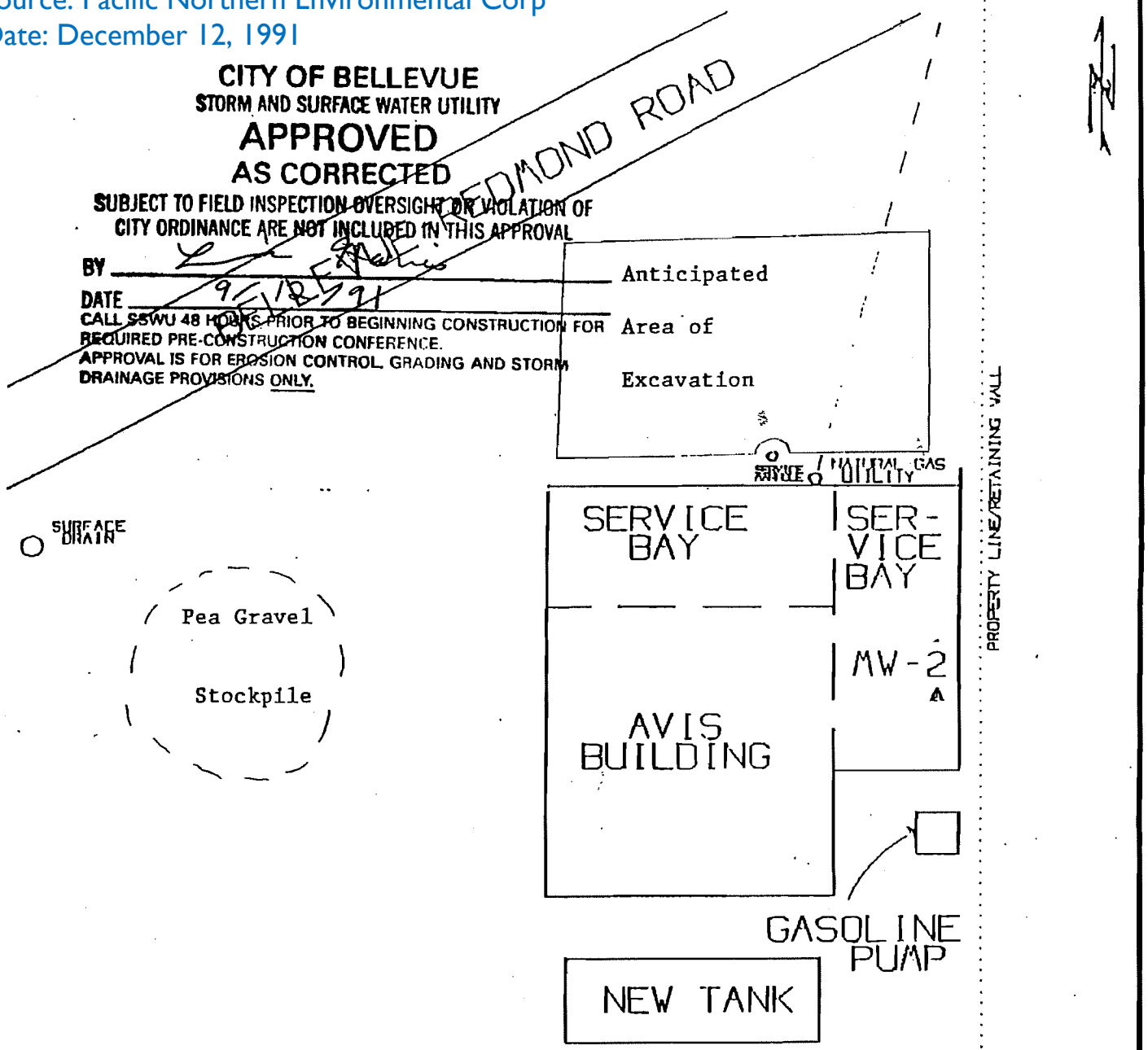
Figure 1

Site Location

PETROLEUM SERVICES UNLIMITED, INC.

Source: Pacific Northern Environmental Corp
Date: December 12, 1991

CITY OF BELLEVUE
STORM AND SURFACE WATER UTILITY
APPROVED
AS CORRECTED
SUBJECT TO FIELD INSPECTION OVERSIGHT OR VIOLATION OF CITY ORDINANCE ARE NOT INCLUDED IN THIS APPROVAL
BY _____
DATE 9/12/91
CALL SSWU 48 HOURS PRIOR TO BEGINNING CONSTRUCTION FOR REQUIRED PRE-CONSTRUCTION CONFERENCE.
APPROVAL IS FOR EROSION CONTROL, GRADING AND STORM DRAINAGE PROVISIONS ONLY.



NORTHEAST 8TH STREET

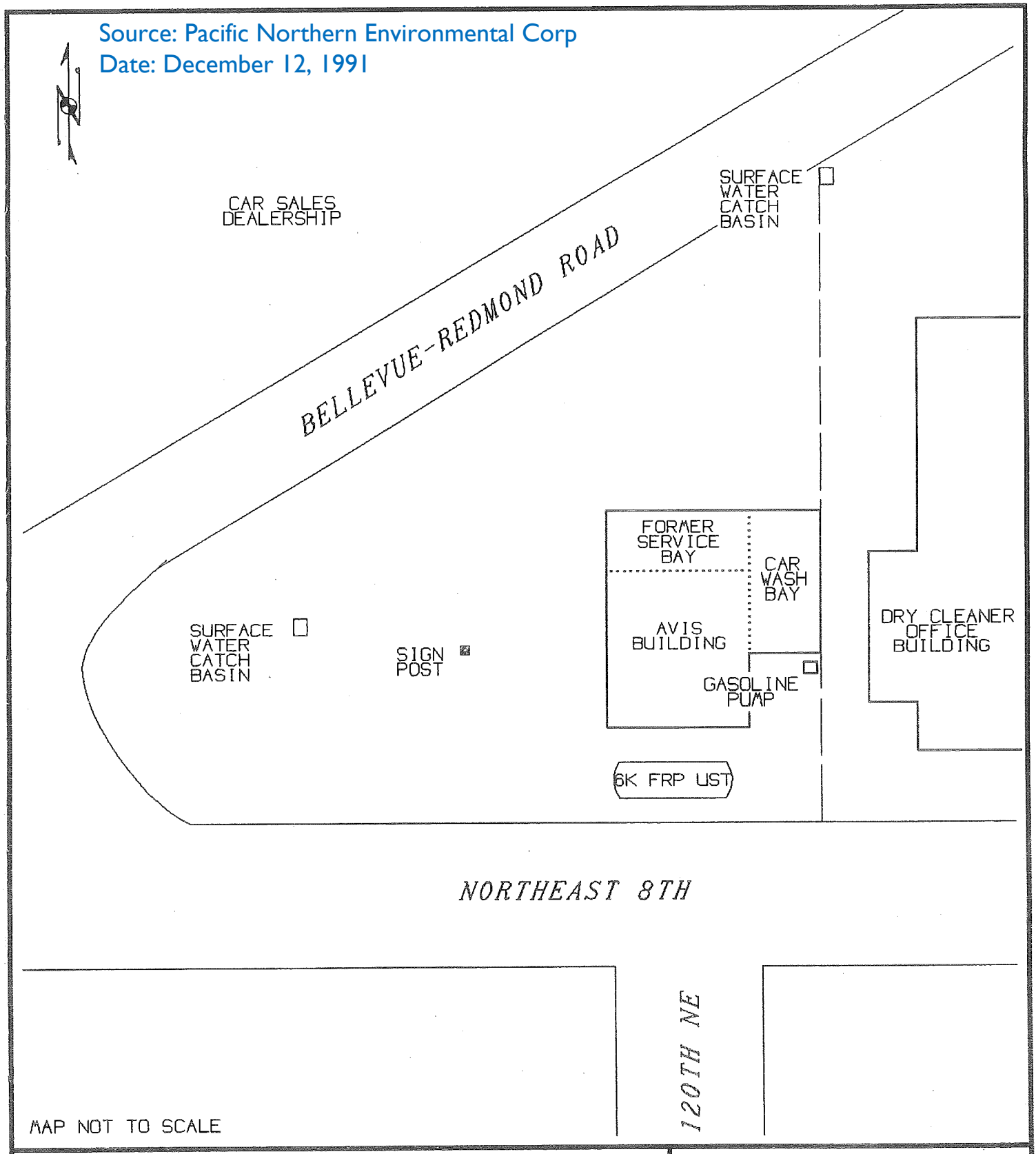
AVIS CAR SALES LOT
11969 BELLEVUE-REDMOND ROAD
BELLEVUE, WASHINGTON

Figure 1
Site Location

PETROLEUM SERVICES UNLIMITED, INC.

Protection shall be provided for all catch basins which may be impacted.

Source: Pacific Northern Environmental Corp
Date: December 12, 1991



AVIS SALES LOT

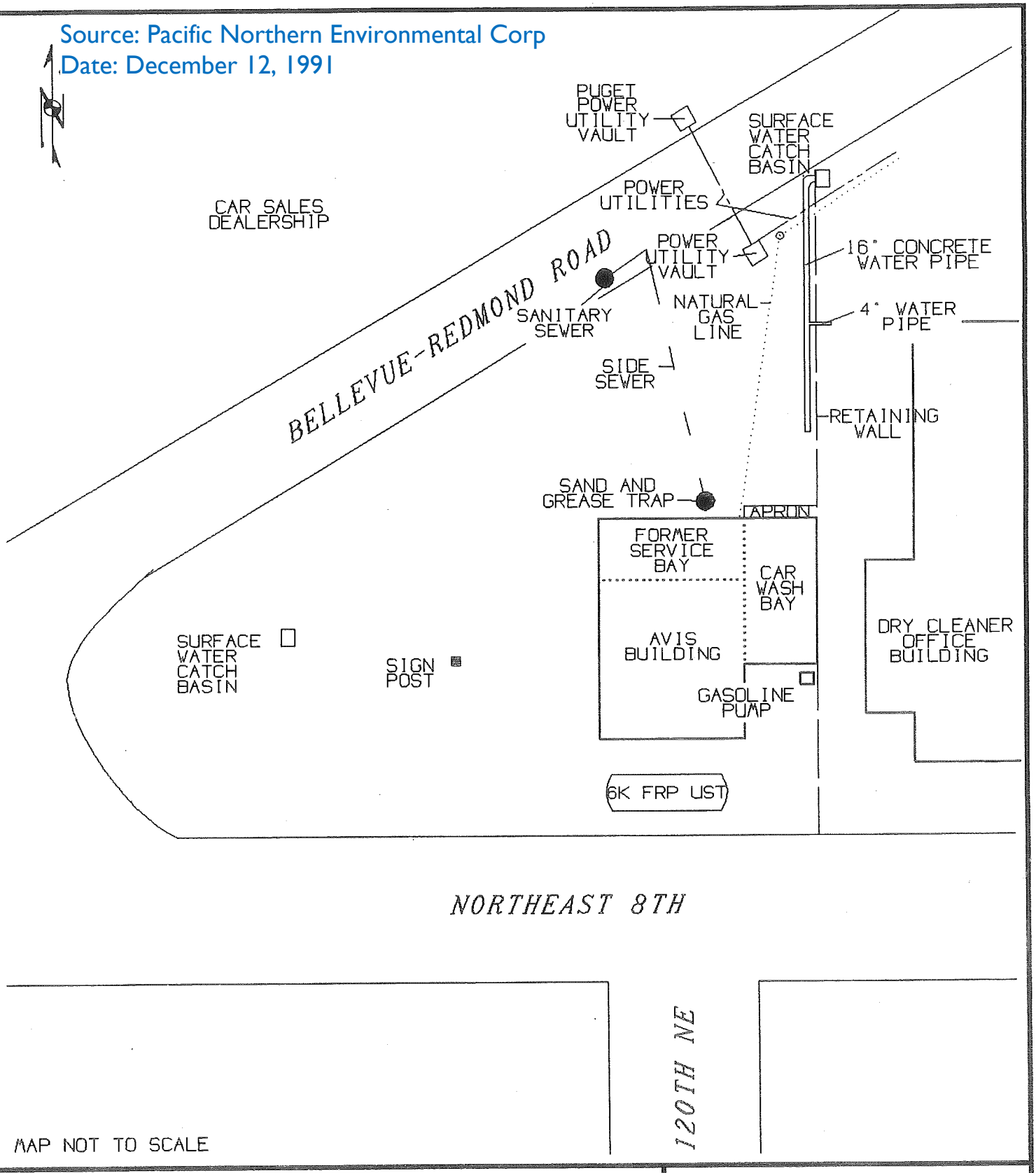
11969 BELLEVUE-REDMOND ROAD
BELLEVUE, WASHINGTON 98004

FIGURE 2

SITE FACILITY MAP

PETROLEUM SERVICES UNLIMITED

Source: Pacific Northern Environmental Corp
Date: December 12, 1991



AVIS SALES LOT

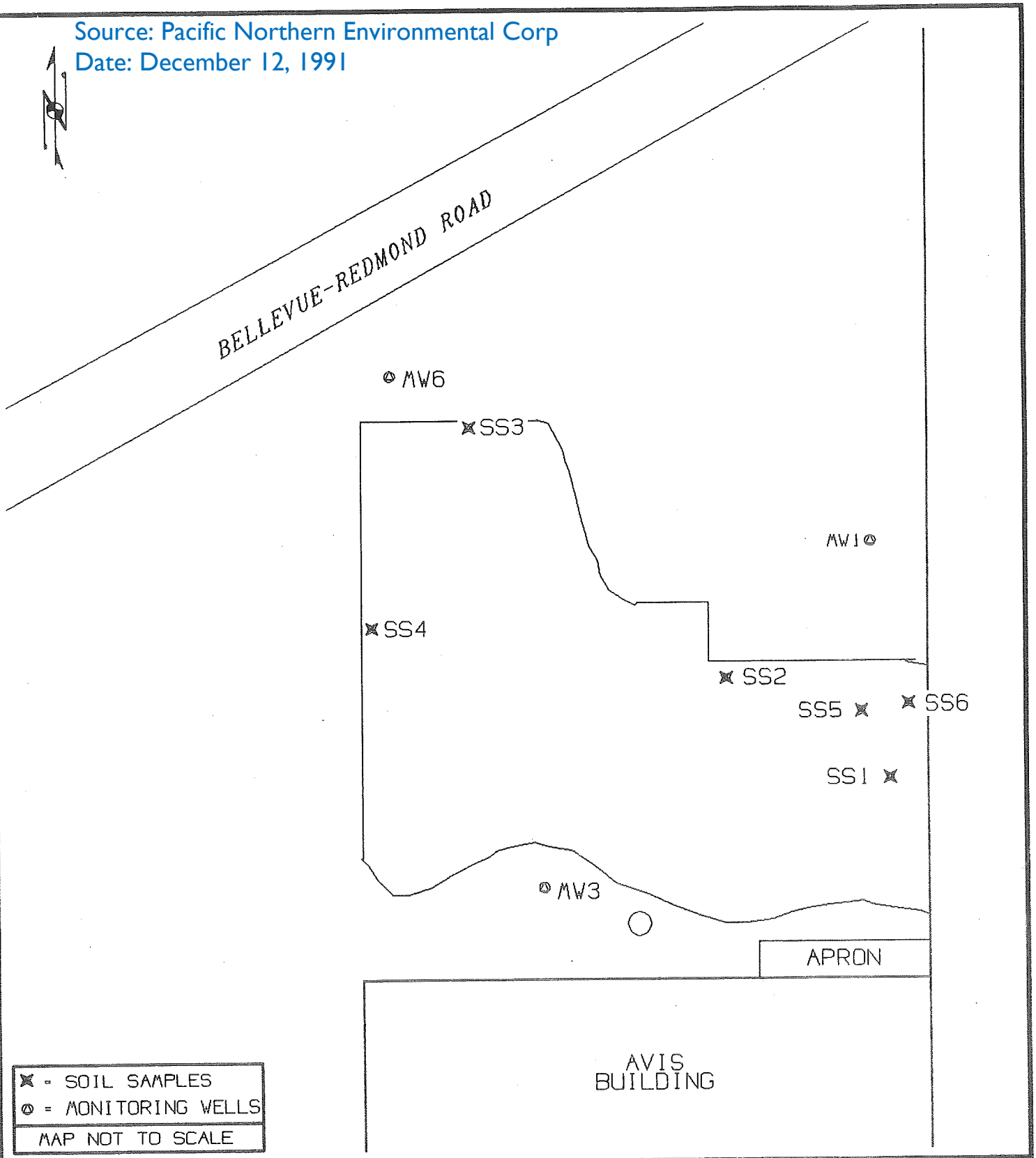
11969 BELLEVUE-REDMOND ROAD
BELLEVUE, WASHINGTON 98004

FIGURE 3

UTILITIES MAP

PETROLEUM SERVICES UNLIMITED

Source: Pacific Northern Environmental Corp
Date: December 12, 1991



AVIS SALES LOT

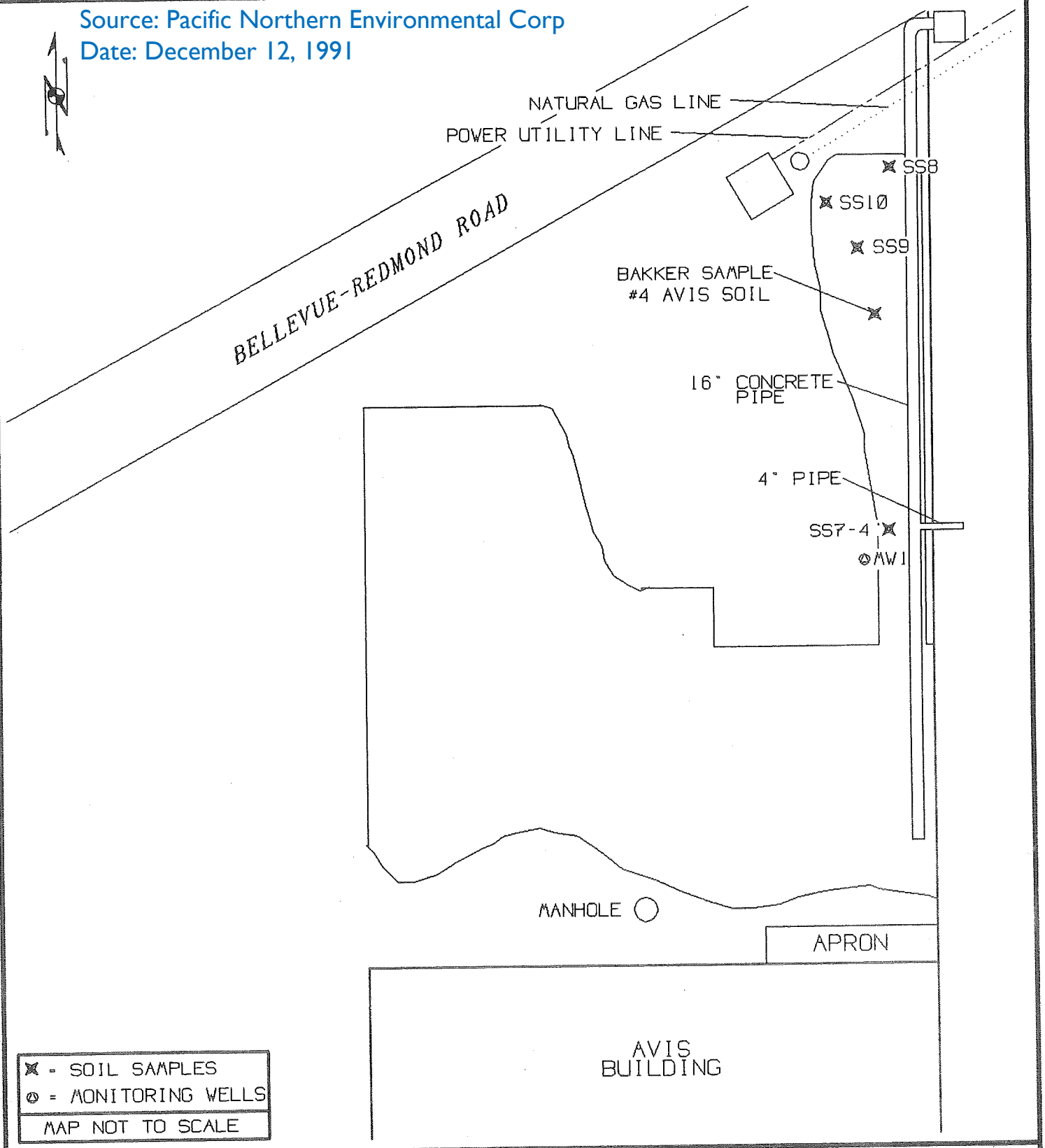
11969 BELLEVUE-REDMOND ROAD
BELLEVUE, WASHINGTON 98004

FIGURE 4

EXCAVATION AND SOIL SAMPLE LOCATIONS

PETROLEUM SERVICES UNLIMITED

Source: Pacific Northern Environmental Corp
Date: December 12, 1991

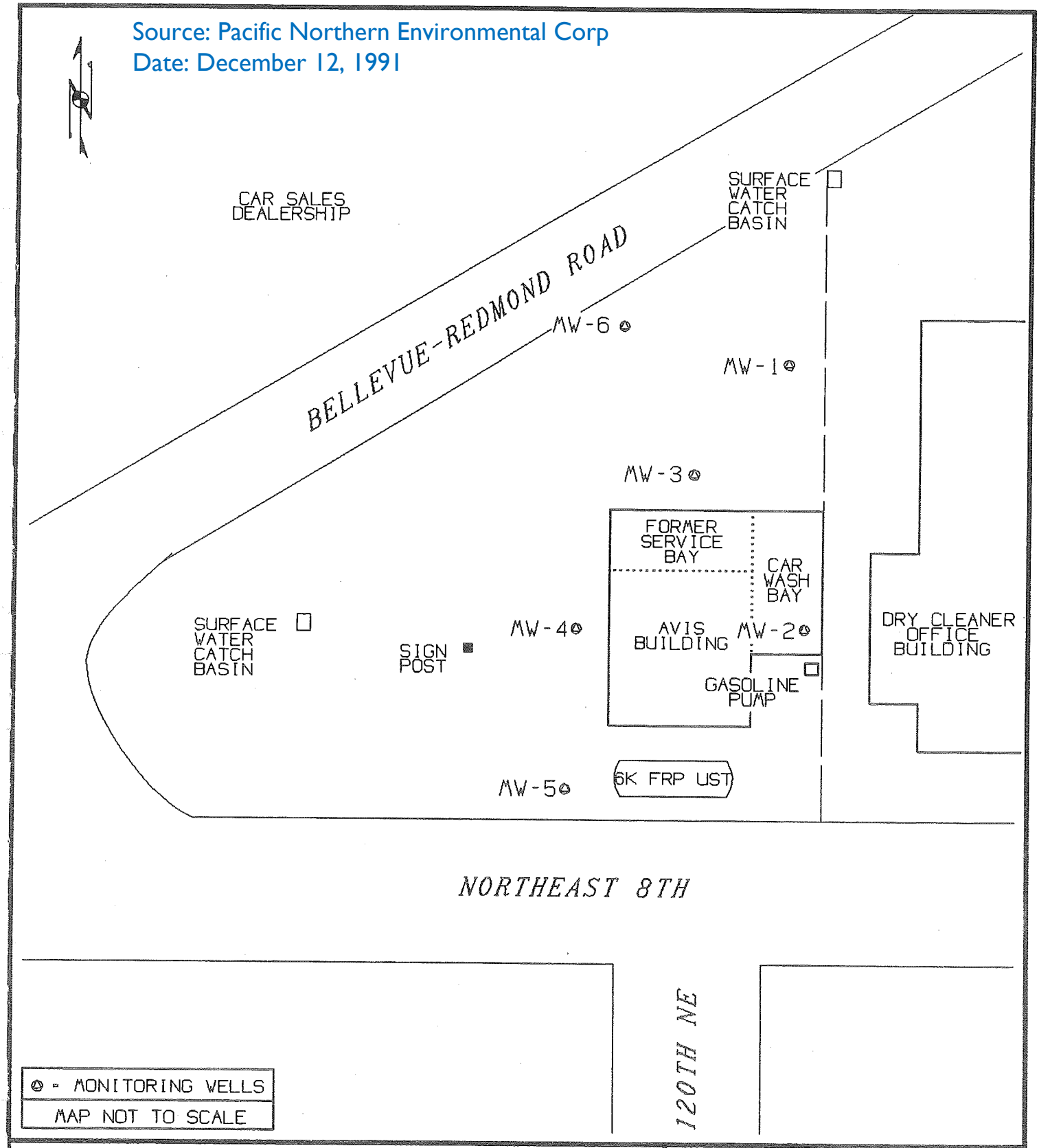


AVIS SALES LOT
11969 BELLEVUE-REDMOND ROAD
BELLEVUE, WASHINGTON 98004

FIGURE 5
EXCAVATION AND SOIL SAMPLE LOCATIONS

PETROLEUM SERVICES UNLIMITED

Source: Pacific Northern Environmental Corp
Date: December 12, 1991



AVIS SALES LOT
11969 BELLEVUE-REDMOND ROAD
BELLEVUE, WASHINGTON 98004

FIGURE 6
GROUNDWATER WELL LOCATIONS

PETROLEUM SERVICES UNLIMITED

PROJECT NAME: CITY OF BELLEVUE - 120TH AVENUE NE WIDENING PROJECT
PROJECT NO. : 0526-170-03
DATE : 01/16/13
CREATED BY : FK
TITLE : HISTORICAL DATA SUMMARY MAP

BARRIER
MERCEDES
BUILDING

ASPHALT PARKING AREA AND DRIVEWAY

B-119E

CONCRETE SIDEWALK

CURRENT ASSUMED LIMIT OF F-LISTED SOIL

GEIMW-2

CONCRETE SIDEWALK

LANDSCAPE AREA

EXTENT OF TANK BACKFILL AREA

FORMER 6,000 GAL STODDARD SOLVENT UST

GEI-111E

GEI-110E

B-118E

ASPHALT

GEIMW-1

SOIL SAMPLE PCA-SS8-6' (MINERAL SPIRITS @ 1400PPM)

GW SAMPLE 1,1-DICHLOROETHANE @ 3 ppb

ASSUMED RE-ROUTE OF 4" CONCRETE WATER PIPE

GEI-109E

B-117E

CONCRETE SIDEWALK

BELLEVUE - REDMOND ROAD

KING COUNTY SANITARY SEWER

MANHOLE

EXISTING CATCH BASIN

POWER LINES

FORMER NATURAL GAS LINE (WASHINGTON)

GEI-107E

4" CONCRETE WATER PIPE (STATUS UNKNOWN)

FORMER BOILER ROOM

FORMERLY BAKKER DRY CLEANERS BUILDING

EXISTING BARRIER

PRE-OWNED PORSCHE OFFICE

MW-6

GEI-106E

GEI-105E

#4 AVIS SOIL SAMPLE (MINERAL SPIRITS @ 87 PPM)

GEI-114E

GEI-108E

CONCRETE

PCA-SS3-5.5 (MINERAL SPIRITS @ 63 PPM)

MW-1

TCE 9 ppb

PCE 7 ppb (GW SAMPLE)

SOIL SAMPLE PCA-SS7-4' (NOT ANALYSED FOR MINERAL SPIRITS)

ND

PCA-SS1-6.5' (MINERAL SPIRITS @ 2100 PPM)

FORMER SIDE SEWER PIPE (BACKFILLED W/PEA GRAVEL)

MW-3

FORMER 16" CONCRETE SEWER PIPE (REMOVED DURING EXCAVATION)

FORMER SAND & GREASE TRAP MANHOLE (STATUS UNKNOWN)

FORMER SERVICE BAY

FORMER CAR WASH BAY

AVIS OFFICE BLDG

GEI-103E

ROCKERY

EXISTING CATCH BASIN

FORMER AVIS FACILITY

B-116E

EXISTING ~8' CONCRETE RETAINING WALL

ASPHALT PARKING AREA AND DRIVEWAY

B-115E

PROPOSED WALL 2

GEI-102E

GEI-104E

MW-5

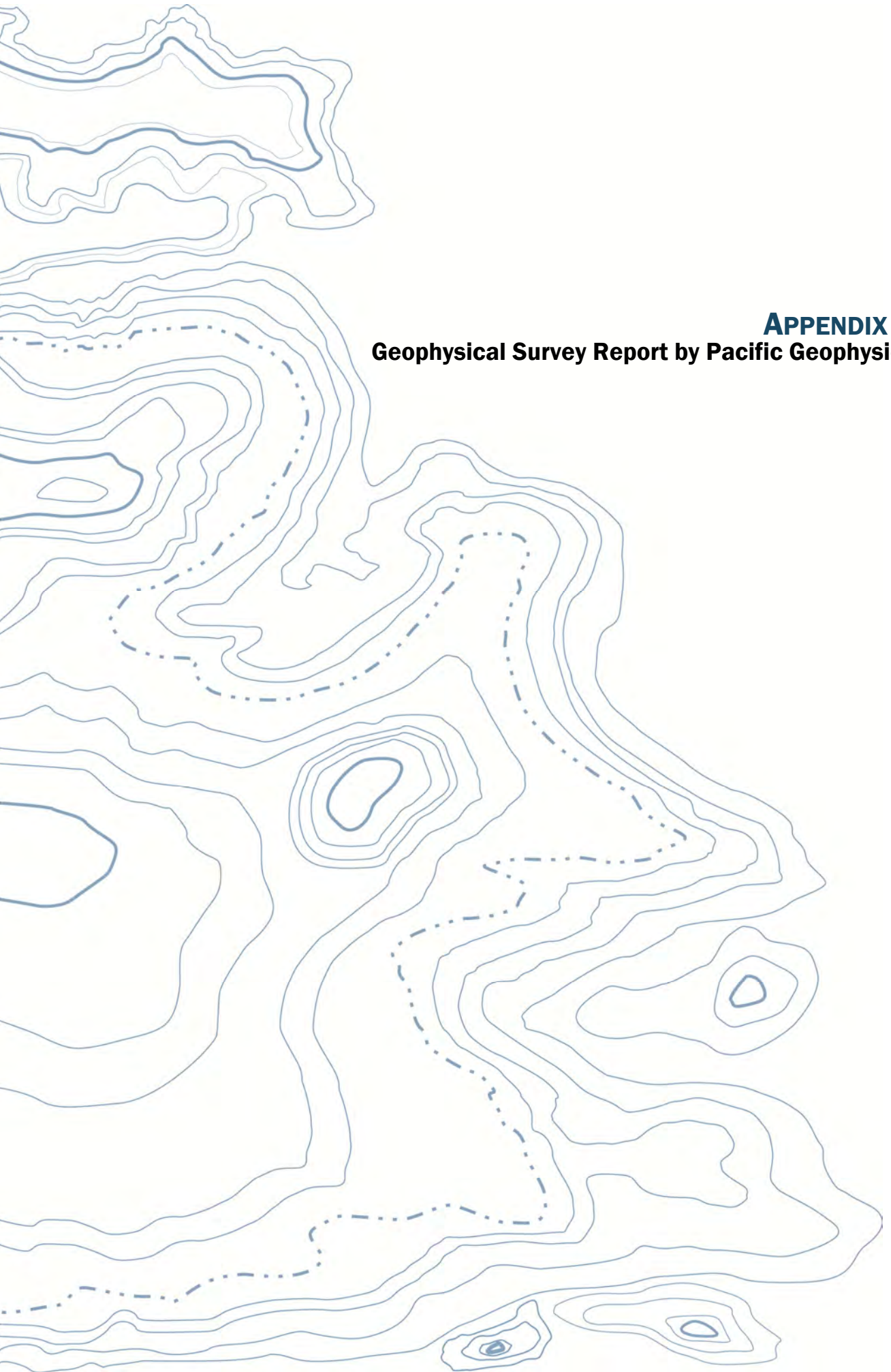
EXISTING GASOLINE UST & CONCRETE PAD

CONCRETE SIDEWALK

SOLDIER PILES

NE 8TH STREET

ORIGINAL



APPENDIX D
Geophysical Survey Report by Pacific Geophysics

PACIFIC GEOPHYSICS
Applied Geophysics

GEOPHYSICAL SURVEY REPORT

Geophysical Survey

Barrier Motors Parking Lot
11855 NE Redmond-Bellevue Road
Bellevue, Washington

Project Number: 111114
Survey Date: December 19, 2011

Prepared for:
GeoEngineers, Inc.

Contents

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Introduction

Pacific Geophysics conducted a geophysical survey at three locations within the parking lot of Barrier Pre-Owned Motors in Bellevue Washington to detect possible underground storage tanks (USTs). Reportedly, a car rental facility operating a 1000-gallon UST was located on the site. The facility's buildings have been razed.

A magnetometer was used to scan the subsurface for large, buried objects that could be USTs. Ground penetrating radar (GPR) and handheld metal detectors were used to investigate five magnetic anomalies detected by the magnetometer. No buried metallic underground objects that could be USTs were detected in the radar data collected across the anomalies. A non-conductive UST was detected beneath a concrete pad located in the western parking lot. Reportedly, a fuel dispenser was located in this southeast part of this survey area.

This report includes descriptions of the site, the scope of work, the equipment and methodology and the results of the survey.

Site Description

Figure 1 shows the location of the Site at 11855 NE Redmond-Bellevue Road in Bellevue, Washington.

Three areas were surveyed and are shown in figure 1:
Area 1 is the triangular, asphalt-covered western parking lot west of a small retaining wall, excluding the sidewalks.
Area 2 is a 67x45-foot rectangular asphalt-covered parking area west of the building.
Area 3 is a strip of asphalt north of the building.

A post-and-chain fence, parked cars and several lights and signs created magnetic interference in area 1. Small metallic objects buried within several feet of these features could be missed. The building and parked cars created magnetic interference in area 3.

Two square vaults seen on the rectangular concrete pad contained a leak detection system and two fill ports, indicating the existence of a UST. No other surface evidence of USTs including vent pipes and/or fill ports was seen during the survey.

Scope of Work

The primary goal of the survey was to detect a UST. Reportedly, a car rental facility occupied the site and handled refueling on site. The reported size of the UST was 1000 gallons.

Jeff Mann and Nikos Tzetos of Pacific Geophysics conducted the survey for Mr. Jacob Letts of the Seattle office of GeoEngineers on December 19, 2011. Mr. Fasih Khan was on site during the fieldwork.

This report was written by Nikos Tzetos, reviewed by Jeff Mann and emailed to Mr. Letts on December 24, 2011.

Geophysical Equipment and Survey Procedures

General Procedures:

A magnetometer is the first instrument used to investigate a site for subsurface ferrous metallic objects because it enables the operator to rapidly scan the subsurface. Data are collected across an accurately measured survey grid established on the site. For larger areas, where it would be difficult to set up an accurate survey grid, the magnetometer can be coupled to a GPS antenna.

Upon completing the data acquisition phase of the survey, a contour map of the earth's local magnetic field is produced. Small, hand-held metal detectors are then used to more thoroughly investigate the magnetic anomalies detected with the magnetometer. These instruments are excellent at detecting and characterizing buried metal objects; however, they do not record data, and are not adequate to survey large areas.

Ground Penetrating Radar (GPR) is usually the last method used to investigate a site for buried metallic objects. The shape of radar reflections produced by buried objects may assist in the interpretation of magnetic anomalies.

Magnetic Survey:

At this site, a Geometrics G-858-G Portable Cesium Magnetometer was used to acquire the magnetic data. Magnetic data were collected along an orthogonal survey grid established over the survey area with measuring tapes. For most UST or pit surveys a line spacing of 5-feet is used. Data points along lines are spaced about 1-foot apart at normal walking speed.

A colored contour map showing the earth's local magnetic field was created in the field. Magnetic anomalies higher in amplitude than the normal local magnetic background are shown in red, and are usually found over areas where ferrous objects are located below the sensor. The objects may be surface objects such as manholes or other surface features, or buried objects of interest, such as USTs, drums, pipes and debris. Magnetic anomalies at or below the amplitude of the local magnetic field are shown in blue, and are caused by ferrous objects located above the sensor, such as buildings, poles, chain-link fences and other surface objects.

Surface objects can produce significant magnetic interference that can conceal buried objects of interest. The metallic objects that produced significant magnetic interference at this site are noted above in the Site Description.

Hand-held instruments:

An Aqua-Tronics A6 Tracer and a Schonstedt GA92XTd magnetic gradiometer were used to locate and investigate the anomalies detected by the magnetometer. These instruments can pinpoint the peaks and troughs of the anomalies, and in many cases determine if an object is linear (pipe or utility) or three-dimensional (UST).

The transmitter unit of a Radio Detection RD8000 PDL pipe and cable detector may be used to electrically charge an accessible metal pipe or utility. The charged object

can then be “traced” using the receiver unit. The receiver can also detect some metallic features indirectly, using the system’s “radio” function.

Ground Penetrating Radar:

Following the hand-held instrument survey, a GSSI SIR-2000 GPR system coupled to a 270 MHz antenna may be used to investigate suspicious magnetic anomalies. Radar reflections across the anomalies may give clues to the size and shape of the buried metallic objects producing them. Objects themselves are not actually seen. Under some conditions a 900 MHz antenna may be used to investigate shallow features and small pipes. This antenna has greater resolution but less power so it cannot penetrate to depths of more than 2 or 3 feet. Because of its smaller aperture the signal may be able to pass between strands of rebar depending on their spacing.

The collection of radar data is very time consuming and the data may be ambiguous; therefore, GPR is not a cost-effective method to “blindly” scan a site for buried metallic objects. Radar is, however, one of the only methods capable of detecting non-metallic features, including PVC and clay pipes, septic tanks, drywells, trenches and excavations.

GPR data may be collected on a grid when searching for non-conductive features like UST pits or pipes.

Additional information regarding these instruments, methods, surveys and limitations with references can be found in the Appendix.

Results

Area 1:
Figure 2 is a colored magnetic contour map of the magnetic data collected in area 1, contoured at 250 nT (nanoTesla). Magnetic lows, mainly caused by ferrous objects located above the magnetometer sensor, are shown in blue. At this site, the fence, the cars and the traffic lights created magnetic lows. Magnetic “highs” caused by surface or near-surface objects are shown as red contours. Figure 3 is an interpretation map, showing the results of our survey.

Seven magnetic anomalies were investigated and are described below:

- No three dimensional object was detected with hand-held metal detectors and GPR at anomaly A. No recognizable reflectors were seen in radar.
- A hard finite reflector was seen at magnetic anomaly B. This reflector is not from a UST.
- Anomaly C is caused by vaults and ports within a concrete pad. They were opened to reveal three fill ports and a “leak detector” system. GPR profiles across the pad showed a subtle, curved reflector, typical of a UST. The tank appears to be made of fiberglass, based on the lack of a major magnetic anomaly and the subtleness of the reflection. The edges of the tank were difficult to detect because of the tank’s material and the interference from the reinforced-concrete pad. The tank appears to be approximately 14 feet by 8 feet in size, giving it a capacity of about 5000 gallons.
- Numerous radar traverses were made across anomalies marked with D. No tank-like radar reflections were seen in the GPR profiles; possible pipes were detected with the metal detectors. The high-frequency high-low cluster of

anomalies to the north of D is typical of a reinforced concrete pad. The Tracer metal detector was used to outline a possible floor slab that matched well with an elevated asphalt patch and the reported location of a former building. The area between the UST and the floor slab, (anomalies D) appears disturbed and filled in.

- A single-point object appears to be causing anomaly E. It may be a floor fitting or a cut-off vertical plumbing pipe.
- Magnetic anomalies marked with F are caused by reinforced concrete square patches visible on the surface.

Area 2:
The survey covered a rectangular area measuring 45 by 67 feet, west of the parking curb to the west of the building.

A group of high-frequency, high-low anomalies can be seen covering the western half of the survey area; they are typical of a reinforced concrete pad. The Tracer metal detector was used to locate the edges of a possible floor slab that matched well with an elevated asphalt patch, outlined by cracks. Another building was probably located in this area.

The north and east edges of this building floor are shown in figure 4.

Area 3:
Figure 5 shows the magnetic data in this area, contoured at 250 nT. Major interference was caused by the building and parked cars, as shown by the blue, magnetic-low contours.

No magnetic anomalies caused by USTs were detected with this survey.

Conclusion

Several magnetic anomalies were detected in area 1; most appeared to be caused by metallic surface objects. One set of anomalies is interpreted to be caused by the floor slab of a former building. A non-conductive UST was detected under a concrete pad near the southeast corner of area 1. No other USTs were detected.

A series of anomalies caused by another building floor slab was detected in area 2. No other anomalies were detected in this survey area.

No suspicious magnetic anomalies were seen in the magnetic data collected in area 3.

Limitations

The conclusions presented in this report were based upon widely accepted geophysical principles, methods and equipment. This survey was conducted with limited knowledge of the site, the site history and the subsurface conditions.

The goal of near-surface geophysics is to provide a rapid means of characterizing the subsurface using non-intrusive methods. Conclusions based upon these methods are generally reliable; however, due to the inherent ambiguity of the methods, no single

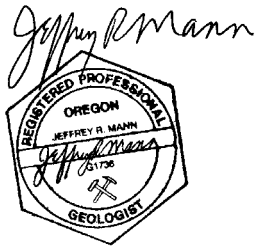
interpretation of the data can be made. As an example, rocks and roots produce radar reflections that may appear the same as pipes and tanks.

Under reasonable site conditions, geophysical surveys are good at detecting changes in the subsurface caused by manmade objects or changes in subsurface conditions, but they are poor at identifying those objects or subsurface conditions.

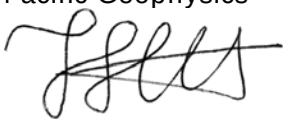
Objects of interest are not always detectable due to surface and subsurface conditions. The deeper an object is buried, the more difficult it is to detect, and the less accurately it can be located.

The only way to see an object is to physically expose it.

Jeff Mann December 24, 2011
Pacific Geophysics

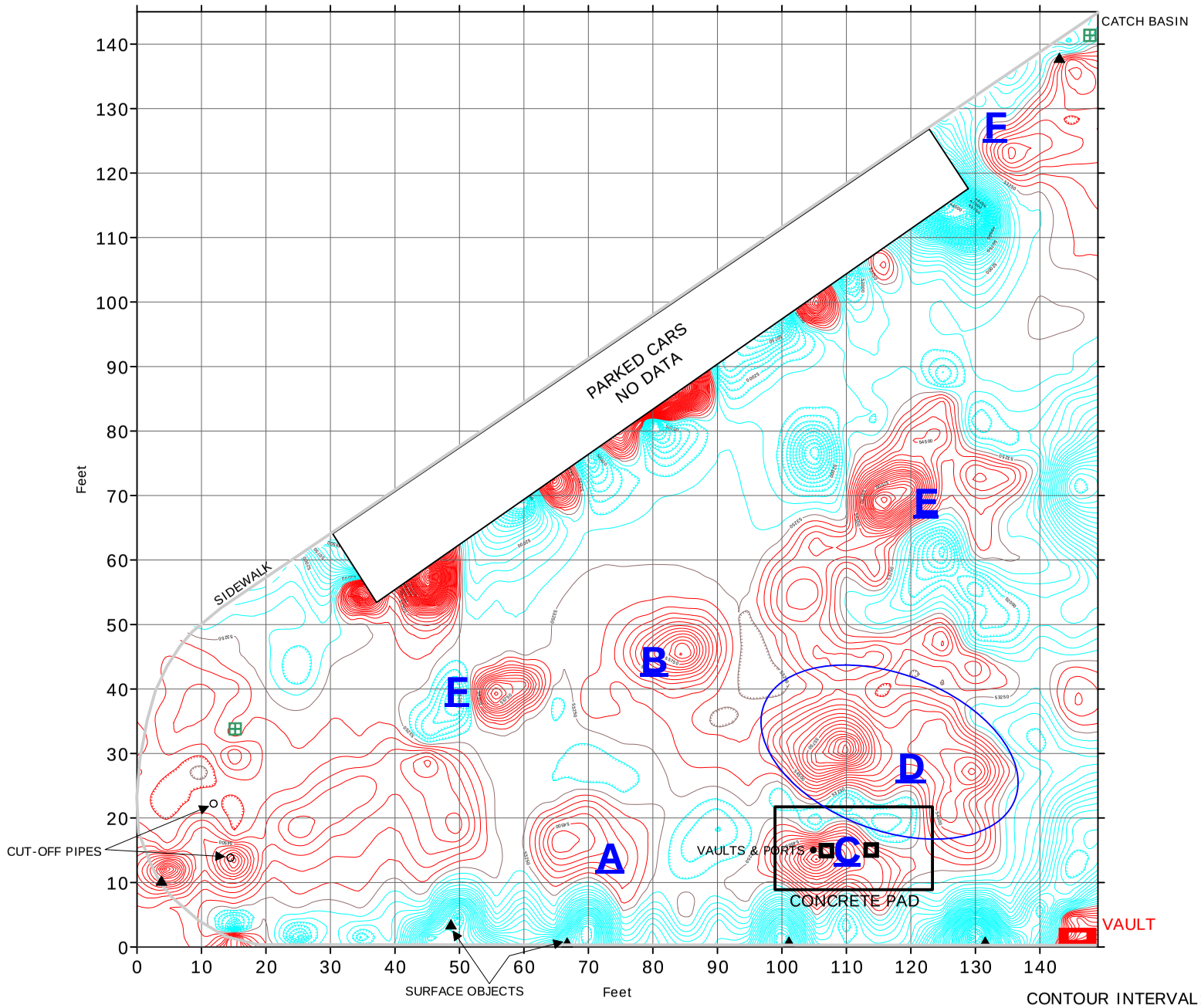


Nikos Tzetos December 24, 2011
Pacific Geophysics



PACIFIC GEOPHYSICS
Applied Geophysics

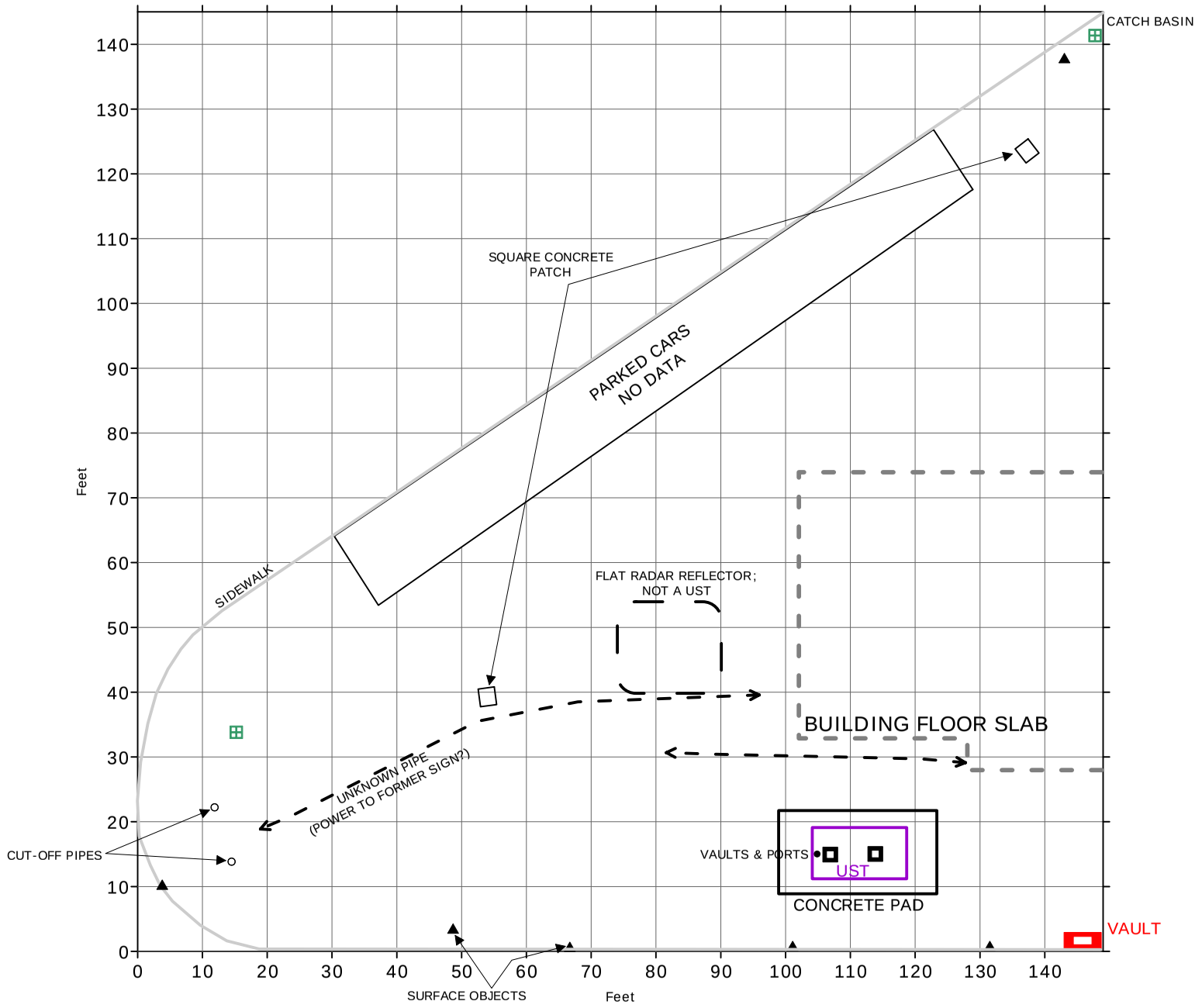
FIGURE	Site Location Photo	
1	Project: 111114	Barrier Motors 11855 NE Redmond-Bellevue Road Bellevue, Washington
	Drawn by : NT	Prepared for: GeoEngineers
		Survey Date: Dec. 19, 2011



CONTOUR INTERVAL: 250 nT

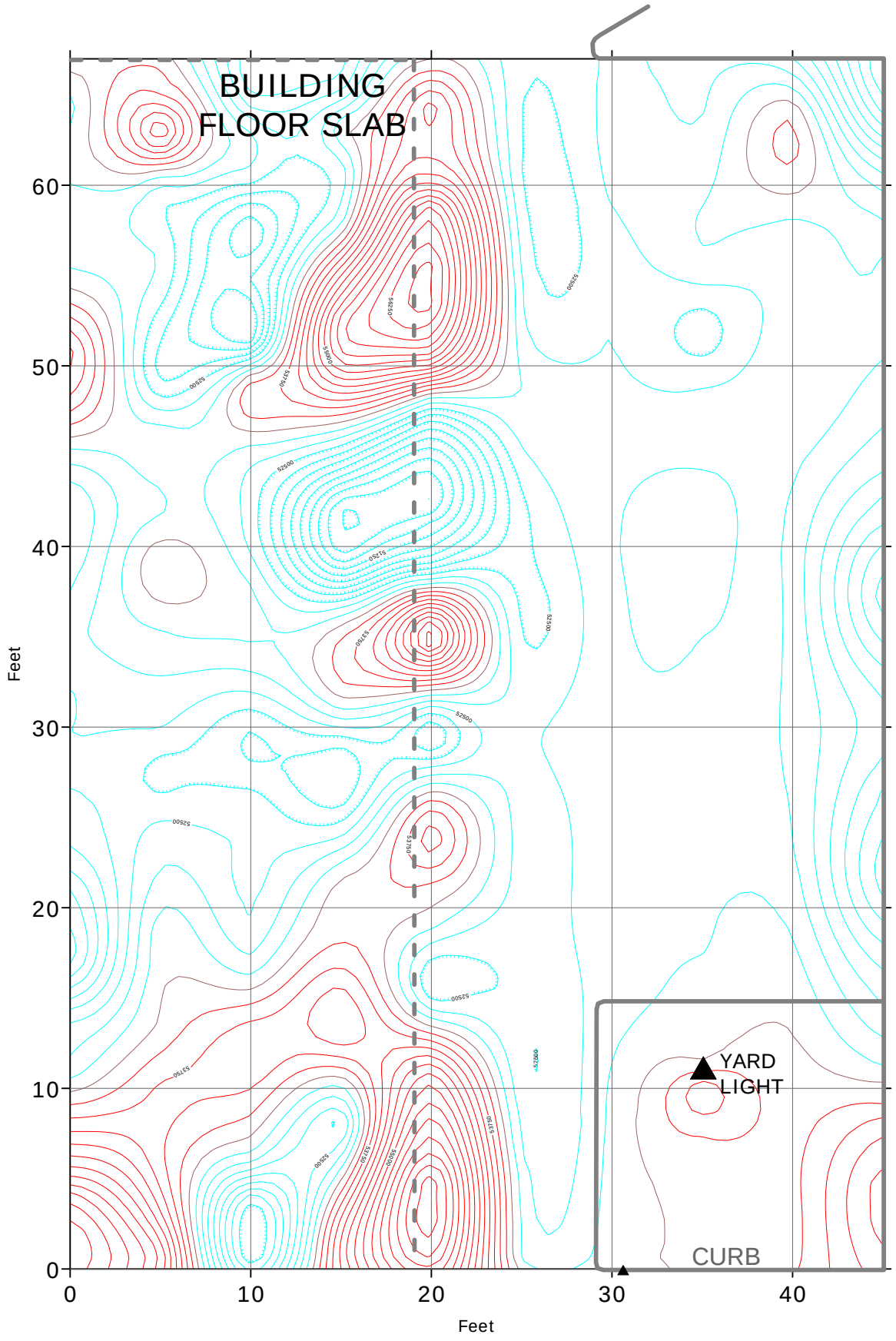
PACIFIC GEOPHYSICS
Applied Geophysics

FIGURE	Area 1: Magnetic Contour Map	
2	Project: 111114	Barrier Motors 11855 NE Redmond-Bellevue Road Bellevue, Washington
	Drawn by : NT	Prepared for: GeoEngineers
		Survey Date: Dec. 19, 2011



PACIFIC GEOPHYSICS
Applied Geophysics

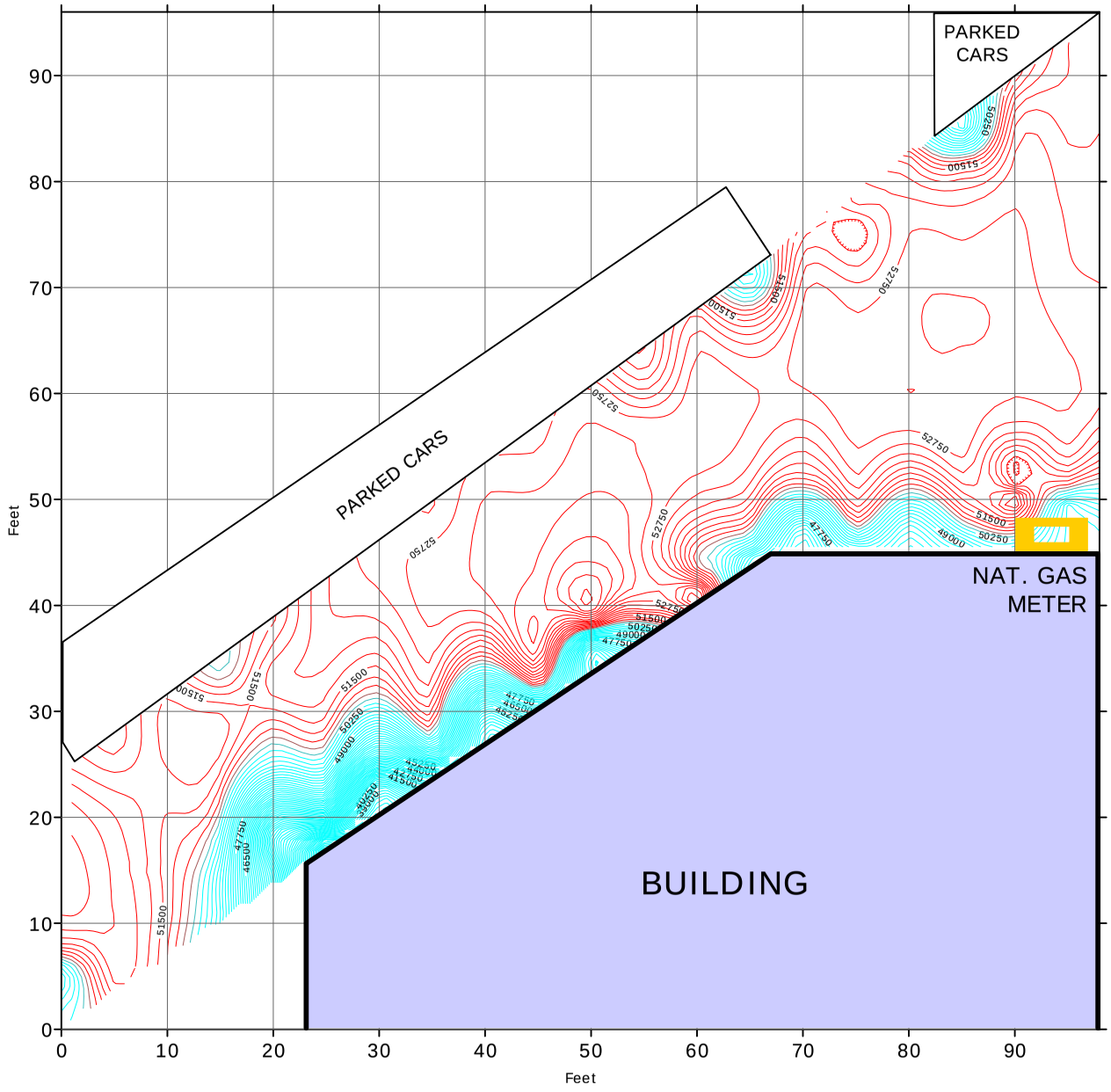
FIGURE 3	Area 1: Interpretation Map	
	Project: 111114	Barrier Motors 11855 NE Redmond-Bellevue Road Bellevue, Washington
	Drawn by : NT	Prepared for: GeoEngineers
		Survey Date: Dec. 19, 2011



CONTOUR INTERVAL: 250 nT

PACIFIC GEOPHYSICS
Applied Geophysics

FIGURE	Area 2: Magnetic Contour Map	
4	Project: 111114	Barrier Motors 11855 NE Redmond-Bellevue Road Bellevue, Washington
	Drawn by : NT	Prepared for: GeoEngineers
		Survey Date: Dec. 19, 2011



CONTOUR INTERVAL: 250 nT

PACIFIC GEOPHYSICS
Applied Geophysics

FIGURE	Area 3: Magnetic Contour Map	
5	Project: 111114	Barrier Motors 11855 NE Redmond-Bellevue Road Bellevue, Washington
	Drawn by : NT	Prepared for: GeoEngineers
		Survey Date: Dec. 19, 2011

Appendix A. Geophysical Survey Methods

Magnetometer Surveys

Small disturbances in the Earth's local magnetic field are called "magnetic anomalies". These may be caused by naturally occurring features such as metallic mineral ore bodies, or from manmade features such as metal buildings, vehicles, fences, and underground storage tanks. The magnetometer only detects changes produced by ***ferrous*** objects. Aluminum and brass are non-ferrous metals and cannot be detected using a magnetometer.

Over the years different technologies have been used in magnetometers. Older proton precession magnetometers were slow and could only record data at discreet points. The Geometrics G-858 Portable Cesium Magnetometer used to collect magnetic data for Pacific Geophysics uses one of the most recent methods to detect magnetic anomalies. This instrument is carried by hand across the site. The sensor is carried at waist level. Typically individual data points collected at normal walking speed are about 6" apart along survey lines usually 5 feet apart, depending on the dimensions of the target objects.

A detailed discussion describing the method this unit uses is available at Geometrics.com.

It is critical to know the exact location of each data point so that if an anomaly is detected it can be accurately plotted on a magnetic contour map and further investigated. At most small sites, data are collected along straight, parallel survey lines set up on the site before the data collection stage begins. Measuring tapes and cones are usually used. For very large, complex sites, the G-858 can be connected to a Global Positioning System (GPS) antenna which allows the operator to collect accurately-located data without establishing a survey grid. With GPS, data are collected and positioned wherever the operator walks. A limitation using GPS is that the GPS antenna must have line of sight with the GPS satellites. Data can be mislocated if the GPS antenna is under trees or near tall buildings.

Data are stored in the unit's memory for later downloading and processing. A colored magnetic contour map of the data is plotted in the field. Usually, ferrous objects situated below the sensor produce magnetic "highs" and anomalies located above the sensor produce magnetic "lows". Magnetic highs are of interest to the operator since most objects of interest are located underground. Depending on the orientation, shape and mass of a metallic object, a high/low pair of magnetic anomalies may be present. In the northern hemisphere the magnetic low is located north of the object and the magnetic high toward the south. The object producing the anomaly is located part way between the high and the low anomalies.

Geographical features are plotted on the contour map. Magnetic anomalies appearing to be caused by objects of interest are then investigated using several small hand-held metal detectors. If an object still appears suspicious it may be investigated with GPR.

Magnetometer surveys have limitations. Magnetometers only detect objects made of ferrous (iron-containing) metal. Large ferrous objects (buildings, cars, fences, etc.) located within several feet of the sensor create interference that may hide the anomaly produced by a nearby object of interest.

Ground Penetrating Radar

A Geophysical Survey Systems, Inc. (GSSI) SIR-2000 GPR system coupled to a 270-MHz GSSI antenna is used to obtain the radar data for our surveys.

The 270-MHz radar antenna used for the surveys is designed to transmit and receive electromagnetic energy. EM energy is transmitted into the material the antenna passes over. A portion of that energy is reflected back to the antenna and amplified. Reflections are displayed in real-time in a continuous cross section. Reflections are produced where there is a sufficient electrical contrast between two materials. Changes in the electrical properties (namely the dielectric constant) that produce radar reflections include the moisture content, porosity, mineralogy, and texture of the material. Metallic objects of interest exhibit a strong electrical contrast with the surrounding material and thus produce relatively strong reflections. Non-metallic objects of interest (septic tanks, cesspools, dry wells, PVC and clay tile pipes) are not always good reflectors.

Radar data are ambiguous. It can be difficult to distinguish the reflection produced by an object of interest from the reflection caused by some natural feature. Rocks or tree roots have reflections that appear similar to reflections from pipes. In concrete investigations reflections produced by metal rebar look exactly like those from electrical conduit or post-tension cables. Objects with too small an electrical contrast may produce no reflections at all and may be missed.

In addition to interpreting ambiguous data, radar has several limitations that cannot be controlled by the operator. The radar signal is severely attenuated by electrically conductive material, including wet, clay-rich soil and reinforced concrete. The quality of the data is affected by the surface conditions over which the antenna is pulled. Ideally the antenna should rest firmly on a smooth surface. Rough terrain and tall grass reduce the quality of radar data.

It is the job of an experienced interpreter to examine the GPR profiles and deduce if reflections are from objects of interest. A GPR interpreter cannot see underground, but can only interpret reflections based on experience.

The only way to truly identify an object is to excavate.

Handheld Metal detectors

Two small, non-recording metal detectors are used to locate suspect magnetic anomalies detected using the G-858 Magnetometer in order to determine the likely cause of the anomaly. First, the magnetic contour map and a Schonstedt Magnetic Gradiometer are used to locate the center of the magnetic anomalies.

Once the anomaly is located an Aqua-Tronics Tracer is used to determine if the object producing the anomaly is a possible object of interest. Most anomalies are at least in part produced by features observed on the ground surface.

Schonstedt Magnetic Gradiometer: This magnetometer has two magnetic sensors separated vertically by 10”. The magnetic field surrounding a ferrous object is strongest near the object and decreases rapidly as the distance increases. If the magnitude measured by the sensor located in the tip of the Schonstedt is very high, and the magnetic field measured by the sensor located farther up the shaft of the

Schonstedt is low, there is a large vertical magnetic gradient and the instrument responds with a loud whistle indicating the object is near the surface. If there is a small difference in the magnitudes measured by the two sensors, the object is deeper. The instrument responds with a softer tone. A discussion of this instrument is available at Schonstedt.com.

Aqua-Tronics A-6 Tracer: The Aqua-Tronics A-6 Tracer uses a different method of detecting metallic objects. This instrument measures the electrical conductivity of a metal object. It is capable of detecting any electrically conductive metal, including non-ferrous aluminum and brass. The Tracer is capable of detecting three-dimensional objects as well as pipes.

The Tracer consists of a transmitter coil and a receiver coil. In the absence of any electrically conductive material in the vicinity of the Tracer, the electromagnetic field around each coil is balanced.

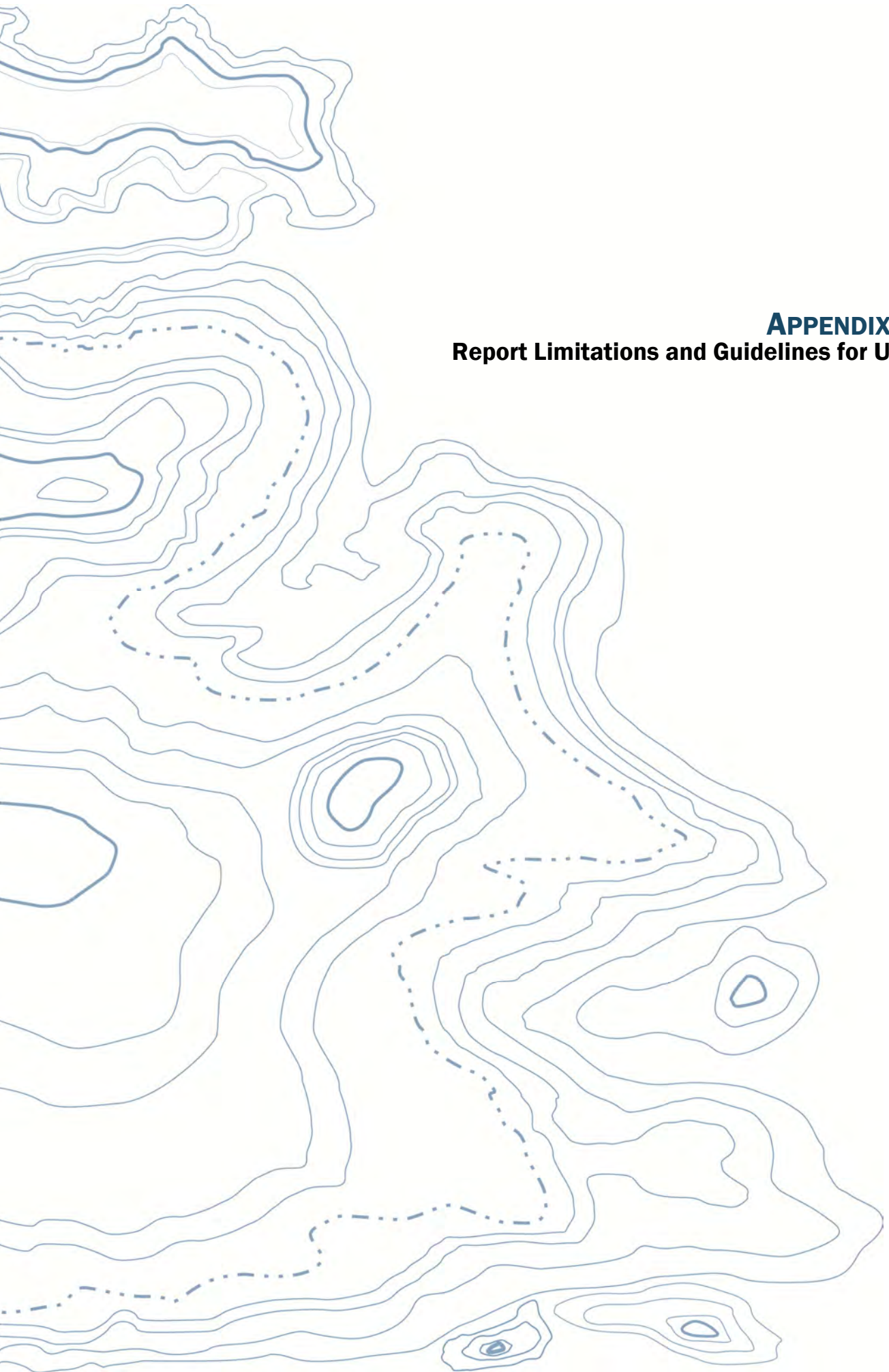
Basically the electromagnetic field produced by the transmitter induces an electric current into the area surrounding the instrument. Nearby conductive objects distort the EM field. The balance between the two coils is disturbed and the instrument produces an audible tone and meter indication.

Radio Detection RD8000 PDL: This instrument may be used to detect buried, conductive pipes and utilities. It consists of a transmitter and a receiver and can be used in two configurations.

The transmitter may be used to directly apply a small electrical current to exposed, electrically conductive pipes and utilities. The RD receiver is then able to “trace” the underground portion of the pipe or utility, under some conditions for several hundred feet. The transmitter can also induce an electrical current into buried pipes and utilities where direct contact is not available.

The receiver can also be used alone. It has the capability to locate pipes and utilities by detecting the very small electrical currents induced into the features by nearby AM/FM radio stations.

The receiver also has an AC power function that may be used to detect underground power lines.



APPENDIX E
Report Limitations and Guidelines for Use

APPENDIX E
REPORT LIMITATIONS AND GUIDELINES FOR USE[1]

This appendix provides information to help you manage your risks with respect to the use of this report.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geosciences practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these "Report Limitations and Guidelines for Use" apply to your project or site.

Environmental Services Are Performed for Specific Purposes, Persons and Projects

This report has been prepared for the exclusive use of Parsons Brinckerhoff, the City of Bellevue, their authorized agents and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment or remedial action study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except Parsons Brinckerhoff, the City of Bellevue should rely on this report without first conferring with GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report Is Based on a Unique Set of Project-Specific Factors

This report applies to the study area and properties indicated in the report.

GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

[1] Developed based on material provided by ASFE, The GeoProfessional Association; www.asfe.org.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

No third party may rely on the product of our services unless GeoEngineers agrees in advance, and in writing to such reliance. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

Environmental Regulations Are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Subsurface Conditions Can Change

This report is based on conditions that existed at the time our site studies were performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes and slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Biological Pollutants

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If Client desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.

Do Not Redraw the Exploration Logs

Environmental scientists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in an environmental report should never be redrawn for inclusion in other design drawings. Only photographic or electronic reproduction is acceptable, but recognize that separating logs from the report can elevate risk.

Geotechnical, Geologic and Environmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site- and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on site in instances that we were not aware of or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Have we delivered World Class Client Service?
Please let us know by visiting **www. geoengineers.com/feedback**.

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