



**PHASE I
ENVIRONMENTAL SITE ASSESSMENT**

0 E. Commercial Row
Reno, Nevada, 89512
(APN: 011-450-24)

Prepared for:

Nevada Division of Environmental Protection-Brownfields Program
Attn: Mr. David Friedman
901 S. Stewart St., Suite 4001
Carson City, NV 89701
Task BC03-19
Category 54
Organizational Code 5429
Job Number 6681717

Prepared by:

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Project No.: 18-02-211

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Nevada Division of Environmental Protection-Brownfields Program
901 S. Stewart St., Suite 4001
Carson City, NV 89701

Attn: Mr. David Friedman

RE: Phase I Environmental Site Assessment, 0 E. Commercial Row, (APN: 011-450-24), Reno, Nevada 89512.

Dear Mr. Friedman:

Attached is the report titled *Phase I Environmental Site Assessment, 0 E. Commercial Row, (APN: 011-450-24), Reno, Nevada 89512*. This report includes a description of activities performed and results obtained from the investigation.

Should you have questions regarding the work performed or results obtained, please do not hesitate to contact us.

Sincerely,

BROADBENT & ASSOCIATES, INC.



Brandon Reiff, PG, CEM #2300 (exp. 3/23/20)
Senior Geologist

Enclosure: Phase I Environmental Site Assessment

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List of Commonly Used Acronyms

AAI – All Appropriate Inquiries
APN – Assessor’s Parcel Number
AST – Aboveground Storage Tank
ASTM – ASTM International
Broadbent – Broadbent & Associates, Inc.
CDL – Clandestine Drug Laboratory
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
CFR – Code of Federal Regulations
CREC – Controlled Recognized Environmental Condition
EDR – Environmental Data Resources
EMI – Emissions Inventory Data
EPA – United States Environmental Protection Agency
ESA – Environmental Site Assessment
FID – Facility Inventory Database
FINDS – Facility Index System
FIFRA – Federal Insecticide, Fungicide and Rodenticide Act
HAZNET – Hazardous Waste Facility & Manifest Database
HREC – Historical Recognized Environmental Condition
LF – Landfill
LUST – Leaking Underground Storage Tank
NAL – Nevada Action Limit
NPL – National Priorities List
NDEP – Nevada Division of Environmental Protection
PCB – Polychlorinated-biphenyls
ppb – Parts per billion
ppm – Parts per million
PVC – polyvinyl chloride
RCRA – Resource Conservation & Recovery Act
RCRIS – Resource Conservation & Recovery Act Information System
RDA – Redevelopment Agency
REC – Recognized Environmental Condition
SARA – Superfund Amendments and Reauthorization Act
SLIC – Spills, Leaks, and Investigation Cleanups
SCS – Soil Conservation Service
SWEEPS – Statewide Environmental Evaluation and Planning System
SWF – Solid Waste Facility
SWRCY – Solid Waste Recycler Database
TPH – Total Petroleum Hydrocarbons
TSCA – Toxic Substances Control Act
USDA – United States Department of Agriculture
USGS – United States Geological Survey
UST – Underground Storage Tank

Executive Summary

To assist the City of Reno with their due diligence efforts, Broadbent & Associates, Inc. (Broadbent) has conducted this Phase I Environmental Site Assessment (ESA) on the real property located at 0 E. Commercial Row (APN 011-450-24), Reno, Nevada, 89512. This ESA was conducted in conformance with the scope and limitations of ASTM Practice E1527-13: *Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment Process*, and the United States Environmental Protection Agency (EPA) final rule contained within Code of Federal Regulations Volume 40 Part 312 – *Standards and Practices for All Appropriate Inquiries*. Exceptions to, or deletions from, this practice are described in Section 1 of this report. Use of the referenced ASTM Process is intended to satisfy requirements for conducting “all appropriate inquiries” (AAI) under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

This assessment has revealed recognized environmental conditions in connection with the Property. Regarding RECs:

- The Property overlies a regional plume of perchloroethylene (PCE) in groundwater. Adjacent facilities located in proximity of the Property have created PCE impacts to groundwater underlying the Property. The impacted groundwater is within the containment boundary monitored by the Central Truckee Meadows Remediation District. As of the date of this report, remedial action and/or monitoring are being conducted by applicable responsible party(s) and all indications are that this will continue until case closure is granted.
- Following remedial actions, residual total petroleum hydrocarbons (TPH) in soil above Nevada State Reportable concentrations was noted in multiple locations and at various depths on the Property.
- Based on the observations and analytical results of remediation of the tar/oil pit, groundwater may be impacted below the area of remedial excavation.
- Groundwater at a former boring (B-29) on the Property in 2000 was reported as impacted by chloroform.
- Soil beneath the building foundation has not been assessed. A variety of unidentified chemicals and/or petroleum constituents may be present beneath the remaining foundation of the former warehouse on the Property.
- The soil and groundwater beneath the former leachfield on the Property has not been fully assessed. No indication that the oil/water separator(s) on the Property were abandoned or properly disposed of is indicated in available reviewed reports.
- Evidence of oil/water separators (vent pipes) was identified on the former leachfield on the Property during the site reconnaissance.
- The Property is listed as “active” under the Voluntary Cleanup Program (VCP).

Section 1: Introduction

This section describes the purpose of and authorization for conducting this assessment. Also discussed are significant assumptions, deviations, special terms and conditions, and user reliance on this report.

1.1 Purpose

To assist the City of Reno with their due diligence efforts relative to the site located at 0 E. Commercial Row, (APN: 011-450-24) in Reno, NV (Property), Broadbent & Associates, Inc. (Broadbent) conducted an All Appropriate Inquiry Phase I Environmental Site Assessment (ESA) consistent with the ASTM International Standard E1527-13: *Standard Practice for Environmental Site Assessments – Phase I Environmental Site Assessment Process*, and the United States Environmental Protection Agency (EPA) final rule contained within Code of Federal Regulations (CFR) Volume 40 Part 312 – *Standards and Practices for All Appropriate Inquiries* (AAI). The purpose of this due diligence investigation is to identify recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), historical recognized environmental conditions (HRECs), and/or *de minimis* conditions as defined below.

A REC is defined by ASTM International as:

“The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.”

A HREC is defined by ASTM International as:

“A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

A CREC is defined by ASTM International as:

“A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).”

A *De Minimis* Condition is defined by ASTM International as:

“A condition that generally does not present a threat to human 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* conditions are not recognized environmental conditions nor controlled recognized environmental conditions.”

1.2 Scope of Work

Various investigative methods were utilized to complete this ESA. Specific items accomplished include the following:

- Prepared a general site description
- Reviewed User-provided information
- Reviewed readily ascertainable environmental records
- Conducted a site reconnaissance
- Conducted interviews
- Identified data gaps (if present)
- Prepared this ESA report summarizing assessment results

1.3 Significant Assumptions

Conclusions stated in this report are based upon observations made by employees of Broadbent and also upon information provided by others. It is assumed that these observations and information are accurate. However, Broadbent cannot be held responsible for the accuracy of the information provided by others. The scope of this ESA does not purport to encompass every report, record, or other form of documentation relevant to the Property being evaluated.

1.4 Deviations

There were no deviations from the ASTM International standards.

1.5 Special Terms and Conditions

Observations contained within this assessment are based upon Property conditions readily visible and present at the time of the site reconnaissance. These Property observations are unable to specifically identify conditions of potential mold, asbestos containing building materials, subsurface soil, groundwater, vapor, or underground storage tanks, unless specifically mentioned. This ESA does not attempt to address the unidentified past or forecast future Property conditions.

1.6 Reliance

The enclosed ESA has been conducted for the use of the City of Reno and NDEP and may not be reproduced, distributed, or relied upon by others without the prior written authorization of City of Reno, NDEP, and Broadbent. A Reliance Letter can be prepared for additional use upon request by City of Reno and/or NDEP.

Section 2: Site Description

This section describes the Property with its location and legal description, general vicinity characteristics, current uses, description of on-site improvements, and current uses of adjoining properties.

2.1 Location and Legal Description

The Property is located within the incorporated limits of Reno, NV. The Property is located adjacent east of downtown Reno. The Property's current physical address is 0 E. Commercial Row, Reno, NV. The Property consists of one parcel assigned the Washoe County Assessor's Parcel Number 011-450-24. A copy of the Washoe County Assessor's Parcel Map for the Property is provided in Appendix A.

Approximate latitude and longitude coordinates for the center of the Property are 39.530131 North, -119.803664 West NAD83. The Property is located within the northwest quarter of Section 12, Township 19 North, Range 19 East, relative to the Mount Diablo Baseline and Meridian. The Property is covered by the United States Geological Survey (USGS) 6723545 Reno, NV 7.5-minute quadrangle topographic map. A Site Location and Property Location Map are provided as Figures 1 and 2, respectively.

2.2 Current Uses of the Site

The Property is currently a vacant commercial/industrial lot.

No RECs, CRECs, and/or HRECs were noted relative to the Property based on review of current uses of the Property.

2.3 Description of Structures, Roads, and Other Improvements

The Property is a vacant lot with no building structures. Additional Property information is provided in the table below.

Size of Property (approximate)	According to the Washoe County Assessor, the approximate size of parcel 011-450-24 is 3.159 acres.
General Topography of Property	The Property has a gradual downward slope to the east-southeast.
Adjoining and/or Access/Egress Roads	The Property is accessible by entrances/exits on the southeast side of the Property via E. Commercial Row.
Paved or Concrete Areas (including parking)	A concrete foundation for a former building was observed on the Property.
Unimproved Areas	There are no known unimproved areas.
Landscaped Areas	No landscaped areas were observed on the Property.
Surface Water	The Truckee River is adjacent south of the Property.
Potable Water Source	Truckee Meadows Water Authority
Sanitary Sewer Utility	Washoe County
Storm Sewer Utility	Washoe County

Electrical Utility	NV Energy
Natural Gas Utility	NV Energy

No RECs, CRECs, and/or HRECs were identified relative to the Property based on review of structures, roads and other improvements to the Property.

2.4 Current Uses of Adjoining Properties

Adjoining properties are used for various purposes. Uses of adjoining properties at the time of this investigation are the following:

<i>Direction</i>	<i>Address</i>	<i>Use & Occupant</i>	<i>Comments</i>
North	N/A Several	Union Pacific Railroad Industrial Buildings	None None
South	N/A 1010 E Commercial Row 0 E Commercial Row	Truckee River BayStone City of Reno- Vacant lot	None APN: 008-370-22 APN: 011-450-25
West	0 E 2 nd St.	Sierra Pacific Power electrical substation	APN: 011-450-19
East	0 E Commercial Row 0 E Commercial Row N/A	Vacant Lot Vacant Lot E Commercial Row	APN: 008-370-33 APN: 008-370-34 Public throughfare

HRECs were identified relative to the Property based on review of current uses of adjoining properties. According to the EDR report, the adjacent site (1010 E Commercial Row) identified as Basta Investment Company, LLC had a release of diesel that affected soil at the site on March 30, 2017. The site was granted closure on March 7, 2018 by WCHD.

A second adjacent site (310 N. Park St.) identified as Desert Glass/Nevada Forklift (ReTrac Project) had a release of petroleum hydrocarbon that affected soil at the site on November 7, 2005. The site was granted closure on March 9, 2006 by the NDEP.

The adjacent site to the east of the Property identified as APN: 008-370-33 had a release of TPH that affected soil at the site on January 15, 2004. The site was granted closure by the NDEP on March 20, 2006.

Section 3: User-Provided Information

The purpose of this section is to detail User-provided information used to help identify the possibility of RECs in connection with the Property. A User Questionnaire was provided to the User to assist them in compiling pertinent information. User-provided information is summarized below and included in Appendix B.

3.1 Owner, Key Property Manager, or Occupant Provided Information

According to Washoe County Assessor Data, the Property is owned by the City of Reno. The Property is currently a vacant industrial/commercial lot.

3.2 Title Records, Environmental Liens or Activity and Use Limitations

Reasonably ascertainable recorded land title records should be checked by the User to identify environmental liens or activity and use limitations, if currently recorded against the Property. Environmental liens or activity and use limitations so identified are supposed to be reported to the Environmental Professional conducting the ESA. No evidence of environmental liens or activity and/or use limitations was discovered or brought to the attention of Broadbent.

No RECs, CRECs, and/or HRECs were identified relative to the Property based on review of title records, environmental liens, or activity and use limitations.

3.3 Specialized Knowledge

If the User has or is aware of any specialized knowledge or experience that is material to RECs in connection with the Property, it is the User's responsibility to communicate this information to the Environmental Professional. If the User has or is aware of any specialized knowledge or experience that is material to RECs in connection with the Property, it is the User's responsibility to communicate this information to the Environmental Professional. For the ESA documented herein, the User provided knowledge that the Property and the adjacent parcel (APN 008-370-33) east of the Property have undergone several Phase I/II environmental assessments. Ms. Lori Miles (Property Manager for the City of Reno) provided a Phase II Environmental Site Assessment dated August 2002 (Phase II 2002). The Phase II 2002 report was performed by Lahontan GeoScience, Inc. (Lahontan) for the Property. The Phase II 2002 report summarizes soil investigations at the Property and two other nearby parcels. It is important to note that the Phase II 2002 report only assessed the eastern portion of the Property, which at that time was APN: 008-360-07.

Prior to Phase II activities, Lahontan conducted a Phase I for the eastern portion of the Property (APN: 008-360-07) and another site (Caravan Campers). The Lahontan Phase I Report entitled "ReTRAC Phase I Environmental Site Assessments" dated February 2002 (Phase I 2002) revealed the presence of stained soil in the parking area of the Property. Subsequently, a Phase II investigation (as discussed above) was recommended by Lahontan. The Phase I 2002 report is referenced within the Phase II 2002 report. A copy of the Phase I 2002 report was not provided nor located in regulatory file reviews.

Additionally, the User provided a Phase I Environmental Site Assessment Report dated January 22, 2008 (ESA 2008). The ESA 2008 report was performed by AMEC Earth & Environmental, Inc. (AMEC). AMEC found evidence of recognized environmental conditions during their assessment. The findings of the Phase I ESA 2008 include evidence of the following RECs associated with the Property:

- The site overlies a regional plume of perchloroethylene (PCE) in groundwater. The site does not appear to have contributed to the plume.

- Following remedial actions, residual petroleum in soil was noted in multiple locations and at various depths.
- Based on the observations and analytical results of remediation of the tar pit and the oil pit, groundwater may be impacted below the area of remedial excavation.
- Groundwater at a former boring (B-29) of 2000 was reported as impacted by chloroform.
- A variety of unidentified chemicals may be present beneath the remaining foundations due to the presence of multiple floor drains and to the documented spillage in 2003 of chemicals within the former warehouse on the site.
- The soil and groundwater beneath the former leachfield has not been fully assessed

It should be noted that ESA 2008 was conducted on only the eastern portion of the Property. ESA 2008 assessed the defunct parcel of APN: 008-360-07, which is now a part of the eastern portion of the Property (APN: 011-450-24). Further discussion of Phase II 2002 and ESA 2008 Report findings are provided in Section 4.5 of this ESA.

3.4 Valuation Reduction for Environmental Issues

In a transaction involving the purchase of a parcel of real estate, if a User has actual knowledge that the purchase price of the Property is significantly less than the purchase price of comparable properties, the User should try to identify an explanation for the lower price and to make a written record of such explanation. User provided no information relative to valuation reduction relative to the Property.

No RECs, CRECs, and/or HRECs were noted relative to the Property based on review of information relative to valuation reduction for environmental issues.

3.5 Reason for Conducting Phase I

The purpose of this ESA was to identify existing or potential RECs, CRECs, and/or HRECs (as defined by ASTM Standard E1527-13) in connection with the Property, and it is assumed to also be to qualify the User for Landowner Liability Protection (LLP) relative to potential CERCLA liability.

Section 4: Records Review

The purpose of a Records Review is to obtain and review records that will help identify RECs, CRECs, and/or HRECs in connection with the Property. A discussion of each record source is provided below.

4.1 Physical Setting

Physical setting information for the Property was obtained by a review of sources that included, but was not limited to, USGS topographic maps and a USDA soil survey report.

4.1.1 Topography

The USGS, 6723545 Reno, NV Quadrangle 7.5-Minute series topographic map was reviewed for this ESA. According to the contour lines on the topographic map, the Property is located at an approximate elevation of 4,474 ft above mean sea level. The contour lines in vicinity of the Property indicate the area has a gradual downward slope to the east-southeast.

4.1.2 Surface Water Bodies

The Truckee River is adjacent south of the Property. No on-site water wells or springs were observed during the Property reconnaissance. No settling ponds, lagoons, surface impoundments, wetlands or natural catch basins were observed on the Property during this investigation.

4.1.3 Geology and Hydrology

The Property is located in eastern downtown Reno, NV. The geological deposits of this area are described by the USGS as stratified sequences of quaternary alluvium. Based on the soil survey maps published by the USDA Soil Conservation Service (SCS), the Property is predominately mapped as "Oest" which is gravelly sandy loam soil texture. The Property soil hydrologic group classification is Class B – Moderate infiltration rates. Class B soils are "deep and moderately deep, moderately well and well drained soils with moderately coarse textures."

The groundwater flow direction in the vicinity of the Property is assumed to be toward the south based on surface topography and proximity to the Truckee River. Depth to groundwater is expected to be approximately 15-35 feet below land surface (BLS) in the area near and beneath the Property, according to the Nevada Division of Water Resources on-line Well Log Database.

4.2 Environmental Record Sources

Broadbent contracted Environmental Data Resources, Inc. (EDR) to conduct a search of available state, federal, and other ascertainable environmental records. The area searched included the Property and surrounding area within approximate minimum search distances from the Property boundary, dependent on listing type, as defined by ASTM International. A complete listing of records searched is available in the EDR Radius Report provided in Appendix C. An abbreviated list of search results is provided in the table below relative to records that identified a regulatory listing relevant to the Property. A subsequent discussion is provided relative to identified potential concerns.

<i>Standard Database List Per ASTM International</i>	<i>Database Date (M/D/Y)</i>	<i>Subject Property Listed (Y or N)</i>	<i>Total No. of Listings</i>	<i>Environmental Concern Posed to the Subject Property (Y or N)</i>
Federal Agencies				
Federal NPL Sites (<1.0 mile)	11/14/18	N	0	N
Federal Delisted NPL Sites (<1.0 mile)	11/14/18	N	0	N
Federal SEMS Sites (< 0.5 mile)	11/14/18	N	0	N
Federal CERCLIS NFRAP Sites (<0.5 mile)	11/14/18	N	0	N
RCRA CORRACTS Sites (<1.0 mile)	3/1/18	N	0	N
RCRA non-CORRACTS TSD Facilities (< 0.5 mile)	3/1/18	N	0	N
RCRA LQG (<0.25 mile)	3/1/18	N	0	N
RCRA SQG (<0.25 mile)	3/1/18	N	0	N
RCRA CESQG (<0.25 mile)	3/1/18	N	5	N
Federal ERNS Sites (Property Only)	9/24/18	N	0	N
US Institutional/Engineering Controls (<0.5 mile)	7/31/18	N	0	N
State Agencies				
State & Tribal equivalent CERCLIS (SHWS) (<1.0 mile)	9/18/18	Y	158	Y
State & Tribal SWF/LF (<0.5 mile)	8/27/18	N	0	N
State & Tribal LUST (<0.5 mile)	9/18/18	N	3	N
State & Tribal ASTs (<0.25 mile)	1/25/18	N	3	N
State & Tribal USTs (<0.25 mile)	1/25/18	N	28	N
State & Tribal Voluntary Cleanup Sites (<0.5 mile)	9/18/18	Y	1	Y
State & Tribal Brownfield Sites (<0.5 mile)	9/18/18	N	3	N
Other Ascertainable Records				
US Brownfields (<0.5 mile)	9/18/18	N	16	N
Recycling Facilities in Nevada (SWRCY) (<0.5 mile)	10/12/18	N	9	N
RCRA-NonGen (<0.25)	3/1/18	Y	32	N
Facility Index System/Facility Registry System (FINDS) (Property Only)	8/7/18	Y	1	N
Enforcement & Compliance History (ECHO) (Property Only)	9/2/18	Y	1	N
EDR Exclusive				
EDR US Historic Auto Station (<0.125 mile)	NA	N	3	N
EDR US Historic Dry Cleaners (<0.125 mile)	NA	N	0	N
EDR US Manufactured Gas Plants (<0.25 mile)	NA	N	2	N

Based on information contained within the EDR report, the Property was listed on five of the databases that were searched. It should be noted that the EDR Report lists the site identified as Western Sealing & Striping and as City

of Reno Redevelopment Agency located at 111 Morrill Ave., as being 18 feet east of the Property which is incorrect. The Western Sealing & Stripping and City of Reno Redevelopment Agency are identified as Facility ID #D-000100 and are included as part of the target Property for this ESA. Database results for the target Property and those surrounding the target property are discussed below.

The target Property was identified twice on the Corrective Action Sites (SHWS) database. Based on information contained within the EDR Report, the Property was first enrolled into the SHWS database on July 9, 2003 for a petroleum hydrocarbon release where soil was impacted. The Property was granted closure by the NDEP on October 17, 2006. The Property was again enrolled into the SHWS database on April 23, 2008 for a petroleum hydrocarbon release that impacted soil and groundwater. As a result of these petroleum hydrocarbon impacts on the Property the City of Reno – Redevelopment Agency submitted a Voluntary Cleanup Program (VCP) Enrollment Application dated April 23, 2008 and the AMEC ESA 2008 Report to the NDEP. The NDEP approved enrollment of the Property into the VCP in their letter dated July 2, 2008. The VCP provides relief from liability to owners who undertake cleanups of contaminated properties under the oversight of the NDEP. The VCP status of the Property is currently listed as “active.” Based on personal communication from Mr. David Friedman (NDEP-BCA staff), the Property was closed on October 17, 2006 following NAC 445A.227(2)(a-k) criteria. Additional information on the historic releases are provided in section 4.5.

The target Property is also listed on the ECHO, FINDS, and RCRA Non-Gen databases. The Property being listed on these databases does not indicate a release but rather simply indicates that the site/facility may have possessed chemicals of concern at some point in the past.

Results of the records search found 158 sites located within one mile of the Property listed on the Corrective Action Sites (SHWS) database. Twelve of these SHWS sites are within 0.25 miles of the Property. These twelve sites were identified as petroleum hydrocarbon releases affecting soil and/or groundwater. Each of the twelve sites have been granted closure by the appropriate agency. Given the site statuses, the potential for environmental impact from these sites relative to the Property appears to be low.

The LUST database indicates three sites within 0.5 miles of the Property. The nearest LUST site is approximately 735-feet southwest of the Property. The site is identified as Reno Police Department (Facility ID No. 4-000573). This site was enrolled in the LUST database as a result of a gasoline release which affected soil and groundwater at the site. The site was granted closure on March 5, 2014 by the appropriate agency. Given the site status, and distance from the Property, the potential for environmental impact to the Property appears to be low.

The second LUST site is located approximately 1,515-feet west-northwest of the Property. The site is identified as Marsh Properties, LLC. (Facility ID No. 4-000931). The site was enrolled into the LUST database on February 8, 2018 as a result from a heating oil release which affected soil at the site. The site was granted closure on May 2, 2018, by the appropriate agency. Given the site status and distance from the Property, the potential for environmental impact to the Property appears to be low.

The third LUST site is located approximately 1,795-feet north of the Property. The site is identified as Jacksons Food Stores #19 (Facility ID No. 4-000931). The site was enrolled into the LUST database on November 24, 2014 as a result of a diesel release which affected soil at the site. The site was granted closure on December 22, 2014 by the appropriate agency. Given the site status and distance from the Property, the potential for environmental impact to the Property appears to be low.

The EDR records search found three sites within 0.5 miles of the Property listed on the NV Brownfields database. The term “brownfield” is used to describe abandoned, idled, or underused industrial or commercial properties

taken out of productive use because of real or perceived risks from environmental contamination. The State of Nevada has initiated Brownfields, a land-recycling program, to provide an opportunity to redevelop these undesirable properties and revitalize communities. These three sites were identified as petroleum hydrocarbon releases affecting soil and groundwater. Each of the three sites have been granted closure by the appropriate agency. Given the intervening gradient, site statuses, and distance from the Property, the potential for environmental impact to the Property appears to be low

Other sites listed in the table above, but not yet specifically discussed, do not likely pose a significant environmental concern relative to the Property for one or more of the following reasons: distance from Property; relative location to the Property, regulatory status of site, operating UST facilities with no violations, UST facilities that are permanently out of service, site listing not indicative of a release but rather simply indicating that the site/facility may possess chemicals of concern (e.g. RCRA Non-Gen).

Other sites listed in the table above, but not yet specifically discussed, do not likely pose a significant environmental concern relative to the Property for one or more of the following reasons: distance from Property; relative location to the Property, regulatory status of site, operating UST facilities with no violations, UST facilities that are permanently out of service, site listing not indicative of a release but rather simply indicating that the site/facility may possess chemicals of concern (e.g. RCRA Non-Gen).

4.3 Vapor Intrusion

Various environmental investigations have been completed across the Property; Soil and groundwater borings and adjacent groundwater monitor wells associated with the Property were installed to characterize and assess the extent of potential contaminants of concern in the subsurface. Results of investigations and post-remediation soil and groundwater sampling indicate that residual soil and groundwater contaminant concentrations may still exist on the Property.

As discussed in ESA 2008 AMEC states, that groundwater beneath the Site is most likely impacted with PCE. Site soils are impacted with petroleum, in some areas well in excess of the NAL [Nevada Action Limit], and as deep as groundwater at about 30 feet below site grade. Soil is impacted beneath the remaining foundation with petroleum and possibly with other chemicals used, stored and spilled within the former warehouse. Groundwater may be impacted with petroleum compounds due to past uses on the Site. The potential exists for groundwater to be impacted beneath the Site by the long history of industrial uses in the adjacent industrial areas). These findings are further discussed in Section 4.5.

As discussed in Section 3.3, AMEC on behalf of the City of Reno Redevelopment Agency conducted a Phase I ESA on the eastern portion of the Property (APN: 008-360-07). It should be noted that APN: 008-360-07 no longer exists, as it now comprises the eastern portion of the Property (APN: 011-450-24). A portion of ESA 2008 is included in Appendix E.

Based on review of ESA 2008, recognized environmental conditions are identified on the Property. These findings are further discussed in Section 4.5. Currently there are no building structures on the Property. However, should the Property be developed, vapor intrusion is potentially an issue of concern in connection with the Property.

4.4 Historical Record Sources

The following standard historical sources may be used to meet the historical record sources review requirements of ASTM E1527-13: aerial photographs; fire insurance maps; property tax files; land title records

(although these cannot be the sole historical source consulted); topographic maps; city directories; building department records; or zoning/land use records. ASTM E1527-13 requires “All obvious uses of the property shall be identified from the present, back to the property’s first developed use, or back to 1940, whichever is earlier.” This task requires reviewing only as many of the standard historical sources as are necessary and that are reasonably ascertainable and likely to be useful.

4.4.1 Historical Topographic Maps

The following historical topographic maps were reviewed and described. Copies of the historical topographic maps are provided in Appendix D.

<i>Date(s)</i>	<i>Map Source & Scale</i>	<i>Property Observations</i>	<i>Surrounding Area Observations</i>
1891	Reno Quad 1:125000	A road crosses the western portion of the Property.	Downtown Reno is recorded west of the Property on this map. Central Pacific Railroad, V&T Railroad, Wells Ave, and the Truckee River are recorded on this map.
1893	Reno Quad 1:125000	No significant change.	No significant change.
1950	Reno Quad 1:62500	No significant change.	Increasing development of downtown Reno area. Apparent building structures are observed adjacent east of the Property. Reno Fair Grounds, S. Virginia St., University of Nevada-Reno, Scott Island, County Hospital, and Veteran’s Hospital are recorded on this map.
1951	Reno Quad 1:62500	No significant change.	No significant change.
1967	Reno Quad 1:62500	The Wells Ave. overpass is constructed over the western portion of the Property.	Proposed I-80 development is shown on this map, The Reno Indian Colony, and Paradise Park are included on this map. Increased development of area to the northeast of the property. A gravel pit is recorded adjacent east of the Property. A police station and medical center are recorded south of the Property on this map.
1974	Reno Quad 1:24000	No significant change.	Increasing development of Reno. Interstate 80 is being constructed on the map. Surrounding area of the Property is predominately industrial. Apparent warehouses are seen adjacent north and east of the Property.

1982	Reno Quad 1:24000	No significant change.	I-80 is developed north of the Property. Apparent residential areas are developed northeast of the Property. Brodhead Memorial Park is identified south of the property. A gravel pit is recorded east of the Property on this map.
2015	Reno Quad 1:24000	No significant change.	Surrounding area appears to be developed in its current configuration on this map.

No RECs, CRECs, and/or HRECs were identified relative to the Property based on review of the historical topographic maps.

4.4.2 Historical Aerial Photographs

The following historical aerial photographs were reviewed and described. Copies of the historical aerial photographs are provided in Appendix D.

Date(s)	Photo Source & Scale	Property Observations	Surrounding Area Observations
1939	USDA 1" = 500'	Wells Ave. runs through the middle of the Property in this photo. The Property appears undeveloped.	Surrounding area is primarily industrial/commercial north of the Property and residential to the south. Apparent industrial structures are seen east of the Property. Railroad tracks are seen adjacent north of the Property. A vacant lot and Wells Ave. is seen adjacent west of the Property. The Truckee River is seen south of the Property in this photo.
1946	USGS 1" = 500'	A several small structures are seen on the Property.	Additional warehouses are developed on site east of the Property. Vacant land and residential structures are seen south of the Property in this photo.

1953	USGS 1" = 500'	An apparent warehouse with several small building structures, equipment, storage materials, and vehicles are seen on the Property in this photo.	Increasing development of land east of the Property. Additional warehouses and an apparent storage yard are seen adjacent east and north of the Property. An apparent gravel pit is observed east of the Property. Apparent containers or small building structures are seen adjacent south of the Property. A larger warehouse is observed southeast of the Property adjacent to the Truckee River in this photo. An apparent industrial warehouse, railyard, and a storage yard are seen west of the Property. Increasing development of apparent industrial buildings north of the Property in this photo.
1966	USGS 1" = 500'	Property appears to be used as a storage yard. Several apparent vehicles, containers, and materials are seen on the Property in this photo.	Gravel pit east of the Property appears to be filled in. Additional construction of industrial buildings and equipment is seen east of the Property in this photo. Development of additional industrial warehouses are seen north of the Property. Several residential properties north of the Property have been removed and/or replaced with apparent commercial/industrial structures. Increased development of warehouses, railcars, and vehicles are seen west of the Property in this photo.
1972	SLA 1" = 500'	Property appears to have less storage materials on the Property.	Construction of I-80 is seen north of the Property in this photo. Wells Ave has been expanded in this photo. An apparent gravel pit/construction area is seen east of the Property. Further development of several industrial structures north of the Property.
1978	NHD 1" = 500'	E. Commercial Row appears developed in this photo.	Completion of I-80 is seen in this photo. A large hotel is seen completed northeast of the Property. Further development of warehouse structures north of the Property. Additional storage items/structures are seen on adjacent site to the east. A large warehouse is developed east of the Property.

1980	BELL 1" = 1000'	No significant change.	A large apartment complex is being constructed south of the Property across the Truckee river. Apparent storage yard with several materials are seen adjacent east of the Property.
1984	USGS 1" = 1000'	No significant change.	Further development of structures and storage materials is seen on adjacent southeast site to the Property. Apparent residential apartment complex is developed south of the Property. Downtown Reno is seen adjacent west of the Property.
1994	USGS 1" = 500'	No significant change (poor quality photo).	No significant change (poor quality photo).
1999	USGS/DOQQ 1" = 500'	Two apparent large warehouses with storage containers, materials, equipment, and vehicles are seen on the Property in this photo.	Several small building structures are constructed adjacent southeast of the Property. An apparent electrical substation is seen adjacent west of the Property. Surrounding area appears predominately industrial. A storage yard is seen adjacent east of the Property. An apartment complex is developed south of the Property in this photo.
2006	USDA/NAIP 1" = 500'	A gravel roadway is seen running west/east across the Property. One warehouse structure is seen on the Property. Storage materials/equipment have been removed from the Property.	E. Commercial Row now appears to be paved. Site adjacent west and east of the Property are vacant lots. An apparent concrete building foundation is still seen on the adjacent west site. Several of the warehouses and related storage materials are no longer seen east of the Property. A single warehouse and associated concrete barriers and storage materials are seen east of the Property. Several small building structures are seen adjacent south of the Property. A large building is observed east-southeast of the Property adjacent to the Truckee River. Vacant lot is now seen west of the Property.
2010	USDA/NAIP 1" = 500'	Warehouse building no longer appears on the Property. The concrete foundation is seen on the Property in this photo. Property is a vacant lot.	Greater Nevada Baseball Field is now developed west of the Property in this photo.

2013	USDA/NAIP 1" = 500'	Several apparent vehicles/containers appear on the Property in this photo.	No significant change.
2017	USDA/NAIP 1" = 500'	Property appears to be developed in its current configuration in this photo.	Surrounding area buildings appear to be developed in their current configuration in this photo.

No RECs, CRECs, and/or HRECs were identified relative to the Property based on review of the historical aerial photographs.

4.4.3 Fire Insurance Maps

Fire insurance maps were initially produced by private companies (such as Sanborn, Perris, and the Fire Underwriters Inspection Bureau) for the insurance industry to provide information on the fire risks of buildings and other structures. Fire insurance maps have become a valuable historical resource for persons concerned with evaluating the potential for site contamination based on the history of past Property use. Fire insurance maps are available for approximately 12,000 US cities and towns during the period from 1852 to the present. Map coverage is most comprehensive in urban core areas and in older suburbs. Map coverage is limited in suburban areas developed after 1950. Broadbent queried EDR's collection of fire insurance maps for coverage of the Property. A copy of the Certified Sanborn Map Report is provided in Appendix D.

Date(s)	Map Source	Property Observations	Surrounding Area Observations
1904	Sanborn	Property is not yet mapped.	Reno Mill and Lumber Planning Mill is mapped north of the Property. N. Park and Alameda Avenue are mapped north of the Property. The Sierra Pacific Railroad is mapped adjacent north of the Property.
1906	Sanborn	No significant change.	Reno Brewing Company bottling warehouse is mapped northeast of the Property.
1918	Sanborn	Property is mapped with an irrigation ditch running through it.	The Truckee River is now mapped south of the Property. Apparent residential area is mapped south of the Truckee River. Morrill Ave. is mapped north of the Property. The Verdi Lumber Company warehouse and related building infrastructure and storage yard is mapped north of the Property. A sheet metal facility, Nevada Packing Company, and a hotel gallery are mapped north of the Property on this map.

1949	Sanborn	Alameda Ave. underpass is developed on the Property.	Further development of apparent residential structures south of the Property. The A.T. Eveleth Lumber Company warehouse, storage yard and associated buildings are mapped north of the Property. Nevada Rock & Sand Company, Glass Glazing, and automotive repair garages are mapped north of the Property. A Iron and Steel warehouse is mapped north of the Property. Alameda Ave. underpass of the Sierra Pacific Railroad is mapped west of the Property. Increase in development of commercial/industrial buildings northwest of the Property is seen on this map.
1955	Sanborn	No significant change.	Sierra Machinery Company warehouses are mapped north of the Property.
1957	Sanborn	Multiple small building structures for a machinery & equipment contractor's storage yard are mapped on the Property.	Contractor's storage yard buildings are mapped adjacent east of the Property.
1966	Sanborn	No significant Change	Alameda Ave is renamed to Wells Ave. on this map. Further development of apparent residential/commercial structures south of the Property and Truckee River on this map.
1970	Sanborn	No significant change.	No significant change.
1972	Sanborn	No significant change.	No significant change.

No environmental RECs, CRECs, and/or HRECs were identified relative to the Property based on review of the historical fire insurance maps.

4.4.4 City Directories

City directories have been published for cities and towns across the US since the 1700s. Originally a list of residents, the city directory developed into a sophisticated tool for locating individuals and businesses in a particular urban or suburban area. Twentieth-century directories are generally developed into three sections: a business index, a list of resident names and addresses, and a street index. With each address, the directory lists the name of the resident or, if a business is operated from this address, the name and type of business (if unclear from the name). While city directory coverage is comprehensive for major cities, it may be less comprehensive for rural areas and small towns.

Broadbent requested EDR to provide a search of available historic city directories that may list the Property. EDR researched Cole Information and Polk's City Directories for non-sequential years beginning in 1932 and up to 2013. It should be noted that residential addresses within the unincorporated portions of counties were typically not included within city directories. Results of this search did not yield any results on the target Property. Results of this search are included in Appendix D.

No environmental RECs, CRECs, and/or HRECs were noted relative to the Property based on review of the historical city directories.

4.5 Other Environmental Records

As discussed in section 3.3, the User provided ESA 2008 report, dated January 22, 2008, was reviewed, as part of this current ESA. As previously discussed, ESA 2008 only assessed the eastern portion of the Property (former APN: 008-360-07). Review of the ESA 2008 indicates that a previous Phase I ESA dated November 29, 1995 documented petroleum hydrocarbon staining on soil adjacent to a sand/oil separator and the hydraulic service pad area. In January 1996, S.E.A., Inc. Consulting Engineers (SEA) excavated below the leach field and the outdoor wash area to obtain soil samples for testing. Visual observation and confirmation soil samples collected by SEA indicated total petroleum hydrocarbon (TPH) concentrations above Nevada State Action Levels.

In April and May 1996, SEA conducted additional assessment for the extent of TPH in soil beneath the leachfield, around the concrete apron, wash pad, and the drum containment pad. The leachfield formerly received all wastewater generated at the Property. The concrete apron extended around the north and east sides of the former maintenance building. The wash pad laid on the east side of the former maintenance building. The concrete drum containment pad laid on the north-central edge of the Property. This assessment included excavating two test pits below the septic leach field, excavating contaminated soil from the northern and eastern edges of the concrete apron and wash pad, and excavating stained soils around the drum containment pad. Six samples were collected (three from each test pit at 3, 6 and 9-10 feet deep) and analyzed for TPH from the leachfield test pits. The soil by the drum containment pad was excavated from an area 13 feet in diameter by 6 feet deep, and two confirmation samples were collected. These were composited into one sample for analysis. Fifteen soil samples were collected after excavation (eleven on April 22 and four on May 13) from the exposed excavated surfaces along the concrete apron and the wash pad area, to as deep as 5 feet, and composited into eight samples. Confirmation soil samples collected during this assessment by SEA indicated total petroleum hydrocarbon (TPH) concentrations above Nevada State Action Levels. TPH concentrations ranged from 62 mg/Kg to 3,200 mg/Kg.

SEA concluded that higher concentrations of TPH remain under the apron on the building's north and east sides, further toward the east on the building's east side beyond the limits of the excavation, and at the excavation on the west end of the drum containment area. SEA also concluded that the majority of the accessible high concentrations of TPH had been remediated. Subsequently, SEA submitted a risk-based closure request to the WCHD. A total of 313 tons of petroleum impacted soil was removed for off-site disposal.

In August 1996, the wash pad on the Property was closed with regards to its connection to the sand/oil separator. The sand/oil separator was disconnected from the leach field, rendering it a septic tank, with no discharge. SEA observed additional soil excavation on the east side of the building, where TPH concentrations remained from previous remedial actions. Approximately 25 tons of petroleum impacted soil was removed for off-site treatment. Following the additional excavation activities, The WCHD concurred with SEA's recommendation and issued a No Further Action (case closure) letter (dated December 18, 1996). The WCHD

stated that it “will not require further redial action of the total petroleum hydrocarbon (TPH) contaminated soil although it is slightly above the State action level of 100 mg/kg.”

Review of the ESA 2008 indicates that a Phase I ESA dated February 2002 was conducted on the Property by Lahontan. The Lahontan Phase I report noted the following:

the presence of two buildings, one a long brick building with metal roofing built in 1936, used as office, garage and storage (south side of Site). The other was a long rectangular concrete structure with a flat roof, built in 1979, used as a garage for sealing and striping trucks and storage (east side of Site). The Site had many containers, drums and buckets of liquid epoxy, wastewater from cleaning the painting equipment, and paint. None of the materials appeared to be hazardous by regulation. Other improvements included two 5,000 gallon ASTs with asphalt sealant enclosed by a concrete basin on the east side of the office/garage, and a perimeter fence. The Site was in use at that time by Western Sealing and Striping (WSS). Lahontan recognized the prior petroleum contaminated soil remediation, with residual petroleum contamination left in place. WSS had formerly been permitted with the State Fire Marshall (SFM) for storage of hazardous materials, including toluene and acrylic solvent-based paint. In 1999, WSS notified the SFM that hazardous materials were no longer stored on the premises. Lahontan noted that a previous borehole, B-29, had been drilled on the site for testing of petroleum hydrocarbons and volatile organic compounds. This boring was part of the initial environmental and geotechnical assessment for the ReTRAC project, conducted in 2000 by Kleinfelder Inc. Analytical tests of soil samples for petroleum reported 16 mg/kg for petroleum and ND concentrations for VOCs. Analytical tests for groundwater reported ND for petroleum, and 4.5 ppm for chloroform. Lahontan also concluded that the site could have orphan underground heating oil storage tanks due to the sites age, and noted that severe soil staining was present from spillage of the asphalt sealant mixture near the AST concrete basin (AMEC ESA 2008).

As discussed in Section 3.3, The Lahontan Phase I Report entitled “ReTRAC Phase I Environmental Site Assessments” dated February 2002 recommended that a Phase II Investigation be conducted on the Property. Accordingly, the City of Reno contracted Lahontan to conduct Phase II site characterization activities on the Property, the details of which are provided in Lahontan’s Phase II 2002 Report (Appendix E). A copy of the Lahontan Phase I 2002 report was not provided nor located in regulatory file reviews.

As part of the Phase II assessment, Lahontan collected four samples from the stained soil around the Western Sealing and Striping (WSS) asphalt sealant tank’s concrete basin, at approximately one-foot depth. Two of the samples were analyzed for TPH, VOCs and RCRA-8 metals. VOCs and metals were reported as below laboratory reporting limits. TPH-oil range organics (ORO) was reported at 850 mg/kg and 61 mg/kg. No further assessment or soil remediation was recommended. Please note the Phase II only assessed the eastern portion of the Property (former APN: 008-360-07) along with two other parcels.

Additional documents reviewed during the investigation conducted herein include:

- Camp Dresser & McKee Inc (CDM). – *Groundwater Investigation Summary Report*, dated October 11, 2006 (provided in Appendix E).
- CDM – *Groundwater Investigation Workplan*, dated July 12, 2005 (provided in Appendix E).

Review of these documents indicates that between June and July 2003 the Western Sealing and Striping Warehouse on the Property was demolished. Following the demolition of the building on the Property, the top two to three feet of soil along the western portion of the Property was excavated to accommodate a temporary track during the reconfiguration of the main railroad. This railroad configuration project is known as the ReTRAC project. On July 28, 2003 excavation activities were stopped due to discovery of a thick tar like substance uncovered on the Property. Additional tar and oil substances were encountered adjacent to and east of the tar pit. The oil and tar pit on the Property were contained within a concrete structure which

consisted of two separate bays, one for tar and one for heating oil. The two sections were separated by a below-grade concrete wall. The concrete structure measured 30 feet by 35 feet. Subsequently, petroleum hydrocarbon impacted soil was excavated and three confirmation soil samples were collected. Confirmation soil samples collected following the excavation by CDM indicated total petroleum hydrocarbon (TPH) concentrations above Nevada State Action Levels. TPH-extractable concentrations ranged from 100 mg/Kg to 11,500 mg/Kg. Specific details relative to this assessment are provided in Appendix E. Following soil sampling activities, the bottom of the tar/oil pit was abandoned with cement and backfilled with native onsite material.

On August 24 and 25, 2006, two boreholes were advanced to a total depth of 50 feet below ground surface. Upon reaching total depth of the borehole, a groundwater monitoring well was installed in both boreholes. Both monitoring wells were installed hydraulically downgradient of the former tar/oil pit in order to assess if the groundwater and/or Truckee River have or will be impacted by petroleum hydrocarbons from the former tar/oil pit on the Property. Details of the monitoring wells construction are included in Appendix E.

On August 26, 2006, a groundwater sample was collected by CDM from each monitoring well. The groundwater samples collected from the monitoring wells on the Property were non-detect for each petroleum hydrocarbon constituent analyzed.

Based on the information provided in CDM's, *Groundwater Investigation Summary Report* dated October 11, 2006, the NDEP issued a No Further Action (case closure) letter (dated October 17, 2006), a copy of which is provided in Appendix E. In their October 17, 2006 letter the NDEP states, "it does not appear that the former Oil and Tar pits on the property have impacted the groundwater that flows toward the Truckee River" and that "the NDEP has determined that additional corrective action is not necessary per Nevada Administrative Code 445A.227."

As discussed in Section 3.3, AMEC on behalf of the City of Reno Redevelopment Agency conducted a Phase I ESA on the Property in 2008. Please note the Phase I ESA 2008 only assessed the eastern portion of the Property (former APN: 008-360-07). Review of the ESA 2008 indicates the following RECs associated with the Property:

- The Property overlies a regional plume of PCE in groundwater. The Property does not appear to have contributed to the plume.
- Following remedial actions, residual petroleum in soil was noted in multiple locations and at various depths on the Property.
- Based on the observations and analytical results of remediation of the tar pit and the oil pit, groundwater may be impacted below the area of remedial excavation.
- Groundwater at a former boring (B-29) on the Property in 2000 was reported as impacted by chloroform.
- A variety of unidentified chemicals may be present beneath the remaining foundations due to the presence of multiple floor drains and to the documented spillage in 2003 of chemicals within the former warehouse on the Property.
- The soil and groundwater beneath the former leachfield on the Property has not been fully assessed.

AMEC concluded in their ESA 2008, *that groundwater beneath the Site is most likely impacted with PCE. Site soils are impacted with petroleum, in some areas well in excess of the NAL, and as deep as groundwater at about 30 feet below site grade. Soil is impacted beneath the remaining foundation with petroleum and possibly*

with other chemicals used, stored and spilled within the former warehouse. Groundwater may be impacted with petroleum compounds due to past uses on the Site. The potential exists for groundwater to be impacted beneath the Site by the long history of industrial uses in the adjacent industrial areas.

Significant data gaps include:

- *The condition of the soil beneath foundation*
- *The fate of the former OWSs; and*
- *The quality of the groundwater beneath the 'oil pit' and beneath the northwest, south and east portions of the property.*

Broadbent concurs with the AMEC assessment and conclusions for the evidence presented in ESA 2008. Please note that ESA 2008 only assessed the eastern portion of the Property (former APN: 008-360-07).

Upon receiving the ESA 2008, the Property the City of Reno – Redevelopment Agency submitted a Voluntary Cleanup Program (VCP) Enrollment Application dated April 23, 2008 along with the ESA 2008 Report to the NDEP. The NDEP approved enrollment of the Property into the VCP in their letter dated July 2, 2008 (Appendix E). The VCP status of the Property is currently listed as “active.” The VCP provides relief from liability to owners who undertake cleanups of contaminated properties under the oversight of the NDEP.

Section 5: Site Reconnaissance

Mr. Brandon Reiff of Broadbent conducted a site reconnaissance of the Property on January 28, 2019, as discussed below. The weather was overcast and warm. Photographs of the Property and vicinity taken during the site reconnaissance are provided within Appendix F.

5.1 Hazardous Substances in Connection with Identified Uses

No hazardous substances or petroleum products in connection with current identified uses were observed within the boundaries of the Property during the site reconnaissance. No hazardous substances or petroleum products in connection with current identified uses were observed on properties adjoining the Property when observed from the Property or publicly accessible areas. As such, no RECs from hazardous substances or petroleum products in connection with current identified uses were known to be present on the Property at the time of the reconnaissance.

5.2 Hazardous Substance and Unidentified Substance Containers

No hazardous substance, unidentified substance, or petroleum products containers were observed within the boundaries of the Property during the site reconnaissance. No hazardous substance, unidentified substance, or petroleum product containers were observed on properties adjoining the Property when observed from the Property or publicly-accessible areas. As such, no RECs from hazardous substance or unidentified substance containers were known to be present on the Property at the time of the reconnaissance.

5.3 Storage Tanks

Evidence of existing or historic storage tanks and vent pipes indicating USTs was observed within the boundaries of the former leachfield on the Property during the site reconnaissance. Approximately two vent pipes were identified during the site reconnaissance. The two vent pipes were located in the former leachfield area on the Property (southeast corner of the Property). Photographs of the vent pipes are included in Appendix F. As stated in the ESA 2008 report, the soil and groundwater beneath the former leachfield on the Property has not been fully assessed. No indication that the oil/water separator(s) on the Property were abandoned or properly disposed of is indicated in available reviewed reports. Accordingly, RECs from storage tanks were known to be present on the Property at the time of the reconnaissance.

According to the EDR report, the adjacent site (1010 E Commercial Row) identified as National Oil and Burner had four USTs and three ASTs removed and was subsequent closed by WCHD. A second adjacent site (307 Morrill Ave) identified as Reno Forklift, Inc. has one active 1,000-gallon heating oil UST and three permanently out of use USTs onsite.

5.4 Polychlorinated Biphenyls

Polychlorinated biphenyls (PCBs) are a class of stable compounds that are toxic to the liver and are linked to cancer. The US EPA considers PCBs a Priority Pollutant under the Clean Water Act. The maximum contaminant level of PCBs allowed in drinking water is 0.5 parts per billion (ppb). Due to PCBs' toxicity and classification as a persistent organic pollutant, the United States prohibited the manufacture of PCBs after July 1, 1979 in the Toxic Substances Control Act (TSCA) of 1976. Until then, PCBs were widely used as coolant and dielectric insulating fluids for oil-filled electrical transformers and capacitors (such as those used in ballasts of old fluorescent and high-intensity discharge lights). PCBs were also used as plasticizers in paints and cements, stabilizing additives in flexible polyvinyl chloride (PVC) coatings of electrical wiring and electronic components,

pesticide extenders, cutting oils, reactive flame retardants, lubricating oils, vacuum pump fluids, hydraulic fluids, and sealants for caulking in schools and commercial buildings.

Although manufacture was prohibited after 1979, PCBs already in commerce continued to be allowed in “totally enclosed uses” such as transformers and capacitors. Due to their extended working life, some oil-filled electrical equipment may still contain PCBs. The US EPA considers a product to be “PCB-Contaminated” if the oil contains between 50-500 parts per million (ppm), and to be a PCB product if more than 500 ppm. After July 1, 1979 and through 1998, the US EPA required new oil-filled electrical equipment to be marked “No PCBs.” If an item is not so labeled, and no information is available as to the date of manufacture, an item might be assumed to contain PCBs until proven otherwise. PCB content may or may not be a matter of record with equipment or transformers belonging to a utility company.

No indication of leaks or releases from electrical equipment was observed during the site visit. No verifiable RECs, CRECs, and/or HRECs associated with PCBs were observed or known to be present on the Property at the time of the site reconnaissance.

5.5 Odors, Pools of Liquid

No pools of liquids and/or standing surface water were observed within the boundaries of the Property during the site reconnaissance. No strong, pungent, or noxious odors were noted during the site reconnaissance. No odors, pools of liquid, or standing surface water were observed on properties adjoining the Property when observed from the Property or publicly-accessible areas. As such, no RECs associated with potential odors, pools of liquid, or standing surface water were known to be present on the Property at the time of the site reconnaissance.

5.6 Pits, Ponds, Lagoons

No pits, ponds, or lagoons were observed within the boundaries of the Property during the site reconnaissance. No pits, ponds, or lagoons were observed on properties adjoining the Property when observed from the Property or publicly-accessible areas. As such, no RECs from pits, ponds, or lagoons were known to be present on the Property at the time of the reconnaissance.

5.7 Stained Soil/Pavement, Stressed Vegetation

Stained soil and/or pavement was not observed within the boundaries of the Property during the Property reconnaissance. Additionally, stressed vegetation was not observed on the Property or properties adjoining the Property when observed from the Property or publicly-accessible areas. As such, no RECs from stressed vegetation or stained pavement were observed to be present on the Property at the time of site reconnaissance. HRECs related to stained soil from the former Tar/Oil Pit are known to have been present on the Property.

5.8 Indications of Solid Waste Disposal

Evidence of solid waste disposal was observed on the Property during the reconnaissance visit. Various trash and broken piles of concrete were observed on the Property. Solid waste is not a part of the definition of a REC. Consequently, no RECs from solid waste disposal are known to be present at the Property. However, the potential exists for a REC to be concealed by the solid waste.

5.9 Water, Storm Water, and Wastewater

Evidence of constructed storm water management drainage channels was observed along E Commercial Row adjacent southeast of the Property. Storm drains were observed throughout the Property. Drains were observed on the concrete foundation. No evidence of on-site current or historic water supply wells, constructed storm water management systems, or historic wastewater systems was observed within the boundaries of the Property during the Property reconnaissance or discovered during interviews or records review. As such, no RECs from water, storm water, or wastewater were known to be present on the Property at the time of the reconnaissance.

5.10 Monitoring Wells

One groundwater monitoring well (CORWSSMW1) and one PCE treated production well (Morrill Well) were observed on adjacent parcels south (APN 008-370-22) and southeast (APN 008-370-21) of the Property, respectively. Broadbent contacted Mr. Chris Benedict (Remediation District Program Manager for Washoe County) with regard to identification and purpose of these wells. According to Mr. Benedict, the monitoring well is identified as CORWSSMW1 and it is currently part of the Central Truckee Meadows Remediation District (CTMRD) monitoring network. The CTMRD was created by Nevada state statute and Washoe County ordinance in 1995 in order to address the presence of tetrachloroethene (PCE) in groundwater in Reno and Sparks. PCE contamination in the central Truckee Meadows is widespread and likely to have originated from multiple sources over time. According to Mr. Benedict, *monitoring well CORWSSMW1 is a 2" well, screened from 29 to 49 feet below ground surface. The well was installed in August 2006 by the City of Reno as part of a Phase II ESA for the former Western Sealing and Striping facility at/near this location.*

The CTMRD samples the well annually (in September/October each year). The last 5 years of groundwater sample results are provided in Appendix E. Except for a single, low-concentration of dichloromethane (2.5 µg/L) detected in September 2017, groundwater constituents have been below laboratory reporting limits. Each groundwater constituent analyzed in the last 5 years from monitoring well CORWSSMW1 has been below state reportable concentrations. As such, no RECs from groundwater were known to be present on the Property at the time of the reconnaissance.

The Morrill Well, adjacent south of the Property pumps groundwater for potable use with PCE in excess of drinking water standards. The water is treated at the well head before entering the distribution system. The Morrill Well is screened from 178 to 578 feet below ground surface and has a pumping capacity of 1,400 gallons per minute. The Morrill Well is owned by the Truckee Meadows Water Authority and the remediation is paid for by the CTMRD.

Section 6: Interviews

The following interviews were conducted in accordance with the requirements of ASTM E1527-13.

6.1 Interviews with Past and Present Owners and Occupants

Interviews were conducted with the following individuals. Use-Provided Information Questionnaires completed by the interviewees are provided in Appendix B.

<i>Role</i>	<i>Title</i>	<i>Name</i>	<i>Company</i>	<i>Method</i>	<i>Comments</i>
ESA User	Property Agent	Ms. Lori Miles	City of Reno	Questionnaire	Previous Phase I & II ESAs conducted on the Property and adjacent sites. NDEP issued a no further action letter dated October 17, 2006 for the Property.

RECs and HRECs were noted relative to the Property based on review of information gathered via interviews.

6.2 Interviews with State and/or Local Government Officials

Broadbent contacted the Nevada Division of Environmental Protection (NDEP) with regard to reported environmental issues at the Property. Environmental records on file with the NDEP include tar/oil pit remedial report documents and No Further Action Letter. Copies of the reports/documents are provided in Appendix E.

Broadbent contacted the Washoe County Environmental Health Department (WCHD) with regard to any past and/or current environmental issues at the Property. WCHD has identified records on file are located at the NDEP.

Broadbent contacted the Central Truckee Meadows Remediation District with regard to reported environmental issues at the Property. Information provided by CTMRD is previously discussed in Section 5.10.

Section 7: Data Gaps

A data failure is failure to achieve the historical research objectives of ASTM E1527-13. A data gap is the incompleteness in activities required in this practice. The following data gaps occurred during conduct of this ESA: Recorded land title records were not provided by the client, the City Directory did not have coverage of the Property address, soils below the building foundation could not be assessed, Phase I ESA 2002 report could not be located, and County and City development records were not reviewed.

Section 8: Findings

Findings of the ESA have been discussed throughout the body of this report and are tabulated below.

<i>Report Section</i>		<i>REC (Y/N)</i>	<i>CREC (Y/N)</i>	<i>HREC (Y/N)</i>	<i>De Minimis Conditions (Y/N)</i>	<i>Comments</i>
2	Site Description	Y	N	Y	N	Vacant industrial lot. Former Western Sealing & Striping facility.
3	User-Provided Information	Y	N	Y	N	Review of Phase II 2002 and AMEC ESA 2008
4	Records Review	Y	N	Y	N	RECs associated with potential PCE impacts to groundwater underlying the Property; Residual petroleum hydrocarbon impacts to soil and groundwater from former tar/oil pit on the Property; Property is currently an active status in the Voluntary Cleanup Program; HRECs: Former oil/tar pit release and associated remedial activities.
5	Site Reconnaissance	Y	N	Y	N	RECs: Evidence of oil/water separators (vent pipes) was identified on the former leachfield on the Property during the site reconnaissance. HREC: Former oil/tar release associated with Property. Observed two monitoring wells on adjacent parcels.
6	Interviews	Y	N	Y	N	Review of User provided Phase II 2002, ESA 2008, and NDEP records

This ESA has revealed evidence of RECs and HRECs associated with area and Property, respectively. Regarding RECs:

- The Property overlies a regional plume of PCE in groundwater. Adjacent facilities located in proximity of the Property have created PCE impacts to groundwater underlying the Property. The impacted groundwater is within the containment boundary monitored by the Central Truckee Meadows Remediation District. As of the date of this report, remedial action and/or monitoring are being conducted by applicable responsible party(s) and all indications are that this will continue until case closure is granted.
- Following remedial actions, residual TPH in soil above Nevada State Reportable concentrations was noted in multiple locations and at various depths on the Property.
- Based on the observations and analytical results of remediation of the tar/oil pit, groundwater may be impacted below the area of remedial excavation.

- Groundwater at a former boring (B-29) on the Property in 2000 was reported as impacted by chloroform.
- Soil beneath the building foundation has not been assessed. A variety of unidentified chemicals and/or petroleum constituents may be present beneath the remaining foundation of the former warehouse on the Property.
- The soil and groundwater beneath the former leachfield on the Property has not been fully assessed. No indication that the oil/water separator(s) on the Property were abandoned or properly disposed of is indicated in available reviewed reports.
- Evidence of oil/water separators (vent pipes) was identified on the former leachfield on the Property during the site reconnaissance.
- The Property is listed as “active” under the Voluntary Cleanup Program. Upon receiving the ESA 2008, the Property the City of Reno – Redevelopment Agency submitted a VCP Enrollment Application dated April 23, 2008 along with the ESA 2008 Report to the NDEP. The NDEP approved enrollment of the Property into the VCP in their letter dated July 2, 2008 (Appendix E). The VCP status of the Property is currently listed as “active.”

Regarding HRECs, in August 1996, the wash pad on the Property was closed with regards to its connection to the sand/oil separator. The sand/oil separator was disconnected from the leach field, rendering it a septic tank, with no discharge. Additional soil excavation activities were conducted on the east side of the building, where TPH concentrations remained from previous remedial actions. Following the additional excavation activities, the WCHD issued a No Further Action (case closure) letter (dated December 18, 1996). The WCHD stated that it “will not require further redial action of the total petroleum hydrocarbon (TPH) contaminated soil although it is slightly above the State action level of 100 mg/kg.”

Additionally, in July 2003, the top two to three feet of soil along the western portion of the Property was excavated to accommodate a temporary track during the reconfiguration of the main railroad. On July 28, 2003 excavation activities were stopped due to discovery of a thick tar like substance uncovered on the Property. Additional tar and oil substances were encountered adjacent to and east of the tar pit. Soil was found to be impacted and consequently over-excavation activities were conducted. Residual impacts were allowed to be left in place, once it was determined that groundwater and the Truckee River had not been impacted by the abandoned in-placed tar/oil pit. The case was granted regulatory closure by the NDEP in their letter dated October 17, 2006.

Section 9: Conclusion

Broadbent has conducted this ESA in conformance with the scope and limitations of ASTM Practice E1527-13 for the Property located at 0 E. Commercial Row, Reno, NV. Exceptions to, or deviations from, this practice are described in Section 1.4 of this report.

This assessment has revealed recognized environmental conditions in connection with the Property. Regarding RECs:

- The Property overlies a regional plume of PCE in groundwater. Adjacent facilities located in proximity of the Property have created PCE impacts to groundwater underlying the Property. The impacted groundwater is within the containment boundary monitored by the Central Truckee Meadows Remediation District. As of the date of this report, remedial action and/or monitoring are being conducted by applicable responsible party(s) and all indications are that this will continue until case closure is granted.
- Following remedial actions, residual TPH in soil above Nevada State Reportable concentrations was noted in multiple locations and at various depths on the Property.
- Based on the observations and analytical results of remediation of the tar/oil pit, groundwater may be impacted below the area of remedial excavation.
- Groundwater at a former boring (B-29) on the Property in 2000 was reported as impacted by chloroform.
- Soil beneath the building foundation has not been assessed. A variety of unidentified chemicals and/or petroleum constituents may be present beneath the remaining foundation of the former warehouse on the Property.
- The soil and groundwater beneath the former leachfield on the Property has not been fully assessed. No indication that the oil/water separator(s) on the Property were abandoned or properly disposed of is indicated in available reviewed reports.
- Evidence of oil/water separators (vent pipes) was identified on the former leachfield on the Property during the site reconnaissance.
- The Property is listed as “active” under the Voluntary Cleanup Program. Upon receiving the ESA 2008, the Property the City of Reno – Redevelopment Agency submitted a VCP Enrollment Application dated April 23, 2008 along with the ESA 2008 Report to the NDEP. The NDEP approved enrollment of the Property into the VCP in their letter dated July 2, 2008 (Appendix E). The VCP status of the Property is currently listed as “active.”

Section 10: Limitations & Exceptions of Assessment

Broadbent prepared this report for the exclusive use the City of Reno. This ESA is based on review of the site description, User-provided information, readily ascertainable environmental records, and results of site reconnaissance and interviews. This ESA was conducted in accordance with generally accepted environmental practices and procedures, as of the date of the report. Reputable environmental professionals practicing in this or similar localities conducted the services employing a degree of care and skill ordinarily exercised under similar circumstances. Findings and conclusions were made using methodologies employed per ASTM International Practice E1527-13 described by ASTM International as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying RECs. No other warranties are implied or expressed.

No environmental sampling and associated analyses were undertaken for this ESA report. It is possible that variations in conditions could exist beyond points explored in this investigation.

This report represents professional opinion and judgment, which are dependent upon information obtained during the performance of consulting services. Environmental conditions may exist at the Property that cannot be identified. Conclusions are based, in part, on information supplied by others, the accuracy or sufficiency of which may not be independently reviewed. No investigation can be thorough enough to exclude the presence of hazardous materials at a given site; therefore, if no hazardous materials are identified during an assessment, such a finding should not be construed as a guarantee of the absence of such materials on a property, but rather the results of services conducted within project scope, cost, and other real limitations.

Opinions presented apply to conditions existing at the time services were conducted. Broadbent is unable to report on, or accurately predict events that may impact the Property following performance of the described services, whether occurring naturally or caused by the actions of others. Broadbent assumes no responsibility for conditions it is not authorized to investigate or conditions not generally recognized as environmentally unacceptable at the time services are conducted. Broadbent is not responsible for change in applicable environmental standards, practices, laws, or regulations following performance of services.

Section 11: Certification Statement & Signatures

As required by 40 CFR Part 312.21(d), I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in §312.10 of this part. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject Property. I have developed and conducted the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. My qualifications as an Environmental Professional are presented within Appendix F.

BROADBENT & ASSOCIATES, INC.

Signature:



Name: Brandon Reiff

Title: Senior Geologist

Date: March 22, 2019

Registration No.: 2300

State of: NV

Section 12: References

- AMEC Earth Earth & Environmental, Inc., 22 January 2008. Phase I Environmental Site Assessment – Tax Assessors Parcel 008-360-07, Reno, Washoe County, Nevada.
- American Society for Testing and Materials, 6 November 2013. Designation E1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.
- Environmental Data Resources, 14 December 2018. The EDR Aerial Photo Decade Package: City of Reno Brownfields, 0 E Commercial Row., Reno, NV 89501 (Inquiry # 5512658.54).
- Camp Dresser & McKee, Inc., 11 October 2006. Groundwater Investigation Summary – Former Western Sealing and Striping, 111 Morrill Avenue, Reno, NV.
- Environmental Data Resources, 17 December 2018. The EDR-City Directory Abstract: City of Reno Brownfields, 0 E Commercial Row., Reno, NV 89501 (Inquiry # 5512658.50).
- Environmental Data Resources, 14 December 2018. The EDR Radius Map Report with GeoCheck: City of Reno Brownfields, 0 E Commercial Row., Reno, NV 89501 (Inquiry # 5512658.47s).
- Environmental Data Resources, 14 December 2018. Certified Sanborn Map Report: City of Reno Brownfields, 0 E Commercial Row., Reno, NV 89501 (Inquiry # 5512658.48).
- Environmental Data Resources, 14 December 2018. EDR Historical Topographic Map Report: City of Reno Brownfields, 0 E Commercial Row., Reno, NV 89501 (Inquiry # 5512658.49).
- Lahontan GeoScience, Inc., August 2002, Phase II Environmental Evaluations of Desert Glass and Nevada Forklift, Caravan Camper Tops, and Western Sealing and Striping Properties.
- Nevada Division of Environmental Protection, 2 July 2008. Voluntary Cleanup Program – City of Reno Redevelopment Agency Approval Letter for VCP Application.
- Nevada Division of Environmental Protection, 17 October 2006. Groundwater Investigation Summary, Former Western Sealing and Striping, 111 Morrill Avenue, Reno, NV, NDEP Facility ID#D-000100.

FIGURES



IMAGE SOURCE: Google Earth

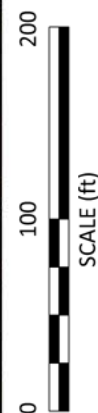


APN 011-450-24

TRUCKEE RIVER

WELLS AVENUE
(OVERPASS)

COMMERCIAL ROW



SCALE (ft)



5450 Louise Lane, #101
Reno, Nevada 89511
Project No.: 18-02-211 Date: 1/23/2019

Property Location Map

Phase I ESA
0 E. Commercial Row
Reno, Nevada

Drawing

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