July 16, 2018

Mr. Fonda Apostolopoulos
Voluntary Clean-Up Program
CDPHE - Haz Mat and Waste
4300 Cherry Creek Drive South
Denver, Colorado 80246

RE: **Application for Voluntary Clean Up Plan**
7225 Bradburn Boulevard, Westminster, Colorado

Dear Mr. Apostolopoulos:

On behalf of the City of Westminster, the current owner of the Subject Property, Strategic Environmental Management, LLC (SEM) is submitting the attached "Application for Inclusion in the Voluntary Clean-Up Program – 7225 Bradburn Boulevard, Westminster, Colorado" (VCUP Application). SEM has also enclosed a check, payable to the Colorado Department of Public Health and Environment ("CDPHE"), for $2,000.

In order for this site to receive consideration to receive an acceptance into Colorado's Voluntary Clean Up Plan, a site-specific Soils Management Plan (SMP) has been developed to manage and remove contaminated soils during the redevelopment of the real estate.

The SMP presented in this VCUP Application is based on a review of the site history, evaluation of historic on-site chemical usage, identification of potential areas of concern on-site, series of subsurface investigations of potential areas of concern and an analysis of potential risk posed by contamination identified at the site, as documented in the attached VCUP Application. This SMP ensures that any disturbance of the site surface and subsurface soils will be conducted so as to attain a degree of cleanup and control of hazardous substances and petroleum products, such that the property does not present an unacceptable risk to human health or the environment based on the future use.

It is understood that upon completion of the voluntary cleanup plan as per the SMP, that is certified by an environmental professional, no further action would be required to assure that this property, when used for the purposes identified in the voluntary cleanup plan, mixed use residential, is

protective of future proposed uses and does not pose an unacceptable risk to human health or the environment at the site.

SEM, on behalf of the City of Westminster, appreciates your review of the VCUP Application and requests that future correspondence from CDPHE regarding this application be addressed to both SEM and the owner's representatives, Ms. Jenni Grafton and Mr. Seth Plas at the City of Westminster located at 4800 West 92nd Avenue, Westminster, Colorado 80031.

If you have any questions as you review this document, please contact me at 720-841-2200.

Sincerely,

Patrick E. Lee
Principal

cc: Mr. Seth Plas, City of Westminster

APPLICATION
For
VOLUNTARY CLEAN UP PLAN

7225 BRADBURN BOULEVARD
WESTMINSTER, COLORADO

Presented to:

Ms. Jenni Grafton, LEED AP-ND
Economic Development Coordinator
City of Westminster
4800 West 92nd Avenue
Westminster, Colorado 80031

July 16, 2018

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1.0 INTRODUCTION

Strategic Environmental Management (SEM) has prepared this Application for inclusion into the Voluntary Clean-up Program on behalf of City of Westminster, the current registered owner. The registered address for the owner is 4800 West 92nd Avenue, Westminster, Colorado 80031. The property is located at 7225 Bradburn Boulevard, Westminster, Colorado (Site).

This report is being submitted to the Colorado Department of Public Health and Environment (CDPHE) for inclusion in the Voluntary Clean-Up Program (VCUP). This application outlines historic activities at the Site, identifies potential areas of concern at the Site where the impact to soil and groundwater due to chemical releases that may have occurred at or up gradient of the Site, reviews remediation activities and evaluates the risks posed by soils and groundwater found at the Site.

This report has been prepared in accordance with the requirements set forth under the Colorado Voluntary Clean-Up Program checklist. The page where each item listed in the checklist can be found in the report is noted and can be found in Appendix A.

1.1 Previous Environmental Investigations

Several environmental investigations have been completed at the Site including:

A Phase I ESA report entitled "**Phase I Environmental Assessment 7225 Bradburn Boulevard, Westminster, Colorado 80030**" was prepared by Strategic Environmental Management, LLC (SEM) on May 6, 2011. A copy of a summary of this report is included in Appendix C.

A Phase II ESA report entitled "**Phase II — Subsurface Soil and Groundwater Investigation**" was prepared by SEM on June 8, 2011. A copy of a summary of this report is included in Appendix D.

A Phase II ESA report entitled "**Phase II — Second Round Subsurface Soil and Groundwater Investigation**" was prepared by SEM on July 28, 2011. A copy of a summary of this report is included in Appendix E.

A Phase I ESA report entitled "**Phase I — Environmental Assessment - 7225 Bradburn Boulevard, Westminster, Colorado 80030**" was prepared by SEM on February 28, 2017. A copy of a summary of this report is included in Appendix F.

A report entitled "**Asbestos Survey & Sampling Report - 7225 Bradburn Boulevard, Westminster, Colorado 80030**" was prepared by SEM on February 28, 2017. A copy of a summary of this report is included in Appendix G.

A Phase II ESA report entitled "**Phase II — Environmental Site Assessment Report – Commercial Property**" was prepared by SEM on April 5, 2018. A copy of a summary of this report is included in Appendix H.

A Phase II ESA report entitled "**Phase II — Environmental Site Assessment Report – Commercial Property**" was prepared by SEM on June 15, 2018. A copy of a summary of this report is included in Appendix I.

A Phase II ESA report entitled "Limited Soil Testing Report" was prepared by SEM on July 10, 2018. A copy of a summary of this report is included in Appendix J.

NOTE: A complete copy of each report listed above can be found in the electronic version of this VCUP application.

1.2 Eligibility for Inclusion in the Colorado Voluntary Clean-Up Program

Inclusion in the Voluntary Clean-Up Program is dependant on the property not being subject to actions under other environmental statutes or regulations. As per the Voluntary Clean-Up Plan and Redevelopment Act (Colorado Revised Statues CRS 25-16-301, 1994) inclusion is appropriate because the following criteria have been satisfied:

- The property is not listed on the National Priorities List under CERCLA;
- No portion of the property is subject to corrective action under orders or agreements issued pursuant to the provisions of Part 3 of Article 15 of CRS 25-16-301 or the Federal Resource Conservation and Recovery Act (RCRA) of 1976 as amended;
- The property is not a facility that has or should have a permit or interim status pursuant to Part 3 of Article 15 of RCRA Subtitle C for treatment, storage or disposal of hazardous waste; and,

1.3 Ownership and Contact Information

Name of Owner: Ms. Jenni Grafton, Mr. Seth Plas
Dept. of Community Development
City of Westminster
4800 West 92nd Avenue
Westminster, Colorado
Telephone: 303-658-2400
Email:splas@CityofWestminster.us/jgrafton@CityofWestminster.us

Technical Consultant: Mr. Patrick Lee
Strategic Environmental Management, LLC
720-841-2200
Email: patlee@strategicenviro.com

2.0 SITE BACKGROUND AND SETTING

2.1 Site Setting

The Site is located at 7225 Bradburn Boulevard, Westminster, Colorado, a retail-commercial and residential area. As shown on Figures 1 and 2, the Site consists of a rectangular shaped parcel of land totaling .64 acres. The property has been improved with a single-story, 1,296 square foot, wood frame and sided commercial building with a crawl space and a detached 2,100 square foot wood frame, slab-on-grade, three-car garage. Asphalt-singles are on both of the buildings. The original building, now identified as Unit B was 720 square feet, had interior metal walls and was built in 1970. A 576 square foot addition was constructed in 2005 on the south side of the original building and is identified as Unit A. The garage was built in 2000 and is being used for storage. The remainder of the property is made up of broken-up asphalt driveways and parking areas with a mixture of unpaved earthen areas on the east and north sides of the property. The west and south sides have overgrown weedy areas with some grass.

A legal description of the property is included in Appendix B.

The area around the Site is made up of mostly retail buildings and commercial structures. Detailed descriptions of the adjoining and surrounding properties are as follows:

North – The Site is bounded to the north by a commercial building occupied by Larry's Automotive, a car and transmission repair shop, located at 7237 Bradburn Boulevard.

South – A residential property located at 7215 Bradburn Boulevard borders the Site to the south.

East – The Site is bounded to the east by Bradburn Boulevard followed a commercial building occupied by a plumbing business called Urban Plumbing located at 7212 Bradburn.

West – The Site is bordered to the west by open space owned by the City of Westminster.

2.2 Site Geology and Hydrogeology

The elevation of the Subject Property is approximately 5,323 feet above mean sea level and the surface is relatively flat. The topography (as described in the EDR report) indicates that, in general, the site is relatively flat with the gradient in the general area appearing to slope from the west to east and north to south. Storm water flow is routed via sheet flow over the hardscapes across the property to the west and then via a backyard rip-rap swale that directs the water to the south west into the vacant property on the west side of the Site.

The overall geology for the Site as defined by P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994). Based on this information the underlying geology consists of the following:

Era: Mesozoic
System: Cretaceous
Series: Navarro Group
Code: uK4 (decoded above as Era, System & Series)
Cenozoic Category: Stratified Sequence

Information for soil in this area was obtained from the US Department of Agriculture. The dominant soil type in the area is the Ulm loam. This material consists of a silty clay/ loam mixture with slow infiltration rates that is well drained with layers impeding downward movement of water. Depth to the water table in the area has been determined to be approximately 32 feet based on the June 8, 2011 engineering report prepared by SEM for the Site. A copy of the engineering report can be found in Appendix D. Copies of the soil documents were not found on the website (http://websoilsurvey.nrcs.usda.gov/app.) and information from the EDR Report in the May 6, 2011 SEM Phase I report and the topographical map on Figure 1 was used.

2.3 Site Operational History

Based upon information obtained from interviews and city directories the original use of the Site in 1970 was for a Westminster U-Pump-It gasoline station that was owned by Peerless Tyre and was listed in the LUST and UST databases of the Phase I reports. A review of the files at the State of Colorado's Labor & Employment - Department of Oil & Public Safety (OPS) indicated that the facility contained three underground storage tanks; two 12,000 gallon and one 4,000 gallon gasoline tanks. Three Leaking Underground Storage Tanks ("LUST") were removed on October 15, 1990. The tanks were observed to be in good to poor condition with two of the tanks having ¼ to ½ inch holes in them. Later in December 1995 and again in July 1997, the State of Colorado issued No Further Action letters for the Site. The site has been occupied by the South Westminster Arts Group (SWAG) since 2015 but is currently vacant.

2.4 Site Remediation History

The Phase I Environmental Site Assessment that was prepared by Strategic Environmental Management, LLC on May 6, 2011 indicated that in January 1991, an excavation to a depth of 30 feet resulted in 600 cubic yards of contaminated soil being removed from the Site and taken to the Denver Arapahoe Landfill.

2.5 Proposed Future Use

As shown in Appendix B, the Site is currently zoned C-1 – Commercial. While it is currently zoned commercial, the opportunity to include the development into the Harris Park Revitalization plan is a possibility and the zoning will be assumed to be Residential.

3.0 SITE CHARACTERIZATION

3.1 Phase II — Subsurface Soil and Groundwater Investigation – June 8, 2011

This Phase II ESA report was prepared by Strategic Environmental Management, LLC on June 8, 2011. The report entitled "Phase II Environmental Assessment 7227 Bradburn Boulevard, Westminster, Colorado 80030". SEM conducted the investigation primarily to determine if subsurface soil and groundwater at the Site had been significantly impacted by hydrocarbons and dry cleaning chemicals in the immediate vicinity of the location of the former underground petroleum storage tanks and dry cleaning operation. A total of three soil samples and two groundwater samples were analyzed for a suite of VOCs including benzene, toluene, ethyl benzene and xylenes (BTEX), MTBE, total recoverable petroleum hydrocarbons (TRPH) and chlorinated compounds and all samples tested as Non Detect. No other tested compounds were detected above the laboratory detection limit. Figure 3 provides a summary of the test results and their relative locations on the Site. A copy of a summary of this report is included in Appendix D.

3.2 Phase II — 2nd Round Subsurface Soil and Groundwater Investigation – July 28, 2011

This Phase II ESA report was prepared by SEM who conducted a second round investigation Phase II ESA on July 28, 2011. The purpose of this was to obtain additional environmental data to evaluate concerns in connection with past uses of the Site and adjacent properties. The first round of testing was concentrated on the eastern side of the Site while this second round concentrated more on the western side of the Site. This investigation revealed a detection of diesel fuel in the groundwater at the north west corner of the Site. As shown on Figure 4 and Table 1, while the Site has evidence of low concentrations of DRO in the shallow soils, the cause of the groundwater contamination is more than likely from an up-gradient source. As there is no State cleanup standard for DRO and the concentration is relatively low it is not likely that any groundwater remediation will be required. A copy of a summary of this report is included in Appendix E.

3.3 Asbestos Survey Report - 7225 Bradburn Boulevard – February 28, 2017

This survey was requested by the City of Westminster so that the buildings could be demolished. An Asbestos Survey Report was completed on February 28, 2017 and a summary of the findings is included in Appendix G. Asbestos bulk-sampling of surfacing materials was conducted in a total of twenty-one (21) locations within the structure. Material samples taken included drywall in a total of fourteen (14) locations, floor tile in a total of two (2) locations, molding in a total of two (2) locations, ceiling tile in one (2) location and linoleum in one (1) location. All twenty-one (21) bulk samples were analyzed by Reservoirs Environmental, Inc. (NVLAP #101896).

The laboratory results of the potential ACM sampled at the Subject Property indicate that one sample of floor tile tested positive for 6% chrysotile asbestos. According to Regulation 8, Non-friable asbestos containing materials as noted may remain in a building during demolition. Occupational Safety and Health Administration guidelines should be followed while disturbing or handling these materials. State of Colorado licenses and certifications for asbestos handling

are not required so long as materials remain nonfriable. Workers disturbing asbestos containing materials must be OSHA/EPA trained and asbestos containing materials must be disposed of in a land-fill approved by the EPA to receive asbestos waste. So long as the demolition contractor does not crush the floor tile on the concrete, the building can be demolished without abating the floor tile. Specific locations for the ACM are shown in the floor plans for the structure sampled in Figure 1 in Appendix G along with photo documentation. As a result, asbestos is not considered a BER. A copy of a summary of this report is included in Appendix G.

3.4 Phase II –Strategic Environmental – April 5, 2018

This Phase II consisted of the drilling of three boreholes BH-1, BH-2 and BH-3. During the Phase II operation in June 2011, SEM drilled a well identified as BW-1 approximately 10 feet to the west of the BH-1 well that was drilled during this Phase II. Test results for both soil and groundwater for BW-1 were non-detect for all chemicals. However, as shown in Figure 5 and Table 2, seven years later, both the soil and groundwater in this area now test with elevated concentrations of Ethylbenzene, DRO and GRO in the soils and 1,2,3 Trimethylbenzene, 1,2,4 Trimethylbenzene, DRO and GRO in the groundwater. It appears that a hydrocarbon spill has occurred on the north east corner of the Site at some point after July 2011.

Based on the previous environmental assessments and the Limited Phase II ESA results, SEM recommended that a Soil Management Plan (SMP) be incorporated into the Voluntary Clean Up Plan (VCUP) application to the CDPHE that is currently being prepared for the Site. This soil management plan can then be implemented during the construction phase for management of any impacted soil or earth moving activities that may occur at the Site. Also, SEM recommended implementing a vapor mitigation system to any future residential building design plans for the Site.

3.5 Phase II — Strategic Environmental – June 15, 2018

After reviewing the results of the April 5, 2018 Phase II with the CDPHE, additional characterization was requested to determine if the hydrocarbon contamination was migrating from the up gradient location at Larry's Automobile. As a result, SEM drilled two additional boreholes, BH-4 and BH-5 as shown on Figure 6, to determine the source and confirm the location of the spill and the dynamics of the plume.

As shown in Table 3, five soil and two groundwater samples were collected at the Site. While there were some detections of Benzene, Diesel Range Organics (DRO) and Gasoline Range Organics (GRO) were found in the shallow soil samples from BH-4 and BH-5, all concentrations were well below State standards. Moreover, no detections were found in the two groundwater samples.

Based on the results of this investigation, it appears that the source is not from an up gradient location and that a hydrocarbon spill has occurred on the north east corner of the property at some point after July 2011. SEM recommended that a Soil Management Plan (SMP) be incorporated into the Voluntary Clean Up Plan (VCUP) application to the CDPHE that is currently being prepared for the Site. This soil management plan can then be implemented during

the construction phase for management of any impacted soil or earth moving activities that may occur at the Site. Also, SEM recommends implementing a vapor mitigation system to any building design plans for the Site.

3.6 Phase II - Limited Soil Testing Report- Strategic Environmental – July 10, 2018

Pursuant to a CDPHE request, SEM prepared a Limited Soil Screen for the property and the purpose of this Soil Screen is to identify possible environmental issues relating to the primary RCRA metals on the Site and determine the extent of the risk associated with soils excavated from the Site that may be used as fill material on other locations on the site.

On July 2, 2018 SEM collected representative soil samples from five separate areas on the Site.

While the test results are summarized in Table 4, the results indicate that the soils at the Site have detections of metals. None of the metal concentrations exceeded the State allowables for any chemicals except arsenic. While arsenic, ranging from 2.73 to 3.78 mg/Kg, was the only metal detected above the State standard of 0.68 mg/Kg, the CDPHE has issued a Draft Guidance that establishes 11 mg/Kg as the level that would trigger a request for further study to determine the source of the arsenic, as a result the arsenic concentrations in site soils are of no concern.

Based on this information contained in this Limited Soil Screen report, the soil at 7225 Bradburn Boulevard appears to be acceptable for use as fill material on other areas at the Site. A copy of this report is in Appendix J.

4.0 APPLICABLE STANDARDS/RISK DETERMINATION

4.1 Introduction

The VCUP Application requires that existing Site conditions be compared to promulgated State of Colorado or other appropriate risk-based criteria if no promulgated standards exist. The Colorado Department of Public Health and Environment (CDPHE), Hazardous Materials and Waste Management Division (HMWMD) had established Colorado Soil Evaluation Values (CSEVs) for a large number of contaminants. This set of standards has now been replaced by USEPA Region 3 – Regional Screening Level (RSL) Resident Soil Table (TR=1E- 06, HQ=0.1) November 2017. The contaminants detected in the soil and groundwater at this Site has been compared to these standards in the paragraphs that follow.

4.2 Extent of Soil and Groundwater Contamination

Since 2011 there have been five Phase II investigations conducted at the Site that have involved the installation of eleven boreholes and five shallow soil samples. Results from the two Phase II's that were conducted in 2011 indicated that there was some minor detections of DRO on the west side of the site with the east side testing at Non-Detect for all chemicals. These results are shown on Figure 3 and 4 and Table 1.

The Phase II's conducted in 2018 involved tests of the groundwater in the three wells shown in Figure 5 and on Table 2 that indicated that the area near where the 2011 borehole was drilled on the north east side of the Site tested with elevated concentrations of Ethylbenzene, DRO and GRO in the soils and 1,2,3 Trimethylbenzene, 1,2,4 Trimethylbenzene, DRO and GRO in the groundwater. The other two boreholes tested Non-Detect in both soil and groundwater indicating that no chemicals are migrating offsite. In order to confirm if the contamination was migrating in from the up gradient location at Larry's Auto, two additional boreholes were drilled on the north eastern boundary of the Site. As shown on Figure 6 and Table 3, these two borings tested with slight detections of GRO and DRO and Benzene in the soils and no detections in the groundwater. In addition, the PID readings for BH-1, indicating a declining concentration from the 2 foot level to approximately 15 feet bgs, were as follows:

BOREHOLE	DEPTH (feet)	PID METER READING (ppm)	DRILLING COMMENTS
BH-1	1	0	Asphalt, sandy gravel, clay
	2-4	1756	Light grey clay - odor
	4-6	759	Light grey clay - odor
	7-12	127	Light Brown Clay - slight odor
	13-25	21	Light Brown Clay no odor
	25 - 40	0	Dark Clay then Sandy, Gravelly

This confirmed that the elevated hydrocarbon release did not migrate in from an up gradient location. However, it appears that a hydrocarbon spill has occurred on the north east corner of the Site at some point after July 2011.

The last Phase II investigation involved the testing of soils on the areas not involved in the north east area situation. On July 2, 2018, five composite surface soil samples were taken at spatially separated random locations by cutting through the asphalt and sampling the top six inches of underlying soils. As shown in Table 4, sample results indicate that the soils at the Site have detections of metals. None of the metal concentrations exceeded the State allowable for any metal except arsenic While arsenic ranging from 2.73 to 3.78 mg/Kg was the only metal detected above the State standard of 0.68 mg/Kg, the CDPHE has issued a Draft Guidance that establishes 11 mg/Kg as the level that would trigger a request for further study to determine the source of the arsenic, as a result the arsenic concentrations in site soils are of no concern.

In summary, it appears that all the issues that were identified in the May 8, 2011 Phase I and further investigated in the Phase II's competed in 2011 and 2018 have been addressed.

4.3 Future Potential Human and/or Environmental Exposure

4.3.1 Direct Contact Soil Exposure

Concentrations of petroleum hydrocarbons in samples collected in the soils in the north east portion of Site exceed cleanup standards. In order to prevent this contaminated soil from posing an unacceptable risk based on direct contact to either human health or the environment a Soil Management Plan has been developed to manage the residual environmental impacts. This Soil Management Plan is provided in Section 5.

4.3.2 Vapor Inhalation

Phase II investigations indicated elevated concentrations of petroleum hydrocarbons on the Site and as a result, vapor intrusion may be an issue. While the SMP may address the removal of elevated concentrations of hydrocarbon contaminated soils, it is suggested that the indoor air pathway be made incomplete though the use of sub-slab vapor mitigation systems and once installed, confirmed effective with post construction indoor air testing.

4.3.3 Groundwater Exposure

The Site currently receives drinking water from the public water supply and there are no future plans to install a drinking water well at the Site. A review of the February10, 2017 EDR report published for this area provides a detailed list of 55 water wells located within one mile of the Site and none of these wells are used for supplying drinking water. Figure 7, taken from the EDR report, also provides evidence that there are no Public Water Supply Wells within a mile of the Site. Therefore, contamination of groundwater at the Site does not present an unacceptable risk to either on-site or off-site receptors now or under future use for the Site.

5.0 SOIL MANAGEMENT PLAN

The purpose of this Soil Management Plan (SMP) is to address expected hydrocarbon contamination identified in the soil in the north east portion of the site located at 7225 Bradburn Boulevard, Westminster, Colorado. This SMP will address waste generated during excavation, and/or earth moving activities. The activities anticipated by the SMP include excavation, transportation, and off-site disposal of waste encountered during redevelopment activities. This SMP is to be used in conjunction with the Voluntary Cleanup Plan (VCUP).

This SMP will provide comprehensive, but flexible, procedures for managing the removal, relocation and/or disposal of soil that is reasonably expected to be encountered during the development of the Site, in accordance with state, federal and local regulations. The SMP also describes confirmation and waste characterization sampling and analysis protocol. The SMP is being prepared for submittal to the Colorado Department of Public Health and Environment (CDPHE) within the VCUP program to obtain regulatory concurrence on the principal methods for waste handling and since all materials with elevated levels of Volatile Organic Compounds (VOC's) will be removed from the Site, there will be no need to incorporate Environmental Covenants for future use issues. Upon CDPHE approval, the SMP will be provided to the contractor for implementation of the VCUP to facilitate project development.

The primary goals of the SMP are as follows:

- Limit worker exposure to contaminated materials;
- Prevent any potentially contaminated materials which may be generated during the renovation from impacting human health and the environment;
- Ensure that the disposition of all contaminated or potentially contaminated materials is conducted according to all Local, State and Federal environmental regulations;
- Provide the basis for a Health & Safety program for the field activities involving soil excavation at the Site; and,
- A qualified environmental professional will be required to implement the SMP and provide any of the required monitoring activities.

The tasks and responsibilities required to minimize exposure to potentially hazardous substances and properly manage the affected soils are as follows:

- Identify Chemicals of Concern and the Areas of Interest
- Field Monitoring
- Soil Management
- Transportation and Disposal
- Health and Safety

5.1 Identify Chemicals of Concern and Areas of Concern

The Site has undergone several previous Phase II ESAs and portions of these reports have addressed not only the Site but also have identified the north east portion of the Site as the location of a possible spill of gasoline or diesel fuel. The location of this 50 foot by 50 foot (2,500 square feet) Area of Concern is shown on Figure 8. The actual amount of contaminated soil that will be identified during the remediation will depend on the aerial extent and depth. Assuming the depth to be approximately 12 feet at the center (based on PID readings in the borehole) and extending to approximately 500 square feet in area, the amount of soil removed would be approximately 200 cubic yards, A summary of the investigations, activities, and reports that have been prepared in connection with the Site are included in this VCUP application.

5.2 Potential Waste Streams Associated with Site Redevelopment

Soil and/or fill removal through excavation will be conducted as part of the demolition contract for the Site. Visual characterization, location information, process knowledge, and field screening tools and equipment will be utilized to identify potential known and unknown wastes. When contamination is found during soil disturbing activities, the protocol defined in this section of the SMP will be followed. While a qualified environmental professional (EP) will have the specific responsibility of identifying contaminants or non-native material in soil, all personnel on Site have the responsibility to look for and report evidence of contamination to the General Contractor.

Soil disturbed as part of the activity and contaminated with organic compounds above the CDPHE Action Levels will be segregated, profiled, manifested, transported, and disposed offsite at a licensed disposal facility. If analytical results indicate that contaminant concentrations are below the CDPHE Action Levels, the soil will be used as backfill on Site or will be segregated, profiled, manifested, transported, and disposed offsite at a licensed disposal facility.

Uncontaminated soil may be re-used onsite, reused offsite, or disposed at a disposal facility. The following subsections describe the categories of wastes that are anticipated to be encountered at the Site and define waste streams that are representative of these waste materials. Additionally, the following subsections provide definitions and waste occurrences.

5.2.1 Total Petroleum Hydrocarbons (“TPH”)

Soils with potential hydrocarbon or volatile organic compounds contamination that are excavated and exposed during the renovation construction activities will be field screened for organic vapors using a PID. Field monitoring of soil will be conducted throughout any invasive or earth moving activities by a qualified environmental professional. Samples for field screening will be collected at a rate of one grab sample per 10 cubic yards of soil excavated or disturbed. If any visible soil staining is observed or if the field screen concentrations exceed 50 parts per million (ppm) the soil will be temporarily stockpiled in the TPH Stockpile on plastic sheeting on the south side of the Site. This material must be placed on polyethylene sheeting, tarps, or other similar material in a bermed area. At the end of the day, the stockpile of suspect material must be

covered with polyethylene sheeting, tarps, or other similar material. The stockpile must also be surrounded by snow fencing, survey ribbon, or similar barrier material and posted with signs directing personnel to stay out. All equipment and PPE that comes into contact with the suspect soil must be assumed to be contaminated and therefore decontaminated prior to leaving the Site.
If soil field screening measurements are in excess of 500 ppm, the breathing zones of the excavation contractor personnel will immediately be screened. In addition, the excavation contractor supervisor and the Health and Safety Officer will be notified. If breathing zone concentrations exceed 500 ppm, work will cease, workers will leave the immediate area and this will allow the vapors to equilibrate with atmospheric conditions.

5.2.2 Clean Soils

Soils removed from areas other than the 2,500 square foot area of concern will be tested with the use of the Photo Ionization Detector ("PID") meter to ensure that the soils do not contain TPHs. A meter reading over 50 ppm will require that the soils be taken to the TPH Stockpile. Soils testing below 50 ppm will be taken to an area defined as the Clean Soil Stockpile which can be located in an area that compliments the redevelopment.

5.2.3 Unknown Wastes

Unknown wastes are defined as wastes that have not been previously characterized, and may exhibit one or more of the following characteristics:

- Observed at a different location than may be expected
- Unexpected visual characteristics (staining)
- Unusual odors
- Unexpected containers, bottles, drums
- Unknown source area

The excavation and earthwork activities will be monitored in accordance with a site-specific Health and Safety Plan to ensure employee and safety. If unknown wastes are encountered, representatives of the CDPHE will be notified of the discovery. Wastes will be segregated and managed on Site until the wastes are characterized for waste profiling and subsequent off-site disposal. Identified impacted soil will be sampled in accordance with Section 5.3 of this document.

If the sampling data shows that contaminants remain at levels that are not protective of human health or the environment and cannot be removed during the construction excavation, a Response Action will be prepared to address proposed actions to either conduct additional contamination treatment or removal or to leave the contamination in place. The Response Action will be submitted to CDPHE for review and approval.

5.2.4 Confirmatory Post –Excavation Sampling

Confirmatory post-excavation soil samples will be collected from the base of the excavation at a frequency of one per 500 square feet with a minimum of two base samples. Composite

confirmatory sidewall samples will be collected at a frequency of one per every 50 feet of wall with a minimum of one sample from each side wall.

5.3 Soil, Groundwater & Waste Management

As described above, the results of the laboratory testing indicate whether or not chemicals in Site soil present an unacceptable human health risk. Furthermore, dust from a construction site can present a nuisance if not controlled. Likewise, erosion of on-site soil during construction activities can increase the turbidity of surface water run-off. Therefore, the SMP will also provide guidelines for soil handling, stockpiling, dust and erosion minimization during site construction activities for the future renovation.

Following waste profiling activities, new waste streams (i.e., Unknown waste as described above) will be sampled at the following frequency:

- One 5-point composite sample per five 55-gallon drums, or
- One 5-point composite sample per 500 cubic yards soil stockpile.

If, during construction activities, soils are encountered which exceed the United States Environmental Protection Agency (EPA) Screening Levels table, appropriate steps must be followed to ensure the safe removal of the soil while protecting workers and the general public. The following describes the standards and cleanup thresholds used for soil and groundwater that may be encountered during development activities:

- EPA residential screening values November 2017 - https://semspub.epa.gov/work/HQ/197239.pdf

In the unlikely event that groundwater exceeding the surface water impacted groundwater allowable is found, a Construction Dewatering Permit will be obtained from the CDPHE to specify sampling criteria and management/disposal options. Impacted groundwater that is encountered during construction cannot be discharged or infiltrated back into the ground without a general permit or a remediation groundwater permit from CDPHE. Extracted impacted groundwater will be containerized in drums or Frac tanks to be sampled, treated (if necessary), prior to disposal or discharge. Discharge of treated or untreated groundwater to a storm sewer or surface water is prohibited without a Colorado Discharge Permit System (CDPS) permit. Discharge of treated or untreated groundwater to the sanitary sewer is prohibited without permission from the City of Westminster. Sampling frequency will be prescribed by the permit and workers will be required to manage the water in accordance with a site-specific Health and Safety Plan.

Impacted soils that have been excavated from the site and groundwater collected will be transported off-site and properly disposed of at a regulated landfill following all applicable regulations.

5.3.1 Notification

In order that an environmental professional will be available to monitor soil excavation activities at the Site and, an environmental professional will be notified by the Site contractor prior to the start of excavation. At that time, an area designated for the Temporary Storage Areas for Clean and TPH soils will be identified.

5.3.2 Dust Control

The dust control measures to be implemented at the Site consist of:

- Water all active construction areas at least twice daily or as necessary to prevent visible dust plumes from migrating outside of the Site limits.
- Mist or spray water while loading transportation vehicles.
- Minimize drop heights while loading transportation vehicles.
- Use tarpaulins or other effective covers for trucks carrying soils that travel on public streets.
- Sweep all paved access routes, parking areas and staging areas daily, if visibly soiled.
- Sweep street daily if visible soil material is transported onto public streets from the Site.

5.3.3 Erosion Control

An Erosion and Sediment Control Plan (ESC) will be developed by the general contractor prior to initiation of Site work that details procedures for minimizing erosion. The ESC will include elements such as silt traps and hay bales to minimize surface water runoff from the Site into storm drains, berms to control Site runoff, and covering soil stockpiles, as required, during the rain events to minimize sediment runoff.

5.3.4 Soil Stockpile Management

Temporary stockpiling of excavated soil will be necessary throughout site construction. Polyethylene sheeting will be used to stage all soils excavated during invasive activities. This method will serve to prevent infiltration of contamination to surface soils. The soil pile will be further isolated using hay bales to prevent contaminated runoff from spreading to the rest of the Site. Soil stockpiled at the Site will be lightly sprayed with water as needed to minimize dust. There will be two Temporary Storage Areas, one for soils suspected to TPH Stockpile and one for soils removed from all other areas called the Clean Soil Stockpile.

TPH Stockpile:- Soils removed from the area of concern will be stored separately in the TPH Stockpile on the south east side of the Site. Soil will held there temporarily until its ultimate destination is determined as described in Section 5.4. If stored for more than 24 hours, erosion control measure will need to be installed along stockpile perimeter.

Clean Soil Stockpile:- All soils removed from the Site that has been determined to be clean will be placed in this area until its ultimate destination has been determined.

In addition to field screening, composite samples will be collected from stockpiled soil for disposal characteristics. Depending upon the disposal facility used, samples may need to be analyzed for TPH, VOCs, SVOCs, metals and TCLP metals as well as reactivity, corrosively, ignitability and paint filter. The selected landfill will be consulted for the appropriate waste disposal characterization criteria.

5.3.5 Site Access Control

The construction site will be fenced to control pedestrian or vehicular entry, except at controlled points (i.e., gates). Gates will be closed and locked during non-construction hours. "No-trespassing" signs will be posted every 500 feet along the fencing.

5.3.4 Decontamination

Procedures must be followed to minimize the potential for cross-contamination. Contaminated materials must be segregated from uncontaminated materials. The following best management practices should be followed:

- Heavy equipment brought on to the Site must be clean of debris from other sites
- Dedicated equipment is to be used in contaminated areas
- Perform a thorough dry decontamination before transporting equipment out of the work area
- Wrap excavator bucket in plastic prior to transport across the Site
- Allow the environmental professional time to inspect equipment prior to removal from the work area
- Establish a decontamination pad and inspection area
- Avoid tracking mud and debris across the Site and off-site

Prior to demobilization from the Site, equipment that comes into contact with contaminated material will be decontaminated at a decontamination pad constructed by the general contractor. Heavy accumulations of potentially contaminated materials will be removed by scraping with a shovel or similar tool and, where appropriate, by brushing with stiff bristle brushes or brooms.

5.4 Transportation and Disposal

Based upon sample analytical results, excavated concrete and soil will be classified as one of the following:

- Uncontaminated- Unrestricted Use
- Uncontaminated- restricted use
- Health Risk – restricted reuse or disposal; or
- Hazardous waste disposal

The disposition of soil in each of these four categories is outlined in the following subsections

5.4.1 Uncontaminated- Unrestricted Use

Soils with TPH below the respective residential or groundwater protection may be reused at any location on-site or off-site. Detailed documentation of the on-site or off-site disposition will be maintained by the contractor and the EP implementing this SMP. Documentation should include analytical data, how and where the soils are used on the project.

5.4.2 Uncontaminated- Restricted Use

Soils testing above the screening levels for residential land use but below the screening levels for worker protection may be reused at another residential property if the soil is capped by an engineered barrier such as asphalt or concrete, assuming that the groundwater ingestion pathway is complete. Detailed documentation will be required.

5.4.3 Health Risk- Restricted Reuse or Disposal

Soils that exceed worker protection screening levels for TPH will be placed in the TPH Stockpile on top of 10 millimeter plastic sheeting. This stockpile will be maintained by the contractor to prevent any runoff from migrating offsite. Detailed documentation will be required.

5.4.4 Hazardous Waste Disposal

If sample analysis indicates that the soil is designated as hazardous waste, the soil will be containerized immediately in a lined roll-off box, labeled and transported to a hazardous waste disposal facility. These wastes will be manifested and transported to the disposal facility in accordance with State and Federal regulations. Once identified as hazardous waste, this material may not be stored onsite longer than 90 days

5.5 Health and Safety

In addition to the guidelines specified within this SMP, all construction and demolition contractors and subcontractors working at the Site will develop a Health and Safety Plan (HASP) adequate to ensure safe work practices. The HASPs will be reviewed and signed by a Certified Industrial Hygienist.

All personnel entering or working at the Site will be trained in appropriate safety procedures. If contaminated environmental media is encountered, personnel involved in the handling this material will be trained in appropriate safety procedures as set forth in Title 29 of the Code of Federal Regulations (CFR), specifically 29 CFR 1910, also known as the Hazardous Waste and Emergency Response (HAZWOPER) standard. Personnel entering or working at the Site will also be familiar with first aid and cardiopulmonary resuscitation.

Personnel will be dressed in personal protective equipment (PPE) as appropriate to the activity being performed in accordance with guideline in the HASP. If Site conditions or the results of air monitoring performed during on-site activities warrant higher level of protection, field personnel withdraw from the Site and wait for further instructions from the environmental professional.

6.0 CONCLUSIONS

At the conclusion of the implementation of the SMP and VCUP activities, a VCUP - Site Closure Report will be prepared by the EP and submitted to CDPHE for review and approval.

7.0 REFERENCES

Department of Agriculture, Soil Conservation Service, Soil Survey of Denver County, Colorado, John J. Sampson etal., October 1974.

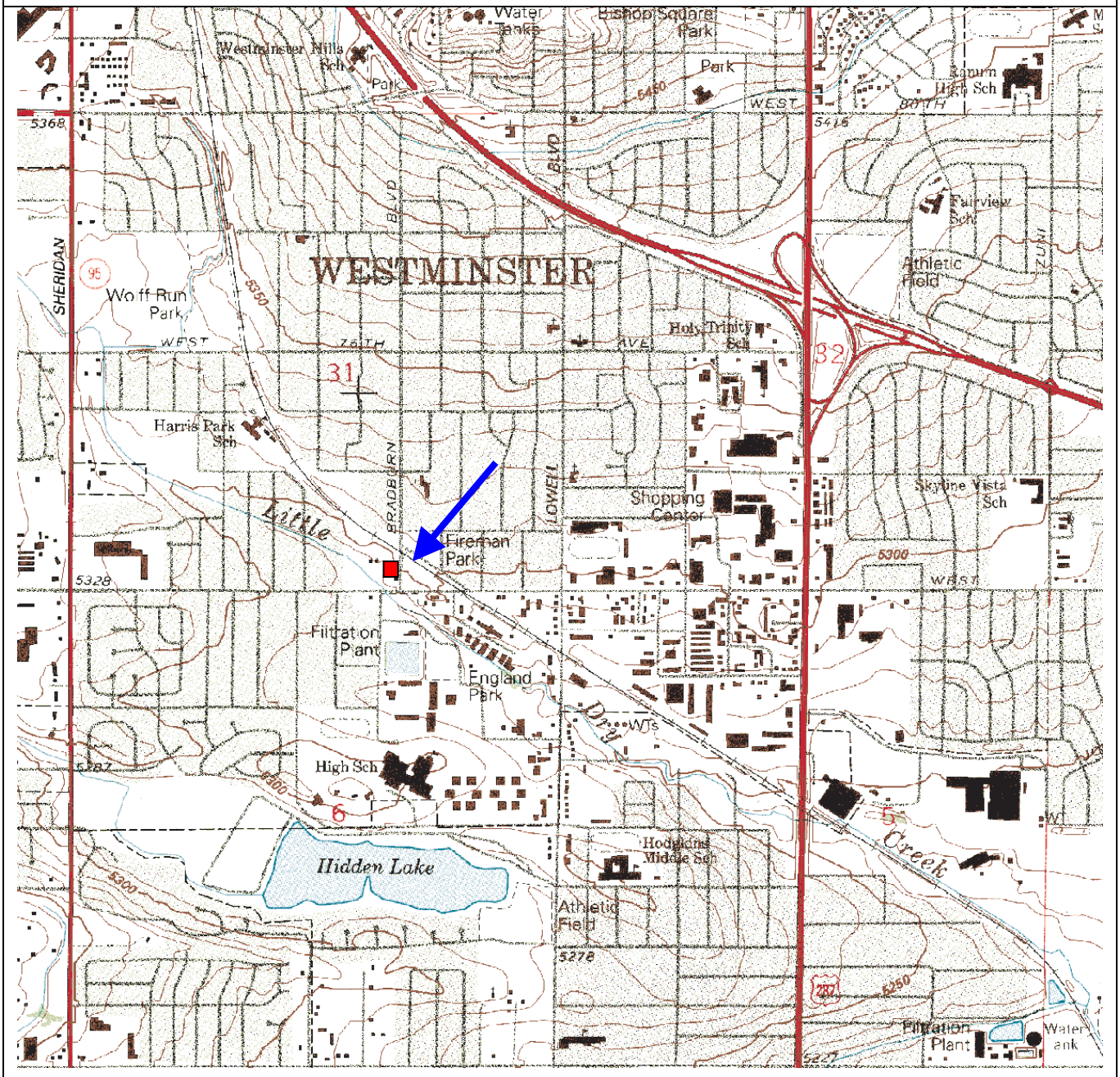
Department of Interior, US Geological Survey, Geologic Map of Colorado, compiled by Ogden Tweto, 1979.

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman. Map, USGS Digital Data Series DDS - 11 (1994).

Colorado Department of Public Health and Environment. Voluntary Clean-Up Roadmap, May 2008.

FIGURES

SITE VICINITY MAP



7225 BRADBURN BOULEVARD		**Scale:**	**1 " = ¼ Mile**
WESTMINSTER, COLORADO		**FIGURE 1**	Strategic Environmental Management LLC.

PROPERTY LOCATION MAP

7225 BRADBURN BOULEVARD			Scale : 1" = 100 Feet
WESTMINSTER, COLORADO		**FIGURE 2**	

Strategic Environmental Management LLC.

JUNE 8, 2011 INVESTIGATION - BOREHOLE LOCATION MAP

BW-1 Soil	
CHEMICAL	ug/Kg
Benzene	ND
BTEX	ND
GRO	ND
DRO	ND
TCE	ND

BS-1 Soil	
CHEMICAL	ug/Kg
Benzene	ND
BTEX	ND
GRO	ND
DRO	ND
TCE	ND

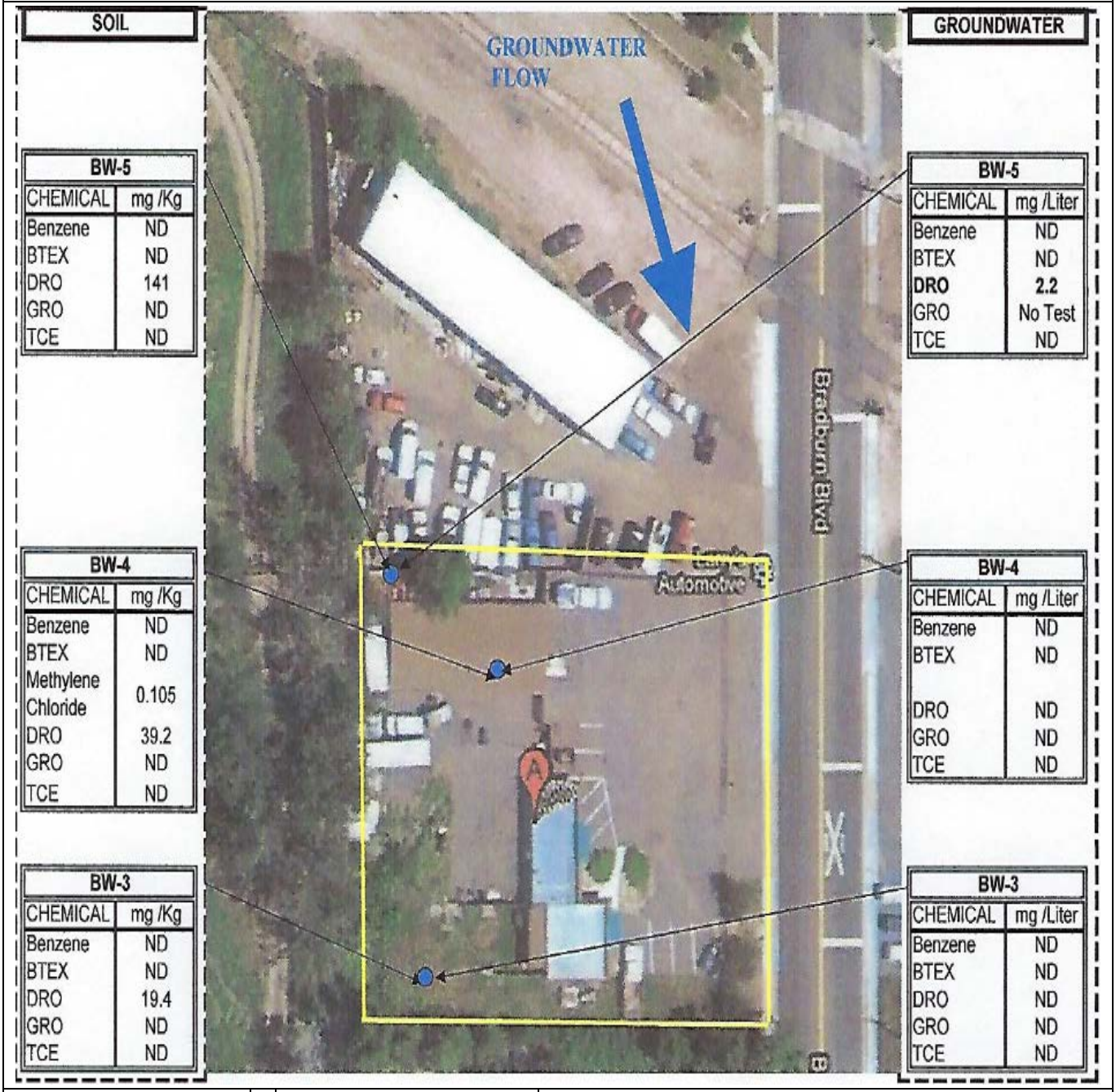
BW-1 GW	
CHEMICAL	ug/L
Benzene	ND
BTEX	ND
GRO	ND
DRO	ND
TCE	ND

BW-2 GW	
CHEMICAL	ug/L
Benzene	ND
BTEX	ND
GRO	ND
DRO	ND
TCE	ND

BW-2 Soil	
CHEMICAL	ug/Kg
Benzene	ND
BTEX	ND
GRO	ND
DRO	ND
TCE	ND

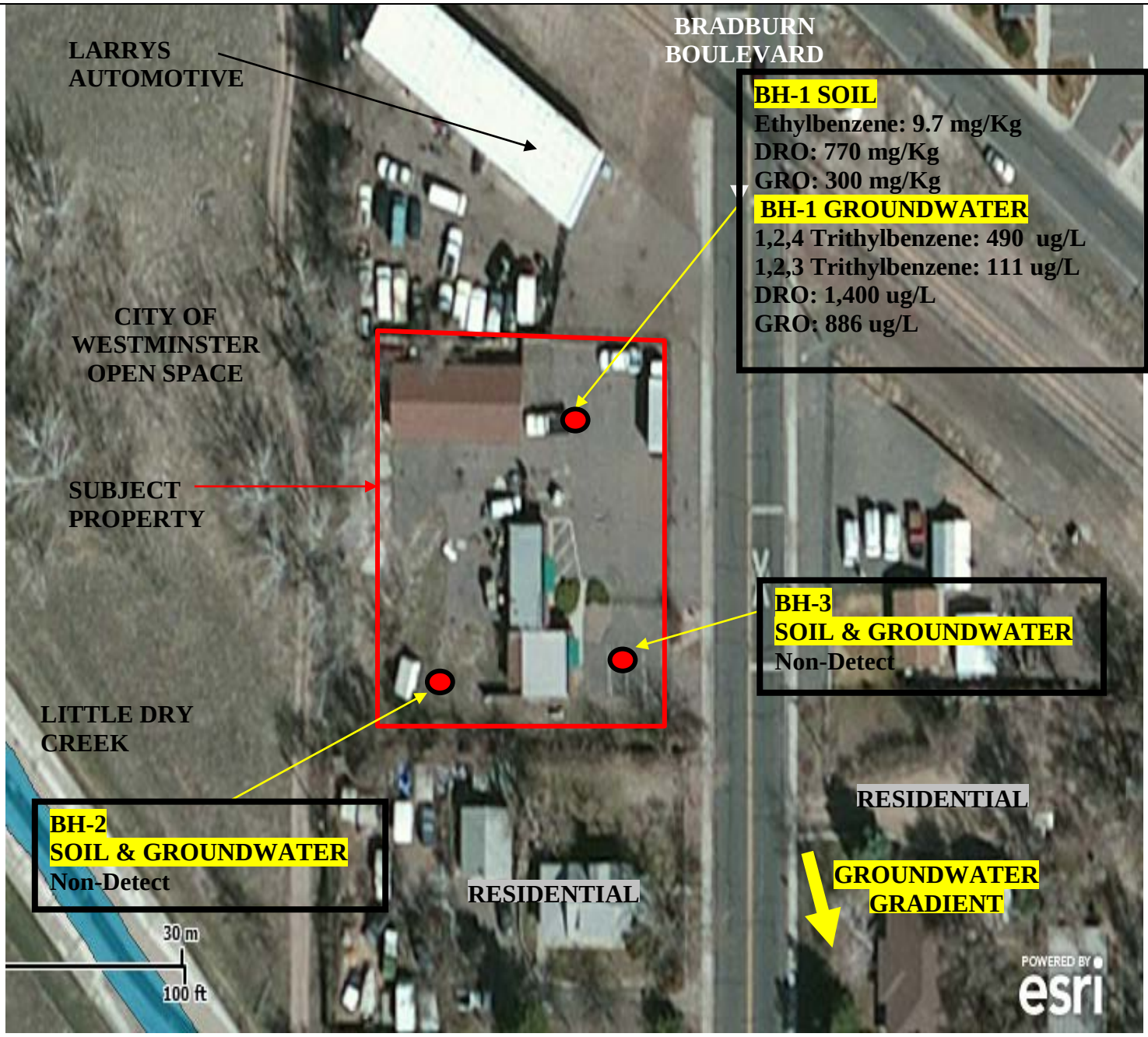
		June 8, 2011	
7225 BRADBURN BOULEVARD		NORTH ↑	Scale : 1" = 75 Feet
WESTMINSTER, COLORADO		FIGURE 3	Strategic Environmental Management LLC.

JULY 28, 2011 INVESTIGATION – BOREHOLE LOCATION MAP



7225 BRADBURN BOULEVARD		**Scale:**	**1 " =1/2 Mile**
WESTMINSTER, COLORADO		**FIGURE 4**	Strategic Environmental Management LLC.

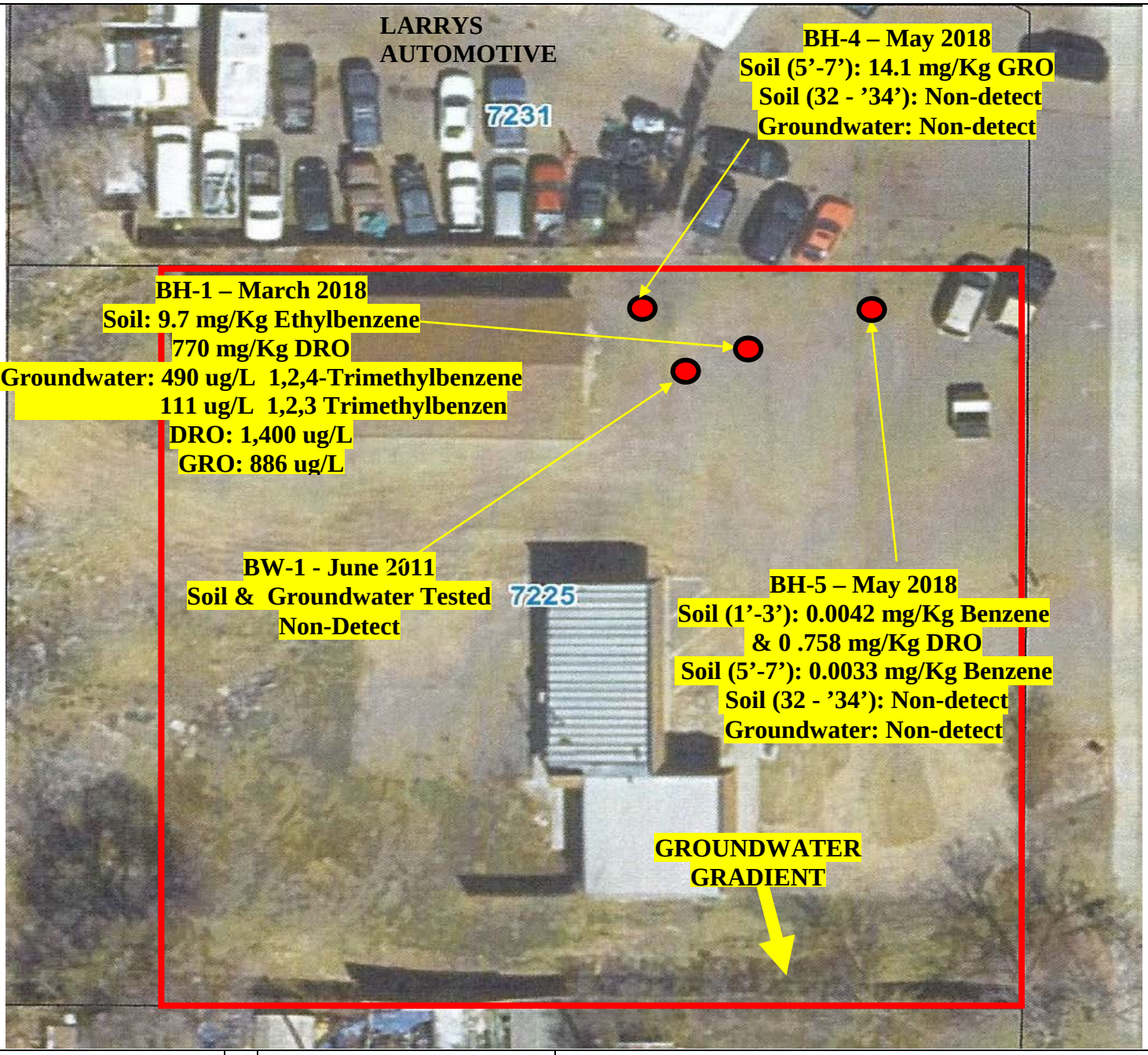
APRIL 2018 INVESTIGATION - BOREHOLE LOCATION MAP



7225 BRADBURN BOULEVARD			Scale : 1" = 100 Feet
WESTMINSTER, COLORADO		**FIGURE 5**	

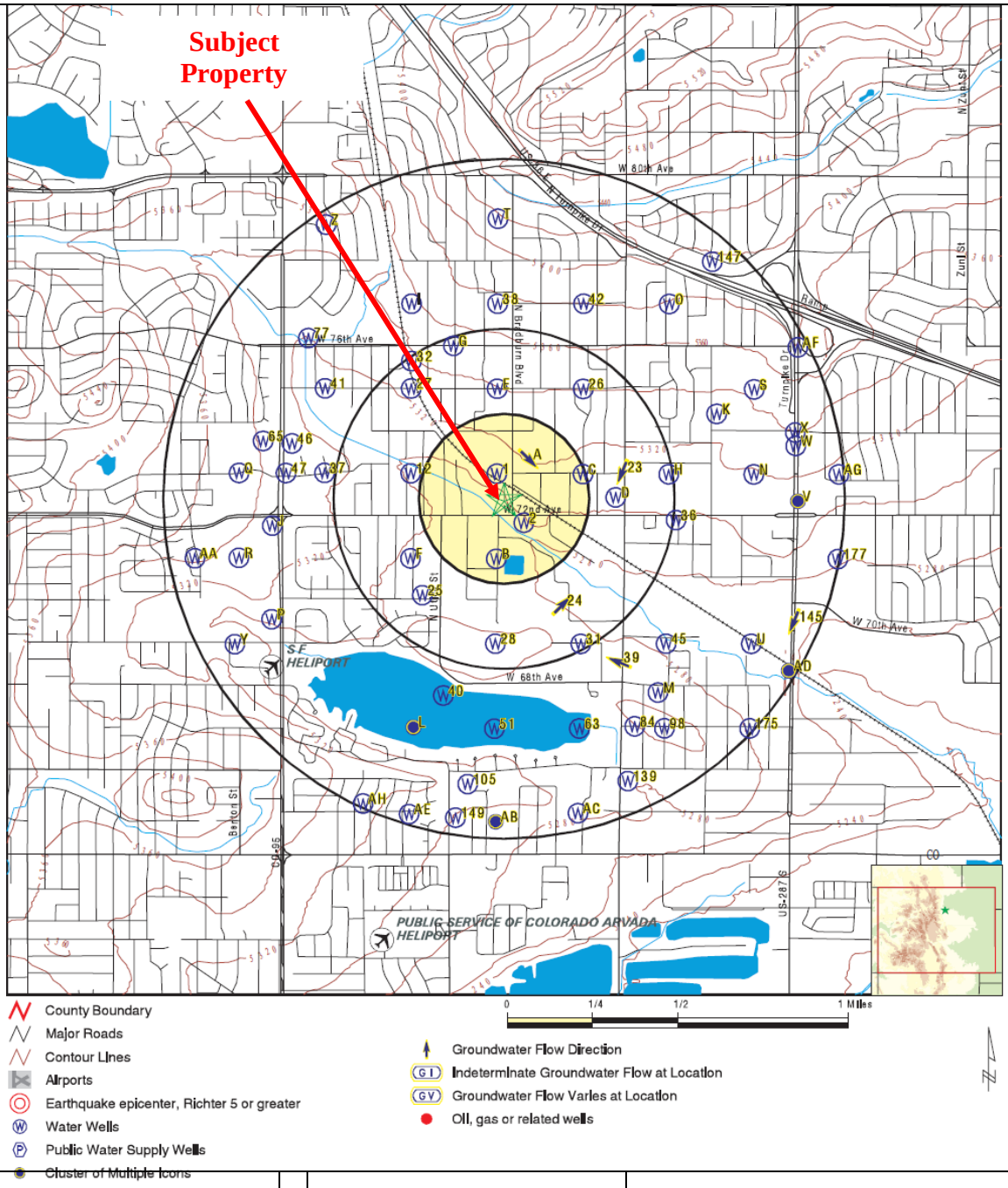
Strategic Environmental Management LLC.

JUNE 2018 INVESIGATION - SUMMARY of RESULTS



7225 BRADBURN BOULEVARD		JUNE 2018	Scale : 1" = 100 Feet
WESTMINSTER, COLORADO		FIGURE 6	Strategic Environmental Management LLC.

WATER WELL LOCATION MAP



7225 BRADBURN BOULEVARD		Scale:	1" = ½ MILE
WESTMINSTER, COLORADO		FIGURE 7	Strategic Environmental Management LLC.

AOC & STOCKPILE LOCATION MAP

7225 BRADBURN BOULEVARD			Scale : 1" = 100 Feet
WESTMINSTER, COLORADO		FIGURE 8	

Strategic Environmental Management LLC.

TABLES

JULY 2011 TEST RESULTS

Metal/Chemical	Test/Prep Method	Regulatory Screening Values OPS (mg/Kg)	TEST RESULTS BW-3 Sample Result (mg/Kg)	BW-4 Sample Result (mg/Kg)	BW-5 Sample Result (mg/Kg)
Petroleum Hydrocarbons					
Diesel Range Organics	EPA 8015M/3546	500	19.4	39.2	141
Gasoline Range Organics	EPA 5035A/8260	500	ND	ND	ND
Volatile Organic Compounds		**Regulatory Screening Values CSEV (mg/Kg)**			
Benzene	EPA 8260/5035A	1	ND	ND	ND
Toluene	EPA 8260/5035A	1000	ND	ND	ND
Ethyl Benzene	EPA 8260/5035A	1000	ND	ND	ND
Total Xylene	EPA 8260/5035A	280	ND	ND	ND
Methylene Chloride	EPA 8260/5035A	9	ND	0.105	ND
Tetrachloroethene	EPA 8260/5035A	0.45	ND	ND	ND
All Other VOCs	EPA 8260/5035A		ND	ND	ND

Table 2
Petroleum Hydrocarbons and VOC's in Groundwater

Metal/Chemical	Test Method	Regulatory Screening Values (mg/L)	TEST RESULTS BW-3 Sample Result (mg/L)	BW-4 Sample Result (mg/L)	BW-5 Sample Result (mg/L)
Petroleum Hydrocarbons					
Diesel Range Organics	EPA 5030B/8260	NA	ND	ND	2.2*
Gasoline Range Organics	EPA 5030B/8260	NA	ND	ND	Not Tested
Volatile Organic Compounds		**Regulatory Screening Values CSEV (mg/Liter)**			
Benzene	EPA 5030B/8260	0.005	ND	ND	ND
Toluene	EPA 5030B/8260	1	ND	ND	ND
Ethyl Benzene	EPA 5030B/8260	0.7	ND	ND	ND
Total Xylene	EPA 5030B/8260	1.4	ND	ND	ND
Tetrachloroethene	EPA 5030B/8260	0.005	ND	ND	ND
All Other VOCs	EPA 5030B/8260		ND	ND	ND

Notes
CSEV - Colorado Soil Evaluation Values - for residential
OPS - Oil and Public Safety screening levels for total petroleum hydrocarbons
* - Test Method changed to EPA 8015M/3510C due to volume

7225 BRADBURN BOULEVARD		**Scale:**	**1 " = ¼ Mile**
WESTMINSTER, COLORADO		**TABLE 1**	Strategic Environmental Management LLC.

TABLE 2

SOIL and GROUNDWATER ANALYTICAL DATA

7225 BRADBURN BOULEVARD, WESTMINSTER, CO

March 19, 2018

SOIL SAMPLE	Residential Screening Values Soil Cleanup Table	BH-1	BH-2	BH-3
	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Sample Date		19-Mar-18	19-Mar-18	19-Mar-18
VOLATILE ORGANIC COMPOUNDS				
Benzene	1	ND	ND	0.002
Ethylbenzene	5.8	**9.7**	ND	ND
Toluene	490	ND	ND	ND
Xylenes	58	20	ND	ND
Acetone	6,100	ND	ND	0.0276
Other VOCs	Various	ND	ND	ND
n-Butylbenzene	5,800	9.34	ND	ND
sec-Butylbenzene	12,000	3.14	ND	ND
Isopropylbenzene	NA	2.56	ND	ND
p-Isopropylbenzene	NA	1.91	ND	ND
Naphthalene	230	18.0	ND	ND
n-Propylbenzene	380	13.1	ND	ND
1,2,3-Trimethylbenzene	34	26.6	ND	ND
TOTAL PETROLEUM HYDROCARBONS				
Diesel Range Organics	500	**770**	ND	ND
Gasoline Range Organics	500	300	9.07	ND

GROUNDWATER SAMPLE	MCL Water Standard Table	BH-1W	BH-2W	BH-3W
	(ug/Liter)	(ug/Liter)	(ug/Liter)	(ug/Liter)
Sample Date **VOLATILE ORGANIC COMPOUNDS**		3/19/2018	3/19/2018	3/19/2018
Benzene	5	ND	ND	ND
Ethylbenzene	700	60.6	ND	ND
Toluene	1,000	ND	ND	ND
Xylenes	1,000	141	ND	ND
Other VOCs	Various	ND	ND	ND
n-Butylbenzene*	780	16.5	ND	ND
n-Propylbenzene	NA	40.4	ND	ND
1,2,4-Trimethylbenzene*	70	**490.0**	ND	ND
1,2,3-Trimethylbenzene*	70	**111.0**	ND	ND
1,3,5-Trimethylbenzene*	70	36.9	ND	ND
TOTAL PETROLEUM HYDROCARBONS				
Diesel Range Organics	NA	**1,400.0**	ND	ND
Gasoline Range Organics	NA	**886.0**	ND	ND

Notes:

*All groundwater screening figures, except for 1,2,4-Trimethylbenzene are from Colorado Regulaion 41 - Basic Standards for (amended 9/11/12, effective 1/31/13). The screening level for 1,2,4-Trimethylbenzene is from the CDPHE Colorado Soil Valu Standard - July 2011

- Regional Industrial Regulatory Screening Values USEPA Summary Table November 2017
- Regulatory screening values are listed on the data tables for the detected compounds. Although there is no State-wide cleanup standard for total petroleum hydrocarbons in soil, including gasoline range organics, a screening level of 500 mg/kg has been established by the Division of Oil and Public Safety for defining the extent of TPH from
- mg/Kg - milligrams per Killogram, ppm - parts per million
- ug/Kg - micrograms per Killogram, ppb - parts per billion
- ND - analyte not detected
- NA - no clean up value established

TABLE 3

SOIL and GROUNDWATER DATA

7225 BRADBURN BOULEVARD, WESTMINSTER, CO

March 19 and May 24, 2018

SOIL SAMPLE	Residential Screening Values Soil Cleanup Table	BH-1	BH-2	BH-3	BH-4 (5' to 7')	BH-4 (32' to 34')	BH-5 (1' to 3')	BH-5 (5' to 7')	BH-5 (32' to 34')
	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Sample Date		19-Mar-18	19-Mar-18	19-Mar-18	24-May-18	24-May-18	24-May-18	24-May-18	24-May-18
VOLATILE ORGANIC COMPOUNDS									
Benzene	1	ND	ND	0.002	ND	ND	0.004	0.003	ND
Ethylbenzene	5.8	**9.7**	ND	ND	ND	ND	ND	ND	ND
Toluene	490	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes	58	20	ND	ND	ND	ND	ND	ND	ND
TOTAL PETROLEUM HYDROCARBONS									
Diesel Range Organics	500	**770**	ND	ND	ND	ND	0.8	0.5	ND
Gasoline Range Organics	500	300	9.07	ND	14.10	NT	ND	ND	ND

GROUNDWATER SAMPLE	MCL Water Standard Table	BH-1W	BH-2W	BH-3W	BH-4W	BH-5W
	(ug/Liter)	(ug/Liter)	(ug/Liter)	(ug/Liter)	(ug/Liter)	(ug/Liter)
Sample Date		3/19/2018	3/19/2018	3/19/2018	5/24/2018	5/24/2018
VOLATILE ORGANIC COMPOUNDS						
Benzene	5	ND	ND	ND	ND	ND
Ethylbenzene	700	60.6	ND	ND	ND	ND
Toluene	1,000	ND	ND	ND	ND	ND
Xylenes	1,000	141	ND	ND	ND	ND
Other VOCs	Various	ND	ND	ND	ND	ND
n-Butylbenzene*	780	16.5	ND	ND	ND	ND
n-Propylbenzene	NA	40.4	ND	ND	ND	ND
1,2,4-Trimethylbenzene*	70	**490.0**	ND	ND	ND	ND
1,2,3-Trimethylbenzene*	70	**111.0**	ND	ND	ND	ND
1,3,5-Trimethylbenzene*	70	36.9	ND	ND	ND	ND
TOTAL PETROLEUM HYDROCARBONS						
Diesel Range Organics	NA	**1,400.0**	ND	ND	ND	ND
Gasoline Range Organics	NA	**886.0**	ND	ND	ND	ND

Notes:

*All groundwater screening figures, except for 1,2,4-Trimethylbenzene are from Colorado Regulaion 41 - Basic Standards for Ground Water (amended 9/11/12, effective 1/31/13). The screening level for 1,2,4-Trimethylbenzene is from the CDPHE Colorado Soil Value Table 1 - Water Standard - July 2011

- Regional Industrial Regulatory Screening Values USEPA Summary Table November 2017
- Regulatory screening values are listed on the data tables for the detected compounds. Although there is no State-wide cleanup standard for total petroleum hydrocarbons in soil, including gasoline range organics, a screening level of 500 mg/kg has been established by the Division of Oil and Public Safety for defining the extent of TPH
- mg/Kg - milligrams per Killogram, ppm - parts per million
- ug/Kg - micrograms per Killogram, ppb - parts per billion
- ND - analyte not detected
- NA - no clean up value established
- NT - not tested

TABLE 4

SOIL ANALYTICAL DATA

7225 BRADBURN BOULEVARD, WESTMINSTER, COLORADO

July 2, 2018

PRIMARY METALS	Regional Residential Regulatory Screening Values	TEST METHOD	SB-1	SB-2	SB-3	SB-4	SB-5
	(mg/Kg)		(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
Arsenic	0.67	EPA 6010	**3.680**	**3.300**	**3.780**	**3.570**	**2.730**
Barium	1,600	EPA 6010	151.0	117.0	139.0	133.0	137.0
Cadmium	2,100	EPA 6011	ND	0.71	ND	0.65	ND
Chromium	12,000	EPA 6010	14.1	13.5	12.3	13.1	14.8
Lead	400	EPA 6010	25.9	32.3	27.5	27.8	21.4
Selenium	39	EPA 6010	ND	ND	ND	ND	ND
Silver	39	EPA 6010	ND	ND	ND	ND	ND
Mercury	9.4	EPA 7471	0.0203	0.0346	0.0241	0.0319	0.0244

- Regional Residential Regulatory Screening Values USEPA Summary Table November 2017
- mg/Kg - milligrams per Killogram, ppm - parts per million

APPENDIX A

CDPHE – VCUP PROGRAM

CHECK LIST

VOLUNTARY CLEAN-UP AND REDEVELOPMENT ACT CHECKLIST AND INFORMATION COMPARISON TABLE

This table provides a checklist of information that may be included in a Voluntary Clean-up Program application. Although not all information requirements apply to all sites, the applicant should review this list carefully and include in the application any information that is relevant to the property in question. The table should be submitted in the application, with the page numbers in the application where this information can be found inserted into the last column. This is not an application requirement, but it does greatly assist the reviewer.

This table may also be used to compare the information normally contained in Phase I and Phase II Environmental Audits, with the requirements of the Voluntary Clean-up Program application. Since these audits are commonly performed, the table will assist owners in determining any additional information that may be needed, if you have already performed a Phase I or Phase II audit.

DIRECTIONS FOR COMPARISON TABLE INTERPRETATION

The table that follows is organized like the one below.

P I	P II	VC	I. General Information	Page

The first three columns provide the comparison between the information requirements of Phase I (PI) and Phase II (P II) Environmental Audits and the Voluntary Clean-up Program application (VC). In each column you will either see a blank space, a zero (0), a plus sign (+) or a minus sign (-). These can be interpreted as follows:

\+ means requirements are more detailed than other documents

\- means requirements are less detailed than other documents

0 means requirements are similar to other documents

a blank means that the requirement does not exist for that document

So, for example, if you saw a (+) in the VC column, it means that there are additional information requirements for the Voluntary Clean-up Program application in comparison to the audit reports for that item. If there was a (0) in the VC column, then the information contained in the Phase I or Phase II audit is adequate for the Voluntary Clean-up Program application.

The fourth column provides the checklist of information items required in the Voluntary Clean-up Program application.

The fifth column provides a place for you to insert the page number from the Voluntary Clean-up Program application that pertains to this informational item. If the applicant fills this portion out and returns the table with the application, it greatly assists the reviewer in finding information within the application.

VOLUNTARY CLEAN-UP, ASTM PHASE I, ASTM PHASE II COMPARISON

P I	P II	VC	I. GENERAL INFORMATION	Page
0	0	0	Name and address of owner	3
0	0	0	Contact person and phone number	3
0	0	0	Location of property	4
-	+	+	Type and source of contamination	5
		+	Voluntary Clean-up (VC) or No Action Determination (NAD)	
0		0	Current Land Use	5
		+	Proposed Land Use. Proposed future land use is not covered in a Phase I or II assessment. A voluntary clean-up approval is contingent upon this item.	5

P I	P II	VC	II. PROGRAM INCLUSION	Page
-		+	Is the applicant the owner of the property for the submitted VC or NAD? In a Phase I assessment, the owner is not always the party preparing the assessment. The Voluntary Clean-up Program requires owner/designated representative to complete the submittal.	YES 1
-		+	Is the property submitted for the VC or NAD the subject of corrective action under orders or agreements issued pursuant to provisions of Part 3 of Article 15 of this Title or the federal RCRA 1976 as amended? Although Phase I assessments review state records for RCRA corrective actions, the Voluntary Clean-up Program requires details of a corrective action for an eligibility determination.	NO 3
-		+	Is the property submitted for the VC or NAD subject to an order issued by or an agreement with the Water Quality Control Division pursuant to Part 6 of Article 8 of this Title? Although Phase I assessments review state records, detail is not discussed. If Water Quality has issued a permit, the applicant is ineligible.	NO 3
-		+	Is the property submitted for the VC or NAD a facility that has or should have a permit or interim status pursuant to Part 3 of Article 15 of this Title for treatment, storage or disposal of hazardous waste? Although Phase I assessments review state records, detail is not discussed. For the Voluntary Clean-up Program, details of permits or interim status are necessary for an eligibility determination. Based on the site specifics of the permitted facility, the applicant may qualify for the program.	NO 3
-		+	Is the property submitted for the VC or NAD subject to the provisions of Part 5 of Article 20 of Title 8 (Underground Storage Tanks) CRS or of Article 18 of this Title (RCRA)? Although Phase I assessments review state records, detail is not discussed. For the Voluntary Clean-up Program details of Underground Storage Tank or RCRA requirements are necessary to make an evaluation. In some cases (e.g., tanks were removed prior to 12/22/88), the applicant may be eligible for the program.	NO 3
-		+	Is the property submitted for the VC or NAD listed or proposed for listing on the National Priorities List of Superfund sites established under the federal act (CERCLA)? Although Phase I assessments review state records, detail is not discussed. For the Voluntary Clean-up Program, details of CERCLA action are necessary to make an evaluation. In some cases, the applicant may not be eligible for the program.	NO 3

P I	P II	VC	III. ENVIRONMENTAL ASSESSMENT	Page
0	0	0	Qualified environmental professionals must submit environmental assessments. The applicant must submit documentation, in the form of a statement of qualifications or resume.	APP K
0	0	0	The applicant should provide the address and legal description of the site and a map of appropriate scale identifying the location and size of the property.	APP B
0		0	The applicant should describe the operational history of the property in detail, including the most current use of the property.	5
0		0	A description of all business/activities that occupy or occupied the site as far back as record/knowledge allows.	5
-		+	A brief description of all operations that may have resulted in the release of hazardous substances or petroleum products at the site, both past and present, including the dates activities occurred at the property and dates during which the contaminants were released into the environment. Although Phase I & II assessments may reveal the release of hazardous substances or petroleum products, the exact dates and quantities may not be discussed. For the Voluntary Clean-up Program, the dates of activities, releases, etc., are necessary for an evaluation of eligibility.	6 to 8
-		+	A list of all site-specific notifications made as a result of any management activities of hazardous substances conducted at the site, including any and all Environmental Protection Agency ID numbers obtained for management of hazardous substances at the site from either the state or the Environmental Protection Agency. The Phase I assessment will reveal whether a facility has an Environmental Protection Agency ID number, but will not list the notifications made as a result of management activities of hazardous substances. This information is necessary for a Voluntary Clean-up Program evaluation.	6 to 8
0		0	A list of all notifications to county emergency response personnel for the storage of reportable quantities of hazardous substances required under Emergency Planning and Community Right-to-Know statutes.	NA
0		0	A list of all notifications made to state and/or federal agencies, such as reporting of spills and/or accidental releases, including notifications to the State Oil Inspection Section (OIS) required under 8-20-506 and 507 and 25-18-104 CRS 1989 as amended and 6 CCR 1007-5 subpart 280.50 Part 3 of the OIS regulations, etc.	NA
-	-	+	A list of all known hazardous substances used at the site with volume estimates and discussion of relative toxicities. A Phase I & II assessment does not require such detail, however, the hazardous substances used, volumes and toxicities are important for a VC in the overall evaluation of risk and sampling efforts.	NA
-		+	A list of all wastes generated by current activities conducted at the site and manifests for shipment of hazardous wastes off site. A Phase I & II assessment does not require such detail, however, the manifest information is important for a VC evaluation, as in the above item.	NA
		+	A list of all permits obtained from state or federal agencies required as a result of activities conducted at the site. A listing of all permits is beyond a Phase I or II assessment. These are important for the Voluntary Clean-up Program so the Department can evaluate what potential sources may be at the site.	NA
0		0	A brief description of the current land uses, zoning and zoning restrictions of all areas contiguous to the site.	5

P I	P II	VC	III. ENVIRONMENTAL ASSESSMENT	Page
			The applicant shall describe the physical characteristics of the site, including a map to scale, and an accompanying narrative showing and describing the following, utilizing historic knowledge as well as current data:	FIG
0	0	0	• Topography	1
0	-	0	• All surface water bodies and waste water discharge points	NA
0	-	0	• Ground water monitoring and supply wells	
0	-	0	• Facility process units and loading docks	
0		0	• Chemical and/or fuel transfer and pumping stations	
0		0	• Railroad tracks and rail car loading areas	
0		0	• Spill collection sumps and/or drainage collection areas	
0		0	• Wastewater treatment units	
0		0	• Surface and storm water runoff retention ponds and discharge points	
0		0	• Building drainage or wastewater discharge points	
0		0	• All above or below ground storage tanks	
0		0	• Underground or above ground piping	
0		0	• Air emission control scrubber units	
0		0	• Water cooling systems or refrigeration units	
0		0	• Sewer lines	
0		0	• French drain system	
0		0	• Water recovery sumps and building foundations	
0		0	• Surface impoundments	
0		0	• Waste storage and/or disposal areas/pits, landfills	
0		0	• Chemical or product storage areas	
0		0	• Leach fields	
0		0	• Dry wells or waste disposal sumps	NA
			If ground water contamination exists or the release has the potential to impact ground water, the applicant should provide the following information for areas within a one-half mile radius of the site:	
	0	0	• The state engineers office listing of all wells within one-half mile radius of the site, together with a map to scale showing the locations of these wells.	FIG 7
	0	0	• Documentation of due diligence in verifying the presence or absence of unregistered wells supplying ground water for domestic use, when the potential for such wells is deemed likely as in older residential neighborhoods, or in rural areas.	FIG 7
	0	0	• A statement about each well within the half-mile radius of the site, stating whether the well is used as a water supply well or ground water monitoring well.	NO
	0	0	• Lithologic logs for all on-site wells; copies of field log notes may be appropriate.	APP C,D,E,H,I
	0	0	• Well construction diagrams for all on-site wells showing screened interval, casing type and construction details including gravel pack, interval, bentonite seal thickness and cemented interval.	NA

P I	P II	VC	III. ENVIRONMENTAL ASSESSMENT	Page
	0	0	• Description of the current and proposed use of on-site ground water in sufficient detail to evaluate human health and environmental risk pathways. In addition, the applicant will provide a discussion of any state and/or local laws that restrict the use of onsite ground water.	10
			The applicant should provide information concerning the nature and extent of any contamination and releases of hazardous substances or petroleum products that have occurred at the site, including but not limited to:	
	-	+	• Identification of the chemical nature and extent, both onsite and offsite, of contamination that has been released into soil, ground water or surface water at the property, and/or releases of substances from each of the source areas identified, including estimated volumes and concentrations of substances discharged at each area, discharge point, or leakage point as per Section 25.16.308(2)(b). Although Phase II assessments identify the nature of contamination, the extent is not always fully defined. For Voluntary Clean-up Program purposes, the source, nature, extent and estimated volumes of the release are important in the overall evaluation of risk and eligibility.	APP C D E H I J
	0	0	• A map to scale showing the depth to ground water across the site, direction and rate of ground water movement across the site using a minimum of three measuring points.	FIG 4,5,6
	0	0	• A discussion of all hydraulic tests performed at the site to characterize the hydrogeologic properties of any aquifers onsite and in the area.	NA
	0	0	• All reports and/or correspondence, which detail site soil, ground water and/or surface water conditions at the site, including analytical laboratory reports for all samples and analyses.	APP C,D,E H,I,J
	0	0	• A discussion of how all environmental samples were collected, including rationale involved in sampling locations, parameters and methodology, a description of sampling locations, sampling methodology and analytical methodology and information on well construction details and lithologic logs. All sample analyses performed and presented as part of the environmental assessment should be appropriate and sufficient to fully characterize all constituents of all contamination that may have impacted soil, air, surface water and/or ground water on the property. The applicant should use Environmental Protection Agency approved analytical methods when characterizing the soil, air, surface water and/or ground water.	APP C D E H I J

P I	P II	VC	IV. APPLICABLE STANDARDS/RISK DETERMINATION	Page
	-	+	The applicant should provide a description of any applicable standards/guidance (federal, state, or other) establishing acceptable concentrations of constituents in soils, surface water, or ground water, for the proposed land use. Although a Phase II assessment evaluates applicable regulations for the current land use, it does not cover the proposed land use that may be different (e.g., the current land use is industrial and the proposed land use is residential, which likely has more conservative levels for contaminant concentrations).	9

P I	P II	VC	IV. APPLICABLE STANDARDS/RISK DETERMINATION	Page
	-	+	The applicant should provide a description of the human and environmental exposure to contamination at the site based on the property's current use and any future use proposed by the property owner, including:	
	0	0	• A table or list for site contaminants indicating which media are contaminated and the estimated vertical and areal extent of contamination in each medium.	TABLE 1-4
	-	+	• A table or list of site contaminants, indicating the maximum concentrations of each contaminant detected onsite in the area where contaminant was discharged to the environment, and/or where the worst effects of the discharge are believed to exist. A Phase II assessment will evaluate the extent of site contaminants, not the maximum point or worst effects. The Voluntary Clean-up Program requests this item so that an understanding of the source and nature of the contaminants can be made as it relates to risk.	TABLE 1-4
	-	+	• A table or list for site contaminants indicating whether the contaminant has a promulgated state standard, the promulgated standard and the medium the standard applies to. A Phase II assessment will not necessarily compare the site contaminants with state standards. This is important to evaluate whether the remedy will meet risk-based clean-up objectives.	TABLE 1-4
	-	+	• A description and list of potential human and/or environmental exposure pathways pertinent to the present use of the property. A risk determination is not usually completed as part of a Phase II assessment; the VC will use risk as part of the overall evaluation.	9 & 10
		+	• A description and list of potential human and/or environmental exposure pathways pertinent to the future use of the property. (A risk determination is not usually completed as part of a Phase II assessment; the Voluntary Clean-up Program will use risk as noted above. Phase II assessments also do not evaluate future use of the property.)	9 & 10
	-	+	• A list and map defining all source areas, areas of contamination or contaminant discharge areas. Phase II assessments do not always show source areas. The Voluntary Clean-up Program requires that these areas be defined to indicate the proximity of contaminant with respect to receptors and sampling efforts.	FIG 3 to 6
	-	+	• A discussion of contaminant mobilities, including estimates of contaminants to be transported by wind, volatilization, or dissolution in water. For those contaminants that are determined to be mobile and have the potential to migrate and contaminate the underlying ground water resources, the applicant should also evaluate the leach ability/mobility of the contaminants. This evaluation should consider, but not be limited to the following: leachability/mobility of the contamination, health-based ground water standards for the contamination; geological characteristics of the vadose zone that would enhance or restrict contaminant migration to ground water, including but not limited to grain size, fractures and carbon content; and depth to ground water. This evaluation, and any supporting documentation, should be included in the plan submitted. A Phase II assessment usually does not include a risk determination. However, the Voluntary Clean-up Program will evaluate the risk involved with the proposed clean-up in order to evaluate the application.	APP C D E H I J

P I	P II	VC	IV. APPLICABLE STANDARDS/RISK DETERMINATION	Page
		+	The applicant should then provide, using the information contained in the application, a risk-based analysis of all exposure pathways, which details how the proposed remediation will obtain acceptable risk levels. A Phase II assessment usually does not include a risk analysis, however, the Voluntary Clean-up Program requires this analysis to show that the remediation propose will attain an acceptable risk or break pathways.	10
		+	The Voluntary Clean-up Program includes remediation whereas a Phase I or II assessment does not. Usually remediation is considered a Phase III assessment. The following are the requirements for the clean-up proposal.	SECTION 5
		+	• A detailed description of the remediation alternative, or alternatives selected, which will be used to remove or stabilize contamination released into the environment or threatened to be released into the environment	NA
		+	• A map identifying areas to be remediated, the area where the remediation system will be located if it differs from the contaminated areas, the locations of confirmation samples, the locations of monitoring wells, areas where contaminated media will temporarily be stores/staged and areas where contamination will not be remediated.	FIG 8
		+	• Remediation system design diagrams showing how the system will be constructed in the field.	SECTION 5
		+	• A remediation system operation and maintenance plan that describes, at a minimum, how the system will be operated to ensure that it functions as designed without interruptions and a sampling program that will be used to monitor its effectiveness in achieving the desired goal.	NA
		+	• The plan should describe the sampling program that will be used to verify that treatment of the contaminated media has resulted in attainment of the proposed clean-up goals.	SECTION 5.
		+	• The plan should include a schedule of implementation	NA*
		+	The clean-up completion report is necessary to demonstrate that the remediation was completed according to the application. Again, since remediation is involved, the report is beyond the scope of a Phase I or II assessment. The following items should be included in the completion report.	NA*
		+	• A final list of all site contaminants, along with the remaining concentrations, and any deviations from the original plan.	NA*
		+	• A final list defining which media are contaminated and the estimated vertical and areal extent of contamination to each medium.	NA*
		+	• A final list and map defining all source areas, areas of contamination or contaminant discharge areas.	NA*
			Soil Contamination: Remediation by Excavation Only:	
		+	• One confirmation sample per 500 ft^2 as measured at the base on the excavation OR two confirmatory samples, whichever method results in the collection of the most samples.	SECTION 5

* AT THIS POINT

P I	P II	VC	IV. APPLICABLE STANDARDS/RISK DETERMINATION	Page
		+	• One composite sample from each wall of the excavation. In excavations of an irregular shape, one composite sample for every ~~100~~ 50 lineal feet of wall. For excavations grater than 5000 ft^2, preparation of a grid for randomization of sampling.	SECTION 5
		+	• Explanation of the sampling method in the narrative as well as any modifications to 1 and 2 above used to better characterize the remedial efforts.	SECTION 5
		+	• If contamination is to be left in place, an additional sample should be collected from the area of the worst contamination, as verified or with a field-sampling device.	NA
		+	• Depth of samples collected	NA
		+	• Provision of waste disposal manifests	NA
			In-Situ Soil Remediation	
		+	• Completion of a minimum of two soil borings, with at least one completed in the area identified in the site assessment as the area of highest contamination. For larger areas of contamination, one boring per 10,000 ft^2 of plume area.	NA
		+	• Completion of the borings should employ a field-screening device and borings should be logged.	
		+	• Soil sample submitted for analysis from each boring would be the sample with the highest field screening or one located at the ground water interface for each boring.	NA
		+	Ground Water Remediation	
		+	• Field testing should include aquifer and contaminant characteristics such as gradient, partition coefficients, original contaminant levels, etc.	NA
		+	• At each regular monitoring event, a map showing ground water flow direction, depth to ground water and sampling locations	NA
		+	• Tabular presentation of data collected	NA
		+	Summary of Voluntary Clean-up Program participation	NA
		+	Summary of field activities, remedial activities, any deviations from original plans	NA
		+	Pertinent figures and drawings of remedial system	NA
		+	Conclusions made after remedial activities are completed	NA

APPENDIX B

Legal Description & County Parcel Information

Go to Account Information | Go to Sales Information | Go to Value Information | Map It!

Adams County
Exempt Property Profile

Account Summary

Parcel Number: 0171931423005 **Account Number:** R0065416

Owners Name and Address:
CITY OF WESTMINSTER

4800 W 92ND AVE
WESTMINSTER CO 80031-6399

Property Address:

7225 BRADBURN BLVD
WESTMINSTER CO

Legal Description

SUB:HARRIS PARK BLK:39 DESC: PT OF BLK 39 DESC BEG AT SE COR TH N 149 FT TO TRUE POB TH W 180 FT TH N 155 FT TH E 180 FT TH S 155 FT TO TRUE POB (2011 - PARCEL TO THE CITY OF WESTMINSTER (EXEMPT) PER DEED IN RECEPTION NO 2011000055200. PRO-RATED FOR 237 DAYS FOR 2011 AND FULL EXEMPTION FOR 2012.)

Subdivision Plat

HARRIS PARK

Account Summary

Account Numbers	Date Added	Tax District	Mill Levy
R0065416	On or Before 01/01/1996	706	93.580

Permit Cases

N\A

Note: Data is updated daily. Above data was updated as of: 02/14/17

Adams County Assessor
Sales Summary

Parcel Number: 0171931423005 **Account Number:** R0065416

Owners Name and Address:
CITY OF WESTMINSTER

4800 W 92ND AVE
WESTMINSTER CO 80031-6399

Property Address:

7225 BRADBURN BLVD
WESTMINSTER CO

Sales Summary

Sale Date	Sale Price	Deed Type	Reception Number	Book	Page	Grantor	Grantee	Doc. Fee	Doc. Date
05/03/1995	$0	QC	47044	4509	176			$0	01/01/1900
10/13/1995	$57,544.00	WD	53145	4610	267			$5.75	01/01/1900
08/25/2011	$400,000.00	SWD	11000055200	2011		CHAVEZ JOHNNY PATRICK AND CHAVEZ GLORIA	CITY OF WESTMINSTER	$40	08/26/2011

Click here to go to Clerk / Recorder search page

Note: Data is updated daily. Above data was updated as of: 02/14/17

Adams County Assessor
Valuation Summary

Parcel Number: 0171931423005 **Account Number:** R0065416

Owners Name and Address:
CITY OF WESTMINSTER

4800 W 92ND AVE
WESTMINSTER CO 80031-6399

Property Address:

7225 BRADBURN BLVD
WESTMINSTER CO

Land Valuation Summary

Land Type	Unit of Measure	Number of Units	Fire District	School District	Vacant/Improved	Actual Value	Assessed Value
Exempt	Acres	0.6410			I	$55,844.00	$16,190.00
Land Subtotal:						**$55,844.00**	**$16,190.00**

Buildings Valuation Summary

Building Number	Property Type	Actual Value	Assessed Value
1	Commercial		
Improvements Subtotal:		**$30,156.00**	**$8,750.00**

Total Property Value **$86,000.00 $24,940.00**

Note: Data is updated daily. Above data was updated as of: 02/14/17

Adams County Assessor
Building Summary

Parcel Number: 0171931423005 **Account Number:** R0065416

Owners Name and Address:
CITY OF WESTMINSTER

4800 W 92ND AVE
WESTMINSTER CO 80031-6399

Property Address:

7225 BRADBURN BLVD
WESTMINSTER CO

Building Number: 1

Individual Built As Detail

Built As:	Retail Store	**Year Built:**	1970
Building Type:	Commercial	**Construction Type:**	
Built As SQ Ft:	1296	**Number of Rooms:**	0
Number of Baths:	0.00	**Number of Bedrooms:**	0
Attached Garage SQ Ft:	0	**Detached Garage Square Ft:**	0
Basement SQ Ft:	0	**Finished Basement SQ Ft:**	0

Note: Data is updated daily. Above data was updated as of: 02/14/17

ADAMS COUNTY
COLORADO

th. Center longitude: 105.0390 ° West. Visible Features: 1 features visible on Cities. 1 features visible on County tprints. 74 features visible on Parcels. 9 features visible on Streets (1,000 - 2,000). 1 features visible on Rivers (>

Search

Parcel #: 0171931423005

Description

Property Report - 7225 BRADBURN BLVD
CITY OF WESTMINSTER

Hyperlinks

Link to Property Report

Details

Parcel Number
0171931423005

Subdivision
HARRIS PARK

Parcel Address 1:
7225 BRADBURN BLVD

Parcel Address 2:
WESTMINSTER CO

Owner Address:
4800 W 92ND AVE

Owner City, State, Zip:
WESTMINSTER CO 80031-6399

Owner
CITY OF WESTMINSTER

Layers Parcel #: 0171931423005