UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III

FINAL DECISION AND RESPONSE TO COMMENTS

MOLYCORP, INCORPORATED WASHINGTON PLANT
WASHINGTON, PENNSYLVANIA
EPA ID NO. PAD030068282

I. FINAL DECISION

This is the United States Environmental Protection Agency's (EPA) Final Decision and Response to Comments (FDRTC) for the former Molycorp, Inc. Washington Plant Facility located in Canton Township, Washington County, Pennsylvania (the Facility or the site). On July 25, 2012, EPA issued a Statement of Basis (SB) for the Facility describing the Agency's proposed remedy and requesting comments on the proposal. The proposed remedy consisted of a combination of engineered and institutional controls. A copy of the SB is included in Attachment A of this FDRTC and comments on the SB with EPA's responses are included in Attachment B of this document.

After careful review of all comments, EPA has concluded that no modification of the proposed remedy is necessary. The remedy proposed in the SB is now final and is called the selected remedy. Below is a summary of the engineered and institutional controls required by the selected remedy.

Engineered controls are engineered physical barriers or structures designed to control or limit exposure to contamination. The engineered controls required by this FDRTC have already been installed at the Facility and comprise a barrier of two feet of clean soil in areas where excavation of contaminated soil occurred during remediation activities. Prior to the start of significant excavation activity, a concrete Transshipment Pad, used as a staging area, was constructed in the North Process Area (Area 1). This is

now a permanent structure that serves as an engineered barrier to residual contamination in the North Process Area subsurface. The sheet pile/jet grout wall installed in the Southeast Low-lying Storage Area (Areas 5A-D) is another engineered control designed to prevent coal tar seepage onto the Facility property from soils beneath Interstate 70.

Institutional controls (ICs) are non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of the selected remedy by limiting land or resource use. Some contaminants remain in the groundwater and soil at the Facility above levels appropriate for residential uses. Therefore, this FDRTC requires the compliance with and maintenance of land and groundwater use restrictions.

EPA has determined that the environmental covenant recorded in Washington County on September 27, 2011 imposes the activity use limitations (AULs) necessary to minimize human exposure to remaining contaminants at the Facility. A copy of the environmental covenant in its entirety can be found as an attachment to the SB, which is included within this FDRTC in Attachment A. The environmental covenant includes the following restrictions and conditions:

- Facility-wide restriction of groundwater use for potable, commercial/industrial, or commercial/agricultural purposes. Any activity that may increase the flow of groundwater to Chartiers Creek is also prohibited without prior approval from the Pennsylvania Department of Environmental Protection (PADEP).

- Prohibition of residential redevelopment in Areas 1, 2, 3, 5A, 5B, 5C, 5D, 7B-E and 10 of the Facility.

- Prohibition of redevelopment along the railroad spur in Area 1 until the bed soils and stones are further characterized and remediated, if necessary.

- Prohibition of excavation through or beneath the engineered barriers without prior written notice and PADEP approval.

If PADEP were to approve changes to the environmental covenant that EPA determined made the ICs no longer protective of human health and the environment, EPA would take steps under applicable law to ensure protection of human health and the environment.

II. PUBLIC COMMENT PERIOD

On July 25, 2012, EPA issued a Statement of Basis (Attachment A) in which it announced its proposed remedy for the Facility. Consistent with public participation provisions under the Resource Conservation and Recovery Act (RCRA), EPA requested comments from the public on the proposed remedy. A thirty (30)-day public comment period was announced in the *Washington Observer-Reporter* and on the EPA Region III

website on August 7, 2012. During this public comment period, Mr. Barry Piacenza, a resident of Canton Township, formally requested a public meeting to discuss the proposed remedy. A public meeting was held in the Canton Township Municipal Building in Washington, PA on December 10, 2012 and the public comment period was extended to December 17, 2012.

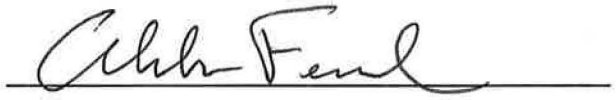
EPA received thirteen comments from six different commenters. EPA's response to public comments is provided in Attachment B of this FDRTC. Each comment is summarized and followed by EPA's response. No changes to the proposed remedy were necessary based on the received comments; however, a few documents have been added to the Administrative Record to address the comments. An Amended Index to the Administrative Record is included in Attachment C of this document.

III. AUTHORITY

EPA is issuing this FDRTC under the authority of the Solid Waste Disposal Act, as amended by RCRA, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. Sections 6901 to 6992k.

IV. DECLARATION

Based on the Administrative Record compiled for the Corrective Action at the former Molycorp, Inc. Washington Plant Facility, EPA has determined that the remedy selected in this Final Decision and Response to Comments is protective of human health and the environment.



12/28/12

Abraham Ferdas, Director
Land & Chemicals Division
U.S. EPA Region III

Date

LIST OF ATTACHMENTS

A. July 25, 2012, Statement of Basis.
B. Response to Comments
C. Amended Index to Administrative Record
D. Piacenza Molycorp Presentation

Attachment A

Statement of Basis
Molycorp, Inc. Washington Plant
July 25, 2012

UNITED STATES

ENVIRONMENTAL PROTECTION AGENCY

REGION III

STATEMENT OF BASIS

MOLYCORP, INCORPORATED WASHINGTON PLANT

WASHINGTON, PENNSYLVANIA

PAD 030 068 282

I. Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed decision for the Molycorp Incorporated Washington Plant located at 300 Caldwell Avenue, Washington, PA 15301 (the Facility). EPA's proposed decision consists of a combination of engineering controls ("ECs") and institutional controls ("ICs") which are designed to minimize the potential for human exposure to contamination. This SB highlights key information relied upon by EPA in making its proposed decision.

The Facility is subject to EPA's Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq. (Corrective Action Program). The Corrective Action Program is designed to ensure that certain facilities subject to RCRA have investigated and addressed any releases of hazardous waste and hazardous constituents that have occurred at their property. Pennsylvania is not authorized for the Corrective Action Program under Section 3006 of RCRA. Therefore, EPA retains primary authority in the Commonwealth for the Corrective Action Program.

The Administrative Record (AR) for the Facility contains documents, including data and quality assurance information, which EPA considered or relied upon in reaching its proposed decision. Attachment 1 contains an index to documents in the AR. See Section IX, Public Participation, for information on how you may review these documents.

II. Facility Background

The Facility property consists of approximately 73 acres (the Property) and is surrounded by industrial properties to the north, Interstate I-70 to the east, and a mixture of residential properties and undeveloped land to the south and west. A location map is attached as Figure 1.

The Property is comprised of three distinct areas: the North Process Area, the Southeast Low-lying Storage Area and the Southwest Hill Area. These areas were further subdivided into Area Nos. 1 through 10 during the Facility's characterization and assessment phases. Two surface water bodies, Chartiers Creek and Sugar Run, bisect the property and form the boundaries of several of the subdivided areas. Figure 2 provides an area designation map and Table 1 provides descriptions of the individual areas. Parcels of land owned by Molycorp, Incorporated (Molycorp) to the west/northwest (Area 8) and east (Area 9) of the North Process Area (Areas 1A, 1B and 2) were never used for industrial activities and have no known impacts associated with any Facility operations. Similarly, parcels of land in the Southwest Low-lying Storage Area including Areas 4, 7B-C and 7B-W have no known impacts. The Facility has been owned by the Chevron Mining Co. (Chevron) since August 2005.

Molycorp operated as a manufacturer of ferroalloys and molybdenum products from the 1920s through 1991. All plant buildings and structures except for the guardhouse and scales were demolished and removed from the property in 2002. The Facility underwent extensive remediation from 2006 through 2011 for both radiological and nonradiological contamination. EPA last visited the Facility on June 29, 2010 to view the progress of the remediation effort.

Radiological Contamination

The clean-up of the radiological contamination was overseen by the Nuclear Regulatory Commission (NRC) and the Pennsylvania Department of Environmental Protection (PADEP) Bureau of Radiation Protection (BRP). From 1964 through 1970, Molycorp produced a ferro-columbium alloy that generated a radioactive thorium-bearing slag, some of which was used as fill material over portions of the Facility. From April 2006 through May 2009, approximately 104,000 cubic yards of radiological materials were excavated from the North Process Area and the Southeast Low-lying Storage Area and shipped to the U.S. Ecology facility in Grand View, Idaho for disposal. During the remediation, more than 31 million gallons of groundwater and surface runoff water entering into excavation areas were pumped to an onsite treatment plant, resulting in the removal of approximately 9,100 pounds of contaminants, primarily metals. Excavated areas were covered with a minimum of two feet of clean soil. The radioactive materials license for the Facility was terminated by PADEP's BRP on December 20, 2010.

Non-Radiological Contamination

Molycorp conducted an investigation pursuant to the Pennsylvania Land Recycling and Environmental Remediation Standards Act (Act 2), 35 P.S. Sections 6026.101, et seq. PADEP and EPA are addressing the Molycorp facility under the One Cleanup Program Memorandum of Agreement (MOA) signed by EPA and PADEP in 2004. The MOA is in the Administrative Record. Molycorp received PADEP approval for its Act 2 Final Report in August 2011. Below is a summary of the work that was completed by the Facility.

Portions of the Southeast Low-lying Storage Area and the Southwest Hill Area were formerly owned by the Hazel Atlas Glass Company (Hazel), which housed its operations on a parcel of land east of the Facility, and is known to have operated a manufactured gas plant (MGP). A byproduct of the MGP coal gasification process is coal tar, an oily, viscous liquid that would condense out of the gas at various stages during gas production. The portion of the east Low-lying Storage Area previously owned by Hazel contained at least two coal tar ponds (North and South) and several tar seepage areas when Molycorp purchased the property in the mid-1970s. Coal tar was also present in the soils upon which Interstate 70 (I-70) was constructed in the 1950s and the substance was historically observed seeping from the I-70 embankment onto the Low-Lying Storage Area. Additional coal tar was observed in an approximately 15,000 square-foot uncovered concrete foundation in the Southwest Hill Area. The coal tar was tested several times using the Toxicity Characteristic Leaching Procedure (TCLP), but no constituents were ever detected at levels above the TCLP limits.

From April 2006 through May 2009, approximately 71,000 cubic yards of soils with visual indications of coal tar were excavated and shipped off-site for disposal, including 200 cubic yards of sediments from Chartiers Creek and 3,900 cubic yards of stream bank soils. Chevron developed the remediated South Tar Pond Area into a viable 3.6-acre wetland habitat. A sheet pile/jet grout wall was installed along the eastern boundary of the Southeast Low-lying Storage Area to prevent seepage of coal tar from beneath Interstate 70 onto the Facility. Finally,

Chevron repaired and realigned a state-owned storm sewer system which greatly reduced the amount of contaminated runoff and groundwater discharging into Chartiers Creek.

III. Summary of Environmental Investigation

The extent of radiological and non-radiological contamination in soil, groundwater, surface water and sediment is described in the Site Characterization Report (Foster Wheeler, 1995), Supplemental Site Characterization Report (Malcolm Pirnie, 2004), Remedial Investigation Report (Malcolm Pirnie, 2005), Final Report for Remediation of Areas 5A and 5B (Malcolm Pirnie, 2008), Final Report for the Molycorp Washington Remediation Site (Malcolm Pirnie, 2009) and Act 2 Final Report (Arcadis, 2011). PADEP approved the Act 2 Final Report on August 3, 2011 and an Environmental Covenant for the Facility (Attachment 2) was recorded on September 27, 2011. All of these documents are available for review in the administrative record.

The above investigations were completed pursuant to PADEP's Act 2 Program and sampling results in those reports were compared to Act 2 Statewide Health Standards (SHSs) Medium Specific Concentrations (MSCs). Unless otherwise noted, these standards are equivalent to EPA standards for the identified constituents of concern (COCs).

Soil

Soils in many areas of the Facility were found to contain several contaminants above PADEP SHSs. Prior to remediation, soils in the North Process Area and portions of the Southeast Low-lying Storage Area (Areas 1, 2, 3 and 10A) also contained licensed radiologic material at levels in excess of unrestricted release criteria. After all radiologic materials in excess of the unrestricted release criteria were removed, all excavated portions of Areas 1, 2, 3 and 10A were covered with at least two feet of clean soil which serves as an engineering control preventing exposure to any remaining residual contamination.

In the South Tar Pond Area (Areas 5A and 5B), the North Tar Pond Area (Areas 5C and 5D), the portion of the Southwest Hill Area where coal tar was observed (Area 7A), and western portions of the Southeast Low-lying Storage Area (Areas 5E and 7B-E), the remedial action consisted of the removal of all soil with visual indications of tar. Post-remedial soil samples in these areas attained the residential SHS for all constituents analyzed for except benzo(a)pyrene. The remaining benzo(a)pyrene does meet the nonresidential SHS. The North Tar Pond Area also contains concentrations of arsenic and molybdenum in the unexcavated portions that were above residential but below nonresidential SHSs. A combination of engineering and institutional controls contained in the executed environmental covenant ensures that the exposure pathways for these areas will remain incomplete.

It should be noted that at the time the Final Report for Remediation of Areas 5A and 5B was written (June 2008), exceedances of residential and nonresidential SHSs were reported for dibenzofuran. The SHSs for dibenzofuran at the time were based on generic values. PADEP has since published toxicological-based dibenzofuran SHSs and the residential SHS for that contaminant was met in this and all other areas where post-excavation sampling was conducted.

Groundwater

In the North Process Area and Southeast Low-lying Storage Area, groundwater in the unconsolidated deposits and bedrock flows west across the Facility toward Chartiers Creek. An upward vertical gradient in the bedrock monitoring wells located adjacent to the creek indicates that Chartiers Creek acts as the local discharge zone for both the overburden and uppermost bedrock water bearing zones. In the Southwest Hill Area of the Facility, groundwater discharges into either Sugar Run or Chartiers Creek through the alluvium along the valley floor.

Between 1982 and 2010, the Facility conducted five major investigations of groundwater beneath the Facility. Full reports can be found in the Administrative Record. These investigations formed the basis of the monitoring program that concluded in 2010.

Molycorp demonstrated that groundwater at the Facility has been impacted by on-site operations with molybdenum being the most consistent and widespread contaminant. Other metals found in groundwater at levels above their respective PADEP MSCs include arsenic, lead, boron, thallium, iron and manganese. Volatiles and semi-volatile organics were also found sporadically, but generally not at levels of concern.

Molycorp's post-remediation monitoring program routinely found boron, iron, manganese and molybdenum at concentrations exceeding both residential and nonresidential PADEP SHSs. There were no detections of PAHs in the groundwater samples and radiological constituents were not detected above background levels.

In summary, EPA and PADEP have concluded that Molycorp has demonstrated that groundwater contamination remains beneath the Facility. The contamination consists primarily of four inorganic chemicals: molybdenum, boron, iron and manganese. Iron and manganese are naturally occurring, while molybdenum and boron are the results of releases from former plant operations. The contamination is confined to the uppermost aquifer, which ultimately discharges into Chartiers Creek. There are no other off-site impacts.

Surface Water

Historical (pre-remediation) surface water sampling of Chartiers Creek indicates the stream was impacted by the Facility activities. Concentrations of molybdenum in surface water have been observed to increase in Chartiers Creek from the furthest upstream to downstream surface water sample locations. While EPA and PADEP do not have numeric surface water quality criterion for molybdenum, Molycorp and PADEP agreed to a risk-based surface water quality standard of 175 micrograms per liter (µg/l) as part of the Act 2 process for the Facility. Elevated concentrations of aluminum and iron were present in both the pre-remedial and post-remedial surface water samples collected at the Facility, but the upstream concentrations of these metals were of the same order of magnitude as the furthest downstream samples indicating that this contamination originated from an off-site upstream source.

The highest molybdenum surface water concentration observed as part of the 1994 Site Characterization was from the furthest downstream sample located near the northwest corner of

the North Process Area (Sample No. CR4 - 1,500 µg/l). Surface water samples collected during the remediation saw molybdenum concentrations greater than 12,000 µg/l at sample location SS-01 (approximately same location as CR4). These elevated concentrations were related to the dewatering activities that occurred during the remediation. Surface water samples were collected from five locations along Chartiers Creek in the eight rounds of post remedial surface water sampling from June 2009 to December 2010 for the Act 2 Final Report. Molybdenum concentrations in the surface water have decreased dramatically since the remediation efforts have been completed. Comparison of the sample results to the agreed upon surface water quality standard of 175 µg/l indicates compliance with that standard.

IV. Corrective Action Objectives

EPA's Corrective Action Objectives for the Facility are the following:

1. Soils

EPA has determined that the combination of Pennsylvania's residential, nonresidential and site-specific standards set forth in the PADEP Final Report Summary dated August 3, 2011 is protective of human health and the environment for individual contaminants at this Facility. Therefore, EPA's Corrective Action Objective for Facility soils is to control exposure to the hazardous constituents remaining in soils by requiring the compliance with and maintenance of land use restrictions at the Facility where necessary.

Table 2 provides the maximum site-specific soil concentrations per area for those contaminants remaining in Facility soils for which the site-specific standard was achieved under PADEP's Act 2. In the areas where no post-remediation soil sampling occurred because the remediation with the selected land use restrictions resulted in pathway elimination, Table 2 lists the maximum concentrations detected prior to remediation.

2. Groundwater

EPA has determined that the combination of Pennsylvania's residential, nonresidential and site-specific standards set forth in the PADEP Final Report Summary dated August 3, 2011 is protective of human health and the environment for individual contaminants at this Facility provided that consumptive uses of groundwater are prohibited. Therefore, EPA's Corrective Action Objective for Facility groundwater is to control exposure to the hazardous constituents remaining in the groundwater by requiring the compliance with and maintenance of groundwater use restrictions at the Facility.

Table 3 provides the maximum site-specific groundwater concentrations per area for those contaminants remaining in groundwater for which the site-specific standard was achieved under PADEP's Act 2. The executed environmental covenant placed a protective site-wide restriction on the use of groundwater for potable, commercial/industrial and commercial/agricultural purposes.

V. Proposed Decision

EPA's proposed decision for the Molycorp, Inc. Washington Plant is engineering and institutional controls, and their continued maintenance.

Engineering Controls

The engineering controls hereby proposed and already in place at the Facility include the engineered barrier of two feet of clean soil in areas where excavation occurred during the remediation (Areas 1, 2, 3, 5C, 5D, 7B-E and 10). Prior to the start of significant excavation activity, a concrete Transshipment Pad, which would later be used as a staging area for shipping the radiological material, was constructed in the North Process Area. This is a permanent structure that also serves as an engineered barrier to residual contamination in the North Process Area subsurface. The sheet pile/jet grout wall in the Southeast Low-lying Storage Area is another engineering control designed to prevent coal tar seepage onto the Facility property.

Institutional Controls

Institutional controls (ICs) are non-engineered instruments such as administrative and/or legal controls that minimize the potential for human exposure to contamination and/or protect the integrity of the decision by limiting land or resource use. Under this proposed decision, some contaminants remain in the groundwater and soil at the Facility above levels appropriate for residential uses. Because some contaminants remain in the groundwater and soil at the Facility at levels which exceed residential use, EPA's proposed decision requires the compliance with and maintenance of land and groundwater use restrictions.

EPA has determined that the environmental covenant with Chevron, as both Grantor and Grantee, which was recorded in the Washington County Recorder of Deeds Office on September 27, 2011, imposes land and groundwater use restrictions necessary to prevent human exposure to contaminants at the Facility. The covenant includes the following restrictions and conditions (See Attachment 2 for more details):

- Facility-wide restriction of groundwater use for potable, commercial/industrial, or commercial/agricultural purposes, including, but not limited to, irrigation of crops, watering of livestock, and food production, processing or packaging. Any conveyances, excavation or grading that may increase the flow of groundwater to Chartiers Creek are also prohibited without prior approval from PADEP.
- Prohibition of residential redevelopment unless additional remediation is performed to address direct contact exposure in Areas 1, 2, 3, 5A, 5B, 5C, 5D, 7B-E and 10.
- Prohibition of redevelopment along the railroad spur in Area 1 until the bed soils and stones are further characterized and remediated, if necessary.
- Prohibition of excavation through or beneath the engineered barriers without prior written notice and PADEP approval. Any plan to disturb the engineered barrier must include a schedule of implementation, applicable worker health and safety requirements, access limitations during excavation, disposal or reuse of excavated

materials requirements, and plans for the restoration of the clean fill cover or suitable alternatives.

If PADEP were to approve changes to the environmental covenant that EPA determined made the ICs no longer protective of human health and the environment, EPA would take steps under applicable law to ensure protection of human health and the environment.

VI. Evaluation of EPA's Proposed Decision

This section provides a description of the criteria EPA uses to evaluate proposed remedies under the Corrective Action program. The criteria are applied in two phases. In the first phase, EPA evaluates three criteria, known as Threshold Criteria. EPA's Threshold Criteria evaluation can be found in Subsection A below. In the second phase, EPA sometimes uses as many as seven balancing criteria to select among alternative solutions, if more than one is proposed. The Current conditions at the Facility meet the threshold criteria established by EPA. Although EPA is not selecting among alternatives, the balancing criteria are evaluated in Subsection B below in further support of the proposed remedy.

A. Threshold Criteria

1. Protect Human Health and the Environment

The Facility remediation included the removal of 104,000 cubic yards of radiological materials and 71,000 cubic yards of soils containing coal tar, including coal-tar contaminated sediments and stream banks soils of Chartiers Creek. These materials, if left on-site without a cover, would have continued to pose direct contact threats to human health and the environment as well as threats related to the potential for migration of contamination in the soils via soil erosion, surface water run-off and leaching to groundwater. The engineered barrier of two feet of clean soil effectively eliminates the potential for direct contact to contaminants remaining in the subsurface for future Property occupants and the restriction of certain portions of the Property to nonresidential use will prevent direct exposures to more sensitive residential receptors.

The Act 2 Final Report evaluated all relevant exposure pathways, including the potential for vapor intrusion into future buildings, the groundwater to surface water migration pathway as well as potential areas of ecological concern. No unacceptable ecological risks or risks associated with vapor intrusion were identified. With respect to groundwater, while significant levels of contaminants remain in the groundwater beneath the Facility, Chartiers Creek, which receives groundwater from both the unconsolidated and upper bedrock water bearing zones, is not being significantly impacted. Groundwater is not used as a source of drinking water, for agricultural purposes, or for any other known purpose in the Facility vicinity.

Based on the results summarized in the Act 2 Final Report, EPA has determined that the remedial activities described above are protective of human health and the environment provided that the land and water use restrictions detailed in the environmental covenant, recorded on September 27, 2011, continue to be implemented and maintained. The environmental covenant restrictions are enforceable by Pennsylvania, and provide long–term assurance that the exposure

assumptions used in developing EPA's proposed remedy are not changed without State approval. If PADEP were to approve changes to the environmental covenant that EPA determined made the ICs no longer protective of human health and the environment, EPA would take steps under applicable law to ensure protection of human health and the environment.

2. Achieve Media Cleanup Objectives

The Facility has achieved a combination of Pennsylvania's residential Statewide Health Standards (SHSs), nonresidential SHSs and site-specific standards for soils and groundwater. These standards meet EPA risk guidelines for human health and the environment at the Facility provided that certain activity and use limitations are imposed on the Property. EPA's proposed decision requires the implementation and maintenance of institutional controls to ensure that portions of the Property are not used for residential purposes and groundwater beneath the Property is not used for any purpose.

3. Remediating the Source of Releases

In all proposed decisions, EPA seeks to eliminate or reduce further releases of hazardous wastes or hazardous constituents that may pose a threat to human health and the environment. As shown in the Act 2 Final Report, the Facility met this objective by excavating and disposing of 104,000 cubic yards of radiologic materials and 71,000 cubic yards of coal tar impacted soils, as well as the installation of a two foot barrier consisting of clean, compacted soil in excavated areas and the installation of a jet-grouted sheet pile wall to prevent coal tar seepage onto the property from beneath highway I-70. There are no remaining large, discrete sources of waste from which constituents would be released to the environment. Therefore, EPA has determined that this criterion has been met.

B. Balancing/Evaluation Criteria

1. Long-Term Effectiveness

The proposed ICs will maintain protection of human health and the environment over time by controlling exposure to the hazardous constituents and hazardous wastes remaining in soils and groundwater. EPA's proposed decision requires the compliance with and maintenance of land use and groundwater use restrictions at the Facility. The land use and groundwater use restrictions have already been implemented through an environmental covenant recorded with the deed for the Facility property. The environmental covenant runs with the land and as such will be enforceable by the State against future land owners.

2. Reduction of Toxicity, Mobility, or Volume of the Hazardous Constituents

The reduction of toxicity, mobility and volume of hazardous constituents and hazardous wastes at the Facility has already been achieved by soil excavation activities, which resulted in the removal of more than175,000 cubic yards of radiologic and contaminated soils/materials from the Facility. During excavation activities, groundwater and surface runoff entering into excavation areas were pumped to an onsite treatment plant prior to being discharged through a National Pollutant Discharge Elimination System (NPDES) permitted outfall to Chartiers Creek.

More than 31 million gallons of water were treated in that system, resulting in the removal of approximately 9,100 pounds of contaminants, primarily metals. Excavated areas were backfilled with compacted clay loams that serve to reduce the hydraulic gradient in the overburden aquifer, reducing the flow of contaminated groundwater into the creek. The repaired storm sewer now discharges to the ground surface in a remote area away from former Facility operations, which effectively removed a preferential pathway for Facility-contaminated groundwater to enter Chartiers Creek. The jet grout sheet pile wall in the Southeast Low-lying Storage Area prevents the migration of off-site sources of coal tar from reaching the Property.

3. Short-Term Effectiveness

EPA's proposed decision does not involve any activities, such as construction or excavation, that would pose short-term risks to workers, residents, or the environment. In addition, the land use and/or groundwater use restrictions have already been implemented through an environmental covenant recorded with the deed for the Facility property.

4. Implementability

EPA's proposed decision is readily implementable. The ICs are in place. Therefore, EPA does not anticipate any regulatory constraints in implementing its proposed decision.

5. Cost

EPA's proposed decision is cost effective. An environmental covenant has already been recorded with the deed to the Facility property. Therefore, there should be no additional costs associated with implementing the proposed decision.

6. Community Acceptance

EPA will evaluate Community acceptance of the proposed decision during the public comment period, and this evaluation will be described in the Final Decision and Response to Comments.

7. State/Support Agency Acceptance

EPA will evaluate State acceptance based on comments received from PADEP during the public comment period. This evaluation will be described in the Final Decision and Response to Comments.

VII. Environmental Indicators

EPA sets national goals to measure progress toward meeting the nation's major environmental objectives. For Corrective Action, EPA evaluates two key environmental indicators for each Facility: (1) current human exposures under control and (2) migration of contaminated groundwater under control. The EPA determined that the Facility met the indicator for Human Health on November 4, 2003 and that the Facility met the indicator for Groundwater on December 27, 2011.

VIII. Financial Assurance

EPA has evaluated whether financial assurance for corrective action is necessary to implement EPA's proposed decision at the Facility. Given that EPA's proposed decision does not require any further engineering actions to remediate soil, groundwater or indoor air contamination at this time and given that the costs of implementing institutional controls at the Facility will be de minimis, EPA is proposing that no financial assurance be required.

IX. Public Participation

Before EPA makes a final decision on its proposal for the Facility, the public may participate in the decision selection process by reviewing this SB and the documents contained in the Administrative Record (AR) for the Facility. The AR contains information considered or relied upon by EPA in reaching this proposed decision. It is available for public review during normal business hours at:

U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103
Contact: Andrew Clibanoff
Phone: (215) 814-3391
Fax: (215) 814-3113
Email: clibanoff.andrew@epa.gov

Interested parties are encouraged to review the AR and comment on EPA's proposed decision. The public comment period will last thirty (30) calendar days from the date that notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Andrew Clibanoff. EPA will hold a public meeting to discuss this proposed decision upon request. Requests for a public meeting should be made to Andrew Clibanoff.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrant a modification to the proposed decision, EPA will modify the proposed decision or select other alternatives based on such new information and/or public comments. EPA will announce its final decision and explain the rationale for any changes in a document entitled the Final Decision and Response to Comments (FDRTC). All persons who comment on this proposed decision will receive a copy of the FDRTC. Others may obtain a copy by contacting Andrew Clibanoff at the address listed above.

Date: 7/25/12

Abraham Ferdas, Director
Land and Chemicals Division
US EPA, Region III

Figures

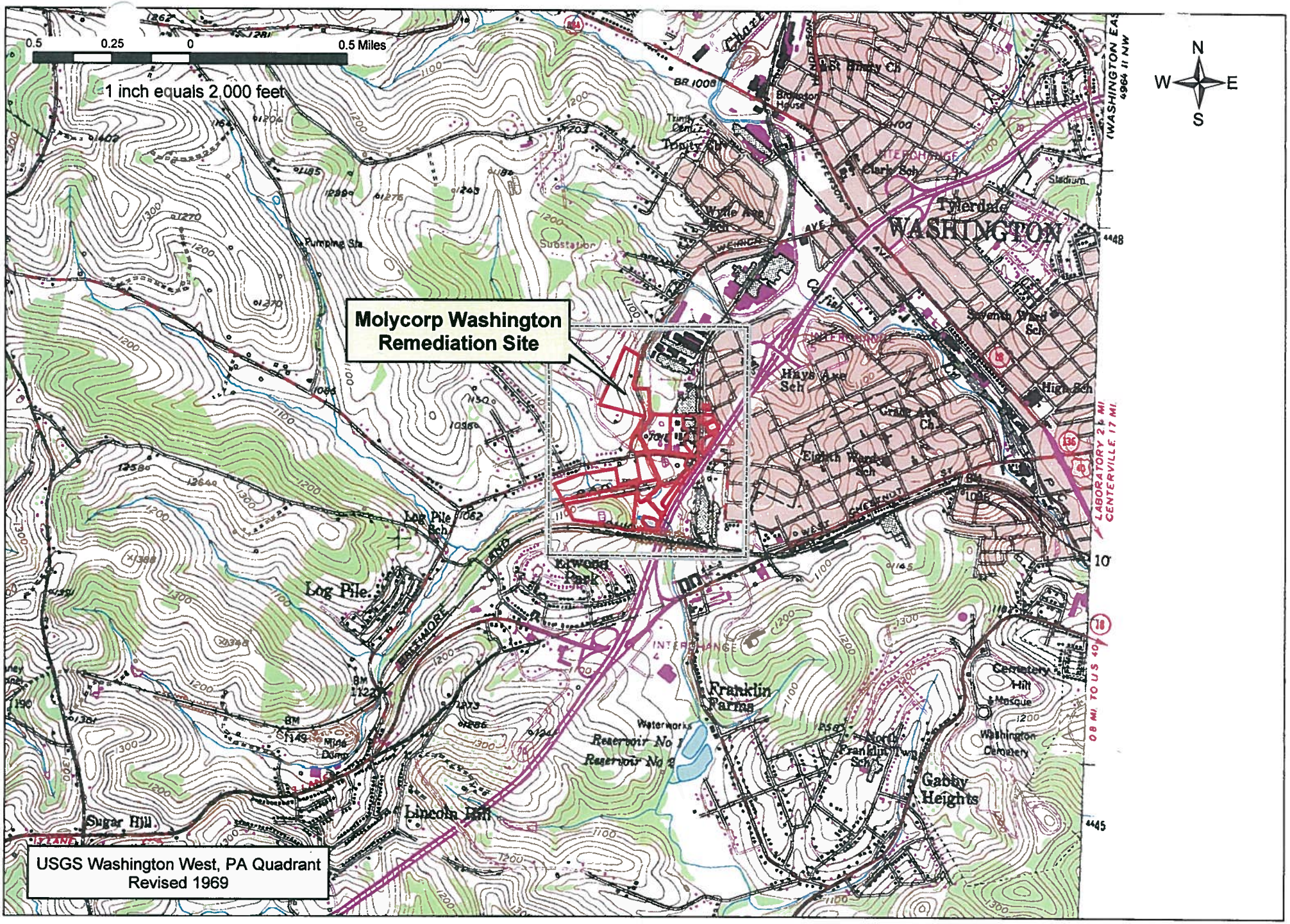
Figure 1 - Molycorp, Inc. Washington Plant Facility Location Map
Figure 2 - Molycorp, Inc. Washington Plant Area Designation Map

Tables

Table 1 - Summary of Areas of Interest
Table 2 – Maximum Site-Specific Constituent Concentrations In Soil
Table 3 – Maximum Site-Specific Constituent Concentrations In Groundwater

Attachments

Attachment 1 – Index to Administrative Record
Attachment 2 - Executed Environmental Covenant



MALCOLM PIRNIE

Molycorp Washington Remediation Project
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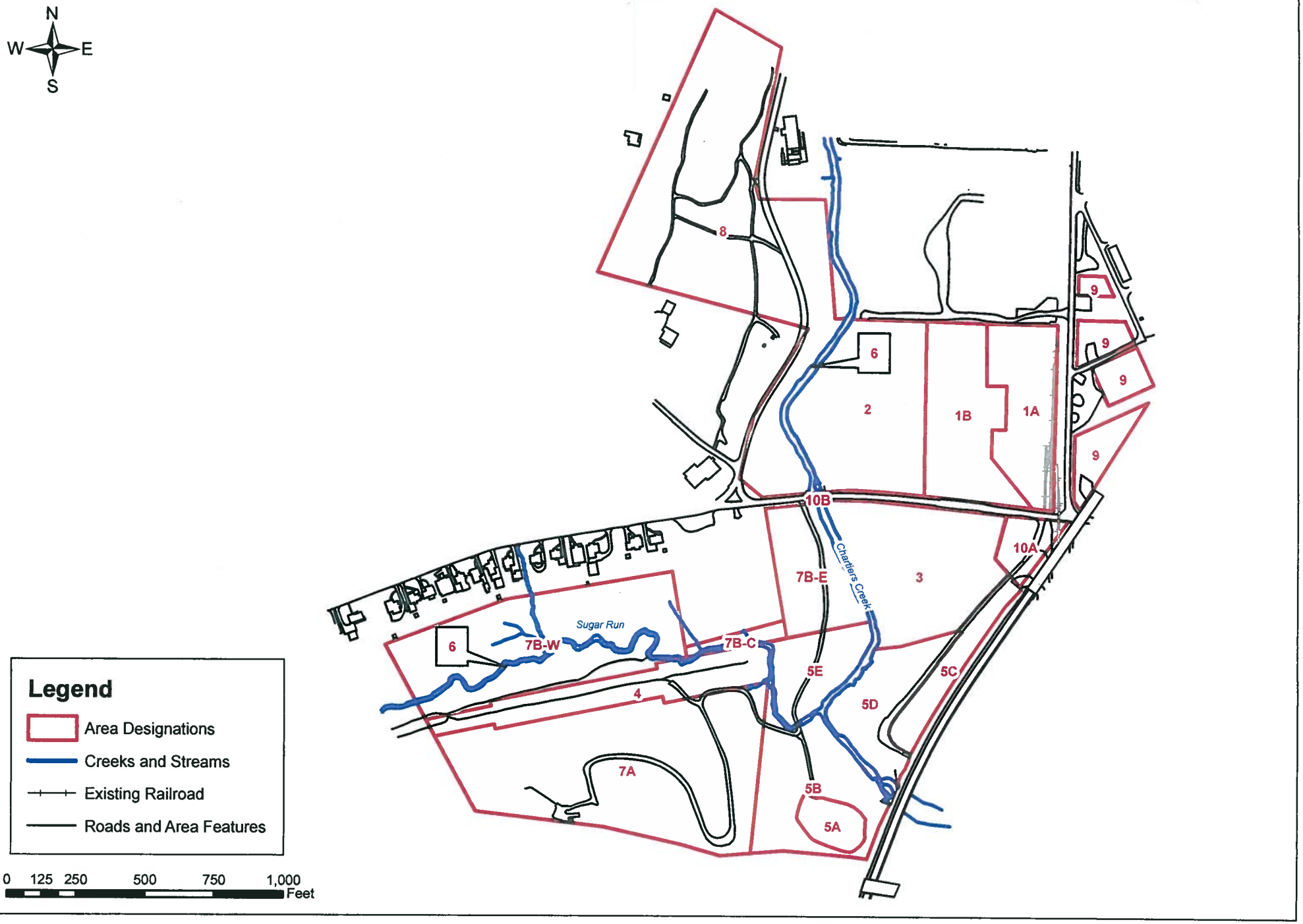
Figure 1
USGS Site Location Map



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Molycorp Washington Remediation Project
Final Report

Figure 2
Area Designations

Table 1

SUMMARY OF AREAS OF INTEREST MOLYCORP INC., WASHINGTON, PA FACILITY		
Area Number	Designation	Reason for Designation
Area 1	Process Plant (Subdivided into 1A and 1B)	Location of original manufacturing operations.
Area 2	North Slag Area	Lowlands west of Facility that contained various ponds, impoundments and slag fill.
Area 3	South Slag Area	Area containing slag fill and a former pond containing ball mill slag.
Area 4	Tylerdale Connecting Railroad	Former railroad right-of-way
Area 5	MGP Tar Pond Area (Subdivided into 5A – 5E)	Area containing the South Tar Pond (5A) and area north of the South Tar Pond (5B), North Tar Pond (5C and 5D) and adjacent area (5E)
Area 6	Streams	Chartiers Creek and Sugar Run bisect the Property. Tar noted along banks and in bottom of Chartiers Creek at a few locations
Area 7	Hill Area (Subdivided into 7A and 7B)	Hill area that contains an old foundation with MGP tar (7A) and a former farm area west of Chartiers Creek and north of Sugar Run (7B). Area 7B-E is adjacent to Chartiers Creek, while 7B-C and 7B-W were never used by Molycorp
Area 8	Cox Plus	Primarily undeveloped land. No known impacts by Facility operations.
Area 9	Green Street	Former residential area. No known impacts by Facility operations.
Area 10	Offsite Areas (Subdivided into 10A and 10B)	Offsite areas investigated for radiological constituents because of their location near impacted areas. They include: -The area located adjacent to the northeast corner of Area 3 where a temporary rail line was located in the 1979-1981 period (10A) -Vicinity of the abutment of the small bridge on Caldwell Avenue over Chartiers Creek near the southwest corner of Area 2 (10B) -Caldwell Avenue between Areas 1 and 2, and Area 3 (also 10B)

Table 2
Maximum Site Specific Constituent Concentrations in Soil
Molycorp Washington Remediation Site
Additional Information Provided to USEPA for Statement of Basis

Chemical	CAS No.	Area A Areas 1 and 2	Area B Areas 3 and 10A	South Tar Pond Areas 5A and 5B	Tar Area Below I-70 Areas 5C and 5D	Hill Area Areas 7A	Road Next to Fire House Areas 5E and 7B-E
Polycyclic Aromatic Hydrocarbons							
Naphthalene	91-20-3	SHS	SHS	290	6.6	SHS	SHS
Benzo(a)anthracene	56-55-3	SHS	SHS	110	7.9	SHS	SHS
Benzo(b)fluoranthene	205-99-2	SHS	SHS	47	SHS	SHS	SHS
Dibenz(a,h)anthracene	53-70-3	SHS	SHS	SHS	14	SHS	SHS
Carbazole	86-74-8	SHS	SHS	90	SHS	SHS	SHS
Metals							
Antimony	7440-36-0	55	SHS	2	SHS	SHS	SHS
Arsenic	7440-38-2	1600	66	140	130	32	11
Barium	7440-39-3	6,300	13,400	SHS	SHS	SHS	SHS
Boron	7440-42-8	620	590	4,800	910	SHS	SHS
Cadmium	7440-43-9	15	41	118	15	SHS	SHS
Chromium	18540-29-9	7,50	61	1,150	95	SHS	23
Cobalt	7440-48-4	590	SHS	SHS	SHS	SHS	SHS
Iron	7439-89-6	180,000	68,000	32,000	SHS	75,000	30,000
Lead	7439-92-1	20,000	560	SHS	SHS	SHS	79
Manganese	7439-96-5	48,000	SHS	SHS	SHS	SHS	SHS
Molybdenum	7439-98-7	57,000	10,000	13,600	23,000	110	160
Nickel	7440-02-0	590	34	SHS	SHS	SHS	SHS
Selenium	7782-49-2	76	9.9	SHS	SHS	SHS	SHS
Thallium	7440-28-0	17	SHS	0.85	3.9	SHS	SHS
Zinc	7440-66-6	9,600	SHS	SHS	SHS	SHS	SHS
Environmental Covenants in Place:		B, C, D	B, C, D	C, E	B, C, D	NA	B

Notes:

1) All concentrations presented in milligrams per kilogram (mg/kg).

2) NA - Not analyzed - Constituent was not analyzed for in this Area. The constituent was not a constituent of concern in the Area based on the Risk Assessment and Remedy Selection Report (Malcolm Pirnie, 2005).

3) SHS - Indicates constituent concentrations detected in this Area met the Statewide Health Standard.

4) Bolded and shaded concentrations represent the maximum concentration detected prior to remediation. Post-remediation data were not collected per the Risk Assessment and Remedy Selection Report (Malcolm Pirnie

5) Non-bolded concentrations represent maximum concentration detected in post-remediation samples.

6) As presented in the Act 2 Final Report (ARCADIS, 2010) and the Risk Assessment and Remediation Selection Report (Malcolm Pirnie, 2005), acetone, 2-butanone, carbon disulfide, methylene chloride, bis(2-Ethylhexyl)phthalate, di-n-butylphthalate, di-n-octylphthalte and dimethylphthalate were not target analytes in post-remediation samples. These constituents were associated with laboratory blank contamination.

7) Detections of lead and molybdenum in soil samples are below the PADEP Non-residential direct contact MSC for subsurface soil and are located beneath a cap.

8) - 62 samples were collected and analyzed for arsenic. Detected arsenic concentrations ranged from 1.6 to 600 mg/kg with an average concentration of 50 mg/kg and a median of 17.5 mg/kg.

9) - 62 samples were collected and analyzed for lead. Detected lead concentrations ranged from 6.3 to 20,000 mg/kg with an average concentration of 641 mg/kg and a median of 30 mg/kg.

10) - 62 samples were collected and analyzed for molybdenum. Detected molybdenum concentrations ranged from 0.018 to 57,000 mg/kg with an average concentration of 3,956 mg/kg and a median of 320 mg/kg.

11) - 31 samples were collected and analyzed for molybdenum. Detected molybdenum concentrations ranged from 1.1 to 23,000 mg/kg with an average concentration of 2,405 mg/kg and a median of 130 mg/kg.

Environmental Covenants in Place

B - Land use restricted to non-residential

C - Engineered barrier in-place consisting of at least 2 feet of clean soil or concrete pad (cap).

D - No excavation of soil with this Area without approval from the PADEP Environmental Cleanup Group and Bureau of Radiation Protection (BRP).

E - Portion of this Area is a wetland and shall not be redeveloped.

Adopted from January 19, 2012 Arcadis Correspondence

Table 3

Maximum Site-Specific Constituent Concentrations in Groundwater
Molycorp Washington Remediation Site
Additional Information Provided to USEPA for Statement of Basis

Chemical	CAS No.	Area A Areas 1 and 2	Area B Areas 3 and 10A	South Tar Pond Areas 5A and 5B	Tar Area Below I-70 Areas 5C and 5D	Hill Area Areas 7A	Road Next to Fire House Areas 5E and 7B-E
Aromatic Volatile Organic Compounds							
Benzene	71-43-2	**0.0058**	SHS*	SHS*	SHS*	SHS*	SHS*
Other Volatile Organic Compounds							
Vinyl chloride	75-01-4	**0.0031**	SHS*	SHS*	SHS*	SHS*	SHS*
Polycyclic Aromatic Hydrocarbons							
Naphthalene	91-20-3	SHS	SHS	ND	SHS	NI	NI
Benzo(a)anthracene	56-55-3	SHS	SHS	ND	SHS	NI	NI
Chrysene	218-01-9	SHS	SHS	ND	SHS	NI	NI
Benzo(b)fluoranthene	205-99-2	SHS	SHS	ND	SHS	NI	NI
Benzo(k)fluoranthene	207-08-9	SHS	SHS	ND	SHS	NI	NI
Indeno(1,2,3-cd)pyrene	193-39-5	SHS	SHS	ND	SHS	NI	NI
Benzo(ghi)perylene	191-24-2	SHS	SHS	0.00035	SHS	NI	NI
Metals							
Aluminum	7429-90-5	0.374	SHS	SHS	SHS	NI	NI
Arsenic	7440-38-2	0.0305	ND	0.0105	0.0197	NI	NI
Boron	7440-42-8	43.6	2.33	0.2	10.4	NI	NI
Chromium	18540-29-9	ND	SHS	SHS	SHS	NI	NI
Iron	7439-89-6	508	12	13.9	16.1	NI	NI
Lead	7439-92-1	0.034	ND	ND	0.0024	NI	NI
Manganese	7439-96-5	32.6	1.23	2.96	1.99	NI	NI
Molybdenum	7439-98-7	[48]	6.3	0.231	0.0896	NI	NI
Selenium	7782-49-2	0.0153	SHS	SHS	SHS	NI	NI
Thallium	7440-28-0	0.0255	ND	ND	ND	NI	NI
Vanadium	7440-62-2	0.0304	SHS	SHS	SHS	NI	NI
Environmental Covenants in Place:		A	A	A	A	A	A

Notes:

1) All concentrations presented in milligrams per liter (mg/L).

2) NI - Not Included - Post-remediation monitoring wells were not installed in this Area. Per the Act 2 regulations, the groundwater assessment was completed by collecting samples from point of compliance wells, which were located along Chartiers Creek.

3) ND- Not detected at or above laboratory practical quantitation limit in post-remediation groundwater samples.

4) Bolded and bracketed concentration represent a one time exceedance for molybdenum that occurred during the March 2009 sampling event. Molybdenum was detected at a concentration above the PADEP Non-Use MSC in only one of the 72 of post-remediation groundwater samples collected.

5) Bolded and shaded concentrations represent maximum concentration detected prior to remediation. Post-remediation data were not collected per the Risk Assessment and Remedy Selection Report (Malcolm Pirnie, 2005).

6) SHS - Indicates the Statewide Health Standard for this constituent was met in noted area.

7) SHS* - Indicates the Statewide Health Standard for this constituent was met in pre-remediation samples collected.

8) Non-bolded concentrations represent maximum concentrations detected in post-remediation samples.

9) As presented in the Act 2 Final Report (ARCADIS, 2010) and the Risk Assessment and Remediation Selection Report (Malcolm Pirnie, 2005), acetone, 2-butanone, carbon disulfide, methylene chloride, bis(2-Ethylhexyl)phthalate, di-n-butylphthalate, di-n-octylphthalte and dimethylphthalate were not target analytes in post-remediation samples. These constituents were associated with laboratory blank contamination.

10) Detections of lead are below the PADEP non-use aquifer MSC.

Environmental Covenants in Place

A - Groundwater at and under the Area shall not be used for potable, commercial/industrial or commercial/agricultural purposes including, but not limited to, irrigation of crops, watering of livestock, and food production, processing and packaging.

Adopted from January 19, 2012 Arcadis Correspondence

Attachment 1 – Index to Administrative Record

ATTACHMENT ONE

INDEX TO ADMINISTRATIVE RECORD
FORMER MOLYCORP FACILITY

1. Molycorp, Inc. Site Characterization Report for License Termination of the Washington, PA Facility, prepared by Foster Wheeler Environmental Corporation, January 1995.

2. Molycorp Supplemental Site Characterization Report for the Washington, PA Site, prepared by Malcolm Pirnie, Inc., April 2004.

3. One Cleanup Program Memorandum of Agreement Between the Commonwealth of Pennsylvania Department of Environmental Protection and Region 3 of the United States Environmental Protection Agency, April 2004.

4. Remedial Investigation Report, Molycorp Washington, PA Site, prepared by Malcolm Pirnie, Inc., March 2005.

5. Risk Assessment and Remedy Selection Report, prepared by Malcolm Pirnie, Inc., April 2005.

6. Cleanup Plan, Molycorp Washington, PA Site, prepared by Malcolm Pirnie, Inc., January 2006.

7. MGP Tar Areas Post Remediation Sampling and Analysis Plan, Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., September 2007.

8. Final Report for Remediation of Areas 5A and 5B, Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., June 2008.

9. Post Remediation Groundwater and Surface Water Monitoring Plan, Proposed Monitoring Well Installation and Quarterly Sampling Program, Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., September 2008.

10. Post Remediation Final Dose Assessment Report, Molycorp, Washington Remediation Site, prepared by Malcolm Pirnie, Inc., September 2009.

11. Final Report for the Molycorp Washington Remediation Site, prepared by Malcolm Pirnie, Inc., September 2009.

12. Chain of Custody and Sampling Reports associated with 2004 Supplemental Site Characterization Report, 2005 Remedial Investigation Report, and Post-Remediation Quarterly/Annual Groundwater and Monitoring Report (Revised April 2011), September 2003 – November 2010.

13. Final Post Remediation Quarterly/Annual Groundwater and Surface Water Monitoring Report, Molycorp Washington Site, prepared by Arcadis U. S., Inc., Revised April 2011.

14. Act 2 Final Report for the Molycorp Washington Remediation Site, prepared by Arcadis U. S., Inc., April 2011.

15. Correspondence from David Eberle, Program Manager, Environmental Cleanup Program, PADEP, to Mark Lafferty, Chevron Environmental Management Company, Site Specific Final Report Approval, August 3, 2011.

16. Correspondence from Mark Lafferty, Chevron Environmental Management Company to Andrew Clibanoff, RCRA Project Manager, EPA, Technical Memorandum, Site Groundwater Cleanup Standards, Molycorp Washington Remediation Project Site, December 5, 2011.

17. Correspondence from Cullen Flanders, Project Manager, Arcadis U. S., Inc. to Andrew Clibanoff, RCRA Project Manager, EPA, Molycorp Washington Remediation Site – Maximum Site-Specific Constituent Concentration Tables, January 19, 2012.

Attachment 2 - Executed Environmental Covenant

Environmental Covenant

Date: August 29, 2011

When recorded, return to:
David G. Ries, Esq.
Thorp Reed & Armstrong, LLP
One Oxford Centre
301 Grant St., 14th Fl.
Pittsburgh, PA 15219

The County Parcel Identification Nos. of the Property are:

120-011-00-00-0016-00
120-011-00-00-0017-00
120-011-00-00-0018-00
120-011-00-00-0019-01
120-011-00-00-0019-03
120-011-00-00-0021-00
120-011-00-00-0024-00
120-011-00-00-0026-08
120-011-04-01-0001-00
120-011-04-01-0002-00
120-011-04-01-0004-00
120-011-04-01-0023-00
120-011-07-04-0052-01
120-011-07-04-0053-01
120-011-07-04-0060-01
120-011-07-04-0060-02
120-011-07-04-0062-00
120-011-07-04-0063-00
120-011-07-04-0064-00
120-011-07-04-0065-00
120-011-07-04-0067-00
120-011-07-04-0068-00
120-011-19-00-0007-03

GRANTOR: **Chevron Mining Inc.**
PROPERTY ADDRESS: **1217 West Wayne St. (former remediation site office)**
300 Caldwell Avenue (former plant address)
Washington, PA 15301

ENVIRONMENTAL COVENANT

This Environmental Covenant is executed pursuant to the Pennsylvania Uniform Environmental Covenants Act, Act No. 68 of 2007, 27 Pa. C.S. §§ 6501 – 6517 (UECA). This Environmental Covenant subjects the Property identified in Paragraph 1 to the activity and/or use limitations in this document. As indicated later in this document, this Environmental Covenant has been approved by the Pennsylvania Department of Environmental Protection (Department).

1. **Property affected**. The property affected (Property or Site) by this Environmental Covenant is located in Canton Township, Washington County.

The postal street address of the Property is: 1217 West Wayne St. (former remediation site office), 300 Caldwell Avenue (former plant address), Washington, PA 15301.

The latitude and longitude of the center of the Property affected by this Environmental Covenant is: X -80.27527670140
Y 40.17106046030
(PA State Plane NAD 1983 decimal degrees format)

The Property has been known by the following name(s): Molycorp Washington Remediation Site.

The DEP Primary Facility ID# is: 6650032
The Land Recycling Program ID# is: 5-63-918-18880

A complete description of the Property is attached to this Environmental Covenant as Exhibit A. A set of maps of the Property, including an overview of the remediation Areas and details of each Area are attached to this Environmental Covenant as Exhibit B.

2. **Property Owner / GRANTOR / GRANTEE**. Chevron Mining Inc., successor by merger to Molycorp, Inc., is the owner(s) of the Property. The mailing address of the owner is

Chevron Mining Inc.
116 Inverness Drive East
Suite 207
Englewood, CO 80112

3. **Holder(s) / GRANTEE(S)**. The following is the GRANTEE and a "holder," as that term is defined in 27 Pa. C.S. § 6502, of this Environmental Covenant: The mailing address of the holder is

Chevron Mining Inc.
116 Inverness Drive East
Suite 207
Englewood, CO 80112

4. **Description of Contamination & Remedy**. The Site is approximately 73 acres in size, about 20 acres of which were involved in manufacturing activities conducted by Molycorp, Inc. (Molycorp), the predecessor to Chevron Mining Inc. The majority of products generated by Molycorp consisted of molybdenum trioxide powder, ferromolybdenum and other metal alloys. Molycorp has ceased operations at the Site and all of the buildings on the Site were demolished. Industrial activities took place on other portions of the Property prior to Molycorp's ownership. The southeastern portion of the Site received tar-containing residuals that have been attributed to a manufactured gas plant (MGP) operated by the Hazel-Atlas Glass Company on property to the east of the site.

Based on the diverse historical uses of the Site, the Site was divided into ten areas of interest for purposes of the site investigation, risk assessment and remediation.

SUMMARY OF AREAS OF INTEREST MOLYCORP INC., WASHINGTON, PA FACILITY		
Area Number	**Designation**	**Reason for Designation**
Area 1	Process Plant (Subdivided into 1A and 1B)	Location of original manufacturing operations.
Area 2	North Slag Area	Lowlands west of facility that contained various ponds, impoundments and slag fill.
Area 3	South Slag Area	Area containing slag fill and a former pond containing ball mill slag.
Area 4	Tylerdale Connecting Railroad	Former railroad right-of-way.
Area 5	MGP Tar Pond Area (Subdivided into 5A-5E)	Area containing the South Tar Pond (Area 5A) and area north of South Tar Pond (Area 5B), North Tar Pond Area (Areas 5C and 5D) and the adjacent area 5E.
Area 6	Streams	Chartiers Creek and Sugar Run bisect the Site. Tar noted along banks and in bottom of Chartiers Creek at a few locations.
Area 7	Hill Area (Subdivided into 7A and 7B)	Hill area that contains an old foundation with MGP tar (Area 7A), and a former farm area west of Chartiers Creek and north of Sugar Run (Area 7B). Area 7B-E is adjacent to Chartiers Creek, while Areas 7B-C and 7B-W were never used by Molycorp.
Area 8	Cox Plus	Primarily undeveloped land. No known impacts by Site operations.
Area 9	Green Street	Former residential area. No known impacts by Site operations.
Area 10	Offsite Areas (Subdivided into 10A and 10B)	Offsite areas investigated for radiological constituents because of their location near impacted areas. They include: - The area located adjacent to the northeast corner of Area 3 where a temporary rail line was located in the 1979-1981 period (Area 10A); - Vicinity of the abutment of the small bridge on Caldwell Avenue over Chartiers Creek near the southwest corner of Area 2 (Area 10B); and - Caldwell Avenue between Areas 1 and 2, and Area 3 (Area 10B).

Area 1 was the original location of plant building and processing equipment. Area 2 was a lowland containing ponds of various configurations. Over the years, this area was filled with various slag byproducts and buildings were erected over the area. Eight surface impoundments were constructed along the western boundary near Chartiers Creek in 1968. These impoundments were closed in 1995 and backfilled with clean soil. Area 3 is located south of Caldwell Avenue. The western part of Area 3, adjacent to Chartiers Creek, was the location of a pile containing thoriated slag. East of this pile was a pond that received ball milled slag in the form of a slurry. Further east, a building was located that stored spare parts. Area 10A is where a temporary rail line was located from 1978-

1981 to allow receipt of raw materials during demolition and reconstruction activities that occurred in the main plant area.

Findings of the radiological investigations as described in the Remedial Investigation Report (RIR) (Malcolm Pirnie, 2005) led to the conclusion that only soils in the former manufacturing areas (Areas 1, 2 and 3) and Area 10A contained licensed material at levels in excess of unrestricted release criteria. Consequently, an alternatives evaluation was conducted to assess methods for remediating soils to achieve the unrestricted use criteria provided in the approved Washington, PA Facility Decommissioning Plan.

Soil with MGP tar had been observed or measured in Areas 5A, 5B, 5C, 5D, 5E, 7A and 7B-E, but no radiological impacts were identified in these areas during the pre-remedial site characterization. The tar-impacted soil in Areas 5A, 5B, 5C, 5D, 5E and 7B-E originated from a MGP that was owned and operated by the Hazel Atlas Glass Company. Tar-impacted soil was also identified in an old foundation in Area 7A at the top of a hill that is about 100 feet higher than the other areas. The tar in Area 7A was believed to be MGP tar.

In the 1980s, Areas 5A, 5B, 5C and 5D were investigated by Molycorp. Tar-impacted soil was identified in all of these areas. Around 1985, a berm was constructed around Area 5A and tar-impacted soils from Areas 5B and 5D were excavated and consolidated within the bermed area (Area 5A). The construction of the berm and consolidation of the tar-impacted soil within the bermed area were accomplished with the approval of Pennsylvania Department of Environmental Resources (PADER), the predecessor to the Department. Historical records indicate that before I-70 was built in the 1950s, tar-impacted soil extended further to the east to where I-70 currently is located. The records review confirmed that I-70 had been constructed over this soil.

When Molycorp purchased Area 7A, there was an uncovered concrete foundation approximately 100-feet by 150-feet in this area. The bottom of the foundation contained a layer of tar reported to be less than a foot thick. In the 1980s, the walls of the foundation were pushed in and the foundation was filled with soil. As the backfill settled the tar migrated upward and tar could be seen on the soil surface at some locations of the foundation.

Areas 7B-E and 5E are south of Caldwell Avenue, adjacent to and west of Chartiers Creek. No significant industrial activities or waste disposal activities occurred in these areas. However, the areas provided an access road to the South Tar Pond area (Areas 5A and 5B) and the Foundation area (Area 7A). Tar-impacts were observed in the surface soil surface in isolated locations of Areas 5E and 7B-E. Area 4, Areas 7B-C and 7B-W, Area 8 and Area 9 was residential properties that Molycorp purchased after Site activities stopped.

A supplemental site characterization took place at the Site and is documented in the RIR.

Findings of the radiological investigations, as described in the RIR, led to the conclusion that only soils in Areas 1, 2, 3 and 10A contained licensed material at levels in excess of

unrestricted release criteria. Consequently, an alternatives evaluation was conducted to assess methods for remediating soils to achieve the unrestricted use criteria provided in the approved Washington, PA Facility Decommissioning Plan. The selected remediation involved excavating soil in Areas 1, 2, 3 and 10A, segregating the soil based on radiological testing, shipping soil with radiological impacts above release criteria offsite to an approved offsite facility and reusing soil with radiological impacts below release criteria. A minimum of two feet cover of clean, imported material then was placed over all of the area.

To evaluate possible nonradiological impacts at the Site, samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals. Soil and groundwater samples collected from the Site were compared to medium-specific concentrations (MSCs) and vapor intrusion screening values under the Statewide Health Standard. There were exceedances of residential and nonresidential MSCs and vapor intrusion screening values in soil samples collected from many areas of the Site. There were also exceedances of residential and nonresidential MSCs in groundwater samples collected from all areas of the Site, including upgradient areas where there was never industrial activity. Consequently, potential human health risks were evaluated under the Site-Specific Standard and this evaluation was presented in the Risk Assessment and Remedy Selection Report (Malcolm Pirnie 2005). The development of a remedial action to address chemical impacts at the Site was warranted because the fate and transport analysis and risk assessment for the Site indicated that some potential exposures and risks exceeded target levels under the Land Recycling and Environmental Remediation Standards Act, Act of May 19, 1995, P.L. 4, No.2, 35 P.S. §§ 6026.101-6026.908 ("Act 2").

A Cleanup Plan for the Site under Act 2 was submitted to the Department in 2006 (Malcolm Pirnie 2006). All of the plans and reports were reviewed and approved by the Department before remediation began in 2006.

The remediation included a combination of 1) active remediation involving removal of soil, 2) pathway elimination through engineering controls, and 3) pathway elimination through institutional controls to achieve the objectives of addressing critical exposure pathways.

The active remediation component involved excavation of soil from a variety of areas on the Site. For Areas 1, 2, 3 and 10A, approximately 169,000 tons of radiological materials were excavated and transported offsite for disposal. Following removal of radiological material, the surface of these areas was backfilled with at least two feet of clean fill, to serve as an engineering control. For Areas 5A, 5B, 5C, 5D, 5E, 7A, and 7B-E, the remedial action included excavating soils with visual indications of tar and disposing of this soil at an approved offsite landfill. The excavations were backfilled with clean fill. In addition, sediment with tar was removed in a few locations along Chartiers Creek. Approximately 59,000 tons of tar-impacted soil was transported offsite for disposal.

During remediation, approximately 31,000,000 gallons of water was treated at a Contact Water Treatment Plant that was constructed and operated for the remediation. This included groundwater removed for dewatering during excavation, contact stormwater, and contact floodwater. After treatment, the water was discharged in accordance with the Site's NPDES permit.

Overall, the Site is being closed under a combination of Statewide Health Standards and Site Specific Standards, as detailed in the Final Report submitted to the Department in April 2011 (Arcadis 2011). Attached as Exhibit C to this Environmental Covenant is a table that lists chemicals on the Site and the selected Act 2 standards for them for the various Areas of the Site.

The chemicals remaining in soil and groundwater include polyaromatic hydrocarbons (PAHs) and select metals including molybdenum, iron, manganese, arsenic and antimony. The chemicals remaining in place are addressed through the activity and use limitations in this Environmental Covenant.

Remediation of radiological constituents is separate from the Act 2 process and was addressed in reports submitted to the Department's Bureau of Radiation Protection. Following a Decommissioning Departmental Evaluation, the radioactive materials license for the site was terminated by the Department on December 20, 2010.

5. **Activity & Use Limitations**. The Property is subject to the following activity and use limitations, which the then current owner of the Property, and its tenants, agents, employees and other persons under its control, shall abide by:

Areas 1 and 2

Activity & Use Limitations: Areas 1 and 2 are subject to the following activity and use limitations:

1. Groundwater at and under Areas 1 and 2 shall not be used for potable purposes, or commercial/industrial or commercial/agricultural activities including, but not limited to, irrigation of crops, watering of livestock, and food production, processing or packaging.

2. No conveyances (storm drains, ditches, utilities, etc.) that may increase the flow of groundwater to Chartiers Creek shall be installed, without prior approval in writing by the Department.

3. No excavation or grading that may increase the flow of groundwater to Chartiers Creek shall be conducted, without prior approval in writing by the Department.

4. Areas 1 and 2 shall be used only for non-residential purposes in accordance with Act 2 and Department regulations. Non-residential use excludes schools, nursing homes or other residential-style facilities or recreational areas.

5. The engineered barrier in Areas 1 and 2 (i.e., the concrete pad in part of Area 1 and the two feet of clean fill in the remainder of Areas 1 and 2) must be maintained (i.e., if the barrier is breached, it must be restored). For any excavation of the clean fill cover, the clean fill shall be segregated, properly staged, and returned as cover to the excavated area or the excavated area shall be covered with replacement clean fill or covered with pavement. Returned or replaced clean fill must be a minimum thickness of 2 feet.

6. No excavation through or beneath the engineered barrier (clean fill cover and concrete pad) shall be conducted without prior written notice and a plan, for soil and groundwater, submitted for approval to the Department (Environmental Cleanup Program and Bureau of Radiation Protection), with a schedule of implementation, setting forth worker health and safety requirements, access limitations during excavation, disposal or reuse of excavated materials, and restoration of the clean fill cover or other alternatives that are approved by the Department in writing.

7. Soil and gravel in the railroad bed in Area 1 has not been characterized and this railroad bed should not be redeveloped for other purposes unless the soil and gravel is characterized in Area 1.

8. After realignment of the storm sewer system in Areas 1 and 2, in accordance with a Consent Order and Agreement between Chevron Mining and the Department dated August 9, 2011, any future use of the original conveyance to Outfall 001 under NPDES Permit No. PA0040312 (expired) must be authorized in writing by the Department.

Figure 1 demonstrates the location of Areas 1 and 2 within the Site boundary and the surround properties. A close up of each area is demonstrated on Figures 2 through 4 that demonstrates the extents of each area and presents the Pennsylvania State Plane NAD 1983 coordinates of major corners associated with each area in decimal format.

Areas 3 and 10

Activity & Use Limitations: Areas 3 and 10 are subject to the following activity and use limitations:

1. Groundwater at and under Areas 3 and 10 shall not be used for potable purposes, or commercial/industrial or commercial/agricultural activities

including, but not limited to, irrigation of crops, watering of livestock, and food production, processing or packaging.

2. No conveyances (storm drains, ditches, utilities, etc.) that may increase the flow of groundwater to Chartiers Creek shall be installed, without prior approval in writing by the Department.

3. No excavation or grading that may increase the flow of groundwater to Chartiers Creek shall be conducted, without prior approval in writing by the Department.

4. Areas 3 and 10 shall be used only for non-residential purposes in accordance with Act 2 and Department regulations. Non-residential use excludes schools, nursing homes or other residential-style facilities or recreational areas.

5. The engineered barrier in Areas 3 and 10 (i.e., the two feet of clean fill in Areas 3 and 10) must be maintained (i.e., if the barrier is breached, it must be restored). For any excavation of the clean fill cover, the clean fill shall be segregated, properly staged, and returned as cover to the excavated area or the excavated area shall be covered with replacement clean fill or covered with pavement. Returned or replaced clean fill must be a minimum thickness of 2 feet.

6. No excavation through or beneath the engineered barrier (clean fill cover) shall be conducted without prior written notice and a plan, for soil and groundwater, submitted for approval to the Department (Environmental Cleanup Program and Bureau of Radiation Protection), with a schedule of implementation, setting forth worker health and safety requirements, access limitations during excavation, disposal or reuse of excavated materials, and restoration of the clean fill cover or other alternatives that are approved by the Department in writing.

Figure 1 demonstrates the location of Areas 3 and 10 within the Site boundary and the surround properties. A close up of each area is demonstrated on Figures 5 and 18 that demonstrates the extents of each area and presents the Pennsylvania State Plane NAD 1983 coordinates of major corners associated with each area in decimal format.

Areas 5A and 5B

Activity & Use Limitations: Areas 5A and 5B are subject to the following activity and use limitations:

1. Groundwater at and under Area 5A and Area 5B shall not be used for potable purposes, or commercial/industrial or commercial/agricultural

activities including, but not limited to, irrigation of crops, watering of livestock, and food production, processing or packaging.

2. No conveyances (storm drains, ditches, utilities, etc.) that may increase the flow of groundwater to Chartiers Creek shall be installed, without prior approval in writing by the Department.

3. No excavation or grading that may increase the flow of groundwater to Chartiers Creek shall be conducted, without prior approval in writing by the Department.

4. Areas 5A and 5B shall not be used for residential purposes in accordance with Act 2 and Department regulations. Nonresidential use excludes schools, nursing homes or other residential-style facilities or recreational areas.

5. The wetlands (natural and constructed) in Area 5A and 5B shall remain as wetlands and shall not be developed for any other use.

Figure 1 demonstrates the location of Areas 5A and 5B within the Site boundary and the surround properties. A close up of each area is demonstrated on Figures 7 and 8 that demonstrates the extents of each area and presents the Pennsylvania State Plane NAD 1983 coordinates of major corners associated with each area in decimal format.

Areas 5C and 5D

Activity & Use Limitations: Areas 5C and 5D are subject to the following activity and use limitations:

1. Groundwater at and under Areas 5C and 5D shall not be used for potable purposes, or commercial/industrial or commercial/agricultural activities including, but not limited to, irrigation of crops, watering of livestock, and food production, processing or packaging.

2. No conveyances (storm drains, ditches, utilities, etc.) that may increase the flow of groundwater to Chartiers Creek shall be installed, without prior approval in writing by the Department.

3. No excavation or grading that may increase the flow of groundwater to Chartiers Creek shall be conducted, without prior approval in writing by the Department.

4. Areas 5C and 5D shall not be used for residential purposes in accordance with Act 2 and Department regulations. Nonresidential use excludes schools, nursing homes or other residential-style facilities or recreational areas.

5. The engineered barrier in Areas 5C and 5D (i.e., the two feet of clean fill in Areas 5C and 5D) must be maintained (i.e., if the barrier is breached, it must be restored). For any excavation of the clean fill cover, the clean fill shall be segregated, properly staged, and returned as cover to the excavated area or the excavated area shall be covered with replacement clean fill. Returned or replaced clean fill must be a minimum thickness of 2 feet.

6. No excavation through or beneath the engineered barrier (clean fill cover) shall be conducted without prior written notice and a plan, for soil and groundwater, submitted for approval to the Department, with a schedule of implementation, setting forth worker health and safety requirements, access limitations during excavation, disposal or reuse of excavated materials, and restoration of the clean fill cover or other alternatives that are approved by the Department in writing.

Figure 1 demonstrates the location of Areas 5C and 5D within the Site boundary and the surround properties. A close up of each area is demonstrated on Figures 9 and 10 that demonstrates the extents of each area and presents the Pennsylvania State Plane NAD 1983 coordinates of major corners associated with each area in decimal format.

Areas 4, 5E, 7A, 7B-E, 7B-C, 7B-W, 8 and 9

Activity & Use Limitations: Areas 4, 5E, 7A, 7B-E, 7B-C, 7B-W, 8 and 9 are subject to the following activity and use limitations:

1. Groundwater at and under Areas 4, 5E, 7A, 7B-E, 7B-C, 7B-W, 8 and 9 shall not be used for potable purposes, or commercial/industrial or commercial/agricultural activities including, but not limited to, irrigation of crops, watering of livestock, and food production, processing or packaging.

2. No conveyances (storm drains, ditches, utilities, etc.) that may increase the flow of groundwater to Chartiers Creek shall be installed, without prior approval in writing by the Department.

3. No excavation or grading that may increase the flow of groundwater to Chartiers Creek shall be conducted, without prior approval in writing by the Department.

4. Areas 7B-E shall not be used for residential purposes in accordance with Act 2 and Department regulations. Non-residential use excludes schools, nursing homes or other residential-style facilities or recreational areas.

Figure 1 demonstrates the location of Areas 4, 5E, 7A, 7B-E, 7B-C, 7B-W, 8 and 9 within the Site boundary and the surround properties. A close up of each area is demonstrated on Figures 4 and 11 through 17 that demonstrates

the extents of each area and presents the Pennsylvania State Plane NAD 1983 coordinates of major corners associated with each area in decimal format.

6. **Notice of Limitations in Future Conveyances**. Each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

7. **Compliance Reporting**. Every January following the Department's approval of this Environmental Covenant for a period of 5 years, the then current owner of the Property shall submit, to the Department and any Holder listed in Paragraph 3, written documentation stating whether or not the activity and use limitations in this Environmental Covenant are being abided by. After 5 years, such written documentation shall be submitted every third January. In addition, within 1 month after any of the following events, the then current owner of the Property shall submit, to the Department and any Holder listed in Paragraph 3, written documentation: noncompliance with the activity and use limitations in this Environmental Covenant; transfer of the Property; changes in use of the Property; or filing of applications for building permits for the Property and any proposals for any site work, if the building or proposed site work will affect the contamination on the Property subject to this Environmental Covenant.

8. **Access by the Department**. In addition to any rights already possessed by the Department, this Environmental Covenant grants to the Department a right of reasonable access of the Property in connection with implementation or enforcement of this Environmental Covenant.

9. **Recording & Proof & Notification**. Within 30 days after the date of the Department's approval of this Environmental Covenant, the Grantor shall file this Environmental Covenant with the Recorder of Deeds for each County in which the Property is located, and send a file-stamped copy of this Environmental Covenant to the Department within 60 days of recording. Within that time period, the Grantor also shall send a file-stamped copy to each of the following: Canton Township, Washington County, Pennsylvania Department of Transportation; and each person holding a recorded interest in the Property.

10. **Termination or Modification**.

a. This Environmental Covenant shall terminate upon attainment, in accordance with 35 P.S. §§ 6026. 101 – 6026.908, with an unrestricted use remediation standard for the above-described contamination at the Property. The Department must approve, in writing, of such termination.

b. This Environmental Covenant may be amended or terminated as to any portion of the real property subject to the covenant that is acquired for use as highway right of way by the Commonwealth, providing that:

(i) The Department waives the requirements for an environmental covenant and for conversion under section 6517 of UECA (relating to relationship to other laws) to the same extent that the environmental covenant is amended or terminated.
(ii) The Department determines that termination or modification of the environmental covenant will not adversely affect human health or the environment.
(iii) The Department will provide 30-days advance written notice to the current property owner, each holder, and, as practicable, each person that originally signed the environmental covenant or successors in interest to those persons.

The documents submitted under the Pennsylvania Land Recycling and Remediation Standards Act, Act 2, that are referenced in this Environmental Covenant are available at the Pennsylvania Department of Environmental Protection, Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA 15222 (Land Recycling Program ID# 5-63-918-18880).

11. **Department's address**. Communications with the Department regarding this Environmental Covenant shall be sent to:

Environmental Cleanup Program Manager

Pennsylvania Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222-4745

ACKNOWLEDGMENT by Owner and Holder:

Chevron Mining Inc., Grantor and Holder

Date: August 29, 2011

Mark G. Premo, President and CEO

APPROVED, by Commonwealth of Pennsylvania,
Department of Environmental Protection

Date: 9/14/11

By: _____

Name: David E Eberle

Title: ECP Manager

STATE OF COLORADO)
) ss.
COUNTY OF ARAPAHOE)

On this 29th day of August, 2011, before me, the undersigned officer, personally appeared Mark G. Premo, the President and Chief Executive Officer of Chevron Mining Inc., Owner, who acknowledged himself to be the person whose name is subscribed to this Environmental Covenant, and acknowledged that he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

LINDA S. WARKENTIN
NOTARY PUBLIC
STATE OF COLORADO

Linda S. Warkentin
Notary Public
My Commission Expires
08/19/2014

COMMONWEALTH OF PENNSYLVANIA)
)
COUNTY OF ALLEGHENY) SS:

On this 14th day of September, 2011, before me, the undersigned officer, personally appeared DAVID E. EBERLE, who acknowledged himself/herself to be the Environmental Cleanup Manager of the Commonwealth of Pennsylvania, Department of Environmental Protection, Southwestern Regional Office, whose name is subscribed to this Environmental Covenant, and acknowledged that s/he executed same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.

Flora E Wilson
Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Flora E. Wilson, Notary Public
City of Pittsburgh, Allegheny County
My Commission Expires April 26, 2015
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

EXHIBIT A – PROPERTY DESCRIPTION

To help present the locations where the environmental covenants are assigned to the Site, the Site is divided into three distinct sections, divided by Caldwell Avenue and Green Street.. The three sections are:

1) North of Caldwell Avenue: This section is the area of the Site that is located north of Caldwell Avenue and west of Green Street. The section was further subdivided during remediation activities into Areas 1A, 1B, 2 and 8 as presented in **Figure 1**. A description of the boundary of the section based on the deed descriptions is presented below.

2) South of Caldwell Avenue: This section is the area of the Site that is located south of Caldwell Avenue. The section was further subdivided during remediation activities into Areas 3, 4, 5A, 5B, 5C, 5D, 5E, 7A, 7B-E, 7B-W and 10A as presented on **Figure 1**. A description of the boundary of the section based on the deed descriptions is presented below. It should be noted deeds demonstrate that portions of this section are noted as being east of Service Roads No. 1 and 2 and Water Street.

3) East of Green Avenue: This section is the area of the Site that is north of Caldwell Ave and east of Green Street. The section was noted as Area 9 during remediation as presented in **Figure 1**. A description of the boundary of the section based on the deed descriptions is presented below.

Section 1 - North of Caldwell Avenue:

STARTING at a point at the Southeasterly corner of property herein designated as Parcel A, said point of beginning also being the Northerly line of Caldwell Avenue, forty (40) feet wide, where the same is intersected by the Westerly right of way line of the Tylerdale connecting Railroad company, thence from said point of beginning and along the Northerly line of said Caldwell Avenue N 86° 10' is ninety and no hundredths (90.00) feet to a point on the said Northerly line of Caldwell Avenue where the same in intersected by the Easterly line of other lands of Molycorp, Inc. .Thence at a stake on Caldwell Avenue, corner of property of the Tylerdale Connecting Rail Road Company, thence North 85° 45' West Five Hundred Twenty-nice (529) feet to an iron pin, thence South eighty-two degrees fifty-seven minutes thirty seconds West; within said lines of the Caldwell Avenue Extension by land of the Manor Real Estate and Trust Company, sixty-eight feet and seventy-five one-hundredths of a foot (68.75) ; thence Westerly across South 1° 00' East to a spike; thence continuing along said line of lands now or formerly of Blaine A. Beeghly and continuing within the lines of Caldwell Avenue, a 40 foot wide street, South 83° 23' West a distance of 153.89 feet to a spike in Caldwell Avenue at the Northeast corner of land new or formerly of Ralph Morris. Then continuing along the line of land new or formerly of said Blaine A. Beeghly North 52°

23' West a distance of 137.40 feet to a point within the lines of Weirich Avenue (also known as State Highway L.B. 62201), a 50 feet wide street; thence continuing within the line of said Weirich Avenue and along the line of lands now or formerly of said Blaine A. Beeghly North 10° 29' East a distance of 235.10 feet to a point; thereafter continuing within the lines of said Weirich Avenue and along the line of lands now or formerly of said Blaine A. Beeghly North 30 47' East a distance of 368.80 feet to a point East of the Easterly line of said Weirich and common to said lands now or formerly of Blaine A. Beeghly and lands now or formerly of Jessop Steel Co. ; thence within the lines of said Weirich Avenue and along the line of lands now or formerly of said Jessop Steel Co. North 20° 52' West a distance of 547.14 feet to a point; thence continuing within the lines of said Weirich Avenue and along the line of said last-mentioned lands North 10 58' East a distance of 493.90 feet to a railroad spike; thence leaving Weirich Avenue and along the line of lands nor or formerly of said Jessop Steel Co. South 61 49' East a distance of 118.36 feet to an iron pipe; forward continuing along same Southwardly on a curve to the left having a radius of 676.78 feet, an arc distance of 123.86 feet , and having a chord bearing South 1° 33' 25'' East and a chord length of 123.69 feet to an iron pipe; henceforth continuing along the line of said lands now or formerly of Findlay Refractories Co. South 6° 48' East a distance of 629.65 feet to an iron pipe; thence continuing along the line of lands nor or formerly of said Findlay Refractories co. Southwardly, on a curve to the right having a radius of 2904.93 feet, an arc distance of 151.04 feet, and having a chord bearing South 5° 18' 37'' East and a chord length of 151.04 feet to an iron pipe; thence continuing along same and crossing Chartiers Creek North 89 50' East a distance of 80.16 feet to an iron pipe. Thence West, along the Westerly line or said land of the Molybdenum Corporation of America and along the Westerly line of land nor or formerly of the Gordon Land Company; thence by land of Gordon Land company North eighty-nine and one-fourth (89-1/4) degrees East four hundred fifty-eight (458) feet to a point in the center line of said right of way of the Tylerdale connecting Railroad; thence along said center line South forty-five (45) minutes East four hundred seventy (470) feet to the PLACE OF BEGINNING.

Section 2 - South of Caldwell Avenue:

STARTING at a point found abutting the South side of Caldwell Avenue Extension and Westerly of Tylerdale Connecting Railroad continuing South 5° 24' 30'' West 67.87 feet to a point distant 75 feet Northwestwardly and radially from the center line of railroad of the Tylerdale Connecting Railroad Company known as the Sugar Run Branch. Thence on a course South 3° 27' West following along said Westerly lands of said William R. Weirich, for a distance of one hundred thirty-two and four-tenths (132.4) feet to the place of beginning at Station 5 plus 75 of the enumeration of stationing of the center line of said railroad - and continuing on the course of S. 3° 27' W one hundred thirty-two and four-tenths (132.4) feet. Thence along the Westerly right of way line of Water Street, a forty foot street, from North 6° 40' East, two hundred and two feet and no hundredths of a foot (272) to a point also located in the Westerly right of way of said Water Street. From the point of intersection of Water Street and Highway 70 from the highway center line is 76.00 feet from North 32° 29' 04'' East. Then proceeding along the center line of Highway 70 an arc distance of five hundred and seven feet and fifty six hundredths of a

foot (587.56) to a point over a right curve with a radius of 2292.01 feet. From the center line of the highway South 80° 12' 00'' East 185.00 feet to the center line of Wheeling, Pittsburgh and Baltimore Railroad Company; thence North 17° 47' 44'' East 225.00 feet to a point. Thence with the said Northerly property line of the Wheeling, Pittsburgh and Baltimore Railroad Company North 82° 22' 50'' West 1126.09 feet to an iron pipe thence, still following the Northerly property line of the Wheeling, Pittsburgh and Baltimore Railroad Company, by a line curving to the left, the radius of which curve is 1609.38 feet, 143.40 feet to an iron pipe in the Easterly line of the said Weirich North 29° 21' 44'' West (passing through a concrete monument at 12.21 feet) 354.41 feet to a concrete monument in the Southerly right of way line of the Sugar Creek Branch of the Tylerdale Connecting Railroad. Thence from a point thirty-three (33) feet Southerly by rectangular measurement from the center line of proposed railroad on a course N. 27° W. following along the said diving line and crossing said center line at Station 27 plus 50.6 of the enumeration of said railroad center line. Thence North 30° 00' West a distance of 310.43 feet; thence by line common to Lots 50 through 57 in said Lacock Plan of Lots number two, North 57° 30' East a distance of 468.40 feet to a Hub set; thence North 78° 32' East a distance of 169.02 feet to a point; continuing by line common to the Southerly boundary of Lot 60 in the Lacock Plan of Lots Number Five, which Plan is recorded in Plan Book 8, page 56 in the Office of Recorder of Deeds of county, North 79° 01' East a distance of 68.70 feet to a point; thence by line common to the Southerly boundary of Lots 61 through 65 in said last mentioned Lacock Plan North 78° 50' East a distance of 370.26 feet to a Hub Set; thence by line common to the Easterly boundary of Lot 65 in said last mentioned plan North 11° 10' West a distance of 180 feet to a Hub Set on the Southerly right-of-way line of Township Road 390; forward along the Southerly right-of-way line of said Township Road North 77° 26' 40'' East a distance of 256.01 feet to a point. Thereafter from the point in the title line within the lines of Caldwell Avenue at the distance of 160.77 feet measured N. 82° 57' 30'' E., along said title line from an iron spike in the Easterly line of land now or formerly of A. Harold Lacock; thence North 82° 57' 30'' East along the Southerly line of said parcel of land conveyed as aforesaid to Findlay Clay Products Company and along the Southerly line of the parcel of land containing 2.313 acres, more or less, the distance of 98.39 feet to an iron spike in the Southeasterly corner of said last mentioned parcel of land to the PLACE OF BEGINNING.

East of Water Street:

BEGINNING at a point at the northeasterly corner of property herein designated as Parcel B, said point of beginning also being the southerly line of Caldwell Avenue, forty (40) feet wide, where the same is intersected by the easterly line of Water Street, forty (40) feet wide. This area contains two parcels of property herein described as Parcel B and Lot 36. Forward from the beginning point and along the easterly line of said Water Street S 8° 15' W one hundred forty and eleven hundredths (140.11) feet to a point where the easterly line of said Water Street intersects the northerly line of a twenty (20) foot alley; thence along the northerly line of said alley S 86 00' E thirty-one and twenty hundredths (31.20) feet to a point where the northerly line of the said twenty foot alley intersects the westerly line of the I-79 service road of undefined width; thence along the

westerly line of said service road N 43° 27' E fifty-one and thirty-two hundredths (51.32) feet to a point thence along same and by the arc of a curve to the left having a radius of one hundred thirty and no hundredths (130.00) feet, a distance of two and sixty-two hundredths (2.62) feet to a point; continuing along the Easterly border of Lot 36; thence along N 86° 00' W sixty and no hundredths (60.00) feet to a point, the PLACE OF BEGINNING.

East of Service Road and South of Caldwell Street:

BEGINNING at the corner of the intersection between the southerly line of Caldwell Avenue and the Easterly line of Service Road Number Two the parcel section is made up of two deeds, lot 34 and lot 35. Fronting 30 feet on Caldwell Avenue and extending back of equal width therefrom, 140 foot to First Alley, bounded on the North by Caldwell Avenue; on the East by lot No. 34; on the South by First alley and on the West by Lot No. 36. The Northerly and Easterly portion of the two lots are contained in Lot 34. Beginning at the northwest corner of Lot 34, being in the South right-of-way line of Caldwell Avenue, having a 40 foot right-of-way; thence south 82° 30' East, along the south right-of-way of said Caldwell Avenue to the right-of-way of said limited access highway, a distance of 39.40 feet; thence South 36° 37' 49'' West, departing the South right-of-way of said Caldwell Avenue and along the right-of-way of said limited access highway to the west line of said Lot 34, a distance 80.94 feet; forward 70.70 feet North along the Eastern side of Lot 35 ending at the PLACE OF BEGINNING.

South of First Alley and East of Service Road No. 2:

BEGINNING at the corner of the Easterly boundary of Service Road No. 2 and South of Ellis Avenue the parcel section contains deeds of lot 74 and lot 75. Lot 74 fronts 30 foot on Ellis Avenue and extends back of equal width therefrom 140 foot to First Alley, being bounded on the North by First Alley, on the East by Lot 75, on the South by Ellis Avenue, and on the West by Lot 73. Lot 75, being bounded on the West by Water Street, on the East by Ellis Avenue, and on the North by Service Road Number Two abuts Lot 74 along Service Road Number Two to the PLACE OF BEGINNING.

Section 3 – East of Green Avenue:

Lots 306,307,308,309 west line of I-70

BEGINNING at a point, said point being the intersection of Green Avenue and an alley; thence extending along said Green Avenue, North 1° West 108 feet, more or less, to a point; thence North 65° East 100 feet, more or less, to a point on the diving line between Lot No. 309 and Lot No. 310; South 27° East 20 feet, more of less, to a point; thence South 36° West 165 feet, more or less, to a point, the PLACE OF BEGINNING.

Lots 499, 498,497 between Greene Avenue and Griffith Avenue just north of the 20 foot road

BEGINNING at the Northwesterly point of Lot No. 499 on the Eastern side of Greene Avenue continuing East 203.8 feet to the Western boundary of Griffith Avenue; thence South 10 feet; thence Southwesterly towards Lot No. 498; thence West 72.9 feet, hereforth South 3 feet and completing the 100 foot West distance to the Easterly boundary of Greene Avenue. Thence North 3 feet to a point and continuing 30 feet further North to the PLACE OF BEGINNING.

Lots 487-496 between Greene, Griffith, and Wayne Street

BEGINNING at the point between Lot No. 495 and Lot No. 494 at the Northwesterly point of the combined property begin east 180 feet across Lot Numbers 489, 490, 491, 492, 493, and 494 in the reverse order; thence continuing in an Easterly direction along the southerly line of Alley B the distance of 60 feet to a point in the Westerly line of Griffith Avenue; thence in a southerly direction along the Westerly line of Griffith Avenue the distance of 75 feet. Thence from the point by line of Griffith Avenue continue 75 feet to a point. At a point, the Northerly line of Wayne Street and the Westerly line of Griffith Avenue; thence by line of Wayne Street, 60 feet to line of Lot No. 489 in said plan. In a Southwesterly direction, 50 feet, more or less, to a point on the northerly side of Wayne Street; thence along the northerly side of Wayne Street in a westerly direction, a distance of 40 feet, more or less, to a point on the dividing line between Lots. 491 and 492 in said Plan. Thence, continuing 30 feet southwesterly to the point between Lots 492 and 493. Thence continuing along the Northern line of Wayne Street 131.4 feet across Lots 493, 494, 495 and 496 to a point intersection Wayne Street and Greene Avenue on the northern eastern border; continuing north along the triangular property of Lot No. 494 46 feet to the border before Lot No. 495 and 65 feet to the northwesterly point of the combined property area, the PLACE OF BEGINNING.

BEGINNING at the Northwesterly point of Lot No. 24 as designated by Canton Township, Washington County, Pennsylvania moving east 30 feet to the boundary of Lot No. 23, thence south 140 feet to the Northern boundary of the alley; thence 30 feet west to the boundary of Lot No. 25, from this point north 140 feet to the southern boundary of Caldwell Avenue to the PLACE OF BEGINNING.

BEGINNING at an iron pin three feet West of the center of the Public Road at a corer common to lands nor or formerly of Gordon Land Company, Jessop Steel Company, Manor Realty Estate and Trust Company and the tract hereby conveyed; thence along the Township Road and lands now or formerly of Manor Real Estate and Trust Company, South 10° 58' West, 493.9 feet to an iron pin on the West side of said Road; thence by same, South 20° 52' East, 547.2 feet to an iron pin on the East side of said road; thence by lands formerly of A. A. Lacock, North 76° 56' West, 787.9 feet to an iron pin; thence by lands now or formerly of Mark Karoula, North 22° 39' East, 1042.84 feet to a stone; thence by lands now or formerly of Gordon Land Company, South 61° 51' East 304.6 feet to the place of beginning, passing through a concrete monument 22.5 feet to the PLACE OF BEGINNING.

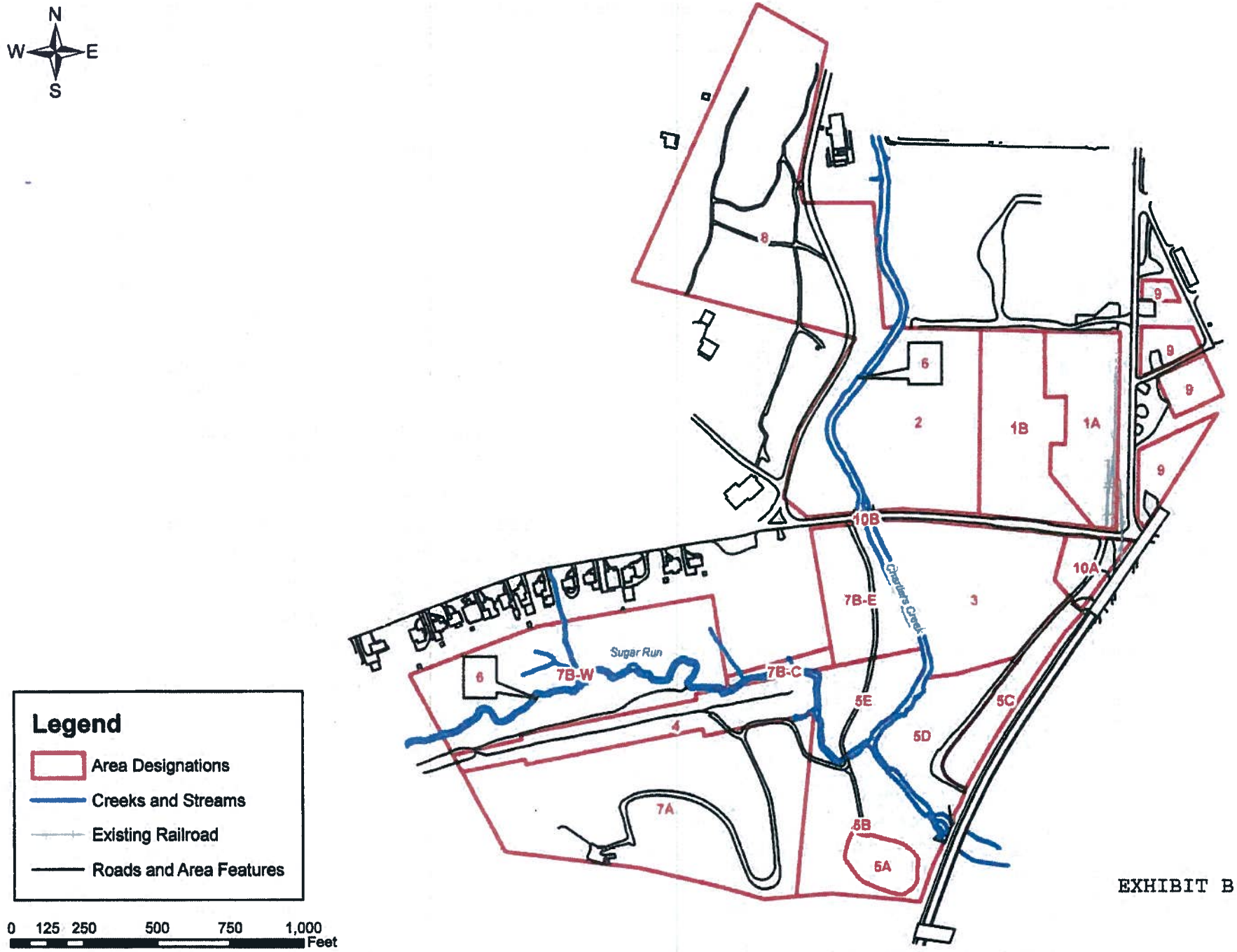
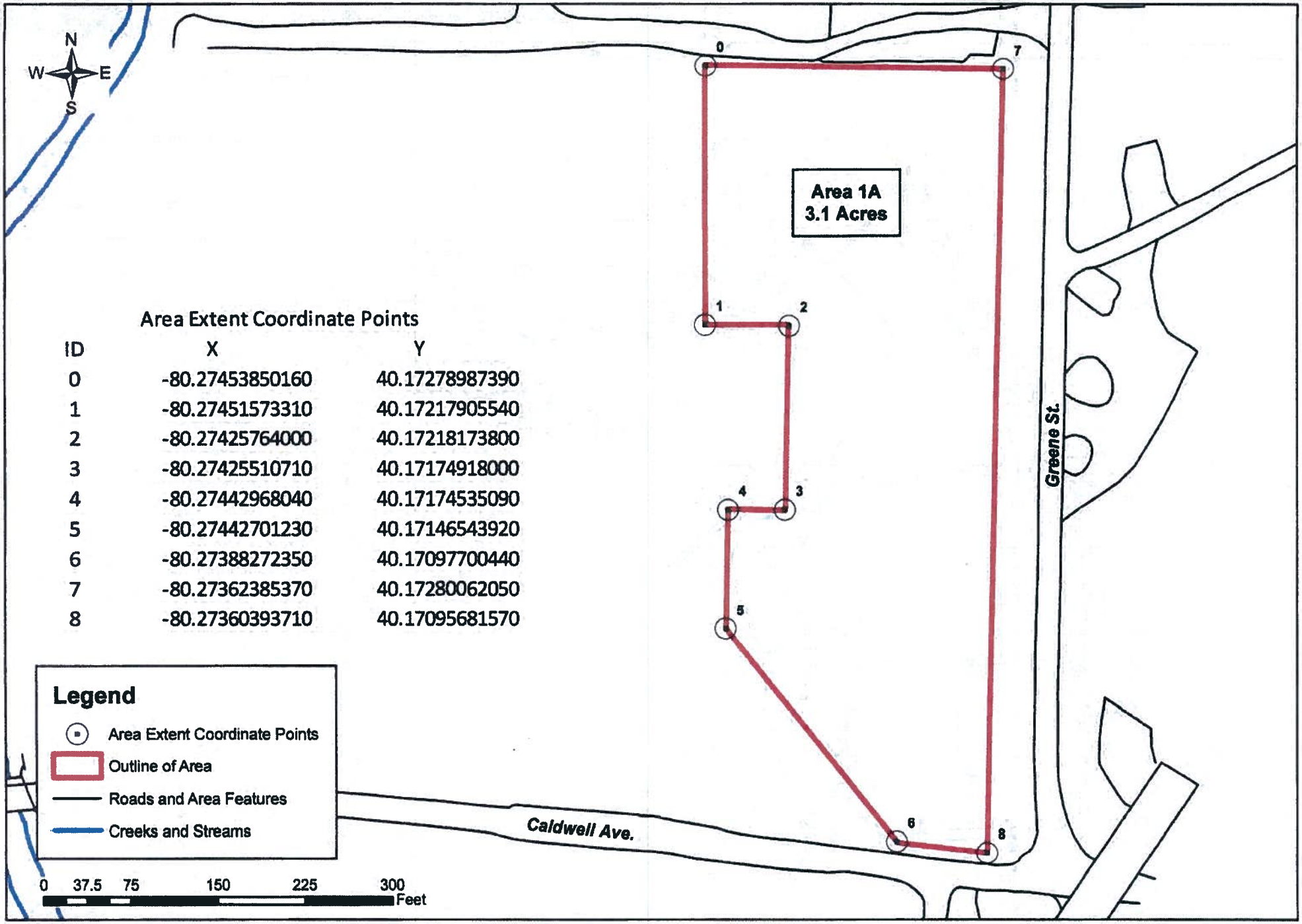


EXHIBIT B

MALCOLM PIRNIE

Molycorp Washington Remediation Project
Final Report

Figure 2
Area Designations



Area Extent Coordinate Points

ID	X	Y
0	-80.27453850160	40.17278987390
1	-80.27451573310	40.17217905540
2	-80.27425764000	40.17218173800
3	-80.27425510710	40.17174918000
4	-80.27442968040	40.17174535090
5	-80.27442701230	40.17146543920
6	-80.27388272350	40.17097700440
7	-80.27362385370	40.17280062050
8	-80.27360393710	40.17095681570

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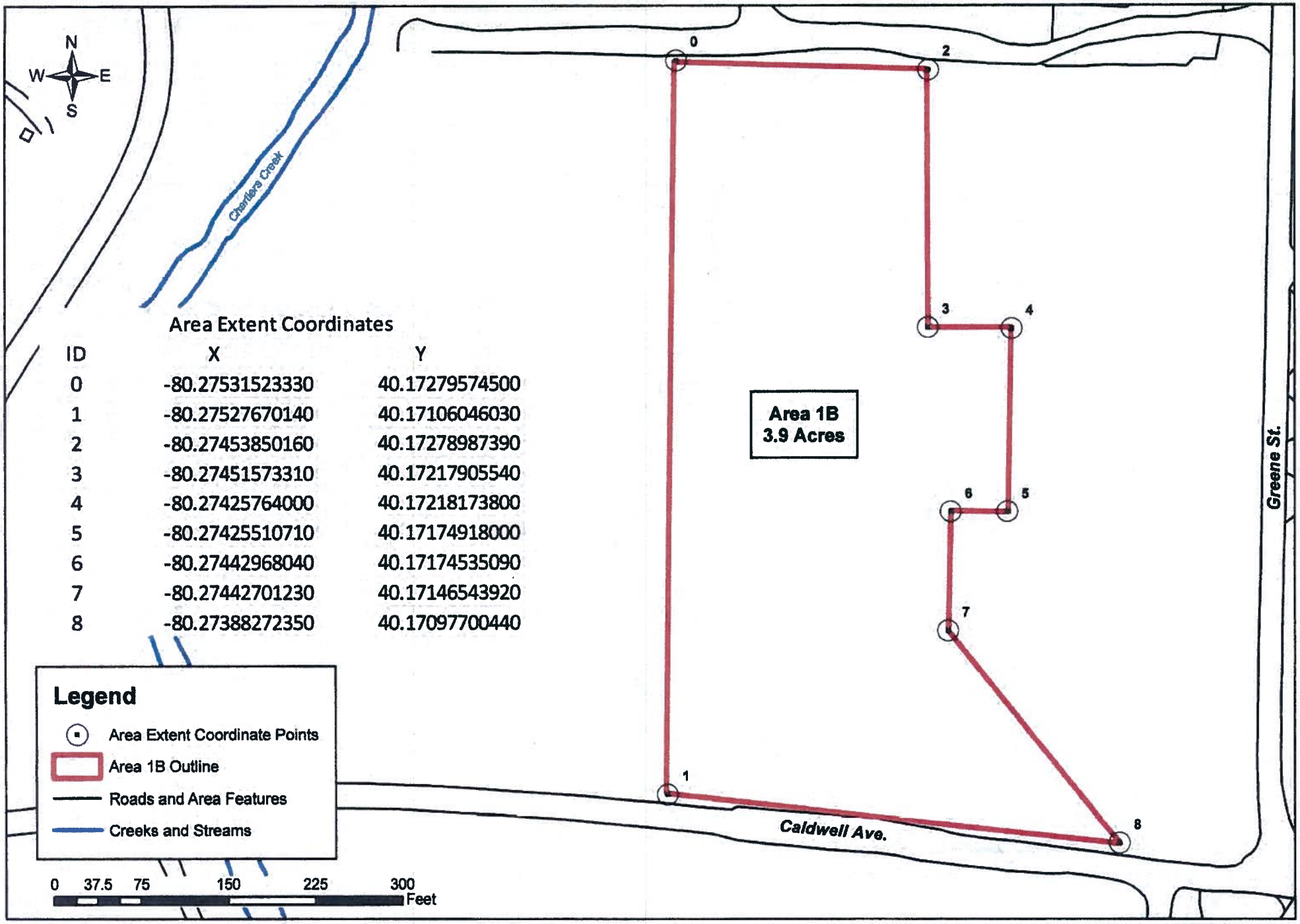
Molycorp Washington Remediation Project
Extent of Area Information

Area 1A
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinates

ID	X	Y
0	-80.27531523330	40.17279574500
1	-80.27527670140	40.17106046030
2	-80.27453850160	40.17278987390
3	-80.27451573310	40.17217905540
4	-80.27425764000	40.17218173800
5	-80.27425510710	40.17174918000
6	-80.27442968040	40.17174535090
7	-80.27442701230	40.17146543920
8	-80.27388272350	40.17097700440

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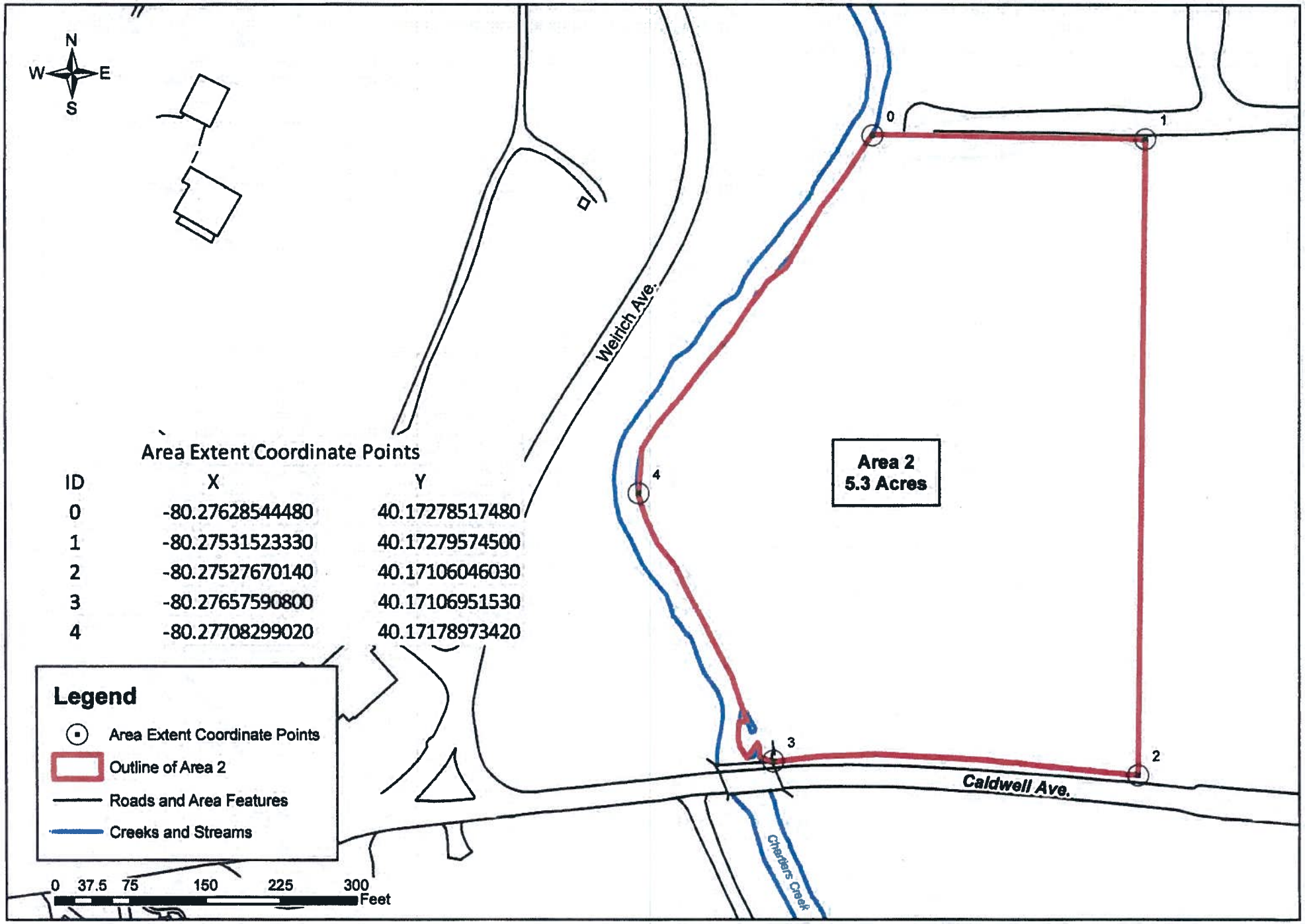
Molycorp Washington Remediation Project
Extent of Area Information

Area 1B
Outline of Area, Major Corner Points, and Acerage



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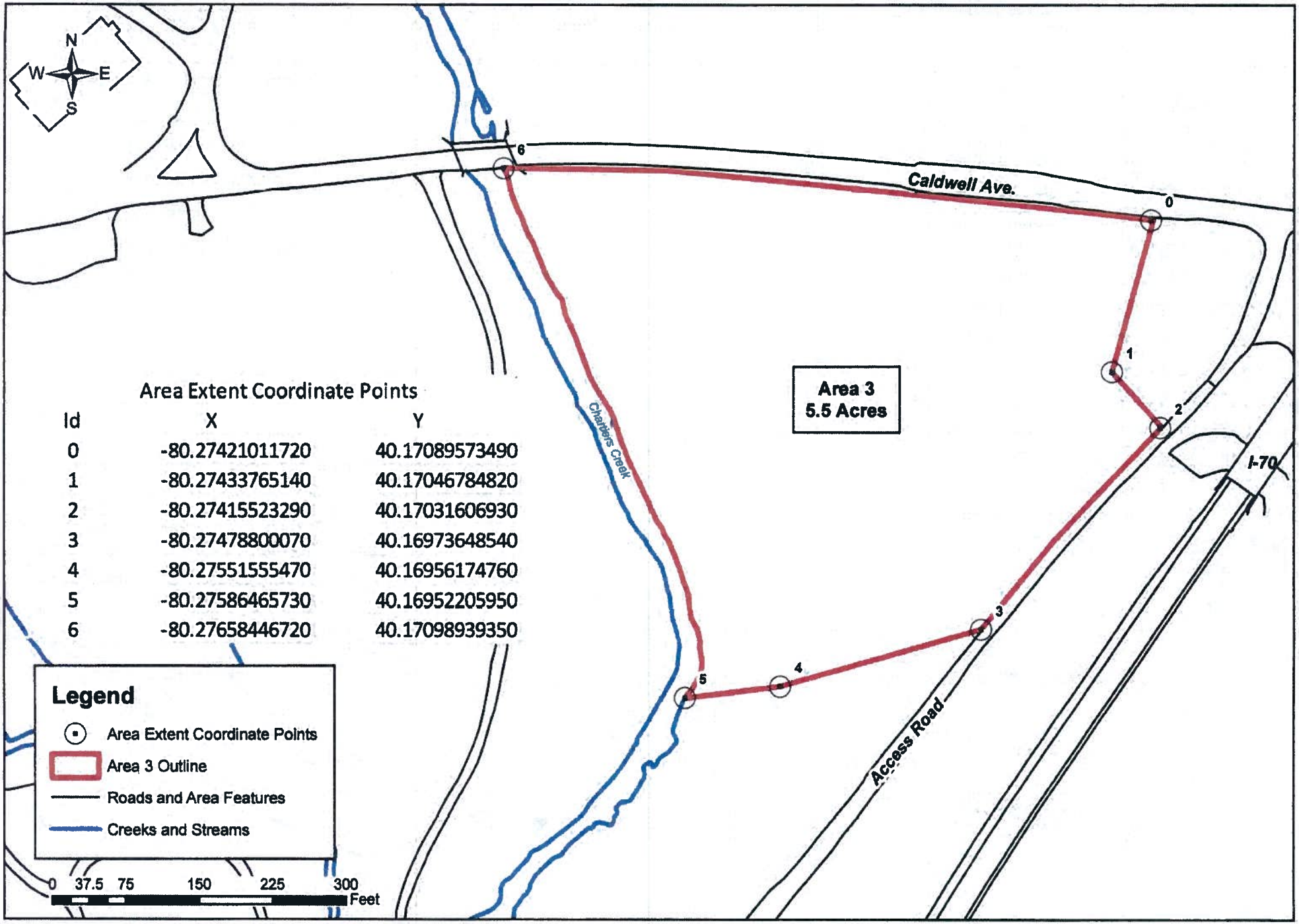
Molycorp Washington Remediation Project
Extent of Area Information

Area 2
Outline of Area, Major Corner Points, and Acerage



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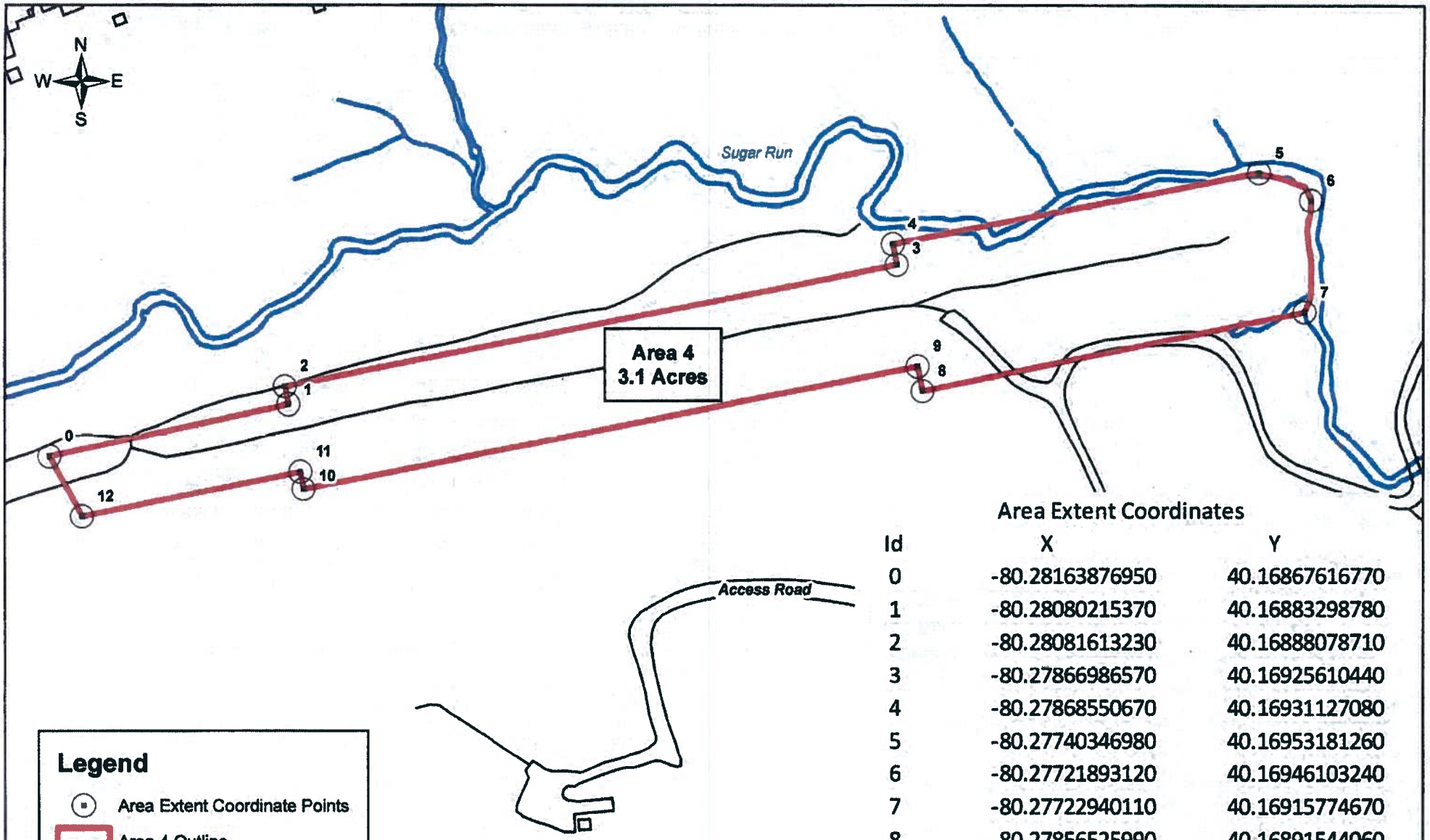
Extent of Area Information

Area 3
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinates

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6	-80.27721893120	40.16946103240
7	-80.2772940110	40.16915774670
8	-80.27856525990	40.16891544060
9	-80.27858583730	40.16898209080
10	-80.28073985260	40.16860666490
11	-80.28075278110	40.16865318260
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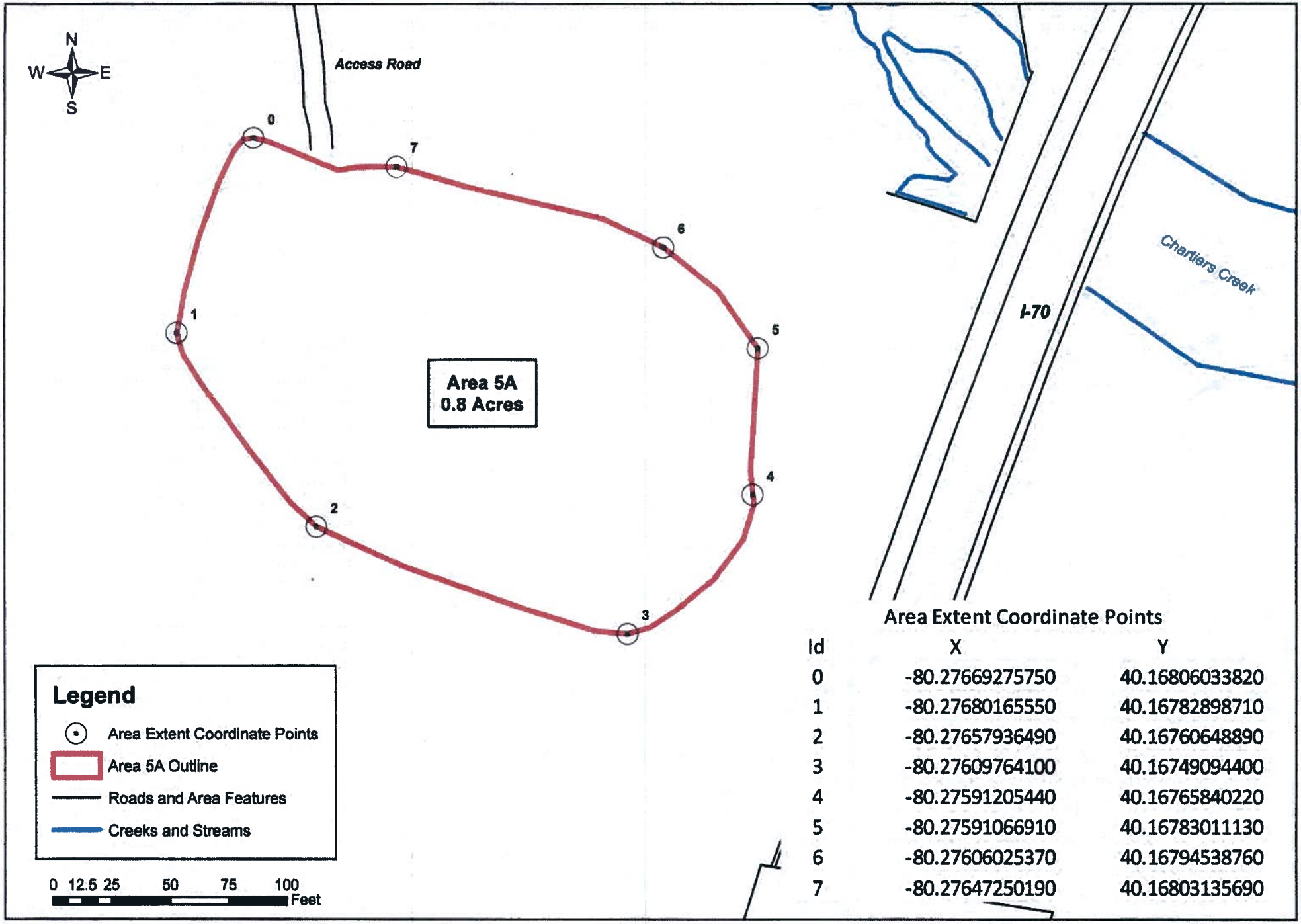
Extent of Area Information

Area 4
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

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6	-80.27606025370	40.16794538760
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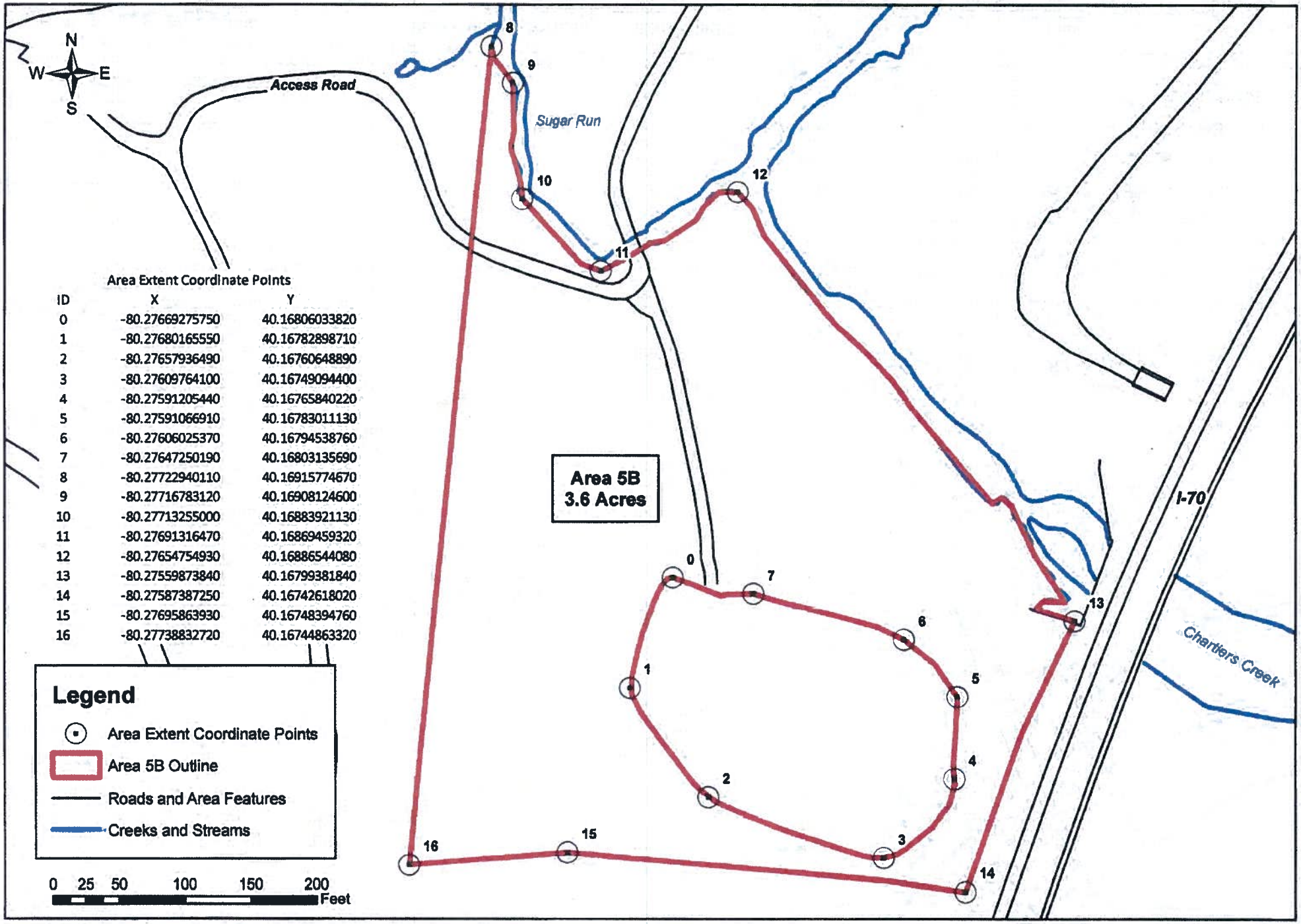
Extent of Area Information

Area 5A
Outline of Area, Major Corner Points, and Acerage



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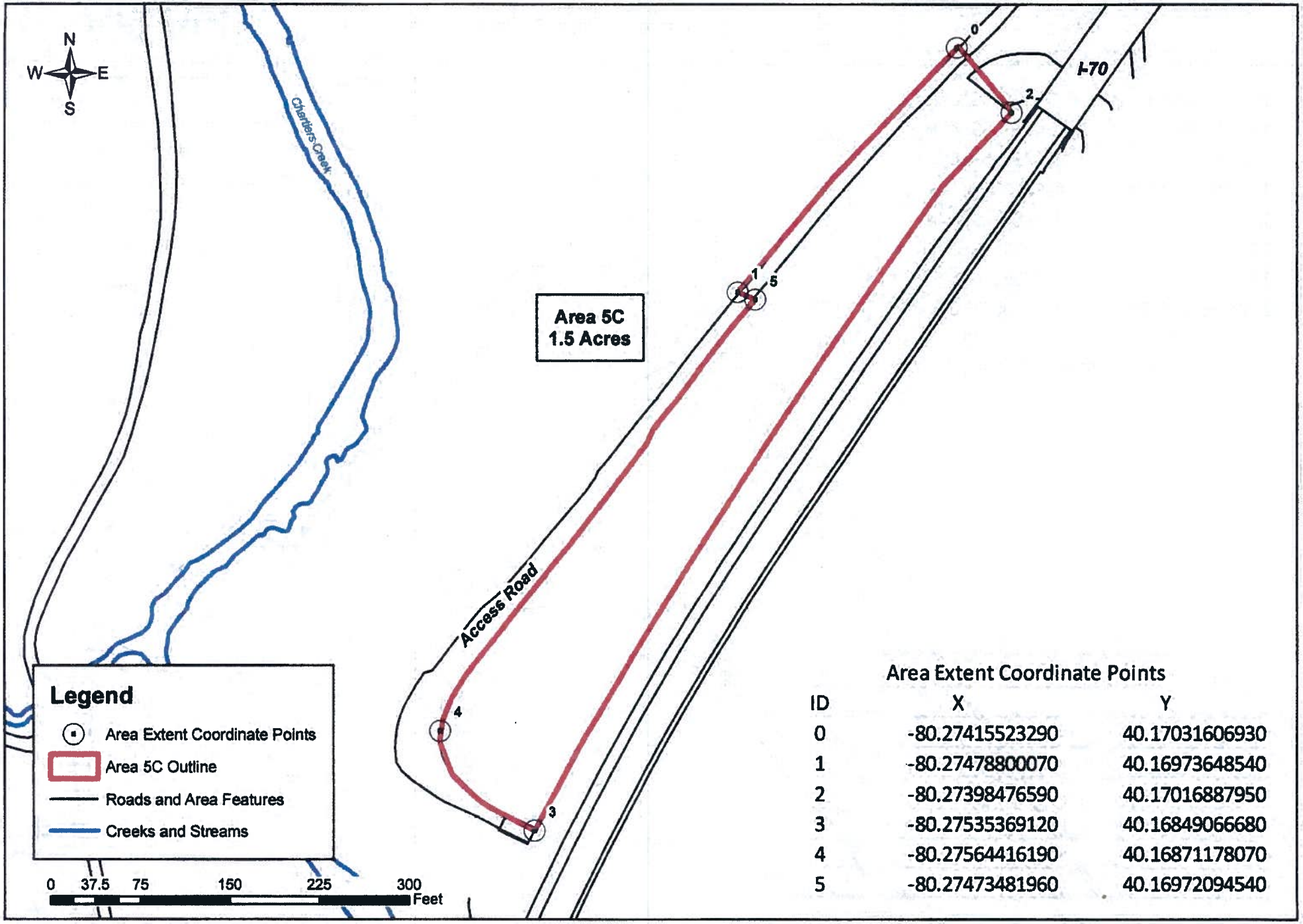
Extent of Area Information

Area 5B
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

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4	-80.27564416190	40.16871178070
5	-80.27473481960	40.16972094540

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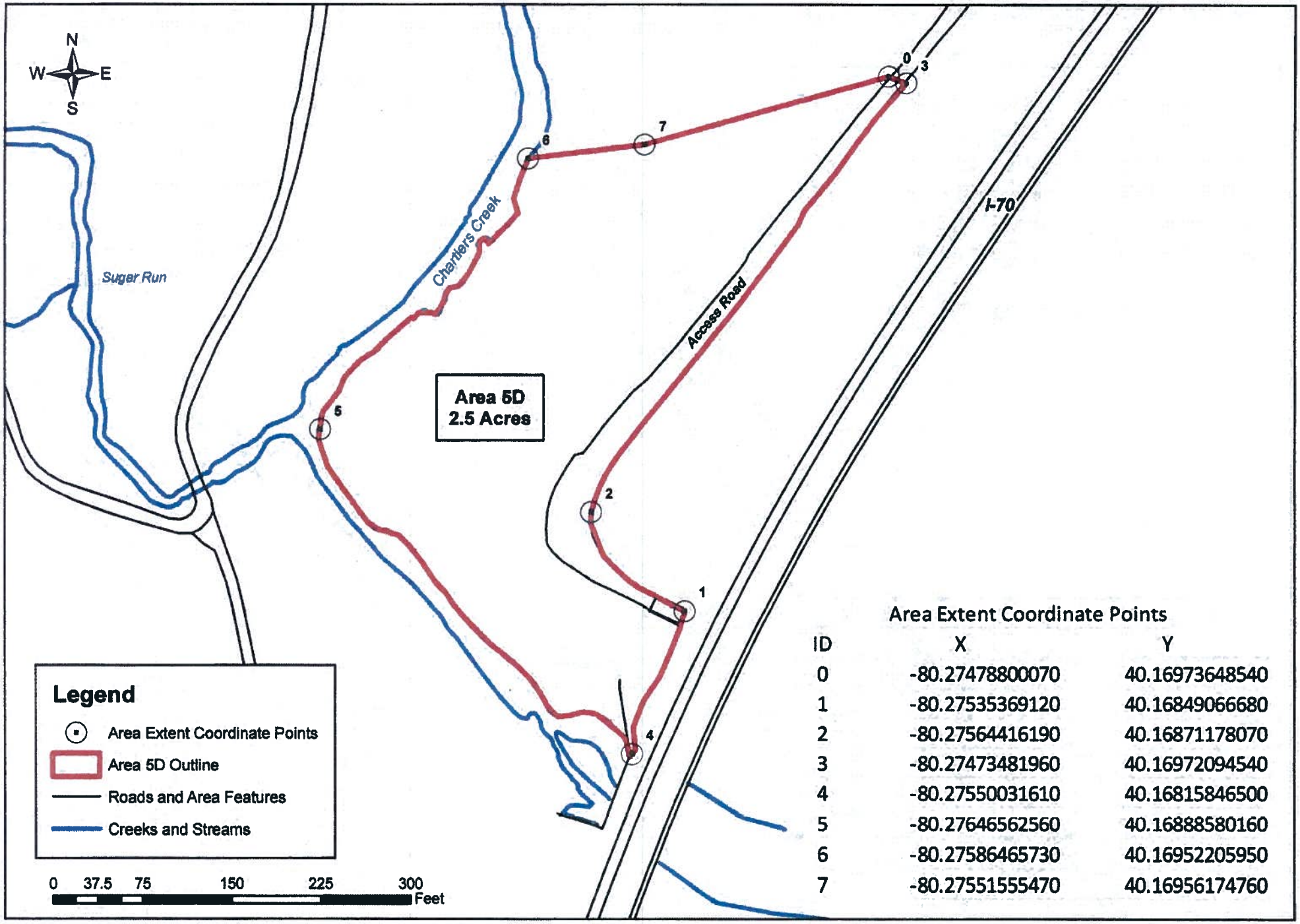
Extent of Area Information

Area 5C
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

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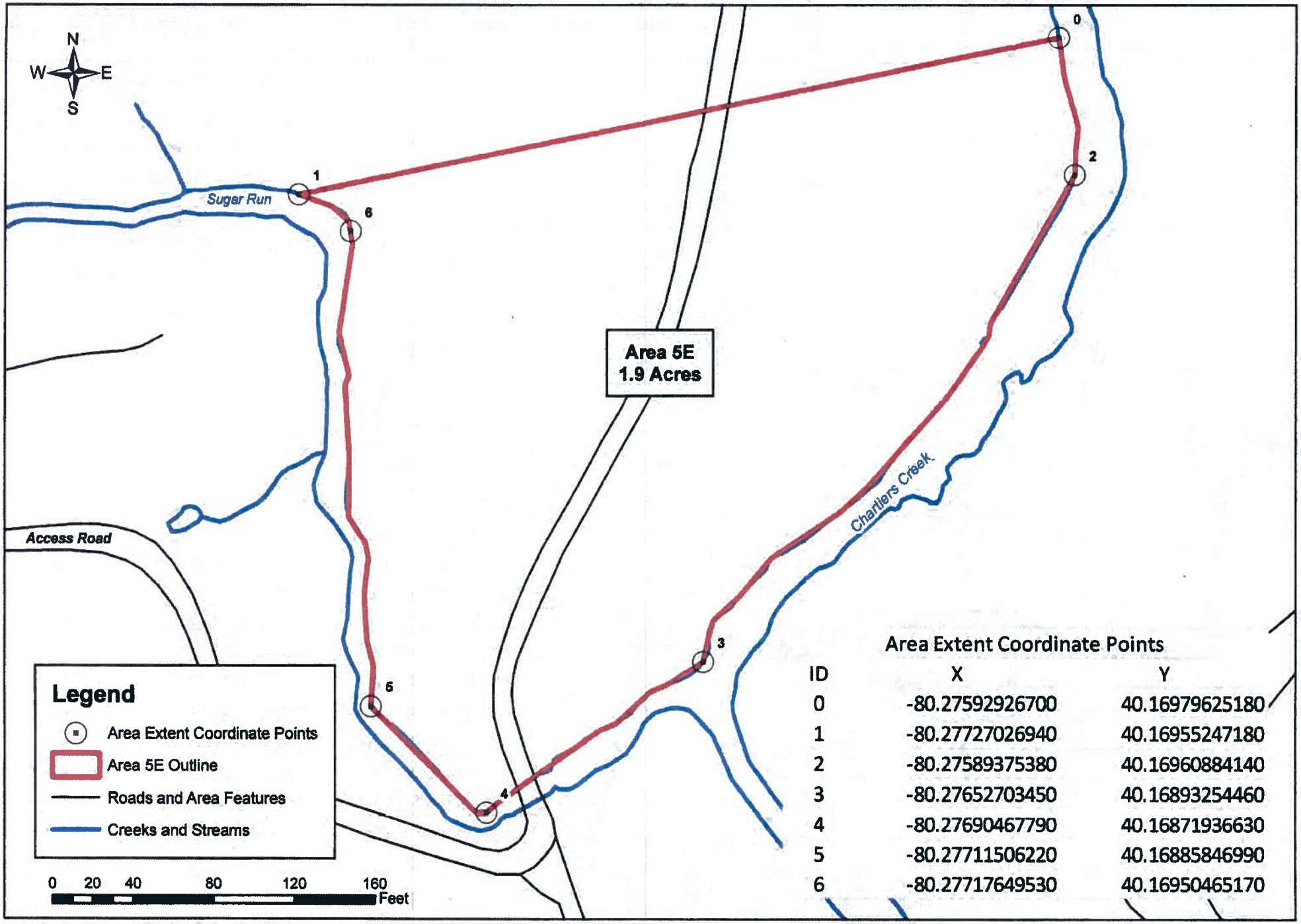
Extent of Area Information

Area 5D
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

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6	-80.27717649530	40.16950465170

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Extent of Area Information

Area 5E
Outline of Area, Major Corner Points, and Acerage

Area Extent Coordinate Points

Id	X	Y
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4	-80.28075278110	40.16865318260
5	-80.28151795450	40.16851603820
6	-80.28096299210	40.16778610510
7	-80.27930779430	40.16767136100
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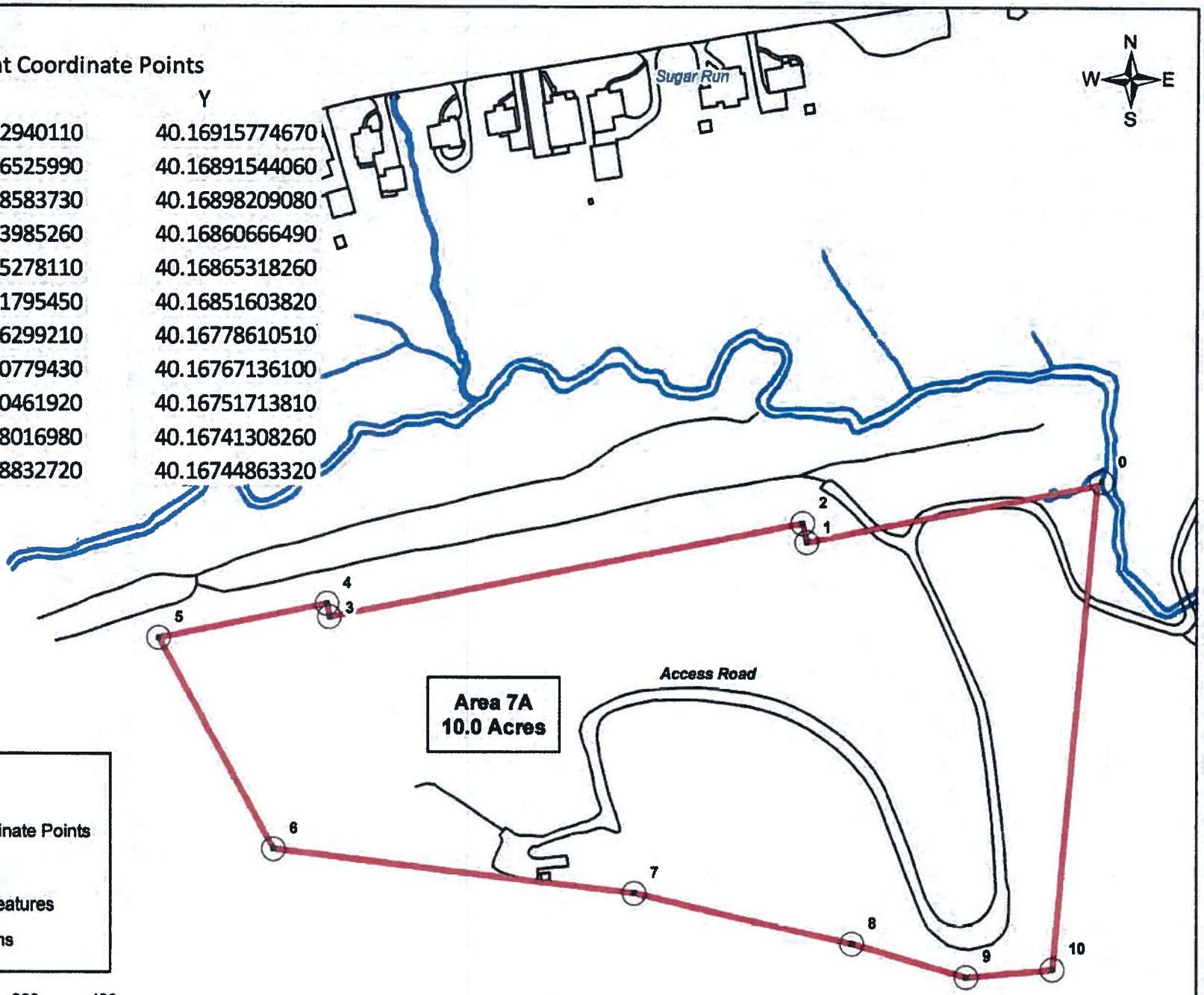

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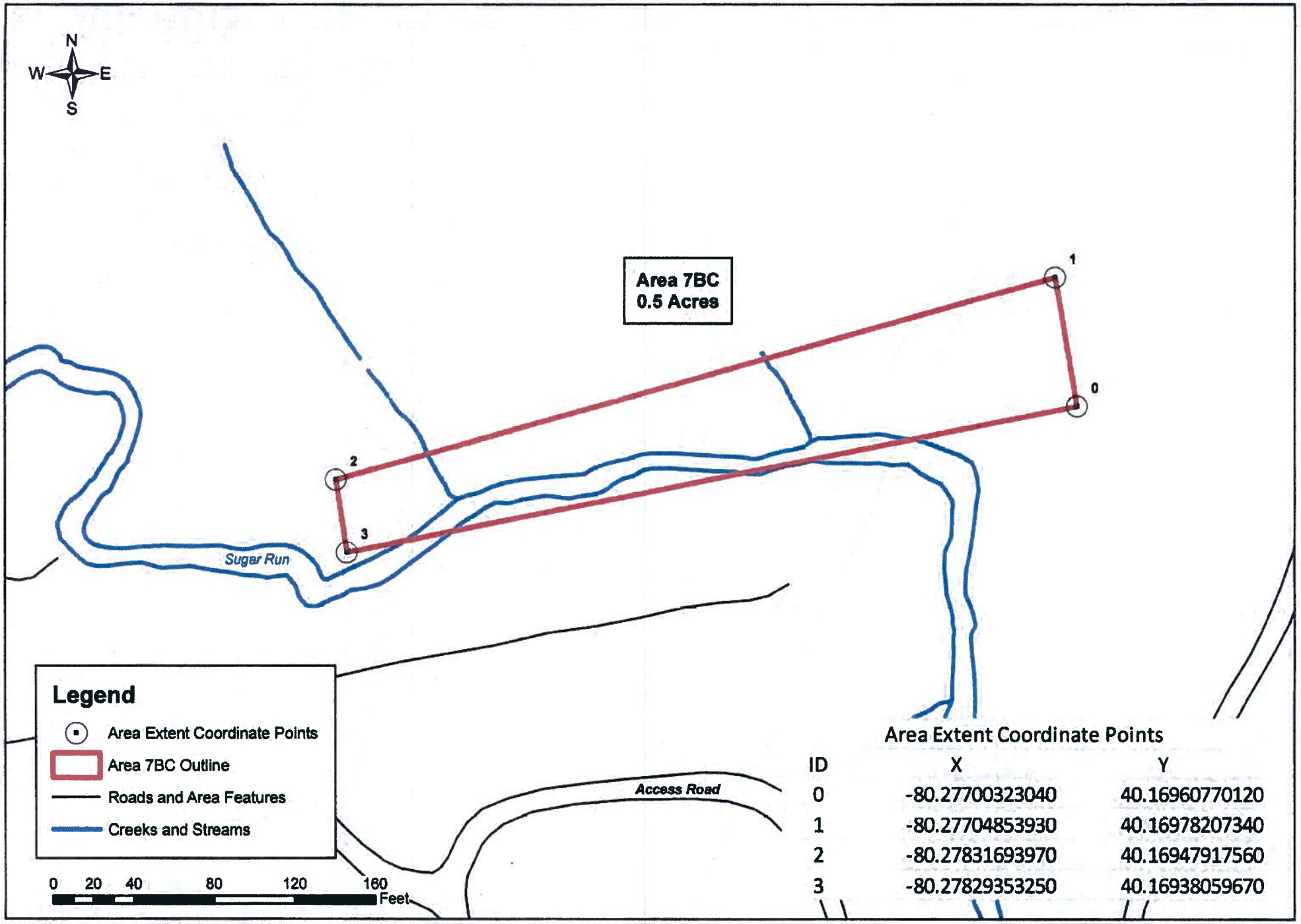
Extent of Area Information

Area 7A
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

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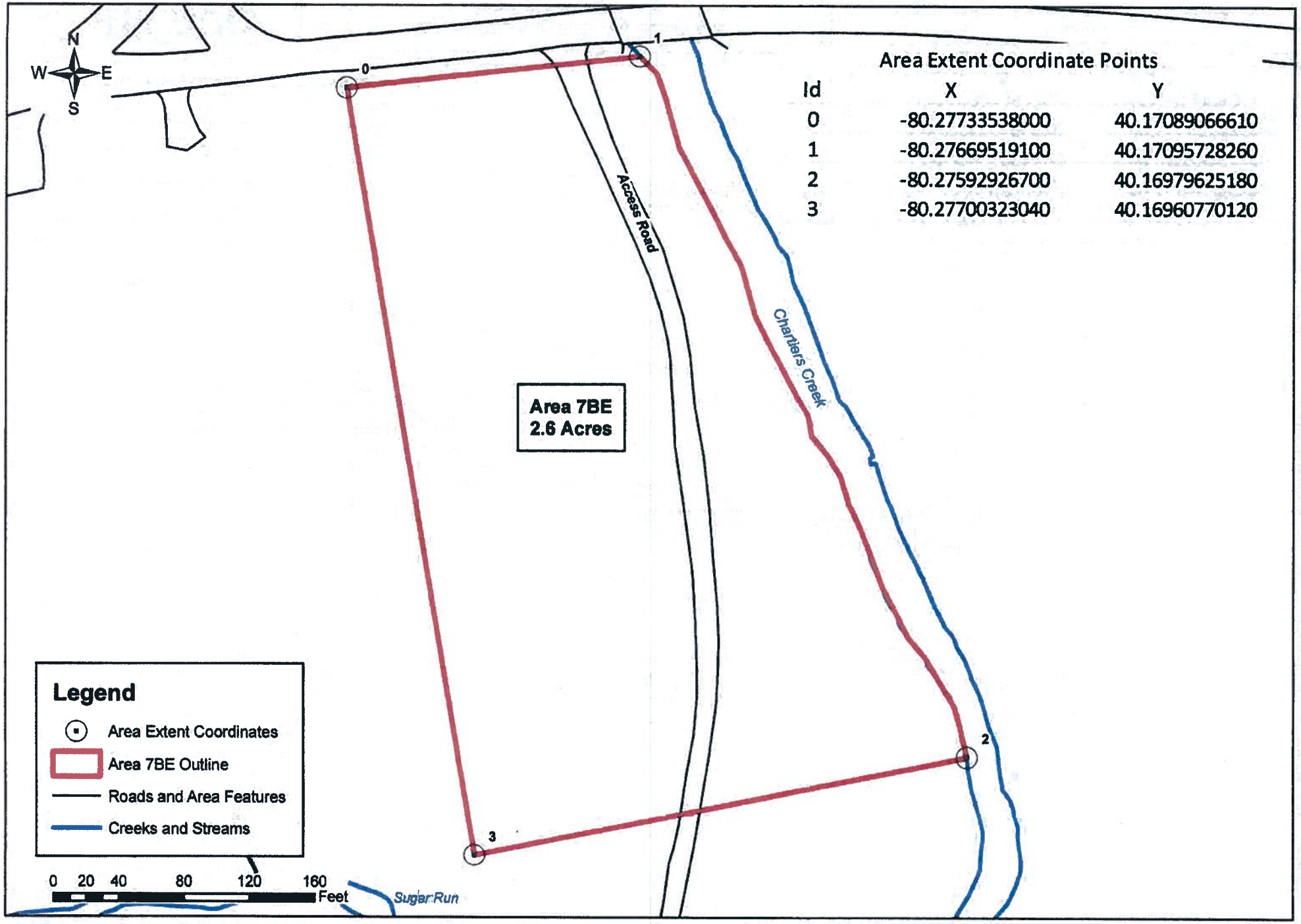
Extent of Area Information

Area 7BC
Outline of Area, Major Corner Points, and Acerage



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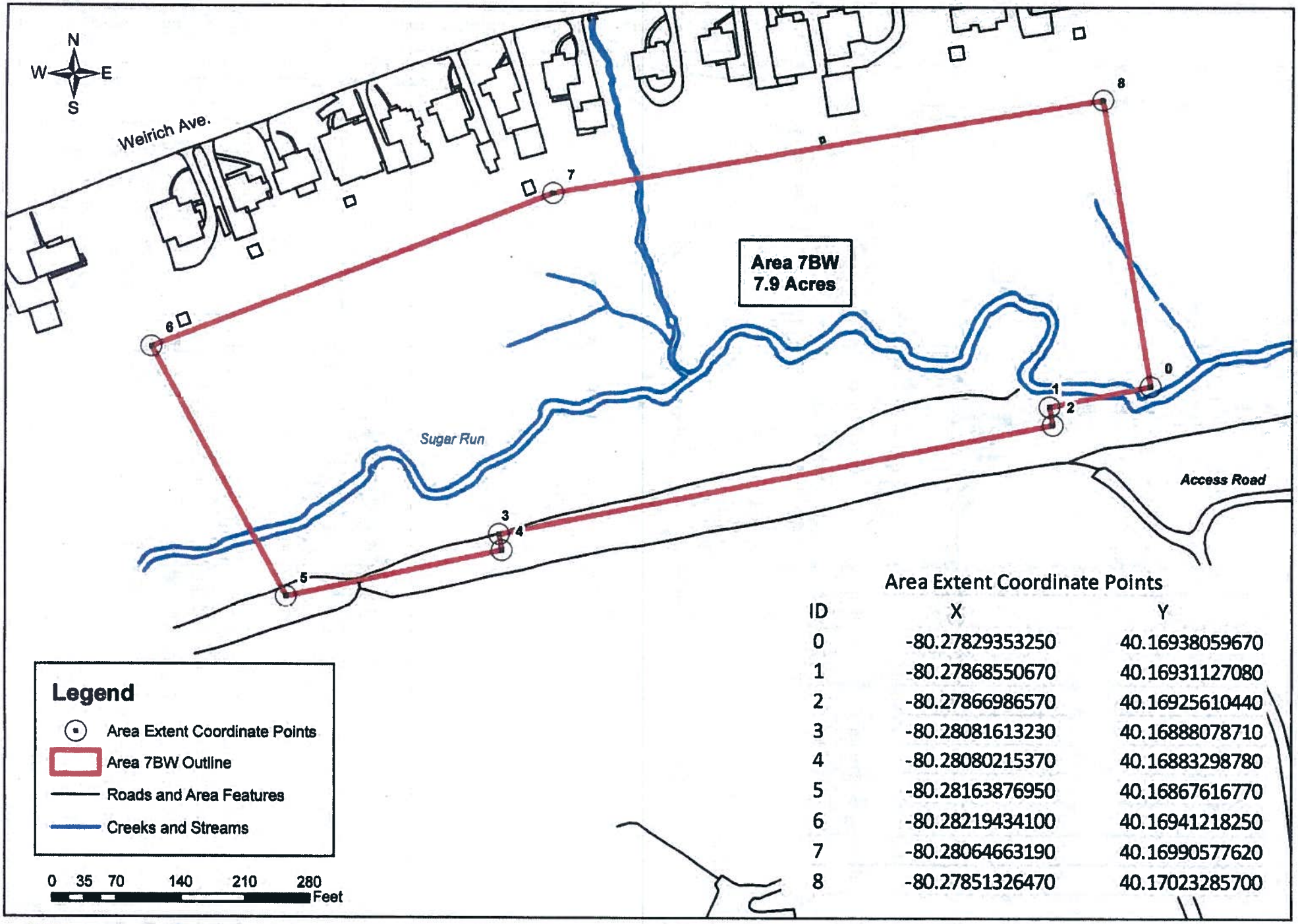
Extent of Area Information

Area 7BE
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

ID	X	Y
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4	-80.28080215370	40.16883298780
5	-80.28163876950	40.16867616770
6	-80.28219434100	40.16941218250
7	-80.28064663190	40.16990577620
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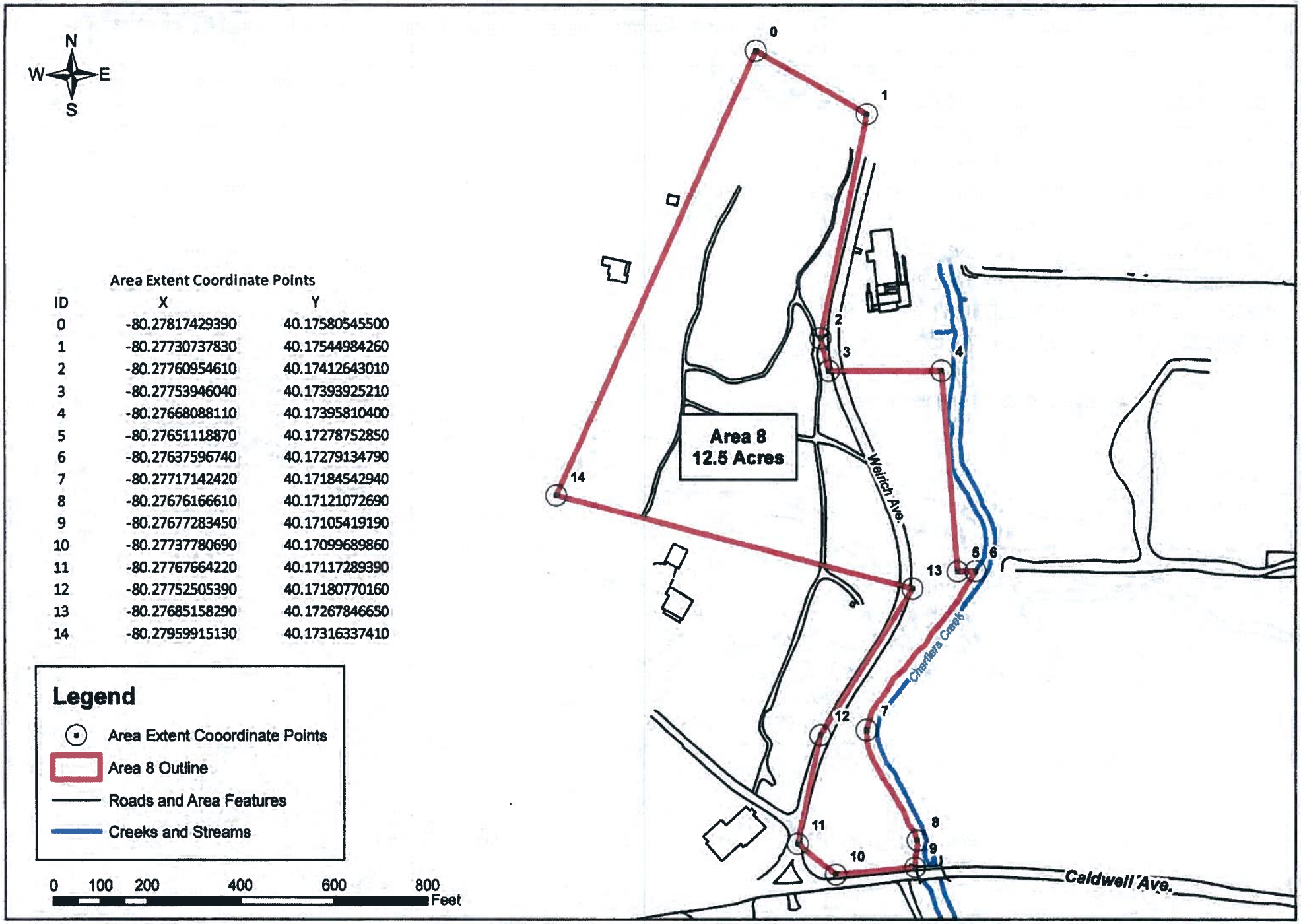
Extent of Area Information

Area 7BW
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

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6	-80.27637596740	40.17279134790
7	-80.27717142420	40.17184542940
8	-80.27676166610	40.17121072690
9	-80.27677283450	40.17105419190
10	-80.27737780690	40.17099689860
11	-80.27767664220	40.17117289390
12	-80.27752505390	40.17180770160
13	-80.27685158290	40.17267846650
14	-80.27959915130	40.17316337410

Legend

- Area Extent Cooordinate Points
- Area 8 Outline
- Roads and Area Features
- Creeks and Streams

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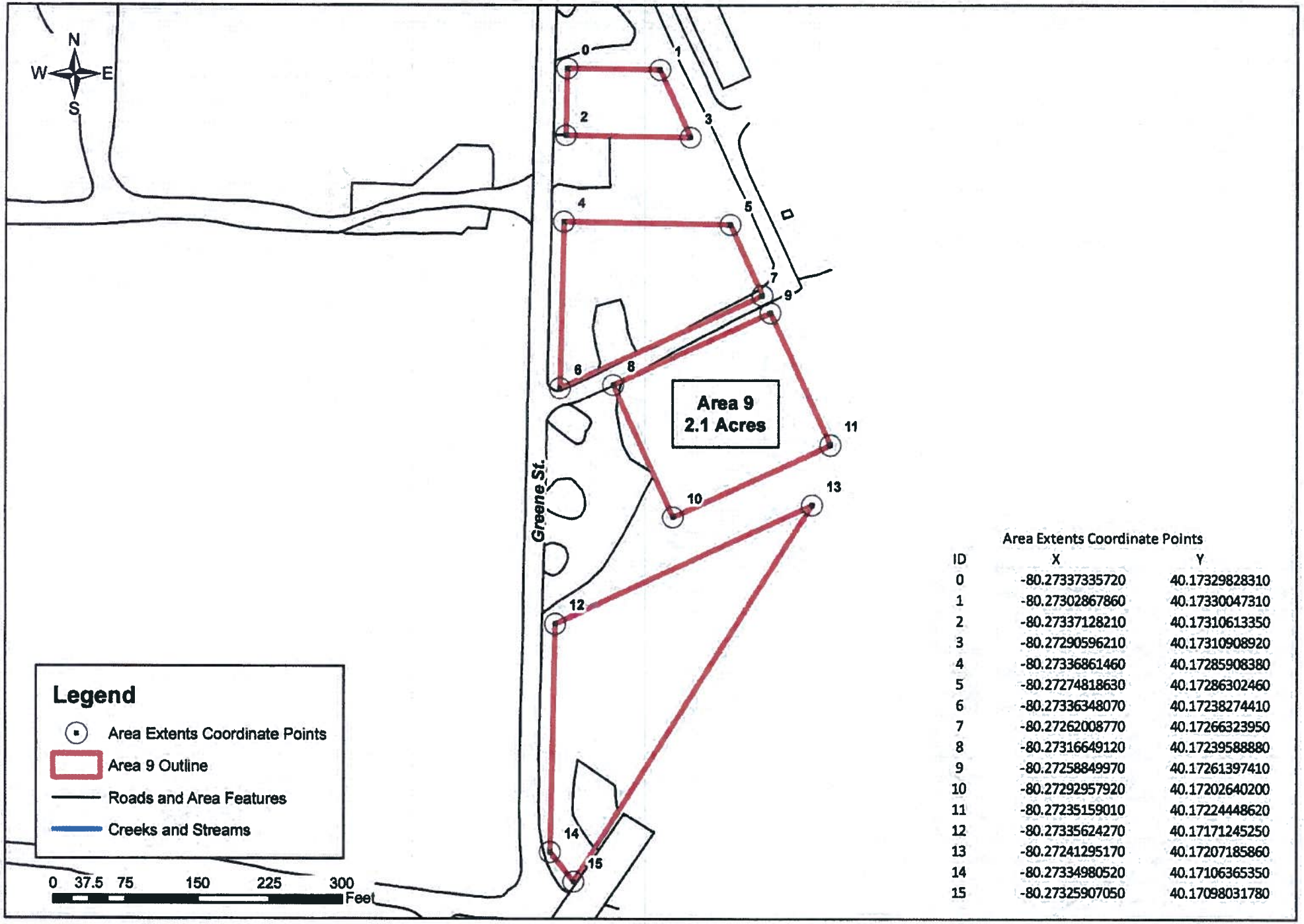
Extent of Area Information

Area 8
Outline of Area, Major Corner Points, and Acerage



Area Extents Coordinate Points

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7	-80.27262008770	40.17266323950
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13	-80.27241295170	40.17207185860
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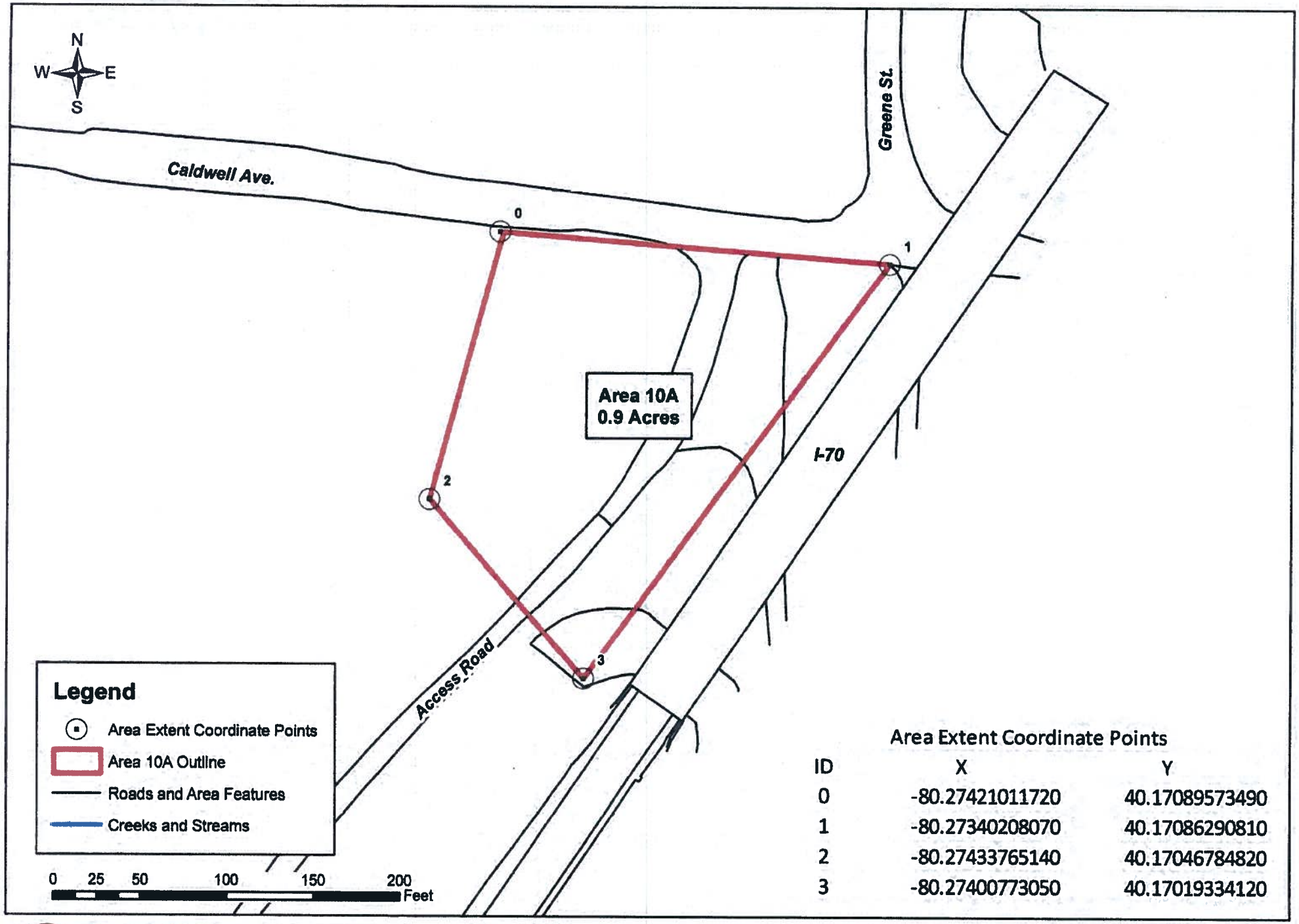
Extent of Area Information

Area 9
Outline of Area, Major Corner Points, and Acerage



Area Extent Coordinate Points

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Molycorp Washington Remediation Project
Extent of Area Information

Area 10A
Outline of Area, Major Corner Points, and Acerage

Summary Showing Which Groundwater Standard is Attained by Constituents
MolyCorp Washington Remediation Project

Constituent	Attained Groundwater Standard
Polycyclic Aromatic Hydrocarbons	
Acenaphthene	Residential
Acenaphthylene	Residential
Anthracene	Residential
Benzo(a)anthracene	Residential
Benzo(a)pyrene	Residential
Benzo(b)fluoranthene	Residential
Benzo(ghi)perylene	Residential
Benzo(k)fluoranthene	Residential
Chrysene	Residential
Dibenz(a,h)anthracene	Residential
Fluoranthene	Residential
Fluorene	Residential
Indeno(1,2,3-cd)pyrene	Residential
Naphthalene	Residential
Phenanthrene	Residential
Pyrene	Residential
Metals	
Aluminum	Residential
Antimony	Site Specific
Arsenic	Site Specific
Barium	Residential
Beryllium	Residential
Boron	Site Specific
Cadmium	Residential
Chromium	Residential
Cobalt	Residential
Copper	Residential
Iron	Site Specific
Lead	Site Specific
Manganese	Site Specific
Mercury	Site Specific
Molybdenum	Site Specific
Nickel	Residential
Selenium	Site Specific
Silver	Residential
Thallium	Site Specific
Tin	Residential
Vanadium	Residential
Zinc	Residential

Notes:
Residential = Attains the Used Aquifer Residential Medium Specific Concentrations
Site Specific = Environmental Covenant restricting groundwater use

EXHIBIT C

Summary Showing Which Soil Standard is Attained by Constituents
MolyCorp Washington Remediation Project

Chemical	Attained Soil Standard				
	Areas 1 and 2	Areas 3 and10a	Areas 5C and 5D	Area 7A	Areas 5E, 7B-E
Volatile Organic Compounds					
Benzene	Residential	Residential	Residential	Residential	Residential
Chloromethane	Residential	Residential	Residential	Residential	Residential
Vinyl chloride	Residential	Residential	Residential	Residential	Residential
Polycyclic Aromatic Hydrocarbons					
Naphthalene	Residential	Residential	Residential	Residential	Residential
2-Methylnaphthalene	Residential	Residential	Residential	Residential	Residential
Acenaphthylene	Residential	Residential	Residential	Residential	Residential
Fluorene	Residential	Residential	Residential	Residential	Residential
Phenanthrene	Residential	Residential	Residential	Residential	Residential
Anthracene	Residential	Residential	Residential	Residential	Residential
Fluoranthene	Residential	Residential	Residential	Residential	Residential
Pyrene	Residential	Residential	Residential	Residential	Residential
Benzo(a)anthracene	Residential	Residential	Non-residential	Non-residential	Residential
Chrysene	Residential	Residential	Residential	Residential	Residential
Benzo(b)fluoranthene	Residential	Residential	Non-residential	Non-residential	Residential
Benzo(k)fluoranthene	Residential	Residential	Residential	Residential	Residential
Benzo(a)pyrene	Residential	Non-residential	Non-residential	Non-residential	Non-residential
Indeno(1,2,3-cd)pyrene	Residential	Residential	Residential	Residential	Residential
Dibenz(a,h)anthracene	Residential	Residential	Residential	Residential	Residential
Benzo(ghi)perylene	Residential	Residential	Residential	Residential	Residential
Carbazole	Residential	Residential	Residential	Residential	Residential
Dibenzofuran	Residential	Residential	Site Specific	Site Specific	Site Specific
Other Semivolatile Organic Compounds					
o-Cresol	Residential	Residential	Residential	Residential	Residential
p-Cresol	Residential	Residential	Residential	Residential	Residential
2,4-Dimethylphenol	Residential	Residential	Residential	Residential	Residential
Hexachloroethane	Residential	Residential	Residential	Residential	Residential
Pentachlorophenol	Residential	Residential	Residential	Residential	Residential
Phenol	Residential	Residential	Residential	Residential	Residential
1,2,4-Trichlorobenzene	Residential	Residential	Residential	Residential	Residential
Metals					
Aluminum	Residential	Residential	Residential	Residential	Residential
Antimony	Non-residential	Residential	Residential	Residential	Residential
Arsenic	Non-residential	Non-residential	Non-residential	Non-residential	Non-residential
Barium	Residential	Residential	Residential	Residential	Residential
Boron	Non-residential	Non-residential	Non-residential	Residential	Residential
Cadmium	Residential	Residential	Residential	Residential	Residential
Chromium	Non-residential	Residential	Non-residential	Residential	Residential
Cobalt	Non-residential	Residential	Residential	Residential	Residential
Iron	Non-residential	Non-residential	Residential	Non-residential	Non-residential
Lead	Non-residential	Non-residential	Residential	Residential	Residential
Manganese	Non-residential	Residential	Residential	Residential	Residential
Molybdenum	Non-residential	Non-residential	Non-residential	Residential	Residential
Nickel	Residential	Residential	Residential	Residential	Residential
Selenium	Non-residential	Residential	Non-residential	Residential	Residential
Thallium	Non-residential	Residential	Residential	Residential	Residential
Titanium	Residential	Residential	Residential	Residential	Residential
Tungsten	Residential	Residential	Residential	Residential	Residential
Vanadium	Residential	Residential	Residential	Residential	Residential
Zinc	Residential	Residential	Residential	Residential	Residential

Notes:
Non-residential = Attains the Non-residential Soil Medium Specific Concentrations
Residential = Attains the Residential Soil Medium Specific Concentrations
Site Specific = Environmental Covenant restricting groundwater use

Attachment B

Response to Comments

PUBLIC COMMENTS

Mr. Barry Piacenza, a resident of Canton Township, PA, requested a public meeting via an email message sent on September 4, 2012 to Andrew Clibanoff, EPA Corrective Action Project Manager. This email message was received by EPA during the 30-day public comment period for the Statement of Basis (SB) for the former Molycorp, Inc. Washington Plant Facility (the Facility), in which the Agency publicized its proposed remedy under the Resource Conservation and Recovery Act (RCRA) Corrective Action Program for the Facility. While Mr. Piacenza was unable to attend the December 10, 2012 public meeting, EPA met with him in his residence the following day. Mr. Piacenza had prepared a presentation with his concerns and that presentation has been added to the Administrative Record for the Facility. EPA reviewed Mr. Piacenza's presentation in its entirety. In this summary, EPA has paraphrased Mr. Piacenza's comments for clarity. The full presentation is included in Attachment D of the Final Decision and Response to Comments (FDRTC).

1. Comment: The site appears to be economically disadvantaged because it will still require additional remediation according to the use to be placed on the site and competition with greenfields.

   EPA Response: EPA policy clearly states that cleanups need to be consistent with reasonably anticipated future land uses. A non-residential use is anticipated and the cleanup results support redevelopment throughout the property. In fact, approximately 25% of the property could currently be redeveloped for residential purposes provided that groundwater is not used for drinking water purposes. Both Canton Township and the City of Washington have ordinances requiring owners of improved property to connect to the public water supply system so restricting groundwater use would not put those portions of the property at a disadvantage to area residential properties.

   Much of the area designated for non-residential use in the environmental covenant contains wetlands and/or lies within the 100-year flood-plain and would not be suitable for redevelopment for those reasons. The former plant areas located north and south of Caldwell Avenues have historically been and are currently zoned as industrial areas and can be redeveloped for such purposes immediately. No additional remediation would be necessary in the areas zoned for industrial use, although approval from the Pennsylvania Department of Environmental Protection (PADEP) would be required if any of the installed engineered barriers would need to be disturbed for the redevelopment. Any economic costs associated with the potential disturbance of any engineered barriers is subject to negotiations among all parties to any future transaction.

2. Comment: The Foster Wheeler and Malcolm Pirnie studies raise the possibility of radioactive pockets within Caldwell Avenue due to migration of radioactive material.

EPA Response: The cleanup of radiological materials at the Facility was overseen by the Nuclear Regulatory Commission (NRC) and PADEP's Bureau of Radiation Protection (BRP). EPA and the NRC have a memorandum of understanding (MOU) in which EPA agrees to a policy of deferral to NRC decision making on decommissioning. As part of the radiological cleanup, all materials in excess of the unrestricted release criteria were removed from the Facility. The radioactive materials license for the Facility was terminated by BRP, which was authorized to do so by the NRC, on December 20, 2010 following a 30-day public comment period.

Caldwell Avenue has been in existence for at least as long as the Caldwell Avenue bridge over Chartiers Creek, which was constructed in 1939. Ores containing radiological materials were not processed at Molycorp until the mid-1960s. To further address Mr. Piacenza's comment, Chevron, the current property owner, provided additional information, including two reports which were previously submitted to and approved by the BRP and have now been added to the Administrative Record. These two reports are the *Final Status Survey, Release Record Survey, Unit Utility Pole Area* (June 2009) and the *Final Status Survey, Release Record Survey, Unit Caldwell Avenue, Unaffected Area.* EPA is not relying on these reports in its own decision-making regarding the site.

Any remaining questions concerning the radiological portion of the cleanup may be addressed to Robert C. Maiers, Chief of the Decommissioning and Environmental Surveillance Division, PADEP BRP. Mr. Maiers can be reached by phone at (717) 783-8979 or by email at rmaiers@pa.gov.

3. Comment: With all the parameters having changed including corporation ownership, board members at the municipal level, and negotiators, some of the original concepts and requests made several years ago may have devolved over time. Mr. Piacenza was a member on the NRC's Site-Specific Advisory Board (SSAB) and attended a charrette organized by EDAW, Inc., an architectural/planning firm several years ago.

   EPA Response: While there clearly have been changes in Facility ownership, township officials, negotiators, and regulatory agencies since Mr. Piacenza was involved with the SSAB, EPA did not participate in the SSAB or charrette discussions. However, the Agency's objectives for a remedy that is protective of human health and the environment are unaffected by the changes that have occurred. From a radiological standpoint, BRP's termination of the Source Materials License in December 2010 cleared the Facility for unrestricted use (up to and including residential use). For non-radiological contamination, certain portions of the site contain residual contaminants in soils and groundwater at concentrations acceptable for non-residential use, but not for residential use. As long as these areas are redeveloped for non-residential use only, the selected remedy for the Facility is protective. An executed environmental covenant exists to ensure that the remedy will remain in effect.

4. Comment: Why were no financial assurances provided? Given the fact that this site may have challenges economically in comparison to greenfields, would it not be more prudent to provide a financial assurance?

   EPA Response: Financial assurance is required so that a Facility can demonstrate its ability to pay for the cost of closure and/or post closure care. While Chevron would almost certainly pass the Corporate Financial Test to demonstrate Financial Assurance capability for its post closure care responsibilities at the Facility, EPA does not believe this is necessary in this instance. Chevron has already fully funded the cleanup at the Facility and the groundwater and surface water post-remedial monitoring required by the Post-Remediation Care Plan under PADEP Act 2. The remaining costs are limited to inspection and landscaping. EPA considers these costs de minimis and is not requiring financial assurance.

5. Comment: What assurances are there that the material will not migrate either above ground or in aquifers?

   EPA Response: Through discussions with Mr. Piacenza, "material" refers to both radiologic and non-radiologic contamination. As stated in EPA's response to Comment No. 2 above, the cleanup of radiological materials at the Facility was deferred by EPA to the NRC and BRP. The residual radiological materials that remain beneath the engineered barriers consist of extremely low level naturally occurring radioactive materials (NORM) that meet the NRC/BRP's unrestricted use criteria. There has been no evidence that any radiological soil contamination has migrated into groundwater or surface water at the Facility.

   Groundwater at the Facility has been impacted with molybdenum being the most consistent and widespread contaminant. Historically, molybdenum had been seen as high as 285 mg/l in a sample collected during 1994 Site Characterization. Post-remediation molybdenum concentrations have been below the residential non-used aquifer medium specific concentration (40 mg/l) with the highest concentration seen in the final round of sampling at 23.1 mg/l. It is apparent that the removal of the source material from the Facility has had a positive impact on groundwater but contaminant concentrations do remain elevated above drinking water standards.

   Groundwater in the former plant area and south of Caldwell Avenue flows west until it discharges into Chartiers Creek. Several components of the completed site remediation ensure that Chartiers Creek will not be significantly impacted by contaminants migrating from groundwater into that water body. The excavated areas (approximately 75% of the site) were backfilled with clay loam, eliminating the source of the majority of the groundwater contamination. The loam was placed in lifts and compacted, which further reduced the permeability of the material and therefore reduced the hydraulic conductivity and the hydraulic gradient of the overburden aquifer. Chevron also repaired and realigned a state-

owned storm sewer system which had been providing a preferential pathway for contaminated groundwater to reach Chartiers Creek. Chevron has conducted modeling that shows that no contaminants are entering Chartiers Creek at concentrations above the applicable surface water quality criteria (SWQC) using the post-remediation hydraulic conductivity and gradient values. The modeling has been verified through the eight rounds of post remedial surface water sampling for the Act 2 Final Report.

All soils containing any visible signs of manufactured gas plant (MGP) coal tar have been removed from the Facility and therefore can no longer migrate toward groundwater or Chartiers Creek. A sheet-pile jet grout wall prevents MGP coal tar in soils beneath Interstate 70 from seeping onto the Facility property.

See the Administrative Record for more details on the cleanup and steps taken to assure that any remaining residual contamination at the Facililty will not significantly impact neighboring properties, aquifers or streams.

6. Comment: Have considerations been made for flood conditions?

   EPA Response: The vast majority of the remaining residual contamination at the Facility is located either beneath the engineered barriers comprised of a minimum of two feet of clean soil or below the concrete transshipment pad that is located in the former plant area north of Caldwell Avenue. This contamination would not be impacted by flood conditions. The environmental covenant states that the engineered barriers must be maintained at all times. Any flood damage to the engineered barriers would be required to be addressed immediately.

   Chevron also developed a 3.6-acre engineered wetland habitat at the former South Tar Pond location. This wetland provides an additional flood control buffer capacity for the Chartiers Creek watershed that did not exist prior to the remediation.

7. Comment: Originally all of the material was to be removed and shipped off to an off-site location. However it looks as though this case has seen an alleged impounding in place.

   EPA Response: Approximately 104,000 cubic yards of radiological materials and 71,000 cubic yards of soils with visual indications of coal tar were excavated and shipped off-site for disposal. Seventy five (75%) percent of the Facility's surface soils were disturbed to accomplish that amount of removal. The BRP has determined that the Facility has been cleared for unrestricted use taking into account the remaining low level NORM beneath the engineered barriers at the Facility. Similarly, EPA has determined that the remaining concentrations of non-radiological contaminants in the Facility soils and groundwater fall within the Agency's allowable risk range for the designated land uses specified in the executed environmental covenant.

8. Comment: Concerns related to brownfield systemics as a land-use schema. Mr. Piacenza was concerned that the restrictions and requirements of the environmental covenant may be lost over time leaving future Facility property owners and workers susceptible to unknown risks.

   EPA Response: Environmental covenants help to ensure that properties are only used for purposes and activities appropriate for the cleanup standards obtained. Before Pennsylvania adopted the Uniform Environmental Covenants Act (UECA), environmental covenants were treated in the same manner as other real estate covenants, which lead to certain weaknesses in durability and enforceability. Covenants today under the Pennsylvania UECA run with the land, meaning a covenant remains in effect until actively removed, regardless of how many times the land is sold. The environmental covenant for the Facility has been recorded in the property's chain of title and serves to notify prospective buyers of the activity and use limitations (AULs) placed on the property. Both EPA and PADEP can enforce the requirements of the covenant. If PADEP were to approve changes to the environmental covenant that EPA determined made the institutional controls within it no longer protective of human health and the environment, EPA would take steps under applicable law to ensure protection of human health and the environment.

On August 8, 2012, Mr. Lee Rogers of Washington, PA called Andrew Clibanoff, EPA, with the following comment.

9. Comment: Mr. Rogers stated that he was 62 years old and worked at Molycorp from April 1970 through 1978. He went on to mention that he and several of his coworkers and relatives have had various illnesses over the years, possibly attributable in his opinion to exposure to hazardous materials at Molycorp while they were employed there. With all the money spent on remediation, former workers at the plant had not been compensated fairly in his opinion.

   EPA Response: Nothing contained in EPA's selected remedy impacts Mr. Rogers' ability to seek legal action against Molycorp if he believes that conditions were unsafe at the time of his employment. The focus of the RCRA Corrective Action at the Facility was on current and potential future exposures to hazardous materials/wastes and EPA believes its selected remedy minimizes or eliminates those exposures.

On August 9, 2012, Ms. Nancy Weiss of Washington, PA sent an email message to Andrew Clibanoff, EPA, with the following comment.

10. Comment: The August 8, 2012 (Washington, PA) Observer-Reporter reports near completion of cleanup of the former Molycorp plant (now owned by Chevron Mining), to be followed by possible development of the site. The site has limited use in the future in order to restrict exposure to contaminants, therefore ruling out many possible uses. My suggestion for development is that

you install a solar farm, covering the site with solar panels. These would contribute to the very environment that was once polluted and would be a constant visible reminder to the community of how good an environmental steward Chevron Mining is.

EPA Response: EPA appreciates Ms. Weiss' comment and will forward this response for Chevron's consideration. EPA has authority to restrict certain land use (e.g., residential) to protect the environment. Once that goal is achieved, decisions on specific use of the property are the responsibility of the owner in concert with local land use authorities. EPA would suggest the local Washington area community to maintain open dialogue with Chevron so that it will continue to be informed of the owner's plans for the property. Chevron has a website that discusses all aspects of the project and provides contact information at http://www.cantonproject.com.

EPA held a public meeting to discuss the proposed remedy on December 10, 2012. At the meeting, Andrew Clibanoff, EPA's Project Manager, gave a presentation describing the work that had been accomplished and the engineered and institutional controls relied upon to support the remedy. Mark Lafferty, representing Chevron, gave a presentation describing his company's efforts to comply with all of the Facility's environmental obligations. After these presentations, comments were accepted from the meeting attendees and were recorded by a Court Reporter. A copy of the transcript of the public comments has been added to the Administrative Record and posted on EPA's website at http://www.epa.gov/reg3wcmd/ca/pa/otherdocs/Molycorp_public_hearing_1210.pdf. The following comments were made during the December 12, 2012 public meeting.

Harlan Shober, Jr., Commissioner of Washington County:

11. Comment: One of the big concerns we have now is trying to get the bridge work done. We are going back through the environmental studies, because we've been delayed and delayed on these things. We've done the environmental clean-up as stated here at the bridge site. I guess I'm kind of wondering why we're going back through gyrations to get this thing moving. The bridge has been down for four years. We'd like to get it moving. And I guess PennDOT can talk about that. Are we going through more studies right now?

    EPA Response: Mr. Shober was referring to the Caldwell Avenue Bridge over Chartiers Creek. Nothing in EPA's selected remedy impedes the progress of the reconstruction of the bridge. During the meeting, two individuals, Gary Barber and Josh Zakovitch, from the Pennsylvania Department of Transportation (PennDOT) responded to Mr. Shober's comment. Mr. Barber stated that PennDOT had just a few more steps to take to ensure the safety of the individuals completing the construction and that the Department was committed to fast tracking the project. Mr. Barber stated that the plan was to have the project out to construction by late spring, early summer 2013. Mr. Zakovitch stated that PennDOT is compiling information from the environmental covenant and making

it easier for the central office to review. When construction does start on the bridge, Chevron has agreed to have technicians present to monitor radiological levels as the project progresses. If elevated levels are encountered, Chevron will ensure that the material is handled properly.

Theresa Mancuso, Canton Township Resident:

12. Comment: Does Chevron allow hunting on the property?

    EPA Response: During the public meeting, Mark Lafferty of Chevron stated that hunting is not permitted on the property and No Hunting signs have been posted.

Joe Bonetti, Canton Township Resident:

13. Comment: At this point, is all the environmental monitoring done, are all the monitoring wells closed, and has the water treatment plant been removed and decommissioned?

    EPA Response: During the public meeting, Mark Lafferty of Chevron stated that the water treatment plant had been removed and that the wells will not be removed until EPA issues its Final Decision. Mr. Clibanoff stated during the meeting that eight rounds of post-remediation groundwater monitoring have been conducted and that a downward trend in contaminant concentrations has been observed. He added that the contaminants in groundwater are not impacting Chartiers Creek and that the Agency does not see a need to monitor groundwater at the Facility any longer. The selected remedy does not require additional environmental monitoring and Chevron will be directed to properly abandon the existing monitoring wells at the Facility once this decision is finalized.

Attachment C

Amended Index to
Administrative Record

ATTACHMENT C

AMENDED INDEX TO ADMINISTRATIVE RECORD
FORMER MOLYCORP FACILITY

1. Molycorp, Inc. Site Characterization Report for License Termination of the Washington, PA Facility, prepared by Foster Wheeler Environmental Corporation, January 1995.

2. Molycorp Supplemental Site Characterization Report for the Washington, PA Site, prepared by Malcolm Pirnie, Inc., April 2004.

3. One Cleanup Program Memorandum of Agreement Between the Commonwealth of Pennsylvania Department of Environmental Protection and Region 3 of the United States Environmental Protection Agency, April 2004.

4. Remedial Investigation Report, Molycorp Washington, PA Site, prepared by Malcolm Pirnie, Inc., March 2005.

5. Risk Assessment and Remedy Selection Report, prepared by Malcolm Pirnie, Inc., April 2005.

6. Cleanup Plan, Molycorp Washington, PA Site, prepared by Malcolm Pirnie, Inc., January 2006.

7. MGP Tar Areas Post Remediation Sampling and Analysis Plan, Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., September 2007.

8. Final Report for Remediation of Areas 5A and 5B, Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., June 2008.

9. Post Remediation Groundwater and Surface Water Monitoring Plan, Proposed Monitoring Well Installation and Quarterly Sampling Program, Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., September 2008.

10. Post Remediation Final Dose Assessment Report, Molycorp, Washington Remediation Site, prepared by Malcolm Pirnie, Inc., September 2009.

11. Final Report for the Molycorp Washington Remediation Site, prepared by Malcolm Pirnie, Inc., September 2009.

12. Chain of Custody and Sampling Reports associated with 2004 Supplemental Site Characterization Report, 2005 Remedial Investigation Report, and Post-Remediation Quarterly/Annual Groundwater and Monitoring Report (Revised April 2011), September 2003 – November 2010.

13. Final Post Remediation Quarterly/Annual Groundwater and Surface Water Monitoring Report, Molycorp Washington Site, prepared by Arcadis U. S., Inc., Revised April 2011.

14. Act 2 Final Report for the Molycorp Washington Remediation Site, prepared by Arcadis U. S., Inc., April 2011.

15. Correspondence from David Eberle, Program Manager, Environmental Cleanup Program, PADEP, to Mark Lafferty, Chevron Environmental Management Company, Site Specific Final Report Approval, August 3, 2011.

16. Correspondence from Mark Lafferty, Chevron Environmental Management Company to Andrew Clibanoff, RCRA Project Manager, EPA, Technical Memorandum, Site Groundwater Cleanup Standards, Molycorp Washington Remediation Project Site, December 5, 2011.

17. Correspondence from Cullen Flanders, Project Manager, Arcadis U. S., Inc. to Andrew Clibanoff, RCRA Project Manager, EPA, Molycorp Washington Remediation Site – Maximum Site-Specific Constituent Concentration Tables, January 19, 2012.

18. Molycorp Powerpoint Presentation prepared for December 11, 2012 EPA meeting at residence in Canton Township, PA, prepared by Barry Piacenza, December 2012.

19. Final Status Survey, Release Record Survey, Unit Caldwell Avenue, Unaffected Area, Chevron Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., June 2009.

20. Final Status Survey, Release Record Survey, Unit Utility Pole Area, Chevron Molycorp Washington Remediation Project, prepared by Malcolm Pirnie, Inc., June 2009.

21. Transcript of Public Comments, Public Hearing for EPA Proposed Remedy at the Former Molycorp, Inc. Facility, Canton Township, Pennsylvania, reported by Susan Perkins, Court Reporter and Notary Public, December 10, 2012.

Attachment D

Molycorp Presentation
prepared by
Barry Piacenza, Canton Towship Resident
December 2012

Statement of Purpose and Intent

My sole purpose is to have this information made available to the residents of Canton Township particularly those who made up the original citizens group relative to the Molycorp site. Hopefully this will assist the Township by reducing its liability particularly as it pertains to Caldwell Avenue. I represent no party. My sole interest is only to bring this information to light. Other than that I have no other interests.

Areas of Concern

- The kernel of the matter is that the company placed the site under Act 2 in Pennsylvania however the site allegedly appears economically disadvantaged the site will still have to have additional remediation according to the use to be placed on the site and compete with greenfields..
- This puts the Township at an alleged economic disadvantage and it looks as though parts of the road may still be radioactive.

- With all the parameters having changed including ownership of the corporation board members at the municipal level and negotiators some of the original concepts and requests may have found themselves devolved over time.

Themes

- Specific concerns regarding
  - groundwater issues
  - radiological contamination level
    - various controls including but not limited to
      - financial assurances
      - institutional
      - environmental
      - surface and groundwater water runoff
      - financial assurances
      - all of which seem to be short shrift as well as the economic development issues.
      - The site-specific advisory board report was also concerned about quality economic development and value-added job creation in conjunction with the municipal comprehensive plan and Charrette that was conducted by EDAW within the municipality which included all stake holders.

Nuclear Regulatory Commissions Site-Specific Advisory Board

Matrix of business, industry, municipal, citizen, elected officials, report submitted to Nuclear Regulatory Commission over 2000 pages which included exhibits.

Studies

Charette by EDA W – stakeholders

- Public, private, educational, stakeholder property owners, industry, there was a complete matrix of stakeholders over a 3 to 4 day timeframe all of whom were interviewed the Charette was well attended practically standing room only.

- Complete rework of all Township ordinances.
- New comprehensive plan
- Rail trail and Greenway plan

Other reviews of these plans

Caldwell Avenue – Foster Wheeler and comparative Malcolm Pirniri studies Regarding radioactive levels and locations

Raise the possibility of radioactive pockets within Caldwell Avenue due to migration of radioactive material. Studies conducted by Foster Wheeler – submitted by Molycorp as part of site-specific advisory board presentations and evidence

Right-of-way comparatives

The Foster Wheeler analysis shows the capability for bubbles of contamination within the right-of-way. These are just a positioned to the specific core borings that took place later. It raises the capability for right-of-way contamination and liability.

It is the request that the local municipality and or other governmental entities be spared the possible financial liability inherent in this area of concern.

These figures again reiterate the conclusions that:

the thoriated material was distributed randomly

the major portion is close to the surface in irregularly shaped bands

No migration has taken place vertically or horizontally.

Importantly, these figures set the ground work for development of the Decontamination and Decommissioning Plan.

The database and Earthvision system were also used to estimate the volume of material within various ranges of radionuclide concentrations. As these volumes were calculated using the interpolated three-dimensional "solids" (which were used to generate the prior horizontal and vertical cross-sections), they represent an over-estimate of the actual volume. Their utility lies in "bracketing" the amount of material which will have to be dealt with for remediation. The ranges selected were expanded on the high pCi/g interval from 50 pCi/g to 100 pCi/g, 100 pCi/g to 500 pCi/g and greater than 1000 pCi/g. Table 5-8 presents these volumes.

Table 5-8

Estimated Volume of Thoriated Material versus Concentration

Concentration Range		Volume
From pCi/g	To pCi/g	ft3
>1000		0
>500	1000	330
>100	500	223,309
>50	100	341,069
>15	50	1,296,149
>10	15	617,592
>5	10	1,110,737

These volumes will be used as the basis in the selection of the alternatives and their evaluation.

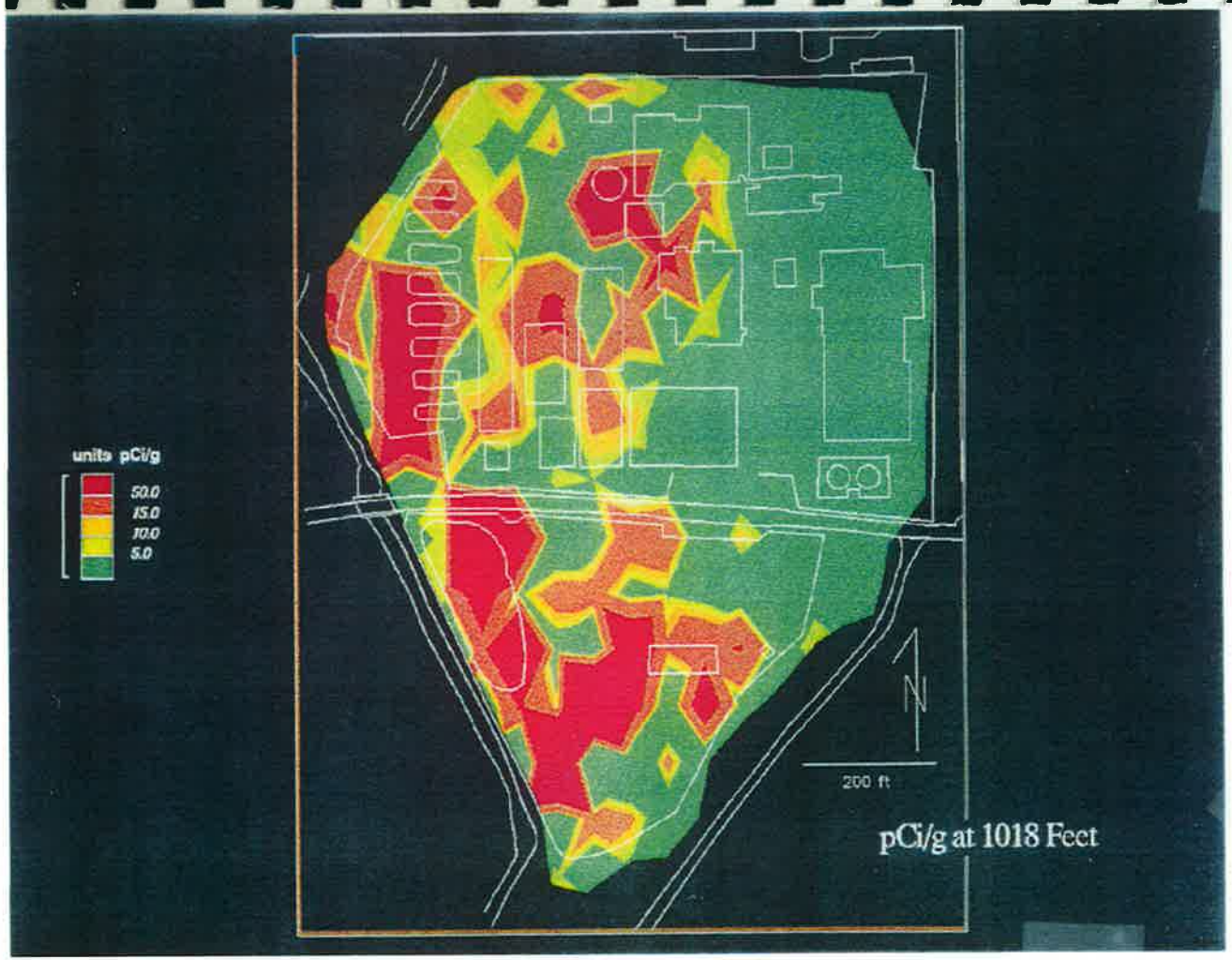


FIGURE 5-12

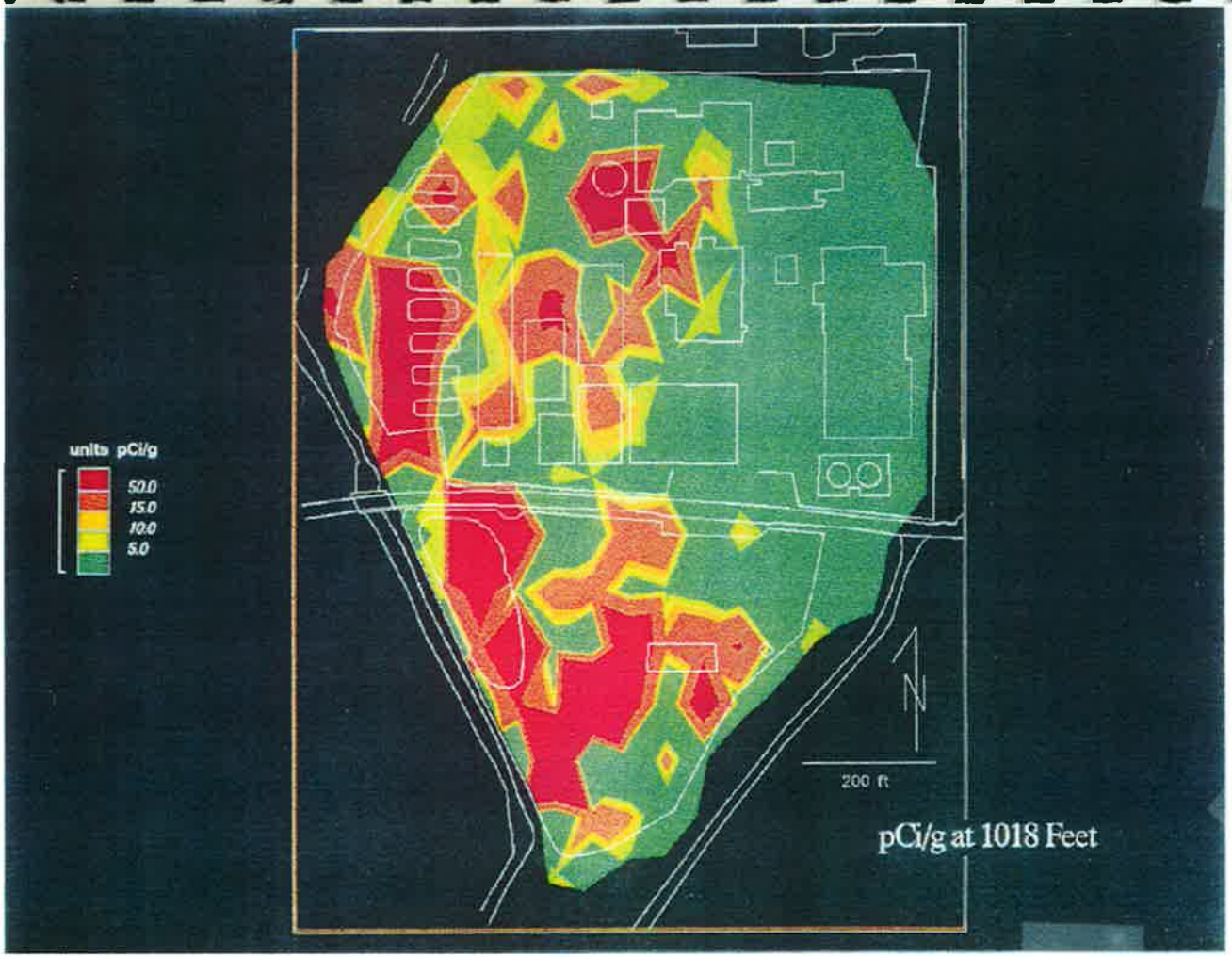
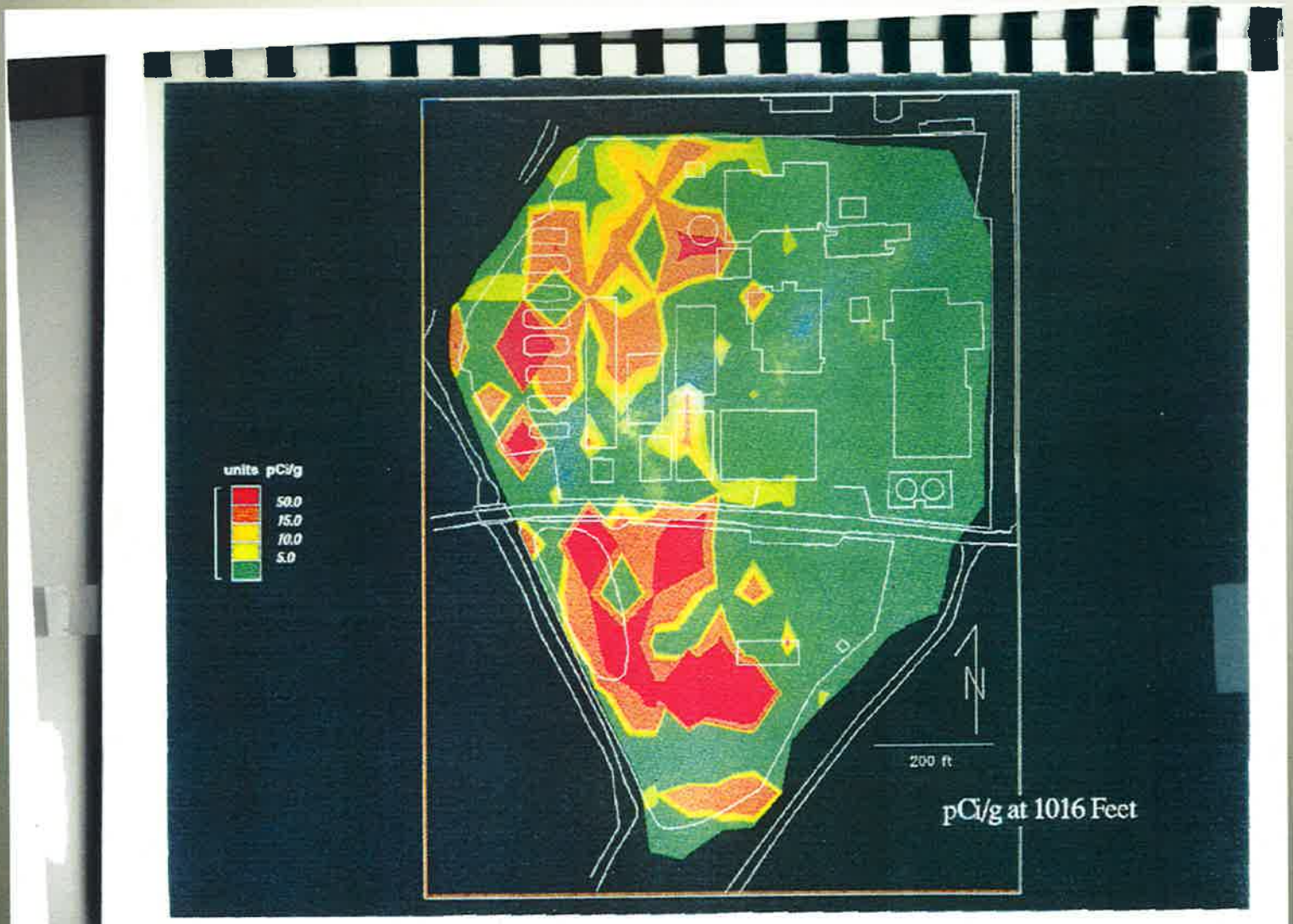
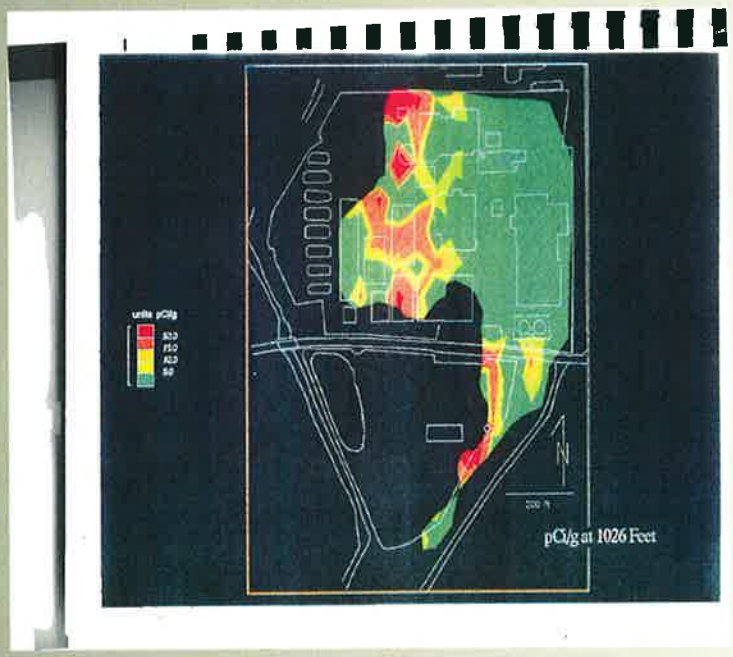


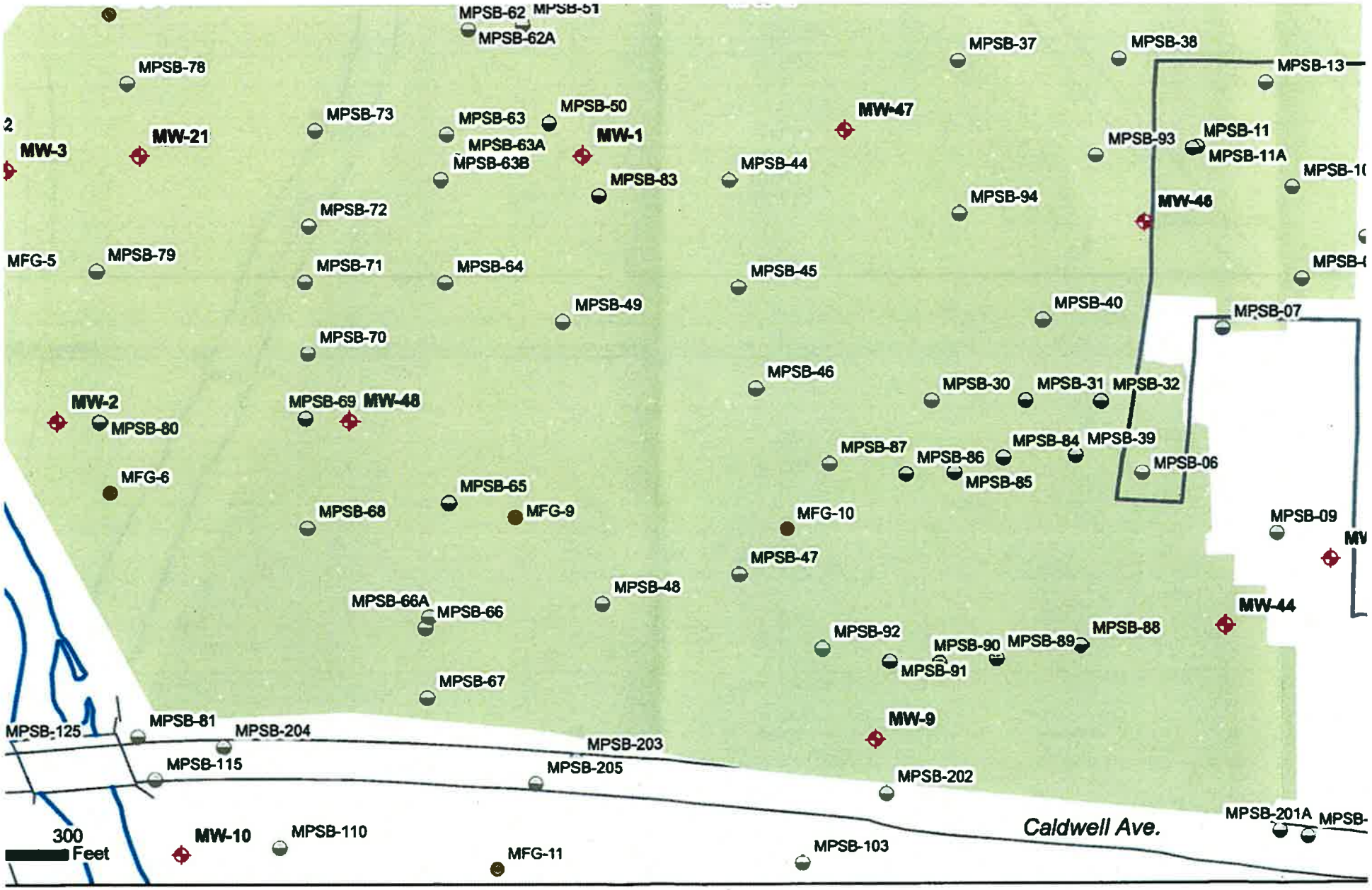
FIGURE 5-12


units pCi/g
50.0
15.0
10.0
5.0
N
200 ft
pCi/g at 1016 Feet


units pCi/g
N
pCi/g at 1026 Feet

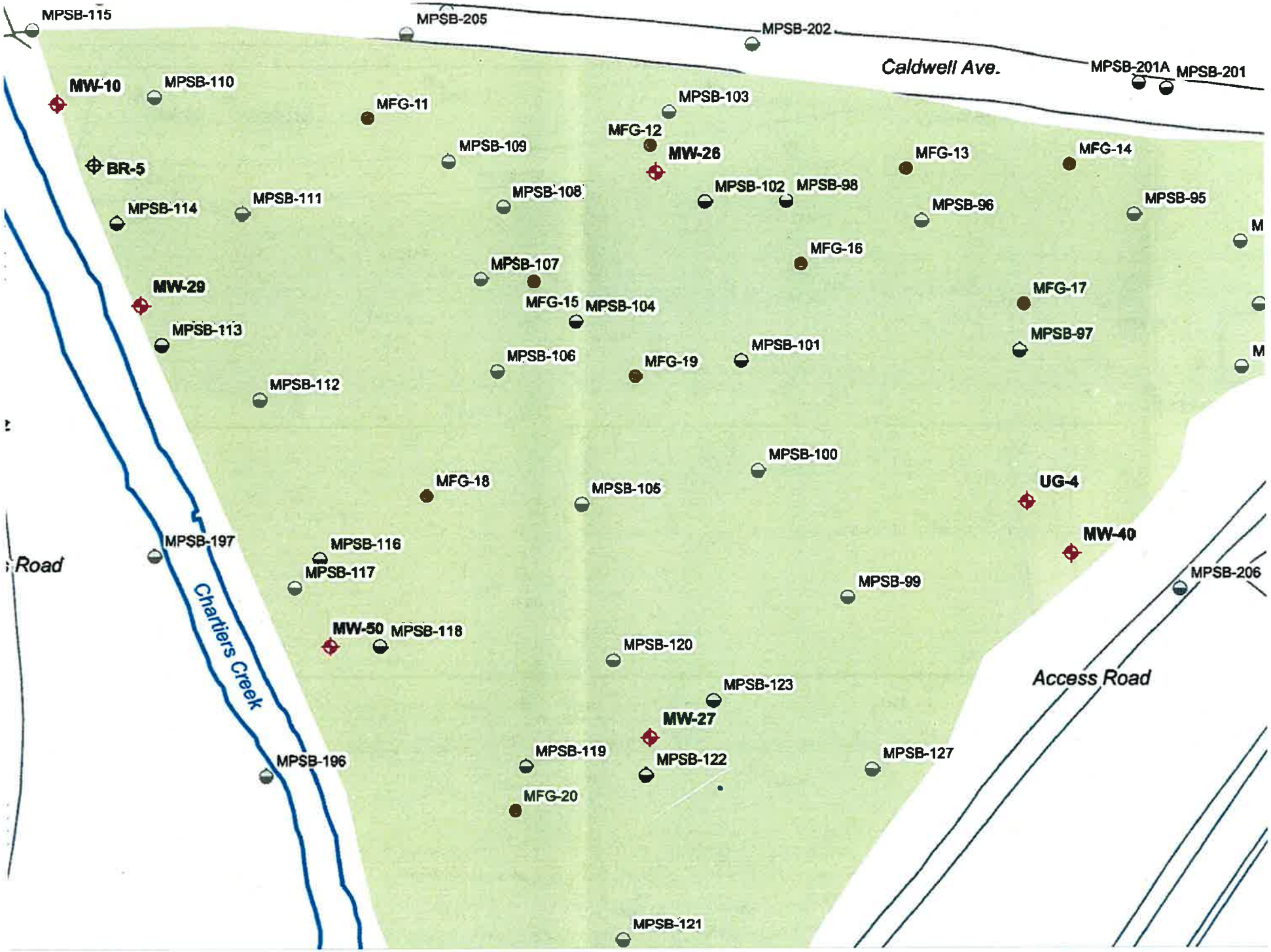

units pCi/g
30.0
15.0
10.0
5.0
N
200 ft
pCi/g at 1014 Feet

pCi/g at 1030 Feet



Molycorp Washington Remediation Project
Final Report

Attachment 3
Extent of Excavation in Areas 1 and 2 and Locations


MPSB-115
MPSB-205
MPSB-202
Caldwell Ave.
MPSB-201A
MPSB-201
MW-10
MPSB-110
MFG-11
MPSB-103
MFG-12
MPSB-109
MW-26
MFG-13
MFG-14
BR-5
MPSB-102
MPSB-98
MPSB-114
MPSB-111
MPSB-108
MPSB-96
MPSB-95
MFG-16
MPSB-107
MW-29
MFG-17
MFG-15
MPSB-104
MPSB-113
MPSB-97
MPSB-106
MFG-19
MPSB-101
MPSB-112
MPSB-100
MFG-18
MPSB-105
UG-4
MW-40
MPSB-197
MPSB-116
Road
MPSB-117
MPSB-99
MPSB-206
Chartiers Creek
MW-50
MPSB-118
MPSB-120
Access Road
MPSB-123
MW-27
MPSB-119
MPSB-122
MPSB-127
MPSB-196
MFG-20
MPSB-121

There are number of items that are of concern.

The kernel of the matter is that the company placed the site under Act 2 in Pennsylvania however the site allegedly appears economically disadvantaged.

- Will the affected areas still have to have additional remediation according to the use to be placed on the site? This appears to put the Township at an alleged economic development disadvantage.
- Allegedly is possible parts of Caldwell Avenue may still be radioactive. (Foster Wheeler)
- It concerns me after all the work that has been performed there are concerns regarding
  - groundwater issues,
  - radiological contamination

Originally all of the material was to be removed and shipped off to off-site location however it looks as though this case has seen an alleged impounding in place.

What was the level of standard? Why the change?

Additional Areas of Concern

What assurances are there that the material will not migrate either above ground or in aquifers?

- Why were no financial assurances provided– given the fact that this site may have challenges economically in comparison to Greenfields would it not be more prudent to provide a financial assurance?
- Land Use
  any consideration for other uses beyond those mentioned in the statement of basis?
- Environmental, surface water runoff
  have considerations been made for flood conditions?
- Were economically viable and suitable land uses considered in conjunction with the municipal comprehensive plan?