



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

April 4, 2017

Barry Ellison
Program Manager
808 W Spokane Falls Blvd
Parks and Recreation Division, Fifth Floor City Hall
Spokane, WA 99201

Re: Opinion on Proposed Cleanup of the following Site:

- **Site Name:** Riverfront Park Spokane
- **Site Address:** 507 N Howard St, Spokane WA
- **Facility/Site No.:** 11445
- **VCP Project No.:** EA0318

Dear Mr. Ellison:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of the Riverfront Park Spokane facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

Issue Presented and Opinion

Upon completion of the proposed cleanup, will further remedial action likely be necessary to clean up contamination at the Site?

NO. Ecology has determined that, upon completion of your proposed cleanup, no further remedial action will likely be necessary to clean up contamination at the Site.

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.



Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Petroleum hydrocarbons, PAHs, and metals into the Soil.

Enclosure A includes a detailed description and diagram of the Site, as currently known to Ecology.

Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the following documents:

1. GeoEngineers, *"Riverfront Park Soil Management – Soil Placement on North Bank Property"* memorandum dated 2/7/17 to Ecology.
2. GeoEngineers, *Geotechnical Engineering Evaluation and Environmental Site Assessment – Riverfront Park Ice Ribbon and Skyride Facility*, 6/7/16
3. GeoEngineers, *Geotechnical Engineering Evaluation and Environmental Site Assessment – Riverfront Park Looff Carousel*, 6/24/16
4. GeoEngineers, *Phase II Site Assessment Report – Riverfront Park*, 11/28/16
5. GeoEngineers, *Soil Management Plan – Riverfront Park Redevelopment*, 5/25/16

Those documents are kept in the Central Files of the Eastern Regional Office of Ecology (ERO) for review by appointment only. You can make an appointment by calling the ERO resource contact at 509/329-3415.

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

Ecology has concluded that, upon completion of your proposed cleanup, **no further remedial action** will likely be necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. **Characterization of the Site.**

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**.

Due to the large size of the Site and the isolated nature of investigation areas, Enclosure A includes maps clearly delineating in blue the areas that Ecology feels have been adequately characterized. In these delineated areas, Ecology has determined that the number, nature, and spacing of sampling locations is sufficient to determine the presence or absence of contamination.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site meet the substantive requirements of MTCA.

For soil, the cleanup levels were established using MTCA Method A and are based on direct contact and protection of groundwater. The land use is classified as unrestricted. The cleanup levels are as follows:

- Arsenic: 20 mg/kg
- Cadmium: 2 mg/kg
- Lead: 250 mg/kg
- cPAHs (based on benzo(a)pyrene): 100 ug/kg
- TPH – diesel: 2000 mg/kg
- TPH – heavy oil: 2000 mg/kg

The point of compliance for soil is throughout the soils at the Site. This is the standard point of compliance.

3. Selection of cleanup action.

Ecology has determined the cleanup action you proposed for the Site meets the substantive requirements of MTCA. The proposed cleanup, as presented in the Memorandum, includes the following:

- Petroleum-contaminated soil within the footprint of the proposed stockpile on the western end of the North Bank will be excavated and disposed at an approved off-site landfill (expected to terminate at bedrock)
- If petroleum contamination is observed on bedrock, areas will be pressure washed and water collected for off-site treatment
- Sampling of excavation sidewalls and/or base will be performed to confirm the effectiveness of the cleanup action

- Consistent with the approved Soil Management Plan, contaminated soil from other areas of the Site will be consolidated and temporarily stockpiled on the western end of the North Bank, as shown in Figure 2 of the Memorandum
- Actions will be taken to protect the pile to prevent aerial transport, erosion, water infiltration, and runoff; to limit access to the pile; and to manage equipment to prevent tire transport of contaminated soils

Additionally, you have provided general information about the proposed reuse of the soil as fill material in various areas of the Site. The provided information is not specific and offers a number of approaches. Your provided approaches are consistent with those approved in the Soil Management Plan. As we have discussed in our meetings, Ecology prefers approaches that use more permanent barriers requiring less maintenance, such as below concrete, asphalt, or permanent structures. These are preferred over approaches that rely on less permanent barriers, such as soil and geotextile, or those that have a higher child use, such as playgrounds or sports fields.

Limitations of the Opinion

1. Opinion does not settle liability with the state.

Liabe persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

2. Opinion does not constitute a determination of substantial equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

3. Opinion is limited to proposed cleanup.

This letter does not provide an opinion on whether further remedial action will actually

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be necessary at the Site upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

4. State is immune from liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). As you conduct your cleanup, please do not hesitate to request additional services. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm. If you have any questions about this opinion, please contact me by phone at (509) 329-3412 or e-mail at satr461@ecy.wa.gov.

Sincerely,



Sandra Treccani
ERO Toxics Cleanup Program

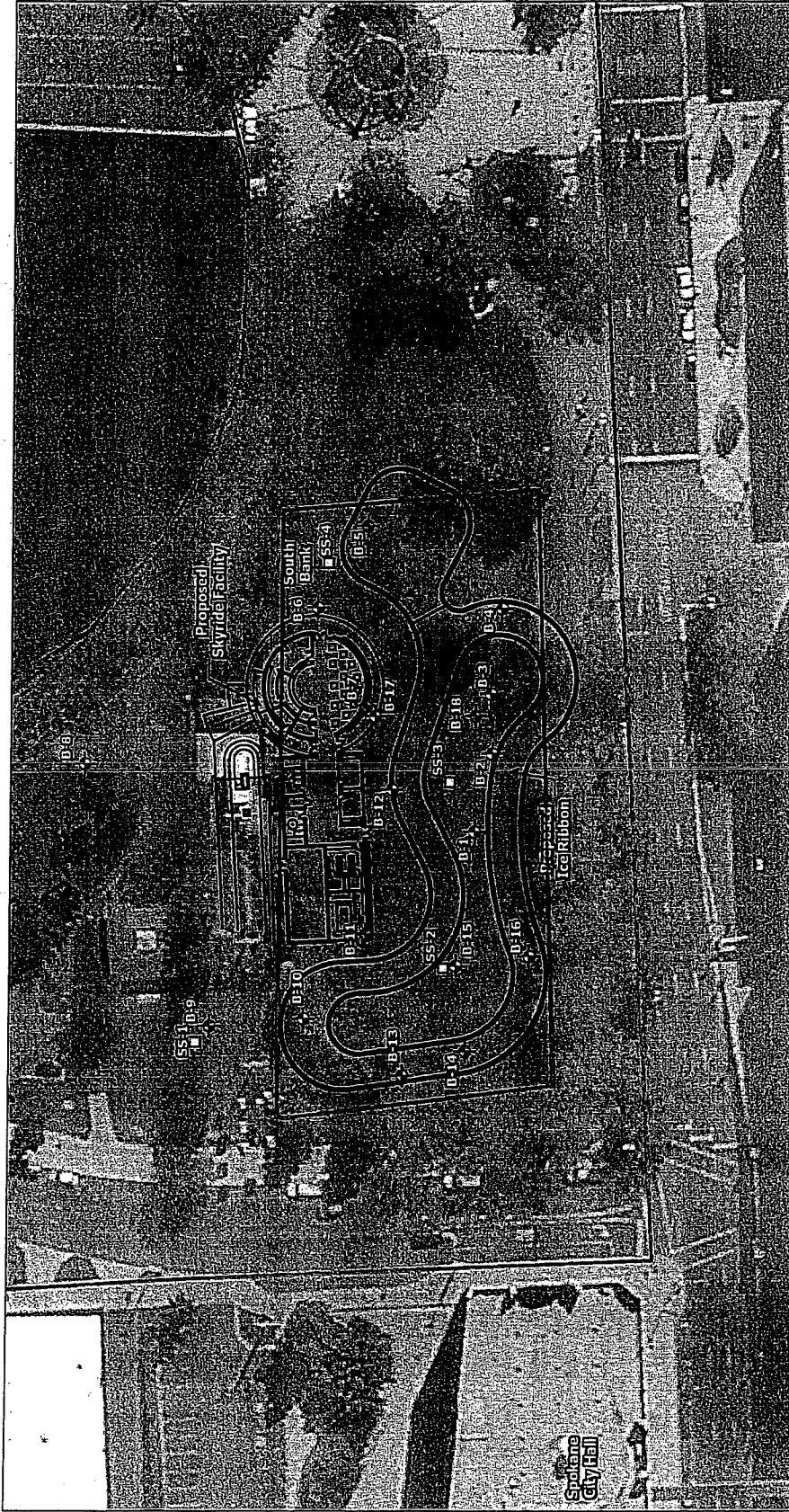
st: mk

Enclosures (1): A – Diagrams of the Site

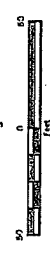
cc: Bruce Williams, GeoEngineers
Matt Alexander (without enclosures)

Enclosure A

Diagrams of the Site

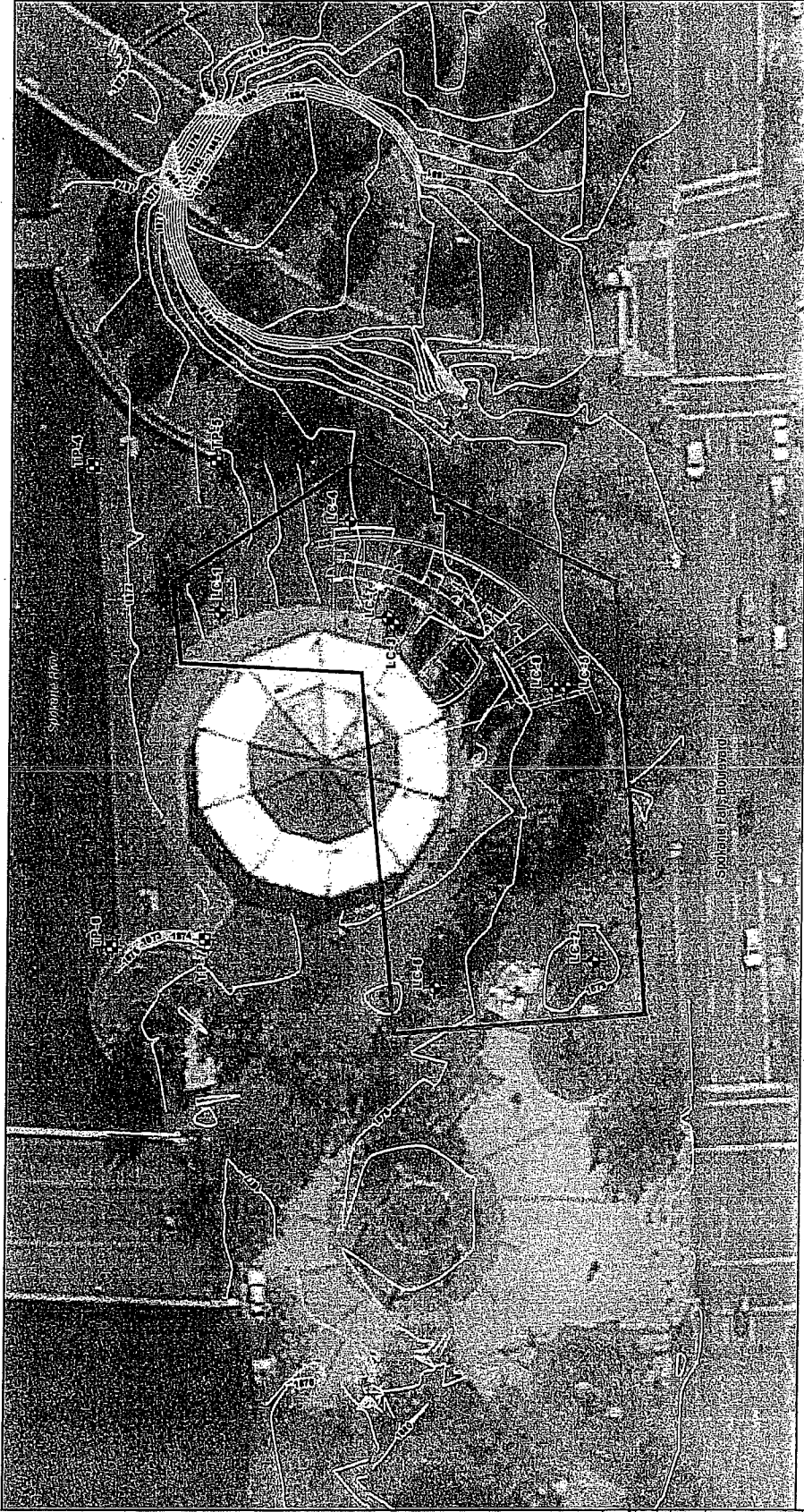


Field Exploration Locations
 Riverfront Park Ice Ribbon and Skyride Facility
 Spokane, Washington



SS-1 □ Shallow Soil Sample Number and Approximate Location
 B-1 ⊕ Exploration Number and Approximate Location
 B-3 ⊕ Exceeds MTCA Method A Cleanup Criteria
 □ Approximate Site Boundary

Notes:
 1. The location of all features shown are approximate.
 2. This drawing is for information purposes. It is intended to assist in showing status discussed in an associated document. It is not intended to be used for any other purpose, and will serve as the official record of this communication.
 Preparation: W.D. 3983 (NWI) / State/Place: Washington / Date: 4/20/11



NOTES:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended for use by the client and is not to be used for any other purpose.
3. The accuracy of the data is not guaranteed. The accuracy and content of this document is the responsibility of the client and is not intended to be used as a basis for any other project or as a basis for any other project.
4. This drawing is not a final design. It is intended for information purposes only.

DATA SOURCE: 2011 Aerial Photograph from GeoEye, Inc. Contours from Topographic Survey by Adams and Clark, Inc. dated 11-19-2016. Elevation datum in NAVD83. Projection: NAD 83 UTM Zone 18N EPSG:31471

Legend

Type	Boring Number and Approximate Location (GeoEngineers, 2016)	Test Pit Number and Approximate Location (Shannon & Wilson, 1973)	Existing Ground Contours
IC-1			
TP-4			

Boring Locations
 Riverfront Park Looff Carousel
 Spokane, Washington

GEOENGINEERS

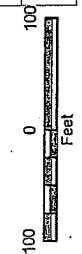
Figure 2











Exploration Location with Analytical Results:
 North Bank
 Riverfront Park
 Spokane, Washington

GEOENGINEERS 

Figure 3



- Legend**
-  TPH
 -  Metals
 -  PAH
 -  Approximate Limits of Improvement

-  Contaminated - Concentration greater than MTCA Method A Cleanup Level for one or more COC analyzed
-  Contaminated - COCs were not detected, however laboratory reporting limits were greater than the MTCA Method A Cleanup levels
-  Impacted - Concentration less than MTCA Method A Cleanup Levels and greater than laboratory reporting limits or twice the available background metals concentration for each COC analyzed
-  Clean - Concentration less than laboratory reporting limits or near available background metals concentrations for each COC analyzed

NOTES:

1. The locations of all markers shown are approximate.
2. The locations of all markers shown are approximate. It is intended to assist in showing relative locations. It is not intended to be used as a survey instrument.
3. The data was collected by GeoEngineers, Inc. and is stored by GeoEngineers, Inc. and will remain the sole property of GeoEngineers, Inc. until the date of the final communication.
4. CH2M HILL is 2009.
5. Data Source: Corrected Imagery from the Spokane Regional Orthorectified Consortium.
6. Professional: 143D 1883 StarPlex Spokane North PPS 4601 Feet



Notes:

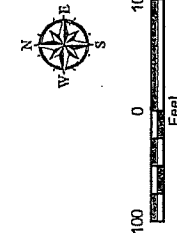
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. It is not a contract document. The reader is advised that GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Current Imagery from the
 Spokane Regional Orthophoto Consortium.
 Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

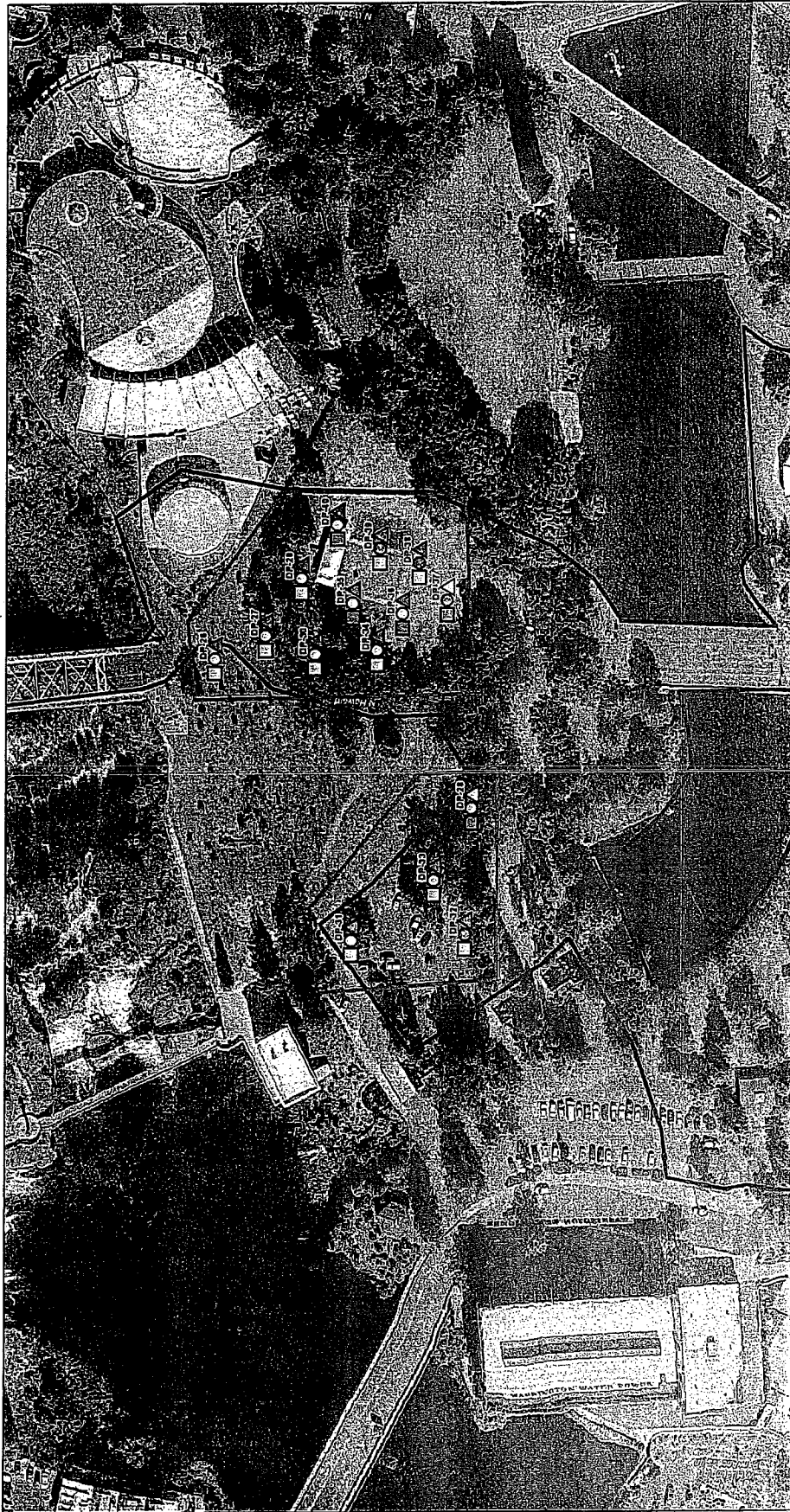
Legend

- ◻ Contaminated – Concentration greater than MTCA Method A Cleanup Level for one or more COC analyzed
- Impacted – Concentration less than MTCA Method A Cleanup Levels and greater than laboratory reporting limits or twice the available background metals concentration for each COC analyzed
- Clean – Concentration less than laboratory reporting limits or near available background metals concentrations for each COC analyzed

- ◻ TPH
- Metals
- △ PAH
- ◻ Approximate Limits of Improvement



Exploration Location with Analytical Results: Canada Island
Riverfront Park Spokane, Washington
GEOENGINEERS
Figure 4



NOTES:

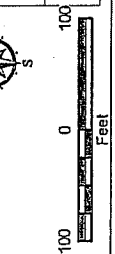
1. The locations of all features shown are approximate. It is intended for information purposes. It is intended to assist in the location of features. GeoEngineers, Inc. cannot guarantee the accuracy and content of information. The reader is advised by GeoEngineers, Inc. and will serve as the official record of this communication.

DATA SOURCE: Current Imagery from by Spokane Regional Information Consortium. Projection: NAD 1983 StatePlane Washington North FIPS 4601 Feet

Legend

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- Impacted – Concentration less than MTCA Method A Cleanup Levels and greater than laboratory reporting limits or twice the available background metals concentration for each COC analyzed
- Clean – Concentration less than laboratory reporting limits or near available background metals concentrations for each COC analyzed

- TPH
- Metals
- △ PAH
- Approximate Limits of Improvement



Exploration Location with Analytical Results:
Central Green & Theme Stream

Riverfront Park
Spokane, Washington



Figure 5