

Phase I Environmental Site Assessment

Naalehu Wastewater Treatment Plant (WWTP)

Hawaii Belt Road and Naalehu Spur Road
Naalehu, Hawaii County, Hawaii 96772

Prepared for
County of Hawai'i Wastewater Division
108 Railroad Road
Hilo, Hawai'i 96720

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Executive Summary

Brown and Caldwell (BC) performed a Phase I Environmental Site Assessment (ESA) for the property located southwest of the intersection of Hawaii Belt Road and Naalehu Spur Road in Naalehu, Hawaii County, Hawaii 96772 (target property). This Phase I ESA is intended to serve the County of Hawai'i as an appropriate, commercially prudent, and reasonable inquiry regarding the potential for recognized environmental conditions (RECs) in connection with the target property. This ESA was authorized by the County of Hawaii on July 2, 2018. The site reconnaissance was conducted by Caitlin Shannon of BC on October 5, 2018.

Property Description

The target property consists of 16.2 acres of undeveloped pasture land. The target property is located in the vicinity of latitude 19.0570830 degrees north and longitude 155.5884740 degrees west in Naalehu, Hawaii County, Hawaii 96772. Access to the target property is from the north via Hawaii Belt Road. See Figure 1 for a Target Property Map.

Site and Area Reconnaissance

At the time of the site reconnaissance, the property consisted of undeveloped pasture land. The surface sloped gently toward the southeast. The northern portion of the property consists of dense sugar cane overgrowth and a high-tension power line is oriented west to east. The southern half of the target property has minimal tree cover. There are several 'a' lava rock piles throughout the target property. No utilities were present on the target property.

The target property is bordered to the north by undeveloped pasture land, the Naalehu Hongwanji property, and Hawaii Belt Road. The target property is bordered to the north by undeveloped pasture land. The target property is bordered to the east by undeveloped pasture land, an abandoned cattle ranch operation, and Naalehu Spur Road. The target property is bordered to the southeast, south, southwest, west, and northwest by undeveloped pasture land.

Physical Setting

According to the United States Geological Survey (USGS) topographic map Naalehu, Hawaii dated 2013, the elevation of the target property is approximately 688 feet above mean sea level (amsl). The target property slopes gently toward the southeast with a general topographic gradient to the east.

The depth to groundwater and information regarding the regional groundwater flow for wells located in the vicinity of the target property was not reported by Environmental Data Resources, Inc. (EDR). The depth to groundwater in the vicinity of the target property is assumed to be located within 688 feet of the ground surface based on BC's local experience in the general area. The shallow hydrogeologic gradient flow is assumed to mimic the local topographic gradient in the vicinity of the target property, which is generally to the east. It should be noted that hydraulic gradient may vary with depth, regional groundwater flow direction, and be influenced by seasonal changes, geology, or local groundwater pumping patterns.

Records Review

BC conducted a review of standard environmental (regulatory) records and specified historical records for the target property.

BC's review of historical aerial photographs (1954, 1974, 1978, 1985, 1992, and 2001) provided by EDR identified no RECs to the target property. The target property was shown as undeveloped pasture land in all aerial photographs.

Based on the review of readily available historical aerial photographs, the surrounding areas consisted primarily of undeveloped pasture land to the north, south, and west of the target property in all aerial photographs. The area east of the target property contains structures comprising the former cattle ranch operation. BC identified no previous use of the adjoining properties that would represent a REC to the target property during the historical aerial photograph review.

BC's review of historical city directories (1992, 1995, 2000, 2005, 2010, and 2014) provided by EDR identified no RECs to the target property. The target property was not listed in any of the historical city directories searched by EDR. Roadways searched in the directories near the target property had commercial listings.

BC's review of historical topographic maps (1921, 1924, 1962, 1981, 1995, and 2013) indicated that the target property was historically unimproved and contained undeveloped pasture land. Properties in the general vicinity of the target property included undeveloped pasture land, Mamalahoa Highway/Hawaii Belt Road, Naalehu Spur Road, and structures comprising the former cattle ranch operation. BC identified no previous use of the target property and/or adjoining properties that would represent an on-site or off-site REC during the historical topographic map review.

According to EDR, Sanborn maps are not available for the target property.

BC reviewed a No Further Action (NFA) Letter dated November 10, 2005, from the State of Hawaii Department of Health for a portion of the target property, TMK (3) 9-5-007:16, known as Kawaihae Ranch. The site reported a release of Weedone and diesel fuel. Walker Consulting Group collected and analyzed samples during soil excavation in 2002 and 2005. Based on these results, the NFA letter was issued in response to the release. Mr. Eric Sadoyama, the project manager with the Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response (HEER) Division, confirmed the Kawaihae Ranch site has completed the necessary cleanup for petroleum contaminated soil and the site has no land use restrictions, engineering, controls, or institutional controls and identifies as No Hazard Present for Unrestricted Residential Use.

BC's review of readily available regulatory information provided by EDR indicated no on-site or off-site RECs to the target property. Results of the search of the various applicable government agencies by EDR resulted in no facilities within the minimum search distance (msd) of the target property. No indications of vapor intrusion from nearby facilities were identified.

BC's review of readily available regulatory information provided by EDR indicated no on-site or off-site RECs to the target property. Results of the search of the various applicable government agencies by EDR resulted in three (3) facilities within the minimal search distance (msd) of the target property. The following facility was identified within 1,000 feet of the target property during BC's review of the EDR Report:

- **Naalehu Central Office**
95-5670 Mamalahoa Highway
Distance: 633 feet
Direction: North
Database listed on: UST and Financial Assurance
Topographic Relationship: Cross-gradient

Information in the UST and Financial Assurance databases indicates the site has a permanently out-of-service underground storage tank (UST) containing diesel fuel that was installed in 1968 and closed in 1991. There is currently a UST containing diesel fuel in use that was installed in 1991. No spills are reported. Based on topographic relationship and regulatory status, this facility does not represent a REC to the target property.

No indications of vapor intrusion from nearby facilities were identified.

BC found no indications of RECs resulting from the review of environmental regulatory or historical records reviews.

Interviews

BC conducted an interview with Ms. Brenda Iokepa-Moses with Ka'u Realty regarding current and past uses of the target property. Ms. Iokepa-Moses has been familiar with the target property since 1996. Ms. Iokepa-Moses stated that she is unaware of any issues that would impact the environmental integrity of this project. To the best of her knowledge, the target property has historically been used as open pasture for cattle and livestock. The eastern adjacent property has historically been used as a cattle ranching operation but is now abandoned. Ms. Iokepa-Moses was not aware of what types of materials were stored on site in the empty ASTs and drums that were abandoned on this property. The former cattle ranch operation is downgradient of the target property and therefore, does not represent a REC to the target property.

BC also conducted an interview with Mr. John Cross with Ka'u Valley Farm regarding current and past uses of the target property. Ka'u Valley Farms owns the northern adjacent land to the target property, beyond Hawaii Belt Road and has been familiar with the target property since 1992. Mr. Cross stated that he was unaware of any issues that would impact the environmental integrity of this project. To the best of his knowledge, the target property has historically been used as open pasture land for cattle and livestock.

The results of these interviews identified no RECs or environmental risks regarding current or past operations at the target property.

Findings, Opinions, and Conclusions

BC performed this assessment in general conformance with the scope and limitations of the ASTM International (ASTM) Standard E 1527-13 for the target property identified above to identify any RECs in connection with the target property, including the presence, or likely presence, of any hazardous substances or petroleum products on the target property under conditions that indicate an existing release, or past release, or a material threat of release into the ground, groundwater, surface water, or structures on the target property. This assessment included an evaluation to the extent practicable of the past and present land uses at the target property and on adjacent properties.

The results of this assessment have identified no evidence of on-site or off-site RECs.

No further assessment of the target property is recommended at this time.

BC requests notification for further discussion or evaluation of any new conditions discovered during the development of the target property.

This executive summary is presented for convenience only. While the executive summary is an integral part of the report, it should not be used in lieu of reading the entire report, including the appendices.

Section 1

Introduction

1.1 Purpose

The County of Hawai'i has retained Brown and Caldwell (BC) to perform a Phase I Environmental Site Assessment (ESA) for the property located southwest of the intersection of Hawaii Belt Road and Naalehu Spur Road in Naalehu, Hawaii County, Hawaii 96772 (target property). The target property consists of 16.2 acres of irregularly shaped, undeveloped pasture land. The northern portion of the property consists of dense sugar cane overgrowth and a high-tension power line is oriented west to east. The southern half of the target property has minimal tree cover. The County of Hawai'i stated that the specific reason for this Phase I ESA was to evaluate environmental conditions at the target property in support of the potential purchase of the target property. This Phase I ESA is intended to serve as an appropriate, commercially prudent, and reasonable inquiry regarding the potential for recognized environmental conditions (RECs) in connection with the target property. This Phase I ESA report is intended to satisfy "all appropriate inquiry" into the previous ownership and uses of the target property as defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at Title 42 of the United States Code (U.S.C.) §9601(35)(B) and in accordance with 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries; Final Rule (AAI Rule).

1.2 Scope of Services

Based on the requirements presented in the American Society for Testing and Materials (ASTM) Standard Practice E 1527-13 (ASTM E 1527-13), BC performed the following tasks as part of this Phase I ESA. At the County of Hawai'i's request, the scope of services included the following considerations to provide them with a baseline evaluation of the environmental conditions at the target property.

- **Task 1 – Records Review.** Obtained and reviewed records that identified potential RECs, historical RECs (HRECs), controlled RECs (CRECs), or *de minimis* conditions in connection with the target property. The minimum search distance (msd) followed ASTM E 1527-13 recommendations for standard and additional environmental record sources with the exception that State and municipal solid waste facilities will be extended to 1 mile. This may include a review of the target property's deed of record to identify environmental liens that may have been recorded for the target property. A 50-year Chain-of-Title report was reviewed as applicable, if provided by the County of Hawai'i.
- **Task 2 – Site Reconnaissance.** Conducted a site reconnaissance to determine the potential that a REC was present at the target property. Also, observed neighboring properties, to the degree possible, for land uses or other aspects that indicated potential RECs that could adversely affect the target property.
- **Task 3 – Interviews.** Interviewed individuals with knowledge of the target property to obtain information regarding the potential for RECs, HRECs, CRECs, or *de minimis* conditions.
- **Task 4 – Evaluation and Report Preparation.** BC prepared this report detailing the findings associated with each of the above-listed tasks.

- **Task 5 – Identify Environmental, Health, and Safety Programs.** BC will review environmental regulatory permits related to air, stormwater, wastewater, solid and hazardous waste waste/material management and review through observation health and safety and industrial hygiene related programs such as hazard communication, hearing protection, machine guarding, etc.

1.3 Limiting Conditions

This Phase I ESA report has been prepared for the exclusive use of the County of Hawai'i and their assigns, in accordance with the standards of the environmental consulting industry at the time the services were performed, and in general accordance with the supplemental agreement between the County of Hawai'i and BC dated June 29, 2018. This work has been performed for the purpose of assisting in the evaluation of RECs associated with the target property. This Phase I ESA report is governed by the specific scope of work authorized by the County of Hawai'i and is not intended to be relied upon by any other party. The findings presented herein are based upon observations of target property conditions as of the date the assessment was performed and a review of reasonably ascertainable standard records sources. The findings and conclusions presented herein should not be assumed to apply to conditions or operating practices on this property occurring subsequent to BC's actual site reconnaissance.

The findings of the Phase I ESA, as represented within this report, must be viewed in recognition of certain limiting conditions. The scope of work commissioned for this project does not represent an exhaustive study, but rather a reasonable inquiry, consistent with good commercial practice, in general accordance with ASTM E 1527-13. In the course of this assessment, BC has relied on information provided by outside parties, such as regulatory agencies and interview sources. BC has made no independent investigation as to the validity, completeness, or accuracy of such information provided by third-party sources. For the purposes of this assessment, such third-party information is assumed to be accurate unless contradictory evidence is noted and BC does not express or imply any warranty regarding information provided by third-party sources. This Phase I ESA report makes no representation that environmental contamination does not exist at this target property beyond that described in this report.

In the following paragraphs italicized terms refer to specific definitions set forth in Section 3.2 of the ASTM Standard. The purpose of this Phase I ESA is to identify, to the extent feasible, pursuant to the scope and limitation of the guidelines set forth in the ASTM E 1527-13, RECs, HRECs, CRECs, or *de minimis* conditions in connection with the target property.

The term REC is defined by ASTM E 1527-13 as:

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

The term HREC is defined by ASTM E 1527-13 as:

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

environmental condition, the *environmental professional* must determine whether the past release is a *recognized environmental condition* at the time the *Phase I Environmental Site Assessment* is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release, to be a *recognized environmental condition* at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a *recognized environmental condition*.

The term CREC is defined by ASTM E 1527-13 as:

A *recognized environmental condition* resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substance or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the *environmental professional* to be a *controlled recognized environmental condition* shall be listed in the findings section of the *Phase I Environmental Site Assessment* report, and as a *recognized environmental condition* in the conclusions section of the *Phase I Environmental Site Assessment* report.

The term *de minimis condition* is defined by ASTM E 1527-13 as:

A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be *de minimis conditions* are not *recognized environmental conditions* or *controlled recognized environmental conditions*.

The term *reasonably ascertainable* is defined by ASTM E 1527-13 as:

Information that is *publicly available* to anyone upon request, obtainable from its source within reasonable time and cost constraints, and *practically reviewable*.

The term *practically reviewable* is defined by ASTM E 1527-13 as:

Information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the *property* without the need for extraordinary analysis of irrelevant data. The form of the information shall be such that the user can review the records for a limited geographic area. Records that cannot be feasibly retrieved by reference to the location of the property or a geographic area in which the property is located are not generally *practically reviewable*.

Reasonable time and cost means that the information will be provided by the source within 20 calendar days of receiving a written, telephone, or in-person request at no more than a nominal cost intended to cover the source's cost of retrieving and duplicating the information.

1.4 Exceptions or Deviations from Standard

Exceptions or deviations for this assessment include the following:

- An Environmental LienSearch was not conducted as part of this assessment. BC concludes that information obtained through an Environmental LienSearch would not materially alter the conclusions or recommendations of this report.
- The msd for State and municipal solid waste facilities in Section 4.4 was extended to 1 mile.

Section 2

User Provided Information

The 'User' is the party seeking to use ASTM E 1527-13 to complete an ESA of the target property. The User has specific obligations for completing a successful application of the Practice.

BC obtained a completed ASTM User Questionnaire from the County of Hawai'i. A copy of the completed form is included in Appendix F. The following summarizes the information provided to BC regarding the target property.

2.1 Reason for Performing Phase I ESA

The County of Hawai'i informed BC that the specific reason for this Phase I ESA was to evaluate the potential for RECs at the target property in support of the acquisition of the target property. This Phase I ESA is, therefore, intended to serve as an appropriate, commercially prudent, and reasonable inquiry regarding the potential for RECs in connection with the target property. This report will provide the County of Hawai'i an "all appropriate inquiry" into the previous ownership and uses of the target property defined under the CERCLA Title 42 of the U.S.C. §9601(35)(B), as clarified by the AAI Rule.

2.2 Commonly Known or Reasonably Ascertainable Information

Ms. Dora Beck of the County of Hawai'i completed the User Questionnaire and is unaware of any other commonly known or reasonably ascertainable information regarding the target property.

2.3 Property Value Comparison to Purchase Price

Ms. Beck reported to BC in the User Questionnaire that the anticipated purchase or lease price of the target property is comparable to the assessed property value. Therefore, this information appears to indicate that the price has not been lowered as a result of potential environmental concerns and/or contamination at the target property.

2.4 Specialized Knowledge

In the User Questionnaire, Ms. Beck indicated that she was unaware of any specialized knowledge regarding environmental conditions at the target property.

2.5 Title Records

At the County of Hawai'i's request, BC was not requested to obtain title records since these documents are obtained by the Client. The records will be provided to BC, if needed.

2.6 Environmental Liens or Activity and Use Limitations

The County of Hawai'i conducts title history research as part of their site acquisition process which would identify an environmental lien and will provide BC any information regarding environmental liens or activity use limitations, if identified. In the User Questionnaire, Ms. Beck indicated that she was unaware of any environmental liens or activity and use limitations (AULs) at the target property.

2.7 Owner, Property Manager, or Occupant Information

The County of Hawai'i personnel indicated that Ka'u Realty is currently selling the target property. The contact information for the target property is as follows:

- Ms. Brenda Iokepa-Moses
Ka'u Realty
Phone: (808) 896.3932

Section 3

Site Physical Setting Overview

3.1 Location

The target property is located southwest of the intersection of Hawaii Belt Road and Naalehu Spur Road in Naalehu, Hawaii County, Hawaii 96772. See Figure 1 for a Target Property Map.

Target Property Address: The property is not addressed. Access to the target property is from the northeast via Naalehu Spur Road.

Property Uses in Surrounding Area: The area surrounding the target property contains residential and commercial property in the immediate vicinity.

3.2 Current Ownership

According to information provided by the County of Hawai'i, the current owner of the target property is Ka'u Realty. According to the Hawaii County Tax Assessor's office, the property is listed as Tax Map Key (TMK) numbers (3) 9-5-022:001 and (3) 9-5-007:016.

3.3 Physical Characteristics

3.3.1 Physical Features and Topography

Approximate Size of Target Property: 16.2 acres

Approximate Shape of Target Property: Irregular

Target Property Topography: According to the United States Geological Survey (USGS) topographic map Naalehu, Hawaii dated 2013, the target property slopes gently toward the southeast with a general topographic gradient to the east. Please refer to Figure 2, Topographic Map.

Approximate Elevation of Target Property: According to the Environmental Data Resources, Inc. (EDR) Report, surface elevation for the target property is approximately 688 feet above mean sea level (amsl).

Surface Drainage on the Target Property: The general flow direction of surface stormwater across the target property appears to be toward the southeast.

Floodplain: According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map Number 1551661925F, dated September 29, 2017, the target property is located in unshaded Zone X, which includes those areas outside the 500-year flood plain with less than 0.2 percent annual probability of flooding.

3.3.2 Geology and Hydrology

General Regional Geology: According to the U.S. Geological Survey, Geologic Map of the State of Hawai'i, Sheet 8 – Island of Hawai'i, dated 2007, the target property appeared to be in the Volcanic and Intrusive Rocks of the Quaternary Era, Holocene System, and Mauna Loa Volcano series.

Soil Conditions: According to the Soil Conservation Service information provided in the EDR Report, the soil components at the target property are Punaluu and Kaimu. Punaluu soil surface texture is

peat and noted to be a well-drained class of soils. Punaluu soils have a reported low corrosion potential to uncoated steel and are not considered hydric. From 0 to 3 inches, Punaluu soils are peat. And from 3 to 14 inches, the soils are bedrock.

Kaimu soil surface texture is extremely stony peat and noted to be a well-drained class of soils. Kaimu soils have a reported moderate corrosion potential to uncoated steel and are not considered hydric. From 0 to 3 inches, Kaimu soils are extremely stony peat. And from 3 to 59 inches, the soils are extremely cobbly material.

Approximate Depth and Flow Direction of Groundwater: The depth to groundwater and information regarding the regional groundwater flow for wells located in the vicinity of the target property was not reported by Environmental Data Resources, Inc. (EDR). The depth to groundwater in the vicinity of the target property is assumed to be located within 688 feet of the ground surface based on BC's local experience in the general area. The shallow hydrogeologic gradient flow is assumed to mimic the local topographic gradient in the vicinity of the target property, which is generally to the east. It should be noted that hydraulic gradient may vary with depth, regional groundwater flow direction, and be influenced by seasonal changes, geology, or local groundwater pumping patterns.

Regional Groundwater Conditions: Based on review of hydrogeologic data provided in the EDR Report, there is one federal water well, no federal public water supply systems, and one state water well located within 1.0 mile of the target property. No water wells appear to be located on the target property.

Section 4

Records Review

4.1 Historical Use Information

BC reviewed reasonably ascertainable standard historical sources in an attempt to develop a history of the previous uses or occupancies of the target property and surrounding area. The objective was to identify those uses or occupancies that were likely to have led to RECs, CRECs, or HRECs in connection with the target property. BC attempted to identify uses or occupancies of the target property dating from the present back to when the property was first developed, or dating to at least 1940. These sources and findings are summarized in the sections that follow.

4.1.1 Chain-of-Title Report (50 Years)/Property Deed Review/Environmental Lien Search

A Chain-of-Title Report and an environmental lien search was not obtained for this report; BC does not believe that this deviation precludes the ability to render an opinion regarding potential RECs or de minimis conditions for the target property or the conclusions or recommendations of this report.

4.1.2 Historical Aerial Photographs

BC reviewed reasonably ascertainable aerial photographs depicting development of the target property and vicinity at a minimum of five-year intervals. The quality of evaluation of aerial photographs is controlled by the photograph's scale and quality. Copies of the aerial photographs are included in Appendix D.

Resource	Date	Scale
Aerial photographs by EDR	1954	1" = 500'
	1974	1" = 500'
	1978	1" = 500'
	1985	1" = 500'
	1992	1" = 500'
	2001	1" = 500'

Review of the 1954 aerial photograph indicated that the target property contains undeveloped pasture land. Vehicular access is available from the north and east. The area north of the target property is shown as undeveloped pasture land, several structures, and Hawaiian Belt Road/Mamalahoa Highway. Naalehu community is present to the far northeast of the target property. The area east of the target property is shown as undeveloped pasture land and structures comprising the former cattle ranch operation. The areas south and west of the target property are shown as undeveloped pasture land.

The 1974 and 1978 aerial photographs do not differ significantly from the 1954 aerial photograph.

The 1985 aerial photograph differs from the previous aerial photographs in that the Naalehu Hongwanji Mission has been developed to the north of the target property.

The 1992 aerial photograph differs from the 1985 aerial photograph in that a residence and an orchard have been developed to the northwest of the target property, beyond the pasture land.

The 2001 aerial photograph does not differ significantly from the 1992 aerial photograph.

BC identified no previous use of the target property and/or adjoining properties that would represent an on-site or off-site REC during the historical aerial photograph review. Aerial photographs are provided in Appendix D.

4.1.3 Historical City Directories

City directories have been published for cities and towns across the United States since the 1700s, and provide a tool for the location of individuals and businesses in three sections: a business index, a list of resident names and addresses, and a street index.

BC's review of historical city directories (1992, 1995, 2000, 2005, 2010, and 2014) provided by EDR identified no RECs to the target property. The target property was not listed in any of the historical city directories searched by EDR. Roadways searched in the directories near the target property had commercial listings. Copies of the city directories are included in Appendix D.

4.1.4 Historical Topographic Maps

BC reviewed available historical topographic maps for the vicinity of the target property. The topographic maps were provided by EDR. Table 4-2 below provides the date, map name, and scale of the historical topographic maps reviewed. Copies of the maps are provided in Appendix D.

Resource	Date	Map Name	Scale
EDR	1921	Naalehu, HI	1:31680
	1924	Honuapo, HI	1:62500
	1962	Naalehu, HI	1:24000
	1981	Naalehu, HI	1:24000
	1995	Naalehu, HI	1:24000
	2013	Naalehu, HI	1:24000

Review of the 1921 topographic map indicated that the target property and surrounding areas are unimproved and contain undeveloped pasture land. Vehicular access is not shown. Hawaii Belt Road/Mamalahoa Highway is to the north of the target property. Naalehu community is present to the northeast of the target property.

The 1924 topographic map does not differ significantly from the 1921 topographic map.

The 1962 topographic map differs from the previous topographic maps in that rock walls have been constructed in the northern and central portions of the target property oriented to west to east and southwest to northeast. An unimproved roadway has been developed intersecting the central portion of the target property. A structure and the former cattle ranch operation has been developed to the east of the target property.

The 1981 topographic map differs from the previous topographic map in that there is additional development along Hawaii Belt Road/Mamalahoa Highway.

The 1995 topographic map differs from the 1981 topographic map in that there are two additional structures to the east of the target property. A water well has been constructed to the far northwest of the target property.

The 2013 topographic map differs from the 1995 topographic maps in that Naalehu Spur Road and Kaalaiki Road have been developed. (Note: These roadways are not accurately reported by EDR. Please refer to Figure 2 for accurate roadway depiction.)

BC identified no previous use of the target property and/or adjoining properties that would represent an on-site or off-site REC during the historical topographic map review. Historical topographic maps are provided in Appendix D.

4.1.5 Sanborn Fire Insurance Maps

The Sanborn Fire Insurance Map series illustrates detailed historical development in some older sections of metropolitan areas. EDR maps were requested for the target property and the adjoining properties. EDR certified that there were no maps available for the target property and vicinity. The EDR document is provided in Appendix D.

4.2 Vapor Encroachment Screening

BC performed a Tier 1 Vapor Encroachment Screening (VES) for the target property in accordance with ASTM Standard Guide E 2600-10. This VES was completed in conjunction with ASTM E 1527-13 for Phase I ESAs. The purpose of the VES was to identify vapor encroachment conditions (VECs) for the target property.

The term VEC is defined by ASTM (2010) as:

The presence or likely presence of contaminant vapors in the subsurface of the target property caused by the release of vapors from contaminated soil and/or groundwater either on or near the target property as identified by the Tier 1 or Tier 2 procedures in ASTM Standard Guide E 2600-10.

A Tier 1 VES identifies any known or suspect contaminated facilities with volatile or semi-volatile hazardous substances or petroleum products, referred to as chemicals of concern (COCs), within an area of concern (AOC). The AOC for non-petroleum hydrocarbon COCs is a 1,760-foot (1/3-mile) radius from the contaminated facility to the boundary of the target property. For facilities with petroleum hydrocarbon COCs, the AOC is a 528-foot (1/10-mile) radius. The AOC can be reduced if groundwater flow direction is known or inferred using approximate msd of a COC. A critical distance, the estimated linear distance in any direction in which COC vapors from contaminated groundwater or soil might migrate in the vadose zone to the target property, is 100 feet for non-petroleum hydrocarbon COCs and light non-aqueous phase liquid (LNAPL) petroleum hydrocarbon COCs. The critical distance for dissolved-phase petroleum hydrocarbons is 30 feet.

According to the EDR VES Report, no facilities were identified by EDR within the AOC for the target property. Therefore, no facilities were identified as potential concerns to the target property. The EDR VES Report is provided in Appendix E. Q

4.3 Previous Investigations and Assessments

BC reviewed a No Further Action (NFA) Letter dated November 10, 2005, from the State of Hawaii Department of Health for a portion of the target property, TMK (3) 9-5-007:16, known as Kawaihae

Ranch. The site reported a release of Weedone and diesel fuel. Walker Consulting Group collected and analyzed samples during soil excavation in 2002 and 2005. Based on these results, the NFA letter was issued in response to the release. Mr. Eric Sadoyama, the project manager with the Hawaii Department of Health (DOH) Hazard Evaluation and Emergency Response (HEER) Division, confirmed the Kawaihae Ranch site has completed the necessary cleanup for petroleum contaminated soil and the site has no land use restrictions, engineering, controls, or institutional controls and identifies as No Hazard Present for Unrestricted Residential Use.

4.4 Standard Environmental Regulatory Record Sources

The purpose of the records review is to obtain and review reasonably ascertainable records that will help identify RECs, CRECs, or HRECs in connection with the target property. The EDR Report with a complete listing is included in Appendix C. Results of the search of the various applicable government agencies by EDR resulted in three (3) facilities within the msd of the target property. The facilities identified in the EDR Report were listed in the following databases:

- **Spills:** The Spills database contains data on toxic chemical spills and other accidents reported to the National Response Center (NRC).
- **Brownfields Public Record List (BROWNFIELDS):** The Brownfields Public Record lists properties where response actions under the Georgia Hazardous Site Reuse and Redevelopment Act are planned, ongoing or completed.
- **State Hazardous Waste Sites (SHWS) Listing:** The State of Hawai'i does not maintain a SHWS database, therefore the search distance for the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database was extended to cover the appropriate distance that the SHWS database would have been searched.
- **Leaking Underground Storage Tanks (LUST):** The LUST list contains an inventory of reported LUST incidents.
- **Financial Assurance:** Database of records showing facility owners/operators that treat, store, or dispose of hazardous waste have sufficient funds to pay for the cleanup, closure, and post-closure care of their facilities.
- **Underground Storage Tanks (UST):** USTs are regulated under Subtitle I of Resource Conservation and Recovery Act (RCRA) and are registered with the state department responsible for administering the UST program.
- **INST CONTROL:** Facilities on the Public Record Listing that have institutional controls or limitations on use or are facilities with Risk Reduction Standards of 3, 4, and 5.
- **ENG CONTROLS:** A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substance to enter environmental media or effect human health.

The facilities identified in the EDR Report are discussed below.

- **Naalehu Central Office**

95-5670 Mamalahoa Highway

Distance: 633 feet

Direction: North

Database listed on: UST and Financial Assurance

Topographic Relationship: Cross-gradient

Information in the UST and Financial Assurance databases indicates the site has a permanently out-of-service 225-gallon UST containing diesel fuel that was installed in 1968 and closed in 1991. There is currently a 550-gallon UST containing diesel fuel in use that was installed in 1991. No spills are reported. Based on topographic relationship and regulatory status, this facility does not represent a REC to the target property.

- **Residential Property**

95-5579 Opukea Street

Distance: 2,280 feet

Direction: Northeast

Database listed on: SHWS and BROWNFIELDS

Topographic Relationship: Cross-gradient

Information in the SHWS and BROWNFIELDS databases indicates the site was investigated by the Hazard Evaluation and Environmental Response (HEER) Office regarding undetermined potential hazards. The site received a No Further Action (NFA) letter from the agency in 2007. Based on distance and topographic relationship, this facility does not represent a REC to the target property.

- **Getta Mallick**

95-5572 Mamalahoa Highway

Distance: 2,291 feet

Direction: Northeast

Database listed on: SHWS, LUST, UST, ENG CONTROLS, INST CONTROLS, SPILLS

Topographic Relationship: Cross-gradient

Information in the LUST and UST databases indicates the site has three (3) permanently out-of-use 500-, 550-, and 300-gallon USTs containing gasoline and kerosene that were closed in 2006. A LUST incident was reported that received an NFA letter in 2007. Information in the SHWS, ENG CONTROLS, INST CONTROLS, and SPILLS databases indicates the site was investigated by the HEER Office regarding soil contaminants. A cap was installed to isolate the contaminated area. The agency issued an NFA with Restricted Use letter in 2006. The restricted use letter prohibits any activity that may disturb the integrity of the capping. Based on distance and topographic relationship, this facility does not represent a REC to the target property.

4.5 Orphan Summary

The orphan or unmapped site list consists of sites currently listed in Federal or State databases that have inadequate address information. However, if street addresses are available, the site locations are checked against the known location of the target property to determine their relative location to

the minimum ASTM search distance from the target property. The EDR Orphan Summary identified a total of nine (9) orphan sites with a poor or unconfirmed address, or business listing that may be in proximity to the target property. The target property was not identified on the orphan sites summary list provided by EDR. None of the orphan sites were observed near the target property during the site reconnaissance.

4.6 Additional Environmental Record Sources

Additional sources of records that were reviewed for this assessment are briefly discussed below.

4.6.1 Local Fire Department

BC contacted the Ocean View Fire Station regarding hazardous materials incidents, fires, or hazardous materials storage permits at the target property. At the time of report production, a response had not been received. BC does not believe that this deviation precludes the ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.

4.6.2 Department of Health/Environmental Division

BC contacted the Hawaii DOH regarding incidents of environmental concern at the target property, including the NFA letter for a portion of the target property, TMK (3) 9-5-007:16, known as Kawaihae Ranch. Mr. Eric Sadoyama, the project manager with the Hawaii DOH Hazard Evaluation and Emergency Response (HEER) Division, confirmed the Kawaihae Ranch site has completed the necessary cleanup with petroleum contaminated soil and the site has no land use restrictions, engineering, controls, or institutional controls and identifies as No Hazard Present for Unrestricted Residential Use.

4.6.3 Building Permit/Inspection Department

No structures were present on the target property; therefore, no building permit records were requested.

Section 5

Interviews

The purpose of interviews is to obtain information indicating RECs, CRECs, or HRECs in connection with the target property, as described in ASTM E 1527-13. Selected individuals who were knowledgeable about current and past site operations were interviewed. The following is a brief summary of the information obtained about the target property.

5.1 Interviews with Owners, Occupants, and Others Knowledgeable of the Target Property

BC contacted Ms. Brenda Iokepa-Moses with Ka'u Realty regarding current and past uses of the target property. Ms. Iokepa-Moses has been familiar with the target property since 1996. Ms. Iokepa-Moses stated that she is unaware of any issues that would impact the environmental integrity of this project. To the best of her knowledge, the target property has historically been used as open pasture for cattle and livestock. The eastern adjacent property has historically been used as a cattle ranching operation but is now abandoned.

BC also contacted Mr. John Cross with Ka'u Valley Farm regarding current and past uses of the target property. Mr. Cross owns the northern adjacent land to the target property beyond Hawaii Belt Road and has been familiar with the target property since 1992. Mr. Cross stated that he was unaware of any issues that would impact the environmental integrity of this project. To the best of his knowledge, the target property has historically been used as open pasture land for cattle and livestock.

The results of these interviews identified no RECs or environmental risks regarding current or past operations at the target property.

Section 6

Site and Area Reconnaissance

6.1 Methodology and Limiting Conditions

The site and area reconnaissance were performed to identify obvious visual indications of present or past activities that have or could have contaminated the target property. The site reconnaissance was conducted on foot, unless otherwise noted, by Caitlin Shannon of BC on October 5, 2018. Maps, which illustrate the general location and configuration of the target property, are presented as Figures 1 and 2, respectively. Site and area reconnaissance photographs are provided in Appendix B.

6.2 Site Reconnaissance

At the time of the site reconnaissance, the property consisted of undeveloped pasture land. The surface sloped gently toward the southeast. The northern portion of the property consists of dense sugar cane overgrowth and a high-tension power line is oriented west to east. The southern half of the target property has minimal tree cover. There are several 'a'a lava rock piles throughout the target property. No utilities were present on the target property.

Table 6-1. Conditions Observed During Site Reconnaissance

Underground Storage Tanks	No
Aboveground Storage Tanks	No
Hazardous Materials and Wastes	No
Solid Waste	No
Potential Polychlorinated Biphenyls Containing Equipment	No
Water Wells	No
Waste Water Sewage Disposal/Septic	No
Odors	No
Pits, Ponds, Lagoons, and Other Surface Waters	No
HVAC	No
Staining and Corrosion	No
Drains, Sumps, and Dry Wells	No
Stained Soils or Pavements	No
Stressed Vegetation	No
Oil and Gas Wells / Mine Shafts	No
Structures	No

6.2.1 Underground Storage Tanks

BC's site reconnaissance revealed no evidence of USTs containing regulated substances on the target property. No evidence of historic USTs was observed on the target property. No unusual ground conditions, which might indicate the presence of USTs, waste oil tanks, hydraulic lifts, or other obvious environmental concerns relating to USTs, were observed on the target property during BC's site reconnaissance.

6.2.2 Aboveground Storage Tanks

BC's site reconnaissance revealed no evidence of ASTs on the target property. No evidence of historic ASTs was observed on the target property.

6.2.3 Hazardous Materials and Waste

No hazardous materials or hazardous wastes were observed on the target property during BC's site reconnaissance.

6.2.4 Solid Waste

BC's site reconnaissance revealed no evidence of solid waste, landfills, or dumping at the target property.

Although not included in the target property, site reconnaissance of the eastern adjacent property revealed evidence of solid waste. Items observed included abandoned structures, vehicles, and farm equipment; miscellaneous debris; and empty USTs and ASTs. These items were apparently used during the former cattle ranch operation. This site is downgradient of the target property and therefore, does not represent a REC to the target property.

6.2.5 PCB-Containing Fluids

Electrical transformers are often a source of environmental concern due to the potential presence of polychlorinated biphenyl (PCB)-containing cooling oils used in some units. Equipment containing hydraulic oil may also be PCB-containing. Utility companies will typically respond to reported spills associated with their equipment. BC did not observe any transformers on the target property during the site reconnaissance.

6.2.6 Water Supply/Utilities and Wells

Potable water, electricity, or natural gas does not appear to be supplied to the target property. No water wells were observed onsite.

6.2.7 Wastewater, Sewage Disposal, and Septic Tanks

Wastewater and sewage systems were not observed at the target property. No evidence of septic tanks was observed onsite.

6.2.8 Odors

No unusual odors were noted during BC's site reconnaissance of the target property.

6.2.9 Pits, Ponds, Lagoons, and Other Surface Waters

No evidence of pits, ponds, lagoons, or other surface waters were observed on the target property during BC's site reconnaissance.

6.2.10 Heating and Air Conditioning Systems

No heating, ventilation, or air conditioning (HVAC) systems were observed on the target property during BC's site reconnaissance.

6.2.11 Staining and Corrosion

No staining or corroded materials were observed on the target property during BC's site reconnaissance.

6.2.12 Drains, Sumps, and Dry Wells

No drains, sumps, or dry wells were observed on the target property during BC's site reconnaissance.

6.2.13 Stained Soil or Pavement

No stained soil or pavement was observed during BC's site reconnaissance.

6.2.14 Stressed Vegetation

No stressed vegetation was observed on the target property during BC's site reconnaissance.

6.2.15 Oil and Gas Wells and Mine Shafts

No evidence of oil wells and gas wells, mine shafts, or related activities was observed on the target property during BC's site reconnaissance.

6.2.16 Structures

No structures were observed on the target property during BC's site reconnaissance.

6.3 Area Reconnaissance

An area reconnaissance was performed to identify obvious visual indications of present or past activities that have or could have contaminated the target property. The area reconnaissance was conducted by automobile, and/or on foot, unless otherwise noted. The findings of the area reconnaissance are presented according to the geographic relationship to the target property.

6.3.1 North

The target property is bordered to the north by undeveloped pasture land, the Naalehu Hongwanji property, and Hawaii Belt Road.

The following commercial property is with 500 feet of the target property

- o Naalehu Hongwanji Mission, 95-5695 Mamalahoa Highway, Naalehu, Hawaii 96672, religious institution

6.3.2 Northeast

The target property is bordered to the northeast by undeveloped pasture land, beyond which are residential and commercial properties.

6.3.3 East

The target property is bordered to the east by undeveloped pasture land, an abandoned cattle ranch operation, and Naalehu Spur Road.

6.3.4 Southeast

The target property is bordered to the southeast by undeveloped pasture land.

6.3.5 South

The target property is bordered to the south by undeveloped pasture land.

6.3.6 Southwest

The target property is bordered to the southwest by undeveloped pasture land.

6.3.7 West

The target property is bordered to the west by undeveloped pasture land.

6.3.8 Northwest

The target property is bordered to the northwest by undeveloped pasture land, beyond which are residential and agricultural properties.

Section 7

Findings, Opinions, and Conclusions

7.1 Summary of Findings

BC performed this assessment in general conformance with the scope and limitations of the ASTM Standard E 1527-13 to identify any RECs in connection with the target property, including the presence, or likely presence, of any hazardous substances or petroleum products on the target property under conditions that indicate an existing release, or past release, or a material threat of release into the ground, groundwater, surface water, or structures on the target property. This assessment included an evaluation to the extent practicable of the past and present land uses at the target property and on adjacent properties.

7.2 Data Failures and Gaps

Through the course of this assessment, BC may have encountered data failures or data gaps. These failures or gaps, if any, are discussed below. The following provides the opinion of the Environmental Professional (EP) as to the significance of the data gaps in terms of defining RECs at the target property. Data failures may or may not be significant data gaps, and the discussion also provides information pertaining to whether the data failures resulted in significant data gaps.

7.2.1 Data Failures

Data failure is a failure to achieve the historical (property use) research objectives specified in the ASTM Standard Practice even after reviewing the eight standard historical sources that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap. No data failure was encountered.

7.2.2 Data Gaps

A data gap is a lack of, or inability to obtain, information required by the ASTM Standard Practice, despite good faith efforts by the EP to gather such information. This could include any component of the Practice, e.g., standard environmental records, interviews, or a complete reconnaissance. A data gap by itself is not inherently significant, but if other information and/or the EP's experience raises reasonable concerns about the gap, it may be judged to be significant. Data gaps for this assessment include the following:

- Time gaps of more than five years were noted in available historical information. BC does not believe that this deviation precludes the ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.
- A search was not conducted for environmental liens as required under ASTM E 1527-13. BC does not believe that this deviation precludes the ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.

- BC contacted the Ocean View Fire Station regarding hazardous materials incidents, fires, or hazardous materials storage permits at the target property. At the time of report production, a response had not been received. BC does not believe that this deviation precludes the ability to render an opinion regarding potential RECs or *de minimis* conditions for the target property or the conclusions or recommendations of this report.

In summary, BC concludes that none of the above-identified data gaps are likely to alter the conclusions or concentrations of this report.

7.3 Conclusions and Recommendations

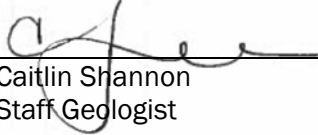
The results of this assessment have identified no evidence of on-site or off-site RECs.

No further assessment of the target property is recommended at this time.

BC requests notification for further discussion or evaluation of any new conditions discovered during the development of the target property.

7.4 Environmental Professional's Statement and Signature

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR 312. I have the specific qualifications based on education, training, and experience to assess a property. I have developed and performed all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.


Caitlin Shannon
Staff Geologist


John Nash
Senior Manager, Client Services

Section 8

Environmental Professionals' Qualifications

BC personnel involved with this project are listed below along with pertinent information regarding their qualifications and specialized knowledge. Additional details regarding each listed professional have been included in Appendix G.

BC EPs conducting the assessment include: Caitlin Shannon and John Nash.

Section 9

References

40 CFR 312, Standards and Practices for All Appropriate Inquiries; Final Rule, November 2005 (AAI Rule).

American Society for Testing and Materials (ASTM), November 2013. *Standard Practice E1527 13 for Environmental Site Assessments: Phase I Environmental Site Assessment Process.*

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Environmental Data Resources, Inc., *Certified Sanborn Map Report.* Inquiry number 5425643.3. September 17, 2018.

Environmental Data Resources, Inc., *EDR Vapor Encroachment Screen.* Inquiry number 5425643.2s. October 10, 2018.

Federal Emergency Management Agency, <http://msc.fema.gov/>

Hawaii County Property Appraiser, <http://www.hawaiipropertytax.com/>

National Wetlands Inventory Maps, <http://www.fws.gov/wetlands/Data/Mapper.html>

U.S. Fish and Wildlife, Threatened and Endangered Species, http://ecos.fws.gov/tess_public/

State of Hawaii Department of Health. *Remedial Activities and No Further Action Determination Letter.* November 10, 2005.



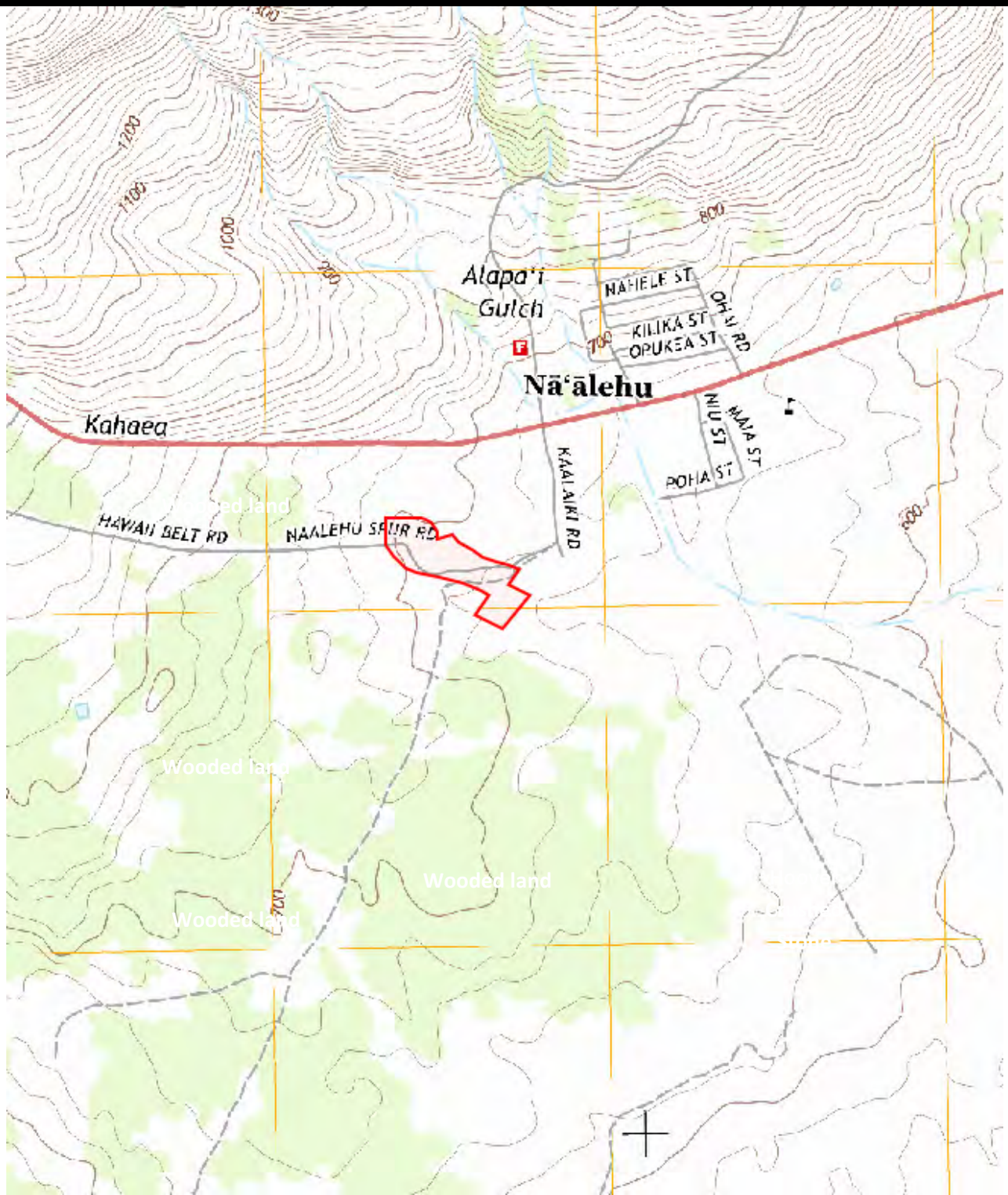
Appendix A: Figures



- Target Property Boundary
- - - High Tension Power Line
- Rock Wall

NOT TO SCALE
 Basemap: 2001 EDR Aerials

Figure 1
Target Property Map
Naalehu WWTP
 Hawaii Belt Road and Naalehu Spur
 Road
 Naalehu, Hawaii County, Hawaii
 96772



 Target Property Boundary




Basemap: USGS Topographic
 Quadrangle Naalehu, Hawaii, dated
 2013
 Scale: 1 = 24000

Figure 2
Topographic Map
Naalehu WWTP
Hawaii Belt Road and Naalehu Spur
Road
Naalehu, Hawaii County, Hawaii
96772






Appendix B: Site and Surrounding Area Photographs




Naalehu Wastewater Treatment Plant (WWTP)
Phase I Environmental Site Assessment
Hawaii Belt Road and Naalehu Spur Road
Naalehu, Hawaii County, Hawaii 96772

Photo #1	
Description: Entrance to target property	
Facing Northeast	
Photo #2	
Description: High-tension power line in northern portion of the target property	
Facing Northwest	
Photo #3	
Description: Drainage in the northern portion of the target property	
Facing West	

Naalehu Wastewater Treatment Plant (WWTP)
 Phase I Environmental Site Assessment
 Hawaii Belt Road and Naalehu Spur Road
 Naalehu, Hawaii County, Hawaii 96772

Photo #4	
Description: Trail in northern portion of the target property	
Facing West	
Photo #5	
Description: Northern portion of the target property	
Facing North	
Photo #6	
Description: Eastern portion of the target property	
Facing East	


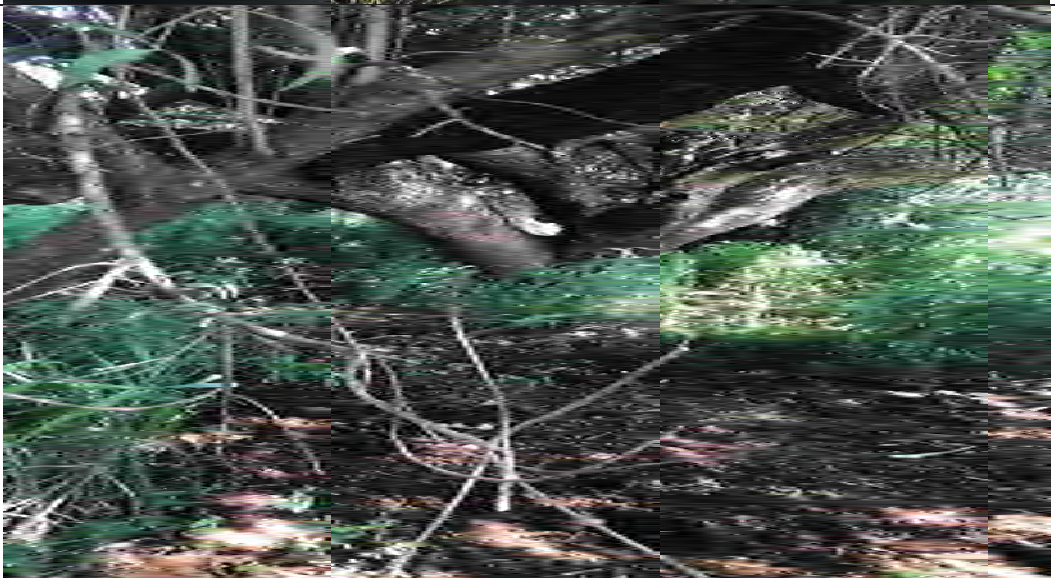

Naalehu Wastewater Treatment Plant (WWTP)
Phase I Environmental Site Assessment
Hawaii Belt Road and Naalehu Spur Road
Naalehu, Hawaii County, Hawaii 96772

Photo #7	
Description: Eastern portion of the target property	
Facing North	
Photo #8	
Description: Central portion the target property	
Facing South	
Photo #9	
Description: Southern portion of the target property	
Facing East	




Naalehu Wastewater Treatment Plant (WWTP)
 Phase I Environmental Site Assessment
 Hawaii Belt Road and Naalehu Spur Road
 Naalehu, Hawaii County, Hawaii 96772

Photo #10	
Description: Southern portion of the target property	
Facing Southeast	
Photo #11	
Description: Gate in the southern portion of the target property	
Facing East	
Photo #12	
Description: Western portion of the target property	
Facing West	




Naalehu Wastewater Treatment Plant (WWTP)
Phase I Environmental Site Assessment
Hawaii Belt Road and Naalehu Spur Road
Naalehu, Hawaii County, Hawaii 96772

Photo #13	
Description: Rock wall in the western portion of the target property	
Facing West	
Photo #14	
Description: Typical vegetation on target property	
Facing N/A	
Photo #15	
Description: Typical soil on target property	
Facing N/A	

Naalehu Wastewater Treatment Plant (WWTP)
 Phase I Environmental Site Assessment
 Hawaii Belt Road and Naalehu Spur Road
 Naalehu, Hawaii County, Hawaii 96772

Photo #16	
Description: Typical sugar cane on the target property	
Facing South	
Photo #17	
Description: Typical dilapidated fencing on the target property	
Facing East	
Photo #18	
Description: Northern adjacent pasture land beyond Mamalahoa Highway/Hawaii Belt Road	
Facing North-Northeast	




Naalehu Wastewater Treatment Plant (WWTP)
Phase I Environmental Site Assessment
Hawaii Belt Road and Naalehu Spur Road
Naalehu, Hawaii County, Hawaii 96772

Photo #19	 A photograph of a rusted, abandoned train car situated on a grassy hillside. The car is heavily weathered and appears to be in a state of disrepair. It is surrounded by tall grass and other vegetation. In the background, there are rolling green hills under a clear blue sky. A wire fence is visible in the foreground, partially obscuring the view of the train car.
Description: Northeastern adjacent property with abandoned train car on the former cattle ranch operation	
Facing Northeast	
Photo #20	 A photograph of a large, dilapidated metal structure, possibly a shed or barn, situated on a grassy field. The structure is made of corrugated metal and shows significant signs of decay and damage. The roof is partially collapsed, and the walls are crumbling. The surrounding area is overgrown with grass and weeds. The sky is clear and blue.
Description: Structure at former cattle ranch operation on eastern adjacent property	
Facing North	
Photo #21	 A photograph showing a large amount of debris scattered on the ground. The debris includes pieces of corrugated metal, wood, and other unidentifiable materials. The ground is dark and appears to be wet or muddy. In the background, there is a body of water reflecting the sky. The overall scene suggests a site of significant destruction or abandonment.
Description: Debris on the eastern adjacent property	
Facing Southwest	


Naalehu Wastewater Treatment Plant (WWTP)
Phase I Environmental Site Assessment
Hawaii Belt Road and Naalehu Spur Road
Naalehu, Hawaii County, Hawaii 96772

Photo #22	
Description: Empty aboveground storage tank (AST) on the eastern adjacent property	
Facing Southeast	
Photo #23	
Description: Abandoned livestock barn on the eastern adjacent property	
Facing South	
Photo #24	
Description: Abandoned tanker truck on the eastern adjacent property	
Facing North	

Naalehu Wastewater Treatment Plant (WWTP)
 Phase I Environmental Site Assessment
 Hawaii Belt Road and Naalehu Spur Road
 Naalehu, Hawaii County, Hawaii 96772

Photo #25	
Description: Debris including AST and partially buried underground storage tank (UST) on eastern adjacent property	
Facing North	
Photo #26	
Description: Partially buried, empty UST on the eastern adjacent property	
Facing N/A	
Photo #27	
Description: Southern adjacent property; open pasture land	
Facing South	

Naalehu Wastewater Treatment Plant (WWTP)
Phase I Environmental Site Assessment
Hawaii Belt Road and Naalehu Spur Road
Naalehu, Hawaii County, Hawaii 96772

Photo #28	
Description: Western adjacent property; open pasture land	
Facing North-Northwest	



Appendix C: EDR

Naalehu WWTP

Naalehu Spur Road

Naalehu, HI 96772

Inquiry Number: 5425643.2s

September 17, 2018

The EDR Radius Map™ Report with GeoCheck®



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with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

NAALEHU SPUR ROAD
NAALEHU, HI 96772

COORDINATES

Latitude (North):	19.0570830 - 19° 3' 25.49"
Longitude (West):	155.5884740 - 155° 35' 18.50"
Universal Transverse Mercator:	Zone 5
UTM X (Meters):	227579.0
UTM Y (Meters):	2109027.5
Elevation:	688 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5949274 NAALEHU, HI
Version Date:	2013

MAPPED SITES SUMMARY

Target Property Address:
NAALEHU SPUR ROAD
NAALEHU, HI 96772

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	NAALEHU CENTRAL OFFI	95-5670 MAMALAHOA HI	UST, Financial Assurance	Higher	633, 0.120, North
2	RESIDENTIAL PROPERTY	95-5579 OPUKEA ST	SHWS, BROWNFIELDS	Lower	2280, 0.432, NE
3	GETTA MALLICK	95-5572 MAMALAHOA HW	SHWS, LUST, UST, ENG CONTROLS, INST CONTROL,...	Lower	2291, 0.434, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY..... Federal Facility Site Information listing
SEMS..... Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE..... Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-SQG..... RCRA - Small Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS..... Land Use Control Information System
US ENG CONTROLS..... Engineering Controls Sites List

EXECUTIVE SUMMARY

US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Permitted Landfills in the State of Hawaii

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

FEMA UST..... Underground Storage Tank Listing

INDIAN UST..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

VCP..... Voluntary Response Program Sites

INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

ODI..... Open Dump Inventory

IHS OPEN DUMPS..... Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register

CDL..... Clandestine Drug Lab Listing

US CDL..... National Clandestine Laboratory Register

Local Land Records

LIENS 2..... CERCLA Lien Information

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

SPILLS..... Release Notifications

SPILLS 90..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR..... RCRA - Non Generators / No Longer Regulated

EXECUTIVE SUMMARY

FUDS.....	Formerly Used Defense Sites
DOD.....	Department of Defense Sites
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR.....	Financial Assurance Information
EPA WATCH LIST.....	EPA WATCH LIST
2020 COR ACTION.....	2020 Corrective Action Program List
TSCA.....	Toxic Substances Control Act
TRIS.....	Toxic Chemical Release Inventory System
SSTS.....	Section 7 Tracking Systems
ROD.....	Records Of Decision
RMP.....	Risk Management Plans
RAATS.....	RCRA Administrative Action Tracking System
PRP.....	Potentially Responsible Parties
PADS.....	PCB Activity Database System
ICIS.....	Integrated Compliance Information System
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS.....	Material Licensing Tracking System
COAL ASH DOE.....	Steam-Electric Plant Operation Data
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER.....	PCB Transformer Registration Database
RADINFO.....	Radiation Information Database
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.....	Incident and Accident Data
CONSENT.....	Superfund (CERCLA) Consent Decrees
INDIAN RESERV.....	Indian Reservations
FUSRAP.....	Formerly Utilized Sites Remedial Action Program
UMTRA.....	Uranium Mill Tailings Sites
LEAD SMELTERS.....	Lead Smelter Sites
US AIRS.....	Aerometric Information Retrieval System Facility Subsystem
US MINES.....	Mines Master Index File
ABANDONED MINES.....	Abandoned Mines
FINDS.....	Facility Index System/Facility Registry System
ECHO.....	Enforcement & Compliance History Information
UXO.....	Unexploded Ordnance Sites
DOCKET HWC.....	Hazardous Waste Compliance Docket Listing
FUELS PROGRAM.....	EPA Fuels Program Registered Listing
AIRS.....	List of Permitted Facilities
DRYCLEANERS.....	Permitted Drycleaner Facility Listing
Financial Assurance.....	Financial Assurance Information Listing
LEAD.....	LEAD
UIC.....	Underground Injection Wells Listing

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP.....	EDR Proprietary Manufactured Gas Plants
EDR Hist Auto.....	EDR Exclusive Historical Auto Stations
EDR Hist Cleaner.....	EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS.....	Recovered Government Archive State Hazardous Waste Facilities List
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EXECUTIVE SUMMARY

RGA LF..... Recovered Government Archive Solid Waste Facilities List
RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

SHWS: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Health.

A review of the SHWS list, as provided by EDR, and dated 01/23/2018 has revealed that there are 2 SHWS sites within approximately 1 mile of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>RESIDENTIAL PROPERTY</i>	<i>95-5579 OPUKEA ST</i>	<i>NE 1/4 - 1/2 (0.432 mi.)</i>	<i>2</i>	<i>8</i>
<i>GETTA MALLICK</i>	<i>95-5572 MAMALAHOA HW</i>	<i>NE 1/4 - 1/2 (0.434 mi.)</i>	<i>3</i>	<i>9</i>

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Health's Active Leaking Underground Storage Tank Log Listing.

A review of the LUST list, as provided by EDR, and dated 03/16/2018 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
<i>GETTA MALLICK</i> Release ID: 060034 Facility Id: 9-603807 Facility Status: Site Cleanup Completed (NFA)	<i>95-5572 MAMALAHOA HW</i>	<i>NE 1/4 - 1/2 (0.434 mi.)</i>	<i>3</i>	<i>9</i>

EXECUTIVE SUMMARY

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Health's Listing of Underground Storage Tanks.

A review of the UST list, as provided by EDR, and dated 03/16/2018 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NAALEHU CENTRAL OFFI Tank Status: Permanently Out of Use Tank Status: Currently In Use Facility Id: 9-600589 Date Closed: 12/10/1991	95-5670 MAMALAHOA HI	N 0 - 1/8 (0.120 mi.)	1	8

State and tribal institutional control / engineering control registries

ENG CONTROLS: A listing of sites with engineering controls in place.

A review of the ENG CONTROLS list, as provided by EDR, and dated 01/23/2018 has revealed that there is 1 ENG CONTROLS site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GETTA MALLICK	95-5572 MAMALAHOA HW	NE 1/4 - 1/2 (0.434 mi.)	3	9

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

A review of the INST CONTROL list, as provided by EDR, and dated 01/23/2018 has revealed that there is 1 INST CONTROL site within approximately 0.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
GETTA MALLICK	95-5572 MAMALAHOA HW	NE 1/4 - 1/2 (0.434 mi.)	3	9

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Site List

A review of the BROWNFIELDS list, as provided by EDR, and dated 01/23/2018 has revealed that there is 1 BROWNFIELDS site within approximately 0.5 miles of the target property.

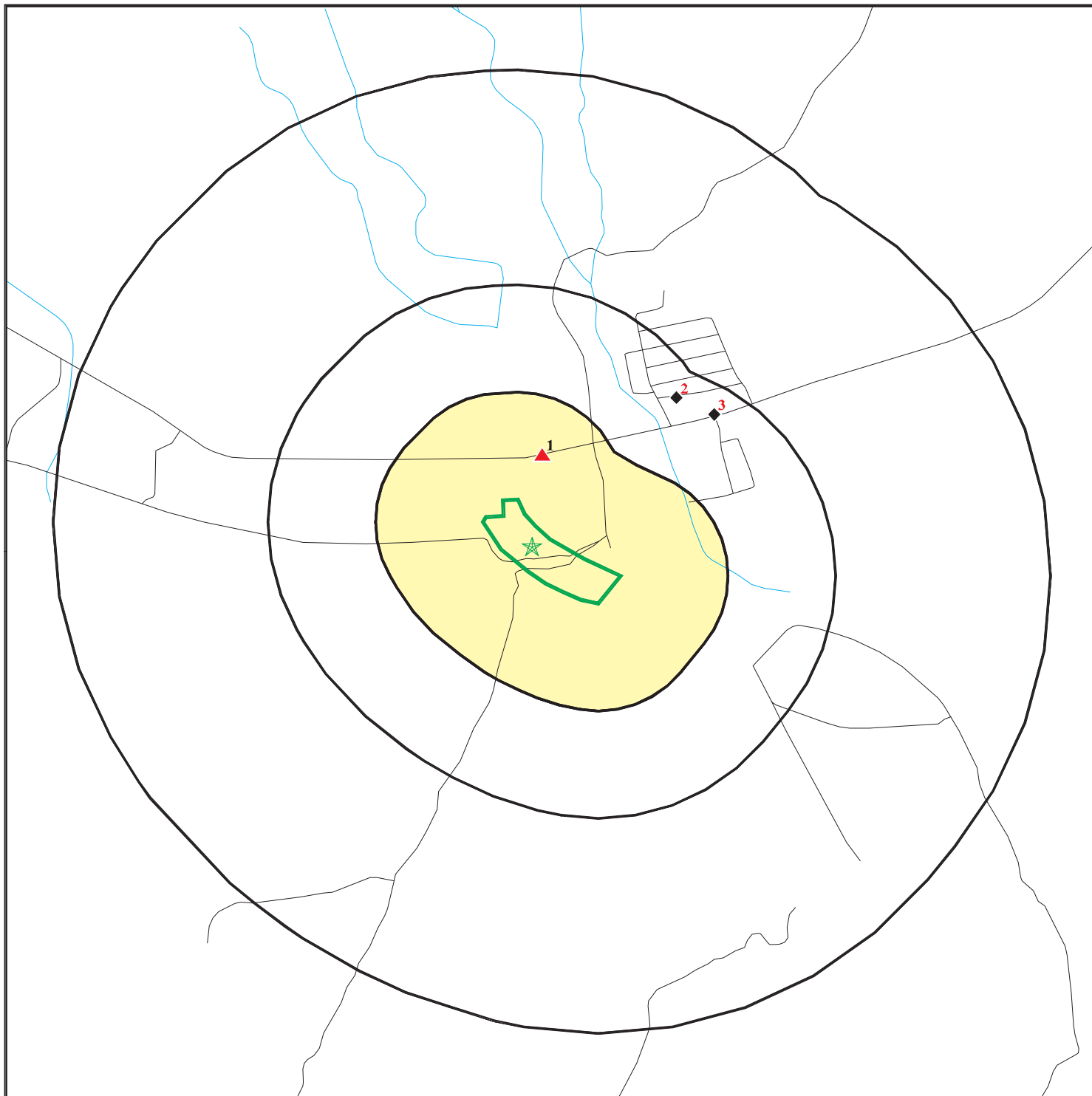
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
RESIDENTIAL PROPERTY	95-5579 OPUKEA ST	NE 1/4 - 1/2 (0.432 mi.)	2	8







EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 9 records.

<u>Site Name</u>	<u>Database(s)</u>
KAALAIKI INDUSTRIAL LOTS B AND C	SHWS, ENG CONTROLS, INST CONTROL
KAALAIKI INDUSTRIAL LOTS B-D	SHWS
KAALAIKI INDUSTRIAL LOT D	SHWS
HUTCHINSON SUGAR PLANTATION COMPAN	SHWS
HUTCHINSON SUGAR PLANTATION COMPAN	SHWS
KAU AGRIBUSINESS HUTCHINSON SUGAR	SHWS
WAIOHINU LANDFILL	SHWS
WAIOHINU LDFL	SEMS-ARCHIVE
AT&T WIRELESS NAALEHU	FINDS, ECHO

OVERVIEW MAP - 5425643.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites



 Indian Reservations BIA

 Upgradient Area

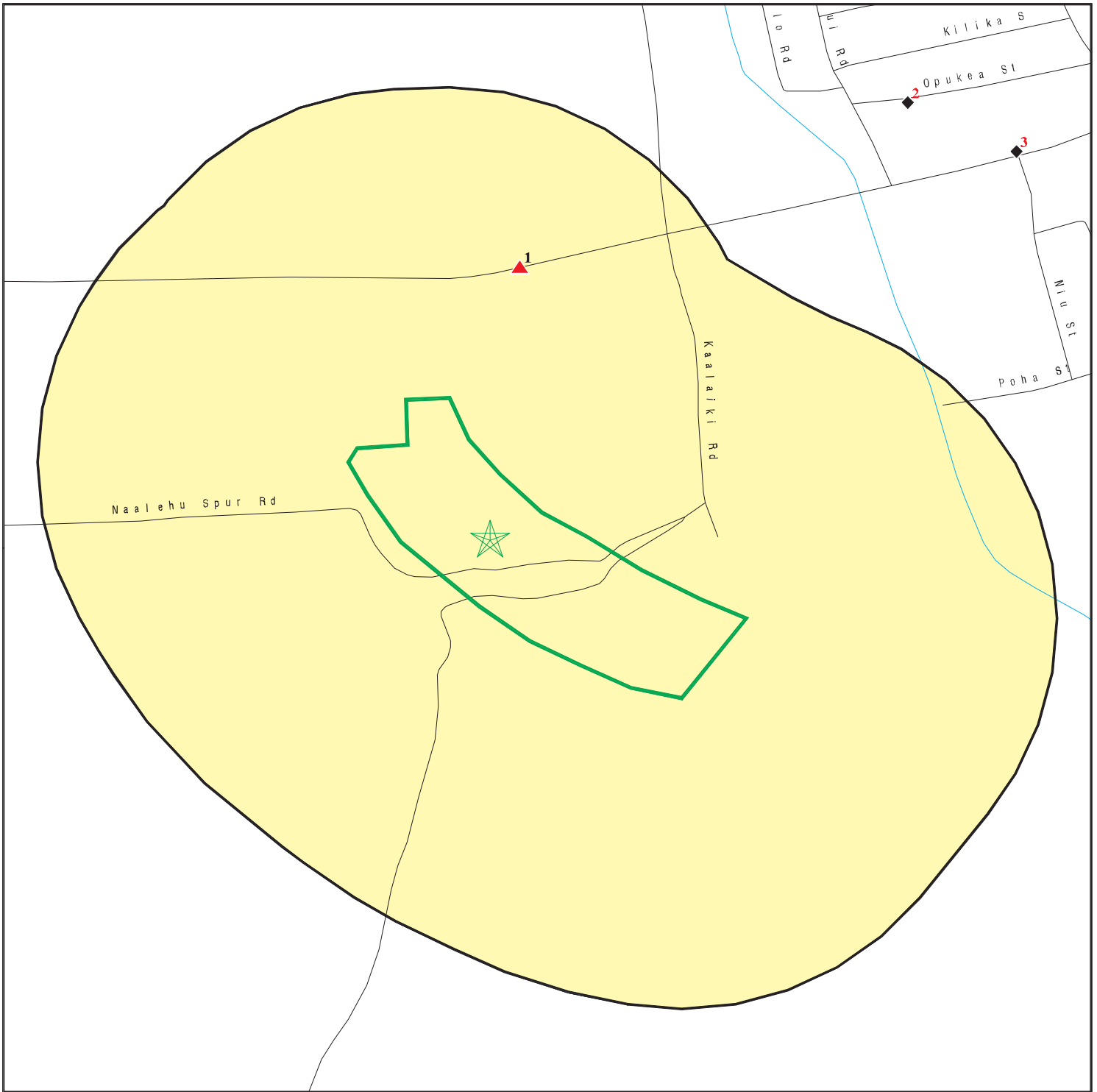









This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu HI 96772
 LAT/LONG: 19.057083 / 155.588474

CLIENT: Brown & Caldwell
 CONTACT: Caitlin Shannon
 INQUIRY #: 5425643.2s
 DATE: September 17, 2018 8:50 am

DETAIL MAP - 5425643.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites



 Indian Reservations BIA



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu HI 96772
 LAT/LONG: 19.057083 / 155.588474

CLIENT: Brown & Caldwell
 CONTACT: Caitlin Shannon
 INQUIRY #: 5425643.2s
 DATE: September 17, 2018 8:50 am

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	0.001		0	NR	NR	NR	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
SHWS	1.000		0	0	2	0	NR	2
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	0	1	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
<i>State and tribal registered storage tank lists</i>								
FEMA UST	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
UST	0.250		1	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	1	NR	NR	1
INST CONTROL	0.500		0	0	1	NR	NR	1
State and tribal voluntary cleanup sites								
VCP	0.500		0	0	0	NR	NR	0
INDIAN VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	1	NR	NR	1
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
US CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Search Distance (Miles)</u>	<u>Target Property</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
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NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

1 North < 1/8 0.120 mi. 633 ft.	NAALEHU CENTRAL OFFICE 95-5670 MAMALAHOA HIGHWAY NAALEHU, HI 96772	UST Financial Assurance	U003541918 N/A
--	---	--	---------------------------------

Relative:	UST:		
Higher	Facility ID:	9-600589	
Actual:	Owner:	Hawaiian Telcom	
699 ft.	Owner Address:	1177 Bishop Street, Suite 20	
	Owner City,St,Zip:	Naalehu, 96772 96772	
	Latitude:	19.060510	
	Longitude:	-155.587620	
	Horizontal Reference Datum Name:	NAD83	
	Horizontal Collection Method Name:	GPS	

Tank ID:	M-1
Date Installed:	12/01/1991
Tank Status:	Currently In Use
Date Closed:	Not reported
Tank Capacity:	550
Substance:	Diesel

Tank ID:	R-1
Date Installed:	05/07/1968
Tank Status:	Permanently Out of Use
Date Closed:	12/10/1991
Tank Capacity:	225
Substance:	Diesel

HI Financial Assurance:

Alt Facility ID:	9-600589
Tank Id:	M-1
Tank Status:	Currently In Use
FRTYPE:	Insurance
Expiration Date:	05/02/2015

Alt Facility ID:	9-600589
Tank Id:	R-1
Tank Status:	Permanently Out of Use
FRTYPE:	Insurance
Expiration Date:	05/02/2015

2 NE 1/4-1/2 0.432 mi. 2280 ft.	RESIDENTIAL PROPERTY 95-5579 OPUKEA STREET 95-5579 OPUKEA ST NAALEHU, HI 96772	SHWS BROWNFIELDS	S110061799 N/A
--	---	-----------------------------------	---------------------------------

Relative:	SHWS:		
Lower	Organization:	Not reported	
Actual:	Supplemental Location:	Not reported	
672 ft.	Island:	Hawaii	
	Environmental Interest:	Residential Property 95-5579 Opukea Street	
	HID Number:	Not reported	
	Facility Registry Identifier:	Not reported	
	Lead Agency:	HEER	
	Program:	Brownfields	

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RESIDENTIAL PROPERTY 95-5579 OPUKEA STREET (Continued)

S110061799

Project Manager:	Melody Calisay
Hazard Priority:	NFA
Potential Hazards And Controls:	Hazard Undetermined
Island:	Hawaii
SDAR Environmental Interest Name:	Residential Property 95-5579 Opukea Street
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Potential Hazard And Controls:	Hazard Undetermined
Priority:	NFA
Assessment:	Assessment Ongoing
Response:	Not reported
Nature of Contamination:	Not reported
Nature of Residual Contamination:	Not reported
Use Restrictions:	Undetermined
Engineering Control:	Not reported
Description of Restrictions:	Not reported
Institutional Control:	Not reported
Within Designated Areawide Contamination:	Not reported
Site Closure Type:	None - Phase I Only
Document Date:	10/10/2007
Document Number:	Not reported
Document Subject:	Residential Property 95-5579 Opukea St, Naalehu, HI, TMK 3-9-5-024-010, Lot 174 Phase I ESA Report
Project Manager:	Melody Calisay
Contact Information:	(808) 586-4249 2385 Waimano Home Rd, Pearl City, HI 96782

BROWNFIELDS:

Program:	Brownfields
Supplemental Location:	Not reported
Island:	Hawaii
Zip Suffix:	Not reported

3
NE
1/4-1/2
0.434 mi.
2291 ft.

GETTA MALLICK
95-5572 MAMALAHOA HWY
NAALEHU, HI 96772

SHWS **U004053377**
LUST **N/A**
UST
ENG CONTROLS
INST CONTROL
SPILLS

Relative:
Lower

SHWS:

Actual:
655 ft.

Organization:	Not reported
Supplemental Location:	Not reported
Island:	Hawaii
Environmental Interest:	95-5572 Mamalahoa Highway
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER
Program:	State
Project Manager:	Laura Young
Hazard Priority:	NFA
Potential Hazards And Controls:	Hazard Managed With Controls
Island:	Hawaii
SDAR Environmental Interest Name:	95-5572 Mamalahoa Highway
HID Number:	Not reported
Facility Registry Identifier:	Not reported
Lead Agency:	HEER

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GETTA MALLICK (Continued)

U004053377

Potential Hazard And Controls: Hazard Managed With Controls
Priority: NFA
Assessment: Response Necessary
Response: Response Complete
Nature of Contamination: Found: Lead contaminated soil under concrete slab of former gas station pumps.
Nature of Residual Contamination: Lead in soil at concentrations of 948 and 4,120 mg/kg under concrete. Source unidentified and distribution not fully characterized.
Use Restrictions: Controls Required to Manage Contamination
Engineering Control: Engineering Control Required
Description of Restrictions: Prohibit Any Activity That May Disturb the Integrity of the Capping System
Institutional Control: Government - Hawaii Dept. of Health Letter Issued
Within Designated Areawide Contamination: Not reported
Site Closure Type: No Further Action Letter - Restricted Use
Document Date: 09/12/2006
Document Number: 2006-566-LY
Document Subject: No Further Action Letter for 95-5572 Mamalahoa Hwy
Project Manager: Laura Young
Contact Information: (808) 586-4249 2385 Waimano Home Rd, Pearl City, HI 96782

LUST:

Facility ID: 9-603807
Facility Status: Site Cleanup Completed (NFA)
Facility Status Date: 03/21/2007
Release ID: 060034
Project Officer: Shaobin Li

UST:

Facility ID: 9-603807
Owner: Getta Mallick
Owner Address: 10766 Wilshire Blvd
Owner City,St,Zip: Naalehu, 96772 96772
Latitude: 19.061484
Longitude: -155.582516
Horizontal Reference Datum Name: NAD83
Horizontal Collection Method Name: Address Matching

Tank ID: R-T1
Date Installed: Not reported
Tank Status: Permanently out of Use
Date Closed: 03/27/2006
Tank Capacity: 550
Substance: Kerosene

Tank ID: R-T2
Date Installed: Not reported
Tank Status: Permanently out of Use
Date Closed: 03/28/2006
Tank Capacity: 500
Substance: Gasoline

Tank ID: R-T4
Date Installed: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GETTA MALLICK (Continued)

U004053377

Tank Status:	Permanently out of Use
Date Closed:	03/28/2006
Tank Capacity:	300
Substance:	Gasoline

ENG CONTROLS:

Supplemental Location Text:	Not reported
Zip Suffix:	Not reported
Island:	Hawaii
Potential Hazards And Controls:	Hazard Managed With Controls
Engineering Control:	Engineering Control Required

INST CONTROL:

Potential hazards and controls:	Hazard Managed With Controls
Supplemental Location:	Not reported
Zip Suffix:	Not reported
Island:	Hawaii
Institutional Control:	Government - Hawaii Dept. of Health Letter Issued

HI SPILLS:

Island:	Hawaii
Supplemental Loc. Text:	Not reported
Case Number:	20060815-1518
HID Number:	Not reported
Facility Registry Id:	Not reported
Lead and Program:	HEER EP&R
ER:	Off Scene
Units:	95-5572 Mamalahoa Highway
Substances:	Lead impacted soil
Less Or Greater Than:	Not reported
Numerical Quantity:	Not reported
Units:	Not reported
Activity Type:	Response
Activity Lead:	Curtis Martin
Assignment End Date:	2006-08-09 00:00:00
Result:	Refer to SDAR
File Under:	Geeta Mallik
Latitude:	19.061838000000002
Longitude:	-155.58228299999999

Count: 9 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
NAALEHU	S118422819	KAALAIKI INDUSTRIAL LOTS B-D	95-1178 KAALAIKI RD		SHWS
NAALEHU	S118422818	KAALAIKI INDUSTRIAL LOTS B AND C	95-1178 KAALAIKI RD		SHWS, ENG CONTROLS, INST CONT
NAALEHU	S118422817	KAALAIKI INDUSTRIAL LOT D	95-1178 KAALAIKI RD		SHWS
NAALEHU	S118943688	HUTCHINSON SUGAR PLANTATION COMPAN	KAALAIKI RD	96772	SHWS
NAALEHU	S118422814	HUTCHINSON SUGAR PLANTATION COMPAN	95-1784 KAALAIKI RD	96772	SHWS
NAALEHU	S120822098	KAU AGRIBUSINESS HUTCHINSON SUGAR	MAMALAHOA HIGHWAY	96772	SHWS
NAALEHU	1016446902	AT&T WIRELESS NAALEHU	2.2 MI. S OF NAALEHU ON KAAWAL	96772	FINDS, ECHO
WAOHINU	1003879130	WAOHINU LDFL	HAWAII BELT RD	96772	SEMS-ARCHIVE
WAOHINU	S106821075	WAOHINU LANDFILL	HAWAII BELT RD & KAULIA RD	96772	SHWS

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/17/2018	Source: EPA
Date Data Arrived at EDR: 08/09/2018	Telephone: N/A
Date Made Active in Reports: 09/07/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/17/2018	Source: EPA
Date Data Arrived at EDR: 08/09/2018	Telephone: N/A
Date Made Active in Reports: 09/07/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly known as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 10/29/2018
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/17/2018	Source: EPA
Date Data Arrived at EDR: 08/09/2018	Telephone: 800-424-9346
Date Made Active in Reports: 09/07/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 29	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/01/2018	Source: EPA
Date Data Arrived at EDR: 03/28/2018	Telephone: 800-424-9346
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/14/2018	Source: Department of the Navy
Date Data Arrived at EDR: 05/18/2018	Telephone: 843-820-7326
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/16/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/26/2018
	Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 07/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/28/2018	Telephone: 703-603-0695
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 08/28/2018
Number of Days to Update: 17	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 07/31/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 08/28/2018	Telephone: 703-603-0695
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 08/28/2018
Number of Days to Update: 17	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/18/2018
Date Data Arrived at EDR: 06/27/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

SHWS: Sites List

Facilities, sites or areas in which the Office of Hazard Evaluation and Emergency Response has an interest, has investigated or may investigate under HRS 128D (includes CERCLIS sites).

Date of Government Version: 01/23/2018
Date Data Arrived at EDR: 02/21/2018
Date Made Active in Reports: 02/26/2018
Number of Days to Update: 5

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Semi-Annually

State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Permitted Landfills in the State of Hawaii

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/17/2012
Date Data Arrived at EDR: 04/03/2013
Date Made Active in Reports: 05/10/2013
Number of Days to Update: 37

Source: Department of Health
Telephone: 808-586-4245
Last EDR Contact: 06/29/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Varies

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 03/16/2018
Date Data Arrived at EDR: 03/21/2018
Date Made Active in Reports: 04/10/2018
Number of Days to Update: 20

Source: Department of Health
Telephone: 808-586-4228
Last EDR Contact: 08/31/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Semi-Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/25/2018	Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018	Telephone: 303-312-6271
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-6597
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-8677
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/13/2018	Source: EPA Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/12/2018	Source: EPA, Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-7439
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/10/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3372
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017	Source: FEMA
Date Data Arrived at EDR: 05/30/2017	Telephone: 202-646-5797
Date Made Active in Reports: 10/13/2017	Last EDR Contact: 07/11/2018
Number of Days to Update: 136	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Varies

UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 03/16/2018	Source: Department of Health
Date Data Arrived at EDR: 03/21/2018	Telephone: 808-586-4228
Date Made Active in Reports: 04/10/2018	Last EDR Contact: 08/31/2018
Number of Days to Update: 20	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Semi-Annually

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/01/2018	Source: EPA Region 6
Date Data Arrived at EDR: 05/18/2018	Telephone: 214-665-7591
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 5
Date Data Arrived at EDR: 05/18/2018	Telephone: 312-886-6136
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018	Source: EPA, Region 1
Date Data Arrived at EDR: 05/18/2018	Telephone: 617-918-1313
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 05/08/2018	Source: EPA Region 4
Date Data Arrived at EDR: 05/18/2018	Telephone: 404-562-9424
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/12/2018	Source: EPA Region 10
Date Data Arrived at EDR: 05/18/2018	Telephone: 206-553-2857
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/10/2018	Source: EPA Region 9
Date Data Arrived at EDR: 05/18/2018	Telephone: 415-972-3368
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/25/2018	Source: EPA Region 8
Date Data Arrived at EDR: 05/18/2018	Telephone: 303-312-6137
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/24/2018	Source: EPA Region 7
Date Data Arrived at EDR: 05/18/2018	Telephone: 913-551-7003
Date Made Active in Reports: 07/20/2018	Last EDR Contact: 07/27/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Control Sites

A listing of sites with engineering controls in place.

Date of Government Version: 01/23/2018	Source: Department of Health
Date Data Arrived at EDR: 02/21/2018	Telephone: 404-586-4249
Date Made Active in Reports: 02/26/2018	Last EDR Contact: 08/24/2018
Number of Days to Update: 5	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Varies

INST CONTROL: Sites with Institutional Controls

Voluntary Remediation Program and Brownfields sites with institutional controls in place.

Date of Government Version: 01/23/2018	Source: Department of Health
Date Data Arrived at EDR: 02/21/2018	Telephone: 808-586-4249
Date Made Active in Reports: 02/26/2018	Last EDR Contact: 08/24/2018
Number of Days to Update: 5	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Varies

State and tribal voluntary cleanup sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 06/22/2018
Number of Days to Update: 142	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Varies

VCP: Voluntary Response Program Sites

Sites participating in the Voluntary Response Program. The purpose of the VRP is to streamline the cleanup process in a way that will encourage prospective developers, lenders, and purchasers to voluntarily cleanup properties.

Date of Government Version: 01/23/2018	Source: Department of Health
Date Data Arrived at EDR: 02/21/2018	Telephone: 808-586-4249
Date Made Active in Reports: 02/26/2018	Last EDR Contact: 08/24/2018
Number of Days to Update: 5	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008	Source: EPA, Region 7
Date Data Arrived at EDR: 04/22/2008	Telephone: 913-551-7365
Date Made Active in Reports: 05/19/2008	Last EDR Contact: 04/20/2009
Number of Days to Update: 27	Next Scheduled EDR Contact: 07/20/2009
	Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Sites

With certain legal exclusions and additions, the term 'brownfield site' means real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.

Date of Government Version: 01/23/2018	Source: Department of Health
Date Data Arrived at EDR: 02/21/2018	Telephone: 808-586-4249
Date Made Active in Reports: 02/26/2018	Last EDR Contact: 08/24/2018
Number of Days to Update: 5	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/18/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/20/2018	Telephone: 202-566-2777
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 06/20/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/30/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/17/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Services, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 08/03/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2018
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 86

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/30/2018
Next Scheduled EDR Contact: 09/10/2018
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab Listing

A listing of clandestine drug lab site locations.

Date of Government Version: 08/04/2010
Date Data Arrived at EDR: 09/10/2010
Date Made Active in Reports: 10/22/2010
Number of Days to Update: 42

Source: Department of Health
Telephone: 808-586-4249
Last EDR Contact: 08/27/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/18/2018	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 06/20/2018	Telephone: 202-307-1000
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 08/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Quarterly

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/30/2018	Telephone: 202-564-6023
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 11/05/2018
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/26/2018	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/27/2018	Telephone: 202-366-4555
Date Made Active in Reports: 06/08/2018	Last EDR Contact: 03/27/2018
Number of Days to Update: 73	Next Scheduled EDR Contact: 07/09/2018
	Data Release Frequency: Quarterly

SPILLS: Release Notifications

Releases of hazardous substances to the environment reported to the Office of Hazard Evaluation and Emergency Response since 1988.

Date of Government Version: 08/14/2018	Source: Department of Health
Date Data Arrived at EDR: 08/21/2018	Telephone: 808-586-4249
Date Made Active in Reports: 09/11/2018	Last EDR Contact: 08/21/2018
Number of Days to Update: 21	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Varies

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 03/10/2012	Source: FirstSearch
Date Data Arrived at EDR: 01/03/2013	Telephone: N/A
Date Made Active in Reports: 02/11/2013	Last EDR Contact: 01/03/2013
Number of Days to Update: 39	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Other Ascertainable Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/01/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/28/2018	Telephone: (415) 495-8895
Date Made Active in Reports: 06/22/2018	Last EDR Contact: 06/28/2018
Number of Days to Update: 86	Next Scheduled EDR Contact: 10/08/2018
	Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 07/08/2015	Telephone: 202-528-4285
Date Made Active in Reports: 10/13/2015	Last EDR Contact: 08/24/2018
Number of Days to Update: 97	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/11/2018
Number of Days to Update: 62	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005	Source: U.S. Geological Survey
Date Data Arrived at EDR: 02/06/2006	Telephone: 888-275-8747
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 07/13/2018
Number of Days to Update: 339	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/03/2017	Telephone: 615-532-8599
Date Made Active in Reports: 04/07/2017	Last EDR Contact: 08/17/2018
Number of Days to Update: 63	Next Scheduled EDR Contact: 11/26/2018
	Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/01/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 06/27/2018
Next Scheduled EDR Contact: 10/08/2018
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/03/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/22/2018
Next Scheduled EDR Contact: 10/01/2018
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 05/13/2018
Date Data Arrived at EDR: 05/30/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 30

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 09/07/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/01/2018
Date Data Arrived at EDR: 05/17/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 113

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/20/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/13/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 07/09/2018
Next Scheduled EDR Contact: 10/22/2018
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/23/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/07/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 09/04/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 07/27/2018
Next Scheduled EDR Contact: 11/05/2018
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/03/2018
Date Data Arrived at EDR: 04/05/2018
Date Made Active in Reports: 06/29/2018
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/05/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transportation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/09/2018
Next Scheduled EDR Contact: 11/12/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 03/31/2018	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 04/16/2018	Telephone: Varies
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 07/09/2018
Number of Days to Update: 74	Next Scheduled EDR Contact: 10/01/2018
	Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015	Source: EPA/NTIS
Date Data Arrived at EDR: 02/22/2017	Telephone: 800-424-9346
Date Made Active in Reports: 09/28/2017	Last EDR Contact: 08/24/2018
Number of Days to Update: 218	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 07/11/2018
Number of Days to Update: 546	Next Scheduled EDR Contact: 10/22/2018
	Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017	Source: Department of Energy
Date Data Arrived at EDR: 09/11/2018	Telephone: 202-586-3559
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 09/11/2018
Number of Days to Update: 3	Next Scheduled EDR Contact: 11/19/2018
	Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 06/23/2017	Source: Department of Energy
Date Data Arrived at EDR: 10/11/2017	Telephone: 505-845-0011
Date Made Active in Reports: 11/03/2017	Last EDR Contact: 08/20/2018
Number of Days to Update: 23	Next Scheduled EDR Contact: 12/03/2018
	Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 05/13/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 05/30/2018	Telephone: 703-603-8787
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 08/09/2018
Number of Days to Update: 30	Next Scheduled EDR Contact: 10/15/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001	Source: American Journal of Public Health
Date Data Arrived at EDR: 10/27/2010	Telephone: 703-305-6451
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/02/2009
Number of Days to Update: 36	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 100	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016	Source: EPA
Date Data Arrived at EDR: 10/26/2016	Telephone: 202-564-2496
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 09/26/2017
Number of Days to Update: 100	Next Scheduled EDR Contact: 01/08/2018
	Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/03/2018	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 05/31/2018	Telephone: 303-231-5959
Date Made Active in Reports: 06/29/2018	Last EDR Contact: 08/29/2018
Number of Days to Update: 29	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005	Source: USGS
Date Data Arrived at EDR: 02/29/2008	Telephone: 703-648-7709
Date Made Active in Reports: 04/18/2008	Last EDR Contact: 08/31/2018
Number of Days to Update: 49	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011	Source: USGS
Date Data Arrived at EDR: 06/08/2011	Telephone: 703-648-7709
Date Made Active in Reports: 09/13/2011	Last EDR Contact: 08/31/2018
Number of Days to Update: 97	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018	Source: Department of Interior
Date Data Arrived at EDR: 09/11/2018	Telephone: 202-208-2609
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 09/10/2018
Number of Days to Update: 3	Next Scheduled EDR Contact: 12/24/2018
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/21/2018	Source: EPA
Date Data Arrived at EDR: 02/23/2018	Telephone: (415) 947-8000
Date Made Active in Reports: 03/23/2018	Last EDR Contact: 09/05/2018
Number of Days to Update: 28	Next Scheduled EDR Contact: 12/17/2018
	Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 01/04/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/19/2018	Telephone: 202-564-0527
Date Made Active in Reports: 04/13/2018	Last EDR Contact: 08/31/2018
Number of Days to Update: 84	Next Scheduled EDR Contact: 12/10/2018
	Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2017	Source: Department of Defense
Date Data Arrived at EDR: 06/19/2018	Telephone: 703-704-1564
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 07/13/2018
Number of Days to Update: 87	Next Scheduled EDR Contact: 10/29/2018
	Data Release Frequency: Varies

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/05/2018	Telephone: 202-564-2280
Date Made Active in Reports: 09/14/2018	Last EDR Contact: 09/05/2018
Number of Days to Update: 9	Next Scheduled EDR Contact: 12/17/2018
	Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/21/2018
Date Data Arrived at EDR: 05/23/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 107

Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/22/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Quarterly

AIRS: List of Permitted Facilities

A listing of permitted facilities in the state.

Date of Government Version: 08/02/2018
Date Data Arrived at EDR: 08/06/2018
Date Made Active in Reports: 09/11/2018
Number of Days to Update: 36

Source: Department of Health
Telephone: 808-586-4200
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

DRYCLEANERS: Permitted Drycleaner Facility Listing

A listing of permitted drycleaner facilities in the state.

Date of Government Version: 08/02/2018
Date Data Arrived at EDR: 08/06/2018
Date Made Active in Reports: 09/11/2018
Number of Days to Update: 36

Source: Department of Health
Telephone: 808-586-4200
Last EDR Contact: 07/11/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

Financial Assurance: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 06/07/2018
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 07/30/2018
Number of Days to Update: 48

Source: Department of Health
Telephone: 808-586-4226
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Varies

LEAD: Lead Inspection Listing

Lead inspections

Date of Government Version: 06/07/2018
Date Data Arrived at EDR: 06/12/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 29

Source: Department of Health
Telephone: 808-586-5800
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Varies

UIC: Underground Injection Wells Listing

A listing of underground injection well locations.

Date of Government Version: 02/07/2013
Date Data Arrived at EDR: 02/12/2013
Date Made Active in Reports: 04/09/2013
Number of Days to Update: 56

Source: Department of Health
Telephone: 808-586-4258
Last EDR Contact: 08/27/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/08/2014
Number of Days to Update: 191

Source: Department of Health
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/17/2014
Number of Days to Update: 200

Source: Department of Health
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Health in Hawaii.

Date of Government Version: N/A

Date Data Arrived at EDR: 07/01/2013

Date Made Active in Reports: 01/03/2014

Number of Days to Update: 186

Source: Department of Health

Telephone: N/A

Last EDR Contact: 06/01/2012

Next Scheduled EDR Contact: N/A

Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Office of Planning

Telephone: 808-587-2895

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

NAALEHU WWTP
NAALEHU SPUR ROAD
NAALEHU, HI 96772

TARGET PROPERTY COORDINATES

Latitude (North):	19.057083 - 19° 3' 25.50"
Longitude (West):	155.588474 - 155° 35' 18.51"
Universal Tranverse Mercator:	Zone 5
UTM X (Meters):	227579.0
UTM Y (Meters):	2109027.5
Elevation:	688 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5949274 NAALEHU, HI
Version Date:	2013

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

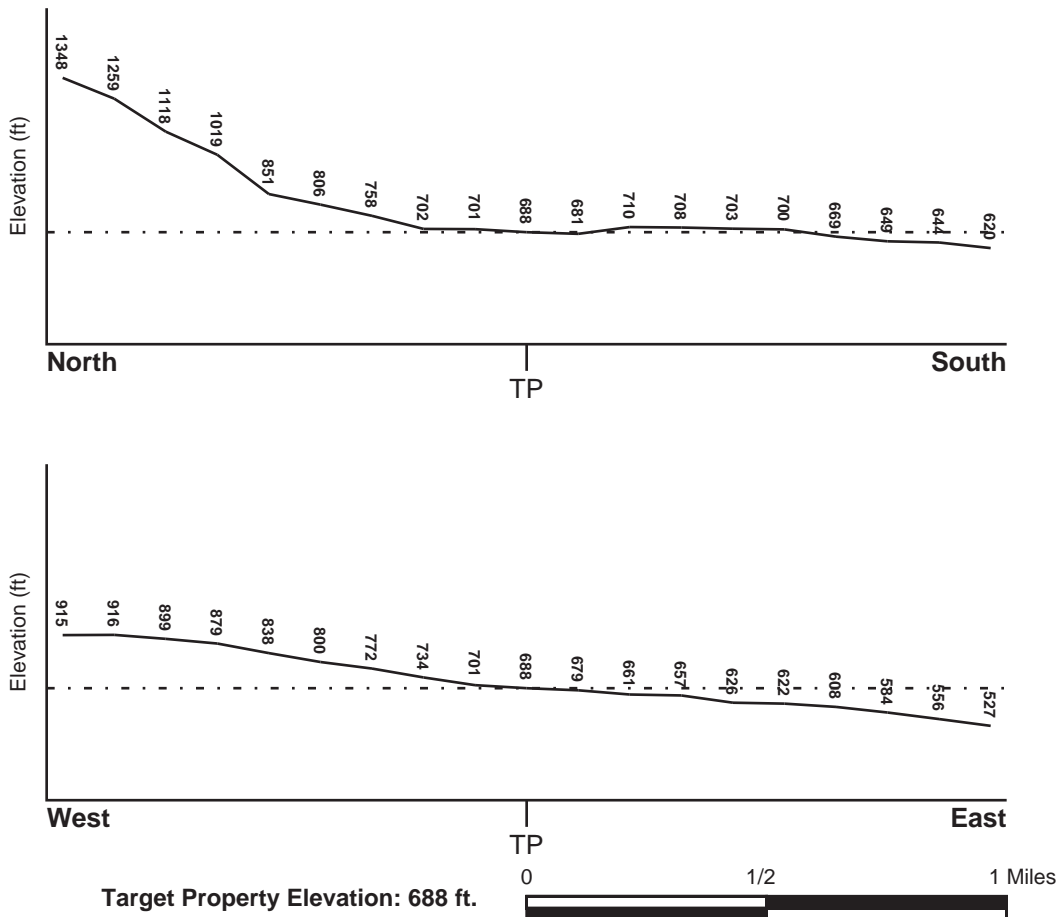
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property FEMA Source Type

Not Reported

Additional Panels in search area: FEMA Source Type

Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property
NAALEHU

NWI Electronic
Data Coverage
YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

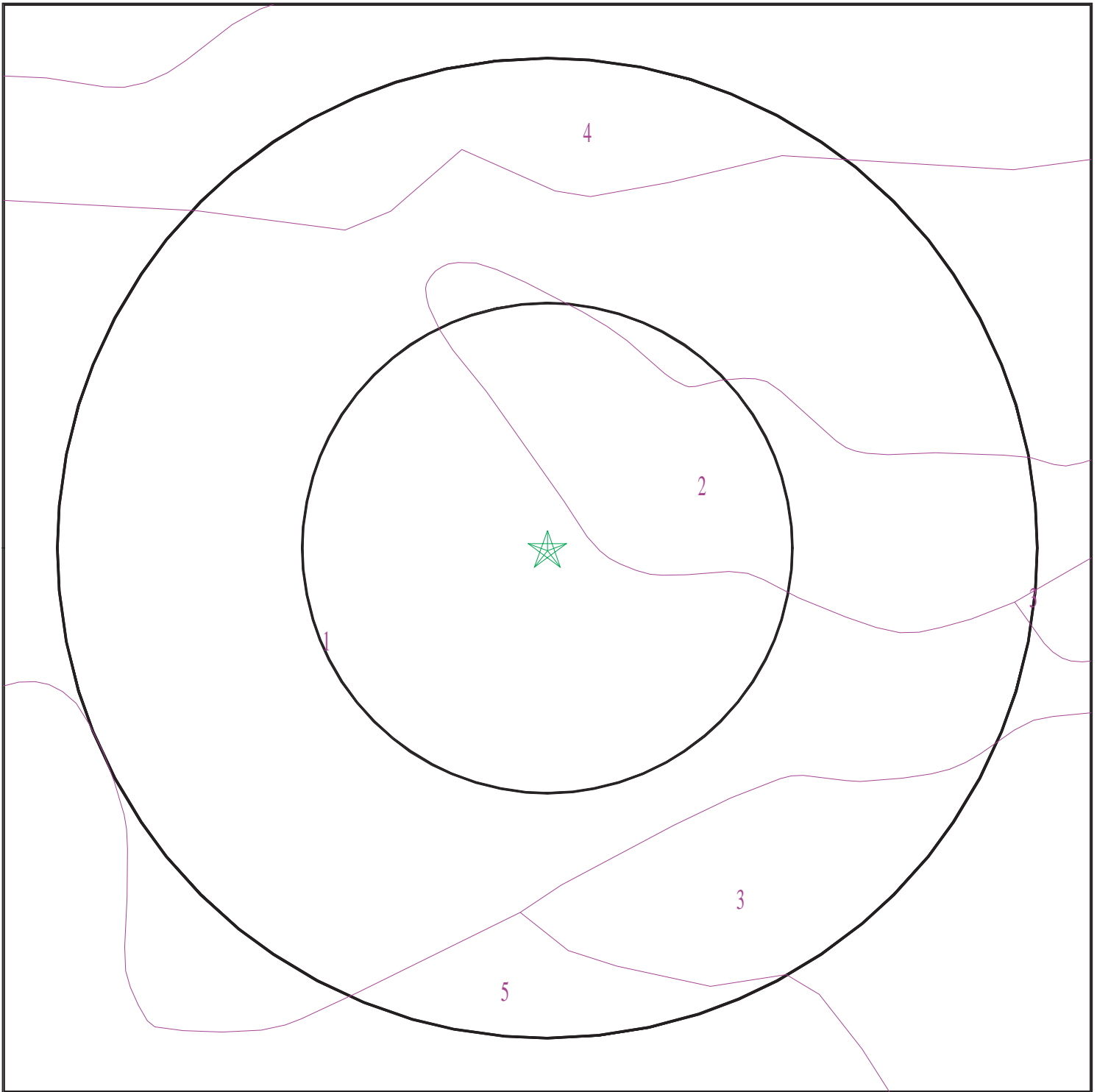
Era: -
System: -
Series: -
Code: N/A (*decoded above as Era, System & Series*)

GEOLOGIC AGE IDENTIFICATION

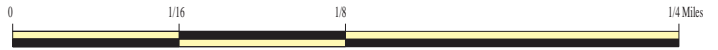
Category: -

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

SSURGO SOIL MAP - 5425643.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Naalehu WWTP
ADDRESS: Naalehu Spur Road
Naalehu HI 96772
LAT/LONG: 19.057083 / 155.588474

CLIENT: Brown & Caldwell
CONTACT: Caitlin Shannon
INQUIRY #: 5425643.2s
DATE: September 17, 2018 8:51 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Punaluu

Soil Surface Texture: peat

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	3 inches	peat	A-8	Not reported	Max: 0.42 Min: 0.02	Max: Min:
2	3 inches	14 inches	bedrock	A-8	Not reported	Max: 0.42 Min: 0.02	Max: Min:

Soil Map ID: 2

Soil Component Name: Kaimu

Soil Surface Texture: extremely stony peat

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 76 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	3 inches	extremely stony peat	A-8	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 700 Min: 141.14	Max: Min:
2	3 inches	59 inches	extremely cobbly material	A-8	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 700 Min: 141.14	Max: Min:

Soil Map ID: 3

Soil Component Name: Rock land

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 18 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	7 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0.02	Max: Min:
2	7 inches	14 inches	bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: 0.42 Min: 0.02	Max: Min:

Soil Map ID: 4

Soil Component Name: Naalehu

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	20 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 14.11 Min: 5	Max: 7.3 Min: 5.6

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
2	20 inches	64 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 14.11 Min: 5	Max: 7.3 Min: 5.6

Soil Map ID: 5

Soil Component Name: Lava flows, pahoehoe

Soil Surface Texture: bedrock

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	bedrock	Not reported	Not reported	Max: 1.42 Min: 0.42	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	USGS40000268371	1/4 - 1/2 Mile NW

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

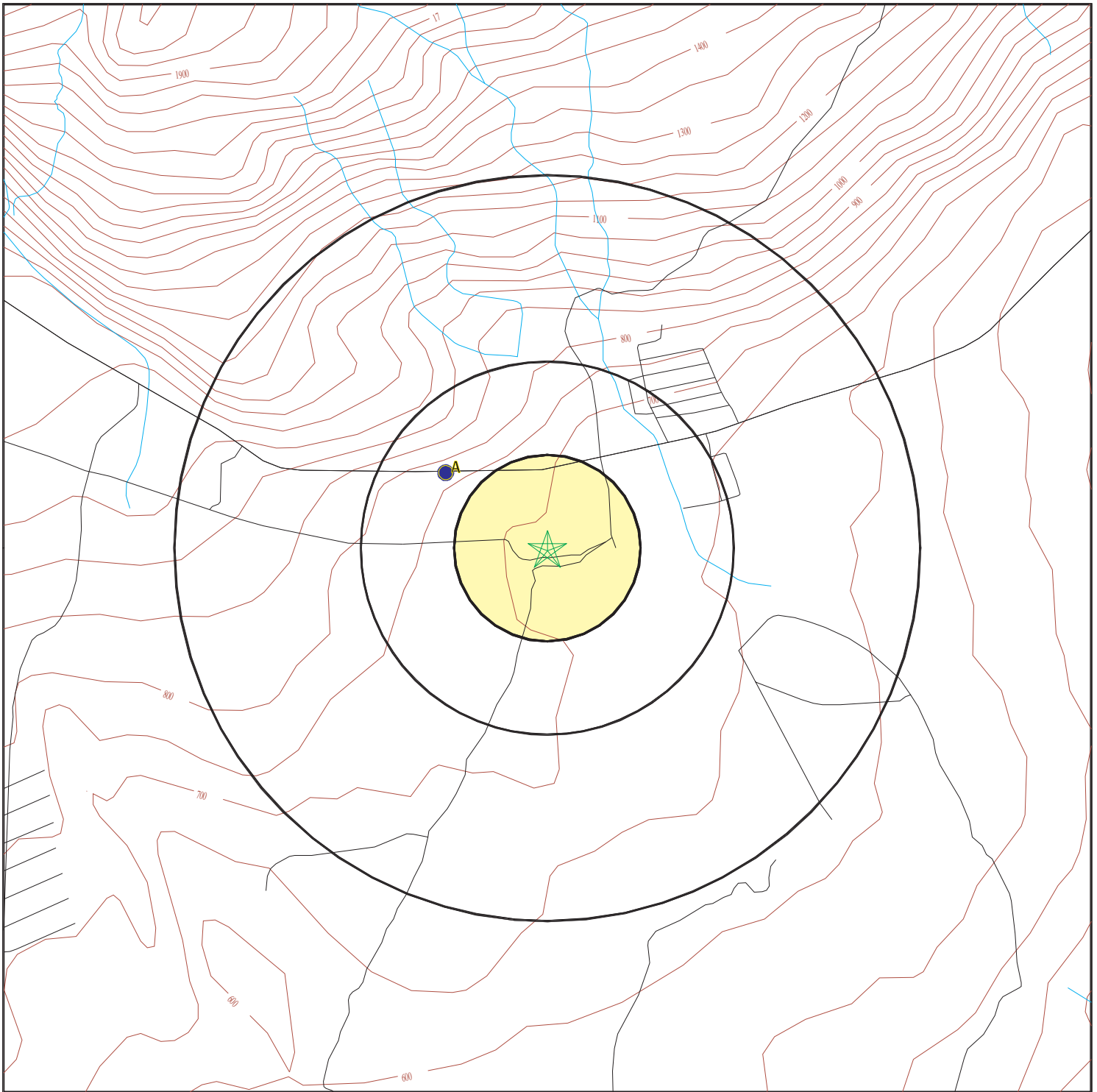
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A2	HI1100000003806	1/4 - 1/2 Mile NW

PHYSICAL SETTING SOURCE MAP - 5425643.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons



- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location



SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu HI 96772
 LAT/LONG: 19.057083 / 155.588474

CLIENT: Brown & Caldwell
 CONTACT: Caitlin Shannon
 INQUIRY #: 5425643.2s
 DATE: September 17, 2018 8:50 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A1
NW
1/4 - 1/2 Mile
Higher

FED USGS USGS40000268371

Organization ID:	USGS-HI	Organization Name:	USGS Hawaii Water Science Center
Monitor Location:	8-0335-01 Naalehu, HI	Type:	Well
Description:	former local no. W1	HUC:	20010000
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Hawaii volcanic-rock aquifers	Aquifer Type:	Not Reported
Formation Type:	Not Reported	Well Depth:	896
Construction Date:	19710501	Well Hole Depth:	896
Well Depth Units:	ft		
Well Hole Depth Units:	ft		

A2
NW
1/4 - 1/2 Mile
Higher

HI WELLS HI1100000003806

Well ID:	8-0335-001	Well Name:	Naalehu Deepwell
Well Owner:	Department of Water Supply Hawaii - Hilo, HDWS		
Land Owner:	Department of Water Supply Hawaii - Hilo, HDWS		
Pump Rate (g/m):	375	Year Drilled:	1971
Original Well Name:	Naalehu	Driller:	Roscoe Moss Hawaii Inc
Well Construction Type:	Percussion	Casing Diameter (in):	12
Ground Elevation (ft):	748	Well Depth (ft):	896
Solid Casing Depth:	750	Perforated Casing Depth:	790
Major Well Use:	County	Initial Water Level (ft):	10
Water Level After Drilling:	Not Reported	Water Level After Install:	Not Reported
Chloride Content (mg/L):	11	Date Tested:	Not Reported
Test Pump Rate (g/m):	250	Test Drawdown Rate (ft):	15.2
Test Chloride Content (MG/L):	11	Test Water Temp:	19.4
Temp Unit:	C	Max Chloride Level:	Not Reported
Minimum Chloride Level:	Not Reported	Draft Year:	Not Reported
Hole Bottom Elevation:	-148	Solid Casing Bottom Elevation:	-2
Year Installed:	1998	Pump Capacity (MM gal/day):	0.54
Pump Intake Depth:	772	Latest Head:	Not Reported
Latest WCR1 Report:	1/1/1971	Latest WCR2 Report:	2/23/1999
Transmissivity:	Not Reported	Min to pump 5 volumes:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

Federal EPA Radon Zone for HAWAII County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level \geq 2 pCi/L and \leq 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 96772

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory

Source: Office of Planning

Telephone: 808-587-2895

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

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

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Well Index Database

Source: Commission on Water Resource Management

Telephone: 808-587-0214

CWRM maintains a Well Index Database to track specific information pertaining to the construction and installation of production wells in Hawaii

OTHER STATE DATABASE INFORMATION

RADON

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

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Appendix D: Historical Research Documentation



Naalehu WWTP

Naalehu Spur Road

Naalehu, HI 96772

Inquiry Number: 5425643.8

September 17, 2018

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

09/17/18

Site Name:

Naalehu WWTP
Naalehu Spur Road
Naalehu, HI 96772
EDR Inquiry # 5425643.8

Client Name:

Brown & Caldwell
220 Athens Way Suite 500
Nashville, TN 37228
Contact: Caitlin Shannon



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2001	1"=500'	Acquisition Date: April 27, 2001	USGS/DOQQ
1992	1"=500'	Flight Date: September 23, 1992	USGS
1985	1"=500'	Flight Date: November 02, 1985	USGS
1978	1"=500'	Flight Date: January 19, 1978	USGS
1974	1"=500'	Flight Date: October 19, 1974	USGS
1954	1"=500'	Flight Date: June 10, 1954	USGS

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INQUIRY #: 5425643.8

YEAR: 2001

— = 500'








INQUIRY #: 5425643.8

YEAR: 1985

↑ N

— = 500'

 CEDR



INQUIRY # 5425643.8

YEAR: 1978

 = 500'







INQUIRY #: 5425643.8

YEAR: 1954

 = 500'



Subject boundary not shown because it exceeds image extent or image is not georeferenced.

Naalehu WWTP
Naalehu Spur Road
Naalehu, HI 96772

Inquiry Number: 5425643.4

September 17, 2018

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

09/17/18

Site Name:

Naalehu WWTP
Naalehu Spur Road
Naalehu, HI 96772
EDR Inquiry # 5425643.4

Client Name:

Brown & Caldwell
220 Athens Way Suite 500
Nashville, TN 37228
Contact: Caitlin Shannon



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Brown & Caldwell were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	NA	Latitude:	19.057083 19° 3' 25" North
Project:	Naalehu WWTP	Longitude:	-155.588474 -155° 35' 19" West
		UTM Zone:	Zone 5 North
		UTM X Meters:	227583.02
		UTM Y Meters:	2109153.74
		Elevation:	688.02' above sea level

Maps Provided:

2013
1995
1981
1962
1924
1921

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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2013 Source Sheets



Naalehu

7.5-minute, 24000

1995 Source Sheets



Naalehu

7.5-minute, 24000
Aerial Photo Revised 1995

1981 Source Sheets



Naalehu

7.5-minute, 24000
Aerial Photo Revised 1977

1962 Source Sheets



Naalehu

7.5-minute, 24000
Aerial Photo Revised 1954

Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1924 Source Sheets



Honuapo

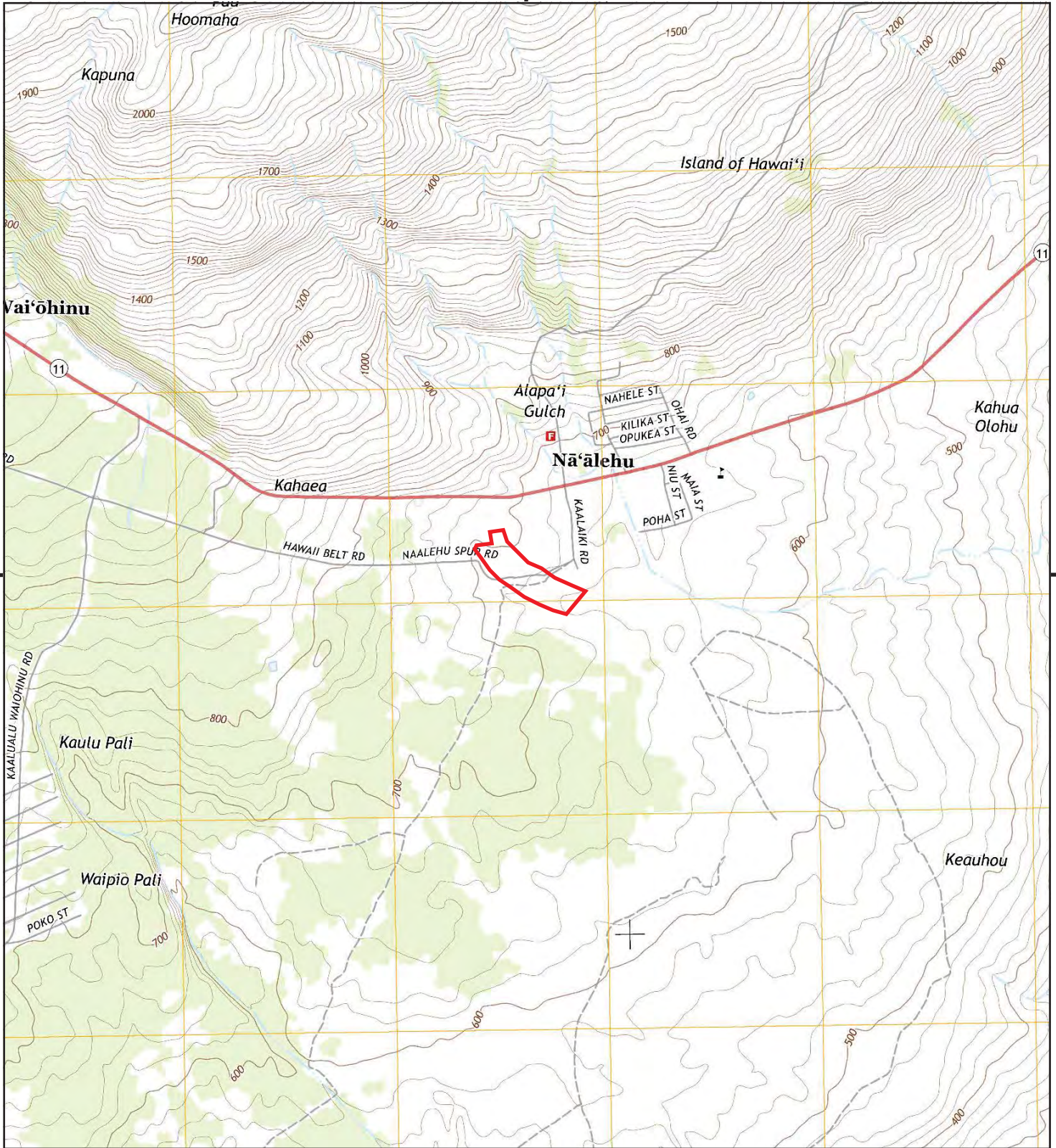
15-minute, 62500

1921 Source Sheets

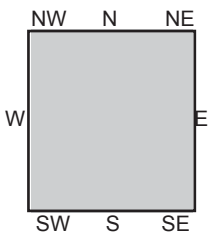
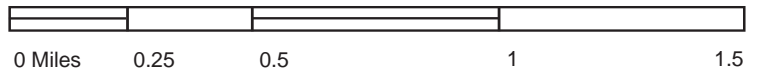


NAALEHU

7.5-minute, 31680



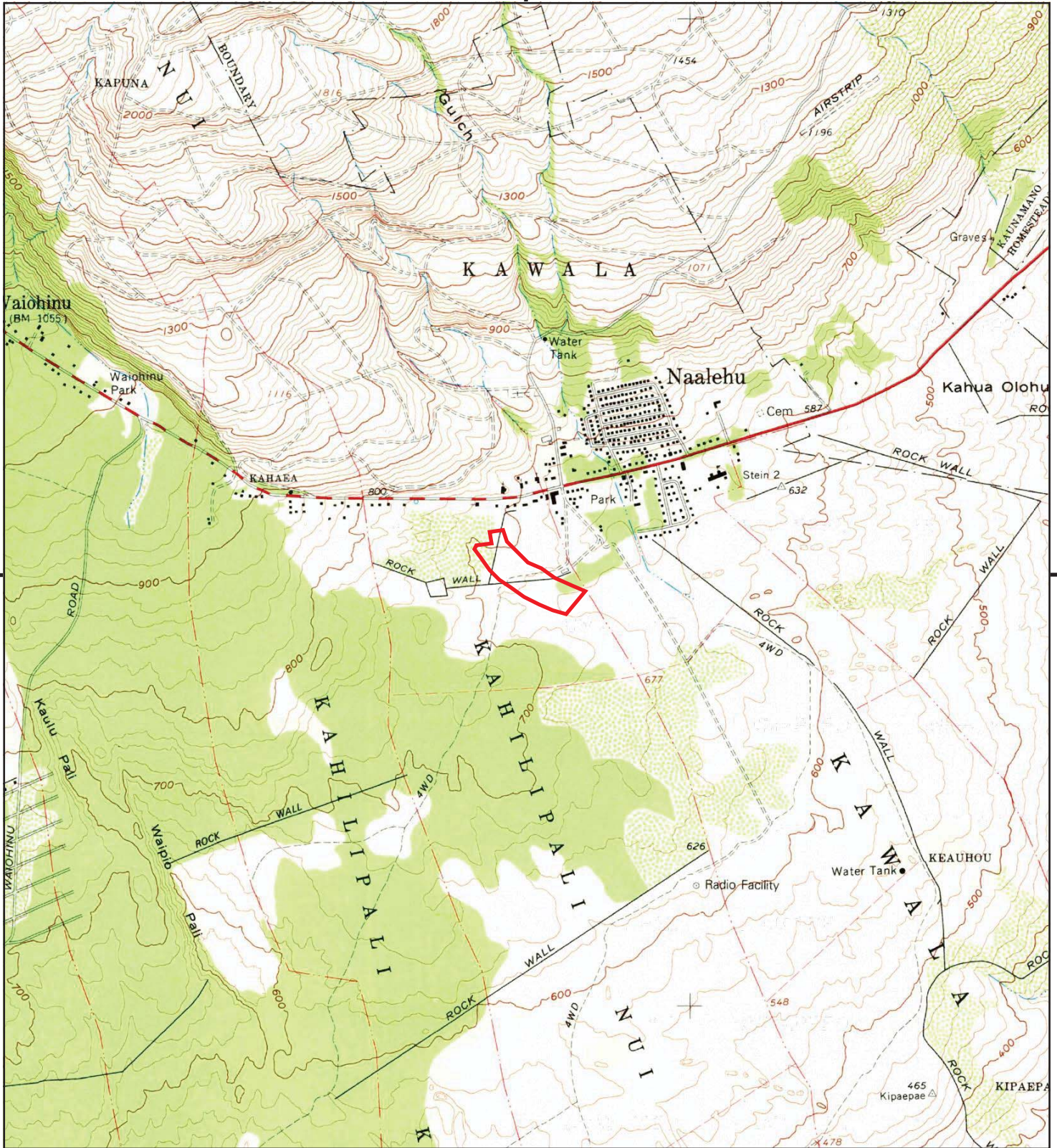
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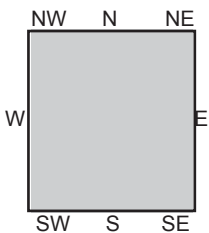
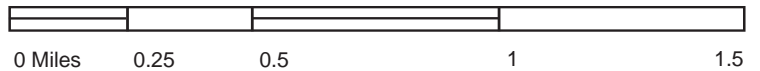
TP, Naalehu, 2013, 7.5-minute

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu, HI 96772
 CLIENT: Brown & Caldwell





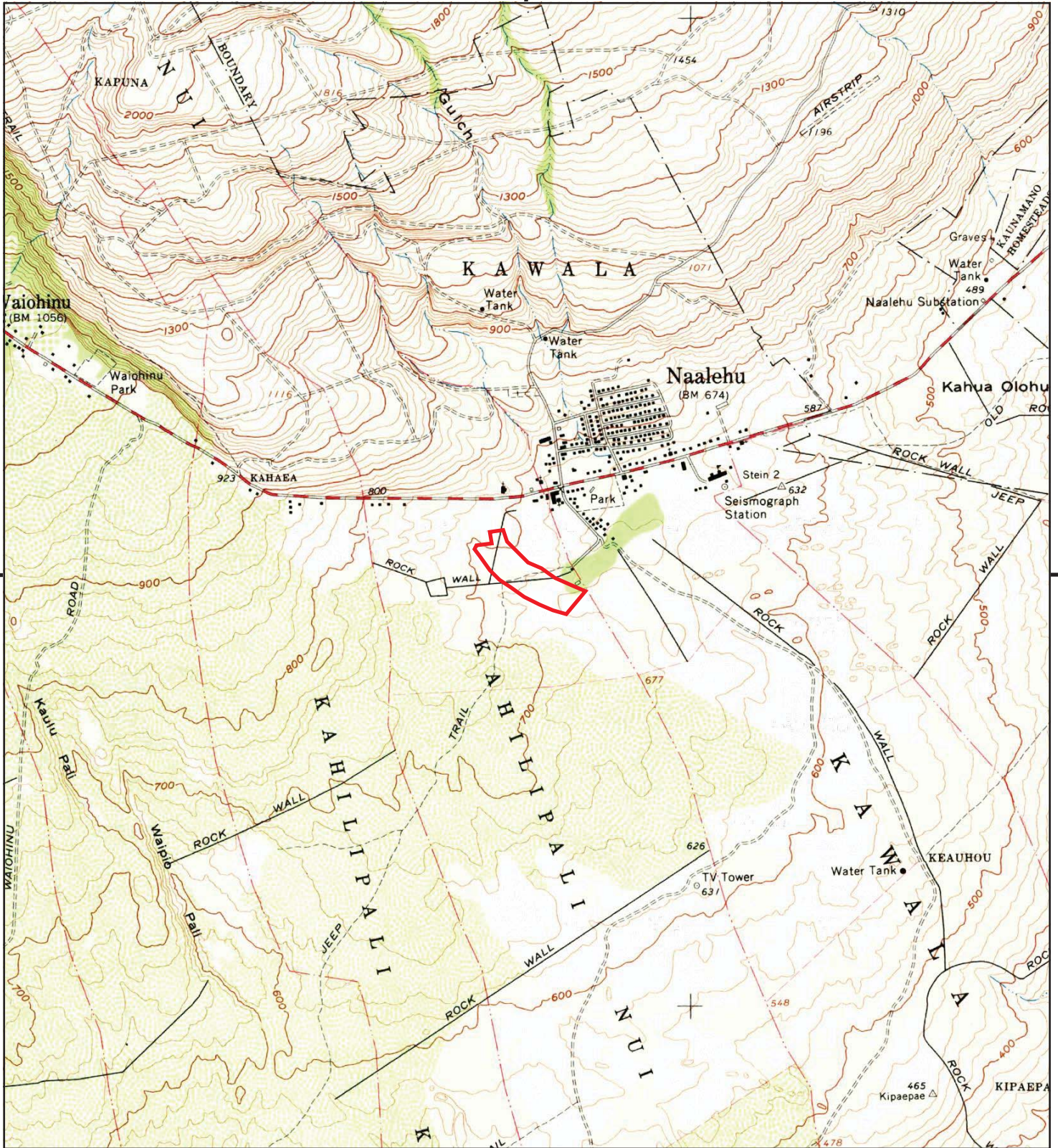
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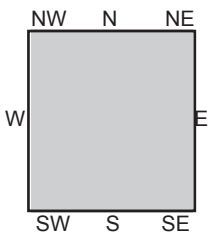
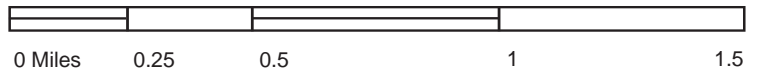
TP, Naalehu, 1981, 7.5-minute

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu, HI 96772
 CLIENT: Brown & Caldwell





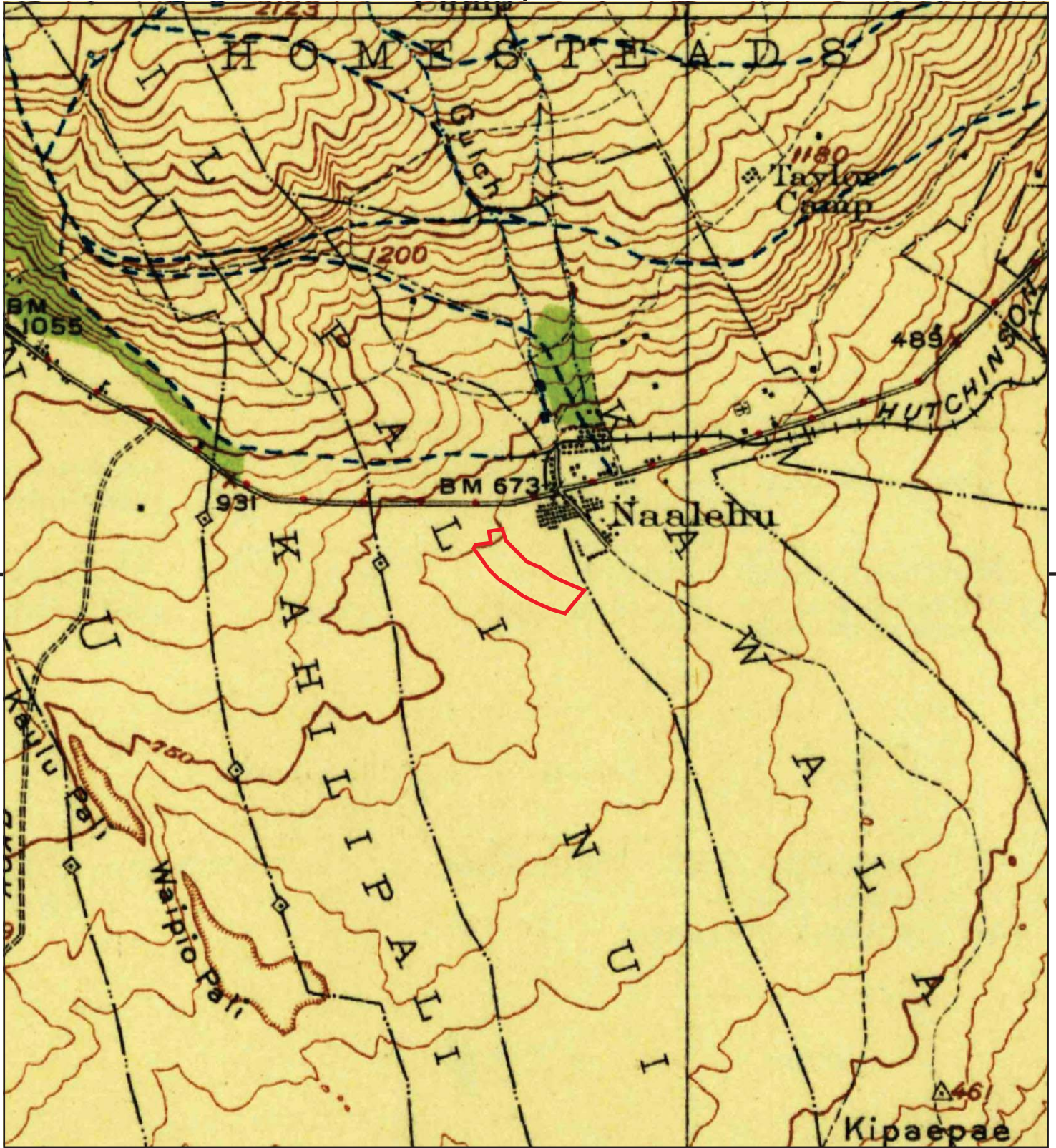
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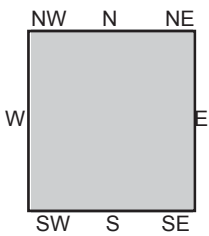
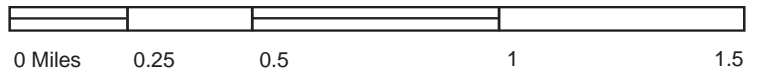
TP, Naalehu, 1962, 7.5-minute

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu, HI 96772
 CLIENT: Brown & Caldwell





This report includes information from the following map sheet(s).



TP, Honuapo, 1924, 15-minute

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu, HI 96772
 CLIENT: Brown & Caldwell



Naalehu WWTP

Naalehu Spur Road
Naalehu, HI 96772

Inquiry Number: 5425643.5
September 18, 2018

The EDR-City Directory Image Report

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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Data by

infoUSA[®]

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2010	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
2000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1995	<input type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive
1992	<input type="checkbox"/>	<input type="checkbox"/>	EDR Digital Archive

FINDINGS

TARGET PROPERTY STREET

Naalehu Spur Road
Naalehu, HI 96772

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

1145 NAALEHU SPUR RD

2014	pg A1	EDR Digital Archive
2010	pg A4	EDR Digital Archive
2005	pg A6	EDR Digital Archive

1148 NAALEHU SPUR RD

2005	pg A7	EDR Digital Archive
2000	pg A8	EDR Digital Archive

NAALEHU SPUR ROAD

2014	-	EDR Digital Archive	Street not listed in Source
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>
-------------	-----------------	---------------

5484 HAWAII BELT RD

2014	pg. A2	EDR Digital Archive
------	--------	---------------------

HAWAII BELT RD

2014	pg. A3	EDR Digital Archive	
2010	pg. A5	EDR Digital Archive	
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source

City Directory Images

1145 NAALEHU SPUR RD

2014

95

PACIFIC HORIZONS PROPERTIES

5484 HAWAII BELT RD

2014

95

KA U GROW LAB LLC

HAWAII BELT RD

2014

954927 KA, OHANA

1145 NAALEHU SPUR RD

2010

95

PACIFIC HORIZONS PROPERTIES

HAWAII BELT RD

2010

954927 KA, OHANA



-

1145 NAALEHU SPUR RD

2005

95

PACIFIC HORIZONS PROPERTIES



-

1148 NAALEHU SPUR RD

2005

95

HANAHOU COFFEE



-

1148 NAALEHU SPUR RD

2000

95

NAALEHU COFFEE SHOP

Naalehu WWTP
Naalehu Spur Road
Naalehu, HI 96772

Inquiry Number: 5425643.3

September 17, 2018

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

09/17/18

Site Name:

Naalehu WWTP
Naalehu Spur Road
Naalehu, HI 96772
EDR Inquiry # 5425643.3

Client Name:

Brown & Caldwell
220 Athens Way Suite 500
Nashville, TN 37228
Contact: Caitlin Shannon



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Brown & Caldwell were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # BCD4-4B96-9703
PO # NA
Project Naalehu WWTP

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results

Certification #: BCD4-4B96-9703

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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Appendix E: VES Report

Naalehu WWTP

Naalehu Spur Road

Naalehu, HI 96772

Inquiry Number: 5425643.2s

October 10, 2018

EDR Vapor Encroachment Screen

Prepared using EDR's Vapor Encroachment Worksheet

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Primary Map	2
Secondary Map	3
Map Findings	4
Record Sources and Currency	GR-1

Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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The EDR Vapor Encroachment Worksheet enables EDR's customers to make certain online modifications that effects maps, text and calculations contained in this Report. As a result, maps, text and calculations contained in this Report may have been so modified. EDR has not taken any action to verify any such modifications, and this report and the findings set forth herein must be read in light of this fact. Environmental Data Resources shall not be responsible for any customer's decision to include or not include in any final report any records determined to be within the relevant minimum search distances.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by EDR. The report was designed to assist parties seeking to meet the search requirements of the ASTM Standard Practice for Assessment of Vapor Encroachment into Structures on Property Involved in Real Estate Transactions (E 2600).

STANDARD ENVIRONMENTAL RECORDS	Default Area of Concern (Miles)*	property	1/10	> 1/10
Federal NPL site list	1.0	0	0	0
Federal Delisted NPL site list	1.0	0	0	0
Federal CERCLIS list	0.5	0	0	0
Federal CERCLIS NFRAP site list	0.5	0	0	0
Federal RCRA CORRACTS facilities list	1.0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list	0.5	0	0	0
Federal RCRA generators list	0.25	0	0	0
Federal institutional controls / engineering controls registries	0.5	0	0	0
Federal ERNS list	0.001	0	0	-
State- and tribal - equivalent NPL	not searched	-	-	-
State- and tribal - equivalent CERCLIS	1.0	0	0	0
State and tribal landfill and/or solid waste disposal site lists	0.5	0	0	0
State and tribal leaking storage tank lists	0.5	0	0	0
State and tribal registered storage tank lists	0.25	0	0	0
State and tribal institutional control / engineering control registries	0.5	0	0	0
State and tribal voluntary cleanup sites	0.5	0	0	0
State and tribal Brownfields sites	0.5	0	0	0

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists	0.5	0	0	0
Local Lists of Landfill / Solid Waste Disposal Sites	0.5	0	0	0
Local Lists of Hazardous waste / Contaminated Sites	0.001	0	0	-
Local Lists of Registered Storage Tanks	not searched	-	-	-
Local Land Records	0.001	0	0	-
Records of Emergency Release Reports	0.001	0	0	-
Other Ascertainable Records	1.0	0	0	0

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records	1.0	0	0	0
Exclusive Recovered Govt. Archives	0.001	0	0	-

EXECUTIVE SUMMARY

EDR RECOVERED GOVERNMENT ARCHIVES

EDR Exclusive Records	1.0	0	0	0
Exclusive Recovered Govt. Archives	0.001	0	0	-

*The Default Area of Concern may be adjusted by the environmental professional using experience and professional judgement. Each category may include several databases, and each database may have a different distance. A list of individual databases is provided at the back of this report.

EXECUTIVE SUMMARY

TARGET PROPERTY INFORMATION

ADDRESS

NAALEHU WWTP
NAALEHU SPUR ROAD
NAALEHU, HI 96772

COORDINATES

Latitude (North):	19.057083 - 19° 3' 25.499268"
Longitude (West):	155.588474 - 155° 35' 18.493652"
Elevation:	688 ft. above sea level

EXECUTIVE SUMMARY

SEARCH RESULTS

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
Not Reported				

ADDITIONAL ENVIRONMENTAL RECORDS

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
Not Reported				

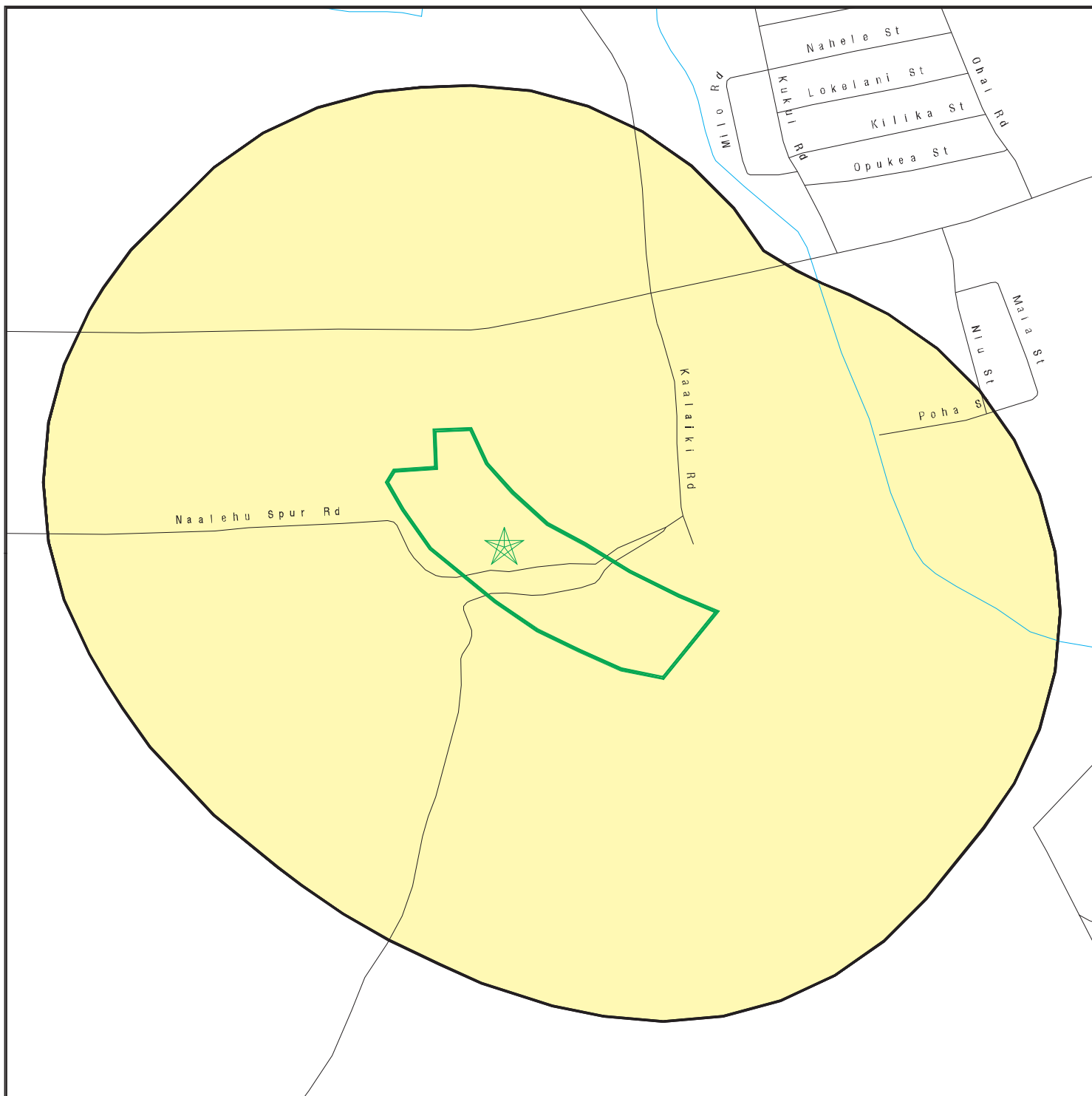
EDR HIGH RISK HISTORICAL RECORDS








<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
Not Reported				

EDR RECOVERED GOVERNMENT ARCHIVES

<u>Name</u>	<u>Address</u>	<u>Dist/Dir</u>	<u>Map ID</u>	<u>Page</u>
Not Reported				

PRIMARY MAP - 5425643.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites



 Indian Reservations BIA

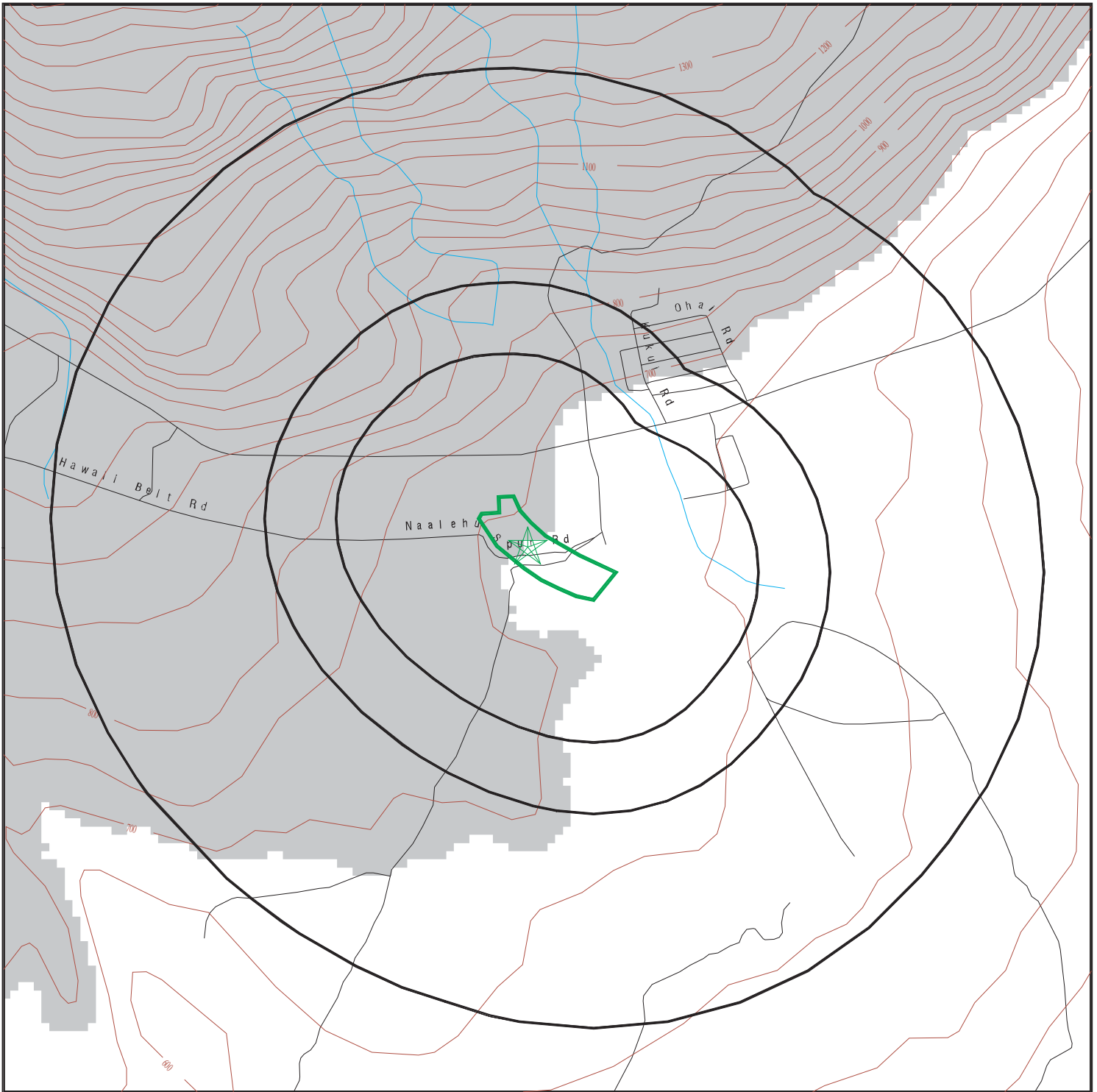








This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu HI 96772
 LAT/LONG: 19.057083 / 155.588474

CLIENT: Brown & Caldwell
 CONTACT: Caitlin Shannon
 INQUIRY #: 5425643.2s
 DATE: September 17, 2018 8:50 am


SECONDARY MAP - 5425643.2S



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  National Priority List Sites
-  Dept. Defense Sites



 Indian Reservations BIA

 Upgradient Area



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Naalehu WWTP
 ADDRESS: Naalehu Spur Road
 Naalehu HI 96772
 LAT/LONG: 19.057083 / 155.588474

CLIENT: Brown & Caldwell
 CONTACT: Caitlin Shannon
 INQUIRY #: 5425643.2s
 DATE: September 17, 2018 8:50 am

MAP FINDINGS

LEGEND

FACILITY NAME		FACILITY ADDRESS, CITY, ST, ZIP		EDR SITE ID NUMBER
◆ MAP ID#	Direction	Distance Range	(Distance feet / miles)	ASTM 2600 Record Sources found in this report. Each database searched has been assigned to one or more categories. For detailed information about categorization, see the section of the report Records Searched and Currency.
	Relative Elevation	Feet Above Sea Level		
Worksheet:				
Comments: Comments may be added on the online Vapor Encroachment Worksheet.				

DATABASE ACRONYM: Applicable categories (A hoverbox with database description).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
ENVIRONMENTAL RECORDS						
<i>Federal NPL site list</i>						
US	NPL	National Priority List	EPA	07/17/2018	08/09/2018	09/07/2018
US	Proposed NPL	Proposed National Priority List Sites	EPA	07/17/2018	08/09/2018	09/07/2018
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
<i>Federal CERCLIS list</i>						
US	SEMS	Superfund Enterprise Management System	EPA	07/17/2018	08/09/2018	09/07/2018
<i>Federal RCRA CORRACTS facilities list</i>						
US	CORRACTS	Corrective Action Report	EPA	03/01/2018	03/28/2018	06/22/2018
<i>Federal RCRA TSD facilities list</i>						
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
<i>Federal RCRA generators list</i>						
US	RCRA-LOG	RCRA - Large Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	RCRA-CESQG	RCRA - Conditionally Exempt Small Quantity Generators	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
<i>Federal institutional controls / engineering controls registries</i>						
US	LUCIS	Land Use Control Information System	Department of the Navy	05/14/2018	05/18/2018	07/20/2018
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	07/31/2018	08/28/2018	09/14/2018
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	07/31/2018	08/28/2018	09/14/2018
<i>Federal ERNS list</i>						
US	ERNS	Emergency Response Notification System	National Response Center, United States Coast	06/18/2018	06/27/2018	09/14/2018
<i>State and tribal - equivalent CERCLIS</i>						
HI	SHWS	Sites List	Department of Health	01/23/2018	02/21/2018	02/26/2018
<i>State and tribal landfill / solid waste disposal</i>						
HI	SWF/LF	Permitted Landfills in the State of Hawaii	Department of Health	09/17/2012	04/03/2013	05/10/2013
<i>State and tribal leaking storage tank lists</i>						
HI	LUST	Leaking Underground Storage Tank Database	Department of Health	03/16/2018	03/21/2018	04/10/2018
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	Environmental Protection Agency	04/10/2018	05/18/2018	07/20/2018
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/13/2018	05/18/2018	07/20/2018

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
State and tribal registered storage tank lists						
HI	UST	Underground Storage Tank Database	Department of Health	03/16/2018	03/21/2018	04/10/2018
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 7	04/24/2018	05/18/2018	07/20/2018
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 9	04/10/2018	05/18/2018	07/20/2018
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA Region 10	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 6	04/01/2018	05/18/2018	07/20/2018
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 4	05/08/2018	05/18/2018	07/20/2018
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 5	04/12/2018	05/18/2018	07/20/2018
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 8	04/25/2018	05/18/2018	07/20/2018
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	EPA, Region 1	04/13/2018	05/18/2018	07/20/2018
US	FEMA UST	Underground Storage Tank Listing	FEMA	05/15/2017	05/30/2017	10/13/2017
State and tribal institutional control / engineering control registries						
HI	ENG CONTROLS	Engineering Control Sites	Department of Health	01/23/2018	02/21/2018	02/26/2018
HI	INST CONTROL	Sites with Institutional Controls	Department of Health	01/23/2018	02/21/2018	02/26/2018
State and tribal voluntary cleanup sites						
HI	VCP	Voluntary Response Program Sites	Department of Health	01/23/2018	02/21/2018	02/26/2018
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	INDIAN VCP R7	Voluntary Cleanup P Priority Listing	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
State and tribal Brownfields sites						
HI	BROWNFIELDS	Brownfields Sites	Department of Health	01/23/2018	02/21/2018	02/26/2018
Other Records						
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	03/31/2018	04/16/2018	06/29/2018
US	ROD	Records Of Decision	EPA	05/13/2018	05/30/2018	06/29/2018
US	LIENS 2	CERCLA Lien Information	Environmental Protection Agency	05/13/2018	05/30/2018	06/29/2018
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	05/18/2018	06/20/2018	09/14/2018
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/30/2017	05/08/2018	07/20/2018
US	LEAD SMELTER 1	Lead Smelter Sites	Environmental Protection Agency	05/13/2018	05/30/2018	06/29/2018
US	LEAD SMELTER 2	Lead Smelter Sites	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	Department of Energy	08/08/2017	09/11/2018	09/14/2018
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	07/01/2014	09/10/2014	10/20/2014
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy	12/31/2005	08/07/2009	10/22/2009
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US FIN ASSUR	Financial Assurance Information	Environmental Protection Agency	03/01/2018	03/27/2018	06/22/2018
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	Delisted NPL	National Priority List Deletions	EPA	07/17/2018	08/09/2018	09/07/2018
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	07/17/2018	08/09/2018	09/07/2018
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	03/01/2018	03/28/2018	06/22/2018
US	HMIRS	Hazardous Materials Information Reporting System	U.S. Department of Transportation	03/26/2018	03/27/2018	06/08/2018

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov. Date	Arvl. Date	Active Date
US	DOT OPS	Incident and Accident Data	Department of Transportation, Office of Pipeli	07/31/2012	08/07/2012	09/18/2012
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	05/18/2018	06/20/2018	09/14/2018
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	06/18/2018	06/20/2018	09/14/2018
US	US DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	US FEDLAND	Federal and Indian Lands	U.S. Geological Survey	12/31/2005	02/06/2006	01/11/2007
US	US FUDS	Formerly Used Defense Sites	U.S. Army Corps of Engineers	01/31/2015	07/08/2015	10/13/2015
US	US UMTRA	Uranium Mill Tailings Sites	Department of Energy	06/23/2017	10/11/2017	11/03/2017
US	US ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	US US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	05/03/2018	05/31/2018	06/29/2018
US	US US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/18/2008
US	US US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	US PRP	Potentially Responsible Parties	EPA	10/25/2013	10/17/2014	10/20/2014
US	US TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2016	01/10/2018	01/12/2018
US	US TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	US FTTS	FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	US FTTS INSP	FIFRA/TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	US HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	US HIST FTTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	US SSTS	Section 7 Tracking Systems	EPA	12/31/2009	12/10/2010	02/25/2011
US	US ICIS	Integrated Compliance Information System	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	US PADS	PCB Activity Database System	EPA	06/01/2017	06/09/2017	10/13/2017
US	US MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	08/30/2016	09/08/2016	10/21/2016
US	US RADINFO	Radiation Information Database	Environmental Protection Agency	04/03/2018	04/05/2018	06/29/2018
US	US FINDS	Facility Index System/Facility Registry System	EPA	02/21/2018	02/23/2018	03/23/2018
US	US RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	US RMP	Risk Management Plans	Environmental Protection Agency	05/01/2018	05/17/2018	09/07/2018
US	US BRS	Biennial Reporting System	EPA/NTIS	12/31/2015	02/22/2017	09/28/2017
US	US PWS	Public Water System Data	EPA	12/17/2013	01/09/2014	10/15/2014
US	US INDIAN RESERV	Indian Reservations	USGS	12/31/2014	07/14/2015	01/10/2017
US	US INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
HI	HI AIRS	List of Permitted Facilities	Department of Health	08/02/2018	08/06/2018	09/11/2018
HI	HI CDL	Clandestine Drug Lab Listing	Department of Health	08/04/2010	09/10/2010	10/22/2010
HI	HI DRYCLEANERS	Permitted Drycleaner Facility Listing	Department of Health	08/02/2018	08/06/2018	09/11/2018
HI	HI Financial Assurance	Financial Assurance Information Listing	Department of Health	06/07/2018	06/12/2018	07/30/2018
HI	HI LEAD	Lead Inspection Listing	Department of Health	06/07/2018	06/12/2018	07/11/2018
HI	HI SPILLS	Release Notifications	Department of Health	08/14/2018	08/21/2018	09/11/2018
HI	HI SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	03/10/2012	01/03/2013	02/11/2013
HI	HI UIC	Underground Injection Wells Listing	Department of Health	02/07/2013	02/12/2013	04/09/2013
US	US UXO	Unexploded Ordnance Sites	Department of Defense	09/30/2017	06/19/2018	09/14/2018
US	US FUELS PROGRAM	EPA Fuels Program Registered Listing	EPA	05/21/2018	05/23/2018	09/07/2018
US	US ABANDONED MINES	Abandoned Mines	Department of Interior	09/10/2018	09/11/2018	09/14/2018
US	US ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	09/02/2018	09/05/2018	09/14/2018
US	US DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	01/04/2018	01/19/2018	04/13/2018
US	US IHS OPEN DUMPS	Open Dumps on Indian Land	Department of Health & Human Services, Indian	04/01/2014	08/06/2014	01/29/2015

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
HISTORICAL USE RECORDS						
US	EDR MGP	EDR Proprietary Manufactured Gas Plants	EDR, Inc.			
US	EDR Hist Auto	EDR Exclusive Historical Auto Stations	EDR, Inc.			
US	EDR Hist Cleaner	EDR Exclusive Historical Cleaners	EDR, Inc.			
HI	RGA HWS	Recovered Government Archive State Hazardous Waste Facility	Department of Health	07/01/2013	01/08/2014	
HI	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Health	07/01/2013	01/17/2014	
HI	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	Department of Health	07/01/2013	01/03/2014	

STREET AND ADDRESS INFORMATION

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Appendix F: User Questionnaire

ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

Site/Project Name: Naalehu WWTP; TMK (3)9-5-022:001 and 9-5-007:016

Location: Naalehu, HI

In Order to qualify for one of the *Landowner Liability Protections (LLPs)*¹ offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "*Brownfields Amendments*")² the user must provide the following information (if available) to the *environmental professional*. Failure to provide this information could result in a determination that "*all appropriate inquiry*" is not complete. Please explain your answers if appropriate.

1. Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).

Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law?

Yes _____ No X

2. Activity and land use limitations (AULs) that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).

Are you aware of AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Yes _____ No X

3. Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CFR 312.28).

As the *user* of this *Environmental Site Assessment (ESA)* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

¹ *Landowner Liability Protections, or LLPs*, is the term used to describe the three types of potential defenses to Superfund liability in EPA's *Interim Guidance Regarding Criteria Landowners Must Meet in Order to Qualify for Bona Fide Prospective Purchaser, Contiguous Property Owner, or Innocent Landowner Limitations on CERCLA Liability ("Common Elements" Guide)* issued on March 6, 2003.

² P.L. 107-118.

ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

Yes _____ No

4. Relationship of the purchase price to the fair market value of the *property* if it were not contaminated (40 CFR 312.29).

Does the purchase price being paid for this *property* reasonably reflect the fair market value of the *property*?

Yes _____ No

If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

Yes _____ No _____ NA

5. Commonly known or *reasonably ascertainable* information about the *property* (40 CFR 312.30).

Are you aware of commonly known or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases?

Yes _____ No

For example, as *user*,

- (a) Do you know the past uses of the *property*? Yes _____ No

- (b) Do you know of specific chemicals that are present or once were present at the *property*? Yes _____ No

- (c) Do you know of spills or other chemical releases that have taken place at the *property*? Yes _____ No

- (d) Do you know of any environmental cleanups that have taken place at the *property*? Yes _____ No

ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

6. The degree of obviousness of the presence or likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.31).

As the *user* of the *ESA* based on your knowledge and experience related to the *property* are there any obvious indicators that point to the presence or likely presence of contamination at the *property*?

Yes _____ No X

To enable Brown and Caldwell to complete your project, please also respond to the following items.

- (a) The reason why the Phase I is required:
Due diligence for County obtaining the property.

- (b) The type of *property* (e.g., industrial, commercial, vacant, agricultural, residential, etc.) and type of *property* transaction, for example, sale, purchase, exchange, etc.:
Majority is Agricultural (A-20a, TMK 9-5-007:016) with some Residential (RS-7.5, TMK 9-5-022:001)

- (c) The complete and correct address for the *property*, including county (a map or other documentation showing *property* location and boundaries is helpful):
TMK 9-5-022:001 and 9-5-007:016

- (d) The scope of services desired for the Phase I (including whether any parties to the *property* transaction may have a required standard scope of services or whether any considerations beyond the requirements of Practice E 1527 are to be considered):
Standard

- (e) Identification of all parties who will rely on the Phase I report:
County of Hawaii

- (f) Identification of the site contact and how the contact can be reached:
John Cross: 987-4229, Brenda Jokepa-Moses: 896-3932

ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

(g) Any special terms and conditions which must be agreed upon by the *environmental professional*: *N/A*

(h) Any other knowledge or experience with the *property* that may be pertinent to the *environmental professional* (for example, copies of any available prior *environmental site assessment reports*, documents, correspondence, etc., concerning the *property* and its environmental conditions. These include, but are not necessarily limited to:

- *ESA reports*,
- *Environment compliance audit reports*,
- *Environmental permits* (for example, *solid waste disposal permits*, *hazardous waste disposal permits*, *wastewater permits*, *NPDES permits*, *underground injection permits*),
- *Registrations for underground and above-ground storage tanks*,
- *Registrations for underground injection systems*,
- *Material safety data sheets*,
- *Community right-to-know plan*,
- *Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans; etc.*,
- *Reports regarding hydrogeologic conditions on the property or surrounding area*,
- *Notices or other correspondence from any government agency relating to past or current violations of environmental laws with respect to the property or relating to environmental liens encumbering the property*,
- *Hazardous waste generator notices or reports*,
- *Geotechnical studies*,
- *Risk assessments*, and
- *Recorded AULs*.

No.

(i) *Proceedings Involving the Property* – whether the User knows of:

(a) Any pending, threatened, or past litigation relevant to *hazardous substances or petroleum products* in, on, or from the *property*;

Yes _____ No X

ENVIRONMENTAL SITE ASSESSMENT USER QUESTIONNAIRE

(b) Any pending, threatened, or past administrative proceedings relevant to *hazardous substances or petroleum products* in, on, or from the *property*;

Yes _____ No X

(c) Any notices from any governmental entity regarding any possible violation of environmental laws or possible liability relating to *hazardous substances or petroleum products*;

Yes _____ No X

Please explain any "Yes" answers below.

Completed by:

Signature

Dora Beck

Printed Name

Dora Beck

Organization

County of Hawaii, Department of
Environmental Management,
Wastewater Division

Date

10/18/2018

Please return this questionnaire to:

Caitlin Shannon
cshannon@brwncald.com
Brown and Caldwell
Fax - 615-256-8332
Phone - 615-250-1240



Appendix G: Qualifications of Environmental Professionals

Experience Summary

Caitlin Shannon is a multi-skilled professional scientist with two years experience. Her responsibilities at BC include regulatory compliance research, technical report preparation for private sector clients, regulatory site investigations, assisting with report writing and preparation, health and safety plan preparation.

Assignment

Private Sector Enterprise

Education

B.S. Geosciences, Middle Tennessee State University 2013

Experience

2 years

Joined Firm

2015

Relevant Expertise

- *Air Quality Permitting, Reporting, and Compliance*
- *Phase I Environmental Site Assessments*
- *Environmental Due Diligence*
- *Regulatory Compliance*
- *Regulatory Site Investigations*
- *Surface water Sampling*
- *Soil Sampling*
- *Underground Storage Tank Construction and Permitting Requirements*
- *Petrology field experience- Cascade Range*

Representative Compliance Projects

New Facility/Remodel/Logistics Regulatory Compliance and Permitting, Confidential Client, Nationwide

Permit Writer. Permit research and writing for a large nationwide retail client. The program was established to provide operations support to a nationwide retailer for their New Store, Store Remodel, Distribution Center, and Fueling Station programs in a 17 State region across the US. Permits researched and applied for were for all operations that require a local, State and federal environmental permit, registration, notification or inspection. Site walk-throughs of new and remodeled stores and distribution centers were completed to ensure environmental compliance. This large nationwide program has permitted over 2,000 locations over the past four years. [2015]

Phase I ESAs, DR Horton, Nationwide

Environmental Report Writer and Field Inspector. Completing Phase I ESAs by following *all appropriate inquiries* (AAI). Responsibilities include project coordination, technical report writing, historical and physical setting research, field investigations, review of prior assessments, and regulatory database analysis and reporting.

Regulatory Compliance and Permitting; Hubbell, Inc., Leeds, Alabama

Permit Writer. Completing air permits for existing sources and performing emissions inventory site visits to permit new sources as well as coordinating in revision of the facility's SPCC Plan and SWPPP. Responsibilities included technical report writing; regulatory research, compiling emissions calculation spreadsheets, and familiarity with environmental laws and policies.

Research and Field Studies

Middle Tennessee State University, Murfreesboro, Tennessee

Undergraduate Teaching Assistant. Assisting professors in assembling lab exercises and mineral identification in Honors Introduction to Earth Science and Mineralogy. [2012-2013]

Middle Tennessee State University, Murfreesboro, Tennessee

Undergraduate Laboratory Assistant. Laboratory research consisting of preparation of solid and liquid samples for geochemical analysis (X-Ray Fluorescence and Inductively Coupled Plasma Mass Spectrometry). [2008-2012]

Middle Tennessee State University, Murfreesboro, Tennessee

Undergraduate Research Assistant. Field research consisting of surface water and sediment sampling; and measurement and recording of sample properties such as pH, temperature, and turbidity. [2010]

Field work consisting of analysis of distribution of coal ash in surface waters and streams surrounding Tennessee Valley Authority coal-fired power plants. [2009]

Field work consisting of petrological analysis of volcanic rocks in the Central and Northern Cascade Range [2008-2009]

Memberships

1. Geological Society of America; Environmental and Engineering Geology Division
2. American Geophysical Union
3. Sigma Gamma Epsilon (National Earth Science Honor Society); Eta Sigma Chapter

Publications

Wylie, M., Pickering, J., Jones, M., Crombie, S., Shannon, C., and Cribb, W., 2009. Geochemical investigation of potential toxic metal releases from TVA coal ash surface impoundments into nearby river water and sediments. Geological Society of America Abstracts with Programs, Vol. 41 No. 7. Numbered publication list continues.

Pickering, J., Wylie, M., Jones, M., Crombie, S., Shannon, C., and Cribb, W., 2009. Geochemical investigation of potential toxic metal releases from TVA coal ash surface impoundments into nearby river water and sediments; MTSU StepMT Research Day.

Jones, M., Miller, W., Pickering, J., Shannon, C., Crombie, S., and Cribb, W., 2010. Geochemical investigation of potential toxic metal releases from TVA coal ash surface impoundments into nearby river waters and sediments. Journal of the Tennessee Academy of Sciences, Vol. 85 No. 1.

Experience Summary

Mr. Nash has over 22 years of experience as an environmental professional including experience managing large, multi-task programs and hands-on field experience on hazardous waste cost-reimbursable and fixed-price projects involving site characterization. He is very knowledgeable of federal, state, and appropriate local laws and regulations. Mr. Nash's program management experience has encompassed the full range of environmental compliance and permitting, due diligence, site assessment, remediation services, and construction quality assurance. He has been responsible and accountable for contracts valued in excess of \$50 million, including single programs greater than \$20 million.

In the past 5 years, Mr. Nash has been responsible for over \$30 million in active projects. These project sites have included locations in all 50 states and involved site work at various military installations. He has managed turnkey projects ranging from \$2,000 to \$20 million. On these contracts, Mr. Nash served as the single point of responsibility, authority, and accountability with clients, holding scheduled status meetings, participating in partnering sessions, implementing all contractual commitments and policies, and taking immediate corrective actions when necessary. He has also conducted Department of Transportation (DOT) training programs to familiarize staff with the hazardous material shipping programs.

Mr. Nash has prepared estimates, proposals, and plans; supervised field work; implemented safety and quality control programs; and tracked and controlled costs and schedule for both commercial and federal clientele.

Education

B.S., Geology, University of South Florida, 1994

Experience

22 years

Joined Firm

2016

Additional Training

- OSHA 40-hour HAZWOPER 29 CFR 1910.120, 1995
- OSHA 8-hour Supervisor Training for Hazardous Waste site, 1996
- US Army Corp – Certified Construction Quality Management for Contractors, 2003
- Large Account Management Process by Miller Heiman, 2006
- First Aid/CPR/AED Certification
- DOT General Awareness DOT 49 CFR 172.704(a)(1)

Project Experience

Construction Environmental Health & Safety Compliance Audits, Confidential Commercial Client

Project Manager. Managed scope, schedule, budget, and quality for retail client requiring construction audits at 500 retail facilities nationwide. The audit included examination of health and safety, stormwater pollution prevention, hazardous waste management, and employee verification practices conducted by the client's general contractor during remodel activities. Able to coordinate site visits with other on-site activities to save the client cost.

Annual Emergency Planning and Community Right-to-Know Act (EPCRA) Tier II Reporting, Norfolk Southern Corporation

Project Manager. Managed and improved the data gather process, threshold determination, and report preparation and submittal process for annual EPCRA submittals.

Spill Prevention, Control, and Countermeasure (SPCC) Plans, Gulfstream Aerospace Corporation

Project Manager. Prepared and managed the process of preparing and updating multiple SPCC plans in both Georgia and Nevada. These incorporated both administrative and technical changes at the sites.

Stormwater Pollution Prevention (SWPP) Plans, Gulfstream Aerospace Corporation

Project Manager. Managed the process of updating multiple SWPP plans in both Georgia and Nevada.

Health and Safety Assessments, Dollar Tree

Client Service Manager. Managed a multi-year program involving the assessment of basic health and safety elements at the retail store level. The assessments were conducted nationwide over a two-year period.

Annual EPCRA Tier II Reporting, Confidential Commercial Client

Project Manager. Manager of EPCRA Section 311 and 312 Hazardous Chemical Inventory reporting for Fortune 100 client with over 4,500 locations nationwide. Documented and improved the data gathering process, threshold determination, and report preparation and submittal process for the annual EPCRA submittals.

Waste Segregation and Environmental Auditing, Walgreens, California

Client Service Manager. Managed scope, schedule, and budget involving the investigation and segregation of hazardous waste found in waste receptacles at over 600 retail stores and logistics facilities. This program spanned a 5-year period, with multiple audits per site, and included the development of a specific e-reporting tool used for gathering field data, capable of being communicated quickly to the client.

Annual EPCRA Tier II Reporting, Lowe's Companies

Client Service Manager. Managed and improved the data gather process, threshold determination, and report preparation and submittal process for the annual EPCRA submittals.

Waste Segregation, Lowe's Companies, California

Client Service Manager. Managed scope, schedule, and budget for project involving the annual auditing of waste receptacles for the presence of hazardous waste at retail stores in California. Audits were conducted at either the transfer stations or the client sites.

Environmental Site Assessments in the Southeastern United States, Federal Deposit Insurance Corporation and CB Richard Ellis

Project Manager. Managed local site assessors in the completion of Phase I activities including site visits, searches for historical aerial photographs, ownership records, deed searches, and regulatory review, which included the review of the Phase I Environmental Site Assessment (ESA) reports.

Hazardous Materials Shipping Support Services, Confidential Commercial Client

Project Manager. Managed scope, schedule, and budget for a confidential commercial client. Visited over 4,000 facilities to assist employees in verifying that products going to a centralized return center to meet DOT requirements were packaged according to their classification (hazardous vs. non-hazardous). Responsibilities included on-site education and review of proper shipping instructions with facility representatives, and evaluation of on-site hazardous waste programs against company defined programs with real-time corrections of deviations.

Asset Investigation and Reconciliation Project, Confidential Commercial Client

Project Manager. Managed scope, schedule, and budget for a confidential commercial client. Tasks included identifying potential owned/operated water sources, including wells, surface water intakes, or other third party provided water located at facilities nationwide, with a specific focus on the confirmation of the water wells previously identified.

Environmental Asset Inventory for Operating Facilities, Confidential Commercial Client

Project Manager. Managed scope, schedule, and budget for a confidential commercial client as it applied to the inventory of environmental assets that had or may have had potential environmental ramifications such as regulatory obligations, the potential to cause environmental releases to the soil, water or air, or the need for routine maintenance or servicing provided by Environmental Services.

Environmental Permitting Review, Confidential Commercial Client Store Planning Group

Project Manager. Assisted in managing scope, schedule, and budget for confidential commercial client as it applied to environmental permit review and SPCC plans. The environmental permit review applied to aboveground storage tanks (ASTs), underground storage tanks (USTs), pressure vessels, waste management, wastewater discharge, stormwater discharge, air quality/air emissions. These permit reviews focused on changes caused by the remodeling of existing facilities.

Dye-trace Testing of Plumbing, Confidential Commercial Client

Project Manager. Managed scope, schedule, and budget for the construction quality assurance of plumbing installation. Managed the oversight of plumbing contractors conducting dye-trace testing of drain lines to

ensure that the construction specifications were being met and that wastewater permit limits could be met by the facility.

Horse Pasture Site Remediation, Air Force Center for Engineering and the Environment (AFCEE), Robins Air Force Base, Georgia

Project Manager. Responsible for the financial success of this performance-based contract totaling \$8.6 million, as it applied to the scope, schedule, and budget. Site soils contaminated with heavy metals, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and pesticides were remediated and removed from the site. Returned site groundwater impacted by VOCs (including dense non-aqueous phase liquids [DNAPLs]) to levels below remedial limits and obtained a No Further Action from Georgia Environmental Protection Division.

Interim Measure (IM), AFCEE, Charleston Air Force Base, South Carolina

Deputy Project Manager. Managed the implementation of an IM, which involved the installation of a geosynthetic landfill cover. Duties included management of scope, schedule, personnel, and subcontractors; subcontractor procurement; client interface; and fieldwork implementation.

RCRA Facility Investigations and Corrective Measure Studies, Multiple Project Sites, AFCEE, Cape Canaveral Air Force Station and Patrick Air Force Base, Florida

Project Manager. Duties included management of scope, schedule, budget, and personnel; proposal preparation; subcontractor procurement; client and regulator interface; fieldwork participation and implementation; groundwater modeling; and report completion. Work activities were completed at active and inactive launch complexes and fuel storage areas. All work activities were monitored and evaluated closely by the Canaveral Air Force Station/Patrick Air Force Base Environmental Restoration Partnering Team (Partnering Team), which consisted of representatives from the Environmental Protection Agency (EPA), the Florida Department of Environmental Protection (FDEP), the United States Air Force and various contractors.

St. John's Water Management District, Lake Apopka North Shore Restoration Area, Florida

Field Operations Lead. Conducted soil and sediment sampling across 10,000 acres of former farmland. Global Positioning System units were utilized to locate and survey sampling points with sub-meter accuracy. All field activities were monitored and evaluated closely by the St. Johns River Water Management District, USEPA, FDEP, and the United States Fish and Wildlife Service.

Environmental Services, Naval Training Center (NTC), Orlando, Florida

Scientist. Performed and developed tank closure assessments and reports, contamination assessment reports, initial remedial actions, and tank management plans for ASTs and USTs at multiple NTC Orlando sites. The contamination assessment reports addressed petroleum soil, free product, and groundwater contamination. A focused remedial investigation/feasibility study was developed to be implemented as an interim action at a base dry cleaning facility. Project focused on dissolved phase DNAPL contamination in the subsurface migrating into a surface water body. Responsibilities included: planning and implementing a focused remedial investigation and pumping test; acting as field operations lead for the investigation and test; and developing a focused feasibility study.

Phase I/II ESAs, Multiple Clients

Scientist. Conducted Phase I/II ESAs for multiple clients. Phase I activities included site visits, searches for historical aerial photographs, ownership records, deed searches, and regulatory review. Preparation of the Phase I ESA reports included detailed recommendations for Phase II investigation.