ALASKA

2015-024860-0

Recording District 301 ANCHORAGE
06/11/2015 01:10 PM Page 1 of 15

Document Title:

Grantor:

Grantee:

Recording District:

Property Description:

After Recording Return to: Earl Liverman
USDA
1910 Northwest Blvd, Ste 208
Coeur d'Alene, Id, 83814

THIS COVER SHEET HAS BEEN ADDED TO THIS DOCUMENT TO PROVIDE SPACE FOR THE RECORDING DATA. THIS COVER SHEET APPEARS AS THE FIRST PAGE OF THE DOCUMENT IN THE OFFICIAL PUBLIC RECORD.

DO NOT DETACH

August 19, 2010

NOTICE OF ENVIRONMENTAL CONTAMINATION

Recording District: **Anchorage**

This **NOTICE OF CONTAMINATION** ("Notice") is made this 10 day of June 2015, by Ronald M. Cupples to provide information concerning indoor air contamination affecting the real property located at 736 E. 3rd Avenue – North Duplex. This notice also provides a list of maintenance, monitoring, and repair activities the United States Environmental Protection Agency ("EPA") recommends the property owner to perform. These activities will assist in keeping tetrachlorothene ("PCE") vapor concentrations below the Alaska Department of Environmental Conservation ("ADEC") PCE target level for residential indoor air, thereby protecting public health and the environment.

WHEREAS, EPA identified the existence of PCE and other chlorinated volatile organic compound ("VOC") contamination at the parcel of real property (the "Property") identified as 736 E. 3rd Avenue – North Duplex, in the City of Anchorage, Borough of Anchorage, State of Alaska, and more particularly described as follows:

> Lot 2, Block 26A, EAST ADDITION TO THE CITY OF ANCHORAGE, according to the official plat thereof, filed under Plat Number C-18, Records of the Anchorage Recording District, Third Judicial District, State of Alaska; and

WHEREAS, the taxing authority of the City of Anchorage identifies the Property as East Addition, Block 26A, Lot 2, Parcel ID #002-093-42-000 and identifies the current owner of the Property as Ronald M. Cupples; and

WHEREAS, the Property is part of Subarea II of the Fourth Avenue and Gambell Street Site ("Site") where EPA conducted a time-critical removal action under the authority of Section 104 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9604. EPA issued an Action Memo for the Site in which the selected removal action for the Property included installing a passive vapor intrusion mitigation system in the residential building on the Property. The passive vapor intrusion mitigation system included installing a sub-membrane depressurization system, installing a passive sub-slab depressurization system, and sealing utility conduits to prevent vapor intrusion of PCE and other VOCs into the building. After sampling results from the Property indicated that PCE concentrations remained above the ADEC PCE target level for residential indoor air, EPA modified the existing passive mitigation system to an active system with electric exhaust fans to reduce PCE concentrations below the ADEC target level; and

WHEREAS, PCE contamination at the Site remains in the soil at the ground surface and extends approximately 40 feet below ground surface to the groundwater interface. Vapor from the

contaminated soil and groundwater continues to migrate upwards toward the ground surface and into the overlying building on the Property through gaps and cracks in foundation slabs or basements or crawl spaces. A Maintenance, Monitoring, and Repair ("MM&R") Plan has been developed for the Property and includes steps that can be taken by the property owner to ensure that the mitigation systems are properly maintained and sustainable over the long-term so that PCE concentrations remain below the ADEC target level for residential indoor air. For more information or questions regarding vapor intrusion or the maintenance and repair of vapor intrusion systems, contact the Alaska Department of Environmental Conservation, Division of Spill Prevention and Response, Contaminated Sites Program at (907) 269-7503; and

WHEREAS, this Notice itself does not and is not intended to create any interest in real estate in favor of the EPA, nor to create a lien against the Property, nor to restrict the use and enjoyment of the Property but rather is intended to provide notice and information concerning the indoor air contamination at the Property and encourage future owners of the Property to follow the MM&R Plan to decrease the risk of exposure to the contamination and prevent harm or endangerment to public health or the environment.

NOW, THEREFORE, the current property owner provides notice that:

FIRST, the Property subject to this Notice is shown on a map attached to this Notice as **Exhibit "A"** and made a part hereof.

SECOND, EPA has developed an MM&R Plan for the mitigation system in the building on the Property. The MM&R Plan, which provides a list of maintenance and monitoring activities the property owner can take to assist in the long-term sustained operation of the vapor intrusion mitigation system, is attached to this Notice as **Exhibit "B"** and made a part hereof.

THIRD, a copy of the Action Memo for the Site may be obtained by contacting EPA's On-Scene Coordinator for the Site at the following address:

Robert Whittier
US Environmental Protection Agency
222 West Seventh Avenue, #19
Anchorage, Alaska 99513

FOURTH, EPA is available to consult with any party seeking to engage in any of the activities identified in Exhibit B at the Property. A request for consultation may be made by contacting EPA's On-Scene Coordinator for the Site at the EPA address provided above.

FIFTH, the information in this Notice may represent environmental conditions of which a seller would have current actual knowledge and thus, should be disclosed by the seller to the buyer prior to the sale or transfer of the Property.

IN WITNESS WHEREOF, the undersigned has executed this instrument the day written below. Please return the original copy of this Notice to the address below:

Ronald M. Cupples

June 10, 2015
Date

Ronald M. Cupples
10340 Back Road
Anchorage, AK 99515

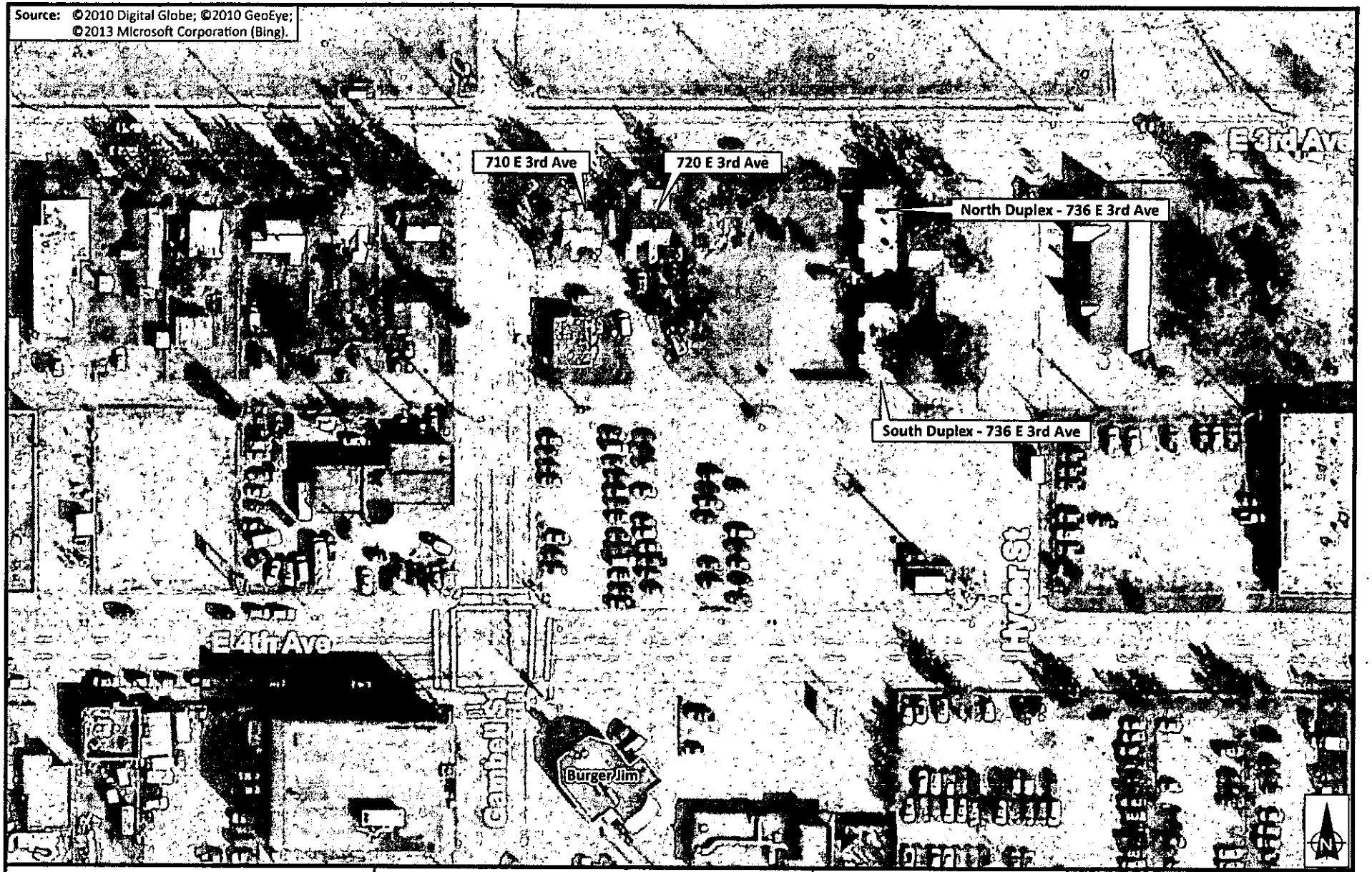
(Notarization seal) Subscribed and sworn to before me this 10 day of June 2015.

Notary Public in and for the State of Alaska

My commission expires: December 8, 2018

JILLIANNE CHAVEZ
My Commission Expires
NOTARY PUBLIC
DEC 8, 2018
STATE OF ALASKA

Exhibit A



ecology and environment, inc.
Global Environmental Specialists
Seattle, Washington

FOURTH AVENUE AND GAMBELL PARKING LOT
Anchorage, Alaska

0 50 100
Approximate Scale in Feet

Figure 2
SITE MAP

Date:	Drawn by:	
7/24/14	AES	10:START-IV\13080020\fig 2

FOURTH AND GAMBELL SITE

VAPOR MITIGATION SYSTEM
MONITORING, MAINTENANCE, AND
REPAIR PLAN

736 EAST THIRD AVENUE – NORTH DUPLEX

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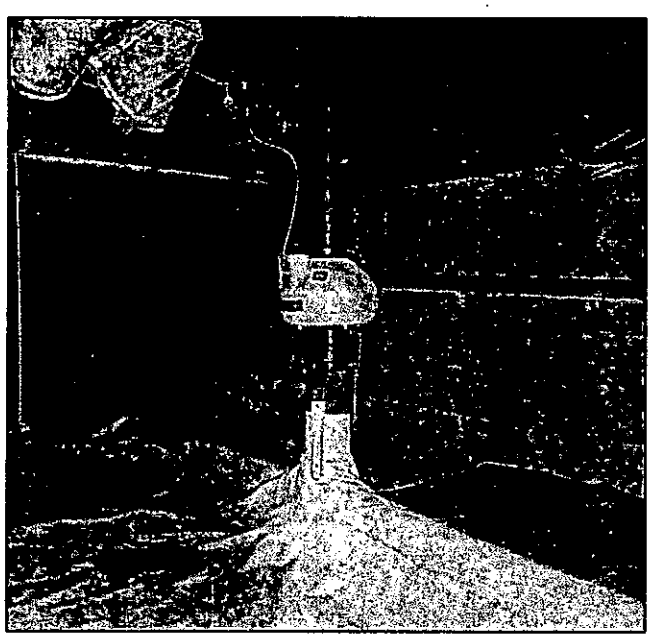
NORTH DUPLEX VAPOR MITIGATION SYSTEM

The vapor mitigation system in the 736 East 3rd Avenue – North Duplex is an active system with energized exhaust fans to remove contaminant vapors in the crawlspace and beneath the concrete basement slab.

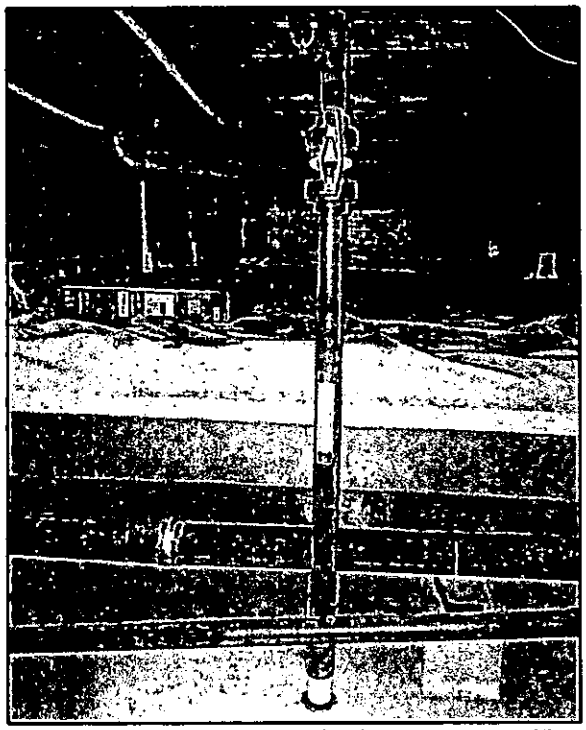
The system consists of vapor barrier that covers perforated vent piping in the crawlspace area and two 2-inch diameter sub-slab vapor wells in the basement area. The perforated piping and the vapor wells are connected to 4-inch diameter conveyance piping that leads to exhaust stacks on the east and west side of the structure. The vapor barrier is secured to the concrete perimeter walls of the crawlspace using a vapor barrier tape to seal the structure off from the contaminant vapors in the soil. The perforated piping was installed beneath the vapor barrier in the crawlspaces to remove contaminants that build up beneath the barrier. A vapor blocking epoxy paint was applied to the remaining portion of the sub-grade area including the basement floor and concrete walls. A diagram of the system is provided at the end of this plan.

A radon style inline exhaust fan was installed on the vertical sections of the 4-inch diameter pipes to draw contaminant vapors into the lines and exhaust them outside the building as shown in Photograph 1 below.



Photograph 1: Exhaust pipe with inline fan along east side of crawlspace area.

Analog manometers were installed on each vertical piping for monitoring the vacuum level at each location as shown in Photograph 2.



Photograph 2: Vertical piping from 2-inch sub-slab vapor well in basement area, with mounted U-shaped analog manometer and flow control valve.

Two sub-slab vapor sampling points were installed through the foundation slab in the basement area. The vapor points were covered by stainless steel caps flush with the concrete slab.

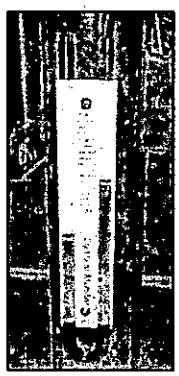
Owner Responsibilities

1. Quarterly Inspection

The system should be inspected quarterly by the property owner/facility manager (or environmental contractor) for indications of damage to the vapor barriers, the indoor piping or exhaust stacks, and to verify that the systems maintain a vacuum beneath the vapor barrier in the crawlspace and concrete slab in the basement. The quarterly monitoring should include:

- Inspection of the vapor barrier for tears or holes or indications that the barrier is peeling away from the concrete walls.
- Inspection of the vapor barrier for puddles that could form on top of the liner material from leaks to the home water or drain line piping. Standing water can overtime breakdown the vapor barrier tape along the liner seams, thereby opening up an entry point for contaminant vapors into the building.

- Inspection of the exhaust stacks and ventilation fans on the exterior of the structure for any indications of damage. Verify that the wind turbines are spinning during windy conditions. Note any growling or rattling noise coming from the turbines.
- The analog manometers mounted on the exterior of each vertical pipe (see Photograph below) are U-shaped graduated tubes filled with red indicator oil. The manometers measure the vacuum that is being drawn by operation of the exhaust fans. One side of the U-tube is connected via flexible tubing to a hole in the vertical pipes. The height of the red oil on the right-hand side of the graduated U-tube measures level of vacuum being drawn on the system in inches of water column (inWC). Any reading above 0 inWC indicates that vacuum is being drawn through the line and the system is working. **If the red oil in the right side of the manometer drops to zero, the owner should contact the designated environmental contractor to investigate the failure of the system.**



Photograph 3: The U-shaped manometer with the right side red oil shown above zero (proper working condition).

2. Biannual Maintenance

At the base of the exhaust stacks on each side of the building is a drain plug installed to drain condensate or precipitation that accumulates in the piping. The following biannual maintenance should be performed to maintain the system:

- Open the drain valves at the base of the exhaust stack twice a year in the spring and fall during non-freezing conditions to remove any condensation or precipitation from the exhaust piping.

3. Care

The following measures should be taken to minimize disturbance to the vapor barrier liner in the crawlspace and the above ground piping sections.

- Avoid placing heavy and/or sharp objects on the liner.
- Repair all water and drain line leaks over the vapor barrier in a timely manner, cleaning up any standing water on the plastic liner created by the leaks.
- Avoid accessing the crawlspace with the exception of performing system monitoring events and/or repairs.

- Minimize disturbance to the above ground piping.

Environmental Contractor Responsibilities

Biannual monitoring of the system by a designated environmental contractor is recommended to ensure sustained and optimal operation of the mitigation system. The biannual monitoring events should be conducted in the winter and summer to evaluate the effects on the system caused by temporal and seasonal variations.

1. Monitoring

A 'Vapor Mitigation System Data Sheet' for system monitoring is attached to this plan to record operation and maintenance (O&M) data. The contractor should complete the form during each biannual monitoring event as described below.

- Air Velocity Measurements: A plugged sample port for measuring air velocity was installed on each vertical riser pipe adjacent to the analog manometers. The contractor should record the air velocity in each line on the O&M form using a handheld anemometer.
- Vacuum Measurements: The contractor should record the vacuum reading from each of the analog manometers.
- Sub-Slab Vacuum Measurements: The contractor should measure the vacuum from the two sub-slab vapor sample points on the floor of the basement using a digital manometer. All measurements should be documented on the O&M form.
- System Optimization: Ball valves were installed on each of the vertical riser pipes. The valves were installed to control the airflow through each line and to balance the airflow between the lines. Following collection of the initial velocity measurements in each of the lines, the contractor should calculate the airflow in the lines to determine if any adjustment is necessary to the valves. If the valve positions are changed, the specific changes along with a second set of velocity and vacuum readings (Final) should be taken and documented on the O&M form.

2. Maintenance

In the event of failure of one or both of the in-line fans, the environmental contractor should perform the following troubleshooting procedures:

1. Check for System Power Failure: Power is provided for the operation of the inline fans from a hard-wired connection to the breaker panel in the house. A switch for each individual fan is also installed adjacent to the fan location. The contractor should ensure that both the circuit breaker and the blower power switch are in the 'ON' position.
2. Blockage in Exhaust Pipe: If the fan is energized, but the manometer(s) still reads zero, the cause is likely a blockage in the conveyance or exhaust stack piping. If this occurs in the winter, the blockage may be due to snow or ice buildup in the exhaust stack. Blockages caused by ice will likely be temporary and do not need to be removed to avoid

damaging the exhaust piping. If loss of vacuum occurs during warm periods of the year, it is likely that some other obstruction (debris, animal nesting, etc) is creating the blockage. A lower than average (or decreasing) reading in the manometer may be an indication that a blockage is forming in the exhaust pipe. To investigate a blockage, the contractor should inspect the exhaust piping outside the building to see if it can be identified and removed.

3. Fan Removal: If the above two troubleshooting procedures do not correct the problem, remove the fan from the conveyance piping for further inspection. Remove the insulation sections above and below the fan. Loosen the rubber collars around the fan fittings and remove the fan. Inspect the fan for blockage and/or electrical failure. Repair or replace the unit as necessary.

3. Sampling Every Two Years

It is recommended that indoor air sampling for contaminants of concern be performed every two years by an environmental contractor to ensure continued successful operation of the vapor intrusion mitigation system.

The following sampling and analysis plan should be provided to an environmental contractor to ensure the collection of representative indoor air samples.

Analytical Program

The indoor air sample should be collected in a 100%-certified, 6-liter stainless steel Summa canister and analyzed by Environmental Protection Agency method TO-15 for tetrachloroethene (PCE), trichloroethene (TCE), cis-1,2-dichloroethene (cDCE), trans-1,2-dichloroethene (tDCE), 1,2-dichloroethene (1,1-DCE) and vinyl chloride. The sample should be collected over a 24-hour indoor period using a flow controller. The analysis of the sample should be performed by a laboratory that is part of the National Environmental Laboratory Accreditation Program.

Sample Locations

The indoor air sample should be collected from the basement of the building in a centrally located area that has minimal influence from features with increased air exchange (e.g., near an exterior door or window). The sample should be collected from the location shown on the attached figure (in the work shop).

Sample Collection

The following actions should be performed prior to sampling:

1. Minimize sampling error by avoiding actions that could cause sample interference such as: fueling vehicles, using permanent ink marking pens, or wearing perfume or cologne in vicinity of the samples.

2. Measure the initial vacuum of the canister. Any canister containing an initial vacuum of less than 25 inches of mercury (in. Hg) will not be utilized and will be replaced during the sampling event.
3. Perform a leak detection test if the canister and flow controller by capping the inlet of the flow controller and opening the canister valve a half-turn and then closing the canister valve.
4. Verify for one minute that the canister and flow controller holds vacuum.
5. If the canister and flow controller do not hold vacuum, then refit or tighten connections and repeat leak detection test.
6. After a successful leak detection test, uncap the inlet of flow controller, open the canister valve a half-turn, and begin the sample collection period.
7. Record the start time, date, initial vacuum, regulator serial number and canister ID on the canister tag, the field notes and the laboratory chain of custody form.
8. Monitor sample progress periodically.
9. At the completion of the 24-hour sampling period, close the valve on the canister, hand-tight.
10. The canisters should be retrieved prior to being completely filled to enable comparison of the residual vacuum level at the end of the sample collection with the vacuum measured upon receipt to the lab for quality control purposes.
11. Record the final vacuum on the canister tag, field notes and chain of custody form.
12. Submit the samples to the analytical laboratory in accordance with chain of custody procedures.

Data Quality

Laboratory data should be reviewed using ADEC's *Laboratory Data Review Checklist for Air Samples*.

Data Evaluation

Analytical results should be compared to the ADEC Target Levels for Residential Indoor Air as listed in the ADEC Vapor Intrusion Guidance for Contaminated Sites. As of December 2014, the indoor air target levels are:

ADEC TARGET LEVELS FOR RESIDENTIAL INDOOR AIR

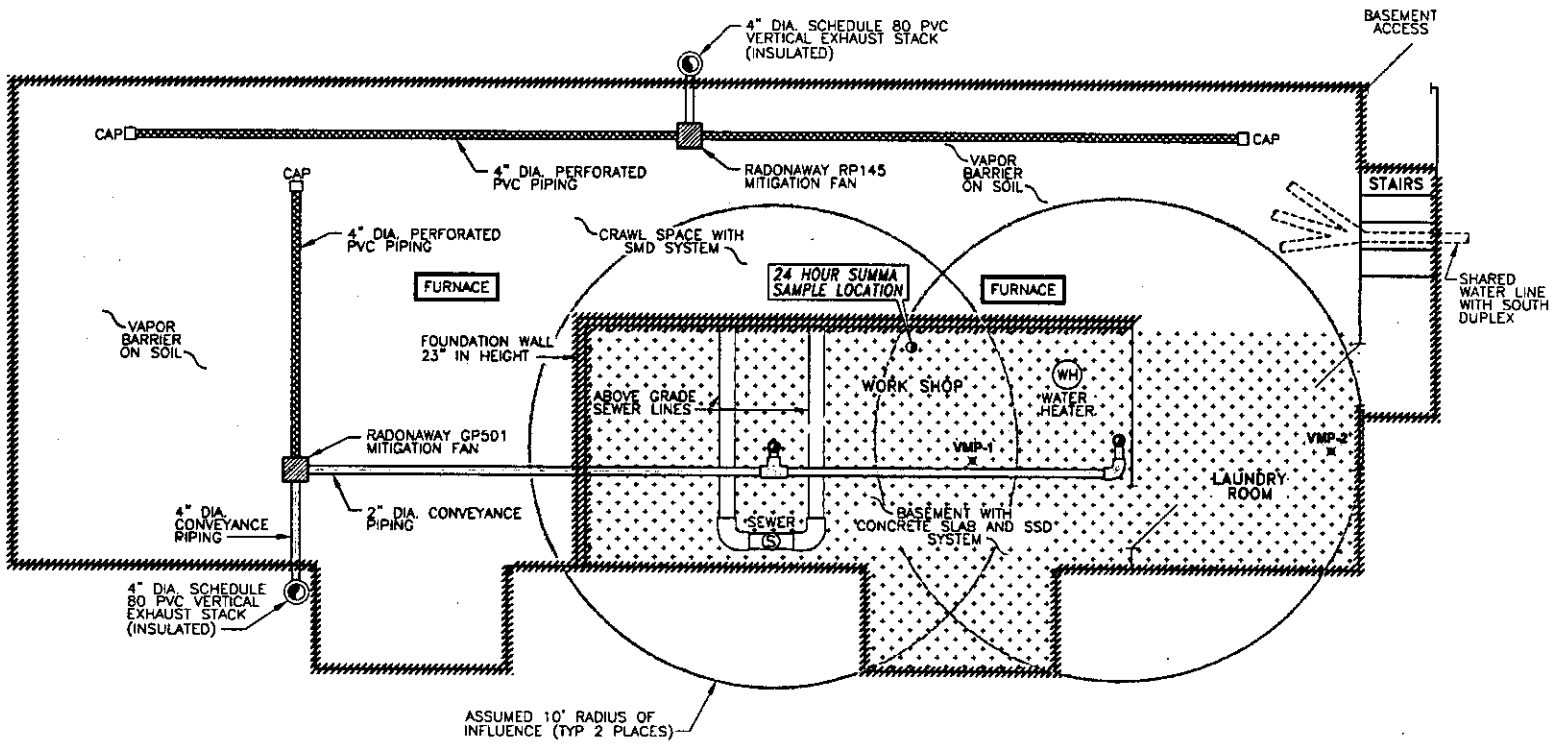
Contaminant	Cleanup Level ($\mu g/m^3$)
PCE	42
TCE	2.0
cDCE	7.3
tDCE	63
1,1-DCE	210
VC	1.6

Key: $\mu g/m^3$ = micrograms per cubic meter

For More Information

For more information or questions regarding vapor intrusion or the maintenance and repair of vapor intrusion systems contact the Alaska Department of Environmental Conservation

Department of Environmental Conservation
Division of Spill Prevention and Response
Contaminated Sites Program
555 Cordova Street
Anchorage, AK 99501
(907) 269-7503



LEGEND

- VMP-1 ✖ VAPOR MONITORING POINT LOCATION
- ● INDOOR AIR SAMPLE LOCATION
- ● 2" DIAMETER EXTRACTION WELL LOCATION
- VAPOR BARRIER ON SOIL
- RETRO-COAT APPLICATION AREA
- FOUNDATION WALLS WHERE RETRO-COAT WAS APPLIED
- PERFORATED PVC PIPE
- CONVEYANCE PIPE

N

0 2.5 5

APPROX. SCALE IN FEET

FIGURE 5

736 E. 3rd AVENUE (NORTH DUPLEX)
AS-BUILT

VAPOR INTRUSION MITIGATION INSTALLATION REPORT
EPA EMERGENCY AND RAPID RESPONSE SERVICES
4TH AND GAMBELL SITE
Anchorage, Alaska

Ahtna Engineering

DATE: JANUARY 2015
REV.: -
CHKD: N.P.O.
DRAWN: C.E.H.
PROJ. No.: 15-001

PATH: D:\Project Drawings\2014 Drawings\14 Gambell\14 GAM VIM RPT FILE: 14-GAM-VIM-RPT-F5.DWG PLOTTED: 1/12/15.