THE STATE of ALASKA
GOVERNOR SEAN PARNELL

Department of Environmental Conservation

DIVISION OF SPILL PREVENTION & RESPONSE
Contaminated Sites Program

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Juneau, Alaska 99811-1800
Main: 907-465-5210
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File: 2100.26.281
Certified Mail, Return Receipt Requested
Article No. (7014 1200 0000 7457 6316)

September 26, 2014

Via USPS Certified Mail
Ms. Nicolette Gibbs, Real Estate Manager
Providence Health & Services
3760 Piper Street, Suite 3036
Anchorage, Alaska 99508

Re: Decision Document; Tudor Square, former Toppers
Corrective Action Complete Determination with Institutional Controls

Dear Ms. Gibbs:

The Alaska Department of Environmental Conservation's (ADEC) Contaminated Sites Program has completed a review of the environmental records associated with the above-referenced site located at 3401-3562 East Tudor Road in Anchorage, Alaska. Based on the information provided to date, it has been determined that the contaminant concentrations remaining on site do not pose an unacceptable risk to human health or the environment, as long as the site is in compliance with the stated institutional controls (ICs).

This decision is based on the administrative record, located at ADEC's office in Juneau, Alaska. This letter summarizes the decision process used to determine the environmental status of the site and provides a summary of the regulatory issues considered in this Corrective Action Complete Determination with Institutional Controls document.

Site Name and Location:
Tudor Square, former Toppers
3401-3561 East Tudor Road
Anchorage, AK 99507

ADEC Site Identifiers:
File#: 2100.26.281
Hazard ID: 23893
UST Facility ID:

Name and Mailing Address of Contact Party:
Ms. Nicolette Gibbs, Real Estate Manager
Providence Health & Services
3760 Piper Street, Suite 3036
Anchorage, Alaska 99508

Regulatory Authority for Determination:
18 AAC 78; 18 AAC 75

Figure 1: Site location – Tudor Square, former Toppers, 3401 East Tudor Road in Anchorage, Alaska. Present day use as shopping center. Image generated with Google Maps, 2014.

Background

The subject property was previously operated as a Toppers gas station, owned by Toppers Oil Corporation, until 1985. An unknown number of underground storage tanks (UST) were removed soon after the gas station's closure. Contents of these UST's is also unknown and post-UST removal investigation of the potential subsurface contamination was not documented. The Federal Deposit Insurance Company (FDIC) took control of the property soon after Toppers closed and was the first owner to retain environmental consultants to conduct site investigations. In fall of 1990, Quest Environmental conducted Phase II Environtmental Assessment activities that included soil boring advancement, groundwater monitoring well installations, field-screening of soil and collection of soil samples for laboratory analysis. Dames & Moore were retained by FDIC in 1991 to conduct a Phase II Environmental Property Assessment. Additional groundwater monitoring wells were installed, groundwater and soil samples were collected for laboratory analysis, and soil was field-screened in the footprint of the former Toppers gas station property.

In 1993, the site was owned by Trillium Corporation and Polarconsult Alaska, Inc. was retained to continue site assessment activities. A bio-venting system consisting of air injection wells (AIWs) and

soil-gas probes (SGPs) were installed within subsurface soils to promote bioremediation of contaminated soil and groundwater. Until 2006, this bio-venting system was operated along with routine collection of groundwater and soil samples. Also in 2006, 1,016 cubic yards of contaminated soil (including peat and blue clay) were excavated. The granular soil was transported to Alaska Soil Recycling for disposal and the peat-rich soil was landspread at a private, remote property in the Matanuska-Sustina Valley. In July 2014, all remaining subsurface features on site associated with past remediation and monitoring were decommissioned. The property remains a shopping center and the site is paved with asphalt.

Contaminants of Concern

During site investigations between 1990 and 2006, soil and groundwater samples were analyzed for the following: total petroleum hydrocarbons, halogenated volatile organics, gasoline range organics (GRO), diesel range organics (DRO), benzene, toluene, ethylbenzene and xylenes (total) (BTEX). Based on the results of these laboratory analysis, the following Contaminants of Concern (COCs) were identified:

- Gasoline range organics (GRO)
- Diesel range organics (DRO)
- Benzene
- Toluene
- Ethylbenzene
- Xylenes (Total)

Benzene is the only COC that remains on site above the site-specific soil cleanup levels (ADEC-approved on May 25, 2006), in the shallow peat layer of the utility easement along the site's southern property boundary.

Cleanup Levels

On May 25, 2006, ADEC approved site-specific soil cleanup levels under Method 3 for the compounds listed below using site-specific fractional organic carbon data of 0.443 g/g, but capped the levels at saturation values, with the exception of the migration to groundwater criteria for benzene, which was capped at 10 times the Method 2 value, or 0.3 mg/kg. In 2008, Polarconsult requested the cleanup level for benzene be reconsidered using the site-specific organic carbon data. A revised cleanup level of 18.5 mg/kg for benzene was ultimately approved by ADEC in 2008.

Contaminant	Cleanup Level (mg/kg)
• GRO	1400
• DRO	4400
• Benzene	18.5
• Toluene	121
• Ethylbenzene	148
• Xylenes (Total)	2100

The default groundwater cleanup levels for this site are established in 18 AAC 75.345, Groundwater and surface water cleanup levels, Table C.

Contaminant	Groundwater Cleanup Level (mg/L)
• GRO	2.2
• DRO	1.5
• Benzene	0.005
• Toluene	1.0
• Ethylbenzene	0.7
• Xylenes (Total)	10.0

Gasoline and diesel were the contaminants on site prior to the 1985 decommissioning of three UST's that belonged to Toppers. Cleanup activities were conducted at this site from 1990 to 2006, and laboratory analysis methods were used to measure petroleum hydrocarbon contaminants prior to present-day state regulations. Specifically for this site, Method EPA 418.1 was used to analyze total petroleum hydrocarbons (TPH), as opposed to current AK Series methods which were not available until 1999. Method EPA 418.1 results cover a broad carbon range and are difficult to compare to post-1999 cleanup criteria for specific carbon ranges (example: GRO, DRO, RRO).

Characterization Activities

In August and September of 1990, Quest Environmental was retained by FDIC to conduct a Phase II Environmental Assessment at the site. Drilling for these investigations were provided by VECO Environmental and Ambler Drilling. In August, three boreholes were drilled across the suspected footprint of the former Toppers gas station. Soil was sampled and field-screened with an organic vapor monitor (OVM) at five feet below ground surface (bgs) and ten feet bgs for each borehole. Borehole # 3, the easternmost borehole, returned with the highest field-screening numbers of 338 ppm at five feet bgs and 246 ppm at ten feet bgs. In September, an additional ten boreholes were advanced in the footprint of the former Topper's gas station. A shallow groundwater table was encountered between ten feet bgs and 11.5 feet bgs. Field screening results taken from all the borings indicated that contamination had spread in a southeasterly direction. Between two to three soil samples per soil boring were field screened in September. Soil borings #3, 9, 10 and 12 all had field screening results over 100 ppm. Soil boring #9 contained the highest field screening result at 648 ppm at a depth of three feet bgs.

Dames & Moore was retained by FDIC in 1991 to conduct a Phase II Environmental Property Assessment. The May 10, 1991 report included details of groundwater monitoring well (MW) installation (three total), advancement of two soil borings, laboratory analysis of soil and groundwater samples and evaluation of these findings. Drilling services were provided by Hughes Drilling Company. Two soil samples were collected per every monitoring well installed for laboratory analysis. Groundwater samples were also collected and submitted for laboratory analysis. Groundwater and soil analysis results showed contamination still remained on site.

Dames and Moore conducted a site assessment and remedial alternatives evaluation on October 17, 1991, two days before ADEC issued a notice of violation (NOV) letter to FDIC for confirmation of a release. Five soil borings were advanced, ten soil samples were submitted for laboratory analysis, and the groundwater level was measured from monitoring wells.

In 1993, Trillium Corporation (Trillium) retained Polarconsult Alaska, Inc. (Polarconsult) to conduct site assessment investigations. Following review of past assessment reports and aerial photos, a bio-venting system of air-injection wells and soil gas probes were installed during May and June of 1995.

Soil samples were also collected at approximately four feet bgs and eight feet bgs during installation of the bio-venting system components. Soil samples were submitted to the labtoratory for analysis of GRO. GRO concentrations were consistently higher from samples collected at four feet bgs than at eight feet bgs. Respiration testing of the bio-venting system components showed that oxygen distribution within the soil was sufficient to promote petroleum degredation. Respiration testing is conducted by plotting oxygen levels against time.

A second-quarter respiration evaluation of the bio-venting system was conducted in December 1995 and January 1996. The purposes of this respriation test was to provide indication of subsurface oxygen distribution and bio-degredation of petroleum. One of the soil-gas probes was plugged with water and overall soil temperature had decreased from the previous test in summer 1995. It was noted that a decrease in soil temperature would affect bio-remediation and recommended that operation of the bio-venting system be reduced.

Third-quartererly evaluation of the bio-venting system occurred during April 1996. Changes in bio-degredation rates were presumed to be from seasonal decrease of soil temperatures. The recommendation of reduced system operation was noted in this May 1996 report by Polarconsult. A February 1997 report with details of the fourth, fifth and sixth quarterly bio-venting system evaluation concluded that the layer of peat (three feet to five feet bgs) on site was preventing oxygen from reaching the uppermost few feet of soil. Installation of an additional five SGPs and thermistors for temperature monitoring was proposed.

During May and June of 1997, five AIWs and five SGPs were installed to improve the bio-venting system following temperature and impermeable peat issues encountered. Soil samples were collected and submitted for laboratory analysis to further define the extent of contamination and assess remediation efforts. Respiration and pressure testing was also conducted to demonstrate subsurface oxygen distribution. The tenth quarter evaluation of the bio-venting system noted in December 1997's report states that elevated oxygen levels were measured, demonstrating that recent system modification was successful.

Evaluation of the site's bio-venting system from fall 1998 to summer 1999 demonstrated that the system was operating successfully. Recent soil sample analysis associated with replacement of MW 1 confirm that a majority of the contamination is located near the surface. It was also noted that high levels of organic carbon in the subsurface soil restrict contaminants from migrating to groundwater. Recent groundwater sample analysis indicated that benzene concentration has decreased and low levels of GRO still remains. Maintenance and repair to MW2 and MW 4 was recommended in this October 1999 report from Polarconsult.

ADEC requested a workplan for additional groundwater monitoring wells on June 1, 2000. In the August 2000 report by Polarconsult, the bio-venting system was operating successfully minus erratic oxygen levels in three SGP's. It was recommended that the air delivery system be adjusted to improve the oxygen supply. MW 5 and MW 6 were installed in September 2000, while groundwater samples were collected in October 2000. Soil samples were collected during installation of both new monitoring wells to support development of site specific, Method 3 cleanup parameters. Additional soil samples were collected from three soil borings to characterize contamiantion adjacent to the southern property line in September 2000. Drilling services were provided by Discovery Drilling. In response to Trillium's desire for expedited closure, excavation of contaminated soil and offsite treatment was recommended for soil above the site-specific cleanup levels.

On March 14, 2001, Providence Health & Services (Providence) retained ownership from Trillium and Polarconsult continued to perform remediation fieldwork at the site. Additoinal monitoring wells were installed in fall of 2001 and spring of 2002 to support application of the ten-times rule to the site. Installation of MW 8 through MW 11 confirmed elevated concentrations of GRO, DRO and BTEX, along with the suggestion that contamination is immobile. MW 9 was installed to characterize water from a deeper aquifer. Groundwater sampling from MW 9 confirmed that contamination from the site's shallow aquifer has not migrated to this deeper aquifer.

Polarconsult submitted an environmental site investigation report following groundwater sampling from three monitoring wells (MW 5, MW 7, & MW 8) on November 10, 2005. Concentrations of GRO, DRO and BTEX in MW 5 and MW 8 had decreased since the 2000 and 2001 sampling episodes. The absence of GRO, DRO and BTEX in MW 7 suggested contamination is relatively immobile at the site.

ADEC approved site-specific cleanup levels for the organic-rich soil on May 25, 2006. The final round of fieldwork occurred between September and November, 2006. Contaminated soil was excavated to a depth of approximately nine feet bgs and included removal of 249 cy of blue clay and 767 cy of peat-rich contaminated soil. The excavated area was backfilled with clean fill. The blue clay was transported to Alaska Soil Recycling for remediation and the peat-rich soil was landspread near a remote, private property in the Matanuska-Susitna Valley following ADEC-approval in June 2007. Three monitoring wells, eight AIW features and ten SGP's were decommissioned following receipt of laboratory analysis results.

The peat-rich soil was landspread at the private property in June and July of 2007 and multi-increment sample collection occurred in September 2008. A total of six samples of the native underlying soil and landspread soil were collected and analyzed for GRO and BTEX. Results returned as non-detect for all six samples analyzed.

In June and July of 2014, all remaining subsurface remediation features at the Tudor Square site were decommissioned. This includes four additional unidentified features and in-place abandonment of MW 3. Seven of the 11 total monitoring wells installed were decommissioned in July 2014. MW 3 could not be located and was abandoned in-place. Fifteen AIW features were decommissioned in July 2014. AIW 1-1 was not located and was possibly removed after 2006 during installation of a shallow underground electric circuit that was found during July 2014 fieldwork. The SGP numbering system in past reports indicate that 23 total SGP's were installed. SGP 1 and 2 are not shown on past site plans and are thought to be associated with the bio-venting pilot study in the early 1990's. Their fate is unknown between the pilot study and the full system installation in 1995. Ten SGP's were removed during 2006 fieldwork and the remaining 11 were removed in July 2014. Four unidentified features (UF) were found during this fieldwork. UF-1 through UF-3 were assumed to be associated with the original Topper's site and appeared to be monitoring wells. UF-4 was an intact well vault and thought to be an AIW from the bio-venting pilot study in the early 1990's. Table 1 and Figure 2 display soil and water contamination that remains at the site. The site remains a shopping center and is paved with asphalt.

Table 1
Highest Concentrations of Contaminants Remaining Onsite

Contaminant	Media	Concentration	Depth	Sample ID	Cleanup Criteria
GRO	Soil	730 mg/kg	3.7 feet	CS-19	1,400 mg/kg
DRO	Soil	860 mg/kg	3.7 feet	CS-19	4,400 mg/kg
Benzene	Soil	**30 mg/kg**	3.7 feet	CS-19	18 mg/kg
Ethylbenzene	Soil	7.7 mg/kg	3.7 feet	CS-19	148 mg/kg
Toluene	Soil	2.5 mg/kg	3.7 feet	CS-19	121 mg/kg
Total Xylenes	Soil	27 mg/kg	3.7 feet	CS-19	2100 mg/kg
GRO	Water	**3.460 mg/L**		MW 8	1.3 mg/L
DRO	Water	1.08 mg/L		MW 8	1.5 mg/L
Benzene	Water	**0.0582 mg/L**		MW 8	0.005 mg/L
Ethylbenzene	Water	0.0530 mg/L		MW 8	0.07 mg/L
Toluene	Water	0.0308 mg/L		MW 8	1.0 mg/L
Total Xylenes	Water	0.450 mg/L		MW 8	10 mg/L

BOLD = Exceeds ADEC cleanup level

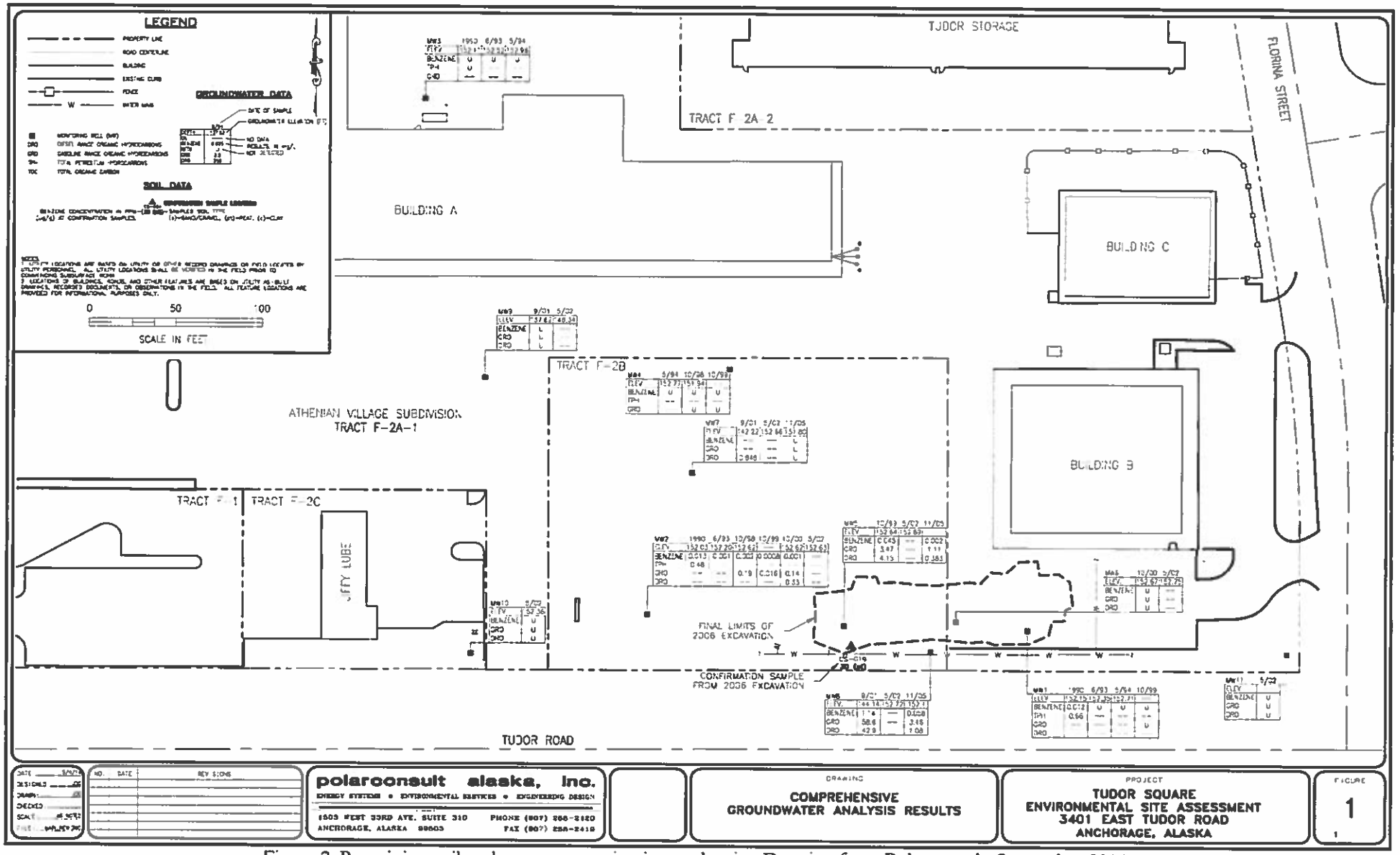

Figure 2: Remaining soil and water contamination at the site. Drawing from Polarconsult, September 2014

Figure 3: Street view of the site. View from East Tudor Road, looking northeast. Image generated using Google Maps, 2014.

Exposure Pathway Evaluation

Exposure to the remaining contaminants was evaluated using ADEC's Exposure Tracking Model (ETM). Exposure pathways are the conduits by which contamination may reach human or ecological receptors. ETM results show all pathways to be one of the following: De Minimis Exposure or Pathway Incomplete. A summary of this pathway evaluation is included in Table 2, below.

Pathway	Result	Explanation
Direct Contact with Surface Soil	Pathway Incomplete	Contaminated soil excavated to a depth of nine feet bgs; benzene above site-specific soil cleanup levels remain in the peat (two feet to six feet bgs) along southern property line, adjacent to Tudor Road. Property is an in urban setting and paved with asphalt.
Direct Contact with Sub-Surface Soil	De Minimis Exposure	Highest remaining soil and groundwater contamination is located within peat (two feet to six feet bgs) along southern property line, adjacent to Tudor Road., in utility easement area, along southern property boundary. Future utility workers are only potential exposure. Property is an in urban setting and paved with asphalt.
Inhalation-Outdoor Air	De Minimis Exposure	Highest soil and groundwater contamination remaining exists in peat layer (two feet to six feet bgs) along southern property boundary, in utility easement. Property is an in urban setting and paved with asphalt.
Inhalation-Indoor Air	De Minimis Exposure	Highest soil and groundwater contamination remaining exists in peat layer (two feet to six feet bgs) along southern property boundary, in utility easement. Groundwater contamination in shallow aquifer has demonstrated significantly decreasing trend. Does not exceed groundwater threshold for commercial occupancy.
Groundwater Ingestion	Pathway Incomplete	Based on deeper aquifer data, groundwater used for drinking purposes is not contaminated and shallower groundwater aquifer is non-potable.
Surface Water Ingestion	Pathway Incomplete	Property is an in urban setting and paved with asphalt to accommodate commercial parking needs. No surface

		water exists on the property.
Wild Foods Ingestion	Pathway Incomplete	Property is a commercial shopping center and paved with asphalt. No wild foods or hunting exists on site.
Exposure to Ecological Receptors	Pathway Incomplete	Benzene contamination in soil is present in peat layer, between two feet and 6 feet bgs, along southern property boundary. Property is an in urban setting and paved with asphalt to accommodate commercial parking needs.

Table 2: Exposure Pathway Evaluation

Notes to Table 2: "De-Minimis exposure" means that in ADEC's judgment receptors are unlikely to be affected by the minimal volume of remaining contamination. "Pathway incomplete" means that in ADEC's judgment contamination has no potential to contact receptors. "Exposure controlled" means there is an administrative mechanism in place limiting land or groundwater use, or a physical barrier in place that deters contact with residual contamination.

Cumulative Health Risk Calculation

Pursuant to 18 AAC 75.325 (g), when detectable contamination remains on-site following a cleanup, a cumulative risk determination must be calculated. A chemical that is detected at one-tenth or more of the Table B1 inhalation or ingestion values set out in 18 AAC 75.341(c) or the Table B2 values set out in 18 AAC 75.341(d) must be included when calculating cumulative risk under 18 AAC 75.325(g). Cumulative risk from petroleum contamination of environmental media at the site is addressed using the levels of detectable BTEX and PAH hydrocarbon compounds. With data currently available, DEC has determined that the total cancer risk for the site is at levels that do not present a cumulative risk to human health.

ADEC Decision

Soil sample results from the 2006 fieldwork indicated presence of DRO, GRO and BTEX contamination, but only benzene concentrations exceeded migration to groundwater cleanup levels. Excavation in 2006 removed the majority of contaminated soil (peat and granular), although much of the benzene remains in the shallow peat layer along the southern property boundary. Excavation in this area by utility workers is the only future potential exposure risk.

Groundwater and soil data from 1990 to 2006 demonstrated a decreasing trend, especially following excavation and removal of 1,016 cubic yards of contaminated soil (peat-rich sediments and blue clay). Shallow groundwater at the site seasonally fluctuates at approximately ten feet bgs and is contaminated, specifically with GRO and benzene, above Table C groundwater cleanup standards. This groundwater contamination was noted along the southern property line and this shallow aquifer is considered non-potable. The site is a privately-owned, paved, shopping center and is connected to municipal drinking water, so surface soil contact and groundwater ingestion pathways are incomplete. Inhalation pathways are also incomplete due to distance of remaining soil and groundwater contamination from buildings currently on site. ADEC has determined there is no unacceptable risk to human health or the environment, and this site will be designated as Corrective Action Complete – ICs determination.

A Notice of Environmental Contamination (deed notice) shall be recorded in the State Recorder's Office as an institutional control (IC) that identifies the nature and extent of contamination at the property and the conditions that the owners and operators are subject to in accordance with this decision document. These conditions are as follows:

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, these management conditions may not be protective and ADEC may require additional remediation and revised conditions. Therefore, the Municipality of Anchorage shall report to ADEC as soon as they become aware of any change in land ownership or use, if earlier. **The report can be sent to the ADEC project manager or electronically to DEC.ICUnit@alaska.gov.**

2. Soil contamination remains in the shallow peat layer that exists between two and six feet bgs, along the southern property line. Benzene is the only contaminant that exists above site-specific, ADEC-approved soil cleanup levels in this peat layer. In 2006, confirmation soil samples along the southern property boundary, in the utility easement adjacent to Tudor Road confirmed contamination. Future utility workers should be aware of exposure to this subsurface soil.

3. Groundwater contamination remains in the shallow, non-potable aquifer that seasonally fluctuates, at approximately ten feet bgs. GRO and benzene are the only contaminants that remain in groundwater above Table C groundwater cleanup levels. According to 2005 groundwater sample results, contamination remains along the southern property boundary, in the utility easement adjacent to Tudor Road.

4. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325. A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.) **This is a standard condition.**

5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. **This is a standard condition.**

6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70. **This is a standard condition.**

The ADEC Contaminated Sites Database will be updated to reflect the change in site status as detailed above, and will include a description of the contamination remaining at the site. Institutional controls will be removed in the future if documentation can be provided that shows cleanup levels have been met. Management conditions 4-6 remain in effect after ICs are removed.

This determination is in accordance with 18 AAC 78.276(f) and does not preclude ADEC from requiring additional assessment and/or cleanup action if future information indicates that this site may pose an unacceptable risk to human health or the environment.

Appeal

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 -18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days after receiving the department's decision reviewable under this section. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days after the date of issuance of this letter, or within 30 days after the department issues a final decision under 18 AAC 15.185. If a hearing is not requested within 30 days, the right to appeal is waived.

Please sign and return *Attachment A* to ADEC within 30 days of receipt of this letter. If you have questions about this closure decision, please feel free to contact me at 465-5368 or via email at amy.dieffenbacher@alaska.gov.

Sincerely,

Amy Dieffenbacher
Project Manager
Enclosure

Cc: Joel Groves, P.E., Polarconsult Alaska, Inc. via email
Sally Schlichting, ADEC Unit Manager, Contaminated Sites Program via email
Ron Thompson, Public Works Director, Municipality of Anchorage
ADEC SPAR Cost Recovery via email

Corrective Action Complete-ICs Agreement and Signature Page

Providence Health & Services agrees to the terms of this Cleanup Complete with Institutional Controls determination as stated in this Decision Document dated **September 26, 2014** for the **Tudor Square, former Toppers site.** Failure to comply with the terms of this agreement may result in ADEC reopening this site and requiring further remedial action in accordance with 18 AAC 75.380(d).

Signature of Authorized Representative, Title Date

Printed Name of Authorized Representative, Title

Institutional Controls and Conditions

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, these management conditions may not be protective and ADEC may require additional remediation and revised conditions. Therefore, the Municipality of Anchorage shall report to ADEC as soon as they become aware of any change in land ownership or use, if earlier. **The report can be sent to the ADEC project manager or electronically to** DEC.ICUnit@alaska.gov.

2. Soil contamination remains in the shallow peat layer that exists between two and six feet bgs, along the southern property line. Benzene is the only contaminant that exists above site-specific, ADEC-approved soil cleanup levels in this peat layer. In 2006, confirmation soil samples along the southern property boundary, in the utility easement adjacent to Tudor Road confirmed contamination. Future utility workers should be aware of exposure to this subsurface soil.

3. Groundwater contamination remains in the shallow, non-potable aquifer that seasonally fluctuates, at approximately ten feet bgs. GRO and benzene are the only contaminants that remain in groundwater above Table C groundwater cleanup levels. According to 2005 groundwater sample results, contamination remains along the southern property boundary, in the utility easement adjacent to Tudor Road.

4. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325. A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.) **This is a standard condition.**

5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. **This is a standard condition.**

6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70. **This is a standard condition.**

Note to Responsible Person (RP): After making a copy for your records, please return a signed copy of this form to the ADEC project manager at the address on this correspondence within 30 days of receipt of this letter.

Notice of Environmental Contamination

Grantor: Alaska Department of Environmental Conservation-Contaminated Sites Program

Grantees:
Providence Health & Services
Attn.: Nicolette Gibbs
3760 Piper Street, Suite 3036
Anchorage, Alaska 99508

Legal Description: 3401-3561 East Tudor Road, Anchorage, Alaska. Athenian Village Subdivision, Tract F2-A and F2-B, Block 5. Anchorage (A-8) NW Quadrangle

Recording District: Anchorage

Return to: Amy Dieffenbacher
CS Project Manager
Division of Spill Prevention and Response
Department of Environmental Conservation
410 Willoughby Avenue, Suite 302
P.O. Box 111800
Juneau, AK 99811-1800
907-465-5368

State Business- No Charge

NOTICE OF ENVIRONMENTAL CONTAMINATION

Recording District: Anchorage
Official State Business – No Charge

As required by the Alaska Department of Environmental Conservation (ADEC), Grantor, pursuant to 18 AAC 75.375 b (3), Providence Health & Services, Grantee, as the owner [and operator] of the subject property, hereby provides public notice that the property located at:

3401-3561 East Tudor Road, Anchorage, Alaska and more particularly described as follows: Athenian Village Subdivision, Tract F2-A and F2-B, Block 5. Anchorage (A-8) NW Quadrangle

has been subject to a discharge or release, regulated under 18 AAC 75, Article 3, as revised April 8, 2012. This release is documented in the Alaska Department of Environmental Conservation (ADEC) contaminated sites database at http://www.dec.state.ak.us/spar/csp/db_search.htm under Hazard ID number 23893.

The property was a Toppers gas station, owned by Toppers Oil Corporation, until 1985. An unknown number of underground storage tanks (UST) were removed soon after the gas station's closure. Contents of these UST's is also unknown and post-UST removal investigation of the potential subsurface contamination was not documented. The Federal Deposit Insurance Company (FDIC) took control of the property soon after Toppers closed and was the first owner to retain environmental consultants to conducts site investigations. In fall of 1990, Quest Environmental conducted Phase II Environtmental Assessment activities that included soil boring advancement, groundwater monitoring well installations, field-screening of soil and collection of soil samples for laboratory analysis. Dames & Moore were retained by FDIC in 1991 to conduct a Phase II Environmental Property Assessment. Additional groundwater monitoring wells were installed, groundwater and soil samples were collected for laboratory analysis, and soil was field-screened in the footprint of the former Toppers gas station property.

In 1993, the site was owned by Trillium Corporation and Polarconsult Alaska, Inc. was retained to continue site assessment activities. A bio-venting system consisting of air injection wells and soil-gas probes were installed within subsurface soils to promote bioremediation of contaminated soil and groundwater. Until 2006, this bio-venting system was operated along with routine collection of groundwater and soil samples. Also in 2006, 1,016 cubic yards of contaminated soil (including peat and blue clay) were excavated. The granular soil was transported to Alaska Soil Recycling for disposal and the peat-rich soil was landspread at a private, remote property in the Matanuska-Sustina Valley. In July 2014, all remaining subsurface feature on site associated with past remediation and monitoring were decommissioned. The property remains a shopping center and the site is paved with asphalt.

Contaminated soil and groundwater still remain on site, although in the utility easement along Tudor Road. The only exposure hazard is to future utility workers who have direct contact with subsurface soils and the shallow groundwater table.

The property is subject to the following conditions, known as institutional controls per 18 AAC 75.375 a (2), in order to ensure human health is protected, until such time that a cleanup can be completed. Institutional controls on this property are as follows:

1. Any future change in land use may impact the exposure assumptions cited in this document. If land use and/or ownership changes, these management conditions may not be protective and ADEC may require additional remediation and revised conditions. Therefore, the Municipality of Anchorage shall report to ADEC as soon as they become aware of any change in land ownership or use, if earlier. **The report can be sent to the ADEC project manager or electronically to DEC.ICUnit@alaska.gov.**

2. Soil contamination remains in the shallow peat layer that exists between two and six feet bgs, along the southern property line. Benzene is the only contaminant that exists above site-specific, ADEC-approved soil cleanup levels in this peat layer. In 2006, confirmation soil samples along the southern property boundary, in the utility easement adjacent to Tudor Road confirmed contamination. Future utility workers should be aware of exposure to this subsurface soil.

3. Groundwater contamination remains in the shallow, non-potable aquifer that seasonally fluctuates, at approximately ten feet bgs. GRO and benzene are the only contaminants that remain in groundwater above Table C groundwater cleanup levels. According to 2005 groundwater sample results, contamination remains along the southern property boundary, in the utility easement adjacent to Tudor Road.

4. Any proposal to transport soil or groundwater off-site requires ADEC approval in accordance with 18 AAC 75.325. A "site" [as defined by 18 AAC 75.990 (115)] means an area that is contaminated, including areas contaminated by the migration of hazardous substances from a source area, regardless of property ownership. (See attached site figure.) **This is a standard condition.**

5. Movement or use of contaminated material in a manner that results in a violation of 18 AAC 70 water quality standards is prohibited. **This is a standard condition.**

6. Groundwater in the state of Alaska is protected for aquaculture use. In the event that an aquaculture facility uses groundwater from this site in the future, additional treatment may be required to meet aquatic life criteria under 18 AAC 70. **This is a standard condition.**

This Notice of Environmental Contamination shall be attached to the property as a deed notice and will remain in effect until site characterization and cleanup efforts have been performed to the satisfaction of ADEC and the department has issued a written determination that soil and groundwater at the site has been shown to meet the most stringent soil cleanup levels in method two of 18 AAC 75.340-345.

For more information on the contaminated site in this Notice of Environmental Contamination, please see ADEC Contaminated Sites Program file number (2100.26.281) for the site named (Tudor Square, former Toppers).

Providence Health & Services agrees to the terms and conditions of the Institutional Controls as stated in this Notice of Environmental Contamination letter concerning the Tudor Square, former Toppers site, filed with Alaska Department of Natural Resources Recorder's Office, dated September 26, 2014

Signature of Authorized ADEC Representative	Date
Signature of Providence Health & Services Representative	Date