ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
CONTAMINATED SITES PROGRAM

RECORD OF DECISION
Valley Country Store
4891 E Stoney Hollow Drive
Wasilla, Alaska

January 2005

SITE INFORMATION SUMMARY

Site name and location
Valley Country Store is located at 4891 East Stoney Hollow Drive Wasilla, Alaska. The legal description of the site is: NW¼ Section 32, Township 18 North, Range 1 East, Seward Meridian.

Name and mailing address of responsible person
Dennis Illies is the previous owner of Valley Country Store. He sold Valley Country Stores in 2002 to Alaska Country Stores Inc. but retained liability and responsibility for on site contamination. His mailing address is: P.O. Box 870729 Wasilla, AK 99687.

Database Record key
1994220015701

CS file number
File Number: 2265.26.012 (formerly L55.377)

Regulatory authority
18 AAC 75.325 – 18 AAC 75.390

Background and Site Investigative History
The site consists of a small store with a paved driveway and fuel dispensers under a permanent, pile-supported canopy. Fuel tanks were first installed in 1983. A surface spill of gasoline during customer fueling was reported in 1989.

In 1994, two 10,000 gallon unleaded gasoline underground storage tanks (USTs) and a 5,000 gallon diesel UST and associated dispensers were removed and upgraded. Soil was excavated to a depth of 27 feet below the tanks and to 10 feet below the dispensers. Gasoline contaminated soil and groundwater remained at both the UST and dispenser locations.

Following the UST upgrade, Terrasat, Inc. conducted a release investigation at the site and stockpiled 250 to 600 cubic yards of contaminated soil on site. Soil contamination was found to be greatest beneath the western-most gasoline UST #2 and the dispensers. An on-site water well was sampled and there were no detectable levels of petroleum hydrocarbons.

During the UST removal and upgrade, 25 soil samples were collected from the UST and dispenser excavation pits and analyzed for petroleum compounds. Petroleum hydrocarbons were not detected in any samples analyzed and BTEX was not detected at levels that exceeded 18 AAC 75.341 Table B1 and B2 values for migration to groundwater.

In 1996, Shannon & Wilson Inc. installed and sampled a monitoring well (MW1) near the dispenser island. Soil contamination was found to extend to groundwater at 69 feet below ground surface (bgs), and groundwater levels of GRO, benzene, and toluene concentrations exceeded 18 AAC 75.345 Table C values.

During the installation of monitoring well MW-1, two soil samples were collected and analyzed for GRO and BTEX. The following table indicated the contaminants detected and the concentrations.

Contaminant of Concern	Range of concentrations (mg/kg)	ADEC Cleanup Levels (mg/kg)
Benzene	0.232 to 3.17	0.02
Toluene	0.33 to 16.3	5.4

From 1996 through 1997, the on site drinking water well was sampled three times and three nearby residential drinking water wells were sampled in 1996. Petroleum hydrocarbons were not detected in any of the drinking water wells sampled. MW1 was sampled again in 2000 and the levels of GRO and BTEX had decreased but still exceeded 18 AAC 75.345 Table C values.

In 2001, Alaska Chemical Engineering conducted a release investigation at the site. The investigation included surveying and sampling of private drinking water wells, sampling of MW1, and construction and sampling of three new monitoring wells (MW2, MW3, and MW4). The nature and extent of soil contamination was further defined with levels of petroleum constituents detected in the soil boring for MW2 above the 18 AAC 75.341 Table B1 and B2 migration to groundwater cleanup levels.

Contaminant of Concern	Range of concentrations (mg/kg)	ADEC Cleanup Levels (mg/kg)
GRO	Non detect to 895	300
Benzene	Non detect to 9.91	0.02
Ethylbenzene	Non detect to 40.6	5.5
Toluene	Non detect to 120	5.4
Xylenes	Non detect to 196.5	78

The levels of petroleum constituents in soil borings from MW3 and MW4 did not exceed 18 AAC 75.341 Table B1 and B2 values for migration to groundwater.

The levels of petroleum constituents measured in groundwater samples collected from monitoring wells MW1, MW2, and MW3 exceeded 18 AAC 75.345 Table C values. However,

petroleum constituents were not detected in any groundwater samples collected from private drinking water wells.

From January 2002 until April 2004, Alaska Chemical Engineering monitored groundwater on a quarterly basis. The monitoring data has never detected contamination in MW4 which is furthest downgradient from the source areas. The levels of contaminants measured in MW3, which is 30 to 50 feet from the source areas, were consistently below 18 AAC 75.345 Table C cleanup levels after two quarters into the monitoring schedule. The data from MW2, which is located near the USTs, indicated a steadily decreasing trend in concentrations and 18 AAC 75.345 Table C cleanup levels were achieved in the two 2004 groundwater sampling events. The levels of petroleum constituents measured in MW1, which is located near the fuel dispensers, has indicated a decreasing trend with 18 AAC 75.345 Table C cleanup levels being met in 3 of the last 4 sampling events.

The following groundwater samples were collected from 1996 to 2004.

Monitoring Well & Year(s) of Sampling	Range of GRO Concentrations (mg/L)	Range of Benzene Concentrations (mg/L)	ADEC GRO Cleanup Level (mg/l)	ADEC Benzene Cleanup Level (mg/l)
MW1 (1996-2002)	Nondetect to 11.1	0.004 to 0.921	1.3	0.005
MW1 (2003)	Nondetect to 0.251	Nondetect to 0.025	1.3	0.005
MW1 (2004)	Nondetect	0.006	1.3	0.005
MW2 (1996-2002)	0.338 to 9.18	0.051 to 0.653	1.3	0.005
MW2 (2003)	Nondetect to 0.383	0.007 to 0.04	1.3	0.005
MW2 (2004)	Nondetect	0.001 to 0.002	1.3	0.005
MW3 (1996-2002)	Nondetect to 0.475	Nondetect to 0.049	1.3	0.005
MW3 (2003)	Nondetect	Nondetect	1.3	0.005
MW4 (1996-2002)	Nondetect	Nondetect	1.3	0.005
MW4 (2003)	Nondetect	Nondetect	1.3	0.005

Groundwater samples were not collected from MW3 and MW4 in 2004 since petroleum constituents were not detected in four previous sampling events. The levels of benzene detected

in MW1 groundwater samples have slightly exceeded 18 AAC 75.345 Table C levels in 2 of the last 5 sampling events.

Description of contaminants and media impacted
Gasoline range organics (GRO), diesel range organics (DRO), benzene, ethylbenzene, toluene, and xylenes (BTEX) have been detected in soil and groundwater.

Prior cleanup actions taken
In 1996, Shannon & Wilson Inc. sampled the soil stockpile that was generated following the UST upgrade in 1994. The sample data indicated levels of petroleum hydrocarbons were below applicable 18 AAC 75.341 Tables B1 and B2 values for migration to groundwater. As a result, the stockpiled soil was landspread on site.

Current and expected future land use
Valley Country Store presently operates as a gas and grocery store and is expected to continue operating in the same manner in the future. The site is surrounded by residential housing and small businesses.

Determination of current and expected future use of groundwater
The groundwater in the area is used for drinking water. A class B private drinking water well presently serves the Valley Country Store and the surrounding properties also utilize groundwater.

Completed Exposure Pathways
The exposure pathways evaluated under this decision include ingestion, inhalation, and migration to groundwater pathways. Inspection of boring logs for the on site and nearby private drinking water wells suggests that a hardpan layer exists between perched groundwater around 65 feet bgs and the aquifer tapped by the private drinking water wells around 100 feet bgs. This aquitard may not be extensive or impervious throughout the site; however, it does limit the migration to groundwater exposure pathway. The ingestion and inhalation pathways are also considered to be complete.

ADEC CLEANUP LEVELS

Soil
ADEC has evaluated the contaminant concentrations in the soil in accordance with 18 AAC 75.341 Tables B1 and B2 cleanup levels. The various pathways evaluated were migration to groundwater; ingestion and inhalation. All pathways evaluated are considered complete and the most stringent of the various pathways will be considered applicable at this site. The following soil cleanup levels are established for this site:

- Benzene 0.02 mg/kg
- Toluene 5.4 mg/kg
- Ethylbenzene 5.5 mg/kg
- Xylenes 78 mg/kg
- Gasoline Range Organics 300 mg/kg

Groundwater
ADEC has evaluated the hydrogeology at this site and contaminant concentrations in the groundwater in accordance with 18 AAC 75.345 Table C cleanup levels. The groundwater flow direction in this area is generally to the southeast. The boring logs of private drinking water wells in the surrounding area identified a hardpan layer (i.e. aquitard) approximately 65 feet bgs that separates a shallow aquifer from a deeper (perhaps confined) aquifer. The private drinking water wells that were investigated are drilled into the deeper aquifer. It is not clear whether the aquitard is continuous throughout the site. The cleanup levels established for all groundwater are:

- Benzene 0.005 mg/L
- Toluene 1.0 mg/L
- Ethylbenzene 0.7 mg/L
- Xylenes 10 mg/L
- Gasoline Range Organics 1.3 mg/L

ADEC DECISION
The Department evaluated the site specific conditions at the Valley Country Store located at 4891 East Stoney Hollow Drive Wasilla, Alaska. There have been impacts to the soil and groundwater at this site from leaking USTs but the tanks and distribution systems have been upgraded to prevent future releases. The soil impacted by the releases has been excavated and monitor data indicates a decreasing trend in contaminant levels. Based on this information, the contamination remaining on site does not pose a risk to human health or the environment.

The contaminants of concern (GRO and BTEX) remaining on site exceed the 18 AAC 75.341 Tables B1 and B2 soil cleanup levels for the migration to groundwater pathway. The soil ingestion and inhalation pathways were also evaluated but the contaminant levels remaining on site do not exceed those levels.

Groundwater monitoring results from previous sampling events demonstrate that three of the four monitoring wells have consistently indicated that groundwater does not exceed the 18 AAC 75.345 Table C cleanup levels. The benzene levels in MW1 (located near the fuel pump islands), varies below or slightly above the regulatory cleanup level of 0.0005 mg/L. Based on the monitoring data, ADEC determined that groundwater monitoring at MW1, MW2, MW3, and MW4 was no longer needed. (Refer to ADEC May 12, 2004 letter).

ADEC has determined that no further remedial action is required at this site even though low levels of hazardous substances remain in soil above the established cleanup levels. The contaminant levels that remain there will degrade over time through natural attenuation. This determination is based on information presented to date and is subject to the following conditions:

1. any proposal to excavate and/or transport soil from the area requires ADEC approval in accordance with 18 AAC 78.274(b);
2. this site shall be listed in the Department's database as a conditional closure with applicable restrictions and/or conditions; and

3. If future information indicates contamination is present at levels that may pose a risk, additional assessment and/or cleanup action may be required.

In order to meet site closure requirements without institutional controls, a sample plan will be required that identifies locations to be sampled in order to confirm site cleanup levels have been achieved. This plan may be submitted in the future when it is anticipated that contaminant levels have attenuated to the established cleanup levels. The plan must be submitted to ADEC for review and approval prior to its implementation.

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. 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.

ADEC Project Manager Approval:

_____ _____

Todd Blessing, Environmental Specialist Date

ADEC Section Manager Approval:

_____ _____

Jim Frechione, Environmental Conservation Manager Date