

May 29, 2004

Alaska Dept. of Environmental Conservation
Division of Spill Prevention and Response
Contaminated Sites Program
43335 Kalifornsky Beach Rd, Suite 11
Soldotna, Alaska 99669

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ADEC
Kenai Area Office

Subject: **Sunny Chevron Service, Homer, Alaska**
Spill #1989-23-00-082-01, UST Facility ID #0413
Final Report - Decommissioning Groundwater Monitor Wells

Attention: Monica English, Environmental Specialist

This report, prepared on behalf of the facility owner Joel J. Carroll, describes the removal and decommissioning of the groundwater monitor wells at the above referenced facility.

SUMMARY

Five monitor wells were installed in November 2002 to determine the groundwater quality down-gradient of the former Underground Storage Tank (UST) system at Sunny Chevron Service. Four groundwater monitoring events were documented in reports provided to the Alaska Department of Environmental Conservation (ADEC):

Groundwater Monitor Well Installation and Sampling #1, May 1, 2003,

Groundwater Monitor Well Sampling #2, May 22, 2003,

Groundwater Monitor Well Sampling #3, January 12, 2004,

Groundwater Monitor Well Sampling #4, May 11, 2004.

Analytical results for groundwater samples collected from the monitoring wells during the four events showed the groundwater cleanup objectives had been met. We recommended the groundwater monitoring program be terminated and the monitor wells be decommissioned. In a letter dated May 14, 2004, the ADEC Kenai Area Office approved the termination of groundwater monitoring and decommissioning of the monitor wells. On May 26, 2004, we decommissioned the monitoring wells. This report concludes our work on this project.

DECOMMISSIONING ACTIVITIES

Rozak Engineering conducted all of the field activities for the removal and decommissioning of five groundwater monitor wells. During the site work on May 26, 2004, the weather variable with overcast skies in the morning, clearing with light breeze in the afternoon. The temperature was between 50° and 55° F.

The steps we took to decommission each monitor well are listed below. Minor variations occurred, such as the well casing at MW5 broke at the PVC riser connection with the screen section. This required extra digging and improvising to remove the broken pipe, but we still achieved the objective of filling and sealing the borehole. The attached photographs show an extension we placed on the riser, concrete removed around a security casing, the tripod set up, and hoisting in process.

- Remove security casing cover (MWs 4 and 5 were buried and had to be located)
- Measure depths from top of casing to water level and bottom of well
- Cement 18" extension to top of 2" PVC riser (not required at all wells)
- Set up tripod and hoisting equipment directly above the monitor well riser
- Wrap chain or strap around PVC pipe and carefully pull entire pipe from ground
- Unscrew bottom cap, replace 5' to 7' section of PVC pipe into borehole
- Jackhammer concrete and remove flush-mount security casing
- Fill borehole with coarse dry sand, tamping at 1' to 1.5' intervals to prevent bridging
- Place bentonite chips above tamped sand to create a 2' grout plug
- Fill and compact gravel from bentonite plug to ground (or bottom of sidewalk)
- Place 4"-6" thick concrete patch in sidewalk at MWs 1, 2, and 3
- Cover concrete patch with wet burlap and traffic cones for two days

The following table summarizes the well depth, groundwater level, and depth of sealing material for each monitoring well. The well depths were measured from ground surface to the cap at the bottom of the well. The static water levels (SWL) were measured from the top of the PVC riser to groundwater, same as SWL measurements during the monitoring events.

MW #	Well Depth (feet)	Static Water Level, (feet)	Sand (feet)	Bentonite Plug (feet)	Gravel Fill (feet)
1	13.8	2.3	10.5	2	1.3
2	14	2.6	10.5	2	1.5
3	14	3.2	10.5	2	1.5
4	13.1	3.2	10.1	1.8	1.2
5	14.5	5.4	11.0	2	1.5

CONCLUSIONS

All of the groundwater monitor wells were decommissioned as outlined in the August 26, 1992 ADEC document titled "Recommended Practices for Monitoring Well Design, Installation, and Decommissioning". Specifically, as prefaced in Section 5.2 – Methods, the monitoring wells were permanently "decommissioned by completely sealing the well bore to prevent the entrance of surface contaminants into the groundwater" and "to prevent vertical movement of water or contaminants between water-bearing zones in both the well casing and annular space."

On behalf of Mr. Joel J. Carroll, we request the Department issue a closure letter for this facility.

CLOSURE

The services described in this report were performed in general accordance with the plans and practices referenced herein and the standard of care and diligence normally practiced by recognized consulting firms in performing services of a similar nature. To the best of my knowledge and belief, the information contained in this report is true, accurate, and complete.

Thank you for your assistance during the corrective action and monitoring work performed at this facility.

Sincerely,



Ronald T. Rozak, PE
Principal Investigator

cc: Joel J. Carroll
Scott Pexton, ADEC DSPAR Response Fund Administration Program



After concrete around security casing was jackhammered. Riser extension is visible.



Typical tripod set up (MW2); hoisting well pipe from borehole.