

April 12, 2024

Mr. Reed Miner
Montana Department of Environmental Quality
Petroleum Tank Cleanup Section
Reed.Miner@mt.gov

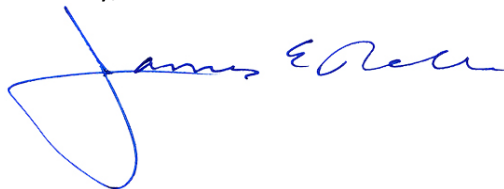
Re: **Monitoring Well Abandonment Work Plan Form AC-08** for the Former Cardinal True Value Hardware,
7th Avenue West & Center Street, Facility ID# 15-12787, Release# 1275 (TID 21007), Work Plan# 34843

Dear Mr. Miner:

Enclosed for your review is the **Monitoring Well Abandonment Work Plan Form AC-08** for the Former Cardinal True Value located in Kalispell, Montana. All of the remaining monitoring wells at the site will be abandoned by a MT Licensed Monitoring Well Constructor in accordance with DNRC regulations (ARM 36.21.810). The site will be restored to its pre-corrective action state according to DEQ regulations (ARM 17.56.605). WCEC will perform all abandonment and oversight completed under this work plan. A letter report including well abandonment specifics, DNRC well abandonment forms for each well, and a photo log of abandonment and restoration activities will be submitted within 30 days of completion of well abandonment. Well abandonment is tentatively scheduled for May 2024 pending approval of this work plan.

If you have any questions or concerns, please call or contact me via email at jrolle@wcec.com.

Sincerely,



Jim Rolle
Director, WCEC

Enclosure (3)

cc: Sarah Sitar, Quietude Home, Inc; sarah@quietudehome.com



AC-08
MONITORING WELL ABANDONMENT WORK PLAN
and BUDGET FORMAT

This Monitoring Well Abandonment Work Plan (WP) is for the routine abandonment of monitoring wells no longer needed for petroleum release investigation or cleanup, or needed by the owner/operator for their own purposes. Monitoring wells to which this WP applies include groundwater monitoring wells, soil vapor extraction wells, recovery wells, observation wells, sparge/injection wells, and piezometers.

Administrative Rules of Montana (ARM) 36.21.810 sets forth the legal requirements for properly abandoning monitoring wells. ARM 36.21.810 is attached and may be found at the following Internet address: http://www.mtrules.org/gateway/RuleNo.asp?RN=36.21.810.

Return this WP to: Petroleum Tank Cleanup Section, Montana Department of Environmental Quality, P.O. Box 200901, Helena, MT 59620-0901. Please note that incomplete and/or unsigned WPs will be returned and may delay processing of claims submitted to the Petroleum Tank Release Compensation Board.

Facility Name: Former Cardinal True Value Hardware Facility ID# 15-12787 Release # 1275
Facility Address 7th Avenue West and Center Street Kalispell 59901
(Street) (City) (Zip)
Owner/Operator Name Sarah Sitar, Quietude Home, Inc
Owner/Operator mailing address, if different from above: 845 Park Ave, Whitefish, MT 59937

Consultant's name, address, and phone number: WCEC, Jim Rolle, 1030 South Ave. W, Missoula, MT 59801
406-360-3797

List monitoring wells by name and number to be abandoned: MW2, MW3, MW5, MW7, MW8

List monitoring wells by name and number to be maintained:

Specify the method by which the monitoring wells will be abandoned: ARM 36.21.810 (2)(a)(ii)

Target date for abandonment of the monitoring well(s): May 2024

Unit cost per monitoring well for abandonment (include mobilization, Portland cement, grout or bentonite, equipment, and consultant or contractor labor costs): \$See attached \$ /ft

Total cost of abandoning the above-listed monitoring wells: \$ See attached

I elect to maintain the monitoring wells located at the above-referenced Facility and will monitor the wells at least every three years and in accordance with applicable requirements of the Montana Department of Natural Resources & Conservation Division.

X I elect to abandon the monitoring wells located at the above-referenced Facility and certify that the above-referenced monitoring wells are to be properly abandoned in accordance with the provisions ARM 36.21.810 and other applicable requirements of the Montana Department of Natural Resources & Conservation Division.

(Signature of Facility owner or operator or authorized representative)

4/4/2024

(date)

36.21.810 ABANDONMENT

(1) Wells which have not been monitored for more than three years shall be deemed abandoned unless written permission is obtained from the board to maintain the well.

(2) Monitoring wells that have outlived their useful purpose shall be abandoned by one of the following methods:

(a) if the casing and screen are left in place, the casing and screen shall be sealed from the bottom up by the following methods:

(i) using a pump and hose or tremie pipe to conduct the sealing material to the bottom of the well; or

(ii) by filling the casing and screen with bentonite pellets or chips placed in a manner that will prevent bridging. Metal casings shall be cut off three feet below the ground surface and the last three feet backfilled with naturally occurring soils;

(b) the department recommends that the casing be removed in all possible instances. If the casing and/or screen are removed, the hole shall be filled with sealing material, concrete, or bentonite pellets or chips from the bottom up, as the casing and/or screen is removed. From six to three feet from the surface, bentonite shall be added to the well. The last three feet shall be filled with naturally occurring soils;

(c) the sealing material shall be bentonite pellets or chips, bentonite clay grout, neat cement grout, or concrete. The material may contain nonbiodegradable fluidizing admixtures, provided they will not contaminate the groundwater. Sealing materials which settle shall be topped to provide a continuous column of grout to within three feet of the surface; or

(d) other methods for abandonment with prior board approval.

(3) For flowing wells, the abandonment procedures outlined in ARM [36.21.671](#) shall apply.

(4) A properly abandoned well shall not produce water nor serve as a channel for movement of water.

(5) A water well log report, fully describing all abandonment procedures, shall be submitted to the Ground Water Information Center (GWIC) of the MBMG within 60 days of abandoning the well.

History: [37-43-202](#), MCA; [IMP](#), [37-43-202](#), MCA; [NEW](#), 1990 MAR p. 739, Eff. 4/13/90; [AMD](#), 1991 MAR p. 913, Eff. 6/14/91; [AMD](#), 1997 MAR p. 65, Eff. 1/17/97; [AMD](#), 2010 MAR p. 1614, Eff. 7/16/10.

For additional information or requirements for abandoning or maintaining monitoring wells, please contact the Montana Department of Natural Resources & Conservation, Board of Water Well Contractors at (406) 444-6643.