UTAH TANK NEWS

FALL 2001 UST Branch

SHALLOW GROUNDWATER

by John Menatti

Increasing population growth in the Salt Lake Valley has prompted water suppliers to evaluate and develop new sources of water. Currently, groundwater provides about 43% of Salt Lake Valley's drinking water and is pumped from wells installed in the deep artesian aquifer (principal aquifer). Water suppliers are currently proposing to install wells into the shallow unconfined aquifer and use the shallow groundwater to help meet future water needs.

Generally, the shallow unconfined aquifer is present from about 10 feet to 50 feet below the ground surface in the Salt Lake Valley. A clay aquitard of varying thickness underlies the shallow aquifer. The principal artesian aquifer, currently used for culinary water supplies, underlies the aquitard. Primary recharge water to the principal aquifer is from rainfall and snowmelt in the mountains surrounding the Salt Lake Valley. Primary recharge water to the shallow aquifer is from infiltration from the ground surface in the valley.

Over 2,000 underground storage tank sites in the Salt Lake Valley have had leaks. The primary contaminants that have leaked from these tank sites are gasoline and diesel fuel. Most of these sites have already been cleaned up. Currently, there are about 400 underground storage tank sites in the Salt Lake Valley that are in various stages of investigation and cleanup. Many of these sites have contaminated the shallow groundwater aquifer and are being investigated and cleaned up by environmental consultants under the regulatory oversight of the Utah Division of Environmental Response and Remediation (DERR). Other sources of contamination to the shallow groundwater aquifer include industrial sites and dry cleaners.

Generally, contaminants released to the shallow groundwater aquifer move relatively slowly due to the flat groundwater gradients and low permeability soils. However, the pumping of groundwater from shallow wells can increase groundwater gradients in the vicinity of the wells and potentially cause contaminants to migrate faster. If contaminated groundwater reaches the wells, additional treatment will be required to use the water and additional costs will be incurred by water suppliers/users. Because of the proposed use of the shallow groundwater resource in the Salt Lake Valley, increased efforts are underway by the DERR to investigate and clean up contaminated sites in the vicinity of the proposed shallow groundwater wells.

INSIDE:

Published by the Utah Department of Environmental Quality
Division of Environmental Response and Remediation,
UST Branch

Dianne R. Nielson, Department Director
Kent P. Gray, Division Director
Dale Marx, UST Branch Manager
Gary Harris, Editor

Environmental consultants working on contaminated sites in the Salt Lake Valley should re-check the Utah Division of Water Rights (DWR) database for the presence of shallow groundwater wells in the vicinity of their sites. This information can be obtained from the DWR website (http://nrwrt1.nr.state.ut.us/wrinfo/wwwplatr.htm). If shallow groundwater wells are found in the vicinity of a contaminated site, the DERR should be notified immediately. To determine if a proposed location for a shallow groundwater well is near a contaminated site, the Interactive Map should be checked at the DERR website (http://www.deq.state.ut.us/eqerr/errhmpg.htm). ■

I Need To Look Where?

by Gary Harris

Dispensers and sub-pumps are prime candidates for leaks. A leak can be defined as anything from a small drip to a major spray. Behind your locked dispenser panels and under your man-hole covers there are metering and valve assemblies, along with filters, solenoids and piping joints, flex connectors and fittings. These components sometimes go awry or become worn and may result in a leak. A small drip or fine hair-like spray can add up to major contamination if gone unchecked for months or even days. Our UST inspectors inspect each facility once a year. The inspectors open each dispenser panel and each sub- pump area. In many cases the panels or man hole covers appear that they have not been opened in months if not longer.

Some of these drips and leaks are small enough to go undetected by typical leak detection methods. The most reliable way to discover dispenser or sub-pump leaks is to use the good old eye ball (visual check) method.

What to look for? First turn on the system, remove the dispenser nozzle and turn or flip the handle, this will ensure that the system is pressurized. Look for obvious drips, puddles, stains and vapor.. Many of these drips can easily be fixed by the turn of a wrench. If the contamination appears to be significant, contact the DERR at 801-536-4100 and report the contamination. On some occasions our inspectors find used filters under the dispensers, which indicates to us that the filter (about a quart of product) was dumped under the dispenser and into the environment. This is not an acceptable practice, the filter should be properly disposed of as if it were used oil.

At the sub-pump containment area, sometimes we find that the sub-pump is completely buried in dirt. We suggest to the owner/operator to remove all the dirt around the sub-pump and piping joints. This will increase the life span of the pump and make it more accessible for visual inspections. We also recommend that the dispensers and the sub-pump areas be check at least once a month. By performing routine visual inspections behind your dispenser panel and under your manhole covers, you as an owner/ operator can head off potential problems before they grow into costly environmental contamination. The sooner these leaks are found the better for everyone and the environment.■

Compliance Assistance Visits

by Gary Harris

Environmental Scientist form The Underground Storage Tank (UST) section are available to visit your facility, answer questions and give advice about your tank system, leak detection and required paperwork. THIS WILL NOT BE AN INSPECTION. This will be an assistance visit. If you are a new owner, old owner, or manager of a UST facility and would like this free training on your tank system, please contact the UST Section at (801) 536-4100.

This is a great opportunity for owners with more than one facility to have all their managers trained on their responsibilities dealing with the UST program. We will present a one or two hour training session and provide hands on training at your facility. We will go through step by step our procedures for inspecting your tank system. We will explain what we look for at your fill pipes, man-hole covers, and dispensers. We are willing to provide training in all areas dealing with UST program, everything from paperwork to visual inspections.

This visit can be tailored towards you specific needs. For example, if you require training on you Automatic Tank Gauging (ATG) system, we will provide that training. The more owners and operators understand about their UST system, the better for your business and the environment. ■

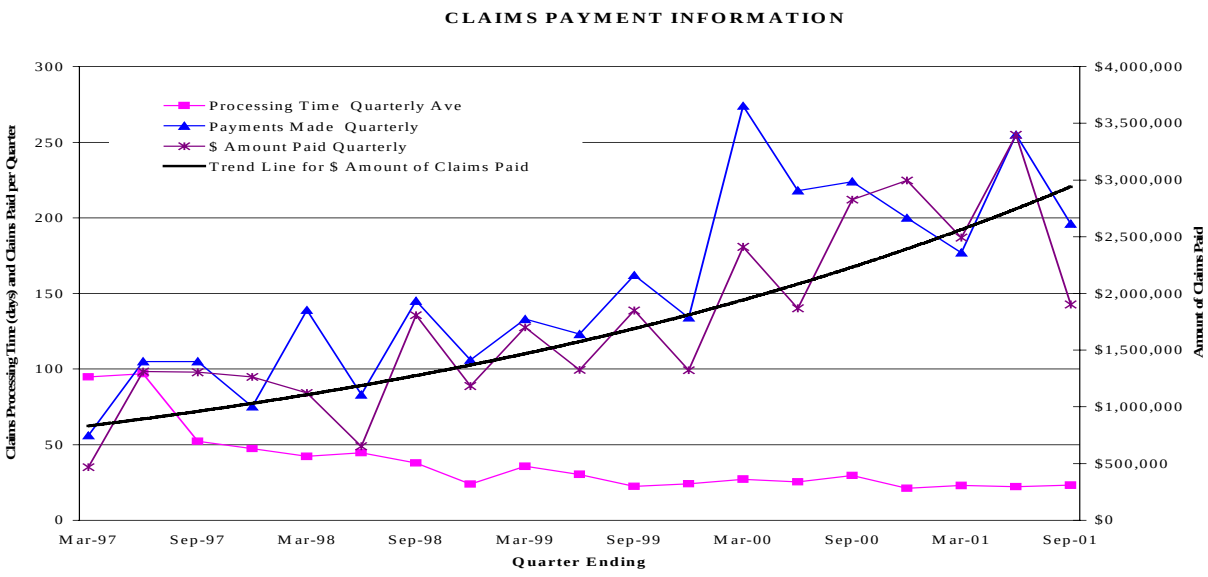
PST Fund

by Doug Hansen

The State of Utah Petroleum Storage Tank (PST) Fund was established in response to Federal Requirements that owners of under ground storage tanks (USTs) have either $500,000 or $1,000,000 of insurance to deal with releases. All eligible releases that occur after July 1, 1994 are required to meet a $10,000 deductible prior to receiving reimbursement from the Fund. Any eligible release that occurred prior to July 1, 1994 has a $25,000 deductible associated with it. The PST Fund is supported through fees paid on tanks and environmental assurance fee. Current tank fees include a $250 fee assessed for the year in which a new tank is installed, and an annual renewal fee of $50 for tanks that have less than 400,000 gallons throughput. If the annual throughout exceeds 400,000 gallons, the fee is increased to $150. Currently, the environmental assurance fee is one-quarter of a cent per gallon throughput. In addition to the fees collected from the UST owners, interest generated on the cash balance in the Fund. Historically, the interest earned has been greater than the tank fees collected annually.

Since the inception of the Fund, over 400 releases from USTs have received reimbursement for expenses related to investigation and cleanup of petroleum contamination. As of September 30, 2001, over 140 of those releases that have received Fund reimbursement have been relegated to "no further action" status. In many cases these efforts have allowed owners to sell property, obtain loans for improvements to their property, or use their property as collateral to secure finances for other business ventures.

To date, owners of USTs in the State of Utah have been reimbursed over $40 million from the PST Fund. The average time for processing a reimbursement request (from the time the request is received by the State until payment is approved) is just under 30 days. The amount of money paid out on a quarterly basis has nearly tripled since 1997. With the increase in Fund expenditures due in part to the reality that the releases currently under investigation and cleanup are substantially more costly than those that have received "no further action" status, the State is considering alternatives to traditional "time and expenses" contracting to lower the cost of cleanup. ■



Utah Department of Environmental Quality
Division of Environmental Reponse and Remediation
P.O. Box 144840
Salt Lake City, UT 84114-4840

PRSRT STD
US POSTAGE
PAID
Salt Lake City, UT
Permit # 4621

CERTIFICATION CLASSES AND EXAMS

PETCON
www.petconinc.com
Mar. 20-22, 2002
Jul. 17-19, 2002
Nov, 20-22, 2002
1-800-852-8374
Installer Remover Sampler

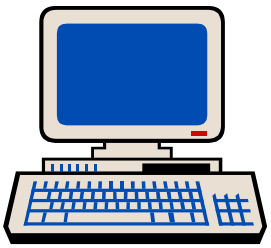
UVSC
Dec.11, 2001
Feb. 19, 2002
Apr. 16, 2002
Jun. 18, 2002
(Sampler only)
801-222-8000 ex. 8677

ECI
Alan Jenkins
Groundwater, soil sampler
801-491-3455
by appointment

Re-certification
Tests are given the first Tuesday of each month.
For more information contact David Wilson at
(801-536-4138

Environmental Consultants
Exam Dates
Dec. 14, 2001
Mar. 8, 2002
Jun. 14, 2002
Contact Hillary Mason at **(801) 536-4162**

VISIT OUR HOMEPAGE



www.deq.state.ut.us
DEQ

http://www.deq.state.ut.us/eqerr
DERR