

Former Exxon Mobil Service Station

#2-6140

9901 Georgetown Pike

Great Falls, VA

DEQ PC#2010-3028

Great Falls Citizens Association

Project Update

May 14, 2013

Kurt W. Kochan

DEQ-NRO Remediation

Project Timeline

- August 2009 – DEQ informed of the presence of dissolved phase petroleum constituents in the ground water located on the property and in the on-site potable well.
- August 2009- ExxonMobil identifies and commences sampling of 20 potable wells (one declined) located within one-quarter of a mile of the station.
- September 2009 – Initial Abatement Report submitted.

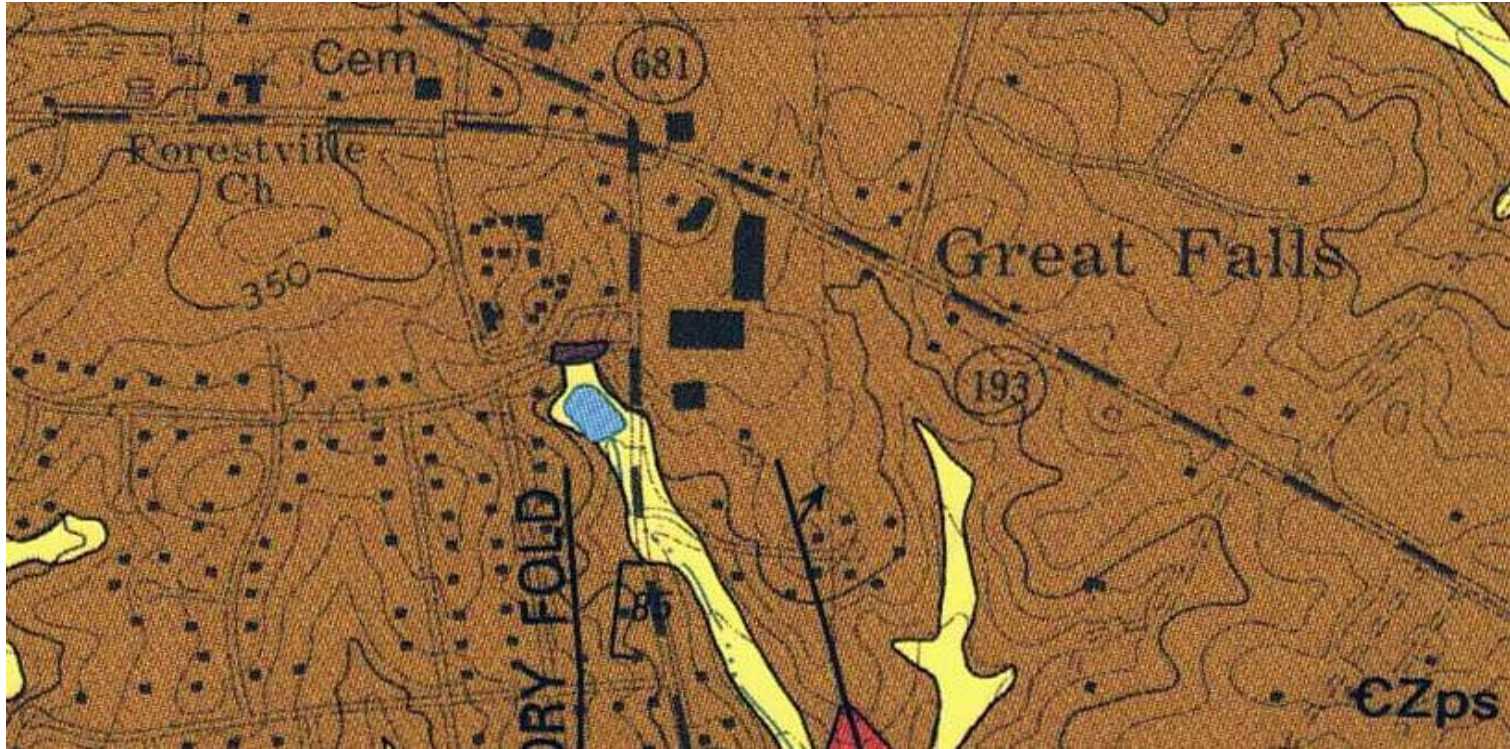
Project Timeline

- September 2009 – Site Characterization activities commence.
- October 2009 - DEQ attended GFCA meeting to discuss project.
- November 2009 – Site Characterization Report submitted.
- February 2010 – Remedial Feasibility Testing Report submitted.

Project Timeline

- March 2010 – Fairfax Petroleum Realty LLC “steps into the shoes” of ExxonMobil Corp. to complete the DEQ required characterizations and/or corrective actions.
- July 2011 – DEQ requires that a Corrective Action Plan be developed.
- August 2012 – 21 potable wells sampled by DEQ contractor out of the 22 identified within ¼ mile of the former station.
- September 2012 – UST Closure Report submitted following removal of UST system.

USGS Geologic Map



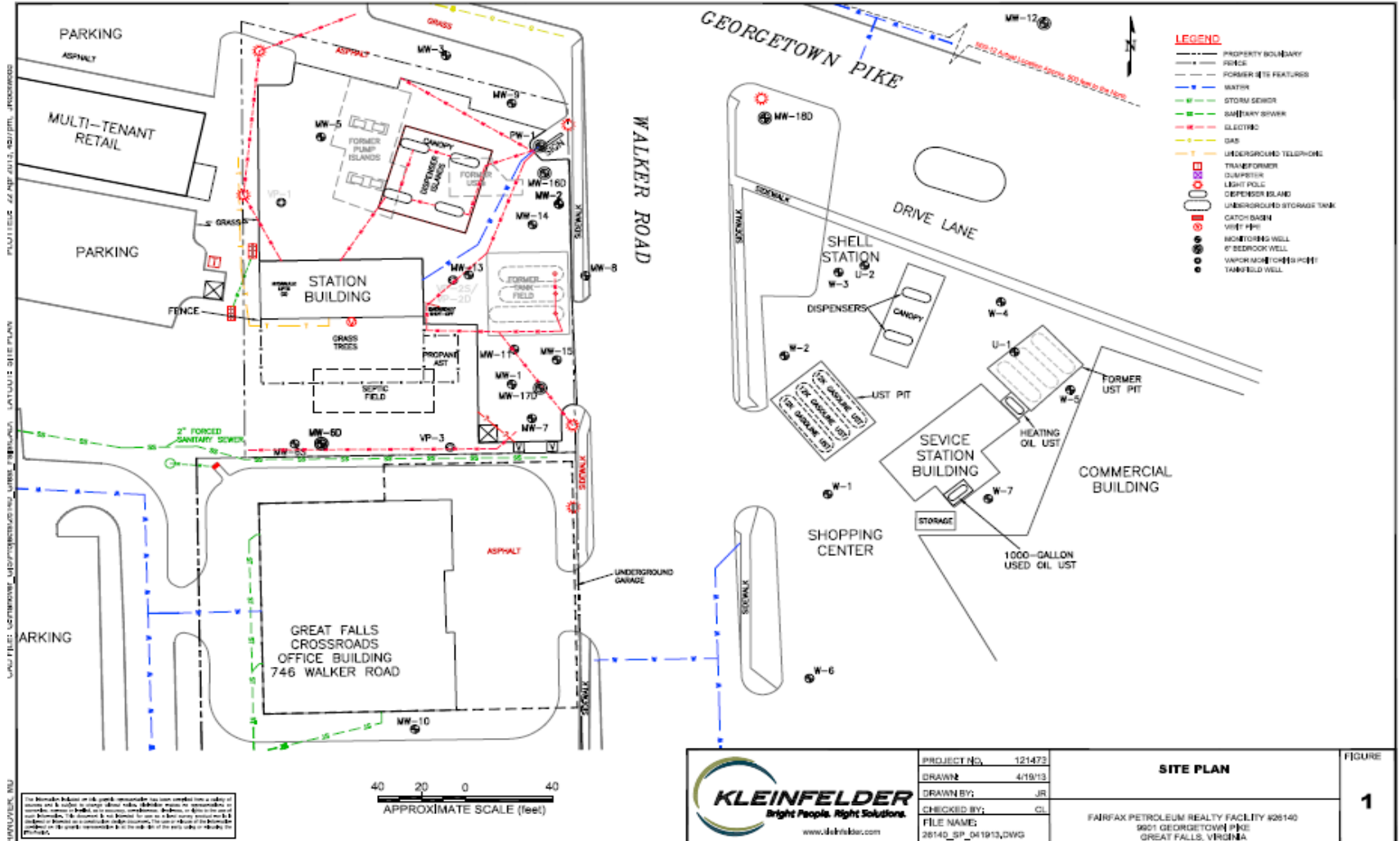
Peters Creek Schist (Early Cambrian and (or) Late Proterozoic) (Drake and Morgan, 1981)—Fine- to coarse-grained, lustrous, greenish-gray to gray, reddish-weathering, quartz-rich schist, and lesser mica gneiss. Fine- to medium-grained, light- to medium-gray, yellowish- to reddish-brown-weathering, well-bedded metagraywacke and semi-pelitic schist (CZpg). Both of these rock types contains abundant interbeds of the other rock type, as well as a few layers of calc-silicate rock. Much of the graywacke is graded, but some beds have a pseudolamination which is actually pressure-solution cleavage. Contains large mappable blocks of serpentinite and associated chlorite- tremolite-epidote schist, talc-chlorite schist, and talc-chlorite-actinolite schist (CZu). The unit's thickness is not known, as its base is marked by the Plummers Island thrust fault (Drake, 1985a). It is overlain on the west by Triassic rocks

Area Site Map



The majority of the identified features have a bedrock fabric orientation or strike that falls between north-south and N15°E and dips primarily to the southeast at a predominant angle of approximately 55° to 65°. The planar bedrock features identified in the shallow (above 78 feet) zone of the station supply well demonstrate a northwest strike and dip orientation to the northeast.

Site Map



MTBE

- MTBE (methyl tertiary-butyl ether) is a chemical compound that was present in local gasoline until 2006.
- MTBE can be tasted in water at concentrations of 5 – 15 µg/l.
- EPA has not set a maximum concentration limit for MTBE in public drinking water, although some states have set their own limits.
- VDH has a trigger level of 15 ppb in drinking water.
<http://www.vdh.state.va.us/epidemiology/dee/PublicHealthToxicology/documents/pdf/MTBE.q&a.PDF>
- The DEQ Petroleum Storage Tank Program has a zero tolerance practice for petroleum constituents in private water supply wells to ensure human health is protected.

Summary of Data

- Seventeen monitoring wells and the former Exxon on-site potable well are monitored on a regular basis.
- The geology beneath the Site is divided into four distinct geologic strata: fill material and massive silty saprolite; structured saprolite, weathered bedrock, fractured competent bedrock (*GES, SCR December 2009*).
- BTEX was not reported at concentrations above the method detection limit in the 20 samples collected from the monitoring well network in February 2013.
- No quantified concentrations of any petroleum contaminants have been reported in the samples collected and analyzed from the off-site potable wells.
- The monitoring well network has not shown significant movement of the dissolved phase petroleum hydrocarbon plume.

Corrective Action Plan (CAP)

- A CAP will be prepared by the environmental consultant for the Responsible Person (RP) as required by Article 9 of the State Water Control Law.
- The CAP will contain a Fate and Transport model of the plume to assist in determining CAP endpoints.
- The CAP endpoints will be based on the potential risk to sensitive receptors.
- The CAP will be submitted to DEQ and the public will have the opportunity to review and provide comments to DEQ before the CAP is approved.
- If there is significant interest, a public meeting may be held. Otherwise, comments will be addressed on an individual basis.

Water Testing Contractors/Labs

- Culligan-Stoner Quality Water Inc. – (301)777-3611
- Air, Water, Soil Laboratory - (804) 358-8295
- Phase Separation Science – (800) 932-9047

Downhole Geophysical Survey MW-18

