

State of Oregon
Department of Environmental Quality

Memorandum

Date: March 22, 2024

To: FILE

Review: Don Hanson, Lead Worker

From: Sarah Kingery
Western Region

Subject: Morins Texaco LUST 06-99-0065, Offsite risk due to contaminated groundwater

Concentrations of gasoline-range hydrocarbons and naphthalene (900 µg/L) in a groundwater sample collected from the onsite well RW-1 in 2001 exceeded the risk-based concentration (RBC) for groundwater in an excavation, which is 500 µg/L. Based on historical groundwater investigations and groundwater flow direction, it is likely that the groundwater contamination exceeding the RBC for groundwater in excavations extends across both lanes of N Broadway Street. The depth to groundwater onsite and in the adjacent right-of-way N Broadway Street, is typically 12 feet below ground surface (bgs/ see attached cross section). The exposure frequency for the groundwater in excavation RBC assumes workers would be exposed to the contaminated water for 9 days in a year.

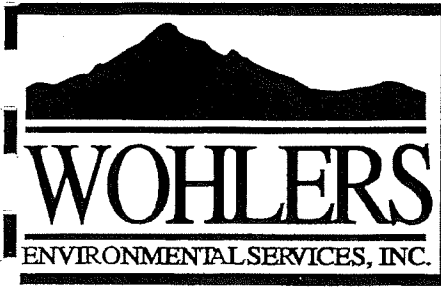
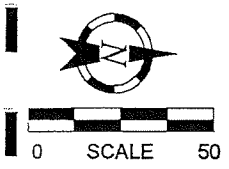
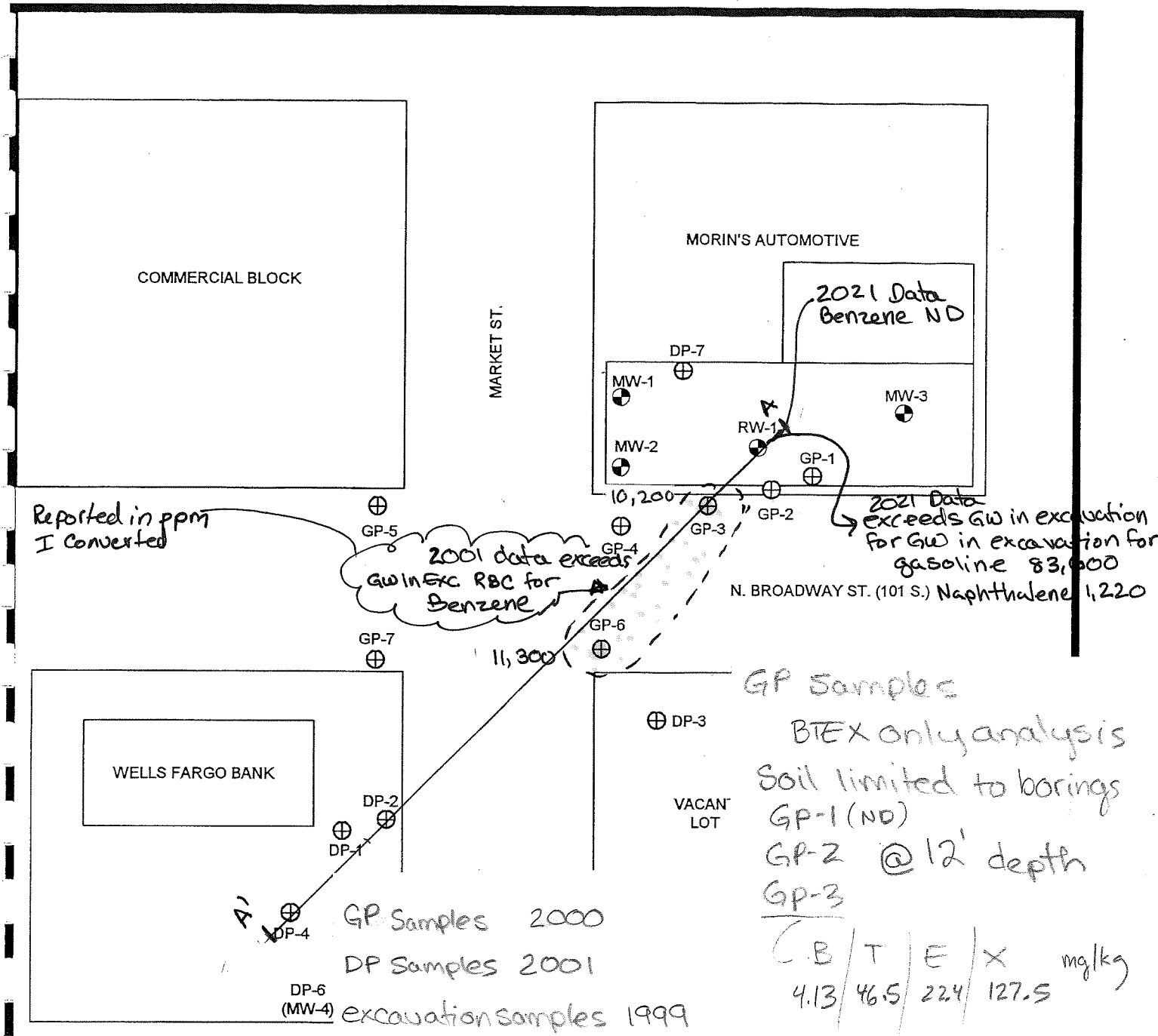
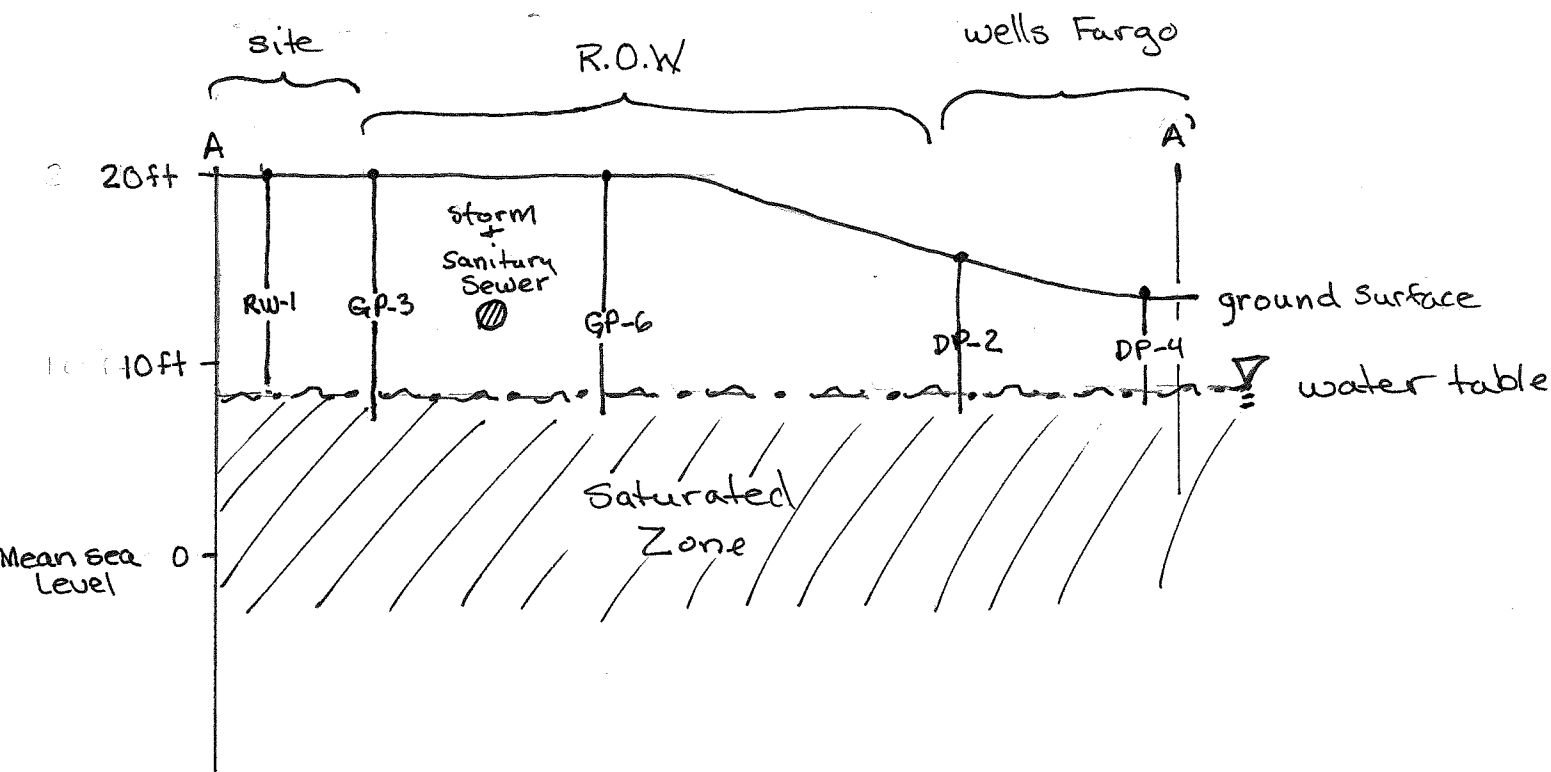
DEQ has considered the potential for groundwater exposure risks to excavation workers in the N Broadway right-of-way. Underground utility maps for stormwater, sanitary sewer, and water indicate that these utilities run beneath N Broadway Street. The maximum depth of utilities is generally 8 feet. This is 3 feet above the typical depth to groundwater. Some sanitary sewer junctions have a depth of 10.5 feet bgs. Given the depth to groundwater and the depth to the base of utilities the chance that excavation workers would contact water in excavations is considered low.

Concentrations of benzene, which were at concentrations greater than the groundwater in excavation RBCs in 2001, have had significant attenuation over time and are no longer detected in groundwater at concentrations above the groundwater in excavation RBCs. DEQ expects gasoline and naphthalene concentrations to continue to attenuate over time as well, which would continue to lower the potential risk to excavation workers in the unlikely event they were to encounter groundwater in excavations within the area of contamination.

Based on the depth to groundwater in the N Broadway right-of-way and the natural attenuation over time, DEQ considers the likelihood of excavation workers contacting contaminated groundwater to be very low, and if there was contact, the duration would be low and would not result an unacceptable risk under Oregon cleanup rules and statutes.

Attachments: Cross-section

MORIN'S TEXACO CROSS-section 3-4-2024 by S.Kingery



GP - Water (all borings)

LEGEND	
⊕	= Location of drivepoint borings and identification
⊙	= Location of monitoring/recovery wells and identification

LL	PROJECT NO.:	01-0040
	DATE:	6/8/01
	SCALE:	1" = 50'
	FILE:	FG010040
	DRAWN BY:	PRW

MORIN'S TEXACO Cross-section 3-4-2024 by S.Kingery

