San Bernardino County CA

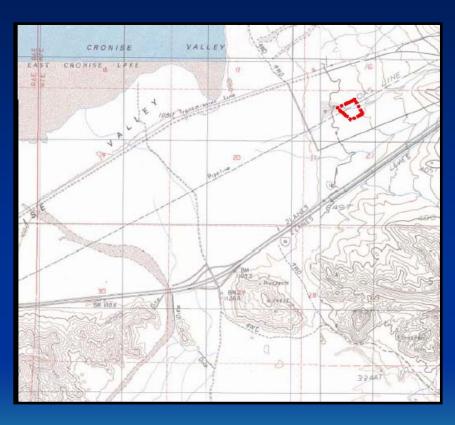




- Leak suspected to occur on 11/21/04
- Leak involved 14" multifuel pipeline owned by Kinder Morgan
- Spill (80' geyser) discovered on 11/22/04
- Local Fire Department found elevated levels of gasoline
- California Highway Patrol closed I-15



- Kinder Morgan responded & closed pipeline
- Impacted section (8 miles) was isolated
- Product was removed from pipeline
- Damaged section was removed from pipeline



- Spill located entirely on public land managed by the Bureau of Land Mgt.
- Site in category 3 habitat for Federally listed California Desert Tortoise
- Site Located near Cronese Lake Area of Critical Environmental Concern
- Site south of Soda Mountains Wilderness Area

- Local and State Agencies responding:
 - San Bernardino County Fire Haz Mat
 - California Department of Fish and Game
 - California Office of Emergency Services
 - Lahontan Regional Water Quality Control
 Board
 - California State Fire Marshals Office

- Federal Agencies responding:
 - U.S. Environmental Protection Agency
 - U.S. Bureau of Land Management
 - U.S. Fish and Wildlife Service



- Incident Management
 - During Emergency
 Response Unified
 Command (San
 Bernardino
 County/California
 Dept. of Fish &
 Game/Kinder Morgan)



During Recovery
 Response – Unified
 Command
 (BLM/Kinder Morgan)



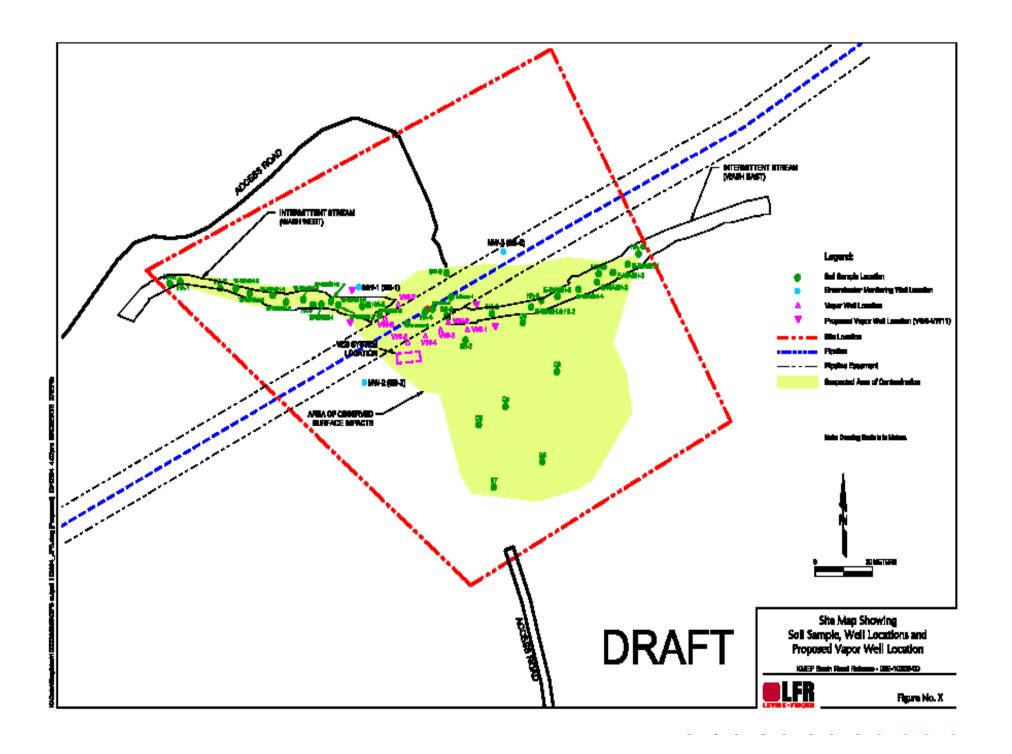
- Impacted pipeline is a multi-fuel 14" steel pipe
- Spill site is in drainage that drains to Mojave River
- Damaged pipe sent to Calif. Dept. of Fish & Game contracted lab



- Adjacent 8" pipeline was
 - exposed & inspected
 - sandblasted & rewrapped



- 3 ground water wells
 & soil borings
 completed
- Depth to ground water determined to be 109'-110'
- Contaminated soil found to 50' depth





- Contaminated soil was removed from the drainages & the spill spray zone
- Soil removal work had Wildlife Biologist & Archeologist oversight



- Excavated contaminated soil was stockpiled & placed on liner & covered daily
- Characterization samples were collected for disposal profile
- Contaminated soil was approved for disposal at a thermal processing facility (TPS, Inc.) in Adelanto, CA



- Transportation of impacted soil began on 12/07/04
- 362 truck loads

 (approximately
 10,300 tons)
 transported to TPS,
 Inc. by 12/29/04



- 7 soil vapor extraction wells installed initially
- Soil vapor extraction pilot testing began on 12/08/04
- 4 additional soil vapor extraction wells completed by 12/24/04



- Soil vapor extraction system on line on 12/27/04
- Initially with 7 extraction wells



- New soil vapor extraction system setup on 01/03/05
- Inclement weather & access road flooding delayed operations



- New soil vapor extraction (SVE) system online 01/06/05
- Capable of extracting higher flow of vapors from subsurface
- SVE system continuing operation for more than one year



- Backfill of spill spray area and drainages excavations was completed on 01/04/05
- Site restoration implementation underway

Lessons Learned:

- Maintain open communications
- Involve regulatory agencies early
- Divide the work
- Keep surprises to a minimum



John Key

Environmental Protection Specialist (Hazardous Materials)

Bureau of Land Management – California State Office (916) 978-4384 John_Key@ca.blm.gov