

# GYPSUM STACKS

REGRADING, CAPPING, RUN-OFF CONTROL & RAD/NORM



*Steve - Thank you again for your management of the Gyp Stack project. I'm very pleased with the work USA Environment did. Please thank all of the people on your team. It is one of the few projects I have visited without a single safety audit finding after multiple visits to the job. Great work, great communication and great safety - Exceptional job!*

**Michael Bryan**  
Program Manager  
Phillips 66, Remediation Management

## Project Description

The Pasadena Gypsum Stacks come from an unusable by-product of a former triple superphosphate (TSP) fertilizer plant. Fertilizer production began at this site in 1955 and waste placement on the stack continued until 1974.

USA was contracted to implement the Response Action Plan (RAP) closure of the Pasadena Gypsum Stack, which involved re-contouring to collect run-off for treatment. A sheet-pile barrier wall was driven to a depth of 40 feet below the surface to control groundwater flow. Roads and vegetation were also installed as part of this process.

NORM impacted pipe was uncovered during work and USA surveyed and found levels that exceeded 20,000 pCi/gram. USA was issued a change order to hydroblast the loose contamination and decontaminate the pipe to meet waste acceptance criteria for disposal. These levels were difficult to achieve, however they resulted in a significant savings to Phillips 66. The process included cutting the pipe into suitable pieces for hydroblasting; sorting according to residual impact levels; and shipping off site in roll off containers.

## The scope of work included:

- Completing Site preparation activities (e.g., Improvements to the site entrance, existing road culverts, access roads and site haul roads).
- Removing PVC and steel pipe debris stock piles from the top of the gypsum stack for off-Site recycle/reuse or disposal.
- Vertical extension of existing groundwater monitoring well casings in proposed soil fill placement areas.
- Earthen fill placement/compaction and excavation activities associated with construction of surface runoff capture channel improvements.
- Placement and compaction of imported fill material in proposed soil fill placement areas;
- Grade surfaces to final elevations, cover with topsoil and seed.
- Installation of Site access control gates and fences.

