



August 23, 1993

Mr. Larry Campbell  
Transwestern Pipeline Company  
6381 N. Main St.  
Roswell, NM 88201

**RE: Phase Separated Hydrocarbon Recovery System Installation Transwestern Pipeline Company Compressor No. 9 - Roswell, New Mexico**

Dear Mr. Campbell:

Brown and Root Environmental (B&R Environmental) completed the installation of a Phase Separated Hydrocarbon (PSH) recovery system at the Transwestern Pipeline Company's (Transwestern) Compressor Station No. 9 located in Roswell, New Mexico on July 1, 1993. Figure 1 shows the layout of the recovery system.

Transwestern contracted trench excavation, air and electric lines placement and stub-out pad construction. Transwestern supplied air was connected to a receiver/filter tank which was positioned on the stub-out pad. Transwestern supplied an air manifold which B&R Environmental installed on the receiver/filter air tank. Transwestern also emplaced the product recovery tubing into containment pipes having multiple inspection ports.

B&R Environmental installed the pumping air, control and recovery lines in the excavated trench. The pumping air and air logic lines were installed in 2" PVC electrical conduit. One half inch PVC PSH recovery lines were installed and connected to the recovery pumps. Each recovery well was separately piped to the product storage tank.

Three PSH recovery pumps were installed in wells RW-1, MW-1B, and MW-2. The pump in RW-1 was installed at a depth of 40 feet below the top of casing in the upper perched zone. The pumps in MW-2 and MW-1B were installed at a depth of 60 feet below the top of casing in a lower water zone. All three of the pumps were installed above the PSH groundwater interface to minimize recovery of groundwater. The pump installation diagram is included as Figure 2.

The recovery equipment installed included three (3) Marschalk Aquarius II Gas Displacement Pumps with three (3) Local Controllers, for low submergence pump operation, and a Marschalk 99000 Main Logic Controller.



Mr. Larry Campbell  
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Page Two

The rate of PSH recovery varies due to the inflow from the surrounding geologic strata at the different locations of the wells and the volume of PSH in the area of the well screen. The recovery pumps were set at a rate of recovery based on the inflow of PSH into the well. The rate of recovery is from 0.01 (2 wells) to 0.03 (2 wells) gpm for an approximate average recovery rate of 0.02 gpm. Using the average recovery rate of 0.02 gpm, the total system recovery on a daily basis will be approximately 100 gallons/day.

Sincerely yours,

**BROWN & ROOT ENVIRONMENTAL**

Mark C. Spencer  
Remediation Specialist

MCS/rk

c: S. Richard - Project Manager  
M. Meenan - Department Manager  
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