PROJECT FACT SHEET

CONTRACT TITLE: Treatment of Produced Oil and Gas Waters with Surfactant-Modified Zeolite

ID NUMBER: FEW 00FE010

B&R CODE: AC1015000

CONTRACTOR: Los Alamos National Laboratory

ADDR: P.O. Box 1663
Los Alamos, NM 87545

DOE HEADQUARTERS PROGRAM MANAGER:
NAME: William H. Hochheiser
PHONE: 202/ 586-5614

DOE PROJECT MANAGER:
NAME: Nancy C. Comstock
LOCATION: NPTO
PHONE: 918/ 699-2059
E-MAIL: ncomstoc@npto.doe.gov

CONTRACT PROJECT MANAGER:

NAME: Enid J. Sullivan
PHONE: 505/ 667-2889
FAX: 505/ 665-9118
E-MAIL: ejs@lanl.gov

PROJECT SITE
CITY: Oak Ridge **STATE:** TN
CITY: **STATE:**
CITY: **STATE:**

CONTRACT PERFORMANCE PERIOD:
6/15/2000 to 6/14/2001

PROGRAM: Environmental-Oil
RESEARCH AREA: Production Waste
PRODUCT LINE: EEP

FUNDING (1000'S)	DOE	CONTRACTOR	TOTAL
PRIOR FISCAL YRS	50	123	173
FY 2001 CURRENT OBLIGATIONS	0	0	0
FUTURE FUNDS	0	0	0
TOTAL EST'D FUNDS	50	123	173

OBJECTIVE: Promote interactions between DOE's National Laboratories and the petroleum industry through specific projects which will emphasize the transfer of technologies currently existing at the labs.

PROJECT DESCRIPTION:

Background:

Work to be Performed: This project will test a new method of removing organic constituents from produced oil and gas waters. This method, if successful, will make a less-expensive produced-water treatment option available to small onshore oil producers or offshore producers. The method uses standard engineered water-treatment systems coupled with a newly developed, non-toxic sorbent material known as a surfactant-modified zeolite or SMZ. This material has been tested as a sorbent for ground-water contaminants in laboratory and field settings.

PROJECT STATUS:

Current Work: Coordinating with petroleum industry in Texas and New Mexico to find sources of produced water and a site location for laboratory and field studies testing the SMZ sorption process. Beginning cost/economic tracking analysis based on information gained from a local producer in San Marcos, Texas. Continuing process of identifying and analyzing salt water samples at different sites to determine an appropriate match for lab and field studies.

Scheduled Milestones:

Selection of co-produced waters and SMZ to be used in batch and column tests	02/01
Completion of preliminary cost analysis to determine feasibility on the basis of column test results.	12/01
Evaluation of the potential and costs for SMZ regeneration	12/01
Identification of areas for modification or improvements that would facilitate use of other sites	09/02
Calculation of total costs and comparison with other treatment methods	09/02

Accomplishments: Currently in contact with Railroad Commission of Texas to identify low-salinity water producers (small operators). Also in continued contact with Phillips Petroleum to obtain high-salinity off-shore produced water samples. While analysis of samples from Fall, 2000 indicated that water did not contain detectable amounts of BTEX, will be sampling and analyzing further samples from this producer (MCA petroleum) from other "problem" sites in January and February. Excellent cooperation from MCA and Phillips to date.