

OKLAHOMA ENERGY RESOURCES BOARD

Quarterly Technical Progress Report

Project Title: ENVIRONMENTAL ASSESSMENT OF OKLAHOMA
ABANDONED DRILLING AND PRODUCTION SITES AND
ASSOCIATED PUBLIC EDUCATION/OUTREACH ACTIVITIES

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Background:

Oklahoma oil producers and royalty owners are taking part in the nation's first oil industry funded environmental cleanup and education program. The program is administered by the Oklahoma Energy Resources Board (OERB), a state agency which was created by the Oklahoma Independent Energy Education and Marketing Act. The OERB is an unpaid 21 member board composed of independent producers, major oil company personnel, crude oil purchasing company representatives, and a royalty owner representative. The OERB administers an assessment of two cents per barrel on all oil produced and sold in the state; the expenditure of these funds is divided between the program's two primary objectives.

Project Objectives:

The purpose of this project is focused in two primary objectives:

1. Conduct environmental assessment of abandoned oil and gas drilling and production sites where no responsible owner can be found and transfer environmental technology to oil and gas operators.
2. Provide a comprehensive public education/outreach program to increase public awareness of the importance of the Oklahoma oil (and gas) industry.

Summary of Technical Progress:

The two primary project objectives will be accomplished through a series of sub-task activities. A report on the progress on each of these tasks follows.

Task 1 Environmental Assessment of Abandoned Oil and Gas Drilling and Production Sites and Environmental Technology Transfer

The program to date includes thirty-eight projects as submitted by the Oklahoma Corporation Commission to the OERB. These 38 projects include 67 sites that will require individual attention.

Task 1.1 Develop Environmental Site Remediation/Restoration Prioritization Scheme.

The OERB has worked with Beacon Environmental Assistance Corporation in the development of a remediation/restoration prioritization scheme.

Sites and/or projects will be prioritized for clean-up based on a numerical ranking system modified from the ranking system used by the Texas Railroad Commission. The ranking system takes into account physical parameters of the site, proximity to populations, land use, and the nature of the contamination type and source. Site ranking may also be influenced by additional factors. Consideration is given to those sites which were initiated by land owner complaints to the Oklahoma Corporation Commission, sites where there is a potential threat to human safety and health, sites where there may be excessive environmental contamination, and those sites where restoration is necessary. Environmental contamination, the potential threat to human health and the environment, and the cost of a specific project are carefully weighed versus the total budget before final decisions are made to proceed.

Forms have been developed which will aid in the prioritization of sites submitted by the Oklahoma Corporation Commission. Revision of forms is still being made during this early phase of the project. Sample forms will be included in final program reports.

Task 1.2 Perform Phase I Environmental Site Assessments (ESA).

Phase I work has been completed on 32 projects and is near completion on six additional projects.

The purpose of these assessments is to research and gather data, characterize sites, physically visit and document site conditions, and assess the potential for environmental contamination. Phase I ESA activities include records review, site reconnaissance, interviews, sampling/testing, and site reporting for abandoned oil and gas drilling and production sites.

Task 1.3 Perform Phase II Environmental Site Assessments (ESA).

Phase II work has been completed on 5 sites, with Phase II sampling and analytical testing scheduled on 5 more individual sites.

The purpose of the Phase II ESA is to take appropriate samples sufficient to define a baseline or background level of certain constituents at a site, including geographic extent and volume, and concentration levels. Phase II ESA activities include field sampling, laboratory analyses, and site reporting for abandoned oil and gas drilling and production sites. Site reporting includes a site characterization summary (with a simplified presentation of sampling and analytical results) and recommendations for any additional sampling, preliminary remediation and restoration plans, and procedures for any restoration work.

Task 1.4 Characterize Technologies for Environmental Remediation and Restoration.

The purpose of this task is to identify cost-effective technologies and practices for remediation and restoration of soils, groundwater and surface water at Oklahoma oil and gas production sites. As Tasks 1.2 and 1.3 are completed, the assessment of the environmental remediation technologies will be completed and recommendations will be presented in a summary report format.

Task 1.5 Environmental Technology Transfer.

The purpose of Task 1.5 is to transfer project results from Tasks 1.1, 1.2, 1.3, and 1.4 to the Oklahoma oil and gas industry, regulatory agencies, and other interested parties through a workshop or field demonstration project. Plans are being made for the coordination of this technology transfer with the Oklahoma Independent Petroleum Association Meeting in the fall of 1995. These activities will be coordinated with the Oklahoma Corporation Commission and will summarize the most cost effective technologies and practices for environmental assessment, remediation, and associated environmental regulatory issues.

Task 2 Public Education/Outreach Program

A comprehensive public education/outreach program is being designed to increase public awareness of the importance of the Oklahoma oil and gas industry. The audience for this program includes the general public, elementary and secondary schools, the environmental community, and the oil and gas industry. In addition, the results of this unique project will serve as a model for similar actions in other states.

Task 2.1 Conduct baseline research

Pre-Post research methodology was developed and a pre-campaign survey was conducted to determine:

- existing perceptions about the Oklahoma oil and gas industry
- the public's opinion of the industry's environmental record, both past and present
- the public's opinion of the industry's economic importance to Oklahoma
- the public's knowledge of the industry's contribution to the Oklahoma tax base, charitable and educational institutions, and the job market
- the public's recognition of the vast number of products produced from petroleum, and
- the state of knowledge of the industry by elementary and secondary school students

To assess any differences among urban versus rural markets, a series of focus groups were held across the State. A total of twelve two-hour focus groups were conducted in Oklahoma City, Tulsa, Enid, Lawton, Muskogee, and Ardmore. To determine different opinions among different audiences, respondents were recruited from a variety of ages and positions within the community. Groups included: oil industry representatives, general public, local elected officials, political influencers, influentials, middle school students, high school students, and college students. Individual discussion guides were developed for each group. Respondents were recruited by market research surveys and were representative of the ethnic makeup of each market. Participants (with the exception of oil industry representatives) were screened to ensure they or their immediate family members did not work in the oil industry.

Conducting a series of focus groups almost always provides a clear answer to the questions asked. However, given the complex and often conflicting perceptions of the oil industry and opinions on the strategy statements, this was not the case. It can be concluded that the groups have conflicting images of the oil industry and need clear messages communicated to them. The results of these focus groups were compiled in a video format which was presented to the Oklahoma Independent Petroleum Association (OIPA) and other oil and gas associations across the country.

A pre-campaign survey has been developed for the school systems and a survey will be conducted prior to the introduction of the educational component of the project.

Task 2.2 Develop a Project Plan to implement a comprehensive public education/outreach program, including project milestones, objectives, methods, and budgeting, and a plan on how to convey to producers and interest owners on the benefits of supporting the OERB and its efforts.

After the conclusion and evaluation of the focus group survey results, a comprehensive plan was developed including a campaign theme and a logo for use by OERB. This public education/outreach project plan includes:

- the development of a project theme line "Oil Fuels Our Future"
- the selection and involvement of a nationally known spokesperson
- the launching of a television campaign during the Super Bowl telecast
- a statewide newspaper advertising campaign
- conducting press conferences announcing the campaign and introducing the campaign spokesperson

Industry producers and interest owners have been targeted with program brochures and video presentations. This material will be utilized in individual presentations as well as in industry meetings.

Plans were developed for a press release which would convey the accomplishments of the OERB over the past year and identify the top supporting companies. A press conference kicked off the start of this Public Education Campaign.

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Student education is also considered to play a very important role in the future of the public education campaign. Plans have been developed both for an evaluation of the perceptions and understanding of the energy industry in the school systems and also the introduction of an energy education curriculum into the Oklahoma school system.

An evaluation was made of approximately ten middle school curriculums that deal with energy education. An energy curriculum entitled "Fueling Around" was selected from the National Science Teacher Association's project on secondary science education. The curriculum is a scientifically oriented hands-on program, easy to teach, and non-biased to the oil industry. A pilot project has been approved by the Oklahoma State Department of Education and will reach an estimated 5,000 students in the first year. Plans are being developed for teacher training this summer and implementation in the fall.

Task 2.3 Implement a comprehensive public education/outreach program, including creation and production of multi-media public education/outreach products, and public education/outreach program evaluation.

The public education media campaign utilizing a variety of multi-media products kicked off in January of 1995 and will continue through December of 1995.

An educational curriculum for the school systems has been selected. The public education campaign in the educational system will begin with teacher training this summer and introduction into the classrooms this fall.