

INTERIM REPORT
OF THE
NATIONAL PETROLEUM COUNCIL'S
COMMITTEE ON UNDERGROUND STORAGE OF PETROLEUM PRODUCTS
SEPTEMBER 28, 1956

CHAIRMAN OF THE COMMITTEE: H. S. M. BURNS

NATIONAL PETROLEUM COUNCIL

OFFICERS

Walter S. Hallanan, Chairman

R. G. Follis, Vice-Chairman

James V. Brown, Secretary-Treasurer

HEADQUARTERS OFFICE

601 Commonwealth Building
1625 K Street, N. W.
Washington 6, D. C.

Telephone:

EXecutive 3-5167

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TO: CHAIRMAN, NATIONAL PETROLEUM COUNCIL

When your Committee on Underground Storage issued its last report on April 22, 1952, it noted that through the normal operation of individual initiative there would probably be so much development of underground storage in the immediate future that a subsequent study would be mainly a record of achievement by the industry rather than a survey of possibilities and feasibilities. Such has indeed proved to be the case, because the current study by our Technical Subcommittee shows that underground storage for liquid petroleum products now totals over 25,000,000 barrels versus some 7,000,000 in 1952. The trade journals also contain almost daily accounts of progress in underground storage.

The Subcommittee is finding that, as might be expected, the expansion is principally to handle LPG, and such new storage has been constructed largely by washing out cavities in salt structures. There has, however, been a significant increase in storage of LPG in mined cavities. This more expensive storage is the result of industry's incentive to store transportation, as well as product, in areas close to the market but where salt structures are not available. As to the storage of less volatile hydrocarbons, the only project of significance (in industry and exclusive of government) is the storage of heating oil in a quarry at Wind Gap, Pennsylvania.

Besides collecting data on type, location, and capacity of underground storage, our Subcommittee, by means of a questionnaire, is also compiling industry's experience on the following technical aspects of underground storage: Selection and Design; Construction; Contamination, Deterioration and Alteration; Operation and Maintenance. The Subcommittee

has divided itself into appropriate groups to investigate each of these aspects. The organization is as follows:

Technical Subcommittee
National Petroleum Council
Committee on Underground Storage For Petroleum
(1955-56)

Chairman: Russell S. Knappen
Gulf Oil Corporation
Box 661
Tulsa 2, Oklahoma

Secretary: E. O. King
Shell Oil Company
50 West 50th Street
New York 20, New York

Selection and Design

George R. Benz
Phillips Petroleum Company
Bartlesville
Oklahoma

S. A. Branyan
Anchor Petroleum Company
Atlas Life Building
Tulsa 3, Oklahoma

Construction

P. F. Dougherty
Sun Oil Company
Philadelphia 3
Pennsylvania

John McKenna
Warren Petroleum Corporation
P. O. Box 1589
Tulsa 2, Oklahoma

Contamination, Deterioration and Alteration

J. D. Haney
Cities Service Research and
Development Company
54 Wall Street
New York 5, New York

C. D. Norris
The Texas Company
135 East 42nd Street
New York 17, New York

Operation and Maintenance

Harold A. Parker
Magnolia Petroleum Company
P. O. Box 900
Dallas 21, Texas

N. E. Van Fossan
Texas Natural Gasoline Corp.
P. O. Box 1409
Tulsa 1, Oklahoma

Advisers To Subcommittee*

Douglas Ball
Ball Associates
1025 Vermont Avenue
Washington 5, D. C.

C. L. Fleming, Jr.
Esso Research & Engineering Co.
15 West 51st Street
New York 19, New York

* Plus representatives of the Department of the Interior, Department of Defense, and Office of Defense Mobilization.

The Subcommittee members have been meeting informally in small groups to discuss their technical data and to decide on procedure in preparing their report. A meeting of the full Subcommittee with the government and industry advisers is scheduled in Washington on October 23 in the N.P.C. conference room. Not too long thereafter the Subcommittee expects to come up with its finished report covering all the aspects outlined above. It will incorporate the experience of industry, as reported in the questionnaires, plus the latest engineering advice of the technical people on the Subcommittee.

I might add that the excellent report on underground storage issued by the Interstate Oil Compact Commission in April of this year has added greatly to our over-all knowledge of this subject and, in particular, as to the geologic feasibility of underground storage in each of forty-two states. Our Subcommittee is not, of course, duplicating this report but rather is using it as a reference work.

/s/ H. S. M. Burns

H. S. M. Burns
Chairman