

School of Mines
Arthur Lakes Library
Tell Ertl Oil Shale Archives

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SUMMARY

The Colorado School of Mines has established the Tell Ertl Oil Shale Archives at the Arthur Lakes Library using a grant received at the 22nd Oil Shale Symposium. By the end of 1990, about thirty-eight thousand documents (reports, maps and drawings, and visual aids) will be placed in this oil shale archive collection. At this time, the archives contain more than thirty-three thousand documents. A large room in the library has been dedicated to house this oil shale information. The long association between the Colorado School of Mines and oil shale development make the Arthur Lakes Library an ideal location for these oil shale archives.

The Tell Ertl Oil Shale Archive has been established to meet the two criteria associated with archives (Schellenberg 1975): (1) to preserve documents of historical significance; (2) to assemble information at a central location for study and use by scholars and researchers. Although the oil shale archive at the Colorado School of Mines has been established to meet both of these criteria, the second, a center for study and research, is the more important.

INTRODUCTION

The Colorado School of Mines is receiving six donations of collections to establish an oil shale archives. These collections are:

- (1) John Ward Smith Collection;
- (2) Galwey Layton Collection;

- (3) Tell Ertl Collection;
- (4) Laramie Project Office Collection;
- (5) Robert B. Crookson Collection;
- (6) Andrew Gulliford Collection.

The first four collections have been received and placed in the Tell Ertl Oil Shale Archives at the Arthur Lake Library at the Colorado School of Mines. A small portion of the USDOE Laramie Project Office (LPO) Collection and the Crookston and Gulliford collections are expected to be placed in the archives shortly.

The documents now in the archives are summarized in Table 1. Table 1 shows a broad breakdown of the documents into the following three categories: reports (which include correspondence, books, journals, preprints, and reprints), visual aids (which include photographs, slides and overhead transparencies, and motion picture reels); maps (which include maps, sketches, drawings and blueprints, and data plots).

Preliminary work to date has been to classify each collection of the archive into categories and to arrange the categories in a chronological fashion. Dates of the oil shale documents range more than 100 years--from 1884 to 1987. Categories in the oil shale archives are listed in Table 2. Since the collections received are as individualistic as the contributors, not all collections have documents in all categories. This classification into categories has not been rigid; it depends, in part, on the arrangement of documents as found in the

Table 1
Tell Ertl Oil Shale Archives
Documents

<u>Collection</u>	<u>Reports</u>	<u>Visual Aids</u>	<u>Maps</u>	<u>Non-Oil Shale Documents</u>	<u>Total Documents</u>
John Ward Smith	1,297	1,012	141	324	2,774
Galwey Layton	83	3	0	0	86
Tell Ertl	10,136	244	258	143	10,781
Laramie Project Office	1,481	9,789	6,485	1,605	19,360
Total	12,997	11,048	6,884	2,072	33,001

Table 2
Archive Categories

- (1) Personal Notes and Correspondence
- (2) Personal Presentations, Publications, and Writings
- (3) Government Documents (further subdivided, when practical, by type of government agency)
- (4) Books, Reports, and Journals (subdivided as needed)
- (5) Reprints and Preprints
- (6) Stock Offerings and Legal Documents
- (7) Visual Aids
- (8) Maps and Drawings
- (9) Non-Shale Documents

example, letters included with publications or reports in a collection were usually retained with those classifications rather than separated under "Notes and Correspondence"

Each collection is maintained as a separate unit. The documents are stored in archive storage boxes according to category. At this time, 148 boxes have been used to store all the collections; boxes within each collection are numbered for easy access by interested researchers. A breakdown of the collection by box is shown in Table 3; this table shows the differences between the four collections. A library card has been prepared for each document, or, at times, group of documents and numbered to correspond with the appropriate archive box and document within that box. Information listed on the library cards varies. In general, the library cards include the following information: Name of Collection; Category; Title of Document; Source; Author; Date of Document; Size (number of pages) of Document; Archive Box Number; Document Number.

collections. Classification was not a neat and simple matter. "Misfits" and problems occurred with most of the categories. For

In addition, at times, the document was classified according to Library of Congress Classifications for future cross-indexing by subject matter.

Table 3

Colorado School of Mines
Oil Shale Archives

Archive Boxes

<u>Document</u>	<u>John Ward Smith</u>	<u>Laramie Project Office</u>	<u>Galwey Layton</u>	<u>Tell Ertl</u>	<u>Total</u>
Notes and Correspondence	0	1	0	11	12
Publications	3	0	0	1	4
Government Documents	9	5	0	3	17
Books, Reports and Journals	13	26	0	2	41
Reprints and Preprints	1	1	0	1	3
Stocks and Legal Documents	0	0	1	8	9
Visual Aids	1	12	0	1	14
Maps and Drawings	2	14	0	3	19
Non-Shale	4	24	0	1	29
TOTAL	33	83	1	31	148

THE ARCHIVES

The Collections. The collections in the Tell Ertl Oil Shale Archives are as different as the six persons who collected them. Each was unique and had to be treated in an individual fashion while still maintaining some order between the six collections.

As might be expected, these extensive archives contain many interesting glimpses into the lives of the early "oil shalers," aspects of the technical developments, along with the never-ending and never-out-of-date problems that beset oil shale development.

John Ward Smith. John Ward Smith (1923-1986), or "Ward", as he liked to be

called, was one of the best known oil shale researchers. His career, along with his publications, has been described in "The Technical Contributions of John Ward Smith in Oil Shale Research" in 20th Oil Shale Symposium Proceedings (Atwood and Beard, 1987).

The John Ward Smith Collection (JWS Collection) was the first collection of oil shale documents received by the Colorado School of Mines. At this time, it is the most voluminous of the private collections in the Tell Ertl Oil Shale Archives. The JWS Collection, comprising of 2,774 documents, is stored in 33 standard archive boxes. The breakdown of the JWS Collection is shown in Table 4. The JWS Collection is essentially an oil shale collection -- almost 90% of the

Table 4
John Ward Smith Collection

			<u>Documents</u>
JWS Publications			
Boxes 1-3			227
Government Documents			
Boxes 4-7	Dept. of Interior,	1907-1983	190
Boxes 8-10	Dept. of Energy,	1977-1985	125
Box 11	Other Fed. Agen.	1926-1982	39
Box 12	State Agencies		70
Prototype Leases			
Boxes 13-14	U-a and U-b		15
National Laboratories			
Box 15	Sandia		50
Box 16	LLL, LBL, LASL, Argonne and Brookhaven		80
<u>Geochemica et Cosmochemica Acta</u>			
Boxes 17-18	1963-1985		110
Reprints and Preprints			
Box 19	1915-1985		199
Visual Aids			
Box 20	35-mm slides, o'heads, and photographs		1,012
Maps			
Boxes 21-22			141
Pamphlets, Books, and Other Bound Documents			
Boxes 23-24	Theses and Meeting Proceedings,	1949-1983	54
Boxes 25-27	Books,	1949-1982	45
Boxes 28-29	Pamphlets and Brochures		93
Non-Oil-Shale Documents			
Box 30	Oil and Gas	1955-1984	144
Box 31	Coal	1950-1983	105
Box 32	Oil	1936-1984	26
Box 33	Others	1952-1983	49

documents relate to oil shale. The collection is unusual in several instances: (1) the largest single major classification of documents is visual aids -- more than 40% of the total documents; (2) various government documents comprise the most voluminous

part of the collection -- almost 40% of the boxes contain some type of government document; (3) there is no personal correspondence or notes included in the 2,774 documents.

Actually, the breakdown of the JWS Collection is essentially a mirror of Ward himself. He was well-known as an author and lecturer of technical reports and papers which is reflected in the large number of visual aids in the collection. The numerous government documents and the lack of personal correspondence and notes reflect Ward's 33-year career in government research -- only final documents and reports were retained. Although there is no personal correspondence and notes as documents in the collection, there are numerous hand-written comments in the books and a few other reports of the collection. The JWS Collection, by having essentially no correspondence nor notes, does not provide future researchers an insight into John Ward Smith's personality as an individual researcher. However, it does provide valuable insight regarding the growth of oil shale information being developed during the period from 1907 to 1984.

Galwey Layton. Galwey Layton, investor, venture capitalist, speculator, and risk taker, although not classified as an oil shale pioneer, was one of the numerous investors who supplied the capital needed for those early oil shale developments.

The Galwey Layton Collection is the smallest collection in the Tell Ertl Oil Shale Archives (see Table 5). This collection consists primarily of high risk stock certificates -- petroleum and mining --

Table 5
Galwey Layton Collection

<u>Type of Materials</u>	<u>Number of Documents</u>
Photographs	3
Stock Certificates	68
Reports and Brochures	7
Correspondence	8

including gold properties in Moffatt County, Colorado and the Lackawana Oil Shale Products Company near DeBeque, Colorado. This collection contains certificates representing nearly 130 thousand shares of stocks issued between 1915 and 1925.

Also included are correspondence between the oft-disappointed investor and the principals of these companies. Documents demonstrate the exuberant claims made prior to SEC regulation and the stilted, yet often matter-of-fact, language of the business letters almost three-quarters of a century ago.

Tell Ertl. Tell Ertl, 1914-1975, mining engineer, educator, entrepreneur, and oil shale developer, was the most out-spoken of the contributors to the archives. His interest in oil shale spanned more than three decades and his oil shale activities included working for the federal government, private industry, universities, consulting, and his own firm. He worked as hard as any of the pioneers to see the commercialization of oil shale. Some of this work included: chief of mining for the Bureau of Mines at Rifle (1944-1948); exploration and development for Union Oil (1948-1950); consulting engineer -- experimental mining and shale preparation, exploration and resource assessments, property acquisition, and joint ventures (1950-1959); president of E.R.T.L. (Energy Resources Technology and Land, Inc.) and owner of unpatented oil shale claims (1956-1975); consultant with Cameron and Jones, Inc. for Petrobras in Brazil (1960-1962); lecturer, professor of mining, chairman of mining and engineering departments, assistant dean of the school of engineering at various universities-- Columbia, Kansas, and Ohio State (1940-1942, 1942-1944, 1950-1955). Now, more than ten years after his death, Tell's family is still following his tradition in oil shale as owners of the New Paraho Corporation.

The Tell Ertl Collection in the Tell Ertl Oil Shale Archives tends to mirror Tell's

Table 6
Tell Ertl Collection

<u>Description</u>			<u>Number of Documents</u>
Notes and Correspondence			
Boxes 1-2	Bureau of Mines	1929-1964	98
Box 3	Union Oil	1926-1965	144
Box 4	Brazil	1953-1966	94
Box 5	Miscellaneous (ERTL)	1942-1981	155
Ertl Publications and Presentations			
Box 6		1941-1967	309
Preprints and Reprints			
Box 7		1930-1968	145
Journals, Various			
Box 8		1942-1964	125
Books and Pamphlets			
Box 9		1936-1971	108
Government Documents			
Boxes 10-11	Dept. of Interior	1939-1971	206
Box 12	Others	1930-1971	47
Visual Aids, 1920-1965			
Box 13		1920-1965	244
Maps and Drawings			
Boxes 14-16		1989-1974	258
Correspondence, Alphabetical			
Boxes 17-21a		1950-1959	6,502
Litigation, Alphabetical			
Boxes 22-29		1930-1979	2,353
Non-Shale Maps and Drawings, 1966-1980			
Box 30		1966-1980	143

active, impulsive lifestyle. His collection is the largest individual collection currently in the archives, containing nearly 11,000 documents (see Table 6) in 31 archive boxes.

The heading, "Notes and Correspondence", contains, by far, the largest number of documents, reflecting the outgoing nature of Tell Ertl. This group includes notes and reflections made by Tell, most of his correspondence (including the letters he received), and many of his writings (except those listed under "Publications"). There are numerous documents that may be listed as correspondence among "Stocks and Legal Documents." Simple arithmetic shows that Tell sent or received more than one letter

per day during his entire 30-year oil shale career!

The heading "Stocks and Legal Documents" is the second-largest category of the Tell Ertl Collection. It contains no stock certificates. This section reflects the intensity of Tell Ertl in maintaining his oil shale claims and fighting through the judicial system. Included in this section are fairly complete accounts of Shell Oil Co. and TOSCO litigation with the U.S. Department of Interior.

"Publications" comprise the third-largest section of the Tell Ertl Collection. This section reflects, primarily, technical publications and presentations of Tell's

dealing with mining, exploration, and the general commercial development of oil shale. Included in this section are Tell's attempts at non-technical writing, such as articles of his travel to Europe and Brazil that appeared in The Grand Junction Sentinel, his offerings to (and subsequent rejections from) such prestigious magazines such as The Reader's Digest, The New Yorker, and The Saturday Evening Post. Also included is a hand-written draft and typed version of the unpublished ode to the Eames cherry -- reflecting Tell's interest in his neighbors in Grand Valley, Colorado. The "Visual Aids" section of this collection contains some unusual documents -- motion picture film that Tell used to record improvements being done to his oil shale leases.

Most of the rest of the Tell Ertl Collection, "Books," "Reprints and Preprints," "Government Documents," and "Maps and Drawings" did not escape Tell's personal touch. Handwritten notes, comments, and observations in the margins are common place. One of the more unusual documents in the Tell Ertl Collection is a copy of Kruschew's speech to the Supreme Soviet on Jan 14, 1960. This speech provided many opportunities for Tell to make handwritten comments in the margin -- which he most certainly did!

All in all, this collection offers a wonderful insight into the developments of oil shale in the period 1945-1975 and into the life of one of the leaders and pioneers -- Tell Ertl.

Laramie Project Office. The (LPO) Laramie Project Office Collection represents documents retained by the U. S. Department of Energy office in Laramie. More than 95% of this collection has been provided to the Tell Ertl Oil Shale Archives at this time. This collection is unusual in that it is not the collection of a single individual, but of many of the oil shale professionals who were associated with federal agencies at the Laramie office from the mid 40's to the

mid 80's. The LPO has recently relocated from the building located on the University of Wyoming campus -- the site of the ERDA offices and the U.S. Bureau of Mines before that -- to a new office building in Laramie and is transferring all their information onto microfiche. After the documents are filmed and checked, they are provided to the Tell Ertl Oil Shale Archives.

The LPO Collection is the largest collection in the archives, consisting of 19,360 documents stored in 83 archive boxes (see Table 7).

The oil shale operations at the Anvil Points -- photographs, topographical maps, plot plans, construction drawings, data sheets, and sketches of construction and research operations carried out by the U. S. Bureau of Mines, the Mobil-CSM "six-company group", and Paraho -- comprise most of the documents in the LPO collection. More than 15,000 documents (almost 80% of the LPO collection) deals with some aspect of the 41-year oil shale research operations conducted at Anvil Points. Included in the collection is a copy of the dedication ceremonies held May 17, 1945 and a description of the decommissioning reported at the 19th Oil Shale Symposium (Virgona 1986).

The second largest portion of the LPO photograph collection (about 800 documents) is the construction of the Oil Shale Research Center in Laramie on the northeast corner of the University of Wyoming -- home of USBM, then ERDA, then DOE and currently Western Research Institute.

Another significant portion of the LPO report collection are the reports produced by various oil shale projects operating under assistance provided by the U. S. Department of Energy. In this classification are 222 reports in 11 archive boxes. Missing, for the most part, are the voluminous reports submitted to the DOE and the U.S. Synthetic Fuels Corporation in the early 1980's.

Table 7
Laramie Project Office Collection

<u>Class-Box Nos.</u>	<u>Description</u>	<u>Documents</u>
Reports	Boxes 1-2	USBM Research 1945-1969 179
	Box 3	Preprints & Reprints 1918-1988 339
	Boxes 4-14	Oil Shale Projects 1972-1987 222
	Boxes 15-23	General Reports 1950-1988 260
	Boxes 24-28	Government Documents 1944-1988 172
	Boxes 29-30	National Laboratories 1979-1988 141
	Boxes 31-32	EISs, EAs, Etc. 1972-1987 30
	Box 33	Correspondence 1977-1985 138
	Boxes 34-46	Non-Shale, Coal 985
	Boxes 48-51	Non-Shale, Tar Sands 305
	Boxes 52-55	Non-Shale, Other 265
Maps	Boxes 1-13	Anvil Points Drawings
		126 rolls 1942-1981 6,332
	Box 14	Maps and Histograms
		14 rolls 1913-1952 153
Visual Aids	Boxes 1-9	Anvil Point 1945-1957 6,765
	Box 10	Laramie Energy
		Research Center 1945-1955 807
	Box 11	Various 1945-1979 2,206
	Box 12	Motion Picture Reels 11
	Boxes 13-14	Non-Shale, Coal 50

Robert B. Crookston. Robert B. Crookston, mining engineer, was involved in oil shale development for many years. Although most of his career was spent with The Oil Shale Corporation (TOSCO) and their developments at COLONY I and II, Bob also worked as a consultant in oil shale mining and mine safety. It is anticipated that this collection will be released to the Colorado School of Mines shortly. The Robert B. Crookston Collection is expected to consist of about 3,000 documents that cover oil shale development from 1950's to the 1980's.

and reviewing numerous articles from newspapers and journals after "black Sunday" (May 2, 1982) in preparation for his doctoral thesis at Bowling Green State University (Gulliford, 1986). The Andrew Gulliford collection is unique in that, although it is sizeable (estimated to contain about 3,500 documents), it is based on a single subject -- the socio-economics of oil shale development -- the "boom" and "bust" cycles that have been experienced. This collection was used to develop the book by Gulliford, Boomtown Blues: Colorado Oil Shale, 1885-1985 (University Press of Colorado, 1989). A synopsis of the book was published in the 22nd Oil Shale Symposium Proceedings (Gulliford, 1989).

Andrew Gulliford Collection. Andrew Gulliford obtained thousands of bits of information by conducting numerous interviews with people from the Western Slope to corporate officers from major oil companies

CONCLUSIONS

The Tell Ertl Oil Shale Archives are in the first phase of development. Most of the documents have not been cross-indexed by technical area (i.e.; mining, chemistry, geology, engineering, environmental, economics, etc.). Many of the maps were catalogued as they were received with no further divisions or classifications; since there are about 150 rolls of these documents with most of them containing various subject matter, classification of the 6,884 maps and drawings into categories in a chronological fashion would present a formidable task.

Because of the wide array of potential designations and, in many cases, the number of designations that could be used to define individual documents, this refinement of indexing and cross-referencing must wait until suitable software is available. Then, the archives will be logged onto a computerized database.

The Colorado School of Mines welcomes researchers to use the information in the Tell Ertl Oil Shale Archives.

The Colorado School of Mines also welcomes additional collections for the Tell Ertl Oil Shale Archives as well as funding to support the archive activities and the establishment of larger permanent facilities to adequately preserve these archives as well as have them accessible for future oil shale researchers.

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