

**U.S. NUCLEAR REGULATORY COMMISSION**  
**APPLICATION FOR SOURCE MATERIAL LICENSE**

Pursuant to the regulations in Title 10, Code of Federal Regulations, Chapter 1, Part 40, application is hereby made for a license to receive, possess, use, transfer, deliver or import into the United States, source material for the activity or activities described.

<b>1. (Check one)</b> <input checked="" type="checkbox"/> (a) New license <input type="checkbox"/> (b) Amendment to License No. _____ <input type="checkbox"/> (c) Renewal of License No. _____ <input type="checkbox"/> (d) Previous License No. _____		<b>2. NAME OF APPLICANT</b> Ogle Petroleum Inc. <hr/> <b>3. PRINCIPAL BUSINESS ADDRESS</b> P. O. Box 5549 Santa Barbara, CA 93108	
<b>4. STATE THE ADDRESS(ES) AT WHICH SOURCE MATERIAL WILL BE POSSESSED OR USED</b> Section 25, T27N, R97W Fremont County, Wyoming			
<b>5. NAME OF PERSON TO BE CONTACTED CONCERNING THIS APPLICATION</b> Glenn J. Catchpole 150 N. Nichols Avenue Casper, WY 82601		<b>6. TELEPHONE NO. OF INDIVIDUAL NAMED IN ITEM 5</b> (307) 266-6456	
<b>7. DESCRIBE PURPOSE FOR WHICH SOURCE MATERIAL WILL BE USED</b> Source material will be produced as a raw material and eventual nuclear fuel fabrication at other locations. In situ solution mining techniques will be used followed by standardized uranium recovery processes.			
<b>8. STATE THE TYPE OR TYPES, CHEMICAL FORM OR FORMS, AND QUANTITIES OF SOURCE MATERIAL YOU PROPOSE TO RECEIVE, POSSESS, USE, OR TRANSFER UNDER THE LICENSE</b>			
<b>(a) TYPE</b>	<b>(b) CHEMICAL FORM</b>	<b>(c) PHYSICAL FORM (Including % U or Th.)</b>	<b>(d) MAXIMUM AMOUNT AT ANY ONE TIME (kilograms)</b>
NATURAL URANIUM	Sodium uranyl tricarbonate	Wet slurry; 40% to 60% U <sub>3</sub> O <sub>8</sub> solids by weight	180,000
URANIUM DEPLETED IN THE U-235 ISOTOPE	N/A		
THORIUM (ISOTOPE)	N/A		
<b>(e) MAXIMUM TOTAL QUANTITY OF SOURCE MATERIAL YOU WILL HAVE ON HAND AT ANY TIME (kilograms)</b> 180,000			
<b>9. DESCRIBE THE CHEMICAL, PHYSICAL, METALLURGICAL, OR NUCLEAR PROCESS OR PROCESSES IN WHICH THE SOURCE MATERIAL WILL BE USED, INDICATING THE MAXIMUM AMOUNT OF SOURCE MATERIAL INVOLVED IN EACH PROCESS AT ANY ONE TIME, AND PROVIDING A THOROUGH EVALUATION OF THE POTENTIAL RADIATION HAZARDS ASSOCIATED WITH EACH STEP OF THOSE PROCESSES</b> Alkaline leach with oxidant will be used to recover uranium from a mineralized zone. Due to low uranium concentration in the raw material, there will be insignificant external radiation exposure hazard associated with this activity (see Environmental Report).			
<b>10. LIST THE NAMES AND ATTACH A RESUME OF THE TECHNICAL QUALIFICATIONS INCLUDING TRAINING AND EXPERIENCE OF APPLICANT'S SUPERVISORY PERSONNEL AND THE PERSON RESPONSIBLE FOR THE RADIATION SAFETY PROGRAM (OR OF APPLICANT IF AN INDIVIDUAL).</b> G. J. Hartman - Manager of Mining G. J. Catchpole - Project Manager (Resumes enclosed) J. G. Vialpando* - Facilities Manager  * Responsible for radiation safety program			
<b>11. DESCRIBE THE EQUIPMENT AND FACILITIES WHICH WILL BE USED TO PROTECT HEALTH AND MINIMIZE DANGER TO LIFE OR PROPERTY AND RELATE THE USE OF THE EQUIPMENT AND FACILITIES TO THE OPERATIONS LISTED IN ITEM 9. INCLUDE (a) RADIATION DETECTION AND RELATED INSTRUMENTS (including film badges, dosimeters, counters, air sampling, and other survey equipment as appropriate. The description of radiation detection instruments should include the instrument characteristics such as type of radiation detected, window thickness, and the range(s) of each instrument).</b>  See Environmental Report.			
<b>(b) METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED IN (a) ABOVE INCLUDING AIR SAMPLING EQUIPMENT (for film badges, specify method of calibrating and processing, or name supplier).</b>  See Environmental Report.			

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11(c) VENTILATION EQUIPMENT WHICH WILL BE USED IN OPERATIONS WHICH PRODUCE DUST, FUMES, MISTS, OR GASES, INCLUDING PLAN VIEW SHOWING TYPE AND LOCATION OF HOOD AND FILTERS, MINIMUM VELOCITIES MAINTAINED AT HOOD OPENINGS AND PROCEDURES FOR TESTING SUCH EQUIPMENT.

See Environmental Report.

12. DESCRIBE PROPOSED PROCEDURES TO PROTECT HEALTH AND MINIMIZE DANGER TO LIFE AND PROPERTY AND RELATE THESE PROCEDURES TO THE OPERATIONS LISTED IN ITEM 9; INCLUDE: (a) SAFETY FEATURES AND PROCEDURES TO AVOID NONNUCLEAR ACCIDENTS, SUCH AS FIRE, EXPLOSION, ETC., IN SOURCE MATERIAL STORAGE AND PROCESSING AREAS.

See Environmental Report.

(b) EMERGENCY PROCEDURES IN THE EVENT OF ACCIDENTS WHICH MIGHT INVOLVE SOURCE MATERIAL.

See Environmental Report.

(c) DETAILED DESCRIPTION OF RADIATION SURVEY PROGRAM AND PROCEDURES.

See Environmental Report.

13. WASTE PRODUCTS: *If none will be generated, state "None" opposite (a), below. If waste products will be generated, check here  and explain on a supplemental sheet:*

- (a) Quantity and type of radioactive waste that will be generated. See Environmental Report.
- (b) Detailed procedures for waste disposal.

14. IF PRODUCTS FOR DISTRIBUTION TO THE GENERAL PUBLIC UNDER AN EXEMPTION CONTAINED IN 10 CFR 40 ARE TO BE MANUFACTURED, USE A SUPPLEMENTAL SHEET TO FURNISH A DETAILED DESCRIPTION OF THE PRODUCT, INCLUDING:

- (a) PERCENT SOURCE MATERIAL IN THE PRODUCT AND ITS LOCATION IN THE PRODUCT.
- (b) PHYSICAL DESCRIPTION OF THE PRODUCT INCLUDING CHARACTERISTICS, IF ANY, THAT WILL PREVENT INHALATION OR INGESTION OF SOURCE MATERIAL THAT MIGHT BE SEPARATED FROM THE PRODUCT.
- (c) BETA AND BETA PLUS GAMMA RADIATION LEVELS (*Specify instrument used, date of calibration and calibration technique used*) AT THE SURFACE OF THE PRODUCT AND AT 12 INCHES.
- (d) METHOD OF ASSURING THAT SOURCE MATERIAL CANNOT BE DISASSOCIATED FROM THE MANUFACTURED PRODUCT.

**CERTIFICATE**

*(This item must be completed by applicant)*

15. *The applicant, and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 40, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.*

BY:

  
(Signature)

Dated August 1, 1979

William R. Merrill  
(Print or type name)

P. O. Box 5549  
Santa Barbara, CA 93108

Vice President, Ogle Petroleum Inc.  
(Title of certifying official authorized to act on behalf of the applicant)

WARNING: 18 U.S.C. Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

Manager of Mining  
George J. Hartman

Mr. Hartman is in overall charge of the Joint Venture mine operations and processing plant and acts as senior hydrometallurgist, senior process and chemical engineer.

Prior to joining OPI in March 1979, Mr. Hartman was mines manager for two large in-situ uranium mine, processing, mine field, and restoration operations for Wyoming Mineral Corp., a wholly-owned subsidiary of Westinghouse Corp. at Bruni and Lamprecht in Texas. As mines manager, he was responsible for the overall management of the two mines and production plants employing a combined total of 165 personnel, with a yearly product value of over \$25,000,000. In that capacity, he also prepared and adhered to annual budgets, including operating and capital funds. He was specifically required to insure that operating costs were within profit plan guidelines and that production quotas were met through mine planning and development.

Mr. Hartman's educational background includes an Associate in Science degree in 1964 from San Antonio College, a B.S. degree in Chemistry from the University of Denver in 1967. He earned his M.S. degree in Mineral Economics from the Colorado School of Mines in 1976. During the period 1968-1972, he was project engineer, involving ion exchange, solvent extraction process development research activity, laboratory investigations, pilot plant operations and project management at the Colorado School of Mines Research Institute.

In 1972, he joined S. W. Shattuck Chemical Company where he operated a production plant part-time as a production supervisor. Later, for Alumat Co., he took positions first as shift foreman, progressing to senior process engineer in charge of one of three sections of its large process pilot plant where his

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work included feasibility reports and engineering progress reports. In 1976 he joined Wyoming Mineral Co. as senior metallurgical engineer, progressing to operations superintendent and to mine manager at Bruni and then to mines manager when he also took over the responsibility of the Lamprecht mine.

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Project Manager

Glenn J. Catchpole

Mr. Catchpole is in charge of the Casper office and acts as administrator, hydrologist and civil engineer.

Before joining OPI in 1977, Mr. Catchpole was Staff Hydrologist with the Wyoming Department of Environmental Quality (DEQ). In that capacity he reviewed applications to assess the impact of the proposed mining operation on the hydrologic regime, evaluated potential impacts on water quality, inspected mine areas to verify information submitted, ensured that the State's requirements as to on-going mine operations complied with regulations and served as expert witness for the State.

Prior to his joining the DEQ, Mr. Catchpole was Water Resources Engineer, State Engineer's Office, Colorado Division of Water Resources from December 1973 to March 1976, as a member of the Planning and Investigation Branch.

As a Lieutenant Commander in the U.S. Navy from September 1965 to August 1972, he had a wide experience in the Naval Air Corps, including administration as a material and personnel officer.

He received a B.S. degree in 1965 in Mechanical Engineering at the University of Wyoming and later an M.S. degree in Civil Engineering specializing in Hydrology at Colorado State University (Fort Collins) in 1973.



Mine Superintendent

Joe G. Vialpando

Mr. Vialpando is in charge of all field operations of the mine, including the wellfield and processing plant, and acts as supervising hydrometallurgist and chemist.

Previous to joining OPI in early April, 1979 he was employed by Wyoming Mineral Corporation, beginning in 1975 as metallurgical engineer at its Irigaray and other of its in-situ uranium carbonate leach mine and processing facilities in Wyoming and Colorado. His duties variously included supervision of operations crews, installation of plant equipment, test plant and research operations, and engineer in charge of testing new types of lixivants.

Before joining Wyoming Mineral, Mr. Vialpando was employed from 1957 to 1972 sequentially by Kerr-McGee as metallurgical technician, Foote Mineral Company as junior metallurgist, Vanadium Corporation of America as junior metallurgist, Susquehanna-Western Inc. as process engineer, and Utah International as metallurgical supervisor where his duties included the responsibilities of metallurgical practices in the recovery process of uranium oxide ores, acid leach, resin extraction and yellowcake drying.

Prior to early employment at Shipreck, New Mexico for Kerr-McGee in September 1957 and after two year active duty with the U. S. Army in Korea, Mr. Vialpando attended Highlands University in Las Vegas for two years in 1954 and 1955 where he took courses in Chemistry and Metallurgy. In 1956 he furthered his education by attending West Chester State Technical College in West Chester, Pennsylvania.

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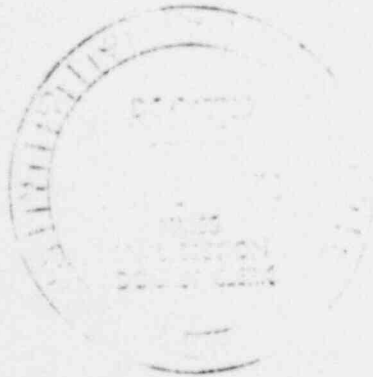
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ENVIRONMENTAL REPORT  
FOR  
U.S. NUCLEAR REGULATORY COMMISSION  
SOURCE MATERIAL LICENSE APPLICATION  
PRODUCTION SCALE IN SITU MINE  
WYOMING

By

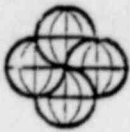
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August 1979



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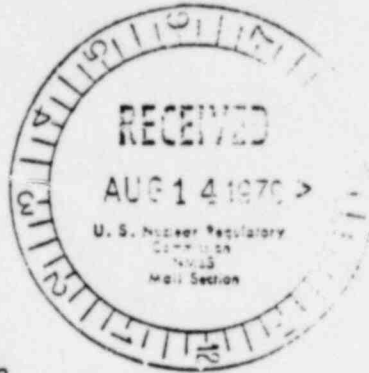
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new docket  
Number

TELEPHONE (805) 969-5941  
TELECOPIER (805) 969-3278  
TELEX No. 658-430  
LAND DEPT. (805) 969-5974



P.O. Box 5549  
559 SAN YSIDRO ROAD  
SANTA BARBARA, CALIFORNIA 93108  
August 10, 1979

Uranium Recovery Licensing Branch  
Division of Waste Management  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Subject: Application for a Source Material License for a Production Scale  
In Situ Solution Mine ✓

Gentlemen:

Ogle Petroleum Inc. (OPI) herewith delivers its application (in quadruplicate) for a license to receive, possess, use, and transfer source material in connection with a proposed solution mining operation.

Pursuant to 10 CFR 170, a check in the amount of \$7,000.00 is enclosed to cover the application fee. Also enclosed are ten (10) copies of the Environmental Report that accompanies this source material license application.

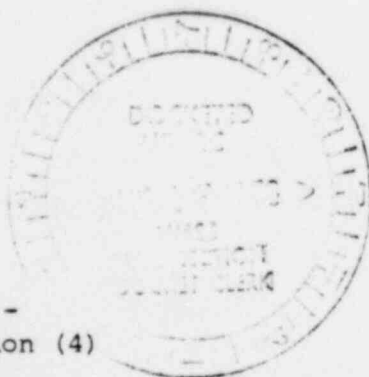
The Environmental Report is complete except for certain information concerning the results of the ongoing R & D test program (SUA-1336). The mining phase of the R & D program has been completed, and OPI is now in the process of restoring the ground water in the mined ore zone. The ground water restoration phase of the R & D program should be finished by October, 1979. It is requested that the NRC begin its review of our application before receiving the final R & D data, which will be forwarded in the near future as a supplement to the enclosed Environmental Report.

Please contact me at our Casper office if there are any questions concerning this application submittal.

Sincerely,  
OGLE PETROLEUM INC.

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*Glenn J. Catchpole*  
Glenn J. Catchpole  
Project Manager



GJC:mh  
Enclosures -  
Application (4)  
Check  
Environmental Report (10)

Applicant	.....
Check No.	4669
Amount Fee Category	7000-23
Type of Fee	Application
Date Check Rec'd	8/14/79
Received By	<i>me</i>
	Aug 79 - JCL

Betty Fisher -  
notify D. Weiss  
prior to issuance  
of new license for  
additional fees.  
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