UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SURFACE AND GROUND-WATER REFERENCES INDEX

FOR THE NAVAJO INDIAN RESERVATION ARIZONA, NEW MEXICO, AND UTAH

by

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Introduction

The references which are listed in this document represent the readily available literature about surface and ground-water resources on or adjacent to the Navajo Indian Reservation. They were selected during the developmental phase of the Navajo Resource Information System (NRIS). The system contains a set of computerized data bases addressing various resource categories. The system was developed by the U.S. Geological Survey in coordination with the Minerals Department, Navajo Nation. Funding support was provided by the Bureau of Indian Affairs.

Literature is the foundation of resource assessment and the absence of such a compilation for the Navajo Nation prompted the development of a reference data base entitled "nref," which consists of over 1300 records. The following reference list of approximately 100 references was selected from those citations which contain "water" in a keyword list attached to each citation. References to general literature on surface and ground water, and on the role of water in various geological processes may also be present.

The main attempt was to list most of the literature published in the 1960's and 1970's for areas in, or adjacent to, the Navajo Reservation. References published prior to this were included only if readily available or if they seemed to represent areas or topics not covered in later publications. It is hoped that most of the historical literature not given within this list will be found in the bibliographies of the papers cited.

The areas and topics of interest to the Navajo Nation are identical to a large amount of the historical geologic work conducted by others on the Navajo Reservation. The index which follows was extracted from the

first attempted compilation of this large body of work. Regrettably, important works might have been missed. Readers of this document are encouraged to inform the Minerals Department, Navajo Nation of any omissions or errors. Copies of reports, reprints, etc., applicable to the Navajo Reservation would be appreciated as well. Please send to: Minerals Department, P.O. Box 146, Window Rock, AZ 86515.

Rules used in the Reference List

Each reference is composed of author, year, title, publishing agency, place of publication and collation, in that order, as follows:

Author--may be editor(s), compiler(s), or multiple authors. In the latter case, articles with more than three authors will be given with "et al." following the initial author's name. In most cases, first and middle names are abbreviated.

Year--the year of publication.

Title--may be of a book, an article in a guidebook, a compilation, or an article in a journal publication. Secondary titles which follow the publishing agency can be the name of a compilation of papers. Editors of compilations may be given as well. Organizational names are given before the secondary titles of memoirs, guidebooks, etc.

Publishing agency--may be a publishing house, a governmental agency (federal or state), or professional or technical journal. The type of publication (memoir, bulletin, guidebook), the editor, or field conference number will also be given when appropriate.

Collation--volume and number of a serial publication and inclusive pagination will be given. Total number of pages will be given, if available, for books. If the reference is to a selected part of a publication, this will be indicated by page intervals. If pages were not counted or publication is unpaginated, [unpaginated] will appear.

Abbreviation Standards

International abbreviation standards prepared by the National Clearinghouse for Periodic Title Word Abbreviations Service, Ohio State University, have been used in most cases. This has reduced the length of most citations. However, to prevent possible misinterpretations, two lists of abbreviations are given. The first, located in appendix A, gives general abbreviations for one or two words. The second list, located in appendix B, gives abbreviations for organizations and the full title for which they stand.

Acknowledgments

This compilation was completed with the assistance of the staff of the Minerals Department, Navajo Nation at Window Rock.

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Appendix A

Abstract	Abstr.	Mineralogist	Mine
Academy	Acad.	Miscellaneous	Misc
Administration	Ad.	Mineralogy	Mineral.
American	Am.	Mining	Min.
Annual	Ann.	Museum	Mus.
Appendix	Append.	New Mexico	N.M.
Arizona	Ariz.	Number	No.
Association	Assoc.	Paper	Pap.
Bulletin	Bull.	Part	Pt.
Bureau	Bur.	Paleontology	Paleontol.
Doctoral	Ph.D.	Petroleum	Pet.
Circular	Circ.	Petrology	Petrol.
Congress	Congr.	Preliminary	Prelim.
Commission	Comm.	Professional	Prof.
Department	Dep.	Publication	Pub.
Dissertation	Dissert.	Report	Rep.
Economic	Econ.	Radioactive	Radioact.
Engineering	Eng.	Research	Res.
Geological	Geol.	Resources	Resour.
Geologists	Geol.	Section	Sect.
Geophysical	Geophys.	Series	Ser.
Guidebook	Guideb.	Society	Soc.
History	Hist.	Station	Stn.
Hydrology	Hydrol.	Studies	Stud.
Intermountain	Intermtn.	Special	Spec.
International	Int.	Survey	Surv.
Investigations	Invest.	Symposium	Symp.
Journal	J.	United States	U.S.
Meeting	Meet.	University	Univ.
Memoir	Mem.	Vertebrate	Vertebr.
Mineral	Miner.	Washington	Wash.

Appendix B

The following list* gives abbreviations for organizations, journals, etc. which have been used in the bibliographic data base. Additional items which may follow the initial entry are given in parentheses.

AIME--American Institue of Mining, Metallurgical, and Petroleum Engineers (Ann. Meet.--Annual Meeting; Trans.--Transactions)

Agric. Exp. Stat. Res. Rep.--Agriculture Experimental Station Research Report

Am. Assoc. Pet. Geol.--American Association of Petroleum Geologists (Ann. Meet.--Annual Meeting; Bull.--Bulletin; Mem.--Memoir; Repr. Ser.--Reprint Series; Rocky Mtn. Sect., Ann. Meet.--Rocky Mountain Section, Annual Meeting; Rocky Mtn. Sect., Guideb.--Rocky Mountain Section, Guidebook; Symp.--Symposium)

Am. Geol.--American Geology

Am. J. Sci.--American Journal of Science

Am. Mineral.--American Mineralogist

Am. Mus. Nat. Hist. Bull.--American Museum of Natural History Bulletin (New York)

Ariz. Acad. Sci. J.--Arizona Academy of Science Journal

Ariz.-Nev. Acad. Sci. J.--Arizona-Nevada Academy of Science Journal

Ariz. Bur. Geol. Miner. Tech.--Arizona Bureau of Geology and Mineral Technology

Ariz. Bur. Mines--Arizona Bureau of Mines (Bull.--Bulletin; Circ.--Circular)

Ariz. Geol. Soc. Dig.--Arizona Geological Society Digest

Ariz. Oil & Gas Conserv. Comm. --Arizona Oil and Gas Conservation Commission (Geol. Rep.--Geological Report; Spec. Pub.--Special Publication)

Bendix Field Eng. Corp. (for DOE)--Bendix Field Engineering Corportion (for Department of Energy)

Bot. Soc. Am. Guideb.--Botanical Society of America Guidebook

Brigham Young Univ. Geol. Stud.--Brigham Young University Geology Studies

Calif. Oil World--California Oil World

Chem. Geol.--Chemical Geology

Colo. Geol. Surv. Resourc. Ser.--Colorado Geological Survey Resource Series

Contrib. Mineral. Petrol.--Contributions to Mineralogy and Petrology

Counc. Energy Resour. Tribes--Council of Energy Resources Tribes

*note: This list is applicable for the full reference database.

Cushman Found. Foraminiferal Res. Contrib.--Cushman Foundation for Foraminiferal Research Contribution
Dtsch. Gemmol. Ges. Zeit.--Deutsche Gemmologische Gesellshaft Zeitschrift

Diss. Abstr. Int.--Dissertations Abstract International

Earth Planet. Sci. Letter--Earth and Planetary Science Letters

Earth Sci. Bull.--Earth Science Bulletin (Wyoming Geological Association)

Econ. Geol.--Economic Geology

Elect. Power Res. Inst.-- Electric Power Research Institute

Eng. Mining J.--Engineering and Mining Journal

EOS (Am. Geophys. Union Trans.)--EOS (American Geophysical Union Transactions)

Four Corners Geol. Soc.--Four Corners Geological Society (Field Conf.--Field Conference; Mem.--Memoir)
Geochim. Cosmochim. Acta--Geochimica et Cosmochimica Acta

Geol.--Geology (Geol. Soc. Am.)

Geol. Soc. Am.--Geological Society of America (Abstr.--Abstracts; Bull--Bulletin; Mem.--Memoir; Spec. Pap.--Specal Paper; Rocky Mt. Sect. Abstr.--Rocky Mountain Section Abstracts; Rocky Mt. Sect. Ann. Meet.-- Rocky Moutain Section Annual Meeting; Rocky Mt. Sect. Guideb.--Rocky Mountain Section Guidebook)
Geol. Surv. Can. Pap.--Geological Survey of Canada Paper

Inst. Min. Met., London--Institution of Mining and Metallurgy, London

Intermt. Assoc. Pet. Geol.--Intermountain Association of Petroleum Geologists (Field Conf.--Field Conference; Guideb.--Guidebook; Symp.-Symposium)
Int. Assoc. Hydrol. Pub.--International Association of Hydrologists Publication
Int. Assoc. Pet. Geol. Symp.--International Association of Petroleum Geologists Symposium
Int. J. Rock Mech. Min. Sci.--International Journal of Rock Mechanics and Mining Sciences
IAEA--Internation Atomic Energy Agency

J. Geochem. Expl.--Journal of Geochemical Exploration

J. Geophys. Res.--Journal of Geophysical Research

J. Less Common Metals--Journal of Less Common Metals

J. Paleontol.--Journal of Paleontology

J. Sed. Pet.--Journal of Sedimentary Petrology

J. Soil Water Conserv.--Journal of Soil and Water Conservation

Miner. Deposita--Mineralium Deposita

Min. Congr. J.--Mining Congress Journal

Min. Mag.--Mining Magazine

Min. J.--Mining Journal (London)

Mus. North. Ariz. Bull.--Museum of Northern Arizona Bulletin

Mt. Geol.--(The) Mountain Geologist

Nev. Bur. Mines Geol. Rep.--Nevada Bureau of Mines and Geology Report

N.M. Acad. Sci. Bull.--New Mexico Academy of Science Bulletin

N.M. Bur. Mines Miner. Resour.--New Mexico Bureau of Mines and Mineral Resources (Ann. Rep.--Annual Report; Bull.--Bulletin; Circ.--Circular; Mem.--Memoir; Open-File Rep.--Open-File Report; Prog. Rep.--Progress Report)

N.M. Geol.--New Mexico Geology

N.M. Geol. Soc.--New Mexico Geological Society (Guideb.--Guidebook; Spec. Pub.--Special Publication)

N.M. State Eng. Tech. Rep.--New Mexico State Engineer Technical Report

N.M. Univ. Pub. Geol.-- University of New Mexico Publication on Geology

N.M. Univ. Bus. Circ.-- University of New Mexico Business Circular

N.M. Water Resour. Res. Inst. Rep.--New Mexico Water Resources Research Institute Report

Off. Arid Lands Stud., Univ. Ariz.--Office of Arid Lands Study, University of Arizona

Oil Gas J.--Oil and Gas Journal

Pan-Am. Geol.--Pan-American Geologist

Pet. Eng. Int.--Petroleum Engineer International

Rocky Mt. Assoc. Geol. Guideb. --Rocky Mountain Association of Geologists Guidebook (Denver)

Sask. Geol. Soc. Spec. Pub.--Saskatchewan Geological Society Special Publication

Sci.--Science

Seismol. Soc. Am. Bull.--Seismology Society of America Bulletin

Soc. Econ. Paleontol. Mineral., --Society of Economic Paleontologists and Mineralogists (Rocky Mtn. Sect.--Rocky Mountain Section; Spec. Publ.-- Special Publication)

Soc. Pet. Eng.--Society of Petroleum Engineers

Soc. Verteb. Paleon. Field Conf.--Society of Vertebrate Paleontology Field Conference
South. Calif. Paleontol. Soc. Bull.--Southern California Paleontological Society Bulletin
Tex. Bur. Econ. Geol.--Texas Bureau of Economic Geology

Utah Geol.--Utah Geology

Utah Geol. Mineral. Surv.--Utah Geological and Mineralogical Survey (Bull.-Bulletin; Rep. Invest.--Report of Investigation; Spec. Stud.--Special Study; Circ--Circular; Guideb.--Guidebook)
Utah Geol. Soc.--Utah Geological Society (Guideb.--Guidebook)

Utah Univ. Press--University of Utah Press

U.N. Int. Conf. Peaceful Uses At. Energy--United Nations International Conference on the Peaceful Uses of Atomic Energy
USAEC--United States Atomic Energy Commission (Guideb.--Guidebook; GJO--Grand Junction Office;RMO--Report; RME-Report)
U.S. Bur. Indian Aff.--United States Bureau of Indian Affairs

U.S. Bur. Mines--United States Bureau of Mines (Inf. Circ.--Information Circular; Tech. Prog. Rep.--Technical Progress Report)
U.S. Bur. Reclam.--United States Bureau of Reclamation

U.S. ERDA GJO--United States Energy Research and Development Agency, Grand Junction Office (Final Rep.--Final Report)
U.S. Environ. Prot. Agency Res. Rep. Ser.--United States Environmental Protection Agency Research Reporting Series
U.S. Dep. Agric. Soil Conserv. Serv.--United State Department of Agriculture Soil Conservation Service.
U.S. Dep. Inter., Off. Surf. Min. Reclam. Enforcement--United States Department of Interior, Office of Surface Mining Reclamation Enforcement
U.S. Geol. Surv.--United States Geological Survey (Ann. Rep.--Annual Report; Bull.--Bulletin; Circ.--Circular; Coal Invest. Map--Coal Investigations Map; Geol. Quad. Map--Geologic Quadrangle Map; Geophys. Inv. Map--Geopohysical Investigation Map; Miner. Inv. Field Stud. Map--Mineral Investigations Field Studies Map; Misc. Geol. Inv. Map--Miscellaneous Geologic Investigations Map; Oil and Gas Prelim. Invest. Map--Oil and Gas Preliminary Investigation Map; Open-File Rep.--Open-File Report; Prof. Pap.--Professional Paper; TEI Rep.--Trace Element Investigation Report; TEM--Trace Element Memorandum; Water-Supply Pap.--Water-Supply Paper)
U.S. NASA Spec. Pub.--United State National Air and Space Adminstration Special Publication
Wash. Acad. Sci. J.--Washington Academy of Science Journal

West. Oil Rep.--Western Oil Reporter

Wyo. Univ. Contr. Geol.--University of Wyoming Contributions to Geology

Wyo. Geol. Assoc. Guideb.--Wyoming Geological Association Guidebook