UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

.

BIBLIOGRAPHY OF REPORTS BY U.S. GEOLOGICAL SURVEY PERSONNEL ON STUDIES OF UNDERGROUND NUCLEAR TEST SITES AND ON WASTE MANAGEMENT STUDIES AT THE NEVADA TEST SITE AND THE WASTE ISOLATION PILOT PLANT SITE, NEW MEXICO, JANUARY 1 TO DECEMBER 31, 1981

By

V. M. Glanzman

OPEN FILE REPORT 83-478

1983

UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

BIBLIOGRAPHY OF REPORTS BY U.S. GEOLOGICAL SURVEY PERSONNEL ON STUDIES OF UNDERGROUND NUCLEAR TEST SITES AND ON WASTE MANAGEMENT STUDIES AT THE NEVADA TEST SITE AND THE WASTE ISOLATION PILOT PLANT SITE, NEW MEXICO, JANUARY 1 TO DECEMBER 31, 1981

By

V. M. Glanzman

This bibliography lists reports by personnel of the U.S. Geological Survey released to the public between January 1, 1981, and December 31, 1981. Reports include information on underground nuclear testing and waste management projects at the NTS (Nevada Test Site) and radioactive waste projects at the WIPP (Waste Isolation Pilot Plant) site, New Mexico.

The bibliography is divided into three categories: (1) reports regarding underground nuclear testing, (2) waste management projects at the NTS, and (3) waste management studies at the WIPP site. Reports are listed in each category by publication outlet. The USGS-474 series reports pertain to underground nuclear testing studies and are cross referenced to administrative (or in-house) series (for example, USGS-474-228 is cross referenced as Area 12-44). The administrative series are used to break down the USGS-474 series for more specific area identification. A list of cross references is shown on page 7. Figure 1 shows the location of the NTS and locations of numbered testing areas on the site.

Book publications of the U.S. Geological Survey may be obtained from Eastern Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304. Maps of areas west of the Mississippi may be obtained from Branch of Distribution, U.S. Geological Survey, Box 25286, Federal Center, Denver, CO 80225. Information on availability of microfiche or paper duplicate copies of Open-File Reports may be obtained from Open-File Services Section, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225.

Most reports issued in the USGS-474 series are available to the public through the NTIS (U.S. Department of Commerce, National Technical Information Service, Springfield, VA 22161). Microfiche copies may be purchased at \$4.00 each. Printed copies of reports are priced according to the following schedule. Reports should be ordered from NTIS by the USGS-474 number. Sandia National Laboratory publications pertaining to studies at the WIPP project site are also available from NTIS.

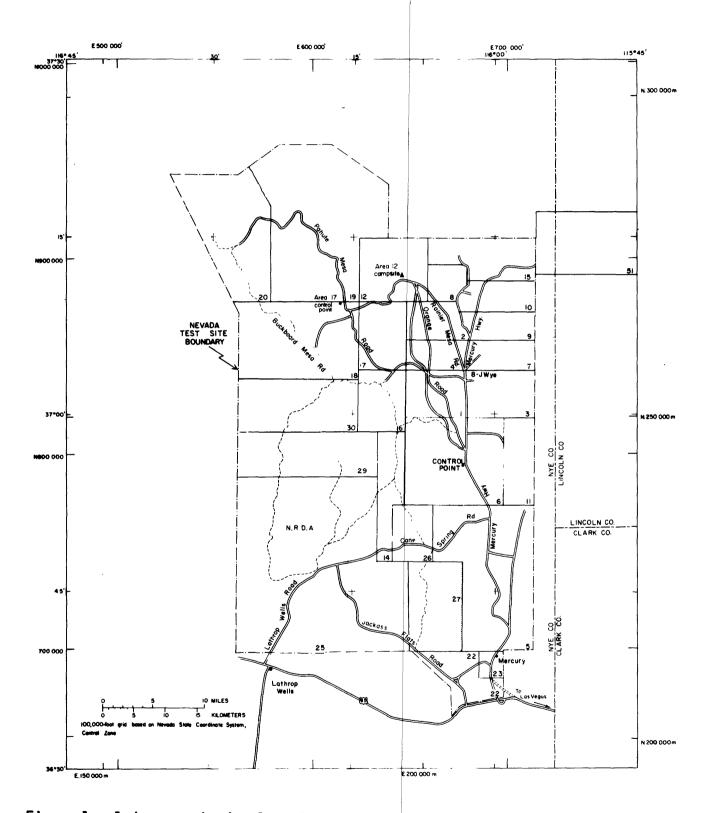


Figure 1.--Index map showing location of Nevada Test Site and outlines of numbered test areas on the test site.

Page	NTIS Domestic
Range	Selling Price
1- 25	\$ 7.00
26- 50	8.50
51- 75	10.00
76-100	11.50
101-125	13.00
126-150	14.50
151-175	16.00
176-200	17.50
201-225	19.00
226-250	20.50
251-275	22.00
276-300	23.50
301-325	25.00
326-350	26.50
351-375	28.00
376-400	29.50
401-425	31.00
426-450	32.50
451-475	34.00
476-500	35.50
501-525	37.00
526-550	38.50
551-575	40.00
576-600	41,50
601-up	(1)

 $^{1}\mbox{Contact NTIS}$ for price quote.

Figure 2 is an index showing geologic map coverage of the NTS. The location of the WIPP project site is shown on figure 3.

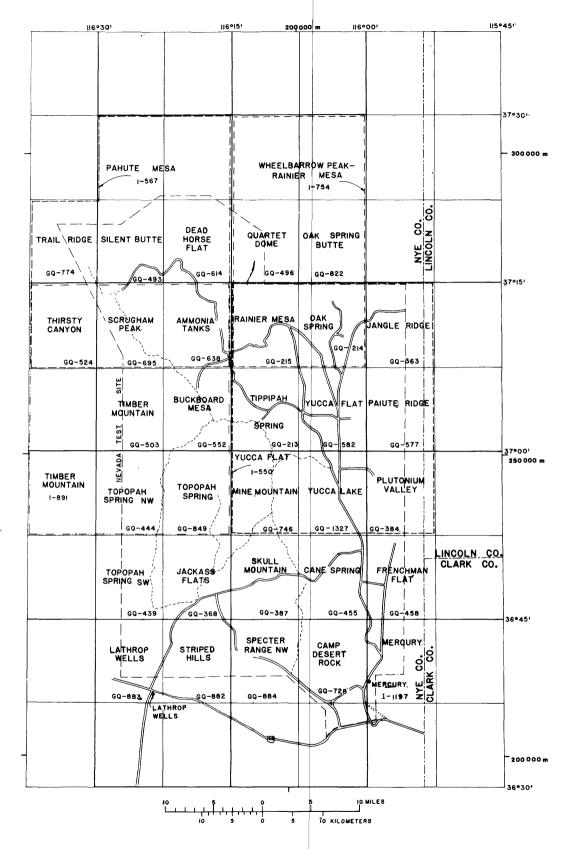


Figure 2.--Index map of Nevada Test Site showing outlines of geologic maps.

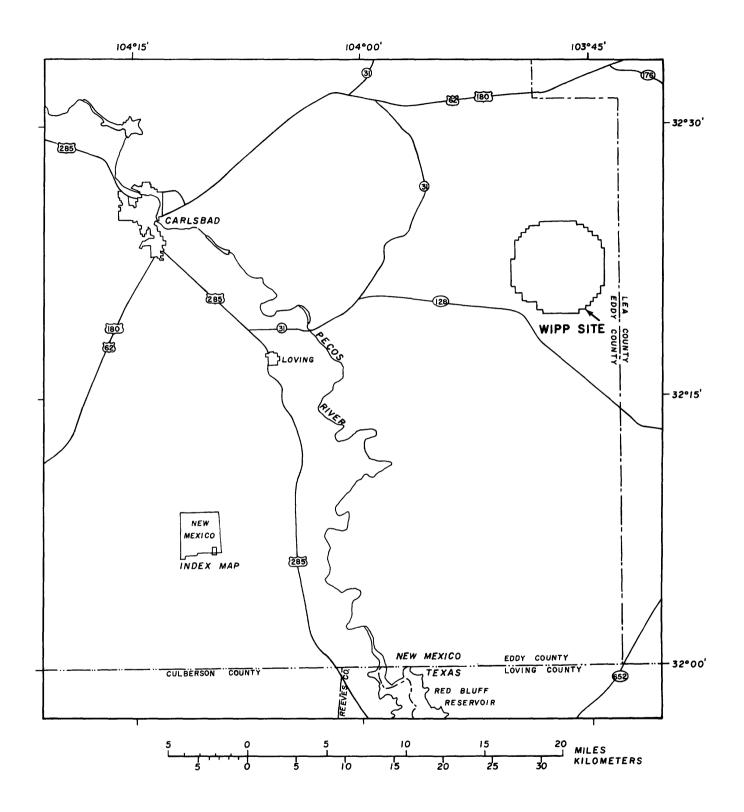


Figure 3.--Map showing location of the WIPP project site.

STUDIES AT UNDERGROUND NUCLEAR TEST SITES (U.S. DEPARTMENT OF ENERGY INTERAGENCY AGREEMENT DE-A108-76DP00474)

USGS-474-Series

USGS-474-

ţ,

-311	Principal facts, accuracies, sources, and base station
	descriptions for gravity stations in the Nevada part of
5	the Goldfield and Mariposa 2 degree sheets, by D. L.
	Healey, R. R. Wahl, and F. E. Currey, 12 p.

- -312 Geology of drill hole UE18t and Area 18, Timber Mountain caldera moat, Nevada Test Site, by F. M. Byers, Jr., and W. L. Hawkins, with a section on Geophysical Logging by D. C. Muller, 69 p.
- -313 Geology of drill hole UE18r, Timber Mountain caldera, Nevada Test Site, by W. J. Carr, F. M. Byers, Jr., and E. C. Jenkins, 23 p. [1968].

USGS Open-File Reports

81-892 Bibliography of reports by U.S. Geological Survey personnel pertaining to underground nuclear testing and radioactive waste disposal at the Nevada Test Site and radioactive waste disposal at the Waste Isolation Pilot Plant site, New Mexico, January 1, 1980, to December 31, 1980, by V. M. Glanzman, 18 p.

Journals and Abstracts

Brethauer, G. E., Healey, D. L., and Miller, C. H., Statistical analysis of the gravity method of calculating the depth to the pre-Cenozoic surface in Yucca Flat, Nevada Test Site: Geophysical Prospecting, v. 29, no. 1, p. 31-38.

Carroll, R. D., Seismic velocity and postshot properties in and near chimneys [abs.]: Monterey Containment Symposium, Monterey, Calif., Aug. 26-28, 1981.

Orkild, P. P., Geology of the Nevada Test Site [abs.]: Monterey Containment Symposium, Monterey, Calif., Aug. 26-28, 1981.

White, A. F., Controls on isotopic compositions in ground-water systems in southern Nevada [abs.]: Transactions, American Geophysical Union, EOS, v. 62, no. 17, p. 286.

Winograd, I. J., Radioactive waste disposal in thick unsaturated zones: Science, v. 212, no. 4502, p. 1457-1464.

Nevada Bureau of Mines and Geology

Healey, D. L., Snyder, D. B., Wahl, R. R., and Currey, F. E., 1981, Bouguer gravity map of Nevada, Caliente sheet: Nevada Bureau of Mines and Geology, Map 70, scale 1:250,000.

Administrative Series Cross Reference (474 Series)

Special	Studies-69	USGS-474-313
Special	Studies-97	USGS-474-312

NEVADA NUCLEAR WASTE STORAGE INVESTIGATIONS (U.S. DEPARTMENT OF ENERGY INTERAGENCY AGREEMENT DE-AI08-78ET44802)

- 81-101 Preliminary results of gravity investigations of the Calico Hills Nevada Test Site, Nye County, Nevada, by D. B. Snyder and H. W. Oliver, 42 p.
- 81-119 Uranium-thorium dating of Quaternary carbonate accumulations in the Nevada Test Site region, by B. J. Szabo, W. J. Carr, and W. C. Gottschall, 35 p.
- 81-156 Geology of the Twinridge pluton area, Nevada Test Site, Nevada, by Florian Maldonado, 13 p.
- 81-189 A preliminary analysis of gravity and aeromagnetic surveys of the Timber Mountain area, southern Nevada, by M. F. Kane, M. W. Webring, and B. K. Bhattacharyya, 40 p.
- 81-389 Interpretation of geophysical well-log measurements in drill holes UE25a-4, -5, -6, and -7, Yucca Mountain, Nevada Test Site, by J. J. Daniels, J. H. Scott, and J. T. Hagstrum, 29 p.
- 81-512 Correlation characteristics of surficial deposits with a description of surficial stratigraphy in the Nevada Test Site region, by D. L. Hoover, W C Swadley, and A. C. Gordon, 27 p.
- 81-522 Preliminary gravity investigations of the Wahmonie site, Nevada Test Site, Nye County, Nevada, by D. A. Ponce, 64 p.
- 81-980 A slingram survey at Yucca Mountain on the Nevada Test Site, by V. J. Flanigan, 38 p.
- 81-985 Charleston Peak gravity calibration loop, Nevada, by D. A. Ponce and H. W. Oliver, 20 p.
- 81-988 Interpretation of time-domain electromagnetic soundings in the Calico Hills area, Nevada Test Site, Nye County, Nevada, by James Kauahikaua, 13 p., appendix.

- 81-1086 Southern Great Basin seismological data report for 1980 and preliminary data analysis, by A. M. Rogers, S. C. Harmsen, and W. J. Carr, 148 p.
- 81-1336 Interpretation of hole-to-surface resistivity measurements at Yucca Mountain, Nevada Test Site, by J. J. Daniels, and J. H. Scott, 23 p.
- 81-1337 Rock property analysis of core samples from the Calico Hills UE25a-3 borehole, Nevada Test Site, Nevada, by L. A. Anderson, 30 p.
- 81-1338 Rock property analysis of core samples from the Yucca Mountain UE25a-1 borehole, Nevada Test Site, Nevada, by L. A. Anderson, 36 p.
- 81-1349 Stratigraphy and structure of volcanic rocks in drill hole USW-G1, Yucca Mountain, Nye County, Nevada, by R. W. Spengler, F. M. Byers, Jr., and J. B. Warner, 50 p.
- 81-1350 Interpreted resistivity/IP section line W1 Wahmonie area, Nevada Test Site, Nevada, by Christian Smith, H. P. Ross, and Ronald Edquist, with an Introduction by D. B. Hoover, 14 p.

USGS Professional Paper

1199-E Fission-track dating of the Climax and Gold Meadows stocks, Nye County, Nevada, by C. W. Naeser and Florian Maldonado, <u>in</u> Short Contributions to Geochronology: U.S. Geological Survey Professional Paper 1199-E, p. 45-47 (supersedes Open-File Report 78-419).

Journals and Abstracts

Dixon, G. L., Wilson, W. E., Carr, W. J., Rush, F. E., and Waddell, R. K., Status of geologic investigations for nuclear waste disposal at the Nevada Test Site [abs.], in Proceedings of the 1981 National Waste Terminal Storage Program Information Meeting: U.S. Department of Energy Report DOE/NWTS-15, p. 26-27.

Snyder, D. B., Gravity interpretation of Yucca Mountain, Nye County, Nevada, and its implications for southern Nevada structure [abs.]: Transactions, American Geophysical Union, EOS, v. 62, no. 45, p. 1039.

Waddell, R. K., Results of modeling regional ground-water flow near a potential nuclear-waste repository, Nevada Test Site and vicinity [abs.]: Geological Society of America Abstracts with Programs, v. 13, no. 7, p. 574.

WASTE ISOLATION PILOT PLANT STUDIES (U.S. DEPARTMENT OF ENERGY INTERAGENCY AGREEMENT EY-76-A-04-3627)

Sandia National Laboratories

- SAND80-2011 Geological data for borehole WIPP 33, by R. P. Snyder and A. F. McIntyre, in Basic data report for borehole WIPP 33 (Waste Isolation Pilot Plant--WIPP), p. 4-22.
- SAND81-2643 Geologic data for borehole WIPP 34, by R. P. Snyder and S. L. Drellack, Jr., in Basic data report for drillhole WIPP 34 (Waste Isolation Pilot Plant--WIPP), p. 3-54.

USGS Open-File Reports

- 81-31 Geology of Nash Draw, Eddy County, New Mexico, by G. O. Bachman, 8 p.
- 81-37 A seismicity and seismotectonic study of the Kermit seismic zone, Texas, by G. R. Keller, A. M. Rogers, and R. J. Lund, 383 p.
- 81-468 Geologic data for borehole ERDA-6, Eddy County, New Mexico, by C. L. Jones, 59 p.
- 81-469 Geologic data for borehole ERDA-9, Eddy County, New Mexico, by C. L. Jones, 50 p.

AUTHOR INDEX

Abbreviations used in this index are as follows: USGS OF, USGS Open-File Report USGS PP, USGS Professional Paper SAND. Sandia National Laboratories NEV. BU. MINES, Nevada Bureau of Mines and Geology Anderson, L. A.: USGS OF 81-1337, USGS OF 81-1338 (p. 8) Bachman, G. O.: USGS OF 81-31 (p. 9) Bhattacharyya, B. K.: USGS OF 81-189 (p. 7) Brethauer, G. E.: Journals (p. 6) Byers, F. M., Jr.: USGS-474-312, USGS-474-313 (p. 6), USGS OF 81-1349 (p. 8) Carr, W. J.: USGS OF 81-119 (p. 7), USGS OF 81-1086 (p. 2). USGS-474-313 (p. 6), Journals (p. 8)Carroll, R. D.: Journals (p. 6) Currey, F. E.: USGS-474-311 (p. 6), Nev. Bu. Mines (p. 7) Daniels, J. J.: USGS OF 81-389 (p. 7), USGS OF 81-1336 (p. 8) Dixon, G. L.: Journals (p. 8) Drellack, S. L., Jr.: SAND81-2643 (p. 9) Edquist, Ronald: USGS OF 81-1350 (p. 8) Flanigan, V. J.: USGS OF 81-980 (p. 7) Glanzman, V. M.: USGS OF 81-892 (p. 6) Gordon, A. J.: USGS OF 81-512 (p. 7) Gottschall, W. C.: USGS OF 81-119 (p. 7) Hagstrum, J. T.: USGS OF 81-389 (p. 7) Harmsen, S. C.: USGS OF 81-1086 (p. 8) Hawkins, W. L.: USGS-474-312 (p. 6) Healey, D. L.: USGS-474-311 (p. 6), Journals (p. 6), Nev. Bu. Mines (p. 7) Hoover, D. B.: USGS OF 81-1350 (p. 8) Hoover, D. L.: USGS OF 81-512 (p. 7) Jenkins, E. C.: USGS-474-313 (p. 6) Jones, C. L.: USGS OF 81-468, USGS OF 81-469 (p. 9) Kane, M. F.: USGS OF 81-189 (p. 7) Kauahihaua, James: USGS OF 81-988 (p. 7) Keller, G. R.: USGS OF 81-37 (p. 9) Lund, R. J.: USGS OF 81-37 (p. 9) Maldonado, Florian: USGS OF 81-156 (p. 7), USGS PP 1199-E (p. 8) McIntyre, A. F.: SAND80-2011 (p. 9) Miller, C. H.: Journals (p. 6) Muller, D. C.: USGS-474-312 (p. 6) Naeser, C. W.: USGS PP 1199-E (p. 8) Oliver, H. W.: USGS OF 81-101, USGS OF 81-985 (p. 7) Orkild, P. P.: Journals (p. 6) Ponce, D. A.: USGS OF 81-522, USGS OF 81-985 (p. 7) Rogers, A. M.: USGS OF 81-37 (p. 9), USGS OF 81-1086 (p. 8) Ross, H. P.: USGS OF 81-1350 (p. 8) Rush, F. E.: Journals (p. 8) Scott, J. H.: USGS OF 81-389 (p. 7), USGS OF 81-1336 (p. 8) Smith, Christian: USGS OF 81-1350 (p. 8) Snyder, D. B.: USGS OF 81-101 (p. 7), Nev. Bu: Mines (p. 7), Journals (p. 8) Snyder, R. P.: SAND80-2011, SAND81-2643 (p. 9)

AUTHOR INDEX--Continued

Spengler, R. W.: USGS OF 81-1349 (p. 8) Swadley, W C: USGS OF 81-512 (p. 7) Szabo, B. J.: USGS OF 81-119 (p. 7) Waddell, R. K.: Journals (p. 8) Wahl, R. R.: USGS-474-311 (p. 6), Nev. Bu. Mines (p. 7) Warner, J. B.: USGS OF 81-1349 (p. 8) Webring, M. W.: USGS OF 81-189 (p. 7) White, A. F.: Journals (p. 6) Wilson, W. E.: Journals (p. 8) Winograd, I. J.: Journals (p. 6)

SUBJECT INDEX

```
Age dating: USGS OF 81-119 (p. 7), USGS PP 1199-E (p. 8)
Alluvium: USGS OF 81-512 (p. 7)
Bibliography: USGS OF 81-892 (p. 6)
Brine: USGS OF 81-468 (p. 9)
Calico Hills: USGS OF 81-101 (p. 7), USGS OF 81-988 (p. 7),
                USGS OF 81-1337 (P. 8)
Chimneys: Journals (Carroll, p. 6)
Drill hole
     Nevada
                    USGS-474-313 (p. 6)
           UE18r:
                    USGS-474-312 (p. 6)
           UE18t:
           UE25a-1:
                      USGS OF 81-1338 (p. 8)
           UE25a-3:
                      USGS OF 81-101 (p. 7), USGS OF 81-1337 (p. 8)
           UE25a-4: USGS OF 81-389 (p. 7)
           UE25a-5: USGS OF 81-389 (p. 7)
           UE25a-6: USGS OF 81-389 (p. 7)
           UE25a-7: USGS OF 81-389 (p. 7)
           USW-G1: USGS OF 81-1349 (p. 8)
     New Mexico
                     USGS OF 81-468 (p. 9)
           ERDA-6:
           ERDA-9:
                     USGS OF 81-469 (p. 9)
                     SAND80-2011 (p. 9)
           WIPP-33:
           WIPP-34:
                      SAND81-2643 (p. 9)
Geophysical studies
     Aeromagnetic surveys: USGS OF 81-189 (p. 7)
     Electrical: USGS OF 81-980 (p. 7), USGS OF 81-988 (p. 7),
               USGS OF 81-1350 (p. 8)
USGS-474-311 (p. 6), USGS OF 81-101 (p. 7), USGS OF 81-189
     Gravity:
                (p. 7), USGS OF 81-522 (p. 7), USGS OF 81-985 (p. 7), Nev. Bu.
               Mines (p. 7), Journals (Brethauer, p. 6), (D.B. Snyder, p. 8)
USGS OF 81-189 (p. 7), USGS OF 81-389 (p. 7), USGS OF 81-1336,
     Logging:
                (p. 8) USGS-474-312 (p. 6), Journals (Carroll, p. 6)
Goldfield: USGS-474-311 (p. 6)
Great Basin: USGS OF 81-119 (p. 7), USGS OF 81-512 (p. 7), USGS OF 81-1086
               (p. 8)
Kermit seismic zone, Texas: USGS OF 81-37 (p. 9)
Nash Draw, New Mexico: USGS OF 81-31 (p. 9)
```

SUBJECT INDEX--Continued

Permian Basin: USGS OF 81-37 (p. 9) Physical properties: USGS OF 81-1337, USGS OF 81-1338 (p. 8) Pluton Twinridge: USGS OF 81-156 (p. 7) Seismic studies: USGS OF 81-37 (p. 9), USGS OF 81-1086 (p. 8). Journals (Carroll, p. 6)Stratigraphy Surficial: USGS OF 81-512 (p. 7) Tectonics: USGS OF 81-119 (p. 7) Timber Mountain caldera: USGS-474-312 (p. 6), USGS-474-313 (p. 6), USGS OF 81-189 (p. 7), Journals (Orkild, p. 6) Unsaturated zone: Journals (Winograd, p. 6) Wahmonie: USGS OF 81-522 (p. 7), USGS OF 81-1350 (p. 8) Waste management, related studies General: Journals (Winograd, p. 6) Nevada (p. 7-8): USGS OF 81-101, USGS OF 81-119, USGS OF 81-156, USGS OF 81-189, USGS OF 81-389, USGS OF 81-512, USGS OF 81-522, USGS OF 81-980, USGS OF 81-985, USGS OF 81-988, USGS OF 81-1086, USGS OF 81-1336, USGS OF 81-1337, USGS OF 81-1338, USGS OF 81-1349, USGS OF 81-1350. USGS PP 1199-E. Journals (Dixon, D.B. Snyder, Waddell) SAND80-2011, SAND81-2643, USGS OF 81-31, USGS OF 81-New Mexico (p. 9): 37, USGS OF 81-468, USGS OF 81-469 Waste Isolation Pilot Plant (WIPP) (p. 9): USGS OF 81-31, USGS OF 81-37, USGS OF 81-468, USGS OF 81-469, USGS OF 81-892. SAND80-2011. SAND81-2643 Water, ground: Journals (White, p. 6; Winograd, p. 6; Waddell, p. 8) Water, chemistry: Journals (White, p. 6) Yucca Mountain: USGS OF 81-389 (p. 7), USGS OF 81-980 (p. 7), USGS OF 81-1336 (p. 8), USGS OF 81-1338 (p. 8), USGS OF 81-1349 (p. 8)