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This report contains data through December 1989. The BSEP 1990 report, containing data through December 1990, is presently in preparation.

Sincerely,

T. W. Halverson, Manager
Engineering

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BRINE SAMPLING AND EVALUATION PROGRAM
1989 REPORT

DOE-WIPP 91-009

July 1991

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Dwight Deal provided the overall direction and coordination of this work and authored Section 2, a discussion of brine inflow data. Appendices A and B, which contain brine inflow data and graphical representation of that data, were prepared by Dave Belski, Jeffrey Clark, and Merrie Martin. Rich Abitz, assisted by Jeffrey Clark, is responsible for Section 3 and Appendix C, brine geochemistry. Mark Crawley planned, implemented, and reduced the data from the hydrologic testing of the fractured zone beneath the repository excavations. The tests were installed and run with the assistance of Westinghouse field hydrologist Ron Richardson and technicians Mel Balderrama, Dave Belski, Steve Osmanski, and Steve Azzinaro. Section 4, describing the hydrologic testing, was jointly authored by Mark Crawley and Dwight Deal.

Dave Belski, a senior Westinghouse Electric Corporation technician at the WIPP, led the site support of the Brine Sampling and Evaluation Program (BSEP) at the WIPP site. Dave collected most of the samples, wrote the field notes, packaged samples for shipping, did the routine QC, and maintained the records and files.

Roy Cook, manager of the Geotechnical Engineering Section for Westinghouse Electric Corporation, not only provided overall management responsibility for the Geotechnical Engineering Section and helpful editing of this report, but also contributed insightful and helpful suggestions on the interpretation of the data, interactions between rock mechanics and brine flowage, and suggested possible future directions for the BSEP investigations.

EXECUTIVE SUMMARY

The data presented in this report are the result of Brine Sampling and Evaluation Program (BSEP) activities at the Waste Isolation Pilot Plant (WIPP) during 1989. These activities, which are a continuation and update of studies that began in 1982 as part of the Site Validation Program, were formalized as the BSEP in 1985 to document and investigate the origins, hydraulic characteristics, extent, and composition of brine occurrences in the Permian Salado Formation, and seepage of that brine into the excavations at the WIPP. Previous BSEP reports (Deal and Case, 1987; Deal and others, 1987; Deal and others, 1989) described the results of ongoing activities that monitor brine inflow into boreholes in the facility, moisture content of the Salado Formation, brine geochemistry, and brine weeps and crusts. The information provided in this report updates past work and describes progress made during the calendar year 1989. In addition, the 1988 BSEP Report (Deal and others, 1989) presented results of bacteriological studies, downhole video camera studies, geophysical investigations, and near-field versus far-field brine flow modeling.

During 1989, BSEP activities focused on three major areas to describe and quantify brine activity: (1) monitoring of brine inflow, e.g., measuring brines recovered from holes drilled upward from the underground drifts (upholes), downward from the underground drifts (downholes), and near subhorizontal holes, (2) further characterizing the brine geochemistry, and (3) testing the hydrologic properties of the local fractured zone that develops immediately beneath the WIPP excavations, i.e., performing pump tests on 3.0 m deep drillholes through the fractured zone below the facility drifts, including Marker Bed 139.

Monitoring Brine Inflow. 1989 results of the relative amounts of brine seepage between upholes, downholes, and subhorizontal holes substantiate trends found in earlier reports. Typically, upholes produce much smaller amounts of brine than the downholes and tend to cease production after 2 to 3 years. Subhorizontal holes continue to have very low brine inflow rates. Subhorizontal holes older than 2.5 years remain dry.

Brine recovery from downholes substantially differs from holes drilled in other orientations. Downholes tend to produce brine over extended periods of time and sometimes show increased seepage rates for several months to a year or more. Closely spaced holes may have seepage rates, volumes, and brine levels varying by two orders of magnitude or more. Some holes, such as the one in Waste Storage Panel 1 at S1950-E1320, receive water

introduced to the underground from sources other than the Salado Formation. Much of the brine in downholes throughout the facility appears to be a mixture of Salado Formation brine and construction water spread upon the floors for the purpose of dust control or roadway consolidation.

Characterization of Brine Geochemistry. Geochemical analyses of the brine has proven to be an extremely useful tool in understanding the modes of brine occurrence in the rock and the means by which brine enters the excavations. Anomalous compositions of brines recovered from upholes can be accounted for by evaporation due to the slow accumulation of the brine. Analyses of brines coming from many of the downholes indicate that some of the brines are not indigenous to the Salado Formation, but rather have been introduced during the course of mining operations for purposes of dust control and roadbed consolidation. Brine samples contaminated with construction water can be identified by a distinct geochemical signature.

Variation in the composition of indigenous brines recovered from downholes suggests spatial heterogeneity exists, which implies mixing and fluid homogenization is limited within the Salado Formation at the WIPP repository horizon. WIPP brines are chemically distinct from the formational waters in the overlying Rustler Formation or underlying Castile Formation. This implies an absence of a large-scale, vertical migration between WIPP brines and these formations.

Major-element compositions of indigenous WIPP brine suggest an origin from evaporating seawater, modified by diagenetic reactions involving gypsum, magnesite, and polyhalite; and by ion-exchange with clay minerals. The major-element compositions of brines recovered from drillholes differ from fluid inclusions in the Salado halite. This observation indicates that the brine recovered in drillholes is largely intergranular fluid, rather than intragranular fluid which has been released by migration of fluid inclusions to grain boundaries during stress relief.

Rock-brine equilibria were evaluated using brine analyses and the speciation-solubility code EQ3NR. The modeling results indicated all WIPP brines were saturated with anhydrite, barite, fluorite, glauberite, gypsum, and halite while several brines were calculated to be saturated with celestite, dolomite, magnesite, and polyhalite. Model results agreed with the observed mineralogy in the WIPP repository and supported the contention that WIPP brines are fluids which have equilibrated with evaporite salts.

Finally, the analytical results and solubility calculations suggest a derivation of WIPP brines from near-field, intergranular fluids. Although the data do not unequivocally rule out large-scale brine migration, the time scale required for migration of the fluid through the halite of the Salado Formation would have to be greater than that required for diagenetic reactions to produce magnesite, polyhalite, and quartz. Excluding human intrusion scenarios, time constraints on fluid migration through halite after the repository is sealed and repressurized suggest that soluble radionuclides will be constrained to the near-field environment of the waste for time periods sufficient to meet regulatory guidelines.

Hydrologic Testing of the Fractured Zone Concentrated in Marker Bed 139. A short-duration hydraulic test was conducted in the macrofracture zone that develops beneath the floor of the underground facility. The macrofracture zone develops a few years after excavation and is concentrated within, but not limited to, Marker Bed 139, a brittle anhydrite unit. A standard pumping drawdown hydrologic test was conducted to characterize the distribution of fractures and saturation and to obtain transmissivity and storage coefficients for the zone of macrofractures, most of which occur within 3 m of the excavations.

The hydrologic tests were conducted in the area of the intersection of the S-90 and W-620 drifts, near the bottom landing area of the Air Intake Shaft (AIS). This site was selected because the zone of macrofracturing became saturated in this area when 488,000 liters of brine were introduced during the construction of the AIS. Ten holes, 3 m long were drilled from the floor of the drift through Marker Bed 139.

Preliminary test results confirmed that, at the time of the tests, the macrofracture zone was concentrated in Marker Bed 139 and was saturated in much of the area around the AIS station. The fractured zone was found to be locally confined.

Preliminary testing also revealed that the fluid levels in the test holes are independent of the fluctuating fluid levels in the AIS sump, at least for the several days of these tests.

The results of the pump test indicate that there are separate saturated fracture systems within Marker Bed 139. There is more enhanced permeability and interconnected fracturing beneath the S-90 W-620 drift intersection than further east along the S-90 drift. The Jacobs, Theis, and Theim methods were used to determine transmissivity and storage coefficients. The

transmissivities for all holes are 0.1 to 0.2 m^2/day. Storage coefficients ranged from 1.04×10^{-4} to 1.04×10^{-3}.

The transmissivities determined in this test are several orders of magnitude higher than those measured elsewhere in Marker Bed 139. This indicates that the zone of floor fractures can become highly permeable as the damaged rock zone decouples from unfractured or microfractured rocks within that part of the Disturbed Rock Zone (DRZ) close to the excavations. The permeability of Marker Bed 139 involved in the fracturing increases dramatically with time in the vicinity of excavated drifts and rooms.

The pumping drawdown test provided valuable data on the hydrogeologic characteristics of Marker Bed 139 in the area tested. This test had a limited scope and should be considered as a preliminary attempt to characterize hydrologic conditions in the macrofractured zone within the marker bed. Additional tests are recommended to adequately quantify the distribution of permeability, storativity and fracture geometry.

These additional data should be compiled to generate a comprehensive three-dimensional computer solute transport model of potential contaminant migration in the zone of macrofractures. This modeling is of importance to: (1) performance assessment, (2) the migration pathway scenario as modeled in the SEIS (U.S. Department of Energy, 1990a) and the No Migration Variance Petition (U.S. Department of Energy, 1990b), and (3) the design of engineered seals and plugs to be installed prior to the decommissioning of the repository.

1.0 INTRODUCTION

The Waste Isolation Pilot Plant (WIPP) is a Department of Energy (DOE) research and development facility established to demonstrate the safe disposal of defense generated radioactive wastes in the United States. The WIPP mission consists of two parts: (1) to demonstrate the safe handling and disposal of transuranic (TRU) waste in bedded salt, and (2) to create a research facility for in situ examination of technical issues related to the emplacement of defense related transuranic waste in bedded salt.

The WIPP facility is located approximately 42 km east of Carlsbad, New Mexico (Figure 1-1). The underground portion of the facility (Figure 1-2) is located approximately 655 m below the surface in the Salado Formation, an evaporite sequence approximately 1000 m thick (Figure 1-3). An extensive program of site characterization and validation has been conducted over the past 13 years (1976 to 1989). Initial studies are summarized in the WIPP "Geological Site Characterization Report" (Powers and others, 1978) and the WIPP "Preliminary Design Validation Report" (Bechtel National, Inc., 1983). Additional site investigations are being conducted as part of a continuing program to refine the understanding of the site-specific geology. The hydrogeological activities of the Brine Sampling and Evaluation Program (BSEP) are part of these investigations.

The purpose of the BSEP is to investigate the origin, hydraulic characteristics, extent, and composition of brine in the Salado Formation excavations at the WIPP repository horizon. Although the repository horizon is considered dry, brine is observed to weep from exposed surfaces and seep into drillholes placed in the underground excavations. Brine studies began in 1982 as part of the Site Validation Program (Black and others, 1983), and was formalized in 1985 (Morse and Hassinger, 1985). The data presented in this report are an update of studies previously reported (Deal and Case, 1987; Deal and others, 1987; Deal and others, 1989). To facilitate a better understanding of the presented data, readers should consult those previous reports. Detailed descriptions of the data gathering and analytical procedures, and the cautions that should be exercised when using the data presented herein are given in these earlier reports.

Activities in 1989 provide information on the amount of brine that flows into the underground (Section 2.0), the geochemical properties of the brine (Section 3.0), and the hydrologic

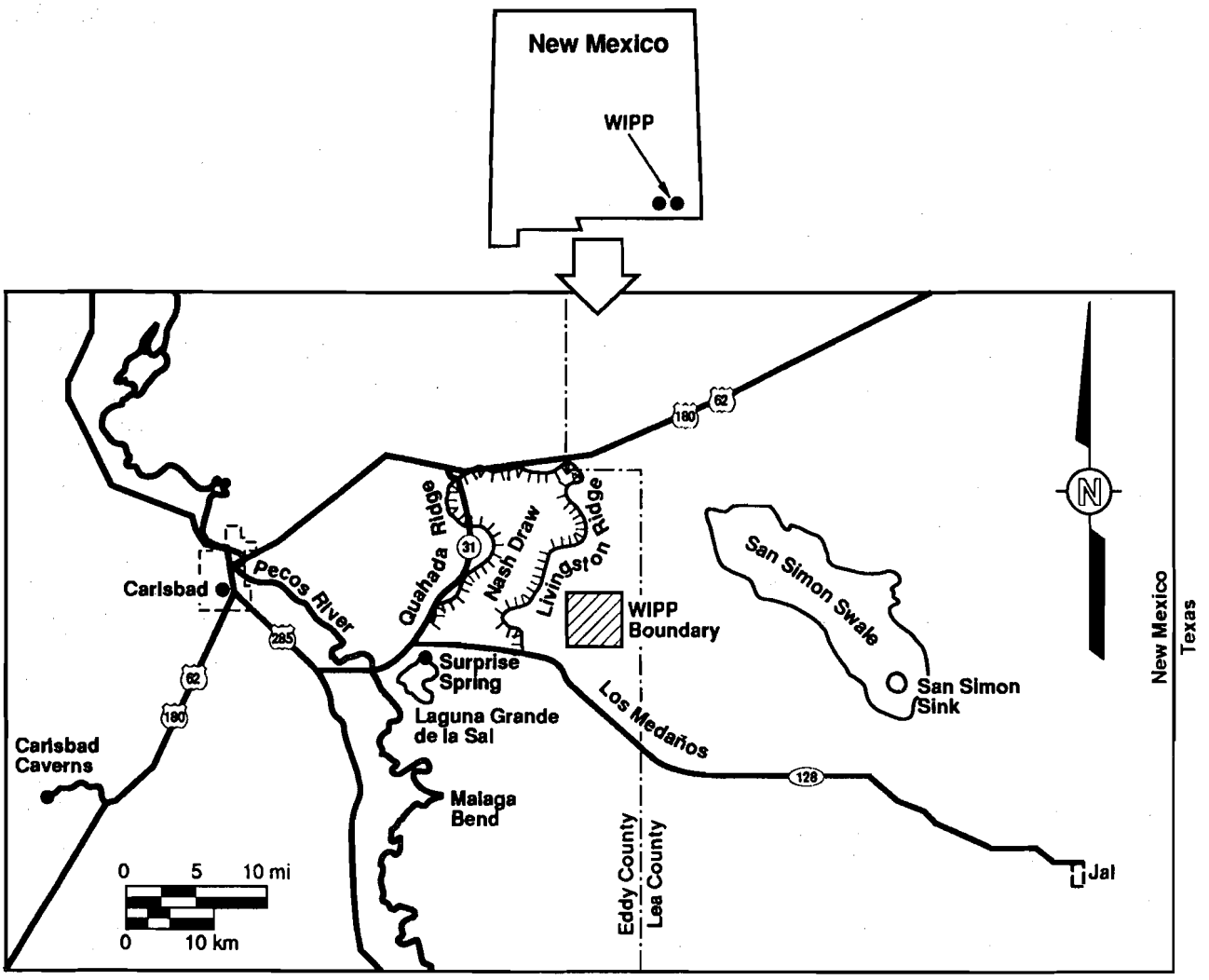

FIGURE 1-1
WIPP LOCATION IN SOUTHEASTERN NEW MEXICO

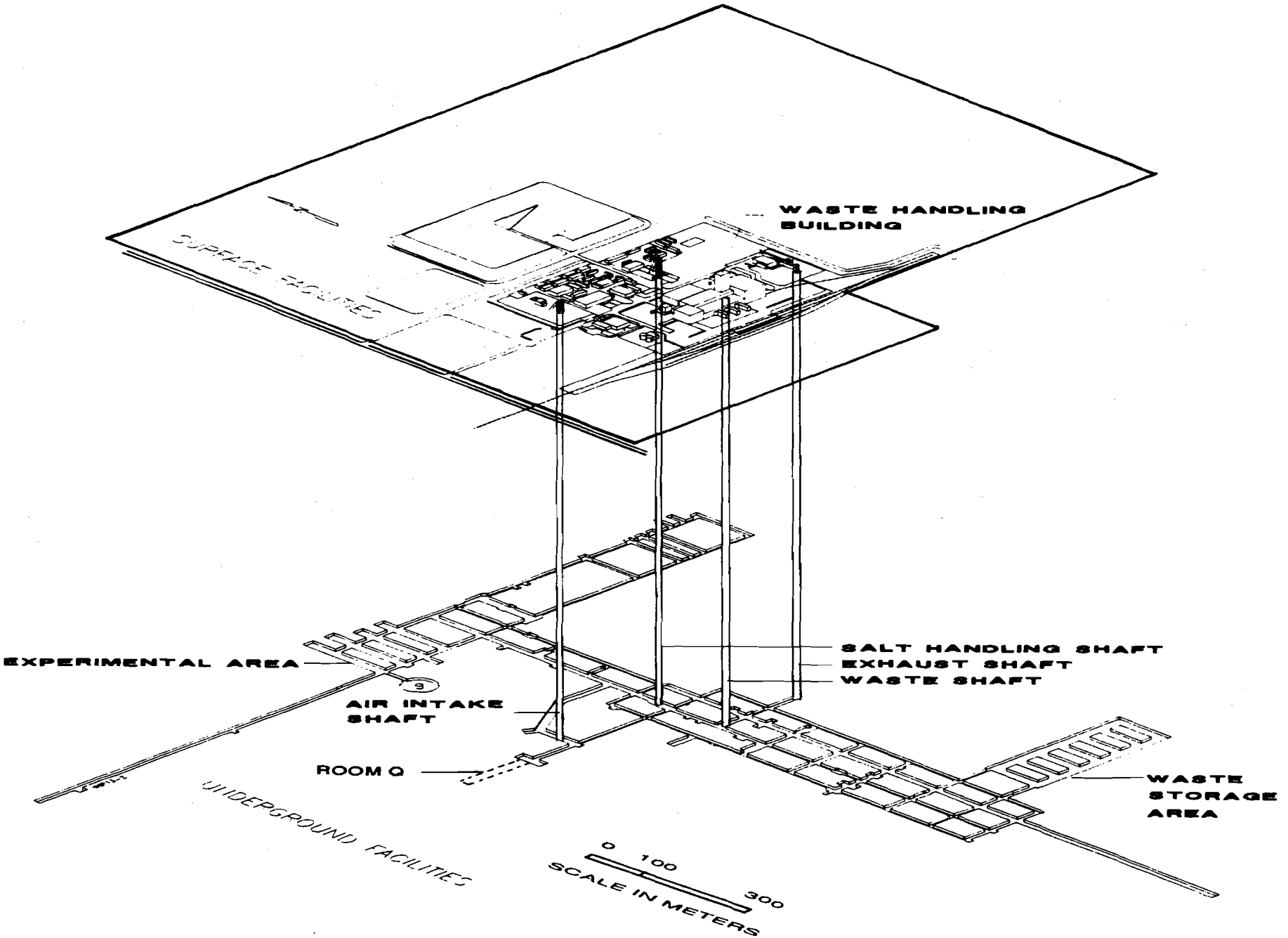

FIGURE 1-2. SURFACE AND UNDERGROUND LAYOUT OF THE WIPP FACILITY

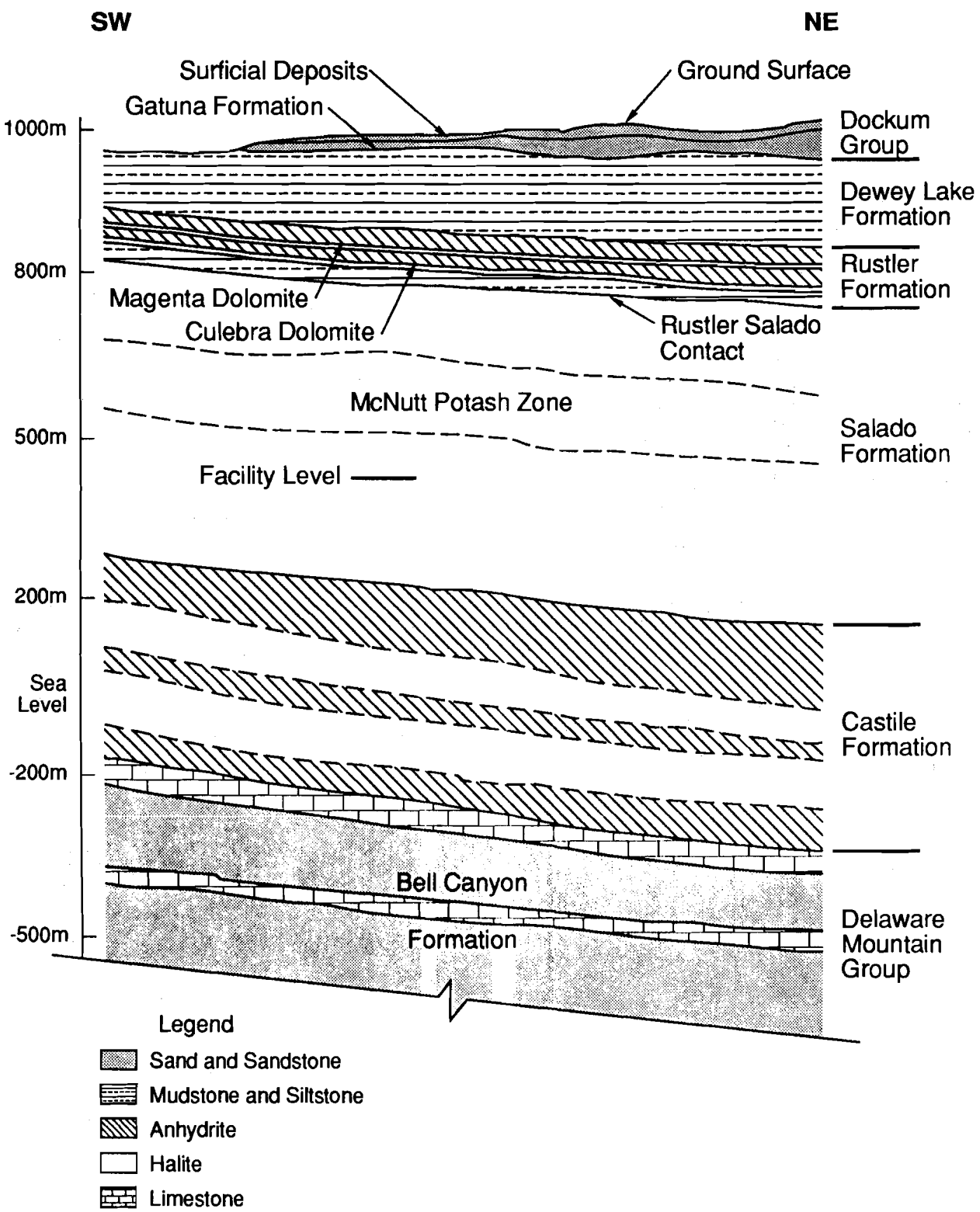

FIGURE 1-3
GENERALIZED STRATIGRAPHIC CROSS-SECTION
(MODIFIED FROM FIGURE 1-2, DEAL AND CASE, 1987)

properties of the zone of macrofractures that develop beneath the excavations as those excavations age (Section 4.0). Other than Section 4.0, this report is an update of the 1988 Brine Sampling and Evaluation Program report (Deal and others, 1989) and further substantiates the observations and conclusions therein.

This report constitutes a permanent quality assurance record and will be retained as such as provided for in the quality assurance sections of the Geotechnical Engineering Program plans and procedures.

2.0 MONITORING OF BRINE INFLOW PARAMETERS

2.1 INTRODUCTION

Brine seepage observations in underground locations at the WIPP began as early as 1982. Brine inflow information was derived from observations and mapping of moist areas and measurements of brine seeping into holes drilled downward from the floor of the facility, upward from the back (roof) of the facility, and sub-horizontally from the rib (wall) of the facility. The locations of the BSEP observation holes are shown in Figure 2-1, which also shows the extent of the excavations that existed at the end of 1989. The underground locations where brine observations have been made as part of the BSEP are listed in Appendix A (Table A-1).

The brine accumulations in holes drilled from the WIPP underground workings and the stratigraphy of the Salado Formation have been extensively discussed in previous reports (Deal and Case, 1987; Deal and others, 1987; Deal, 1988; Deal and Roggenthen, 1989; Deal and others, 1989; and Deal and Roggenthen, 1991).

2.2 DOWNHOLES

Deal and Case (1987; Table 2-1) discussed brine inflow in 13 downholes with observations beginning in late 1984 and early 1985 and extending through August 1986. After 1.5 years, observations showed ten holes with fairly steady inflow trends, two with decreasing trends and one hole with an increasing trend. As of July 1987 (Deal and others, 1987), approximately 2.5 years of observation reflected a general decreasing trend. The ten steady trending holes were reduced to five steady holes and five with decreasing trends. The two that had been decreasing continued to decrease, and the one hole with an increasing inflow trend began to decrease. By the end of December 1988 (Deal and others, 1989), after approximately 4 years of observation, the following brine inflow trends were evident: five, 15 m holes [two in heated experimental rooms] remained steady; one was increasing; and five were decreasing. Two of the original 13 holes were pinched shut by salt creep and could no longer be sampled. December 31, 1989 marked five years of observation. Three downholes showed increasing inflow during the last two months of observation, two remained steady, and six were decreasing. Table 2-1 summarizes the most important data obtained from the downholes, with additional information in Appendix A.

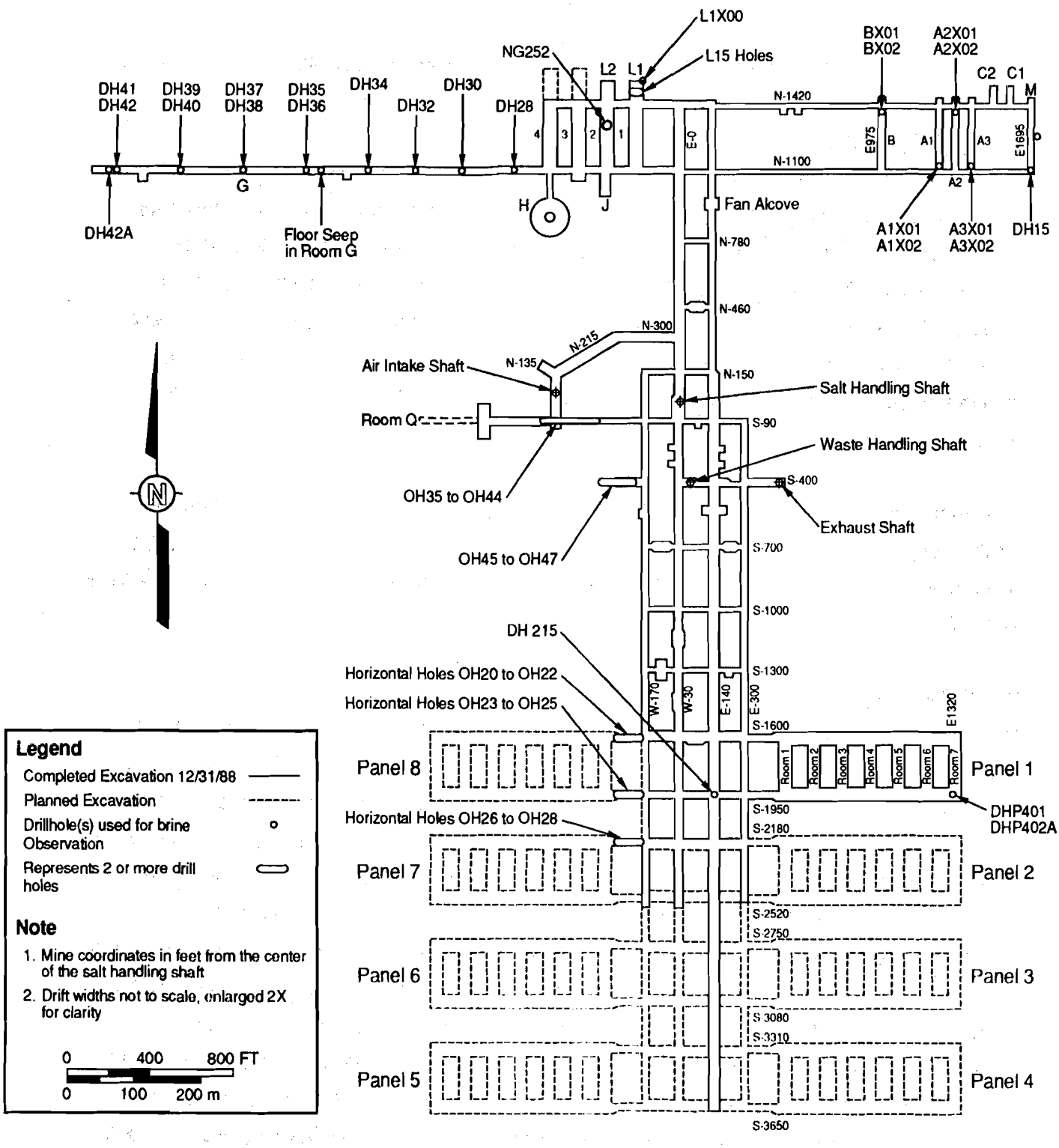

FIGURE 2-1

MAP OF WIPP UNDERGROUND WORKING SHOWING BSEP OBSERVATION LOCATIONS AS OF DECEMBER 31, 1989

TABLE 2-1

BRINE ACCUMULATION SUMMARY FOR DOWNHOLES

HOLE	ROOM OR LOCATION	DATE ROOM EXCAVATED	DATE HOLE DRILLED	DATE FIRST OBSERVED	APPROX. MAXIMUM INFLOW (l/DAY)	APPROX. INFLOW 12/89 (l/DAY)	INFLOW TREND 12/89 (I,S,D)*	APPROX. TOTAL VOL. REMOVED BY 12/89(l)
A1X01	A1	10/84	2/85	3/85	0.05	0.04	I	48
A2X01	A2	7/84	2/85	2/85	0.12	0.02	S	49
A3X01	A3	11/84	1/85	2/85	0.03	0.03	I	40
BX01	B	6/84	1/85	1/85	0.12	0.05	I	81
DH36	G	12/84	1/85	1/85	0.28	0.12	D	314
DH38	G	12/84	1/85	1/85	0.18	0.04	D	87
DH40	G	12/84	1/85	1/85	0.04	0.002	S	8
DH42	G	12/84	1/85	1/85	0.05	0.02	D	44
DH42A	G	12/84	1/85	1/85	0.2	0.06	D	164
DHP402A	S1950/E1330	10/86	12/86	12/86	4.0	0.5	D	547
L1S25	L1	4/84	6/85	8/85	0.02	0.003	D	13
L1S26	L1	4/84	6/85	8/85	0.004	0	D	2
L1S27	L1	4/84	7/85	8/85	0.007	0	D	4
L1S28	L1	4/84	7/85	8/85	0.012	0.006	D	2
L1S29	L1	4/84	7/85	8/85	0.8	0.01	D	155
L1S30	L1	4/84	7/85	8/85	0.08	0	D	89
L1S31	L1	4/84	7/85	8/85	0.15	0.01	D	36
L1S32	L1	4/84	7/85	8/85	0.18	0.01	D	112
L1S33	L1	4/84	7/85	8/85	0.1	0.01	D	56
L1S34	L1	4/84	7/85	8/85	0	0	DRY	0
L1S35	L1	4/84	7/85	8/85	0	0	DRY	0.1
L1S36	L1	4/84	7/85	8/85	0.01	0	DRY	5
L1X00	L1	4/84	5/84	5/85	0.03	0.03	I	56
NG252	2	3/83	3/83	12/84	0.5	0.01	D	384
OH46	S390/W320	5/89	6/89	7/89	0.04	0.04	I	4

BRINE ACCUMULATION SUMMARY FOR UPHOLES

HOLE	ROOM OR LOCATION	DATE ROOM EXCAVATED	DATE HOLE DRILLED	DATE FIRST OBSERVED	APPROX. MAXIMUM INFLOW (l/DAY)	APPROX. INFLOW 12/89 (l/DAY)	INFLOW TREND 12/89 (I,S,D)*	APPROX. TOTAL VOL. REMOVED BY 12/89(l)
A1X02	A1	10/84	3/85	3/85	0.09	0.02	D	53
A2X02	A2	7/84	2/85	2/85	0.04	Trace	S	8
A3X02	A3	11/84	1/85	2/85	0.02	0	DRY	4
BX02	B	6/84	2/85	2/85	0.02	0	DRY	2
DH15	N1104/E1688	3/84	3/84	5/86	0.01	0	DRY	4
DH35	G	12/84	1/85	2/85	0.02	0	DRY	4
DH37	G	12/84	1/85	2/85	0.01	0	DRY	1
DH39	G	12/84	1/85	2/85	Trace	0	DRY	0
DH41	G	12/84	1/85	2/85	Trace	0	DRY	0
DH215	S1960/E153	1/83	2/83	4/84	0.09	0	DRY	18
DHP401	S1950/E1330	10/86	1/87	3/87	0.008	0	DRY	2
OH47	S390/W320	5/89	7/89	8/89	0.030	0.01	D	2

BRINE ACCUMULATION SUMMARY FOR SUBHORIZONTAL HOLES

HOLE	ROOM OR LOCATION	DATE ROOM EXCAVATED	DATE HOLE DRILLED	DATE FIRST OBSERVED	APPROX MAXIMUM INFLOW (l/DAY)	APPROX INFLOW 12/89 (l/DAY)	INFLOW TREND 12/89 (I,S,D)*	APPROX TOTAL VOL REMOVED BY 12/89(l)
OH20	S1600/W170	9/85	3/89	3/89	0.02	0.02	I	2
OH21	S1600/W170	9/85	12/88	2/89	0	0	DRY	0
OH22	S1600/W170	9/85	12/88	2/89	0	0	DRY	0
OH23	S1950/W170	12/85	2/89	2/89	0.06	0.01	D	6
OH24	S1950/W170	12/85	3/89	3/89	0.002	0	DRY	0.1
OH25	S1950/W170	12/85	3/89	3/89	0.001	0	DRY	0.01
OH26	S2150/W170	8/86	3/89	3/89	0.04	0.03	S	5
OH27	S2150/W170	8/86	4/89	4/89	0.001	0	DRY	0.02
OH27A	S2150/W170	8/86	4/89	4/89	0.02	0	DRY	0.03
OH28	S2150/W170	8/86	4/89	4/89	0.008	0.008	I	0.03
OH45	S390/W325	5/89	6/89	6/89	0.03	0.006	S	1

Data summarized and rounded from Appendices A and B.

I = Increasing S = Steady D = Decreasing

2.3 UPHOLES

Upholes characteristically produce less brine and for shorter periods of time than downholes. Part of this can be attributed to greater evaporation caused by less effective sealing of upholes (Deal and Case, 1987) and loss of moisture by dispersion from the hole collar into the salt. Loss of moisture by evaporation is evident from salt crust buildup in and around most of the upholes. Chemical data (Deal and others, 1989; Abitz and others, 1990) confirms compositional differences between the brines from upholes and downholes that can be explained by partial evaporation of some of the uphole brine and concomittent precipitation of halite and other salts. The stratigraphy exposed in the upholes is slightly different from that exposed in the downholes; it is unclear whether this contributes significantly to the differences in either brine quantity or chemistry (Deal and others, 1989). Summary data for selected upholes are presented in Table 2-1 also. Only two, A1X02 and A2X02, of the nine upholes listed in 1985 continue to produce brine. Additional data are presented in Appendix A.

2.4 SUBHORIZONTAL HOLES

During 1989, eleven subhorizontal holes were drilled: one at a depth of 1.3 m; seven at a depth of 15.2 m; and three at a depth of 45.7 m. These holes were drilled as a means to investigate seepage rates and brine chemistry of the stratigraphic horizons exposed at the repository level. The holes are oriented slightly downward to accumulate brine at the end of the hole and prevent the effects of evaporation. The three, 45.7 m holes are producing measurable quantities of brine. Interpretations will be presented in a subsequent report when additional data become available.

2.5 DAMP OR WET AREAS ON FLOORS

Moist floor areas have been previously discussed by Deal and Case (1987), Deal and others (1987) and Deal and others, (1989). At present, Room G contains the only sizeable, persistently moist area in the WIPP underground facility. Seepage in Room G showed a maximum of about 0.75 liters per day in April, which declined to 0.6 liters per day by the end of 1989.

3.0 CHARACTERIZATION OF BRINE GEOCHEMISTRY

Geochemical analyses of the brine is an extremely useful tool in understanding the modes of brine occurrence in the Salado Formation and the means by which it enters the excavations. Brine samples were collected quarterly in 1989 and these analyses are presented in Appendix C. Previous work has shown that much brine was introduced during the course of mining operations for purposes of dust control and roadbed consolidation (Deal and others, 1989).

Uphole brine chemistries have been modified by partial evaporation of the brine and precipitatin of halite and/or other salts. Variations in brine composition between downholes and weeps suggests that spatial heterogeneity exists (Stein and Krumhansl, 1988). This implies that mixing and fluid homogenization has been limited within the Salado Formation at the WIPP repository horizon. The WIPP brines are chemically distinct from the formational waters in the overlying Rustler Formation and underlying Castile Formation (Deal and others, 1989; Abitz and others, 1990). This implies a lack of significant vertical migration between these formations.

Major-element compositions (Stein & Krumhansl, 1988; Deal and others, 1989; Abitz and others, 1990) of the WIPP brines suggest an origin from evaporating seawater that had precipitated carbonate minerals, anhydrite, and halite. The brine was further modified by diagenetic reactions with gypsum, magnesite, polyhalite, and ion-exchange with clay minerals. A residual fluid origin is further substantiated by the high magnesium and bromine content of the brines which differs from an origin by infiltrating groundwater dissolving the salt. The major-element compositions of brines recovered from downholes are distinct from fluid inclusions in WIPP halite (Stein and Krumhansl, 1988), hence the brine recovered from drillholes is largely intergranular fluid, instead of intragranular fluid released by migration of fluid inclusions to grain boundaries by stress relief.

Rock-brine equilibria were evaluated using the brine analyses and the speciation-solubility code EQ3NR (Wolery, 1983). Modeling indicates that all WIPP brines are saturated with respect to anhydrite, barite, fluorite, glauberite, gypsum, and halite. Several brines were calculated to be saturated with respect to celestite, dolomite, magnesite, and polyhalite (Deal and others, 1989; Abitz and others, 1990). Model results agree with the observed mineralogy at the WIPP repository; this supports the contention that WIPP brines are fluids which have equilibrated with evaporite salts.

Finally, the analytical results and solubility calculations (Deal and others, 1989; Abitz and others, 1990) suggest that WIPP brines are derived from near-field, intergranular fluids. Although the data does not unequivocally rule out large-scale brine migration, the time required for a large-scale fluid movement through the Salado halite would have to be greater than that required for diagenetic reactions which produced magnesite, polyhalite, and quartz. Excluding human intrusion scenarios, time constraints on fluid migration through halite after the repository is sealed and repressurized suggest that soluble radionuclides will be constrained to the near-field waste for time periods sufficient to meet regulatory guidelines.

4.0 HYDROLOGIC TESTING OF THE FRACTURED ZONE BENEATH THE EXCAVATIONS

4.1 BACKGROUND

This section presents the results of a short-duration hydraulic test conducted in the macrofracture zone that develops beneath the floor of the underground facility horizon at the WIPP site. The goal of this hydrologic testing program was to determine if useful hydraulic data could be obtained from the zone of macrofracturing by conducting a pumping drawdown-type hydrologic test in areas where saturated conditions were expected.

Salt deforms plastically at repository depths, creeping into newly excavated openings, creating a halo of deformation referred to as the Disturbed Rock Zone (DRZ). The deformational envelope around underground excavations in salt is characterized by: (1) an outer zone of dilatency and microfracturing where pore pressure exceeds atmospheric pressure, and (2) an inner zone of macrofracturing where pore spaces are at atmospheric pressure (Deal and Roggenthen, 1991). The inner zone, which includes the volume of rock that has separated (decoupled) from the host rock, has been construed as the growing part of the excavation comprising the "Actual Opening" (Mraz, 1980).

Other investigations at the WIPP have focused on the hydrologic conditions in the salt near the excavations undisturbed by DRZ development (Beauheim and Holt, 1990), gas permeability within the zone of dilatency where pore pressures are above atmospheric pressure (Peterson and others, 1985), and the theoretical development of hydrologic systems within the zone of dilatency (Deal and others, 1989). The focus of this investigation is the hydrology of the inner zone of the DRZ (or "Actual Opening") that lies below the floor of the WIPP excavations. This zone may be a few meters thick, and contain open macrofractures up to 23 cm in width (Francke and others, 1989; Deal and Roggenthen, 1991) which, unless locally filled with brine, are essentially at atmospheric pressure. Fractures filled with brine have a local hydrostatic pressure component measured as head developed beneath the floor of the excavations, not as a hydrostatic component related to ground elevations at the surface above the excavations or to stress differences in the deforming salt.

The Salado Formation is predominantly halite, consisting of alternate sequences of halite, argillaceous halite, polyhalitic halite, clay partings 1 to 3 cm thick, clay layers, and thin anhydrite beds, as numerous horizontal discontinuities. Anhydrite beds ranging from a few millimeters to about 1 m in thickness are brittle at repository depths. As the salt deforms, the

contrast in ductility between salt and anhydrite causes preferential fracturing in the brittle anhydrite. Marker Bed 139, approximately 1 m thick located 2 m beneath the floor of the excavations, shows how local variation in stratigraphy influences the development of macrofractures. The dish-shaped fractures that normally develop beneath the floor are distorted and tend to flatten near the room center (Figure 4-1). Although the fractures concentrate within the anhydrite, especially beneath the center of drifts or rooms, they also cut the halite and other units (Bechtel National, Inc., 1986). Air-filled fractures up to 15 cm wide have developed two to five years after excavation (Bechtel National, Inc., 1986). Five years after excavation the largest observed separation is about 23 cm wide.

Some subhorizontal fracturing has been noted just above clay E, at the base of Marker Bed 139, approximately 2 m below the floor of the excavations, but no separations at clay E were noted (Bechtel National, Inc., 1986). This may be because the creeping salt deformed upward and pushed against the anhydrite to keep the clay confined.

Near the edges of rooms and drifts, fracturing tends to be concentrated in the ribs or salt above Marker Bed 139 (Figure 4-1). Ultimately, fracturing will extend into the salt below Marker Bed 139. The zone of macrofractures was expected to extend about 2 m below the floor of the excavation at this site and to extend laterally a lesser distance into the bedrock beyond the edges of the rooms. In map view, the fractured zone under investigation is expected to closely follow the plan of the underground excavations.

4.2 DESCRIPTION OF THE TEST AREA

This hydrologic test was conducted at the intersection of the S-90 and W-620 drifts 27 m south of the bottom landing area of the recently excavated Air Intake Shaft (AIS) (Figure 4-2). This location was selected because the fractured zone appears to be locally saturated with brine and exhibits some degree of interconnected fracturing. An engineered sump for seepage of Rustler Formation fluids during construction of the AIS, is located immediately north of the test site, between the pumped hole and the AIS (Figure 4-3).

4.3 PREPARATORY ACTIVITIES

The following preparatory activities were required prior to the pumping drawdown test: (1) drilling of holes; (2) equipment installation; (3) determination of initial hydrologic conditions; and (4) preliminary drawdown testing.

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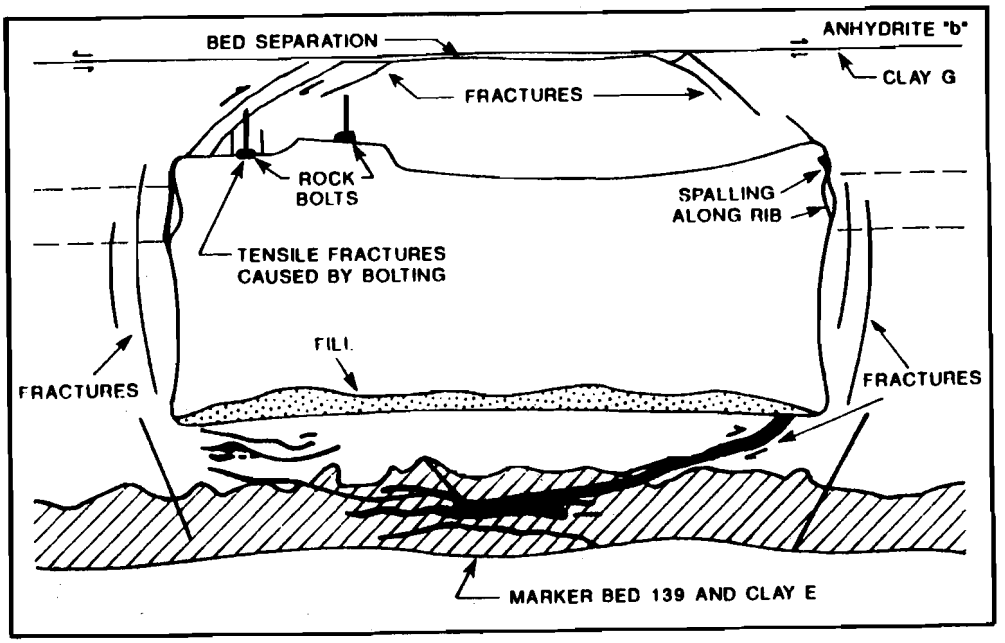

FIGURE 4-1. CROSS-SECTION OF FRACTURING AROUND A 4 m HIGH, 10 m WIDE WASTE STORAGE ROOM AT THE WIPP

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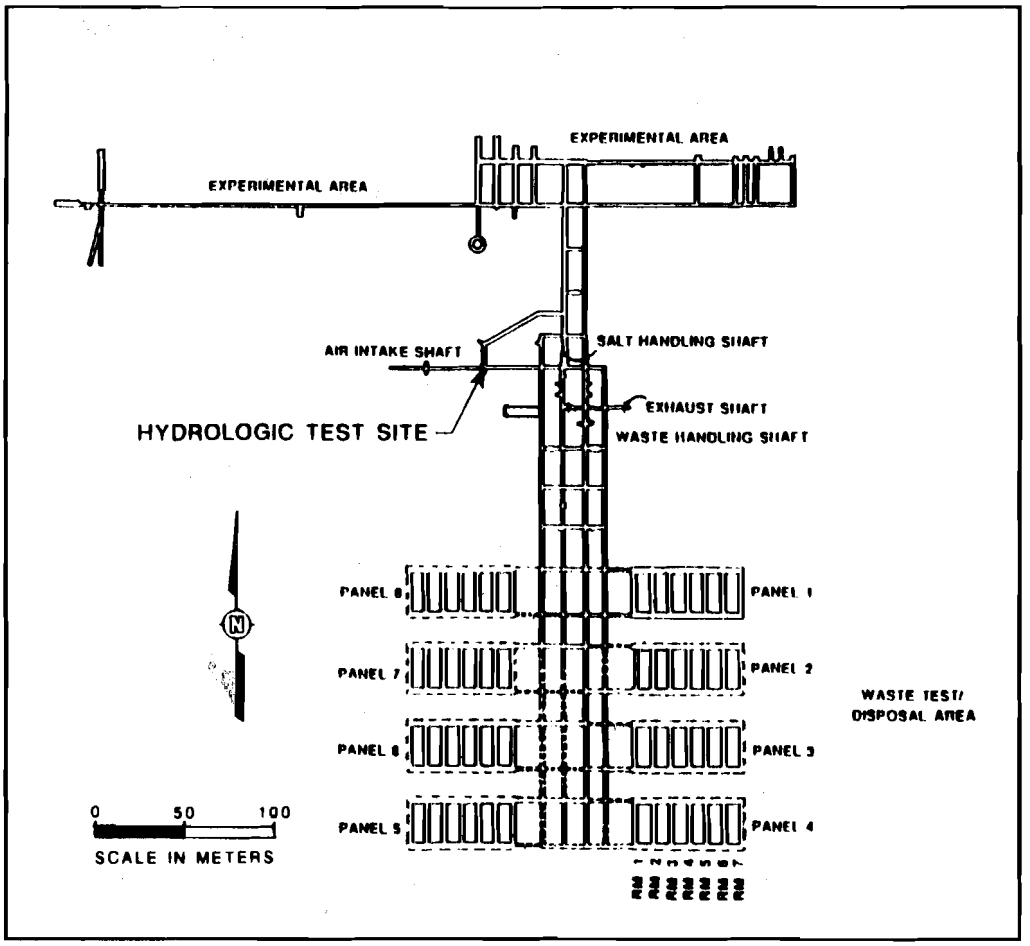

FIGURE 4-2. MAP OF UNDERGROUND TEST LOCATION

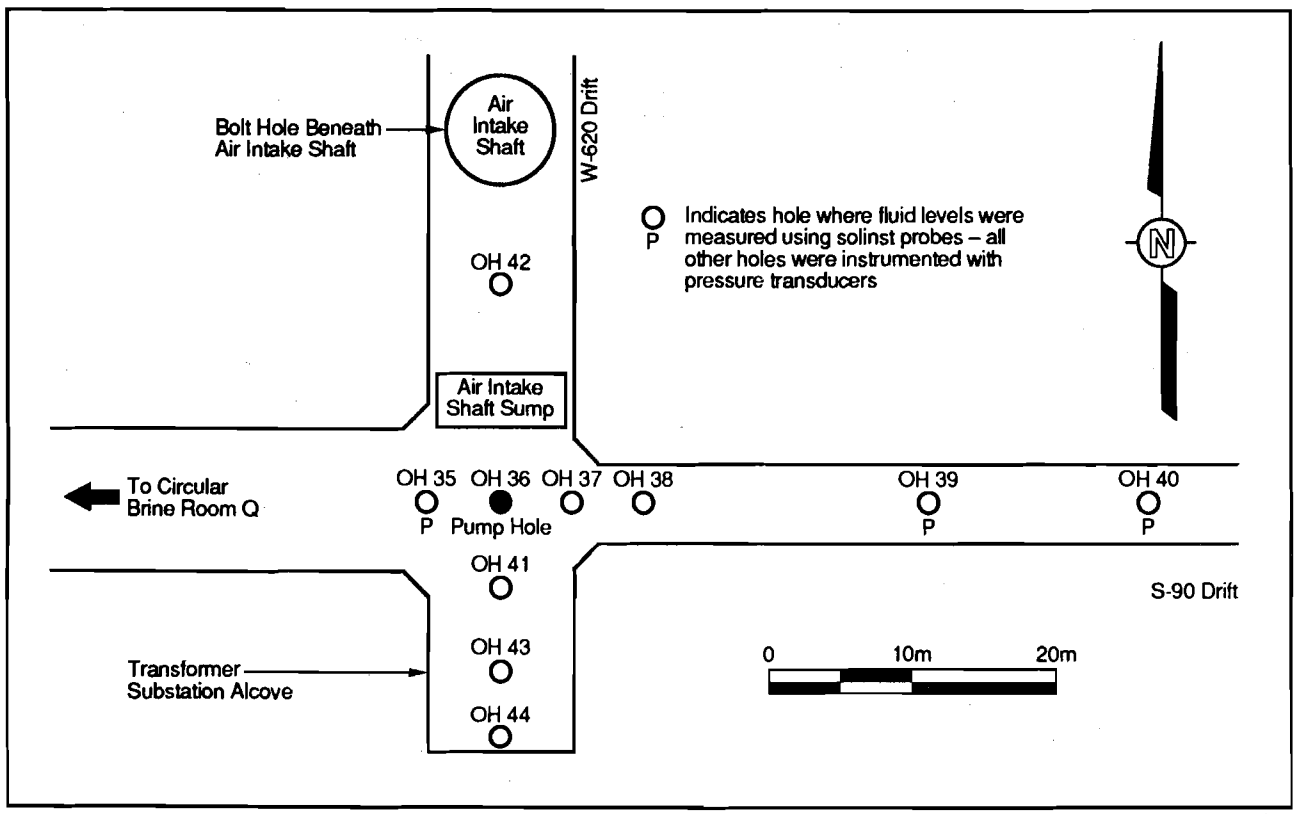

FIGURE 4-3
LAYOUT OF HYDROLOGIC TEST SITE

4.3.1 Drilling of Test Holes

Ten holes, 3 m long and 8 cm in diameter, were drilled to a depth just past the base of Marker Bed 139 to monitor drawdown in the alcove area, along the S-90 drift, and in the W-260 drift between the AIS and the alcove (Figure 4-3). The centrally located OH-36 was designated as the hole to be pumped. The distance of the observation holes from the pumped hole are given in Table 4-1. Brine drilling fluid was required for most of the holes to reduce the amount of salt dust in order to avoid deleterious effects on delicate instrumentation that was being installed at Room Q, to the west along the S-90 drift. After drilling each hole, compressed air was used to purge fluid from the hole.

The development of macrofractures (discussed in Section 4.1) is a function of several factors, including stratigraphy, excavation geometry, and time since excavation. Fracturing tends to develop more quickly beneath wider excavations and develop first beneath the center of the excavation. The degree of fracturing increases with time, therefore the older the excavation, the more developed the fracturing.

At the test site, both the S-90 drift to the east (where holes OH-38, OH-39, and OH-40 are located) and the W-620 north (toward the AIS) are about the same age. They were excavated during the first two weeks of November 1987, approximately 17 months before this testing. The S-90 drift is 4.3 m wide while the W-620 drift is 7.6 m wide. Therefore, it was expected that fracturing would be better developed beneath the wider W-620 drift than beneath the S-90 drift.

The extreme south end of the transformer alcove was excavated on January 24, 1988, and is 2.5 months younger than the rest of the W-620 drift. Hole OH-44 is located in the alcove, but this small age difference has an insignificant effect on macrofracture development. The close proximity of OH-44 to the rib is more important as locations away from the center of the excavation are less likely to have fracturing.

The 6 m wide S-90 drift west of the test location was excavated on November 4, 1988, and is much younger than the other drifts at this location. It is unlikely that significant macrofracturing associated with the westward extension of the S-90 drift would have occurred in those five months. Therefore, it was expected that both OH-35 and OH-44 would show the least fracturing and that OH-38, OH-39 and OH-40, down the center of a 4.3 m wide drift, would show less fracturing than the other holes located in the center of a 7.6 m wide drift or in the drift intersection. The expected differences in fracturing was subsequently confirmed.

TABLE 4-1

MEASURED WATER LEVELS IN OBSERVATION HOLES AFTER ALL DRILLING WAS COMPLETED

HOLE NUMBER	DISTANCE FROM PUMPED HOLE m	DATE	TIME	DEPTH TO WATER, m
OH-35	4.1	5/02/89	14:55	2.43 BHS
OH-36	Pumped hole	5/02/89	14:53	0.10 BGS
OH-37	4.2	5/02/89	14:52	0.10 BGS
OH-38	8.3	5/02/89	15:00	1.37 BGS
OH-39	26.6	5/02/89	14:58	DRY
OH-40	44.9	5/02/89	15:01	TRACE
OH-41	4.2	5/02/89	14:50	0.12 BGS
OH-42	16.3	5/02/89	16:40	0.15 BGS
OH-43	8.3	5/02/89	14:50	0.09 BGS
OH-44	11.4	5/02/89	14:50	0.08 BGS

BHS BELOW SURFACE OF UNDISTURBED HALITE
BGS BELOW SURFACE OF DRIFT OR ALCOVE FLOOR

4.3.2 Equipment Installation

OH-36, OH-37, OH-38, OH-41, OH-42, OH-43, and OH-44 were instrumented with pressure transducers (Geokon model 4500-H) prior to and during the pumping test. In addition to these holes, a small bolt hole directly beneath the AIS was also instrumented with a Geokon pressure transducer. Solinst water-level detectors were used to measure fluid levels in OH-35, OH-39, and OH-40.

A Bennett model air-driven, piston pump allowed user-controlled discharge rates from approximately 4 to 284 liters per hour. This pump was capable of a very low discharge rate during the test and utilized the readily available supply of compressed air. The pumped brine was routed to two, 945 liter storage tanks that were emptied, as required, to accommodate water storage needs.

All pressure transducer data were stored in random access memory in two Geokon CR-10 remote data loggers. These data were transferred to magnetic disk using a portable computer (Tandy Model 102 laptop and a Toshiba Model 1200).

4.3.3 Determination of Initial Hydrologic Conditions

In general, the only water sources available to recharge the floor fractures in the facility are limited natural brine inflow (Deal and Case, 1987; Deal and others, 1987; Deal and others, 1989) and localized spreading of water for dust control. However, the AIS is unusual because approximately 488,000 liters of brine were introduced into the AIS in an attempt to unclog the bit of the raisebore machine (Deal and others, 1989). The brine inundated the intersection of the S-90 and W-620 drifts, the station beneath the AIS, and the floor of the substation alcove. This area remained flooded for several months allowing infiltration into the fractures and the creation of locally saturated conditions.

Thorough characterization of the hydrologic conditions present in the area of the test was necessary before proceeding with the actual pump drawdown test. These conditions include: (1) the number and location of fractures; (2) saturation; (3) the occurrence of saturated muck on the drift floors; (4) fluctuating fluid levels in the AIS sump; and (5) water pressure and fluid levels existing in the holes prior to the test.

4.3.3.1 Fracturing and Saturation

Preliminary drilling confirmed that fractures saturated with brine occurred beneath much of the area around the AIS station and intersection of the S-90 and W-620 drifts. Fracture

observations were made visually and with a nail probe rod. At the time of this test, fracturing was clearly concentrated, almost exclusively, to the anhydrite (Marker Bed 139). Therefore the hydrogeologic unit being tested is fractured Marker Bed 139.

Holes OH-36, OH-37, OH-38, OH-41, OH-42, OH-43, and OH-44 filled quickly with water after the initial purging and recovered rapidly when pumped. These seven holes appeared to intersect a significant interconnected fracture system. Holes OH-35, OH-39, and OH-40 did not refill quickly after the initial purging. Inflow to OH-35 over the seven days following drilling and purging was minimal, with only 2.5 to 5 cm of water in the hole. At the same time OH-39 filled only 5 to 7.5 cm above the bottom of the hole. Hole OH-40 slowly filled to 2.8 m (within 23 cm of the top of the hole) during the seven days following the completion of drilling. These observations indicate that the area, including the AIS station, adjacent alcove, and S-90 drift, is not uniformly fractured.

Fluid levels in OH-36, OH-37, OH-41, OH-42, OH-43, and OH-44 were almost 1.8 m above Marker Bed 139 shortly after being drilled. Assuming that the permeability of the overlying unfractured halite is negligible in this short time frame, these data indicate that the marker bed was confined and under artesian head. Table 4-1 gives the measured water levels in ten observation holes prior to the pumping activities.

4.3.3.2 Local Saturation of Floor Muck

As part of the original construction of the access drifts, muck was spread on the alcove floor in order to construct a level surface. The muck later became saturated while the area was inundated with brine from the AIS and as a result of later watering of the alcove to assist in floor consolidation. It was necessary to dewater the overlying saturated muck to isolate it from the fractured hydrogeologic unit in the floor prior to the pumping tests.

During instrumentation of the testing area on April 27, 1989, several shallow trenches were excavated in order to bury pressure transducer cables. The shallow trenches quickly filled with brine during excavation. The entire floor of the transformer substation alcove was covered by saturated muck with a thickness up to 30 cm. Testing showed that the rapid fluid-level recovery in the observation holes located in the alcove (Figure 4-3) was produced by inflow from the muck. Preliminary testing of pumping rates for the planned hydrologic test indicated that the saturated muck could yield brine to the uncased, open observation holes at a rate equal to or greater than the full capacity of the pumping system. On May 2, 1989, a Bennett model air-driven piston pump was installed in OH-44, located at the back of the

transformer substation alcove. Pumping and observation of fluid levels in this, and surrounding holes, showed that the muck was saturated with brine in the area of the alcove and the drift intersection and that OH-44 was not connected to the fracture system beneath the intersection.

An attempt was made to dewater the saturated muck. Pumping was initiated on May 2, 1989, using the Bennett pump first in hole OH-44. The pump was then moved from OH-44 to OH-43, where the flow was adjusted to 88 liters per hour. The pump intake was set at approximately 0.6 m below the alcove floor and continued pumping overnight. By May 3, 1989, the fluid level had dropped to the pump intake, and inflow from the muck had decreased to a very small quantity. Observations indicated that 75 to 80 percent of the muck material had been dewatered in the test area. The pump was cycled on and off to continue dewatering the muck. In addition to the Bennett pump, a small hand pump was used in other surrounding holes to assist the dewatering efforts. All pumping activities stopped at the end of the day. The test area was allowed to recover.

The dewatering effort was reasonably successful; however, it did not remove all of the water from the muck. After the area recovered for 18 hours, the muck contained approximately 2.5 cm of saturated material above the contact with the underlying halite. This condition required that some of the holes be isolated from seepage from the muck. PVC casing was grouted in the upper 15 cm of these holes.

4.3.3.3 Fluid Levels in the Air Intake Shaft Sump

Construction design for the AIS includes the collection of groundwater seepage to the AIS in a water-collection ring within the shaft. The water is then piped to the AIS sump. (When construction of the shaft is completed, this seepage will be eliminated by grouting placed behind the shaft liner, as is the case now for the three completed shafts at the WIPP.) In practice, the water level in the sump is allowed to rise until it is almost full. The sump is then pumped down to accommodate additional storage needs. This cyclic process caused continual fluctuations of fluid levels in the AIS sump prior to conducting the hydrologic test. One objective of this test was to observe and quantify the relationship between the water level in the sump and the water level or hydrostatic pressure in macrofractures in Marker Bed 139 surrounding the sump. The bottom of the sump was very close to or at the upper surface of the marker bed, and the initial expectation was that fractures probably provided a hydrologic connection between the sump and unit being tested under the intersection.

The following investigation was performed to define this relationship. Holes OH-35, OH-36, OH-37, OH-42, and a small bolt hole directly beneath the AIS were instrumented with pressure transducers that constantly monitored fluid levels in the holes surrounding the AIS sump as the sump gradually filled. The sump was then rapidly pumped down more than 30 cm (4500 liters). The hydrographs of the resulting fluid pressures in holes OH-36, OH-37 and OH-42 are shown in Figure 4-4.

Fluid levels in these surrounding holes were unresponsive to either the slow rise or the rapid decline in fluid level in the sump. These observations suggest that there is not a significant or open connection between the AIS sump and the fractured part of Marker Bed 139. Apparently the AIS sump did not act as a constant head-type boundary or provide an immediate source of recharge to the zone of macrofracturing. However, longer time frames or higher fluid levels in the AIS sump might provide recharge to the fractured marker bed.

4.3.3.4 Background Water Pressure and Water Level Data

Background water pressure and water level data were collected to provide some definition of long-term trends, changes regarding test parameters, and comparison with the hydrologic test results. Background data collection began May 1, 1989, in holes OH-35, OH-36, OH-37, OH-42, and in the bolt hole beneath the AIS. Holes OH-41 and OH-43 began providing data on the second day while OH-44 started producing data on the third day.

The fluid pressures in OH-36 (pumped hole), OH-37, OH-41, and OH-42 from the initial instrumentation through the completion of the pumping drawdown test are shown on Figure 4-5. The pretest fluid levels showed a slight decline in level with time. On May 4, 1989, at approximately 12 p.m., PVC casing was grouted to the upper 15 cm of four holes to stop the inflow of brine from the partially saturated muck. The holes were pumped down at least 15 cm and the PVC casing was grouted in place. Review of Figure 4-5 shows that these activities influenced the fluid levels and the downhole pressures as monitored by the transducers in several holes. The transducers in OH-36, OH-37, OH-43, and OH-44 were removed during installation of the PVC pipe. After installation of the pipe, the transducers were reinstalled at somewhat different depths than their original placement.

In summary, background water-level data showed that the fluid pressures in fractures within Marker Bed 139 were independent of the water level in the AIS sump. Seepage from the

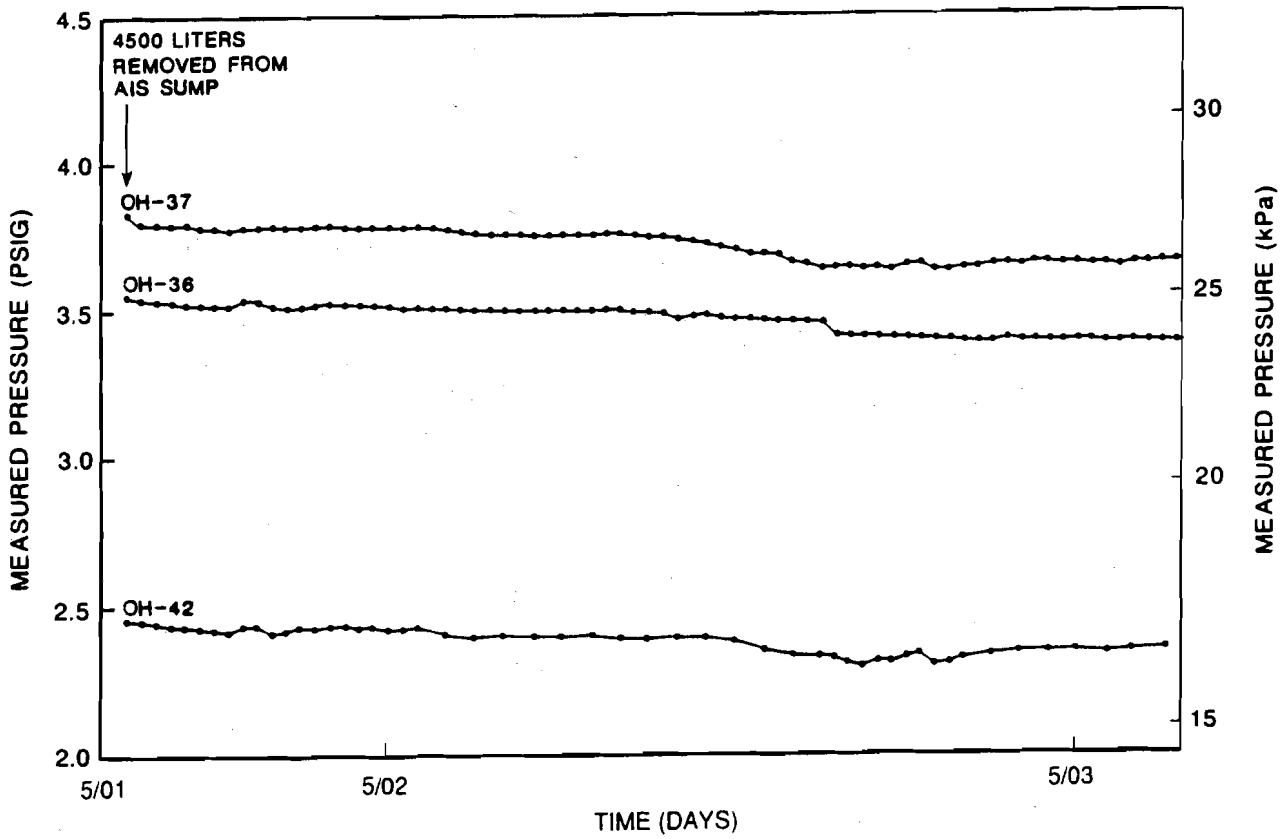

FIGURE 4-4 FLUID PRESSURES IN HOLES OH-36, OH-37, AND OH-42 AFTER REMOVAL OF 4500 LITERS OF BRINE FROM THE AIS SUMP

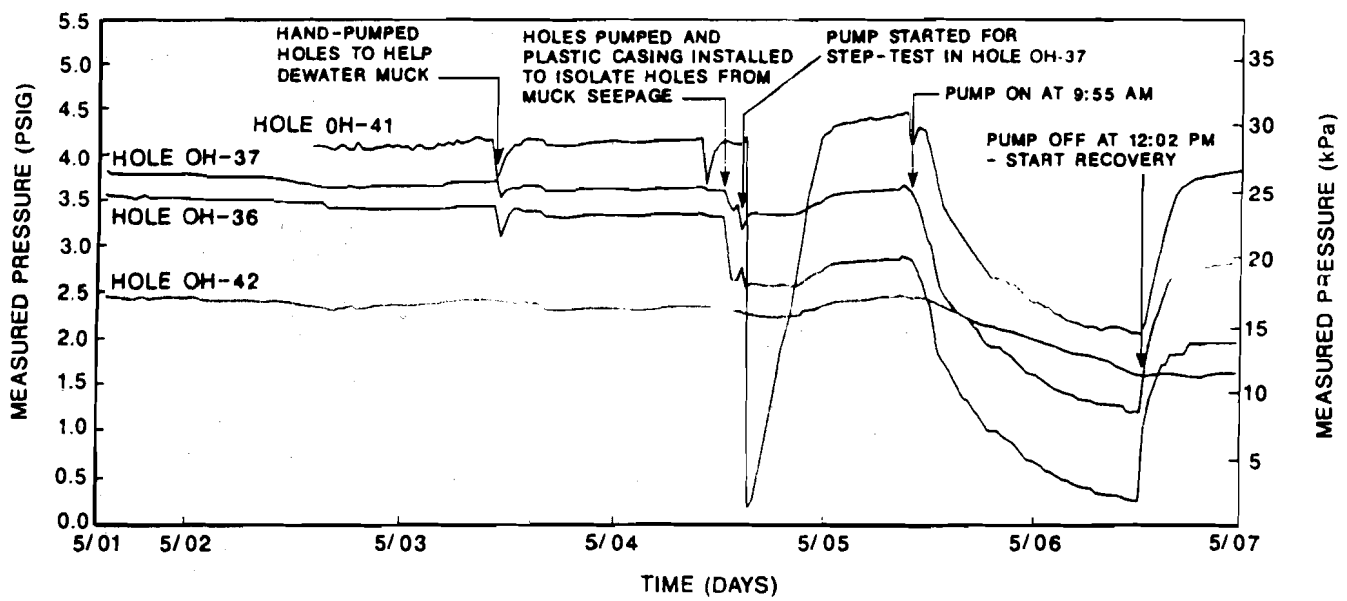

FIGURE 4.5 HYDROGRAPH OF HOLES OH-36, OH-37, OH-41, AND OH-42, THROUGH THE END OF THE PUMPING TEST

surrounding saturated muck influenced the pretest fluid levels, introducing some degree of uncertainty to pump test data and the resulting interpretation. The uncertainty was minimized by installing surface casing.

4.3.4 Preliminary Step Drawdown Testing

The Bennett pump was installed in hole OH-41 at the front of the alcove on May 4, 1989. This hole was pumped at several flow rates, ranging from 19 to 76 liters per hour, to establish an appropriate flow rate for the pumping drawdown test. After nine minutes of pumping, the hole completely dewatered. The water level recovered only 0.6 m within the next hour. The pump was moved to OH-36 in the center of the S-90 drift. Step drawdown testing was conducted using flow rates between 11 and 38 liters per hour. These results indicated that hole OH-36 would yield water at a greater rate than hole OH-41. The optimum flow rate was determined to be approximately 34 liters per hour. Calculations, based on the short duration step drawdown test, indicated that the pumped hole (OH-36) would not be dewatered within 24 hours at a flow rate of 34 liters per hour. Preliminary testing was concluded on May 4, 1989, and the test area recovered overnight for the start of the main pumping drawdown test scheduled for the following day.

4.4 FINAL PUMP TEST

A pumping drawdown-type hydrologic test was conducted in Marker Bed 139 at the intersection of the S-90 and W-620 drifts. The test started at 10:10 a.m. on May 5, 1989, with the pump installed in hole OH-36. Figure 4-3 shows the test-site configuration, the holes that were monitored with pressure transducers, the pumping hole, and the holes containing water level probes. For the purpose of the test, the pressure transducer in hole OH-35 was removed and placed in hole OH-38. The higher fluid level in OH-38 would produce more useful drawdown data.

4.4.1 Test Performance and Results

Problems with the pumping rate arose during the startup phase of the pumping test. The initial plan called for a flow rate of 34 liters per hour. This relatively low flow rate required very careful adjustment of the air pressure and delicate adjustments to the control valve on the discharge line from the Bennett pump. The first measurement indicated a flow rate of about 19 liters per hour that declined to 11 liters per hour in five minutes. The pressure and valve settings were adjusted until a flow rate of approximately 34 liters per hour was reached. The adjustment period was continuous for the first 75 minutes of the test. This adjustment period

caused the early test results to be poor, and did not allow for a constant steady flow rate and drawdown to occur until almost 120 minutes of early test time had elapsed.

After a steady discharge rate was established, down-hole fluid pressures were monitored on a one-minute interval for 80 minutes. The logging interval was increased to 15 minutes for the remainder of the test. Pumping in hole OH-36 continued for 26 hours. In order to achieve a continuous removal of water from the pump hole it was necessary to maintain a water level above the pump intake. The ending fluid level was approximately 15 cm above the pump intake.

All pumping and pressure-monitoring equipment functioned well throughout the test with the exception of the pressure transducer installed in the bolt hole beneath the AIS. This transducer malfunctioned, reading negative pressure values on May 4, 1989. A visual inspection of the area beneath the AIS revealed that the fluid level in the bolt hole was lower than it had been when the transducer was installed. However, the fluid level appeared to be sufficiently high for positive pressure readings. From that point on, no reliable pressure data was collected from that monitoring station.

The drawdown of fluid level in Marker Bed 139 was detected in some of the observation holes monitored during the pumping test. Only OH-36 (pump hole), OH-37, OH-41, and OH-42 showed measurable drawdown response to pumping (Figure 4-5). Fluid levels in remaining holes showed no drawdown response. These results indicate that there are separate, hydrologically unconnected, saturated fracture systems within Marker Bed 139. OH-38 is 8.3 m from the pumped hole. This hole filled rapidly with inflow from fractures after drilling and initial evacuation, but did not show any response to pumping. Although OH-40 was full of brine at the start of the test, it showed no response. OH-39, located on the east side of the S-90 drift, showed no response to the test even though it contained a few centimeters of brine at the start of the test, with a surface level far below that in the holes at the intersection. Hole OH-37, 4.1 m west of OH-38, showed rapid and immediate response to pumping. These observations indicate that the intersection of the S-90 and W-620 drifts and along the W-620 drift toward the AIS has more enhanced fracturing than does the S-90 drift (see Figure 4-6).

The testing results also suggest that the fractures in Marker Bed 139 at the drift intersection are fairly well connected. This confirms the pre-test expectations of the distribution and development of macrofractures (Section 4.3.1).

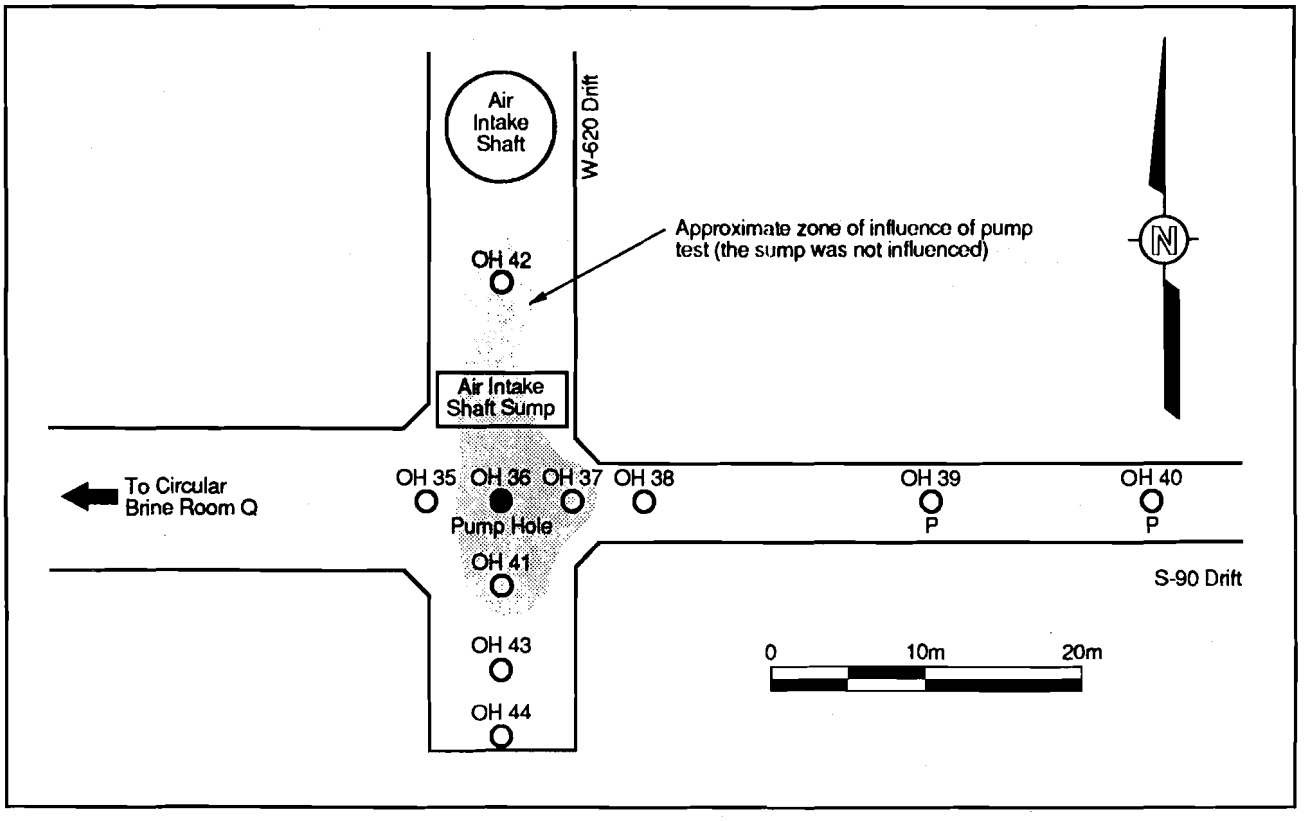

FIGURE 4-6
OBSERVATION HOLE RESPONSE TO PUMP TEST

4.4.2 Pumping Test Analysis

The Jacobs, Theis, and Theim methods were used to determine transmissivity and storage coefficients in the holes that responded to pumping. Figures 4-7 through 4-13 show semi-log plots of drawdown vs. time for all wells instrumented with transducers. The drawdown curves for holes OH-36, OH-37, OH-41 and OH-42 show a linear plot of drawdown vs. time. This allowed the data to be analyzed with the standard Theis nonequilibrium formula as modified by Jacobs (Lohman, 1972). The calculated transmissivity for all observation holes, including the pumping hole, are 0.11 to 0.18 m^2/day. Storage coefficients calculated for holes OH-37, OH-41, and OH-42 ranged from 3.3×10^{-4} to 7.3×10^{-4}. These values for transmissivity and storage coefficient are very consistent from hole to hole. This indicates that the area affected by the test has a fairly uniform fracture system, resulting in uniform hydrologic characteristics. Figure 4-14 shows a semi-log distance vs. drawdown plot. This figure shows the drawdown in holes OH-37, OH-41, and OH-42 at 1,000 minutes of pumping time. The transmissivity and storage coefficient, calculated by the Thiem method of distance drawdown were 0.16 m^2/day and 3.7×10^{-4}, respectively. The results of the Thiem analysis (Lohman, 1972) are very consistent with those calculated using the nonequilibrium equation.

The fluid level drawdown data for observation holes OH-37 and OH-41 were analyzed using the Theis-type curve technique (Lohman, 1972). Drawdown values were plotted versus r^2/t (distance from observation hole to pumped hole/time since pumping began) using log-log axes. This analysis shows that the marker bed acts as a porous medium. The log-log data curves fit the established type curves of Theis fairly well. The transmissivity and storage coefficients calculated by this method agreed well with values calculated using the other analytical techniques. Calculated values for the transmissivity and storage coefficient for hole OH-37 are 0.10 m^2/day and 7.64×10^{-4}, and for OH-41 are 0.10 m^2/day and 1.04×10^{-3}, respectively. It is noted that these methods require the assumption that the aquifer is infinite. With the exception of OH-42 (discussed later), a boundary was not observed. The testing provided enough data to curve-fit for more than one log cycle, indicating that the assumption of an infinite aquifer is not seriously violated.

A much more rigorous analysis of the test data should be performed using techniques such as those discussed in Beauheim (1987). Defining complete hydrologic characteristics, such as double porosity vs. single porosity response, or the orientation and nature of single or multiple fractures will require more detailed hydrologic testing and analysis outside the scope of this preliminary test.

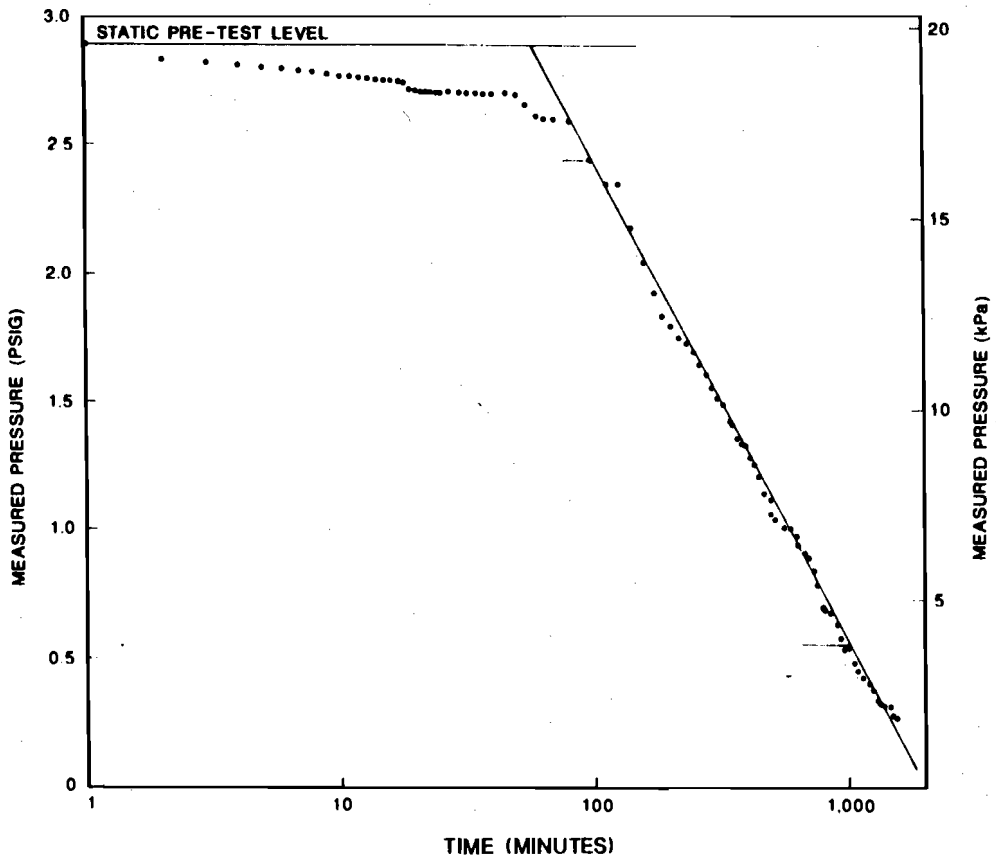

FIGURE 4-7. SEMI-LOG PLOT OF DRAWDOWN VS. TIME FOR HOLE OH-36 (PUMPED HOLE)

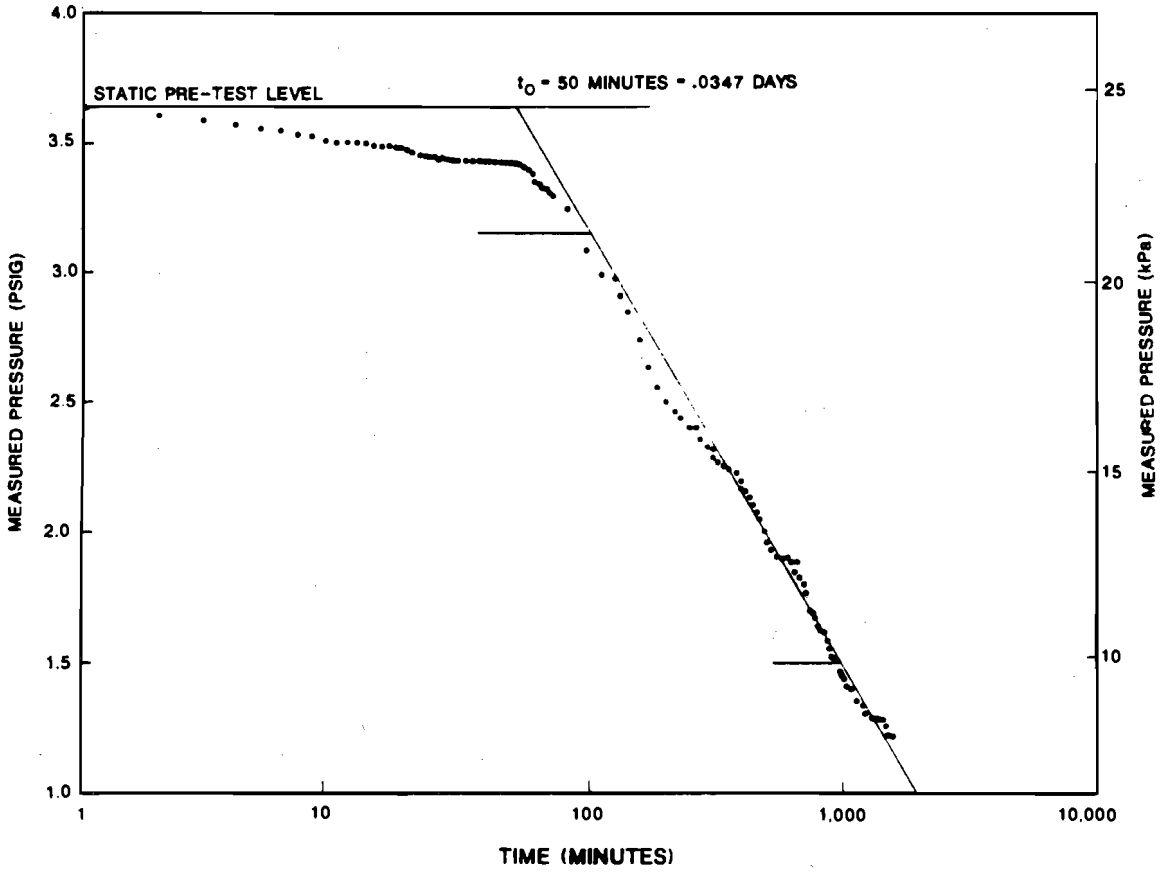

FIGURE 4-8. SEMI-LOG PLOT OF DRAWDOWN VS. TIME FOR HOLE OH-37

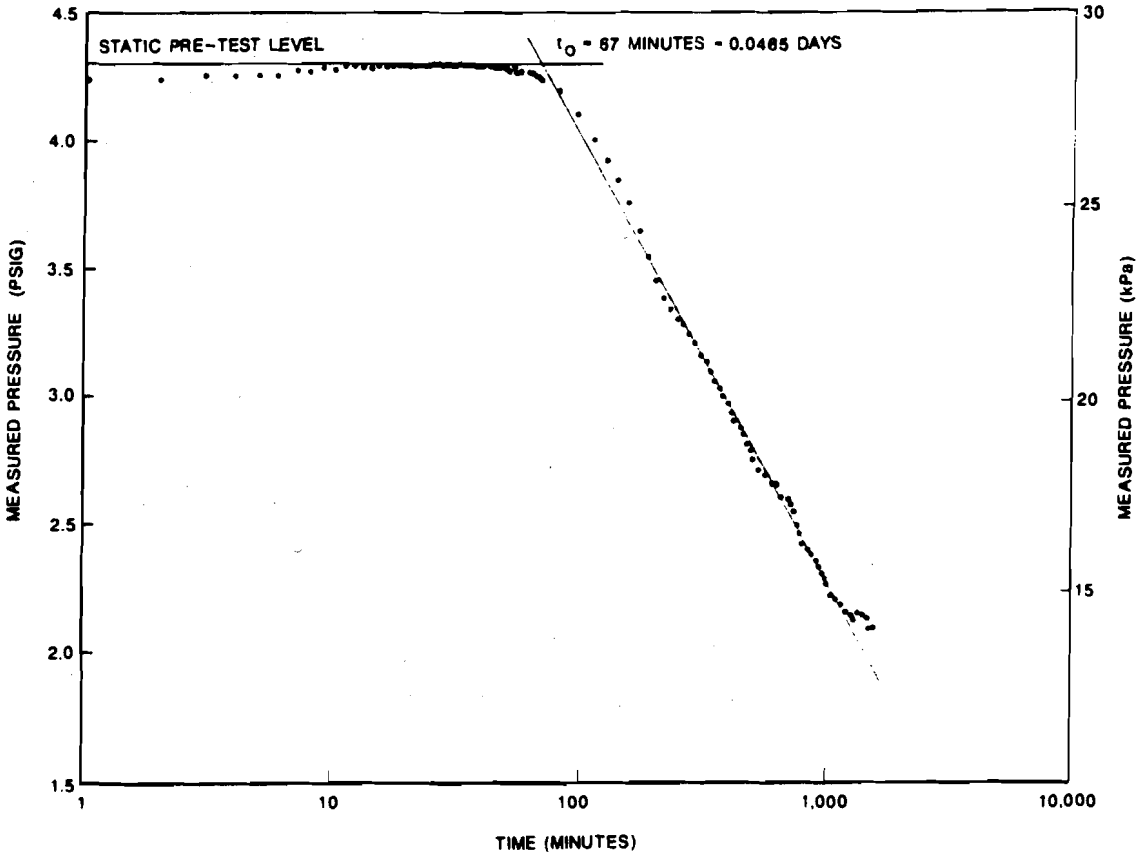

FIGURE 4-9. SEMI-LOG PLOT OF DRAWDOWN VS. TIME FOR OBSERVATION HOLE OH-41

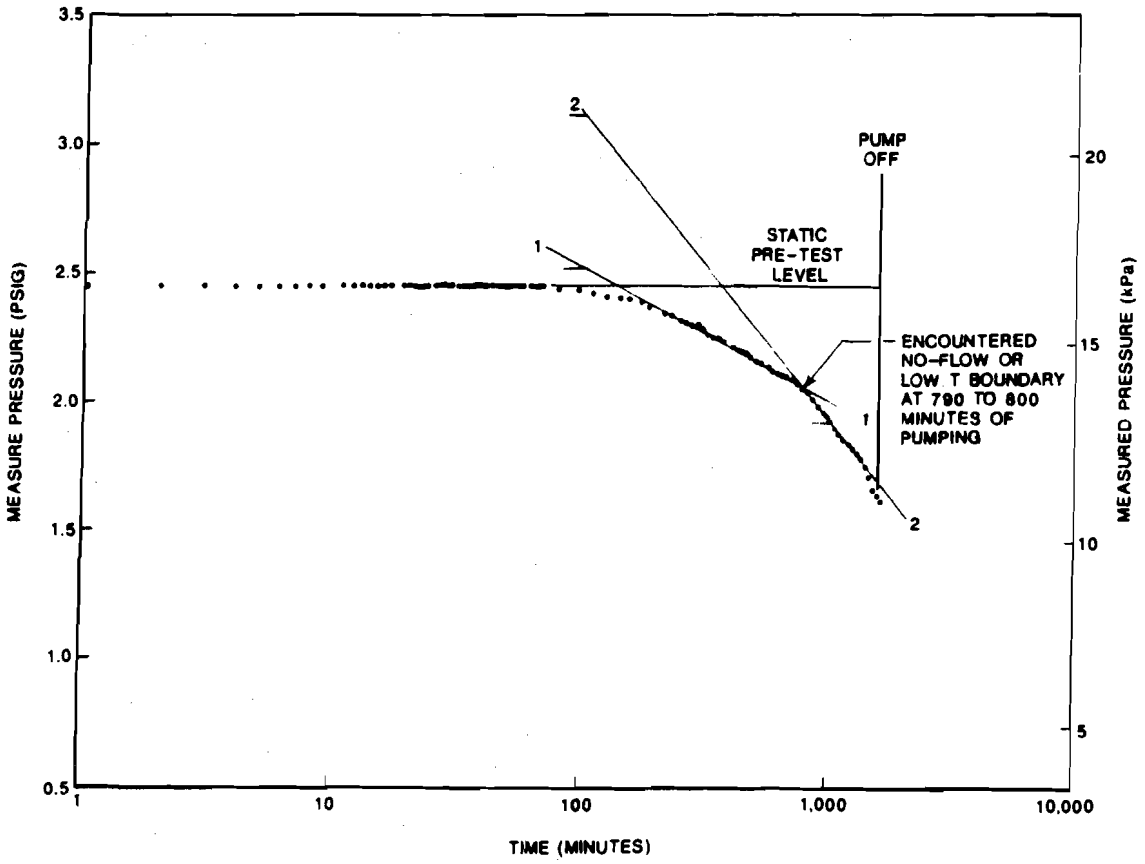

FIGURE 4-10. SEMI-LOG PLOT OF DRAWDOWN VS. TIME FOR OBSERVATION HOLE OH-42

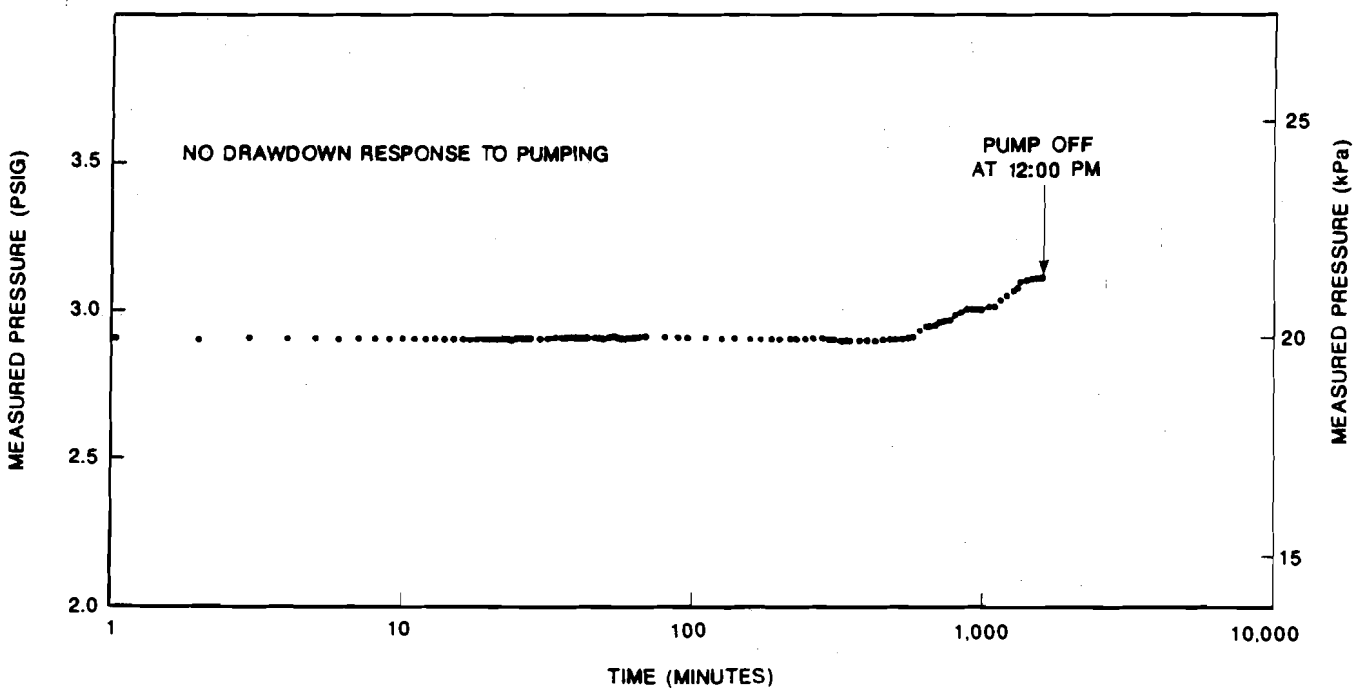

FIGURE 4-11. SEMI-LOG PLOT OF DRAWDOWN VS. TIME FOR OBSERVATION HOLE OH-38

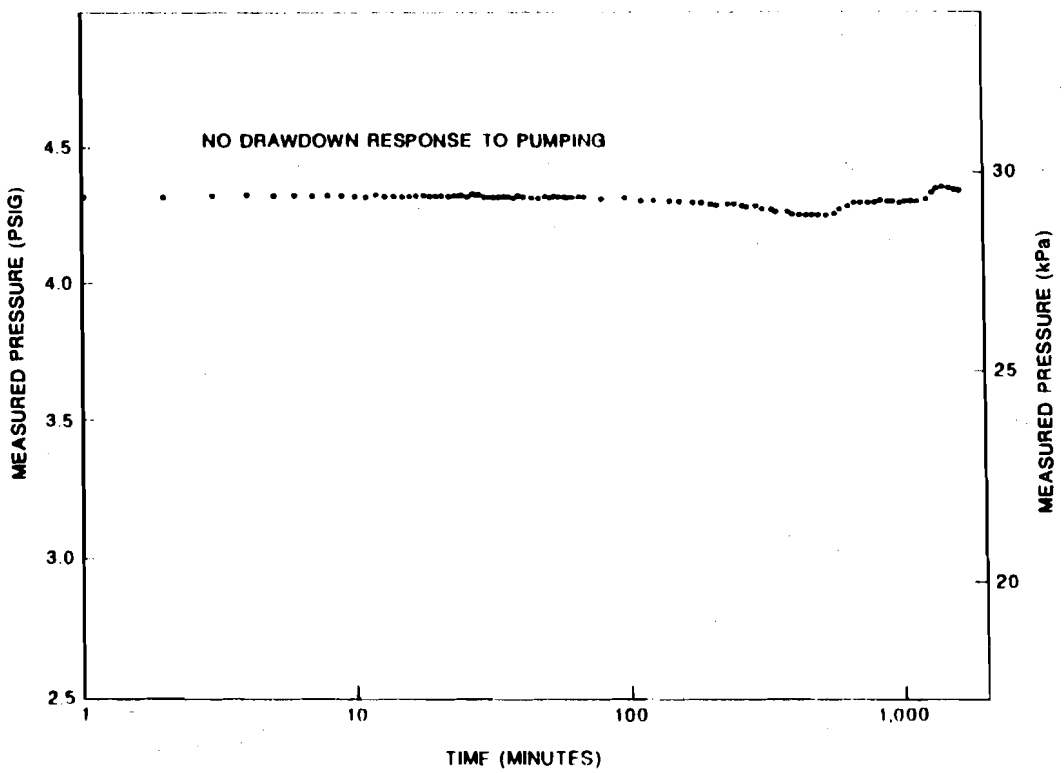

FIGURE 4-12. SEMI-LOG PLOT OF DRAWDOWN VS. TIME FOR OBSERVATION HOLE OH-43

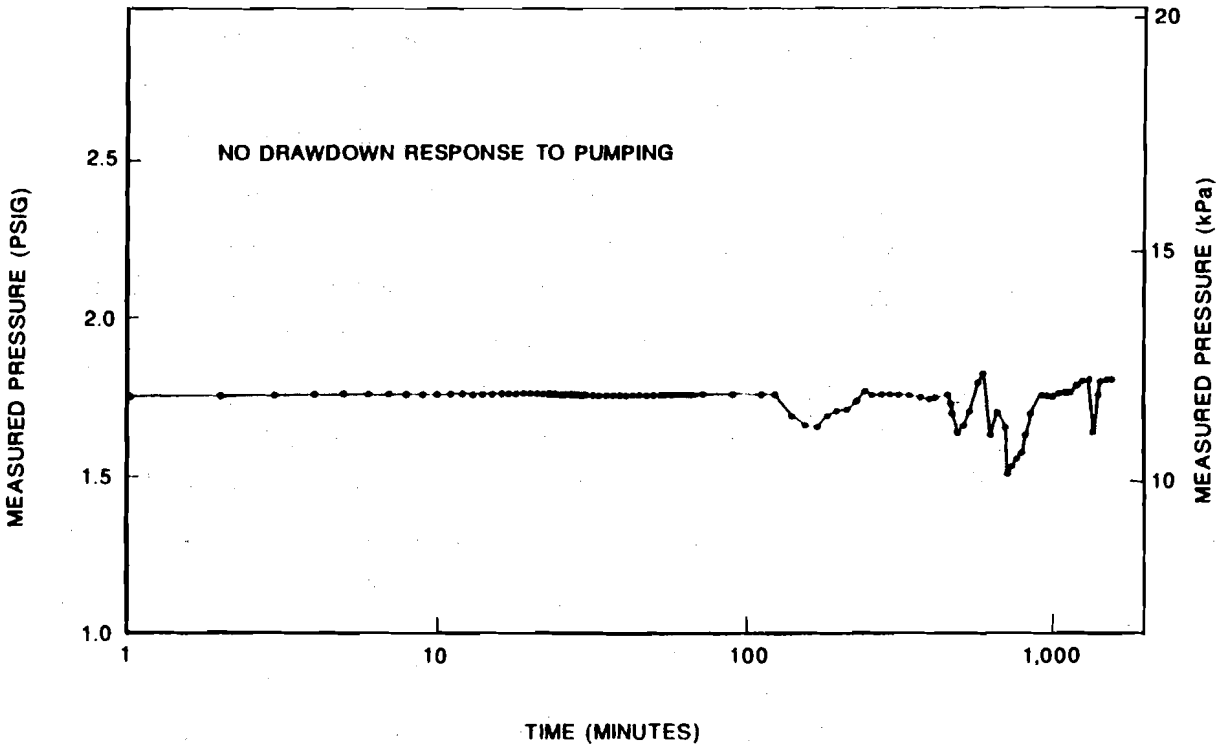

FIGURE 4-13. SEMI-LOG PLOT OF DRAWDOWN VS. TIME FOR OBSERVATION HOLE OH-44

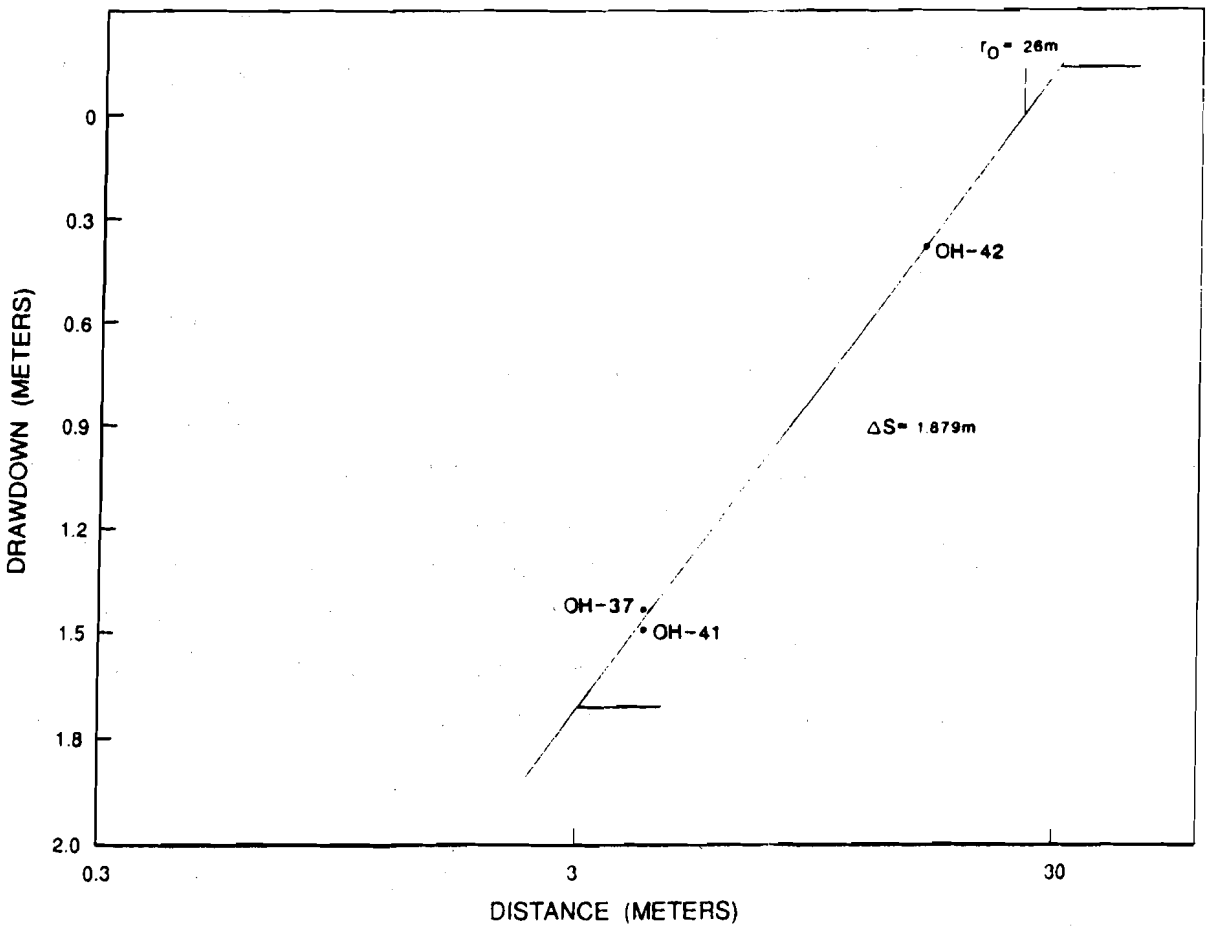

FIGURE 4-14. SEMI-LOG PLOT OF DRAWNDOWN VS. DISTANCE FROM PUMPED HOLE

The results of this test showed areas where the marker bed contains both macrofractures and brine adequate for successful hydrologic testing. The effects of local boundary conditions remain unresolved by the test. Only OH-42, located north of the AIS sump, showed the influence of a nearby no-flow or low permeability boundary. Figure 4-10 shows a prominent change in slope of the drawdown vs. log time plot. This change in slope indicates that the cone of depression encountered a low permeability area at approximately 800 minutes into the test. A similar boundary is not observed in drawdown plots of the other observation holes. Quantitative evaluation of boundary conditions, boundary locations, and the general distribution of high and low permeability areas will require additional testing and a larger network of observation holes. However, the boundary conditions seen in hole OH-42 indicate that pump testing in saturated areas can provide important definition of the distribution and hydrologic relationship of local areas which exhibit highly variable permeability.

Upon completion of the pumping-drawdown test, fluid levels in all observation holes were monitored for several weeks. After two weeks, fluid levels remained below the pretest level. These observations indicate that the fracture system involved in the test is limited in area and has very limited, if any, connection to other saturated fracture systems. It appears that the pumping test partially dewatered a local region of the marker bed. This type of testing can provide considerable information on the distribution and interconnection of fractures beneath the floor of the WIPP excavations.

4.5 SUMMARY OF TEST RESULTS

This pumping drawdown test provided valuable data on the hydrogeologic characteristics in the area tested. The limited scope of this program represents a preliminary attempt to characterize hydrological conditions in the fractures beneath the floor of the WIPP excavations. The test showed that hydrologic parameters can be defined, and the relationship of fractures or fracture systems can be determined with standard hydrologic testing techniques in areas where the marker bed is saturated. Transmissivities of 0.1 to 0.2 m^2/day, as determined from this test, are several orders of magnitude higher than those measured elsewhere in Marker Bed 139. These data show that fractured zones beneath the WIPP excavations can be highly permeable. Numerous tests would be required to quantify the distribution of permeability, storativity, and fracture geometry in any specific area.

The following is recommended for future testing:

- A preadjusted low pumping rate
- The area to be pumped should be unstressed for several days
- All holes should be cased and grouted into the undisturbed halite.

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5.0 REFERENCES

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APPENDIX A

BRINE ACCUMULATION

PART I - LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED

PART II - BRINE ACCUMULATION DATA TABLES

APPENDIX A

BRINE ACCUMULATION

PART I - LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED

TABLE A-1 REFERENCES

A1	TSC-D'Appolonia. 1983 (WIPP-DOE-163)
A2	Bechtel National, 1984 (WIPP-DOE-202)
A3	Bechtel National, 1985 (WIPP-DOE-213)
B	Brine Sampling and Evaluation Program File
C	Records of Special Drill Holes, 9/12/83: BSEP Files
D	As-Built Survey Calculation Sheets: BSEP Files
E	Field Notes, J. Gallerani, Bechtel National: BSEP Files
F	Field Notes, D. Deal, International Technology Corp.: BSEP Files
G	Room J Brine Survey: BSEP Files
H	Room L1 and L2 Field Notes: BSEP Files
J	Geotechnical Instrumentation List, 11/02/83: BSEP files
K	Excavation Effects Drilling Program, Data Transmittal 8/12/86: Excavation Effects Files: WIPP Geotechnical Engineering Files
L	Quarterly Geotechnical Field Data Report, Nov.,1984 (WIPP-DOE-202)
M	Drilling Record Log: BSEP Files
N	Survey Data Sheet: WIPP Geotechnical Engineering Files

TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
A1X01	A1	S	N1147.02	E1254.40	400.28	10	15.2	D	90	B, D, E	Monitored as part of the BSEP since it was drilled in 3/85.
A1X02	A1	S	N1146.88	E1254.24	405.78	10	18	U	90	B, D, E	Monitored as part of the BSEP since it was drilled in 3/85.
A2X01	A2	S	N1393.72	E1338.88	399.65	10	15.3	D	90	B, D, E	Monitored as part of the BSEP since it was drilled in 2/85.
A2X02	A2	S	N1393.65	E1338.89	405.03	10	16.1	U	90	B, D, E	Monitored as part of BSEP from 2/85 to 9/89.
A3X01	A3	S	N1137.94	E1406.84	399.22	10	15.4	D	90	B, D, E	Monitored as part of the BSEP since it was drilled in 1/85. Drillers did not report any moisture while drilling. Hole started producing brine a few weeks later.
A3X02	A3	S	N1138.00	E1406.89	404.75	10	15.5	U	90	B, D, E	Monitored as part of BSEP from 1/85 to 9/89. Drillers did not encounter moisture while drilling. Hole started producing brine a few weeks later.
BTPA1	S1620/W170	A	S1638	W162	384	7.6	1.6	D	90	B	Open from 0 to 1.6 m. Drilled for BSEP study 7/86 and monitored until 12/02/88.
BTPA2	S1620/W170	A	S1638	W166	384	7.6	2.9	D	90	B	Cased from 0 to 1.6 m. Open from 1.6 to 2.8 m. Drilled for BSEP study 7/86 and monitored until 12/02/88.
BTPA3	S1620/W170	A	S1638	W170	384	7.6	4.1	D	90	B	Cased from 0 to 3.1 m. Open from 3.1 to 4.1 m. Drilled for BSEP study 7/86 and monitored until 12/02/88.
BTPA4	S1620/W170	A	S1638	W166	388	7.6	1.4	U	90	B	Open from 0 to 1.4 m. Drilled for BSEP study 7/86 and monitored until 9/27/88. Dry.
BTPA5	S1620/W170	A	S1638	W170	388	7.6	1.6	U	90	B	Open from 0 to 1.6 m. Drilled for BSEP study 7/86 and monitored until 9/27/88. Dry.

** The repository is referenced in feet: therefore the North-South and East-West coordinates are presented in feet

TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
BTPB1	S1620/W170	A	S1636	W162	384	7.6	1.6	D	90	B	Open from 0 to 1.6 m. Drilled for BSEP study 7/86 and monitored until 9/27/88.
BTPB2	S1620/W170	A	S1636	W166	384	7.6	2.9	D	90	B	Cased 0 to 1.8 m. Open from 1.8 to 2.9 m. Drilled for BSEP study 7/86 and monitored until 9/27/88.
BTPB3	S1620/W170	A	S1636	W170	384	7.6	4.1	D	90	B	Cased 0 to 3.1 m. Open from 3.0 to 4.3 m. Drilled for BSEP study 7/86 and monitored until 9/27/88.
BTPB4	S1620/W170	A	S1636	W166	388	7.6	3.0	U	90	B	Cased 0 to 2.1 m. Open from 2.1 to 3.0 m. Drilled for BSEP study 7/86 and monitored until 9/27/88.
BTPB5	S1620/W170	A	S1636	W170	388	7.6	3.1	U	90	B	Cased 0 to 1.9 m. Open from 1.9 to 3.1 m. Drilled for BSEP study 7/86 and monitored until 9/27/88.
BTPC1	S1620/W170	A	S1634	W162	384	7.6	1.5	D	90	B	Open from 0 to 1.5 m. Drilled for BSEP study 7/86 and monitored until 9/27/88.
BTPC2	S1620/W170	A	S1634	W166	384	7.6	3.0	D	90	B	Cased from 0 to 1.7 m. Open from 1.8 to 3.0 m. Drilled for BSEP study 8/86 and monitored until 9/27/88.
BTPC3	S1620/W170	A	S1634	W170	384	7.6	4.4	D	90	B	Cased from 0 to 3.0 m. Open from 3.0 to 4.4 m. Drilled for BSEP study 8/86 and monitored until 9/27/88.
BTPC4	S1620/W170	A	S1634	W166	388	7.6	5.4	U	90	B	Cased from 0 to 4.2 m. Open from 4.2 to 5.4 m. Drilled for BSEP study 7/86 and monitored 9/27/88.
BTPC5	S1620/W170	A	S1634	W170	388	7.6	5.5	U	90	B	Cased from 0 to 4.3 m. Open from 4.3 to 5.5 m. Drilled for BSEP study 7/86 and monitored until 9/27/88. Dry.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
BTR1	S1950/E100	A	S1942	E98	387	8.3	0.3	H	5	B	Hole slightly declined below horizontal. Collar above upper clay seam, about 0.3 m below back. Drilled 6/86 and monitored until 9/27/88. Dry.
BTR2	S1950/E100	A	S1942	E100	387	8.3	1.0	H	5	B	Hole slightly declined below horizontal. Collar above upper clay seam, about 0.3 m below back. Drilled 6/86 and monitored until 12/02/88.
BTR3	S1950/E100	A	S1942	E101	387	8.3	1.0	H	5	B	Hole slightly declined below horizontal. Collar above upper clay seam, about 0.3 m below back. Drilled 6/86 and monitored until 12/02/88.
BTR4	S1950/E100	A	S1942	E98	386	8.3	0.3	H	5	B	Hole slightly declined below horizontal. Collar in halite about 1.1 m below back. Drilled 6/86 and monitored until 12/02/88.
BTR5	S1950/E100	A	S1942	E100	386	8.3	0.9	H	5	B	Hole slightly declined below horizontal. Collar in halite about 1.1 m below back. Drilled 6/86 and monitored until 12/02/88.
BTR6	S1950/E100	A	S1942	E101	386	8.3	0.9	H	5	B	Hole slightly declined below horizontal. Collar in halite about 1.1 m below back. Drilled 6/86 and monitored until 12/02/88.
BTR7	S1950/E100	A	S1942	E98	386	8.3	0.3	H	5	B	Hole slightly declined below horizontal. Collar just above orange band. Drilled 6/86 and monitored until 12/02/88. Dry.
BTR8	S1950/E100	A	S1942	E100	386	8.3	0.9	H	5	B	Hole slightly declined below horizontal. Collar just above orange band. Drilled 6/86 and monitored until 12/02/88.
BTR9	S1950/E100	A	S1942	E101	386	8.3	0.9	H	5	B	Hole slightly declined below horizontal. Collar just above orange band. Drilled 6/86 and monitored until 12/02/88.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
BTR10	S1950/E100	A	S1942	E98	385	8.3	0.4	H	5	B	Hole slightly declined below horizontal. Collar about 0.8 m above floor. Drilled 6/86 and monitored until 12/02/88. Dry.
BTR11	S1950/E100	A	S1942	E100	385	8.3	0.9	H	5	B	Hole slightly declined below horizontal. Collar about 0.8 m above floor. Drilled 6/86 and monitored until 12/02/88.
BTR12	S1950/E100	A	S1942	E101	385	8.3	0.9	H	5	B	Hole slightly declined below horizontal. Collar about 0.8 m above floor. Drilled 6/86 and monitored until 12/02/88.
BX01	B	S	N1384.68	E982.33	401.56	10	15.3	D	90	B, E	Monitored as part of the BSEP since it was drilled in 1/85. Core moist from 10.6 to 11.1 m in coarsely crystalline clear halite. MB139 at 7.1 to 7.9 m.
BX02	B	S	N1384.44	E982.87	407.05	10	15.0	U	90	B, E	Monitored as part of BSEP from 1/85 to 12/89.
DH15	N1140/E1689	A	N1104	E1688.5	402	7.6	15.5	U	90	B	Moisture noticed at collar in 4/86. Collecting device installed 5/86 and monitored as part of the BSEP since then.
DH35	G	A	N1102	W1882	395	8.9	15.8	U	90	A3, B	Monitored as part of BSEP since 2/85. At present no brine is collected because of insufficient inflow.
DH36	G	A	N1102	W1882	392	8.9	15.7	D	90	A3, B	Monitored as part of BSEP since 1/85.
DH37	G	A	N1101	W2182	396	8.9	15.7	U	90	A3, B	Monitored as part of BSEP since 1/85. At the present no brine is collected because of insufficient inflow.
DH38	G	A	N1101	W2182	392	8.9	14.5	D	90	A3, B	Monitored as part of BSEP since 1/85.
DH39	G	A	N1101	W2482	395	8.9	14.5	U	90	A3, B	Monitored as part of BTP since 2/85. At the present no brine is collected because of insufficient inflow.

** The repository is referenced in feet; therefore the North-South and East-West coordinates are presented in feet

TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
DH40	G	A	N1101	W2482	392	8.9	15.5	D	90	A3, B	Monitored as part of BSEP since 1/85.
DH41	G	A	N1101	W2782	395	8.9	15.2	U	90	A3, B	Monitored as part of BSEP since 2/85. At the present no brine is collected because of insufficient inflow.
DH42	G	A	N1101	W2782	392	8.9	15.6	D	90	A3, B	Monitored as part of the BSEP since 2/85.
DH42A	G	A	N1101	W2789	392	8.9	12.6	D	90	A3, B	Monitored as part of the BSEP since 2/85.
DH215	S1960/E153	A	S1960	E153	388	7.6	15.8	U	90	A1, B	Gas releases had been observed in this hole. Monitored as part of the BSEP since 1/85.
DH216	S1960/E153	A	S1960	E153	385	7.6	16.5	D	90	A1, B	Gas releases had been observed in this hole. Monitored as part of the BSEP from 1/85 to 6/85 when collar was destroyed and hole plugged by mining.
DH317	S1600/W30	A	S1600	W33	388	7.6	15.3	U	90	A2, B	Stalactite growth monitored as part of the BSEP from 5/85 to 2/86.
DH317A	S1600/W30	A	S1600	W28	388	7.6	1.5	U	90	A2, B	Stalactite growth monitored as part of BSEP from 5/85 to 2/86.
DH317B	S1600/W30	A	S1597	W27	388	8.9	15.5	U	90	A2, B	Gas pocket at 14.0 m. Brine seeped from hole after drill rods were broken at end of run at depth of 5 m. Probable source was anhydrite "a". Stalactite growth monitored as part of BSEP from 5/85 to 2/86.
DHP401	S1950/E1330	A	S1950	E1330	387	10	15.1	U	90	B	Drilled 1/87, observed as part of BSEP since 3/87.
DHP402A	S1950/E1330	A	S1950	E1330	383	10	15.2	D	90	B	Drilled 12/86, observed as part of BSEP since 12/86. Hole offset at 13.7 m. There may be a rock bolt or piece of steel in hole.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
EES12B		A	N1430	E140		4.7	3	D	90	K	Drilled 6/86 as part of the Excavation Effects Study. Observed as part of BSEP from date of drilling until 12/86. Rapid brine and gas inflow through open fractures.
EES21B		A	S700	E66		4.7	2.7	D	90	K	Drilled 7/86 as part of the Excavation Effects Study. Observed as part of the BSEP since drilling until 12/86. Rapid brine and gas inflow through fractures.
G Seep	G	A	N1095	W1837	391					B	Damp area on the floor of Room G, near south rib, approximately 13.7 m east of DH35. Seep noticed 8/85. Damp area larger in 11/85. Monitored as part of BSEP since 11/85. 40 cm diameter collecting sump drilled 9/87.
IG201	2	S	N1275.54	W379.51	394.71	7.3	16.4	D	90	A3, B, H, J	Monitored as part of BSEP from 11/84 to 9/87 when shear closure pinched hole shut so that sampler would not go to bottom.
IG202	1	S	N1264.79	W246.11	395.17	7.3	14.7	D	90	A3, B, H, J	Monitored as part of BSEP from 11/84 to 7/87 when shear closure pinched hole shut so that sampler would not go to bottom. Last BSEP brine data collected in 3/87.
JV8	J	S	N1067	W374	393	91	2.5	D	90	D, F, G	Drilled 8/08/85, drillers reported water at 2.4 m.
JV9	J	S	N1067	W378	393.3	91	2.5	D	90	D, G	Brine in bottom of pilot hole on 8/20/85.
L1S25	L1	A	N1524	W218	400	10	3.6	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S26	L1	A	N1524	W220	400	10	3.6	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S27	L1	A	N1524	W222	400	10	3.6	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S28	L1	A	N1524	W224	400	10	3.7	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
L1S29	L1	A	N1524	W226	400	10	3.7	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S30	L1	A	N1524	W228	400	10	3.7	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S31	L1	A	N1524	W235	400	10	3.6	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S32	L1	A	N1524	W237	400	10	3.6	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S33	L1	A	N1524	W239	400	10	3.6	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S34	L1	A	N1524	W241	400	10	3.7	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S35	L1	A	N1524	W243	400	10	3.8	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1S36	L1	A	N1524	W245	400	10	3.7	D	90	B, H	Monitored as part of BSEP from 8/85 to 6/89.
L1X00	L1	A	N1538.5	W225	400	10	3.8	D	90	B, H	Drillers found water in hole at 3 m, 5/13/84. Monitored as part of the BSEP from 10/84 to 4/89.
L2C03	L2	A	N1510	W365	400	41	3.7	D	90	B, H	Drilled 4/85 overcoring and destroying L2C25. Brine and gas enters hole quickly through open fractures. Monitored intermittently as part of BSEP from 12/85 through 12/86.
L2C25	L1	A	N1510	W365	400	12.7	3.5	D	90	B, H	L2C25 is a 12.7 cm overcore of a previously grouted SNL test hole. The overcore was drilled 3/85 and air and brine was blown through fractures into hole L2C29, 1.2 m to the north. In 4/85, a 40 cm overcore was made destroying this hole. The larger hole is designated L2C03.
MIIT2	J	S	N1088.03	W377.02	393.44	8.3	0.9	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.
MIIT4	J	S	N1086.05	W377.13	393.44	8.3	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
MIIT6	J	S	N1084.16	W377.15	393.36	8.3	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.
MIIT8	J	S	N1082.08	W377.24	393.34	8.3	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.
MIIT10	J	S	N1079.98	W377.23	393.31	8.3	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.
MIIT12	J	S	N1078.11	W377.21	393.25	8.3	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.
MIIT14	J	S	N1076.18	W377.30	393.14	7.6	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.
MIIT16	J	S	N1074.17	W377.18	392.95	7.6	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85.
MIIT17	J	S	N1072.03	W379.10	393.29	7.6	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 to 4/85. Sandia filled hole with Brine A 4/30/85 and plugged with rubber cork.
MIIT18	J	S	N1071.91	W377.18	393.27	7.6	1.0	D	90	B, D, G	Brine since drilled, monitored from 10/84 through 4/85. Sandia experiment filled hole with Brine A 4/20/85 and plugged hole with rubber cork.
MIIT20	J	S	N1069.84	W377.22	393.30	7.6	1.8	D	90	B, D, G	Brine noted 10/84, monitored from 10/84 through 4/85.
MIIT22	J	S	N1067.93	W377.23	393.30	7.6	1.8	D	90	B, D, G	Brine noted 10/84, monitored from 10/84 through 4/85.
MIIT24	J	S	N1065.79	W377.21	393.42	7.6	1.8	D	90	B, D, G	Brine noted 10/84, monitored 10/84 through 4/85, Sandia experiment added Brine A to hole 4/30/85 and plugged with rubber cork.
MIITP	J	A	N1067	W378	393	3.8	2.7	D	90	B, F	Brine since drilled, pilot hole for 0.9 m diameter hole that was never completed. Monitored from 4/02/85 through 4/23/85.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
NG252	2	S	N1275.86	W381.05	394.68	3.8	2.3	D	90	A3, B, H, J	Monitored as part of the BSEP from 11/84 to 4/89. This hole constantly produced gas. First time noticed was before 10/84. Room closed 6/89.
OH20	S1600/W170	S	S1610.36	W177.16	386.22	8.9	47.2	H	0-3	M	Collared about 0.3 m above the orange band, bottoms in Map Unit 0 below the orange band. Monitored as part of BSEP since it was drilled 3/89.
OH21	S1600/W170	S	S1605.36	W177.16	385.50	8.9	16.2	H	0-3	M	Collared about 0.3 m below the orange band. Monitored for BSEP since it was drilled 12/88.
OH22	S1600/W170	S	S1615.36	W177.16	386.65	8.9	15.1	H	0-3	M	Collared about 0.6 m above the orange band. Monitored for BSEP since it was drilled 12/88.
OH23	S1950/W170	S	S1950.41	W178.86	384.94	8.9	46.0	H	0-3	M	Collared about 0.3 m above the orange band, bottoms in Map Unit 0 below the orange band. Monitored for BSEP since it was drilled 2/89.
OH24	S1950/W170	S	S1945.41	W178.86	384.11	8.9	15.2	H	0-3	M	Collared about 0.3 m below the orange band. Monitored for BSEP since it was drilled 3/89.
OH25	S1950/W170	S	S1955.41	W178.86	385.27	8.9	15.2	H	0-3	M	Collared about 0.6 m above the orange band. Monitored for BSEP since it was drilled 3/89.
OH26	S2180/W170	S	S2183.01	W177.14	384.70	8.9	45.7	H	0-3	M	Collared about 0.3 m above the orange band, bottoms in Map Unit 0 below the orange band. Monitored for BSEP since it was drilled 3/89.
OH27	S2180/W170	S	S2178.01	W177.14	385	8.9	15.1	H	0-3	M	Collared about 0.6 m above the orange band. Monitored for BSEP since it was drilled 4/89.
OH27A	S2180/W170	S	S2177.01	W177.14	385	8.9	1.2	H	0-3	M	Short offset hole to OH27. Collared about 0.6 m above the orange band. Monitored for BSEP since it was drilled 4/89.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
OH28	S2180/W170	S	S2188.01	W177.14	383.78	8.9	15.1	H	0-3	M	Collared about 0.3 m below the orange band. Monitored for BSEP since it was drilled 4/89.
OH35	AIS/S90	S	S100.73	W628.97	383.45	8.9	3.1	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH36	AIS/S90	S	S96.71	W623.11	383.39	8.9	3.1	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH37	AIS/S90	S	S97.66	W609.39	383.35	8.9	3.1	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH38	AIS/S90	S	S97.35	W595.62	383.36	8.9	3.1	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH39	AIS/S90	A	S97	W540	383	8.9	3	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH40	AIS/S90	S	S96.91	W485.10	383.02	8.9	3	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH41	AIS/S90	S	S110.52	W622.79	383.44	8.9	3.5	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH42	AIS/S90	S	S43.44	W622.54	383.62	8.9	3.2	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH43	AIS/S90	S	S124.01	W622.52	383.45	8.9	3.7	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH44	AIS/S90	S	S134.53	W622.31	383.46	8.9	3.4	D	90	N	Drilled for Marker Bed 139 hydrologic testing. Not a part of routine BSEP sampling.
OH45	Core Library	S	S391.51	W326.35	384.15	8.9	14.9	H	0-3	M	Monitored for BSEP since it was drilled 6/89.

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TABLE A-1

LIST OF UNDERGROUND LOCATIONS WHERE BRINE OCCURRENCES WERE OBSERVED AND MONITORED THROUGH DECEMBER, 1989 AS PART OF THE BRINE SAMPLING AND EVALUATION PROGRAM AT WIPP (CONTINUED)

Hole Number	Room or Location	Survey Accuracy S=Surveyed A=Approximate	North-South Coordinates**	East-West Coordinates**	Elevation m	Dia. cm	Length m	Direction U=Up D=Down H=Horiz.	Angle in Degrees	References	Remarks
OH46	Core Library	S	S391.51	W319.01	381.65	8.9	15.3	D	90	M	Monitored for BSEP since it was drilled 6/89.
OH47	Core Library	S	S391.51	W319.01	385.90	8.9	15.2	U	90	M	Monitored for BSEP since it was drilled 7/89.
PR2	S1600/E140	A	S1600	E140	388	5	6.1	U	90	B, C	Stalactite growth monitored as part of the BSEP from 5/85 to 2/86.
PR3	S1282/E140	A	S2182	E140	385	5	6.1	U	90	B, C	Stalactite growth monitored as part of the BSEP from 5/85 to 2/86.
PR4	S2748/E140	A	S2748	E140	381	5	6.1	U	90	B, C	Stalactite growth monitored as part of the BSEP from 5/85 to 2/86.
WWC1	Room C1	A	N1420			91	4.9	SOUTH	0	B	Large horizontal hole on south rib of N1420 drift, across from Room C1. Photographically monitored for salt buildup.

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APPENDIX A

BRINE ACCUMULATION

PART II - BRINE ACCUMULATION TABLES

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WIPP BRINE SAMPLING AND EVALUATION PROGRAM
Appendix A for the 1989 BSEP Report
Data through December 31, 1989

Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
A1X01	1984-10-10	00:00	NA	0.000	0.000	0.000	0.00	Room A1 completed.
A1X01	1985-02-26	00:00	NA	0.000	0.000	0.000	0.00	Downhole drilled 2/21/85 to 2/26/85.
A1X01	1985-03-12	12:20	00.08	70.514	1.000	0.000	0.08	First time collected.
A1X01	1985-03-20	13:30	00.38	78.562	8.048	0.047	0.46	Brine plus some muck.
A1X01	1985-03-26	11:25	00.23	84.476	5.914	0.039	0.69	Muck in hole, valve leaked, some brine drained back down hole.
A1X01	1985-04-02	12:15	00.39	91.510	7.034	0.055	1.08	
A1X01	1985-04-10	12:20	00.33	99.514	8.004	0.041	1.41	
A1X01	1985-04-17	11:30	00.28	106.479	6.965	0.040	1.69	
A1X01	1985-04-23	10:50	00.23	112.451	5.972	0.039	1.92	
A1X01	1985-04-30	13:26	00.26	119.560	7.109	0.037	2.18	
A1X01	1985-05-07	09:10	00.25	126.382	6.822	0.037	2.43	
A1X01	1985-05-14	10:06	00.24	133.421	7.039	0.034	2.67	
A1X01	1985-05-21	11:40	00.26	140.486	7.065	0.037	2.93	
A1X01	1985-05-29	10:00	00.27	148.417	7.931	0.034	3.20	
A1X01	1985-06-04	10:20	00.20	154.431	6.014	0.033	3.40	
A1X01	1985-06-11	09:40	00.23	161.403	6.972	0.033	3.63	
A1X01	1985-06-18	09:34	00.23	168.399	6.996	0.033	3.86	
A1X01	1985-06-25	09:40	00.22	175.403	7.004	0.031	4.08	
A1X01	1985-07-02	11:00	00.23	182.458	7.055	0.033	4.31	
A1X01	1985-07-09	10:00	00.23	189.417	6.959	0.033	4.54	
A1X01	1985-07-16	10:55	00.23	196.455	7.038	0.033	4.77	
A1X01	1985-07-24	10:00	00.25	204.417	7.962	0.031	5.02	
A1X01	1985-07-30	09:32	00.19	210.397	5.980	0.032	5.21	
A1X01	1985-08-06	09:37	00.21	217.401	7.004	0.030	5.42	
A1X01	1985-08-14	09:48	00.23	225.408	8.007	0.029	5.65	
A1X01	1985-08-20	10:18	00.19	231.429	6.021	0.032	5.84	
A1X01	1985-08-28	09:13	00.23	239.384	7.955	0.029	6.07	
A1X01	1985-09-04	09:46	00.19	246.407	7.023	0.027	6.26	
A1X01	1985-09-10	09:30	00.18	252.396	5.989	0.030	6.44	
A1X01	1985-09-17	09:10	00.19	259.382	6.986	0.027	6.63	
A1X01	1985-09-24	09:11	00.21	266.383	7.001	0.030	6.84	
A1X01	1985-10-01	09:23	00.21	273.391	7.008	0.030	7.05	
A1X01	1985-10-08	12:24	00.20	280.517	7.126	0.028	7.25	Room A1 heaters turned on 10/02/85.
A1X01	1985-10-15	09:43	00.19	287.405	6.888	0.028	7.44	
A1X01	1985-10-23	09:55	00.20	295.413	8.008	0.025	7.64	
A1X01	1985-10-29	11:05	00.17	301.462	6.049	0.028	7.81	
A1X01	1985-11-05	08:50	00.19	308.368	6.906	0.028	8.00	
A1X01	1985-11-13	09:15	00.22	316.385	8.017	0.027	8.22	
A1X01	1985-11-21	10:40	00.21	324.444	8.059	0.026	8.43	
A1X01	1985-11-26	10:10	00.14	329.424	4.980	0.028	8.57	
A1X01	1985-12-04	14:13	00.20	337.592	8.168	0.024	8.77	
A1X01	1985-12-10	10:40	00.15	343.444	5.852	0.026	8.92	
A1X01	1985-12-17	13:59	00.19	350.583	7.139	0.027	9.11	
A1X01	1986-01-03	09:40	00.41	367.403	16.820	0.024	9.52	
A1X01	1986-01-08	10:20	00.09	372.431	5.028	0.018	9.61	
A1X01	1986-01-16	09:50	00.25	380.410	7.979	0.031	9.86	
A1X01	1986-01-23	10:10	00.18	387.424	7.014	0.026	10.04	
A1X01	1986-01-31	11:05	00.21	395.462	8.038	0.026	10.25	
A1X01	1986-02-12	10:10	00.30	407.424	11.962	0.025	10.55	
A1X01	1986-02-19	10:55	00.18	414.455	7.031	0.026	10.73	
A1X01	1986-02-28	14:05	00.23	423.587	9.132	0.025	10.96	
A1X01	1986-03-06	10:00	00.15	429.417	5.830	0.026	11.11	
A1X01	1986-03-13	09:30	00.18	436.396	6.979	0.026	11.29	
A1X01	1986-03-26	09:20	00.33	449.389	12.993	0.025	11.62	

WIPP BRINE SAMPLING AND EVALUATION PROGRAM
Appendix A for the 1989 BSEP Report
Data through December 31, 1989

Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
A1X01	1986-04-02	09:00	00.18	456.375	6.986	0.026	11.80	
A1X01	1986-04-08	09:09	00.15	462.381	6.006	0.025	11.95	
A1X01	1986-04-16	11:30	00.20	470.479	8.098	0.025	12.15	
A1X01	1986-04-24	09:35	00.20	478.399	7.920	0.025	12.35	
A1X01	1986-04-30	10:13	00.15	484.426	6.027	0.025	12.50	
A1X01	1986-05-06	09:40	00.12	490.403	5.977	0.020	12.62	
A1X01	1986-05-13	09:25	00.19	497.392	6.989	0.027	12.81	
A1X01	1986-05-20	10:16	00.18	504.428	7.036	0.026	12.99	
A1X01	1986-05-27	15:05	00.18	511.628	7.200	0.025	13.17	
A1X01	1986-06-03	09:28	00.17	518.394	6.766	0.025	13.34	
A1X01	1986-06-10	10:50	00.15	525.451	7.057	0.021	13.49	
A1X01	1986-06-17	09:59	00.19	532.416	6.965	0.027	13.68	
A1X01	1986-06-24	10:10	00.18	539.424	7.008	0.026	13.86	
A1X01	1986-07-01	12:46	00.19	546.532	7.108	0.027	14.05	
A1X01	1986-07-08	10:05	00.16	553.420	6.888	0.023	14.21	
A1X01	1986-07-16	09:57	00.20	561.415	7.995	0.025	14.41	
A1X01	1986-07-22	09:26	00.16	567.393	5.978	0.027	14.57	
A1X01	1986-07-29	10:05	00.17	574.420	7.027	0.024	14.74	
A1X01	1986-08-05	10:21	00.19	581.431	7.011	0.027	14.93	
A1X01	1986-08-12	09:58	00.18	588.415	6.984	0.026	15.11	
A1X01	1986-08-19	10:40	00.18	595.444	7.029	0.026	15.29	
A1X01	1986-08-26	10:07	00.18	602.422	6.978	0.026	15.47	
A1X01	1986-09-04	10:02	00.20	611.418	8.996	0.022	15.67	
A1X01	1986-09-09	10:30	00.15	616.438	5.020	0.030	15.82	
A1X01	1986-09-16	09:36	00.18	623.400	6.962	0.026	16.00	
A1X01	1986-09-23	09:41	00.18	630.403	7.003	0.026	16.18	
A1X01	1986-10-01	11:40	00.19	638.486	8.083	0.024	16.37	
A1X01	1986-10-08	10:34	00.17	645.440	6.954	0.024	16.54	
A1X01	1986-10-14	10:57	00.15	651.456	6.016	0.025	16.69	
A1X01	1986-11-05	10:30	0.55	673.438	21.982	0.025	17.24	
A1X01	1986-11-20	11:45	00.38	688.490	15.052	0.025	17.62	
A1X01	1986-12-31	12:05	00.96	729.503	41.013	0.023	18.58	
A1X01	1987-02-03	12:15	00.80	763.510	34.007	0.024	19.38	
A1X01	1987-03-06	11:55	0.79	794.497	30.987	0.025	20.17	
A1X01	1987-03-30	11:58	0.59	818.499	24.002	0.025	20.76	
A1X01	1987-05-07	10:50	0.98	856.451	37.952	0.026	21.74	
A1X01	1987-06-17	11:40	1.04	897.486	41.035	0.025	22.78	
A1X01	1987-07-28	11:45	1.17	938.490	41.004	0.029	23.95	
A1X01	1987-09-01	11:55	0.79	973.497	35.007	0.023	24.74	Hose came loose and some brine may have drained back down hole. Trace of diesel/oil in brine.
A1X01	1987-10-20	11:08	1.39	1022.460	48.963	0.028	26.13	
A1X01	1987-11-19	10:30	0.77	1052.440	29.980	0.026	26.90	
A1X01	1988-01-04	11:10	1.20	1098.470	46.030	0.026	28.10	
A1X01	1988-02-08	13:25	0.68	1133.560	35.090	0.019	28.78	Lost some brine back down into hole.
A1X01	1988-03-30	12:10	2.25	1184.510	50.950	0.044	31.03	Volume high due to lack of complete evacuation on 2/08/88.
A1X01	1988-05-12	10:10	1.09	1227.420	42.910	0.025	32.12	
A1X01	1988-07-12	09:30	1.56	1288.400	60.980	0.026	33.68	
A1X01	1988-09-27	08:25	1.82	1365.350	76.950	0.024	35.50	
A1X01	1988-12-13	09:30	2.35	1442.400	77.050	0.030	37.85	
A1X01	1989-03-14	09:30	2.54	1533.400	91.000	0.028	40.39	Check valve and hook in hole.
A1X01	1989-04-06	11:55	NA	1556.500	0.000	0.000	40.39	Room locked.
A1X01	1989-04-20	10:00	NA	1570.420	0.000	0.000	40.39	Room locked.
A1X01	1989-05-17	11:55	1.94	1597.500	64.101	0.030	42.33	
A1X01	1989-07-11	10:10	1.30	1652.420	54.927	0.024	43.63	

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A1X01	1989-09-12	11:40	2.25	1715.490	63.062	0.036	45.88	
A1X01	1989-10-10	09:40	NA	743.400	0.000	0.000	45.88	Installed collecting device. Collection point for brine located outside room.
A1X01	1989-10-20	10:42	0.74	1753.450	37.960	0.019	46.62	Some brine may have been left in hole.
A1X01	1989-11-10	09:56	0.72	1774.410	20.968	0.034	47.34	
A1X01	1989-11-29	12:10	0.65	1793.510	19.093	0.034	47.99	
A1X01	1989-12-12	09:10	0.50	1806.380	12.875	0.039	48.49	
**********								
A1X02	1984-10-10	00:00	NA	0.000	0.000	0.000	0.00	Room A1 completed.
A1X02	1985-03-07	09:30	NA	65.396	1.000	0.000	0.00	Uphole drilled 2/27/85 to 3/07/85. Hit brine at 12 ft. on 2/27/85.
A1X02	1985-03-12	12:00	NA	70.500	6.104	0.000	0.00	Trace brine, deepened hole to clay seam. Moisture on back 1 ft radius.
A1X02	1985-03-20	13:00	NA	78.542	14.146	0.000	0.00	Trace brine, drip missing funnel.
A1X02	1985-03-26	11:25	NA	84.476	20.080	0.000	0.00	Repositioned funnel, collected one cup of salt crystals with trace of brine.
A1X02	1985-04-02	12:15	00.21	91.510	27.114	0.008	0.21	Some drips missing funnel.
A1X02	1985-04-10	12:20	00.22	99.514	8.004	0.027	0.43	Collecting container had leak.
A1X02	1985-04-17	11:30	00.12	106.479	6.965	0.017	0.55	Some drips missing funnel.
A1X02	1985-04-23	10:50	00.12	112.451	5.972	0.020	0.67	Some drips missing funnel.
A1X02	1985-04-30	13:16	00.12	119.553	7.102	0.017	0.79	Some drips missing funnel.
A1X02	1985-05-07	09:05	00.16	126.378	6.825	0.023	0.95	
A1X02	1985-05-14	10:04	00.19	133.419	7.041	0.027	1.14	
A1X02	1985-05-21	11:35	00.13	140.483	7.064	0.018	1.27	Some drips missing funnel.
A1X02	1985-05-29	10:00	00.21	148.417	7.934	0.026	1.48	
A1X02	1985-06-04	10:25	00.17	154.434	6.017	0.028	1.65	
A1X02	1985-06-11	09:40	00.05	161.403	6.969	0.007	1.70	
A1X02	1985-06-18	09:30	00.08	168.396	6.993	0.011	1.78	Some drips missing funnel, big stalactite formed.
A1X02	1985-06-25	09:45	00.16	175.406	7.010	0.023	1.94	
A1X02	1985-07-02	11:00	00.10	182.458	7.052	0.014	2.04	
A1X02	1985-07-09	09:58	00.15	189.415	6.957	0.022	2.19	
A1X02	1985-07-16	10:53	00.24	196.453	7.038	0.034	2.43	
A1X02	1985-07-24	09:49	00.24	204.409	7.956	0.030	2.67	
A1X02	1985-07-30	09:30	00.15	210.396	5.987	0.025	2.82	
A1X02	1985-08-06	09:35	00.14	217.399	7.003	0.020	2.96	
A1X02	1985-08-14	09:26	00.05	225.393	7.994	0.006	3.01	
A1X02	1985-08-20	10:13	00.09	231.426	6.033	0.015	3.10	
A1X02	1985-08-28	09:08	00.06	239.381	7.955	0.008	3.16	
A1X02	1985-09-04	09:44	00.07	246.406	7.025	0.010	3.23	
A1X02	1985-09-10	09:24	00.12	252.392	5.986	0.020	3.35	
A1X02	1985-09-17	09:08	00.13	259.381	6.989	0.019	3.48	Some drips missing funnel.
A1X02	1985-09-24	09:07	00.17	266.380	6.999	0.024	3.65	
A1X02	1985-10-01	09:21	00.14	273.390	7.010	0.020	3.79	
A1X02	1985-10-08	12:19	00.16	280.513	7.123	0.022	3.95	Room A1 heaters turned on 10/02/85.
A1X02	1985-10-15	09:41	00.12	287.403	6.890	0.017	4.07	
A1X02	1985-10-23	09:43	00.19	295.405	8.002	0.024	4.26	
A1X02	1985-10-29	11:02	00.12	301.460	6.055	0.020	4.38	
A1X02	1985-11-05	08:46	00.12	308.365	6.905	0.017	4.50	
A1X02	1985-11-13	09:16	00.13	316.386	8.021	0.016	4.63	Some drips missing funnel.
A1X02	1985-11-21	10:45	00.13	324.448	8.062	0.016	4.76	Some drips missing funnel.
A1X02	1985-12-04	14:07	00.14	337.588	13.140	0.011	4.90	
A1X02	1985-12-10	10:31	00.08	343.438	5.850	0.014	4.98	

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A1X02	1985-12-17	13:56	00.03	350.581	7.143	0.004	5.01	
A1X02	1986-01-03	09:40	00.01	367.403	16.822	0.001	5.02	Some drips missing funnel.
A1X02	1986-01-23	10:10	00.06	387.424	20.021	0.003	5.08	New, larger funnel since 01/17.
A1X02	1986-01-31	11:05	00.23	395.462	8.038	0.029	5.31	
A1X02	1986-02-12	10:10	00.22	407.424	11.962	0.018	5.53	
A1X02	1986-02-19	10:50	00.07	414.451	7.027	0.010	5.60	
A1X02	1986-02-28	14:00	00.02	423.583	9.132	0.002	5.62	
A1X02	1986-03-13	09:30	00.05	436.396	12.813	0.004	5.67	
A1X02	1986-03-26	09:20	00.05	449.389	12.993	0.004	5.72	
A1X02	1986-04-02	09:00	00.08	456.375	6.986	0.011	5.80	
A1X02	1986-04-16	11:30	00.10	470.479	14.104	0.007	5.90	
A1X02	1986-04-24	09:35	00.05	478.399	7.920	0.006	5.95	
A1X02	1986-04-30	10:10	00.07	484.424	6.025	0.012	6.02	
A1X02	1986-05-06	09:40	00.16	490.403	5.979	0.027	6.18	
A1X02	1986-05-13	09:25	00.02	497.392	6.989	0.003	6.20	
A1X02	1986-05-20	10:16	00.04	504.428	7.036	0.006	6.24	
A1X02	1986-05-27	15:05	00.15	511.628	7.200	0.021	6.39	
A1X02	1986-06-03	09:28	00.13	518.394	6.766	0.019	6.52	
A1X02	1986-06-10	10:50	00.10	525.451	7.057	0.014	6.62	
A1X02	1986-06-17	09:59	00.12	532.416	6.965	0.017	6.74	
A1X02	1986-06-24	10:10	00.25	539.424	7.008	0.036	6.99	
A1X02	1986-07-01	12:44	00.23	546.531	7.107	0.032	7.22	
A1X02	1986-07-08	10:05	00.11	553.420	6.889	0.016	7.33	
A1X02	1986-07-16	09:54	00.25	561.413	7.993	0.031	7.58	
A1X02	1986-07-22	09:26	00.16	567.393	5.980	0.027	7.74	
A1X02	1986-07-29	10:05	00.26	574.420	7.027	0.037	8.00	
A1X02	1986-08-05	10:19	00.22	581.430	7.010	0.031	8.22	
A1X02	1986-08-12	09:58	00.28	588.415	6.985	0.040	8.50	
A1X02	1986-08-19	10:38	00.26	595.443	7.028	0.037	8.76	
A1X02	1986-08-26	10:07	00.24	602.422	6.979	0.034	9.00	
A1X02	1986-09-04	10:01	00.35	611.417	8.995	0.039	9.35	
A1X02	1986-09-09	10:25	00.17	616.434	5.017	0.034	9.52	
A1X02	1986-09-16	09:35	00.27	623.399	6.965	0.039	9.79	
A1X02	1986-09-23	09:39	00.26	630.402	7.003	0.037	10.05	
A1X02	1986-10-01	11:39	00.24	638.485	8.083	0.030	10.29	
A1X02	1986-10-08	10:32	00.17	645.439	6.954	0.024	10.46	
A1X02	1986-10-14	10:53	00.13	651.453	6.014	0.022	10.59	
A1X02	1986-11-05	10:30	0.30	673.438	21.985	0.014	10.89	
A1X02	1986-11-20	11:43	00.11	688.488	15.050	0.007	11.00	
A1X02	1986-12-31	12:10	00.14	729.507	41.019	0.003	11.14	Low readings from 11/20/86 to 6/20/87 may be due to blockage in collecting system.
A1X02	1987-02-03	12:16	NA	763.000	33.493	0.000	11.14	
A1X02	1987-03-06	11:55	0.05	794.497	64.990	0.001	11.19	
A1X02	1987-03-30	11:55	0.01	818.497	24.000	0.000	11.20	Tubing plugged, unable to open.
A1X02	1987-05-07	10:45	0.01	856.448	1.000	0.000	11.21	Tubing plugged, unable to open.
A1X02	1987-06-30	12:00	1.58	910.500	92.003	0.017	12.79	Removed metal funnel, which was plugged. Most of the brine collected was in the funnel. Installed a large plastic funnel.
A1X02	1987-07-28	11:45	0.85	938.490	27.990	0.030	13.64	
A1X02	1987-09-01	11:55	0.94	973.497	35.007	0.027	14.58	
A1X02	1987-10-20	10:59	1.84	1022.460	48.963	0.038	16.42	
A1X02	1987-11-19	10:30	1.09	1052.440	29.980	0.036	17.51	
A1X02	1988-01-04	11:05	3.73	1098.460	46.020	0.081	21.24	
A1X02	1988-02-08	13:17	1.65	1133.550	35.090	0.047	22.89	
A1X02	1988-03-30	12:20	4.86	1184.510	50.960	0.095	27.75	

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A1X02	1988-06-14	09:00	5.15	1260.380	75.870	0.068	32.90	Removed to provide room for further collection.
A1X02	1988-07-12	09:30	1.11	1288.400	28.020	0.040	34.01	
A1X02	1988-09-15	11:00	0.18	1353.460	0.000	0.000	34.19	Not fully evacuated. Do not use for calculation.
A1X02	1988-09-27	08:30	3.00	1365.350	76.950	0.000	37.19	Used 3.18 liters for calculation (0.18 on 9/15 + 3.00 on 9/27).
A1X02	1988-12-13	09:30	2.50	1442.400	77.050	0.032	39.69	
A1X02	1989-04-06	11:55	NA	1556.500	0.000	0.000	39.69	Room locked.
A1X02	1989-04-20	10:00	NA	570.420	0.000	0.000	39.69	Room locked.
A1X02	1989-05-17	12:05	4.47	1597.500	155.107	0.029	44.16	
A1X02	1989-07-11	10:05	2.32	1652.420	54.917	0.042	46.48	
A1X02	1989-09-12	11:35	2.77	1715.480	63.063	0.044	49.25	
A1X02	1989-10-10	09:25	1.57	1743.390	27.909	0.056	50.82	
A1X02	1989-10-10	10:00	NA	1743.420	0.000	0.000	50.82	Repositioned collecting tube from funnel. Collection point for brine located outside room.
A1X02	1989-10-20	10:44	NA	1753.450	0.000	0.000	50.82	No sample.
A1X02	1989-11-10	10:08	1.90	1774.420	31.030	0.061	52.72	
A1X02	1989-11-29	12:10	0.53	1793.510	19.085	0.028	53.25	
A1X02	1989-12-12	09:20	0.05	1806.390	12.882	0.004	53.30	
**********								
**********								
A2X01	1984-07-25	00:00	NA	0.000	0.000	0.000	0.00	Room A2 completed.
A2X01	1985-02-09	00:00	NA	0.000	0.000	0.000	0.00	Downhole drilled 2/04/85 to 2/09/85.
A2X01	1985-02-19	13:20	NA	49.556	1.000	0.000	0.00	Moist muck. First entry.
A2X01	1985-03-07	09:30	00.29	65.396	16.840	0.017	0.29	Lots of muck, some oil.
A2X01	1985-03-12	11:30	00.62	70.479	5.083	0.122	0.91	Brine and muck.
A2X01	1985-03-20	13:04	00.52	78.544	8.065	0.064	1.43	
A2X01	1985-03-26	11:02	00.38	84.460	5.916	0.064	1.81	
A2X01	1985-04-02	11:58	00.36	91.499	7.039	0.051	2.17	
A2X01	1985-04-10	11:53	00.36	99.495	7.996	0.045	2.53	Some muck included.
A2X01	1985-04-17	11:10	00.27	106.465	6.970	0.039	2.80	
A2X01	1985-04-23	10:30	00.24	112.438	5.973	0.040	3.04	
A2X01	1985-04-30	13:50	00.29	119.576	7.138	0.041	3.33	
A2X01	1985-05-07	08:45	00.25	126.365	6.789	0.037	3.58	
A2X01	1985-05-14	09:40	00.24	133.403	7.038	0.034	3.82	
A2X01	1985-05-21	12:08	00.24	140.506	7.103	0.034	4.06	
A2X01	1985-05-29	09:00	00.26	148.375	7.869	0.033	4.32	
A2X01	1985-06-04	09:35	00.20	154.399	6.024	0.033	4.52	
A2X01	1985-06-11	09:15	00.23	161.385	6.986	0.033	4.75	
A2X01	1985-06-18	09:15	00.23	168.385	7.000	0.033	4.98	
A2X01	1985-06-25	09:15	00.23	175.385	7.000	0.033	5.21	
A2X01	1985-07-02	11:00	00.23	182.458	7.073	0.033	5.44	
A2X01	1985-07-09	09:29	00.22	189.395	6.937	0.032	5.66	
A2X01	1985-07-16	10:30	00.23	196.438	7.043	0.033	5.89	Brine effervesces.
A2X01	1985-07-24	09:39	00.24	204.402	7.964	0.030	6.13	
A2X01	1985-07-30	08:55	00.19	210.372	5.970	0.032	6.32	
A2X01	1985-08-06	09:21	00.21	217.390	7.018	0.030	6.53	
A2X01	1985-08-14	09:05	00.25	225.378	7.988	0.031	6.78	
A2X01	1985-08-20	09:50	00.19	231.410	6.032	0.031	6.97	
A2X01	1985-08-28	08:45	00.21	239.365	7.955	0.026	7.18	Valve leaked, some brine drained back down hole.
A2X01	1985-09-04	09:21	00.25	246.390	7.025	0.036	7.43	
A2X01	1985-09-10	09:09	00.18	252.381	5.991	0.030	7.61	
A2X01	1985-09-17	08:50	00.21	259.368	6.987	0.030	7.82	
A2X01	1985-09-24	08:48	00.21	266.367	6.999	0.030	8.03	

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
A2X01	1985-10-01	09:12	00.21	273.383	7.016	0.030	8.24	
A2X01	1985-10-08	12:57	00.21	280.540	7.157	0.029	8.45	Room A2 heaters turned on 10/02/85.
A2X01	1985-10-15	09:20	00.20	287.389	6.849	0.029	8.65	
A2X01	1985-10-23	09:32	00.22	295.397	8.008	0.027	8.87	
A2X01	1985-10-29	11:20	00.15	301.472	6.075	0.025	9.02	
A2X01	1985-11-05	08:28	00.21	308.353	6.881	0.031	9.23	
A2X01	1985-11-13	09:00	00.23	316.375	8.022	0.029	9.46	
A2X01	1985-11-21	10:15	00.23	324.427	8.052	0.029	9.69	
A2X01	1985-11-26	09:40	00.14	329.403	4.976	0.028	9.83	
A2X01	1985-12-04	13:45	00.20	337.573	8.170	0.024	10.03	
A2X01	1985-1210	10:56	00.16	343.456	5.883	0.027	10.19	
A2X01	1985-12-17	13:39	00.21	350.569	7.113	0.030	10.40	
A2X01	1986-01-03	09:30	00.47	367.396	16.827	0.028	10.87	
A2X01	1986-01-08	09:50	00.15	372.410	5.014	0.030	11.02	
A2X01	1986-01-16	09:20	00.22	380.389	7.979	0.028	11.24	
A2X01	1986-01-23	09:40	00.19	387.403	7.014	0.027	11.43	
A2X01	1986-01-31	10:45	00.25	395.448	8.045	0.031	11.68	
A2X01	1986-02-12	09:40	00.34	407.403	11.955	0.028	12.02	
A2X01	1986-02-19	14:20	00.12	414.597	7.194	0.017	12.14	Collecting device used, some fluid was left in hole.
A2X01	1986-02-28	14:30	00.20	423.604	9.007	0.022	12.34	Collecting device used, some fluid left in hole.
A2X01	1986-03-04	09:00	00.15	427.375	3.771	0.040	12.49	
A2X01	1986-03-06	09:30	00.07	429.396	2.021	0.035	12.56	Two days accumulation
A2X01	1986-03-13	09:00	00.15	436.375	6.979	0.021	12.71	
A2X01	1986-03-26	09:05	00.15	449.378	13.003	0.012	12.86	Partial evacuation, brine left in hole.
A2X01	1986-04-02	08:40	00.32	456.361	6.983	0.046	13.18	
A2X01	1986-04-08	08:50	00.19	462.368	6.007	0.032	13.37	
A2X01	1986-04-16	10:45	00.15	470.448	8.080	0.019	13.52	
A2X01	1986-04-24	09:20	00.24	478.389	7.941	0.030	13.76	Removed collecting device.
A2X01	1986-04-30	09:55	00.20	484.413	6.024	0.033	13.96	Resumed sampling with bailer.
A2X01	1986-05-06	09:25	00.13	490.392	5.979	0.022	14.09	
A2X01	1986-05-13	09:10	00.20	497.382	6.990	0.029	14.29	
A2X01	1986-05-20	09:45	00.20	504.406	7.024	0.028	14.49	
A2X01	1986-05-27	14:45	00.20	511.615	7.209	0.028	14.69	
A2X01	1986-06-03	09:10	00.19	518.382	6.767	0.028	14.88	
A2X01	1986-06-10	10:34	00.19	525.440	7.058	0.027	15.07	
A2X01	1986-06-17	09:38	00.19	532.401	6.961	0.027	15.26	
A2X01	1986-06-24	09:55	00.18	539.413	7.012	0.026	15.44	
A2X01	1986-07-01	12:17	00.19	546.512	7.099	0.027	15.63	
A2X01	1986-07-08	09:37	00.19	553.401	6.889	0.028	15.82	
A2X01	1986-07-16	09:37	00.18	561.401	8.000	0.022	16.00	
A2X01	1986-07-22	09:10	00.18	567.382	5.981	0.030	16.18	
A2X01	1986-07-29	09:50	00.18	574.410	7.028	0.026	16.36	
A2X01	1986-08-05	10:03	00.13	581.419	7.009	0.019	16.49	
A2X01	1986-08-12	09:40	00.18	588.403	6.984	0.026	16.67	
A2X01	1986-08-19	10:20	00.18	595.431	7.028	0.026	16.85	
A2X01	1986-08-26	09:51	00.17	602.410	6.979	0.024	17.02	
A2X01	1986-09-04	09:41	00.15	611.403	8.993	0.017	17.17	
A2X01	1986-09-09	10:50	00.16	616.451	5.048	0.032	17.33	
A2X01	1986-09-16	09:17	00.22	623.387	6.936	0.032	17.55	
A2X01	1986-09-23	09:25	00.17	630.392	7.005	0.024	17.72	
A2X01	1986-10-01	11:21	00.32	638.473	8.081	0.040	18.04	
A2X01	1986-10-08	10:10	00.17	645.424	6.951	0.024	18.21	
A2X01	1986-10-14	10:36	00.17	651.442	6.018	0.028	18.38	
A2X01	1986-11-05	10:10	0.51	673.424	21.982	0.023	18.89	
A2X01	1986-11-20	11:05	00.29	688.462	15.038	0.019	19.18	

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
A2X01	1986-12-31	11:25	00.96	729.476	41.014	0.023	20.14	
A2X01	1987-02-03	11:30	00.80	763.479	34.003	0.024	20.94	
A2X01	1987-03-06	11:50	0.77	794.493	31.014	0.025	21.71	
A2X01	1987-03-30	11:55	0.62	818.503	24.010	0.026	22.33	
A2X01	1987-05-07	10:06	0.90	856.421	37.918	0.024	23.23	
A2X01	1987-06-17	11:15	1.05	897.469	41.048	0.026	24.28	
A2X01	1987-07-28	12:15	1.10	938.510	41.041	0.027	25.38	
A2X01	1987-09-01	11:30	0.87	973.479	34.969	0.025	26.25	
A2X01	1987-10-20	10:34	1.14	1022.440	48.961	0.023	27.39	
A2X01	1987-11-19	10:10	0.70	1052.420	29.980	0.023	28.09	
A2X01	1988-01-04	10:45	1.43	1098.450	46.030	0.031	29.52	
A2X01	1988-02-08	12:45	0.96	1133.530	35.080	0.027	30.48	
A2X01	1988-03-30	12:00	1.23	1184.500	50.970	0.024	31.71	
A2X01	1988-05-12	10:30	0.83	1227.440	42.940	0.019	32.54	
A2X01	1988-07-12	10:00	1.51	1288.420	60.980	0.025	34.05	
A2X01	1988-09-27	08:15	1.56	1365.340	76.920	0.020	35.61	Suction hose came off, some brine drained back down hole.
A2X01	1988-12-13	09:10	1.61	1442.380	77.040	0.021	37.22	Orange color.
A2X01	1989-03-14	08:55	4.04	1533.370	90.990	0.044	41.26	
A2X01	1989-04-06	11:59	NA	1556.500	0.000	0.000	41.26	Room locked.
A2X01	1989-04-20	10:00	NA	1570.420	0.000	0.000	41.26	Room locked.
A2X01	1989-05-17	11:20	2.82	1597.470	64.100	0.044	44.08	
A2X01	1989-07-11	09:40	1.00	1652.400	54.931	0.018	45.08	
A2X01	1989-09-12	11:15	1.60	1715.470	63.066	0.025	46.68	
A2X01	1989-10-11	10:00	NA	1744.420	0.000	0.000	46.68	Installed collecting device. Collection point for brine located outside heated room.
A2X01	1989-10-20	10:35	0.66	1753.440	37.972	0.017	47.34	
A2X01	1989-11-10	09:10	0.64	1774.380	20.941	0.031	47.98	
A2X01	1989-11-29	11:19	0.50	1793.470	19.090	0.026	48.48	
A2X01	1989-12-12	08:55	0.33	1806.370	12.900	0.026	48.81	
A2X02	1984-07-25	00:00	NA	0.000	0.000	0.000	0.00	Room A2 completed.
A2X02	1985-02-19	13:20	NA	49.556	1.000	0.000	0.00	Uphole drilled 2/11/85 to 2/20/85, installed collecting device.
A2X02	1985-03-07	09:30	00.34	65.396	16.840	0.020	0.34	Moist area 1.5 ft. around the collar.
A2X02	1985-03-12	11:30	00.21	70.479	5.083	0.041	0.55	Back wet, 5 ft diameter.
A2X02	1985-03-20	13:04	00.31	78.544	8.065	0.038	0.86	
A2X02	1985-03-26	11:02	00.14	84.460	5.916	0.024	1.00	
A2X02	1985-04-02	11:58	00.12	91.499	7.039	0.017	1.12	Significant salt buildup. 4' dia. wet spot on back.
A2X02	1985-04-10	11:53	00.11	99.495	7.996	0.014	1.23	Reset collecting device.
A2X02	1985-04-23	10:30	00.01	112.438	12.943	0.001	1.24	
A2X02	1985-05-07	08:41	NA	126.362	13.924	0.000	1.24	Some drips missing funnel.
A2X02	1985-05-14	09:40	NA	133.403	20.965	0.000	1.24	Some drips missing funnel.
A2X02	1985-07-09	09:25	00.05	189.392	76.954	0.001	1.29	
A2X02	1985-07-16	10:23	00.06	196.433	7.041	0.009	1.35	
A2X02	1985-07-24	09:33	00.02	204.398	7.965	0.003	1.37	
A2X02	1985-08-06	09:22	00.01	217.390	12.992	0.001	1.38	
A2X02	1985-08-28	08:35	00.01	239.358	21.968	0.000	1.39	Some drips missing funnel.
A2X02	1985-09-04	09:18	00.08	246.387	7.029	0.011	1.47	
A2X02	1985-09-10	09:04	00.02	252.378	5.991	0.003	1.49	
A2X02	1985-09-17	08:55	00.02	259.372	6.994	0.003	1.51	
A2X02	1985-10-15	09:17	00.02	287.387	28.015	0.001	1.53	Room A2 heaters turned on 10/02/85.
A2X02	1986-01-31	10:40	00.05	395.444	108.057	0.000	1.58	

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A2X02	1986-02-12	09:40	00.02	407.403	11.959	0.002	1.60	
A2X02	1986-03-13	09:00	00.01	436.375	28.972	0.000	1.61	
A2X02	1986-03-26	09:05	00.07	449.378	13.003	0.005	1.68	
A2X02	1986-04-02	08:40	00.10	456.361	6.983	0.014	1.78	High reading probably due to unplugging temporary blockage in collecting tube on 3/26/86.
A2X02	1986-04-16	10:45	00.09	470.448	14.087	0.006	1.87	
A2X02	1986-04-24	09:20	00.02	478.389	7.941	0.003	1.89	
A2X02	1986-04-30	09:55	00.02	484.413	6.024	0.003	1.91	
A2X02	1986-05-06	09:25	00.02	490.392	5.979	0.003	1.93	
A2X02	1986-05-13	09:10	NA	497.382	6.990	0.000	1.93	Trace collected.
A2X02	1986-05-20	09:45	NA	504.406	7.024	0.000	1.93	Trace collected.
A2X02	1986-06-03	09:10	NA	518.382	21.000	0.000	1.93	Trace collected.
A2X02	1986-06-10	10:34	NA	525.440	28.058	0.000	1.93	Trace collected.
A2X02	1986-06-17	09:38	00.01	532.401	35.019	0.000	1.94	
A2X02	1986-06-24	09:50	00.35	539.410	7.009	0.050	2.29	Very humid air. High reading probably due to unplugging of temporary blockage in collecting tube on 6/17/86.
A2X02	1986-07-01	12:15	00.28	546.510	7.100	0.039	2.57	
A2X02	1986-07-08	09:27	00.17	553.394	6.884	0.025	2.74	
A2X02	1986-07-16	09:33	00.14	561.398	8.004	0.017	2.88	
A2X02	1986-07-22	09:09	00.05	567.381	5.983	0.008	2.93	
A2X02	1986-07-29	09:50	00.12	574.410	7.029	0.017	3.05	
A2X02	1986-08-05	09:59	00.07	581.416	7.006	0.010	3.12	
A2X02	1986-08-12	09:40	00.12	588.403	6.987	0.017	3.24	
A2X02	1986-08-19	10:20	00.11	595.431	7.028	0.016	3.35	
A2X02	1986-08-26	09:50	00.07	602.410	6.979	0.010	3.42	
A2X02	1986-09-04	09:40	00.11	611.403	8.993	0.012	3.53	
A2X02	1986-09-09	10:48	00.06	616.450	5.047	0.012	3.59	
A2X02	1986-09-16	09:15	00.08	623.385	6.935	0.012	3.67	
A2X02	1986-09-23	09:23	00.07	630.391	7.006	0.010	3.74	
A2X02	1986-10-01	11:10	00.09	638.465	8.074	0.011	3.83	
A2X02	1986-10-08	10:08	00.05	645.422	6.957	0.007	3.88	
A2X02	1986-10-14	10:35	00.03	651.441	6.019	0.005	3.91	
A2X02	1986-11-05	10:08	0.10	673.422	21.981	0.005	4.01	
A2X02	1986-11-20	11:03	00.10	688.460	15.038	0.007	4.11	
A2X02	1986-12-31	11:20	00.40	729.472	41.012	0.010	4.51	
A2X02	1987-02-03	11:25	00.11	763.476	34.004	0.003	4.62	
A2X02	1987-03-06	11:50	0.05	794.49	331.017	0.002	4.67	
A2X02	1987-03-30	12:02	0.03	818.50	124.008	0.001	4.70	
A2X02	1987-05-07	10:04	0.50	856.419	37.918	0.013	5.20	
A2X02	1987-07-28	12:15	0.12	938.510	82.091	0.001	5.32	
A2X02	1987-09-01	11:30	0.00	973.479	34.969	0.000	5.32	Dry.
A2X02	1987-10-20	10:34	0.00	1022.440	48.961	0.000	5.32	Dry.
A2X02	1987-11-19	10:00	0.00	1052.420	29.980	0.000	5.32	Dry.
A2X02	1988-01-04	10:45	0.00	1098.450	46.030	0.000	5.32	Dry.
A2X02	1988-02-08	12:45	0.00	1133.530	35.080	0.000	5.32	Dry.
A2X02	1988-03-30	12:00	0.00	1184.500	50.970	0.000	5.32	Dry.
A2X02	1988-07-12	10:00	0.00	1288.420	103.920	0.000	5.32	Dry.
A2X02	1988-09-27	08:15	0.04	1365.340	76.920	0.001	5.36	
A2X02	1988-12-13	09:10	0	1442.380	77.040	0.000	5.36	Dry.
A2X02	1989-03-14	09:30	2.96	1533.400	91.014	0.033	8.32	
A2X02	1989-04-06	11:59	NA	1556.500	0.000	0.000	8.32	Room locked.
A2X02	1989-04-20	10:00	NA	1570.420	0.000	0.000	8.32	Room locked.
A2X02	1989-05-17	11:20	0	1597.470	64.076	0.000	8.32	Hole dry.
A2X02	1989-09-12	11:15	0.08	1715.470	117.997	0.001	8.40	First sample in a long time, dry two

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
								weeks ago.
A3X01	1984-11-06	00:00	NA	0.000	0.000	0.000	0.00	Room A3 completed.
A3X01	1985-01-14	00:00	NA	0.000	0.000	0.000	0.00	Downhole drilled 12/20/85 to 1/14/85.
A3X01	1985-02-05	11:10	NA	35.465	1.000	0.000	0.00	Moist muck at the bottom.
A3X01	1985-02-19	13:40	00.30	49.569	15.104	0.020	0.30	Some oil. First time collected.
A3X01	1985-02-26	13:20	00.23	56.556	6.987	0.033	0.53	Brine and oil.
A3X01	1985-03-07	09:45	00.26	65.406	8.850	0.029	0.79	
A3X01	1985-03-12	11:45	00.17	70.490	5.084	0.033	0.96	
A3X01	1985-03-20	13:14	00.19	78.551	8.061	0.024	1.15	Valve leaked, some brine drained back down hole.
A3X01	1985-03-26	11:12	00.22	84.467	5.916	0.037	1.37	
A3X01	1985-04-02	12:00	00.21	91.500	7.033	0.030	1.58	
A3X01	1985-04-10	12:00	00.23	99.500	8.000	0.029	1.81	
A3X01	1985-04-17	11:20	00.20	106.472	6.972	0.029	2.01	
A3X01	1985-04-23	10:41	00.16	112.445	5.973	0.027	2.17	
A3X01	1985-04-30	13:35	00.20	119.566	7.121	0.028	2.37	
A3X01	1985-05-07	08:55	00.20	126.372	6.806	0.029	2.57	
A3X01	1985-05-14	09:56	00.17	133.414	7.042	0.024	2.74	
A3X01	1985-05-21	12:00	00.20	140.500	7.086	0.028	2.94	
A3X01	1985-05-29	09:25	00.21	148.392	7.892	0.027	3.15	
A3X01	1985-06-04	09:55	00.16	154.413	6.021	0.027	3.31	
A3X01	1985-06-11	09:25	00.18	161.392	6.979	0.026	3.49	
A3X01	1985-06-18	09:27	00.18	168.394	7.002	0.026	3.67	
A3X01	1985-06-25	09:30	00.19	175.396	7.002	0.027	3.86	
A3X01	1985-07-02	11:00	00.19	182.458	7.062	0.027	4.05	
A3X01	1985-07-09	09:50	00.17	189.410	6.952	0.024	4.22	
A3X01	1985-07-16	10:50	00.18	196.451	7.041	0.026	4.40	Brine effervesces.
A3X01	1985-07-24	09:47	00.21	204.408	7.957	0.026	4.61	
A3X01	1985-07-30	09:30	00.15	210.396	5.988	0.025	4.76	
A3X01	1985-08-06	09:30	00.17	217.396	7.000	0.024	4.93	
A3X01	1985-08-14	09:21	00.20	225.390	7.994	0.025	5.13	
A3X01	1985-08-20	10:08	00.16	231.422	6.032	0.027	5.29	
A3X01	1985-08-28	09:05	00.21	239.378	7.956	0.026	5.50	
A3X01	1985-09-04	09:29	00.17	246.395	7.017	0.024	5.67	
A3X01	1985-09-10	09:20	00.15	252.389	5.994	0.025	5.82	
A3X01	1985-09-17	09:06	00.16	259.379	6.990	0.023	5.98	
A3X01	1985-09-24	09:03	00.17	266.377	6.998	0.024	6.15	
A3X01	1985-10-01	09:18	00.18	273.387	7.010	0.026	6.33	
A3X01	1985-10-08	12:35	00.18	280.524	7.137	0.025	6.51	Room A3 heaters turned on 10/02/85.
A3X01	1985-10-15	09:35	00.16	287.399	6.875	0.023	6.67	
A3X01	1985-10-23	09:40	00.19	295.403	8.004	0.024	6.86	
A3X01	1985-10-29	11:11	00.14	301.466	6.063	0.023	7.00	
A3X01	1985-11-05	08:42	00.16	308.362	6.896	0.023	7.16	
A3X01	1985-11-13	09:30	00.19	316.396	8.034	0.024	7.35	
A3X01	1985-11-21	10:30	00.19	324.438	8.042	0.024	7.54	
A3X01	1985-11-26	09:55	00.10	329.413	4.975	0.020	7.64	
A3X01	1985-12-04	14:03	00.18	337.585	8.172	0.022	7.82	
A3X01	1985-12-10	10:46	00.14	343.449	5.864	0.024	7.96	
A3X01	1985-12-17	13:55	00.14	350.580	7.131	0.020	8.10	
A3X01	1986-01-03	10:00	00.39	367.417	16.837	0.023	8.49	
A3X01	1986-01-08	10:10	00.11	372.424	5.007	0.022	8.60	
A3X01	1986-01-16	09:35	00.18	380.399	7.975	0.023	8.78	
A3X01	1986-01-23	10:00	00.15	387.417	7.018	0.021	8.93	
A3X01	1986-01-31	10:55	00.18	395.455	8.038	0.022	9.11	
A3X01	1986-02-12	10:00	00.27	407.417	11.962	0.023	9.38	

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A3X01	1986-02-19	10:40	00.15	414.444	7.027	0.021	9.53	
A3X01	1986-02-28	14:20	00.22	423.597	9.153	0.024	9.75	
A3X01	1986-03-06	09:50	00.14	429.410	5.813	0.024	9.89	
A3X01	1986-03-13	09:20	00.15	436.389	6.979	0.021	10.04	
A3X01	1986-03-26	09:15	00.30	449.385	12.996	0.023	10.34	
A3X01	1986-04-02	08:50	00.16	456.368	6.983	0.023	10.50	
A3X01	1986-04-08	09:05	00.14	462.378	6.010	0.023	10.64	
A3X01	1986-04-16	11:25	00.18	470.476	8.098	0.022	10.82	
A3X01	1986-04-24	09:30	00.18	478.396	7.920	0.023	11.00	
A3X01	1986-04-30	10:00	00.14	484.417	6.021	0.023	11.14	
A3X01	1986-05-06	09:35	00.14	490.399	5.982	0.023	11.28	
A3X01	1986-05-13	09:20	00.15	497.389	6.990	0.021	11.43	
A3X01	1986-05-20	10:10	00.15	504.424	7.035	0.021	11.58	
A3X01	1986-05-27	15:00	00.16	511.625	7.201	0.022	11.74	
A3X01	1986-06-03	09:20	00.15	518.389	6.764	0.022	11.89	
A3X01	1986-06-10	10:42	00.16	525.446	7.057	0.023	12.05	
A3X01	1986-06-17	09:51	00.12	532.410	6.964	0.017	12.17	
A3X01	1986-06-24	10:05	00.16	539.420	7.010	0.023	12.33	
A3X01	1986-07-01	12:35	00.16	546.524	7.104	0.023	12.49	
A3X01	1986-07-08	09:57	00.15	553.415	6.891	0.022	12.64	
A3X01	1986-07-16	09:47	00.19	561.408	7.993	0.024	12.83	
A3X01	1986-07-22	09:23	00.14	567.391	5.983	0.023	12.97	
A3X01	1986-07-29	10:00	00.14	574.417	7.026	0.020	13.11	
A3X01	1986-08-05	10:15	00.18	581.427	7.010	0.026	13.29	
A3X01	1986-08-12	09:50	00.16	588.410	6.983	0.023	13.45	
A3X01	1986-08-19	10:35	00.16	595.441	7.031	0.023	13.61	
A3X01	1986-08-26	10:00	00.15	602.417	6.976	0.022	13.76	
A3X01	1986-09-04	09:52	00.20	611.411	8.994	0.022	13.96	
A3X01	1986-09-09	10:35	00.12	616.441	5.030	0.024	14.08	
A3X01	1986-09-16	09:29	00.14	623.395	6.954	0.020	14.22	
A3X01	1986-09-23	09:36	00.18	630.400	7.005	0.026	14.40	
A3X01	1986-10-01	11:30	00.19	638.479	8.079	0.024	14.59	
A3X01	1986-10-08	10:24	00.14	645.433	6.954	0.020	14.73	
A3X01	1986-10-14	10:47	00.12	651.449	6.016	0.020	14.85	
A3X01	1986-11-05	10:20	0.52	673.431	21.982	0.024	15.37	
A3X01	1986-11-20	11:33	00.33	688.481	15.050	0.022	15.70	
A3X01	1986-12-31	11:45	00.88	729.490	41.009	0.021	16.58	
A3X01	1987-02-03	12:00	00.73	763.500	34.010	0.021	17.31	
A3X01	1987-03-06	11:45	0.68	794.490	30.990	0.022	17.99	
A3X01	1987-03-30	12:00	0.55	818.500	24.010	0.023	18.54	
A3X01	1987-05-07	10:39	0.80	856.444	37.944	0.021	19.34	
A3X01	1987-06-17	11:25	0.89	897.476	41.032	0.022	20.23	
A3X01	1987-07-28	12:02	0.92	938.501	41.025	0.022	21.15	
A3X01	1987-09-01	11:45	0.77	973.490	34.989	0.022	21.92	
A3X01	1987-10-20	10:55	1.10	1022.450	48.960	0.022	23.02	
A3X01	1987-11-19	10:20	0.66	1052.430	29.980	0.022	23.68	
A3X01	1988-01-04	11:00	1.01	1098.460	46.030	0.022	24.69	
A3X01	1988-02-08	13:30	0.67	1133.560	35.100	0.019	25.36	
A3X01	1988-03-30	12:10	1.02	1184.510	50.950	0.020	26.38	
A3X01	1988-05-12	10:20	0.88	1227.430	42.920	0.021	27.26	
A3X01	1988-07-12	09:40	1.28	1288.400	60.970	0.021	28.54	
A3X01	1988-09-27	08:20		1365.350	0.000	0.000	28.54	Cannot be sampled. Room has bad back.
A3X01	1988-12-13	09:25	3.35	1442.390	153.990	0.022	31.89	
A3X01	1989-03-14	09:15	1.90	1533.380	90.993	0.021	33.79	
A3X01	1989-04-06	12:04	NA	1556.500	0.000	0.000	33.79	Room locked.
A3X01	1989-04-20	10:00	NA	1570.420	0.000	0.000	33.79	Room locked.

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A3X01	1989-05-17	11:45	1.42	1597.490	64.105	0.022	35.21	
A3X01	1989-07-11	09:55	0.93	1652.410	54.923	0.017	36.14	
A3X01	1989-09-12	11:26	1.51	1715.480	63.063	0.024	37.65	
A3X01	1989-10-10	09:43	NA	1743.400	0.000	0.000	37.65	Installed collecting device. Collection point for brine located outside room.
A3X01	1989-10-20	10:39	0.36	1753.440	37.968	0.009	38.01	
A3X01	1989-11-10	09:40	0.50	1774.400	20.959	0.024	38.51	
A3X01	1989-11-29	11:56	0.63	1793.500	19.094	0.033	39.14	
A3X01	1989-12-12	09:00	0.43	1806.380	12.878	0.033	39.57	
A3X02	1984-11-06	00:00	NA	0.000	0.000	0.000	0.00	Room A3 completed.
A3X02	1985-01-22	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilled 1/15/85 to 1/22/85.
A3X02	1985-02-05	11:10	NA	35.465	1.000	0.000	0.00	No drips noticed.
A3X02	1985-02-19	13:40	00.11	49.569	15.104	0.007	0.11	First time collected.
A3X02	1985-02-26	13:20	00.11	56.556	6.987	0.016	0.22	Wet spot within 1.5 ft. radius.
A3X02	1985-03-07	09:45	00.21	65.406	8.850	0.024	0.43	Moist area on back, approximately 1 ft radius.
A3X02	1985-03-12	11:45	00.11	70.490	5.084	0.022	0.54	Wet spot on back 3 ft diameter.
A3X02	1985-03-20	13:14	00.01	78.551	8.061	0.001	0.55	
A3X02	1985-03-26	11:12	00.28	84.467	5.916	0.047	0.83	Tube found plugged. Brine in tubing.
A3X02	1985-04-02	12:00	00.08	91.500	7.033	0.011	0.91	
A3X02	1985-04-10	12:02	00.05	99.501	8.001	0.006	0.96	Tube plugged.
A3X02	1985-04-17	11:20	00.11	106.472	6.971	0.016	1.07	
A3X02	1985-04-23	10:40	00.09	112.444	5.972	0.015	1.16	
A3X02	1985-04-30	13:29	00.12	119.562	7.118	0.017	1.28	
A3X02	1985-05-07	08:50	00.13	126.368	6.806	0.019	1.41	
A3X02	1985-05-14	09:53	00.13	133.412	7.044	0.018	1.54	
A3X02	1985-05-21	11:55	00.13	140.497	7.085	0.018	1.67	
A3X02	1985-05-29	09:20	00.14	148.389	7.892	0.018	1.81	
A3X02	1985-06-04	09:50	00.10	154.410	6.021	0.017	1.91	
A3X02	1985-06-11	09:20	00.13	161.389	6.979	0.019	2.04	
A3X02	1985-06-18	09:25	00.12	168.392	7.003	0.017	2.16	
A3X02	1985-06-25	09:25	00.13	175.392	7.000	0.019	2.29	
A3X02	1985-07-02	11:00	00.10	182.458	7.066	0.014	2.39	
A3X02	1985-07-09	09:44	00.02	189.406	6.948	0.003	2.41	
A3X02	1985-07-16	10:46	00.02	196.449	7.043	0.003	2.43	
A3X02	1985-07-24	09:45	00.19	204.406	7.957	0.024	2.62	High volume probably due to unplugging temporary blockage in collecting tube on 7/16/85.
A3X02	1985-07-30	09:25	00.08	210.392	5.986	0.013	2.70	
A3X02	1985-08-06	09:28	00.08	217.394	7.002	0.011	2.78	
A3X02	1985-08-14	09:10	00.10	225.382	7.988	0.013	2.88	
A3X02	1985-08-20	10:00	00.08	231.417	6.035	0.013	2.96	
A3X02	1985-08-28	08:58	00.09	239.374	7.957	0.011	3.05	
A3X02	1985-09-04	09:26	00.09	246.393	7.019	0.013	3.14	
A3X02	1985-09-10	09:14	00.08	252.385	5.992	0.013	3.22	
A3X02	1985-09-17	09:05	00.09	259.378	6.993	0.013	3.31	
A3X02	1985-09-24	09:03	00.08	266.377	6.999	0.011	3.39	
A3X02	1985-10-01	09:15	00.07	273.385	7.008	0.010	3.46	
A3X02	1985-10-08	12:33	00.09	280.523	7.138	0.013	3.55	Room A3 heaters turned on 10/02/85.
A3X02	1985-10-15	09:31	00.06	287.397	6.874	0.009	3.61	
A3X02	1985-10-23	09:37	00.07	295.401	8.004	0.009	3.68	
A3X02	1985-10-29	11:09	00.08	301.465	6.064	0.013	3.76	
A3X02	1985-11-05	08:39	00.04	308.360	6.895	0.006	3.80	
A3X02	1985-11-13	09:28	00.08	316.394	8.034	0.010	3.88	
A3X02	1985-11-21	10:25	00.05	324.434	8.040	0.006	3.93	

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A3X02	1985-12-04	13:56	00.10	337.581	13.147	0.008	4.03	
A3X02	1985-12-10	10:42	00.05	343.446	5.865	0.009	4.08	
A3X02	1985-12-17	13:50	00.03	350.576	7.130	0.004	4.11	
A3X02	1986-01-03	10:20	00.13	367.417	16.841	0.008	4.24	
A3X02	1986-01-08	10:10	00.03	372.424	5.007	0.006	4.27	
A3X02	1986-01-16	09:35	00.05	380.399	7.975	0.006	4.32	
A3X02	1986-01-31	10:55	00.01	395.455	15.056	0.001	4.33	Trace <00.01 liters of brine.
A3X02	1986-04-24	09:30	00.01	478.396	82.941	0.000	4.34	
A3X02	1986-05-06	09:35	00.02	490.399	12.003	0.002	4.36	
A3X02	1986-05-27	15:00	NA	511.625	21.226	0.000	4.36	Trace.
A3X02	1986-06-03	09:20	00.03	518.389	27.990	0.001	4.39	
A3X02	1986-06-10	10:42	NA	525.446	7.057	0.000	4.39	Trace.
A3X02	1986-06-17	09:51	NA	532.410	14.021	0.000	4.39	Trace.
A3X02	1986-07-01	12:32	00.03	546.522	28.133	0.001	4.42	
A3X02	1986-07-08	09:57	00.01	553.415	6.893	0.001	4.43	
A3X02	1986-07-29	10:00	NA	574.417	21.002	0.000	4.43	Trace.
A3X02	1986-08-12	09:50	NA	588.410	34.995	0.000	4.43	Dry.
A3X02	1986-08-19	10:33	NA	595.440	42.025	0.000	4.43	Dry.
A3X02	1986-09-04	09:50	NA	611.410	57.995	0.000	4.43	Trace.
A3X02	1986-09-23	09:33	00.00	630.398	76.983	0.000	4.43	Dry.
A3X02	1986-10-01	11:28	NA	638.478	8.080	0.000	4.43	Dry.
A3X02	1986-10-08	10:22	NA	645.432	6.954	0.000	4.43	Dry.
A3X02	1986-10-14	10:44	00.00	651.447	6.015	0.000	4.43	Dry.
A3X02	1986-11-05	10:25	NA	673.431	27.999	0.000	4.43	Dry.
A3X02	1986-11-20	11:30	NA	688.479	43.047	0.000	4.43	Dry.
A3X02	1986-12-31	11:45	NA	729.490	84.058	0.000	4.43	Dry.
A3X02	1987-02-03	12:02	NA	763.000	117.568	0.000	4.43	Dry.
A3X02	1987-03-06	11:45	NA	794.490	149.058	0.000	4.43	Dry.
A3X02	1987-03-30	12:00	0.00	818.500	24.010	0.000	4.43	Dry.
A3X02	1987-05-07	10:39	0.00	856.444	61.954	0.000	4.43	Dry.
A3X02	1987-07-28	12:02	0.00	938.501	144.011	0.000	4.43	Dry.
A3X02	1987-09-01	11:48	0.00	973.492	34.991	0.000	4.43	Dry.
A3X02	1987-10-20	10:50	0.00	1022.450	48.958	0.000	4.43	Dry.
A3X02	1987-11-19	10:20	0.00	1052.430	29.980	0.000	4.43	Dry.
A3X02	1988-01-04	11:00	0.00	1098.460	46.030	0.000	4.43	Dry.
A3X02	1988-02-08	13:30	0.00	1133.560	35.100	0.000	4.43	Dry.
A3X02	1988-03-30	12:10	0.00	1184.510	50.950	0.000	4.43	Dry.
A3X02	1988-07-12	09:40	0.00	1288.400	103.890	0.000	4.43	Dry.
A3X02	1988-09-27	08:25	0.00	1365.350	76.950	0.000	4.43	Dry.
A3X02	1988-12-13	09:25	0	1442.390	77.040	0.000	4.43	Dry.
A3X02	1989-04-06	12:04	NA	1556.500	0.000	0.000	4.43	Room locked.
A3X02	1989-04-20	10:00	NA	1570.420	0.000	0.000	4.43	Room locked.
A3X02	1989-05-17	11:45	0	1597.490	155.098	0.000	4.43	Hole dry.
A3X02	1989-09-12	11:20	0	1715.470	117.982	0.000	4.43	Hole dry.
BX01	1984-06-02	00:00	NA	0.000	0.000	0.000	0.00	Room B completed.
BX01	1985-01-27	00:00	NA	0.000	1.000	0.000	0.00	Downhole drilled 1/24/85 to 1/27/85. Wet core and brine encountered 1/26/85 at 35 to 36.5 feet.
BX01	1985-02-05	11:00	00.39	35.458	11.041	0.035	0.39	First time collected.
BX01	1985-02-11	12:00	00.72	41.500	6.042	0.119	1.11	
BX01	1985-02-19	13:00	00.70	49.542	8.042	0.087	1.81	
BX01	1985-02-26	12:45	00.61	56.531	6.989	0.087	2.42	
BX01	1985-03-07	09:15	00.70	65.385	8.854	0.079	3.12	
BX01	1985-03-12	11:45	00.41	70.490	5.105	0.080	3.53	
BX01	1985-03-20	12:50	00.61	78.535	8.045	0.076	4.14	

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BX01	1985-03-26	10:45	00.45	84.448	5.913	0.076	4.59	
BX01	1985-04-02	11:44	00.51	91.489	7.041	0.072	5.10	
BX01	1985-04-10	11:38	00.55	99.485	7.996	0.069	5.65	
BX01	1985-04-17	11:00	00.45	106.458	6.973	0.065	6.10	
BX01	1985-04-23	10:05	00.38	112.420	5.962	0.064	6.48	Room B heaters turned on 4/23/85.
BX01	1985-05-01	11:40	00.46	120.486	8.066	0.057	6.94	
BX01	1985-06-04	09:30	02.00	154.396	33.910	0.059	8.94	First check in several weeks.
BX01	1985-07-16	10:15	02.34	196.427	42.031	0.056	11.28	Brine effervesces.
BX01	1985-08-26	13:56	02.38	237.581	41.154	0.058	13.66	Room temp. 98 degrees F. at collar, 103 F in center of room.
BX01	1985-10-08	12:00	02.27	280.500	42.919	0.053	15.93	
BX01	1985-11-21	10:05	02.42	324.420	43.920	0.055	18.35	
BX01	1985-12-04	13:35	00.69	337.566	13.146	0.052	19.04	
BX01	1986-01-31	10:25	02.95	395.434	57.868	0.051	21.99	
BX01	1986-02-12	09:30	00.80	407.396	11.962	0.067	22.79	
BX01	1986-04-16	11:00	03.45	470.458	63.062	0.055	26.24	
BX01	1986-04-30	09:45	00.73	484.406	13.948	0.052	26.97	
BX01	1986-05-06	09:18	00.30	490.387	5.981	0.050	27.27	
BX01	1986-06-10	10:20	01.85	525.431	35.044	0.053	29.12	
BX01	1986-08-19	10:50	03.21	595.451	70.020	0.046	32.33	
BX01	1986-09-09	11:00	01.30	616.458	21.007	0.062	33.63	
BX01	1986-10-01	11:08	01.16	638.464	22.006	0.053	34.79	
BX01	1986-11-05	10:00	NA	673.417	34.953	0.000	34.79	Not collected.
BX01	1986-11-20	10:39	02.40	688.444	49.980	0.048	37.19	
BX01	1986-12-30	14:10	01.75	728.590	40.146	0.044	38.94	
BX01	1987-02-03	11:00	01.67	763.458	34.868	0.048	40.61	
BX01	1987-03-06	11:50	NA	794.493	31.035	0.000	40.61	Room closed, bad back, not sampled.
BX01	1987-10-20			1022.000	0.000	0.000	40.61	Room closed, could not sample. No calculation.
BX01	1987-11-16	11:10	12.86	1049.470	286.012	0.045	53.47	
BX01	1988-01-04			1098.000	0.000	0.000	53.47	Could not sample. Room closed.
BX01	1988-02-08	12:35	3.71	1133.520	84.050	0.044	57.18	
BX01	1988-03-29	12:00	2.30	1183.500	49.980	0.046	59.48	
BX01	1988-05-12	10:44	1.67	1227.450	43.950	0.038	61.15	
BX01	1988-07-12	09:50	2.23	1288.410	60.960	0.037	63.38	
BX01	1988-09-27	08:00	2.61	1365.330	76.920	0.034	65.99	
BX01	1988-12-13	09:00	0	1442.380	0.000	0.000	65.99	Could not sample. Room locked.
BX01	1989-01-30	NA	NA	1490.000	0.000	0.000	65.99	Heaters in Room B turned off at 14:20 on 1/30/89.
BX01	1989-03-14	08:40	6.17	1533.360	168.028	0.037	72.16	
BX01	1989-04-06	11:53	NA	1556.490	0.000	0.000	72.16	Room locked.
BX01	1989-04-20	10:00	NA	1570.420	0.000	0.000	72.16	Room locked.
BX01	1989-05-17	11:00	2.90	1597.460	64.097	0.045	75.06	
BX01	1989-07-11	09:30	1.77	1652.400	54.938	0.032	76.83	
BX01	1989-09-12	10:50	1.90	1715.450	63.055	0.030	78.73	Increased buildup of salt crust on cap. No indication of leakage into hole, walls dry.
BX01	1989-10-11	10:30	NA	1744.440	0.000	0.000	78.73	Installed collecting device. Collection point for brine located outside heated room.
BX01	1989-10-20	10:30	0.61	1753.440	37.987	0.016	79.34	
BX01	1989-11-10	08:50	0.65	1774.370	20.930	0.031	79.99	
BX01	1989-11-29	10:50	0.66	1793.450	19.083	0.035	80.65	
BX01	1989-12-12	08:49	0.63	1806.370	12.916	0.049	81.28	

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BX02	1984-06-02	00:00	NA	0.000	0.000	0.000	0.00	Room B completed.
BX02	1985-02-01	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilled 1/29/85 to 2/01/85.
BX02	1985-02-05	11:00	NA	35.458	1.000	0.000	0.00	No drips noticed.
BX02	1985-02-19	13:00	NA	49.542	15.084	0.000	0.00	Tubing plugged.
BX02	1985-03-12	11:45	NA	70.490	36.032	0.000	0.00	Trace, few drops in jug.
BX02	1985-03-20	12:50	00.10	78.535	44.077	0.002	0.10	
BX02	1985-03-26	10:45	00.12	84.448	5.913	0.020	0.22	
BX02	1985-04-02	11:44	00.10	91.489	7.041	0.014	0.32	
BX02	1985-04-10	11:38	00.21	99.485	7.996	0.026	0.53	
BX02	1985-04-17	11:00	00.13	106.458	6.973	0.019	0.66	
BX02	1985-04-23	10:05	00.01	112.420	5.962	0.002	0.67	Room B heaters turned on 4/23/85. Low reading probably due to partial blockage of collecting tube.
BX02	1985-05-01	11:31	00.12	120.480	8.060	0.015	0.79	
BX02	1985-06-04	09:25	00.50	154.392	33.912	0.015	1.29	First check in several weeks.
BX02	1985-07-16	10:00	00.16	196.417	42.025	0.004	1.45	Changed funnel.
BX02	1985-10-08	12:00	00.04	280.500	84.083	0.000	1.49	
BX02	1986-01-17	09:00	00.26	381.375	100.875	0.003	1.75	Changed funnel.
BX02	1986-01-31	10:15	NA	395.427	14.052	0.000	1.75	
BX02	1986-04-16	11:00	NA	470.458	89.083	0.000	1.75	Trace in plastic tube, salt buildup in tube and container.
BX02	1986-08-19	10:50	NA	595.451	214.076	0.000	1.75	Dry.
BX02	1986-10-01	11:05	00.00	638.462	257.087	0.000	1.75	Dry.
BX02	1986-11-05	10:00	NA	673.417	34.955	0.000	1.75	Dry.
BX02	1986-11-20	10:37	NA	688.442	49.980	0.000	1.75	Dry.
BX02	1986-12-30	14:05	NA	728.587	90.125	0.000	1.75	Dry.
BX02	1987-02-03	NA:	NA	763.000	125.538	0.000	1.75	
BX02	1987-03-06	11:50	NA	794.493	156.031	0.000	1.75	Room locked, bad back.
BX02	1987-10-20			1022.000	0.000	0.000	1.75	Room locked, could not sample. No calculation.
BX02	1987-11-16	11:10		1049.470	0.000	0.000	1.75	Funnel not hooked up. No collection, no calculation.
BX02	1988-01-04			1098.000	0.000	0.000	1.75	Could not sample. Room locked.
BX02	1988-02-08	12:35	0.00	1133.520	370.520	0.000	1.75	Dry.
BX02	1988-03-30	12:00	0.00	1184.500	50.980	0.000	1.75	Dry.
BX02	1988-07-12	09:55	0.00	1288.410	103.910	0.000	1.75	Dry.
BX02	1988-09-27	08:10	0.00	1365.340	76.930	0.000	1.75	Dry.
BX02	1988-12-13	09:00	0	1442.380	0.000	0.000	1.75	Could not sample. Room locked.
BX02	1989-01-30	NA	NA	1490.000	0.000	0.000	1.75	Heaters in Room B turned off at 14:20 on 1/30/89.
BX02	1989-04-06	11:53	NA	1556.490	0.000	0.000	1.75	Room locked.
BX02	1989-04-20	NA	NA	1570.000	0.000	0.000	1.75	Room locked.
BX02	1989-05-17	11:00	0	1597.460	232.118	0.000	1.75	Hole dry.
BX02	1989-09-12	10:45	NA	1715.450	0.000	0.000	1.75	No collection device. Stalactites forming. Last time sampled for BSEP.
DH15	1984-03-13	00:00	NA	0.000	0.000	0.000	0.00	Drift excavated at N1104/E1688.5.
DH15	1984-03-21	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilled 3/20/84 to 3/21/84.
DH15	1986-05-20	00:00	NA	0.000	0.000	0.000	0.00	Collecting funnel and container installed.
DH15	1986-05-27	15:00	NA	511.625	1.000	0.000	0.00	Trace of brine. First time collected.
DH15	1986-06-03	09:15	00.02	518.385	7.760	0.003	0.02	
DH15	1986-06-10	10:40	00.04	525.444	7.059	0.006	0.06	

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DH15	1986-06-17	09:45	00.03	532.406	6.962	0.004	0.09	
DH15	1986-06-24	10:00	00.05	539.417	7.011	0.007	0.14	Lots of clay has fallen down hole and accumulated in collecting container.
DH15	1986-07-01	12:30	00.05	546.521	7.104	0.007	0.19	
DH15	1986-07-08	09:50	00.05	553.410	6.889	0.007	0.24	
DH15	1986-07-16	09:40	00.06	561.403	7.993	0.008	0.30	
DH15	1986-07-22	09:15	00.05	567.385	5.982	0.008	0.35	Clay in collecting container.
DH15	1986-07-29	09:55	00.05	574.413	7.028	0.007	0.40	
DH15	1986-08-05	10:20	00.05	581.431	7.018	0.007	0.45	
DH15	1986-08-12	09:45	00.05	588.406	6.975	0.007	0.50	
DH15	1986-08-19	10:20	00.05	595.431	7.025	0.007	0.55	
DH15	1986-08-26	10:00	00.05	602.417	6.986	0.007	0.60	
DH15	1986-09-04	09:50	00.06	611.410	8.993	0.007	0.66	
DH15	1986-09-09	11:00	00.03	616.458	5.048	0.006	0.69	
DH15	1986-09-16	09:25	00.05	623.392	6.934	0.007	0.74	
DH15	1986-09-23	09:30	00.06	630.396	7.004	0.009	0.80	
DH15	1986-10-01	11:29	00.06	638.478	8.082	0.007	0.86	
DH15	1986-11-05	10:15	0.22	673.427	34.949	0.006	1.08	
DH15	1986-11-20	11:28	00.07	688.478	15.051	0.005	1.15	
DH15	1986-12-31	11:37	00.18	729.484	41.006	0.004	1.33	
DH15	1987-03-30	12:02	0.41	818.501	89.017	0.005	1.74	
DH15	1987-05-07	10:22	0.17	856.432	37.931	0.004	1.91	
DH15	1987-06-17	11:20	0.21	897.472	41.040	0.005	2.12	
DH15	1987-07-28	12:07	0.14	938.505	41.033	0.003	2.26	
DH15	1987-09-01	11:35	0.13	973.483	34.978	0.004	2.39	
DH15	1987-09-16	10:00		988.417	0.000	0.000	2.39	0.05 liter in jar not removed. No calculation.
DH15	1987-10-20	10:45	0.29	1022.450	48.967	0.006	2.68	
DH15	1987-11-19	10:15	0.15	1052.430	29.980	0.005	2.83	
DH15	1988-01-04	11:00	0.23	1098.460	46.030	0.005	3.06	
DH15	1988-02-08	12:40	0.09	1133.530	35.070	0.003	3.15	
DH15	1988-03-30	12:10	0.15	1184.510	50.980	0.003	3.30	
DH15	1988-07-12	09:50	0.21	1288.410	103.900	0.002	3.51	
DH15	1988-09-27	08:20	0.00	1365.350	76.940	0.000	3.51	Dry.
DH15	1988-12-13	09:20	0	1442.390	77.040	0.000	3.51	Dry.
DH15	1989-03-14	09:12	0	1533.380	90.994	0.000	3.51	Hole dry, funnel loose.
DH15	1989-04-06	11:55	0	1556.500	23.114	0.000	3.51	Hole dry.
DH15	1989-04-20	10:05	0.04	1570.420	13.923	0.003	3.55	
DH15	1989-05-17	11:40	0	1597.490	27.066	0.000	3.55	Hole dry.
DH15	1989-06-29	10:55	0	1640.450	42.969	0.000	3.55	Hole dry.
DH15	1989-07-25	11:30	0	1666.480	26.024	0.000	3.55	Hole dry.
DH15	1989-08-16	10:10	0	1688.420	21.945	0.000	3.55	Hole dry.
DH15	1989-09-12	12:00	0	1715.500	27.076	0.000	3.55	Hole dry.
DH15	1989-10-20	10:39	0	1753.440	37.944	0.000	3.55	Hole dry.
DH15	1989-11-10	09:30	0	1774.400	20.952	0.000	3.55	Hole dry.
DH15	1989-11-29	11:40	0	1793.490	19.090	0.000	3.55	Hole dry.
DH15	1989-12-12	08:56	0	1806.370	12.886	0.000	3.55	Hole dry.
DH35	1984-11-21	00:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of Room G was excavated.
DH35	1985-01-27	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilled 1/26/85 to 1/27/85.
DH35	1985-02-05	11:15	NA	35.469	1.000	0.000	0.00	Started to drip.
DH35	1985-03-05	10:00	00.19	63.417	28.948	0.007	0.19	Salt crystals in container. First time collected.
DH35	1985-03-12	10:00	00.17	70.417	7.000	0.024	0.36	Salt crystals in container.
DH35	1985-03-20	10:26	00.19	78.435	8.018	0.024	0.55	

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DH36	1985-06-18	10:17	01.58	168.428	6.959	0.227	32.20	
DH36	1985-06-25	10:40	01.43	175.444	7.016	0.204	33.63	
DH36	1985-07-02	11:00	01.59	182.458	7.014	0.227	35.22	
DH36	1985-07-09	11:15	01.54	189.469	7.011	0.220	36.76	
DH36	1985-07-16	11:50	01.58	196.493	7.024	0.225	38.34	Brine effervesces.
DH36	1985-07-24	10:46	01.78	204.449	7.956	0.224	40.12	
DH36	1985-07-30	10:20	01.39	210.431	5.982	0.232	41.51	
DH36	1985-08-06	10:43	01.70	217.447	7.016	0.242	43.21	
DH36	1985-08-14	11:02	01.58	225.460	8.013	0.197	44.79	Valve leaked, some brine drained back down hole.
DH36	1985-08-20	11:11	01.42	231.466	6.006	0.236	46.21	
DH36	1985-08-28	10:00	01.94	239.417	7.951	0.244	48.15	
DH36	1985-09-04	10:32	01.69	246.439	7.022	0.241	49.84	
DH36	1985-09-10	10:35	01.41	252.441	6.002	0.235	51.25	
DH36	1985-09-17	09:42	01.53	259.404	6.963	0.220	52.78	
DH36	1985-09-24	09:50	01.53	266.410	7.006	0.218	54.31	
DH36	1985-10-01	09:55	01.58	273.413	7.003	0.226	55.89	
DH36	1985-10-08	10:52	01.63	280.453	7.040	0.232	57.52	
DH36	1985-10-15	10:30	01.58	287.438	6.985	0.226	59.10	
DH36	1985-10-23	10:23	01.82	295.433	7.995	0.228	60.92	
DH36	1985-10-29	09:51	01.36	301.410	5.977	0.228	62.28	
DH36	1985-11-05	09:27	01.63	308.394	6.984	0.233	63.91	
DH36	1985-11-13	10:14	01.79	316.426	8.032	0.223	65.70	
DH36	1985-11-21	11:36	01.91	324.483	8.057	0.237	67.61	
DH36	1985-11-26	11:30	01.01	329.479	4.996	0.202	68.62	
DH36	1985-12-03	13:35	01.50	336.566	7.087	0.212	70.12	
DH36	1985-12-10	12:15	01.52	343.510	6.944	0.219	71.64	
DH36	1986-01-23	11:00	09.30	387.458	43.948	0.212	80.94	Entry restricted since 12/10/85 due to mining activities.
DH36	1986-01-31	12:20	01.38	395.514	8.056	0.171	82.32	
DH36	1986-02-12	11:00	03.02	407.458	11.944	0.253	85.34	
DH36	1986-02-19	11:45	01.55	414.490	7.032	0.220	86.89	
DH36	1986-02-28	13:20	01.85	423.556	9.066	0.204	88.74	
DH36	1986-03-06	10:45	01.30	429.448	5.892	0.221	90.04	Volume was estimated.
DH36	1986-03-13	10:10	01.50	436.424	6.976	0.215	91.54	
DH36	1986-03-26	10:20	02.56	449.431	13.007	0.197	94.10	
DH36	1986-04-02	09:40	01.75	456.403	6.972	0.251	95.85	
DH36	1986-04-08	09:45	00.97	462.406	6.003	0.162	96.82	
DH36	1986-04-16	12:25	01.65	470.517	8.111	0.203	98.47	
DH36	1986-04-24	10:20	02.00	478.431	7.914	0.253	100.47	
DH36	1986-04-30	10:55	01.21	484.455	6.024	0.201	101.68	
DH36	1986-05-06	10:14	01.20	490.426	5.971	0.201	102.88	
DH36	1986-05-13	11:13	01.42	497.467	7.041	0.202	104.30	
DH36	1986-05-20	11:10	01.50	504.465	6.998	0.214	105.80	
DH36	1986-05-27	15:45	01.40	511.656	7.191	0.195	107.20	
DH36	1986-06-03	10:10	01.38	518.424	6.768	0.204	108.58	
DH36	1986-06-10	11:35	01.24	525.483	7.059	0.176	109.82	Valve leaked, some brine drained back down hole.
DH36	1986-06-17	11:00	01.65	532.458	6.975	0.237	111.47	
DH36	1986-06-24	11:00	01.45	539.458	7.000	0.207	112.92	
DH36	1986-07-01	14:05	01.55	546.587	7.129	0.217	114.47	
DH36	1986-07-08	10:45	01.40	553.448	6.861	0.204	115.87	
DH36	1986-07-16	10:45	01.76	561.448	8.000	0.220	117.63	
DH36	1986-07-22	10:07	01.29	567.422	5.974	0.216	118.92	
DH36	1986-07-29	10:40	01.45	574.444	7.022	0.206	120.37	
DH36	1986-08-05	11:20	01.46	581.472	7.028	0.208	121.83	

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DH36	1986-08-12	10:37	01.50	588.442	6.970	0.215	123.33	
DH36	1986-08-19	11:35	01.38	595.483	7.041	0.196	124.71	
DH36	1986-08-26	10:38	01.49	602.443	6.960	0.214	126.20	Static level not measured.
DH36	1986-09-04	10:41	01.70	611.445	9.002	0.189	127.90	
DH36	1986-09-09	10:15	01.20	616.427	4.982	0.241	129.10	
DH36	1986-09-16	10:20	01.37	623.431	7.004	0.196	130.47	
DH36	1986-09-23	10:18	01.40	630.429	6.998	0.200	131.87	
DH36	1986-10-01	12:18	01.76	638.513	8.084	0.218	133.63	
DH36	1986-10-08	11:10	01.44	645.465	6.952	0.207	135.07	Brine effervecos as it is poured into beaker.
DH36	1986-10-14	11:57	01.21	651.498	6.033	0.201	136.28	Static level not measured.
DH36	1986-11-05	11:38	4.28	673.485	21.987	0.195	140.56	
DH36	1986-11-20	12:35	03.12	688.524	15.039	0.207	143.68	
DH36	1986-12-30	12:25	01.72	728.517	0.000	0.000	143.68	Partial evacuation. No calculation. Do not plot or use zero value.
DH36	1986-12-31	12:38	6.54	729.526	41.002	0.201	151.94	Calculated using 8.26 liters in 41.002 days (1.72 l 12/30/86 plus 6.54 l 12/31/86).
DH36	1987-02-03	13:35	06.84	763.566	34.040	0.201	158.78	
DH36	1987-03-06	11:20	5.84	794.472	30.906	0.189	164.62	
DH36	1987-03-30	11:27	4.95	818.477	24.005	0.206	169.57	
DH36	1987-05-07	11:33	6.62	856.481	38.004	0.174	176.19	
DH36	1987-06-17	10:45	7.25	897.448	0.000	0.000	183.44	Some brine left in hole, no calculation.
DH36	1987-06-18	12:10	0.49	898.507	42.026	0.184	183.93	Original l/day calculation too high due to residual brine left in hole. Recalculated using 7.74 l (7.25 l 6/17/87 plus 0.49 l 6/18/87).
DH36	1987-07-28	11:27	7.76	938.477	39.970	0.194	191.69	
DH36	1987-09-01	10:50	6.99	973.451	34.974	0.200	198.68	
DH36	1987-10-20	11:56	8.58	1022.500	49.049	0.175	207.26	
DH36	1987-11-19	11:30	4.19	1052.480	29.980	0.140	211.45	
DH36	1988-01-04	11:50	6.74	1098.490	46.010	0.146	218.19	
DH36	1988-02-08	11:50	4.90	1133.490	35.000	0.140	223.09	
DH36	1988-03-29	11:35	7.25	1183.480	49.990	0.145	230.34	
DH36	1988-05-05	09:45	5.01	1220.410	36.930	0.136	235.35	
DH36	1988-05-12	09:50	1.30	1227.410	7.000	0.186	236.65	
DH36	1988-07-12	08:50	7.90	1288.370	60.960	0.130	244.55	
DH36	1988-07-28	10:25	1.50	1304.430	16.060	0.093	246.05	
DH36	1988-08-11	10:30	3.66	1318.440	14.010	0.261	249.71	
DH36	1988-08-25	09:24	2.05	1332.390	13.950	0.147	251.76	
DH36	1988-09-08	14:50		1346.620	0.000	0.000	251.76	Did not sample.
DH36	1988-09-14	08:40	2.36	1352.360	19.970	0.118	254.12	Slight orange color.
DH36	1988-09-27	10:45	1.30	1365.450	13.090	0.099	255.42	
DH36	1988-12-13	10:00	10.63	1442.420	76.970	0.138	266.05	
DH36	1989-03-14	10:10	11.16	1533.420	91.007	0.123	277.21	
DH36	1989-04-06	09:31	2.73	1556.400	22.973	0.119	279.94	
DH36	1989-04-20	09:40	1.79	1570.400	14.006	0.128	281.73	
DH36	1989-05-17	10:20	6.45	1597.430	27.028	0.239	288.18	
DH36	1989-06-06	10:10	2.62	1617.420	19.993	0.131	290.80	
DH36	1989-06-29	10:35	2.42	1640.440	23.017	0.105	293.22	
DH36	1989-07-06	09:10	1.08	1647.380	6.941	0.156	294.30	
DH36	1989-07-25	09:55	2.35	1666.410	19.031	0.123	296.65	
DH36	1989-08-16	09:27	2.75	1688.390	21.981	0.125	299.40	
DH36	1989-09-12	09:30	3.81	1715.400	27.002	0.141	303.21	
DH36	1989-12-13	11:10	11.07	1807.460	92.069	0.120	314.28	

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
DH37	1984-12-05	00:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of Room G excavated.
DH37	1985-01-26	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilled 1/25/85 to 1/26/85.
DH37	1985-02-05	11:15	NA	35.469	1.000	0.000	0.00	Started to drip.
DH37	1985-03-05	10:10	00.06	63.424	28.955	0.002	0.06	Stalactite in collecting container.
DH37	1985-03-12	10:00	00.06	70.417	6.993	0.009	0.12	Salt crystals in collecting container.
DH37	1985-03-26	09:50	NA	84.410	13.993	0.000	0.12	Trace, none collected.
DH37	1985-04-17	13:30	00.06	106.562	36.145	0.002	0.18	
DH37	1985-04-23	11:41	00.04	112.487	5.925	0.007	0.22	
DH37	1985-04-30	10:50	00.03	119.451	6.964	0.004	0.25	
DH37	1985-05-07	09:45	00.06	126.406	6.955	0.009	0.31	
DH37	1985-05-14	10:37	00.07	133.442	7.036	0.010	0.38	
DH37	1985-05-21	10:31	00.06	140.438	6.996	0.009	0.44	
DH37	1985-05-29	10:00	00.06	148.417	7.979	0.008	0.50	
DH37	1985-06-04	11:22	00.05	154.474	6.057	0.008	0.55	
DH37	1985-06-11	10:32	00.05	161.439	6.965	0.007	0.60	
DH37	1985-06-18	10:05	00.08	168.420	6.981	0.011	0.68	Stalactites in collecting container.
DH37	1985-06-25	10:44	00.05	175.447	7.027	0.007	0.73	
DH37	1985-07-02	11:00	00.04	182.458	7.011	0.006	0.77	
DH37	1985-07-09	11:00	00.03	189.458	7.000	0.004	0.80	
DH37	1985-07-16	11:40	00.06	196.486	7.028	0.009	0.86	
DH37	1985-07-24	10:33	00.06	204.440	7.954	0.008	0.92	
DH37	1985-07-30	10:11	00.02	210.424	5.984	0.003	0.94	
DH37	1985-08-06	10:32	00.01	217.439	7.015	0.001	0.95	
DH37	1985-08-14	10:49	00.02	225.451	8.012	0.002	0.97	
DH37	1985-08-20	10:56	00.03	231.456	6.005	0.005	1.00	
DH37	1985-08-28	09:55	00.04	239.413	7.957	0.005	1.04	
DH37	1985-09-04	10:21	00.02	246.431	7.018	0.003	1.06	
DH37	1985-09-10	10:14	00.03	252.426	5.995	0.005	1.09	
DH37	1985-09-17	09:35	00.02	259.399	6.973	0.003	1.11	
DH37	1985-09-24	09:45	00.02	266.406	7.007	0.003	1.13	
DH37	1985-10-01	09:50	00.01	273.410	7.004	0.001	1.14	
DH37	1985-10-15	10:10	00.01	287.424	14.014	0.001	1.15	
DH37	1985-10-23	10:17	00.02	295.428	8.004	0.002	1.17	
DH37	1985-10-29	09:35	00.02	301.399	5.971	0.003	1.19	
DH37	1986-07-01	14:00	00.02	546.583	245.184	0.000	1.21	
DH37	1986-11-05	11:22	NA	673.474	126.891	0.000	1.21	Dry.
DH37	1986-11-20	12:25	NA	688.517	141.934	0.000	1.21	Dry, not collected.
DH37	1986-12-30	12:00	NA	728.500	181.917	0.000	1.21	
DH37	1987-02-03	NA:	NA	763.000	216.417	0.000	1.21	
DH37	1987-03-06	11:05	NA	794.462	247.879	0.000	1.21	Dry.
DH37	1987-03-30	11:10	0.00	818.465	24.003	0.000	1.21	Dry.
DH37	1987-05-07	11:27	0.00	856.477	62.015	0.000	1.21	Dry.
DH37	1987-06-18	12:05	0.00	898.503	104.041	0.000	1.21	Dry.
DH37	1987-07-28	10:53	0.00	938.453	143.991	0.000	1.21	Dry.
DH37	1987-09-01	10:45	0.00	973.448	34.995	0.000	1.21	Dry.
DH37	1987-10-20	11:35	0.00	1022.480	49.032	0.000	1.21	Dry.
DH37	1987-11-19	11:05	0.00	1052.460	29.980	0.000	1.21	Dry.
DH37	1988-01-04	11:35	0.00	1098.480	46.020	0.000	1.21	Dry.
DH37	1988-02-08	11:40	0.00	1133.490	35.010	0.000	1.21	Dry.
DH37	1988-03-29	11:35	0.00	1183.480	49.990	0.000	1.21	Dry.
DH37	1988-07-12	08:50	0.00	1288.370	104.890	0.000	1.21	Dry.
DH37	1988-09-27	10:45	0.00	1365.450	77.080	0.000	1.21	Dry.
DH37	1988-12-13	09:55	0	1442.410	76.960	0.000	1.21	Dry.
DH37	1989-03-14	10:00	0	1533.420	91.004	0.000	1.21	Hole dry.

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DH37	1989-04-06	09.45	0	1556.410	22.989	0.000	1.21	Hole dry.
DH37	1989-04-20	09:35	0	1570.400	13.993	0.000	1.21	Hole dry.
DH37	1989-05-17	10:20	0	1597.430	27.032	0.000	1.21	Hole dry.
DH37	1989-06-06	10:10	0	1617.420	19.993	0.000	1.21	Hole dry.
DH37	1989-06-29	10:30	0	1640.440	23.014	0.000	1.21	Hole dry.
DH37	1989-07-25	09:55	0	1666.410	25.975	0.000	1.21	Hole dry.
DH37	1989-08-16	09:55	0	1688.410	22.000	0.000	1.21	Hole dry.
DH37	1989-08-28	10:20	0	1700.430	12.018	0.000	1.21	Collecting device removed.
DH37	1989-12-13	11:00	0	1807.460	107.027	0.000	1.21	Hole dry.
DH38	1984-12-05	00:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of Room G excavated.
DH38	1985-01-26	00:00	NA	0.000	0.000	0.000	0.00	Downhole drilled 1/25/85 to 1/26/85.
DH38	1985-01-28	09:00	NA	27.375	1.000	0.000	0.00	Dry.
DH38	1985-02-05	11:15	NA	35.469	9.094	0.000	0.00	Wet at bottom.
DH38	1985-02-19	12:10	00.80	49.507	23.132	0.035	0.80	Brine and fine muck.
DH38	1985-02-26	10:45	01.26	56.448	6.941	0.182	2.06	Brine and fine muck.
DH38	1985-03-05	10:00	00.45	63.417	6.969	0.065	2.51	
DH38	1985-03-12	10:00	00.39	70.417	7.000	0.056	2.90	
DH38	1985-03-20	10:37	00.45	78.442	8.025	0.056	3.35	
DH38	1985-03-26	09:50	00.36	84.410	5.968	0.060	3.71	
DH38	1985-04-02	10:25	00.41	91.434	7.024	0.058	4.12	Some muck.
DH38	1985-04-10	10:31	00.44	99.438	8.004	0.055	4.56	
DH38	1985-04-17	13:30	00.41	106.562	7.124	0.058	4.97	
DH38	1985-04-23	11:41	00.34	112.487	5.925	0.057	5.31	
DH38	1985-04-30	11:05	00.39	119.462	6.975	0.056	5.70	
DH38	1985-05-07	09:50	00.42	126.410	6.948	0.060	6.12	
DH38	1985-05-14	10:45	00.41	133.448	7.038	0.058	6.53	
DH38	1985-05-21	10:35	00.41	140.441	6.993	0.059	6.94	
DH38	1985-05-29	11:35	00.47	148.483	8.042	0.058	7.41	
DH38	1985-06-04	11:25	00.35	154.476	5.993	0.058	7.76	
DH38	1985-06-11	10:35	00.40	161.441	6.965	0.057	8.16	
DH38	1985-06-18	10:09	00.39	168.423	6.982	0.056	8.55	
DH38	1985-06-25	10:50	00.42	175.451	7.028	0.060	8.97	
DH38	1985-07-02	11:00	00.44	182.458	7.007	0.063	9.41	
DH38	1985-07-09	11:05	00.43	189.462	7.004	0.061	9.84	
DH38	1985-07-16	11:45	00.43	196.490	7.028	0.061	10.27	Brine effervesces.
DH38	1985-07-24	10:35	00.49	204.441	7.951	0.062	10.76	
DH38	1985-07-30	10:14	00.38	210.426	5.985	0.063	11.14	
DH38	1985-08-06	10:34	00.42	217.440	7.014	0.060	11.56	
DH38	1985-08-14	10:51	00.49	225.452	8.012	0.061	12.05	
DH38	1985-08-20	11:02	00.37	231.460	6.008	0.062	12.42	
DH38	1985-08-28	10:00	00.51	239.417	7.957	0.064	12.93	
DH38	1985-09-04	10:23	00.44	246.433	7.016	0.063	13.37	
DH38	1985-09-10	10:19	00.39	252.430	5.997	0.065	13.76	
DH38	1985-09-17	09:37	00.44	259.401	6.971	0.063	14.20	
DH38	1985-09-24	09:45	00.44	266.406	7.005	0.063	14.64	
DH38	1985-10-01	09:53	00.44	273.412	7.006	0.063	15.08	
DH38	1985-10-08	10:38	00.46	280.443	7.031	0.065	15.54	
DH38	1985-10-15	10:15	00.44	287.427	6.984	0.063	15.98	
DH38	1985-10-23	10:20	00.49	295.431	8.004	0.061	16.47	
DH38	1985-10-29	09:40	00.39	301.403	5.972	0.065	16.86	
DH38	1985-11-05	09:14	00.43	308.385	6.982	0.062	17.29	
DH38	1985-11-13	10:00	00.52	316.417	8.032	0.065	17.81	
DH38	1985-11-21	11:29	00.47	324.478	8.061	0.058	18.28	

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DH38	1985-11-26	11:20	00.33	329.472	4.994	0.066	18.61	
DH38	1985-12-03	13:30	00.42	336.562	7.090	0.059	19.03	
DH38	1985-12-10	12:30	00.41	343.521	6.959	0.059	19.44	
DH38	1986-01-23	11:20	02.70	387.472	43.951	0.061	22.14	Entry restricted since 12/10/85 due to mining activities.
DH38	1986-01-31	12:10	00.53	395.507	8.035	0.066	22.67	
DH38	1986-02-12	10:50	00.75	407.451	11.944	0.063	23.42	
DH38	1986-02-19	11:40	00.43	414.486	7.035	0.061	23.85	
DH38	1986-02-28	13:15	00.37	423.552	9.066	0.041	24.22	Lost substantial volume due to break in suction line. Brine flowed back down into hole.
DH38	1986-03-06	10:35	00.45	429.441	5.889	0.076	24.67	
DH38	1986-03-13	10:05	00.43	436.420	6.979	0.062	25.10	
DH38	1986-03-26	10:10	00.59	449.424	13.004	0.045	25.69	
DH38	1986-04-02	09:35	00.58	456.399	6.975	0.083	26.27	
DH38	1986-04-08	09:40	00.35	462.403	6.004	0.058	26.62	
DH38	1986-04-16	12:10	00.50	470.507	8.104	0.062	27.12	
DH38	1986-04-24	10:12	00.47	478.425	7.918	0.059	27.59	
DH38	1986-04-30	10:50	00.35	484.451	6.026	0.058	27.94	
DH38	1986-05-06	10:14	00.31	490.426	5.975	0.052	28.25	
DH38	1986-05-13	11:05	00.41	497.462	7.036	0.058	28.66	
DH38	1986-05-20	11:05	00.40	504.462	7.000	0.057	29.06	
DH38	1986-05-27	15:40	00.38	511.653	7.191	0.053	29.44	
DH38	1986-06-03	10:05	00.44	518.420	6.767	0.065	29.88	
DH38	1986-06-10	11:22	00.43	525.474	7.054	0.061	30.31	
DH38	1986-06-17	10:50	00.37	532.451	6.977	0.053	30.68	
DH38	1986-06-24	10:52	00.50	539.453	7.002	0.071	31.18	
DH38	1986-07-01	14:01	00.40	546.584	7.131	0.056	31.58	
DH38	1986-07-08	10:30	00.38	553.438	6.854	0.055	31.96	
DH38	1986-07-16	10:34	00.43	561.440	8.002	0.054	32.39	
DH38	1986-07-22	09:58	00.35	567.415	5.975	0.059	32.74	
DH38	1986-07-29	10:40	00.38	574.444	7.029	0.054	33.12	
DH38	1986-08-05	11:10	00.39	581.465	7.021	0.056	33.51	
DH38	1986-08-12	10:30	00.40	588.438	6.973	0.057	33.91	
DH38	1986-08-19	11:30	00.41	595.479	7.041	0.058	34.32	
DH38	1986-08-26	10:32	00.36	602.439	6.960	0.052	34.68	
DH38	1986-09-04	10:35	00.49	611.441	9.002	0.054	35.17	
DH38	1986-09-09	10:00	00.30	616.417	4.976	0.060	35.47	
DH38	1986-09-16	10:11	00.38	623.424	7.007	0.054	35.85	
DH38	1986-09-23	10:10	00.37	630.424	7.000	0.053	36.22	
DH38	1986-10-01	12:07	00.43	638.505	8.081	0.053	36.65	
DH38	1986-10-08	11:30	00.36	645.479	6.974	0.052	37.01	
DH38	1986-10-14	11:45	00.35	651.490	6.011	0.058	37.36	
DH38	1986-11-05	11:26	1.10	673.476	21.986	0.050	38.46	
DH38	1986-11-20	12:27	00.82	688.519	15.043	0.055	39.28	
DH38	1986-12-30	12:15	01.87	728.510	39.991	0.047	41.15	
DH38	1987-02-03	13:15	01.72	763.552	35.042	0.049	42.87	
DH38	1987-03-06	11:05	1.58	794.462	30.910	0.051	44.45	
DH38	1987-03-30	11:13	1.17	818.467	24.005	0.049	45.62	
DH38	1987-05-07	11:20	1.89	856.472	38.005	0.050	47.51	
DH38	1987-06-17	10:45	1.91	897.448	0.000	0.000	49.42	Some brine left in hole, no calculation.
DH38	1987-06-18	12:05	0.16	898.503	42.031	0.049	49.58	Calculated using 2.07 liters (1.91 l. 6/17/87 plus 0.16 l 6/18/87).
DH38	1987-07-28	10:53	1.88	938.453	39.950	0.047	51.46	
DH38	1987-09-01	10:45	1.70	973.448	34.995	0.049	53.16	
DH38	1987-10-20	11:40	2.29	1022.490	49.042	0.047	55.45	

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DH38	1987-11-19	11:05	1.42	1052.460	29.970	0.047	56.87	
DH38	1988-01-04	11:35	2.05	1098.480	46.020	0.045	58.92	
DH38	1988-02-08	11:40	1.48	1133.490	35.010	0.042	60.40	
DH38	1988-03-29	11:30	2.10	1183.480	49.990	0.042	62.50	
DH38	1988-05-05	09:55	1.70	1220.410	36.930	0.046	64.20	
DH38	1988-05-12	11:20	0.31	1227.470	7.060	0.044	64.51	
DH38	1988-07-12	08:45	2.44	1288.360	60.890	0.040	66.95	
DH38	1988-07-28	10:20	0.88	1304.430	16.070	0.055	67.83	
DH38	1988-09-27	10:30	1.92	1365.440	61.010	0.031	69.75	
DH38	1988-12-13	09:55	3.45	1442.410	76.970	0.045	73.20	
DH38	1989-03-14	09:55	3.25	1533.410	91.000	0.036	76.45	
DH38	1989-04-06	09:45	1.03	1556.410	22.993	0.045	77.48	
DH38	1989-04-20	09:35	0.75	1570.400	13.993	0.054	78.23	
DH38	1989-05-17	10:05	1.11	1597.420	27.021	0.041	79.34	
DH38	1989-06-06	10:00	0.70	1617.420	19.997	0.035	80.04	
DH38	1989-06-29	10:30	0.64	1640.440	23.021	0.028	80.68	
DH38	1989-07-25	10:27	0.92	1666.430	25.997	0.035	81.60	
DH38	1989-08-16	09:57	0.81	1688.410	21.980	0.037	82.41	
DH38	1989-09-12	09:20	1.16	1715.390	26.974	0.043	83.57	
DH38	1989-12-13	10:55	3.20	1807.450	92.066	0.035	86.77	
DH39	1984-12-13	00:00	NA	0.000	0.000	0.000	0.00	Approximate date that part of Room G was excavated.
DH39	1985-01-24	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilled.
DH39	1985-02-05	11:15	NA	35.469	1.000	0.000	0.00	Moist, no stalactites.
DH39	1985-02-26	10:25	NA	56.434	21.965	0.000	0.00	Wet, back wet in 1.5 ft circle.
DH39	1985-03-12	10:00	NA	70.417	35.948	0.000	0.00	Trace, salt crystals in container.
DH39	1985-03-26	09:55	NA	84.413	49.944	0.000	0.00	Trace.
DH39	1985-05-07	09:37	00.01	126.401	91.932	0.000	0.01	
DH39	1985-05-29	11:30	00.03	148.479	22.078	0.001	0.04	Stalactites in sample.
DH39	1986-11-05	11:10	NA	673.465	524.986	0.000	0.04	Dry.
DH39	1986-11-20	NA	NA	688.000	539.521	0.000	0.04	Dry.
DH39	1986-12-30	11:45	NA	728.490	580.011	0.000	0.04	
DH39	1987-02-03	NA	NA	763.000	614.521	0.000	0.04	
DH39	1987-03-06	11:00	NA	794.458	645.979	0.000	0.04	Dry.
DH39	1987-03-30	11:05	0.00	818.462	24.004	0.000	0.04	Dry.
DH39	1987-05-07	11:20	0.00	856.472	62.014	0.000	0.04	Dry.
DH39	1987-06-18	12:00	0.00	898.500	104.042	0.000	0.04	Dry.
DH39	1987-07-28	11:03	0.00	938.460	144.002	0.000	0.04	Dry.
DH39	1987-09-01	10:21	0.00	973.431	34.971	0.000	0.04	Dry.
DH39	1987-10-20	11:33	0.00	1022.480	49.049	0.000	0.04	Dry.
DH39	1987-11-19	11:00	0.00	1052.460	29.980	0.000	0.04	Dry.
DH39	1988-01-04	11:35	0.00	1098.480	46.020	0.000	0.04	Dry.
DH39	1988-02-08	11:35	0.00	1133.480	35.000	0.000	0.04	Dry.
DH39	1988-03-29	11:30	0.00	1183.480	50.000	0.000	0.04	Dry.
DH39	1988-07-12	08:45	0.00	1288.360	104.880	0.000	0.04	Dry.
DH39	1988-09-27	10:30	0.00	1365.440	77.080	0.000	0.04	Dry.
DH39	1988-12-13	09:50	0	1442.410	76.970	0.000	0.04	Dry.
DH39	1989-03-14	09:50	0	1533.410	91.000	0.000	0.04	Hole dry.
DH39	1989-04-06	09:50	0	1556.410	23.000	0.000	0.04	Hole dry.
DH39	1989-04-20	09:20	0	1570.390	13.979	0.000	0.04	Hole dry.
DH39	1989-05-17	10:05	0	1597.420	27.031	0.000	0.04	Hole dry.
DH39	1989-06-06	10:00	0	1617.420	19.997	0.000	0.04	Hole dry.
DH39	1989-06-29	10:25	0	1640.430	23.017	0.000	0.04	Hole dry.
DH39	1989-07-25	09:55	0	1666.410	25.979	0.000	0.04	Hole dry.
DH39	1989-08-16	09:55	0	1688.410	22.000	0.000	0.04	Hole dry.

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DH39	1989-08-28	10:15	0	1700.430	12.014	0.000	0.04	Collecting device removed.
DH39	1989-12-13	10:25	0	1807.430	107.007	0.000	0.04	Hole dry.
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DH40	1984-12-13	00:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of Room G excavated.
DH40	1985-01-25	00:00	NA	0.000	0.000	0.000	0.00	Downhole drilled 1/24/85 to 1/25/85.
DH40	1985-01-28	09:00	NA	27.375	1.000	0.000	0.00	Dry.
DH40	1985-02-05	11:15	NA	35.469	9.094	0.000	0.00	Moist at bottom.
DH40	1985-03-12	10:10	NA	70.424	44.049	0.000	0.00	Moist muck.
DH40	1985-03-26	09:55	NA	84.413	58.038	0.000	0.00	Moist muck.
DH40	1985-04-17	13:30	00.98	106.562	80.187	0.012	0.98	Brine, muck, and oil.
DH40	1985-04-23	11:33	00.26	112.481	5.919	0.044	1.24	Brine and muck.
DH40	1985-04-30	10:49	00.11	119.451	6.970	0.016	1.35	Feel something spongy in bottom of hole.
DH40	1985-05-07	09:42	00.10	126.404	6.953	0.014	1.45	
DH40	1985-05-14	10:40	00.09	133.444	7.040	0.013	1.54	
DH40	1985-05-21	10:26	00.07	140.435	6.991	0.010	1.61	
DH40	1985-05-29	11:30	00.08	148.479	8.044	0.010	1.69	
DH40	1985-06-04	11:15	00.10	154.469	5.990	0.017	1.79	Contained a lot of salt muck.
DH40	1985-06-11	10:30	00.05	161.438	6.969	0.007	1.84	
DH40	1985-06-18	10:01	00.09	168.417	6.979	0.013	1.93	
DH40	1985-06-25	11:00	00.08	175.458	7.041	0.011	2.01	
DH40	1985-07-02	11:00	00.09	182.458	7.000	0.013	2.10	
DH40	1985-07-09	10:45	00.12	189.448	6.990	0.017	2.22	
DH40	1985-07-16	11:38	00.09	196.485	7.037	0.013	2.31	
DH40	1985-07-24	10:31	00.07	204.438	7.953	0.009	2.38	
DH40	1985-07-30	10:08	00.07	210.422	5.984	0.012	2.45	
DH40	1985-08-06	10:20	00.06	217.431	7.009	0.009	2.51	
DH40	1985-08-14	10:43	00.07	225.447	8.016	0.009	2.58	
DH40	1985-08-20	10:50	00.05	231.451	6.004	0.008	2.63	
DH40	1985-08-28	09:53	00.08	239.412	7.961	0.010	2.71	
DH40	1985-09-04	10:18	00.03	246.429	7.017	0.004	2.74	
DH40	1985-09-10	10:11	00.04	252.424	5.995	0.007	2.78	
DH40	1985-09-17	09:31	00.03	259.397	6.973	0.004	2.81	
DH40	1985-09-24	09:40	00.06	266.403	7.006	0.009	2.87	
DH40	1985-10-01	09:47	00.06	273.408	7.005	0.009	2.93	
DH40	1985-10-08	10:32	00.04	280.439	7.031	0.006	2.97	
DH40	1985-10-15	10:05	00.09	287.420	6.981	0.013	3.06	
DH40	1985-10-23	10:13	00.04	295.426	8.006	0.005	3.10	
DH40	1985-10-29	09:32	00.07	301.397	5.971	0.012	3.17	
DH40	1985-11-05	09:10	00.04	308.382	6.985	0.006	3.21	
DH40	1985-11-13	09:55	00.07	316.413	8.031	0.009	3.28	
DH40	1985-11-21	11:24	00.02	324.475	8.062	0.002	3.30	
DH40	1985-12-03	13:20	00.08	336.556	12.081	0.007	3.38	
DH40	1985-12-10	12:40	00.04	343.528	6.972	0.006	3.42	
DH40	1986-01-23	11:25	00.24	387.476	43.948	0.005	3.66	Entry restricted since 12/10/85 due to mining activities.
DH40	1986-01-31	12:10	00.02	395.507	8.031	0.002	3.68	
DH40	1986-02-19	11:20	00.14	414.472	18.965	0.007	3.82	
DH40	1986-02-28	13:10	00.05	423.549	9.077	0.006	3.87	
DH40	1986-03-13	10:00	00.02	436.417	12.868	0.002	3.89	
DH40	1986-04-24	10:05	00.13	478.420	42.003	0.003	4.02	
DH40	1986-05-20	11:05	00.10	504.462	26.042	0.004	4.12	
DH40	1986-06-03	09:58	00.20	518.415	13.953	0.014	4.32	
DH40	1986-09-16	10:05	00.34	623.420	105.005	0.003	4.66	Did not collect for several months.

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DH40	1986-11-05	11:18	0.27	673.471	50.051	0.005	4.93	
DH40	1986-11-20	NA	NA	688.000	14.529	0.000	4.93	
DH40	1986-12-30	12:00	00.25	728.500	55.029	0.005	5.18	
DH40	1987-02-03	13:00	00.13	763.542	35.042	0.004	5.31	
DH40	1987-03-06	10:55	0.09	794.455	30.913	0.003	5.40	
DH40	1987-03-30	11:05	0.10	818.462	24.007	0.004	5.50	
DH40	1987-06-18	12:00	0.19	898.500	80.038	0.002	5.69	
DH40	1987-09-01	10:25	0.16	973.434	74.934	0.002	5.85	
DH40	1988-02-08	11:30	0.55	1133.480	160.046	0.003	6.40	
DH40	1988-03-29	11:25	0.14	1183.480	50.000	0.003	6.54	
DH40	1988-05-12	11:40	0.20	1227.490	44.010	0.005	6.74	
DH40	1988-07-12	08:40	0.15	1288.360	60.870	0.002	6.89	
DH40	1988-09-27	10:25	0.21	1365.430	77.070	0.003	7.10	
DH40	1988-12-13	09:45	0.12	1442.410	76.980	0.002	7.22	
DH40	1989-03-15	10:35	Trace	1534.440	0.000	0.000	7.22	Trace of brine found.
DH40	1989-04-06	09:50	0.27	1556.410	114.004	0.002	7.49	
DH40	1989-04-20	09:20	0.09	1570.390	13.979	0.006	7.58	
DH40	1989-05-17	10:00	0.30	1597.420	27.028	0.011	7.88	
DH40	1989-06-06	09:55	0.12	1617.410	19.996	0.006	8.00	
DH40	1989-06-29	10:25	Trace	1640.430	0.000	0.000	8.00	Trace of brine found.
DH40	1989-07-25	10:18	0.07	1666.430	49.016	0.001	8.07	
DH40	1989-08-16	09:49	0.06	1688.410	21.980	0.003	8.13	
DH40	1989-09-12	09:10	Trace	1715.380	0.000	0.000	8.13	Trace of fluid in hole.
DH40	1989-12-13	10:25	0.20	1807.430	119.025	0.002	8.33	
DH41	1984-12-30	00:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of Room G excavated.
DH41	1985-01-24	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilled 1/23/85 to 1/24/85.
DH41	1985-02-05	11:15	NA	35.469	1.000	0.000	0.00	Moist, no stalactites.
DH41	1985-03-26	10:05	NA	84.420	49.951	0.000	0.00	Trace.
DH41	1985-05-07	09:21	00.01	126.390	91.921	0.000	0.01	
DH41	1985-05-29	10:00	00.01	148.417	22.027	0.000	0.02	Trace.
DH41	1985-07-24	10:13	00.01	204.426	56.009	0.000	0.03	
DH41	1985-08-20	12:00	00.01	231.500	27.074	0.000	0.04	Trace.
DH41	1985-08-28	09:35	00.02	239.399	7.899	0.003	0.06	
DH41	1985-09-17	09:20	00.01	259.389	19.990	0.001	0.07	
DH41	1986-02-19	11:20	00.05	414.472	155.083	0.000	0.12	Lots of salt crystals and lumps of clay in container.
DH41	1986-11-05	11:00	NA	673.458	258.986	0.000	0.12	Dry. Funnel has been removed, salt crust on collar.
DH41	1986-11-20	12:07	NA	688.505	274.033	0.000	0.12	Dry.
DH41	1986-12-30	12:50	NA	728.535	314.063	0.000	0.12	
DH41	1987-02-03	NA	NA	763.000	348.528	0.000	0.12	
DH41	1987-03-05	10:55	NA	793.455	378.983	0.000	0.12	Crusty.
DH41	1987-03-30	11:00	0.00	818.458	25.003	0.000	0.12	Dry.
DH41	1987-05-07	11:09	0.00	856.465	63.010	0.000	0.12	Dry.
DH41	1987-06-18	11:56	0.00	898.497	105.042	0.000	0.12	Dry.
DH41	1987-07-28	11:03	0.00	938.460	145.005	0.000	0.12	Dry.
DH41	1987-09-01	10:15	0.00	973.427	34.967	0.000	0.12	Dry.
DH41	1987-10-20	11:28	0.00	1022.480	49.053	0.000	0.12	Dry.
DH41	1987-11-19	10:55	0.00	1052.450	29.970	0.000	0.12	Dry.
DH41	1988-01-04	11:35	0.00	1098.480	46.030	0.000	0.12	Dry.
DH41	1988-02-08	11:20	0.00	1133.470	34.990	0.000	0.12	Dry.
DH41	1988-03-29	11:20	0.00	1183.470	50.000	0.000	0.12	Dry.
DH41	1988-07-12	08:40	0.00	1288.360	104.890	0.000	0.12	Dry.
DH41	1988-09-27	10:20	0.00	1365.430	77.070	0.000	0.12	Dry.

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DH41	1988-12-13	09:45	0	1442.410	76.980	0.000	0.12	Dry.
DH41	1989-04-06	09:55	0	1556.410	114.007	0.000	0.12	Hole dry.
DH41	1989-04-20	09:10	0	1570.380	13.969	0.000	0.12	Hole dry.
DH41	1989-05-17	10:00	0	1597.420	27.035	0.000	0.12	Hole dry.
DH41	1989-06-06	09:55	0	1617.410	19.996	0.000	0.12	Hole dry.
DH41	1989-06-29	10:15	0	1640.430	23.014	0.000	0.12	Hole dry.
DH41	1989-07-25	09:55	0	1666.410	25.986	0.000	0.12	Hole dry.
DH41	1989-08-16	09:55	0	1688.410	22.000	0.000	0.12	Hole dry.
DH41	1989-08-28	10:15	0	1700.430	12.014	0.000	0.12	Collecting device removed.
DH41	1989-12-13	10:03	0	1807.420	106.992	0.000	0.12	Hole dry.
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DH42	1984-12-30	00:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of Room G excavated.
DH42	1985-01-23	00:00	NA	0.000	0.000	0.000	0.00	Downhole drilled.
DH42	1985-01-28	09:00	NA	27.375	1.000	0.000	0.00	Moist muck at the bottom.
DH42	1985-02-05	11:15	00.27	35.469	9.094	0.030	0.27	First time collected.
DH42	1985-02-11	11:00	00.30	41.458	5.989	0.050	0.57	
DH42	1985-02-19	13:10	00.33	49.549	8.091	0.041	0.90	
DH42	1985-02-26	10:45	00.26	56.448	6.899	0.038	1.16	
DH42	1985-03-05	10:00	00.28	63.417	6.969	0.040	1.44	
DH42	1985-03-12	10:20	00.25	70.431	7.014	0.036	1.69	
DH42	1985-03-20	10:54	00.25	78.454	8.023	0.031	1.94	Valve leaked, some brine drained back down hole.
DH42	1985-03-26	10:06	00.28	84.421	5.967	0.047	2.22	
DH42	1985-04-02	10:45	00.26	91.448	7.027	0.037	2.48	
DH42	1985-04-10	10:45	00.29	99.448	8.000	0.036	2.77	
DH42	1985-04-17	13:30	00.24	106.562	7.114	0.034	3.01	
DH42	1985-04-23	13:23	00.04	112.558	5.996	0.007	3.05	Significant volume of brine drained back down hole.
DH42	1985-04-30	10:31	00.38	119.438	6.880	0.055	3.43	
DH42	1985-05-07	09:25	00.33	126.392	6.954	0.047	3.76	
DH42	1985-05-14	10:30	00.25	133.438	7.046	0.035	4.01	
DH42	1985-05-21	10:17	00.26	140.428	6.990	0.037	4.27	
DH42	1985-05-29	10:10	00.30	148.424	7.996	0.038	4.57	
DH42	1985-06-04	10:45	00.22	154.448	6.024	0.037	4.79	
DH42	1985-06-11	10:10	00.25	161.424	6.976	0.036	5.04	
DH42	1985-06-18	09:53	00.25	168.412	6.988	0.036	5.29	
DH42	1985-06-25	11:15	00.25	175.469	7.057	0.035	5.54	
DH42	1985-07-02	11:00	00.24	182.458	6.989	0.034	5.78	
DH42	1985-07-09	10:30	00.25	189.438	6.980	0.036	6.03	
DH42	1985-07-16	11:08	00.25	196.464	7.026	0.036	6.28	Brine effervesces.
DH42	1985-07-24	10:19	00.28	204.430	7.966	0.035	6.56	
DH42	1985-07-30	09:57	00.22	210.415	5.985	0.037	6.78	
DH42	1985-08-06	10:13	00.26	217.426	7.011	0.037	7.04	
DH42	1985-08-14	10:59	00.27	225.458	8.032	0.034	7.31	
DH42	1985-08-20	10:45	00.21	231.448	5.990	0.035	7.52	
DH42	1985-08-28	09:45	00.29	239.406	7.958	0.036	7.81	
DH42	1985-09-04	10:12	00.25	246.425	7.019	0.036	8.06	
DH42	1985-09-10	09:56	00.21	252.414	5.989	0.035	8.27	
DH42	1985-09-17	09:26	00.28	259.393	6.979	0.040	8.55	
DH42	1985-09-24	09:37	00.24	266.401	7.008	0.034	8.79	
DH42	1985-10-01	09:44	00.24	273.406	7.005	0.034	9.03	
DH42	1985-10-08	10:25	00.23	280.434	7.028	0.033	9.26	
DH42	1985-10-15	10:00	00.23	287.417	6.983	0.033	9.49	
DH42	1985-10-23	10:07	00.26	295.422	8.005	0.032	9.75	
DH42	1985-10-29	09:16	00.24	301.386	5.964	0.040	9.99	

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DH42	1985-11-05	09:05	00.22	308.378	6.992	0.031	10.21	
DH42	1985-11-13	09:46	00.26	316.407	8.029	0.032	10.47	
DH42	1985-11-21	10:53	00.26	324.453	8.046	0.032	10.73	
DH42	1985-11-26	10:59	00.16	329.458	5.005	0.032	10.89	
DH42	1985-12-03	13:10	00.20	336.549	7.091	0.028	11.09	
DH42	1985-12-10	12:50	00.22	343.535	6.986	0.031	11.31	
DH42	1986-01-23	11:30	01.32	387.479	43.944	0.030	12.63	Entry restricted since 12/10/85 due to mining activities.
DH42	1986-01-31	12:05	00.30	395.503	8.024	0.037	12.93	
DH42	1986-02-12	10:35	00.38	407.441	11.938	0.032	13.31	
DH42	1986-02-19	11:10	00.22	414.465	7.024	0.031	13.53	
DH42	1986-02-28	13:00	00.31	423.542	9.077	0.034	13.84	
DH42	1986-03-06	10:30	00.17	429.438	5.896	0.029	14.01	
DH42	1986-03-13	09:53	00.21	436.412	6.974	0.030	14.22	
DH42	1986-03-26	10:00	00.39	449.417	13.005	0.030	14.61	
DH42	1986-04-02	09:25	00.20	456.392	6.975	0.029	14.81	
DH42	1986-04-08	09:30	00.20	462.396	6.004	0.033	15.01	
DH42	1986-04-16	11:55	00.24	470.497	8.101	0.030	15.25	
DH42	1986-04-24	09:55	00.21	478.413	7.916	0.027	15.46	
DH42	1986-04-30	10:41	00.17	484.445	6.032	0.028	15.63	
DH42	1986-05-06	10:10	00.19	490.424	5.979	0.032	15.82	
DH42	1986-05-13	10:00	00.20	497.417	6.993	0.029	16.02	
DH42	1986-05-20	11:00	00.20	504.458	7.041	0.028	16.22	
DH42	1986-05-27	15:35	00.20	511.649	7.191	0.028	16.42	
DH42	1986-06-03	09:50	00.20	518.410	6.761	0.030	16.62	
DH42	1986-06-10	11:13	00.17	525.467	7.057	0.024	16.79	
DH42	1986-06-17	10:40	00.20	532.444	6.977	0.029	16.99	
DH42	1986-06-24	10:40	00.18	539.444	7.000	0.026	17.17	
DH42	1986-07-01	13:45	00.20	546.573	7.129	0.028	17.37	
DH42	1986-07-08	10:22	00.20	553.432	6.859	0.029	17.57	
DH42	1986-07-16	10:15	00.30	561.427	7.995	0.038	17.87	
DH42	1986-07-22	09:50	00.16	567.410	5.983	0.027	18.03	
DH42	1986-07-29	10:25	00.20	574.434	7.024	0.028	18.23	
DH42	1986-08-05	11:00	00.22	581.458	7.024	0.031	18.45	
DH42	1986-08-12	10:20	00.20	588.431	6.973	0.029	18.65	
DH42	1986-08-19	11:20	00.18	595.472	7.041	0.026	18.83	
DH42	1986-08-26	10:25	00.20	602.434	6.962	0.029	19.03	
DH42	1986-09-04	10:20	00.25	611.431	8.997	0.028	19.28	
DH42	1986-09-09	09:46	00.14	616.407	4.976	0.028	19.42	
DH42	1986-09-16	09:52	00.20	623.411	7.004	0.029	19.62	
DH42	1986-09-23	09:58	00.15	630.415	7.004	0.021	19.77	
DH42	1986-10-01	12:03	00.36	638.502	8.087	0.045	20.13	
DH42	1986-10-08	10:55	00.15	645.455	6.953	0.022	20.28	
DH42	1986-10-14	11:19	00.15	651.472	6.017	0.025	20.43	
DH42	1986-11-05	11:07	0.52	673.463	21.991	0.024	20.95	
DH42	1986-11-20	12:10	00.33	688.507	15.044	0.022	21.28	
DH42	1986-12-30	11:45	00.78	728.490	39.983	0.020	22.06	
DH42	1987-02-03	12:50	00.85	763.535	35.045	0.024	22.91	
DH42	1987-03-06	10:45	0.68	794.448	30.913	0.022	23.59	
DH42	1987-03-30	11:00	0.53	818.458	24.010	0.022	24.12	
DH42	1987-05-07	11:15	0.90	856.469	38.011	0.024	25.02	Brine effervesces.
DH42	1987-06-17	10:35	0.91	897.441	0.000	0.000	25.93	Wood fragments in hole. Some brine left in hole, no calculation.
DH42	1987-06-18	11:56	0.10	898.497	42.028	0.024	26.03	Calculated using 1.01 liters (0.91 l. 6/17/87 plus 0.10 l 6/18/87).
DH42	1987-07-28	11:10	0.94	938.465	39.968	0.024	26.97	
DH42	1987-09-01	10:15	0.79	973.427	34.962	0.023	27.76	

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DH42	1987-10-20	11:31	1.29	1022.480	49.053	0.026	29.05	
DH42	1987-11-19	10:55	0.75	1052.450	29.970	0.025	29.80	
DH42	1988-01-04	11:30	1.13	1098.480	46.030	0.025	30.93	
DH42	1988-02-08	11:20	0.75	1133.470	34.990	0.021	31.68	
DH42	1988-03-29	11:20	1.10	1183.470	50.000	0.022	32.78	
DH42	1988-05-05	09:30	0.75	1220.400	36.930	0.020	33.53	
DH42	1988-05-12	09:45	0.13	1227.410	7.010	0.019	33.66	
DH42	1988-07-12	08:35	1.15	1288.360	60.950	0.019	34.81	
DH42	1988-07-28	10:10	0.34	1304.420	16.060	0.021	35.15	
DH42	1988-09-27	10:20	0.66	1365.430	61.010	0.011	35.81	
DH42	1988-12-13	09:38	1.71	1442.400	76.970	0.022	37.52	
DH42	1989-03-15	10:30	1.50	1534.440	92.037	0.016	39.02	
DH42	1989-04-06	10:10	0.54	1556.420	21.986	0.025	39.56	
DH42	1989-04-20	09:10	0.50	1570.380	13.958	0.036	40.06	
DH42	1989-05-17	09:45	0.66	1597.410	27.024	0.024	40.72	
DH42	1989-06-06	09:50	0.41	1617.410	20.004	0.020	41.13	
DH42	1989-06-29	10:20	0.35	1640.430	23.021	0.015	41.48	
DH42	1989-07-25	10:10	0.55	1666.420	25.993	0.021	42.03	
DH42	1989-08-16	09:40	0.36	1688.400	21.979	0.016	42.39	
DH42	1989-09-12	09:00	0.35	1715.380	26.972	0.013	42.74	
DH42	1989-12-13	10:03	1.50	1807.420	92.044	0.016	44.24	
DH42A	1984-12-30	00:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of Room G excavated.
DH42A	1985-01-25	00:00	NA	0.000	0.000	0.000	0.00	Downhole drilled (re-drill of DH42) to recover core from 20 to 40 ft.
DH42A	1985-01-28	09:00	NA	27.375	1.000	0.000	0.00	Brine in hole.
DH42A	1985-02-05	11:15	00.85	35.469	9.094	0.093	0.85	First time collected.
DH42A	1985-02-11	11:00	00.99	41.458	5.989	0.165	1.84	
DH42A	1985-02-19	12:10	01.45	49.507	8.049	0.180	3.29	
DH42A	1985-02-26	10:45	01.18	56.448	6.941	0.170	4.47	
DH42A	1985-03-05	10:00	01.24	63.417	6.969	0.178	5.71	
DH42A	1985-03-12	10:20	01.29	70.431	7.014	0.184	7.00	
DH42A	1985-03-20	11:00	01.45	78.458	8.027	0.181	8.45	
DH42A	1985-03-26	10:10	01.07	84.424	5.966	0.179	9.52	
DH42A	1985-04-02	10:45	01.15	91.448	7.024	0.164	10.67	
DH42A	1985-04-10	10:45	01.45	99.448	8.000	0.181	12.12	
DH42A	1985-04-17	13:30	01.32	106.562	7.114	0.186	13.44	
DH42A	1985-04-23	13:23	01.07	112.558	5.996	0.178	14.51	
DH42A	1985-04-30	10:23	01.35	119.433	6.875	0.196	15.86	
DH42A	1985-05-07	09:23	01.39	126.391	6.958	0.200	17.25	
DH42A	1985-05-14	10:25	01.34	133.434	7.043	0.190	18.59	
DH42A	1985-05-21	10:14	01.29	140.426	6.992	0.184	19.88	
DH42A	1985-05-29	10:30	01.28	148.438	8.012	0.160	21.16	
DH42A	1985-06-04	10:50	01.03	154.451	6.013	0.171	22.19	
DH42A	1985-06-11	10:15	01.19	161.427	6.976	0.171	23.38	
DH42A	1985-06-18	09:51	01.18	168.410	6.983	0.169	24.56	
DH42A	1985-06-25	11:05	01.16	175.462	7.052	0.164	25.72	
DH42A	1985-07-02	11:00	01.12	182.458	6.996	0.160	26.84	
DH42A	1985-07-09	10:25	01.12	189.434	6.976	0.161	27.96	Gas effervescing from sample.
DH42A	1985-07-16	11:10	01.11	196.465	7.031	0.158	29.07	Brine effervesces.
DH42A	1985-07-24	10:25	01.23	204.434	7.969	0.154	30.30	
DH42A	1985-07-30	09:54	00.94	210.412	5.978	0.157	31.24	
DH42A	1985-08-06	10:10	01.05	217.424	7.012	0.150	32.29	
DH42A	1985-08-14	10:33	01.11	225.440	8.016	0.138	33.40	
DH42A	1985-08-20	10:14	00.92	231.426	5.986	0.154	34.32	

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DH42A	1985-08-28	09:40	01.17	239.403	7.977	0.147	35.49	
DH42A	1985-09-04	10:10	00.99	246.424	7.021	0.141	36.48	
DH42A	1985-09-10	09:55	00.83	252.413	5.989	0.139	37.31	
DH42A	1985-09-17	09:25	00.92	259.392	6.979	0.132	38.23	
DH42A	1985-09-24	09:25	00.94	266.392	7.000	0.134	39.17	
DH42A	1985-10-01	09:40	00.93	273.403	7.011	0.133	40.10	
DH42A	1985-10-08	10:24	00.96	280.433	7.030	0.137	41.06	
DH42A	1985-10-15	10:15	00.81	287.427	6.994	0.116	41.87	
DH42A	1985-10-23	10:10	01.02	295.424	7.997	0.128	42.89	
DH42A	1985-10-29	09:20	00.75	301.389	5.965	0.126	43.64	
DH42A	1985-11-05	09:00	00.86	308.375	6.986	0.123	44.50	
DH42A	1985-11-13	09:44	01.03	316.406	8.031	0.128	45.53	
DH42A	1985-11-21	10:50	00.94	324.451	8.045	0.117	46.47	
DH42A	1985-11-26	10:55	00.61	329.455	5.004	0.122	47.08	
DH42A	1985-12-03	13:05	00.78	336.545	7.090	0.110	47.86	
DH42A	1985-12-10	12:50	00.86	343.535	6.990	0.123	48.72	
DH42A	1986-01-23	11:40	05.13	387.486	43.951	0.117	53.85	Entry restricted since 12/10/85 due to mining activities.
DH42A	1986-01-31	12:00	00.92	395.500	8.014	0.115	54.77	
DH42A	1986-02-12	10:40	01.36	407.444	11.944	0.114	56.13	
DH42A	1986-02-19	11:15	00.80	414.469	7.025	0.114	56.93	
DH42A	1986-02-28	12:55	00.90	423.538	9.069	0.099	57.83	
DH42A	1986-03-06	10:25	00.70	429.434	5.896	0.119	58.53	
DH42A	1986-03-13	09:48	00.73	436.408	6.974	0.105	59.26	
DH42A	1986-03-26	09:40	01.39	449.403	12.995	0.107	60.65	
DH42A	1986-04-02	09:20	00.80	456.389	6.986	0.115	61.45	
DH42A	1986-04-08	09:28	00.63	462.394	6.005	0.105	62.08	
DH42A	1986-04-16	11:50	00.89	470.493	8.099	0.110	62.97	
DH42A	1986-04-24	09:50	00.67	478.410	7.917	0.085	63.64	
DH42A	1986-04-30	10:36	00.76	484.442	6.032	0.126	64.40	
DH42A	1986-05-06	10:00	00.55	490.417	5.975	0.092	64.95	
DH42A	1986-05-13	10:00	00.73	497.417	7.000	0.104	65.68	
DH42A	1986-05-20	11:00	00.70	504.458	7.041	0.099	66.38	
DH42A	1986-05-27	15:35	00.65	511.649	7.191	0.090	67.03	
DH42A	1986-06-03	09:50	00.66	518.410	6.761	0.098	67.69	
DH42A	1986-06-10	11:15	00.54	525.469	7.059	0.076	68.23	
DH42A	1986-06-17	10:31	00.65	532.438	6.969	0.093	68.88	
DH42A	1986-06-24	10:45	00.63	539.448	7.010	0.090	69.51	
DH42A	1986-07-01	13:50	00.71	546.576	7.128	0.100	70.22	
DH42A	1986-07-08	10:25	00.63	553.434	6.858	0.092	70.85	
DH42A	1986-07-16	10:00	00.66	561.417	7.983	0.083	71.51	
DH42A	1986-07-22	09:48	00.61	567.408	5.991	0.102	72.12	
DH42A	1986-07-29	10:25	00.71	574.434	7.026	0.101	72.83	
DH42A	1986-08-05	10:55	00.66	581.455	7.021	0.094	73.49	
DH42A	1986-08-12	10:23	00.63	588.433	6.978	0.090	74.12	
DH42A	1986-08-19	11:22	00.68	595.474	7.041	0.097	74.80	
DH42A	1986-08-26	10:28	00.68	602.436	6.962	0.098	75.48	Static level not measured.
DH42A	1986-09-04	10:25	00.71	611.434	8.998	0.079	76.19	Valve broke off and left in hole after collecting most of brine. Some brine left in hole.
DH42A	1986-09-09	09:40	00.07	616.403	4.969	0.014	76.26	Bottom obstructed by object in hole.
DH42A	1986-09-16	09:59	00.95	623.416	7.013	0.135	77.21	
DH42A	1986-09-23	10:02	00.60	630.418	7.002	0.086	77.81	
DH42A	1986-10-01	11:57	00.43	638.498	8.080	0.053	78.24	
DH42A	1986-10-08	10:55	00.81	645.455	6.957	0.116	79.05	
DH42A	1986-10-14	11:24	00.56	651.475	6.020	0.093	79.61	

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DH42A	1986-11-05	11:04	1.94	673.461	21.986	0.088	81.55	
DH42A	1986-11-20	12:08	01.40	688.506	15.045	0.093	82.95	
DH42A	1986-12-31	11:30	02.91	729.479	40.973	0.071	85.86	
DH42A	1987-02-03	12:35	03.15	763.524	34.045	0.093	89.01	
DH42A	1987-03-06	10:45	2.61	794.448	30.924	0.084	91.62	
DH42A	1987-03-30	10:56	2.52	818.456	24.008	0.101	94.14	
DH42A	1987-05-07	11:10	3.17	856.465	38.009	0.083	97.31	
DH42A	1987-06-17	10:30	2.94	897.438	0.000	0.000	100.25	Approx.0.01 liter spilled. Some brine left in hole, no calc.
DH42A	1987-06-18	11:54	0.11	898.496	42.031	0.073	100.36	Calculated using 3.05 liters (2.94 l 6/17/87 plus 0.11 l 6/18/87).
DH42A	1987-07-28	11:03	3.07	938.460	39.964	0.077	103.43	
DH42A	1987-09-01	10:08	2.69	973.422	34.962	0.077	106.12	Samples effervesce.
DH42A	1987-10-20	11:28	3.73	1022.480	49.058	0.076	109.85	
DH42A	1987-11-19	10:55	2.17	1052.450	29.970	0.072	112.02	
DH42A	1988-01-04	11:25	3.28	1098.480	46.030	0.071	115.30	
DH42A	1988-02-08	11:10	2.47	1133.470	34.990	0.071	117.77	
DH42A	1988-03-29	11:15	3.57	1183.470	50.000	0.071	121.34	
DH42A	1988-05-05	09:00	2.38	1220.380	36.910	0.064	123.72	
DH42A	1988-05-12	09:40	0.50	1227.400	7.020	0.071	124.22	
DH42A	1988-07-12	08:30	4.06	1288.350	60.950	0.067	128.28	
DH42A	1988-07-28	10:15	1.25	1304.430	16.080	0.078	129.53	
DH42A	1988-09-14	08:45	3.00	1352.360	47.930	0.063	132.53	
DH42A	1988-09-27	10:10	1.07	1365.420	13.060	0.082	133.60	
DH42A	1988-12-13	09:35	7.95	1442.400	76.980	0.103	141.55	
DH42A	1989-03-15	10:00	5.82	1534.420	92.018	0.063	147.37	
DH42A	1989-04-06	10:15	1.44	1556.430	22.010	0.065	148.81	
DH42A	1989-04-20	09:00	0.75	1570.380	13.948	0.054	149.56	
DH42A	1989-05-17	09:45	1.91	1597.410	27.031	0.071	151.47	
DH42A	1989-06-06	09:45	1.30	1617.410	20.000	0.065	152.77	
DH42A	1989-06-29	10:15	1.35	1640.430	23.021	0.059	154.12	
DH42A	1989-07-25	10:05	1.51	1666.420	25.993	0.058	155.63	
DH42A	1989-08-16	09:31	1.48	1688.400	21.977	0.067	157.11	
DH42A	1989-09-12	08:50	1.63	1715.370	26.971	0.060	158.74	
DH42A	1989-12-13	09:20	5.28	1807.390	92.021	0.057	164.02	
DH215	1989-04-06	11:00	0	1556.458	114.010	0.000	17.45	Hole dry.
DH215	1989-04-20	13:10	0.11	1570.549	14.091	0.008	17.56	
DH215	1989-05-17	09:00	0	1597.375	26.826	0.000	17.56	Hole dry.
DH215	1989-06-29	08:50	0	1640.368	42.993	0.000	17.56	Hole dry.
DH215	1989-07-25	11:00	0.25	1666.458	26.090	0.010	17.81	
DH215	1989-08-16	09:10	0	1688.382	21.924	0.000	17.81	Hole dry.
DH215	1989-09-12	12:00	0	1715.500	27.118	0.000	17.81	Hole dry.
DH215	1989-12-12	12:25	0	1806.517	91.017	0.000	17.81	Hole dry.
DHP401	1986-10-29	00:00	NA	0.000	0.000	0.000	0.00	Drift excavated at S1950/E1320.
DHP401	1987-01-06	00:00	NA	0.000	0.000	0.000	0.00	Uphole drilling initiated 12/08/86, stopped on 12/09/86 at 27.9 ft. Drilling resumed 1/02/87 and completed 1/06/87.
DHP401	1987-03-06	09:15	0.12	794.385	1.000	0.000	0.12	First time collected.
DHP401	1987-03-30	09:15	0.06	818.385	24.000	0.003	0.18	
DHP401	1987-04-22	11:10	0.17	841.465	23.080	0.007	0.35	Stalactite growth beside funnel.
DHP401	1987-06-11	10:00	0.38	891.417	49.952	0.008	0.73	
DHP401	1987-07-28	10:15	0.27	938.427	47.010	0.006	1.00	Clay accumulation in container.

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DHP401	1987-09-01	08:55	0.32	973.372	34.945	0.009	1.32	
DHP401	1987-09-16	09:15		988.385	0.000	0.000	1.32	0.01 liter in jar, not removed. No calculation.
DHP401	1987-11-16	08:50	0.59	1049.370	75.998	0.008	1.91	
DHP401	1988-02-09	09:00	0.43	1134.380	85.010	0.005	2.34	
DHP401	1988-03-07	10:00	0.02	1161.420	27.040	0.001	2.36	Removed collecting device.
DHP401	1988-03-29	09:00		1183.380	0.000	0.000	2.36	No collecting device.
DHP401	1988-07-12	13:50		1288.580	0.000	0.000	2.36	No funnel.
DHP401	1988-09-27	13:00	0.00	1365.540	0.000	0.000	2.36	None collected.
DHP401	1988-10-13	10:00		1381.420	0.000	0.000	2.36	Installed funnel and collection bottle.
DHP401	1988-12-13	10:50	0	1442.450	281.030	0.000	2.36	Dry.
DHP401	1989-04-20	13:05	0	1570.550	128.094	0.000	2.36	Hole dry.
DHP401	1989-05-17	09:00	0	1597.380	26.830	0.000	2.36	Hole dry.
DHP401	1989-06-29	09:10	0	1640.380	43.007	0.000	2.36	Hole dry.
DHP401	1989-08-16	09:00	0	1688.380	47.993	0.000	2.36	Hole dry.
DHP401	1989-11-15	10:25	0	1779.430	91.059	0.000	2.36	Hole dry.
DHP401	1989-12-12	12:25	0	1806.520	27.083	0.000	2.36	Hole dry.
DHP402A	1986-10-29	00:00	NA	0.000	0.000	0.000	0.00	Drift excavated at S1950/E1320.
DHP402A	1986-12-05	00:00	NA	0.000	0.000	0.000	0.00	Downhole completed.
DHP402A	1987-03-06	09:40	0.14	794.403	1.000	0.000	0.14	First time sampled.
DHP402A	1987-03-30	09:15	0.00	818.385	23.982	0.000	0.14	
DHP402A	1987-04-22	11:24	0.03	841.475	47.072	0.001	0.17	Bailer stuck in hole. Hole appears offset or blocked at the 45 ft level. There may be a rock bolt or piece of rod in hole.
DHP402A	1987-07-08	00:00	NA	0.000	0.000	0.000	0.17	Horizontal pilot hole for Room 7 of the first Waste Storage Panel started just north of this location, drilled with brine.
DHP402A	1987-07-16	09:20	0.00	926.389	0.000	0.000	0.17	Hole entirely filled with brine from drilling the pilot/gas release hole for the last room of the first panel.
DHP402A	1987-07-28	10:20	17.50	938.431	0.000	0.000	17.67	Removed 17.5 liters of brine from hole, mostly drilling fluid. No calculation.
DHP402A	1987-07-29	09:10	15.00	939.382	0.000	0.000	32.67	Drilling brine removed from hole. Partial excavation, brine left in hole, no calculation.
DHP402A	1987-08-16		NA	0.000	0.000	0.000	32.67	Brine from the AIS sump spread in Panel 1 to assist in the reconstitution of loose muck on floor.
DHP402A	1987-08-20		NA	0.000	0.000	0.000	32.67	Brine from the AIS sump spread in Panel 1 to assist in the reconstitution of loose muck on floor.
DHP402A	1987-10-01	00:00	NA	0.000	0.000	0.000	32.67	Approximate date the salt muck stockpile was placed at the east end of S1950, covering the collar of this hole.
DHP402A	1988-07-12	13:50		1288.580	0.000	0.000	32.67	Muck piled over hole, could not collect.
DHP402A	1988-08-19	10:00	57.25	1326.420	387.989	0.186	89.92	Used 72.25 liters for calculation (15.0 on 7/29 + 57.25 on 8/29).
DHP402A	1988-08-30	11:00	42.75	1337.460	11.040	3.872	132.67	Depth of water 28.8 feet below floor. Bottom of hole at 44.3 feet. 5.7 feet of salt on bottom of hole.

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
DHP402A	1988-09-15	10:00	0.24	1353.420	0.000	0.000	132.91	Not fully evacuated. Don't use for calculation. Sampled for bacteriology.
DHP402A	1988-09-22	09:00	63.75	1360.380	22.920	2.781	196.66	Hole evacuated to 44.2' level.
DHP402A	1988-09-27	13:00		1365.540	0.000	0.000	196.66	
DHP402A	1988-10-18	13:45	45	1386.570	26.190	1.718	241.66	Some moisture could have entered hole due to water spread for dust control.
DHP402A	1988-11-15	10:30	40.65	1414.440	27.870	1.459	282.31	Evacuated to 43.75 foot level. Lip or obstruction near bottom of hole prevents additional evacuation.
DHP402A	1988-12-13	10:50	6.0	1442.450	0.000	0.000	288.31	Not fully evacuated, some brine left in hole. Don't use for calculation.
DHP402A	1988-12-29	12:00	43.60	1458.500	44.060	1.126	331.91	Used 49.6 liters for calculation (6.0 on 12/13 + 43.6 on 12/29).
DHP402A	1989-01-04	13:30	13.5	1464.560	6.062	2.227	345.41	Complete evacuation to 43.3 ft. level. Strong odor of diesel from hole and bailer.
DHP402A	1989-01-20	10:30	19	1480.440	15.876	1.197	364.41	Volume removed includes 2.5 gallons of brine introduced to hole by Intera.
DHP402A	1989-02-28	11:50	12.1	1519.490	39.055	0.310	376.51	Hole open to 44.2 feet.
DHP402A	1989-04-06	13:30	1.19	1556.560	37.069	0.032	377.70	Sample removed from above packer.
DHP402A	1989-04-20	13:05	NA	1570.550	0.000	0.000	377.70	Level measured at 33.1 feet.
DHP402A	1989-04-26	10:30	NA	1576.440	0.000	0.000	377.70	Level of brine at 27.2 feet.
DHP402A	1989-04-27	10:00	49.00	1577.420	20.855	2.350	426.70	Hole bottom measured at 44.3 feet.
DHP402A	1989-05-17	09:00	33	1597.380	19.958	1.653	459.70	Fluid level at 44.6 feet.
DHP402A	1989-06-20	10:00	NA	1631.420	0.000	0.000	459.70	Fluid measured at 39.8 feet. Hole not evacuated.
DHP402A	1989-06-29	09:00	NA	1640.380	0.000	0.000	459.70	Measured hole fluid level at 37.6 feet.
DHP402A	1989-07-24	09:50	24	1665.410	68.035	0.353	483.70	Hole pumped to fluid level of 41.1 feet.
DHP402A	1989-08-16	09:00	NA	1688.380	0.000	0.000	483.70	Sample not obtained. Fluid level at 36.5 feet.
DHP402A	1989-08-23	11:45	NA	1695.490	0.000	0.000	483.70	Observed fluid level at 35.4 feet. Not sampled.
DHP402A	1989-09-12	12:30	6.30	1715.520	50.111	0.126	490.00	
DHP402A	1989-10-02	11:00	25.5	1735.460	19.937	1.279	515.50	
DHP402A	1989-11-15	10:30	16	1779.440	43.980	0.364	531.50	
DHP402A	1989-12-13	12:12	15.62	1807.510	28.070	0.556	547.12	
GSEEP	1984-11-21			0.000	0.000	0.000	0.00	Approximate date this part of Room G excavated.
GSEEP	1985-08-28			0.000	0.000	0.000	0.00	Noticed damp area on floor at this location.
GSEEP	1985-11-12			0.000	0.000	0.000	0.00	Damp area on floor near S. rib approx. E1140 (45 ft E. of DH35) and at E1149. Crusted moist area is about 4 ft by 4 ft, has increased noticeably in size over last two months. Damp area covers 16 ft E-W, 13 ft N-S across width of Room G. Many weeps on lower 3 ft of S rib. Brine is seeping out of air pipe support hole.
GSEEP	1985-11-26	12:00	03.00	329.500	1.000	0.000	3.00	First time collection. Dug out salt.

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GSEEP	1985-12-03	12:00	01.50	336.500	7.000	0.214	4.50	Partial removal.
GSEEP	1985-12-04	12:00	01.13	337.500	1.000	1.130	5.63	
GSEEP	1985-12-10	12:00	01.80	343.500	6.000	0.300	7.43	
GSEEP	1986-01-23	12:00	00.50	387.500	44.000	0.011	7.93	Lots of salt in pool.
GSEEP	1986-01-31	12:00	00.94	395.500	8.000	0.117	8.87	
GSEEP	1986-02-12	12:00	02.23	407.500	12.000	0.186	11.10	Pumped twice.
GSEEP	1986-02-19	12:00	02.14	414.500	7.000	0.306	13.24	
GSEEP	1986-02-28	12:00	01.95	423.500	9.000	0.217	15.19	Partial removal. No pump, scooped with beaker.
GSEEP	1986-03-04	11:20	02.62	427.472	3.972	0.660	17.81	
GSEEP	1986-03-06	10:50	02.07	429.451	1.979	1.046	19.88	
GSEEP	1986-03-13	11:46	03.23	436.490	7.039	0.459	23.11	Collected three times.
GSEEP	1986-03-26	10:20	03.00	449.431	12.941	0.232	26.11	
GSEEP	1986-04-02	10:00	02.68	456.417	6.986	0.384	28.79	
GSEEP	1986-04-08	10:00	02.50	462.417	6.000	0.417	31.29	
GSEEP	1986-04-16	12:00	02.24	470.500	8.083	0.277	33.53	
GSEEP	1986-04-24	10:30	02.35	478.438	7.938	0.296	35.88	
GSEEP	1986-04-30	11:00	02.40	484.458	6.020	0.399	38.28	
GSEEP	1986-05-06	10:30	02.49	490.438	5.980	0.416	40.77	
GSEEP	1986-05-13	11:20	02.66	497.472	7.034	0.378	43.43	
GSEEP	1986-05-20	11:20	02.44	504.472	7.000	0.349	45.87	
GSEEP	1986-05-27	15:30	03.11	511.646	7.174	0.434	48.98	
GSEEP	1986-06-03	10:40	03.31	518.444	6.798	0.487	52.29	
GSEEP	1986-06-10	11:38	03.21	525.485	7.041	0.456	55.50	
GSEEP	1986-06-17	11:15	03.11	532.469	6.984	0.445	58.61	
GSEEP	1986-06-24	11:00	04.60	539.458	6.989	0.658	63.21	Very humid air in workings.
GSEEP	1986-07-01	14:00	05.43	546.583	7.125	0.762	68.64	Very humid last week, rain on surface.
GSEEP	1986-07-08	10:50	04.14	553.451	6.868	0.603	72.78	
GSEEP	1986-07-16	10:50	03.32	561.451	8.000	0.415	76.10	
GSEEP	1986-07-22	10:15	02.29	567.427	5.976	0.383	78.39	
GSEEP	1986-07-29	10:45	02.68	574.448	7.021	0.382	81.07	
GSEEP	1986-08-05	11:20	02.60	581.472	7.024	0.370	83.67	
GSEEP	1986-08-12	10:45	03.67	588.448	6.976	0.526	87.34	
GSEEP	1986-08-19	11:40	03.90	595.486	7.038	0.554	91.24	
GSEEP	1986-08-26	11:00	03.73	602.458	6.972	0.535	94.97	
GSEEP	1986-09-04	10:55	05.15	611.455	8.997	0.572	100.12	Last week has been humid and rainy.
GSEEP	1986-09-09	10:00	03.70	616.417	4.962	0.746	103.82	
GSEEP	1986-09-16	10:25	03.82	623.434	7.017	0.544	107.64	
GSEEP	1986-09-23	10:20	04.29	630.431	6.997	0.613	111.93	
GSEEP	1986-10-01	12:24	03.70	638.517	8.086	0.458	115.63	
GSEEP	1986-10-08	10:45	03.80	645.448	6.931	0.548	119.43	
GSEEP	1986-10-08	14:57	01.87	645.623	0.175	10.690	121.30	Second collection for this day. Use (3.80 + 1.87)/(6.931 + 0.175) = 0.798 liter/day.
GSEEP	1986-10-10	09:16	01.24	647.386	1.763	0.703	122.54	
GSEEP	1986-10-14	11:10	02.19	651.465	4.079	0.537	124.73	
GSEEP	1986-11-05	10:45	4.44	673.448	21.983	0.202	129.17	First time 3.74 liters, second time 0.70 liters.
GSEEP	1986-11-20	12:02	03.84	688.501	15.053	0.255	133.01	
GSEEP	1986-12-30	12:50	04.44	728.535	40.034	0.111	137.45	
GSEEP	1987-02-03	13:45	03.45	763.573	35.038	0.098	140.90	
GSEEP	1987-03-06	11:30	3.0	794.479	30.906	0.097	143.90	
GSEEP	1987-03-30	11:34	2.51	818.482	24.003	0.105	146.41	
GSEEP	1987-05-07	11:48	3.31	856.492	38.010	0.087	149.72	
GSEEP	1987-06-30	10:00	12.24	910.417	53.925	0.227	161.96	

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GSEEP	1987-07-16	10:30	11.66	926.438	16.021	0.728	173.62	
GSEEP	1987-07-23	09:20	3.87	933.389	6.951	0.557	177.49	
GSEEP	1987-07-28	11:35	2.36	938.483	5.094	0.463	179.85	
GSEEP	1987-08-07	09:15	5.33	948.385	9.902	0.538	185.18	
GSEEP	1987-08-12	10:12	2.80	953.425	5.040	0.556	187.98	
GSEEP	1987-08-24	08:46	6.53	965.365	11.940	0.547	194.51	
GSEEP	1987-09-01	11:00	5.26	973.458	8.093	0.650	199.77	
GSEEP	1987-09-11	09:00	5.03	983.375	9.917	0.507	204.80	
GSEEP	1987-09-16	09:33	2.42	988.398	5.023	0.482	207.22	
GSEEP	1987-09-25	08:55	4.12	997.372	8.974	0.459	211.34	Sump drilled to facilitate accumulation of brine.
GSEEP	1987-10-01	12:15	2.81	1003.510	6.138	0.458	214.15	
GSEEP	1987-10-08	10:25	2.97	1010.430	6.920	0.429	217.12	
GSEEP	1987-10-16	10:41	3.37	1018.450	8.020	0.420	220.49	
GSEEP	1987-10-20	11:59	2.06	1022.500	4.050	0.509	222.55	
GSEEP	1987-11-12	10:41	10.21	1045.450	22.950	0.445	232.76	
GSEEP	1987-11-19	11:35	2.90	1052.480	7.030	0.413	235.66	
GSEEP	1987-12-07	12:50	7.02	1070.530	18.050	0.389	242.68	
GSEEP	1988-01-04	12:10	16.11	1098.510	27.980	0.576	258.79	
GSEEP	1988-01-20	11:25	8.68	1114.480	15.970	0.544	267.47	
GSEEP	1988-02-08	12:15	9.58	1133.510	19.030	0.503	277.05	
GSEEP	1988-02-25	10:40	11.87	1150.440	16.930	0.701	288.92	
GSEEP	1988-03-09	10:18	7.35	1163.430	12.990	0.566	296.27	
GSEEP	1988-03-17	11:20	4.45	1171.470	8.040	0.553	300.72	
GSEEP	1988-03-29	11:45	5.42	1183.490	12.020	0.451	306.14	
GSEEP	1988-04-15	11:01	7.43	1200.460	16.970	0.438	313.57	
GSEEP	1988-05-05	10:10	9.34	1220.420	19.960	0.468	322.91	
GSEEP	1988-05-12	09:30	3.55	1227.400	6.980	0.509	326.46	
GSEEP	1988-06-09	08:45	12.00	1255.360	27.960	0.429	338.46	
GSEEP	1988-06-16	09:43	4.13	1262.400	7.040	0.587	342.59	
GSEEP	1988-06-30	08:30	6.00	1276.350	13.950	0.430	348.59	
GSEEP	1988-07-12	09:00	6.40	1288.380	12.030	0.532	354.99	
GSEEP	1988-07-28	10:30	11.35	1304.440	16.060	0.707	366.34	
GSEEP	1988-08-11	10:00	12.02	1318.420	13.980	0.860	378.36	
GSEEP	1988-08-25	09:07	6.72	1332.380	13.960	0.481	385.08	Hole covered with tight fitting brattice cloth.
GSEEP	1988-09-08	14:48	7.31	1346.620	14.240	0.513	392.39	
GSEEP	1988-09-14	08:30	3.00	1352.350	5.730	0.524	395.39	
GSEEP	1988-09-27	10:50	6.45	1365.450	13.100	0.492	401.84	
GSEEP	1988-10-18	10:22	10.20	1386.430	20.980	0.486	412.04	
GSEEP	1988-11-10	09:08	12.62	1409.380	22.950	0.550	424.66	Smell of urine in sample and coming from hole.
GSEEP	1988-12-13	10:20	17.81	1442.430	33.050	0.539	442.47	Sample effervesces and brine feels warmer than usual.
GSEEP	1989-01-10	13:30	17.38	1470.560	28.131	0.618	459.85	
GSEEP	1989-02-09	10:22	19.5	1500.430	29.870	0.653	479.35	
GSEEP	1989-03-01	10:00	3.90	1520.420	0.000	0.000	483.25	
GSEEP	1989-03-14	12:45	19.57	1533.530	33.099	0.709	502.82	Add 3.9 l collected 3/01/90 to 19.57 l. Use 23.47 liter for calculation.
GSEEP	1989-04-06	08:56	16.35	1556.370	22.841	0.716	519.17	
GSEEP	1989-04-20	08:45	10.43	1570.370	13.993	0.745	529.60	
GSEEP	1989-05-17	09:40	19.72	1597.400	27.038	0.729	549.32	
GSEEP	1989-06-06	09:40	14.52	1617.400	20.000	0.726	563.84	
GSEEP	1989-06-29	10:01	15.95	1640.420	23.014	0.693	579.79	
GSEEP	1989-07-06	09:00	4.67	1647.380	6.958	0.671	584.46	
GSEEP	1989-07-25	09:30	12.60	1666.400	19.021	0.662	597.06	
GSEEP	1989-08-16	09:15	14.73	1688.380	21.989	0.670	611.79	

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GSEEP	1989-09-12	08:30	18.68	1715.350	26.969	0.693	630.47	
GSEEP	1989-10-11	09:47	17.70	1744.410	29.054	0.609	648.17	
GSEEP	1989-11-15	09:30	21.44	1779.400	34.988	0.613	669.61	
GSEEP	1989-12-13	09:13	16.30	1807.380	27.988	0.582	685.91	
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L1S25	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S25	1985-06-28			0.000	0.000	0.000	0.00	Downhole drilled.
L1S25	1985-08-20			0.000	0.000	0.000	0.00	Wet.
L1S25	1985-09-17			0.000	0.000	0.000	0.00	Wet.
L1S25	1985-12-10	09:00	02.84	343.375	1.000	0.000	2.84	First time collected.
L1S25	1985-12-17	09:00	00.18	350.375	7.000	0.026	3.02	
L1S25	1986-01-03	09:00	00.25	367.375	17.000	0.015	3.27	
L1S25	1986-01-08	09:00	00.10	372.375	5.000	0.020	3.37	
L1S25	1986-01-16	09:00	00.13	380.375	8.000	0.016	3.50	
L1S25	1986-01-23	09:00	00.11	387.375	7.000	0.016	3.61	
L1S25	1986-01-31	09:00	00.13	395.375	8.000	0.016	3.74	
L1S25	1986-02-12	09:00	00.19	407.375	12.000	0.016	3.93	
L1S25	1986-02-19	09:00	00.12	414.375	7.000	0.017	4.05	
L1S25	1986-02-28	09:00	00.15	423.375	9.000	0.017	4.20	
L1S25	1986-03-06	09:15	00.10	429.385	6.010	0.017	4.30	
L1S25	1986-03-13	08:35	00.10	436.358	6.973	0.014	4.40	
L1S25	1986-03-26	08:40	00.20	449.361	13.003	0.015	4.60	
L1S25	1986-04-02	08:20	00.11	456.347	6.986	0.016	4.71	
L1S25	1986-04-08	08:30	00.09	462.354	6.007	0.015	4.80	
L1S25	1986-04-16	10:25	00.10	470.434	8.080	0.012	4.90	
L1S25	1986-04-24	08:55	00.13	478.372	7.938	0.016	5.03	
L1S25	1986-04-30	09:25	00.10	484.392	6.020	0.017	5.13	Collecting device installed.
L1S25	1986-05-06	09:05	00.09	490.378	5.986	0.015	5.22	
L1S25	1986-05-13	09:00	00.10	497.375	6.997	0.014	5.32	
L1S25	1986-05-20	09:20	00.10	504.389	7.014	0.014	5.42	
L1S25	1986-05-27	14:20	00.10	511.597	7.208	0.014	5.52	
L1S25	1986-06-03	08:55	00.10	518.372	6.775	0.015	5.62	
L1S25	1986-06-10	09:33	00.10	525.398	7.026	0.014	5.72	
L1S25	1986-06-17	09:24	00.10	532.392	6.994	0.014	5.82	
L1S25	1986-06-24	09:33	00.10	539.398	7.006	0.014	5.92	
L1S25	1986-07-01	12:08	00.10	546.506	7.108	0.014	6.02	
L1S25	1986-07-08	09:15	00.10	553.385	6.879	0.015	6.12	
L1S25	1986-07-16	09:24	00.12	561.392	8.007	0.015	6.24	
L1S25	1986-07-22	08:59	00.09	567.374	5.982	0.015	6.33	
L1S25	1986-07-29	09:27	00.10	574.394	7.020	0.014	6.43	
L1S25	1986-08-05	09:51	00.09	581.410	7.016	0.013	6.52	
L1S25	1986-08-12	09:20	00.10	588.389	6.979	0.014	6.62	
L1S25	1986-08-19	10:03	00.10	595.419	7.030	0.014	6.72	
L1S25	1986-08-26	09:36	00.10	602.400	6.981	0.014	6.82	
L1S25	1986-09-04	09:15	00.12	611.385	8.985	0.013	6.94	
L1S25	1986-09-09	11:38	00.08	616.485	5.100	0.016	7.02	
L1S25	1986-09-16	09:02	00.09	623.376	6.891	0.013	7.11	
L1S25	1986-09-23	09:08	00.10	630.381	7.005	0.014	7.21	
L1S25	1986-10-01	09:58	00.10	638.415	8.034	0.012	7.31	
L1S25	1986-10-08	09:24	00.10	645.392	6.977	0.014	7.41	
L1S25	1986-10-14	10:09	00.07	651.423	6.031	0.012	7.48	
L1S25	1986-11-05	09:32	0.27	673.397	21.974	0.012	7.75	
L1S25	1986-11-20	10:13	00.18	688.426	15.029	0.012	7.93	
L1S25	1986-12-31	10:42	00.41	729.446	41.020	0.010	8.34	Collecting device removed.
L1S25	1987-03-06	12:20	0.61	794.514	65.068	0.009	8.95	

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L1S25	1987-03-31	10:25	0.00	819.434	24.920	0.000	8.95	Dry.
L1S25	1987-05-07	08:35	0.33	856.358	61.844	0.005	9.28	
L1S25	1987-06-18	12:25	0.42	898.517	42.159	0.010	9.70	
L1S25	1987-07-28	13:09	0.44	938.548	40.031	0.011	10.14	
L1S25	1987-09-01	12:52	0.34	973.536	34.988	0.010	10.48	
L1S25	1987-10-20	12:20	0.38	1022.510	48.974	0.008	10.86	
L1S25	1987-11-19	12:20	0.19	1052.510	30.000	0.006	11.05	
L1S25	1988-01-04	12:33	0.14	1098.520	46.010	0.003	11.19	
L1S25	1988-02-08	13:46	0.13	1133.570	35.050	0.004	11.32	
L1S25	1988-03-30	12:20	0.28	1184.510	50.940	0.005	11.60	
L1S25	1988-07-12	11:50	0.31	1288.490	103.980	0.003	11.91	
L1S25	1988-09-27	08:50	0.40	1365.370	76.880	0.005	12.31	
L1S25	1988-12-13	11:30	0.55	1442.480	77.110	0.007	12.86	
L1S25	1989-03-15	11:02	0.21	1534.460	91.981	0.002	13.07	
L1S25	1989-04-06	10:30	0.10	1556.440	21.978	0.005	13.17	
L1S25	1989-04-20	12:05	0.08	1570.500	14.065	0.006	13.25	
L1S25	1989-05-17	NA	NA	1597.000	0.000	0.000	13.25	Not sampled, equipment in the way.
L1S25	1989-06-06	10:35	0.15	1617.440	46.938	0.003	13.40	Last time sampled for BSEP.
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L1S26	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S26	1985-06-28			0.000	0.000	0.000	0.00	Downhole drilled.
L1S26	1985-08-20			0.000	0.000	0.000	0.00	Dry.
L1S26	1985-09-17			0.000	0.000	0.000	0.00	Dry.
L1S26	1985-12-10			0.000	0.000	0.000	0.00	Dry.
L1S26	1985-12-17			0.000	0.000	0.000	0.00	Dry.
L1S26	1986-04-02	08:20	00.09	456.347	1.000	0.000	0.09	First time collected.
L1S26	1986-04-24	08:55	00.05	478.372	22.025	0.002	0.14	
L1S26	1986-05-20	09:20	00.05	504.389	26.017	0.002	0.19	
L1S26	1986-06-10	09:24	00.05	525.392	21.003	0.002	0.24	
L1S26	1986-06-24	09:20	00.05	539.389	13.997	0.004	0.29	
L1S26	1986-07-08	09:17	00.04	553.387	13.998	0.003	0.33	
L1S26	1986-07-16	09:05	00.02	561.378	7.991	0.003	0.35	
L1S26	1986-07-29	09:15	00.04	574.385	13.007	0.003	0.39	
L1S26	1986-08-12	09:06	00.04	588.379	13.994	0.003	0.43	
L1S26	1986-08-26	09:25	00.04	602.392	14.013	0.003	0.47	
L1S26	1986-09-09	11:27	00.05	616.477	14.085	0.004	0.52	
L1S26	1986-09-23	08:55	00.03	630.372	13.895	0.002	0.55	
L1S26	1986-10-01	09:48	00.03	638.408	8.036	0.004	0.58	
L1S26	1986-11-05	09:04	0.03	673.378	34.970	0.001	0.61	
L1S26	1986-11-20	09:59	00.03	688.416	15.038	0.002	0.64	
L1S26	1986-12-31	10:42	NA	729.446	41.030	0.000	0.64	Dry.
L1S26	1987-03-06	12:25	0.05	794.517	106.101	0.000	0.69	
L1S26	1987-03-31	10:28	0.00	819.436	24.919	0.000	0.69	Dry.
L1S26	1987-05-07	08:37	0.02	856.359	61.842	0.000	0.71	
L1S26	1987-06-18	12:27	0.07	898.519	42.160	0.002	0.78	
L1S26	1987-07-28	13:13	0.10	938.551	40.032	0.002	0.88	
L1S26	1987-09-01	12:55	0.07	973.538	34.987	0.002	0.95	
L1S26	1987-10-20	12:24	0.03	1022.520	48.982	0.001	0.98	
L1S26	1987-11-19	12:21	0.07	1052.510	29.990	0.002	1.05	
L1S26	1988-01-04	12:38	0.03	1098.530	46.020	0.001	1.08	
L1S26	1988-02-08	13:47	0.04	1133.570	35.040	0.001	1.12	
L1S26	1988-03-30	12:20	Trace	1184.510	50.940	0.000	1.12	
L1S26	1988-07-12	11:50	0.11	1288.490	103.980	0.001	1.23	
L1S26	1988-09-27	08:52	0.15	1365.370	76.880	0.002	1.38	

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L1S26	1988-12-13	11:30	0.13	1442.480	77.110	0.002	1.51	
L1S26	1989-03-15	11:04	0	1534.460	91.982	0.000	1.51	Hole dry.
L1S26	1989-04-06	10:32	0	1556.440	21.978	0.000	1.51	Hole dry.
L1S26	1989-04-20	12:10	0	1570.510	14.068	0.000	1.51	Hole dry.
L1S26	1989-05-17	NA	NA	1597.000	0.000	0.000	1.51	Not sampled, equipment in the way.
L1S26	1989-06-06	10:40	0	1617.440	46.937	0.000	1.51	Hole dry. Last time sampled for BSEP.
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L1S27	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S27	1985-07-01			0.000	0.000	0.000	0.00	Downhole drilled.
L1S27	1985-08-20			0.000	0.000	0.000	0.00	Wet.
L1S27	1985-09-17			0.000	0.000	0.000	0.00	Wet.
L1S27	1985-12-10	09:00	00.83	343.375	1.000	0.000	0.83	First time collected.
L1S27	1985-12-17			0.000	0.000	0.000	0.83	Wet, partial pool in bottom, none collected.
L1S27	1986-01-03	09:00	00.10	367.375	24.000	0.004	0.93	
L1S27	1986-01-16	09:00	00.05	380.375	13.000	0.004	0.98	
L1S27	1986-02-12	09:00	00.08	407.375	27.000	0.003	1.06	
L1S27	1986-02-19	09:00	00.04	414.375	7.000	0.006	1.10	
L1S27	1986-02-28	09:00	00.06	423.375	9.000	0.007	1.16	
L1S27	1986-03-13	08:35	00.08	436.358	12.983	0.006	1.24	Two weeks collection.
L1S27	1986-03-26	08:45	00.06	449.365	13.007	0.005	1.30	
L1S27	1986-04-08	08:30	00.07	462.354	12.989	0.005	1.37	
L1S27	1986-04-24	09:05	00.08	478.378	16.024	0.005	1.45	
L1S27	1986-05-06	08:55	00.05	490.372	11.994	0.004	1.50	
L1S27	1986-05-13	08:50	00.04	497.368	6.996	0.006	1.54	
L1S27	1986-05-27	14:20	00.07	511.597	14.229	0.005	1.61	
L1S27	1986-06-10	09:25	00.06	525.392	13.795	0.004	1.67	
L1S27	1986-06-17	09:15	00.04	532.385	6.993	0.006	1.71	
L1S27	1986-06-24	09:22	00.04	539.390	7.005	0.006	1.75	
L1S27	1986-07-01	11:56	00.04	546.497	7.107	0.006	1.79	
L1S27	1986-07-08	09:18	00.04	553.388	6.891	0.006	1.83	
L1S27	1986-07-16	09:09	00.04	561.381	7.993	0.005	1.87	
L1S27	1986-07-29	09:17	00.07	574.387	13.006	0.005	1.94	
L1S27	1986-08-12	09:08	00.06	588.381	13.994	0.004	2.00	
L1S27	1986-08-19	09:52	00.05	595.411	7.030	0.007	2.05	
L1S27	1986-08-26	09:26	00.04	602.393	6.982	0.006	2.09	
L1S27	1986-09-04	08:57	00.05	611.373	8.980	0.006	2.14	
L1S27	1986-09-09	11:28	00.04	616.478	5.105	0.008	2.18	
L1S27	1986-09-16	08:53	00.04	623.370	6.892	0.006	2.22	
L1S27	1986-09-23	08:56	00.03	630.372	7.002	0.004	2.25	
L1S27	1986-10-01	09:49	00.03	638.409	8.037	0.004	2.28	
L1S27	1986-11-05	09:06	0.06	673.379	34.970	0.002	2.34	
L1S27	1986-11-20	10:02	00.04	688.418	15.039	0.003	2.38	
L1S27	1986-12-31	10:42	00.00	729.446	41.028	0.000	2.38	Wet, but not enough to remove.
L1S27	1987-03-06	12:30	0.13	794.521	65.075	0.002	2.51	
L1S27	1987-03-31	10:28	0.00	819.436	24.915	0.000	2.51	Dry.
L1S27	1987-05-07	08:39	0.07	856.360	61.839	0.001	2.58	
L1S27	1987-06-18	12:30	0.11	898.521	42.161	0.003	2.69	
L1S27	1987-07-28	13:14	0.18	938.551	40.030	0.004	2.87	
L1S27	1987-09-01	12:55	0.14	973.538	34.987	0.004	3.01	
L1S27	1987-10-20	12:25	0.09	1022.520	48.982	0.002	3.10	
L1S27	1987-11-19	12:25	0.11	1052.520	30.000	0.004	3.21	
L1S27	1988-01-04	12:40	0.00	1098.530	46.010	0.000	3.21	Dry.

Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
L1S27	1988-02-08	13:48	0.00	1133.580	35.050	0.000	3.21	Dry.
L1S27	1988-03-30	12:20	0.07	1184.510	50.930	0.001	3.28	
L1S27	1988-07-12	11:50	0.24	1288.490	103.980	0.002	3.52	
L1S27	1988-09-27	08:54	0.53	1365.370	76.880	0.007	4.05	
L1S27	1988-12-13	11:30	0.18	1442.480	77.110	0.002	4.23	
L1S27	1989-03-15	11:06	0.04	1534.460	91.983	0.000	4.27	
L1S27	1989-04-06	10:32	0	1556.440	21.977	0.000	4.27	Hole dry.
L1S27	1989-04-20	12:10	0	1570.510	14.068	0.000	4.27	Hole dry.
L1S27	1989-05-17	NA	NA	1597.000	0.000	0.000	4.27	Not sampled, equipment in the way.
L1S27	1989-06-06	10:45	0	1617.450	46.941	0.000	4.27	Hole dry. Last time sampled for BSEP.
L1S28	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S28	1985-07-12			0.000	0.000	0.000	0.00	Downhole drilled.
L1S28	1985-08-20			0.000	0.000	0.000	0.00	Dry.
L1S28	1985-09-17			0.000	0.000	0.000	0.00	Dry.
L1S28	1985-12-10			0.000	0.000	0.000	0.00	Dry.
L1S28	1985-12-17			0.000	0.000	0.000	0.00	Dry.
L1S28	1986-11-05	09:08	0.11	673.381	1.000	0.000	0.11	First time collected.
L1S28	1986-11-20	NA	NA	688.000	14.619	0.000	0.11	Dry.
L1S28	1986-12-31	10:42	NA	729.446	41.011	0.000	0.11	Dry.
L1S28	1987-03-06	12:30	NA	794.521	121.140	0.000	0.11	Dry.
L1S28	1987-03-31	10:31	0.00	819.438	24.917	0.000	0.11	Dry.
L1S28	1987-05-07	08:39	0.00	856.360	61.839	0.000	0.11	Dry.
L1S28	1987-06-18	12:35	0.00	898.524	104.003	0.000	0.11	Dry.
L1S28	1987-07-28	13:24	0.09	938.558	144.037	0.001	0.20	
L1S28	1987-09-01	12:55	0.01	973.538	34.980	0.000	0.21	
L1S28	1987-10-20	12:26	0.02	1022.520	48.982	0.000	0.23	
L1S28	1987-11-19	12:30	0.00	1052.520	30.000	0.000	0.23	Dry.
L1S28	1988-01-04	12:42	0.01	1098.530	46.010	0.000	0.24	
L1S28	1988-02-08	13:49	Trace	1133.580	35.050	0.000	0.24	
L1S28	1988-03-30	12:20	0.00	1184.510	50.930	0.000	0.24	Dry.
L1S28	1988-07-12	11:55	0.50	1288.500	103.990	0.005	0.74	
L1S28	1988-09-27	08:56	0.40	1365.370	76.870	0.005	1.14	
L1S28	1988-12-13	11:30	0.37	1442.480	77.110	0.005	1.51	
L1S28	1989-03-15	11:08	0.48	1534.460	91.985	0.005	1.99	
L1S28	1989-04-06	10:40	0.06	1556.440	21.980	0.003	2.05	
L1S28	1989-04-20	12:10	0.17	1570.510	14.063	0.012	2.22	
L1S28	1989-05-17	NA	NA	1597.000	0.000	0.000	2.22	Not sampled, equipment in the way.
L1S28	1989-06-06	10:50	0.28	1617.450	46.944	0.006	2.50	Last time sampled for BSEP.
L1S29	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S29	1985-07-15			0.000	0.000	0.000	0.00	Downhole drilled.
L1S29	1985-08-20			0.000	0.000	0.000	0.00	Wet.
L1S29	1985-09-17			0.000	0.000	0.000	0.00	Wet.
L1S29	1985-12-10	09:00	02.20	343.375	1.000	0.000	2.20	First time collected.
L1S29	1985-12-17	09:00	00.30	350.375	7.000	0.043	2.50	
L1S29	1986-01-03	09:00	00.71	367.375	17.000	0.042	3.21	
L1S29	1986-01-08	09:00	00.24	372.375	5.000	0.048	3.45	
L1S29	1986-01-16	09:00	00.40	380.375	8.000	0.050	3.85	
L1S29	1986-01-23	09:00	00.32	387.375	7.000	0.046	4.17	
L1S29	1986-01-31	09:00	00.34	395.375	8.000	0.043	4.51	

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L1S29	1986-02-12	09:00	00.41	407.375	12.000	0.034	4.92	
L1S29	1986-02-19	09:00	00.25	414.375	7.000	0.036	5.17	
L1S29	1986-02-28	09:00	00.23	423.375	9.000	0.026	5.40	
L1S29	1986-03-06	09:20	00.13	429.389	6.014	0.022	5.53	
L1S29	1986-03-13	08:35	00.16	436.358	6.969	0.023	5.69	
L1S29	1986-03-26	08:50	00.27	449.368	13.010	0.021	5.96	
L1S29	1986-04-02	08:30	00.15	456.354	6.986	0.021	6.11	
L1S29	1986-04-08	08:40	00.11	462.361	6.007	0.018	6.22	
L1S29	1986-04-16	10:35	00.13	470.441	8.080	0.016	6.35	
L1S29	1986-04-24	09:10	00.12	478.382	7.941	0.015	6.47	
L1S29	1986-04-30	09:35	00.12	484.399	6.017	0.020	6.59	
L1S29	1986-05-06	09:00	00.12	490.375	5.976	0.020	6.71	Collecting device installed.
L1S29	1986-05-13	08:55	00.12	497.372	6.997	0.017	6.83	
L1S29	1986-05-20	09:20	00.11	504.389	7.017	0.016	6.94	
L1S29	1986-05-27	14:20	00.13	511.597	7.208	0.018	7.07	
L1S29	1986-06-03	08:53	00.13	518.370	6.773	0.019	7.20	
L1S29	1986-06-10	09:37	00.14	525.401	7.031	0.020	7.34	
L1S29	1986-06-17	09:21	00.13	532.390	6.989	0.019	7.47	
L1S29	1986-06-24	09:30	00.14	539.396	7.006	0.020	7.61	
L1S29	1986-07-01	12:06	00.15	546.504	7.108	0.021	7.76	
L1S29	1986-07-08	09:25	00.13	553.392	6.888	0.019	7.89	
L1S29	1986-07-16	09:21	00.16	561.390	7.998	0.020	8.05	
L1S29	1986-07-22	09:00	00.11	567.375	5.985	0.018	8.16	
L1S29	1986-07-29	09:25	00.12	574.392	7.017	0.017	8.28	
L1S29	1986-08-05	09:48	00.13	581.408	7.016	0.019	8.41	
L1S29	1986-08-12	09:18	00.14	588.388	6.980	0.020	8.55	
L1S29	1986-08-19	10:01	00.18	595.417	7.029	0.026	8.73	
L1S29	1986-08-26	09:34	00.26	602.399	6.982	0.037	8.99	
L1S29	1986-09-04	09:10	00.60	611.382	8.983	0.067	9.59	
L1S29	1986-09-09	11:37	00.48	616.484	5.102	0.094	10.07	
L1S29	1986-09-16	09:16	00.76	623.386	6.902	0.110	10.83	
L1S29	1986-09-23	09:06	00.77	630.379	6.993	0.110	11.60	
L1S29	1986-10-01	10:00	00.74	638.417	8.038	0.092	12.34	
L1S29	1986-10-08	09:28	00.69	645.394	6.977	0.099	13.03	
L1S29	1986-10-14	10:12	00.67	651.425	6.031	0.111	13.70	
L1S29	1986-11-05	09:35	0.80	673.399	21.974	0.036	14.50	
L1S29	1986-11-20	10:27	05.60	688.435	15.036	0.372	20.10	0.70 liters in probe. Opened hole and found suction tube floating on brine. Bailed hole dry.
L1S29	1986-12-31	10:32	06.48	729.439	41.004	0.158	26.58	Collecting device removed.
L1S29	1987-03-06	12:40	10.32	794.528	65.089	0.159	36.90	
L1S29	1987-03-31	10:30	4.19	819.438	24.910	0.162	41.09	
L1S29	1987-05-07	08:45	18.82	856.365	36.927	0.510	59.91	
L1S29	1987-05-08	08:45	13.35	857.365	0.000	0.000	73.26	Not pumped dry, brine left in hole, no calculation.
L1S29	1987-06-17	14:10	16.31	897.590	0.000	0.000	89.57	Partial removal, no calculation.
L1S29	1987-06-18	12:36	3.66	898.525	42.160	0.790	93.23	Used 33.32 liters in 42.16 days for calculation (5/08/87, 6/17/87, and 6/18/87).
L1S29	1987-07-28	13:25	11.32	938.559	40.034	0.283	104.55	
L1S29	1987-09-01	12:55	2.43	973.538	34.979	0.069	106.98	
L1S29	1987-10-20	12:28	2.61	1022.520	48.982	0.053	109.59	
L1S29	1987-11-19	12:35	1.43	1052.520	30.000	0.048	111.02	
L1S29	1988-01-04	12:45	2.85	1098.530	46.010	0.062	113.87	
L1S29	1988-02-08	13:49	2.43	1133.580	35.050	0.069	116.30	
L1S29	1988-03-30	12:20	3.00	1184.510	50.930	0.059	119.30	
L1S29	1988-07-12	11:58	7.14	1288.500	103.990	0.069	126.44	

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L1S29	1988-09-27	08:58	14.23	1365.370	76.870	0.185	140.67	
L1S29	1988-12-13	11:45	9.97	1442.490	77.120	0.129	150.64	
L1S29	1989-03-15	11:10	3.16	1534.460	91.975	0.034	153.80	
L1S29	1989-04-06	10:42	0.60	1556.450	21.981	0.027	154.40	
L1S29	1989-04-20	12:15	0.26	1570.510	14.064	0.018	154.66	
L1S29	1989-05-17	NA	NA	1597.000	0.000	0.000	154.66	Not sampled, equipment in the way.
L1S29	1989-06-06	10:55	0.63	1617.450	46.945	0.013	155.29	Last time sampled for BSEP.
**********								
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L1S30	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S30	1985-07-15			0.000	0.000	0.000	0.00	Downhole drilled.
L1S30	1985-08-20			0.000	0.000	0.000	0.00	Dry.
L1S30	1985-09-17			0.000	0.000	0.000	0.00	Dry.
L1S30	1985-12-10			0.000	0.000	0.000	0.00	Dry.
L1S30	1985-12-17			0.000	0.000	0.000	0.00	Dry.
L1S30	1986-01-23	09:00	00.07	387.375	1.000	0.000	0.07	First time collected.
L1S30	1986-02-12	09:00	00.09	407.375	20.000	0.004	0.16	
L1S30	1986-03-26	08:45	00.32	449.365	41.990	0.008	0.48	
L1S30	1986-04-08	08:35	00.13	462.358	12.993	0.010	0.61	
L1S30	1986-04-24	09:10	00.10	478.382	16.024	0.006	0.71	
L1S30	1986-05-06	09:00	00.05	490.375	11.993	0.004	0.76	
L1S30	1986-05-13	08:50	00.05	497.368	6.993	0.007	0.81	
L1S30	1986-05-27	14:20	00.08	511.597	14.229	0.006	0.89	
L1S30	1986-06-17	09:17	00.07	532.387	20.790	0.003	0.96	
L1S30	1986-07-01	11:58	00.05	546.499	14.112	0.004	1.01	
L1S30	1986-07-16	09:10	00.03	561.382	14.883	0.002	1.04	
L1S30	1986-07-29	09:19	00.04	574.388	13.006	0.003	1.08	
L1S30	1986-08-19	09:53	00.04	595.412	21.024	0.002	1.12	
L1S30	1986-09-04	09:00	00.04	611.375	15.963	0.003	1.16	
L1S30	1986-09-09	11:29	00.02	616.478	5.103	0.004	1.18	
L1S30	1986-09-23	08:58	00.02	630.374	13.896	0.001	1.20	
L1S30	1986-10-01	09:51	00.02	638.410	8.036	0.002	1.22	
L1S30	1986-10-14	10:01	00.00	651.417	13.007	0.000	1.22	Dry.
L1S30	1986-11-05	09:35	NA	673.399	34.989	0.000	1.22	Dry.
L1S30	1986-11-20	NA	NA	688.000	49.590	0.000	1.22	
L1S30	1986-12-31	10:08	00.05	729.422	91.012	0.001	1.27	
L1S30	1987-03-06	12:45	O.21	794.531	65.109	0.000	1.27	
L1S30	1987-03-31	10:33	0.15	819.440	24.909	0.006	1.42	
L1S30	1987-05-07	09:37	22.87	856.401	36.961	0.619	24.29	
L1S30	1987-05-08	08:35	16.28	857.358	0.000	0.000	40.57	Brine left in hole, no calculation.
L1S30	1987-06-17	14:35	17.42	897.608	0.000	0.000	57.99	Brine left in hole, no calculation.
L1S30	1987-06-18	12:40	0.58	898.528	42.127	0.814	58.57	Used 34.28 liters in 42.127 days for calculation (5/08/87, 6/17/87, and 6/18/87).
L1S30	1987-07-28	13:29	3.82	938.562	40.034	0.095	62.39	
L1S30	1987-09-01	13:00	2.09	973.542	34.980	0.060	64.48	One ear plug found in hole.
L1S30	1987-10-20	12:36	1.59	1022.520	48.978	0.032	66.07	
L1S30	1987-11-19	12:40	0.43	1052.530	30.010	0.014	66.50	
L1S30	1988-01-04	12:47	0.28	1098.530	46.000	0.006	66.78	
L1S30	1988-02-08	13:50	0.03	1133.580	35.050	0.001	66.81	
L1S30	1988-03-30	12:30	5.07	1184.520	50.940	0.100	71.88	
L1S30	1988-07-12	12:05	1.64	1288.500	103.980	0.016	73.52	
L1S30	1988-09-27	09:15	7.55	1365.390	76.890	0.098	81.07	
L1S30	1988-12-13	11:45	1.50	1442.490	77.100	0.019	82.57	
L1S30	1989-03-15	11:12	6.4	1534.470	91.977	0.070	88.97	

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L1S30	1989-04-06	10:45	0.03	1556.450	21.981	0.001	89.00	
L1S30	1989-04-20	12:20	0.04	1570.510	14.066	0.003	89.04	
L1S30	1989-05-17	NA	NA	1597.000	0.000	0.000	89.04	Not sampled, equipment in the way.
L1S30	1989-06-06	11:00	0	1617.460	46.944	0.000	89.04	Hole dry. Last time sampled for BSEP.
L1S31	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84. Hole drilled before 12/85.
L1S31	1985-07-24			0.000	0.000	0.000	0.00	Downhole drilled.
L1S31	1985-08-20			0.000	0.000	0.000	0.00	Dry.
L1S31	1985-09-17			0.000	0.000	0.000	0.00	Dry.
L1S31	1985-12-10			0.000	0.000	0.000	0.00	Dry.
L1S31	1985-12-17			0.000	0.000	0.000	0.00	Dry.
L1S31	1986-11-05	09:35	NA	673.399	1.000	0.000	0.00	Dry.
L1S31	1986-11-20	NA	NA	688.000	15.601	0.000	0.00	Installed collecting device.
L1S31	1986-12-31	10:08	NA	729.422	57.023	0.000	0.00	Dry.
L1S31	1987-03-06	12:50	NA	794.535	122.136	0.000	0.00	Dry.
L1S31	1987-03-31	10:33	0.00	819.440	24.905	0.000	0.00	Dry.
L1S31	1987-05-07	09:41	0.73	856.403	61.868	0.012	0.73	
L1S31	1987-06-18	12:42	3.39	898.529	42.126	0.080	4.12	
L1S31	1987-07-28	13:32	0.37	938.564	40.035	0.009	4.49	
L1S31	1987-09-01	13:05	0.21	973.545	34.981	0.006	4.70	
L1S31	1987-10-20	12:39	0.27	1022.530	48.985	0.006	4.97	
L1S31	1987-11-19	12:45	0.21	1052.530	30.000	0.007	5.18	
L1S31	1988-01-04	12:48	0.20	1098.530	46.000	0.004	5.38	
L1S31	1988-02-08	13:55	0.26	1133.580	35.050	0.007	5.64	
L1S31	1988-03-30	12:35	0.30	1184.520	50.940	0.006	5.94	
L1S31	1988-07-12	12:08	2.83	1288.510	103.990	0.027	8.77	
L1S31	1988-09-27	09:20	8.08	1365.390	76.880	0.105	16.85	
L1S31	1988-12-13	11:50	11.48	1442.490	77.100	0.149	28.33	
L1S31	1989-03-15	11:14	7.23	1534.470	91.975	0.079	35.56	
L1S31	1989-04-06	10:45	NA	1556.450	0.000	0.000	35.56	Hole blocked, could not sample.
L1S31	1989-04-20	12:25	0.50	1570.520	36.049	0.014	36.06	
L1S31	1989-05-17	NA	NA	1597.000	0.000	0.000	36.06	Not sampled, equipment in the way.
L1S31	1989-06-06	11:05	0.14	1617.460	46.945	0.003	36.20	Last time sampled for BSEP.
L1S32	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S32	1985-07-24			0.000	0.000	0.000	0.00	Downhole drilled.
L1S32	1985-08-20			0.000	0.000	0.000	0.00	Dry.
L1S32	1985-09-17			0.000	0.000	0.000	0.00	Moist.
L1S32	1985-12-10			0.000	0.000	0.000	0.00	Dry.
L1S32	1985-12-17			0.000	0.000	0.000	0.00	Dry.
L1S32	1986-04-16	10:30	00.07	470.438	1.000	0.000	0.07	First collection.
L1S32	1986-05-20	09:20	00.02	504.389	33.951	0.001	0.09	
L1S32	1986-06-03	08:45	00.05	518.365	13.976	0.004	0.14	
L1S32	1986-06-24	09:25	00.05	539.392	21.027	0.002	0.19	
L1S32	1986-07-16	09:12	00.07	561.383	21.991	0.003	0.26	
L1S32	1986-07-29	09:20	00.05	574.389	13.006	0.004	0.31	
L1S32	1986-08-12	09:10	00.11	588.382	13.993	0.008	0.42	
L1S32	1986-08-19	09:55	00.10	595.413	7.031	0.014	0.52	
L1S32	1986-08-26	09:28	00.12	602.394	6.981	0.017	0.64	
L1S32	1986-09-04	09:03	00.19	611.377	8.983	0.021	0.83	

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L1S32	1986-09-09	11:30	00.11	616.479	5.102	0.022	0.94	
L1S32	1986-09-16	08:54	00.19	623.371	6.892	0.028	1.13	
L1S32	1986-09-23	09:01	00.20	630.376	7.005	0.029	1.33	
L1S32	1986-10-01	09:52	00.22	638.411	8.035	0.027	1.55	
L1S32	1986-10-08	09:29	00.20	645.395	6.984	0.029	1.75	
L1S32	1986-10-14	10:04	00.16	651.419	6.024	0.027	1.91	
L1S32	1986-11-05	09:10	0.57	673.382	21.963	0.026	2.48	
L1S32	1986-11-20	10:05	00.56	688.420	15.038	0.037	3.04	
L1S32	1986-12-31	10:15	01.62	729.427	41.007	0.040	4.66	
L1S32	1987-03-06	12:50	3.31	794.535	65.108	0.051	7.97	
L1S32	1987-03-31	10:37	1.57	819.442	24.907	0.063	9.54	
L1S32	1987-04-22	10:40	1.27	841.444	22.002	0.058	10.81	
L1S32	1987-05-07	09:44	1.25	856.406	14.962	0.084	12.06	
L1S32	1987-06-18	12:45	7.44	898.531	42.125	0.177	19.50	
L1S32	1987-07-28	13:38	5.89	938.568	40.037	0.147	25.39	
L1S32	1987-09-01	13:12	5.39	973.550	34.982	0.154	30.78	
L1S32	1987-10-20	12:50	7.14	1022.530	48.980	0.146	37.92	
L1S32	1987-11-19	12:50	4.32	1052.530	30.000	0.144	42.24	
L1S32	1988-01-04	12:56	6.98	1098.540	46.010	0.152	49.22	
L1S32	1988-02-08	14:00	6.11	1133.580	35.040	0.174	55.33	
L1S32	1988-03-30	12:40	7.84	1184.530	50.950	0.154	63.17	
L1S32	1988-07-12	12:20	12.64	1288.510	103.980	0.122	75.81	
L1S32	1988-09-27	09:25	13.03	1365.390	76.880	0.169	88.84	
L1S32	1988-12-13	11:50	12.40	1442.490	77.100	0.161	101.24	
L1S32	1989-03-15	11:16	10.03	1534.470	91.976	0.109	111.27	
L1S32	1989-04-06	10:50	0.18	1556.450	21.982	0.008	111.45	
L1S32	1989-04-20	12:30	0.12	1570.520	14.070	0.009	111.57	
L1S32	1989-05-17	NA	NA	1597.000	0.000	0.000	111.57	Not sampled, equipment in the way.
L1S32	1989-06-06	11:10	0.21	1617.460	46.944	0.004	111.78	Last time sampled for BSEP.
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L1S33	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S33	1985-07-23			0.000	0.000	0.000	0.00	Downhole drilled.
L1S33	1985-08-20			0.000	0.000	0.000	0.00	Wet.
L1S33	1985-09-17			0.000	0.000	0.000	0.00	Wet.
L1S33	1985-12-10	09:00	01.01	343.375	1.000	0.000	1.01	First time collected.
L1S33	1985-12-17	09:00	00.11	350.375	7.000	0.016	1.12	
L1S33	1986-01-03	09:00	00.21	367.375	17.000	0.012	1.33	
L1S33	1986-01-08	09:00	00.06	372.375	5.000	0.012	1.39	
L1S33	1986-01-16	09:00	00.09	380.375	8.000	0.011	1.48	
L1S33	1986-01-23	09:00	00.08	387.375	7.000	0.011	1.56	
L1S33	1986-01-31	09:00	00.09	395.375	8.000	0.011	1.65	
L1S33	1986-02-12	09:00	00.15	407.375	12.000	0.012	1.80	
L1S33	1986-02-19	09:00	00.12	414.375	7.000	0.017	1.92	
L1S33	1986-02-28	09:00	00.11	423.375	9.000	0.012	2.03	Estimated, lost some during collection.
L1S33	1986-03-06	09:20	00.09	429.389	6.014	0.015	2.12	
L1S33	1986-03-13	08:40	00.10	436.361	6.972	0.014	2.22	
L1S33	1986-03-26	08:50	00.20	449.368	13.007	0.015	2.42	
L1S33	1986-04-02	08:30	00.10	456.354	6.986	0.014	2.52	
L1S33	1986-04-08	08:38	00.08	462.360	6.006	0.013	2.60	
L1S33	1986-04-16	10:30	00.11	470.438	8.078	0.014	2.71	
L1S33	1986-04-24	09:10	00.12	478.382	7.944	0.015	2.83	
L1S33	1986-04-30	09:30	00.10	484.396	6.014	0.017	2.93	
L1S33	1986-05-06	09:00	00.09	490.375	5.979	0.015	3.02	

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L1S33	1986-05-13	08:55	00.11	497.372	6.997	0.016	3.13	
L1S33	1986-05-20	09:20	00.12	504.389	7.017	0.017	3.25	
L1S33	1986-05-27	14:20	00.12	511.597	7.208	0.017	3.37	
L1S33	1986-06-03	08:50	00.12	518.368	6.771	0.018	3.49	
L1S33	1986-06-10	09:28	00.12	525.394	7.026	0.017	3.61	
L1S33	1986-06-17	09:19	00.12	532.388	6.994	0.017	3.73	
L1S33	1986-06-24	09:25	00.13	539.392	7.004	0.019	3.86	
L1S33	1986-07-01	12:00	00.11	546.500	7.108	0.015	3.97	
L1S33	1986-07-08	09:20	00.10	553.389	6.889	0.015	4.07	
L1S33	1986-07-16	09:14	00.13	561.385	7.996	0.016	4.20	
L1S33	1986-07-22	08:52	00.10	567.369	5.984	0.017	4.30	
L1S33	1986-07-29	09:22	00.15	574.390	7.021	0.021	4.45	
L1S33	1986-08-05	09:43	00.13	581.405	7.015	0.019	4.58	
L1S33	1986-08-12	09:13	00.16	588.384	6.979	0.023	4.74	
L1S33	1986-08-19	09:56	00.16	595.414	7.030	0.023	4.90	
L1S33	1986-08-26	09:29	00.18	602.395	6.981	0.026	5.08	
L1S33	1986-09-04	09:04	00.22	611.378	8.983	0.024	5.30	
L1S33	1986-09-09	11:31	00.14	616.480	5.102	0.027	5.44	
L1S33	1986-09-16	08:55	00.16	623.372	6.892	0.023	5.60	
L1S33	1986-09-23	09:02	00.17	630.376	7.004	0.024	5.77	
L1S33	1986-10-01	09:54	00.20	638.413	8.037	0.025	5.97	
L1S33	1986-10-08	09:29	00.18	645.395	6.982	0.026	6.15	
L1S33	1986-10-14	10:06	00.17	651.421	6.026	0.028	6.32	
L1S33	1986-11-05	09:15	0.45	673.385	21.964	0.020	6.77	
L1S33	1986-11-20	10:07	00.35	688.422	15.037	0.023	7.12	
L1S33	1986-12-31	10:17	00.69	729.428	41.006	0.017	7.81	
L1S33	1987-03-06	12:55	0.68	794.538	65.110	0.010	8.49	
L1S33	1987-03-31	10:40	0.81	819.444	24.906	0.033	9.30	
L1S33	1987-05-07	09:46	1.50	856.407	36.963	0.041	10.80	
L1S33	1987-06-18	12:50	4.39	898.535	42.128	0.104	15.19	
L1S33	1987-07-28	13:45	2.10	938.573	40.038	0.052	17.29	
L1S33	1987-09-01	13:13	0.27	973.551	34.978	0.008	17.56	
L1S33	1987-10-20	12:52	2.20	1022.540	48.989	0.045	19.76	
L1S33	1987-11-19	12:55	1.43	1052.540	30.000	0.048	21.19	
L1S33	1988-01-04	12:58	2.82	1098.540	46.000	0.061	24.01	
L1S33	1988-02-08	14:10	1.65	1133.590	35.050	0.047	25.66	
L1S33	1988-03-30	12:45	1.96	1184.530	50.940	0.038	27.62	
L1S33	1988-07-12	12:25	6.11	1288.520	103.990	0.059	33.73	
L1S33	1988-09-27	09:40	7.77	1365.400	76.880	0.101	41.50	
L1S33	1988-12-13	12:00	8.42	1442.500	77.100	0.109	49.92	
L1S33	1989-03-15	11:18	5.58	1534.470	91.971	0.061	55.50	
L1S33	1989-04-06	10:55	0.31	1556.450	21.984	0.014	55.81	
L1S33	1989-04-20	12:35	0.28	1570.520	14.069	0.020	56.09	
L1S33	1989-05-17	NA	NA	1597.000	0.000	0.000	56.09	Not sampled, equipment in the way.
L1S33	1989-06-06	11:15	0.40	1617.470	46.945	0.009	56.49	Last time sampled for BSEP.
L1S34	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S34	1985-07-18			0.000	0.000	0.000	0.00	Downhole drilled.
L1S34	1985-08-20			0.000	0.000	0.000	0.00	Dry.
L1S34	1985-09-17			0.000	0.000	0.000	0.00	Dry.
L1S34	1985-12-10			0.000	0.000	0.000	0.00	Dry.
L1S34	1985-12-17			0.000	0.000	0.000	0.00	Dry.
L1S34	1986-11-05	09:15	NA	673.385	1.000	0.000	0.00	Dry.

Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
L1S34	1986-11-20	NA	NA	688.000	15.615	0.000	0.00	
L1S34	1986-12-31	10:17	NA	729.428	57.043	0.000	0.00	Dry.
L1S34	1987-03-06	13:00	NA	794.542	122.157	0.000	0.00	Dry.
L1S34	1987-03-31	10:40	0.00	819.444	24.902	0.000	0.00	Dry.
L1S34	1987-05-07	09:46	0.00	856.407	61.865	0.000	0.00	Dry.
L1S34	1987-06-18	12:51	0.00	898.535	103.993	0.000	0.00	Dry.
L1S34	1987-07-28	13:38	0.00	938.568	144.026	0.000	0.00	Dry.
L1S34	1987-09-01	13:13	0.00	973.551	34.983	0.000	0.00	Dry.
L1S34	1987-10-20	12:53	0.00	1022.540	48.989	0.000	0.00	Dry.
L1S34	1987-11-19	13:00	0.00	1052.540	30.000	0.000	0.00	Dry.
L1S34	1988-01-04	12:58	0.00	1098.540	46.000	0.000	0.00	Dry.
L1S34	1988-02-08	14:15		1133.590	0.000	0.000	0.00	Did not sample.
L1S34	1988-03-30	12:45	0.00	1184.530	85.990	0.000	0.00	Dry.
L1S34	1988-07-12	12:25	0.00	1288.520	103.990	0.000	0.00	Dry.
L1S34	1988-09-27	09:40	0.00	1365.400	76.880	0.000	0.00	Dry.
L1S34	1988-12-13	12:00	0	1442.500	77.100	0.000	0.00	Dry.
L1S34	1989-03-15	11:20	0	1534.470	91.972	0.000	0.00	Hole dry.
L1S34	1989-04-06	10:57	0	1556.460	21.984	0.000	0.00	Hole dry.
L1S34	1989-04-20	12:40	0	1570.530	14.072	0.000	0.00	Hole dry.
L1S34	1989-05-17	NA	NA	1597.000	0.000	0.000	0.00	Not sampled, equipment in the way.
L1S34	1989-06-06	11:20	0	1617.470	46.944	0.000	0.00	Hole dry. Last time sampled for BSEP.
L1S35	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1S35	1985-07-17			0.000	0.000	0.000	0.00	Downhole drilled.
L1S35	1985-08-20			0.000	0.000	0.000	0.00	Dry.
L1S35	1985-09-17			0.000	0.000	0.000	0.00	Dry.
L1S35	1985-12-10			0.000	0.000	0.000	0.00	Dry.
L1S35	1985-12-17				0.000	0.000	0.000	0.00 Dry.
L1S35	1986-11-05	09:20	0.09	673.389	1.000	0.000	0.09	
L1S35	1986-11-20	NA	NA	688.000	14.611	0.000	0.09	
L1S35	1986-12-31	10:17	NA	729.428	56.039	0.000	0.09	Dry.
L1S35	1987-03-06	13:00	NA	794.542	121.153	0.000	0.09	Dry.
L1S35	1987-03-31	10:40	0.00	819.444	24.902	0.000	0.09	Dry.
L1S35	1987-05-07	09:46	0.00	856.407	61.865	0.000	0.09	Dry.
L1S35	1987-06-18	12:52	0.00	898.536	103.994	0.000	0.09	Dry.
L1S35	1987-07-28	13:38	0.00	938.568	144.026	0.000	0.09	Dry.
L1S35	1987-09-01	13:13	0.00	973.551	34.983	0.000	0.09	Dry.
L1S35	1987-10-20	12:53	0.00	1022.540	48.989	0.000	0.09	Dry.
L1S35	1987-11-19	13:05	0.00	1052.550	30.010	0.000	0.09	Dry.
L1S35	1988-01-04	12:58	0.00	1098.540	45.990	0.000	0.09	Dry.
L1S35	1988-02-08	14:25		1133.600	0.000	0.000	0.09	Did not sample.
L1S35	1988-03-30	12:45	0.00	1184.530	85.990	0.000	0.09	Dry.
L1S35	1988-07-12	12:25	0.00	1288.520	103.990	0.000	0.09	Dry.
L1S35	1988-09-27	09:40	0.00	1365.400	76.880	0.000	0.09	Dry.
L1S35	1988-12-13	12:30	0	1442.520	77.120	0.000	0.09	Dry.
L1S35	1989-03-15	11:22	0	1534.470	91.953	0.000	0.09	Hole dry.
L1S35	1989-04-06	10:57	0	1556.460	21.982	0.000	0.09	Hole dry.
L1S35	1989-04-20	12:40	0	1570.530	14.072	0.000	0.09	Hole dry.
L1S35	1989-05-17	NA	NA	1597.000	0.000	0.000	0.09	Not sampled, equipment in the way.
L1S35	1989-06-06	11:25	0	1617.480	46.948	0.000	0.09	Hole dry. Last time sampled for BSEP.

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L1S36	1984-04-21		0.000	0.000	0.000	0.00		Room L1 excavated 4/19/84 to 4/21/84.
L1S36	1985-07-22		0.000	0.000	0.000	0.00		Downhole drilled.
L1S36	1985-08-2	0	0.000	0.000	0.000	0.00		Wet.
L1S36	1985-09-17		0.000	0.000	0.000	0.00		Wet.
L1S36	1985-12-10	09:00	01.28	343.375	1.000	0.000	1.28	First time collected.
L1S36	1985-12-17	09:00	00.09	350.375	7.000	0.013	1.37	
L1S36	1986-01-03	09:00	00.12	367.375	17.000	0.007	1.49	
L1S36	1986-01-08	09:00	00.05	372.375	5.000	0.010	1.54	
L1S36	1986-01-16	09:00	00.04	380.375	8.000	0.005	1.58	
L1S36	1986-02-12	09:00	00.15	407.375	27.000	0.006	1.73	
L1S36	1986-02-28	09:00	00.11	423.375	16.000	0.007	1.84	
L1S36	1986-03-13	08:40	00.06	436.361	12.986	0.005	1.90	
L1S36	1986-04-02	08:35	00.11	456.358	19.997	0.006	2.01	Yellow color.
L1S36	1986-04-16	10:30	00.08	470.438	14.080	0.006	2.09	
L1S36	1986-04-30	09:30	00.09	484.396	13.958	0.006	2.18	
L1S36	1986-05-13	08:58	00.08	497.374	12.978	0.006	2.26	
L1S36	1986-05-27	14:20	00.09	511.597	14.223	0.006	2.35	
L1S36	1986-06-10	09:30	00.10	525.396	13.799	0.007	2.45	
L1S36	1986-06-24	09:28	00.10	539.394	13.998	0.007	2.55	
L1S36	1986-07-01	12:03	00.05	546.502	7.108	0.007	2.60	
L1S36	1986-07-08	09:22	00.05	553.390	6.888	0.007	2.65	
L1S36	1986-07-16	09:16	00.06	561.386	7.996	0.008	2.71	
L1S36	1986-07-22	08:56	00.05	567.372	5.986	0.008	2.76	
L1S36	1986-07-29	09:23	00.05	574.391	7.019	0.007	2.81	
L1S36	1986-08-05	09:46	00.05	581.407	7.016	0.007	2.86	
L1S36	1986-08-12	09:15	00.05	588.385	6.978	0.007	2.91	
L1S36	1986-08-19	09:59	00.06	595.416	7.031	0.009	2.97	
L1S36	1986-08-26	09:30	00.06	602.396	6.980	0.009	3.03	
L1S36	1986-09-04	09:05	00.07	611.378	8.982	0.008	3.10	
L1S36	1986-09-09	11:32	00.04	616.481	5.103	0.008	3.14	
L1S36	1986-09-16	08:56	00.05	623.372	6.891	0.007	3.19	
L1S36	1986-09-23	09:03	00.05	630.377	7.005	0.007	3.24	
L1S36	1986-10-01	09:55	0.05	638.413	8.036	0.006	3.29	
L1S36	1986-10-08	09:30	00.03	645.396	6.983	0.004	3.32	
L1S36	1986-11-05	09:25	0.10	673.392	27.996	0.004	3.42	
L1S36	1986-11-20	10:10	00.05	688.424	15.032	0.003	3.47	
L1S36	1986-12-31	10:22	00.05	729.432	41.008	0.001	3.52	
L1S36	1987-03-06	13:00	0.14	794.542	65.110	0.002	3.66	
L1S36	1987-03-31	10:45	0.03	819.448	24.906	0.001	3.69	
L1S36	1987-05-07	09:47	0.03	856.408	36.960	0.001	3.72	
L1S36	1987-06-18	12:53	0.19	898.537	42.129	0.005	3.91	
L1S36	1987-07-28	13:47	0.19	938.574	40.037	0.005	4.10	
L1S36	1987-09-01	13:15	0.14	973.552	34.978	0.004	4.24	
L1S36	1987-10-20	12:57	0.15	1022.540	48.988	0.003	4.39	
L1S36	1987-11-19	13:10	0.08	1052.550	30.010	0.003	4.47	
L1S36	1988-01-04	12:59	0.08	1098.540	45.990	0.002	4.55	
L1S36	1988-02-08	14:30 Wet		1133.600	35.060	0.000	4.55	
L1S36	1988-03-30	12:45	0.00	1184.530	50.930	0.000	4.55	Dry.
L1S36	1988-07-12	12:25	0.00	1288.520	103.990	0.000	4.55	Dry.
L1S36	1988-09-27	09:40	0.00	1365.400	76.880	0.000	4.55	Dry.
L1S36	1988-12-13	12:30	0.04	1442.520	77.120	0.001	4.59	
L1S36	1989-03-15	11:24	0.75	1534.470	91.954	0.008	5.34	
L1S36	1989-04-06	10:59	0.06	1556.460	21.983	0.003	5.40	
L1S36	1989-04-20	12:40	0.07	1570.530	14.070	0.005	5.47	
L1S36	1989-05-17	NA	NA	1597.000	0.000	0.000	5.47	Not sampled, equipment in the way.
L1S36	1989-06-06	11:30	0	1617.480	46.951	0.000	5.47	Hole dry. Last time sampled for BSEP.

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L1X00	1984-04-21			0.000	0.000	0.000	0.00	Room L1 excavated 4/19/84 to 4/21/84.
L1X00	1984-05-13			0.000	0.000	0.000	0.00	Downhole drilled 5/10/84 to 5/13/84. Brine entered hole over weekend during drilling.
L1X00	1984-11-27	NA	11	-34.417	0.000	0.000	11.00	First time collected. Brine and salt muck.
L1X00	1985-05-14	11:24	11.46	133.475	1.000	0.000	22.46	Hole looked dry due to floating salt dust on surface of brine. Salt muck removed with brine. Volume high due to near-hole storage.
L1X00	1985-05-21	12:33	00.31	140.523	7.048	0.044	22.77	
L1X00	1985-05-29	10:00	00.23	148.417	7.894	0.029	23.00	Removed 1 lb. of salt muck with brine.
L1X00	1985-06-04	09:25	00.17	154.392	5.975	0.028	23.17	
L1X00	1985-06-11	09:00	00.23	161.375	6.983	0.033	23.40	2 lbs. salt removed with brine during bailing.
L1X00	1985-06-18	09:05	00.23	168.378	7.003	0.033	23.63	
L1X00	1985-06-25	08:55	00.21	175.372	6.994	0.030	23.84	
L1X00	1985-07-02	11:00	00.23	182.458	7.086	0.032	24.07	
L1X00	1985-07-09	09:10	00.21	189.382	6.924	0.030	24.28	
L1X00	1985-07-16	09:12	00.21	196.383	7.001	0.030	24.49	
L1X00	1985-07-24	09:29	00.22	204.395	8.012	0.027	24.71	
L1X00	1985-07-30	08:42	00.18	210.363	5.968	0.030	24.89	
L1X00	1985-08-06	09:07	00.18	217.380	7.017	0.026	25.07	
L1X00	1985-08-14	08:53	00.23	225.370	7.990	0.029	25.30	
L1X00	1985-08-20	08:58	00.16	231.374	6.004	0.027	25.46	
L1X00	1985-08-28	08:25	00.23	239.351	7.977	0.029	25.69	
L1X00	1985-09-04	09:09	00.19	246.381	7.030	0.027	25.88	
L1X00	1985-09-10	08:53	00.16	252.370	5.989	0.027	26.04	
L1X00	1985-09-17	08:25	00.21	259.351	6.981	0.030	26.25	
L1X00	1985-09-24	08:40	00.21	266.361	7.010	0.030	26.46	
L1X00	1985-10-01	08:52	00.17	273.369	7.008	0.024	26.63	
L1X00	1985-10-08	09:55	00.19	280.413	7.044	0.027	26.82	
L1X00	1985-10-15	08:45	00.16	287.365	6.952	0.023	26.98	
L1X00	1985-10-23	09:09	00.20	295.381	8.016	0.025	27.18	
L1X00	1985-10-29	11:30	00.18	301.479	6.098	0.030	27.36	
L1X00	1985-11-05	08:17	00.16	308.345	6.866	0.023	27.52	
L1X00	1985-11-13	08:47	00.18	316.366	8.021	0.022	27.70	
L1X00	1985-11-21	10:00	00.17	324.417	8.051	0.021	27.87	
L1X00	1985-11-26	09:25	00.12	329.392	4.975	0.024	27.99	
L1X00	1985-12-03	14:35	00.14	336.608	7.216	0.019	28.13	
L1X00	1985-12-10	12:55	00.14	343.538	6.930	0.020	28.27	
L1X00	1985-12-17	13:02	00.15	350.543	7.005	0.021	28.42	
L1X00	1986-01-03	09:05	00.38	367.378	16.835	0.023	28.80	
L1X00	1986-01-08	09:25	00.11	372.392	5.014	0.022	28.91	
L1X00	1986-01-16	09:00	00.18	380.375	7.983	0.023	29.09	
L1X00	1986-01-23	09:15	00.14	387.385	7.010	0.020	29.23	
L1X00	1986-01-31	09:45	00.18	395.406	8.021	0.022	29.41	
L1X00	1986-02-12	08:50	00.30	407.368	11.962	0.025	29.71	
L1X00	1986-02-19	09:40	00.16	414.403	7.035	0.023	29.87	
L1X00	1986-02-28	11:20	00.24	423.472	9.069	0.026	30.11	
L1X00	1986-03-06	09:10	00.12	429.382	5.910	0.020	30.23	
L1X00	1986-03-13	08:30	00.16	436.354	6.972	0.023	30.39	
L1X00	1986-03-26	08:35	00.29	449.358	13.004	0.022	30.68	

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L1X00	1986-04-02	08:15	00.17	456.344	6.986	0.024	30.85	
L1X00	1986-04-08	08:26	00.15	462.351	6.007	0.025	31.00	
L1X00	1986-04-16	10:20	00.19	470.431	8.080	0.024	31.19	
L1X00	1986-04-24	08:50	00.16	478.368	7.937	0.020	31.35	
L1X00	1986-04-30	09:20	00.16	484.389	6.021	0.027	31.51	
L1X00	1986-05-06	08:50	00.15	490.368	5.979	0.025	31.66	
L1X00	1986-05-13	08:48	00.18	497.367	6.999	0.026	31.84	
L1X00	1986-05-20	09:20	00.18	504.389	7.022	0.026	32.02	
L1X00	1986-05-27	14:20	00.17	511.597	7.208	0.024	32.19	
L1X00	1986-06-03	08:43	00.15	518.363	6.766	0.022	32.34	
L1X00	1986-06-10	09:20	00.21	525.389	7.026		0.030	32.55
L1X00	1986-06-17	09:12	00.14	532.383	6.994	0.020	32.69	
L1X00	1986-06-24	09:15	00.22	539.385	7.002	0.031	32.91	
L1X00	1986-07-01	11:53	00.22	546.495	7.110	0.031	33.13	
L1X00	1986-07-08	09:10	00.22	553.382	6.887	0.032	33.35	
L1X00	1986-07-16	09:00	00.21	561.375	7.993	0.026	33.56	
L1X00	1986-07-22	08:45	00.17	567.365	5.990	0.028	33.73	
L1X00	1986-07-29	09:08	00.18	574.381	7.016	0.026	33.91	
L1X00	1986-08-05	09:33	00.20	581.398	7.017	0.029	34.11	
L1X00	1986-08-12	09:05	00.20	588.378	6.980	0.029	34.31	
L1X00	1986-08-19	09:49	00.20	595.409	7.031	0.028	34.51	
L1X00	1986-08-26	09:20	00.19	602.389	6.980	0.027	34.70	
L1X00	1986-09-04	08:55	00.25	611.372	8.983	0.028	34.95	
L1X00	1986-09-09	11:25	00.16	616.476	5.104	0.031	35.11	
L1X00	1986-09-16	08:50	00.19	623.368	6.892	0.028	35.30	
L1X00	1986-09-23	08:53	00.20	630.370	7.002	0.029	35.50	
L1X00	1986-10-01	09:46	00.22	638.407	8.037	0.027	35.72	
L1X00	1986-10-08	09:17	00.18	645.387	6.980	0.026	35.90	
L1X00	1986-10-14	10:00	00.14	651.417	6.030	0.023	36.04	
L1X00	1986-11-05	09:02	0.52	673.376	21.959	0.024	36.56	
L1X00	1986-11-20	09:47	00.36	688.408	15.032	0.024	36.92	
L1X00	1986-12-31	10:00	00.88	729.417	41.009	0.021	37.80	
L1X00	1987-02-03	10:45	00.61	763.448	34.031	0.018	38.41	
L1X00	1987-03-06	09:45	0.58	794.406	30.958	0.019	38.99	Hole looked dry due to floating salt dust on surface of brine.
L1X00	1987-04-10	09:30	0.68	829.396	34.990	0.019	39.67	
L1X00	1987-06-17	14:00	0.83	897.583	0.000	0.000	40.50	Brine left in hole, no calculation.
L1X00	1987-07-28	13:07	1.O9	938.547	109.151	0.018	41.50	Calculated using 1.92 liters in 109.151 days (6/17/87 and 7/28/87).
L1X00	1987-09-01	12:45	0.95	973.531	34.984	0.027	42.45	
L1X00	1987-09-10	10:34	0.25	982.440	8.909	0.028	42.70	Installed collecting device.
L1X00	1987-10-20	12:18	0.09	1022.510	40.070	0.002	42.79	
L1X00	1987-11-19	12:15	1.35	1052.510	30.000	0.045	44.14	
L1X00	1988-01-04	12:30	0.43	1098.520	46.010	0.009	44.57	
L1X00	1988-02-08	13:45	0.93	1133.570	35.050	0.027	45.50	
L1X00	1988-03-30	12:20	1.00	1184.510	50.940	0.020	46.50	
L1X00	1988-07-12	12:25	2.33	1288.520	104.010	0.022	48.83	
L1X00	1988-09-27	08:45	2.07	1365.360	76.840	0.027	50.90	
L1X00	1988-12-13	11:30	1.85	1442.480	77.120	0.024	52.75	
L1X00	1989-03-15	11:00	1.58	1534.460	91.979	0.017	54.33	Std. will not fit in hole, collecting device removed.
L1X00	1989-04-06	10:30	NA	1556.440	0.000	0.000	54.33	
L1X00	1989-04-20	12:00	1.25	1570.500	36.042	0.035	55.58	Last time sampled for BSEP.

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NG252	1983-03-16			0.000	0.000	0.000	0.00	West side of SPDV Test Room 2 excavated. (Room excavated 3/09/83 to 3/20/83).
NG252	1983-03-20			0.000	0.000	0.000	0.00	Approximate date downhole drilled.
NG252	1984-03-04			0.000	0.000	0.000	0.00	Overcored non-functional stress meter with 6" hole (to 1.5 feet).
NG252	1984-11-21			0.000	0.000	0.000	0.00	Brine 7" below west edge of collar. Cleaned hole.
NG252	1984-11-30			0.000	0.000	0.000	0.00	Installed PVC casing for BSEP observations.
NG252	1984-12-19	12:00	04.60	-12.500	1.000	0.000	4.60	Partial removal. First time collected.
NG252	1984-12-20	09:00	04.35	-11.625	0.875	0.000	8.95	Pumped dry. Inflow rate about 2 cc/hr.
NG252	1985-01-08	09:43	08.19	7.405	19.030	0.430	17.14	Pumped dry.
NG252	1985-02-05-	09:30	08.48	35.396	27.991	0.303	25.62	Gas bubbles observed rising through brine in hole.
NG252	1985-02-14	10:33	04.14	44.440	9.044	0.458	29.76	
NG252	1985-02-19	10:18	03.92	49.429	4.989	0.786	33.68	
NG252	1985-03-07	10:57	03.83	65.456	16.027	0.239	37.51	
NG252	1985-03-12	09:10	03.41	70.382	4.926	0.692	40.92	
NG252	1985-03-20	10:00	03.71	78.417	8.035	0.462	44.63	
NG252	1985-03-26	09:30	03.24	84.396	5.979	0.542	47.87	
NG252	1985-04-02	10:00	03.38	91.417	7.021	0.481	51.25	
NG252	1985-04-10	10:02	03.29	99.418	8.001	0.411	54.54	
NG252	1985-04-17	13:50	03.57	106.576	7.158	0.499	58.11	
NG252	1985-04-23	12:00	02.58	112.500	5.924	0.436	60.69	
NG252	1985-04-30	11:39	03.28	119.485	6.985	0.470	63.97	
NG252	1985-05-07	10:25	02.96	126.434	6.949	0.426	66.93	
NG252	1985-05-14	11:05	02.83	133.462	7.028	0.403	69.76	
NG252	1985-05-21	11:12	03.01	140.467	7.005	0.430	72.77	Brine degassing in collecting container.
NG252	1985-05-29	10:00	03.45	148.417	7.950	0.434	76.22	
NG252	1985-06-04	11:50	02.90	154.493	6.076	0.477	79.12	
NG252	1985-06-11	11:35	03.06	161.483	6.990	0.438	82.18	
NG252	1985-06-18	10:47	02.82	168.449	6.966	0.405	85.00	
NG252	1985-06-25	10:00	03.34	175.417	6.968	0.479	88.34	
NG252	1985-07-02	11:00	03.50	182.458	7.041	0.497	91.84	
NG252	1985-07-09	11:30	03.46	189.479	7.021	0.493	95.30	Brine effervesces.
NG252	1985-07-16	12:09	03.43	196.506	7.027	0.488	98.73	Brine effervesces.
NG252	1985-07-24	11:10	03.83	204.465	7.959	0.481	102.56	
NG252	1985-07-30	10:45	02.79	210.448	5.983	0.466	105.35	
NG252	1985-08-06	10:58	03.05	217.457	7.009	0.435	108.40	
NG252	1985-08-14	12:10	03.48	225.507	8.050	0.432	111.88	
NG252	1985-08-20	11:31	03.15	231.480	5.973	0.527	115.03	
NG252	1985-08-28	10:00	03.11	239.417	7.937	0.392	118.14	
NG252	1985-09-04	10:58	03.17	246.457	7.040	0.450	121.31	
NG252	1985-09-10	11:23	03.04	252.474	6.017	0.505	124.35	
NG252	1985-09-17	10:16	02.68	259.428	6.954	0.385	127.03	
NG252	1985-09-24	10:20	02.98	266.431	7.003	0.426	130.01	
NG252	1985-10-01	10:25	03.19	273.434	7.003	0.456	133.20	
NG252	1985-10-08	11:05	03.36	280.462	7.028	0.478	136.56	
NG252	1985-10-15	10:46	02.64	287.449	6.987	0.378	139.20	
NG252	1985-10-23	10:58	02.93	295.457	8.008	0.366	142.13	
NG252	1985-10-29	10:45	02.64	301.448	5.991	0.441	144.77	
NG252	1985-11-05	09:40	02.16	308.403	6.955	0.311	146.93	10 days after brine was removed from 36" hole in SPDV Test Room 3.
NG252	1985-11-13	10:45	02.72	316.448	8.045	0.338	149.65	

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NG252	1985-11-21	11:50	02.88	324.493	8.045	0.358	152.53	
NG252	1985-11-26	10:40	02.28	329.444	4.951	0.461	154.81	
NG252	1985-12-03	14:15	02.45	336.594	7.150	0.343	157.26	
NG252	1985-12-10	13:41	02.34	343.570	6.976	0.335	159.60	
NG252	1985-12-17	14:15	02.73	350.594	7.024	0.389	162.33	
NG252	1986-01-03	10:30	04.03	367.438	16.844	0.239	166.36	Partial removal only.
NG252	1986-01-08	10:40	03.00	372.444	5.006	0.599	169.36	High volume of brine due to only partial removal on 1/03/86.
NG252	1986-01-16	10:10	03.90	380.424	7.980	0.489	173.26	
NG252	1986-01-23	10:20	02.84	387.431	7.007	0.405	176.10	
NG252	1986-01-31	12:45	02.94	395.531	8.100	0.363	179.04	
NG252	1986-02-12	11:30	02.87	407.479	11.948	0.240	181.91	
NG252	1986-02-19	12:13	02.85	414.509	7.030	0.405	184.76	
NG252	1986-03-06	11:00	04.10	429.458	14.949	0.274	188.86	
NG252	1986-03-13	10:30	02.78	436.438	6.980	0.398	191.64	
NG252	1986-03-26	10:25	03.50	449.434	12.996	0.269	195.14	
NG252	1986-04-02	10:10	02.67	456.424	6.990	0.382	197.81	
NG252	1986-04-08	10:15	02.00	462.427	6.003	0.333	199.81	
NG252	1986-04-16	12:30	02.52	470.521	8.094	0.311	202.33	
NG252	1986-04-24	10:40	01.93	478.444	7.923	0.244	204.26	
NG252	1986-04-30	11:20	02.10	484.472	6.028	0.348	206.36	
NG252	1986-05-06	10:45	01.80	490.448	5.976	0.301	208.16	
NG252	1986-05-13	11:35	01.33	497.483	7.035	0.189	209.49	
NG252	1986-05-20	11:25	01.22	504.476	6.993	0.174	210.71	
NG252	1986-05-27	16:10	01.60	511.674	7.198	0.222	212.31	
NG252	1986-06-03	10:45	01.49	518.448	6.774	0.220	213.80	
NG252	1986-06-10	11:45	02.18	525.490	7.042	0.310	215.98	
NG252	1986-06-17	11:21	02.65	532.473	6.983	0.379	218.63	
NG252	1986-06-24	11:15	01.77	539.469	6.996	0.253	220.40	
NG252	1986-07-01	14:20	01.80	546.597	7.128	0.253	222.20	
NG252	1986-07-08	10:55	01.50	553.455	6.858	0.219	223.70	
NG252	1986-07-16	11:00	01.88	561.458	8.003	0.235	225.58	
NG252	1986-07-22	10:22	01.94	567.432	5.974	0.325	227.52	
NG252	1986-07-29	10:55	02.16	574.455	7.023	0.308	229.68	
NG252	1986-08-05	11:33	01.92	581.481	7.026	0.273	231.60	
NG252	1986-08-12	10:50	01.90	588.451	6.970	0.273	233.50	
NG252	1986-08-19	11:45	01.82	595.490	7.039	0.259	235.32	
NG252	1986-08-26	11:05	01.85	602.462	6.972	0.265	237.17	
NG252	1986-09-04	11:00	02.15	611.458	8.996	0.239	239.32	
NG252	1986-09-09	09:12	01.85	616.383	4.925	0.376	241.17	
NG252	1986-09-16	10:27	01.81	623.435	7.052	0.257	242.98	
NG252	1986-09-23	10:30	01.65	630.438	7.003	0.236	244.63	
NG252	1986-10-01	12:30	02.67	638.521	8.083	0.330	247.30	
NG252	1986-10-08	11:30	01.61	645.479	6.958	0.231	248.91	
NG252	1986-10-14	12:10	01.72	651.507	6.028	0.285	250.63	
NG252	1986-11-05	11:57	3.45	673.498	21.991	0.157	254.08	
NG252	1986-11-20	12:40	03.93	688.528	15.030	0.261	258.01	
NG252	1986-12-30	13:13	03.54	728.551	40.023	0.090	261.55	
NG252	1987-01-06	13:00	02.38	735.542	6.991	0.318	263.93	
NG252	1987-01-12	12:15	06.81	741.510	5.968	1.141	270.74	
NG252	1987-02-03	09:15	03.93	763.385	21.875	0.180	274.67	
NG252	1987-03-06	13:35	4.2	794.566	31.181	0.135	278.87	
NG252	1987-04-22	09:17	4.83	841.387	46.821	0.103	283.70	
NG252	1987-05-07	11:59	4.24	856.499	15.112	0.281	287.94	Low liters/day values for some periods between 11/05/86 and 6/16/87 may be the result in part of the long time between collections.

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NG252	1987-06-17	14:10	4.63	897.590	0.000	0.000	292.57	Some brine left in hole, no calc.
NG252	1987-06-30	10:20	4.10	910.431	53.932	0.162	296.67	Calculation used 8.73 liters in 53.932 days (6/17/87 and 6/30/87).
NG252	1987-07-16	10:50	3.77	926.451	16.020	0.235	300.44	
NG252	1987-07-23	09:35	2.32	933.399	6.948	0.334	302.76	
NG252	1987-07-29	09:54	2.07	939.413	6.014	0.344	304.83	
NG252	1987-08-07	09:00	1.89	948.375	8.962	0.211	306.72	
NG252	1987-08-12	10:00	1.28	953.417	5.042	0.254	308.00	
NG252	1987-08-24	08:57	1.89	965.373	11.956	0.158	309.89	
NG252	1987-09-01	13:41	1.75	973.570	8.197	0.213	311.64	
NG252	1987-09-11	08:35	2.04	983.358	9.788	0.208	313.68	
NG252	1987-09-16	09:45	1.45	988.406	5.048	0.287	315.13	
NG252	1987-09-25	09:05	1.64	997.378	8.972	0.183	316.77	
NG252	1987-10-01	12:25	1.22	1003.520	6.142	0.199	317.99	
NG252	1987-10-08	10:36	1.12	1010.440	6.920	0.162	319.11	
NG252	1987-10-16	10:49	1.38	1018.450	8.010	0.172	320.49	
NG252	1987-10-20	12:06	0.87	1022.500	4.050	0.215	321.36	
NG252	1987-11-12	10:54	2.47	1045.450	22.950	0.108	323.83	
NG252	1987-11-19	11:50	1.84	1052.490	7.040	0.261	325.67	
NG252	1987-12-07	13:15	3.00	1070.550	18.060	0.166	328.67	
NG252	1988-01-04	12:23	2.80	1098.520	27.970	0.100	331.47	
NG252	1988-01-20	11:33	2.96	1114.480	15.960	0.185	334.43	
NG252	1988-02-08	13:30	2.87	1133.560	19.080	0.150	337.30	
NG252	1988-02-25	10:53	3.09	1150.450	16.890	0.183	340.39	
NG252	1988-03-09	10:30	2.92	1163.440	12.990	0.225	343.31	
NG252	1988-03-17	11:30	2.28	1171.480	8.040	0.284	345.59	
NG252	1988-03-29	12:30	1.91	1183.520	12.040	0.159	347.50	
NG252	1988-04-15	11:10	2.37	1200.470	16.950	0.140	349.87	
NG252	1988-05-05	10:30	1.95	1220.440	19.970	0.098	351.82	
NG252	1988-05-12	11:00	1.38	1227.460	7.020	0.197	353.20	
NG252	1988-06-09	09:00	2.88	1255.380	27.920	0.103	356.08	
NG252	1988-06-16	10:00	1.95	1262.420	7.040	0.277	358.03	
NG252	1988-07-12	09:10	2.32	1288.380	25.960	0.089	360.35	
NG252	1988-08-11	11:00	2.53	1318.460	30.080	0.084	362.88	
NG252	1988-08-25	10:00	2.37	1332.420	13.960	0.170	365.25	
NG252	1988-09-08	14:55	2.64	1346.620	14.200	0.186	367.89	
NG252	1988-09-27	11:00	2.40	1365.460	18.840	0.127	370.29	
NG252	1988-10-18	10:51	1.33	1386.450	20.990	0.063	371.62	
NG252	1988-11-10	09:23	1.98	1409.390	22.940	0.086	373.60	Smell of paint thinner. Sample effervesces.
NG252	1988-12-13	10:30	3.34	1442.440	33.050	0.101	376.94	
NG252	1989-01-10	13:50	2.08	1470.580	28.138	0.074	379.02	
NG252	1989-02-09	10:40	2.3	1500.440	29.868	0.077	381.32	
NG252	1989-03-15	10:45	1.98	1534.450	34.004	0.058	383.30	
NG252	1989-04-06	10:20	0.38	1556.430	21.983	0.017	383.68	
NG252	1989-04-20	09:55	0.12	1570.410	13.982	0.009	383.80	Last time sampled for BSEP.
NG252	1989-06-29	10:45	NA	1640.450	0.000	0.000	383.80	Room closed.
OH20	1985-09-03	14:00	NA	0.000	0.000	0.000	0.00	Approximated date this part of drift excavated.
OH20	1989-03-29	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 3/28/89 to 3/29/89. Hole drilled with brine. Fluorescien added to drilling fluid.
OH20	1989-03-30	11:00	NA	1549.458	0.000	0.000	0.00	New hole, Installed collecting device. Hole dry.
OH20	1989-04-18	09:45	0	1568.406	18.948	0.000	0.00	Device left with 50 centibars suction.

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OH20	1989-04-26	09:50	0	1576.410	8.004	0.000	0.00	Device left with 50 centibars suction.
OH20	1989-06-05	09:00	0.31	1616.375	39.965	0.008	0.31	First time sample recovered from this hole. Sample colored with Fluorescien dye. Replaced collecting device.
OH20	1989-06-20	08:30	0.03	1631.354	14.979	0.002	0.34	
OH20	1989-07-06	11:00	0.02	1647.458	16.104	0.001	0.36	Collecting device retained vacuum.
OH20	1989-08-09	10:00	0.29	1681.417	33.959	0.009	0.65	Pumped collecting device, repaired hose end.
OH20	1989-08-23	11:22	0.16	1695.474	14.057	0.011	0.81	Still yellowish green in color.
OH20	1989-09-14	11:05	0.21	1717.462	21.988	0.010	1.02	
OH20	1989-10-02	11:20	0.27	1735.472	18.010	0.015	1.29	
OH20	1989-10-20	11:25	0.26	1753.476	18.004	0.014	1.55	
OH20	1989-11-10	10:18	0.29	1774.429	20.953	0.014	1.84	
OH20	1989-11-29	13:00	0.37	1793.542	19.113	0.019	2.21	
OH20	1989-12-12	10:06	0.20	1806.421	12.879	0.016	2.41	
OH21	1985-09-03	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH21	1988-12-12	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 12/12/88 to 12/19/88. Hole drilled with brine. Fluorescien added to drilling fluid.
OH21	1989-02-06	10:00	NA	1497.417	0.000	0.000	0.00	New hole, Installed collecting device @ 53' in hole. Hole dry.
OH21	1989-02-14	09:25	0	1505.392	7.975	0.000	0.00	Hole plugged with foam. Hole holding vacuum at approx. 50 centibars.
OH21	1989-02-21	10:30	0	1512.438	7.046	0.000	0.00	Holding vacuum.
OH21	1989-02-28	10:50	0	1519.451	7.013	0.000	0.00	Holding vacuum.
OH21	1989-03-01	11:45	NA	1520.490	0.000	0.000	0.00	Device left with approximately 70 centibars suction.
OH21	1989-03-08	09:45	0	1527.406	7.955	0.000	0.00	Device left with approximately 50 centibars suction.
OH21	1989-03-15	11:35	0	1534.483	7.077	0.000	0.00	Hole dry.
OH21	1989-03-30	10:20	0	1549.431	14.948	0.000	0.00	Hole dry.
OH21	1989-04-18	09:50	0	1568.410	18.979	0.000	0.00	Device left with approximately 50 centibars suction.
OH21	1989-04-26	09:55	0	1576.413	8.003	0.000	0.00	Device left with approximately 50 centibars suction.
OH21	1989-06-05	09:10	0	1616.382	39.969	0.000	0.00	Hole dry, no vacuum in collecting device. Removed and replaced collecting device.
OH21	1989-06-20	08:40	0	1631.361	14.979	0.000	0.00	Hole dry.
OH21	1989-07-06	11:10	0	1647.465	16.104	0.000	0.00	Hole dry. Collecting device retained vacuum.
OH21	1989-08-09	10:05	0	1681.420	33.955	0.000	0.00	Hole dry. Pumped collecting device, repaired hose ends.
OH21	1989-08-23	11:20	0	1695.472	14.052	0.000	0.00	Hole dry.
OH21	1989-10-02	11:25	0	1735.476	40.004	0.000	0.00	Hole dry.
OH21	1989-10-20	11:25	0	1753.476	18.000	0.000	0.00	Hole dry.
OH21	1989-11-10	10:20	0	1774.431	20.955	0.000	0.00	Hole dry.
OH21	1989-11-29	12:52	0	1793.536	19.105	0.000	0.00	Hole dry.
OH21	1989-12-12	10:10	0	1806.424	12.888	0.000	0.00	Hole dry. Reseat collecting device (leaking).

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OH22	1985-09-03	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH22	1988-12-19	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 12/12/88 to 12/19/88. Hole drilled with brine. Fluorescien added to drilling fluid.
OH22	1989-02-06	11:00	NA	1497.458	0.000	0.000	0.00	New hole, Installed collecting device @ 52.4' in hole. Hole dry.
OH22	1989-02-14	09:20	0	1505.389	7.931	0.000	0.00	Hole plugged with foam. Hole holding vacuum at approx. 50 centibars.
OH22	1989-02-21	10:40	0	1512.444	7.055	0.000	0.00	Holding vacuum.
OH22	1989-02-28	10:50	0	1519.451	7.007	0.000	0.00	Not holding vacuum.
OH22	1989-03-01	11:00	NA	1520.458	0.000	0.000	0.00	Device left with approximately 70 centibars suction.
OH22	1989-03-08	09:45	0	1527.406	7.955	0.000	0.00	Device left with approximately 50 centibars suction.
OH22	1989-03-15	11:35	0	1534.483	7.077	0.000	0.00	Hole dry.
OH22	1989-03-30	10:22	0	1549.432	14.949	0.000	0.00	Hole dry.
OH22	1989-04-18	09:55	0	1568.413	18.981	0.000	0.00	Device left with approximately 50 centibars suction.
OH22	1989-04-26	10:00	0	1576.417	8.004	0.000	0.00	Device left with approximately 50 centibars suction.
OH22	1989-06-05	09:20	0	1616.389	39.972	0.000	0.00	Hole dry, no vacuum on collecting device. Removed and replaced collecting device.
OH22	1989-06-20	08:45	Trace	1631.365	0.000	0.000	0.00	Trace of brine found in hole.
OH22	1989-07-06	11:20	0	1647.472	31.083	0.000	0.00	Hole dry. Collecting device retained vacuum.
OH22	1989-08-09	10:10	0	1681.424	33.952	0.000	0.00	Hole dry. Pumped collecting device, repaired hose ends.
OH22	1989-08-23	11:20	0	1695.472	14.048	0.000	0.00	Hole dry.
OH22	1989-10-02	11:23	0	1735.474	40.002	0.000	0.00	Hole dry.
OH22	1989-10-20	11:25	0	1753.476	18.002	0.000	0.00	Hole dry.
OH22	1989-11-10	10:22	0	1774.432	20.956	0.000	0.00	Hole dry.
OH22	1989-11-29	12:55	0	1793.538	19.106	0.000	0.00	Hole dry.
OH22	1989-12-12	10:12	0	1806.425	12.887	0.000	0.00	Hole dry. Reseat collecting device (leaking).
OH23	1985-12-08	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH23	1989-02-06	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 2/6/89. Hole drilled with brine. Fluorescien added to drilling fluid.
OH23	1989-02-07	14:00	NA	1498.583	0.000	0.000	0.00	New hole, Installed collecting device @ 153' in hole. Hole dry.
OH23	1989-02-14	09:08	0	1505.381	6.798	0.000	0.00	Hole plugged with foam. Hole holding vacuum at approx. 50 centibars.
OH23	1989-02-21	10:00	0.00	1512.417	7.036	0.000	0.00	Holding vacuum.
OH23	1989-02-28	10:00	0.43	1519.417	7.000	0.061	0.43	Sample clear, warm and effervescent.
OH23	1989-03-08	09:30	0.30	1527.396	7.979	0.038	0.73	Device left with approximately 50 centibars suction.
OH23	1989-03-15	11:45	0.21	1534.490	7.094	0.030	0.94	
OH23	1989-03-30	10:15	0.52	1549.427	14.937	0.035	1.46	
OH23	1989-04-04	09:30	0.10	1554.396	4.969	0.020	1.56	Device left with approximately 50 centibars suction. Outer 75 feet (approx.) of hole dry.

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
OH23	1989-04-18	09:55	0.10	1568.413	14.017	0.007	1.66	Device left with approximately 50 centibars suction.
OH23	1989-04-26	09:35	0.15	1576.399	7.986	0.019	1.81	Device left with approximately 50 centibars suction.
OH23	1989-06-05	09:30	0.35	1616.396	39.997	0.009	2.16	
OH23	1989-06-20	08:50	0.62	1631.368	14.972	0.041	2.78	
OH23	1989-07-06	11:30	0.37	1647.479	16.111	0.023	3.15	Collecting device retained vacuum.
OH23	1989-08-09	10:15	0.76	1681.427	33.948	0.022	3.91	Pumped collecting device.
OH23	1989-08-23	11:13	0.35	1695.467	14.040	0.025	4.26	
OH23	1989-09-14	11:14	0.51	1717.468	22.001	0.023	4.77	
OH23	1989-10-02	11:30	0.36	1735.479	18.011	0.020	5.13	
OH23	1989-10-20	11:35	0.46	1753.483	18.004	0.026	5.59	
OH23	1989-11-10	10:24	NA	1774.433	0.000	0.000	5.59	Collecting device exploded in hole due to overpressuring during sampling.
OH23	1989-11-15	09:00	NA	1779.375	0.000	0.000	5.59	Reinstalled collecting device.
OH23	1989-11-29	12:51	0.26	1793.535	40.052	0.006	5.85	
OH23	1989-12-12	09:52	0.13	1806.411	12.876	0.010	5.98	Reseat collecting device (leaking).
OH24	1985-12-08	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH24	1989-03-06	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 3/2/89 to 3/6/89.
OH24	1989-03-08	09:50	NA	1527.410	0.000	0.000	0.00	New hole. Installed collecting device. Hole dry.
OH24	1989-03-15	11:45	0	1534.490	7.080	0.000	0.00	Hole dry.
OH24	1989-03-30	10:25	0	1549.434	14.944	0.000	0.00	Hole dry.
OH24	1989-04-18	10:00	0	1568.417	18.983	0.000	0.00	Device left with approximately 50 centibars suction.
OH24	1989-04-26	09:40	0	1576.403	7.986	0.000	0.00	Device left with approximately 50 centibars suction.
OH24	1989-06-05	09:40	0.05	1616.403	40.000	0.001	0.05	First time sample recovered. No vacuum in collecting device. Collecting device removed and replaced.
OH24	1989-06-20	09:00	0.03	1631.375	14.972	0.002	0.08	
OH24	1989-07-06	11:40	0.01	1647.486	16.111	0.001	0.09	Collecting device retained vacuum.
OH24	1989-08-09	10:20	0	1681.431	33.945	0.000	0.09	Hole dry. Pumped collecting device.
OH24	1989-08-23	11:18	0	1695.471	14.040	0.000	0.09	Hole dry.
OH24	1989-10-02	11:35	0	1735.483	40.012	0.000	0.09	Hole dry.
OH24	1989-10-20	11:35	0	1753.483	18.000	0.000	0.09	Hole dry.
OH24	1989-11-10	10:26	0	1774.435	20.952	0.000	0.09	Hole dry.
OH24	1989-11-29	12:58	0	1793.540	19.105	0.000	0.09	Hole dry.
OH24	1989-12-12	09:54	0	1806.412	12.872	0.000	0.09	Hole dry. Reseat collecting device (leaking).
OH25	1985-12-08	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH25	1989-03-27	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled on 3/27/89.
OH25	1989-03-30	10:27	0	1549.435	1549.430	0.000	0.00	Hole dry.
OH25	1989-04-18	10:05	0	1568.420	18.985	0.000	0.00	Device left with approximately 50 centibars suction.

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
OH25	1989-04-26	09:45	0	1576.406	7.986	0.000	0.00	Device left with approximately 50 centibars suction.
OH25	1989-06-05	09:50	0	1616.410	40.004	0.000	0.00	Hole dry, no vacuum on collecting device. Collecting device removed and replaced.
OH25	1989-06-20	09:10	0	1631.382	14.972	0.000	0.00	Hole dry.
OH25	1989-07-06	11:40	0.01	1647.486	16.104	0.001	0.01	Collecting device retained vacuum.
OH25	1989-08-09	10:25	0	1681.434	33.948	0.000	0.01	Hole dry.
OH25	1989-08-23	11:18	0	1695.471	14.037	0.000	0.01	Hole dry.
OH25	1989-10-02	11:35	0	1735.483	40.012	0.000	0.01	Hole dry.
OH25	1989-10-20	11:35	0	1753.483	18.000	0.000	0.01	Hole dry.
OH25	1989-11-10	10:30	0	1774.438	20.955	0.000	0.01	Hole dry.
OH25	1989-11-29	13:02	0	1793.543	19.105	0.000	0.01	Hole dry.
OH25	1989-12-12	09:58	0	1806.415	12.872	0.000	0.01	Hole dry. Reseat collecting device (leaking).
OH26	1986-08-05	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH26	1989-03-27	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled on 3/27/89. Hole drilled with brine. Fluorescien added to drilling fluid.
OH26	1989-03-30	10:00	NA	1549.417	0.000	0.000	0.00	New hole, Installed collecting device. Hole dry.
OH26	1989-04-18	10:10	0	1568.424	19.007	0.000	0.00	Device left with approximately 50 centibars suction.
OH26	1989-04-26	09:15	0	1576.385	7.961	0.000	0.00	Device left with approximately 50 centibars suction.
OH26	1989-06-05	10:00	0.20	1616.417	40.032	0.005	0.20	First time sample recovered. Collecting device removed and replaced.
OH26	1989-06-20	09:15	0.05	1631.385	14.968	0.003	0.25	
OH26	1989-07-06	11:50	0.49	1647.493	16.108	0.030	0.74	Collecting device retained vacuum.
OH26	1989-08-09	10:30	0.67	1681.438	33.945	0.020	1.41	
OH26	1989-08-23	10:30	0.55	1695.438	14.000	0.039	1.96	
OH26	1989-09-14	11:21	0.51	1717.473	22.035	0.023	2.47	
OH26	1989-10-02	11:40	0.56	1735.486	18.013	0.031	3.03	
OH26	1989-10-20	11:45	0.45	1753.490	18.004	0.025	3.48	
OH26	1989-11-10	11:04	0.48	1774.461	20.971	0.023	3.96	
OH26	1989-11-29	12:40	0.32	1793.528	19.067	0.017	4.28	
OH26	1989-12-12	09:38	0.32	1806.401	12.873	0.025	4.60	
OH27	1986-08-05	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH27	1989-04-17	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 4/13/89 to 4/17/89.
OH27	1989-04-18	10:15	0	1568.427	1568.430	0.000	0.00	Device left with approximately 50 centibars suction.
OH27	1989-04-26	09:25	0	1576.392	7.965	0.000	0.00	Device left with approximately 50 centibars suction.
OH27	1989-06-05	10:10	0	1616.424	40.032	0.000	0.00	Hole dry. Collecting device removed and replaced.
OH27	1989-06-20	09:20	0	1631.389	14.965	0.000	0.00	Hole dry.
OH27	1989-07-06	11:55	0.02	1647.497	16.108	0.001	0.02	Collecting device retained vacuum.
OH27	1989-08-09	10:35	Trace	1681.441	0.000	0.000	0.02	Trace of brine found.

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
OH27	1989-08-23	10:57	Trace	1695.456	0.000	0.000	0.02	Trace of fluid in hole.
OH27	1989-10-02	11:45	0	1735.490	87.993	0.000	0.02	Hole dry.
OH27	1989-10-20	11:45	0	1753.490	18.000	0.000	0.02	Hole dry.
OH27	1989-11-10	11:14	0	1774.468	20.978	0.000	0.02	Hole dry.
OH27	1989-11-29	12:45	0	1793.531	19.063	0.000	0.02	Hole dry.
OH27	1989-12-12	09:40	0	1806.403	12.872	0.000	0.02	Hole dry.
OH27A	1986-08-05	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH27A	1989-04-04	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled on 4/4/89.
OH27A	1989-04-18	10:20	0	1568.431	1568.430	0.000	0.00	Device left with approximately 50 centibars suction.
OH27A	1989-04-26	09:20	0.21	1576.389	7.958	0.026	0.21	Device left with approximately 50 centibars suction.
OH27A	1989-05-17	09:10	0.08	1597.382	20.993	0.004	0.29	
OH27A	1989-06-05	10:20	0	1616.431	19.049	0.000	0.29	Hole dry. Collecting device removed and replaced.
OH27A	1989-06-20	09:25	0	1631.392	14.961	0.000	0.29	Hole dry.
OH27A	1989-07-06	11:55	0	1647.497	16.105	0.000	0.29	Hole dry. Collecting device retained vacuum.
OH27A	1989-08-09	10:40	0	1681.444	33.947	0.000	0.29	Hole dry.
OH27A	1989-08-23	10:50	0	1695.451	14.007	0.000	0.29	Hole dry.
OH27A	1989-10-02	11:45	0	1735.490	40.039	0.000	0.29	Hole dry.
OH27A	1989-10-20	11:45	0	1753.490	18.000	0.000	0.29	Hole dry.
OH27A	1989-11-10	11:14	0	1774.468	20.978	0.000	0.29	Hole dry.
OH27A	1989-11-29	12:48	0	1793.533	19.065	0.000	0.29	Hole dry.
OH27A	1989-12-12	09:40	0	1806.403	12.870	0.000	0.29	Hole dry.
OH28	1986-08-05	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of drift excavated.
OH28	1989-04-12	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 4/11/89 to 4/12/89.
OH28	1989-04-18	10:25	0	1568.434	1568.430	0.000	0.00	Device left with approximately 50 centibars suction.
OH28	1989-04-26	09:30	0	1576.396	7.962	0.000	0.00	Device left with approximately 50 centibars suction.
OH28	1989-06-05	10:30	0.08	1616.438	40.042	0.002	0.08	First time sample recovered. Collecting device removed and replaced.
OH28	1989-06-20	09:30	0.03	1631.396	14.958	0.002	0.11	
OH28	1989-07-06	12:00	0	1647.500	16.104	0.000	0.11	Hole dry. Collecting device retained vacuum.
OH28	1989-08-09	10:45	0	1681.448	33.948	0.000	0.11	Hole dry.
OH28	1989-08-23	10:46	0	1695.449	14.001	0.000	0.11	Hole dry.
OH28	1989-10-02	11:50	0.05	1735.493	40.044	0.001	0.16	
OH28	1989-10-20	11:45	0	1753.490	17.997	0.000	0.16	Hole dry.
OH28	1989-11-10	11:10	0.07	1774.465	20.975	0.003	0.23	
OH28	1989-11-29	12:48	0	1793.533	19.068	0.000	0.23	Hole dry.
OH28	1989-12-12	09:48	0.10	1806.408	12.875	0.008	0.33	
OH45	1989-05-08	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of underground core storage room excavated.

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Location	Date	Time	Liters removed	Days since 1/1/85	Days used for calc.	Liters per day	Cumulative liters collected	Remarks
OH45	1989-06-15	14:00	NA	0.000	0.000	0.000	0.00	Horizontal hole drilled 6/9/89 to 6/15/89.
OH45	1989-06-23	11:00	NA	1634.458	0.000	0.000	0.00	New hole. Installed collecting device.
OH45	1989-08-09	14:00	0	1681.583	47.125	0.000	0.00	No vacuum, reinstalled collecting device. Hole dry.
OH45	1989-08-23	11:30	0.45	1695.479	13.896	0.032	0.45	First time hole sampled.
OH45	1989-09-12	12:35	0.15	1715.524	20.045	0.007	0.60	
OH45	1989-10-02	12:15	0.13	1735.510	19.986	0.007	0.73	
OH45	1989-10-20	11:10	0.11	1753.465	17.955	0.006	0.84	
OH45	1989-11-10	10:20	0.13	1774.431	20.966	0.006	0.97	
OH45	1989-11-29	13:11	0.11	1793.549	19.118	0.006	1.08	
OH45	1989-12-12	10:19	0.08	1806.430	12.881	0.006	1.16	Sample bubbling.
OH46	1989-05-08	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of underground core storage room excavated.
OH46	1989-06-20	14:00	NA	0.000	0.000	0.000	0.00	Downhole drilled 6/16/89 to 6/20/89.
OH46	1989-07-06	11:30	NA	1647.479	0.000	0.000	0.00	First day of observation for hole, blown dry.
OH46	1989-07-25	10:48	0.28	1666.450	18.971	0.015	0.28	First time hole sampled. Sample yellow- with wood chips and other debris. Hydrocarbon odor (diesel lubricant?).
OH46	1989-08-16	10:05	0.68	1688.420	21.970	0.031	0.96	
OH46	1989-09-12	12:35	0.47	1715.524	27.104	0.017	1.43	
OH46	1989-10-02	12:30	0.05	1735.521	19.997	0.000	1.48	Brine probably left in hole.
OH46	1989-10-20	11:10	0.57	1753.465	17.944	0.032	2.05	Combined with 0.05 liters from 10/02/89. Used 0.62 liters for calculation.
OH46	1989-11-10	10:30	0.68	1774.438	20.973	0.032	2.73	
OH46	1989-11-29	13:15	0.53	1793.552	19.114	0.028	3.26	
OH46	1989-12-12	10:20	0.46	1806.431	12.879	0.036	3.72	
OH47	1989-05-08	14:00	NA	0.000	0.000	0.000	0.00	Approximate date this part of underground core storage room excavated.
OH47	1989-07-06	14:4:00	NA	0.000	0.000	0.000	0.00	Uphole drilled 6/28/89 to 7/6/89.
OH47	1989-08-09	14:30	NA	1681.604	0.000	0.000	0.00	Installed funnel and collection bottle. Start collection date from 08/09/89.
OH47	1989-08-16	10:05	?	1688.420	6.816	0.000	0.00	First time hole sampled.
OH47	1989-08-30	10:30	0.35	1702.438	14.018	0.025	0.35	
OH47	1989-09-14	10:55	0.48	1717.455	15.017	0.032	0.83	
OH47	1989-10-20	11:10	0.60	1753.465	36.010	0.017	1.43	
OH47	1989-11-10	10:25	0.28	1774.434	20.969	0.013	1.71	
OH47	1989-11-29	13:06	0.18	1793.546	19.112	0.009	1.89	
OH47	1989-12-12	10:25	0.12	1806.434	12.888	0.009	2.01	

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APPENDIX B

GRAPHS OF BRINE ACCUMULATION DATA

APPENDIX B

GRAPHS OF BRINE ACCUMULATION DATA

This appendix contains graphs of data presented in Appendix A for selected locations. As described in Deal and Case (1987), much of the variability in the quantity of brine collected resulted from limitations of the collecting techniques rather than variations in the actual inflow of brine from bedrock at the collecting locations. As a result, plotting of the inflow data from the data tables (Appendix A) results in an irregular plot that implies variations in inflow that, in fact, do not exist. The graphed data included in this report were processed and plotted by a standard software program (STSC Statgraphics)[1] on an IBM XT microcomputer, using an 11-point moving average to smooth the curve, unless otherwise stated. The smoothed data reflect trends in the body of the curve that are representative of the brine seepage rates while still showing variations that are probably the result of collecting techniques.

At the beginning and end of each curve the smoothing program projects the calculated trend. As a result, initial and ending real values, usually zero, and maximum inflow values within the first few data points, tend to be distorted by the smoothing program. In order to correct the distortion caused by the smoothing program, the smoothed data are replaced by the actual data for the first and last few data points prior to plotting. Additional discussion of the collection and data handling is provided in Deal and Case (1987).

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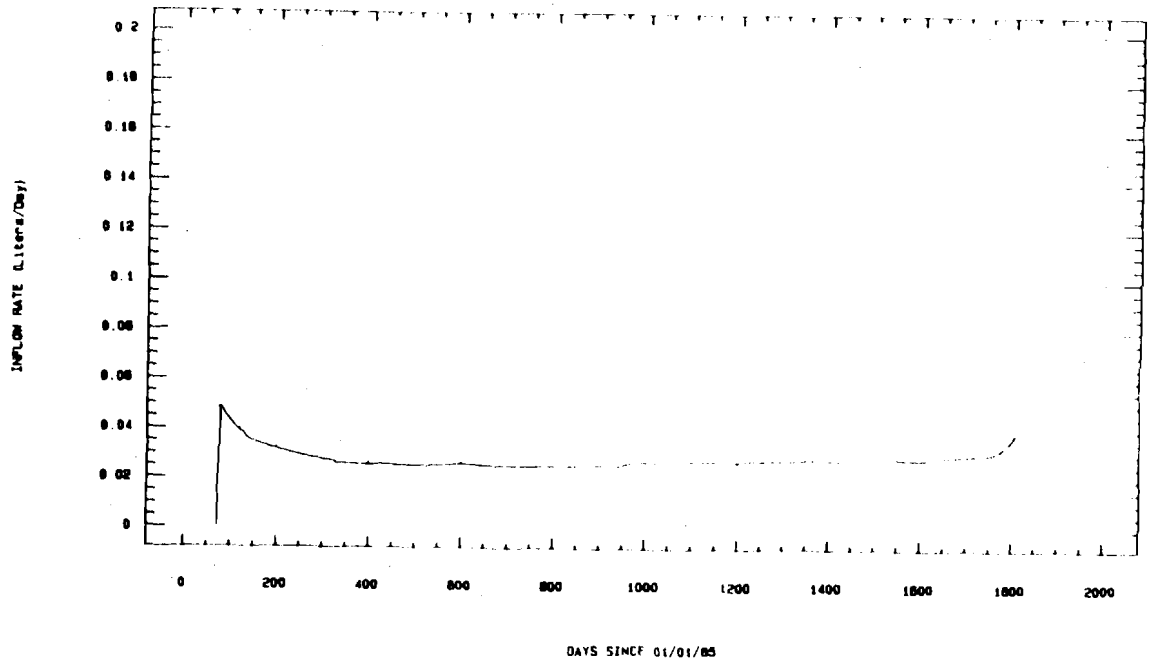
[1] Statgraphics, 1989, Version 4.0, Statistical Graphics Corporation, Rockville, Maryland.

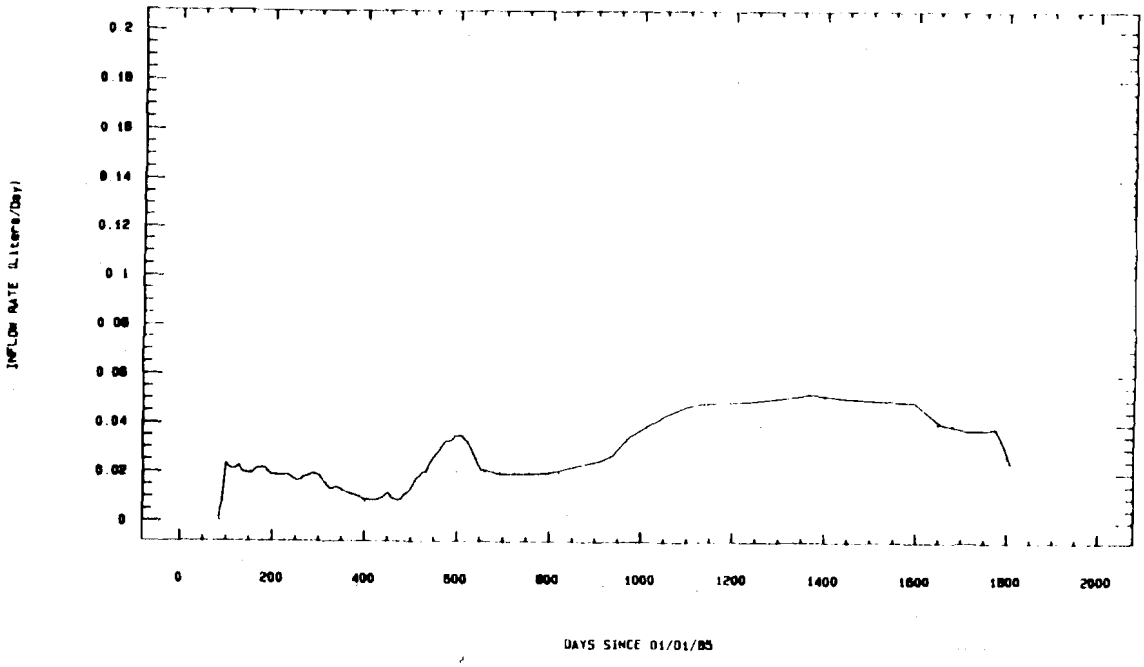
A1X01

SIMPLE ELEVEN-POINT MOVING AVERAGE



A1X02

SIMPLE ELEVEN-POINT MOVING AVERAGE



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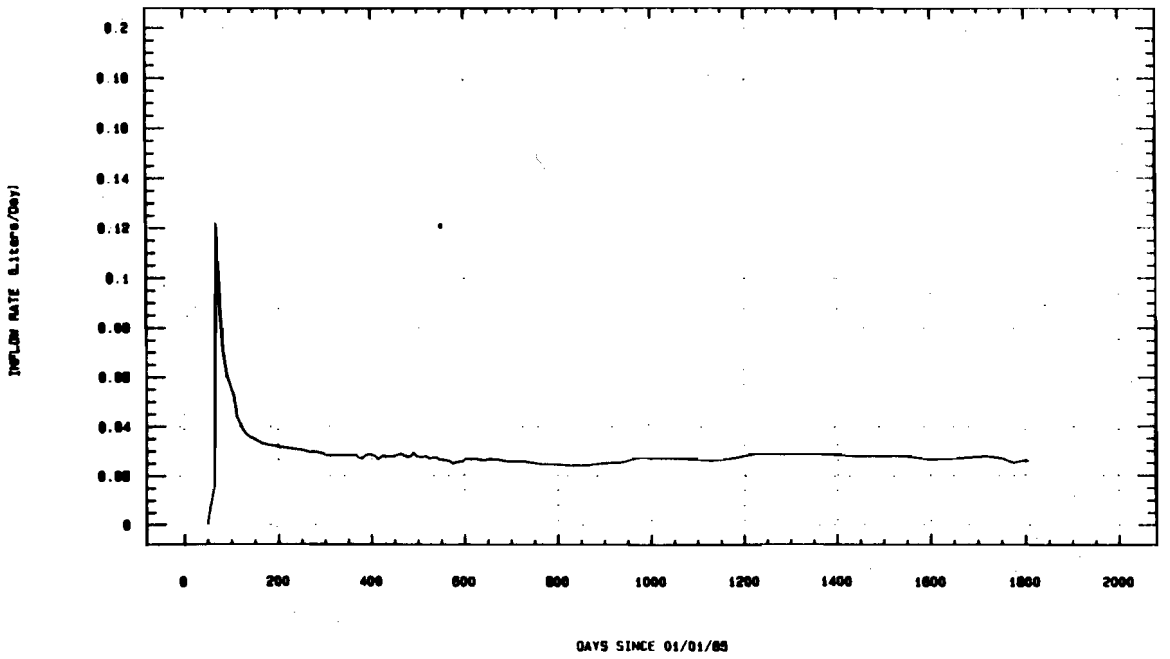
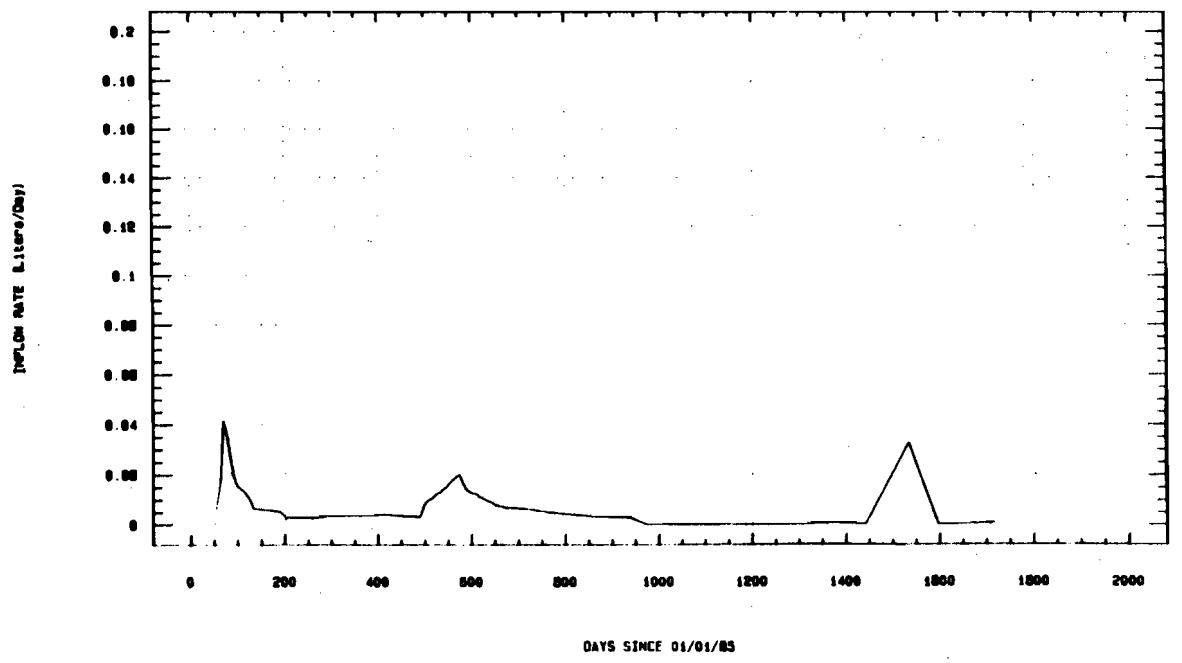
SIMPLE ELEVEN-POINT MOVING AVERAGE



A2X02

SIMPLE ELEVEN-POINT MOVING AVERAGE
THROUGH DAY 1000



A3X01

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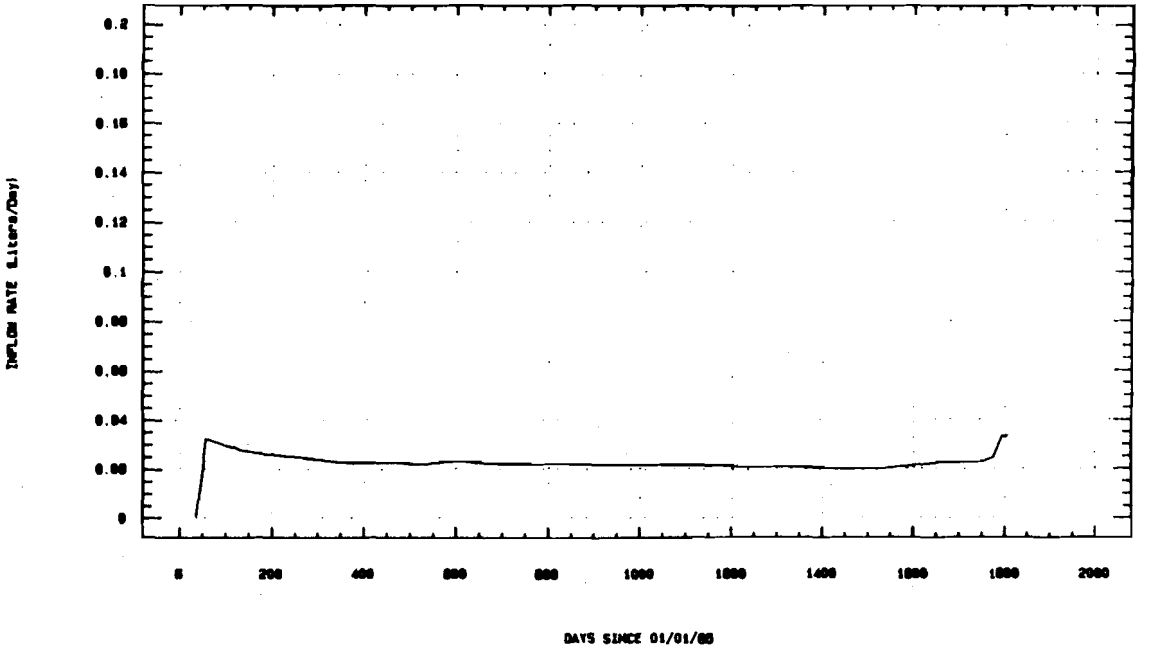

A3X02

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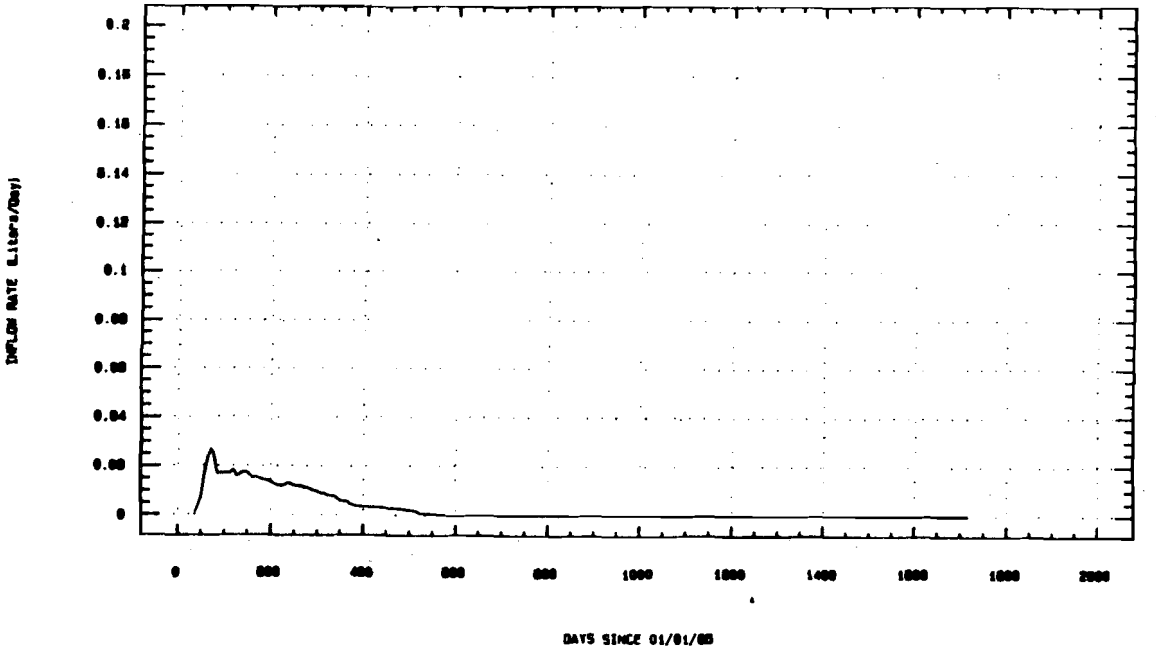
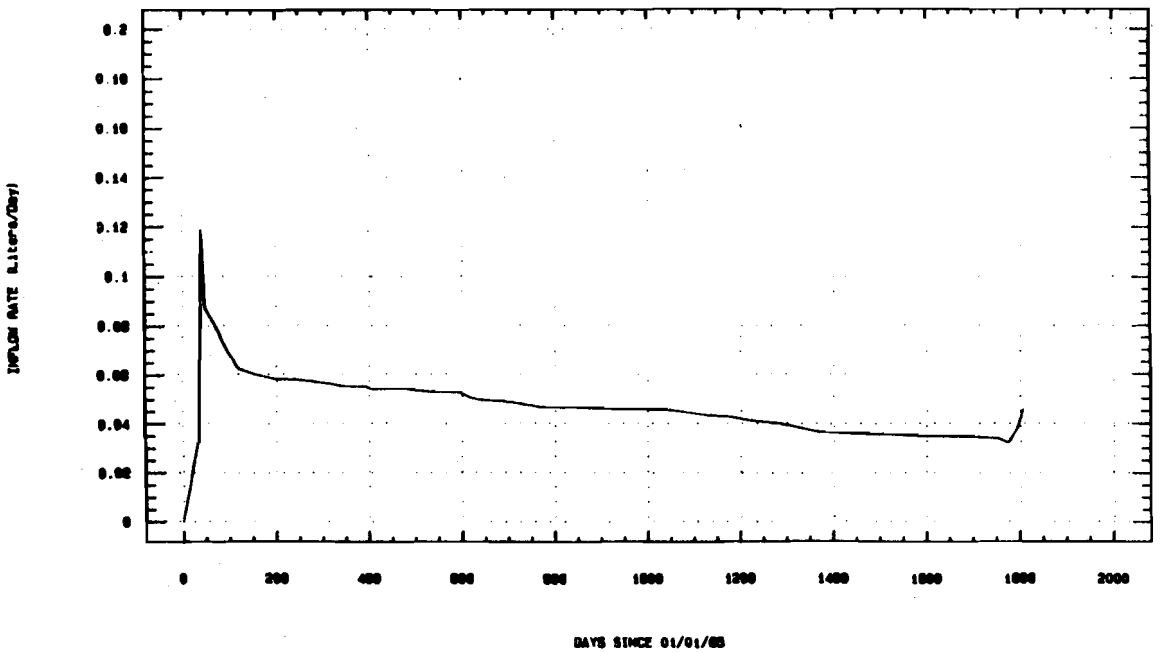


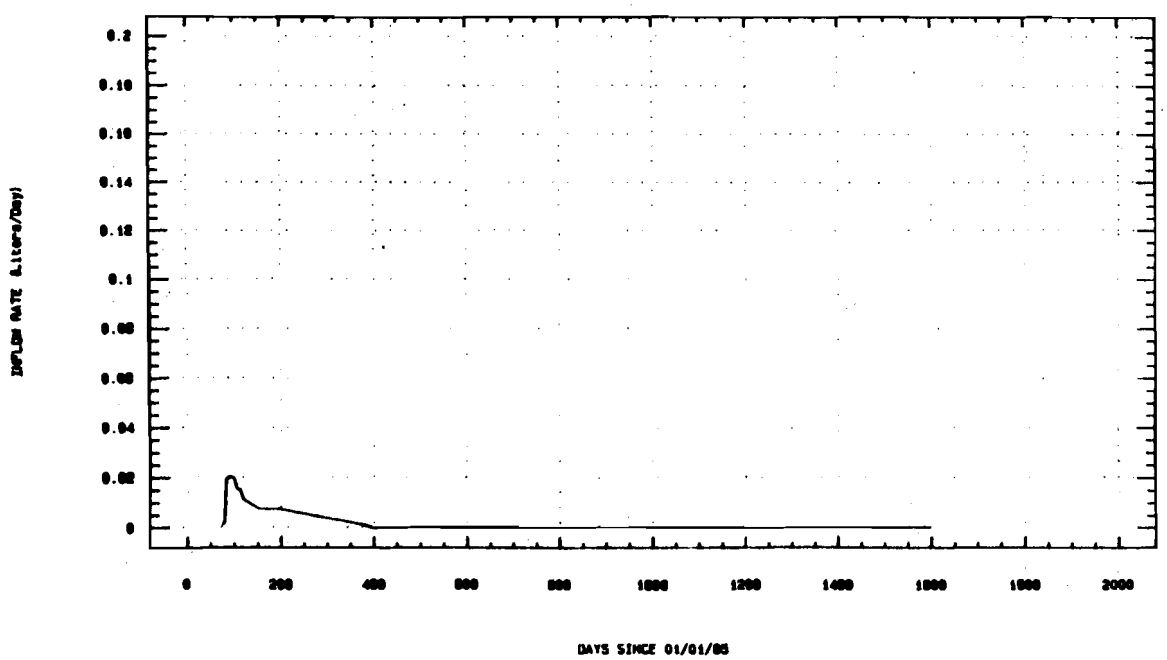
BX01

SIMPLE ELEVEN-POINT MOVING AVERAGE



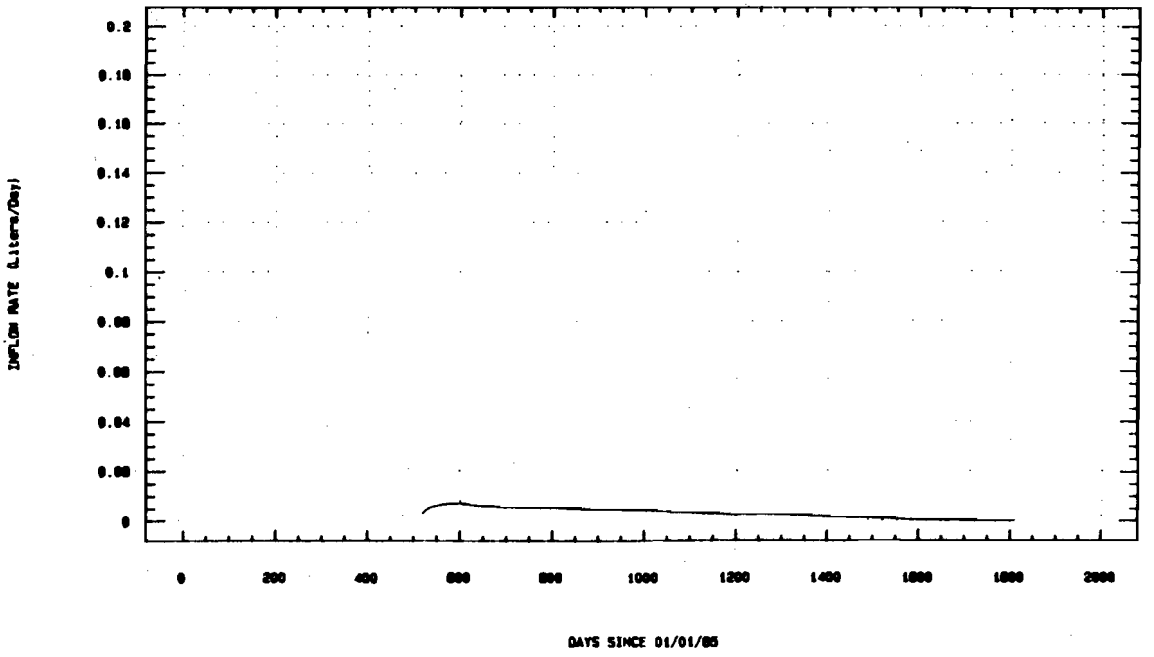
BX02

SIMPLE FIVE-POINT MOVING AVERAGE



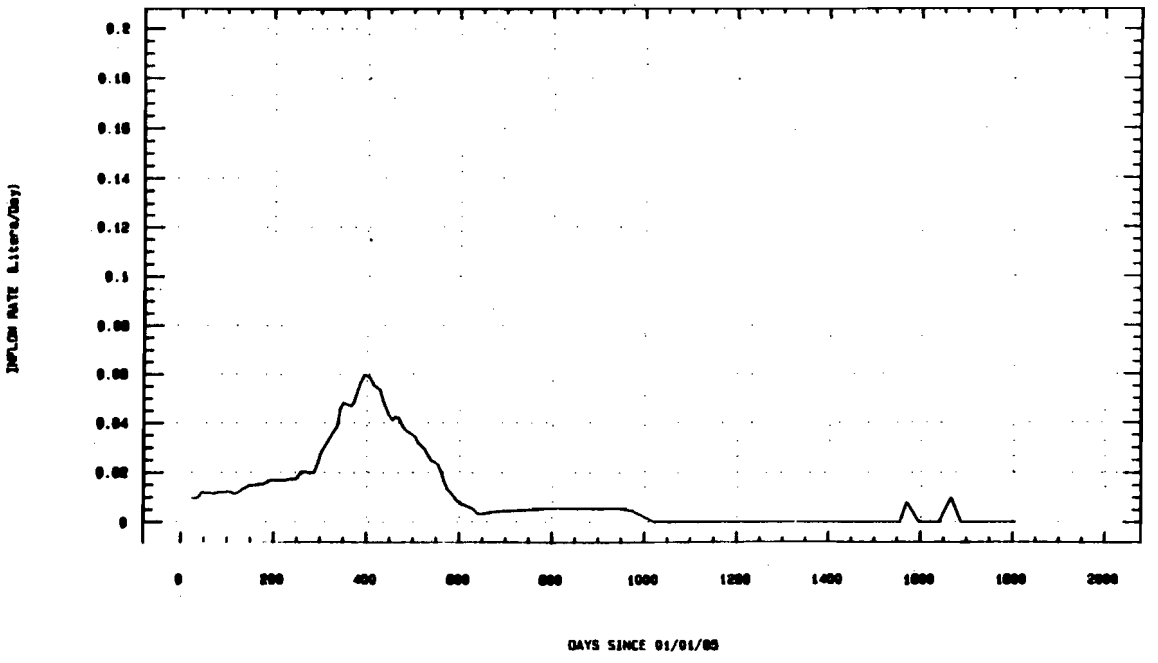
DH15

SIMPLE ELEVEN-POINT MOVING AVERAGE



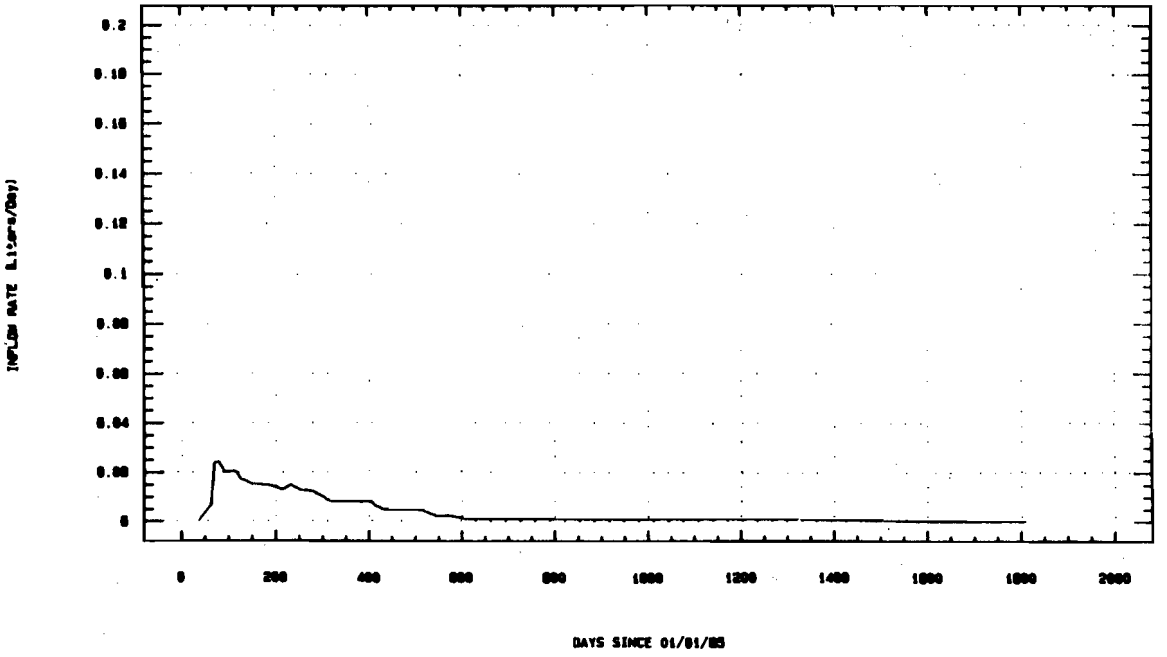
DH215

SIMPLE ELEVEN-POINT MOVING AVERAGE
THROUGH DAY 1000



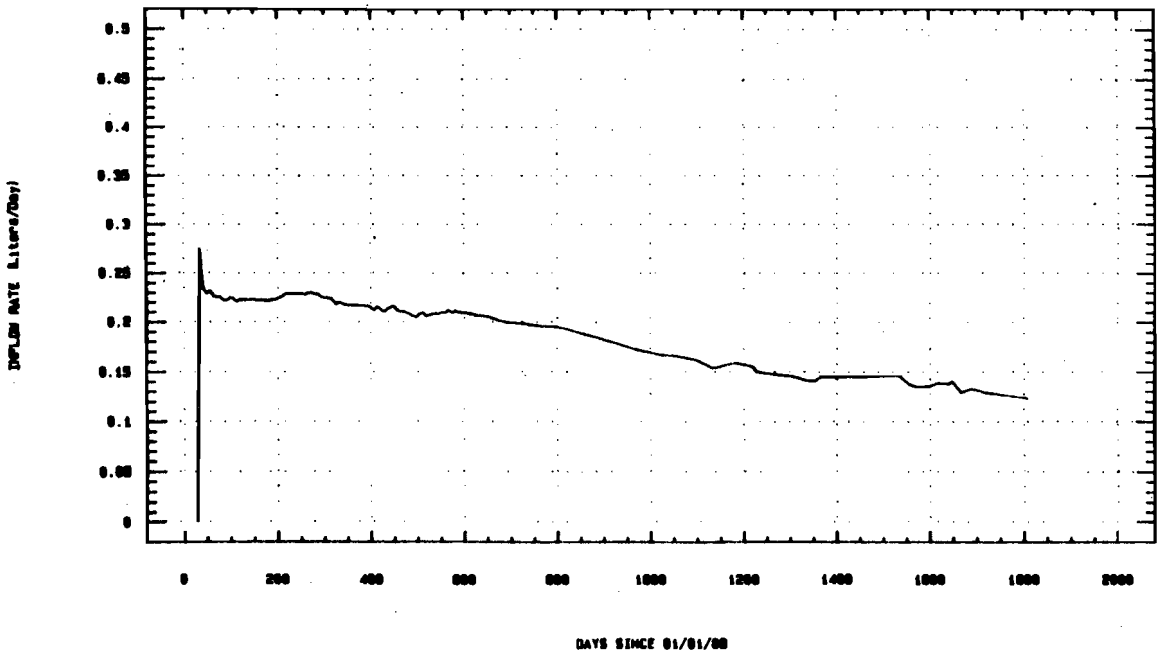
DH35

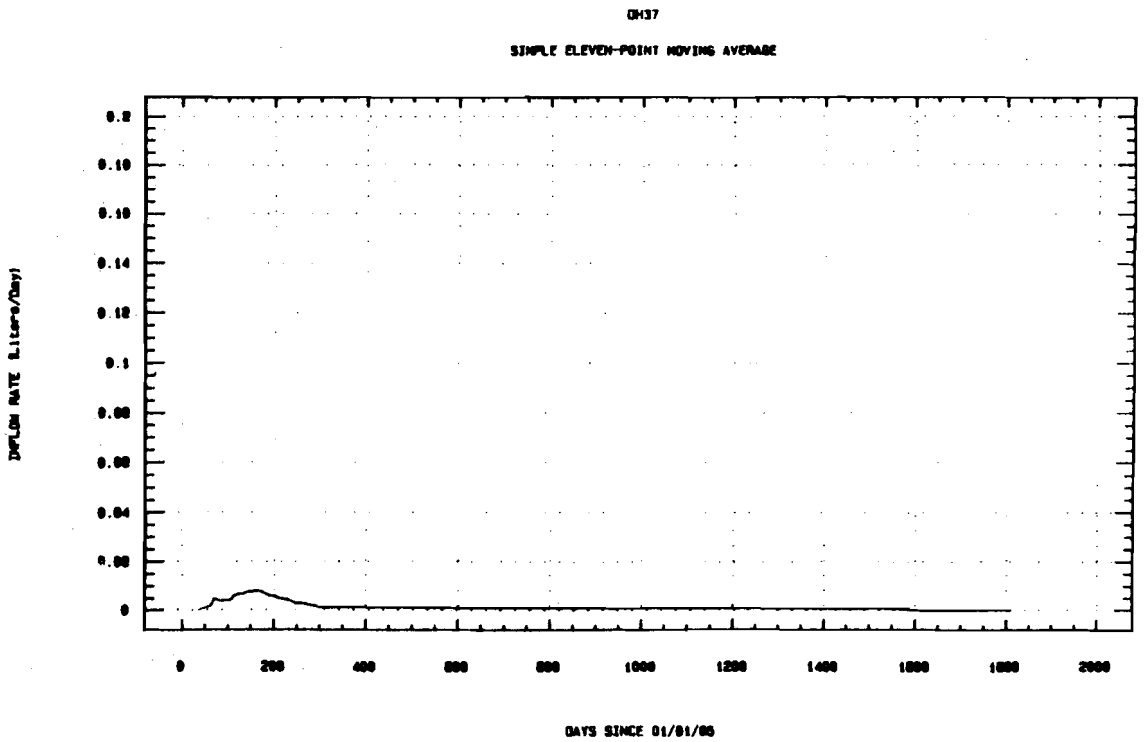
SIMPLE ELEVEN-POINT MOVING AVERAGE

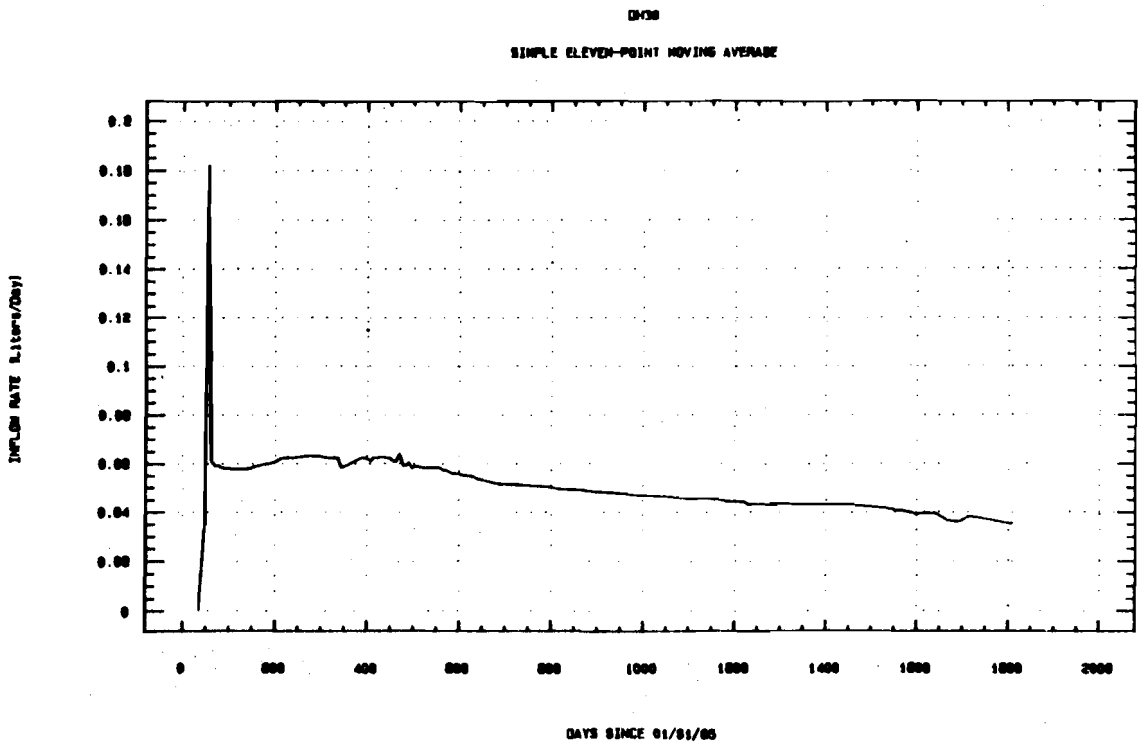


DH36

SIMPLE ELEVEN-POINT MOVING AVERAGE

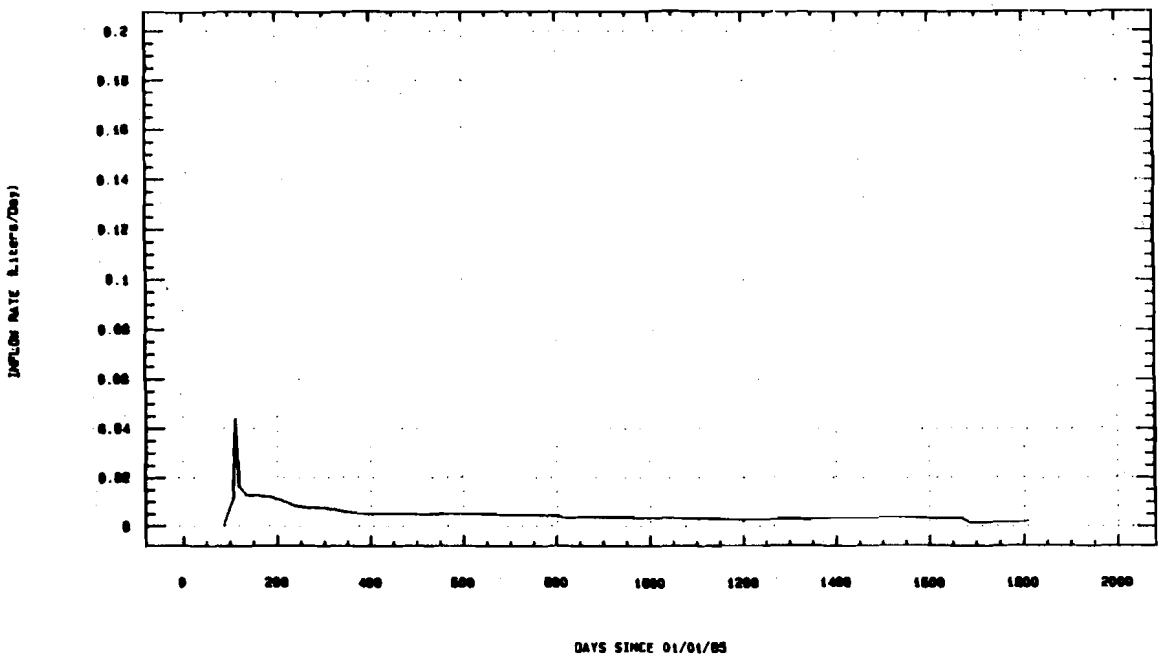



DH37
SINPLE ELEVEN-POINT MOVING AVERAGE
INFLOW RATE (Liters/Day)
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
DAYS SINCE 01/01/85


DH38
SINPLE ELEVEN-POINT MOVING AVERAGE
INFLOW RATE (Liters/Day)
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
DAYS SINCE 01/01/85

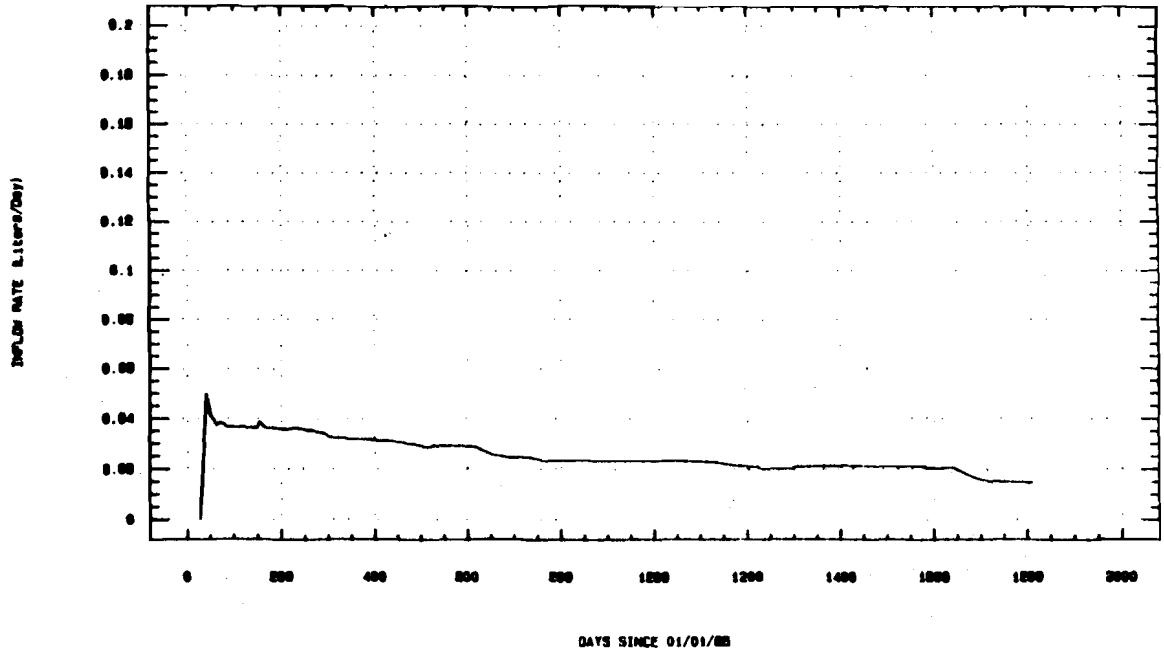
DH40

SIMPLE ELEVEN-POINT MOVING AVERAGE



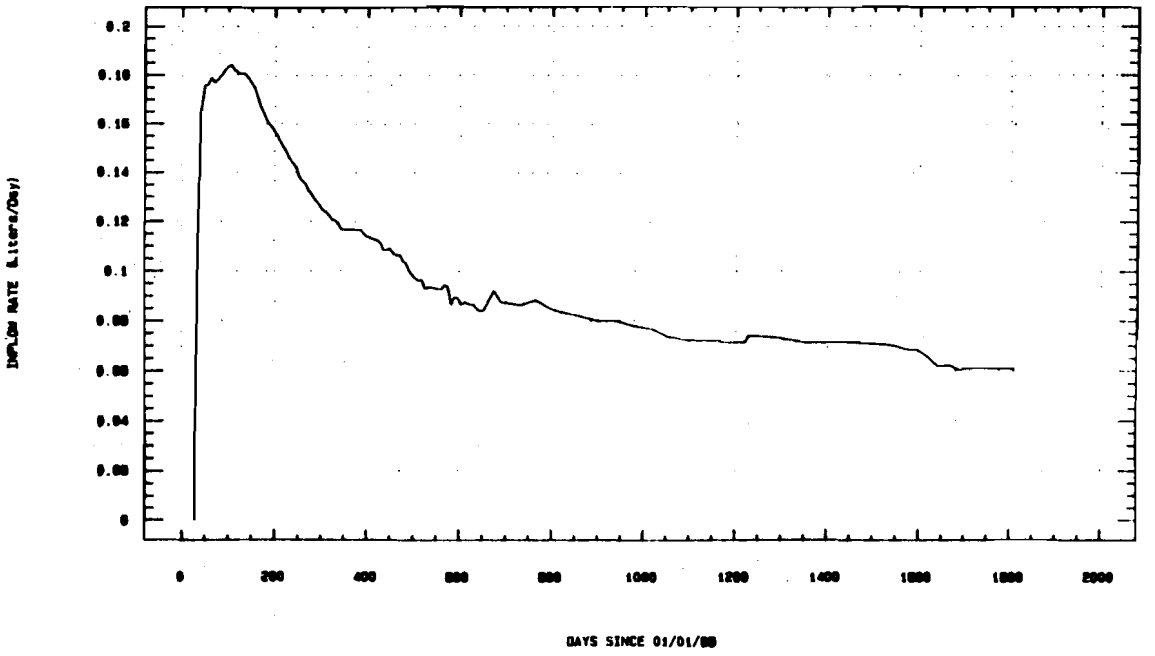
DH42

SIMPLE ELEVEN-POINT MOVING AVERAGE



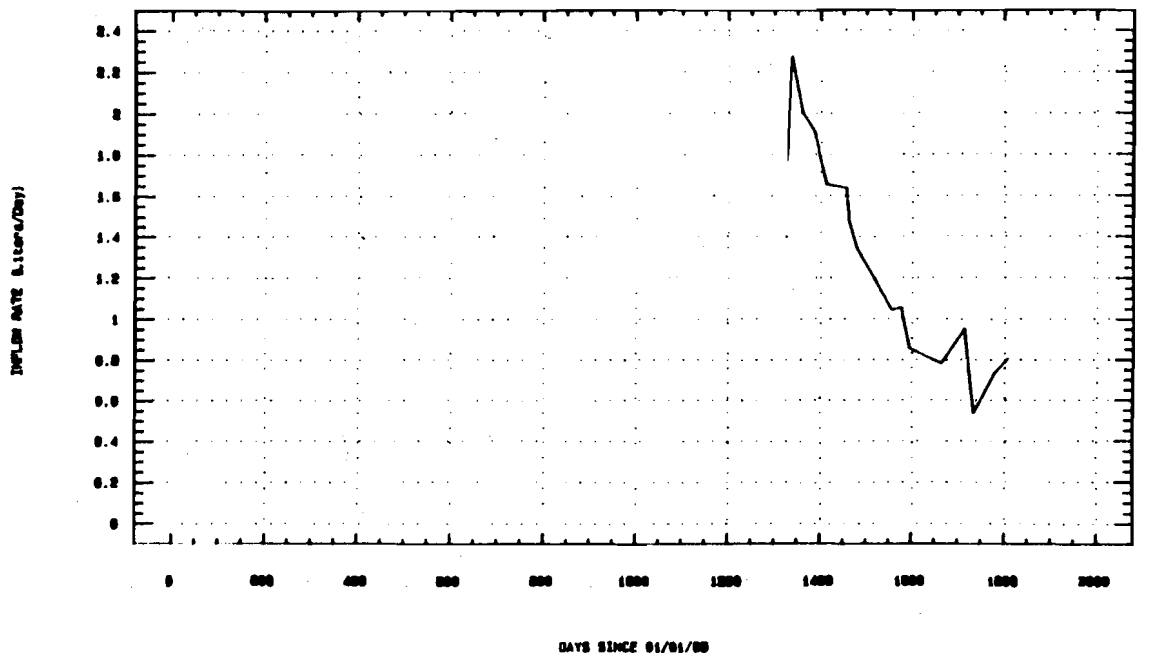
DM42A

SIMPLE ELEVEN-POINT MOVING AVERAGE



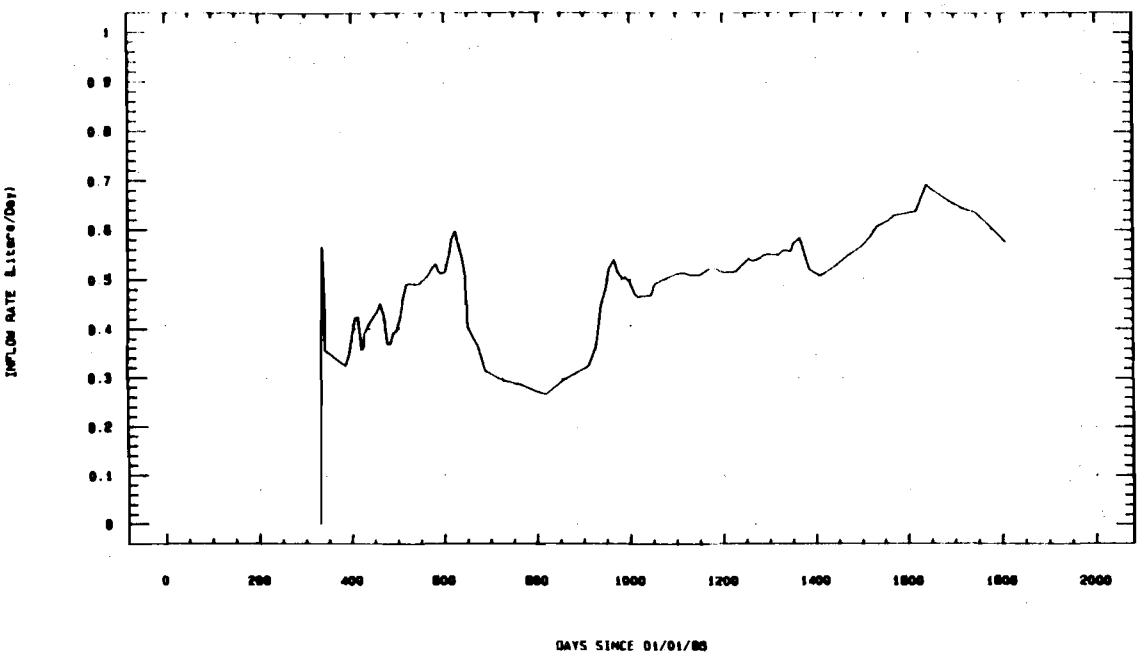
DMP402A

SIMPLE ELEVEN-POINT MOVING AVERAGE



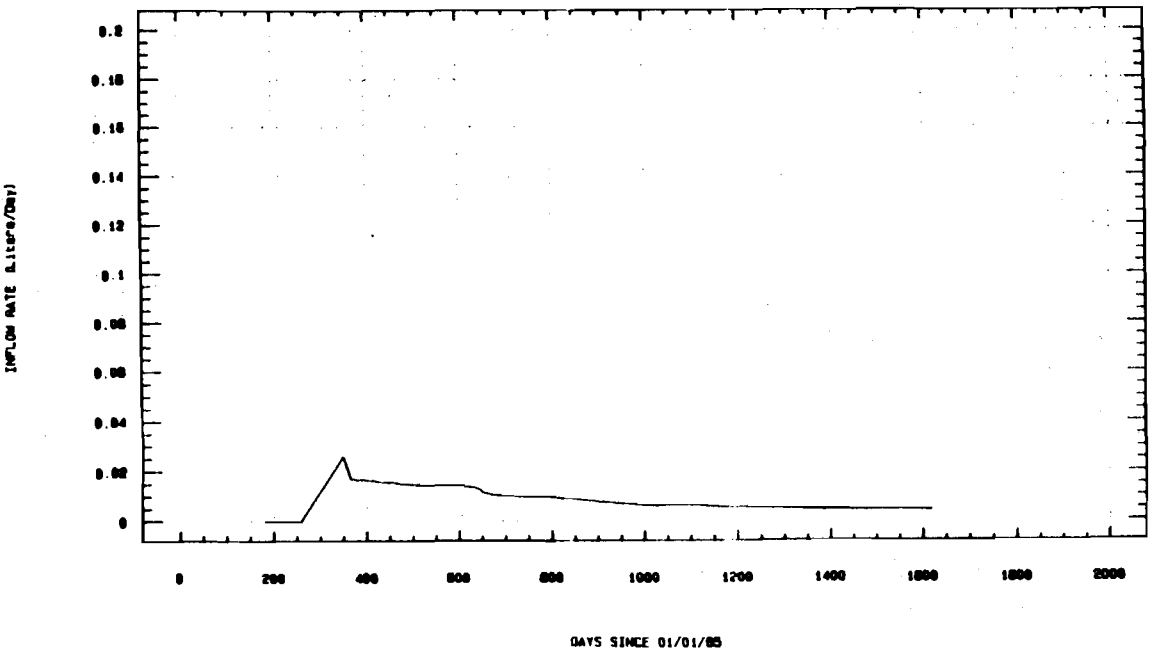
GSEEP

SIMPLE ELEVEN-POINT MOVING AVERAGE



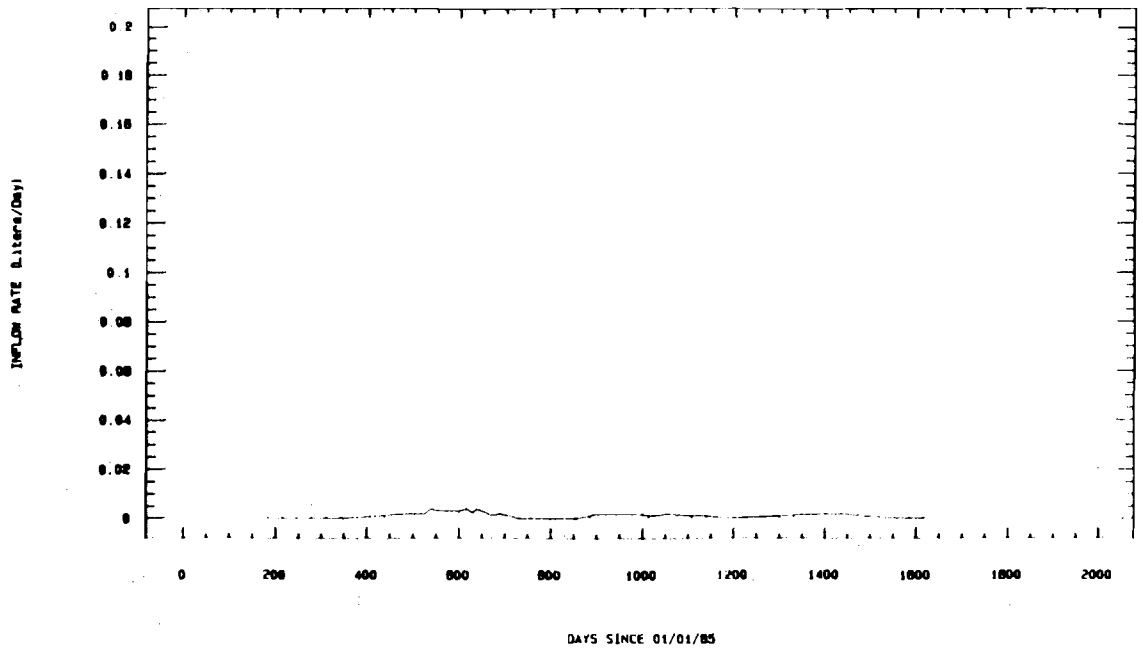
L1S25

SIMPLE ELEVEN-POINT MOVING AVERAGE



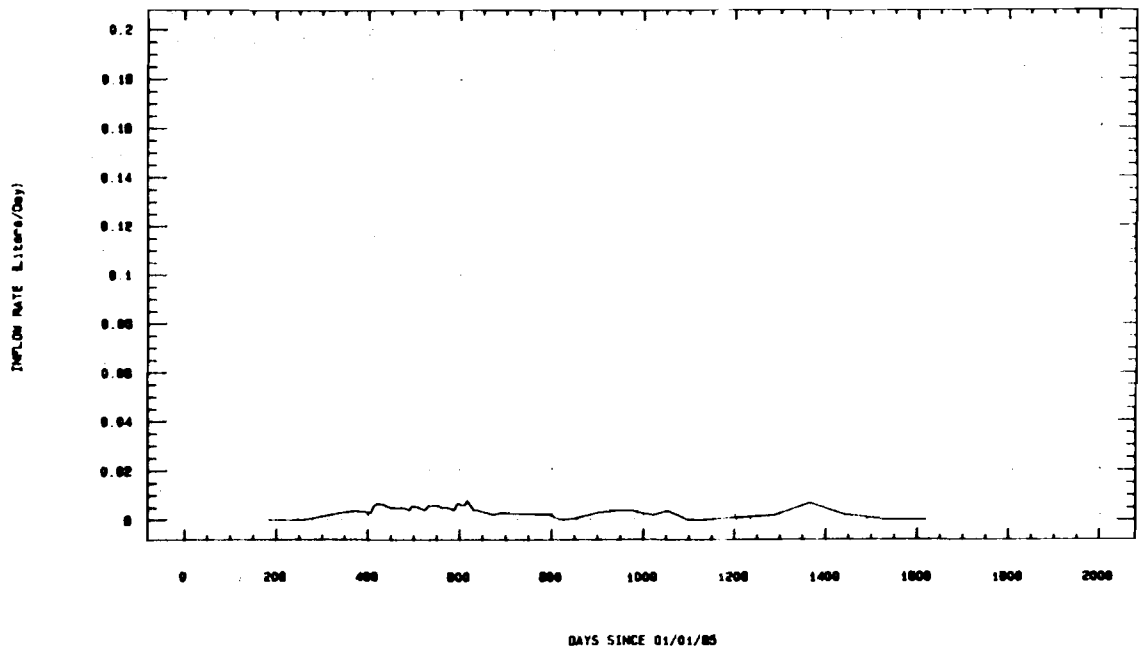
L1S26

DATA NOT SMOOTHED



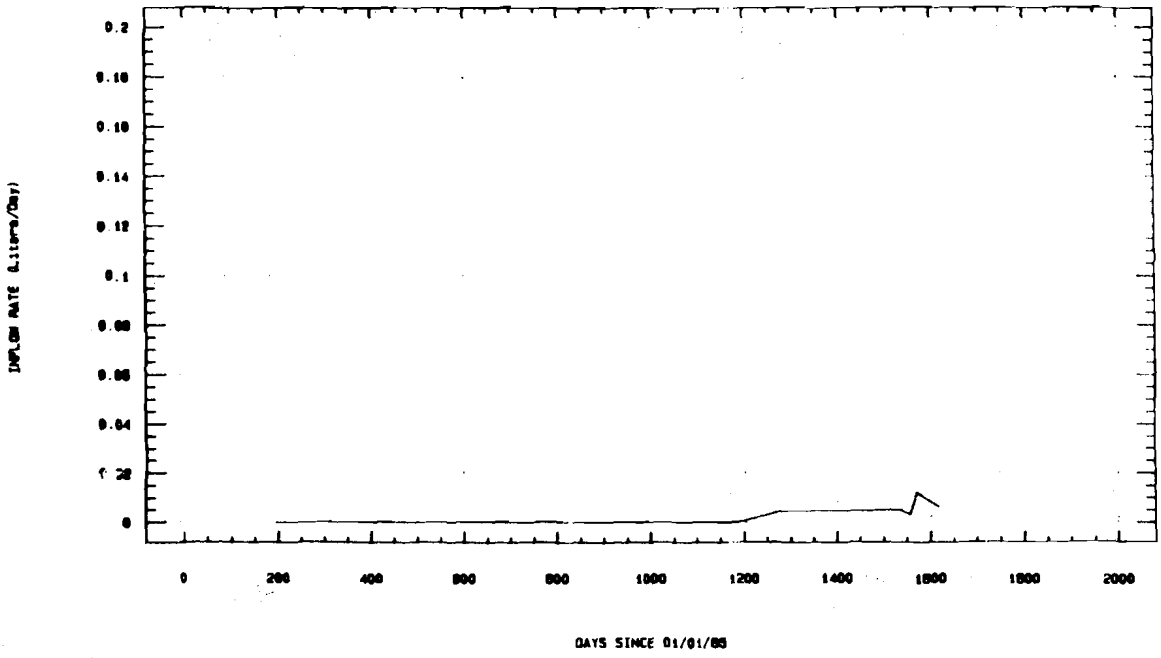
L1S27

DATA NOT SMOOTHED



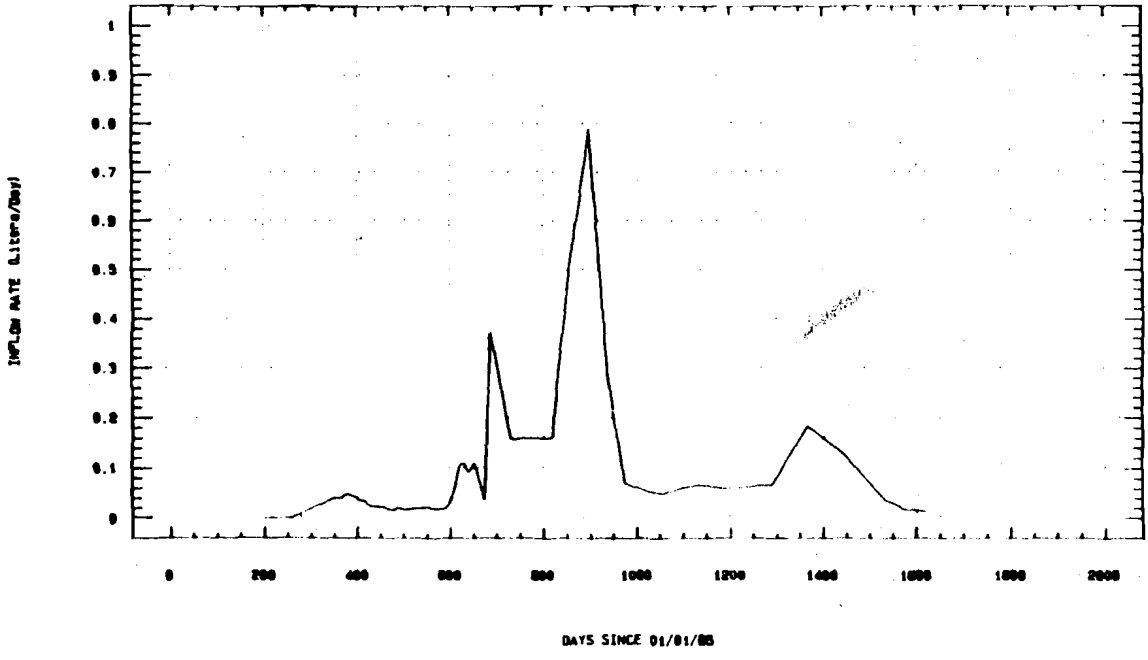
L1528

DATA NOT SMOOTHED



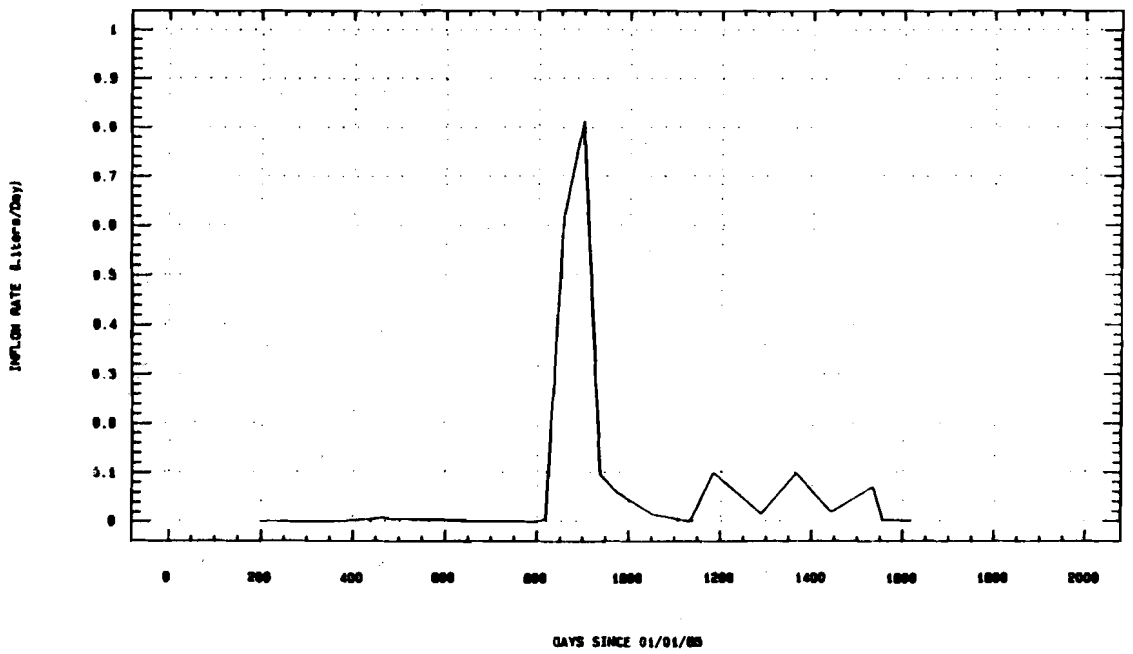
L1529

DATA NOT SMOOTHED



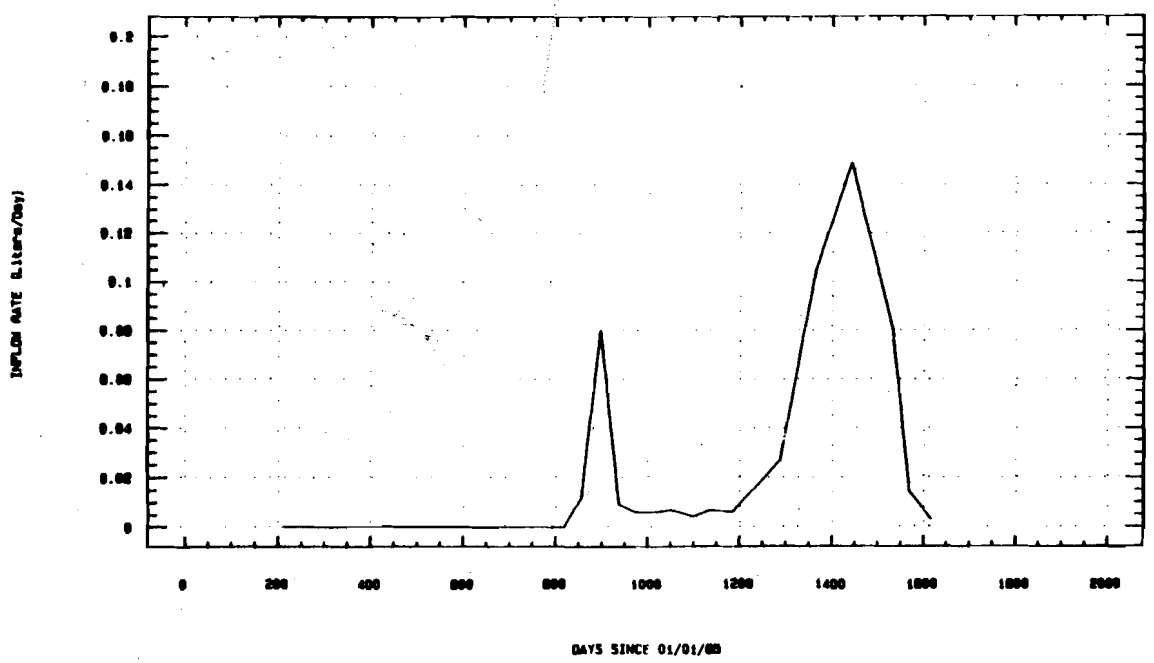
L1S30

DATA NOT SMOOTHED



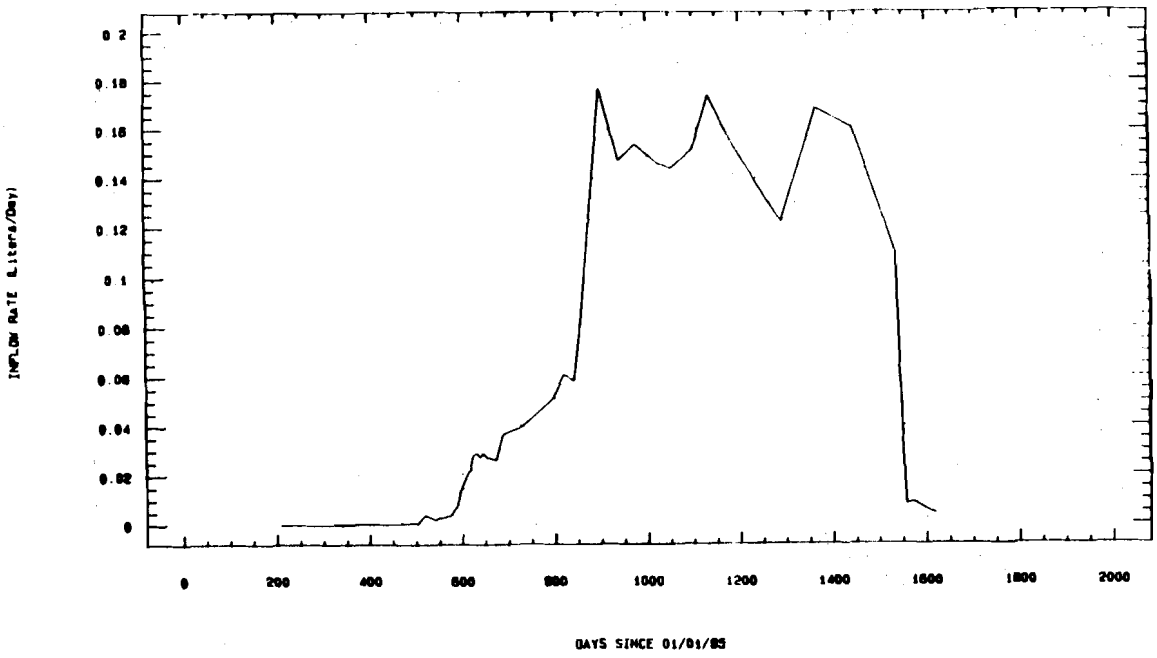
L1S31

DATA NOT SMOOTHED



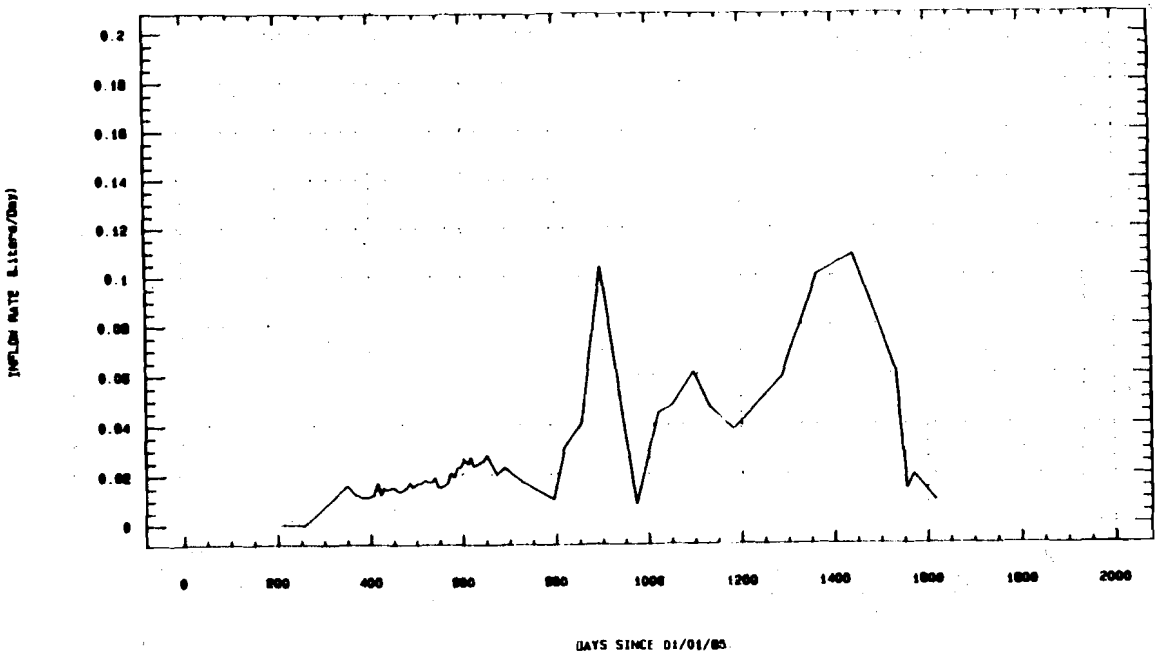
L1S32

DATA NOT SMOOTHED



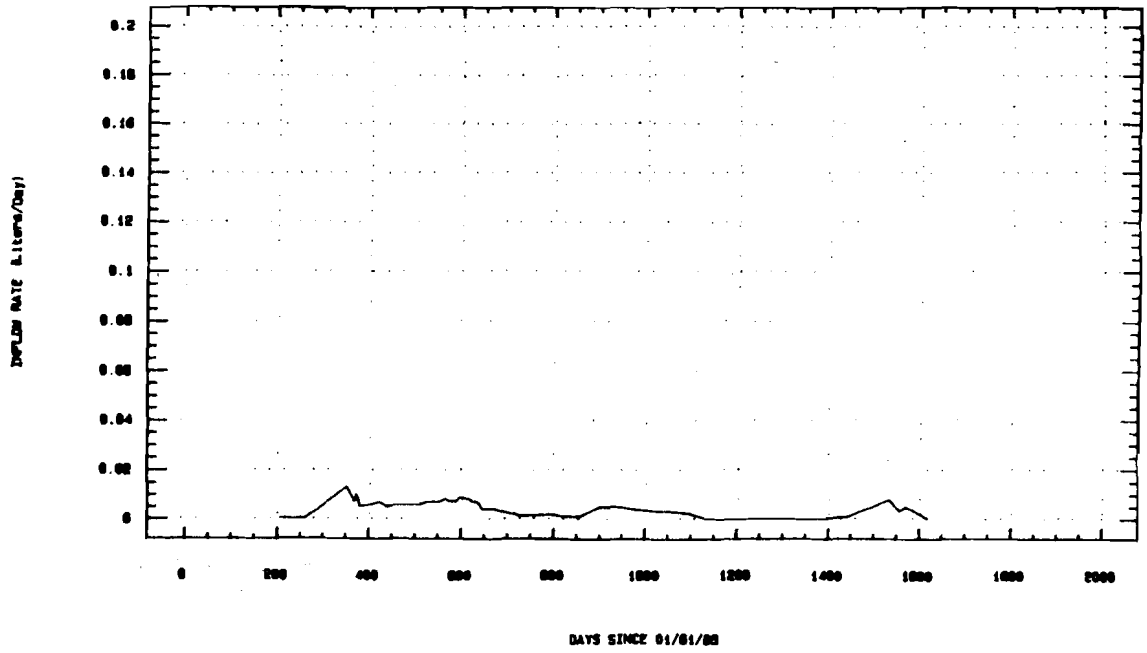
L1S33

DATA NOT SMOOTHED



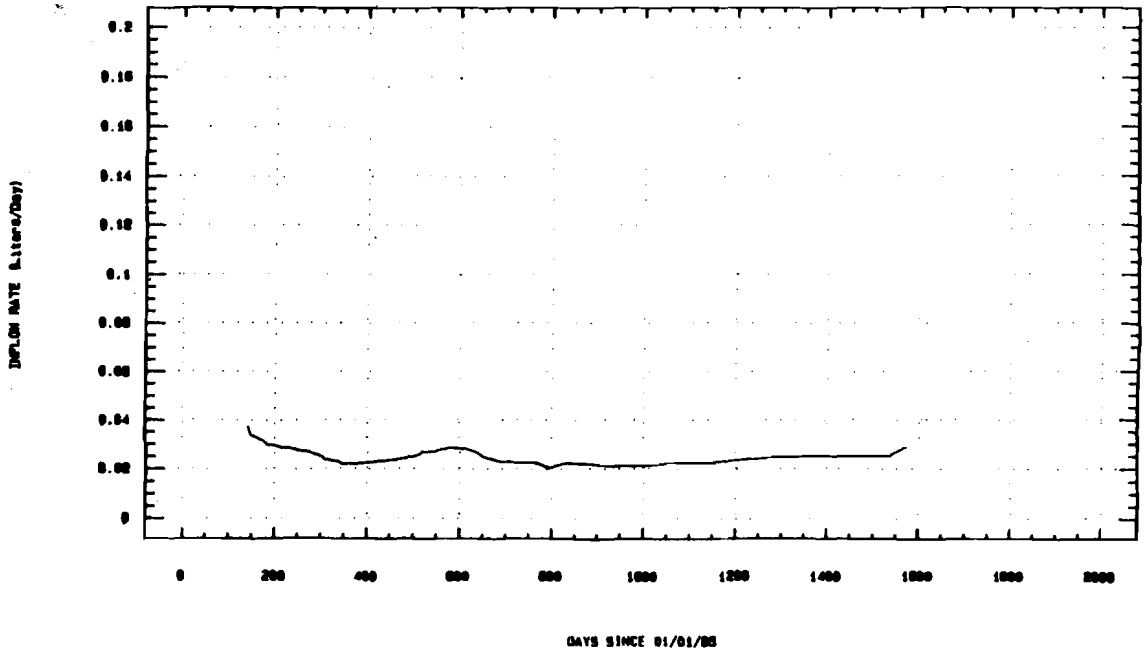
L1S36

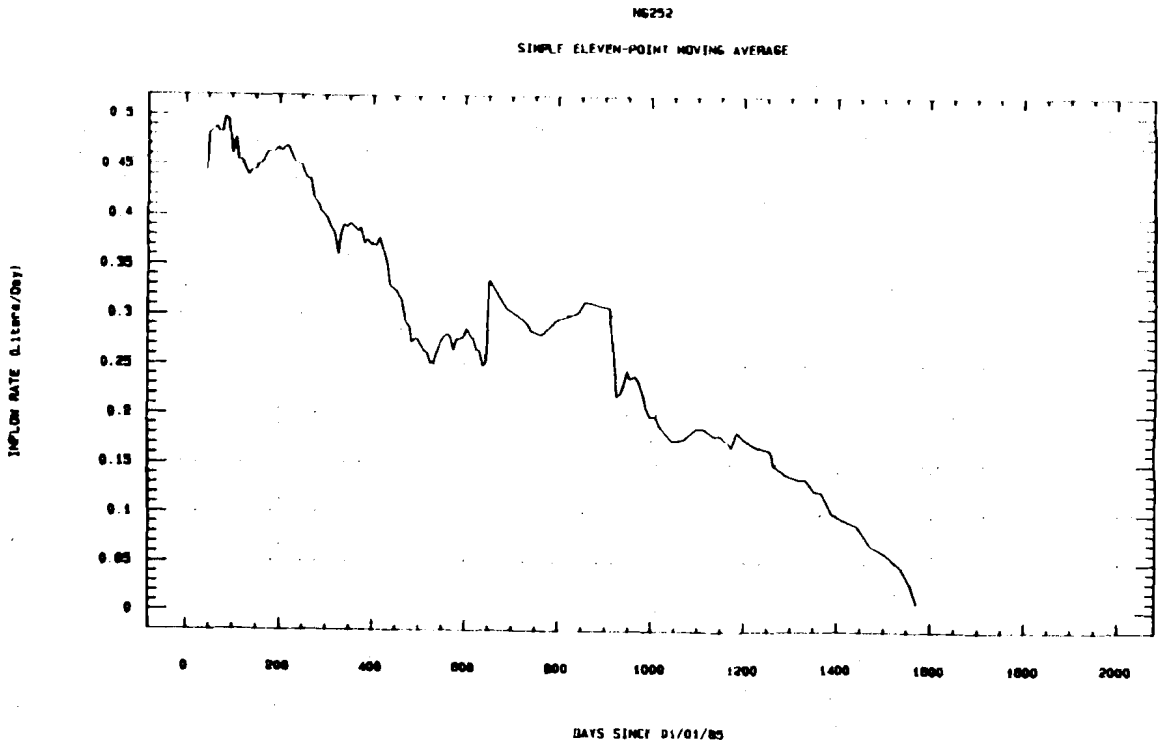
DATA NOT SMOOTHED



L1X00

SIMPLE ELEVEN-POINT MOVING AVERAGE




M6252
SIMPLE ELEVEN-POINT MOVING AVERAGE
INFLOW RATE (Liters/Day)
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
200
400
600
800
1000
1200
1400
1600
1800
2000
DAYS SINCE 01/01/85

APPENDIX C

ANALYTICAL RESULTS FOR BRINE SAMPLES

TABLE C-1 KEY, ANALYTICAL RESULTS

LAB	UNC = United Nuclear Corporation IT = International Technology
SG	Specific Gravity
TDS	Total Dissolved Solids
EXT ALK*	Extended Alkalinity; * Reported as equivalent HCO_3^- solutions titrated to end point pH of 2.5
TIC**	Total Inorganic Carbon; ** Reported as equivalent HCO_3^-
TOC**	Total Organic Carbon; ** Reported as equivalent HCO_3^-
Br	Bromide
Cl	Chloride
F	Fluoride
I	Iodide
NO_3	Nitrate
NH_4	Ammonium
PO_4	Phosphate
SO_4	Sulfate

TABLE C-1

ANALYTICAL RESULTS

SAMPLE NUMBER	HOLE NUMBER & DIRECTION	LAB	DATE	pH	SG	TDS (mg/L)	EXT_ALK* (mg/L)	TIC** (mg/L)	TOC** (mg/L)	Br (mg/L)	Cl (mg/L)	F (mg/L)	I (mg/L)	NO_3 (mg/L)	NH_4 (mg/L)	PO_4 (mg/L)	SO_4 (mg/L)
666 667	A1X01 DN	UNC	03/14/89	6.1	1.24	359000	978	4.1	10	1520	194000	7	12.3	<1	143	<0.3	17200
668 669	A1X01 DN	IT	03/14/89	6.1	1.21	344000	1025	15		1450	198000	7	14		154		14700
750	A1X01 DN	UNC	05/18/89	6.1	1.23	371000	1024	5.6	25	1550	194000	6	16.0	<1	155	<0.1	17400
751	A1X01 DN	UNC	05/18/89	6.1	1.22	376000	1031	6.1	36	1570	196000	6	19.2	<1	153	<0.1	17300
797	A1X01 DN	UNC	09/14/89	6.1	1.22	382000	1031	5.1	<5	1500	191000	5	12.9	<0.4	136	<0.1	17700
799	A1X01 DN	IT	09/14/89	6.1	1.22	333000	1098	<5		1500	199000	8	140	0.13	155		15300
920	A1X01 DN	UNC	12/12/89	6.1	1.22	386000	974	4.1	41	1490	190000	7	22.1	1.5	163	<0.1	17400
922	A1X01 DN	UNC	12/12/89	6.1	1.22	385000	976	4.1	76	1490	192000	6	18.4	1.7	175	0.1	17400
923	A1X01 DN	IT	12/12/89	6.0	1.22	367000	1050	5		1600	184000	6	15	0.89	140		18000
660 661	A1X02 UP	UNC	03/14/89	5.3	1.26	395000	1082	<0.5	5	2570	202000	8	16.3	1	205	<0.3	27100
662 663	A1X02 UP	UNC	03/14/89	5.3	1.26	396000	1086	<0.5	10	2570	203000	8	15.6	<1	206	<0.3	27200
664 665	A1X02 UP	IT	03/14/89	5.4	1.24	367000	1037	<5		2400	202000	8	17		193		25000
754	A1X02 UP	IT	05/17/89	5.7	1.23	357000	683	<5		1400	188000	6.8	28	0.03	124		15300
755	A1X02 UP	IT	05/17/89	5.7	1.23	353000	671	<5		2100	200000	6.2	30	0.03	129		13700
752	A1X02 UP	UNC	05/18/89	5.8	1.23	388000	728	2.5	5	1870	197000	6	11.6	<1	150	0.2	19900
753	A1X02 UP	UNC	05/18/89	5.8	1.22	385000	722	<2.5	15	1850	197000	5	11.5	<1	149	0.2	19700
792	A1X02 UP	UNC	09/14/89	5.5	1.24	400000	958	<2.5	10	2390	196000	5	13.1	0.4	162	0.5	23600
793	A1X02 UP	UNC	09/14/89	5.5	1.24	405000	954	<2.5	<5	2410	195000	5	13.0	0.6	160	<0.1	23800
796	A1X02 UP	IT	09/14/89	5.5	1.14	333000	854	<5		2200	201000	4	60	0.09	167		20900
930	A1X02 UP	UNC	12/12/89	5.8	1.23	393000	704	<2.5	15	1810	191000	6	11.0	0.9	168	<0.1	20100
931	A1X02 UP	UNC	12/12/89	5.8	1.23	395000	708	<2.5	15	1830	188000	6	10.9	0.8	175	<0.1	20200
932	A1X02 UP	IT	12/12/89	5.7	1.22	406000	740	<5		2500	190000	6	11	0.18	130		20000
934	A1X02 UP	IT	12/12/89	5.7	1.22	368000	730	<5		3100	186000	6	12	0.18	140		23000
652 653	A2X01 DN	UNC	03/14/89	6.0	1.24	364000	930	8.1	15	1510	194000	7	12.1	<1	139	<0.3	17000
654 655	A2X01 DN	IT	03/14/89	6.1	1.23	343000	939	5		1400	202000	8	13		154		14300
654 655	A2X01 DN	IT	03/14/89	6.1	1.23	343000	939	5		1400	202000	8	13		154		14300
703	A2X01 DN	IT	09/14/89	6.1	1.19	330000	1159	<5		1300	193000	7	89	0.13	142		15200
801	A2X01 DN	UNC	09/14/89	6.1	1.23	382000	1061	5.6	5	1520	191000	5	13.2	<0.4	142	<0.1	17500
803	A2X01 DN	IT	09/14/89	6.1	1.19	330000	1159	<5		1300	193000	7	89	0.13	142		15200
926	A2X01 DN	UNC	12/12/89	6.1	1.23	379000	947	5.6	81	1520	191000	7	13.2	0.8	167	<0.1	19100
927	A2X01 DN	IT	12/12/89	6.0	1.22	347000	950	5		1400	184000	7	12	0.35	140		18000
756	A2X02 UP	UNC	05/18/89	6.1	1.22	380000	972	5.6	36	1560	195000	6	13.1	<1	155	0.3	17100
757	A2X02 UP	UNC	05/18/89	6.0	1.22	376000	978	5.1	25	1560	194000	6	13.8	<1	155	0.2	17100
656 657	A3X01 DN	UNC	03/14/89	6.0	1.24	366000	954	5.1	20	1500	193000	7	11.3	<1	143	<0.3	16800
658 659	A3X01 DN	IT	03/14/89	6.1	1.21	346000	952	5		1400	198000	8	13		168		13400

A1 16_01/RCFDAO km

TABLE C-1

ANALYTICAL RESULTS
(CONTINUED)

SAMPLE NUMBER	HOLE NUMBER & DIRECTION	LAB	DATE	pH	SG	TDS (mg/L)	EXT_ALK* (mg/L)	TIC** (mg/L)	TOC** (mg/L)	Br (mg/L)	Cl (mg/L)	F (mg/L)	I (mg/L)	NO_3 (mg/L)	NH_4 (mg/L)	PO_4 (mg/L)	SO_4 (mg/L)
758	A3X01 DN	UNC	05/18/89	6.0	1.22	374000	977	6.1	20	1520	192000	6	13.2	<1	147	0.1	16800
804	A3X01 DN	UNC	09/14/89	6.1	1.23	383000	1035	4.6	10	1490	191000	5	12.7	<0.4	137	<0.1	17200
805	A3X01 DN	IT	09/14/89	6.1	1.22	330000	1110	<5		1200	201000	8	50	0.13	155		15200
913	A3X01 DN	UNC	12/12/89	6.1	1.22	379000	985	4.1	71	1480	189000	7	22.7	1.7	171	<0.1	17200
914	A3X01 DN	IT	12/12/89	6.1	1.22	373000	950	5		1500	182000	6	18	0.49	130		17000
746	AIS WATER	UNC	04/06/89	7.2	1.22	349000	140	66.5	66	184	186000	<1	0.5	<1	18.1	0.1	21000
747	AIS WATER	UNC	04/06/89	8.2	1.06	96000	122	77.7	20	35	50700	1.4	0.2	<1	0.33	<0.1	7750
748	AIS WATER	UNC	04/26/89	7.4	1.20	331000	177	112.8	91	90	187000	<1	0.2	10	3.23	<0.1	10700
646 647	BX01 DN	UNC	03/14/89	5.9	1.24	367000	848	7.6	56	1480	194000	8	11.3	<1	138	<0.3	17100
648 649	BX01 DN	UNC	03/14/89	5.9	1.24	364000	844	10.2	51	1490	194000	8	11.0	<1	138	<0.3	17200
650 651	BX01 DN	IT	03/14/89	6.0	1.23	350000	817	5		1100	196000	7	15		154		13700
761	BX01 DN	IT	05/17/89	5.9	1.17	345000	799	5		1100	182000	7.3	24	0.02	124		13400
759	BX01 DN	UNC	05/18/89	6.0	1.23	380000	830	8.6	46	1510	195000	7	13.4	<1	153	<0.1	16900
760	BX01 DN	UNC	05/18/89	6.0	1.22	374000	810	7.6	46	1490	196000	8	13.4	<1	151	<0.1	16900
807	BX01 DN	UNC	09/14/89	6.1	1.23	380000	915	6.1	15	1450	191000	5	15.4	<0.4	139	<0.1	17300
809	BX01 DN	IT	09/14/89	6.0	1.22	336000	964	<5		1200	182000	7	39	0.09	129		16100
915	BX01 DN	UNC	12/12/89	6.1	1.23	379000	882	5.1	66	1450	191000	7	13.3	0.6	166	<0.1	17400
918	BX01 DN	UNC	12/12/89	6.1	1.23	382000	886	5.1	<5	1470	192000	7	12.8	0.6	165	<0.1	17400
919	BX01 DN	IT	12/12/89	6.0	1.22	401000	880	5		1800	180000	6	13	0.22	130		17000
773	DH28 DN	UNC	08/29/89	6.1	1.23	366000	869	11.7	61	1440	192000	3	14.5	0.5	151	<0.1	16500
774	DH28 DN	UNC	08/29/89	6.1	1.22	373000	822	9.1	66	1440	191000	3	14.6	1.4	137	<0.1	16600
775	DH28 DN	UNC	08/29/89	6.1	1.22	369000	844	11.7	66	1440	191000	3	14.4	0.5	138	<0.1	16600
951	DH28 DN	UNC	12/12/89	6.2	1.23	382000	849	9.1	97	1440	191000	4	23.7	1.3	161	0.3	16900
776	DH30 DN	UNC	08/29/89	6.1	1.22	369000	783	6.6	15	1420	187000	3	14.8	0.6	144	<0.1	16500
777	DH30 DN	UNC	08/29/89	6.1	1.22	370000	777	7.6	10	1420	193000	4	14.8	<0.4	141	<0.1	16500
778	DH30 DN	UNC	08/29/89	6.1	1.22	366000	784	7.1	10	1420	193000	3	14.9	0.4	141	<0.1	16500
831	DH30 DN	UNC	09/14/89	6.1	1.22	351000	813	7.6	51	1390	192000	3	16.2	1.1	133	0.2	16500
945	DH30 DN	UNC	12/12/89	6.1	1.23	381000	842	4.6	30	1450	189000	5	15.6	0.6	172	<0.1	16100
946	DH30 DN	UNC	12/12/89	6.1	1.23	379000	854	6.1	25	1450	189000	4	16.8	0.6	175	<0.1	16100
947	DH30 DN	IT	12/12/89	6.1	1.22	388000	870	5		2100	182000	4	16	0.27	140		17000
949	DH30 DN	IT	12/12/89	6.1	1.22	348000	870	<5		1600	180000	2	13	0.2	140		16000
779	DH32 DN	UNC	08/29/89	6.1	1.22	363000	824	8.6	10	1390	193000	4	15.2	<0.4	140	<0.1	16100
780	DH32 DN	UNC	08/29/89	6.1	1.22	370000	822	9.1	5	1400	194000	3	15.0	0.4	144	<0.1	16200
781	DH32 DN	UNC	08/29/89	6.1	1.22	365000	820	8.1	15	1390	194000	4	15.0	<0.4	143	<0.1	16100

TABLE C-1

ANALYTICAL RESULTS
(CONTINUED)

SAMPLE NUMBER	HOLE NUMBER & DIRECTION	LAB	DATE	pH	SG	TDS (mg/L)	EXT_ALK* (mg/L)	TIC** (mg/L)	TOC** (mg/L)	Br (mg/L)	Cl (mg/L)	F (mg/L)	I (mg/L)	NO_3 (mg/L)	NH_4 (mg/L)	PO_4 (mg/L)	SO_4 (mg/L)
822	DH32 DN	UNC	09/14/89	6.1	1.22	351000	842	5.1	15	1390	192000	3	15.0	1.3	149	<0.1	16300
823	DH32 DN	UNC	09/14/89	6.1	1.22	344000	822	4.6	10	1390	192000	3	15.2	0.5	152	<0.1	16300
824	DH32 DN	IT	09/14/89	6.1	1.21	333000	915	<5		1100	192000	5	60	0.13	148		14900
940	DH32 DN	UNC	12/12/89	6.1	1.22	378000	809	4.6	10	1440	188000	4	14.0	1.6	177	<0.1	16000
942	DH32 DN	UNC	12/12/89	6.1	1.22	377000	799	3.6	10	1440	191000	4	15.4	0.9	168	<0.1	15900
943	DH32 DN	IT	12/12/89	6.1	1.22	398000	830	5		2100	184000	3	14	0.18	140		16000
944	DH32 DN	IT	12/12/89	6.1	1.22	333000	820	<5		2000	180000	4	15	0.18	140		16000
782	DH34 DN	UNC	08/29/89	6.1	1.22	367000	781	8.6	10	1320	194000	3	14.4	<0.4	134	<0.1	16900
783	DH34 DN	UNC	08/29/89	6.1	1.22	365000	781	8.1	<5	1330	193000	3	14.3	<0.4	147	<0.1	16900
784	DH34 DN	UNC	08/29/89	6.1	1.22	367000	756	7.6	10	1320	193000	3	14.3	<0.4	137	<0.1	16800
845	DH34 DN	IT	09/14/89	6.1	1.22	328000	805	<5		1600	192000	4	53	0.22	142		15300
846	DH34 DN	UNC	09/14/89	6.1	1.22	355000	789	11.7	30	1310	191000	3	15.6	0.4	140	<0.1	16700
935	DH34 DN	UNC	12/12/89	6.2	1.22	377000	759	7.6	25	1410	188000	4	18.2	1.1	176	<0.1	16600
936	DH34 DN	UNC	12/12/89	6.1	1.22	378000	759	8.1	15	1410	188000	5	18.4	1.0	177	<0.1	16600
938	DH34 DN	IT	12/12/89	6.1	1.22	345000	820	10		2000	186000	3	14	0.18	140		16000
939	DH34 DN	IT	12/12/89	6.1	1.22	349000	890	10		4800	182000	<2	14	0.18	160		17000
684 685	DH36 DN	IT	03/14/89	6.1	1.21	334000	842	8		1300	195000	4	16		180		13200
686 687	DH36 DN	IT	03/14/89	6.1	1.21	344000	842	5		1400	194000	4	16		168		11800
690 691	DH36 DN	UNC	03/14/89	6.0	1.24	365000	855	7.6	20	1460	194000	5	14.7	<1	151	<0.3	16100
692 693	DH36 DN	UNC	03/14/89	6.0	1.24	365000	853	9.1	5	1460	194000	5	14.3	<1	155	<0.3	16200
766	DH36 DN	UNC	06/06/89	6.2	1.22	371000	848	5.1	15	1440	193000	4	15.5	<1	166	0.2	16200
767	DH36 DN	IT	06/06/89	6.1	1.22	310000	830	<5		1400	193000	2.3	17	0.09	155		15300
819	DH36 DN	UNC	09/14/89	6.2	1.22	351000	860	4.6	10	1350	192000	3	16.6	<0.4	153	<0.1	16200
821	DH36 DN	IT	09/14/89	6.1	1.23	329000	952	<5		1100	191000	5	78	<0.09	155		14400
969	DH36 DN	UNC	12/12/89	6.2	1.22	377000	856	5.1	25	1410	189000	4	16.2	0.7	171	<0.1	16500
970	DH36 DN	UNC	12/12/89	6.2	1.22	377000	817	5.1	15	1420	189000	4	15.6	0.6	171	<0.1	16300
971	DH36 DN	IT	12/12/89	6.1	1.22	350000	840	5		1700	186000	6	17	0.18	140		17000
972	DH36 DN	IT	12/12/89	6.1	1.22	354000	830	5		2100	182000	6	16	0.18	160		18000
696 697	DH38 DN	UNC	03/14/89	5.9	1.24	364000	917	15.7	20	1450	194000	5	14.4	<1	152	0.3	16000
698 699	DH38 DN	UNC	03/14/89	6.0	1.24	363000	915	11.2	25	1460	195000	5	15.0	<1	155	<0.3	16100
700 701	DH38 DN	IT	03/14/89	6.2	1.21	343000	878	5		1500	196000	4	16		180		20000
768	DH38 DN	UNC	06/06/89	6.3	1.22	364000	887	5.6	25	1390	188000	4	15.1	<1	164	0.3	15500
818	DH38 DN	UNC	09/14/89	6.2	1.22	352000	976	7.6	15	1360	193000	3	17.8	0.7	152	<0.1	16300
963	DH38 DN	UNC	12/12/89	6.2	1.23	376000	942	7.6	15	1380	187000	4	26.5	1.3	168	0.1	16100

TABLE C-1

ANALYTICAL RESULTS
(CONTINUED)

SAMPLE NUMBER	HOLE NUMBER & DIRECTION	LAB	DATE	pH	SG	TDS (mg/L)	EXT_ALK* (mg/L)	TIC** (mg/L)	TOC** (mg/L)	Br (mg/L)	Cl (mg/L)	F (mg/L)	I (mg/L)	NO_3 (mg/L)	NH_4 (mg/L)	PO_4 (mg/L)	SO_4 (mg/L)
964	DH38 DN	UNC	12/12/89	6.2	1.22	378000	936	6.6	10	1380	188000	4	26.2	0.8	166	<0.1	16200
965	DH38 DN	IT	12/12/89	6.2	1.22	366000	950	5		1900	181000	7	18	0.22	160		17000
968	DH38 DN	IT	12/12/89	6.2	1.22	346000	960	5		1600	178000	7	14	0.22	160		16000
722 723	DH42 DN	UNC	03/14/89	6.1	1.24	366000	936	11.2	51	1440	193000	5	14.9	9	161	<0.3	15600
961	DH42 DN	UNC	12/12/89	6.3	1.22	373000	909	6.1	36	1370	190000	4	26.4	0.6	178	<0.1	17100
962	DH42 DN	IT	12/12/89	6.3	1.22	349000	950	5		1900	180000	7	18	0.27	160		15000
714 715	DH42A DN	IT	03/14/89	6.1	1.21	343000	860	<5		1400	196000	7	18		180		13200
716 717	DH42A DN	IT	03/14/89	6.1	1.21	343000	854	<5		1350	196000	7	17		180		14400
718 719	DH42A DN	UNC	03/14/89	5.9	1.24	367000	854	4.1	<5	1420	195000	5	13.0	<1	162	<0.3	15600
720 721	DH42A DN	UNC	03/14/89	6.0	1.24	373000	860	5.6	<5	1430	195000	4	11.9	<1	155	<0.3	15600
770	DH42A DN	UNC	06/06/89	6.1	1.22	370000	889	5.6	30	1410	192000	4	17.1	<1	173	0.4	15900
771	DH42A DN	IT	06/06/89	6.2	1.23	323000	866	<5		1400	194000	2.4	17	0.22	155		13500
815	DH42A DN	UNC	09/14/89	6.2	1.22	353000	897	6.1	36	1350	193000	3	18.6	0.5	157	<0.1	16100
817	DH42A DN	IT	09/14/89	6.2	1.22	328000	964	<5		320	196000	5	82	0.13	180		12500
958	DH42A DN	UNC	12/12/89	6.2	1.22	378000	864	4.1	20	1400	190000	4	24.4	1.7	181	<0.1	15900
960	DH42A DN	IT	12/12/89	6.1	1.22	376000	880	5		1800	182000	6	18	0.18	160		16000
833	DHP402A DN	UNC	09/14/89	6.0	1.22	346000	737	3.0	10	1430	191000	4	11.3	0.5	121	<0.1	17700
834	DHP402A DN	UNC	09/14/89	6.0	1.22	348000	745	<2.5	<5	1440	193000	4	11.4	0.4	121	<0.1	17900
836	DHP402A DN	IT	09/14/89	6.0	1.22	329000	805	<5		1400	196000	7	57	<0.09	142		17200
837	DHP402A DN	IT	09/14/89	6.0	1.21	320000	805	<5		1800	196000	7	28	<0.09	142		17100
973	DHP402A DN	UNC	12/12/89	6.0	1.22	382000	756	4.1	25	1480	188000	6	11.2	0.6	137	<0.1	18100
975	DHP402A DN	UNC	12/12/89	6.1	1.22	381000	738	5.6	25	1510	190000	6	11.2	0.8	141	<0.1	18000
976	DHP402A DN	IT	12/12/89	6.0	1.21	324000	730	5		1900	181000	7	18	0.13	110		20000
977	DHP402A DN	IT	12/12/89	6.0	1.22	294000	770	5		2200	178000	9	21	0.13	120		20000
672 673	GSEEP DN	IT	03/14/89	6.2	1.23	337000	878	8		1300	186000	4	17		180		25300
674 675	GSEEP DN	IT	03/14/89	6.3	1.22	337000	891	5		1300	187000	4	17		193		25600
678 679	GSEEP DN	UNC	03/14/89	6.1	1.24	367000	891	4.6	30	1380	185000	4	16.6	<1	168	<0.3	28300
680 681	GSEEP DN	UNC	03/14/89	6.1	1.24	373000	885	5.6	25	1370	185000	4	16.2	<1	167	<0.3	28100
762	GSEEP DN	UNC	06/06/89	6.3	1.23	376000	885	3.6	20	1380	186000	3	16.7	<1	180	0.1	28500
763	GSEEP DN	UNC	06/06/89	6.3	1.22	373000	878	4.1	15	1370	187000	4	16.9	<1	179	0.3	28600
764	GSEEP DN	IT	06/06/89	6.2	1.23	327000	878	<5		1600	186000	1.8	21	0.13	167		24800
765	GSEEP DN	IT	06/06/89	6.2	1.23	332000	866	<5		1500	191000	2.3	20	0.13	167		24700
810	GSEEP DN	UNC	09/14/89	6.3	1.24	376000	926	3.6	<5	1340	182000	3	16.5	0.6	164	0.1	28400
812	GSEEP DN	UNC	09/14/89	6.3	1.23	360000	915	3.0	15	1310	184000	2	16.3	0.5	164	<0.1	28700

TABLE C-1

ANALYTICAL RESULTS
(CONTINUED)

SAMPLE NUMBER	HOLE NUMBER & DIRECTION	LAB	DATE	pH	SG	TDS (mg/L)	EXT_ALK* (mg/L)	TIC** (mg/L)	TOC** (mg/L)	Br (mg/L)	Cl (mg/L)	F (mg/L)	I (mg/L)	NO_3 (mg/L)	NH_4 (mg/L)	PO_4 (mg/L)	SO_4 (mg/L)
813	GSEEP DN	IT	09/14/89	6.3	1.22	345000	1013	<5		910	184000	4	42	0.2	180		25000
814	GSEEP DN	IT	09/14/89	6.2	1.22	340000	1000	<5		730	182000	4	57	0.2	167		26300
954	GSEEP DN	UNC	12/12/89	6.3	1.23	374000	889	<2.5	15	1340	180000	2	15.7	0.6	187	<0.1	28000
955	GSEEP DN	UNC	12/12/89	6.3	1.22	374000	882	<2.5	15	1360	182000	3	15.8	0.6	193	<0.1	28200
956	GSEEP DN	IT	12/12/89	6.2	1.23	392000	940	<5		1700	174000	2	16	0.2	180		30000
957	GSEEP DN	IT	12/12/89	6.2	1.22	354000	920	<5		1500	172000	3	17	0.2	160		29000
729 730	L1X00 DN	UNC	03/14/89	5.7	1.25	380000	1183	10.2	36	1860	199000	7	18.2	<1	184	<0.3	20600
725 726	NG252 DN	UNC	03/14/89	6.0	1.24	361000	820	9.7	<5	1460	194000	5	14.6	<1	136	<0.3	16200
727 728	NG252 DN	IT	03/14/89	6.1	1.21	344000	805	5		1500	198000	8	15		168		14800
789	OH20 HZ	UNC	08/29/89	6.2	1.23	388000	695	7.1	152	1270	189000	4	40.2	2.6	117	0.5	21500
924	OH20 HZ	UNC	12/12/89	6.2	1.22	381000	641	7.1	112	1200	190000	4	19.0	2.1	126	0.3	17000
925	OH20 HZ	IT	12/12/89	6.2	1.22	363000	660	10		710	180000	4	24	1.59	110		20000
671	OH23 HZ	UNC	03/14/89	5.9	1.24	370000	899	3.0	259	1640	196000	5	40.2	<1	150	0.4	18100
749	OH23 HZ	UNC	04/26/89	6.0	1.22	380000	808	5.6	229	1620	196000	5	29.2	<1	156	0.5	17500
772	OH23 HZ	UNC	06/06/89	6.0	1.23	379000	809	4.6	203	1600	197000	4	21.3	1	158	0.4	17900
787	OH23 HZ	UNC	08/29/89	6.0	1.23	385000	771	5.1	127	1490	192000	4	22.8	1.8	150	0.1	17800
788	OH23 HZ	IT	08/29/89	5.9	1.23	355000	744	<5		910	184000	6	24	0.62	124		16300
842	OH23 HZ	UNC	09/14/89	6.0	1.22	353000	743	3.6	107	1490	192000	3	16.6	1.1	135	0.1	17100
907	OH23 HZ	UNC	12/12/89	6.0	1.23	378000	706	4.1	122	1500	191000	4	14.2	1.0	166	0.1	17000
785	OH26 HZ	UNC	08/29/89	6.0	1.23	387000	789	3.0	122	1480	192000	4	26.4	1.3	146	0.3	17600
786	OH26 HZ	IT	08/29/89	5.9	1.20	354000	750	<5		1200	184000	5	51	0.35	155		15800
841	OH26 HZ	UNC	09/14/89	6.0	1.22	355000	787	3.6	107	1480	194000	3	22.6	0.9	135	0.2	17500
908	OH26 HZ	UNC	12/12/89	6.0	1.22	385000	748	4.6	86	1510	190000	4	17.0	0.6	164	0.1	17000
910	OH26 HZ	UNC	12/12/89	6.0	1.22	380000	750	4.1	81	1490	192000	4	17.2	0.6	160	0.1	17000
911	OH26 HZ	IT	12/12/89	6.0	1.22	321000	730	5		1200	184000	3	19	0.22	140		17000
838	OH45 HZ	UNC	09/14/89	6.1	1.22	346000	806	5.1	137	1490	192000	3	19.1	1.0	141	0.5	17600
790	OH46 DN	UNC	08/29/89	6.1	1.22	373000	854	9.7	71	1610	196000	4	17.4	0.8	147	<0.1	17300
903	OH46 DN	IT	12/12/89	6.1	1.22	329000	870	5		1600	175000	4	22	1.1	130		16000
904	OH46 DN	UNC	12/12/89	6.1	1.22	384000	856	4.1	107	1560	191000	5	24.0	2.2	172	<0.1	16700
906	OH46 DN	UNC	12/12/89	6.1	1.23	384000	863	4.1	112	1540	192000	5	24.7	1.8	171	<0.1	16600
840	OH47 UP	UNC	09/14/89	5.7	1.23	369000	1183	<2.5	46	2190	193000	4	14.9	1.3	205	0.7	24700
929	OH47 UP	UNC	12/12/89	5.6	1.23	411000	1086	<2.5	41	2340	192000	6	16.4	0.8	252	0.1	24700