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Data Article

Building Mexican isoscapes: Oxygen and hydrogen isotope data of meteoric water sampled across Mexico

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ABSTRACT

Oxygen and hydrogen isotope data of meteoric water samples are compiled from several States across Mexico. This dataset includes 287 oxygen and hydrogen (and deuterium excess) isotope data corresponding to meteoric water collected from the surface, groundwater wells, irrigation and observation wells, and water supply boreholes. These data facilitate the development of maps to determine the spatial distribution of water stable isotopes, also known as "isoscapes", of the Mexican territory. As such, this dataset (and the isoscapes built from it) is useful in geographic mobility studies that aim to evaluate geographic origins and residency of particular human and/or non-human individuals in antiquity and in contemporary times. Further discussion about the data and an example of an isoscape of Mexico using the meteoric water oxygen isotope data are provided in "Residential Patterns of Mexica Human Sacrifices at Mexico-Tenochtitlan and Mexico-

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Tlatelolco: Evidence from Phosphate Oxygen Isotopes" (Moreiras Reynaga et al., 2021). Overall, the dataset is useful in developing interpolated maps of water stable isotopes for relevant archeological, bioarchaeological, forensic, hydrogeological, and ecological research.

Specifications Table

Subject	Hydrology/Hydrogeology
Specific subject area	Stable isotope tracers in meteoric water
Type of data	kmz file xlsx file
How data were acquired	Sample ID's 1–234 were analyzed using off-axis integrated-cavity output laser spectroscopy (Model DLT-100; Los Gatos Research Inc.). Sample ID's 247–272 were analyzed using a VG Micromass 602C isotope ratio mass spectrometer. The remaining samples were prepared using conventional preparation methods and analyzed via isotope ratio mass spectrometry (instrument make and model not specified). Excel was used to compile the isotope data. ArcMap was used to develop a map displaying the locations of the water samples collected across Mexico.
Data format	Analyzed. Secondary Data. The isotope analytical data are reported relative to Vienna Standard Mean Ocean Water (VSMOW) in per mil (‰).
Parameters for data collection	The oxygen and hydrogen isotope data derive from water samples that were collected by several researchers from 1962 to 2010 across the Mexican landscape. Uncertainty for the oxygen ($\delta^{18}O$) and hydrogen ($\delta^{2}H$) isotope data are ±0.2 ‰ and ±2.0 ‰, respectively.
Description of data collection	The oxygen and hydrogen isotope data come from water samples collected from surface water, groundwater wells, irrigation and observation wells, and water supply boreholes across the Mexican territory.
Data source location	The water samples were collected at multiple States across Mexico: Baja California (30.8406° N, 115.2838° W); Baja California Sur (26.044° N, 111.6661° W); Campeche (19.8301° N, 90.5349° W); Chiapas (16.7569° N, 93.1292° W); Chihuahua (28.6330° N, 106.0691° W); Coahuila (27.0587° N, 101.7068° W); Colima (19.2452° N, 103.7241° W); Durango (24.5593° N, 104.6588° W); Guanajuato (21.0191° N, 101.2574° W); Guerrero (17.4392° N, 99.55451° W); Hidalgo (20.0911° N, 98.7624° W); Jalisco (20.6595° N, 103.3494° W); Mexico City (19.4326° N, 99.1332° W); Michoacán (19.5665°N, 101.7068° W); Morelos (18.6813° N, 99.1013° W); Nayarit (21.7514° N, 104.8455° W); Nuevo León (25.5922° N, 99.9962° W); Oaxaca (17.0732° N, 96.7266° W); Puebla (19.0414° N, 98.2063° W); Quintana Roo (19.1817° N, 88.4791° W); Sinaloa (25.1721° N, 107.4795° W); San Luis Potosí (22.1565° N, 100.9855° W); Sonora (20.2972° N, 110.3309° W); Tabasco (17.8409° N, 92.6189° W); Tamaulipas (24.2669° N, 98.8363° W); Veracruz (19.1738° N, 96.1342° W); Yucatán (20.7099° N, 89.0943° W); and, Zacatecas (22.7709° N, 102.5832° W). Specific coordinates per water sample are located in: OandHisotopes_Mexico.xlsx Primary data sources: Cortés and Farvolden 1989; Edmunds et al. 2002; IAEA 1992; Isaar et al. 1984; Jaimes-Palomera et al. 1989; Ortega-Guerrero et al. 1997; Pérez-Quezadas et al. 2015; Portugal et al. 2005; Vázquez-Sánchez et al. 1989; Wassenaar et al. 2009.
Data accessibility	Data provided within this article.
Related research article	D. K. Moreiras Reynaga, J. Millaire, X. Chávez Balderas, J. A. Román Berrelleza, L. López Luján, F. J. Longstaffe, Residential Patterns of Mexica Human Sacrifices at Mexico-Tenochtitlan and Mexico-Tlatelolco: Evidence from Phosphate Oxygen Isotopes, J. Anthropol. Archaeol. 62 (2021): 101296

Value of the Data

- The compiled data provide insights into the stable oxygen and hydrogen isotope ratios of meteoric water across the Mexican territory, which facilitates the development of interpolated maps of Mexico to aid in the assessment of geographic origins and mobility in ecological, archeological, bioarchaeological, and forensic studies.
- Researchers working on hydrology/hydrogeological problems across the Mexican landscape as well as researchers evaluating geographic residencies and mobility patterns of humans and non-humans across Mexico within ecological, archeological, bioarchaeological, and forensic contexts.
- The data can be used to develop interpolated maps or isoscapes using geographic information systems software (e.g., ArcGIS) in ecological, archeological, bioarchaeological, and forensic studies investigating geographic mobility within the Mexican landscape.
- The data also provide useful insights into the hydrological cycle and associated local meteoric water lines, including the relationship between $\delta^{18}O$, $\delta^{2}H$, and deuterium excess within the Mexican territory.
- The data can be used to investigate the relationships between water samples from surface water and groundwater as well as the associated isotope effects such as seasonal, altitude, continental, and rainout effects across the country of Mexico.

1. Data Description

The data compiled include meteoric water stable isotope ratios ($\delta^{18}O$, $\delta^{2}H$) collected and analyzed by several researchers [1,2,3,4,5,6,7,8,9,10] across the Mexican territory between 1962 and 2010. The water samples were collected from surface water, shallow groundwater wells, observation and irrigation wells, and water supply boreholes across Mexico. The water samples, and their corresponding isotope data, include the Mexican States of Baja California, Baja California Sur, Campeche, Chiapas, Chihuahua, Coahuila, Colima, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, Mexico City, Michoacán, Morelos, Nayarit, Nuevo León, Oaxaca, Puebla, Quintana Roo, Sinaloa, San Luis Potosí, Sonora, Tabasco, Tamaulipas, Veracruz, Yucatán, and Zacatecas. For a discussion on the spatial distribution of the $\delta^{18}O$ data across the Mexican landscape and to view an example of an oxygen isotope isoscape of Mexico using these data refer to Moreiras Reynaga et al. [11].

WaterSamples_Mexico.kmz – Google Earth map showing the sampling locations.

OandHisotopes_Mexico.xlsx – table with the 287 meteoric water stable oxygen and hydrogen isotope data compiled. The table includes location, Mexican State, sampling date, latitude, longitude, $\delta^{18}O$ and $\delta^{2}H$ values, deuterium excess, sample type, and primary sources from where the data were compiled. Note that five $\delta^{18}O$ and $\delta^{2}H$ values are averages taken from isotope values of multiple water samples collected at the same location. These averaged isotope values are noted as such in the “Sample Type” column.

2. Experimental Design, Materials and Methods

The majority of the samples (ID 1–234) in this dataset were collected and analyzed by Wassenaar and colleagues [10]. They collected water samples throughout the year 2007 from shallow (<5–20 m in depth) groundwater stations with ~50 km latitudinal spacing across Mexico. Collected water samples were stored unfiltered in tightly sealed plastic containers until they were analyzed in the laboratory. To obtain $\delta^{18}O$ and $\delta^{2}H$, samples were analyzed using off-axis integrated-cavity output laser spectroscopy (Model DLT-100; Los Gatos Research Inc.). Samples were normalized based on calibrated internal laboratory standards relative to VSMOW (0 ‰) and

VSLAP (δ^2H = –428 ‰; δ^{18}O = –55.5 ‰), with analytical precision for δ^{18}O and δ^2H ± 0.1 ‰ and ± 0.8 ‰, respectively [10].

For water samples (ID 238–246) from the Mexicali Valley, Portugal and colleagues [8] collected them from observation and irrigation wells during 1997 and are labelled "Group A" in their study. To sample in observation wells a discrete interval sampler was used up to a depth of ~50 m, while samples were extracted from the irrigation wells at no more than 200 m depth. Sample oxygen and hydrogen isotopes were obtained using gas source mass spectrometry, where CO_2 was equilibrated with water to measure oxygen, and H^2 generated from water reduction with Zn for measuring hydrogen [8].

Water samples (ID 247–272) from Mexico City were collected and analyzed by Edmunds and colleagues [2]. Samples were collected from water supply boreholes crossing Mexico City on a west-east transect. Filtered samples (0.45 μm) were stored in low-density polyethylene bottles. The water samples were analyzed at the British Geological Survey using a VG Micromass 602C mass spectrometer to obtain oxygen and hydrogen isotope measurements [2].

Water samples (ID 275–281) from Veracruz reported by Pérez-Quezadas and colleagues [7] were sampled using rain collectors during the rainy season in 2010 along a transect from the Port of Veracruz (0 m asl) up to Cofre de Perote at 4220 m asl. The meteoric water was collected throughout the rainy season period (May-Oct.) and stored in containers that were covered by heat insulating materials along with 250 ml of inert Nujol mineral oil to reduce evaporation. A 60 ml sample was collected from each container at the end of the rainy season and stored in a high-density polyethylene bottle. The water samples were analyzed for stable oxygen and hydrogen isotopes at the Mass Spectrometry Laboratory of the Institute of Geology at the National Autonomous University of Mexico (UNAM). Sample isotope values were normalized relative to VSMOW and SLAP and analytical precision for δ^{18}O was ± 0.1 ‰ and for δ^2H was ± 1.0 ‰ [7].

The water samples (ID 282–286) from Morelos were collected from groundwater wells and analyzed by Jaimes-Palomera and colleagues [5] between 1986 and 1987. The samples were analyzed using the conventional isotope methods in the Mass Spectrometry Laboratory of the Institute of Physics at the National Autonomous University of Mexico (UNAM). Samples were normalized relative to VSMOW and analytical precision was ± 0.2 ‰ for δ^{18}O and ± 2.0 ‰ for δ^2H [5].

The water oxygen and hydrogen isotope averages (ID 235) for samples reported by Issar and colleagues [4] were originally collected from five groundwater wells (3p, 4p, 5p, 6p, and 7p) in the Texcoco Lake region (Sierra Nevada) by Quijano. The water sample (ID 273) collected by Ortega-Guerrero et al. [6] from the middle of the Chalco Plain was sampled from cumulative rain during the month of December of 1989. The sample was filtered (0.45 μm), stored in a plastic container, and low-density silicone oil was added to reduce evaporation. Oxygen and hydrogen isotopes were measured at the Environmental Isotope Laboratory of the University of Waterloo, Canada. The isotope data were normalized relative to VSMOW and analytical precision was better than ± 0.2 ‰ for δ^{18}O and ± 2.0 ‰ for δ^2H [6].

The oxygen and hydrogen isotope averages (ID 274) for rain samples analyzed by Cortés and Farvolden [1] were collected from the Mexican highlands in the Sierra de las Cruces between 1985 and 1986. Rain was collected into containers and low-density Nujol oil was added to avoid evaporation. Samples of 75 ml were extracted and stored unfiltered in a glass, wax-sealed container. Conventional isotope methods were used and samples were analyzed at the University of Waterloo, Canada. Analyzed isotope data were normalized relative to VSMOW and analytical precision was ± 0.2 ‰ for δ^{18}O and ± 2.0 ‰ for δ^2H [1]. The water oxygen and hydrogen isotope average compositions reported by Vázquez-Sánchez and colleagues [9] correspond to water collected from groundwater wells in the Cuautla and Yautepec Valleys, Morelos. These samples were analyzed and normalized relative to VSMOW and analytical precision was ± 0.2 ‰ for δ^{18}O and ± 2.0 ‰ for δ^2H [9].

The water oxygen and hydrogen average isotope compositions (ID 236–237) of precipitation were collected using meteorological stations in Chihuahua and Veracruz as part of the

IAEA/WMO network, Isotopes in Precipitation, between 1962 and 1987 [3]. The water samples were analyzed in IAEA's Isotope Hydrology Laboratory.

CRediT Author Statement

Diana K. Moreiras Reynaga: Conceptualization, Investigation, Writing – Original Draft, Writing – Reviewing and Editing; **Jean-François Millaire:** Conceptualization, Supervision, Visualization, Writing – Reviewing and Editing; **Ximena Chávez Balderas:** Conceptualization, Writing – Reviewing and Editing; **Juan A. Román Berrelleza:** Writing – Reviewing and Editing; **Leonardo López Luján:** Writing – Reviewing and Editing; **Fred J. Longstaffe:** Conceptualization, Supervision, Writing – Reviewing and Editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships which have or could be perceived to have influenced the work reported in this article.

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Supplementary Materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.dib.2021.107084.

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ID	Location	State	Sampling date
1	San Antonio	Baja California	12/12/2007
2	Cerro Azul	Baja California	12/12/2007
3	Testerazo	Baja California	12/12/2007
4	Rancho Loma toa	Baja California	12/12/2007
5	San Vicente	Baja California	11/12/2007
6	La Rumorosa	Baja California	12/12/2007
7	Santa Fe	Baja California	11/12/2007
8	San Quintín	Baja California	11/12/2007
9	Ejido Nuevo Uruapan	Baja California	11/12/2007
10	Rancho Los Cuates	Baja California	11/12/2007
11	Catavina	Baja California	11/12/2007
12	Punta Prieta	Baja California	10/12/2007
13	Rosarito	Baja California	10/12/2007
14	Jesús María	Baja California	10/12/2007
15	Guerrero Negro	Baja California Sur	10/12/2007
16	Rancho San Agustín	Baja California Sur	10/12/2007
17	Rancho La Misión	Baja California Sur	10/12/2007
18	San Ignacio	Baja California Sur	10/12/2007
19	Gido Alfredo Bonfil	Baja California Sur	10/12/2007
20	Palo Verde	Baja California Sur	9/12/2007
21	Coyote Bahía de Concepción	Baja California Sur	9/12/2007
22	Ignacio Zaragoza	Baja California Sur	8/12/2007
23	Rancho Imposible	Baja California Sur	8/12/2007
24	Between Loreto and San Juan Bautista Lon	Baja California Sur	9/12/2007
25	Santa Rita	Baja California Sur	25/3/2007
26	Puerto Escondido	Baja California Sur	9/12/2007
27	El tranquero agua verde	Baja California Sur	8/12/2007
28	Hwy 1 km 128	Baja California Sur	8/12/2007
29	El Cien	Baja California Sur	25/3/2007
30	San Agustín	Baja California Sur	25/3/2007
31	Centenario	Baja California Sur	25/3/2007
32	La Paz	Baja California Sur	7/12/2007
33	San Pedro	Baja California Sur	6/12/2007
34	La Campana	Baja California Sur	7/12/2007
35	Plutaco Elías Calles	Baja California Sur	6/12/2007
36	Rancho Verde	Baja California Sur	6/12/2007
37	Las Cuevas	Baja California Sur	6/12/2007
38	Puerto Rico	Campeche	26/1/2007
39	Isla Aguada	Campeche	26/1/2007
40	Sabancuy	Campeche	26/1/2007
41	Nueva Esperanza	Campeche	21/1/2007
42	Moquel	Campeche	26/1/2007

43	Libertad	Campeche	22/1/2007
44	Kobén	Campeche	25/1/2007
45	Veinte de Noviembre	Campeche	22/1/2007
46	Sagrado Corazón de Jesús	Chiapas	19/1/2007
47	Cintalapa	Chiapas	19/1/2007
48	Veinte de Noviembre	Chiapas	20/1/2007
49	Huixtán	Chiapas	21/1/2007
50	Agua Azul	Chiapas	21/1/2007
51	17 Septiembre Colonia	Chiapas	21/1/2007
52	Catazajá	Chiapas	21/1/2007
53	El Berrendo	Chihuahua	22/3/2007
54	Yepachic	Chihuahua	19/3/2007
55	10 km Janos	Chihuahua	22/3/2007
56	Baquiriachi	Chihuahua	19/3/2007
57	Ascención	Chihuahua	21/3/2007
58	Elsa	Chihuahua	21/3/2007
59	Tomochi	Chihuahua	20/3/2007
60	Rancho Huerte la Monche	Chihuahua	20/3/2007
61	Colonia Veracruz	Chihuahua	21/3/2007
62	Ricardo Flores Magón	Chihuahua	4/2/2007
63	Ricardo Flores Magón	Chihuahua	4/2/2007
64	Barraganes	Chihuahua	20/3/2007
65	12 km S of Villa Ahumada	Chihuahua	21/3/2007
66	La Candelaria	Chihuahua	21/3/2007
67	Ricardo Flores Magón	Chihuahua	4/2/2007
68	El Sueco	Chihuahua	21/3/2007
69	30 km S of El Sueco	Chihuahua	20/3/2007
70	La Joya	Chihuahua	3/2/2007
71	Sacramento	Chihuahua	4/2/2007
72	Valero	Chihuahua	3/2/2007
73	Valle de Zaragoza	Chihuahua	3/2/2007
74	Chihuahua	Chihuahua	5/2/2007
75	Hidalgo de Parral	Chihuahua	3/2/2007
76	Los Charcos	Chihuahua	3/2/2007
77	Carmargo	Chihuahua	5/2/2007
78	Matamoros	Coahuila	6/2/2007
79	Cuatrociénegas	Coahuila	6/2/2007
80	Sacramento	Coahuila	6/2/2007
81	Castaños	Coahuila	7/2/2007
82	Las Paloma	Coahuila	7/2/2007
83	Santa Teresa	Coahuila	7/2/2007
84	Santa Cruz	Coahuila	7/2/2007
85	La Encantada	Coahuila	7/2/2007

86	San Antonio de Acatita	Coahuila	7/2/2007
87	Puerto México	Coahuila	8/2/2007
88	Zapata	Colima	23/1/2007
89	Armería	Colima	23/1/2007
90	Las Nieves	Durango	3/2/2007
91	La Esperaza	Durango	2/2/2007
92	Cieneguilla	Durango	2/2/2007
93	La Tinaja	Durango	1/2/2007
94	Donato Guerra	Durango	1/2/2007
95	San Salvador	Durango	2/2/2007
96	Hidalgo de San Antonio	Durango	2/2/2007
97	Valle Nacional	Durango	1/2/2007
98	Jose María Patoni	Durango	1/2/2007
99	Nombre de Dios	Durango	31/1/2007
100	Nombre de Dios	Durango	31/1/2007
101	El Vente Dos	Durango	5/2/2007
102	Los Días	Guanajuato	29/1/2007
103	Yuriria	Guanajuato	27/1/2007
104	Cimarrón	Guanajuato	29/1/2007
105	La Ilusión	Guanajuato	29/1/2007
106	Salvatierra	Guanajuato	27/1/2007
107	La Palma	Guanajuato	29/1/2007
108	Presa La Cantera	Guanajuato	28/1/2007
109	San Jerónimo	Guanajuato	28/1/2007
110	Los Llanos	Guerrero	22/1/2007
111	Petatlán	Guerrero	21/1/2007
112	Consuelito	Guerrero	21/1/2007
113	Tecpan	Guerrero	21/1/2007
114	El Zapote	Guerrero	20/1/2007
115	Lagunilla	Guerrero	20/1/2007
116	San Marcos	Guerrero	19/1/2007
117	San José	Guerrero	20/1/2007
118	Cruz Grande	Guerrero	19/1/2007
119	Marquelia	Guerrero	19/1/2007
120	Cuajinicuilapa	Guerrero	18/1/2007
121	Zimapán	Hidalgo	10/2/2007
122	Remedios Tasquillo	Hidalgo	10/2/2007
123	La Culebra	Hidalgo	10/2/2007
124	Crucero de Conasupo	Jalisco	24/1/2007
125	Road to playa Chalacatepec	Jalisco	24/1/2007
126	Agua Caliente	Jalisco	24/1/2007
127	Zapatlán del Rey	Jalisco	26/1/2007
128	Maruata	Michoacán	22/1/2007

129	Caleta	Michoacán	22/1/2007
130	La Mira	Michoacán	22/1/2007
131	Tlazazalza	Michoacán	26/1/2007
132	La Constitución	Michoacán	26/1/2007
133	Quiroga	Michoacán	27/1/2007
134	Lo de Marcos	Nayarit	24/1/2007
135	Lo de Marcos	Nayarit	24/1/2007
136	Las Palmas	Nayarit	25/1/2007
137	San Joaquín	Nuevo León	8/2/2007
138	Linares	Nuevo León	8/2/2007
139	San Isidro Mancuernas	Oaxaca	18/1/2007
140	Laguna	Oaxaca	17/1/2007
141	Teposcolula	Oaxaca	17/1/2007
142	La Unión	Oaxaca	17/1/2007
143	Nochixtlán	Oaxaca	17/1/2007
144	Pemex Station	Oaxaca	17/1/2007
145	Oaxaca	Oaxaca	17/1/2007
146	San Pedro Totolapan	Oaxaca	17/1/2007
147	El Camarón	Oaxaca	18/1/2007
148	Las Majadas	Oaxaca	18/1/2007
149	La Venta	Oaxaca	18/1/2007
150	San Francisco Ixhuantán	Oaxaca	18/1/2007
151	Zanatepec	Oaxaca	19/1/2007
152	Piedras Negras	Puebla	11/2/2007
153	Tlacotepec	Puebla	17/1/2007
154	Nicolás Bravo	Quintana Roo	22/1/2007
155	Xul-Há	Quintana Roo	23/1/2007
156	Tihusuco	Quintana Roo	23/1/2007
157	Pedro Santos	Quintana Roo	23/1/2007
158	Pino Suárez	Quintana Roo	23/1/2007
159	Uh-May	Quintana Roo	23/1/2007
160	Estación Don	Sinaloa	17/3/2007
161	Gabriel de Leyva	Sinaloa	17/3/2007
162	San Antonio	Sinaloa	16/3/2007
163	Terrero de Los Guerrero	Sinaloa	16/3/2007
164	Majada de Abajo	Sinaloa	16/3/2007
165	El Limón de Los Ramos	Sinaloa	16/3/2007
166	La Lapara	Sinaloa	16/3/2007
167	Higuera del Baila	Sinaloa	15/3/2007
168	La Pedrera	Sinaloa	15/3/2007
169	Mármol	Sinaloa	15/3/2007
170	Mexquitic	San Luis Potosí	30/1/2007
171	Gustavo Garmendia	San Luis Potosí	9/2/2007

172	Chununtzén Uno	San Luis Potosí	9/2/2007
173	Las Armas	San Luis Potosí	9/2/2007
174	Sonoyta	Sonora	13/12/2007
175	Rancho Guadalupe	Sonora	13/12/2007
176	Taquitos	Sonora	13/12/2007
177	Caborca	Sonora	13/12/2007
178	Altar	Sonora	13/12/2007
179	Santa Ana	Sonora	13/12/2007
180	Santa Ana	Sonora	22/3/2007
181	Hotel Banjamín Hill	Sonora	23/3/2007
182	Parada El Oasis	Sonora	23/3/2007
183	Rancho El Larama	Sonora	18/3/2007
184	La Palma	Sonora	18/3/2007
185	Guaymas	Sonora	18/3/2007
186	San Pedro	Sonora	23/3/2007
187	Near Empalme	Sonora	23/3/2007
188	Colonia Ochoa	Sonora	22/3/2007
189	Empalme	Sonora	17/3/2007
190	15 km W Cuitaca	Sonora	22/3/2007
191	La Colorada	Sonora	18/3/2007
192	Sueño Guajiro	Sonora	22/3/2007
193	San José de Pimas	Sonora	18/3/2007
194	Estación Don Lencho	Sonora	17/3/2007
195	Tecoripa	Sonora	18/3/2007
196	Fundición	Sonora	17/3/2007
197	Agua Prieta	Sonora	22/3/2007
198	Tónichi	Sonora	19/3/2007
199	Outskirts Agua Prieta	Sonora	22/3/2007
200	Francisco I. Madero	Sonora	17/3/2007
201	Tepoca	Sonora	19/3/2007
202	Yecora	Sonora	19/3/2007
203	Potreritos	Sonora	19/3/2007
204	La Venta	Tabasco	27/1/2007
205	Ejido Cuauhtémoc	Tabasco	27/1/2007
206	Lázaro Cárdenas	Tabasco	27/1/2007
207	Benito Juárez	Tabasco	26/1/2007
208	Santa Rosa	Tamaulipas	8/2/2007
209	Palo Alto (jnctn town)	Tamaulipas	8/2/2007
210	El Guayabo	Tamaulipas	9/2/2007
211	Antiguo Morelos	Tamaulipas	9/2/2007
212	Rancho Guadalupana	Tamaulipas	9/2/2007
213	Loma Alta	Tamaulipas	9/2/2007
214	Rancho Nuevo	Tamaulipas	9/2/2007

215	Totomoxtle	Veracruz	11/2/2007
216	Cruz Blanca	Veracruz	16/1/2007
217	Casitas	Veracruz	11/2/2007
218	San Martín	Veracruz	11/2/2007
219	San Isidro	Veracruz	11/2/2007
220	El Contento	Veracruz	28/1/2007
221	El Amateco	Veracruz	28/1/2007
222	Celestún	Yucatán	25/1/2007
223	Kopoma	Yucatán	25/1/2007
224	Kuchel	Yucatán	24/1/2007
225	Mérida Carretera	Yucatán	24/1/2007
226	Hoctún	Yucatán	24/1/2007
227	Chankom	Yucatán	23/1/2007
228	Tixcacalcupul	Yucatán	23/1/2007
229	Villa Insurgentes	Zacatecas	31/1/2007
230	San Juan de Terro	Zacatecas	31/1/2007
231	El Sauz	Zacatecas	31/1/2007
232	Fresnillo	Zacatecas	30/1/2007
233	Hidalgo	Zacatecas	30/1/2007
234	Saldaña	Zacatecas	30/1/2007
235	Texcoco lake region (Sierra Nevada)	Mexico City	
236	Chihuahua	Chihuahua	1962-1987
237	Veracruz	Veracruz	1962-1987
238	Mexicali Valley	Baja California	12/12/1997
239	Mexicali Valley	Baja California	12/12/1997
240	Mexicali Valley	Baja California	12/12/1997
241	Mexicali Valley	Baja California	12/2/1997
242	Mexicali Valley	Baja California	12/2/1997
243	Mexicali Valley	Baja California	12/2/1997
244	Mexicali Valley	Baja California	30/1/1997
245	Mexicali Valley	Baja California	13/12/1997
246	Mexicali Valley	Baja California	19/12/1997
247	Mexico City	Mexico City	
248	Mexico City	Mexico City	
249	Mexico City	Mexico City	
250	Mexico City	Mexico City	
251	Mexico City	Mexico City	
252	Mexico City	Mexico City	
253	Mexico City	Mexico City	
254	Mexico City	Mexico City	
255	Mexico City	Mexico City	
256	Mexico City	Mexico City	
257	Mexico City	Mexico City	

258	Mexico City	Mexico City	
259	Mexico City	Mexico City	
260	Mexico City	Mexico City	
261	Mexico City	Mexico City	
262	Mexico City	Mexico City	
263	Mexico City	Mexico City	
264	Mexico City	Mexico City	
265	Mexico City	Mexico City	
266	Mexico City	Mexico City	
267	Mexico City	Mexico City	
268	Mexico City	Mexico City	
269	Mexico City	Mexico City	
270	Mexico City	Mexico City	
271	Mexico City	Mexico City	
272	Mexico City	Mexico City	
273	Chalco Basin	Mexico City	1989
274	Sierra Las Cruces	Mexico City	1985-1986
275	Ixhuacán	Veracruz	2010
276	Xalapa	Veracruz	2010
277	Totutla	Veracruz	2010
278	La Cumbre	Veracruz	2010
279	Paso de Ovejas	Veracruz	2010
280	Veracruz	Veracruz	2010
281	La Antigua	Veracruz	2010
282	Cuernavaca	Morelos	1986-1987
283	Cuernavaca	Morelos	1986-1987
284	Tepoztlán	Morelos	1986-1987
285	Tejalpa	Morelos	1986-1987
286	Tezoyuca	Morelos	1986-1987
287	Cuautla and Yautepec Valleys	Morelos	

Latitude	Longitude	δ 18O (‰, VSMOW)	δ 2H (‰, VSMOW)
31.97	-116.66	-5.4	-35.8
32.49	-116.58	-6.9	-42.6
32.30	-116.53	-5.9	-40.8
32.54	-116.42	-8.2	-50.3
31.33	-116.25	-5.9	-37.0
32.52	-116.07	-8.8	-58.5
30.68	-115.98	-6.1	-37.7
30.53	-115.93	-6.2	-39.5
30.08	-115.70	-7.0	-47.8
29.96	-115.12	-6.7	-51.2
29.73	-114.72	-7.9	-54.8
28.93	-114.16	-7.4	-51.0
28.64	-114.02	-8.7	-59.6
28.29	-114.00	-8.0	-57.7
27.97	-114.04	-8.1	-57.5
27.78	-113.59	-8.6	-60.5
27.47	-113.29	-7.6	-53.1
27.30	-112.88	-8.2	-57.3
27.36	-112.71	-7.9	-56.5
27.03	-112.08	-8.8	-63.5
26.73	-111.91	-8.0	-57.5
25.40	-111.84	-9.8	-68.4
24.80	-111.57	-6.2	-45.6
26.30	-111.51	-7.8	-58.4
24.59	-111.47	-9.9	-72.1
25.83	-111.34	-7.9	-55.3
25.61	-111.31	-8.7	-63.4
24.47	-111.22	-6.9	-53.3
24.35	-111.00	-7.1	-53.4
24.16	-110.92	-7.7	-57.8
24.12	-110.43	-7.4	-50.6
24.05	-110.30	-8.7	-61.4
23.96	-110.28	-9.7	-65.5
23.74	-110.23	-8.5	-57.2
23.22	-110.14	-10.6	-76.0
23.76	-109.98	-9.3	-62.4
23.53	-109.67	-10.8	-74.1
18.62	-91.94	-2.3	-13.0
18.78	-91.49	-4.4	-25.5
18.97	-91.18	-3.9	-22.1
18.47	-91.14	-2.3	-14.0
19.35	-90.67	-2.8	-16.4

18.57	-90.51	-4.1	-22.3
19.91	-90.42	-3.3	-18.0
18.45	-89.31	-4.3	-26.6
16.47	-94.03	-8.5	-59.2
16.68	-93.73	-7.2	-52.9
16.55	-92.90	-7.5	-55.5
16.71	-92.48	-9.2	-61.5
17.26	-92.11	-5.3	-28.4
16.90	-92.10	-6.4	-41.4
17.72	-91.98	-3.8	-20.8
31.27	-108.61	-9.1	-63.1
28.43	-108.38	-8.5	-54.6
30.93	-108.29	-7.8	-58.2
28.22	-108.23	-8.9	-58.0
31.09	-107.99	-6.9	-51.5
31.22	-107.86	-7.7	-57.9
28.35	-107.86	-6.9	-50.0
28.40	-107.48	-8.4	-60.1
31.50	-107.44	-6.0	-50.6
29.95	-106.96	-6.1	-46.0
29.82	-106.86	-8.0	-55.7
28.38	-106.71	-6.2	-48.0
30.49	-106.52	-6.6	-49.4
31.08	-106.48	-5.4	-42.8
29.56	-106.48	-7.7	-56.1
29.91	-106.39	-7.8	-54.1
29.63	-106.34	-7.8	-55.1
28.09	-106.27	-7.6	-55.8
28.85	-106.20	-7.4	-52.7
27.71	-106.06	-7.8	-57.5
27.45	-105.82	-6.2	-44.7
28.46	-105.78	-7.1	-54.6
27.01	-105.66	-6.6	-49.7
26.79	-105.60	-8.5	-61.2
27.65	-105.15	-6.5	-52.1
25.73	-103.32	-7.1	-57.4
26.99	-102.04	-8.3	-55.8
27.00	-101.72	-6.8	-46.5
26.75	-101.41	-5.6	-37.4
26.06	-101.36	-7.0	-44.8
26.38	-101.36	-7.6	-49.8
25.83	-101.13	-5.1	-38.0
25.29	-101.09	-9.5	-65.1

25.62	-100.92	-7.9	-54.5
25.22	-100.82	-8.2	-59.0
19.18	-104.52	-9.2	-61.9
18.94	-103.97	-8.3	-60.5
26.40	-105.39	-7.7	-56.9
25.86	-104.82	-8.7	-64.5
25.64	-104.66	-8.6	-65.2
24.08	-104.66	-9.4	-71.2
24.61	-104.64	-8.8	-65.7
25.27	-104.62	-5.9	-47.8
25.13	-104.54	-6.9	-53.2
25.06	-104.49	-7.5	-57.0
24.88	-104.45	-8.1	-64.4
23.95	-104.34	-9.1	-64.2
23.84	-104.23	-9.7	-75.3
25.84	-103.60	-8.9	-63.1
21.48	-101.18	-7.2	-58.3
20.22	-101.10	-9.2	-69.2
21.72	-100.97	-9.5	-70.4
21.19	-100.95	-9.4	-69.7
20.26	-100.83	-7.4	-59.1
21.02	-100.79	-9.0	-68.5
20.88	-100.78	-9.7	-74.2
20.76	-100.77	-9.7	-74.0
17.87	-101.73	-7.7	-50.4
17.55	-101.28	-6.8	-46.9
17.30	-101.05	-9.3	-63.8
17.18	-100.60	-9.7	-68.9
17.01	-100.20	-9.4	-64.6
16.78	-99.43	-6.8	-52.7
16.79	-99.39	-7.0	-47.6
16.74	-99.24	-8.0	-55.8
16.72	-99.12	-7.1	-51.1
16.58	-98.81	-7.1	-49.7
16.47	-98.41	-7.5	-53.6
20.70	-99.34	-10.6	-76.9
20.53	-99.32	-9.0	-67.1
21.06	-99.07	-7.6	-48.1
20.00	-105.31	-6.8	-48.0
19.68	-105.19	-10.1	-71.3
19.35	-104.88	-8.6	-59.5
20.47	-102.93	-9.1	-67.0
18.27	-103.34	-10.2	-73.1

18.08	-102.76	-10.3	-71.5
18.02	-102.34	-7.9	-54.6
19.97	-102.07	-9.3	-67.9
19.74	-101.66	-8.4	-61.4
19.66	-101.53	-9.1	-64.4
20.95	-105.34	-5.1	-34.4
20.95	-105.33	-5.5	-37.7
21.62	-105.16	-6.0	-41.9
24.98	-100.49	-8.9	-60.2
24.83	-99.56	-5.3	-32.0
16.39	-98.11	-6.6	-40.6
17.17	-97.85	-10.5	-71.0
17.51	-97.45	-8.4	-68.1
17.93	-97.36	-9.3	-70.4
17.46	-97.24	-10.5	-77.5
17.45	-97.23	-9.6	-74.7
17.14	-96.78	-9.0	-64.0
16.67	-96.30	-10.6	-75.6
16.56	-96.03	-8.9	-61.3
16.41	-95.61	-9.1	-66.8
16.57	-94.82	-7.1	-47.2
16.34	-94.48	-5.7	-44.5
16.47	-94.36	-6.4	-43.2
20.44	-97.76	-4.6	-23.9
18.71	-97.67	-9.1	-68.9
18.46	-88.93	-4.0	-29.0
18.57	-88.46	-4.3	-28.7
20.20	-88.38	-4.1	-21.6
18.95	-88.16	-3.4	-19.7
19.81	-88.11	-4.4	-26.4
19.42	-88.05	-4.4	-27.8
26.43	-109.03	-6.7	-44.9
25.88	-109.01	-6.1	-45.3
25.47	-108.12	-5.4	-36.6
25.24	-107.90	-6.5	-43.4
25.21	-107.65	-4.8	-34.6
24.92	-107.52	-6.0	-40.4
25.50	-107.48	-5.5	-36.4
24.18	-107.10	-6.7	-44.7
23.75	-106.79	-6.9	-47.4
23.47	-106.57	-7.3	-48.3
22.27	-101.12	-6.9	-55.6
22.12	-98.99	-4.5	-28.0

21.49	-98.98	-4.0	-21.8
21.70	-98.97	-4.3	-26.8
31.86	-112.85	-8.7	-63.4
31.56	-112.75	-8.1	-56.6
30.96	-112.35	-6.4	-45.7
30.72	-112.16	-7.1	-50.9
30.71	-111.83	-5.6	-42.4
30.54	-111.11	-6.8	-46.7
30.54	-111.11	-6.7	-47.8
30.17	-111.10	-6.9	-48.0
29.69	-111.04	-6.5	-46.7
28.29	-111.04	-6.6	-45.8
28.66	-111.00	-6.3	-42.2
27.94	-110.94	-6.0	-43.1
29.18	-110.90	-7.7	-50.7
28.02	-110.87	-6.7	-47.8
30.84	-110.84	-8.3	-57.8
27.93	-110.62	-5.6	-40.0
30.95	-110.60	-9.0	-60.3
28.80	-110.58	-5.0	-38.7
31.02	-110.36	-8.6	-56.3
28.72	-110.35	-6.4	-41.0
27.61	-110.21	-3.6	-30.5
28.62	-109.96	-6.4	-43.5
27.33	-109.73	-6.8	-45.1
31.31	-109.58	-7.9	-53.1
28.60	-109.57	-5.4	-40.4
31.32	-109.46	-7.2	-50.1
26.85	-109.37	-6.3	-43.2
28.44	-109.25	-5.8	-42.7
28.37	-108.93	-7.3	-50.3
28.39	-108.81	-5.7	-43.5
18.10	-94.04	-4.4	-18.4
18.00	-93.53	-4.1	-20.7
17.98	-93.06	-2.8	-14.8
18.42	-92.80	-3.6	-17.5
24.49	-99.52	-5.4	-32.9
24.16	-99.28	-3.0	-23.9
23.19	-99.10	-6.1	-36.9
22.55	-99.08	-5.3	-33.3
23.59	-99.04	-6.8	-43.0
22.87	-99.03	-3.6	-26.1
23.46	-98.98	-5.8	-40.4

20.47	-97.26	-4.8	-25.7
19.64	-97.16	-8.3	-56.3
20.31	-96.86	-5.7	-32.1
19.94	-96.55	-3.7	-20.5
19.48	-96.38	-6.4	-39.8
18.64	-96.26	-6.1	-39.6
18.42	-95.72	-4.9	-27.2
20.86	-90.38	-4.3	-25.2
20.65	-89.90	-3.4	-18.6
20.85	-89.90	-3.8	-22.7
20.94	-89.54	-4.3	-24.3
20.86	-89.20	-4.0	-23.9
20.57	-88.51	-4.3	-24.2
20.54	-88.27	-4.0	-21.7
23.75	-103.82	-9.8	-70.5
23.72	-103.69	-10.4	-75.6
23.55	-103.21	-9.6	-73.3
23.16	-102.85	-7.3	-63.2
23.04	-102.72	-10.2	-73.9
22.40	-101.40	-10.3	-75.8
19.50	-98.92	-10.0	-70.0
28.63	-106.07	-6.4	-41.7
19.20	-96.13	-2.9	-16.1
32.39	-115.063	-14.2	-113.0
32.418	-115.042	-14.4	-111.0
32.366	-115.062	-14.2	-110.0
32.362	-115.038	-14.2	-110.0
32.414	-115.126	-14.3	-114.0
32.312	-115.093	-13.9	-109.0
32.484	-115.062	-14.5	-112.0
32.474	-115.038	-14.5	-111.0
32.495	-115.217	-14.5	-106.0
19.392	-99.24	-10.3	-72.0
19.388	-99.194	-10.2	-71.0
19.394	-99.192	-10.2	-75.0
19.39	-99.184	-9.9	-71.0
19.405	-99.19	-10.4	-71.0
19.387	-99.188	-10.2	-71.0
19.392	-99.178	-10.5	-72.0
19.395	-99.183	-10.4	-71.0
19.392	-99.162	-10.3	-70.0
19.4	-99.15	-10.2	-72.0
19.413	-99.157	-10.6	-71.0

19.401	-99.14	-10.4	-71.0
19.406	-99.139	-10.2	-71.0
19.415	-99.108	-9.6	-65.0
19.441	-99.078	-9.1	-59.0
19.401	-99.089	-9.5	-62.0
19.385	-99.092	-10.0	-70.0
19.36	-99.092	-9.9	-67.0
19.34	-99.081	-10.0	-69.0
19.341	-99.076	-10.3	-76.0
19.36	-99.073	-10.1	-70.0
19.362	-99.074	-10.0	-69.0
19.371	-99.029	-10.3	-70.0
19.373	-99.024	-10.1	-72.0
19.376	-99.021	-10.0	-68.0
19.379	-99.018	-10.0	-69.0
19.27	-98.98	-8.8	-63.5
19.31	-99.31	-10.3	-70.0
19.365	-97.114	-6.4	-44
19.53	-96.915	-9.5	-65.4
19.211	-96.959	-10.1	-67.4
19.387	-96.65	-8.2	-55.1
19.285	-96.441	-6.6	-42.1
19.198	-96.135	-6.5	-42.5
19.325	-96.319	-7.3	-48.6
18.992	-99.238	-10.8	-78.0
18.913	-99.24	-11.2	-75.0
18.991	-99.111	-10.3	-72.0
18.89	-99.155	-10.2	-77.0
18.774	-99.192	-10.8	-75.0
18.89	-99.06	-10.4	-73.0

deuterium excess	Sample Type
7.7	Shallow groundwater sample
12.2	Shallow groundwater sample
6.4	Shallow groundwater sample
15.4	Shallow groundwater sample
9.9	Shallow groundwater sample
12.3	Shallow groundwater sample
11.2	Shallow groundwater sample
10.2	Shallow groundwater sample
8.4	Shallow groundwater sample
2.6	Shallow groundwater sample
8.0	Shallow groundwater sample
8.1	Shallow groundwater sample
9.8	Shallow groundwater sample
5.9	Shallow groundwater sample
6.9	Shallow groundwater sample
8.3	Shallow groundwater sample
7.5	Shallow groundwater sample
8.4	Shallow groundwater sample
6.9	Shallow groundwater sample
7.2	Shallow groundwater sample
6.6	Shallow groundwater sample
10.2	Shallow groundwater sample
4.0	Shallow groundwater sample
3.9	Shallow groundwater sample
7.1	Shallow groundwater sample
8.2	Shallow groundwater sample
6.3	Shallow groundwater sample
1.8	Shallow groundwater sample
3.2	Shallow groundwater sample
4.0	Shallow groundwater sample
8.7	Shallow groundwater sample
8.2	Shallow groundwater sample
11.9	Shallow groundwater sample
11.1	Shallow groundwater sample
8.8	Shallow groundwater sample
11.8	Shallow groundwater sample
12.4	Shallow groundwater sample
5.7	Shallow groundwater sample
10.0	Shallow groundwater sample
9.4	Shallow groundwater sample
4.5	Shallow groundwater sample
6.2	Shallow groundwater sample

10.1	Shallow groundwater sample
8.1	Shallow groundwater sample
7.9	Shallow groundwater sample
9.0	Shallow groundwater sample
4.7	Shallow groundwater sample
4.7	Shallow groundwater sample
11.8	Shallow groundwater sample
13.7	Shallow groundwater sample
9.9	Shallow groundwater sample
9.8	Shallow groundwater sample
10.0	Shallow groundwater sample
13.1	Shallow groundwater sample
4.3	Shallow groundwater sample
12.8	Shallow groundwater sample
3.8	Shallow groundwater sample
3.5	Shallow groundwater sample
5.0	Shallow groundwater sample
6.9	Shallow groundwater sample
-2.8	Shallow groundwater sample
3.0	Shallow groundwater sample
8.5	Shallow groundwater sample
1.9	Shallow groundwater sample
3.6	Shallow groundwater sample
0.1	Shallow groundwater sample
5.5	Shallow groundwater sample
8.2	Shallow groundwater sample
7.6	Shallow groundwater sample
4.9	Shallow groundwater sample
6.8	Shallow groundwater sample
5.0	Shallow groundwater sample
4.9	Shallow groundwater sample
1.8	Shallow groundwater sample
2.8	Shallow groundwater sample
7.0	Shallow groundwater sample
-0.4	Shallow groundwater sample
-0.5	Shallow groundwater sample
10.3	Shallow groundwater sample
7.6	Shallow groundwater sample
7.4	Shallow groundwater sample
11.1	Shallow groundwater sample
10.9	Shallow groundwater sample
2.5	Shallow groundwater sample
10.8	Shallow groundwater sample

8.9	Shallow groundwater sample
6.7	Shallow groundwater sample
11.4	Shallow groundwater sample
5.9	Shallow groundwater sample
4.7	Shallow groundwater sample
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3.9	Shallow groundwater sample
4.8	Shallow groundwater sample
-0.3	Shallow groundwater sample
1.7	Shallow groundwater sample
3.2	Shallow groundwater sample
0.0	Shallow groundwater sample
8.2	Shallow groundwater sample
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8.2	Shallow groundwater sample
-0.9	Shallow groundwater sample
4.0	Shallow groundwater sample
5.6	Shallow groundwater sample
5.7	Shallow groundwater sample
-0.2	Shallow groundwater sample
3.6	Shallow groundwater sample
3.7	Shallow groundwater sample
3.4	Shallow groundwater sample
11.3	Shallow groundwater sample
7.6	Shallow groundwater sample
10.4	Shallow groundwater sample
9.0	Shallow groundwater sample
11.0	Shallow groundwater sample
1.3	Shallow groundwater sample
8.2	Shallow groundwater sample
8.4	Shallow groundwater sample
5.9	Shallow groundwater sample
7.3	Shallow groundwater sample
6.6	Shallow groundwater sample
7.5	Shallow groundwater sample
5.0	Shallow groundwater sample
12.6	Shallow groundwater sample
6.1	Shallow groundwater sample
9.7	Shallow groundwater sample
9.3	Shallow groundwater sample
6.0	Shallow groundwater sample
8.6	Shallow groundwater sample

10.8	Shallow groundwater sample
9.0	Shallow groundwater sample
6.5	Shallow groundwater sample
5.6	Shallow groundwater sample
8.8	Shallow groundwater sample
6.2	Shallow groundwater sample
5.9	Shallow groundwater sample
6.4	Shallow groundwater sample
10.6	Shallow groundwater sample
10.5	Shallow groundwater sample
11.8	Shallow groundwater sample
13.4	Shallow groundwater sample
-1.2	Shallow groundwater sample
3.7	Shallow groundwater sample
6.6	Shallow groundwater sample
1.9	Shallow groundwater sample
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0.7	Shallow groundwater sample
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3.3	Shallow groundwater sample
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10.1	Shallow groundwater sample
-0.4	Shallow groundwater sample
8.1	Shallow groundwater sample

10.3	Shallow groundwater sample
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5.1	Shallow groundwater sample
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12.4	Shallow groundwater sample
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-1.4	Shallow groundwater sample
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9.0	Shallow groundwater sample
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8.0	Shallow groundwater sample
2.3	Shallow groundwater sample
16.6	Shallow groundwater sample
12.4	Shallow groundwater sample
7.9	Shallow groundwater sample
11.5	Shallow groundwater sample
10.0	Shallow groundwater sample
0.2	Shallow groundwater sample
11.5	Shallow groundwater sample
8.8	Shallow groundwater sample
11.4	Shallow groundwater sample
3.0	Shallow groundwater sample
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12.5	Shallow groundwater sample
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11.0	Shallow groundwater sample
9.4	Shallow groundwater sample
12.4	Shallow groundwater sample
8.9	Shallow groundwater sample
8.4	Shallow groundwater sample
7.3	Shallow groundwater sample
10.2	Shallow groundwater sample
8.4	Shallow groundwater sample
10.3	Shallow groundwater sample
10.6	Shallow groundwater sample
7.6	Shallow groundwater sample
7.9	Shallow groundwater sample
3.4	Shallow groundwater sample
-4.8	Shallow groundwater sample
7.6	Shallow groundwater sample
6.2	Shallow groundwater sample
10.0	Groundwater wells 3p, 4p, 5p, 6p, and 7p (average)
9	Surface precipitation (average)
7.7	Surface precipitation (average)
	11CH; observation/irrigation well
	34CH; observation/irrigation well
	66C; observation/irrigation well
	79C; observation/irrigation well
	G-1-17; observation/irrigation well
	G-4-18; observation/irrigation well
	R6; observation/irrigation well
	R10; observation/irrigation well
	4Lesser; observation/irrigation well
	Sample 1; water supply borehole
	Sample 2; water supply borehole
	Sample 3; water supply borehole
	Sample 4; water supply borehole
	Sample 5; water supply borehole
	Sample 6; water supply borehole
	Sample 7; water supply borehole
	Sample 8; water supply borehole
	Sample 9; water supply borehole
	Sample 10; water supply borehole
	Sample 11; water supply borehole

	Sample 12; water supply borehole
	Sample 13; water supply borehole
	Sample 14; water supply borehole
	Sample 15; water supply borehole
	Sample 16; water supply borehole
	Sample 17; water supply borehole
	Sample 18; water supply borehole
	Sample 19; water supply borehole
	Sample 20; water supply borehole
	Sample 21; water supply borehole
	Sample 22; water supply borehole
	Sample 23; water supply borehole
	Sample 24; water supply borehole
	Sample 25; water supply borehole
	Sample 26; water supply borehole
	Surface precipitation sample
	Surface precipitation (average)
7	Surface precipitation sample
10.5	Surface precipitation sample
13	Surface precipitation sample
10.9	Surface precipitation sample
10.7	Surface precipitation sample
9.4	Surface precipitation sample
9.5	Surface precipitation sample
12.6	Sample 13; groundwater well
11.2	Sample 17; groundwater well
10.4	Sample 52; groundwater well
4.6	Sample 87; groundwater well
11.4	Sample 110; groundwater well
	Groundwater wells (average)

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