General

State of New Mexico
ENVIRONMENT DEPARTMENT
DOE OVERSIGHT BUREAU
P.O. Box 1663, MS/J-993
Los Alamos, New Mexico 87545

GARY E. JOHNSON
GOVERNOR

MARK E. WEIDLER
SECRETARY

LANL / ES Data / Surface Water

May 30, 1997

Mat Johansen, DOE LAAO AIP POC
U.S. Department of Energy
Los Alamos Area Office
528 35th Street, MS A316
Los Alamos, NM 87544

RE: Submittal of 1996 surface-water and suspended-sediment data related to split-sampling and independent sampling at Los Alamos National Laboratory and surrounding area

Dear Mr. Johansen:

The New Mexico Environment Department, Department of Energy Oversight Bureau (NMED DOE OB) collected surface-water and suspended sediment samples throughout 1996, and the attached preliminary data are being submitted for your review as stated in the Agreement-in-Principle Umbrella Protocol. After you have had the opportunity to review and comment on the data, it will be made available for release to applicable agencies thirty (30) days following your receipt of this letter.

Contact Michael Dale at 672-0449 or Alice Mayer at 672-0447 if you have any questions concerning this matter.

Sincerely,

Stephen Yanicak

Steve Yanicak, LANL POC

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SY:amm

Attachment

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cc: Ted Taylor, DOE LAAO, Program Manager, EM/ER, MS A316
Bob Simeone, DOE LAAO, FU-4 FPC, MS A316
Joe Mose, DOE LAAO, FU-3 & FU-6 FPC, MS A316
Steve Rae, LANL, ESH-18, MS K490
Jorg Jansen, LANL, Project Manager, EM/ER, MS M992
Allyn Pratt, LANL, FU-4 FPL, MS J521
John Parker, NMED, Chief, DOE OB
Dave McInroy, LANL, EM/ER, MS M992

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Table 1 - Surface-water sampling location coordinates.

NMED STATION ID	ESH-18 STATION ID	NORTHING*	EASTING*
CDB-2.01	E230	1756424.6	511527.9
DP-0.01	DPS-4	1773228	497258
DP-0.89	DPS-1	1774796	493081
LA-5.3	E042	1770780.5	508147.9
LA-6.6	E030	1772700.6	496955
SA-3.48	-	1766794.1	508205.6
SA-8.7	-	1773572.1	481544.2
TCDB-0.5	-	1757184.9	514144.3

*State plane coordinate system, New Mexico central zone.
1927 North American datum.

Table 2 - NMED DOE Oversight Bureau surface-water analytical results: Suspended-sediment.

STATION ID	Date	Time	TSS (mg/L)
DP-0.01	6/26/96	22:14-22:39	2050
	7/17/96	15:40	2400
	7/17/96	15:45	8700
	7/17/96	15:50	7700
	7/17/96	15:55	9400
	8/18/96	14:04	18000
	8/18/96	14:19	9800
	8/18/96	14:34	8100
	8/18/96	14:49	5800
	8/18/96	15:04	4100
	8/18/96	15:19	3600
CDB-2.01	7/17/96	14:25	22000
	7/17/96	14:30	17000
	7/17/96	14:35	27000
	7/17/96	14:41	24000
LA-6.6	8/18/96	14:27	3900
SA-3.48	10/4/96	07:35	12200
	10/4/96	07:40	6060
	10/4/96	07:45	4120
	10/4/96	07:50	3230
TCDB-0.5	10/4/96	08:30	16700

TSS - Total suspended solids

Table 3 - NMED DOE Oversight Bureau surface-water analytical results: Dissolved and total metals and PCB/Aroclors.

STATION ID		Date	Time	METALS Ba (mg/L)	Be (mg/L)	Cr (mg/L)	Cu (mg/L)	Hg (mg/L)	Pb (mg/L)	AROCLOR 1016 (ug/L)	1221 (ug/L)	1232 (ug/L)	1242 (ug/L)	1248 (ug/L)	1254 (ug/L)	1260 (ug/L)
CDB-2.01		7/17/96	14:35	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
		7/17/96	14:41	NA	NA	NA	NA	0.0006	NA	NA	NA	NA	NA	NA	NA	NA
DP-0.01		6/26/96	22:14-22:39*	NA	NA	NA	NA	0.0003	NA	NA	NA	NA	NA	NA	NA	NA
	2	8/18/96	15:19	NA	NA	NA	NA	<0.0002	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
LA-5.3		6/13/96	21:36	NA	NA	NA	NA	0.0002	NA	NA	NA	NA	NA	NA	NA	NA
LA-6.6	2	8/18/96	14:27	<0.1	<0.005	<0.01	NA	0.0011	<0.003	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
** SA-3.48		10/4/96	07:35	0.3	<0.005	<0.01	<0.01	NA	<0.003	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	1.0
**		10/4/96	07:40	0.2	<0.005	<0.01	<0.01	NA	<0.003	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
**		10/4/96	07:45	0.2	<0.005	<0.01	<0.01	NA	<0.003	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
**		10/4/96	07:51	0.2	<0.005	<0.01	<0.01	<0.0002	0.075	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0
1 SA-8.7	2	6/29/96	19:19	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TCDB-0.5		10/4/96	08:30	NA	NA	NA	NA	0.0002	NA	NA	NA	NA	NA	NA	NA	NA

1 - Sample not recieved at contract laboratory at 4 degress celsius

2 - Sample was extracted beyond the PCB holding time requirements

< - symbol indicates that the constituent was not detected above method detection limits

NA - Not analyzed

Note: Box indicates the sample was acidified prior to analysis, and represents total metals

* - Composite samples collected during times shown

** - Dissolved metals filtered through 0.7 um filter instead of 0.45 um filter

Table 4 - NMED DOE Oversight Bureau surface-water analytical results: Radionuclides.

STATION ID	Date	Time	90Sr (pCi/L	unc	137Cs (pCi/L)	unc	60Co (pCi/L)	unc	22Na (pCi/L)	unc	U (ug/L)	unc	238Pu (pCi/L)	unc	239/240Pu (pCi/L)	unc	241Am (pCi/L)	unc	Gross Alpha (pCi/L)	unc	Gross Beta (pCi/L)	unc
CDB-2.01	7/17/96	14:25	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	4.9	1.1	9.2	1.3
DP-0.01	6/26/96	22:14-22:39*	25.8	3.1	<5.99	BDL	<6.66	BDL	<5.81	BDL	1.04	0.14	0.01	0.01	0.03	0.02	<65.5	BDL	NA	-	NA	-
(DPS-4 ES split)	7/9/96	11:35	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	4.02	0.93	67.4	7.0
	7/17/96	15:40	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	3.24	0.73	40.3	4.2
	8/18/96	14:04	14.7	2.7	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	3.7	1.8	56.8	6.3
	8/18/96	14:19	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	3.7	1.6	39.3	4.4
	8/18/96	14:34	11.9	2.2	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	3.9	1.3	41.6	4.7
	8/18/96	14:49	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	3.0	1.2	41.7	4.6
	8/18/96	15:04	12.6	2.3	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	1.96	0.91	41.2	4.5
	8/18/96	15:19	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	2.8	1.0	40.2	4.5
DP-0.89 (DPS-1 ES split)	7/9/96	10:36	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	1.02	0.52	22.8	2.5
LA-5.3	6/13/96	21:21-21:26*	6.1	1.3	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	6.5	1.4	27.9	3.1
LA-6.6	8/18/96	14:27	0.69	0.26	NA	-	NA	-	NA	-	<1.00	BDL	NA	-	NA	-	NA	-	2.00	0.93	9.1	1.3
	8/18/96	14:47	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	9.9	1.8	24.7	2.8
SA-3.48	10/4/96	07:35	NA	-	NA	-	NA	-	NA	-	28.9	3.9	NA	-	NA	-	NA	-	<3.7	BDL	<10	BDL
	10/4/96	07:40	NA	-	NA	-	NA	-	NA	-	27.1	3.7	NA	-	NA	-	NA	-	<5.9	BDL	<15	BDL
	10/4/96	07:45	NA	-	NA	-	NA	-	NA	-	15.1	2.0	NA	-	NA	-	NA	-	<4.7	BDL	13.3	4.3
	10/4/96	07:50	NA	-	NA	-	NA	-	NA	-	13.1	1.8	NA	-	NA	-	NA	-	<5.2	BDL	<13	BDL
TCDB-0.5	10/4/96	08:30	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	NA	-	<5.2	BDL	<13	BDL

NA - Not analyzed

BDL - Below method detection limits

UNC - Uncertainties (2 sigma)

Note: Box indicates the sample was acidified prior to analysis.

* - Composite samples collected during times shown.

Table 5 - NMED DOE Oversight Bureau suspended-sediments analytical results: Metals and PCB/Arclors.

STATION ID		Date	Time	METALS						AROCLOR						
				Ba (mg/kg)	Be (mg/kg)	Cr (mg/kg)	Cu (mg/kg)	Hg (mg/kg)	Pb (mg/kg)	1016 (ug/kg)	1221 (ug/kg)	1232 (ug/kg)	1242 (ug/kg)	1248 (ug/kg)	1254 (ug/kg)	1260 (ug/kg)
CDB-2.01		7/17/96	14:25-14:41*	160	1.2	8	9	<0.1	13	NA	NA	NA	NA	NA	NA	NA
LA-5.3		6/13/96	21:21-21:26* 21:31-21:36*	50^	0.5	4	8^	<0.1	21^	NA	NA	NA	NA	NA	NA	NA
SA-3.48	º	10/4/96	07:35	NA	NA	NA	NA	NA	NA	<33	<67	<33	<33	<33	<33	<33
	º	10/4/96	07:40	NA	NA	NA	NA	NA	NA	<33	<67	<33	<33	<33	<33	<33
	º	10/4/96	07:45	NA	NA	NA	NA	NA	NA	<33	<67	<33	<33	<33	<33	<33
	º	10/4/96	07:50	NA	NA	NA	NA	NA	NA	<33	<67	<33	<33	<33	<33	<33

^ - Duplicate precision not within control limits

< - Symbol indicates that the constituent was not detected above method detection limits

* - Composite samples collected during times shown

2 - Sample was extracted beyond the holding time requirements

NA - Not analyzed

Table 6 - NMED DOE Oversight Bureau suspended-sediment analytical results: Radionuclides.

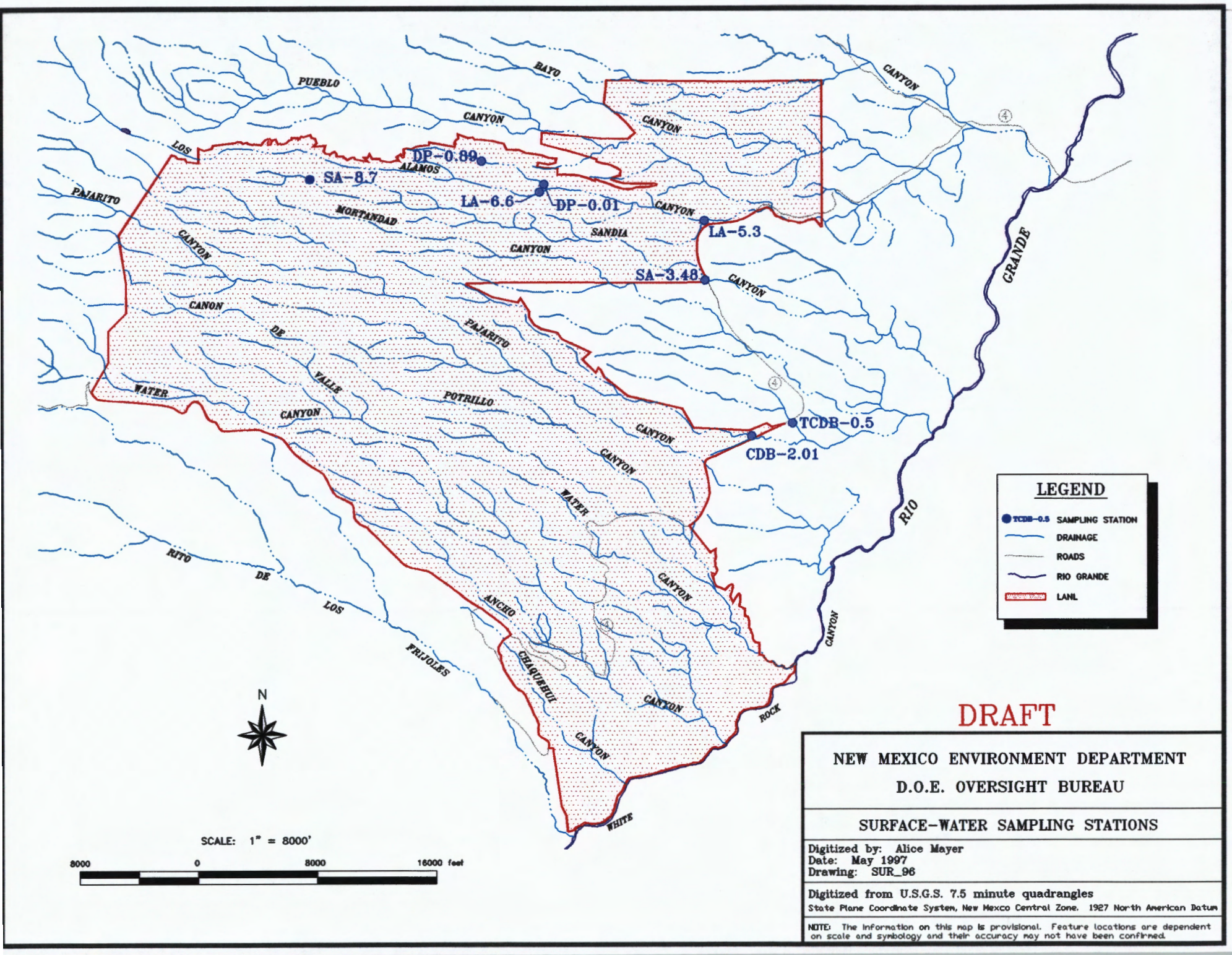
STATION ID	Date	Time	137Cs (pCi/g)	unc	60Co (pCi/g)	unc	22Na (pCi/g)	unc	U (ug/g)	unc	241Am (pCi/g)	unc	Gross Alpha (pCi/g)	unc	Gross Beta (pCi/g)	unc
CDB-2.01	7/17/96	14:25-14:41*	NA	-	NA	-	NA	-	2.89	0.39	NA	-	5.26	0.69	5.19	0.68
DP-0.01	7/17/96	15:40-15:55*	NA	-	NA	-	NA	-	NA	-	NA	-	5.76	0.72	12.4	1.4
	8/18/96	14:04	NA	-	NA	-	NA	-	NA	-	NA	-	8.5	1.4	11.6	1.7
	8/18/96	14:19	NA	-	NA	-	NA	-	NA	-	NA	-	5.6	1.1	12.3	1.8
	8/18/96	14:34	NA	-	NA	-	NA	-	NA	-	NA	-	8.0	1.4	16.4	2.3
	8/18/96	14:49	NA	-	NA	-	NA	-	NA	-	NA	-	8.3	1.4	12.7	1.9
	8/18/96	15:04	NA	-	NA	-	NA	-	NA	-	NA	-	8.2	1.4	15.5	2.2
	8/18/96	15:19	NA	-	NA	-	NA	-	NA	-	NA	-	8.5	1.4	10.7	1.7
LA-5.3	6/13/96	21:21-21:26* 21:31-21:36*	3.93	0.295	<0.066	BDL	<0.071	BDL	2.75	0.37	1.08	0.415	5.33	0.65	8.60	0.97
LA-6.6	8/18/96	14:27	NA	-	NA	-	NA	-	NA	-	NA	-	11.3	1.9	11.8	2.0
SA-3.48	10/4/96	07:35	NA	-	NA	-	NA	-	NA	-	NA	-	7.8	1.1	8.4	1.1
	10/4/96	07:40	NA	-	NA	-	NA	-	NA	-	NA	-	11.0	1.6	12.3	1.6
	10/4/96	07:45	NA	-	NA	-	NA	-	NA	-	NA	-	10.2	1.5	12.0	1.7
	10/4/96	07:50	NA	-	NA	-	NA	-	NA	-	NA	-	11.8	1.7	13.6	1.9

* - Composite samples collected during times shown

NA - Not analyzed or not available

BDL - Below method detection limits

UNC - Uncertainties (2 sigma)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NEW MEXICO ENVIRONMENT DEPARTMENT
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SURFACE-WATER SAMPLING STATIONS
Digitized by: Alice Mayer
Date: May 1997
Drawing: SUR_96
Digitized from U.S.G.S. 7.5 minute quadrangles
State Plane Coordinate System, New Mexico Central Zone. 1927 North American Datum
NOTE: The information on this map is provisional. Feature locations are dependent on scale and symbology and their accuracy may not have been confirmed.