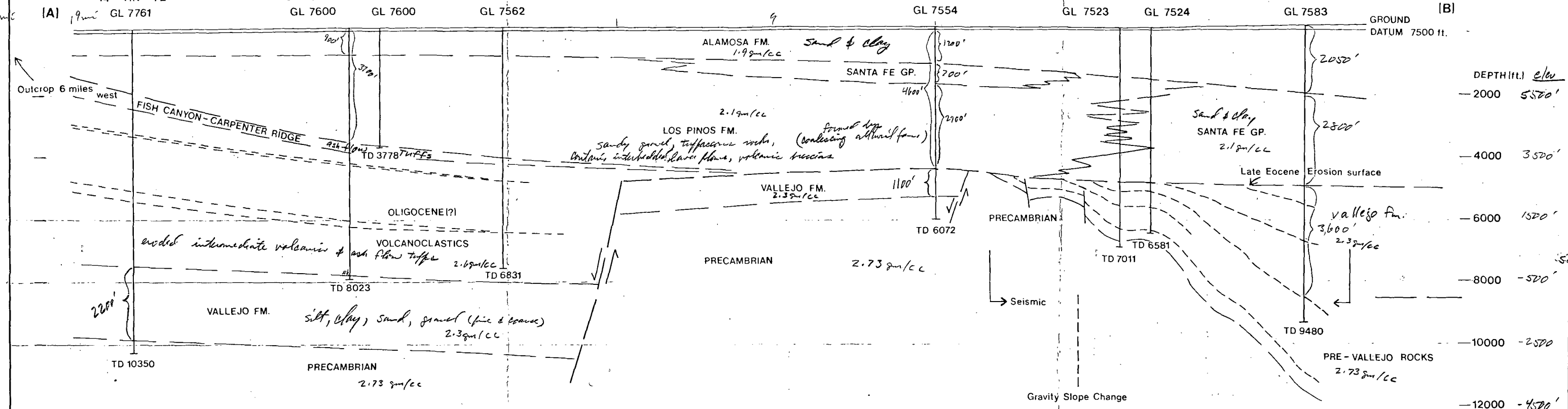


MONTE VISTA GRABEN

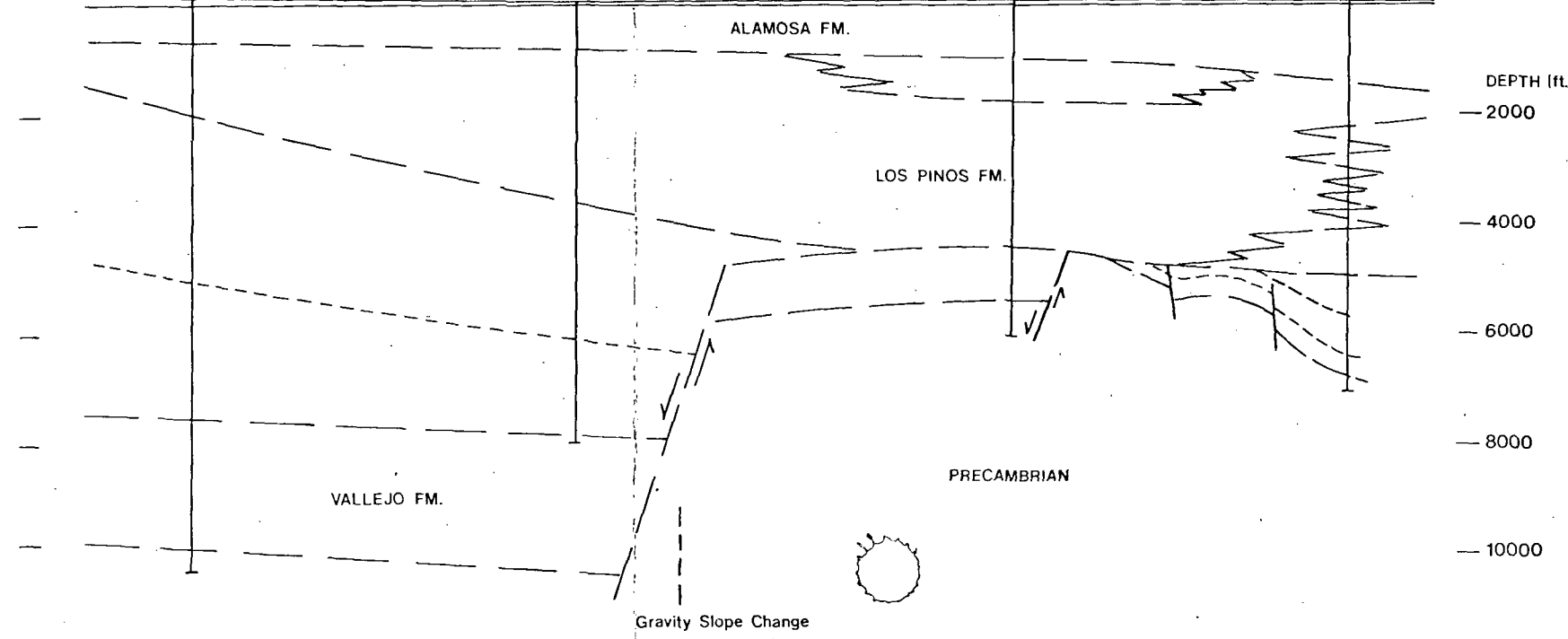
ALAMOSA HORST

BACA GRABEN

[6]	[5]	[4]	[7]	[3]	[9]	[2]	[1]
TENNESSEE GAS	ORRIN TUCKER	SNOWDEN	W.F. CARR	AMERADA	RESERVE	F. W. CARR	MAPCO-AMOCO
1-B STATE	1 THOMAS	1 KILLIAM	1 KENNEDY-WILLIAMS	1-F STATE	1 NBH ALAMOSA	1 CROW	1-32 STATE
CSWSE	NENENE	CN 1/2NENW	CSW	CSESW	CSESW	CNENE	CSESW
14-41N-7E	13-41N-8E	18-41N-9E	11-41N-9E	16-39N-10E	33-40N-11E	4-39N-11E	32-40N-12E
GL 7761	GL 7600	GL 7600	GL 7562	GL 7554	GL 7523	GL 7524	GL 7583



[C] MONTE VISTA GRABEN [D] ALAMOSA HORST



SCALE  
 HORIZONTAL 1" = 2 miles  
 VERTICAL 1" = 2000 feet

after Burroughs, 1981  
**PLATE 1**  
**ALAMOSA BASIN**  
**CROSS-SECTIONS**

For lines of section see Figure 2.



## GRAVITY- PRINCIPAL FACTS

DATE : SEPT. 3, 1981

Pg. 1

AREA : ALAMOSA, COLO.

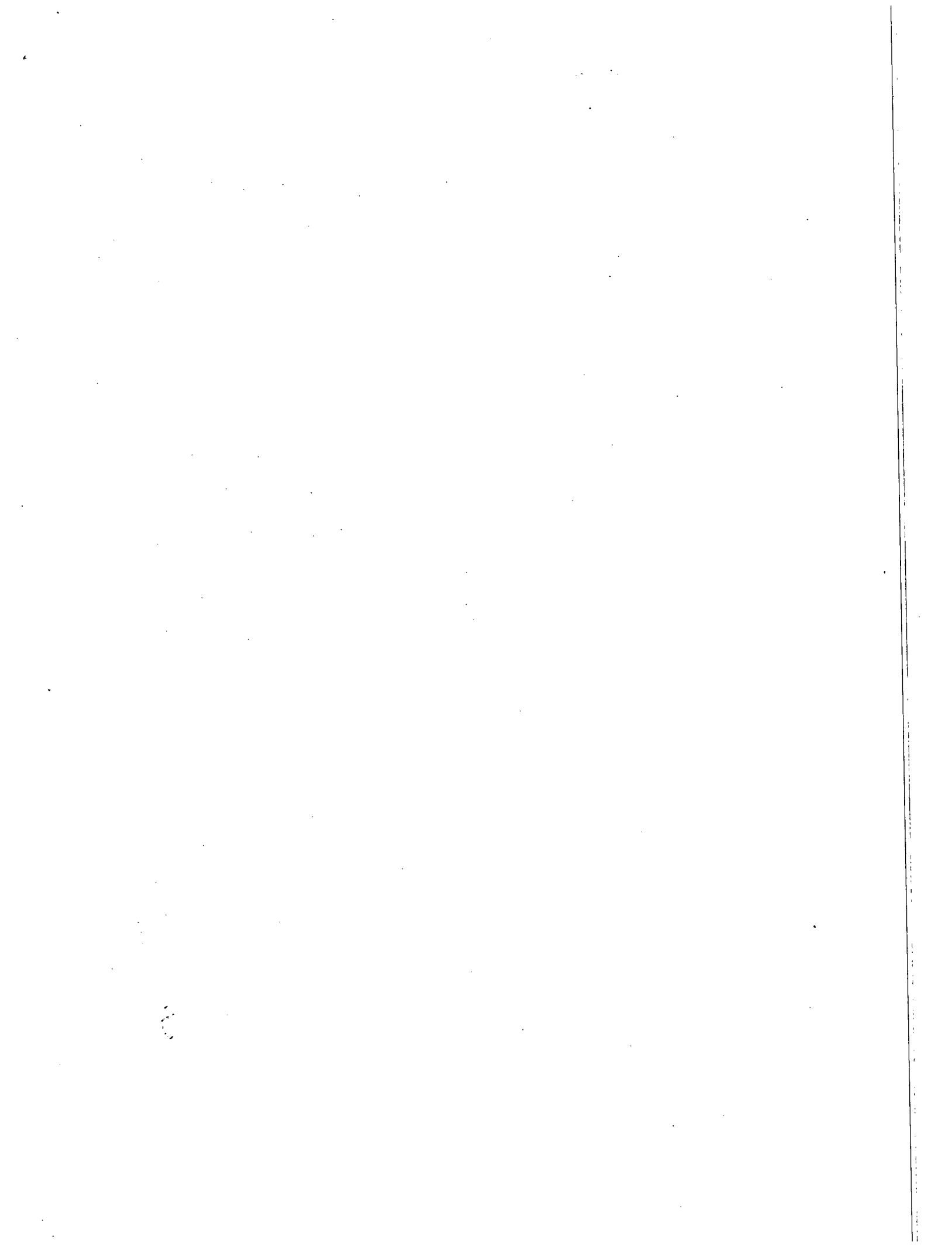
METER CONSTANT : K = 0.099946 m<sup>2</sup>/DD

note: Elev. picked from Topo. sheet.

IGF (1930)

GRS (1967) NAD

	1 STA.	2 TIME	3 READ.	4 ELEV.	5 LAT.	6 LONG.	7 G obs.	8 G temp.	9 B. G. no.	10 REMARKS	12 GRS	13 SIMPLE B.G.
BASE * 1	USAF Sta.	0854	498.8	7548.9'	37°28.21'	105°52.02'	979.23498	979.95783	-269.99	in SW cor old P.O. @ night 1503 BM J36	979.94572	-257.9
2	1	0915	480.5	7536	26.62	51.84	.23313	.95552	-270.3		.94341	-258.2
3	2	0925	484.7	7535	27.27	51.88	.23354	.95646	-270.9	BM H364 @ cor 17th at 506	.94436	-258.8
base * 4	USAF Sta.	0950	499.3				979.23498					
5	2	1000	486.7	7535			.23373		-270.6			-258.6
6	1	1010	484.4	7536			.23352		-269.9			-257.8
BASE * 7	USAF Sta.	1030	498.8				979.23498					
8	2	1053	490.4	7535			.23416		-270.3			-258.2
9	3	1100	488.4	7536	37°27.28'	105°52.18'	979.23296	979.95648	-270.4		.94437	-258.3
10	4	1105	489.1	7537	27.28	52.48	.23403	.95648	-270.3		.94437	-258.2
11	5	1109	487.4	7536	27.04	52.47	.23387	.95613	-270.2		.94402	-258.1
12	6	1115	485.6	7536	26.84	52.47	.23369	.95584	-270.1		.94373	-257.9
13	7	1118	487.5	7537	26.65	52.47	.23388	.95556	-269.5		.94346	-257.4
14	8	1124	486.7	7536	26.43	52.46	.23381	.95524	-269.3		.94314	-257.2
15	9	1136	483.3	7534	26.22	52.46	.23348	.95494	-269.5		.94283	-257.4
16	10	1142	485.2	7533	25.99	52.46	.23367	.95461	-269.0		.94249	-255.9
17	11	1147	484.4	7532	25.76	52.45	.23359	.95427	-268.8		.94216	-256.7
18	12	1156	484.4	7536	27.04	52.18	.23360	.95613	-270.4		.94402	-258.3
19	13	1200	483.8	7536	27.05	51.90	.23354	.95614	-270.5		.94404	-258.4
20	14	1203	482.3	7536	26.82	51.90	.23340	.95581	-270.3		.94370	-258.2
21	1	1206	481.4	7536			.23331	.95552	-270.1	B.G. is Average of 3 BASE TICS		-258.0
22	2	1212	486.9	7535			.23386	.95646	-270.6			-258.5
23	15	1218	493.4	7538	27.74	51.90	.23452	.95715	-270.4		.94504	-258.3
BASE * 24	USAF Sta.	1225	498.0				979.23498					
25	16	1320	492.9	7538	27.74	52.18	.23463	.95715	-270.3		.94504	-258.2
26	17	1326	487.7	7537	27.51	52.18	.23413	.95681	-270.5		.94471	-258.4
27	18	1331	487.0	7536	27.50	51.90	.23407	.95680	-270.6		.94469	-258.5
28	19	1334	488.9	7537	27.61	51.70	.23427	.95696	-270.5		.94485	-258.4
29	20	1339	494.8	7538	27.87	51.70	.23488	.95734	-270.3		.94523	-258.1
30	21	1343	494.8	7536	27.80	51.41	.23489	.95723	-270.3		.94513	-258.1
31	22	1347	492.5	7536	27.58	51.40	.23467	.95691	-270.2		.94481	-258.0

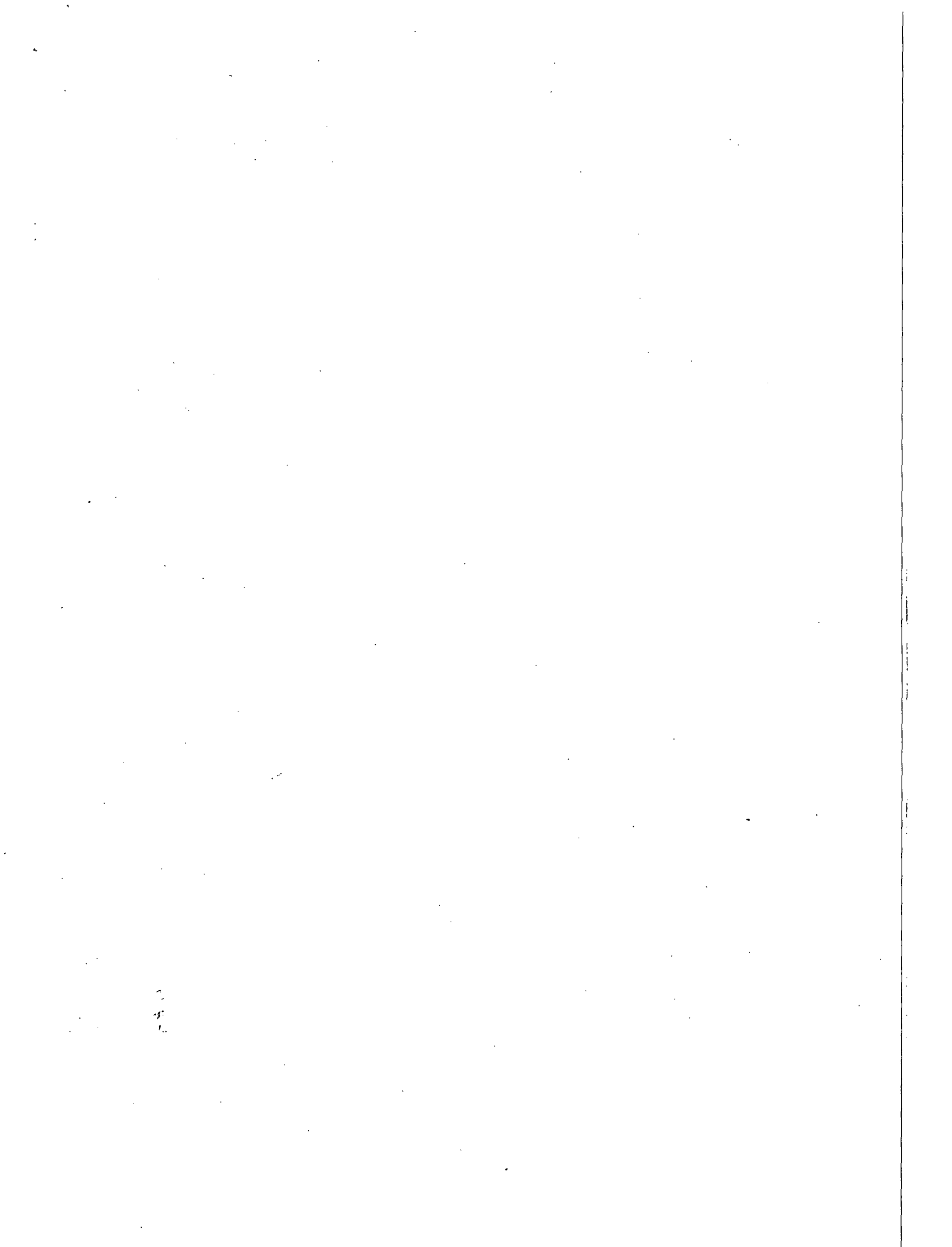




DATE: Sept. 3, 1981  
 AREA: ALAMOSA, COLO.  
K = 0.099946 m9/00

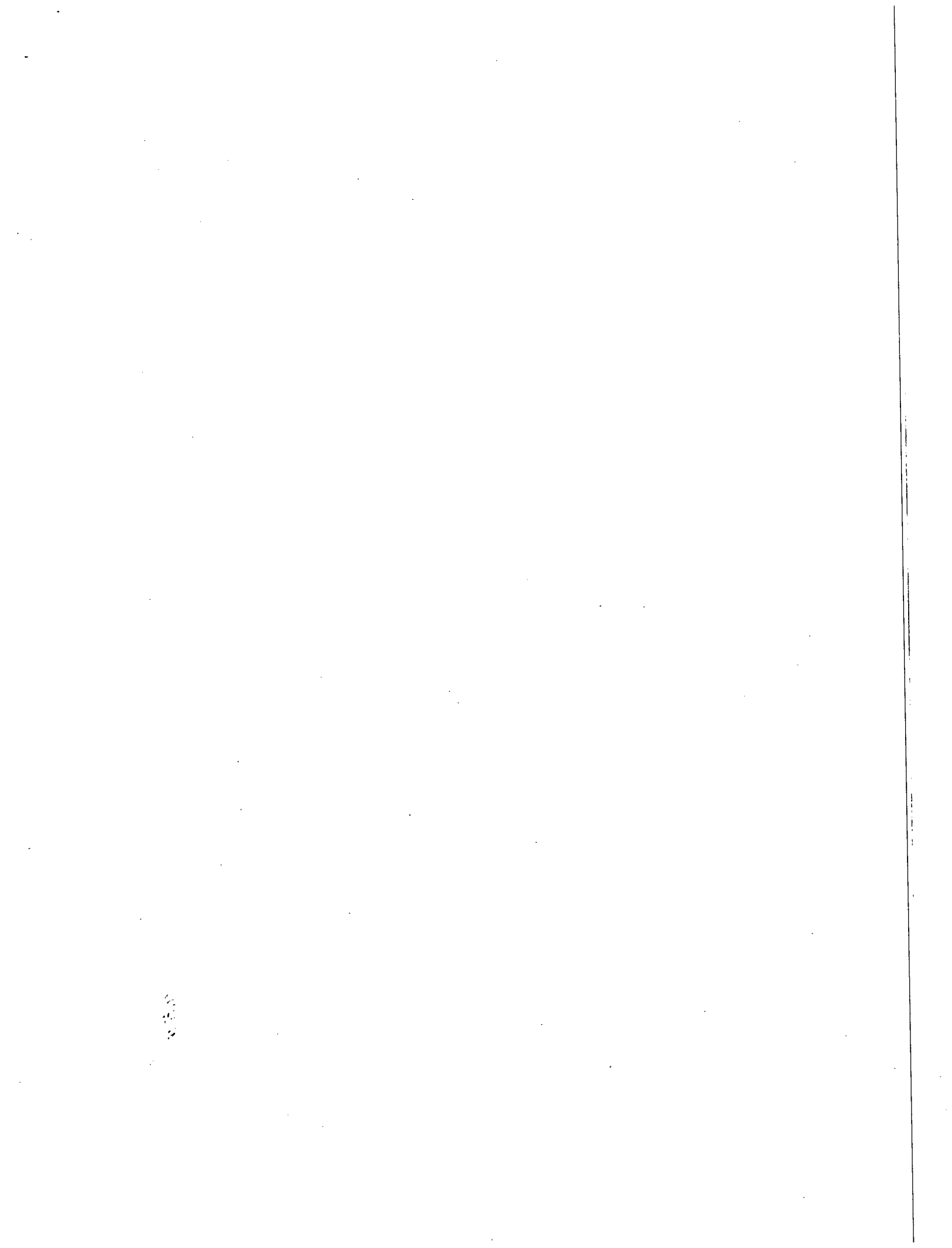
Pg. 2

	1 STA.	2 TIME	3 READ.	4 ELEV.	5 LAT.	6 LONG.	7 Obs.	8 Gtheo.	9 B.G. m9	10 REMARKS	11 GRS (1967)	12 Gtheo	13 NEW SIMPLE B.G.
1	23	1351	489.6	7534	37° 27.38'	105° 51.40'	979.23439	979.95662	-270.3		979.94452		-258.2
2	24	1354	487.4	7534	27.21	51.40	.23418	.95638	-270.2		.94427		-258.1
3	25	1358	486.9	7534	27.05	51.40	.23414	.95614	-270.0		.94404		-257.9
4	26	1402	484.5	7534	27.05	51.61	.23392	.95614	-270.3		.94404		-258.1
BASE *	5	2	1407	483.4	7535		979.23382	both value average of 4 readings					-258.5
6	27	1416	488.2	7536	27.33	51.10	.23427	.95655	-270.2		.94444		-258.1
7	28	1420	487.3	7532	27.17	50.90	.23416	.95632	-270.3		.94421		-258.2
8	29	1424	486.8	7531	27.06	50.62	.23410	.95616	-270.3		.94405		-258.2
9	30	1427	483.8	7532	26.83	50.60	.23379	.95583	-270.2		.94372		-258.1
10	31	1430	483.4	7532	26.62	50.58	.23374	.95552	-269.9		.94341		-257.8
11	32	1434	482.4	7533	26.43	50.38	.23363	.95524	-269.7		.94314		-257.6
12	33	1439	480.1	7529	26.21	50.31	.23338	.95493	-269.9		.94281		-257.8
13	34	1442	482.2	7528	26.00	50.31	.23358	.95462	-269.4		.94251		-257.3
14	35	1445	480.4	7527	25.79	50.30	.23339	.95432	-269.4		.94220		-257.3
15	36	1458	485.0	7526	25.77	49.75	.23380	.95429	-269.0		.94218		-256.9
16	37	1455	487.9	7526	25.78	49.21	.23410	.95430	-268.7		.94219		-256.6
17	38	1504	488.8	7524	25.34	49.21	.23416	.95366	-268.1		.94155		-256.0
18	39	1507	490.6	7522	24.91	49.20	.23433	.95304	-267.5		.94092		-255.3
19	40	1512	487.2	7525	24.48	49.20	.23397	.95242	-267.0		.94030		-254.9
20	41	1518	488.5	7523	24.05	49.20	.23408	.95179	-266.4		.93967		-254.3
21	42	1521	484.0	7524	23.57	49.20	.23362	.95110	-266.1		.93898		-254.0
22	43	1526	477.7	7526	23.13	49.19	.23297	.95046	-266.0		.93834		-253.9
BASE *	23	2	1535	487.2			979.23382						
24	44	1607	484.0	7531	25.39	52.45	.23348	.95374	-268.5		.94162		-256.3
25	45	1612	484.0	7533	24.91	52.44	.23347	.95304	-267.7		.94092		-255.5
26	46	1620	481.1	7535	24.47	52.43	.23317	.95240	-267.2		.94028		-255.1
27	47	1625	479.6	7540	24.03	52.43	.23301	.95177	-266.4		.93964		-254.3
28	48	1630	479.7	7538	23.58	52.42	.23301	.95111	-265.9		.93899		-253.8
29	49	1634	485.6	7537	23.14	52.42	.23359	.95047	-264.7	Ratio	.93835		-252.6
30	50	1640	484.8	7540	22.70	52.47	.23350	.94984	-264.0		.93771		-251.9
BASE *	31	2	1651	488.2	7535		979.23382						



DATE: 9/4/81  
 AREA: ALAMOSA, COLO.  
K=0.099946 mg/DO

	1 STA	2 TIME	3 READ.	4 ELEV.	5 LAT.	6 LONG.	7 Gobs.	8 G. theo.	9 BG	10 REMARKS	12 G. theo	13 SIMPLE BG
BASE *	1	2	0905	500.3	37°	105°	979.23382	979.			979.	
	2	51	0915	519.8	28.12'	50.95'	.23575	.95770	-269.6		.94559	-257.5
	3	52	0928	521.5	27.74	49.98	.23590	.95715	-269.3		.94504	-257.2
	4	53	0934	529.4	28.18	50.22	.23668	.95778	-269.2		.94568	-257.1
	5	54	0937	526.9	27.97	50.22	.23643	.95748	-269.1		.94538	-257.0
	6	55	0943	526.9	27.90	49.67	.23642	.95738	-269.1		.94527	-257.0
	7	56	0947	526.5	27.84	49.23	.23637	.95729	-269.0		.94519	-256.8
	8	57	0953	535.0	28.17	49.23	.23721	.95777	-268.5	REPORTED	.94567	-256.4
	9	58	0959	552.4	28.62	49.22	.23894	.95842	-267.4	EARTHQUAKE	.94632	-255.3
	10	59	1015	557.2	28.85	49.22	.23939	.95876	-267.3	5.8 magnitude	.94666	-255.2
	11	60	1020	557.2	28.72	49.01	.23938	.95857	-267.2	L.A. AREA	.94647	-255.1
	12	61	1024	555.8	28.61	48.87	.23924	.95841	-267.4	shaky readings	.94631	-255.3
	13	62	1028	555.8	28.61	48.62	.23923	.95841	-267.4		.94631	-255.3
	14	63	1032	557.3	28.61	48.37	.23937	.95841	-267.2		.94631	-255.1
	15	64	1035	561.7	28.61	48.15	.23981	.95841	-266.8		.94631	-254.7
	16	65	1040	564.7	28.61	47.92	.24010	.95841	-266.5		.94631	-254.4
BASE *	17	2	1100	502.2			979.23382					
	18	66	1113	548.5	28.18	48.15	.23845	.95778	-267.6		.94568	-255.5
	19	67	1117	539.2	27.96	48.15	.23752	.95747	-268.3		.94536	-256.2
	20	68	1123	531.7	27.75	48.14	.23677	.95716	-268.7		.94506	-256.6
	21	69	1128	524.2	27.53	48.14	.23602	.95684	-269.2		.94473	-257.1
	22	70	1132	517.2	27.31	48.14	.23532	.95652	-269.5		.94441	-257.4
	23	71	1136	512.8	27.10	48.13	.23488	.95622	-269.8		.94411	-257.7
	24	72	1140	510.8	26.87	48.13	.23468	.95588	-269.8		.94378	-257.7
	25	73	1144	510.6	26.66	48.13	.23466	.95558	-269.5		.94347	-257.4
	26	74	1148	508.3	26.44	48.12	.23443	.95526	-269.5		.94315	-257.3
	27	75	1154	504.8	26.66	47.58	.23407	.95558	-270.1		.94347	-258.0
	28	76	1158	503.3	26.67	47.03	.23392	.95559	-270.4		.94348	-258.2
	29	77	1207	501.1	27.72	47.87	.23370	.95712	-271.9		.94501	-259.8
	30	78	1211	526.0	27.69	47.60	.23619	.95707	-269.4		.94497	-257.3
	31	79	1215	519.3	27.66	47.33	.23552	.95703	-270.0		.94492	-257.9



DATE: 9/4/81

Pg. 4

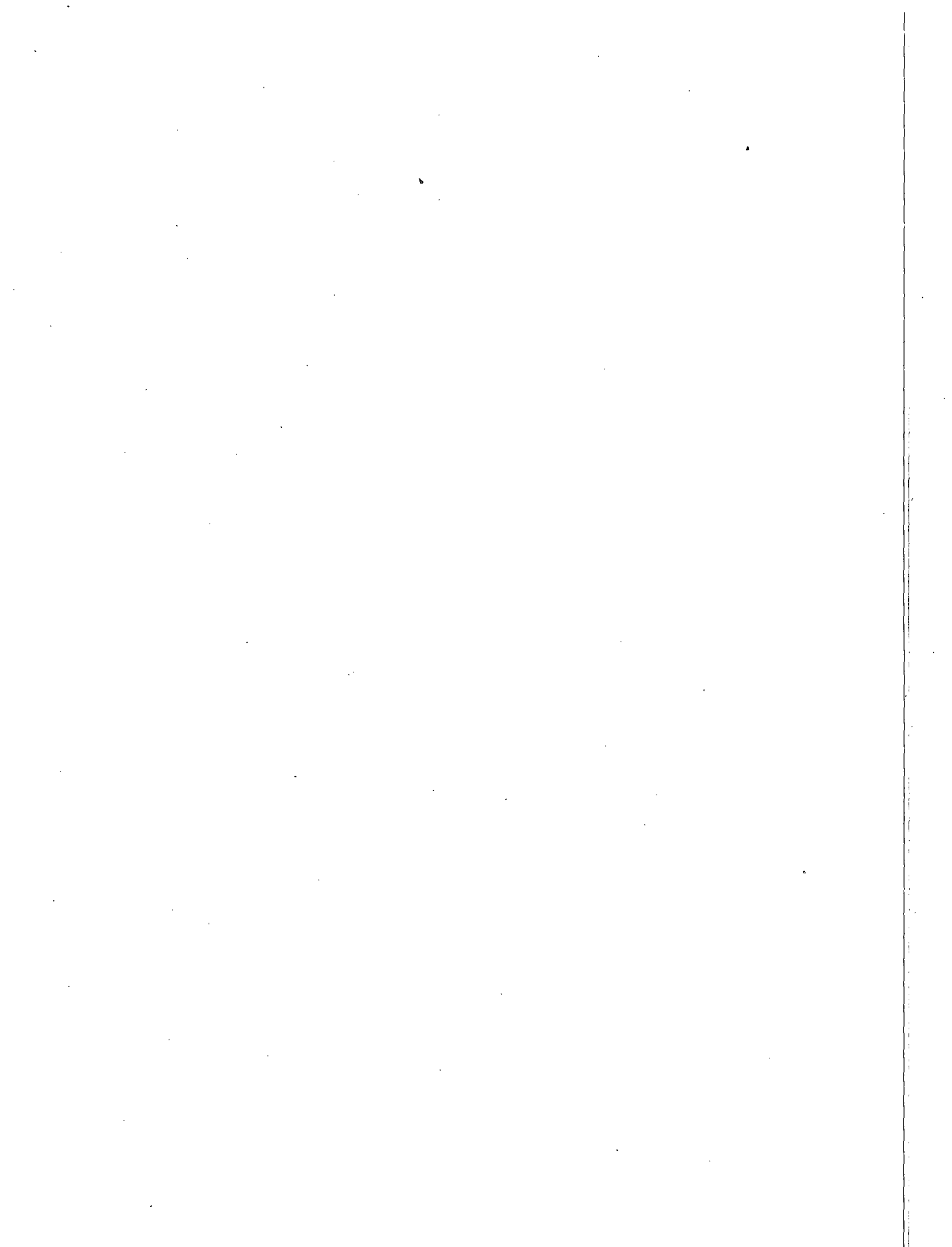
AREA: ALAMOSA, COLO.

K=0.099946 m<sup>2</sup>/100

GRS (1987) NEW

	1 STA.	2 TIME	3 READ.	4 Elev.	5 LAT.	6 LONG.	7 Obs.	8 theo.	9 B.C.	10	REMARKS	12 theo	13 SIMPLE B.C.
1	80	1218	514.4	7525	37° 27.65'	105° 47.06	979.23503	979.95702	-270.6			979.94491	-258.4
2	81	1223	527.2	7527	27.98	47.06	.23631	.95750	-269.6			.94539	-257.5
3	82	1228	532.7	7529	28.19	47.06	.23686	.95780	-269.3			.94569	-257.2
BASE *	2	1242	502.3				979.23382						
BASE *	2	1338	501.4				979.23382						
6	83	1350	521.9	7544	28.28	52.43	.23590	.95793	-269.5			.94583	-257.4
7	84	1355	520.6	7544	28.28	52.18	.23579	.95793	-269.6			.94583	-257.5
8	85	1359	517.7	7544	28.28	51.90	.23551	.95793	-269.9			.94583	-257.7
9	86	1404	524.9	7543	28.45	51.87	.23624	.95818	-269.4			.94609	-257.3
10	87	1407	531.1	7539	28.61	51.96	.23687	.95841	-269.3			.94631	-257.2
11	88	1411	538.1	7540	28.81	52.00	.23758	.95870	-268.8			.94660	-256.7
12	89	1413	537.2	7540	29.00	52.18	.23750	.95898	-269.2			.94687	-257.0
13	90	1417	545.4	7544	29.30	52.18	.23833	.95941	-268.5			.94731	-256.4
14	91	1420	543.7	7542	29.26	51.84	.23816	.95935	-268.7			.94725	-256.6
15	92	1425	546.6	7543	29.27	51.42	.23847	.95937	-268.4			.94727	-256.3
16	93	1429	542.3	7541	29.00	51.41	.23805	.95898	-268.5			.94687	-256.4
17	94	1432	537.3	7540	28.81	51.41	.23756	.95870	-268.8			.94660	-256.7
18	95	1438	529.2	7540	28.60	51.42	.23677	.95840	-269.3			.94629	-257.2
19	96	1449	547.0	7529	28.62	47.06	.23857	.95842	-268.2			.94632	-256.1
20	97	1453	535.0	7527	28.85	47.06	.23939	.95876	-267.8			.94666	-255.7
21	98	1457	561.6	7527	29.06	47.06	.24006	.95906	-267.5			.94696	-255.3
22	99	1501	569.6	7527	29.29	47.06	.24087	.95940	-267.0			.94730	-254.9
23	100	1504	578.4	7528	29.29	47.33	.24175	.95940	-266.0			.94730	-253.9
24	101	1507	584.2	7529	29.28	47.60	.24234	.95938	-265.4			.94728	-253.3
25	102	1512	585.6	7531	29.28	47.87	.24250	.95938	-265.1			.94728	-253.0
26	103	1515	584.2	7531	29.28	48.14	.24236	.95938	-265.2			.94728	-253.1
27	104	1518	580.3	7532	29.27	48.41	.24198	.95937	-265.5			.94727	-253.4
28	105	1522	580.3	7533	29.27	48.68	.24199	.95937	-265.5			.94727	-253.4
29	106	1525	579.3	7534	29.27	48.95	.24190	.95937	-265.5			.94727	-253.4
30	107	1528	577.6	7534	29.27	49.23	.24174	.95937	-265.7			.94727	-253.6
31	108	1533	567.1	7534	29.05	49.22	.24071	.95905	-266.4			.94695	-254.3
BASE *	2	1544	497.9				979.23382						









DATE: 9/5/81 Pg. 6  
 AREA: Alamosa, Colo.  
K = 0.099946 m/100

GRS (1967) New

	1 STA.	2 TIME	3 READ.	4 Elev.	5 LAT.	6 LONG.	7 Obs.	8 theo.	9 BG.	10	REMARKS	11 G theo	12 SIMPLE 13 BG
BASE * 1	2	0849	500.3		37°	105°	979.23382	979.				979.	
2	121	0855	509.0	7538	27.74'	52.50'	.23466	.95715	-270.3			.94504	-258.2
3	122	0906	507.2	7538	27.50	52.53	.23443	.95680	-270.2			.94469	-258.0
4	123	0910	507.3	7538	27.22	52.68	.23442	.95639	-269.8			.94428	-257.6
5	124	0915	507.1	7538	26.97	52.82	.23438	.95603	-269.4			.94392	-257.3
6	125	0918	510.8	7539	26.66	52.98	.23473	.95558	-268.6			.94347	-256.5
7	126	0921	510.8	7539	26.66	53.25	.23472	.95558	-268.6			.94347	-256.5
8	127	0925	514.5	7540	26.65	53.58	.23527	.95556	-268.2			.94346	-256.1
9	128	0933	508.8	7539	27.51	52.75	.23446	.95681	-270.1			.94471	-258.0
10	129	0938	508.8	7539	27.51	53.03	.23444	.95681	-270.1			.94471	-258.0
11	130	0941	513.8	7540	27.51	53.34	.23493	.95681	-269.6			.94471	-257.4
12	131	0945	515.8	7542	27.51	53.60	.23511	.95681	-269.3			.94471	-257.1
13	132	0951	515.8	7544	27.70	53.60	.23528	.95709	-269.4			.94498	-257.3
14	133	0954	520.0	7546	27.88	53.60	.23548	.95735	-269.2			.94524	-257.1
15	134	0958	527.0	7546	28.07	53.60	.23617	.95763	-268.8			.94552	-256.7
16	135	1002	531.0	7544	28.28	53.60	.23655	.95793	-268.8			.94583	-256.7
17	136	1006	522.6	7544	27.89	53.30	.23569	.95736	-269.1			.94526	-257.0
18	137	1009	519.4	7540	27.89	53.00	.23535	.95736	-269.7			.94526	-257.6
19	138	1013	518.7	7538	27.89	52.79	.23527	.95736	-269.9			.94526	-257.8
BASE * 20	2	1040	505.5				979.23382						
21	139	1050	530.2	7542	28.38	52.77	.23630	.95808	-269.3			.94597	-257.2
22	140	1055	537.9	7544	28.53	53.18	.23707	.95829	-268.7			.94619	-256.5
23	141	1100	538.9	7543	28.66	53.10	.23717	.95848	-268.8			.94638	-256.7
24	142	1103	541.8	7543	28.73	52.77	.23746	.95858	-268.6			.94648	-256.5
25	143	1107	547.4	7543	28.95	52.95	.23803	.95890	-268.4			.94680	-256.3
26	144	1112	547.0	7544	28.81	53.25	.23799	.95870	-268.1			.94660	-256.0
27	145	1116	548.5	7546	28.80	53.58	.23814	.95868	-267.9			.94658	-255.7
28	146	1122	548.5	7548	28.81	54.69	.23815	.95870	-267.7			.94660	-255.6
29	147	1125	547.8	7552	28.81	54.97	.23808	.95870	-267.6			.94660	-255.5
30	148	1129	545.1	7554	28.81	55.24	.23781	.95870	-267.7			.94660	-255.6
31	149	1133	543.1	7556	28.82	55.52	.23761	.95871	-267.8			.94661	-255.7
	150	1135	541.1	7557	28.82	55.80	.23742	.95871	-267.9			.94661	-255.8



DATE: 9/5/81

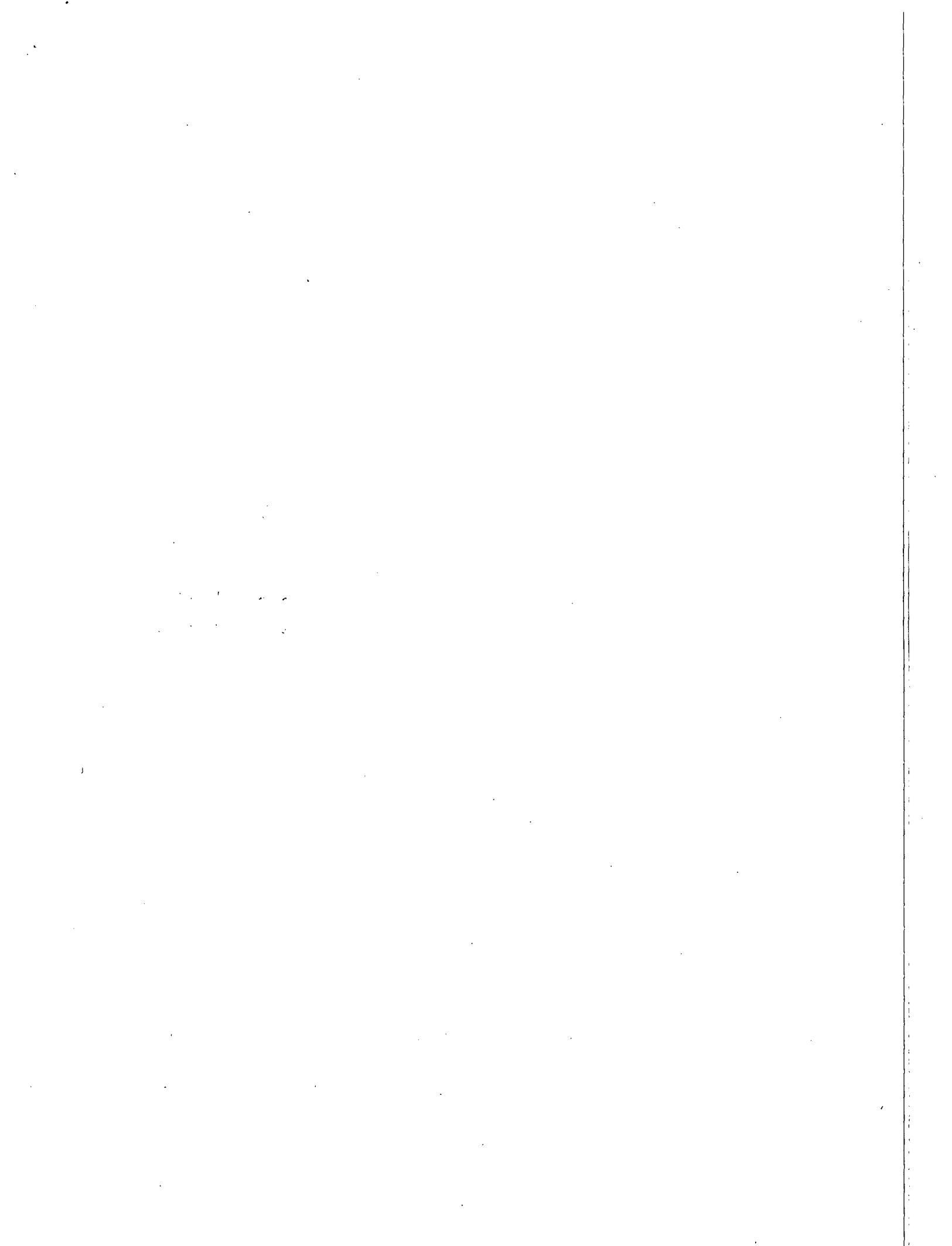
Pg. 7

AREA: Alamosa, Colo.

K = 0.099946 m<sup>2</sup>/100

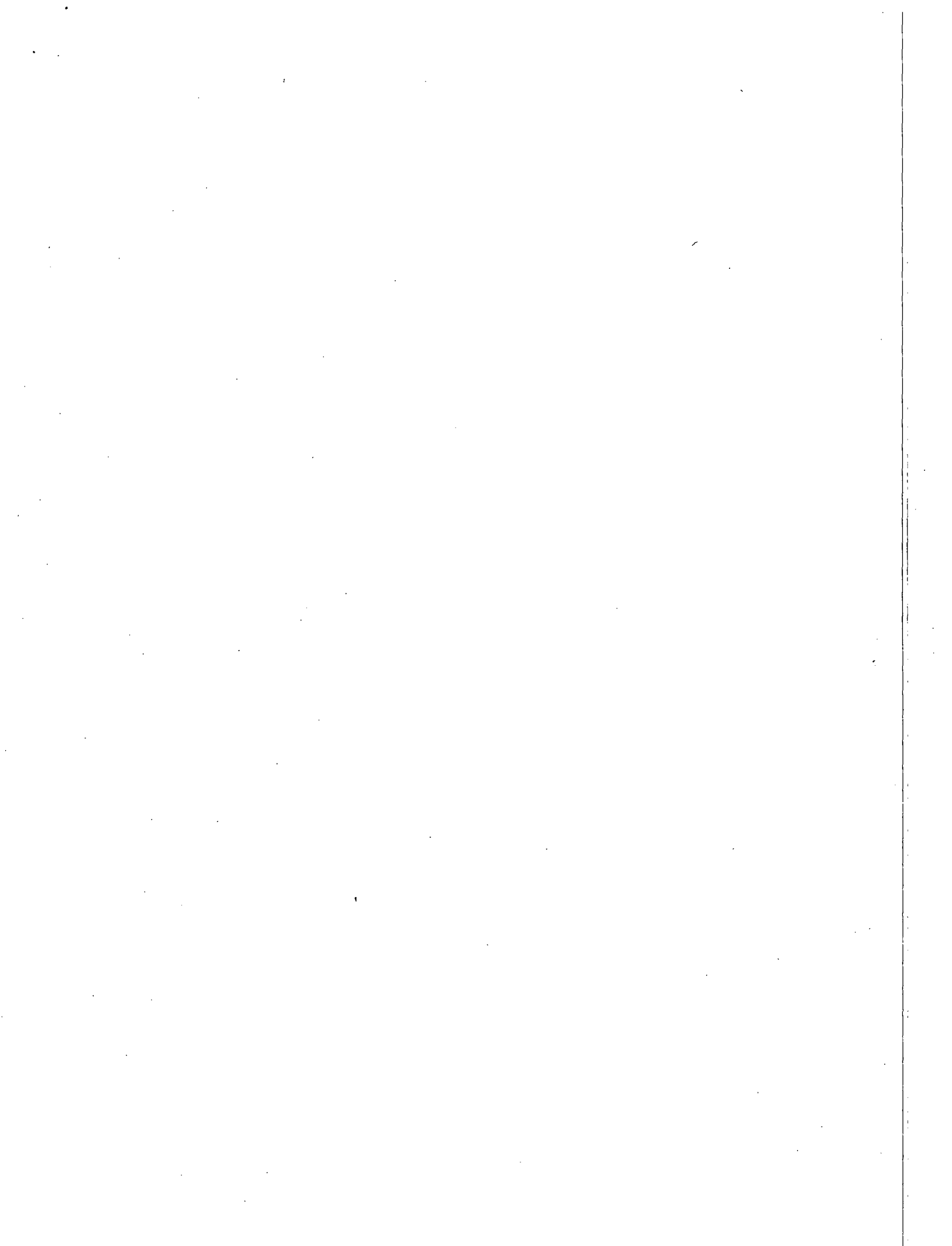
GRS (1967) New

	1 STA.	2 TIME	3 READ.	4 ELEV.	5 LAT.	6 LONG.	7 Obs.	8 theo.	9 B.G.	10	REMARKS	12 theo	13 SIMPLE B.G.
1	151	1140	549.2	7557	37° 29.03'	105° 55.80'	.23823	.979.95902	-267.4			.979.94692	-255.3
2	152	1145	553.9	7558	29.25	55.80	.23870	.95934	-267.2			.94724	-255.1
3	153	1151	549.0	7561	29.25	56.34	.23822	.95934	-267.6			.94724	-255.4
4	154	1156	537.0	7562	29.25	56.87	.23702	.95934	-268.7			.94724	-256.6
5	155	1202	546.0	7563	29.52	56.88	.23792	.95973	-268.1		RAIN!	.94763	-256.0
BASE * 6	2	1250	504.6				.979.23382						
BASE * 7	2	1457	504.0				.979.23382						
8	156	1512	536.0	7555	28.39	54.69	.23700	.95808	-267.9			.94599	-255.8
9	157	1517	537.8	7550	28.38	54.35	.23717	.95808	-268.0			.94597	-255.9
10	158	1520	535.5	7552	28.38	54.02	.23694	.95808	-268.1			.94597	-256.0
11	159	1525	535.2	7561	28.38	54.95	.23690	.95808	-267.6			.94597	-255.5
12	160	1529	533.1	7551	28.38	55.25	.23668	.95808	-268.4			.94597	-256.3
13	161	1532	532.5	7552	28.38	55.52	.23662	.95808	-268.4			.94597	-256.3
14	162	1536	525.2	7554	28.39	55.99	.23589	.95809	-269.0			.94599	-256.9
15	163	1539	534.5	7554	28.60	55.79	.23681	.95840	-268.4			.94629	-256.3
16	164	1543	520.4	7555	28.17	55.78	.23540	.95772	-269.1			.94567	-257.0
17	165	1550	516.0	7553	27.95	55.78	.23495	.95745	-269.4			.94535	-257.3
18	166	1553	512.4	7551	27.73	55.77	.23458	.95713	-269.6			.94503	-257.5
19	167	1556	506.6	7552	27.50	55.77	.23400	.95680	-269.8			.94469	-257.6
20	168	1602	505.8	7552	27.28	55.76	.23391	.95648	-269.5			.94437	-257.4
21	169	1605	499.5	7552	27.10	55.76	.23328	.95622	-269.9			.94411	-257.8
22	170	1608	488.8	7563	26.87	55.76	.23220	.95588	-270.0			.94378	-257.9
23	171	1612	493.6	7555	26.68	55.75	.23268	.95561	-269.7			.94350	-257.6
24	172	1618	493.6	7546	26.24	55.68	.23267	.95497	-269.6			.94286	-257.5
25	173	1622	486.2	7553	25.80	55.68	.23193	.95433	-269.3			.94222	-257.2
26	174	1625	486.2	7549	25.80	55.13	.23192	.95433	-269.5			.94222	-257.4
27	175	1628	496.3	7543	25.79	54.65	.23293	.95432	-268.9			.94220	-256.8
28	176	1632	501.4	7539	25.79	54.07	.23343	.95432	-268.6			.94220	-256.5
29	177	1636	505.5	7536	25.78	53.55	.23384	.95430	-268.4			.94219	-256.3
30	178	1640	505.5	7533	25.77	53.00	.23383	.95429	-268.6			.94218	-256.4
BASE * 31	2	1647	505.5				.979.23382						
	179	1658	513.3	7542	22.50	53.87	.23460	.95680	-269.8			.94469	-257.6









DATE: 9/6/81

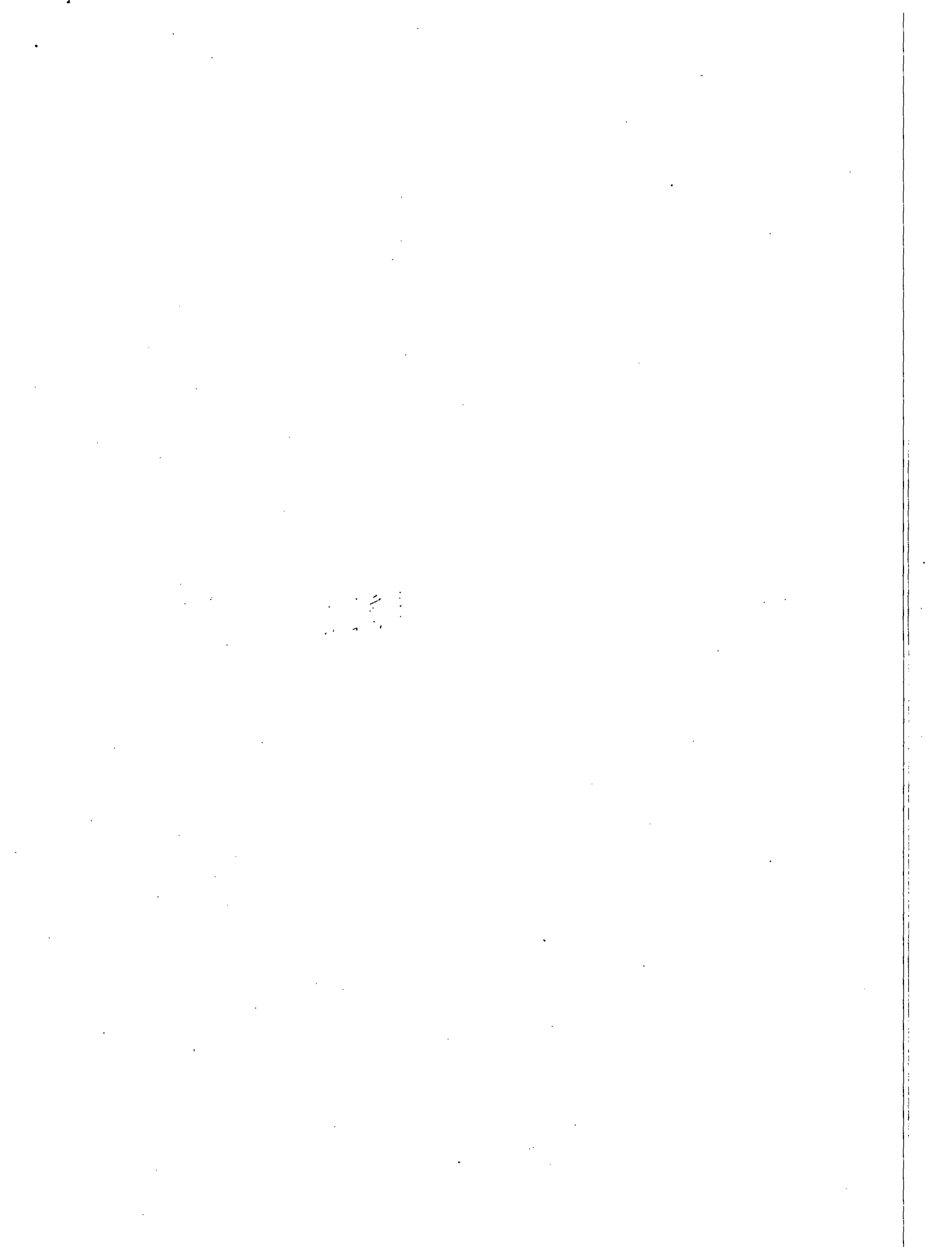
Pg. 9

AREA: ALAMOSA, COLO.

K = 0.099946 mg/OD

GRS (1967) New

	1 STA.	2 TIME	3 READ.	4 Elev.	5 LAT.	6 LONG.	7 Obs.	8 Gtheo.	9 BG	10	11 REMARKS	12 Gtheo	13 SIMPLER 56
BASE #1	2	1226	515.5		37°	105°	979.23382	979.				979.	
2	1822	1241	532.5	7531	28.67'	47.06'	.23749	.95850	-269.2		RCH's station	.94639	-257.1
3	186	1245	534.8	7527	28.42	46.52	.23572	.95813	-270.9			.94603	-258.8
4	187	1249	511.9	7528	28.43	45.97	.23342	.95815	-273.1			.94605	-261.0
5	188	1254	486.3	7526	28.44	45.41	.23085	.95816	-275.8		Heavy Traffic	.94606	-263.7
6	189	1259	466.8	7526	28.45	44.87	.22890	.95818	-277.8		along Highway	.94607	-265.7
7	190	1303	447.4	7534	28.47	44.33	.22695	.95821	-279.3			.94610	-267.2
8	191	1306	432.9	7545	28.48	43.76	.22549	.95822	-280.1			.94612	-268.0
9	192	1310	417.9	7548	28.48	43.22	.22399	.95822	-281.4			.94612	-269.3
10	193	1313	396.3	7553	28.48	42.67	.22182	.95822	-284.5			.94612	-271.2
11	194	1322	477.5	7524	29.32	44.87	.22992	.95944	-278.1			.94734	-266.0
12	195	1327	502.2	7525	29.30	45.45	.23238	.95941	-275.6			.94731	-263.5
13	196	1330	530.5	7524	29.30	45.97	.23521	.95941	-272.8			.94731	-260.7
14	197	1335	559.5	7524	29.30	46.52	.23810	.95941	-269.9			.94731	-257.8
15	198	1340	592.8	7528	29.72	47.05	.24142	.96002	-267.0			.94792	-254.9
16	199	1343	596.1	7533	30.17	47.05'	.24174	.96067	-267.0			.94858	-254.9
17	200	1347	600.6	7531	30.61	47.05	.24218	.96131	-267.3			.94922	-255.2
18	201	1354	612.5	7531	30.17	47.31	.24336	.96067	-265.5			.94858	-253.4
19	202	1358	622.0	7531	30.17	47.58	.24439	.96067	-264.5			.94858	-252.4
20	203	1400	626.3	7532	30.16	47.87	.24473	.96066	-264.1			.94856	-252.0
21	204	1407	628.3	7533	30.16	48.15	.24492	.96066	-263.8			.94856	-251.7
22	205	1411	630.1	7533	30.16	48.42	.24509	.96066	-263.7			.94856	-251.6
23	206	1414	630.1	7534	30.16	48.69	.24509	.96066	-263.6			.94856	-251.5
24	207	1418	631.2	7536	30.16	48.96	.24519	.96066	-263.4			.94856	-251.2
25	208	1421	627.4	7537	30.16	49.24	.24480	.96066	-263.7			.94856	-251.6
26	209	1425	623.7	7537	30.60	49.24	.24443	.96130	-264.7			.94920	-252.6
27	210	1430	621.5	7538	30.16	49.50	.24420	.96066	-264.2			.94856	-252.1
28	211	1435	614.0	7538	30.16	49.76	.24344	.96066	-265.0			.94856	-252.9
29	212	1438	606.7	7539	30.16	50.04	.24271	.96066	-265.7			.94856	-253.6
30	213	1441	598.5	7539	30.16	50.32	.24188	.96066	-266.5			.94856	-254.4
31	214	1445	595.9	7539	30.15	50.60	.24161	.96064	-266.8			.94855	-254.7
	215	1447	591.9	7542	30.15	50.87	.24121	.96064	-267.0			.94855	-254.9



DATE: 9/6/81

Pg. 10

AREA: ALAMOSA, COLO.

K = 0.099946 mg/100

	1 STA.	2 TIME	3 READ.	4 ELEV.	5 LAT.	6 LONG.	7 Gobs.	8 theo	9 BG	10 REMARKS	12 theo	13 <sup>SAMPLE</sup> BG
1	216	1451	587.2	7543	37° 30.15'	105° 51.16'	.24073	979.96064	-267.9		979.94855	-255.3
2	217	1455	581.0	7546	30.15	51.41	.24011	.96064	-267.8		.94855	-255.7
3	BASE * 2	1507	518.3				979.23382					
4	218	1523	587.7	7546	30.59	51.42	.24079	.96128	-267.8		.94919	-255.7
5	219	1530	593.0	7546	31.01	51.43	.24134	.96189	-267.9		.94980	-255.8
6	220	1534	602.7	7543	31.02	50.87	.24232	.96191	-267.1		.94981	-255.0
7	221	1538	609.7	7542	31.02	50.33	.24303	.96191	-266.4		.94981	-254.3
8	222	1542	618.8	7540	31.02	49.79	.24395	.96191	-265.6		.94981	-253.5
9	223	1545	628.7	7539	31.02	49.25	.24494	.96191	-264.7		.94981	-252.6
10	224	1550	636.6	7536	31.03	48.69	.24575	.96192	-264.1		.94983	-252.0
11	225	1554	639.7	7533	31.03	48.15	.24606	.96192	-263.9		.94983	-251.9
12	226	1558	634.6	7531	31.03	47.60	.24556	.96192	-264.6		.94983	-252.5
13	227	1602	606.2	7531	31.04	47.05	.24274	.96194	-267.4		.94984	-255.3
14	228	1607	581.7	7526	31.04	46.50	.24030	.96194	-270.1		.94984	-258.0
15	229	1610	551.2	7529	31.04	45.94	.23726	.96194	-273.0		.94984	-260.9
16	230	1614	528.8	7526	31.05	45.40	.23503	.96195	-275.4		.94986	-263.3
17	231	1618	555.5	7524	31.47	45.95	.23771	.96256	-273.5		.95047	-261.4
18	232	1623	562.3	7526	31.90	45.96	.23840	.96318	-273.3		.95109	-261.2
19	233	1627	570.0	7527	32.33	45.98	.23918	.96381	-273.1		.95172	-261.0
20	234	1631	577.1	7527	32.77	46.00	.23990	.96445	-273.0		.95236	-260.9
21	235	1635	538.9	7529	32.78	45.38	.23609	.96446	-276.7		.95238	-264.6
22	236	1641	612.5	7529	32.77	46.55	.24346	.96445	-269.3		.95236	-257.2
23	237	1645	642.3	7533	32.76	47.09	.24645	.96443	-266.1		.95235	-254.0
24	238	1650	665.4	7533	32.77	47.66	.24877	.96445	-263.8		.95236	-251.7
25	239	1653	667.4	7537	32.77	48.19	.24897	.96445	-263.3		.95236	-251.2
26	240	1657	667.4	7537	32.78	48.74	.24898	.96446	-263.3		.95238	-251.2
27	241	1700	661.9	7539	32.77	49.28	.24844	.96445	-263.7		.95236	-251.6
28	242	1704	658.0	7541	32.77	49.82	.24806	.96445	-264.0		.95238	-251.9
29	243	1708	646.3	7543	32.76	50.35	.24690	.96443	-265.0		.95235	-252.9
30	244	1712	636.5	7543	32.33	50.35	.24593	.96381	-265.4		.95172	-253.3
31	245	1716	623.9	7543	31.90	50.35	.24468	.96318	-266.0		.95109	-253.9
	246	1721	614.0	7541	31.46	50.33	.24320	.96255	-266.5		.95045	-254.4



DATE: 9/7 - 9/8/81

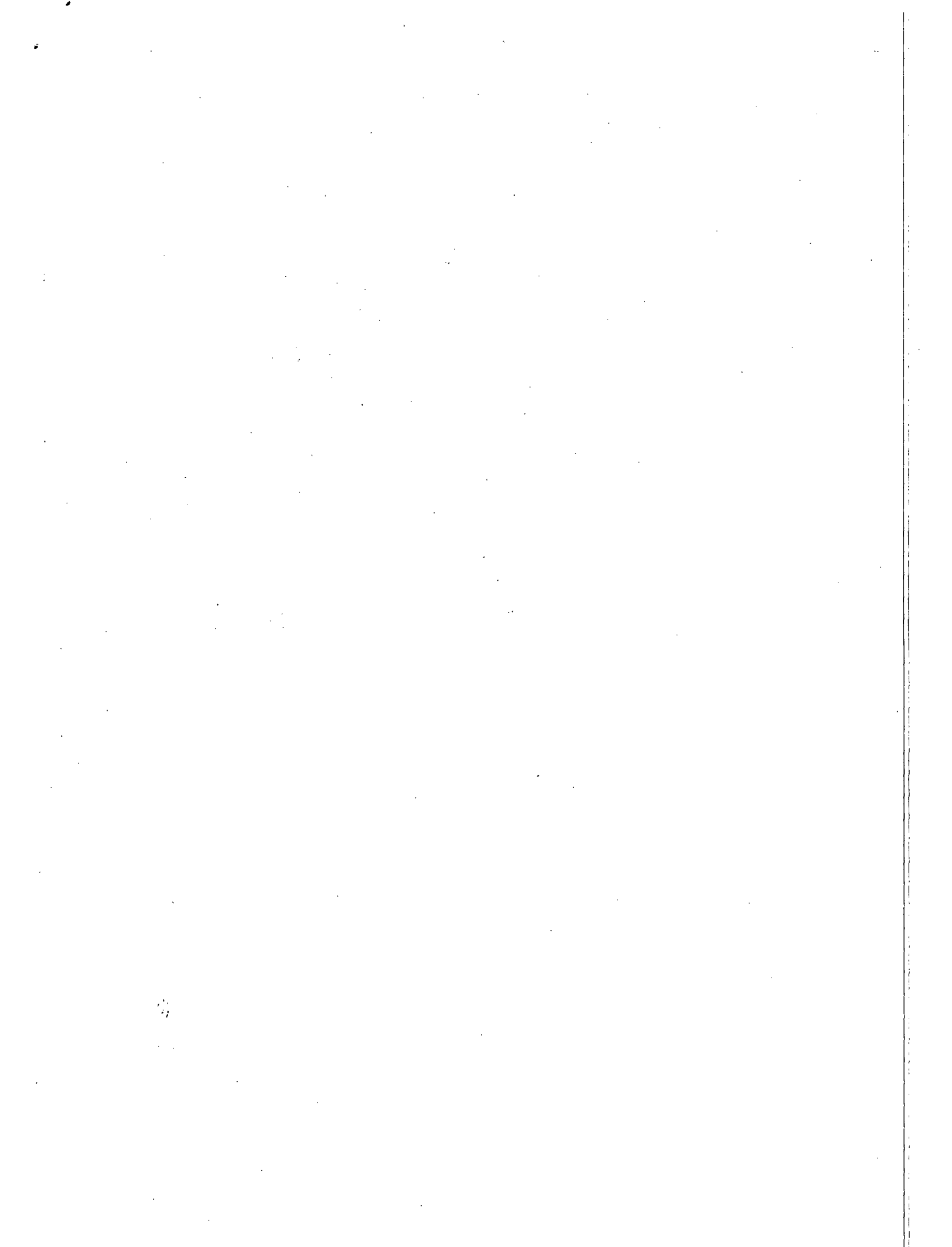
Pg. 11

AREA: ALAMOSA, COLO.

K = 0.099946 \* 9/100

GRS (1967) NEW

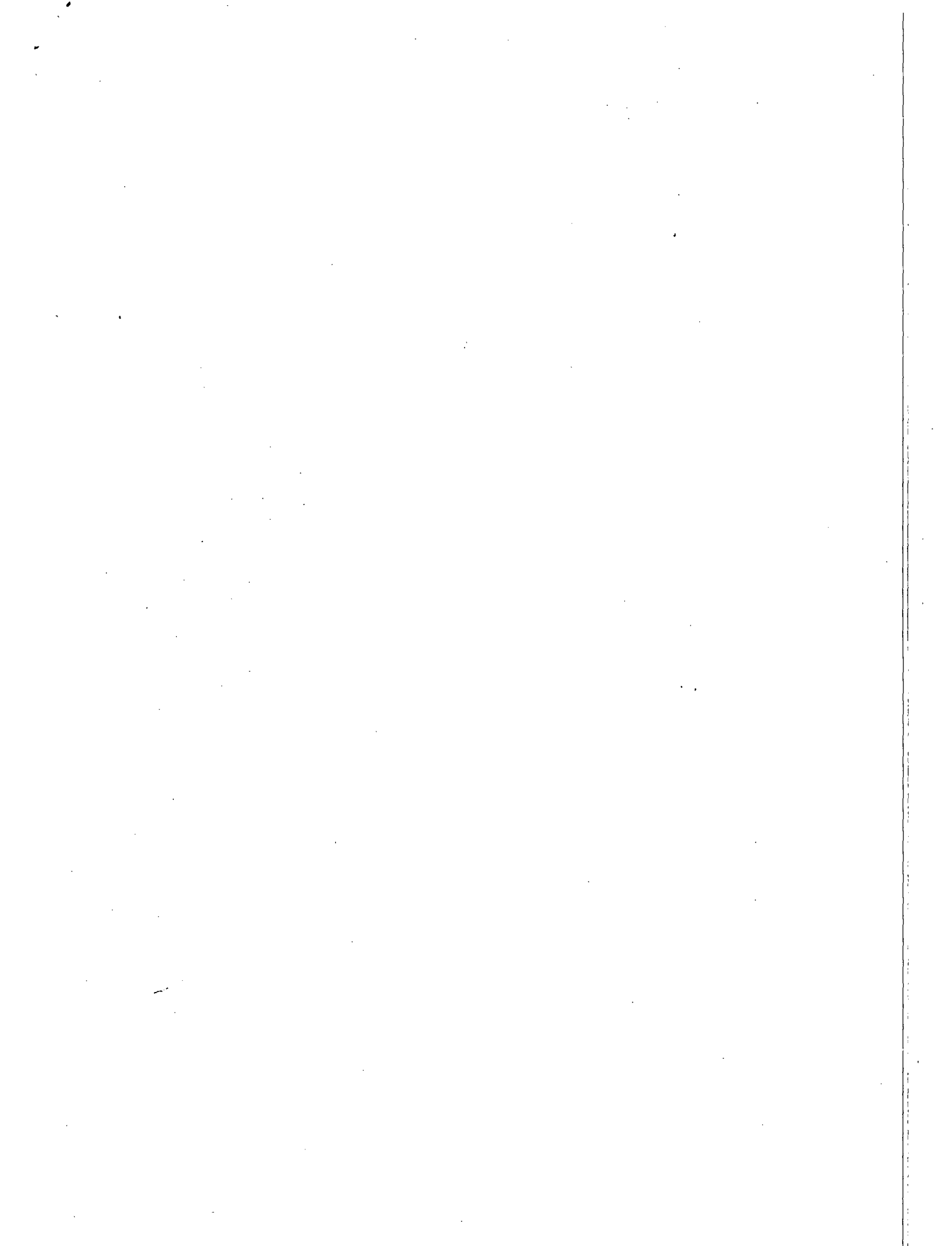
	1 STA.	2 TIME	3 READ.	4 Elev.	5 LAT.	6 LONG.	7 Gobs.	8 Gtheo.	9 BG	10 REMARKS	11 Gtheo	12 SIMPLE BB
1	247	1727	631.4	7534	31° 31.46'	105° 49.25'	979.24595	979.96255	-265.1		979.95045	-253.0
2	248	1731	638.7	7538	31.91	49.26	.24619	.96320	-264.8		.95111	-252.7
3	249	1735	649.3	7539	32.34	49.28	.24726	.96382	-264.3		.95174	-252.2
4	250	1741	634.0	7544	32.77	50.90	.24575	.96445	-266.1		.95236	-254.0
5	251	1746	622.7	7549	32.77	51.44	.24463	.96445	-266.9		.95236	-254.9
6	252	1750	613.7	7549	32.34	51.45	.24374	.96382	-267.2		.95174	-255.1
7	253	1753	604.2	7548	31.90	51.45	.24280	.96318	-267.6		.95109	-255.5
8	254	1757	594.2	7549	31.46	51.45	.24181	.96255	-267.9		.95045	-255.8
BASE * 9	2	1813	513.9				979.23382					
BASE * 10	2	0926	516.2				979.23382			9/8/81		
11	255	0944	567.3	7554	29.25	54.69	.23892	.95934	-267.2		.94724	-255.1
12	256	0947	572.8	7552	29.47	54.69	.23947	.95966	-267.1		.94756	-255.0
13	257	0951	577.0	7554	29.67	54.68	.23988	.95995	-266.9		.94785	-254.8
14	258	0954	582.5	7552	29.89	54.68	.24043	.96027	-266.8		.94817	-254.7
15	259	0958	591.9	7552	30.13	54.68	.24137	.96062	-266.2		.94852	-254.1
16	260	1007	581.4	7557	29.69	55.77	.24032	.95998	-266.3		.94788	-254.2
17	261	1011	586.2	7559	29.96	55.76	.24079	.96037	-266.1		.94827	-254.0
18	262	1022	571.4	7567	30.13	56.87	.23931	.96062	-267.4		.94852	-255.3
19	263	1026	579.3	7567	30.56	56.87	.24010	.96124	-267.2		.94914	-255.1
20	264	1030	585.6	7568	31.00	56.88	.24072	.96188	-267.1		.94979	-255.1
21	265	1035	588.2	7572	31.56	57.05	.24098	.96269	-267.5		.95060	-255.4
22	266	1044	584.7	7573	31.87	57.33	.24063	.96314	-268.2		.95105	-256.1
23	267	1049	575.3	7576	31.86	57.89	.23969	.96313	-268.9		.95104	-256.9
24	268	1054	566.5	7577	31.43	57.92	.23880	.96250	-269.1		.95041	-257.1
25	269	1058	560.1	7574	31.00	57.91	.23816	.96188	-269.3		.94979	-257.3
26	270	1103	559.7	7581	31.85	58.43	.23812	.96311	-270.2		.95102	-258.1
27	271	1106	546.2	7585	31.85	59.00	.23677	.96311	-271.3		.95102	-259.2
28	272	1110	542.9	7582	31.41	59.00	.23644	.96247	-271.2		.95038	-259.1
BASE * 29	2	1126	516.8				979.23382					
30	273	1146	564.0	7544	29.45	52.47	.23852	.95963	-268.5		.94753	-256.4
31	274	1151	571.7	7546	29.68	52.65	.23928	.95996	-268.0		.94786	-255.9
	275	1154	575.3	7548	29.91	52.77	.23964	.96030	-267.8		.94820	-255.7



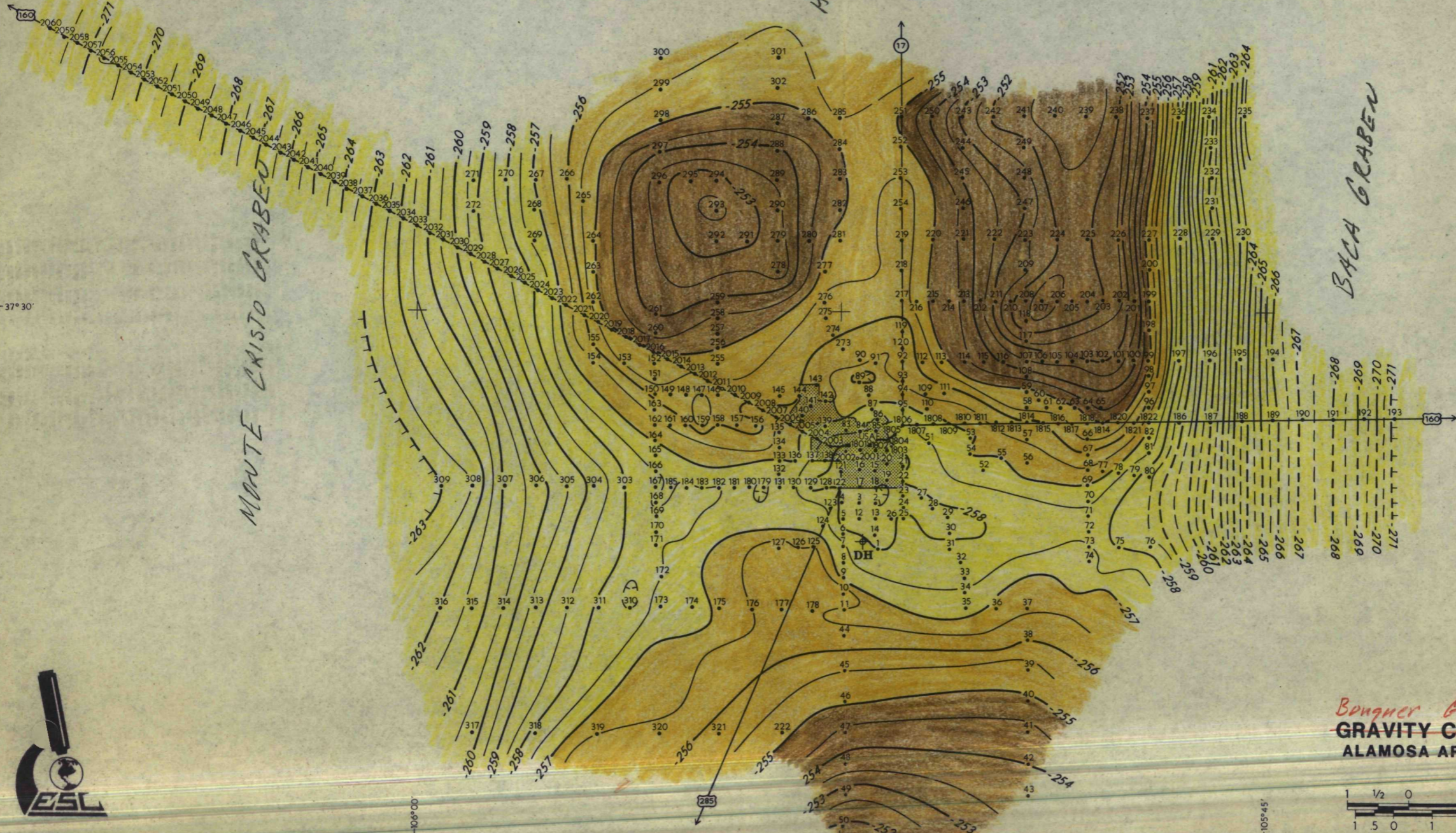
DATE: 9/8/81 Pg. 12  
 AREA: ALAMOSA, COLO.  
K = 0.099946 m/g/100

	1 STA.	2 TIME	3 READ.	4 Elev.	5 LAT.	6 LONG.	7 Obs.	8 theo.	9 BG	10 REMARKS	12 (1967) theo	13 new SIMPLE BG
1	276	1207	577.7	7549	37° 30.14'	105° 52.80'	979.23986	.979.91263	-267.9		979.94853	-255.8
2	277	1212	590.7	7549	30.57	52.80	.24116	.96125	-267.2		.94915	-255.1
3	278	1217	608.3	7552	30.57	53.63	.24291	.96125	-265.3		.94915	-253.2
4	279	1221	614.1	7553	31.00	53.64	.24349	.96188	-265.3		.94979	-253.2
5	280	1225	604.0	7550	31.00	53.07	.24247	.96188	-266.5		.94979	-254.9
6	281	1231	595.5	7548	31.01	52.51	.24162	.96189	-267.5		.94980	-255.4
7	282	1235	605.8	7549	31.44	52.52	.24264	.96252	-267.0		.95042	-254.9
8	283	1239	612.4	7549	31.88	52.52	.24330	.96316	-267.0		.95107	-254.9
9	284	1243	616.9	7551	32.32	52.52	.24374	.96380	-267.1		.95171	-255.0
10	285	1248	616.9	7552	32.75	52.53	.24374	.96442	-267.6		.95233	-255.5
11	286	1252	621.8	7554	32.74	53.10	.24422	.96441	-267.0		.95232	-254.9
12	287	1255	621.8	7555	32.68	53.64	.24422	.96432	-266.9		.95223	-254.8
13	288	1259	624.1	7556	32.28	53.64	.24444	.96374	-266.0		.95165	-253.9
14	289	1302	622.3	7555	31.87	53.65	.24426	.96314	-265.6		.95105	-253.6
15	290	1306	619.5	7554	31.44	53.64	.24398	.96252	-265.4		.95042	-253.3
BASE * 16	2	1327	518.1				979.23382					
17	291	1343	617.4	7553	31.00	54.17	.24376	.96188	-265.0		.94979	-252.9
18	292	1347	617.4	7556	31.00	54.70	.24376	.96188	-264.8		.94979	-252.7
19	293	1351	626.8	7556	31.42	54.70	.24470	.96249	-264.5		.95040	-252.4
20	294	1354	626.8	7560	31.85	54.71	.24470	.96311	-264.9		.95102	-252.8
21	295	1358	626.8	7562	31.84	55.17	.24471	.96310	-264.7		.95101	-252.6
22	296	1403	618.8	7565	31.82	55.71	.24391	.96307	-265.3		.95098	-253.2
23	297	1406	616.0	7566	32.27	55.70	.24363	.96372	-266.2		.95163	-254.1
24	298	1409	612.8	7566	32.71	55.70	.24332	.96436	-267.1		.95227	-255.1
25	299	1412	616.2	7565	33.14	55.70	.24366	.96499	-267.5		.95290	-255.4
26	300	1415	616.2	7568	33.58	55.70	.24366	.96562	-267.9		.95354	-255.9
27	301	1421	627.9	7561	33.60	53.63	.24483	.96565	-267.2		.95357	-255.1
28	302	1424	623.0	7558	33.17	53.64	.24435	.96503	-267.3		.95294	-255.2
BASE * 29	2	1500	517.4				979.23382					
30	303	1511	512.8	7556	27.51	56.32	.23340	.95681	-270.1		.94471	-258.0
31	304	1516	503.9	7557	27.52	56.87	.23251	.95683	-271.0		.94472	-258.9
	305	1519	496.5	7558	27.52	57.35	.23181	.95683	-271.6		.94472	-259.5







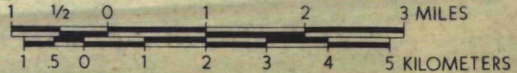


MONTE CRISTO GRABEN

ALAMOSA FOREST

BACA GRABEN

**Bouguer GRAVITY**  
**GRAVITY CONTOUR MAP**  
**ALAMOSA AREA, COLORADO**

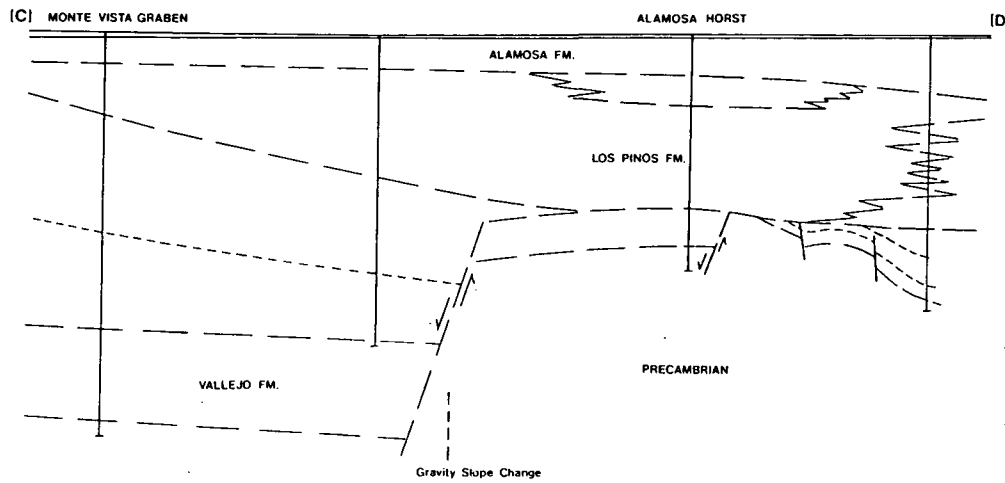
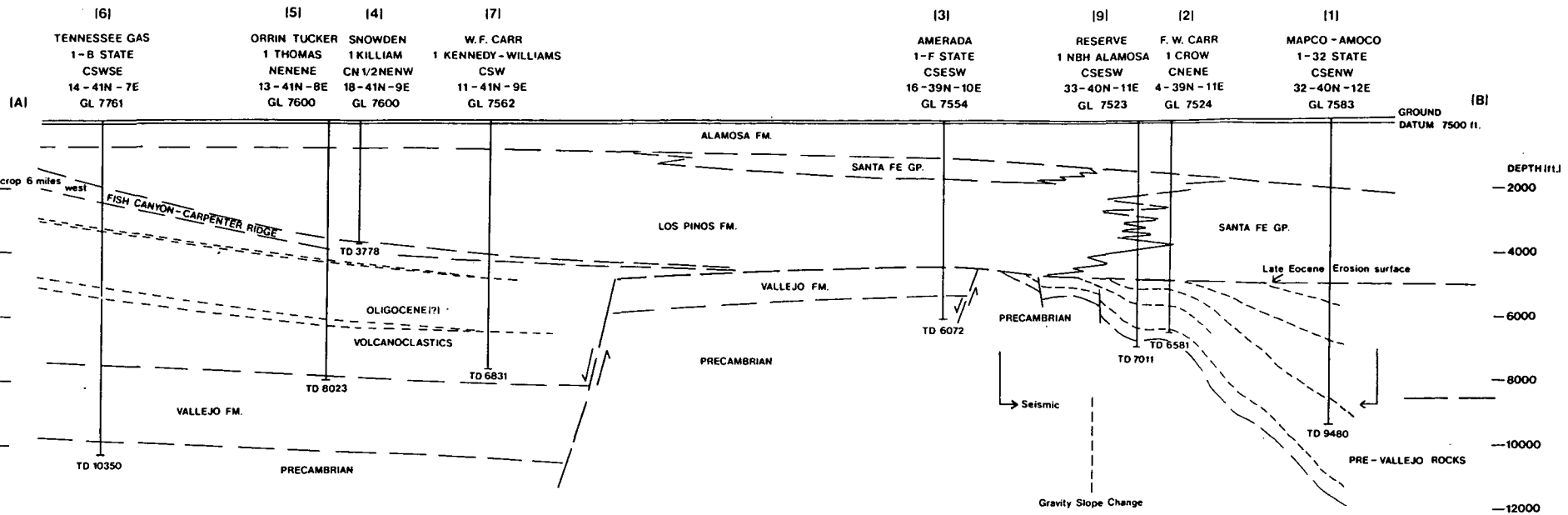


2  
1

MONTE VISTA GRABEN

ALAMOSA HORST

BACA GRABEN



SCALE

0 1 2

HORIZONTAL 1" = 2 miles

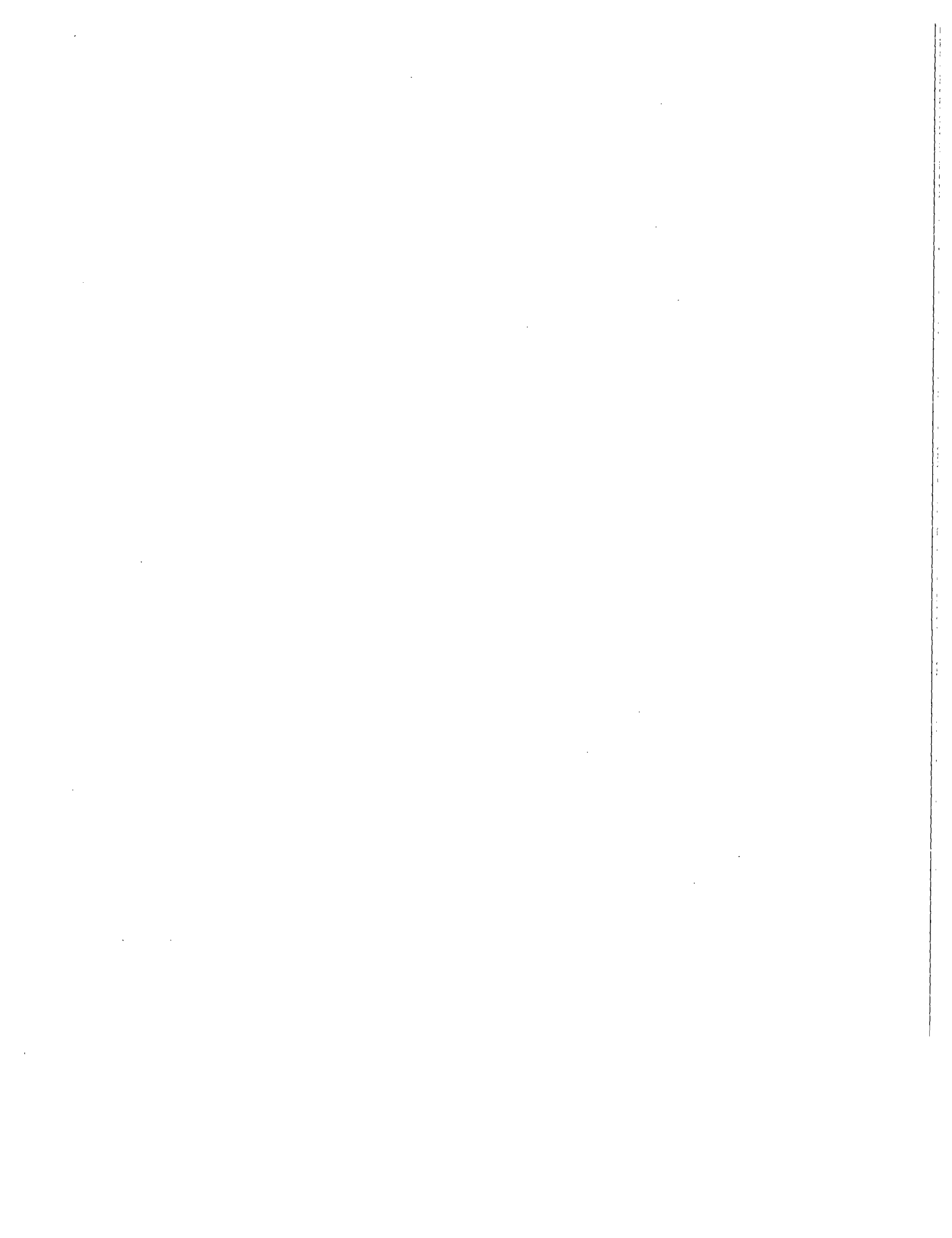
VERTICAL 1" = 2000 feet

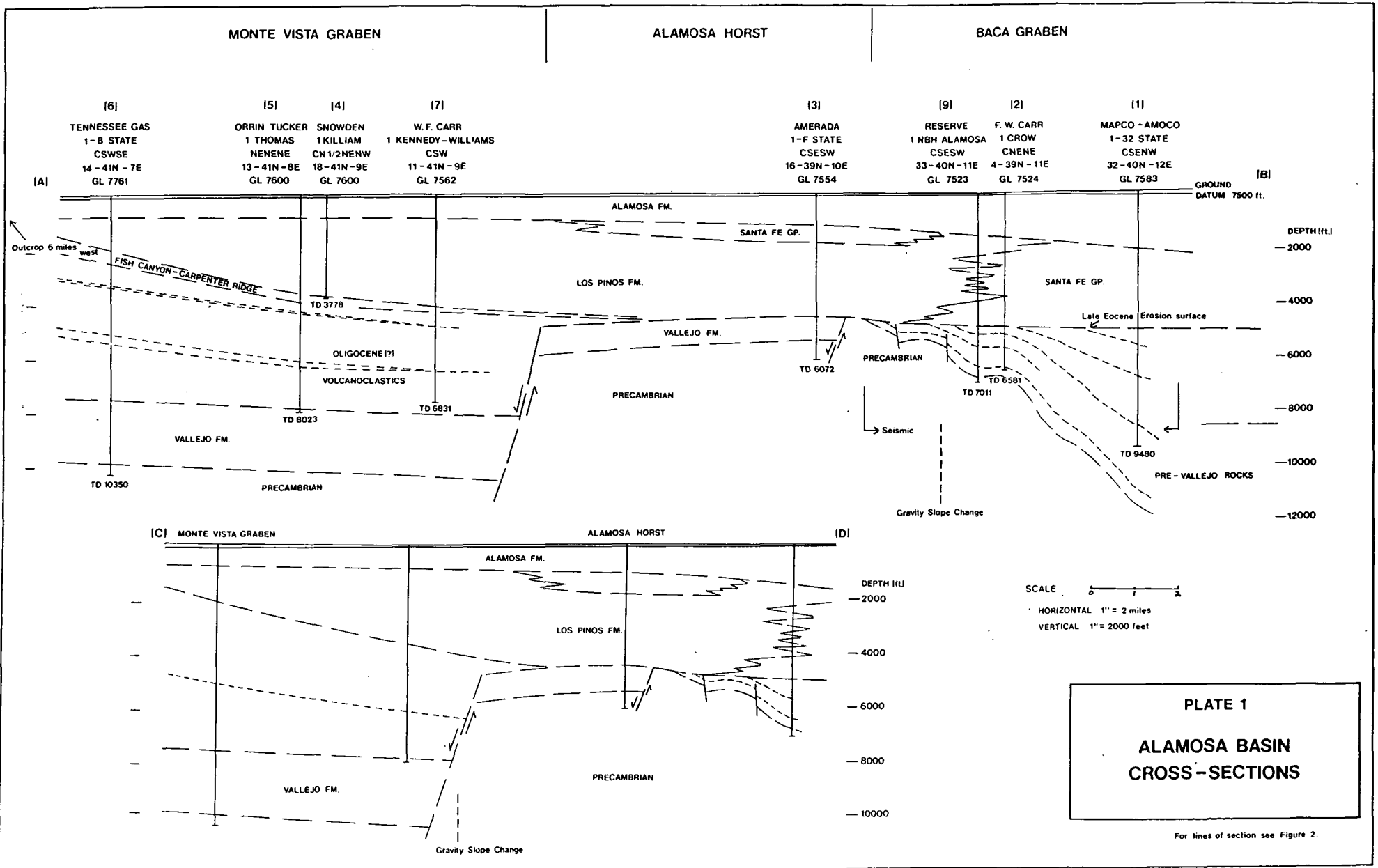
PLATE 1

ALAMOSA BASIN

CROSS-SECTIONS

For lines of section see Figure 2.



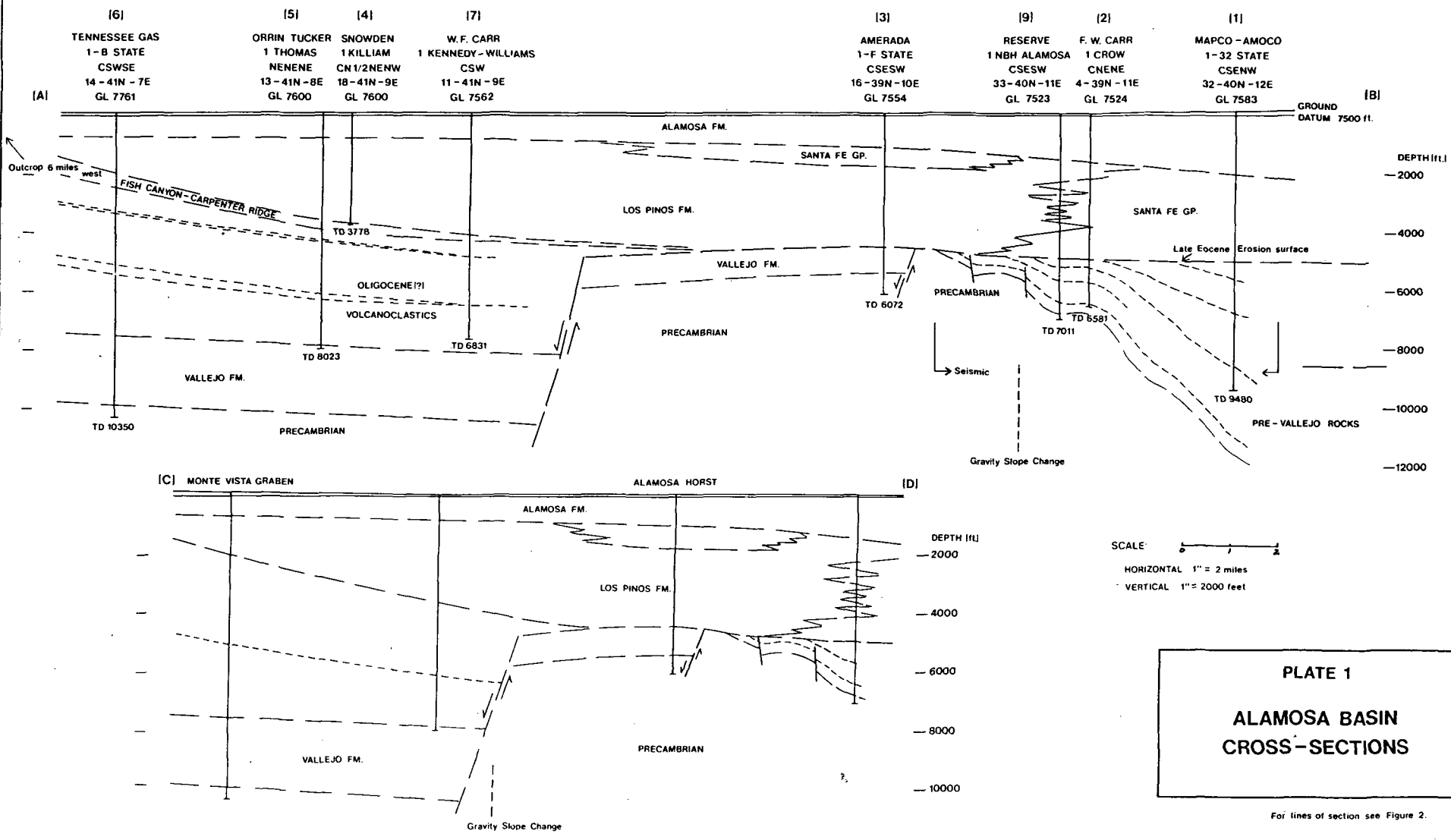




MONTE VISTA GRABEN

ALAMOSA HORST

BACA GRABEN



**PLATE 1**

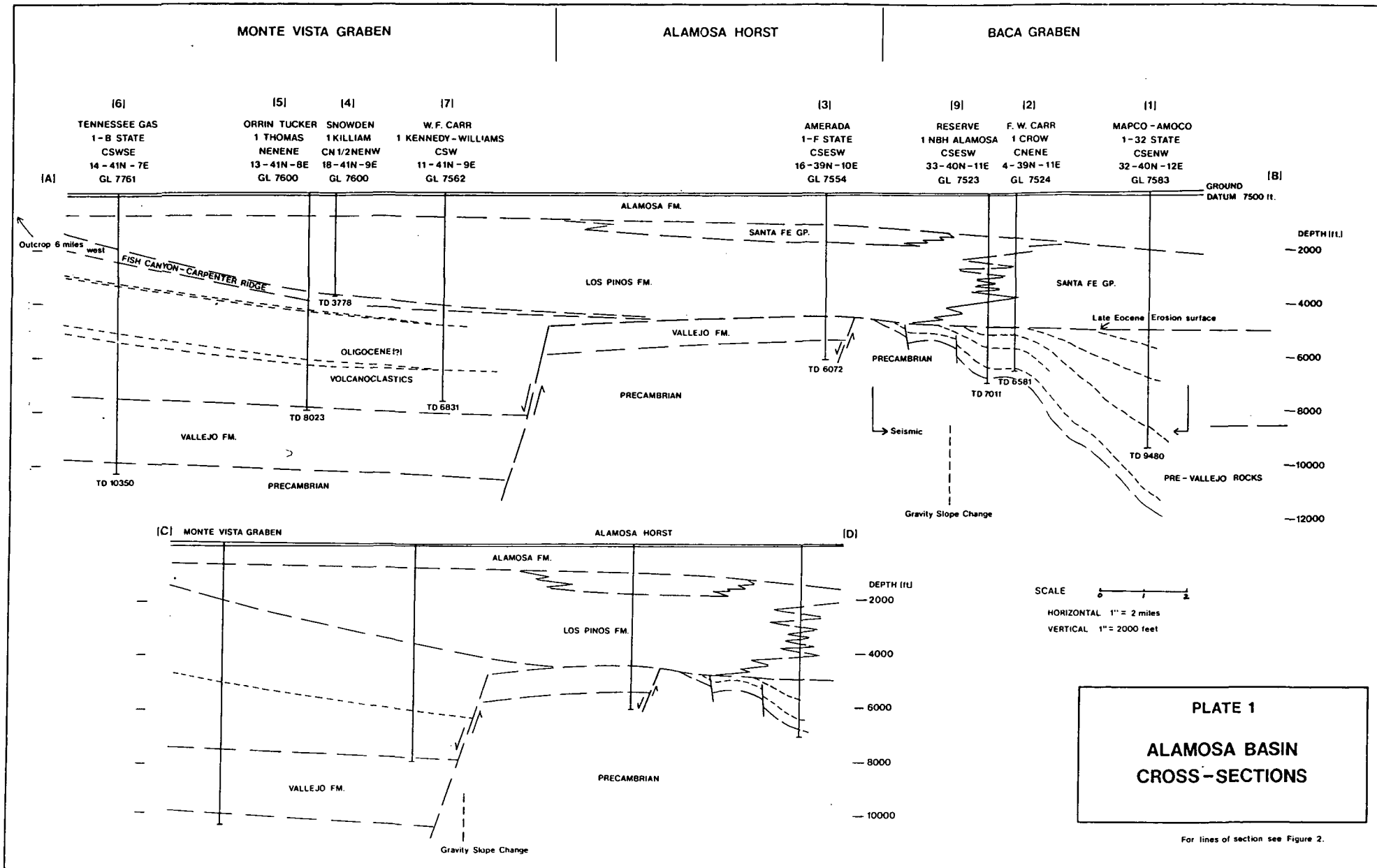
**ALAMOSA BASIN**

**CROSS-SECTIONS**

For lines of section see Figure 2.









File # 2  
STATION. B

Profile B-B'  
3 - kilofeet  
32 sta

Regional  
@ - 220

EFFICIENCY LINE No. 2636

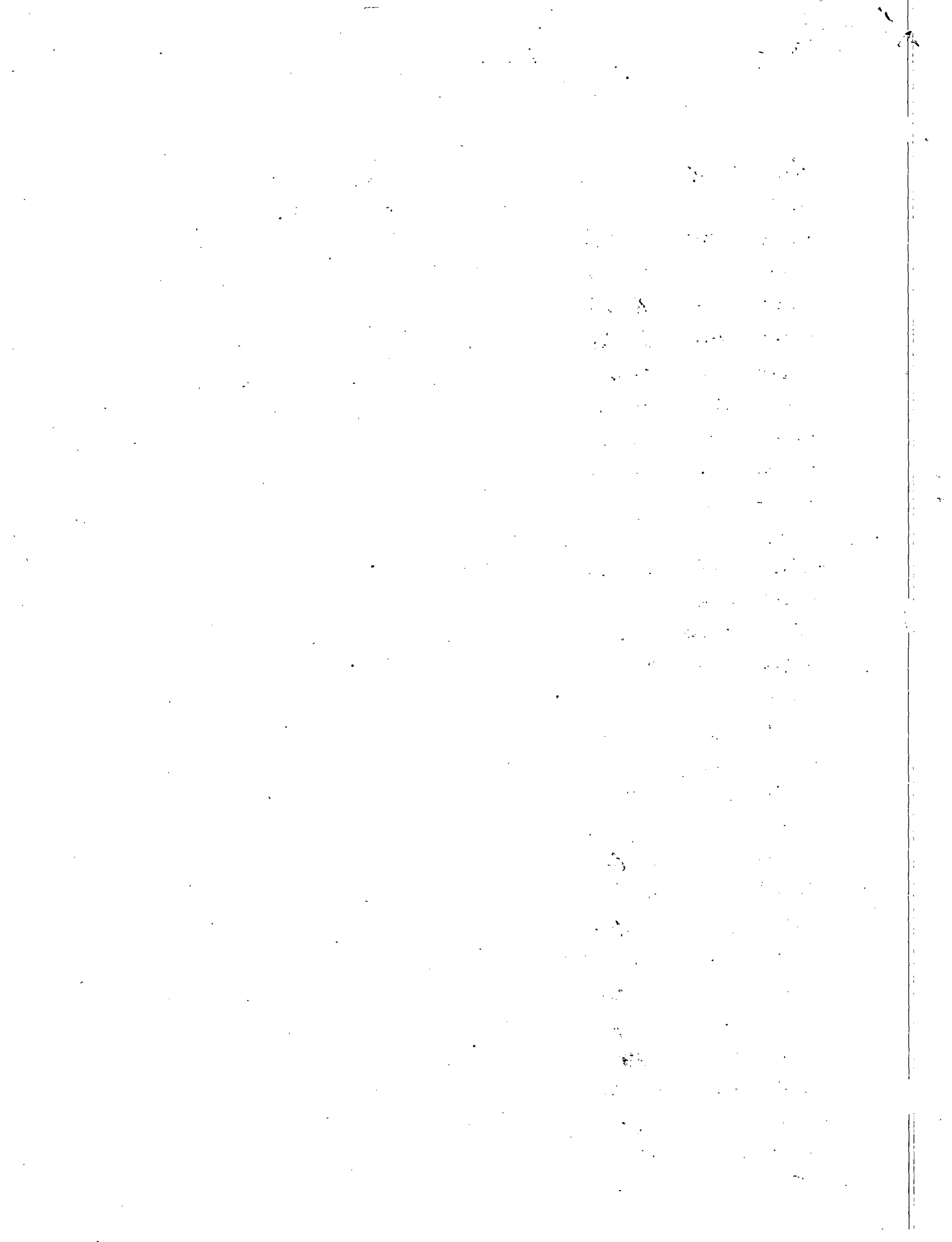


Bend

DH →

Bend

Sta	1 Gobs	2 X	3 Z	4	5 Sta	6 Gobs	7 X	8 Z	9
1	-255.5	0	7549.0		32	-251.9	63.75	7570	
2	-254.9	2.7	7549.0						
3	-255.1	5.1	7549.0						
4	-255.5	7.8	7549.0						
5	-255.8	10.45	7549.0						
6	-255.8	13.1	7546.0						
7	-255.7	15.7	7546.0						
8	-255.7	18.25	7546.0						
9	-256.3	20.9	7544.0						
10	-256.4	22.35	7542.0						
11	-256.3	23.5	7543.0						
12	-256.4	25.2	7541.0						
13	-256.7	26.3	7540.0						
14	-257.2	27.6	7540.0						
15	-257.6	28.9	7538.5						
16	-258.0	30.6	7543.8						
17	-258.1	32.35	7538.0						
18	-258.5	34.1	7536.0						
19	-258.5	35.8	7536.0						
20	-258.3	37.1	7536.0						
21	-258.0	38.8	7536.0						
22	-257.5	41.2	7536.0						
23	-257	43.0	7534.0						
24	<del>-256.8</del> -255.9	44.0	7533.0						
25	-256.7	45.3	7532.0						
26	-256.3	47.6	7538.0						
27	-255.5	50.55	7538.0						
28	-255.1	53.1	7538.0						
29	-254.3	55.75	7540.0						
30	-253.8	58.5	7538.0						
31	-252.6	61.1	7537.0						



$\rho = -0.43$

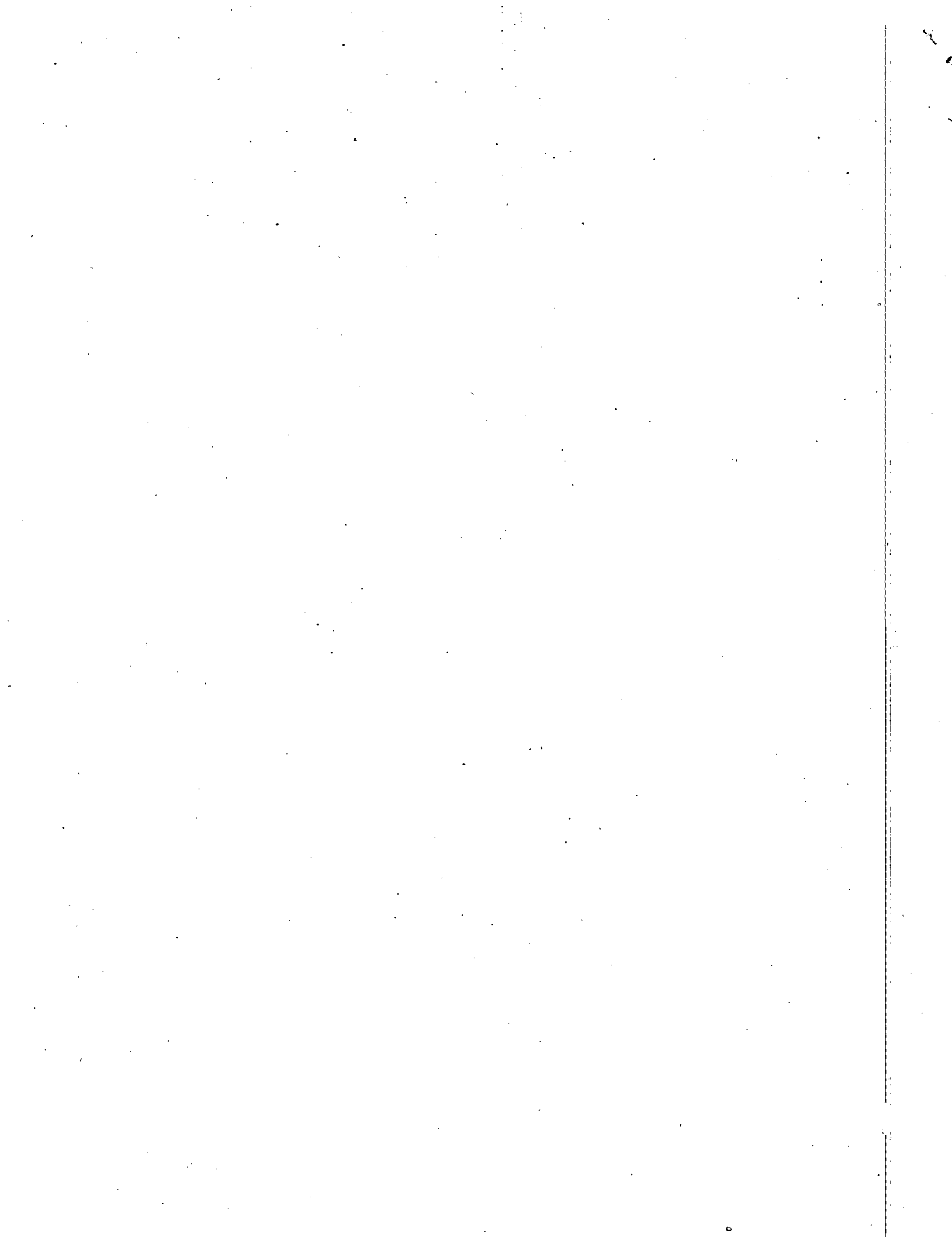
$\rho = -0.33$

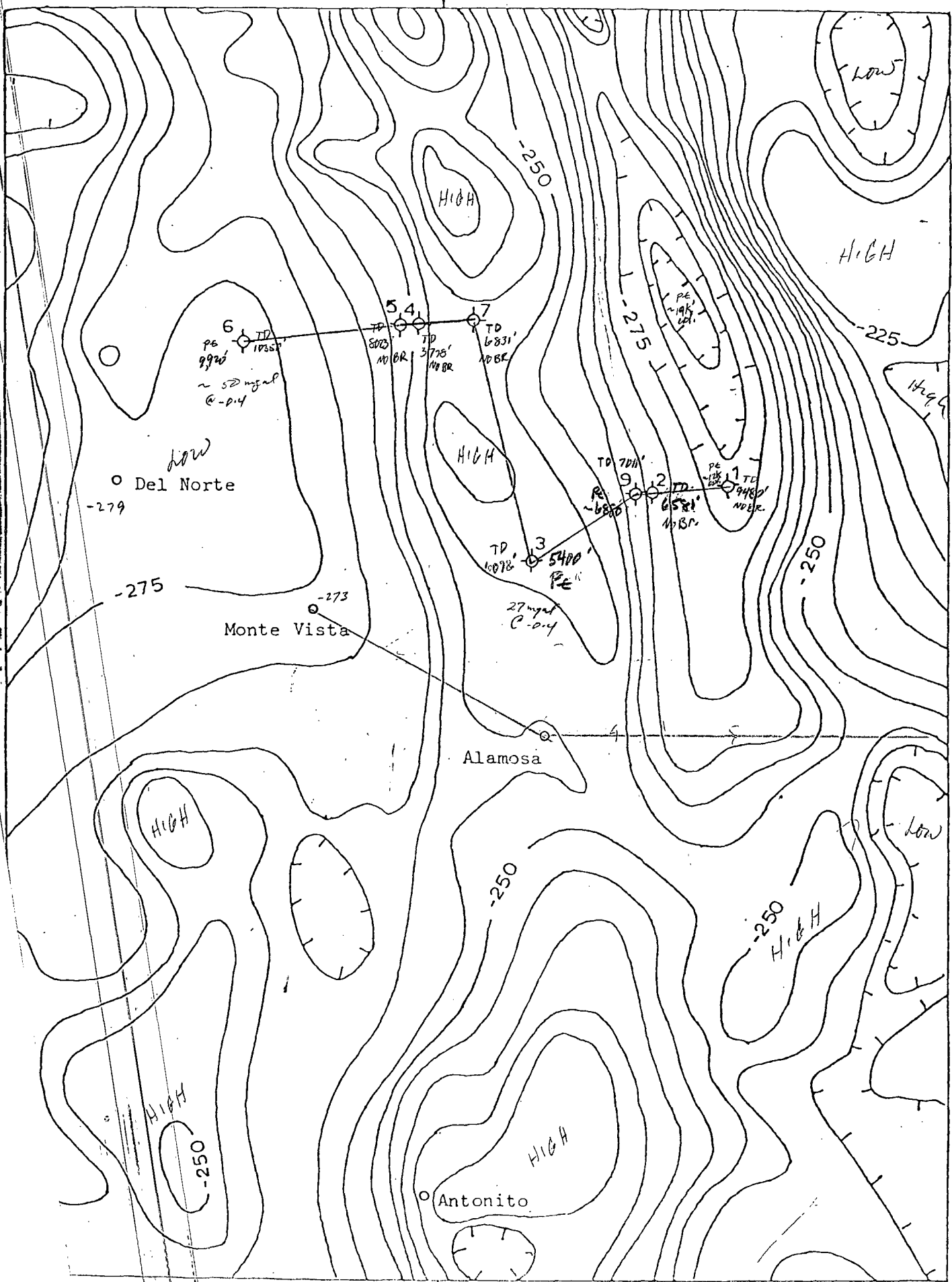
EFFICIENCY LINE No. 2636



Prison	1 X	2 Z	3	4	5 Prison	6 X	7 Z	8	9
(1)	1 -25.87	-7.549			(2)	28.9	-2.1		
	2 0	-7.549				47.6	-2.1		
	3 2.7	-7.549				44.0	-2.0		
	4 7.8	-7.548				39.32	-1.2	DH	
	5 18.25	-7.546				35.8	-1.0		
	6 22.35	-7.542				34.1	-1.2		
	7 26.3	-7.54				28.9	-2.1		
	8 30.6	-7.5438							
	9 34.1	-7.536							
	10 35.8	-7.536			Prison	X	Z		
	11 38.8	-7.536			(3)				
	12 44.0	-7.533							
	13 50.55	-7.533							
	14 55.75	-7.540							
	15 63.75	-7.540							
	16 137.28	-7.887							
	17 137.28	-7.187							
	18 63.75	-3.7							
	19 55.75	-2.8							
	20 50.55	-2.2							
	21 47.6	-2.1							
	22 28.9	-2.1							
	23 26.3	-2.95							
	24 22.35	-2.9							
	25 18.25	-3.1							
	26 13.1	-3.0							
	27 7.8	-3.1							
	28 2.7	-3.175							
	29 0	-3.1							
	30 -25.87	-2.149							
10	-25.87	-7.549							

$\rho = -0.33$





pc 6. Bouguer gravity map of Alamosa basin, Colorado (C.I = 5 milligals).  
 For well names see Plate 1 (after Behrendt and Bajwa, 1974).

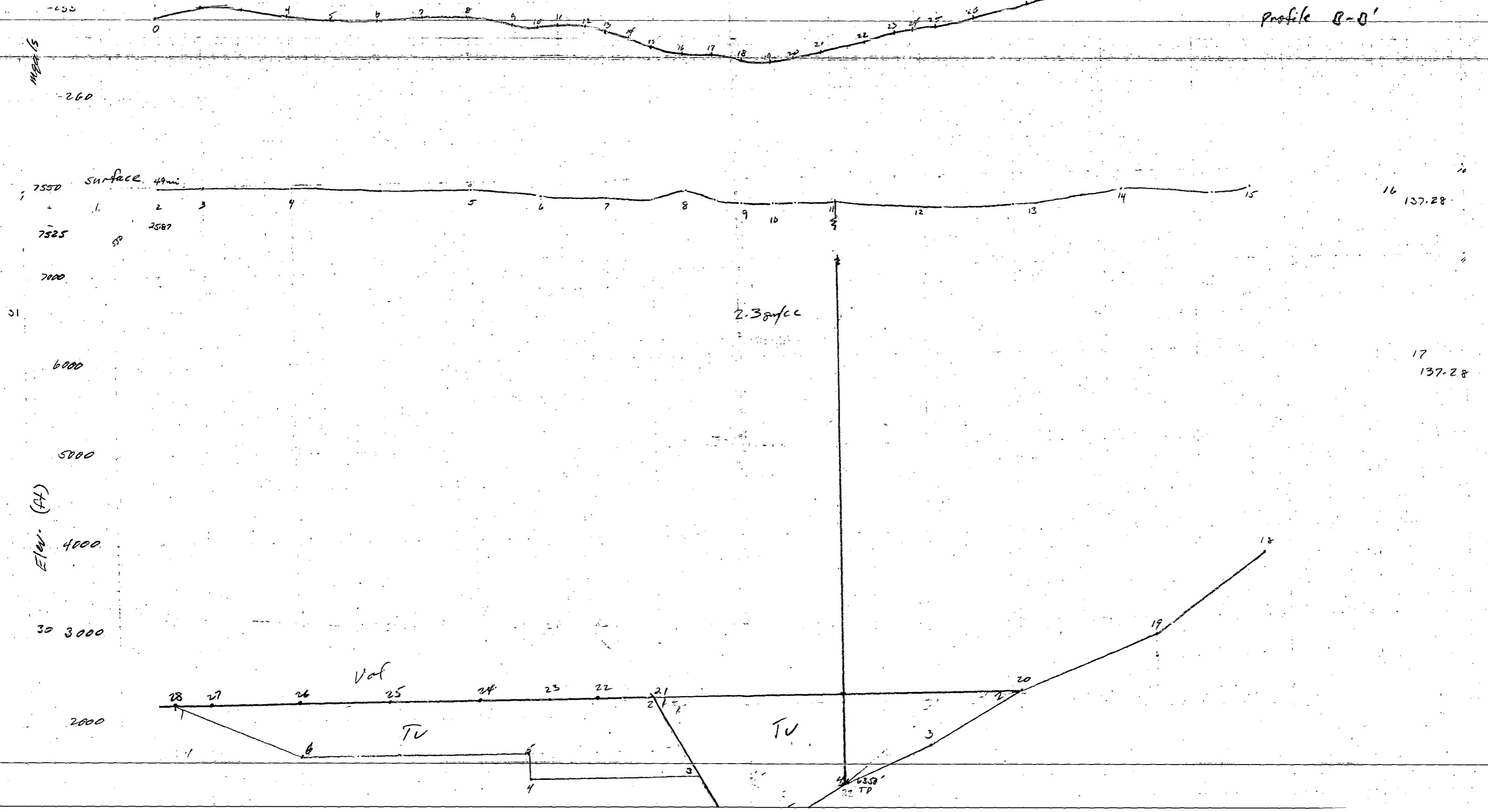
-279  
 -225  
 -54

70000



Alamosa

Alamosa  
profile B-O'



16 137.28

17 137.28

6350  
22 TP



# Alamosa Gravity

Profile A-A'

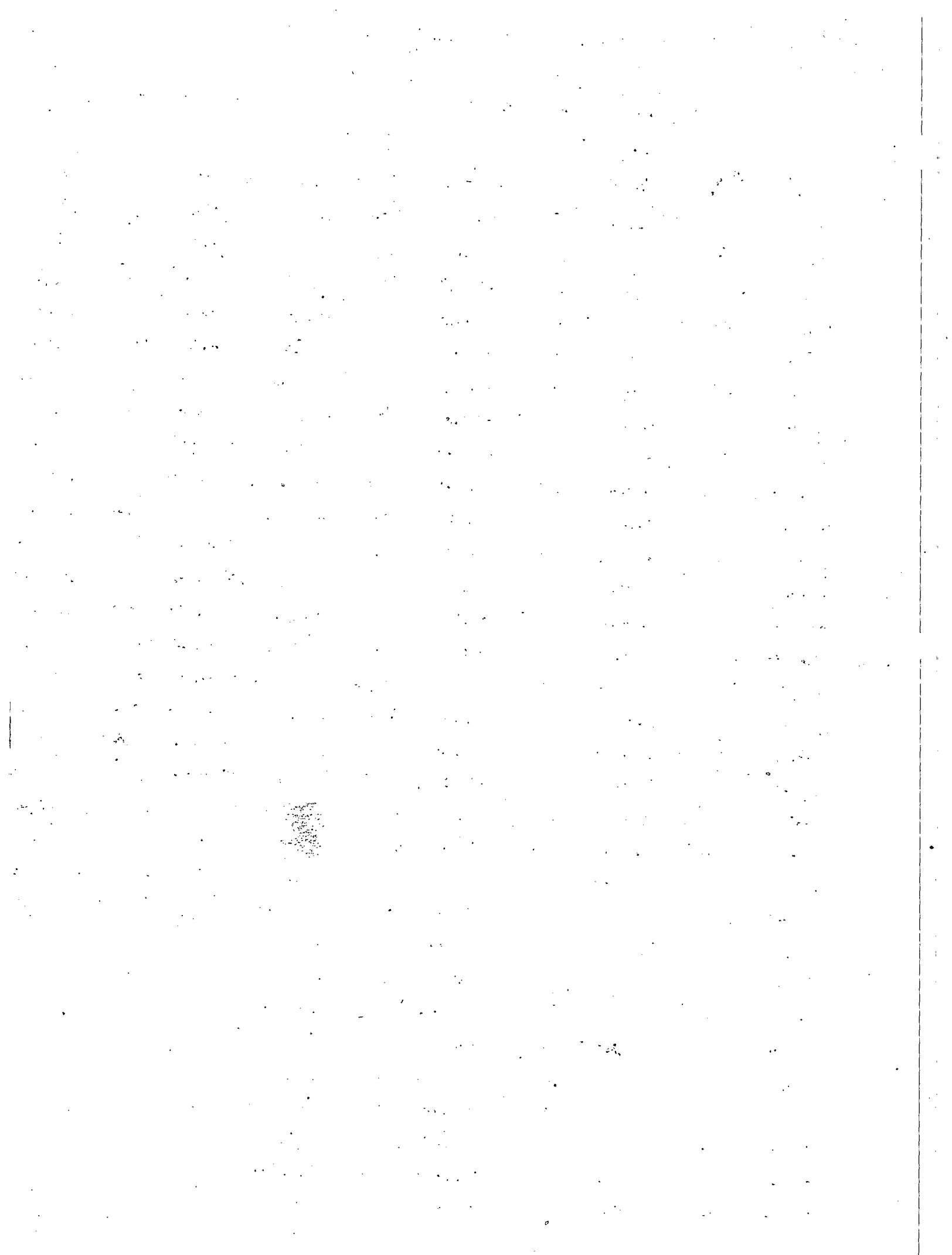
Regional @ -255.0

3 (kilofeet  
84 @ 1%)

EFFICIENCY LINE No. 2636



Sta	1 Gobs	2 Dist X	3 Elev.	4 Sta	5 Gobs	6 Dist X	7 Elev.	8 Gobs	9 Dist	10 Elev.	
1	-271.9	0	7637.6	32	-259.4	40.5	7581.2	63	-257.0	84.8	7536.9
2	-271.7	1.4	7633.5	33	-259.1	41.9	7579.5	64	-256.8	86.2	7537.1
3	-271.3	2.6	7632.7	34	-258.8	43.1	7578.9	65	-256.7	87.5	7534.1
4	-271.1	3.9	7631.0	35	-258.5	44.5	7578.8	66	-256.3	88.8	7535.1
5	-270.8	5.3	7628.9	36	-258.2	45.75	7576.3	67	-256.3	90.1	7535.3
6	-270.5	6.65	7627.4	37	-257.9	47.0	7572.6	68	-256.2	91.4	7532.8
7	-270.2	8.0	7623.4	38*	-257.5	48.4	7571.7	69	-256.0	92.8	7531.3
8	-270.0	9.2	7622.0	39	-256.8	49.7	7570.2	70	-255.7	94.1	7531.9
9	-269.8	10.5	7619.0	40	-256.1	51.5	7567.5	71	-255.4	95.2	7531.0
10	-269.4	11.9	7617.6	41	-255.5	52.75	7562.2	72	-255.2	96.5	7532.9
11	-269.1	13.2	7617.0	42	-255.2	54.15	7561.6	73	-255.1	97.8	7533.0
12	-268.7	14.45	7613.5	43	-255	55.45	7561.0	74	-255.3	99.2	7530.0
13	-268.4	15.75	7609.5	44	-255.2	56.8	7558.3	75	-255.8	100.45	7529.1
14	-268.1	17.1	7610.9	45	-255.1	58.2	7557.6	76	-256.7	101.75	7529.2
15	-267.6	18.4	7610.3	46	-255.2	59.45	7555.3	77	-258.8	104.3	7527.0
16	-267.3	19.7	7609.3	47	-255.4	60.8	7555.6	78	-261.0	106.9	7528.0
17	-266.9	20.9	7607.3	48	-255.5	62.15	7552.1	79	-263.7	109.7	7526.0
* 18	-266.4	22.3	7604.2	49	-255.6	63.4	7551.5	80	-265.7	112.3	7526.0
19	-265.9	23.65	7602.5	50	-255.8	64.75	7550.6	81	-267.2	114.8	7534.0
20	-265.3	24.95	7603.4	51	-255.8	66.0	7549.7	82	-268.0	117.5	7535.0
21	-264.8	26.2	7600.9	52	-256.0	67.3	7547.6	83	-269.3	120.2	7548.0
22	-264.4	27.55	7600.2	53	-256.2	68.7	7546.8	84	-271.2	122.75	7553.0
23	-263.9	28.75	7598.2	54	-256.4	69.9	7545.2				
24	-263.4	30.2	7595.9	55	-256.9	71.3	7544.3				
25	-262.9	31.5	7594.3	56	-257.2	74.3	7542.0				
26	-262.5	32.8	7592.5	57	-257.3	76.1	7544.0				
27	-261.9	34.1	7591.2	58	-257.4	77.3	7544.0				
28	-261.4	35.4	7589.3	59	-257.5	78.6	7543.0				
29	-261.0	36.7	7585.5	60	-257.6	80.8	7538.5				
30	-260.4	37.9	7585.1	61	-257.4	82.1	7538.9				
31	-260.0	39.3	7581.1	62	-257.3	83.55	7539.1				



9/9/81

(1)

Alamosa, CO  
G. May.

	1 Sta	2 Time	3 Read. up	4 Avg. Read.	5 Y	6	7 Sta	8 Time	9 Reading	10 Avg. Read.	11 Y	12	13
Base	M1	0900	53947	54011	54011		M11	0929	54132	54129	54144		
			54014						132				
		0901	54021					0930	124				
	M2	0904	54014	54016	54018		M12	0932	54102	54100	54117		
			017						100				
		0905	017					"	099				
Small Pwr Line & G.F. along rd.	M3	0907	54048	54049	54053		M13	0935	54123	54127	54145	G.F.	
		"	053						135				
		"	046					"	123				
"	M4	0911	54071	54074	54080		M14	0938	54104	54109	54129	no cult	
			081						121				
		"	070						101				
G.F.'s	M5	0913	54099	54102	54109		M15	0940	54141	54138	54159	"	
			106						140				
		0914	101					0941	133				
	M6	0916	54126	54124	54132		M16	0942	54090	54085	54107	"	
		0917	54127						079				
			120					0943	085				
no cult.	M7	0919	129	54130	54130		M17	0944	54027	54024	54047	G.F.	
			128					0945	019				
		"	133						027				
Pwr Line w/transformer	M8	0921	54093	54091	54102		M18	0946	53928	53925	53949		
			093						921				
		0922	088						926				
Pwr Line	M9	0923	54078	54079	54090		* M1	1012	53977	53973	54011	Base check	
			076						969				
			084						972				
	M10	0926	54105	54107	54121		M19	1022	53868	53869	53908		
			121						861				
			096						878				



9/9/81

(2)

G. May

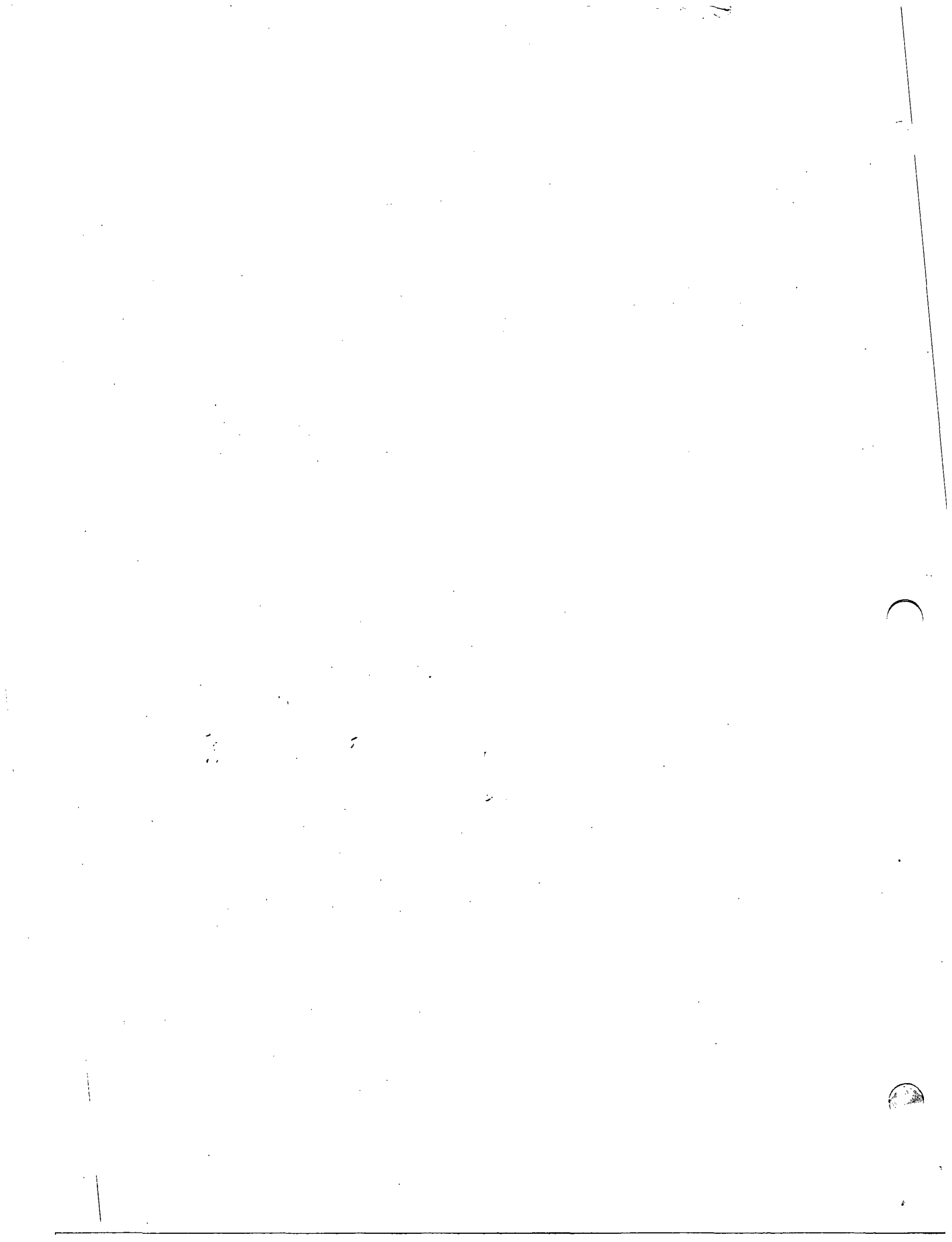
Alamosa, CO

	1 Sta	2 Time	3 Read.	4 Avg Read	5 Y	6	7 Sta	8 Time	9 Read.	10 Avg Read	11 Y	12	13
1	M20	1024	53847	53850	53889		M31	1053	53987	54001	54043		
2			851						4001				
3		1025	852						4006				
4	M21	1026	53862	53869	53908		M32	1054	54006	53996	54038		
5		1027	864						3991				
6			880						3992				
7	M22	1029	53844	53849	53889		M33	1056	53989	53980	54022		
8			846					1057	981				
9			856						970				
10	M23	1032	53917	53920	53960		M34	1100	53939	53945	53987		
11			923						960				
12			920						937				
13	M24	1034	53987	53963	54003		M35	1103	53899	53909	53952		
14			933						3907				
15			970						3920				
16	M25	1036	54030	54098	54138		M36	1106	53982	53973	54016		
17			164						971				
18			101						967				
19	M26	1038	54077	54073	54112		M37	1108	53952	53963	54006		
20			058						969				
21		1039	084						969				
22	M27	1042	54046	54049	54090		M38	1109	53960	53947	53990		
23			046						934				
24			055						958				
25	M28	1044	54050	54045	54086		* M1	1128	53970	53966	54011		Base check
26			046						960				
27			040						969				
28	M29	1046	54047	54029	54070		M39	1131	53998	53996	54041		Cult?
29			040						4006				
30		1047	021						3984				
31	M30	1049	54022	54018	54059		M40	1134	53999	53997	54041		
			009						993				
									999				

















C

O

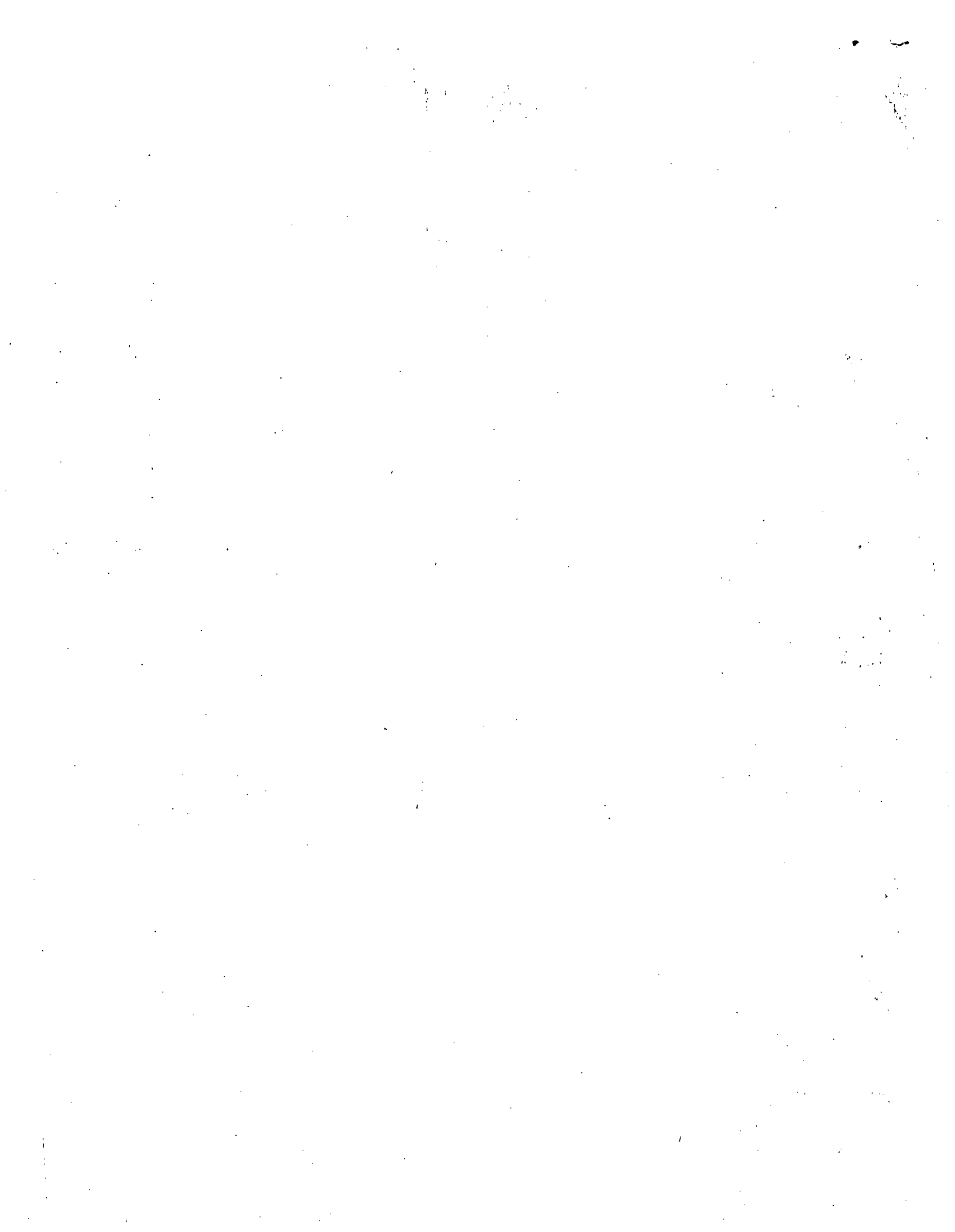
# BOUGUER ANOMALY COMPUTATION SHEET

1/3  
6-11-81  
H.C.  
Do Not Use

Elev. Factor: \_\_\_\_\_ Area: WEST OF ALAMOSA : US 285  
2015-2021 ALAMOSA WEST QUAD

STA. NO.	ELEV.	OBS. GRAV.	THEO. GRAV.	BOUG. ANOM.	TERR CORR	B.A. + T.C.	Lat.	LONG. (DEG.)	G.M. DATE	ADJ. EL. PG.	MAP
20 01	7539.6	234.72 236.24	957.41 945.44	-270.4 -258.42			37° 27.92	105. 8701	6/10/81		Alamosa East
20 02	39.5	235.02 .45	957.52 .47	-270.2 .16			28.00	105. 8742			"
20 03	40.8	235.38 .47	957.67 945.55	-269.9 -257.80			28.10	105. 8783			Alamosa West
20 04	43.3	235.93 .62	957.81 .572	-269.4 .26			28.20	105. 8822			"
20 05	41.7	236.35 .80	957.96 .553	-269.1 .05			28.30	105. 8864			"
20 06	44.3	.50	958.10 .577	-269.0 -256.89			28.40	105. 8903			"
20 07	45.2	237.15	958.26 6.13	-268.5 .35			28.51	105. 8942			"
20 08	46.8	.33	958.40 6.26	-268.3 .22			28.60	105. 8981			"
20 09	47.6	.72	958.55 6.45	-268.0 -255.95			28.71	105. 9022			"
20 10	49.7	.84	958.71 6.58	-268.0 .83			28.82	105. 9064			"
20 11	50.6	238.02	958.84 6.73	-267.9 .75			28.91	105. 9103			"
20 12	51.5	.30	958.98 6.88	-267.7 .56			29.00	105. 9142			"
20 13	52.1	.52	959.13 7.03	-267.6 .46			29.11	105. 9183			"
20 14	53.6	.61	959.30 7.18	-267.5 .43			29.22	105. 9222			"
20 15	55.3	.91	959.42 7.33	-267.3 .18			29.31	105. 9261			"
20 16	57.6	239.00	959.58 7.47	-267.2 .09			29.42	105. 9303			"
20 17	58.3	.22	959.74 7.62	-267.1 .20			29.53	105. 9342			"
20 18	61.0	.20	959.89 7.78	-267.1 -255.00			29.63	105. 9383			"
20 19	61.6	239.15	960.03 7.93	-267.3 .16			29.73	105. 9425			"
20 20	62.2	238.93	960.19 8.07	-267.6 .48			29.84	105. 9464			"
20 21	67.5	237.17	960.32 8.22	-268.2 -256.09			29.93	105. 9508			"
20 22	70.2	237.45	960.54 8.44	-268.9 .85			30.08	105. 9564			Mount Pleasant School
20 23	71.7	236.89	960.69 8.58	-269.6 -257.46			30.18	105. 9603			"
20 24	72.6	236.58	960.86 8.74	-270.0 .88			30.30	105. 9642			"
20 25	70.3	237.13	961.01 8.88	-269.4 -258.25			30.40	105. 9683			"



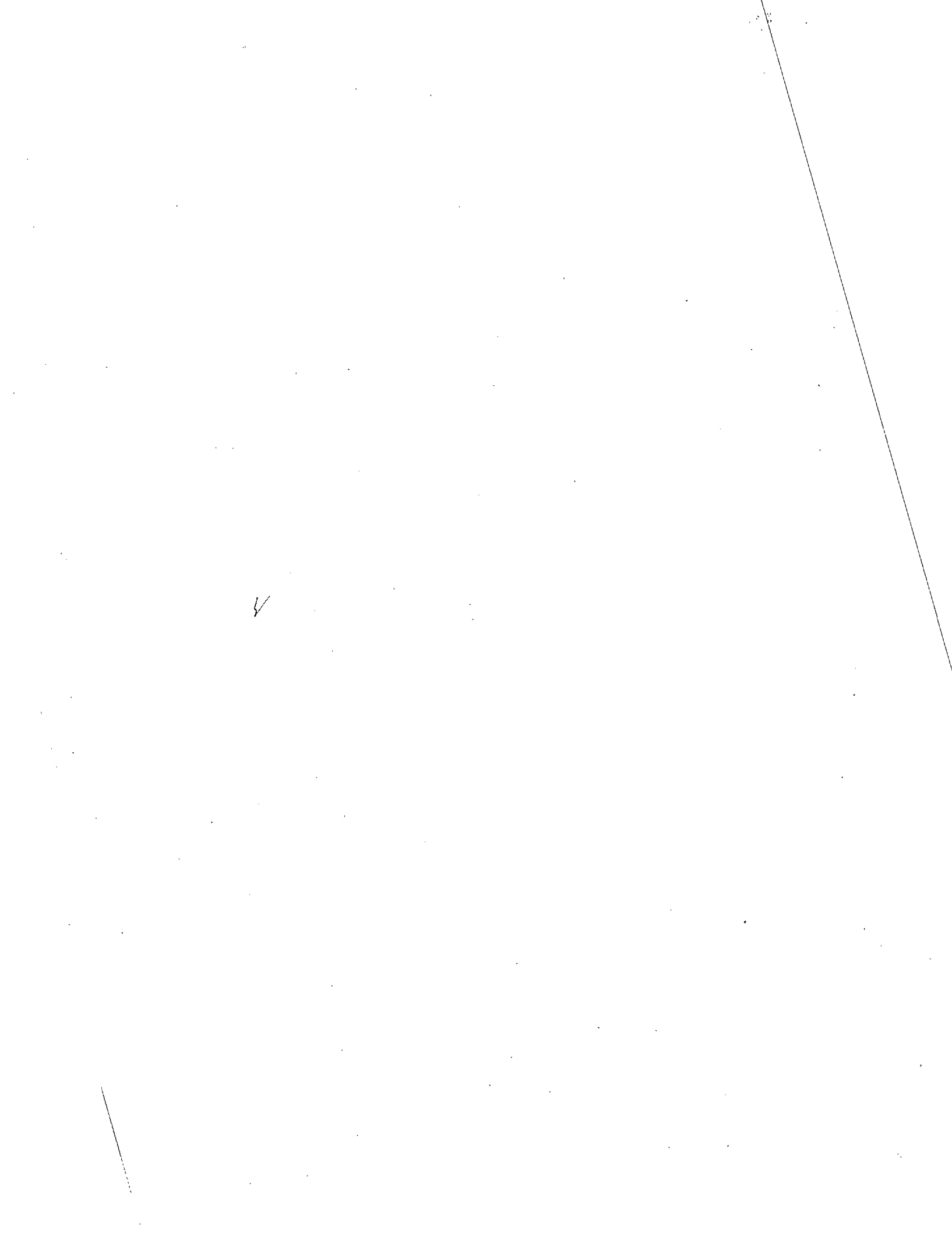


# BOUGUER ANOMALY COMPUTATION SHEET

2/3  
6-11-81  
H.C.

Elev. Factor: \_\_\_\_\_ Area: US 285 WEST OF ALAMOSA

STA. NO.	ELEV.	OBS. GRAV.	THEO. GRAV.	BOUG. ANOM.	TERR. CORR	B.A. + T.C.	Lat.	LONG	G.M. DATE	ADJ. EL. PG	MAP	MAG
2026	7578.8	235.88	961.15 961.03	-270.6 -258.50			37°30'50"	105. 9722			Mount Pleasant School	5408
27	78.9	235.76	961.30 9.20	-270.9 .78			30.60	105. 9761			"	54111
28	79.5	235.56	961.44 9.33	-271.2 -259.08			30.70	105. 9800			"	54112
29	81.2	235.29	961.60 9.47	-271.5 .38			30.81	105. 9842			"	5409
30	81.1	234.82	961.75 9.53	-272.1 -260.02			30.91	105. 9883	6/16/81		"	5407
31	85.1	234.35	961.88 9.77	-272.5 -260.39			31.00	105. 9922			"	5408
32	85.5	233.85	962.04 9.93	-273.1 -261.03			31.11	105. 9961			"	54116
33	89.3	233.42	962.20 9.50-06	-273.5 .36			31.22	106. 0000			"	54112
34	91.2	232.88	962.30 0.20	-274.0 .92			31.29	106. 0039			Home-Lake	54148
35	92.5	232.41	962.47 0.23	-274.6 -262.48			31.41	106. 0078			"	54111
36	94.3	232.00	962.62 0.25	-275.0 .93			31.51	106. 0119			"	54161
37	95.9	231.63	962.76 0.66	-275.4 -263.35			31.61	106. 0158			"	54151
38	98.2	231.13	962.92 0.83	-276.0 .88			31.72	106. 0201			"	54171
39	7600.2	230.63	963.07 0.96	-276.5 -264.39			31.82	106. 0239			"	54146
40	.9	230.30	963.21 1.10	-276.9 .82			31.92	106. 0283			"	54144
41	03.4	229.79	963.36 1.23	-277.4 -265.31			32.02	106. 0319			"	54196
42	02.5	229.46	963.50 1.43	-278.0 .87			32.12	106. 0363			"	54293
43	04.2	228.95	963.65 1.64	-278.5 -266.41			32.22	106. 0403			"	54163
44	07.3	228.45	963.80 1.70	-279.0 .88			32.32	106. 0447			"	
45	09.3	228.11	963.94 1.85	-279.3 -267.26			32.42	106. 0486			"	5454
46	10.3	227.85	964.09 2.00	-279.7 .61			32.52	106. 0525			"	5411
47	10.9	227.47	964.24 2.15	-280.2 -268.10			32.63	106. 0567.			"	5411
48	09.5	227.43	964.41 2.32	-280.5 .40			32.74	106. 0608			"	5411
49	13.5	226.99	964.55 2.45	-280.8 .74			32.84	106. 0647			"	5411
50	17.0	226.51	964.69 2.50	-281.2 -269.13			32.94	106. 0686			"	54



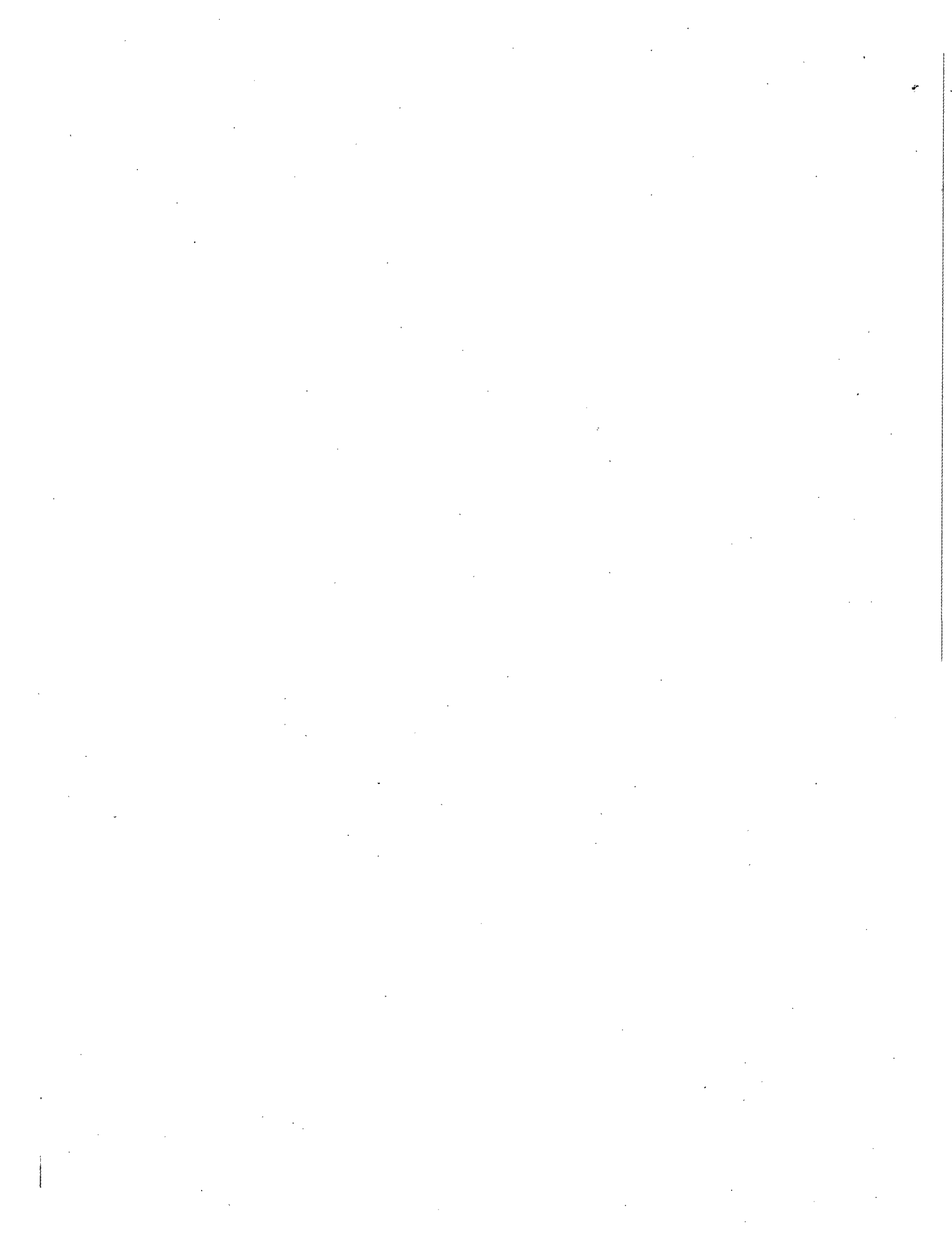
# BOUGUER ANOMALY COMPUTATION SHEET

3/3

6-11-81  
H.C.

Elev. Factor: \_\_\_\_\_ Area: US ZBS WEST OF ALAMOSA

STA. NO.	ELEV.	OBS. GRAV.	THEO. GRAV.	BOUG. ANOM.	TERR. CORR.	B.A. + T.C.	Lat.	LONG.	G.M. DATE	ADJ. EL. PG.	MAP	MAG
20 51	7617.6	226.35	<sup>mg</sup> 964.84 952.74	<sup>mg</sup> -281.5 -269.41			37° 33.04'	106.0728			Home-Lake	54191
52	19.0	226.09	<sup>mg</sup> 965.00 2.91	<sup>mg</sup> -281.8 .76			33.15	106.0767			"	54200
53	22.0	225.83	<sup>mg</sup> 965.15 3.05	<sup>mg</sup> -282.1 .98			33.25	106.0808			"	54201
54	23.4	225.61	<sup>mg</sup> 965.29 3.16	<sup>mg</sup> -282.3 -270.24			33.35	106.8347			"	54199
55	27.4	225.26	<sup>mg</sup> 965.44 3.34	<sup>mg</sup> -282.6 .51			33.45	106.8386			"	54198
56	28.9	225.63	<sup>mg</sup> 965.58 3.50	<sup>mg</sup> -282.3 .21	?		33.55	106.8425			"	54181
57	31.0	224.78	<sup>mg</sup> 965.73 3.63	<sup>mg</sup> -283.2 -271.06			33.65	106.8465			"	54191
58	32.7	224.57	<sup>mg</sup> 965.89 3.78	<sup>mg</sup> -283.4 -271.32			33.76	106.8506			"	54195
59	33.5	224.34	<sup>mg</sup> 966.03 3.93	<sup>mg</sup> -283.8 -271.66			33.86	106.8547			"	54245
60	37.6	224.02	<sup>mg</sup> 966.19 4.09	<sup>mg</sup> -284.0 .89			33.97	106.8592			"	54231
61	40.1	223.90	4.19	.96								
62												
63												
64												
65												
66												
67												
68												
69												
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71												
72												
73												
74												
75												



# BOUGUER ANOMALY COMPUTATION SHEET

Elev. Factor: .05999 Area: \_\_\_\_\_

STA. NO.	ELEV.	OBS. GRAV.	THEO. GRAV.	BOUG. ANOM.	TERR. CORR	B.A. + T.C.	Lat.		G.M. DATE	ADJ. EL. PG.	MAP
1801	7538.4	235.04	957.57 945.46	-270.3 -258.19			37°28'03"		6/17/91		
02	38.8	.02	957.57 .46	-270.3 .19			28.03				
03	37.2	.14	957.57 .46	-270.3 .16			28.03				
04	43.8	.14	957.76 .67	-270.1 -259.99			28.16				
05	39.0	.76	957.89 .79	-269.9 .77			28.25				
06	38.5	236.14	958.06 .98	-269.7 .61			28.37				
07	38.9	.33	958.09 .99	-269.5 .40			28.39				
08	39.1	.47	958.09 946.00	-269.5 .26			28.39				
09	36.9	.88	958.10 .00	-269.1 -256.98			28.40				
1810	37.1	237.05	958.10 .01	-268.9 .81			28.40				
11	34.1	.38	958.10 .02	-268.7 .67			28.40				
12	35.1	.65	958.12 .02	-268.4 .34			28.41				
13	35.3	.72	958.12 .02	-268.4 .26			28.41				
14	32.8	.96	958.12 .02	-268.3 .17			28.41	Kalgh	22.	8/16	
15	31.3	238.21	958.10 .01	-268.1 -256.00			37°28'46"	946.01	958.10	12.09	
16	31.9	.42	958.10 .00	-267.8 -255.74			28.40				
17	31.0	.81	958.10 .00	-267.5 .41			28.40				
18	32.9	.89	958.10 .00	-267.3 .21			28.40				
19	33.0	.97	958.10 .00	-267.2 .13			28.40				
1820	30.0	.94	958.10 .01	-267.4 .34			28.40				
21	29.1	238.53	958.12 .01	-267.9 -255.81			28.41				
22	29.2	237.59	958.13 .01	-268.9 -256.74			28.42				
23											
24											
25											



9/3/81

9.9946 x 10<sup>-3</sup>

.05999 mg/ft  
.00025.999 gal/ft

Alamosa, Colo.

K = 0.099946 mg/DD  
0.00009.9946 gal/DD

.05999 mg/ft

- 0.00289399 m

	1 Sta	2 Time	3 Reading	4 Elev.	5 Lat.	6 Long.	7 Obs.	8 Bar.	9 DA	10 REMARKS	12	13
*	USAF Sta	0854	498.81	7548.9'	37° 28.21'		979.23498	979.95783	-269.99	@ SW cor. of P.O. @ Alamosa		
	1	0915	480.5	7536	37° 26.62'		.23313	979.95552	-270.3	@ Air Port. <sup>45263</sup> Bm J364 Sta. 26" below Bm		
	2	0925	484.7	7535	37° 27.27'		.23354	979.95646	-270.9	Bm H364 @ cor. 17th & State St.		
*	USAF Sta	0950	499.3				979.23498			@ SW cor. old P.O. @ Alamosa		
	2	1000	486.7	7535			.23373		-270.6	Bm H364		
	1	1010	484.4	7536		AVG (3) .23332	.23352		-269.9	AIRPORT	26" below Bm	
*	USAF Sta	1030	498.8				979.23498			Post office		
	2	1053	490.4	7535			.23416		-270.3	Bm H364		
	3	1100	486.4	7536	27.28'		.23396	979.95648	-270.4	Corner of Ross & Seventeenth		
	4	1105	489.1	7537	27.28'		.23403	.95648	-270.3	SW Corner of S109 & Seventeenth		
	5	1109	487.4	7536	27.04'		.23387	.95613	-270.2	middle of S109 at twentieth		
	6	1115	485.6	7536	26.84'		.23369	.95584	-270.1	2/10 mile past #5 station on S109		
	7	1118	487.5	7537	26.66'		.23388	.95556	-269.5	2/10 mile past #6 station S109		
	8	1124	486.7	7536	26.43'		.23381	.95524	-269.3	2.5/10 mile past #7 station on S109		
	9	1136	483.3	7534	26.22'		.23348	.95494	-269.5	2.5/10 mile past #8 " " "		
	10	1142	485.2	7533	25.99'		.23367	.95461	-269.0	2.5/10 mile " #9 " " "		
	11	1147	484.4	7532	25.76'		.23359	.95427	-268.8	2.5/10 mile " #10 " " "		
	12	1156	484.4	7536	27.04'		.23360	.95613	-270.4	middle of Ross & twentieth		
	13	1200	483.8	7536	27.05'		.23354	.95614	-270.5	middle of twentieth & State		
	14	1203	482.3	7536	26.82'		.23340	.95581	-270.3	2.5/10 mile past station 13 on State		
	1	1206	481.4	7536			.23331	.95552	-270.1	Airport 26" below Bm		
	2	1212	486.9	7535			.23386	.95646	-270.6	Bm H364		
	15	1218	493.4	7538	27.74'		.23452	.95715	-270.4	church - tenth & State		
*	USAF	1225	498.0				979.23498			old Post office		
	16	1320	492.9	7538	27.74'		.23463	.95715	-270.3	corner of Ross & State		
	17	1326	487.7	7537	27.51'		.23413	.95681	-270.5	by canal		
	18	1331	487.0	7536	27.50'		.23407	.95680	-270.6	city limits		
	19	1334	488.9	7537	27.61'		.23427	.95696	-270.5	Denver & 12th St		
	20	1339	494.8	7538	27.87'		.23488	.95734	-270.3	Denver & 8th St		
	21	1343	494.8	7536	27.80'		.23489	.95723	-270.3	back edge of railroad property,		
	22	1347	492.5	7536	27.58'		.23467	.95691	-270.2	3 blocks from #21 ("110")		

Street sign



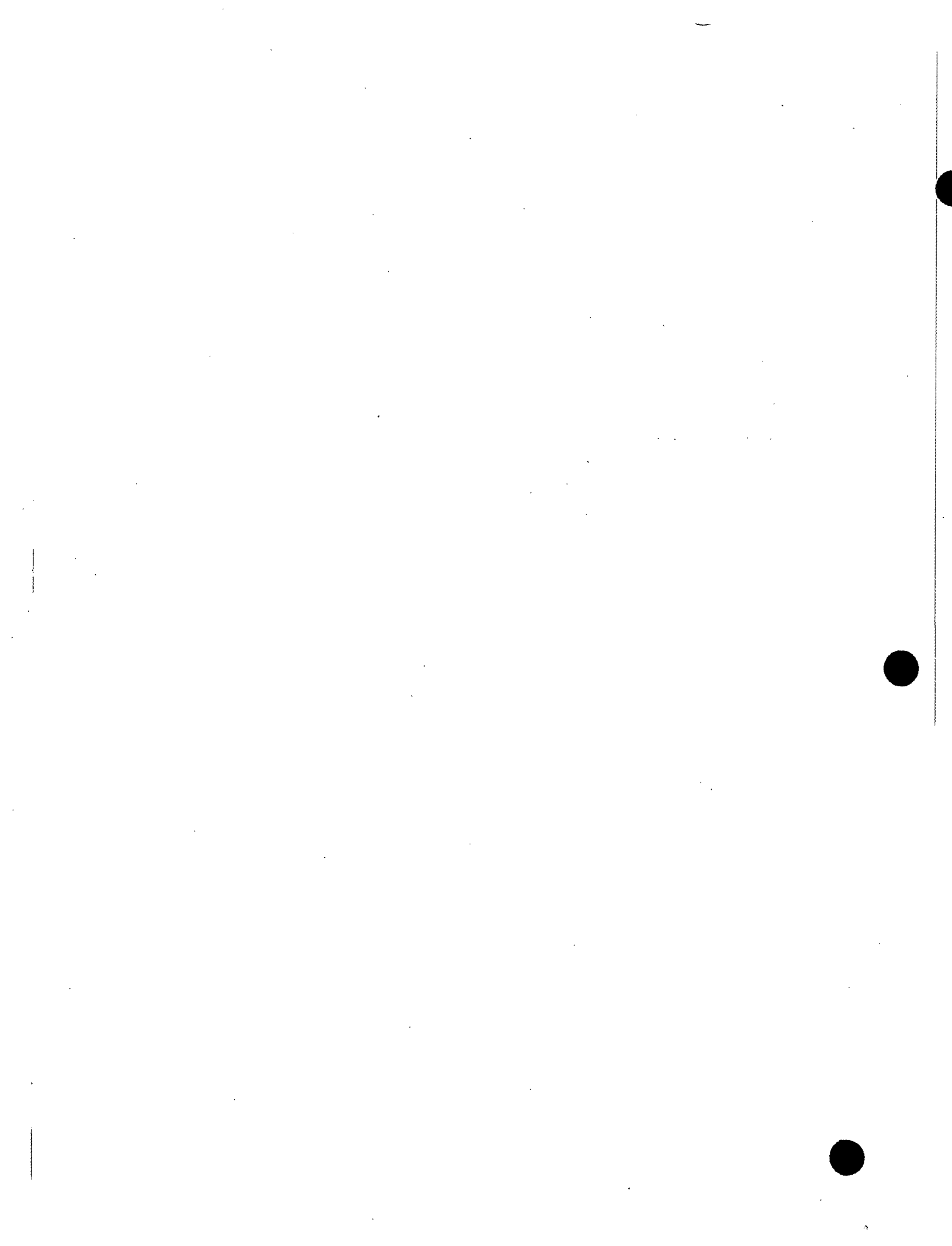
9/3/81

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Alamosa, Colo.

05999

1	Sta	2 time	3 Reading	4 Elev	5 Lat	6 Long	7 G obs	8 G theo	9 BA	10	REMARKS	13
1	23	1351	489.6	7534	37°27.38'		979.23439	979.95662	-270.3			
2	24	1354	487.4	7534	27.21'		.23418	.95638	-270.2			
3	25	1358	486.9	7534	27.05'		.23414	.95614	-270.0		by cemetery	
4	26	1402	484.5	7534	27.05'		.23392	.95614	-270.3		cemetery	
* 5	2	1407	483.4	7535			979.23382 ADJ (+)					
6	27	1416	488.2	7536	27.33'		.23427	.95655	-270.2		by canal - approx 20' wide	10' deep
7	28	1420	487.3	7532	27.17'		.23416	.95632	-270.3			
8	29	1424	486.8	7531	27.06'		.23410	.95616	-270.3		two pillars	
9	30	1427	483.8	7532	26.83'		.23379	.95583	-270.2		big yellow house	
10	31	1430	483.4	7532	26.62'		.23374	.95552	-269.9			
11	32	1434	482.4	7533	26.43'		.23363	.95524	-269.7		canal	
12	33	1439	480.1	7529	26.21'		.23338	.95493	-269.9			
13	34	1442	482.2	7528	26.00'		.23358	.95462	-269.4			
14	35	1445	480.4	7527	25.79'		.23339	.95432	-269.4			
15	36	1458	485.0	7526	25.77'		.23380	.95429	-269.0			
16	37	1455	487.9	7526	25.78'		.23410	.95430	-268.7		enclosed cattle corral	
17	38	1504	488.8	7524	25.34'		.23416	.95366	-268.1			
18	39	1507	490.6	7522	24.91'		.23433	.95304	-267.5			
19	40	1512	487.2	7525	24.48'		.23397	.95242	-267.0		canal w/ water approx 20' wide 10' deep	
20	41	1518	488.5	7523	24.05'		.23408	.95179	-266.4			
21	42	1521	484.0	7524	23.57'		.23362	.95110	-266.1			
22	43	1526	476.7	7526	23.13'		.23297	.95046	-266.0			
* 23	2	1555	487.2				979.23382					
24	44	1607	484.0	7531	25.39'		.23348	.95374	-268.5			
25	45	1612	484.0	7533	24.91'		.23347	.95304	-267.7			
26	46	1620	481.1	7535	24.47'		.23317	.95240	-267.2			
27	47	1625	479.6	7540	24.03'		.23301	.95177	-266.4			
28	48	1630	479.7	7538	23.58'		.23301	.95111	-265.9			
29	49	1634	485.6	7537	23.14'		.23359	.95047	-264.7		Rain	
30	50	1648	484.8	7540	22.70'		.23350	.94984	-264.0			
* 31	2	1657	488.2	7535			979.23382					



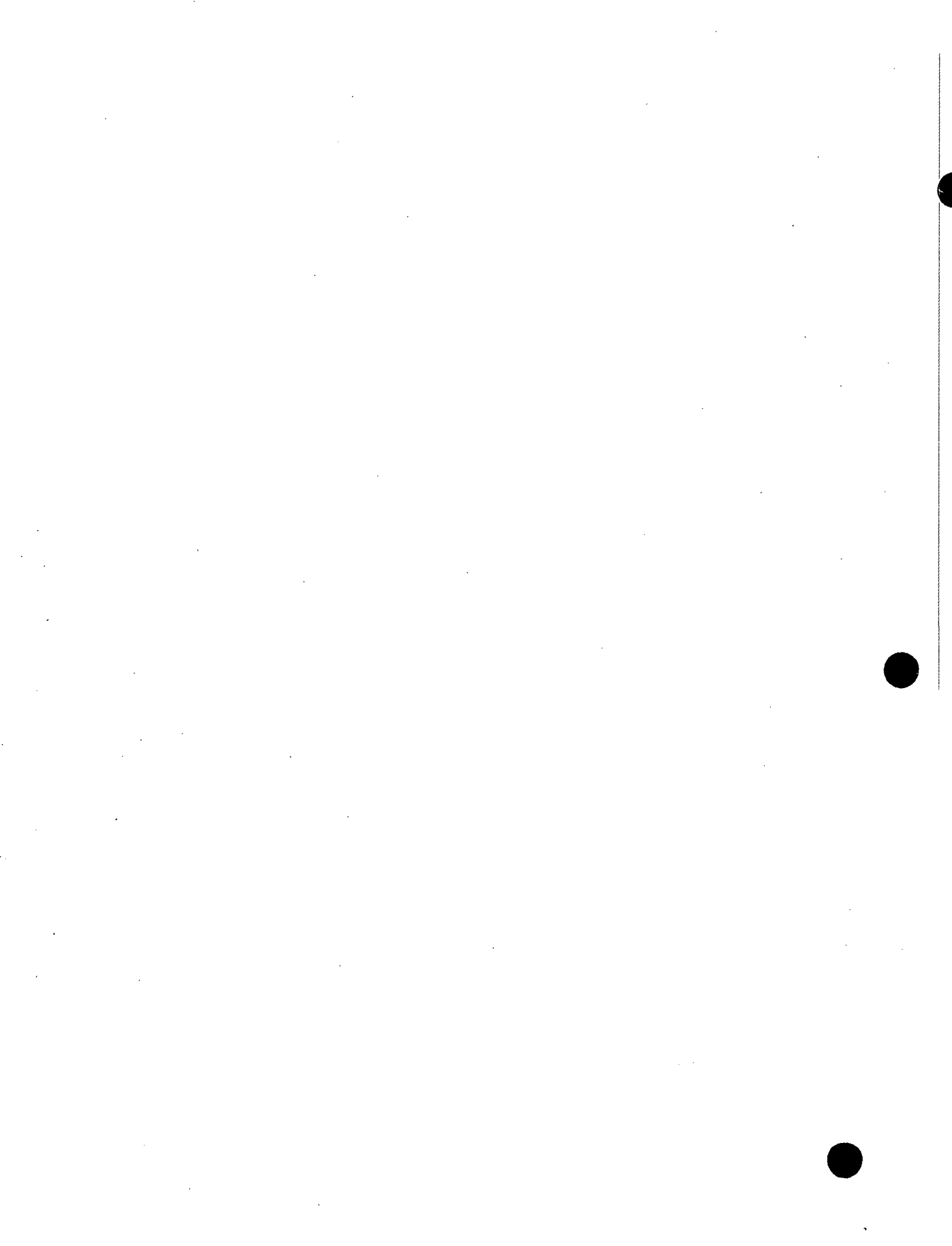
9/4/81

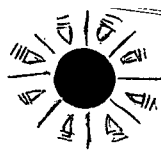
Alamosa, Colorado

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05999

	1 Sta	2 Time	3 Reading	4 Elev	5 Lat.	6 Long	7 Obs	8 Elevation	9 BA	10	11 Remarks	13
*	2	0905	500.3				979.23382	979.				
2	51	0915	519.8	7540	37°28.12'		.23575	.95770	-269.6			
3	52	0928	521.5	7533	27.74'		.23590	.95715	-269.3			
4	53	0934	529.4	7533	28.18'		.23668	.95778	-269.2			
5	54	0937	526.9	7534	27.97'		.23643	.95748	-269.1			
6	55	0943	526.9	7532	27.90'		.23642	.95738	-269.1			
7	56	0947	526.5	7534	27.84'		.23637	.95729	-269.0			
8	57	0953	535.0	7535	28.17'		.23721	.95777	-268.5			
9	58	0959	552.4	7536	28.62'		.23894	.95842	-267.4		EARTHQUAKE READING	
10	59	1015	557.2	7535	28.85'		.23939	.95876	-267.3		5.8 magnitude	
11	60	1020	557.2	7534	28.72'		.23938	.95857	-267.2		LA AREA	
12	61	1024	555.8	7531	28.61'		.23924	.95841	-267.4			
13	62	1028	555.8	7531	28.61'		.23923	.95841	-267.4			
14	63	1032	557.3	7532	28.61'		.23937	.95841	-267.2			
15	64	1035	561.7	7531	28.61'		.23981	.95841	-266.8			
16	65	1040	564.7	7531	28.61'		.24010	.95841	-266.5			
*	2	1100	502.2				979.23382					
18	66	1113	548.5	7530	28.18'		.23845	.95778	-267.6			
19	67	1117	539.2	7529	27.96'		.23752	.95747	-268.3			
20	68	1123	531.7	7530	27.75'		.23677	.95716	-268.7			
21	69	1128	524.2	7528	27.53'		.23602	.95684	-269.2			
22	70	1132	517.2	7529	27.31'		.23532	.95652	-269.5			
23	71	1136	512.8	7527	27.10'		.23488	.95622	-269.8			
24	72	1140	510.8	7525	26.87'		.23468	.95588	-269.8			
25	73	1144	510.6	7525	26.66'		.23466	.95558	-269.5			
26	74	1148	508.3	7524	26.44'		.23443	.95526	-269.5			
27	75	1154	504.8	7524	26.66'		.23407	.95558	-270.1			
28	76	1158	503.3	7523	26.67'		.23392	.95539	-270.4			
29	77	1207	501.1	7527	27.72'		.23370	.95712	-271.9			
30	78	1211	526.0	7526	27.69'		.23619	.95707	-269.4			
31	79	1215	519.3	7526	27.66'		.23552	.95703	-270.0			





9/4/81  
Alamosa, Colo

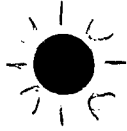
(4)

05999

\*  
\*

1	Sta	2	Time	3	Reading	4	Elev	5	Lat	6	Long	7	Obs	8	Grid	9	BA	10	REMARKS	13
1	80		1218		514.4		7525		27.65'				.23523	979.95702				-220.6		
2	81		1223		527.2		7527		27.98'				.23631	.95750				-269.6		
3	82		1228		532.7		7529		28.19'				.23686	.95780				-269.3		
4	2		1242		502.3								979.23382							
5	2		1338		501.4								979.23382							
6	83		1350		521.9		7544		28.28'				.23590	.95793				-269.5		
7	84		1355		520.6		7544		28.28'				.23579	.95793				-269.6		
8	85		1359		517.7		7544		28.28'				.23551	.95793				-269.9		
9	86		1404		524.9		7543		28.45'				.23624	.95818				-269.4		
10	87		1407		531.1		7539		28.61'				.23687	.95841				-269.3		
11	88		1411		538.1		7540		28.81'				.23758	.95870				-268.8		
12	89		1413		537.2		7540		29.00'				.23750	.95898				-269.2		
13	90		1417		545.4		7544		29.30'				.23833	.95941				-268.5		
14	91		1420		543.7		7542		29.26'				.23816	.95935				-268.7		
15	92		1425		546.6		7543		29.27'				.23847	.95937				-268.4		
16	93		1429		542.3		7541		29.00'				.23805	.95898				-268.5		
17	94		1432		537.3		7540		28.81'				.23756	.95870				-268.8		
18	95		1438		529.2		7540		28.60'				.23677	.95840				-269.3		
19	96		1449		547.0		7529		28.62'				.23857	.95842				-268.2		
20	97		1453		555.0		7527		28.85'				.23939	.95876				-267.8		
21	98		1457		561.6		7527		29.06'				.24006	.95906				-267.5		
22	99		1501		569.6		7527		29.29'				.24087	.95940				-267.0		
23	100		1504		578.4		7528		29.29'				.24175	.95940				-266.0		
24	101		1507		584.2		7529		29.28'				.24234	.95938				-265.9		
25	102		1512		585.6		7531		29.28'				.24250	.95938				-265.1		
26	103		1515		584.2		7531		29.28'				.24236	.95938				-265.2		
27	104		1518		580.3		7532		29.27'				.24198	.95937				-265.5		
28	105		1522		580.3		7533		29.27'				.24199	.95937				-265.5		
29	106		1525		579.3		7534		29.27'				.24190	.95937				-265.5		
30	107		1528		577.6		7534		29.27'				.24174	.95937				-265.7		
31	108		1533		567.1		7534		29.05'				.24071	.95905				-266.4		
			1544		497.9								979.23382							



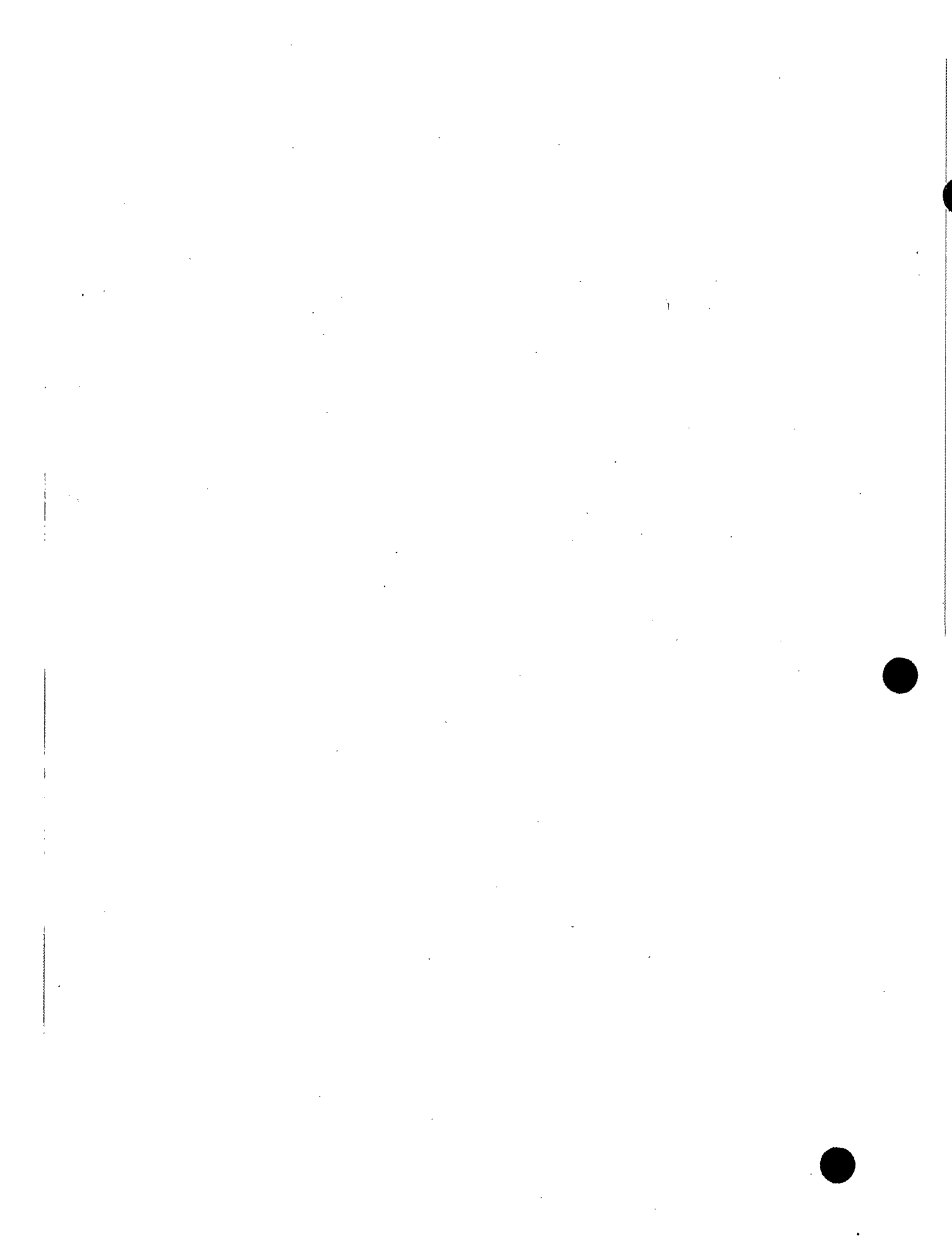


9/5/81  
Alamosa, Colo.

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.05999

	1 Sta	2 Time	3 read	4 Elev	5 Lat	6 Long	7 Gobs	8 Gtheo	9 BA	10	REMARKS	13
*1	2	0849	500.3				979.23382	979.				
2	121	0855	509.0	7538	37° 27.74'		.23466	.95715	-270.3			
3	122	0906	507.2	7538	27.50'		.23443	.95680	-270.2			
4	123	0910	507.3	7538	27.22'		.23442	.95639	-269.8			
5	124	0915	507.1	7538	26.97'		.23438	.95603	-269.4			
6	125	0918	510.8	7539	26.66'		.23473	.95558	-268.6			
7	126	0921	510.8	7539	26.66'		.23472	.95558	-268.6			
8	127	0925	514.5	7540	26.65'		.23507	.95556	-268.2			
9	128	0933	508.8	7539	27.51'		.23446	.95681	-270.1			
10	129	0938	508.8	7539	27.51'		.23444	.95681	-270.1			
11	130	0941	513.8	7540	27.51'		.23493	.95681	-269.6			
12	131	0945	515.8	7542	27.51'		.23511	.95681	-269.3			
13	132	0951	515.8	7544	27.70'		.23508	.95709	-269.4			
14	133	0954	520.0	7546	27.86'		.23548	.95735	-269.2			
15	134	0958	527.0	7546	28.07'		.23617	.95763	-268.8			
16	135	1002	531.0	7544	28.28'		.23655	.95793	-268.8			
17	136	1006	522.6	7544	27.89'		.23569	.95736	-269.1			
18	137	1009	519.4	7540	27.89'		.23535	.95736	-269.7			
19	138	1013	518.7	7538	27.89'		.23527	.95736	-269.9			
*20	2	1040	505.5				979.23382					
21	139	1050	530.2	7542	28.38'		.23630	.95808	-269.3			
22	140	1055	537.9	7544	28.53'		.23707	.95829	-268.7			
23	141	1100	536.9	7543	28.66'		.23717	.95848	-268.8			
24	142	1103	541.8	7543	28.73'		.23746	.95858	-268.6			
25	143	1107	547.4	7543	28.95'		.23803	.95890	-268.4			
26	144	1112	547.0	7544	28.81'		.23799	.95870	-268.1			
27	145	1116	548.5	7546	28.80'		.23814	.95868	-267.9			
28	146	1122	548.5	7548	28.81'		.23815	.95870	-267.7			
29	147	1125	547.8	7552	28.81'		.23808	.95870	-267.6			
30	148	1129	545.1	7554	28.81'		.23781	.95870	-267.7			
31	149	1133	543.1	7556	28.82'		.23761	.95871	-267.8			
			541.1	7557	28.82'		.23742	.95871	-267.9			





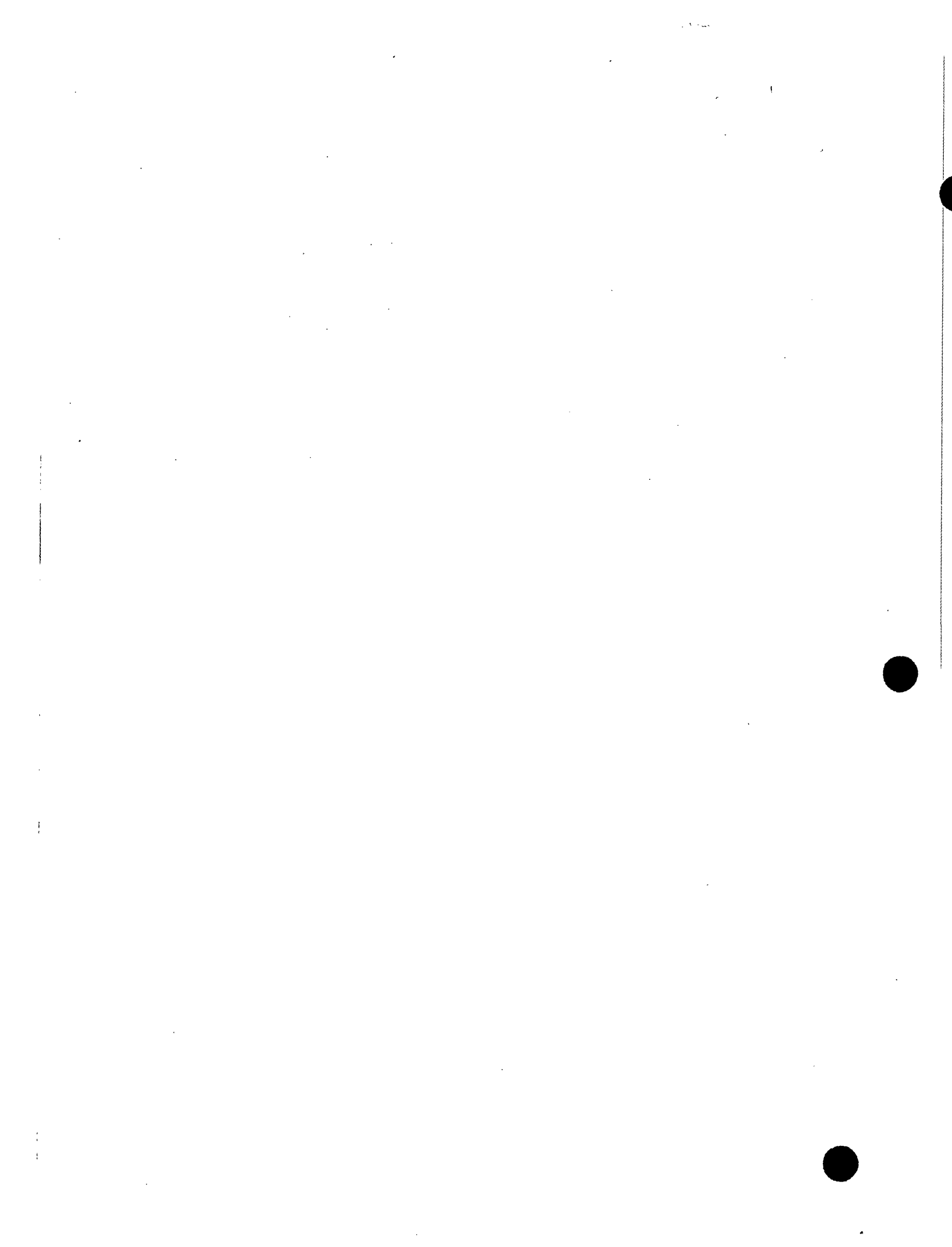
9/5/81

(2)

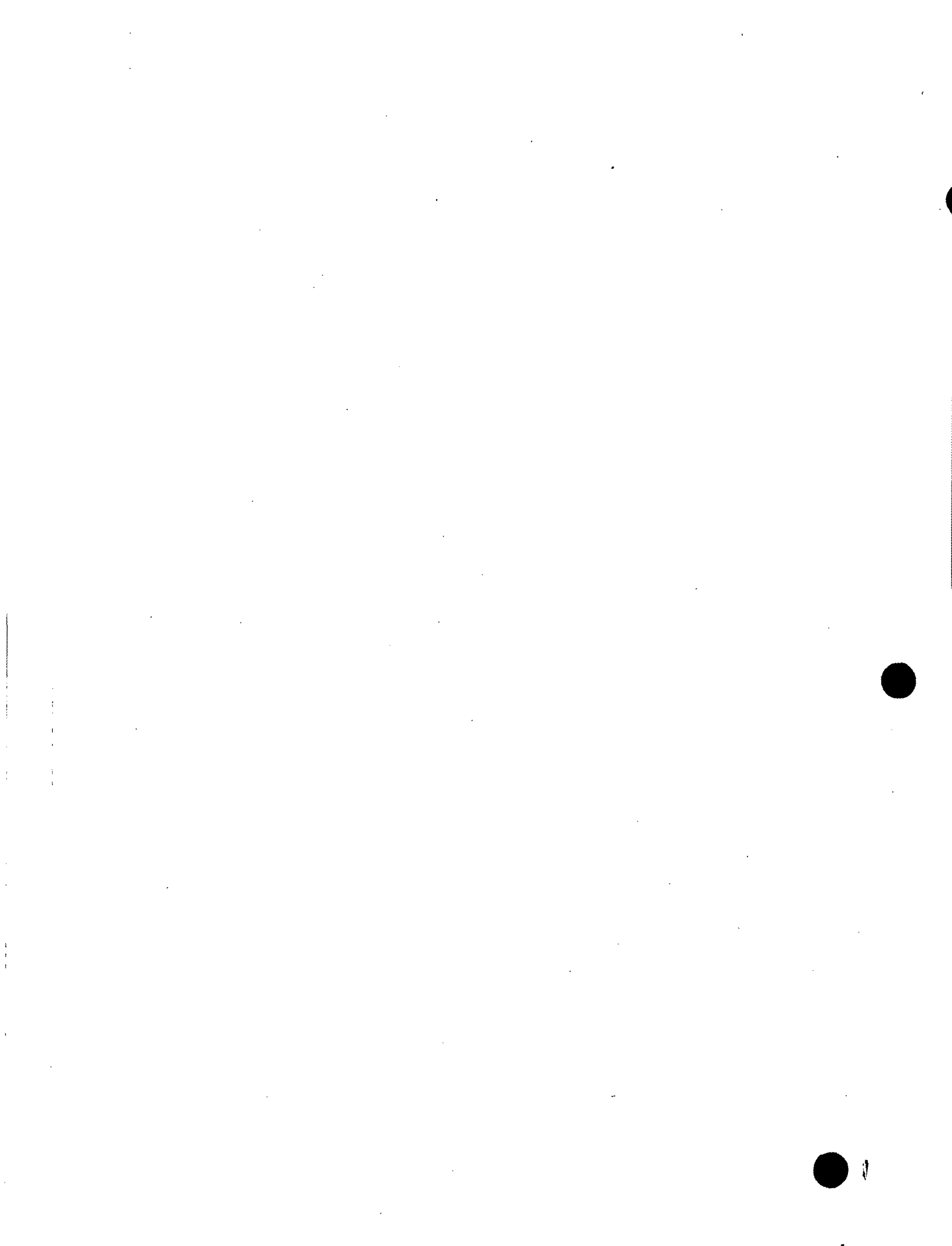
ALAMOSA, COLO.

.05999

	1 Sta	2 Time	3 Read	4 Elev	5 Lat	6 Long	7 Obs	8 Gttho	9 BA	10	REMARKS	13
1	151	1140	549.2	7557	37°29.03'		.23823	979.95902	-267.4			
2	152	1145	553.9	7558	29.25'		.23870	.95934	-267.2			
3	153	1151	549.0	7561	29.25'		.23822	.95934	-267.6			
4	154	1156	537.0	7562	29.25'		.23702	.95934	-268.7			
5	155	1202	546.0	7563	29.52'		.23792	.95973	-268.1		RAIN!	
*6	2	1250	504.6				979.23382					
*7	2	1457	504.0				979.23382					
8	156	1512	536.0	7555	28.38		.23700	.95808	-267.9			
9	157	1517	537.8	7532	28.38		.23717	.95808	-268.0			
10	158	1520	535.5	7552	28.38		.23694	.95808	-268.1			
11	159	1525	535.2	7561	28.38		.23690	.95808	-267.6			
12	160	1529	533.1	7551	28.38		.23668	.95808	-268.4			
13	161	1532	532.5	7552	28.38		.23662	.95808	-268.4			
14	162	1536	525.2	7554	28.39		.23589	.95809	-269.0			
15	163	1539	534.5	7534	28.60		.23681	.95840	-268.4			
16	164	1543	520.4	7535	28.17		.23540	.95777	-269.1			
17	165	1550	516.0	7533	27.95		.23495	.95745	-269.4			
18	166	1553	512.4	7551	27.73		.23458	.95713	-269.6			
19	167	1556	506.6	7552	27.50		.23400	.95680	-269.8			
20	168	1602	505.8	7552	27.28		.23391	.95648	-269.5			
21	169	1605	499.5	7552	27.10		.23328	.95622	-269.9			
22	170	1608	488.8	7563	26.87		.23220	.95588	-270.0			
23	171	1612	493.6	7555	26.68		.23268	.95361	-269.7			
24	172	1618	493.6	7546	26.24		.23267	.95497	-269.6			
25	173	1622	486.2	7553	25.80		.23193	.95433	-269.3			
26	174	1625	486.2	7549	25.80		.23192	.95433	-269.5			
27	175	1628	496.3	7543	25.79		.23293	.95432	-268.9			
28	176	1632	501.4	7539	25.79		.23343	.95432	-268.6			
29	177	1636	505.5	7536	25.78		.23384	.95430	-268.4			
30	178	1640	505.5	7533	25.77		.23383	.95429	-268.6			
*31	2	1647	505.5				979.23382					
	29	1658	513.3	7542	27.50		.23460	.95680	-269.8			



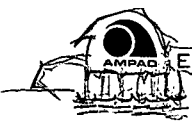




	1 Sta	2 Time	3 Reading	4 Elev.	5 Lat.	6 Long	7 Obs	8 Gtch	9 BA	10	11 Remark	12	13
*	1	2	1226	515.5		37°	99.23382	979.					
	2	1822	1241	552.5	7531	28.67	.23749	.95850	-269.2		RAH's sta.		
	3	186	1245	534.8	7527	28.42	.23572	.95813	-270.4				
	4	187	1249	511.9	7528	28.43	.23342	.95815	-273.1				
	5	188	1254	486.3	7526	28.44	.23085	.95816	-275.8		heavy traffic		
	6	189	1259	466.8	7526	28.45	.22890	.95818	-277.8				
	7	190	1303	447.4	7534	28.47	.22695	.95821	-279.3				
	8	191	1306	432.9	7545	28.48	.22549	.95822	-280.1				
	9	192	1310	417.9	7548	28.48	.22399	.95822	-281.4				
	10	193	1313	396.3	7553	28.48	.22182	.95822	-284.5				
	11	194	1322	477.5	7524	29.32	.22992	.95944	-278.1				
	12	195	1327	502.2	7525	29.30	.23238	.95941	-275.6				
	13	196	1330	530.5	7524	29.30	.23521	.95941	-272.8				
	14	197	1335	559.5	7524	29.30	.23810	.95941	-269.9				
	15	198	1340	592.8	7528	29.72	.24142	.96002	-267.0				
	16	199	1343	596.1	7533	30.17	.24174	.96067	-267.0				
	17	200	1347	600.6	7531	30.61	.24218	.96131	-267.3				
	18	201	1354	612.5	7531	30.17	.24336	.96067	-265.5				
	19	202	1358	622.0	7531	30.17	.24439	.96067	-264.5				
	20	203	1400	626.3	7532	30.16	.24473	.96066	-264.1				
	21	204	1407	628.3	7533	30.16	.24492	.96066	-263.8				
	22	205	1411	630.1	7533	30.16	.24509	.96066	-263.7				
	23	206	1414	630.1	7534	30.16	.24509	.96066	-263.6				
	24	207	1418	631.2	7536	30.16	.24519	.96066	-263.4				
	25	208	1421	627.4	7537	30.16	.24480	.96066	-263.7				
	26	209	1425	623.7	7537	30.60	.24443	.96130	-264.7				
	27	210	1430	621.5	7538	30.16	.24420	.96066	-264.2				
	28	211	1435	614.0	7538	30.16	.24344	.96066	-265.0				
	29	212	1438	606.7	7539	30.16	.24271	.96066	-265.7				
	30	213	1441	598.5	7539	30.16	.24188	.96066	-266.5				
	31	214	1445	595.9	7539	30.15	.24161	.96064	-266.8				
		215	1447	591.9	7542	30.15	99.24121	.96064	-267.0				



1	2	3	4	5	6	7	8	9	10	11	12	13
Sta	Time	road	elev	Lat	Long	Gdas	Gtheo	BA	REMARKS			
216	1451	587.2	7543	30.15'		979.24073	979.96064	-267.9	Benchmark			
217	1455	581.0	7546	30.15'		.24011	.96064	-267.8				
221	1507	518.3				979.23382						
218	1523	587.7	7546	30.59'		.24079	.96128	-267.8				
219	1530	593.0	7546	31.01'		.24134	.96189	-267.9				
220	1534	602.7	7543	31.02'		.24232	.96191	-267.1				
221	1538	609.7	7542	31.02'		.24303	.96191	-266.4				
222	1542	618.8	7540	31.02'		.24395	.96191	-265.6				
223	1545	628.8	7539	31.02'		.24494	.96191	-264.7				
224	1550	636.6	7536	31.03'		.24575	.96192	-264.1				
225	1554	639.7	7533	31.03'		.24606	.96192	-263.9				
226	1558	634.6	7531	31.03'		.24556	.96192	-264.6				
227	1602	606.2	7531	31.04'		.24274	.96194	-267.4				
228	1607	581.7	7526	31.04'		.24230	.96194	-270.1				
229	1610	551.2	7529	31.04'		.23726	.96194	-273.0				
230	1614	528.8	7526	31.05'		.23503	.96195	-275.4				
231	1618	555.5	7524	31.47'		.23771	.96256	-273.5				
232	1623	562.3	7526	31.90'		.23840	.96318	-273.3				
233	1627	576.0	7527	32.33'		.23918	.96381	-273.1				
234	1631	577.1	7527	32.77'		.23990	.96445	-273.0				
235	1635	538.9	7529	32.78'		.23609	.96446	-276.7				
236	1641	612.5	7529	32.77'		.24346	.96445	-269.3				
237	1645	642.3	7533	32.76'		.24645	.96443	-266.1				
238	1650	665.4	7533	32.77'		.24877	.96445	-263.8				
239	1653	667.4	7537	32.77'		.24897	.96445	-263.3				
240	1657	667.4	7537	32.78'		.24898	.96446	-263.3				
241	1700	661.9	7539	32.77'		.24844	.96445	-263.7				
242	1704	658.0	7541	32.77'		.24806	.96445	-264.0				
243	1708	646.3	7543	32.76'		.24690	.96443	-265.0				
244	1712	636.5	7543	32.33'		.24593	.96381	-265.4				
245	1716	623.9	7543	31.90'		.24468	.96318	-266.0				
246	1721	614.0	7541	31.46'		979.24370	979.96255	-266.5				

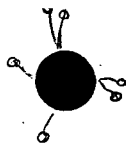


EFFICIENCY LINE® 22-210

Atamosa, Co. 9/7/81  
9/8/81

16

	1 Sta	2 Time	3 read	4 elev	5 Lat	6 Long	7 Gobs	8 G Leo	9 BA	10 REMARKS	11	13
1	247	172.7	631.4	7534	31.46'		979.24545	979.96255	-265.1			
2	248	1731	638.7	7538	31.91'		.24619	.96320	-264.8			
3	249	1735	649.3	7539	32.34		.24726	.96382	-264.3			
4	250	1741	634.0	7544	32.77		.24575	.96445	-266.1			
5	251	1746	622.7	7549	32.77		.24463	.96445	-266.9			
6	252	1750	613.7	7549	32.34		.24374	.96382	-267.2			
7	253	1753	604.2	7548	31.90		.24280	.96318	-267.6			
8	254	1757	594.2	7549	31.46		.24181	.96255	-267.9			
9	2	1813	513.9				979.23382					
10	2	0926	516.2				979.23382			9/8/81		
11	255	0944	567.3	7554	29.25'		.23892	.95934	-267.2			
12	256	0947	572.8	7552	29.47'		.23947	.95966	-267.1			
13	257	0951	577.0	7554	29.67'		.23988	.95995	-266.9			
14	258	0954	582.5	7552	29.89'		.24043	.96027	-266.8			
15	259	0958	591.9	7552	30.13'		.24137	.96062	-266.2			
16	260	1007	581.4	7557	29.69'		.24032	.95998	-266.3			
17	261	1011	586.2	7559	29.96'		.24079	.96037	-266.1			
18	262	1022	571.4	7567	30.13'		.23931	.96062	-267.4			
19	263	1026	579.3	7567	30.56'		.24010	.96124	-267.2			
20	264	1030	585.6	7568	31.00'		.24072	.96188	-267.1			
21	265	1035	588.2	7572	31.56'		.24098	.96269	-267.5			
22	266	1044	584.7	7573	31.87'		.24063	.96314	-268.2			
23	267	1049	575.3	7576	31.86'		.23969	.96313	-268.9			
24	268	1054	566.5	7577	31.43'		.23880	.96250	-269.1			
25	269	1058	560.1	7574	31.00'		.23816	.96188	-269.3			
26	270	1103	559.7	7581	31.85'		.23812	.96311	-270.2			
27	271	1106	546.2	7585	31.85'		.23677	.96311	-271.3			
28	272	1110	542.9	7582	31.41'		.23644	.96247	-271.2			
29	2	1126	516.8				979.23382					
30	273	1146	511.0	7544	29.45'		.23852	.95963	-268.5			
31	274	1151	511.7	7546	29.68'		.23928	.95996	-268.0			
			575.3	7548	29.91'		.23964	.96030	-267.8			



9/8/81  
Alamosa, Co

(12)

last base reading 1126

	1 Sta	2 Time	3 Read	4 elev	5 Lat	6 Long	7 Gobs	8 Cit Area	9 B.A	10	11 RE-AM	12 A.R.	13 C.S
1	276	1207	577.7	7549	37°30.14'		979.23986	979.96063	-267.9				
2	277	1212	590.7	7549	30.51'		.24116	.96125	-267.2				
3	278	1217	608.3	7552	30.51'		.24291	.96125	-265.3				
4	279	1221	614.1	7553	31.00'		.24349	.96188	-265.3				
5	280	1225	604.0	7550	31.00'		.24241	.96188	-266.5				
6	281	1231	595.5	7548	31.01'		.24162	.96189	-267.5				
7	282	1235	605.8	7549	31.44'		.24264	.96252	-267.0				
8	283	1239	612.4	7549	31.88'		.24330	.96316	-267.0				
9	284	1243	616.9	7551	32.32'		.24374	.96380	-267.1				
10	285	1246	616.9	7552	32.75'		.24374	.96442	-267.6				
11	286	1252	621.8	7554	32.74'		.24422	.96441	-267.0				
12	287	1255	621.8	7555	32.68'		.24422	.96432	-266.9				
13	288	1259	624.1	7556	32.28'		.24444	.96374	-266.0				
14	289	1302	622.3	7555	31.87'		.24426	.96314	-265.6				
15	290	1306	619.5	7554	31.44'		.24398	.96252	-265.4				
16	2	1327	578.1				979.23382						
17	291	1343	617.4	7553	31.00'		.24376	.96188	-265.0				
18	292	1347	617.4	7556	31.00'		.24376	.96188	-264.8				
19	293	1351	626.8	7556	31.42'		.24470	.96249	-264.5				
20	294	1354	626.8	7560	31.86'		.24470	.96311	-264.9				
21	295	1358	626.8	7562	31.84'		.24471	.96310	-264.7				
22	296	1403	618.8	7565	31.82'		.24391	.96307	-265.3				
23	297	1406	616.0	7566	32.27'		.24363	.96372	-266.2				
24	298	1409	612.8	7566	32.71'		.24332	.96436	-267.1				
25	299	1412	616.2	7565	33.14'		.24366	.96499	-267.5				
26	300	1415	616.2	7568	33.58'		.24366	.96562	-267.9				
27	301	1421	627.9	7561	33.60'		.24483	.96565	-267.2				
28	302	1424	623.0	7558	33.17'		.24435	.96503	-267.3				
29	2	1500	517.4				979.23382						
30	303	1511	572.8	7556	27.51'		.23340	.95681	-270.1				
31	304	1516	503.7	7557	27.52'		.23251	.95683	-271.0				
			491.6	7558	27.52'		.23181	.95683	-271.6				





# UURI

EARTH SCIENCE LABORATORY  
420 CHIPETA WAY, SUITE 120  
SALT LAKE CITY, UTAH 84108  
TELEPHONE 801-581-5283

## MEMORANDUM

October 6, 1981

TO: Jon Zeisloft

FROM: Claron E. Mackelprang

SUBJECT: ESL Meeting with Jay Kunze Regarding User Coupled Drilling  
Project at Alamosa, Colorado

A meeting was held on September 15, 1981 with Jay Kunze, Howard P. Ross and myself in attendance. In this meeting I presented a rough contoured map of the results from my gravity survey at Alamosa, Colorado. In general, these results show Alamosa to be centered on a closed, local gravity low. This low appears to have fault control north-south and east-west. Mr. Kunze plotted a tentative location for his proposed drill site; he wasn't sure of this location perhaps due to confusion with the scale of the topographic map.

Mr. Kunze's plotted location (?) occurred on the southwest flank of the gravity low. In that regard, his location was not too bad considering his data base. I recommended he move his site to the northeast to center more over the gravity low. My reasoning being that I envision a "ponding" of thermal fluids in aquifers within the low-density material comprising the gravity low.

No target concept was discussed by Mr. Kunze. Neither did he show other than lukewarm interest in our concept. I made him a copy of the gravity data around Alamosa. The entire meeting probably didn't take more than 15-20 minutes.



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CEM:nlr

cc Susan Prestwich,  
DOE/ID

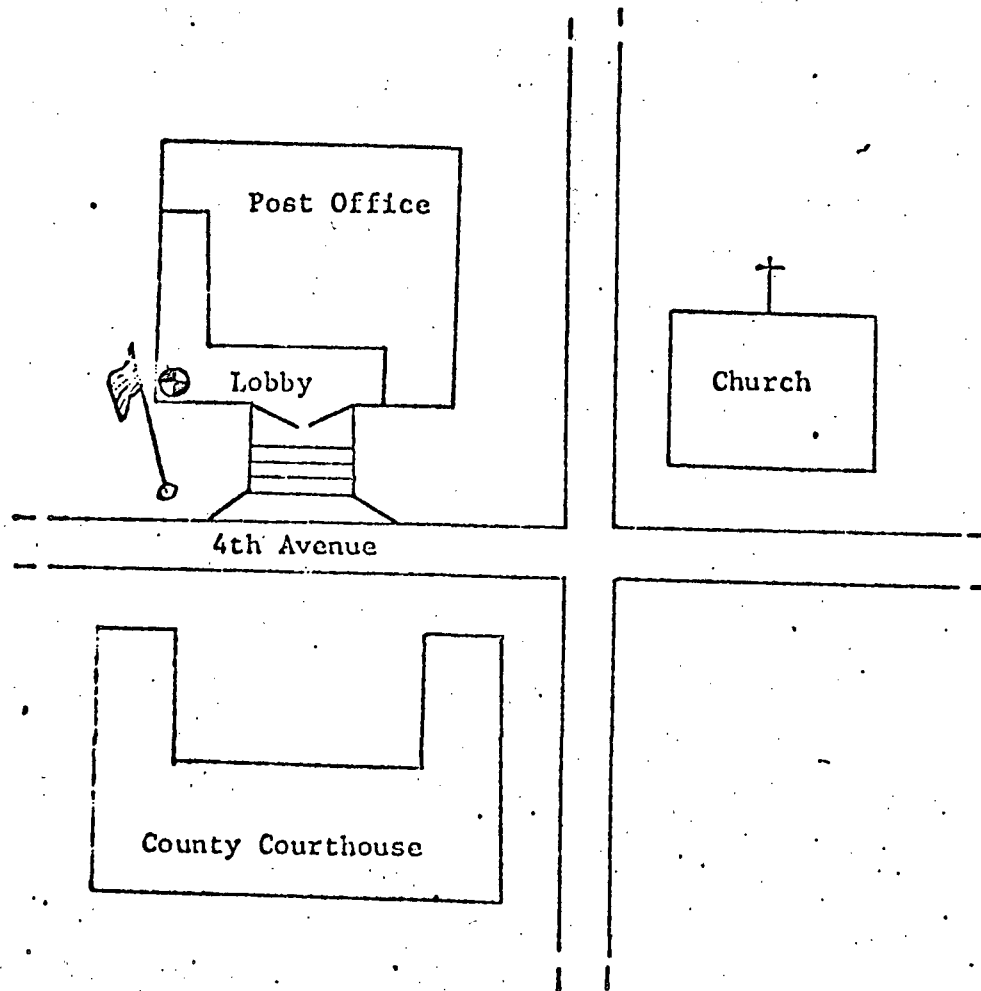
### GRAVITY BASE STATION

LATITUDE 37° 28.21'N (1)	STATION DESIGNATION ALAMOSA	
LONGITUDE 105° 52.16'W (1)		
ELEVATION 2300.9 <i>7548.9'</i> METERS (1)	COUNTRY/STATE USA/Colorado	
REFERENCE CODE NUMBERS		ADOPTED GRAVITY VALUE
ACIC 4016-1 IGB 11975B	$g = 979\ 248.78$ mgals <i>979 234.98 new</i>	
		ESTIMATED ACCURACY
		DATE
		MONTH/YEAR
		± 0.1 mgals
		10/70

**DESCRIPTION AND/OR SKETCH**

*(old)*

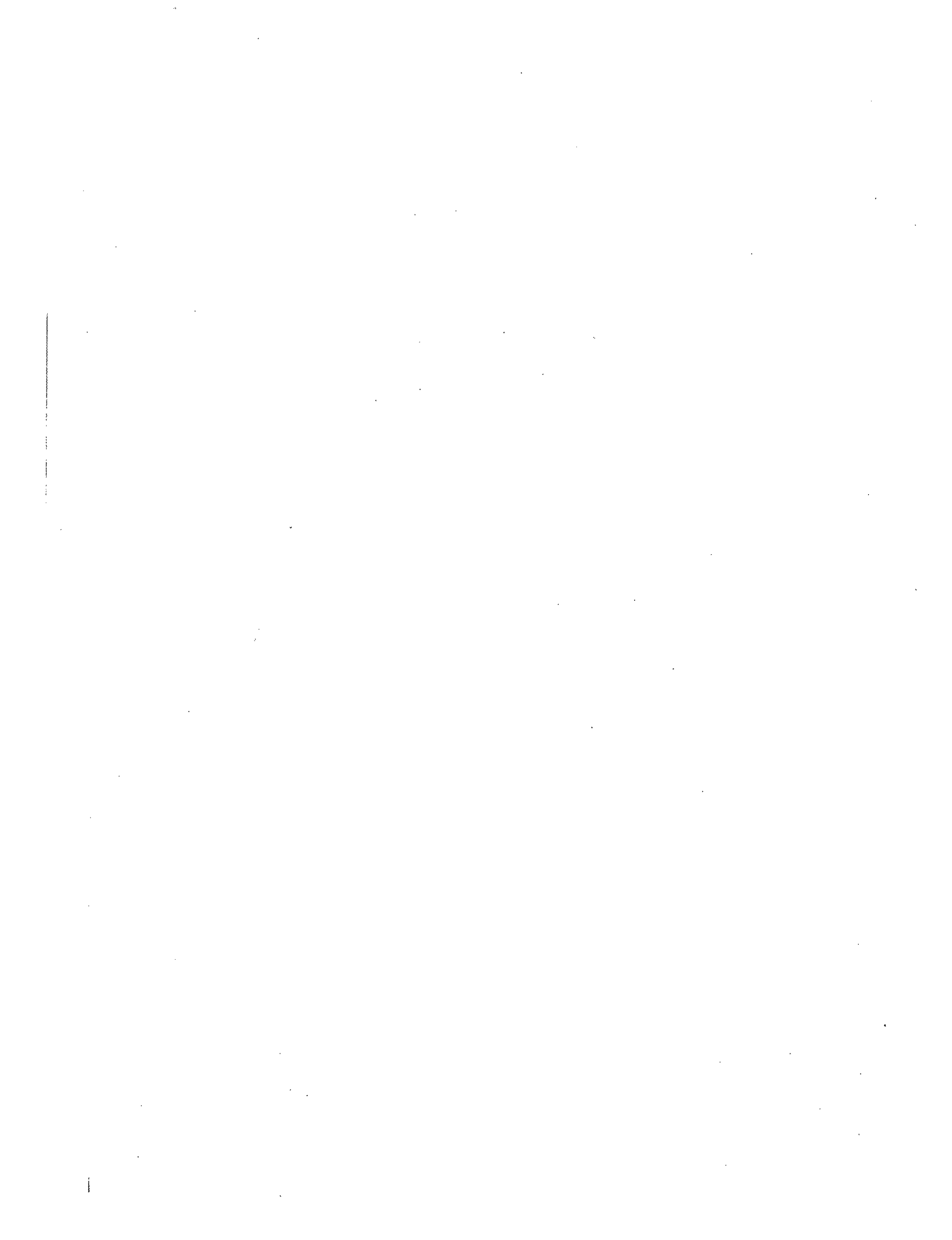
The station is located at the Post Office in Alamosa, on the corner of San Juan Avenue and 4th Avenue, in the southwest corner of the Post Office lobby. It is marked with a USAF Gravity disc. (1)



(1)

**REFERENCE SOURCE**

(1) 03405



Chuck Wideman

MT Bur of Mines & Geology

Butte, MT 59701

PHONE (406) 496-4209

WARDEN EDUCATOR MODEL GRAVITY METER

0.4 mgal sensitivity / division

dial divisions to  $\frac{1}{10}$  ( $\therefore$  0.04 mgal readings)

Repeatable to  $\approx$  0.1 mgal

Will get ready to pick-up by ESL man  
upon notification.

Note: Chuck indicated that a detailed Survey  
(gravity) may have been done by a SKIP SNYDER,  
COLO. SCHOOL OF MINES, OF THE ALAMOSA SPRGS AREA  
IN THE LATE 1960'S - Would be a thesis at Colo Sch. Min

1850

1851

1852

1853

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1862

1863



EARTH SCIENCE LABORATORY  
420 CHIPETA WAY, SUITE 120  
SALT LAKE CITY, UTAH 84108  
TELEPHONE 801-581-5283

October 8, 1981

Mr. Gary Heinemeyer  
Exploration District Manager  
Bear Creek Mining Company  
2502 N. Huachuca Dr.  
Tucson, AZ 85705

Dear Gary:

As promised, here is a copy of the gravity data I collected at Alamosa, Colorado. I will send you a copy of the Bouguer Anomaly Map and my interpretation just as soon as they are completed.

There are two things you should be aware of concerning these data. First, the elevations were picked off the topo map. The area was as flat as a pool table, hence, I think these elevation picks will be good to the nearest 1-2 feet. Second, I computed the theoretical gravity using the International Gravity Formula (IGF) of 1930. This was the same formula used for all your private data. My data should therefore be compatible with yours. Note the Bouguer Gravity units are in Mgals. Yours will be in Gals. Clark can make this simple conversion for you.

In case you want or need to plot these data before I get my map to you, here are the topo maps I used:

Alamosa East 7-1/2'  
Alamosa West 7-1/2'  
Hooper SE 7-1/2'  
Baldy 7-1/2'  
Mount Pleasant School 7-1/2'

Again, thank you for the use of the gravimeter.

Best Regards,

A handwritten signature in cursive script, appearing to read 'Claron', written in dark ink.

Claron Mackelprang

CM:nlr

Enclosure

UNIVERSITY OF UTAH RESEARCH INSTITUTE

**UURI**

EARTH SCIENCE LABORATORY  
420 CHIPETA WAY, SUITE 120  
SALT LAKE CITY, UTAH 84108  
TELEPHONE 801-581-5283

October 21, 1981

Dr. Ralph C. Holmer  
Colorado School of Mines  
Dept. of Geophysics  
Golden, CO 80401

Dear Ralph:

Enclosed please find the principle facts and locations for 322 gravity stations I recently acquired at Alamosa. My base was the USAF station located in the southwest corner of the old post office.

Please be advised that the elevations were picked off the topo maps and the theoretical gravity was computed using the IGF of 1930. I borrowed Bear Creek's gravimeter, hence, I computed the Bouguer Gravity using this older formula so that these data would be compatible with theirs.

I hope these stations will be a useful addition to your data set.

Best regards,



Claron Mackelprang

CM:nlr

Enclosure



Alamosa AREA, Colorado

3-D Gravity Model

PRISM	1 X <sub>1</sub>	2 X <sub>2</sub>	3 Y <sub>1</sub>	4 Y <sub>2</sub>	5 Z <sub>1</sub>	6 Z <sub>2</sub>	7 OP	8	9
1	-5280	3696	-7392	2640	0	7500	-0.6		
2	-5280	-1584	2640	21648		6500			
3	3696	26400	-5280	2640		6000			
4	-1584	10560	2640	13200		5500			
5	-1584	10560	13200	21648		5000			
6	10560	17424	9504	19008		4000			
7	26400	38016	11088	19008		4000			
8	30096	34848	5808	11088		4500			
9	10560	47520	2640	21648		5500			
10	26400	31680	-5280	2640		6000			
11	10560	31680	-28512	-5280		5500			
12	10560	17952	-24288	-17424		5000			
13	17952	27456	-20592	-11088		4000			
14	3696	10560	-28512	-5280		6000			
15	-5280	3696	-28512	-7392		6500			
16	-15840	-5280	-13200	-5280		6000			
17	-15840	-5280	-5280	21648		5500			
18	-26400	-15840	-13200	21648		5000			
19	-39600	-26400	-13200	5280		4000			
20	-39600	-5280	-28512	-13200		5000			
21	-39600	47520	-47520	-28512		9000			
22	31680	47520	-28512	2640		6500			
23	-47520	47520	21648	31680		12000			
24	-47520	47520	31680	41184		14000			
25	-47520	-26400	5280	21648	0	5000	-0.6		
26									
27									
28									
29									
30									
31									

EFFICIENCY LINE No. 2636



**Colorado School of Mines**  
golden, colorado 80401 • (303) 279-0300



November 6, 1981

department of geophysics

Mr. Claron Mackelprang  
University of Utah Research Institute  
Earth Science Laboratory  
420 Chipeta Way, Suite 120  
Salt Lake City, Utah 84108

Dear Claron:

The gravity data arrived, and by now has been given the treatment into our "system". I agree it is most interesting. I certainly hope that additional control can be added to connect with our data to the northwest and to the south. Perhaps this can be done next year.

I am completing the preparation of the latter two sets of principal facts to send for the massive gravity compilation being made in St. Louis by the Department of Defense. I can simply include your Alamosa data separately with the stipulation that they were made by the University of Utah Research Institute, or with whatever acknowledgement you would wish. Please advise as soon as possible.

In this regard, I am working as a member of the SEG, et al, committee for the preparation of the U.S. and North American continent gravity map, which hopefully will be available by convention time in 1982.

Best regards,

*Ralph C. Holmer*

Ralph C. Holmer, Professor  
Department of Geophysics

RCH:dn

the university of mineral resources

UNIVERSITY OF UTAH RESEARCH INSTITUTE

**UURI**

ADMINISTRATION  
420 CHIPETA WAY, SUITE 100  
SALT LAKE CITY, UTAH 84108  
TELEPHONE 801-581-5226

November 12, 1981

Dr. Ralph C. Holmer  
Department of Geophysics  
Colorado School of Mines  
Golden, CO 80401

Dear Ralph:

I'm pleased to learn the Alamosa gravity data reached you in time to be included in your data submittal to the Department of Defense. Please acknowledge our data set as being from the Earth Science Laboratory Division/University of Utah Research Institute.

Currently I'm trying to fit a 3-D gravity model to the Alamosa data and as usual, am wishing I had at least one drill hole into bedrock within the area of interest. I have heard through the grapevine that the "hot" water well being drilled for the City of Alamosa has reached a depth of 900 feet. The results of this drill hole should be interesting.

Best regards,



Claron Mackelprang

CM:nlr









DEPTH	ALTERATION							GRAPHIC LITHOLOGY	LITHOLOGIC DESCRIPTION	DRILLING TIME MIN. / 1 FT. SCALE Logarithmic 5 10 15 20 25
	1. WEAK 2. MOD. 3. STRONG									
	123	123	FeOx	123	123	123	123			
2500								Pumice, wh - occ. pale pink pc. - v. porous glassy, perlitic base of pumice flow, beginning at 2450 Siliceous tuff, pale brn. - mod. yellowish brn.; angular. Pumice, wh; AA.		
2600								Pumice-rich, non-compacted, crystal, lithic ash flow tuff, grayish orange pink; mod. porosity; small % perlitic clasts.		
2700							N.S.	Crystal-rich pumice & tuff, v. pale orange; mod. porosity.		
2800							N.S.	AA, inc. vol. clasts & decreasing pumice; Tr Qz sd.	N.B.#3 OWN-12 1/4"	
2900								inc. Qz sd, clear, angular, f-m-gr. Lithic sd, of various vol. lithus; abnd terminated and doubly terminated Qz xls Congl. sdy, (tuff, porph. flows and granite clasts) Tuff, non-welded, v. lt. gy, sl. xl rich, mod. por, sl. silica coatings in micro vugs; Tr. vol. pebb's as cavings (?).		
3100								AA - virtually no porosity.		
3200							N.S.	Tuff, AA		
3300							N.S.	Gravel, misc. brn's & gy's, various flows & welded tuffs; minor Qz sd matrix, stained weakly with limonite (gravel not stained). AA		



DEPTH	ALTERATION <small>1. WEAK 2. MOD. 3. STRONG</small>						GRAPHIC LITHOLOGY	LITHOLOGIC DESCRIPTION	DRILLING TIME MIN. / 1 FT. SCALE Logarithmic
	Secondary Clay	Fe Ox	Silica	Zeolites					
	123	123	123	123	123	123			
							AA		N.B. #4 DGT-12 1/4"
							N.S.		
3400							AA plus 1/3 gy-pink non-welded tuff, med-por. (poss. cavings from tuff above); Tr silica in microvugs and possible zeolites.		
3500							Sd, lt. olive-gy, v. fg, silty & clayey.		
3600							T.S.* Grit & grav, mixed br. & gy, flows & welded tuff; occ. qz, sd, gr; Tr celadonite Dacite flow, gy-red to dk. reddish brn., largely devitrified.		
							AA, becoming m. gy to m. brownish gy.		
3700							AA - much finer cuttings; Qz sd, crs gr, comm; w/ sporadic celadonite		N.B. #5-DST 12 1/4"
3800							Peb's + peb. chips, misc. vol. + tuff lith's (gravel zone or cavings?) AA w/ free grs of hbdk + pyrx.		
3900							more compact, poss. welded vitric zone.		
4000							mixed vol. lith's - vol. congl. or breccia?		
4100							T.S.* Basalt flows, olive black, v. fg., olivine and pyroxene phen's in part glassy. Andesite, m-dk. gy, v fg, prominent pyroxene; probable flows and flow breccia.		N.B. #6 J-44 12 1/4" rerun
4200							N.S.		





DEPTH	ALTERATION							GRAPHIC LITHOLOGY	LITHOLOGIC DESCRIPTION	DRILLING TIME MIN. / 1 FT. SCALE Logarithmic
	1. WEAK 2. MOD. 3. STRONG						Chlorite			
	123	123	FeOx	123	123	123				
6100								T.S.* Basalt, olive gn.		
6200								T.S.* very mixed sample - diverse vol. liths w/ abnd lithic tuff; probably much cavings		
6300										
6400									granite debris angular Qz, ortho, plag, musc w/ lesser % ferro mag mins. mod. hem stn. - suggests weathered granite on top of bsmt - no. trans in	
6500									AA w/ inc. bio., here to T.D. Granite, sharp, ang., freshly drilled inc. multi-mineral grains => drilled granite. especially strong hem. stn.	
6600									AA w/ Tr pink garnets.	
6700									inc. bio content, to 20%; bio partially bent suggesting meta. rock. ← 1 pc. pyr. in granite rock frag. badly mixed spl - ran deviation survey @ 6710'.	
6800								N.S.	mod. % bio.	
6900									5% bio.	

N.B. #10  
M89E 8 3/4"

N.B. #10  
M89E 8 3/4"

DEPTH	ALTERATION						GRAPHIC LITHOLOGY	LITHOLOGIC DESCRIPTION	DRILLING TIME MIN. / 1 FT. SCALE Logarithmic
	1. WEAK 2. MOD. 3. STRONG			Chlorite					
	123	123	123	123	123	123		5 10 15 20 25	
7000							AA 10% bio. AA 20% bio. AA bio inc. to 25-30%		
							25% bio. Decrease in bio to 10% Increasing bio to T.D.		
7100							40% bio		
								DRILL T.D. 7120'	
								5 10 15 20 25	
							FORMATION TOPS:		
							Gal 0'		
							Alamosa Fm. 90'		
							Santa Fe Gp. 785'-840' (in missing spl. interval)		
							Los Pinos Fm. 2050'		
							Oligocene (?) Volcaniclastics 5310'		
							Weathered Precambrian 6370'		
							Precambrian 6450'		

Filed  
Station. DATAD

Alamosa AREA, Colorado  
Gravity Profile D-D'

EFFICIENCY LINE No. 2636



Sta	1 BA	2 Dist KPI	3 Eleu	4	Sta	6 BA	7 Dist	8 Eleu	9
1	-271.9	0	7.638		32	-254.3	81.840	7.542	
2	-271.3	2.640	7.633		33	-253.5	84.480	7.540	
3	-270.7	5.280	7.629		34	-252.6	87.120	7.539	
4	-270.2	7.920	7.623		35	-252.0	89.760	7.536	
5	-269.8	10.560	7.619		36	-251.9	92.400	7.533	
6	-269.1	13.200	7.617		37	-252.5	95.040	7.531	
7	-268.4	15.840	7.610		38	-255.3	97.680	7.531	
8	-267.6	18.480	7.610		39	-258.0	100.320	7.526	
9	-266.9	21.120	7.609		40	-261.0	102.960	7.529	
10	-265.9	23.760	7.604		41	-263.2	105.600	7.526	
11	-264.8	26.400	7.601		42	-265.7	108.240	7.526	
12	-263.8	29.040	7.598		43	-267.2	110.880	7.534	
13	-262.8	31.680	7.595		44	-268.0	113.520	7.545	
14	-261.6	34.320	7.591		45	-269.4	116.160	7.548	
15	-260.5	36.960	7.588		46	-271.2	118.800	7.553	
16	-259.2	39.600	7.585						
17	-258.0	42.240	7.581						
18	-256.9	44.880	7.576						
19	-256.0	47.520	7.573						
20	-255.0	50.160	7.572						
21	-254.1	52.800	7.570						
22	-253.3	55.440	7.559						
23	-252.6	58.080	7.558						
24	-252.4	60.720	7.556						
25	-252.8	63.360	7.554						
26	-253.4	66.000	7.552						
27	-254.4	68.640	7.550						
28	-255.4	71.280	7.548						
29	-255.7	73.920	7.547						
30	-255.8	76.560	7.546						
31	-255.0	79.200	7.543						

Gravity Profile D-D'  
Model - Data D

$\rho = -0.83$   
 $SD = 50.$   
 $SI = 50.$

AMRAD EFFICIENCY® LINE No. 2636

Vertex	1 X	2 Z	3	4	5	6	7	8	9
1	-84.48	-7.882							
2	0	-7.638							
3	23.76	-7.601							
4	52.8	-7.52							
5	84.48	-7.34							
6	118.8	-7.553							
7	211.2	-7.930							
8	175.0	11.07							
9	125.0	11.4							
10	118.8	1.0							
11	116.16	0.5							
12	108.24	0							
13	100.32	-1.5							
14	95.04	-2.6							
15	89.76	-2.6							
16	81.84	-2.1							
17	76.56	-1.8							
18	71.28	-1.8							
19	66.0	-2.1							
20	60.72	-2.4							
21	58.08	-2.4							
22	52.8	-1.9							
23	42.24	-0.9							
24	31.68	0.1							
25	21.12	1.0							
26	10.56	2.0							
27	0	2.4							
28	-45.0	2.4							
29	-84.48	-7.882							
30									
31									



Work File Header: CLARON

NOTE: The printed results are from a previous model. This model has not been executed.

The total sum of squares is 6.150  
Units of distance for this model = KILOFEET  
Meters per unit of distance = 304.800  
Number of inches per unit of distance = 12000.000  
The Current map scale is set to 1.

\* Station Data \*

Profile Id: ALAMUSA GRAVITY PROFILE D-D\*

Station	Distance to Station	Elev.	Observed Gravity	Calc. Gravity	Anomaly	Vertical Gravity	Diff. ANM-VGRV
1	0.000	7.638	-271.90	-271.87	-46.90	-46.87	-0.03
2	2.640	7.633	-271.30	-271.50	-46.30	-46.50	0.20
3	5.280	7.629	-270.70	-271.07	-45.70	-46.07	0.37
4	7.920	7.623	-270.20	-270.54	-45.20	-45.54	0.34
5	10.560	7.619	-269.80	-269.94	-44.80	-44.94	0.14
6	13.200	7.617	-269.10	-269.27	-44.10	-44.27	0.17
7	15.840	7.610	-268.40	-268.48	-43.40	-43.48	0.08
8	18.480	7.610	-267.60	-267.67	-42.60	-42.67	0.07
9	21.120	7.609	-266.90	-266.77	-41.90	-41.77	-0.13
10	23.760	7.604	-265.90	-265.83	-40.90	-40.83	-0.07
11	26.400	7.601	-264.80	-264.84	-39.80	-39.84	0.04
12	29.040	7.598	-263.80	-263.83	-38.80	-38.83	0.03
13	31.680	7.595	-262.80	-262.78	-37.80	-37.78	-0.02
14	34.320	7.591	-261.60	-261.69	-36.60	-36.69	0.09
15	36.960	7.588	-260.50	-260.56	-35.50	-35.56	0.06
16	39.600	7.585	-259.20	-259.39	-34.20	-34.39	0.19
17	42.240	7.581	-258.00	-258.21	-33.00	-33.21	0.21
18	44.880	7.576	-256.90	-257.02	-31.90	-32.02	0.12
19	47.520	7.573	-256.00	-255.85	-31.00	-30.85	-0.15
20	50.160	7.562	-255.00	-254.71	-30.00	-29.71	-0.29
21	52.800	7.560	-254.10	-253.69	-29.10	-28.69	-0.41
22	55.440	7.559	-253.30	-252.88	-28.30	-27.88	-0.42
23	58.080	7.558	-252.60	-252.41	-27.60	-27.41	-0.19
24	60.720	7.556	-252.40	-252.33	-27.40	-27.33	-0.07
25	63.360	7.554	-252.80	-252.65	-27.80	-27.65	-0.15
26	66.000	7.552	-253.40	-253.42	-28.40	-28.42	0.02
27	68.640	7.550	-254.40	-254.43	-29.40	-29.43	0.03
28	71.280	7.548	-255.40	-255.20	-30.40	-30.20	-0.20
29	73.920	7.547	-255.70	-255.60	-30.70	-30.60	-0.10
30	76.560	7.546	-255.80	-255.63	-30.80	-30.63	-0.17
31	79.200	7.543	-255.00	-255.34	-30.00	-30.34	0.34
32	81.840	7.542	-254.30	-254.78	-29.30	-29.78	0.48
33	84.480	7.540	-253.50	-254.01	-28.50	-29.01	0.51
34	87.120	7.539	-252.60	-253.12	-27.60	-28.12	0.52
35	89.760	7.536	-252.00	-252.47	-27.00	-27.47	0.47
36	92.400	7.533	-251.90	-252.49	-26.90	-27.49	0.59
37	95.040	7.531	-252.50	-253.40	-27.50	-28.40	0.90
38	97.680	7.531	-255.30	-255.32	-30.30	-30.32	0.02
39	100.320	7.526	-258.00	-257.89	-33.00	-32.89	-0.11
40	102.960	7.529	-261.00	-260.47	-36.00	-35.47	-0.53
41	105.600	7.526	-263.20	-262.63	-38.20	-37.63	-0.57



42	108.240	7.526	-265.70	-264.53	-40.70	-39.53	-1.17
43	110.880	7.534	-267.20	-266.30	-42.20	-41.30	-0.90
44	113.520	7.545	-268.00	-267.97	-43.00	-42.97	-0.03
45	116.160	7.548	-269.40	-269.54	-44.40	-44.54	0.14
46	118.800	7.553	-271.20	-271.19	-46.20	-46.19	-0.01

\* Model Data \*

Polygon no. 1      Density = -0.43000  
 Strike length 1 = 50.00000  
 Strike length 2 = 50.00000

X-vertice	Z-vertice
-84.480	-7.882
0.000	-7.638
23.760	-7.601
52.800	-7.560
84.480	-7.540
118.800	-7.553
211.200	-7.930
211.200	-2.600
99.264	-2.600
97.680	-3.600
89.760	-3.600
83.952	-2.300
66.528	-2.300
66.528	-3.100
55.912	-3.100
51.744	-2.600
-84.480	-2.600
-84.480	-7.882

Polygon no. 2      Density = -0.33000  
 Strike length 1 = 50.00000  
 Strike length 2 = 50.00000

X-vertice	Z-vertice
66.528	-2.300
83.952	-2.300
76.560	-1.400
71.280	-1.400
66.528	-2.300

Polygon no. 3      Density = -0.35000  
 Strike length 1 = 50.00000  
 Strike length 2 = 50.00000

X-vertice	Z-vertice
-84.480	-2.600
51.744	-2.600
39.072	-0.900
31.680	0.100
27.984	0.400
-84.480	0.400
-84.480	-2.600

Polygon no. 4      Density = -0.43000

Strike length 1 = 50.00000  
Strike length 2 = 50.00000

X-vertice	Z-vertice
-84.480	0.400
27.984	0.400
21.120	1.100
10.560	2.000
0.000	2.400
-84.480	2.400
-84.480	0.400

Polygon no. 5 Density = -0.43000  
Strike length 1 = 50.00000  
Strike length 2 = 50.00000

X-vertice	Z-vertice
99.264	-2.600
211.200	-2.600
211.200	11.400
175.000	11.400
118.800	0.400
116.160	0.500
108.240	0.000
99.264	-1.800
99.264	-2.600

\* Regional Data \*

Left regional - X = -84.480  
Left regional - gravity = -225.000  
Right regional - X = 211.200  
Right regional - gravity = -225.000

Regional values for current station locations

	Station dis.	Regional
1	0.000	-225.000
2	2.640	-225.000
3	5.280	-225.000
4	7.920	-225.000
5	10.560	-225.000
6	13.200	-225.000
7	15.840	-225.000
8	18.480	-225.000
9	21.120	-225.000
10	23.760	-225.000
11	26.400	-225.000
12	29.040	-225.000
13	31.680	-225.000
14	34.320	-225.000
15	36.960	-225.000
16	39.600	-225.000
17	42.240	-225.000
18	44.880	-225.000
19	47.520	-225.000
20	50.160	-225.000
21	52.800	-225.000

22	55.440	-225.000
23	58.080	-225.000
24	60.720	-225.000
25	63.360	-225.000
26	66.000	-225.000
27	68.640	-225.000
28	71.280	-225.000
29	73.920	-225.000
30	76.560	-225.000
31	79.200	-225.000
32	81.840	-225.000
33	84.480	-225.000
34	87.120	-225.000
35	89.760	-225.000
36	92.400	-225.000
37	95.040	-225.000
38	97.680	-225.000
39	100.320	-225.000
40	102.960	-225.000
41	105.600	-225.000
42	108.240	-225.000
43	110.880	-225.000
44	113.520	-225.000
45	116.160	-225.000
46	118.800	-225.000

8	-18480.	-7392.	18480.	31680.	5000.	5500.	0.45
9	-18480.	-5280.	-13728.	-2640.	5000.	5500.	0.45
10	-100000.	-18480.	-75000.	75000.	4750.	15000.	0.67
11	-10560.	10560.	-2640.	8448.	5500.	8000.	-0.30
12	-10560.	2112.	8448.	18480.	5500.	7500.	-0.30
13	-18480.	200000.	31680.	52800.	6000.	15000.	0.67
14	-18480.	47520.	-26400.	31680.	5500.	15000.	0.67
15	-18480.	100000.	-50000.	-26400.	5500.	15000.	0.67
16	-200000.	200000.	-200000.	200000.	15000.	50000.	0.67
17	47520.	100000.	-26400.	31680.	5400.	15000.	0.67
18	10560.	36960.	-2640.	8448.	3000.	5500.	0.25
19	2112.	47520.	8448.	31680.	2000.	5500.	0.25
20	5280.	36960.	-26400.	-2640.	2500.	5500.	0.25
21	-18480.	200000.	31680.	39600.	3000.	6000.	0.25

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File 3

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W   W   WWW           WWW   W           WWW
W   W   W   W       W   W   W       W   W
W   W   W           W   W   W       W   W
W   W   W           WWWWWW WWWWWW W       WWWWWW
W   W   W           W   W   W       W   W
W   W   W   W       W   W   W       W   W
WWW   WWW           W   W WWWWWW W   W

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WWW   W   W   WWW   WWWW           W           WWW   WWW   WWWWWW
W   W   WW   WW   W   W   W   W           W           W   W   W   W
W           W   W   W           W   W   W           W           W   W   W
W           W   W   W           WW   W   W   WWWWWW W           W           WWW   W
W   WW   W           W   W   W           W           W           W   W   W
W   W   W           W   W           W           W           W   W   W
WWWWW W   W   WWW   WWWW           WWWWWW   WWW   WWW   W

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LABEL: PRT001 -FORM

SPOOLED: 81-11-25.08:49  
STARTED: 81-11-25.08:49, ON: CENP BY: CEN

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Project name: ALAMOSA AREA, COLORADO  
GRAVITY SURVEY  
Model: 3-D GRAVITY MODEL

GRAVITY PRISM MODEL

Grid spacing = 5280.00 feet.

PRISM	X1	X2	Y1	Y2	Z1	Z2	DC
1	-200000.	200000.	-200000.	200000.	0.	15000.	2.00
2	18480.	27984.	-21120.	-12144.	4000.	5500.	0.42
3	10560.	18480.	-21120.	-16500.	4000.	5500.	0.42
4	27984.	36960.	-12144.	-7392.	4000.	5500.	0.42
5	12672.	15840.	15840.	24816.	2250.	5500.	0.42
6	29568.	32736.	8448.	21120.	3000.	5500.	0.42
7	15840.	42240.	21120.	24816.	3000.	5500.	0.42

685	690	694	697	699	700	700	700	701	704	705	705	703	697	690
686	690	696	700	702	704	704	703	703	706	707	707	704	698	691
686	691	697	702	705	705	704	704	704	706	706	707	704	698	691
687	692	697	703	706	705	704	704	704	705	706	707	704	698	692
687	692	698	703	705	705	704	703	703	705	707	708	704	699	692
688	692	697	702	703	703	703	700	700	704	705	706	703	698	692
688	692	696	699	700	701	700	697	697	701	703	703	701	698	692
688	692	695	697	698	698	697	696	695	697	698	698	697	696	692
689	693	695	696	698	698	698	696	695	695	696	697	696	696	693
690	693	695	697	698	699	699	697	697	696	697	697	697	696	694
692	695	697	698	699	700	700	699	699	699	699	699	698	697	695
695	697	699	700	701	701	701	701	701	701	701	700	699	698	696
697	698	700	701	701	702	702	702	702	702	701	701	700	699	697
697	699	700	701	701	702	702	702	702	702	702	701	700	699	698
698	699	700	701	701	702	702	702	702	702	701	701	700	699	69

MAP VALUES IN MGAL

POINT (8,8) ON MAP CORRESPONDS TO COORDINATE (0,0)

GRID SPACING = 5280.0 FT

TRUE VALUES FOR ISOLINES

(A) = 0.709E 03 (B) = 0.708E 03 (C) = 0.707E 03 (D) = 0.706E  
 (E) = 0.705E 03 (F) = 0.704E 03 (G) = 0.703E 03 (H) = 0.702E 0  
 (I) = 0.701E 03 (J) = 0.700E 03 (K) = 0.699E 03 (L) = 0.698E 0  
 (M) = 0.697E 03 (N) = 0.696E 03 (O) = 0.695E 03 (P) = 0.694E 0  
 (Q) = 0.693E 03 (R) = 0.692E 03 (S) = 0.691E 03 (T) = 0.690E 0  
 (U) = 0.689E 03 (V) = 0.688E 03 (W) = 0.687E 03 (X) = 0.686E 0  
 (Y) = 0.685E 03 (Z) = 0.684E 03 (

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
15	XWVUT	SRQ	PO	NM	L	K	J		J	J	I	H	G	F	E	E	FGHIJKLMOPQRS
	XWVUTSR	QPON	ML	K	J	I		I	I	HG	F	E				DD	EF GHIJKLMNPQRS
	XWVUTSRQPONM	LK	J	I	H			H	H	G	FE	D					D EFGHIJLMNOQRS
14	XWVUTSRQPONM	LKJ	I	H	G	F	F	G	G	F	ED	C					CDEFGHIJKMNOQRS
	WVUTSRQPONMLKJI	H	G	F		F		GG		F	ED	C					CDE FHIJKLNOPR
	WVUTSRQPONMLKJ	H	G	F				F		F	ED		C				C DE FG IJKLNOPR
13	WVUTSRQPONMLKJI	H	G	F	E	E		F		F	E	D					CC DE FGHJKLMOPQR
	WVUTSRQPONMLKJI	H	G	F	E			F		F	E	D					CC D EFGHIJKLMOPQR
	WVUTSRQPONMLKJI	H	G	F	E			F		F	E	D					CC D EFGHIJKLMNPQR
12	WVUTSRQPONMLKJI	H	G	F	E			F		F	E	D					CC D EFGHIJLMNPQR
	WVUTSRQPONMLKJI	H	G	F	E	E		F		F	E	D	C				CD EFGHIJLMNPQR
	VUTSRQPONMLKJI	H	G	F	E	E		F		F	E	D	C				BC DEFGHIJLMNPQR
11	VUTSRQPONMLKJI	H	G	F				F		F	E	D	C				BB CDEFGHIJLMNOQ
	VUTSRQPONMLKJI	H	G	F				F	G	G	F	E	D	C			CD EFGHIJLMNOQ
	VUTSRQPONMLKJI	H	G	F				G	H	H	G	F	E	D			D EF GHIJLMNOQ
10	VUTSRQPONMLKJI	H	G	F				G	H	I	I	H	G	F	E		E F GHIJKLMNOQ
	VUTSRQPONMLKJI	H	G	F				H	I	J	J	I	H	G	F		F G HIJKLMNOQ
	VUTSRQPONMLKJI	H	G	F				I	J	K	K	J	I	H	G		G HIJKLMNOQ
9	VUTSRQPONMLKJI	H	G	F				J	K	L	L	K	J	I	H		H IJKLMNOQ
	UTSRQPONMLKJI	H	G	F				J	K	L	M	M	L	K	J	I	I J K LMNO PQ
	UTSRQPONMLKJI	H	G	F				K	L	M	N	N	M	L	K		K L M NO PQ
8	UTSRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	L L M NO PQ
	UTSRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	L L M NO PQ
	UTSRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO PQ
7	UTSRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO PQ
	TSRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	N OP
	TSRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	N OP
6	TSRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	N OP
	SRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	SRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
5	SRQPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
4	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
3	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
2	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P
1	QPONMLKJI	H	G	F				L	M	N	N	M	L	K	J	I	M NO P

Final!

Work File Header: CEM

NOTE: ~~The printed results are from a previous model~~  
This model has not been executed

The total sum of squares is 3.807  
Units of distance for this model = KILOFEET  
Meters per unit of distance = 304.800  
Number of inches per unit of distance = 12000.000  
The Current map scale is set to 1.

\* Station Data \*

Profile Id: ALAMOSA GRAVITY PROFILE B-B\*

Station	Distance to Station	Elev.	Observed Gravity	Calc. Gravity	Anomaly	Vertical Gravity	Diff. ANM-VGRV
1	0.000	7.549	-255.50	-255.20	-28.00	-27.70	-0.30
2	2.700	7.549	-254.90	-255.34	-27.40	-27.84	0.44
3	5.100	7.549	-255.10	-255.47	-27.60	-27.97	0.37
4	7.800	7.548	-255.50	-255.63	-28.00	-28.13	0.13
5	10.450	7.549	-255.80	-255.80	-28.30	-28.30	0.00
6	13.100	7.546	-255.80	-255.99	-28.30	-28.49	0.19
7	15.700	7.546	-255.70	-256.20	-28.20	-28.70	0.50
8	18.250	7.546	-255.70	-256.44	-28.20	-28.94	0.74
9	20.900	7.544	-256.30	-256.67	-28.80	-29.17	0.37
10	22.350	7.542	-256.40	-256.78	-28.90	-29.28	0.38
11	23.500	7.543	-256.30	-256.88	-28.80	-29.38	0.58
12	25.200	7.541	-256.40	-257.04	-28.90	-29.54	0.64
13	26.300	7.540	-256.70	-257.16	-29.20	-29.66	0.46
14	27.600	7.540	-257.20	-257.33	-29.70	-29.83	0.13
15	28.900	7.538	-257.60	-257.50	-30.10	-30.00	-0.10
16	30.600	7.544	-258.00	-257.80	-30.50	-30.30	-0.20
17	32.350	7.538	-258.10	-257.99	-30.60	-30.49	-0.11
18	34.100	7.536	-258.50	-258.13	-31.00	-30.63	-0.37
19	35.800	7.536	-258.50	-258.14	-31.00	-30.64	-0.36
20	37.100	7.536	-258.30	-258.07	-30.80	-30.57	-0.23
21	38.800	7.536	-258.00	-257.88	-30.50	-30.38	-0.12
22	41.200	7.536	-257.50	-257.44	-30.00	-29.94	-0.06
23	43.000	7.534	-257.00	-257.03	-29.50	-29.53	0.03
24	44.000	7.533	-256.80	-256.79	-29.30	-29.29	-0.01
25	45.300	7.532	-256.70	-256.45	-29.20	-28.95	-0.25
26	47.600	7.531	-256.30	-255.88	-28.80	-28.38	-0.42
27	50.550	7.533	-255.50	-255.25	-28.00	-27.75	-0.25
28	53.100	7.535	-255.10	-254.72	-27.60	-27.22	-0.38
29	55.750	7.540	-254.30	-254.20	-26.80	-26.70	-0.10
30	58.500	7.538	-253.80	-253.58	-26.30	-26.08	-0.22
31	61.100	7.537	-252.60	-252.98	-25.10	-25.48	0.38
32	63.750	7.540	-251.90	-252.38	-24.40	-24.88	0.48

\* Model Data \*

Polygon no. 1 Density = -0.43000  
Strike length 1 = 50.00000  
Strike length 2 = 50.00000  
  
X-vertice -25.870 Z-vertice -7.549



0.000	-7.549
2.700	-7.549
7.800	-7.548
18.250	-7.546
22.350	-7.542
26.300	-7.540
30.600	-7.544
34.100	-7.536
35.800	-7.536
38.800	-7.536
44.000	-7.533
50.550	-7.533
55.750	-7.540
63.750	-7.540
137.280	-7.887
137.280	-7.187
63.750	-2.800
55.750	-2.449
50.550	-2.239
28.900	-2.239
26.300	-2.239
22.350	-2.239
18.250	-2.239
13.100	-2.239
7.800	-2.239
2.700	-2.239
0.000	-2.239
-25.870	-2.239
-25.870	-7.549

Polygon no. 2      Density = -0.33000  
 Strike length 1 = 50.00000  
 Strike length 2 = 50.00000

X-vertice	Z-vertice
2.700	-2.239
47.600	-2.239
44.000	-1.700
39.320	-1.200
35.800	-0.700
32.350	-0.900
31.010	-1.500
25.200	-2.000
21.120	-1.700
18.250	-2.000
13.100	-2.100
2.700	-2.239

\* Regional Data \*

Left regional - X	=	-25.870
Left regional - gravity	=	-227.500
Right regional - X	=	137.280
Right regional - gravity	=	-227.500

Regional values for current station locations  
 Station dis.      Regional

1	0.000	-227.500
2	2.700	-227.500
3	5.100	-227.500
4	7.800	-227.500
5	10.450	-227.500
6	13.100	-227.500
7	15.700	-227.500
8	18.250	-227.500
9	20.900	-227.500
10	22.350	-227.500
11	23.500	-227.500
12	25.200	-227.500
13	26.300	-227.500
14	27.600	-227.500
15	28.900	-227.500
16	30.600	-227.500
17	32.350	-227.500
18	34.100	-227.500
19	35.800	-227.500
20	37.100	-227.500
21	38.800	-227.500
22	41.200	-227.500
23	43.000	-227.500
24	44.000	-227.500
25	45.300	-227.500
26	47.600	-227.500
27	50.550	-227.500
28	53.100	-227.500
29	55.750	-227.500
30	58.500	-227.500
31	61.100	-227.500
32	63.750	-227.500

GM3D-LIST

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W      W  WWW          WWW  W      WWW
W      W W  W          W      W W      W  W
W      W W          W      W W      W  W
W      W W          WWWWWW WWWWWW W      WWWWWW
W      W W          W      W W      W  W
W      W W  W          W      W W      W  W
WWW    WWW          W      W WWWWWW W  W

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WWW  W  W  WWW  WWWW          W      WWW  WWW  WWWWWW
W      W WW WW W  W W  W      W      W  W  W
W      W W W          W W  W      W      W  W
W      W W W  WW  W  W  WWWWWW W      W      WWW  W
W  WW  W  W  W  W  W  W      W      W      W  W
W  W  W  W  W  W  W  W      W      W  W  W  W
WWWW W  W  WWW  WWWW          WWWWWW WWW  WWW  W

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LABEL: PRT001 -FORM

SPOOLED: 81-11-20. 16:23

STARTED: 81-11-20. 16:23, ON: CENP BY: CEN

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Project name: ALAMOSA AREA, COLORADO  
GRAVITY SURVEY  
Model: 3-D GRAVITY MODEL

GRAVITY PRISM MODEL

Grid spacing = 5280.00 feet.

PRISM	X1	X2	Y1	Y2	Z1	Z2	DC
1	-200000.	200000.	-200000.	200000.	0.	15000.	2.00
2	18480.	27984.	-21120.	-12144.	3000.	5500.	0.22
3	10560.	18480.	-21120.	-16500.	3000.	5500.	0.22
4	21120.	25344.	-21120.	-17424.	2750.	3000.	0.22
5	27984.	36960.	-12144.	-7392.	3250.	5500.	0.22
6	12672.	15840.	15840.	24816.	2250.	5500.	0.22
7	29568.	32736.	8448.	21120.	3000.	5500.	0.22

NO	DATE	DESCRIPTION	AMOUNT	CHECK NO	DEBIT	CREDIT	BALANCE
01	1/1	OPENING BALANCE					
02	1/5	SALES					
03	1/10	SALES					
04	1/15	SALES					
05	1/20	SALES					
06	1/25	SALES					
07	1/30	SALES					
08	2/5	SALES					
09	2/10	SALES					
10	2/15	SALES					
11	2/20	SALES					
12	2/25	SALES					
13	2/28	SALES					
14	3/5	SALES					
15	3/10	SALES					
16	3/15	SALES					
17	3/20	SALES					
18	3/25	SALES					
19	3/30	SALES					
20	4/5	SALES					
21	4/10	SALES					
22	4/15	SALES					
23	4/20	SALES					
24	4/25	SALES					
25	4/30	SALES					
26	5/5	SALES					
27	5/10	SALES					
28	5/15	SALES					
29	5/20	SALES					
30	5/25	SALES					
31	5/30	SALES					
32	6/5	SALES					
33	6/10	SALES					
34	6/15	SALES					
35	6/20	SALES					
36	6/25	SALES					
37	6/30	SALES					
38	7/5	SALES					
39	7/10	SALES					
40	7/15	SALES					
41	7/20	SALES					
42	7/25	SALES					
43	7/30	SALES					
44	8/5	SALES					
45	8/10	SALES					
46	8/15	SALES					
47	8/20	SALES					
48	8/25	SALES					
49	8/30	SALES					
50	9/5	SALES					
51	9/10	SALES					
52	9/15	SALES					
53	9/20	SALES					
54	9/25	SALES					
55	9/30	SALES					
56	10/5	SALES					
57	10/10	SALES					
58	10/15	SALES					
59	10/20	SALES					
60	10/25	SALES					
61	10/30	SALES					
62	11/5	SALES					
63	11/10	SALES					
64	11/15	SALES					
65	11/20	SALES					
66	11/25	SALES					
67	11/30	SALES					
68	12/5	SALES					
69	12/10	SALES					
70	12/15	SALES					
71	12/20	SALES					
72	12/25	SALES					
73	12/30	SALES					
74	1/5	SALES					
75	1/10	SALES					
76	1/15	SALES					
77	1/20	SALES					
78	1/25	SALES					
79	1/30	SALES					
80	2/5	SALES					
81	2/10	SALES					
82	2/15	SALES					
83	2/20	SALES					
84	2/25	SALES					
85	2/28	SALES					
86	3/5	SALES					
87	3/10	SALES					
88	3/15	SALES					
89	3/20	SALES					
90	3/25	SALES					
91	3/30	SALES					
92	4/5	SALES					
93	4/10	SALES					
94	4/15	SALES					
95	4/20	SALES					
96	4/25	SALES					
97	4/30	SALES					
98	5/5	SALES					
99	5/10	SALES					
100	5/15	SALES					

8	15840.	42240.	21120.	24816.	3000.	5500.	0.22
9	-18480.	-7392.	18480.	31680.	5000.	5500.	0.45
10	-18480.	-5280.	-13728.	-2640.	5000.	5500.	0.45
11	-100000.	-18480.	-75000.	75000.	5000.	15000.	0.67
12	-10560.	10560.	-2640.	8448.	5500.	8000.	-0.30
13	-10560.	2112.	8448.	18480.	5500.	7500.	-0.30
14	-18480.	200000.	31680.	52800.	6000.	15000.	0.67
15	-18480.	47520.	-26400.	31680.	5500.	15000.	0.67
16	-18480.	100000.	-50000.	-26400.	6000.	15000.	0.67
17	-200000.	200000.	-200000.	200000.	15000.	50000.	0.67
18	47520.	100000.	-26400.	31680.	5400.	15000.	0.67
19	10560.	36960.	-2640.	8448.	3000.	5500.	0.25
20	2112.	47520.	8448.	31680.	2000.	5500.	0.25
21	5280.	36960.	-26400.	-2640.	2000.	5500.	0.25
22	-18480.	200000.	31680.	39600.	3000.	6000.	0.25

---

TRUE VALUES FOR ISOLINES

(A) = 0.707E 03 (B) = 0.706E 03 (C) = 0.705E 03 (D) = 0.704E  
 (E) = 0.703E 03 (F) = 0.702E 03 (G) = 0.701E 03 (H) = 0.700E  
 (I) = 0.699E 03 (J) = 0.698E 03 (K) = 0.697E 03 (L) = 0.696E  
 (M) = 0.695E 03 (N) = 0.694E 03 (O) = 0.693E 03 (P) = 0.692E  
 (Q) = 0.691E 03 (R) = 0.690E 03 (S) = 0.689E 03 (T) = 0.688E  
 (U) = 0.687E 03 (V) = 0.686E 03 (W) = 0.685E 03 (X) = 0.684E  
 (Y) = 0.683E 03 (Z) = 0.682E 03 (\*) = 0.681E 03 (

15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	
	. YXWVUTSRQPONML	. K	. J	. I	. H		. H	. H	. G	. F	. E		. E	. FG	. HIJLMNOG	
	. YXWVUTSRQPONMLKJ	. I	. H	. G			. G	. G	. FE	. D			. D	. E	. FGHIJKMNOP	
	. YXWVUTSRQPONMLKJI	. H	. G	. F	. E		. E	. F	. FED	. C	. C		. D	. E	. FGHIJKLNOP	
14	. YXWVUTSRPONLKJIHG	. F	. E	. D			. D	. E	. ED	. C			. C	. D	. EFGHIJKLMOP	
	. YXWVUTSQPOMLKJHG	. FE	. D	. C	. C		. D	. E	. E	. D	. C		. CD	. EFGHIJKLMOP		
	. XWVUTSQPNMLJIHF	. E	. D	. C			. C	. D		. D	. C		. C	. DE	. FGHIKLMNP	
13	. XWVUTRQONMKJHGF	. E	. D	. C			. C	. D		. D	. C		. C	. D	. EFGHIJLMNP	
	. XWVUTSRQONMKJHGE	. DC					. C	. D		. D	. C		. C	. D	. EFGHIJLMNP	
	. XWVUTSRQONLKIHG	. E	. D	. C	. B	. B		. C	. D		. D	. C	. C	. D	. EFGHIJKMNO	
12	. XWVUTSRPONLKIHF	. E	. D	. C	. B	. B		. C	. D		. D	. C	. C	. D	. EFGHIJKMNO	
	. XWVUTSRPOMLKIHF	. E	. D	. C	. B	. B		. C	. D		. D	. C	. C	. D	. EFGHIJKMNO	
	. WVUTSRPOMLKIHF	. E	. D	. C			. C	. D		. D	. C		. C	. DE	. FGHIJKLNO	
11	. WVUTSQPOMLKIHF	. E	. D	. C	. C		. C	. D	. EE	. D	. C	. B	. B	. C	. DEFGHIJKLNO	
	. WVUTSQPOMLKIHG	. E	. D	. C	. C		. D	. E		. E	. D	. C	. C	. D	. EFGHIJKLNO	
	. WVUTSQPOMLKIHG	. FE	. D				. D	. EF		. F	. ED	. C	. C	. D	. EFGHIJKLNO	
10	. WVUTSQPOMLKJHGF	. E	. D		. D		. EF	. G	. G	. FE	. D		. D	. E	. FGHIJKLNO	
	. WVUTSRQPONMKJIHG	. F	. E		. E		. F	. G	. H	. HG	. F	. E	. E	. F	. GHIJKLNO	
	. WVUTSRQPONMLKJIH	. G			. F	. F	. G	. H	. I	. JJI	. HG	. F	. E	. E	. F	. GHIJKLNO
9	. WVUTSRQPONMLKJI	. H					. H	. I	. J	. KJI	. HG	. F	. E	. E	. F	. GHIJKLNO
	. VUTSRQPONMLKJ	. I					. I	. J	. K	. JI	. H			. H	. I	. JKLMNO
	. VUTSRQPONMLK	. J					. J	. K	. L	. KJ	. I			. I	. J	. KLMNO
8	. VUTSRQPONMLK	. K					. K	. L		. L	. K			. K	. L	. LMNO
	. VUTSRQPONML	. K					. K	. L		. L	. K			. K	. L	. MNO
	. VUTSRQPONML	. K					. K	. L	. MM		. L			. L	. MNO	
7	. UTSRQPONMLK	. K					. K	. L	. M	. M	. L			. L	. MNO	
	. UTSRQPONML	. K			. J		. K	. L			. L			. L	. MN	
	. UTSRQPONML	. K		. J	. J		. J	. K	. L	. L				. L	. MN	
6	. TSRQPONMLK	. K		. J	. J		. J	. K				. K	. K		. LMN	
	. TSRQPONML	. K		. J			. J	. K				. K		. K	. LMN	
	. SRQPONMLK	. J					. J						. K		. LM	
5	. RQPONMLK	. J		. I			. I		. J					. K	. LM	
	. RQPONML	. K	. J	. I			. I		. J				. J	. K	. LM	
	. PONMLK	. J	. I						. I				. J	. K	. LM	
4	. ONMLK	. J	. I							. I			. J	. K	. LM	
	. NMLK	. J	. I			. H		. H				. I	. J	. K	. L	
	. NMLK	. J	. I		. H			. H		. H		. I	. J	. K	. L	
3	. MLK	. J	. I		. H			. H		. H		. I	. J	. K	. L	
	. MLK	. J	. I		. H			. H		. H		. I	. J	. K	. L	
	. LK	. J	. I		. H			. H		. H		. I	. J	. K	. L	
2	. LK	. J	. I		. H			. H		. H		. I	. J	. K	. L	
	. LK	. J	. I		. H			. H		. H		. I	. J	. K	. L	
	. LK	. J	. I		. H			. H		. H		. I	. J	. K	. L	
1	. LK	. J	. I		. H			. H		. H		. I	. J	. K	. L	

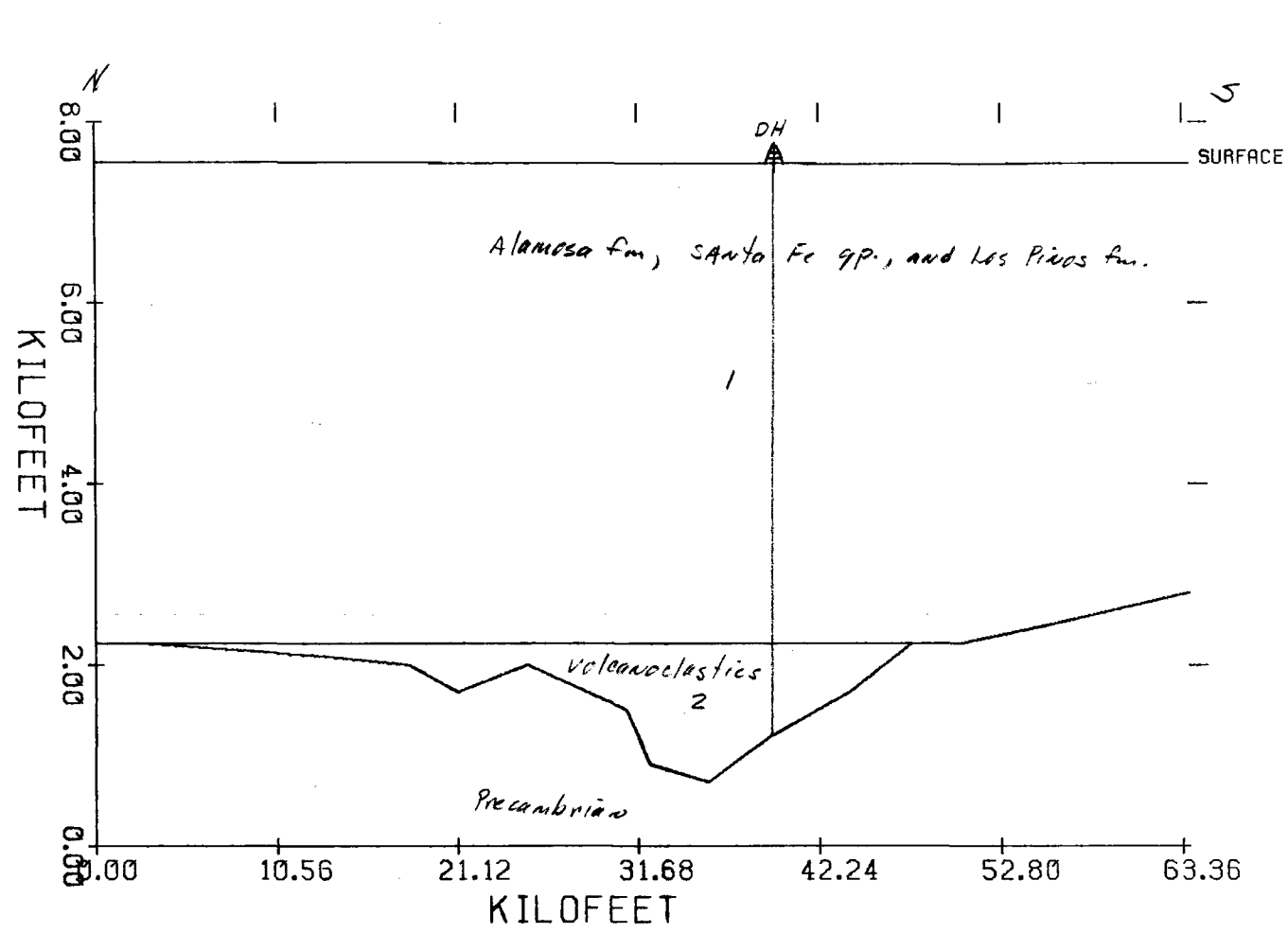
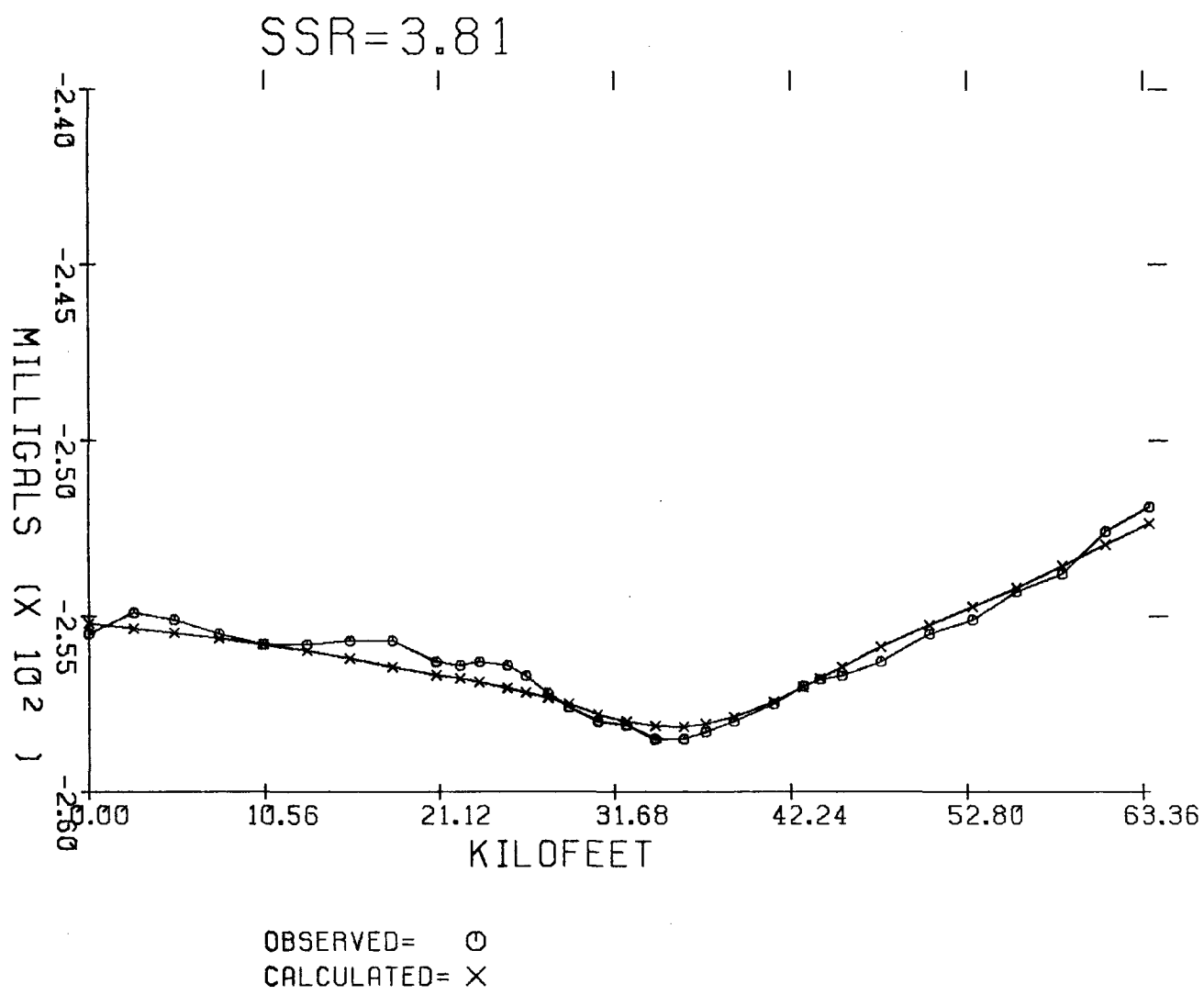


682	687	692	697	699	700	700	700	700	703	704	704	701	697	690
683	688	694	700	703	705	704	703	703	705	706	705	702	697	690
683	689	695	703	706	706	705	704	704	705	705	705	703	698	690
684	689	696	703	707	706	705	704	704	705	705	706	703	698	690
684	689	696	703	706	705	705	703	703	705	706	706	703	698	690
685	689	696	702	704	704	703	700	700	703	705	705	703	698	690
685	689	695	699	701	701	700	697	697	701	702	702	701	698	690
685	690	693	696	697	698	697	696	695	696	697	698	697	696	690
686	690	693	696	697	698	697	696	695	695	696	696	696	695	690
687	691	694	696	697	698	698	697	696	696	696	697	697	696	690
689	692	695	697	698	699	699	698	698	698	698	698	697	697	690
693	695	697	698	699	700	700	700	700	699	699	699	698	697	690
694	696	698	699	700	700	700	700	700	700	700	699	698	697	690
695	697	698	699	700	700	700	700	700	700	700	699	698	697	690
696	697	698	699	699	700	700	700	700	700	699	699	698	697	690

MAP VALUES IN MGAL

POINT (8, 8) ON MAP CORRESPONDS TO COORDINATE (0, 0)  
 GRID SPACING = 5280.0 FT





POLYGON NO.	DENSITY CONTRAST
1	-0.43000
2	-0.33000

ALAMOSA GRAVITY PROFILE B-B'