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GEOTECHNICAL DATA GATHERING PROJECT
SECTION 1.0

TO
AREA OIL SHALE SUPERVISOR
UNITED STATES GEOLOGICAL SURVEY

By
RIO BLANCO OIL SHALE PROJECT
Gulf Oil Corporation
and
Standard Oil Company (Indiana)

CORE LABORATORIES, INC.

104 GLENN ROAD • CASPER, WYOMING • 82601

ANALYTICAL REPORT

Page No. 1

RIO BLANCO OIL SHALE PROJECT

~~CONFIDENTIAL~~ EAZ

Company <u>Gulf-Standard</u>	
Sample Identification <u>Core Hole 7, Rio Blanco Project</u> (intervals listed below)	File <u>RP-4-MA-102</u>
Remarks <u>All concentrations expressed as parts per million (PPM).</u>	Date Report <u>11/21/71</u>
	Analysts <u>AP4/RCC</u>

Sample Footage	Sample	Cadmium (Cd)	Antimony (Sb)	Arsenic (As)	Mercury (Hg)	Selenium (Se)	Fluoride (F)	Boron (B)
11-40	26-Fresh	1.19	0.4	3.8	0.54	0.2	490	74
	26-Spent	1.37	0.5	3.3	0.30	0.2	280	83
40-86	27-Fresh	2.65	0.6	4.6	0.89	0.5	140	100
	27-Spent	2.55	0.4	3.0	0.98	0.5	140	70
86-112	28-Fresh	2.79	0.7	4.6	0.64	0.5	610	62
	28-Spent	3.06	0.8	5.4	0.75	0.6	840	37
112-156	29-Fresh	2.87	0.8	5.7	1.78	0.4	1200	67
	29-Spent	3.29	0.8	6.8	0.80	0.9	770	69
156-204	30-Fresh	2.98	0.5	7.4	1.45	0.4	710	59
	30-Spent	2.72	0.4	7.5	1.09	0.3	520	54
204-222	31-Fresh	2.28	0.7	3.8	0.85	0.2	150	120
	31-Spent	2.08	0.8	2.7	0.74	0.3	150	120
222-294	32-Fresh	2.54	0.4	6.1	1.74	0.3	820	86
	32-Spent	2.66	0.3	5.9	1.96	0.4	760	100
294-358	33-Fresh	2.09	0.8	7.0	2.10	0.3	830	66
	33-Spent	2.11	0.4	5.8	1.79	0.2	1100	69
358-440	34-Fresh	2.18	0.5	3.5	1.69	0.2	460	77
	34-Spent	2.27	0.4	2.0	1.52	0.3	550	81
440-528	35-Fresh	2.40	0.5	3.7	1.42	0.3	770	160
	35-Spent	2.48	0.5	1.1	1.54	0.4	950	97
528-604	36-Fresh	2.53	0.5	3.5	1.84	0.2	570	130
	36-Spent	2.59	0.5	1.3	1.85	0.3	600	55
604-647	37-Fresh	2.58	0.7	5.3	1.32	0.3	540	81
	37-Spent	2.51	0.4	4.3	1.63	0.4	580	44
647-739	38-Fresh	2.69	0.9	5.7	3.60	0.8	890	94
	38-Spent	2.54	0.8	2.4	3.15	0.7	580	58

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

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ANALYTICAL REPORT

Page No. 2

RIO BLANCO OIL FIELD

~~CONFIDENTIAL~~ **EAZ**

Company Gulf-Standard
 Sample Identification Core Hole 7, Rio Blanco Project File RP-1-M-100
 (intervals listed below) Date Report 11/21/74
 Remarks All concentrations expressed as parts per Analysts APH/RGC
million (PPM).

Sample Footage	Sample	Cadmium (Cd)	Antimony (Sb)	Arsenic (As)	Mercury (Hg)	Selenium (Se)	Fluoride (F)	Boron (B)
739-772	39-Fresh	2.35	0.7	8.1	1.27	0.5	390	110
	39-Spent	2.27	0.4	5.0	0.71	0.4	380	59
772-846	40-Fresh	2.79	0.3	6.8	1.60	0.4	630	66
	40-Spent	2.59	0.5	7.4	1.39	0.3	650	58
846-888	41-Fresh	2.58	0.4	6.2	1.53	0.3	510	73
	41-Spent	2.35	0.4	6.7	1.10	0.5	690	51
888-950	42-Fresh	2.47	0.3	5.1	1.09	0.4	1100	160
	42-Spent	2.53	0.4	6.2	0.88	0.5	960	140
950-975	43-Fresh	1.78	1.0	2.8	2.28	0.2	690	170
	43-Spent	2.32	0.6	3.3	1.57	0.3	690	85
975-1062	44-Fresh	2.28	0.4	6.2	2.62	0.3	790	93
	44-Spent	2.50	0.4	6.5	2.28	0.5	950	110
1062-1100	45-Fresh	2.25	0.8	2.7	2.16	0.4	530	80
	45-Spent	1.29	0.4	1.3	1.87	0.3	640	97
1100-1153	46-Fresh	2.17	1.1	5.7	3.06	0.2	1300	118
	46-Spent	2.46	1.2	4.2	3.04	0.3	800	84
1153-1200	47-Fresh	2.28	0.7	2.5	2.62	0.2	920	85
	47-Spent	1.78	1.0	2.1	2.79	0.2	650	110

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ANALYTICAL REPORT

Company Gulf-Standard
 Sample Identification Core Hole: #9 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-14-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
44-110	69-Fresh	1.60	0.2	10.2	0.60	0.1	602	147
	69-Spent	1.86	0.2	7.3	0.57	0.1	312	79
110-165	70-Fresh	1.94	0.3	8.4	0.40	0.1	558	152
	70-Spent	1.85	0.2	3.5	0.29	0.1	84	138
165-181	71-Fresh	2.33	0.5	5.4	0.48	0.3	507	168
	71-Spent	2.50	0.4	5.3	0.48	0.4	408	218
181-214	72-Fresh	2.31	0.7	5.2	0.30	0.1	345	177
	72-Spent	2.41	0.3	3.3	0.09	0.2	237	103
214-262	73-Fresh	2.18	0.6	6.3	0.46	0.1	194	115
	73-Spent	2.12	0.3	2.3	0.26	0.1	236	112
262-298	74-Fresh	2.42	0.3	5.1	0.33	0.2	331	134
	74-Spent	2.86	0.3	1.5	0.29	0.2	176	73
298-339	75-Fresh	2.66	0.4	10.2	0.36	0.2	313	177
	75-Spent	2.74	0.6	9.4	0.21	0.2	232	72
339-391	76-Fresh	1.86	0.5	7.0	0.61	0.1	343	157
	76-Spent	2.52	0.2	4.5	0.59	0.2	151	21
391-448	77-Fresh	2.69	0.3	6.3	0.68	0.3	223	124
	77-Spent	3.13	0.2	3.4	0.71	0.5	219	58
448-476	78-Fresh	2.64	0.4	7.1	1.23	0.2	212	229
	78-Spent	2.88	0.5	7.6	1.17	0.3	170	151
476-530	79-Fresh	2.99	0.5	8.0	1.08	0.4	188	165
	79-Spent	3.43	0.5	6.5	1.01	0.5	263	72
530-580	80-Fresh	2.63	0.6	8.2	0.76	0.3	339	114
	80-Spent	3.15	0.4	7.8	0.42	0.3	290	115
580-602	81-Fresh	3.34	0.7	7.3	0.64	0.1	314	166
	81-Spent	3.00	0.2	4.2	0.40	0.2	274	84

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ANALYTICAL REPORT

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Company Gulf-Standard
 Sample Identification Core Hole: #9 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-14-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
602-664	82-Fresh	2.92	0.3	9.8	1.16	0.2	402	196
	82-Spent	3.87	0.1	10.6	1.26	0.2	327	151
664-724	83-Fresh	3.07	0.3	10.9	0.72	0.2	590	116
	83-Spent	2.53	0.4	10.5	0.50	0.3	437	94
724-820	84-Fresh	2.89	0.4	7.2	0.77	0.1	308	173
	84-Spent	2.56	0.4	3.6	0.31	0.3	533	167
820-920	85-Fresh	2.83	0.5	7.4	0.54	0.2	434	162
	85-Spent	2.89	0.3	5.5	0.24	0.3	296	98
920-1010	86-Fresh	2.83	0.3	9.6	0.60	0.2	406	146
	86-Spent	3.22	0.2	8.4	0.27	0.3	330	59
1010-1030	87-Fresh	3.01	0.2	9.3	0.30	0.2	336	132
	87-Spent	3.31	0.4	7.5	0.23	0.3	210	78
1030-1080	88-Fresh	3.43	0.5	9.8	0.21	0.2	409	124
	88-Spent	3.67	0.4	10.4	0.12	0.5	380	40
1080-1140	89-Fresh	2.57	0.6	8.1	0.41	0.4	590	81
	89-Spent	3.36	0.6	5.3	0.32	0.4	397	86
1140-1168	90-Fresh	2.57	0.7	8.3	0.43	0.1	917	131
	90-Spent	3.47	0.5	6.5	0.16	0.1	554	5
1168-1260	91-Fresh	3.15	0.8	9.6	0.52	0.2	509	126
	91-Spent	3.71	0.6	9.5	0.28	0.2	365	97
1260-1298	92-Fresh	3.09	1.0	6.2	0.29	0.2	735	177
	92-Spent	3.38	0.4	3.5	0.30	0.3	346	103
1298-1354	93-Fresh	2.75	0.7	4.9	0.31	0.1	884	187
	93-Spent	3.28	0.3	4.5	0.19	0.4	492	329
1354-1380	94-Fresh	2.41	0.6	8.3	0.57	0.3	823	261
	94-Spent	2.77	0.3	7.4	0.38	0.2	700	278

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Company Gulf-Standard
 Sample Identification Core Hole: #10 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
7-58	198-Fresh	1.33	0.2	6.7	0.38	0.3	178	108
58-116	199-Fresh	1.54	0.3	7.7	0.34	0.3	187	94
116-170	200-Fresh	1.48	0.4	8.5	0.32	0.3	211	116
170-230	201-Fresh	1.54	0.6	8.5	0.28	0.4	257	71
230-290	202-Fresh	3.26	0.6	8.3	0.64	0.5	780	102
	202-Spent	3.17	0.5	5.3	0.31	0.5	520	79
390-352	203-Fresh	2.98	0.7	5.5	0.74	0.6	586	145
	203-Spent	2.89	0.6	4.2	0.39	0.5	383	110
352-422	204-Fresh	3.10	0.5	4.0	0.30	0.4	652	135
	204-Spent	2.75	0.4	2.8	0.30	0.6	470	31
422-482	205-Fresh	3.84	0.4	7.4	0.48	0.3	852	123
	205-Spent	3.05	0.4	4.2	0.19	0.5	798	102
482-570	206-Fresh	2.21	0.5	9.5	0.44	0.2	667	216
	206-Spent	2.47	0.4	4.0	0.34	0.3	227	137
572-640	207-Fresh	3.14	0.6	8.9	0.18	0.1	561	159
	207-Spent	2.41	0.4	6.1	0.20	0.2	304	115
640-703	208-Fresh	4.02	0.3	8.5	0.51	0.4	632	165
	208-Spent	3.09	0.2	6.5	0.17	0.4	205	160
703-724	209-Fresh	3.11	0.5	7.4	0.78	0.3	341	103
	209-Spent	2.50	0.5	7.4	0.37	0.4	317	108
724-780	210-Fresh	2.98	0.4	6.7	1.18	0.4	898	109
	210-Spent	2.91	0.2	6.4	0.48	0.4	635	109
780-840	211-Fresh	2.88	0.4	8.5	1.01	0.2	555	216
	211-Spent	2.80	0.3	4.2	0.32	0.2	520	211

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ANALYTICAL REPORT

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Company Gulf-Standard File RP-4-MA-102
 Sample Identification Core Hole: #10 Rio Blanco Project Date Report 1-15-75
Intervals as shown Analysts APH/RGC
 Remarks All concentrations expressed as parts per million
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
840-862	212-Fresh	2.70	0.6	6.2	0.64	0.1	332	221
	212-Spent	2.55	0.3	3.1	0.20	0.1	324	143
862-942	213-Fresh	4.00	0.8	9.2	0.64	0.3	653	202
	213-Spent	3.05	0.4	3.8	0.17	0.5	304	132
942-1019	214-Fresh	2.94	0.7	6.2	0.74	0.7	746	203
	214-Spent	2.74	0.4	5.1	0.19	0.8	563	125
1019-1090	215-Fresh	3.02	0.4	8.8	0.38	0.6	985	223
	215-Spent	2.85	0.3	3.9	0.25	0.9	441	215
1090-1189	216-Fresh	2.86	0.7	7.5	0.51	0.9	283	180
	216-Spent	3.36	0.7	3.8	0.27	0.8	321	110
1189-1284	217-Fresh	3.13	0.8	7.9	0.50	0.6	543	242
	217-Spent	2.76	0.4	4.6	0.32	0.7	241	185
1284-1306	218-Fresh	2.68	0.9	6.8	0.35	0.6	425	60
	218-Spent	3.05	0.7	3.2	0.24	0.7	420	30
1306-1378	219-Fresh	3.44	1.1	6.3	0.57	0.7	222	171
	219-Spent	2.78	0.8	6.2	0.21	0.8	211	91
1378-1436	220-Fresh	2.98	1.0	8.2	0.37	0.5	887	170
	220-Spent	2.93	0.9	7.1	0.21	0.6	405	199
1436-1464	221-Fresh	2.69	0.7	9.1	0.78	0.5	643	152
	221-Spent	2.77	0.6	6.4	0.25	0.5	421	95
1464-1558	222-Fresh	3.02	0.4	11.4	0.47	0.3	709	150
	222-Spent	2.86	0.2	7.0	0.22	0.5	299	64
1558-1598	223-Fresh	2.72	0.7	7.5	0.57	0.4	607	39
	223-Spent	2.89	0.4	4.2	0.18	0.5	155	40
1598-1655	224-Fresh	2.67	0.5	6.7	0.37	0.4	947	185
	224-Spent	3.01	0.4	3.9	0.13	0.5	836	180

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Company Gulf-Standard
 Sample Identification Core Hole: #10 Rio Blanco Project File BP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
1655-1680	225-Fresh	2.72	0.5	8.5	0.91	0.4	715	222
	225-Spent	2.85	0.3	3.3	0.14	0.5	489	149
1680-1740	226-Fresh	2.78	0.4	7.9	0.63	0.3	816	182
	226-Spent	2.88	0.3	5.3	0.34	0.4	692	138
1740-1760	227-Fresh	2.46	0.6	7.3	0.38	0.3	1068	179
	227-Spent	2.61	0.5	4.5	0.17	0.4	717	142
1760-1832	228-Fresh	2.35	0.4	8.7	0.56	0.3	916	148
	228-Spent	2.16	0.4	5.3	0.17	0.2	799	83
1832-1902.7	229-Fresh	2.22	0.6	9.2	0.42	0.8	905	116
	229-Spent	2.74	0.5	3.7	0.20	0.4	526	76

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Company Gulf-Standard
 Sample Identification Core Hole: #11 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PDM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
11-80	136-Fresh	0.84	0.6	7.9	0.46	0.1	281	88
80-145	137-Fresh	0.94	0.4	8.9	0.27	0.7	285	140
145-165	138-Fresh	1.28	0.7	6.9	0.26	0.2	414	211
165-250	139-Fresh	0.97	0.8	8.4	0.06	0.2	131	226
250-345	140-Fresh	0.97	0.3	7.8	0.22	0.1	190	184
345-390	141-Fresh	1.80	0.1	7.0	0.22	0.2	496	325
	141-Spent	1.90	0.1	4.9	0.25	0.3	459	77
390-474	142-Fresh	1.59	1.2	8.0	0.37	0.4	306	120
	142-Spent	1.63	0.7	7.9	0.31	0.6	336	82
474-573	143-Fresh	2.25	0.7	10.9	0.40	0.6	521	143
	143-Spent	2.56	0.6	6.2	0.15	0.7	455	65
573-631	144-Fresh	1.82	0.6	9.1	0.29	0.3	292	149
	144-Spent	2.08	0.8	7.7	0.16	0.5	254	102
631-690	145-Fresh	2.60	0.6	6.4	0.36	0.9	444	150
	145-Spent	2.43	0.5	7.2	0.19	0.8	414	112
690-752	146-Fresh	1.68	0.8	8.9	0.38	0.3	407	140
	146-Spent	1.81	0.6	8.9	0.28	0.3	294	107
752-770	147-Fresh	1.98	0.2	7.2	0.30	0.6	368	208
	147-Spent	1.68	0.1	7.4	0.42	0.6	302	240
770-834	148-Fresh	2.58	0.1	11.4	0.17	0.7	828	109
	148-Spent	2.66	0.1	6.4	0.19	0.8	517	38
834-894	149-Fresh	1.84	0.4	7.5	0.65	0.3	901	190
	149-Spent	2.26	0.3	5.0	0.26	0.4	556	195
894-910	150-Fresh	1.78	0.4	4.7	0.13	0.3	390	296
	150-Spent	2.04	0.2	5.5	0.25	0.5	269	107

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ANALYTICAL REPORT

Company Gulf-Standard
 Sample Identification Core Hole: #11 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
910-990	151-Fresh	2.93	0.5	4.2	0.74	0.4	699	222
	151-Spent	2.12	0.2	3.0	0.12	0.5	549	147
990-1060	152-Fresh	2.25	0.3	9.7	0.24	0.2	415	184
	152-Spent	2.18	0.3	7.8	0.16	0.3	257	223
1060-1122	153-Fresh	2.80	0.4	9.8	0.64	0.6	968	222
	153-Spent	2.89	0.1	9.1	0.27	0.6	254	169
1122-1200	154-Fresh	2.89	0.5	8.3	0.58	0.5	829	206
	154-Spent	2.96	0.2	9.7	0.24	0.6	771	228
1200-1280	155-Fresh	3.02	0.3	9.5	0.56	0.6	693	136
	155-Spent	2.93	0.2	9.1	0.15	0.7	519	146
1280-1306	156-Fresh	2.81	0.1	7.4	0.36	0.4	603	157
	156-Spent	2.90	0.2	4.2	0.35	0.3	375	64
1306-1360	157-Fresh	2.12	0.2	7.0	0.47	0.4	569	193
	157-Spent	1.97	0.1	4.8	0.51	0.5	442	156
1360-1414	158-Fresh	2.71	0.3	7.3	0.81	0.7	715	98
	158-Spent	2.47	0.2	7.1	0.31	0.7	650	64
1414-1450	159-Fresh	2.44	0.2	6.8	0.79	0.1	844	143
	159-Spent	2.24	0.2	5.6	0.13	0.2	563	108
1450-1520	160-Fresh	2.14	0.6	6.3	0.54	0.1	319	153
	160-Spent	2.42	0.4	3.2	0.07	0.1	289	51
1520-1570	161-Fresh	2.71	0.3	4.0	0.55	0.8	411	189
	161-Spent	2.66	0.2	2.9	0.14	0.9	314	144
1570-1636	162-Fresh	2.97	0.2	6.4	1.14	0.6	574	289
	162-Spent	3.13	0.1	3.7	0.17	0.8	465	237
1636-1700	163-Fresh	2.09	0.4	7.4	1.11	0.9	657	245
	163-Spent	1.90	0.3	5.3	0.22	1.2	215	227

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ANALYTICAL REPORT

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Company Gulf-Standard
 Sample Identification Core Hole: #11 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
1700-1772	164-Fresh	3.12	0.3	5.1	0.92	0.6	943	177
	164-Spent	2.74	0.3	3.1	0.14	0.5	633	190
1772-1800	165-Fresh	1.36	0.2	5.5	0.88	0.1	538	344
	165-Spent	1.59	0.4	5.0	0.18	0.1	387	173
1800-1850	166-Fresh	1.82	0.6	5.7	1.65	0.1	682	240
	166-Spent	1.87	0.1	6.6	0.17	0.1	604	147
1850-1886	167-Fresh	2.05	0.6	6.3	0.50	0.1	585	188
	167-Spent	2.10	0.4	7.3	0.25	0.2	502	158

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ANALYTICAL REPORT

Company Gulf-Standard
 Sample Identification Core Hole: #15 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
0-40	100-Fresh	1.31	0.6	7.5	0.53	0.1	1134	19
40-76	101-Fresh	2.85	0.7	12.6	0.79	0.2	806	133
	101-Spent	2.77	0.6	5.9	0.72	0.3	531	201
76-106	102-Fresh	1.54	0.4	12.3	0.88	0.1	811	43
106-189	103-Fresh	1.70	0.4	8.2	0.11	0.1	816	91
189-220	104-Fresh	1.44	0.4	7.4	0.88	0.1	668	94
220-244	105-Fresh	1.33	0.2	10.1	0.70	0.1	725	49
244-338	106-Fresh	2.54	0.6	9.5	1.17	0.5	913	181
	106-Spent	2.75	0.5	8.7	0.54	0.6	525	118
338-394	107-Fresh	2.24	0.3	10.9	0.48	0.7	657	204
	107-Spent	2.46	0.1	9.9	0.46	0.8	211	126
394-433	108-Fresh	2.53	0.2	15.1	0.15	0.5	933	157
	108-Spent	2.06	0.2	10.3	0.28	0.5	636	105
433-480	109-Fresh	2.12	0.9	12.7	0.52	0.3	587	144
	109-Spent	2.71	0.7	11.4	0.29	0.3	527	135
480-518	110-Fresh	1.82	0.5	11.3	0.79	0.2	477	144
	110-Spent	3.33	0.2	8.1	0.13	0.3	468	133
518-564	111-Fresh	2.44	0.6	10.9	0.72	0.3	366	112
	111-Spent	2.54	0.4	9.2	0.17	0.5	265	74
564-628	112-Fresh	2.93	0.9	9.0	0.56	0.5	405	236
	112-Spent	2.71	0.7	8.3	0.38	0.5	216	158
628-688	113-Fresh	3.56	1.1	7.9	0.88	1.0	731	196
	113-Spent	2.54	0.7	7.1	0.08	1.0	506	127
688-704	114-Fresh	2.54	1.2	7.8	0.90	0.6	814	173
	114-Spent	2.20	0.8	7.0	0.25	0.6	703	155

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CORE LABORATORIES, INC.
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ANALYTICAL REPORT

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Company Gulf-Standard File RP-4-MA-102
 Sample Identification Core Hole: #15 Rio Blanco Project Date Report 1-15-75
Intervals as shown Analysts APH/RGC
 Remarks All concentrations expressed as parts per million
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
704-760	115-Fresh	1.83	1.0	11.5	0.88	0.3	780	111
	115-Spent	1.90	0.5	9.4	0.23	0.4	646	39
760-816	116-Fresh	2.23	1.3	14.2	0.98	0.4	600	136
	116-Spent	1.99	0.9	12.4	0.09	0.5	634	108
816-846	117-Fresh	2.83	1.1	8.6	0.70	0.6	597	243
	117-Spent	2.60	1.0	6.2	0.13	0.7	308	135
846-914	118-Fresh	2.58	1.0	7.1	0.75	0.6	455	124
	118-Spent	3.21	0.8	5.0	0.28	0.6	330	79
914-978	119-Fresh	2.87	0.8	6.8	0.68	0.6	665	146
	119-Spent	3.37	0.8	3.9	0.14	0.7	525	122
978-1028	120-Fresh	3.12	0.8	8.2	1.05	0.6	1142	267
	120-Spent	3.20	0.5	7.5	0.21	0.6	1013	144
1028-1122	121-Fresh	2.56	1.0	7.3	1.06	0.9	1150	187
	121-Spent	2.59	0.8	6.2	0.29	1.0	779	123
1122-1218	122-Fresh	2.93	1.3	12.1	1.08	0.7	1237	75
	122-Spent	2.95	0.9	11.8	0.45	0.9	844	76
1218-1237	123-Fresh	3.39	1.0	5.2	1.13	1.0	858	131
	123-Spent	2.71	0.9	3.4	0.54	0.9	612	86
1237-1298	124-Fresh	1.53	1.0	4.0	0.63	0.9	758	138
	124-Spent	2.65	0.6	1.0	0.24	1.0	190	104
1298-1357	125-Fresh	2.42	1.0	4.8	1.00	0.5	1488	123
	125-Spent	3.26	0.8	1.0	0.30	0.6	155	86
1357-1390	126-Fresh	2.64	1.3	3.3	0.61	0.4	842	99
	126-Spent	2.71	1.2	1.9	0.41	0.6	569	94
1390-1487	127-Fresh	2.76	0.6	4.2	0.55	0.3	550	73
	127-Spent	2.88	0.2	2.6	0.30	0.5	551	133

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ANALYTICAL REPORT

Company Gulf-Standard File RP-4-MA-102
 Sample Identification Core Hole: #15 Rio Blanco Project Date Report 1-15-75
Intervals as shown Analysts APH/RGC
 Remarks All concentrations expressed as parts per million
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
1487-1530	128-Fresh	2.75	0.5	5.0	0.60	0.2	1228	74
	128-Spent	2.78	0.4	2.8	0.33	0.3	325	72
1530-1590	129-Fresh	2.46	0.6	8.3	0.68	0.3	674	206
	129-Spent	3.03	0.3	6.0	0.69	0.4	539	92
1590-1622	130-Fresh	2.02	0.8	8.7	0.43	0.5	780	119
	130-Spent	3.02	0.4	6.5	0.21	0.6	521	31
1622-1686	131-Fresh	2.37	0.7	2.2	0.17	0.3	492	171
	131-Spent	1.82	0.5	6.6	0.21	0.4	407	149
1686-1718	132-Fresh	2.21	0.9	5.1	0.41	0.2	948	218
	132-Spent	1.85	0.6	8.2	0.46	0.3	773	199
1718-1764	133-Fresh	2.06	0.3	8.8	0.15	0.7	715	203
	133-Spent	1.56	0.1	7.7	0.17	0.8	629	159
1764-1802	134-Fresh	1.94	0.5	11.5	0.53	0.6	853	227
	134-Spent	1.35	0.2	7.0	0.30	0.7	857	167
1802-1833.4	135-Fresh	1.62	0.9	10.2	0.35	0.5	645	223
	135-Spent	1.66	0.7	5.5	0.36	0.7	504	211

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CORE LABORATORIES, INC.
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ANALYTICAL REPORT

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Company Gulf-Standard
 Sample Identification Core Hole: #1 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-14-75
 Remarks All Concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
0-43.6	48-Fresh	1.72	0.2	7.2	1.91	0.3	538	158
	48-Spent	1.98	0.2	4.4	1.86	0.2	305	86
43.6-86	49-Fresh	2.54	0.5	9.3	1.08	0.2	558	146
	49-Spent	2.23	0.4	9.4	0.93	0.3	602	115
86-159	50-Fresh	1.83	0.6	7.0	0.96	0.2	552	171
	50-Spent	1.46	0.3	5.6	1.11	0.2	331	96
159-248	51-Fresh	2.23	0.4	6.8	0.85	0.2	451	155
	51-Spent	2.14	0.4	3.9	0.78	0.5	304	83
248-279	52-Fresh	2.52	0.8	13.1	1.92	0.4	549	179
	52-Spent	2.45	0.6	12.3	1.68	0.6	371	89
279-330	53-Fresh	2.66	0.3	10.2	0.53	0.5	381	98
	53-Spent	2.87	0.2	2.5	0.23	0.7	95	83
330-397	54-Fresh	2.91	0.5	8.5	0.64	0.5	317	173
	54-Spent	3.04	0.1	6.5	0.38	0.4	419	64
397-422	55-Fresh	2.79	0.3	6.4	1.62	0.4	768	167
	55-Spent	2.48	0.4	1.0	1.89	0.5	581	159
422-490	56-Fresh	3.45	0.4	7.5	0.73	0.6	525	154
	56-Spent	2.89	0.2	1.4	0.39	0.7	710	102
490-548	57-Fresh	3.12	0.3	5.3	0.50	0.5	635	179
	57-Spent	2.96	0.3	1.3	0.38	0.6	460	74
548-636	58-Fresh	2.88	0.5	4.1	0.69	0.3	558	164
	58-Spent	2.59	0.3	1.4	0.53	0.4	484	167
636-730	59-Fresh	3.35	0.3	5.2	0.48	0.5	903	278
	59-Spent	2.92	0.4	1.2	0.53	0.7	90	158
730-830	60-Fresh	2.93	0.5	6.7	0.50	0.6	310	103
	60-Spent	2.85	0.3	1.9	0.27	0.6	306	41

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ANALYTICAL REPORT

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Company Gulf-Standard
 Sample Identification Core Hole: #1 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 7-14-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
830-860	61-Fresh	2.89	0.4	7.0	1.39	0.5	280	95
	61-Spent	2.39	0.2	1.6	1.20	0.5	64	62
860-960	62-Fresh	3.00	0.3	7.8	0.64	0.9	674	126
	62-Spent	3.17	0.1	1.0	0.44	1.1	462	31
960-990	63A-Fresh	2.77	0.6	8.0	0.40	0.4	887	286
	63A-Spent	3.10	0.6	4.8	0.22	0.3	846	262
990-1060	63B-Fresh	2.80	0.4	6.6	0.41	0.4	796	516
	63B-Spent	3.33	0.2	2.1	0.38	0.5	516	126
1060-1110	63C-Fresh	2.82	0.5	9.8	0.50	0.2	706	161
	63C-Spent	3.01	0.2	3.9	0.39	0.2	704	141
1110-1166	64-Fresh	3.01	0.5	7.0	0.24	0.6	589	286
	64-Spent	2.80	0.3	5.1	0.21	0.7	710	269
1166-1199	65-Fresh	2.18	0.4	6.4	0.32	0.4	937	264
	65-Spent	1.95	0.4	6.4	0.23	0.5	586	243
1199-1280	66-Fresh	2.47	0.7	7.9	0.34	0.7	785	202
	66-Spent	2.45	0.4	4.5	0.31	0.8	647	185
1280-1352	67-Fresh	2.64	0.5	5.1	0.31	0.5	593	124
	67-Spent	2.28	0.1	4.1	0.19	0.7	235	181
1352-1404.3	68-Fresh	2.68	0.4	4.0	0.41	0.4	642	146
	68-Spent	2.78	0.3	3.4	0.40	0.4	355	119

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ANALYTICAL REPORT

RIO BLANCO OIL SHALE PROJECT

Company Gulf-Standard File ~~CONFIDENTIAL~~ 612
 Sample Identification Core Hole 2-3, Rio Blanco Project Date Report 11/20/71
 (Intervals listed below) Analysts APH/PGC
 Remarks All concentrations expressed as parts per million (PPM).

Sample Footage	Sample	Cadmium (Cd)	Antimony (Sb)	Arsenic (As)	Mercury (Hg)	Selenium (Se)	Fluoride (F)	Boron (B)
0-70	1-Fresh	1.67	0.3	4.0	0.32	0.2	300	58
70-130	2-Fresh	2.42	0.6	4.3	0.57	0.2	400	50
	2-Spent	1.56	0.2	1.0	0.12	0.2	240	*
130-174	3-Fresh	2.85	0.6	1.5	1.20	0.2	300	66
	3-Spent	2.41	0.1	0.8	0.73	0.1	140	*
174-240	4-Fresh	2.52	0.4	1.1	0.75	0.1	75	87
	4-Spent	2.27	0.3	1.1	0.11	0.1	75	*
240-278	5-Fresh	2.83	0.3	2.6	1.27	0.1	200	120
	5-Spent	2.53	0.2	1.2	0.34	0.1	190	40
278-350	6-Fresh	3.57	0.8	7.7	0.61	0.2	570	56
	6-Spent	2.93	0.4	1.3	0.63	0.2	610	*
350-406	7-Fresh	2.58	0.6	3.4	1.13	0.2	300	110
	7-Spent	2.78	0.5	4.1	0.42	0.3	310	89
406-426	8-Fresh	2.47	0.4	2.4	1.42	0.2	420	95
	8-Spent	2.79	0.2	3.0	0.19	0.2	490	54
426-487	9-Fresh	2.84	0.4	1.3	1.25	0.6	180	67
	9-Spent	2.95	0.3	0.7	**	0.8	280	38
487-560	10-Fresh	2.89	0.6	5.2	0.95	0.4	470	100
	10-Spent	2.76	0.5	1.2	0.44	0.6	560	45
560-640	11-Fresh	2.49	0.4	0.9	0.51	0.1	660	69
	11-Spent	2.31	0.2	0.9	0.21	0.1	690	82
640-740	12-Fresh	2.51	0.3	5.3	0.88	0.2	490	58
	12-Spent	2.52	0.2	0.9	0.66	0.3	540	40

* Less than 0.5
 ** Less than 0.01

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ANALYTICAL REPORT

RIO BLANCO OIL SAMPLE PROJECT

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Company Gulf-Standard
 Sample Identification Core Hole 2-3, Rio Blanco Project File RP-1-MS-102
 (Intervals listed below) Date Report 11/20/74
 Remarks All concentrations expressed as parts per million (PPM). Analysts APH/RCC

Sample Footage	Sample	Cadmium (Cd)	Antimony (Sb)	Arsenic (As)	Mercury (Hg)	Selenium (Se)	Fluoride (F)	Boron (B)
740-834	13-Fresh	2.45	0.6	11.0	0.65	0.3	390	55
	13-Spent	2.48	0.4	6.4	0.10	0.2	380	1
834-860	14-Fresh	2.41	0.3	3.9	0.61	0.3	430	110
	14-Spent	2.65	0.2	5.3	0.10	0.4	440	*
860-920	15-Fresh	21.10 ^①	2.8	8.0	0.68	0.6	230	100
	15-Spent	2.66	0.9	9.8	0.31	0.8	250	*
920-970	16-Fresh	3.98	1.5	12.0	0.70	0.4	480	68
	16-Spent	2.63	0.8	5.8	0.42	0.7	310	4
970-994	17-Fresh	2.98	0.5	4.8	0.64	0.4	430	85
	17-Spent	2.37	0.5	9.1	0.10	0.4	440	36
994-1086	18-Fresh	2.28	0.4	0.9	1.44	0.4	480	110
	18-Spent	2.55	0.4	0.7	1.75	0.4	620	3
1086-1116	19-Fresh	1.93	0.5	2.2	1.31	0.5	540	150
	19-Spent	1.91	0.4	2.7	0.83	0.7	740	*
1116-1172	20-Fresh	3.02	0.4	1.5	1.32	0.6	750	120
	20-Spent	2.55	0.5	1.6	1.28	0.8	790	78
1172-1206	21-Fresh	2.31	0.2	1.3	0.21	0.6	270	190
	21-Spent	1.86	0.2	1.6	0.05	0.8	320	150
1206-1280	22-Fresh	2.60	1.7	3.7	2.10	0.3	500	71
	22-Spent	2.48	1.0	3.1	0.44	0.7	580	60
1280-1308	23-Fresh	2.58	0.4	1.5	0.53	0.4	640	170
	23-Spent	2.04	0.5	1.8	0.21	0.7	590	110
1308-1360	24-Fresh	2.67	0.8	4.4	1.54	0.5	450	140
	24-Spent	2.60	0.8	1.5	0.54	0.6	480	60
1360-1424	25-Fresh	2.30	0.2	1.0	0.83	0.3	670	100
	25-Spent	1.72	0.2	1.2	0.94	0.5	720	*

* Less than 0.5

① Tel call to Robert Cook, Core Lab; correct, probable sample contamination 12/12/74 EAZ
 These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted); but Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operations, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

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ANALYTICAL REPORT

Page No. 2

Company Gulf-Standard 4-5
 Sample Identification Core Hole: #4 & #5 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
690-762	181-Fresh	2.10	0.4	6.1	0.31	0.3	583	100
	181-Spent	2.54	0.2	3.3	0.21	0.3	470	144
762-850	182-Fresh	2.77	0.5	5.7	0.49	0.3	423	80
	182-Spent	2.81	0.2	3.2	0.14	0.4	346	145
850-947	183-Fresh	2.96	0.4	8.9	0.48	0.9	1040	76
	183-Spent	2.49	0.3	5.2	0.17	0.9	847	169
947-1034	184-Fresh	2.90	0.5	9.2	0.22	0.7	837	109
	184-Spent	3.57	0.2	4.6	0.19	0.5	483	10
1034-1065	185-Fresh	2.51	0.8	5.4	0.79	0.8	605	135
	185-Spent	2.84	0.1	4.0	0.30	1.1	476	77
1065-1156	186-Fresh	3.16	1.0	5.5	0.70	1.3	669	87
	186-Spent	3.84	0.6	2.6	0.18	1.0	416	82
1156-1208	187-Fresh	2.96	0.8	7.3	0.77	0.7	541	46
	187-Spent	2.92	0.5	6.5	0.18	1.0	432	105
1208-1232	188-Fresh	2.82	0.8	5.0	0.93	0.5	1315	44
	188-Spent	2.42	0.4	3.0	0.17	0.5	1217	85
1232-1320	189-Fresh	2.73	0.7	4.7	0.58	0.9	576	71
	189-Spent	2.71	0.3	3.2	0.25	0.9	666	61
1320-1357	190-Fresh	2.96	0.3	5.6	0.68	0.2	508	14
	190-Spent	2.62	0.2	4.4	0.23	0.3	463	6
1357-1400	191-Fresh	2.37	0.3	6.9	0.57	0.3	1026	147
	191-Spent	2.87	0.4	3.5	0.31	0.3	814	17
1400-1430	192-Fresh	2.86	0.4	8.1	0.48	0.4	826	138
	192-Spent	2.81	0.5	5.3	0.47	0.4	225	140
1430-1512	193-Fresh	2.35	0.4	8.3	0.64	0.5	918	60
	193-Spent	3.00	0.6	4.4	0.50	0.6	821	127

These analyses, opinions or interpretations are based on observations and materials supplied by the client to whom, and for whose exclusive and confidential use, this report is made. The interpretations or opinions expressed represent the best judgment of Core Laboratories, Inc. (all errors and omissions excepted), and Core Laboratories, Inc. and its officers and employees, assume no responsibility and make no warranty or representations, as to the productivity, proper operation, or profitability of any oil, gas or other mineral well or sand in connection with which such report is used or relied upon.

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ANALYTICAL REPORT

Page No. 3

Company Gulf-Standard ⁴⁻⁵
 Sample Identification Core Hole: #4 & #5 Rio Blanco Project File RP-4-MA-102
Intervals as shown Date Report 1-15-75
 Remarks All concentrations expressed as parts per million Analysts APH/RGC
(PPM)

SAMPLE FOOTAGE	SAMPLE	CADMIUM (Cd)	ANTIMONY (Sb)	ARSENIC (As)	MERCURY (Hg)	SELENIUM (Se)	FLUORIDE (F)	BORON (B)
1512-1530	194-Fresh	2.42	0.4	6.8	0.45	0.3	1117	195
	194-Spent	3.14	0.7	4.8	0.56	0.3	464	144
1530-1562	195-Fresh	2.80	0.6	7.1	0.83	0.1	1060	142
	195-Spent	2.90	0.4	5.7	0.29	0.2	932	162
1562-1604	196-Fresh	2.64	0.6	12.0	0.75	0.8	1185	88
	196-Spent	2.72	0.3	8.2	0.44	0.9	1149	123
1604-1663.1	197-Fresh	2.22	0.5	9.6	0.73	0.9	322	76
	197-Spent	2.20	0.4	5.8	0.32	1.0	221	185

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SECTION 1.0

1.0 GEOTECHNICAL DATA GATHERING PROJECT

Geotechnical data gathered by Rio Blanco during the exploration have been submitted to the Area Oil Shale Supervisor as it became available. All of the previously submitted data should be considered a part of Progress Report 2

SECTION 1.1

1.1 Geologic Program

The Geologic Program data acquired during the exploration activity on Tract C-a has been submitted to the Area Oil Shale Supervisor as it was completed. Table 1-1 is a summary of that data submitted for each of the first and second quarterly reporting periods.

TABLE 1-1
 DATA TRANSMITTED TO AREA OIL SHALE SUPERVISOR
 GULF-STANDARD DRILLING PROGRAM TRACT C-A

	COREHOLES										MONITOR HOLES				DEEP AQUIFER HOLES							
	1	2-3	4-5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	16	17	18	19	
Geophysical Logs																						
Schlumberger	0	0	0	0	0	0	0	0	0	0	0	0	0	X	X	X	X					
Dual Ind. Laterolog	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Comp. Neutron Formation Density	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Borehole Comp. Sonic-Gamma Ray	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Engineered Production (Spinner-Temp)																						
Continuous Directional																						
Birdwell																						
Electric																						
Gamma Ray Density-Neutron																						
3-Dimensional Velocity																						
Temperature																						
Spinner																						
Caliper (Only)																						
Seisviewer																						
Nuclear = GR-Neutron																						
Density																						
Gamma Ray Density																						
Continuous Directional Inclinator																						
Amuedo & Ivey Lithologic Rock Structure Logs	0	0	0	0	0	0	0	0	0	0	0	0	0	X	X	X	X					
Core Lab Assays--Analyses																						
Fischer - G/T Oil	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Nahcolite	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Extractable Alumina	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Trace Elements	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
McDowell-Smith Survey Plats - Elevations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

0 = Data Submitted To Area Oil Shale Supervisor as of September 30, 1974
 X = Data Submitted To Area Oil Shale Supervisor as of February 28, 1975

SECTION 1.1.1

1.1.1 Corehole Program

The data from the corehole program have been previously submitted to the Area Oil Shale Supervisor as is shown on Table 1-1.

SECTION 1.1.2

1.1.2 Laboratory Analyses

Tabulated data from the laboratory analyses for oil shale grade, nahcolite, extractable alumina, and trace elements have previously been submitted to the Area Oil Shale Supervisor. Histograms of the concentrations of trace elements with respect to depth are submitted for coreholes G-S1, G-S 2-3, G-S 4-5, G-S 7, G-S 9, G-S 10, G-S 11, and G-S 15 in pocket 1 of this progress report. ← Put in here

Section 1.1.2.4 Trace Element Analyses

SECTION I.1.3

1.1.3 Stratigraphic Compilation

Data from oil shale assays as well as geophysical logs have been compiled and correlated. Six cross-sections constructed from gamma ray-density information and six cross sections constructed from oil shale assay information show the detailed correlation of stratigraphic units common to each of the twenty five coreholes drilled on Tract C-a. These cross sections are submitted to the Area Oil Shale Supervisor in confidential sections 1.1.3.

SECTION 1.1.4

1.1.4 Aerial Photography

Aerial photography has been completed. Prints are available to the Area Oil Shale Supervisor for viewing.

SECTION 1.1.5

1.1.5 Compilation of Topographic Maps

Copies of the topographic maps have been submitted to the Area Oil Shale Supervisor

SECTION 1.1.6

1.1.6 Photogeologic Mapping

The photogeologic mapping has been completed. The resulting data is incorporated in the structural compilation.

SECTION 1.1.1.7

1.1.7 Surface Geologic Mapping

The surfact geologic mapping has been completed. This data is incorporated in the structural compilation.

SECTION 1.1.8

1.1.8 Seismic Program

The seismic program has been discontinued due to its failure to delineate a reliable reflection within the oil shale sequence which would further define the fault systems within the tract.

SECTION 1.1.9

1.1.9 Structural Compilation

Structural compilation is the result of the correlation of the data from the attitude of stratigraphic horizons, from subsurface structural data (core intersects with fault planes, etc.), from photogeologic mapping, and from surface geologic mapping. A map, Middle A-Groove Structure Map shows the known attitude, faults and displacement at the Middle A-Groove. The map is submitted to the Area Oil Shale Supervisor in Pocket 1 of confidential section 1.1.9. The data on this map will be incorporated into the computer mine model.

SECTION 1.2

1.2 Hydrologic Program

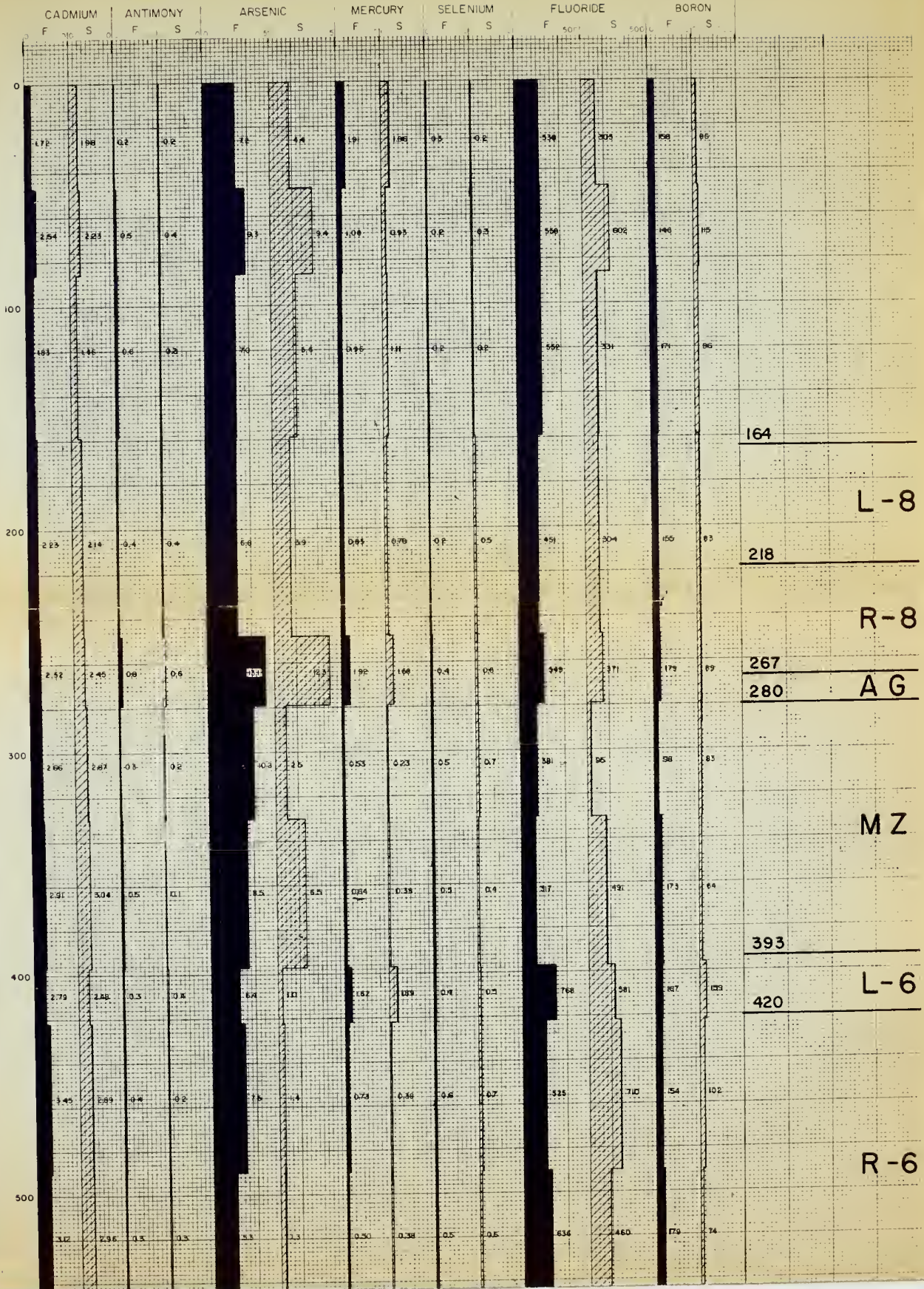
The data on the drilling and completion of hydrologic monitoring holes were submitted to the Area Oil Shale Supervisor in a report by Wright Water Engineers during the second week of March, 1975. Water quality data and pump testing results will be submitted to the Area Oil Shale Supervisor in upcoming Progress Report 3.

L-8

Pocket 1
Trace Element Concentration
For
Gulf-Standard Coreholes 1,
2-3, 4-5, 7, 9, 10, 11 & 15

TRACE ELEMENT CONCENTRATION: PPM

• F'S THAN 0.5
 - - - L'S THAN 0.5
 F: FRESH SHALE
 S: PENT SHALE



164

L-8

218

R-8

267

280 AG

MZ

393

L-6

420

R-6

556

L-5

647

R-5

834

L-4

854

R-4

957

L-3

988

R-3

1064

L-2

1107

R-2

1166

600

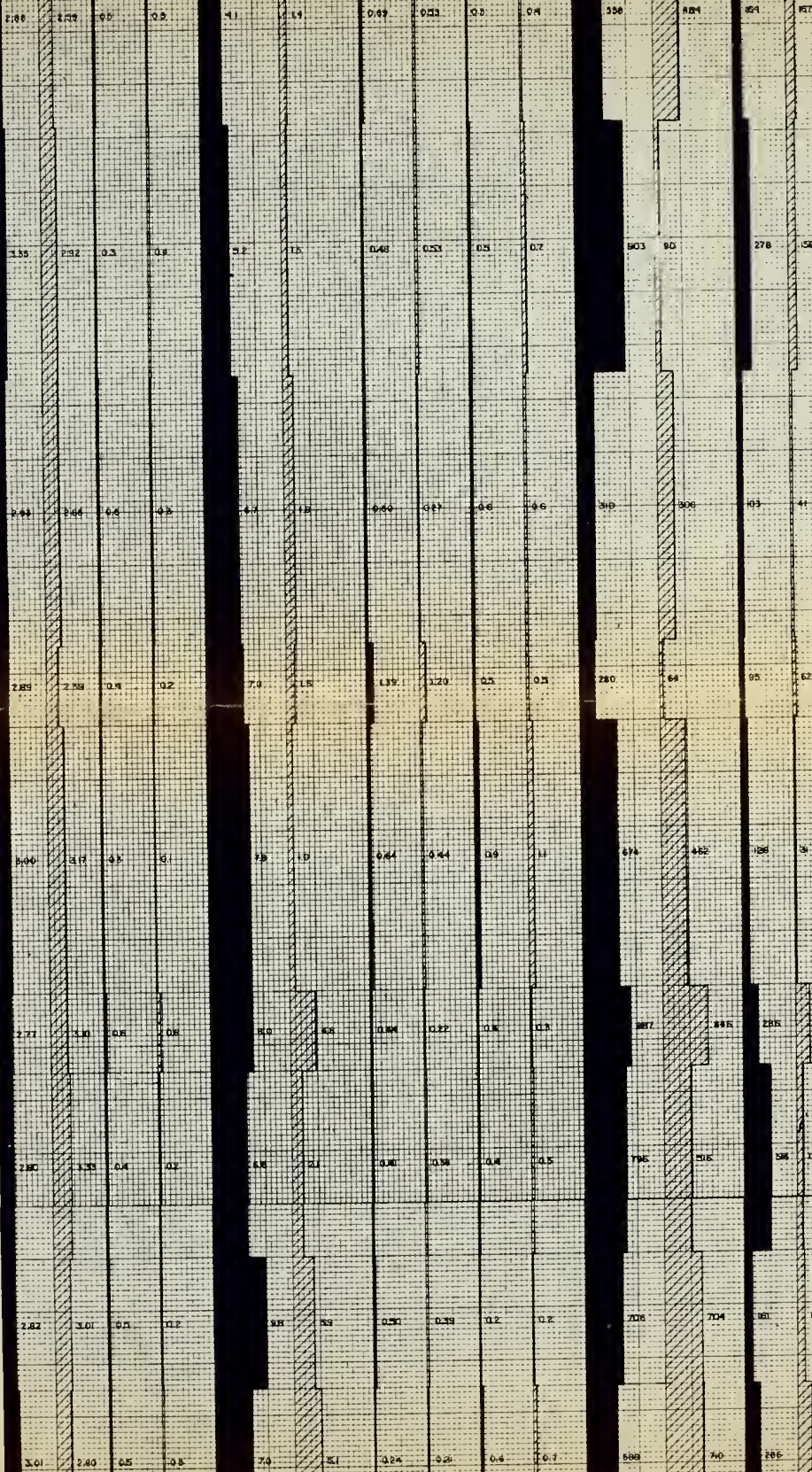
700

800

900

1000

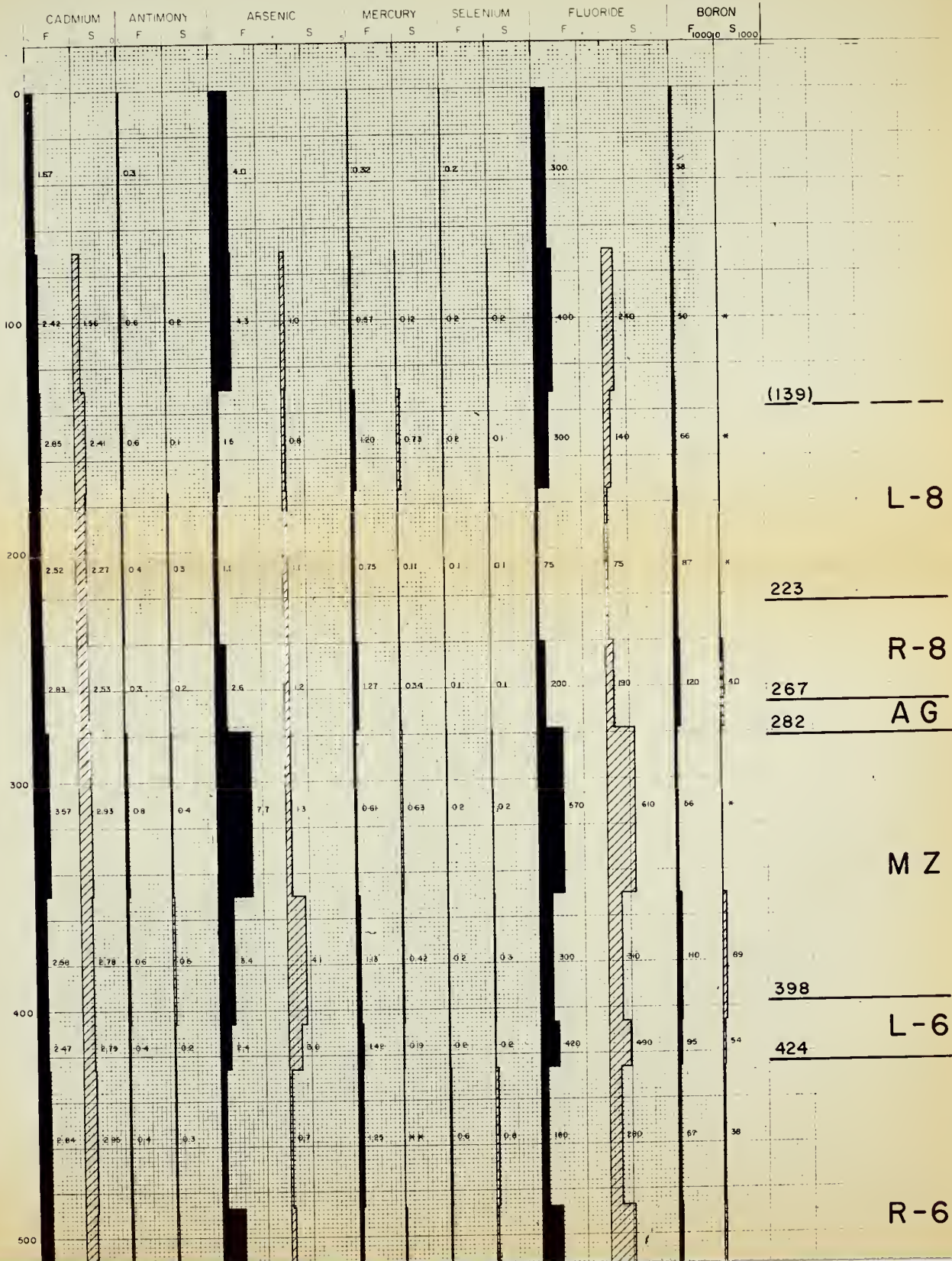
1100



G-S CH 2-3

TRACE ELEMENT CONCENTRATION: PPM

* = LESS THAN 0.5
 ** = LESS THAN 0.01
 F = FRESH SHALE
 S = SPENT SHALE



(139) _____

L-8

223 _____

R-8

267 _____

282 _____

A G

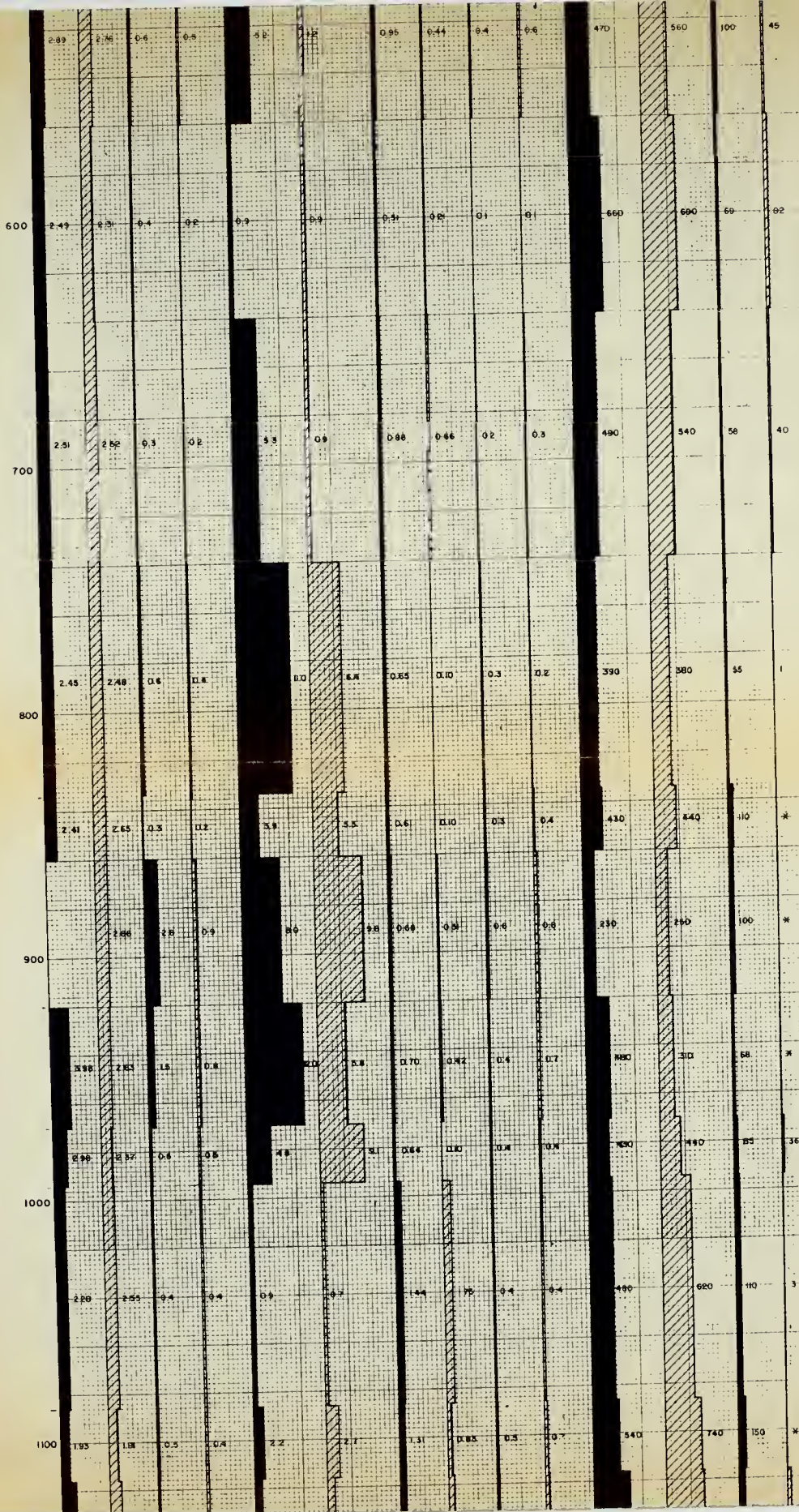
M Z

398 _____

L-6

424 _____

R-6



560

L-5

645

R-5

835

856

L-4

R-4

970

996

L-3

R-3

1087

1118

L-2

R-2

1170

L-1

1208

R-1

1277

L-0

1313

R-0

1357

L-00

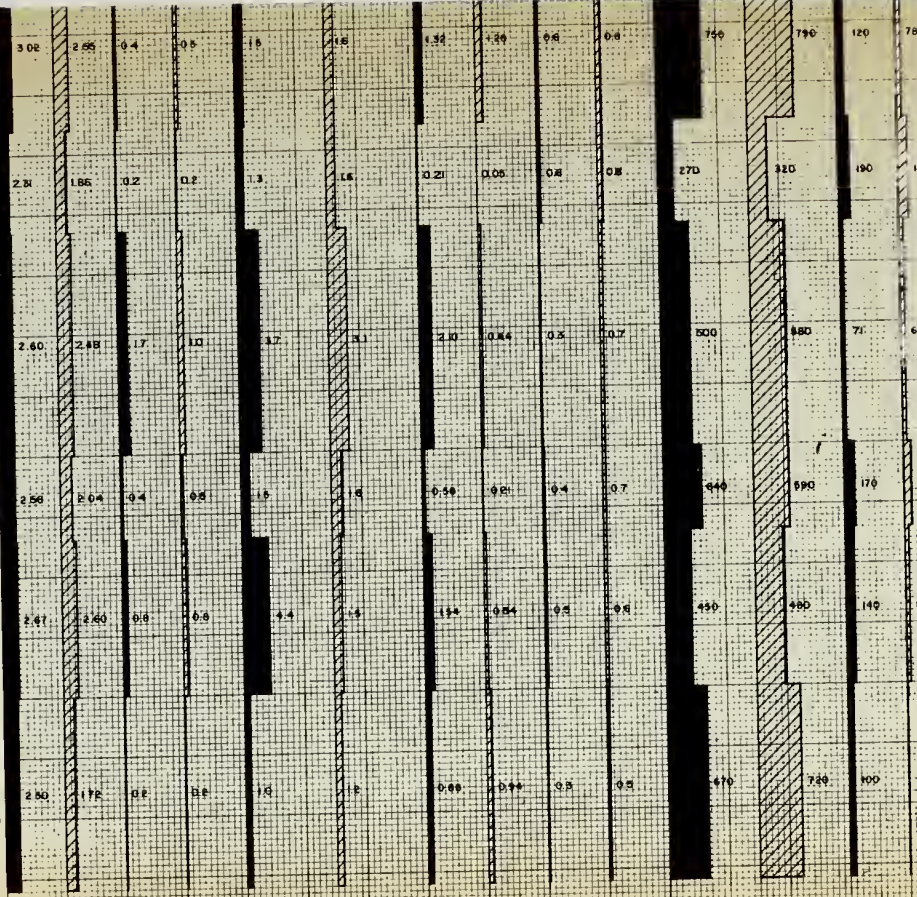
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1424.2 TD

1200

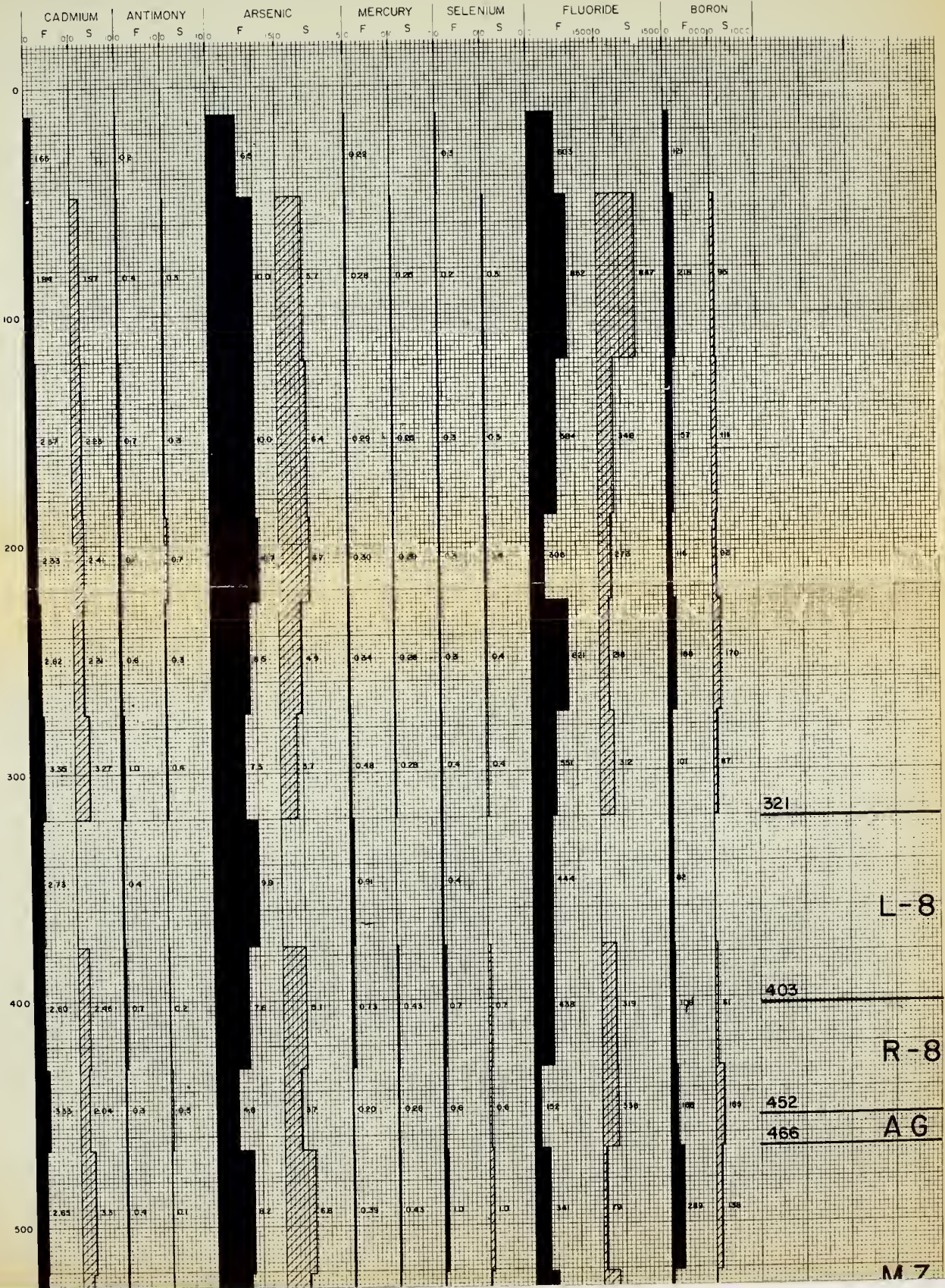
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1400



TRACE ELEMENT CONCENTRATION: PPM

* = LESS THAN 0.5
 ** = LESS THAN 0.01
 F = FRESH SHALE
 S = SPENT SHALE



321

L-8

403

R-8

452

466

A G

M 7

600

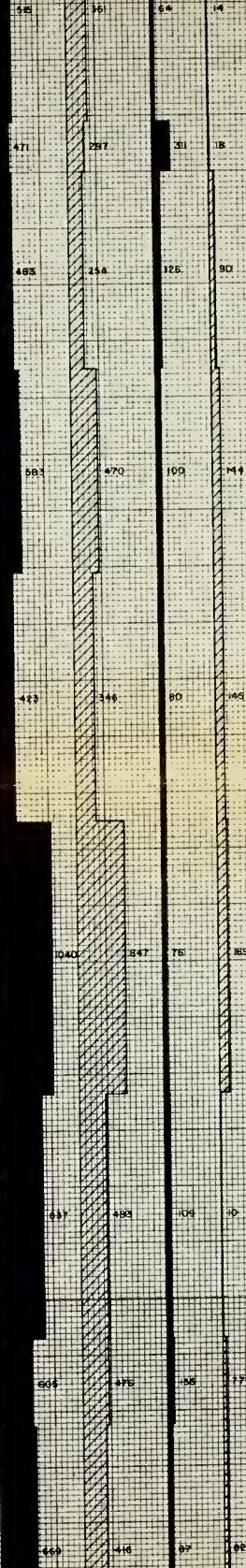
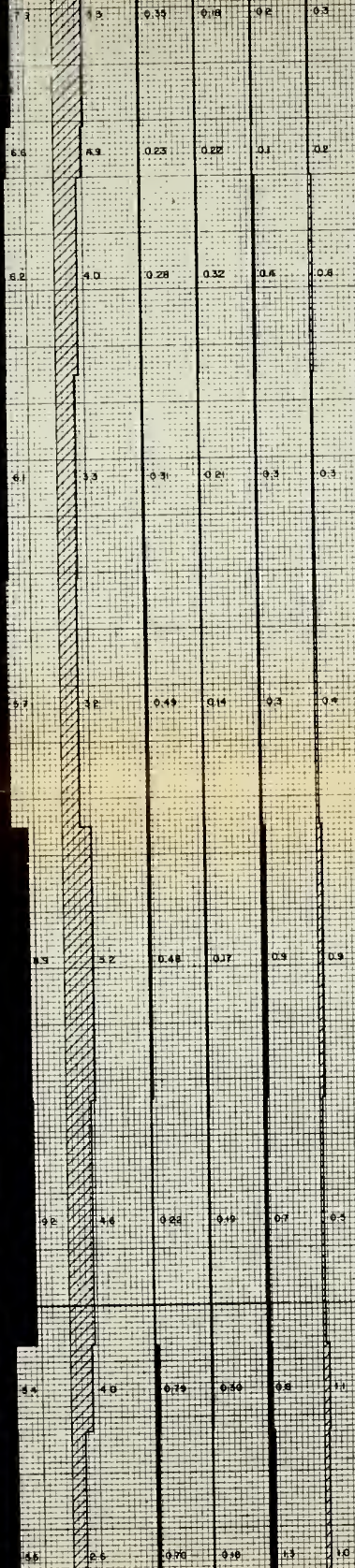
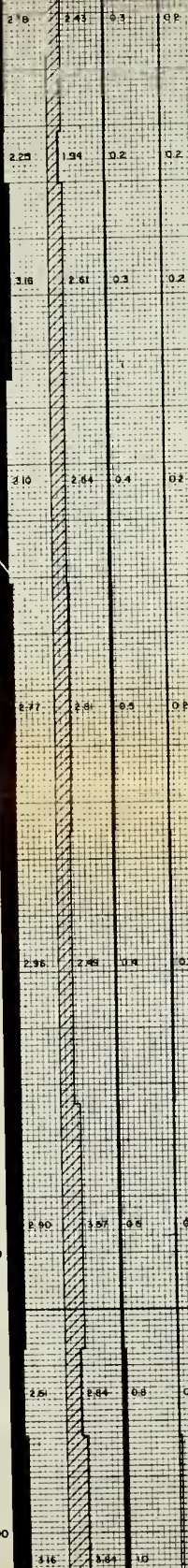
700

800

900

1000

1100



588

614

762

846

1050

1062

L-6

R-6

L-5

R-5

L-4

R-4

1200
1300
1400
1500
1600
1700

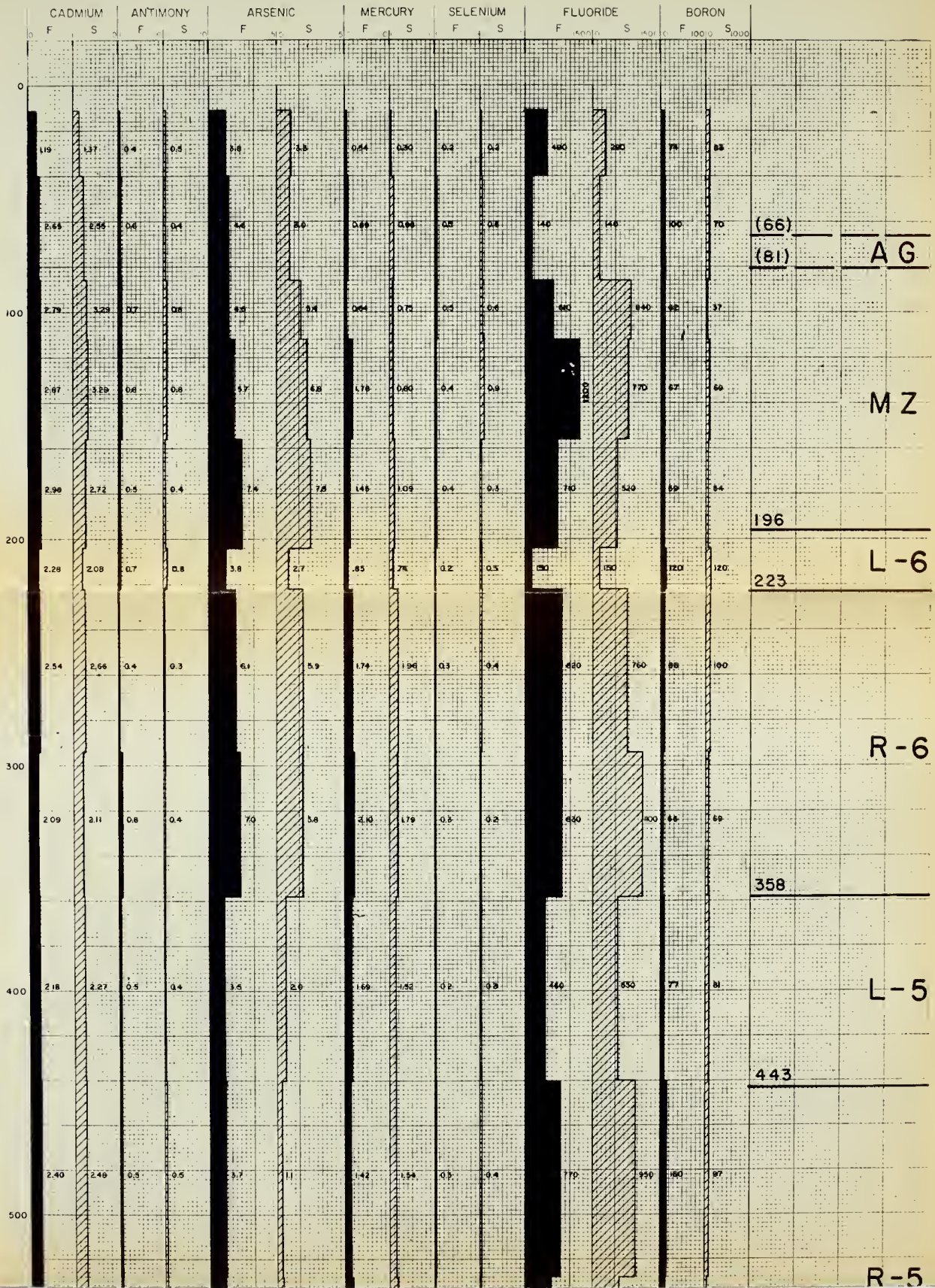


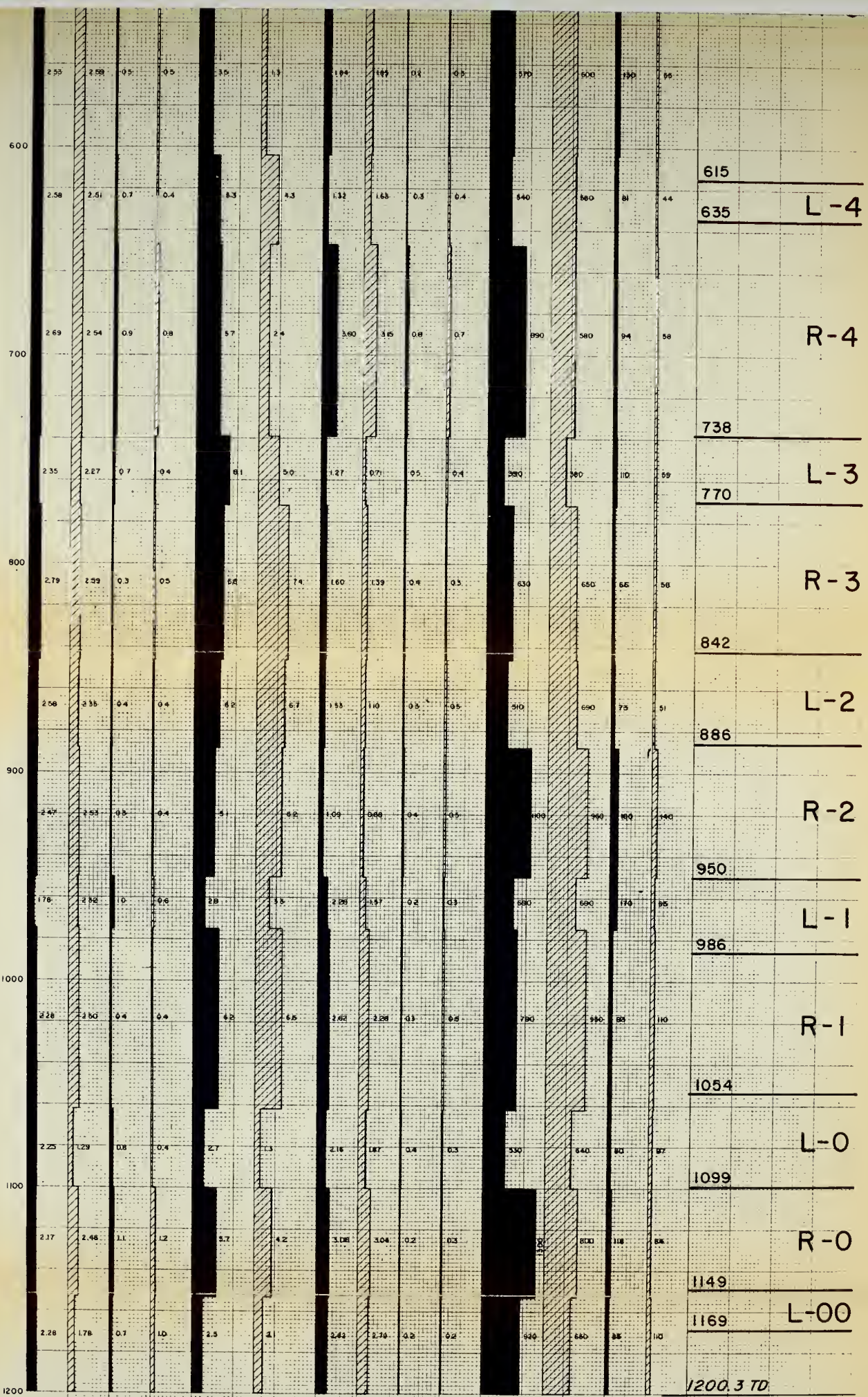
1205
1232
1322
1353
1402
1431
1494
1506
1562
1581
1663/10

L-3
R-3
L-2
R-2
L-1
R-1
L-0
R-0
L-00

TRACE ELEMENT CONCENTRATION: PPM

F - FRESH SHALE
S - SPENT SHALE





615
 635 L-4

R-4

738
 770 L-3

R-3

842
 886 L-2

R-2

950
 986 L-1

R-1

1054
 1099 L-0

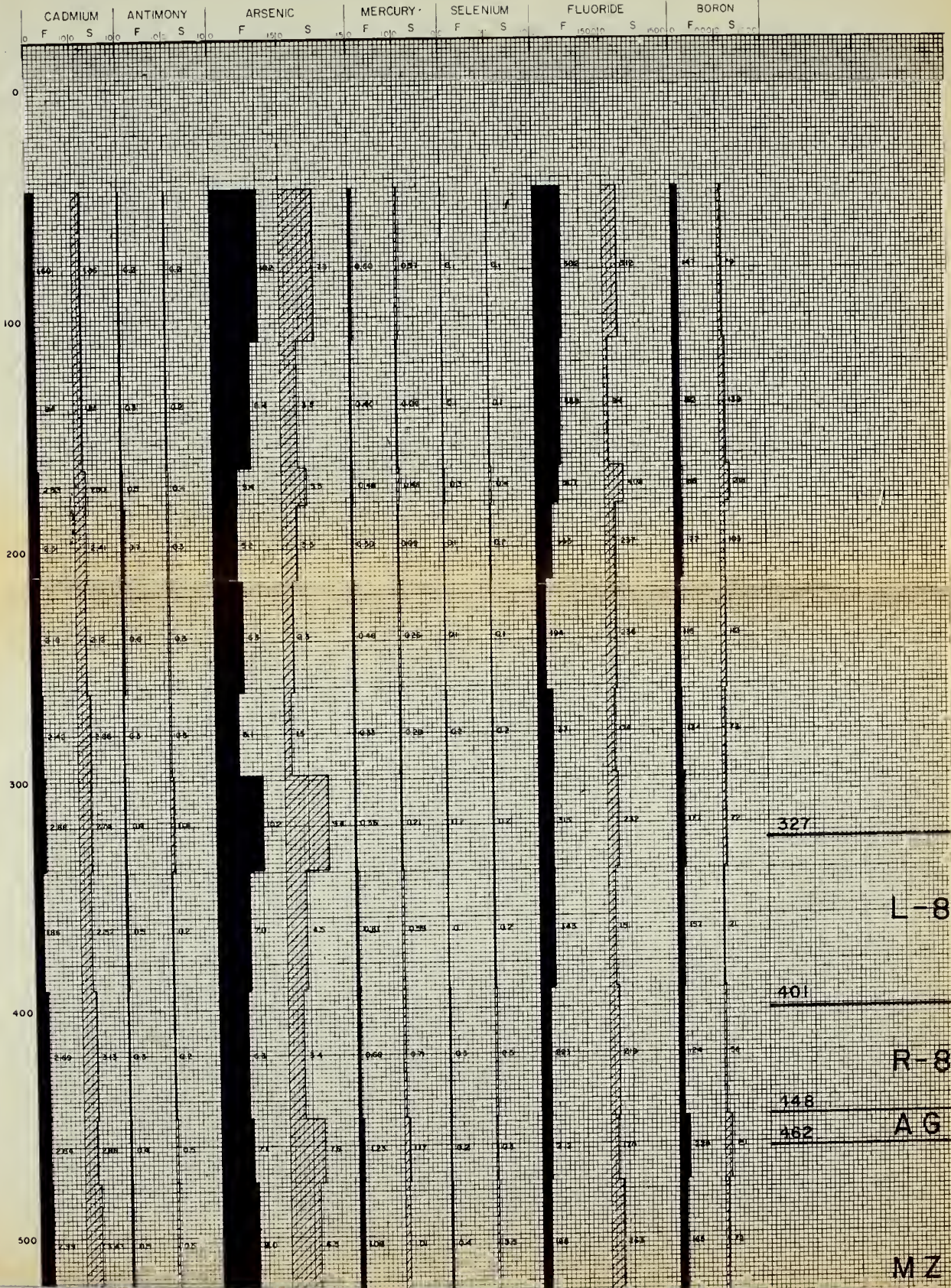
R-0

1149
 1169 L-00

1200.3 TD

TRACE ELEMENT CONCENTRATION: PPM

* = LESS THAN 0.5
 ** = LESS THAN 0.01
 F = FRESH SHALE
 S = SPENT SHALE



327

L-8

401

R-8

148

462

AG

MZ

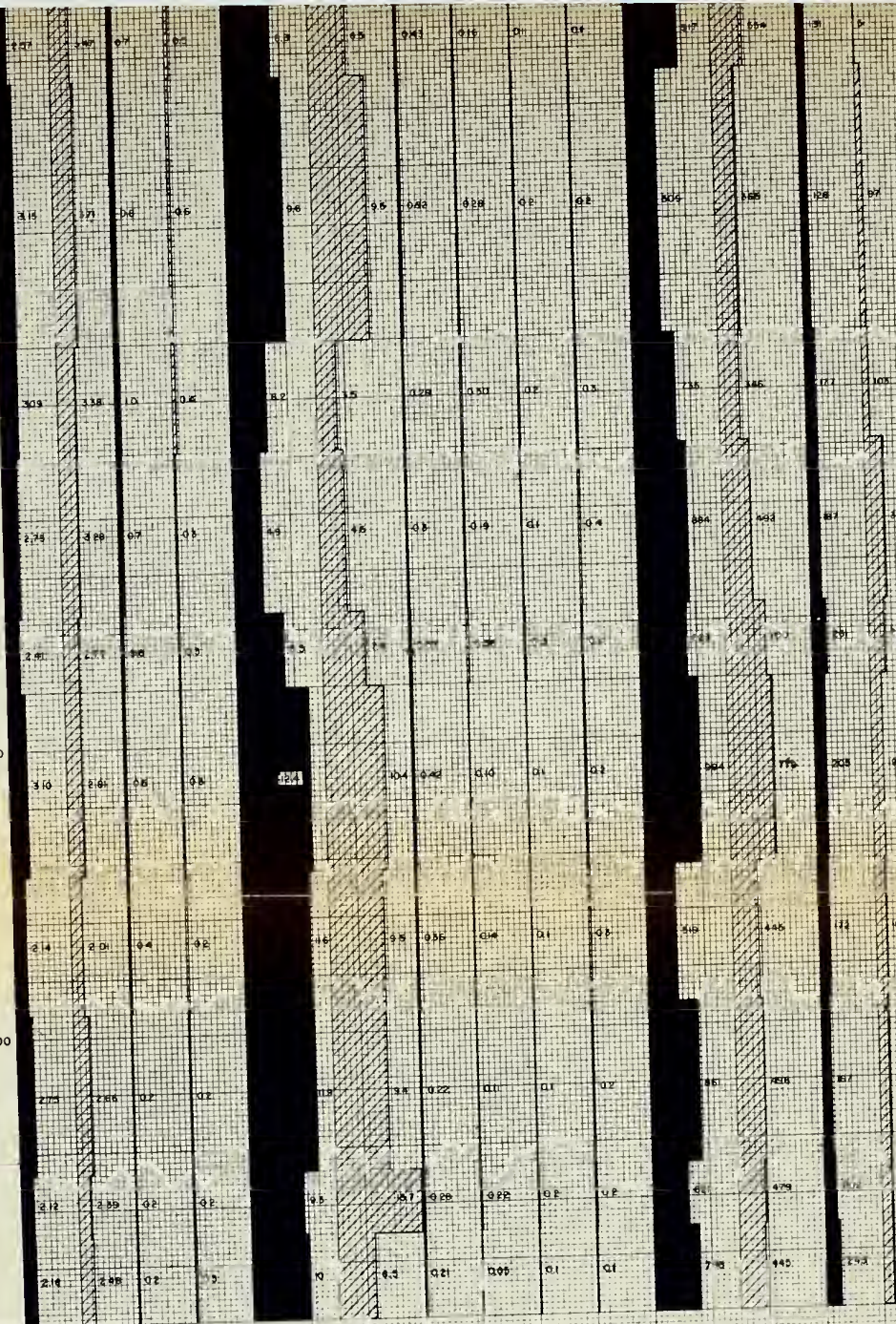
1200

1300

1400

1500

1600



1168

L-3

R-3

1260

L-2

1296

R-2

1355

L-1

1360

R-1

1444

L-0

1489

R-0

1548

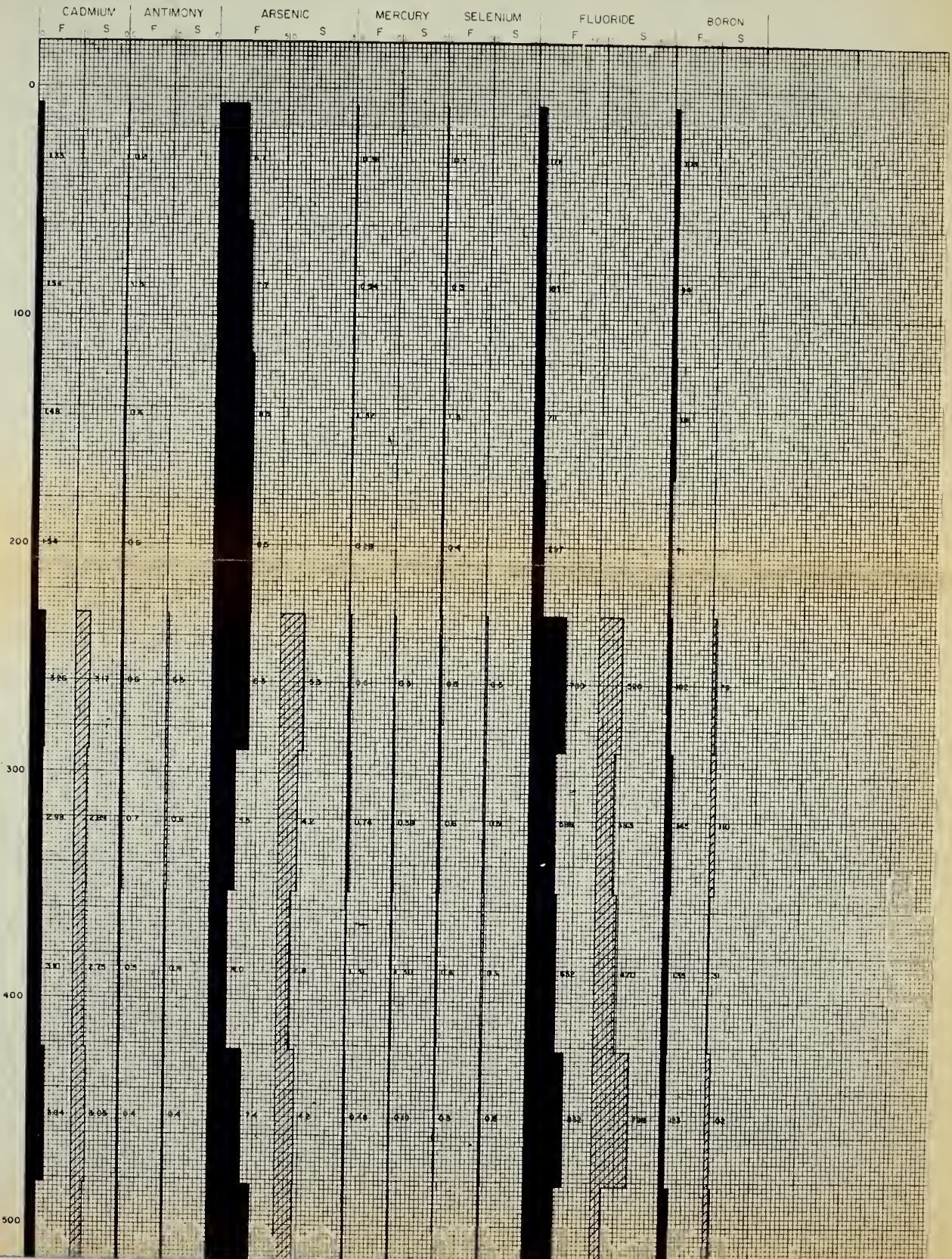
L-00

1567

1600.0 TD

TRACE ELEMENT CONCENTRATION: PPM

* LESS THAN 0.5
 * LESS THAN 0.1
 F = FRESH SAMPLE
 S = SPIN



1200
1300
1400
1500
1600
1700

R-5

L-4

R-4

L-3

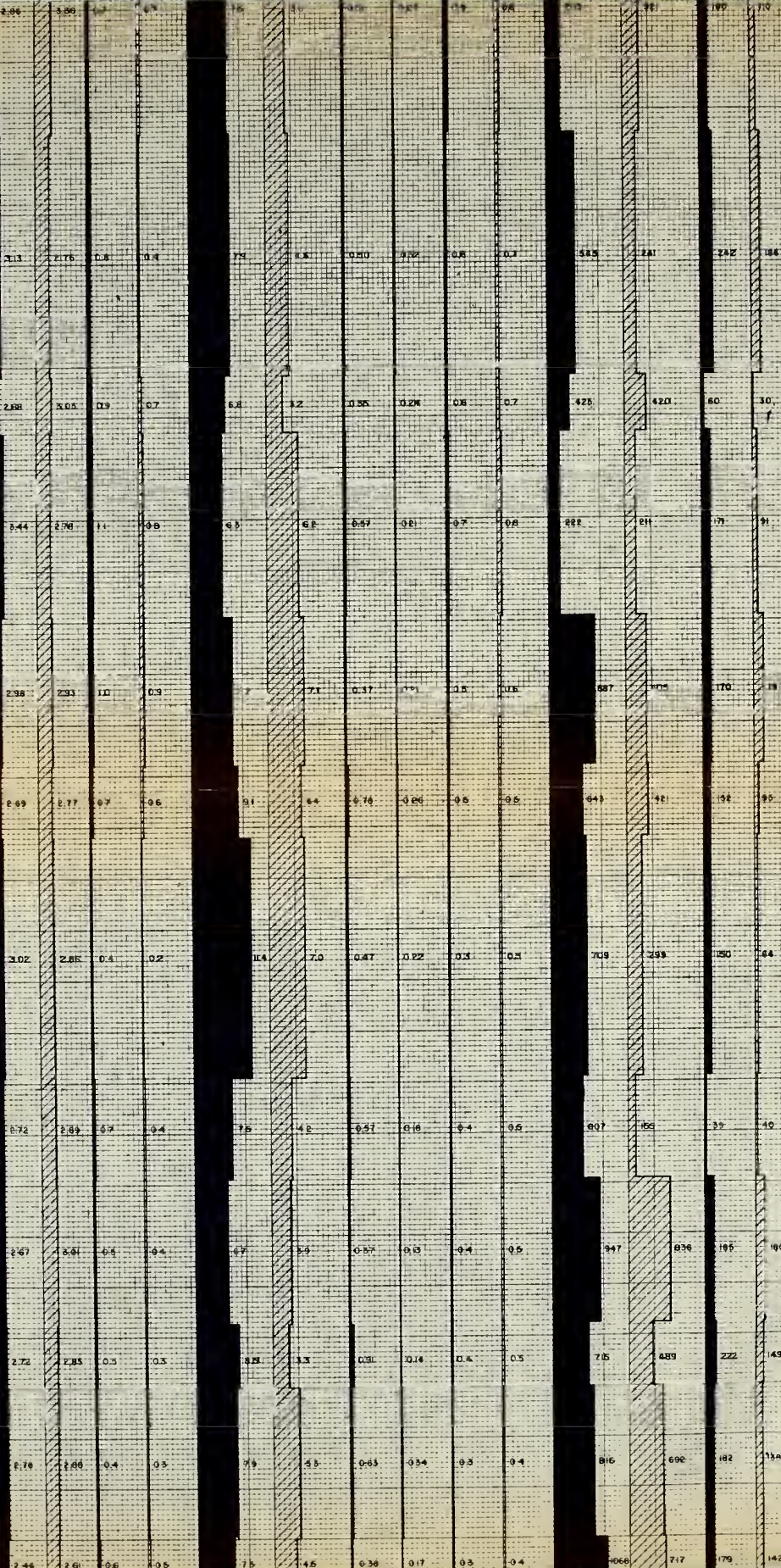
R-3

L-2

R-2

L-1

R-1



1283

1305

1437

1463

1566

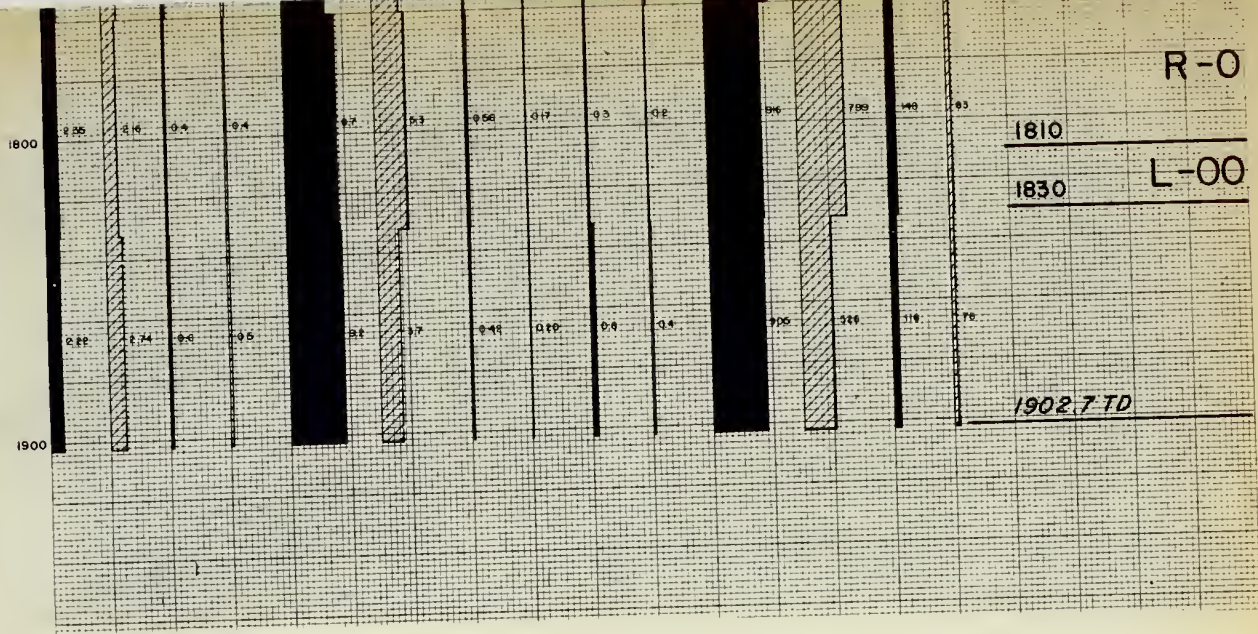
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1685

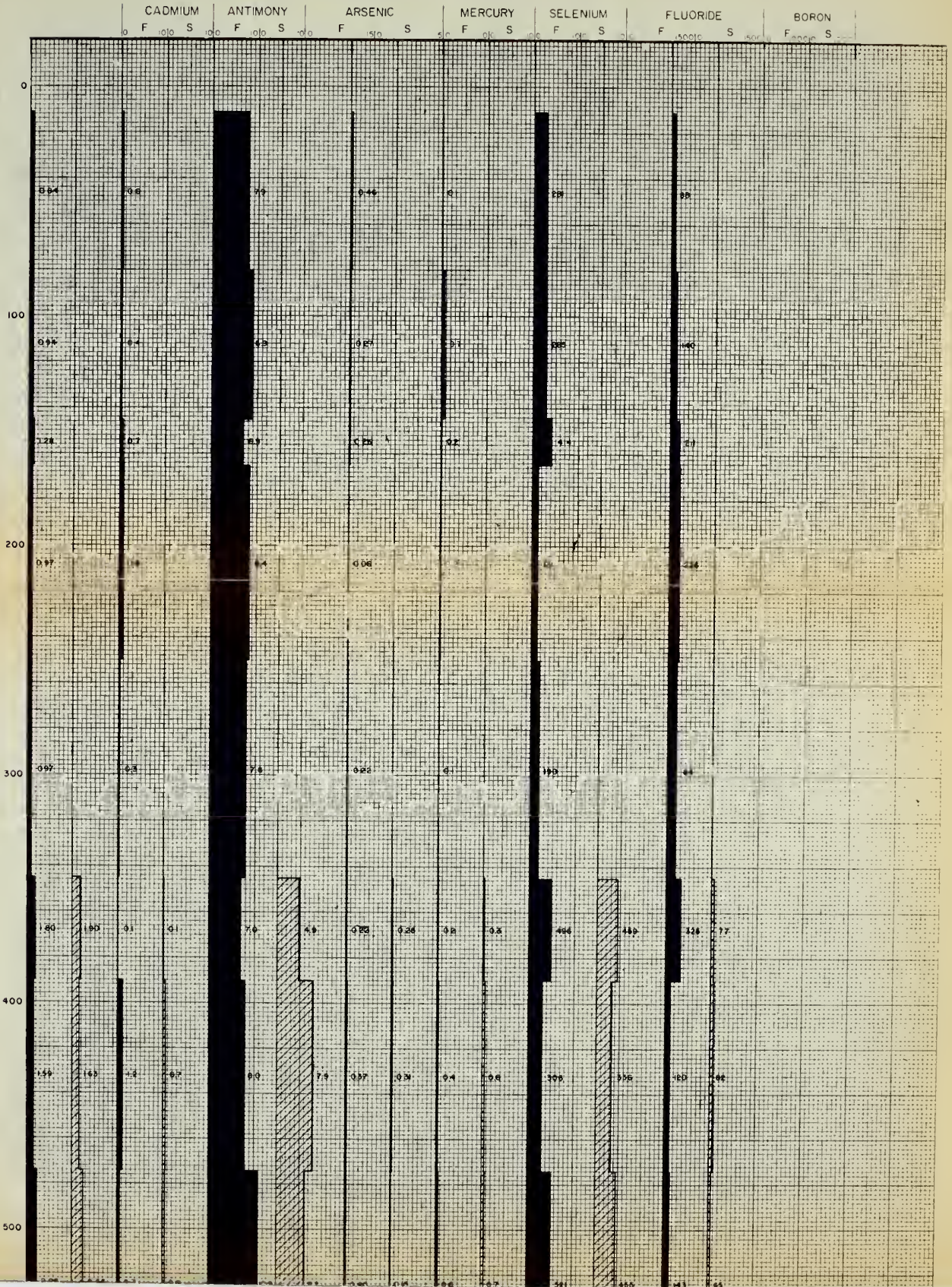
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1759

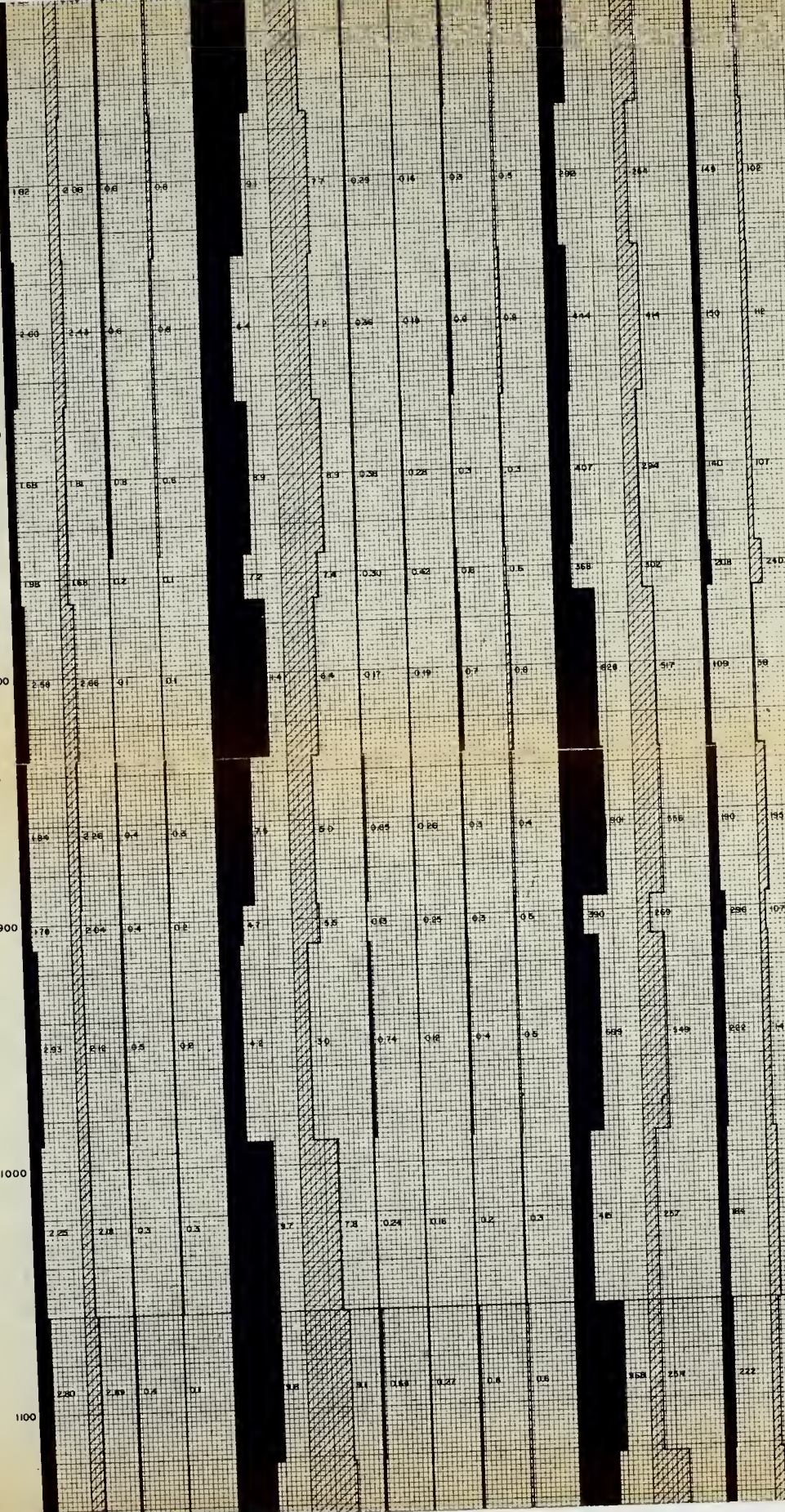


TRACE ELEMENT CONCENTRATION: PPM

* = LESS THAN 0.5
 ** = LESS THAN 0.01
 F = FRESH SHALE
 S = SPENT SHALE



600
700
800
900
1000
1100



638

L-8

712

R-8

757
768

AG

MZ

890

L-6

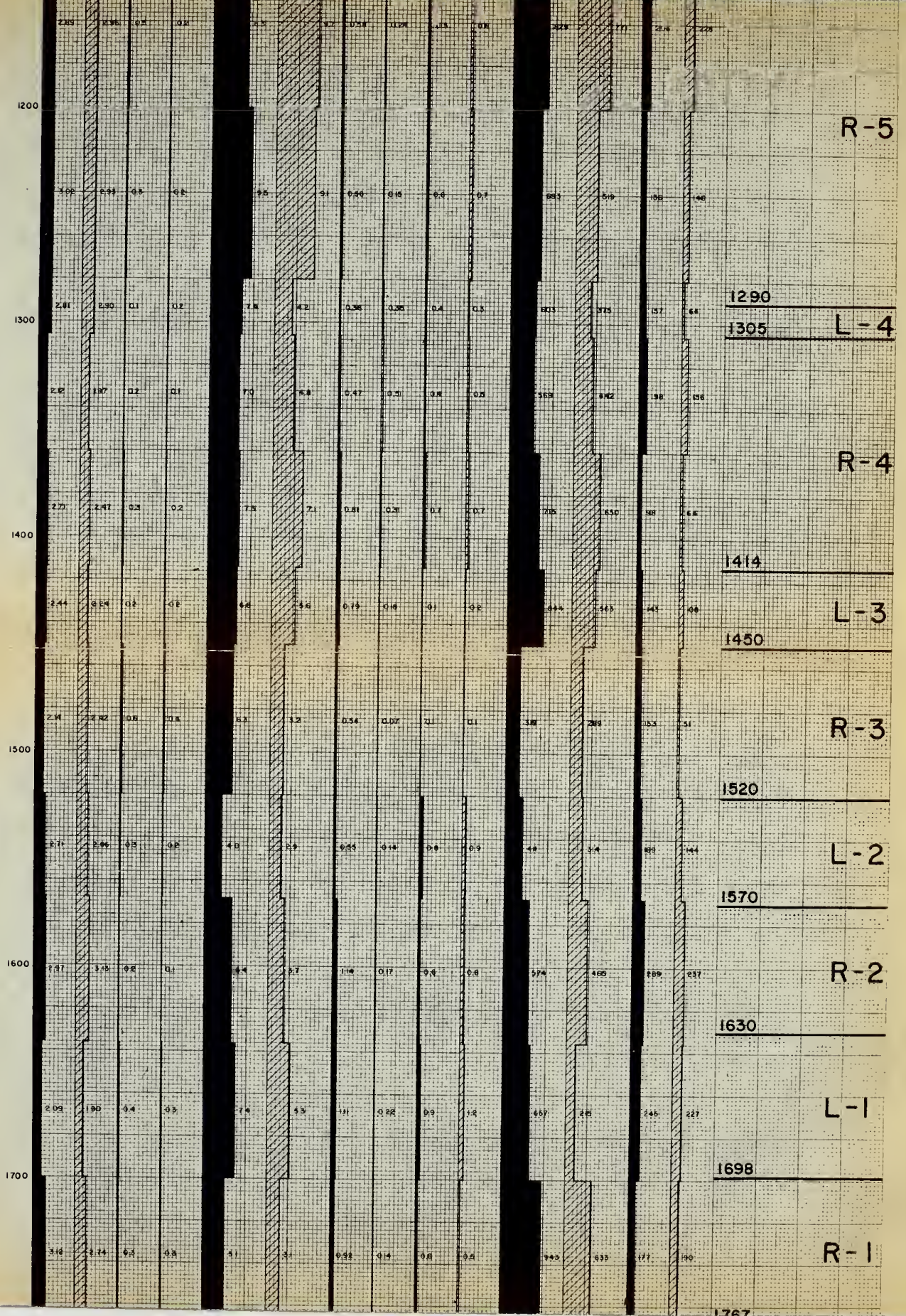
914

R-6

1048

L-5

1122



R-5

1290

1305 L-4

R-4

1414

L-3

1450

R-3

1520

L-2

1570

R-2

1630

L-1

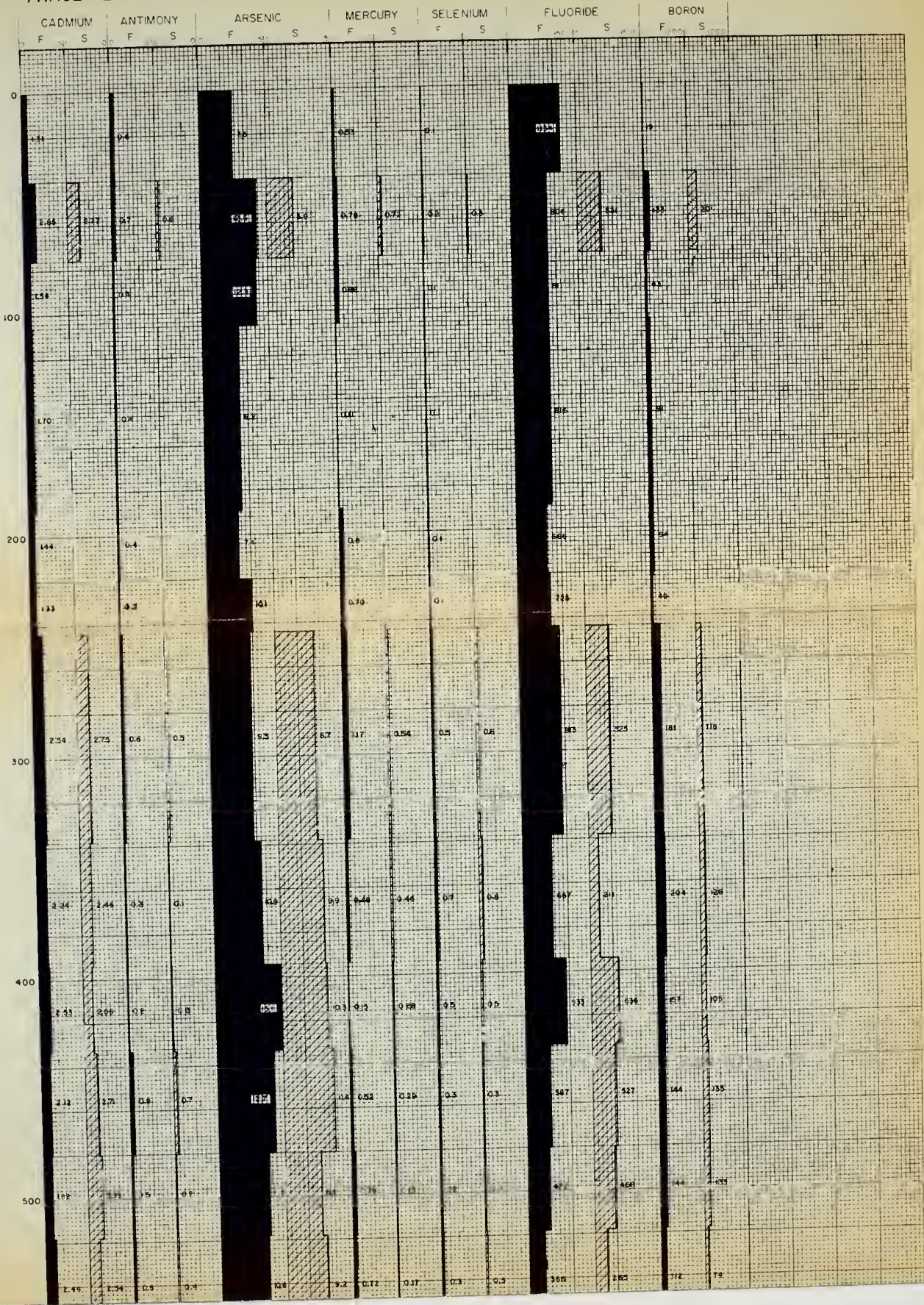
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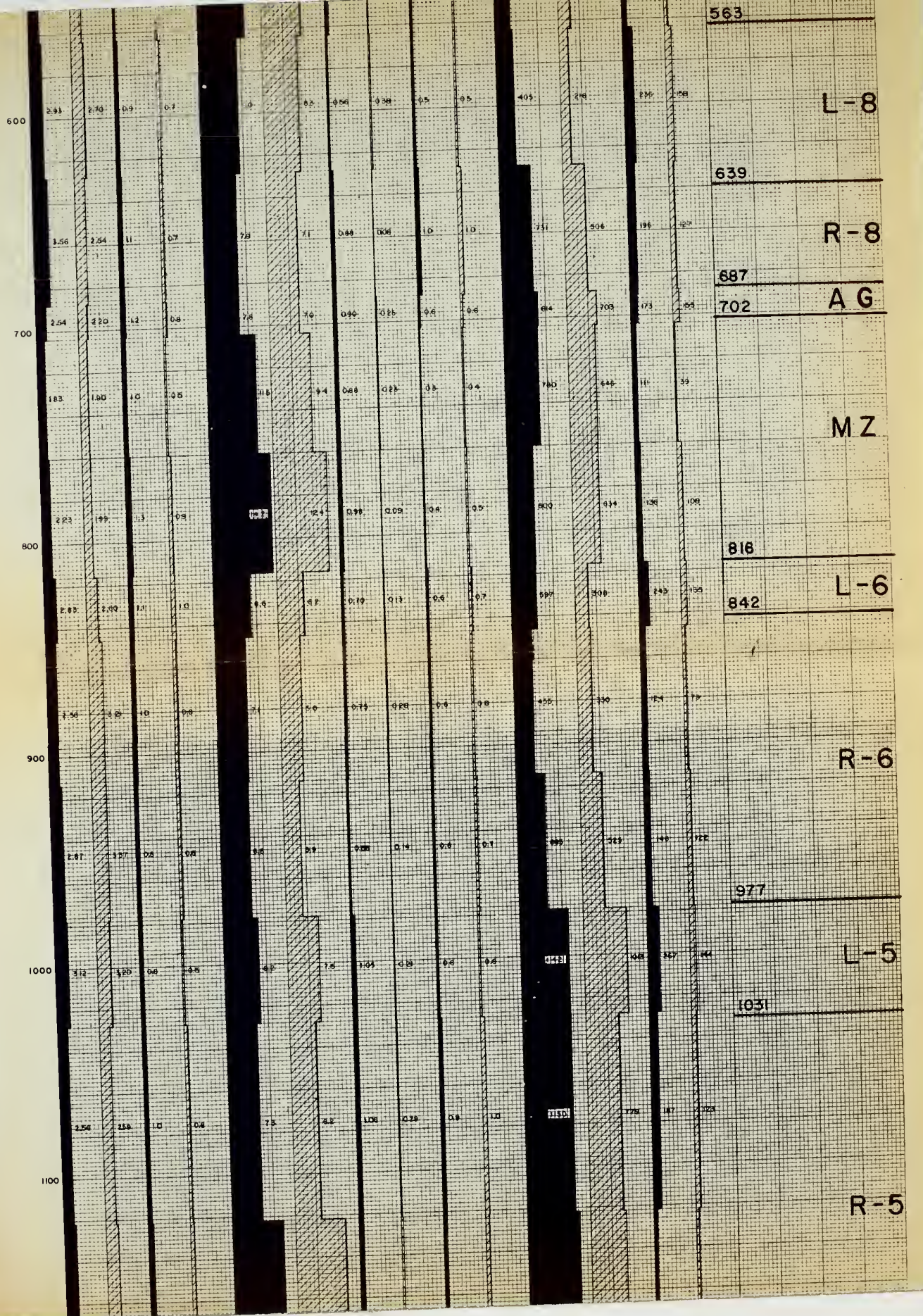
R-1

1767

TRACE ELEMENT CONCENTRATION: PPM

* LESS THAN 0.5
 ** LESS THAN 0.01
 F = FRESH SHALE
 S = SPENT SHALE





L-8

563

R-8

639

A G

687

702

M Z

816

L-6

842

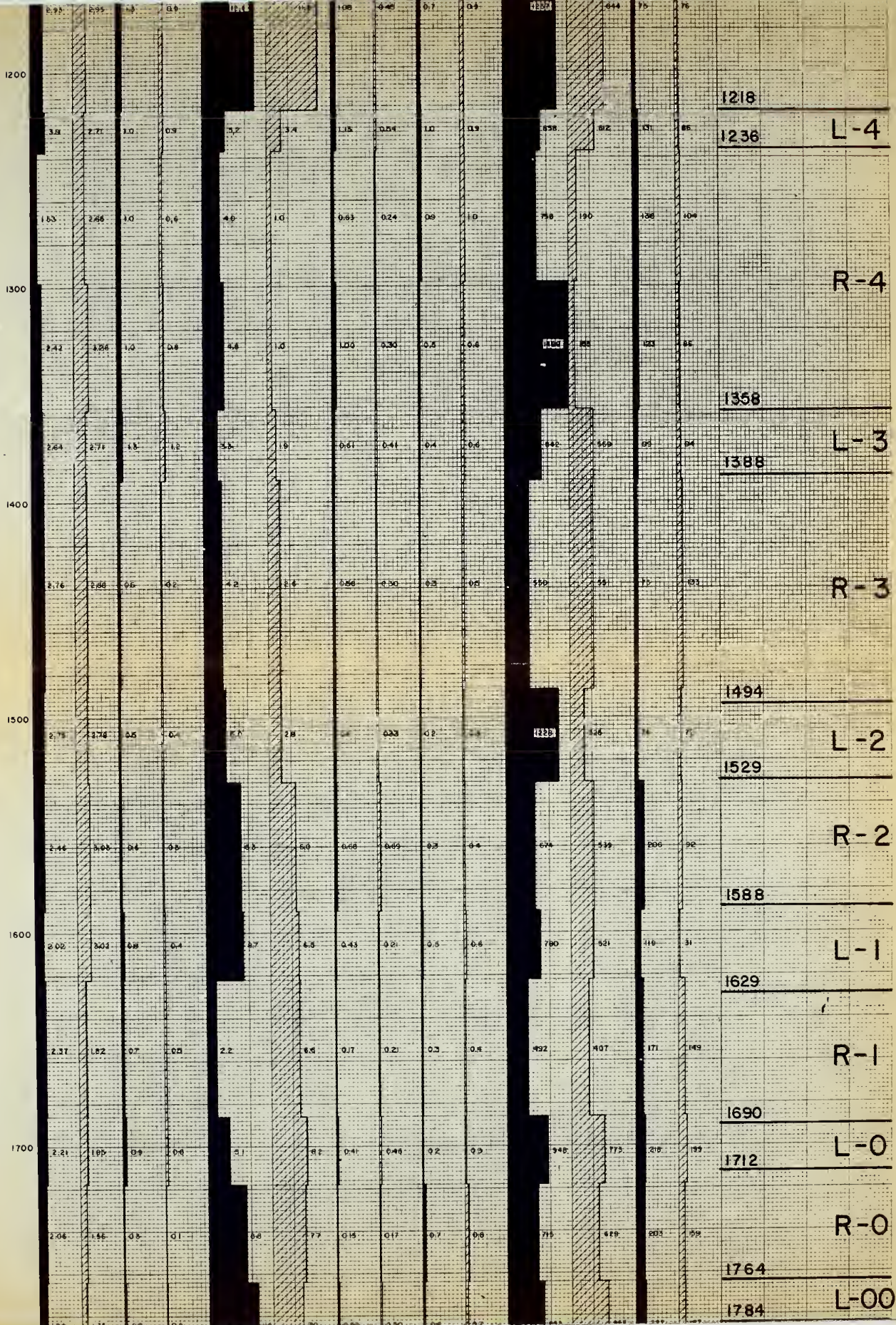
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977

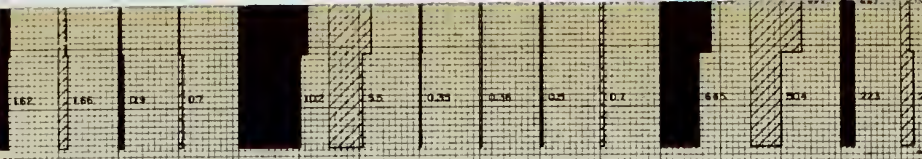
L-5

1031

R-5



1800



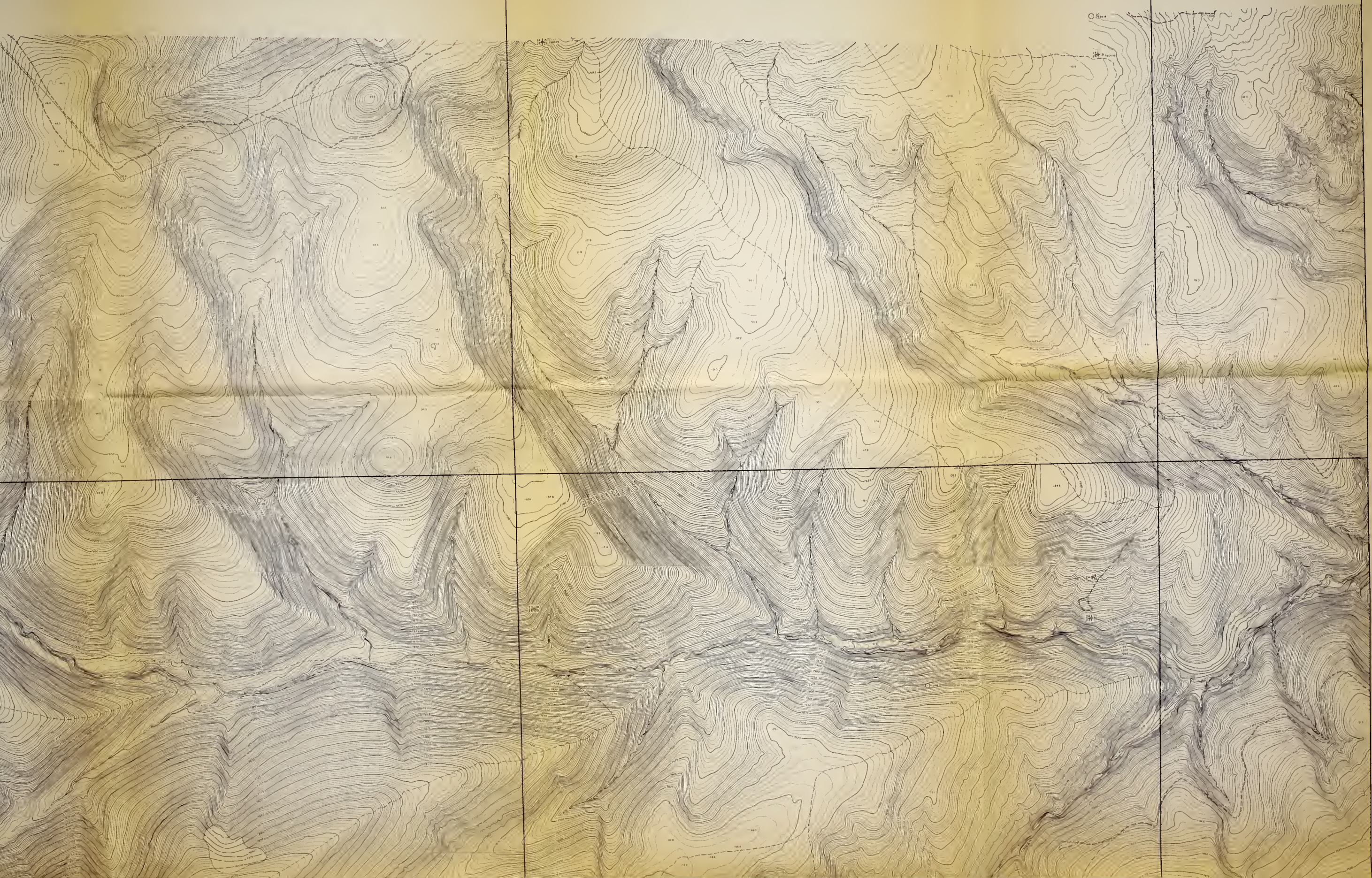
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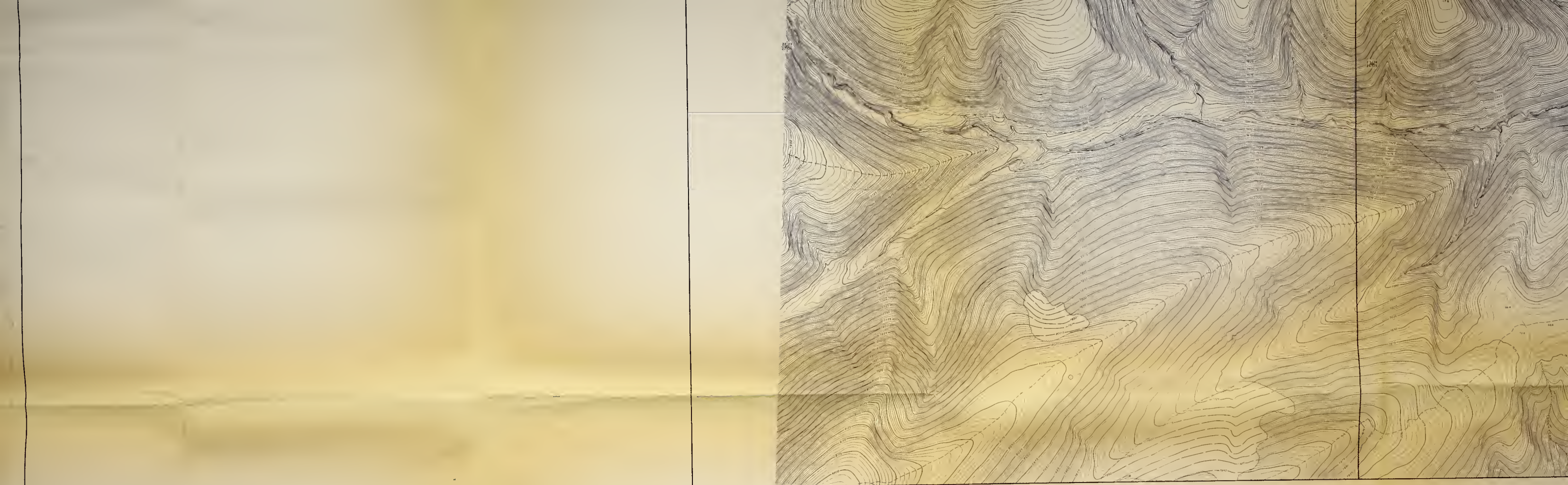
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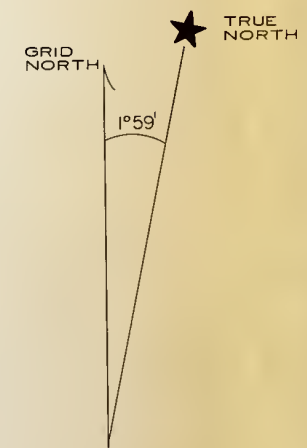
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E 132,000

E 138,000

SHEET LAYOUT

		1		2				3			
		10	11	12	13	14	15	16	17	18	
19	20	21	22	23	24	25	26	27	28		
29	30	31	32	33	34	35	36	37	38	T. 1 S.	
	4			5			6			T. 2 S.	
39	40	41	42	43	44	45	46	47	48		
49	50	51	52	53	54	55	56	57	58		
59	60	61	62	63	64	65	66	67	68		
69	70	71	72	73	74	75	76	77	78		
79	80	81	82	83	84	R. 99 W.	R. 98 W.				
		R. 100 W.		R. 99 W.							



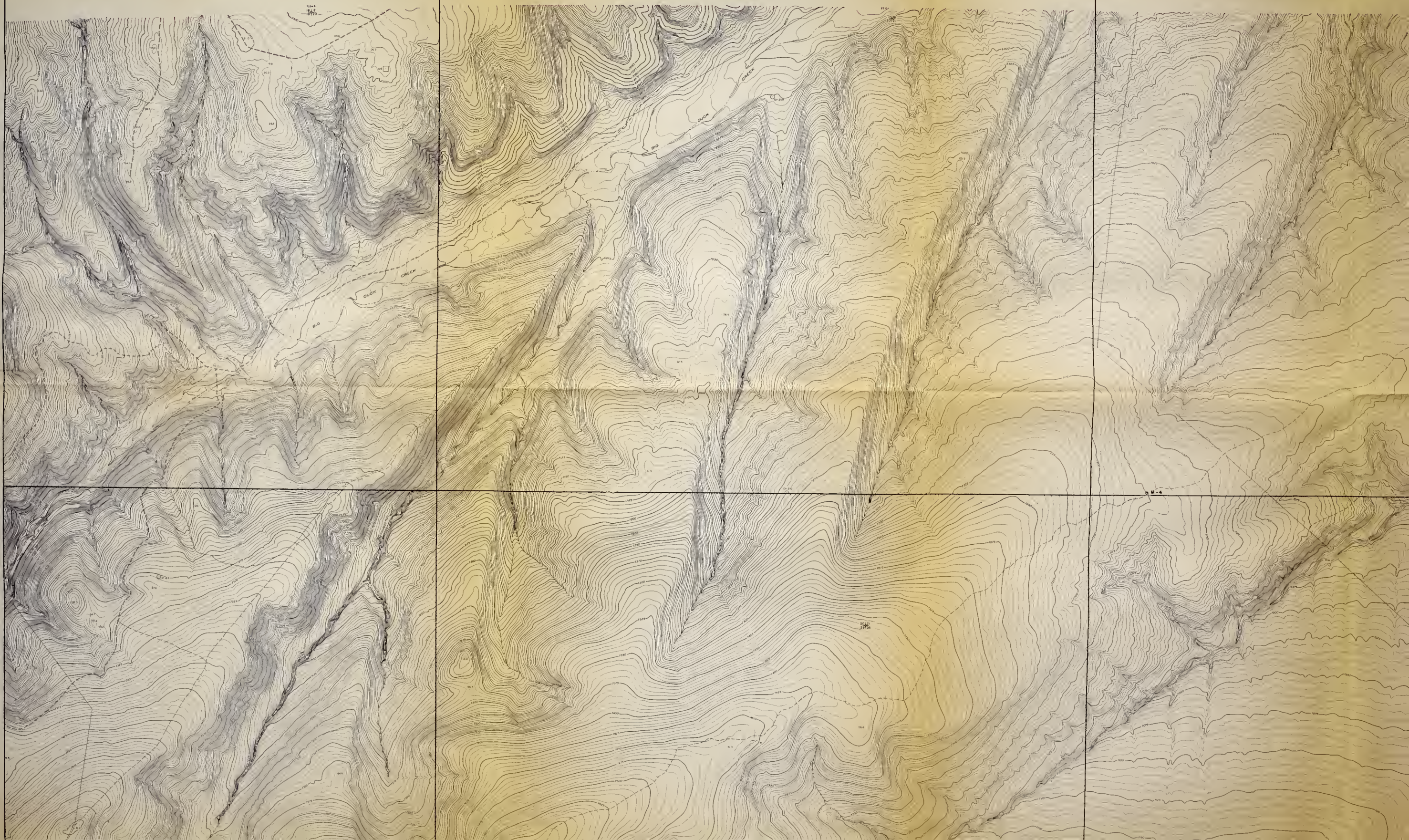
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CONTOUR INTERVAL 5 ft.

LEGEND

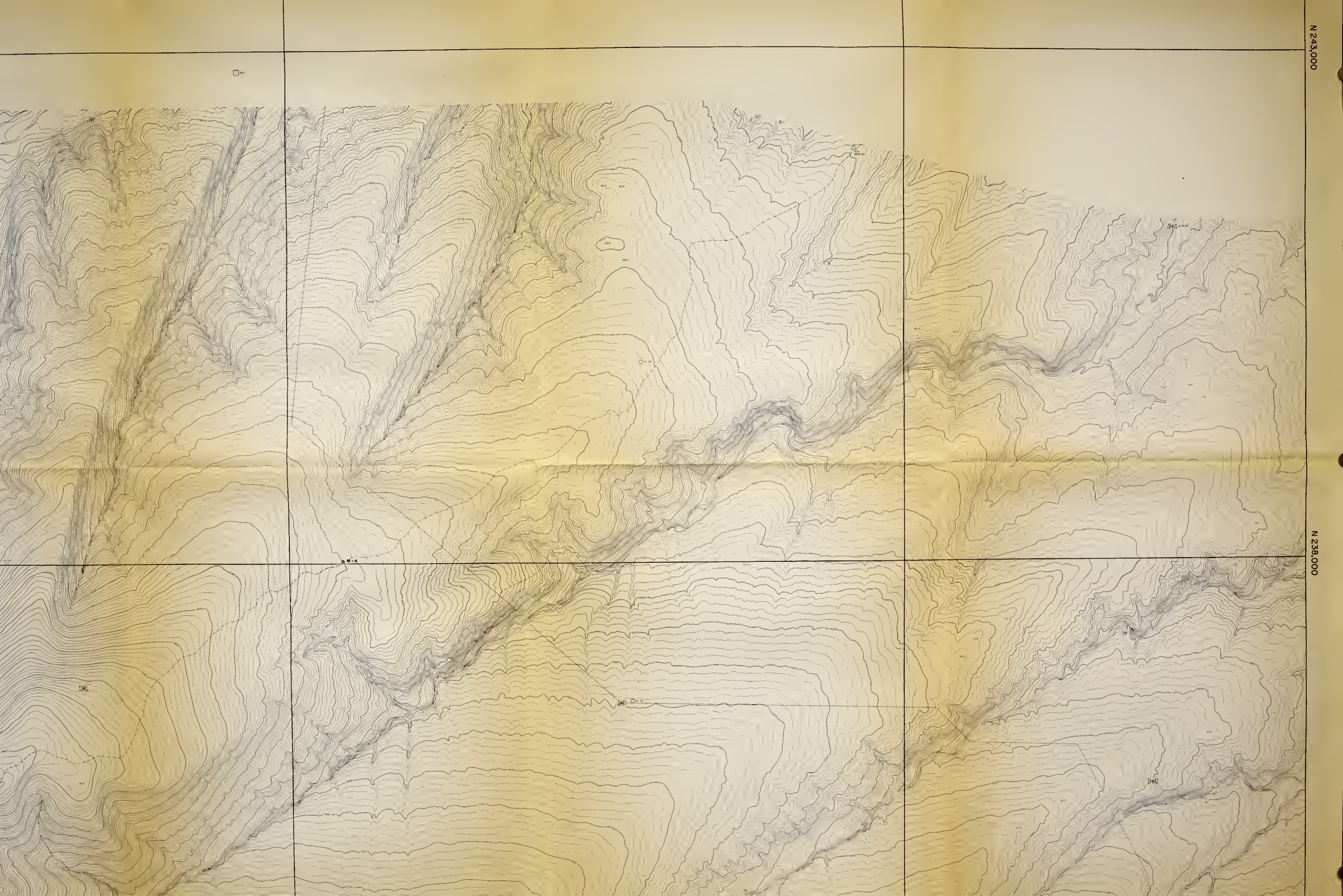
- | | | | |
|--|-------------------------------|--|------------------|
| | HORIZONTAL & VERTICAL CONTROL | | GRADED ROAD |
| | VERTICAL CONTROL | | DIRT ROAD |
| | HORIZONTAL CONTROL | | JEEP TRAIL |
| | DRILL HOLE | | TRAIL |
| | PROPERTY CORNER | | CULVERT |
| | PICTURE CENTER | | FENCE |
| | SECTION CORNER | | FENCE (POSSIBLE) |
| | 1/4 CORNER | | GATE |
| | SPOT ELEVATION | | CORRAL |
| | INDEX CONTOUR | | PIPE LINE |
| | INTERMEDIATE CONTOUR | | BUILDING |
| | CONTOUR THRU HEAVY VEGETATION | | FOUNDATION |
| | DEPRESSION | | EARTH DAM |
| | PERENNIAL STREAM | | UTILITY POLE |
| | INTERMITTENT STREAM | | TREES |
| | DITCH | | SCATTERED TREES |
| | POND | | |
| | WASH | | |
| | CULTIVATION | | |





150

DM-4



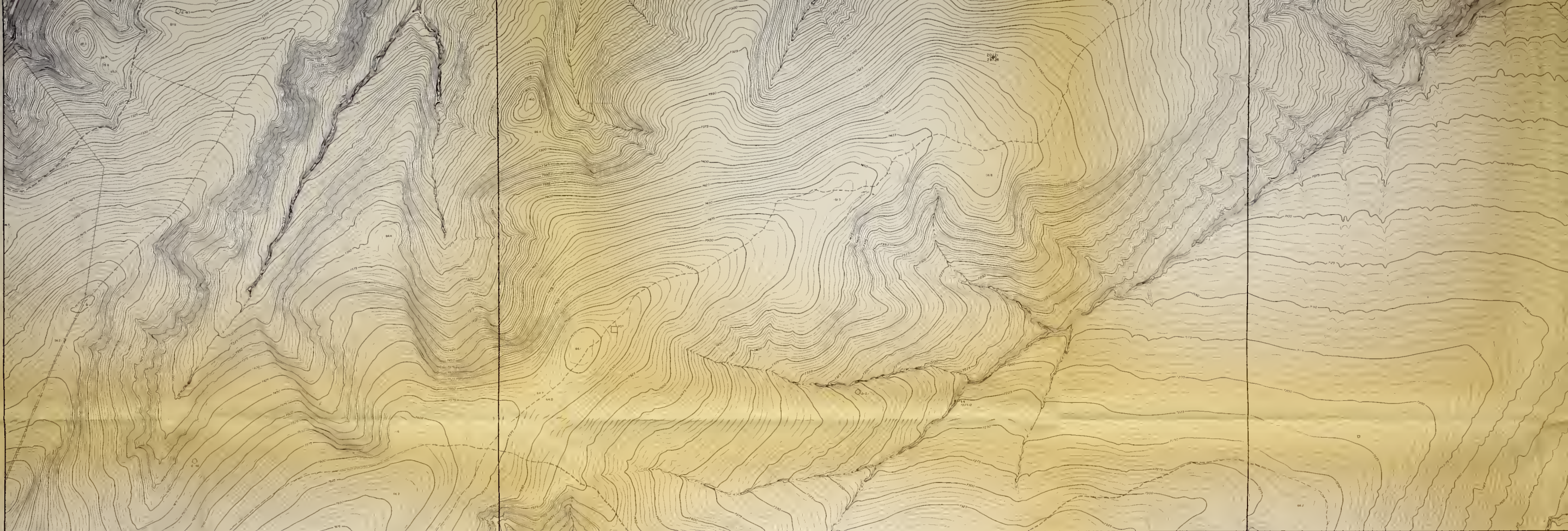
□ 150

M-4

M-10

N 243,000

N 238,000



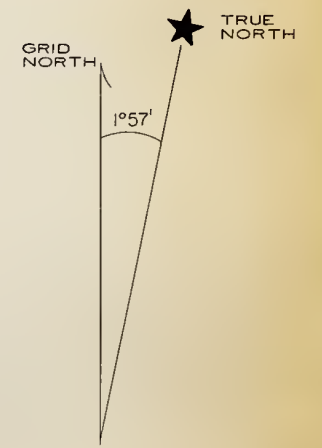
E 146,000

E 150,000

N 156,000

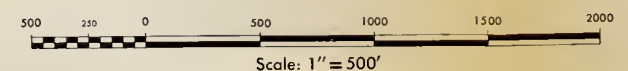
SHEET LAYOUT

			①			②			③					
	1	2	3	4	5	6	7	8	9					
	10	11	12	13	14	15	16	17	18					
19	20	21	22	23	24	25	26	27	28					
29	30	31	32	33	34	35	36	37	38	T. 1 S.				
	4			5			6			T. 2 S.				
39	40	41	42	43	44	45	46	47	48					
49	50	51	52	53	54	55	56	57	58					
59	60	61	62	63	64	65	66	67	68					
69	70	71	72	73	74	75	76	77	78					
79	80	81	82	83	84	R. 99 W.	R. 98 W.							
		R. 100 W.	R. 99 W.											



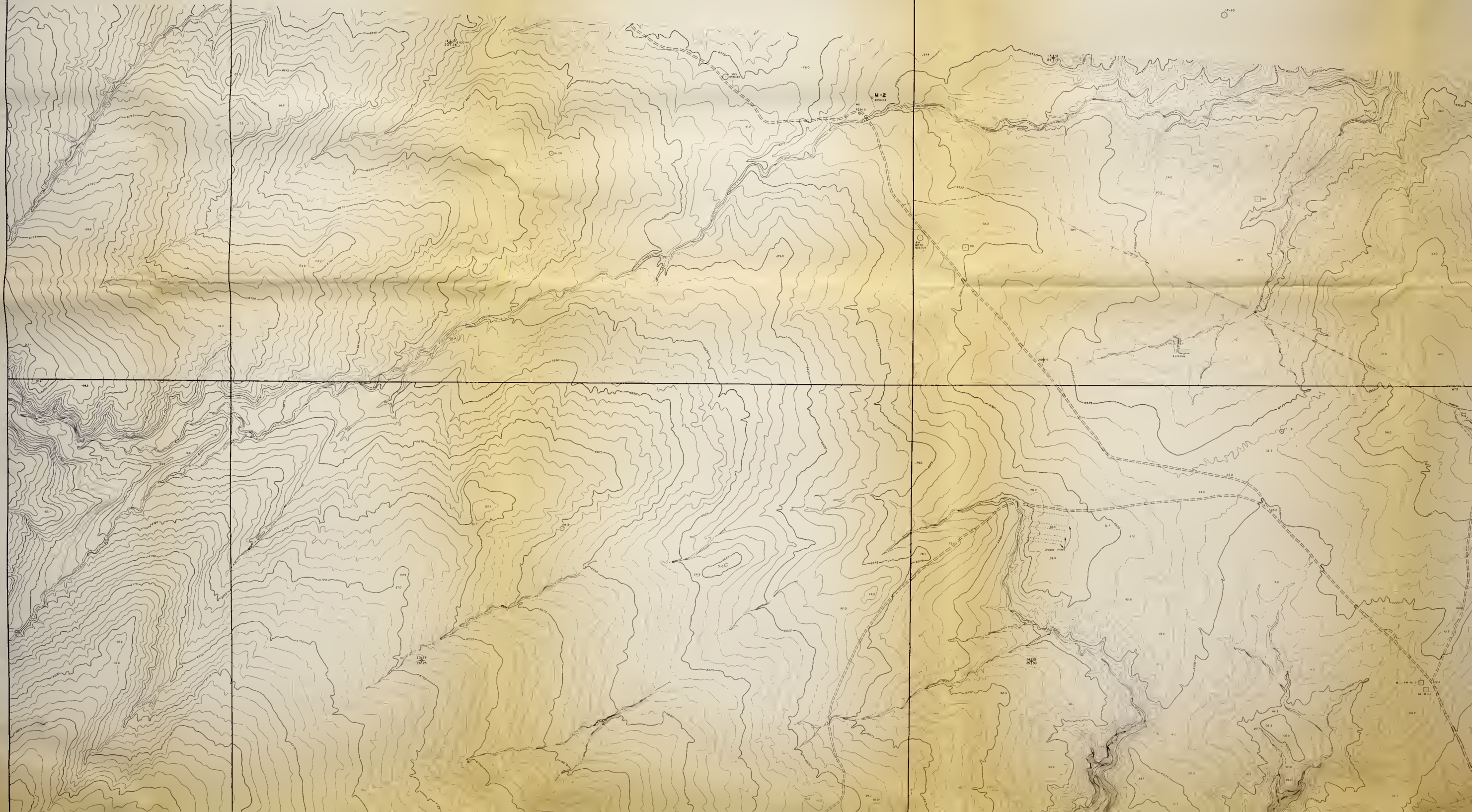
LEGEND

- HORIZONTAL & VERTICAL CONTROL
- VERTICAL CONTROL
- HORIZONTAL CONTROL
- DRILL HOLE
- PROPERTY CORNER
- PICTURE CENTER
- SECTION CORNER
- 1/4 CORNER
- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- CONTOUR THRU HEAVY VEGETATION
- DEPRESSION
- PERENNIAL STREAM
- INTERMITTENT STREAM
- DITCH
- POND
- WASH
- CULTIVATION

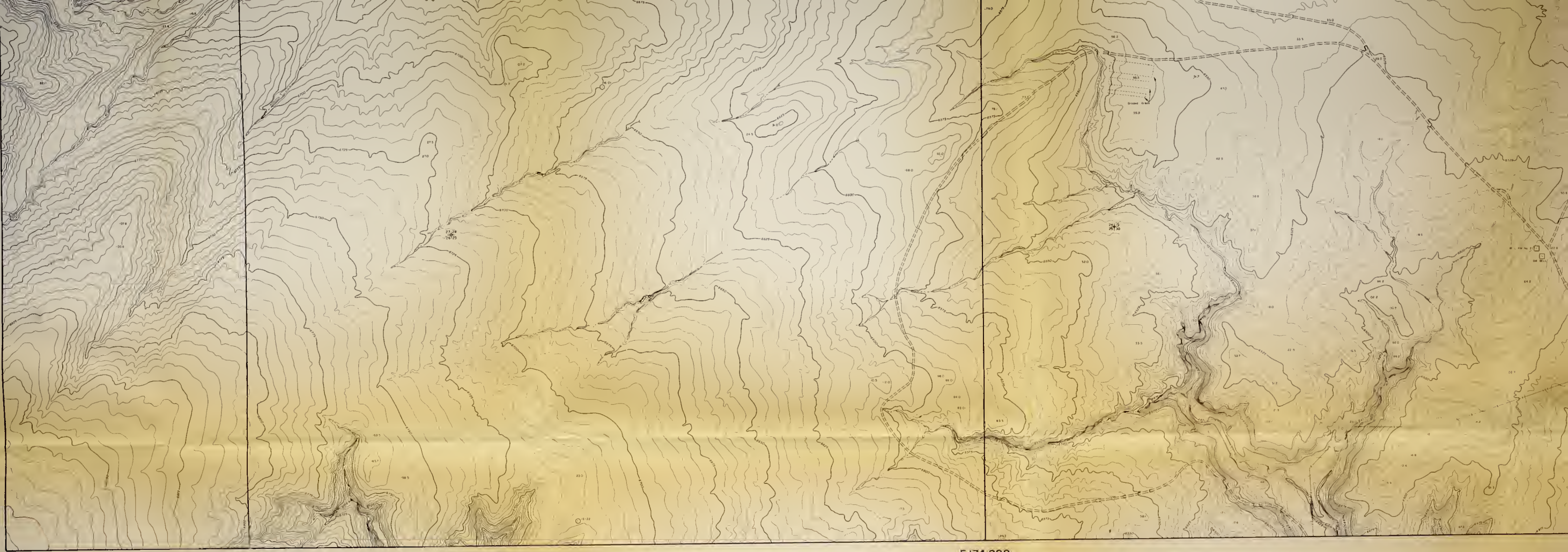


Scale: 1" = 500'

CONTOUR INTERVAL 5 ft.



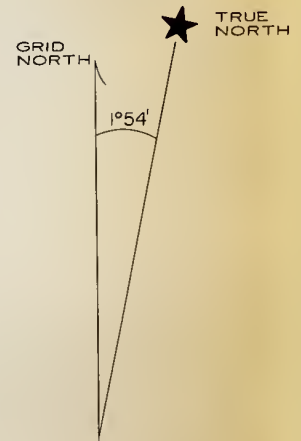




E 166,000 E 168,000 E 174,000

SHEET LAYOUT

		1		2				3		
	1	2	3	4	5	6	7	8	9	
	10	11	12	13	14	15	16	17	18	
19	20	21	22	23	24	25	26	27	28	
29	30	31	32	33	34	35	36	37	38	T. 1 S.
	4			5			6			T. 2 S.
39	40	41	42	43	44	45	46	47	48	
49	50	51	52	53	54	55	56	57	58	
59	60	61	62	63	64	65	66	67	68	
69	70	71	72	73	74	75	76	77	78	
79	80	81	82	83	84		R. 99 W.	R. 98 W.		
							R. 100 W.	R. 99 W.		

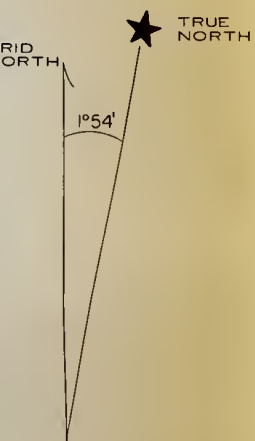
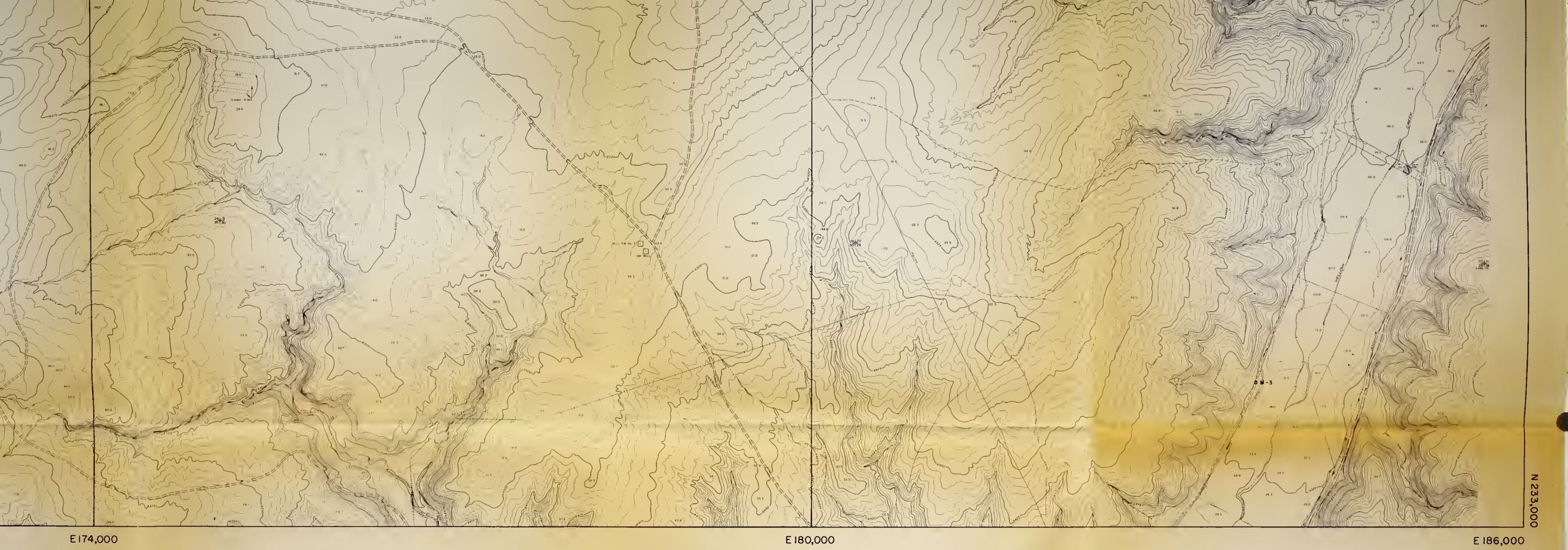


Scale: 1" = 500'

CONTOUR INTERVAL 5 ft.

LEGEND

- HORIZONTAL & VERTICAL CONTROL
- VERTICAL CONTROL
- HORIZONTAL CONTROL
- DRILL HOLE
- PROPERTY CORNER
- PICTURE CENTER
- SECTION CORNER
- 1/4 CORNER
- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- CONTOUR THRU HEAVY VEGETATION
- DEPRESSION
- PERENNIAL STREAM
- INTERMITTENT STREAM
- DITCH
- POND
- WASH
- CULTIVATION
- GRADE
- DIRT
- JEEP
- TRAIL
- CULVERT
- FENCE
- GATE
- CORNER
- PIPE
- BUILDING
- FOUNDATION
- EARTHWORK
- UTILITIES
- TREES
- SCALE



Scale: 1" = 500'

CONTOUR INTERVAL 5 ft.

LEGEND

△	HORIZONTAL & VERTICAL CONTROL	==	GRAVE ROAD
○	VERTICAL CONTROL	- - - -	DIRT ROAD
□	HORIZONTAL CONTROL	- - - -	JEEP TRAIL
○DH	DRILL HOLE	- - - -	TRAIL
• P.C.	PROPERTY CORNER	- - - -	CULVERT
○	PICTURE CENTER	- x - x -	FENCE
20/11/12	SECTION CORNER	- x - x -	FENCE (POSSIBLE)
11/12	1/4 CORNER	⊙	GATE
17.5	SPOT ELEVATION	⊙	CORRAL
6800	INDEX CONTOUR	— —	PIPE LINE
~	INTERMEDIATE CONTOUR	⌌	BUILDING
~	CONTOUR THRU HEAVY VEGETATION	⌌	FOUNDATION
~	DEPRESSION	- - - -	EARTH DAM
~	PERENNIAL STREAM	- - - -	UTILITY POLE
~	INTERMITTENT STREAM	•	TREES
D	DITCH	~	SCATTERED TREES
W/L 65.0	POND		
---	WASH		
○	CULTIVATION		

REVISIONS

NO.	DESCRIPTION	DATE	BY

**RIO BLANCO OIL SHALE PROJECT
MAP OF TRACT C-a AND VICINITY**

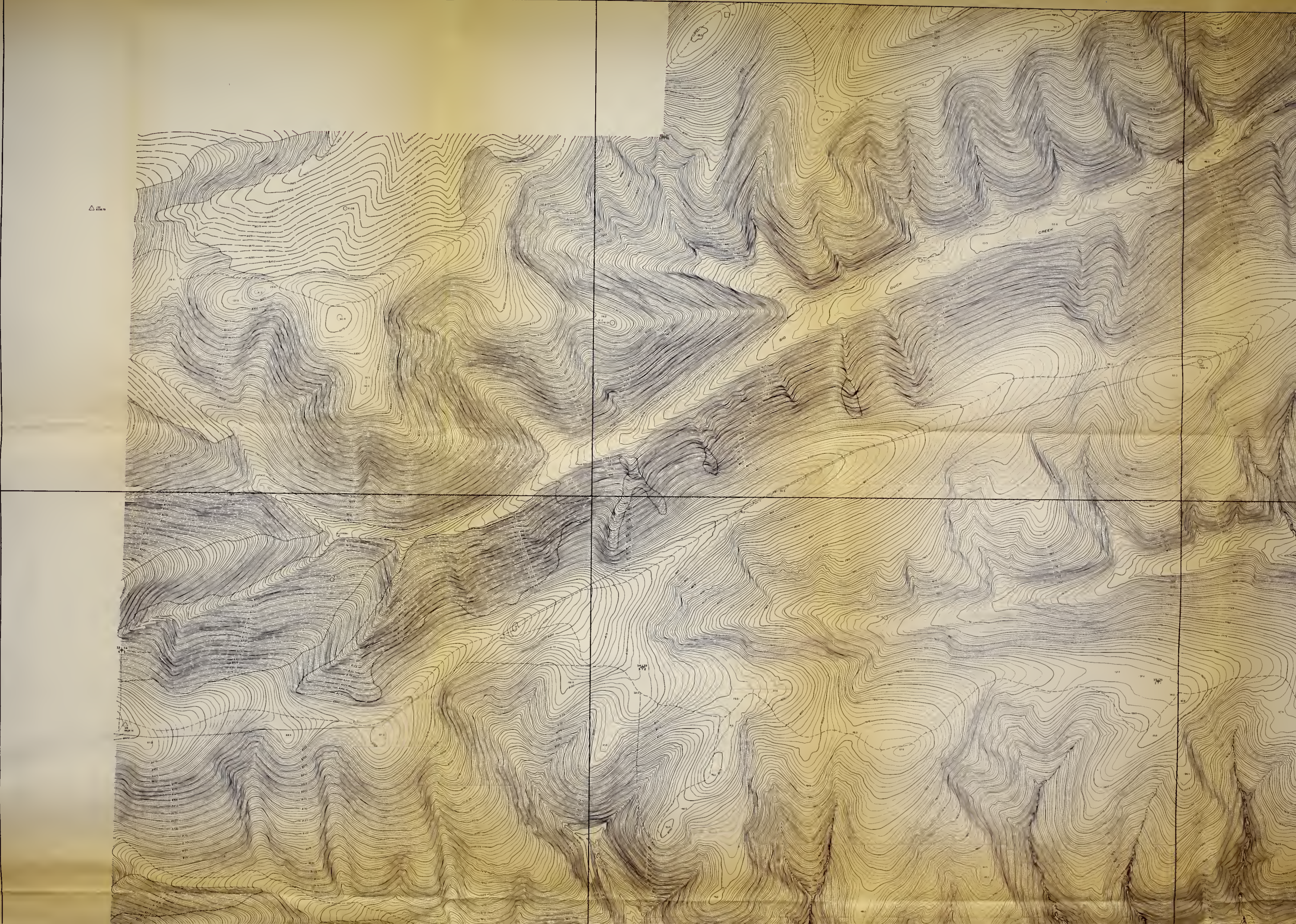
All Information Contained on This
Map is of Proprietary Nature and
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Oil Shale Project Management

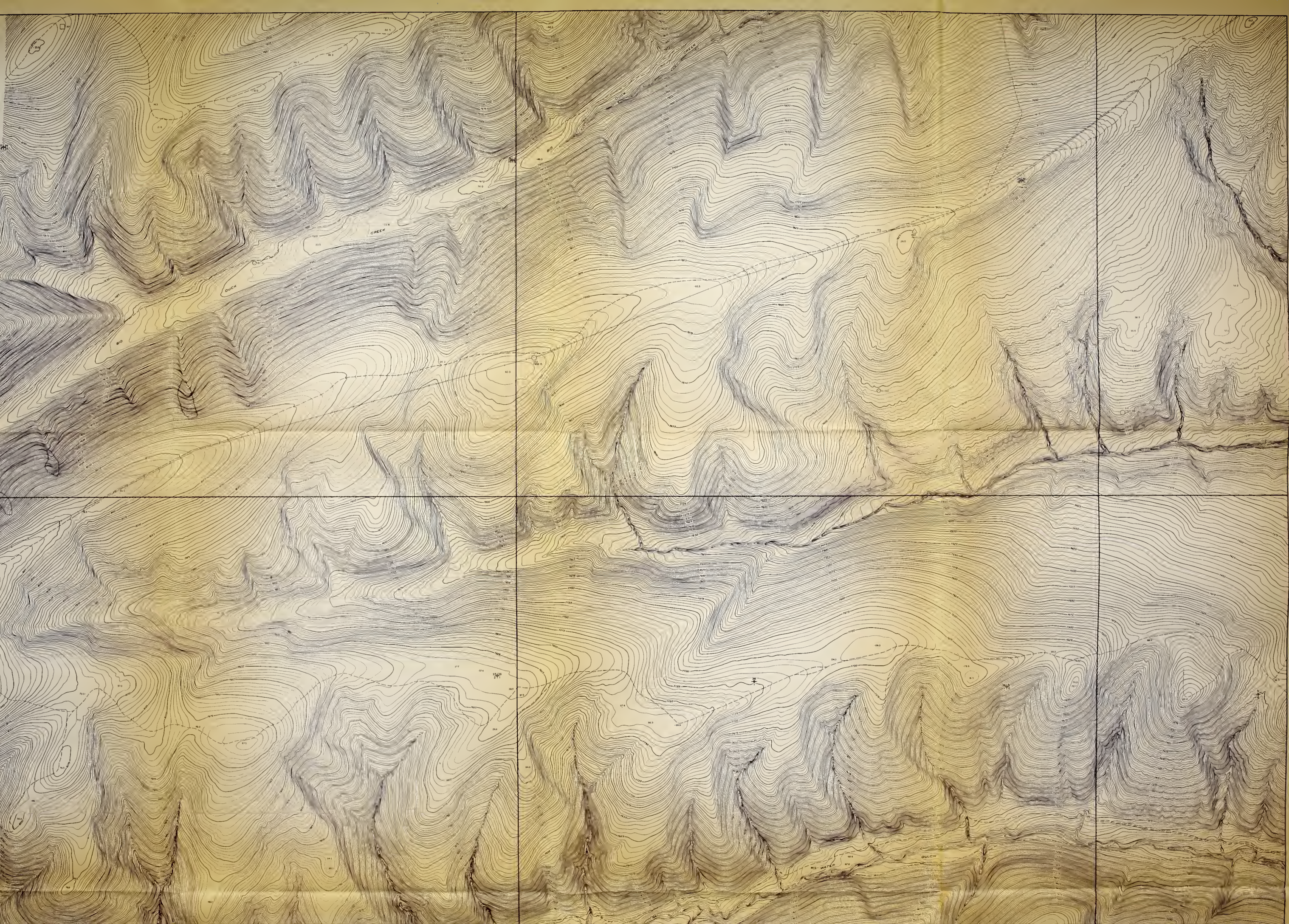
**TOPOGRAPHIC MAPPING
OF
TRACT C-a
FEDERAL OIL SHALE LEASE NO. C-20046
AND PORTIONS OF
TOWNSHIPS 1&2 SOUTH,
RANGES 98, 99&100 WEST
RIO BLANCO COUNTY, COLORADO**

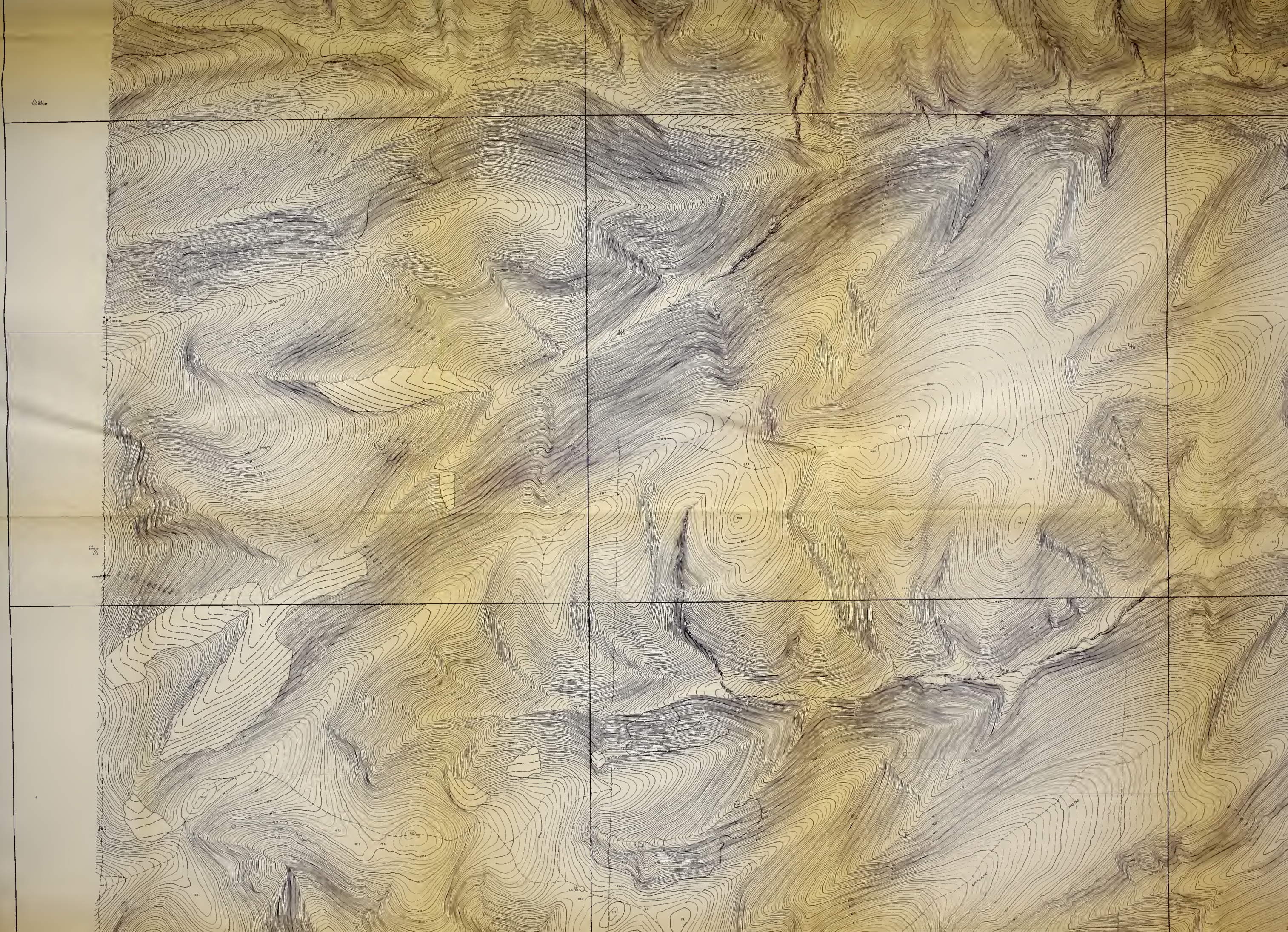
NOTE: COMPILED BY PHOTOGRAMMETRIC METHODS FROM 1:12,000 PHOTOGRAPHY OBTAINED JUNE 1974 WITH AN RC 8 CAMERA OF 152.74 mm FOCAL LENGTH. HORIZONTAL CONTROL SURVEYS REFERRED TO THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE MODIFIED TO A 7200 FT DATUM. LAMBERT CONFORMAL CONIC PROJECTION VERTICAL CONTROL SURVEYS RELATED TO MEAN SEA LEVEL.

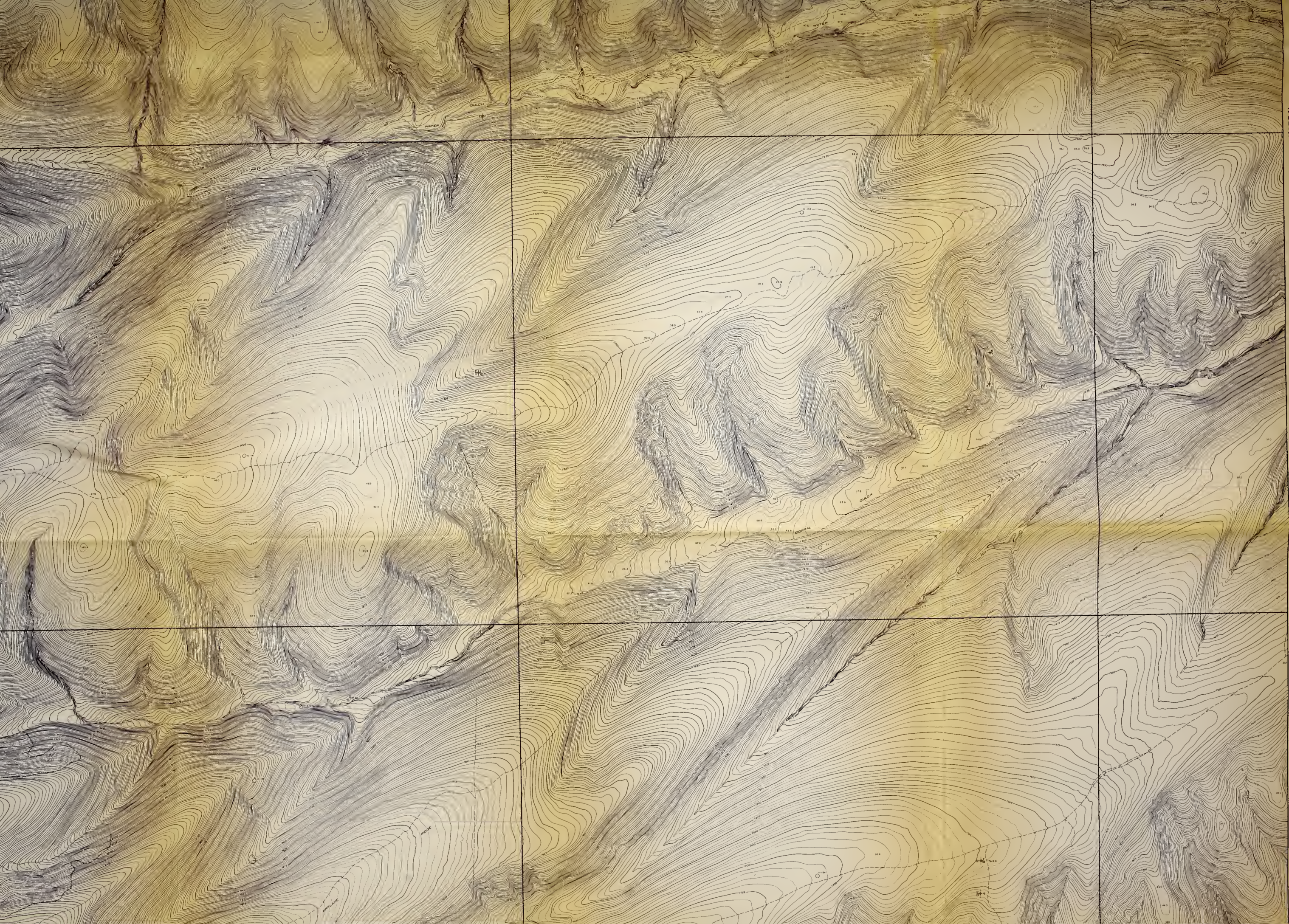
LIMBAUGH ENGINEERS, INC.

SHEET 3 OF 9



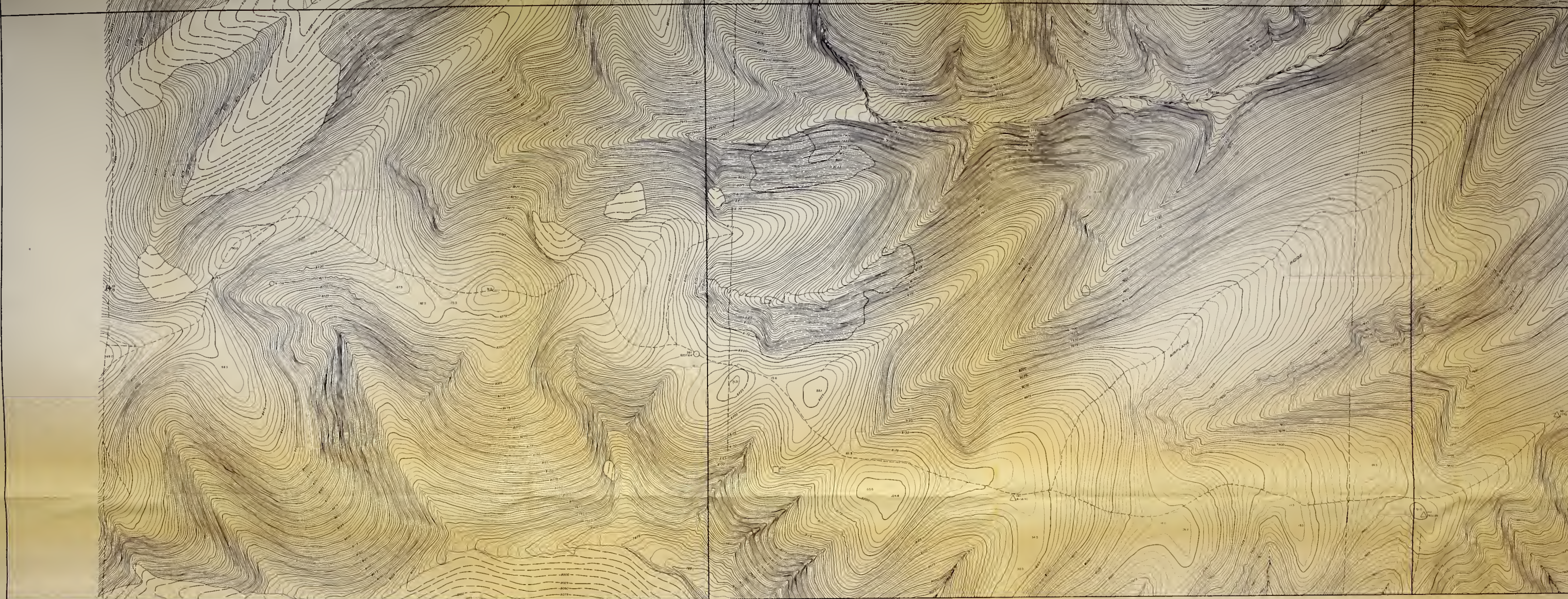






N 223,000

N 218,000



E 126,000

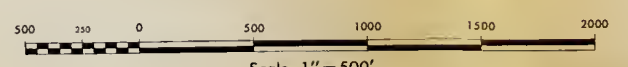
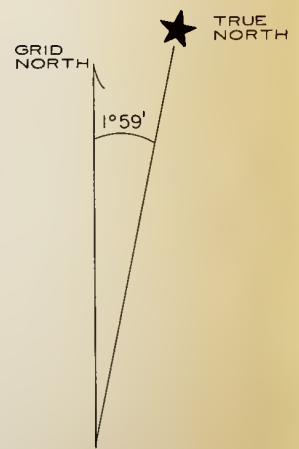
E 132,000

E 138,000

SHEET LAYOUT

1			2				3		
1	2	3	4	5	6	7	8	9	
10	11	12	13	14	15	16	17	18	
19	20	21	22	23	24	25	26	27	28
29	30	31	32	33	34	35	36	37	38
39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58
59	60	61	62	63	64	65	66	67	68
69	70	71	72	73	74	75	76	77	78
79	80	81	82	83	84	R. 99 W.	R. 98 W.		
R. 100 W.		R. 99 W.							

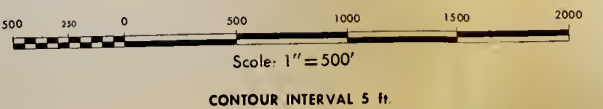
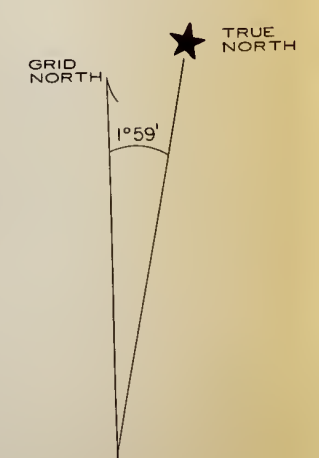
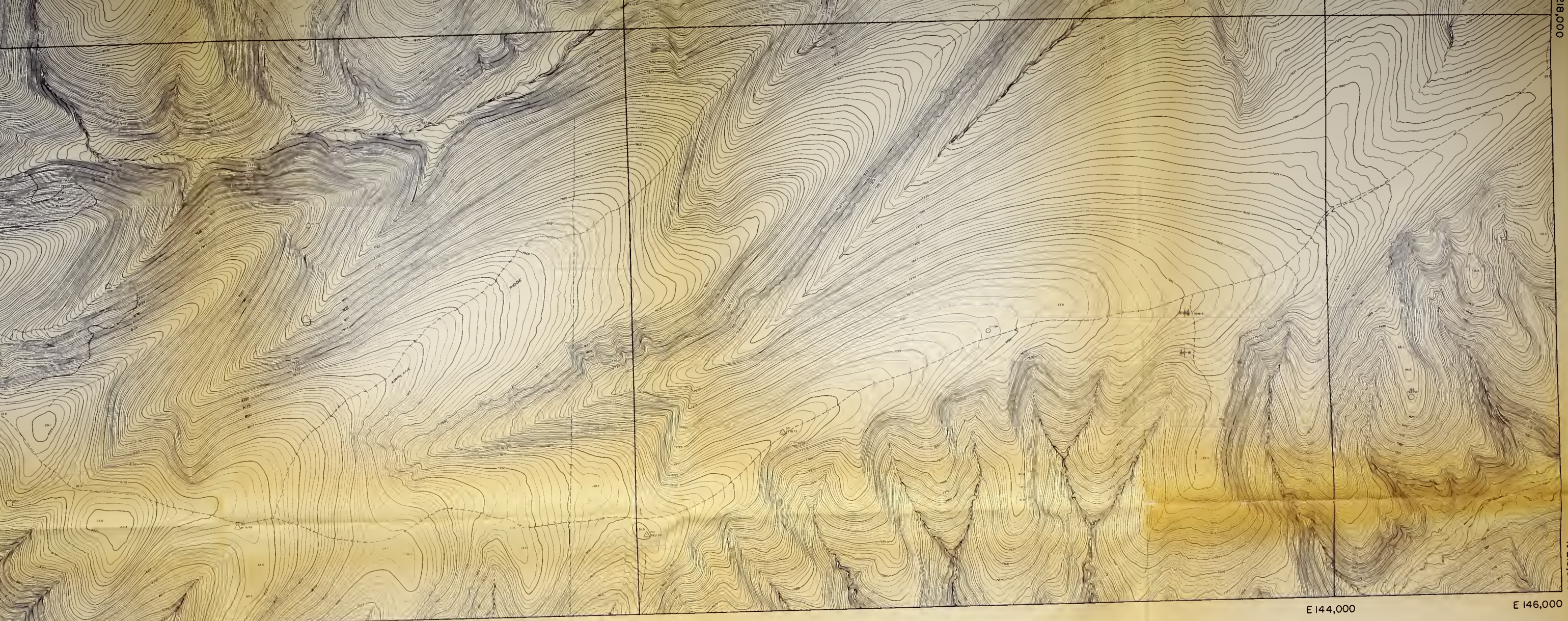
T. 1 S.
T. 2 S.



Scale: 1" = 500'
CONTOUR INTERVAL 5 ft.

LEGEND

- | | | | |
|--|-------------------------------|--|------------------|
| | HORIZONTAL & VERTICAL CONTROL | | GRADED ROAD |
| | VERTICAL CONTROL | | DIRT ROAD |
| | HORIZONTAL CONTROL | | JEEP TRAIL |
| | DRILL HOLE | | TRAIL |
| | PROPERTY CORNER | | CULVERT |
| | PICTURE CENTER | | FENCE (POSSIBLE) |
| | SECTION CORNER | | GATE |
| | 1/4 CORNER | | CORRAL |
| | SPOT ELEVATION | | PIPE LINE |
| | INDEX CONTOUR | | BUILDING |
| | INTERMEDIATE CONTOUR | | FOUNDATION |
| | CONTOUR THRU HEAVY VEGETATION | | EARTH DAM |
| | DEPRESSION | | UTILITY POLE |
| | PERENNIAL STREAM | | TREES |
| | INTERMITTENT STREAM | | SCATTERED TREES |
| | DITCH | | |
| | PONO | | |
| | WASH | | |
| | CULTIVATION | | |



LEGEND	
	HORIZONTAL & VERTICAL CONTROL
	VERTICAL CONTROL
	HORIZONTAL CONTROL
	DRILL HOLE
	PROPERTY CORNER
	PICTURE CENTER
	SECTION CORNER
	1/4 CORNER
	SPOT ELEVATION
	INDEX CONTOUR
	INTERMEDIATE CONTOUR
	CONTOUR THRU HEAVY VEGETATION
	DEPRESSION
	PERENNIAL STREAM
	INTERMITTENT STREAM
	DITCH
	POND
	WASH
	CULTIVATION
	GRADED ROAD
	DIRT ROAD
	JEEP TRAIL
	TRAIL
	CULVERT
	FENCE
	FENCE (POSSIBLE)
	GATE
	CORRAL
	PIPE LINE
	BUILDING
	FOUNDATION
	EARTH DAM
	UTILITY POLE
	TREES
	SCATTERED TREES

REVISIONS			
NO.	DESCRIPTION	DATE	BY

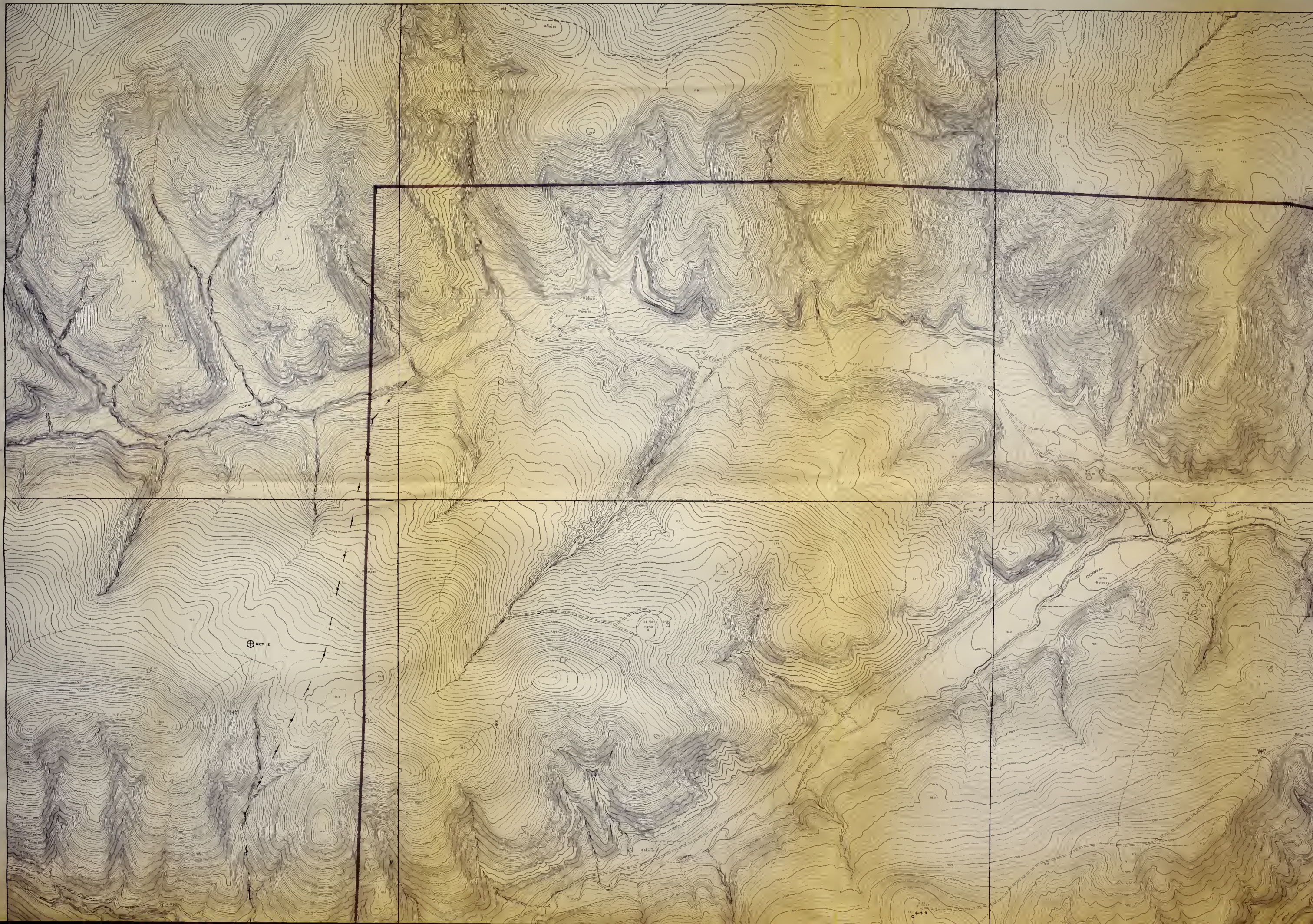
**RIO BLANCO OIL SHALE PROJECT
MAP OF TRACT C-a AND VICINITY**

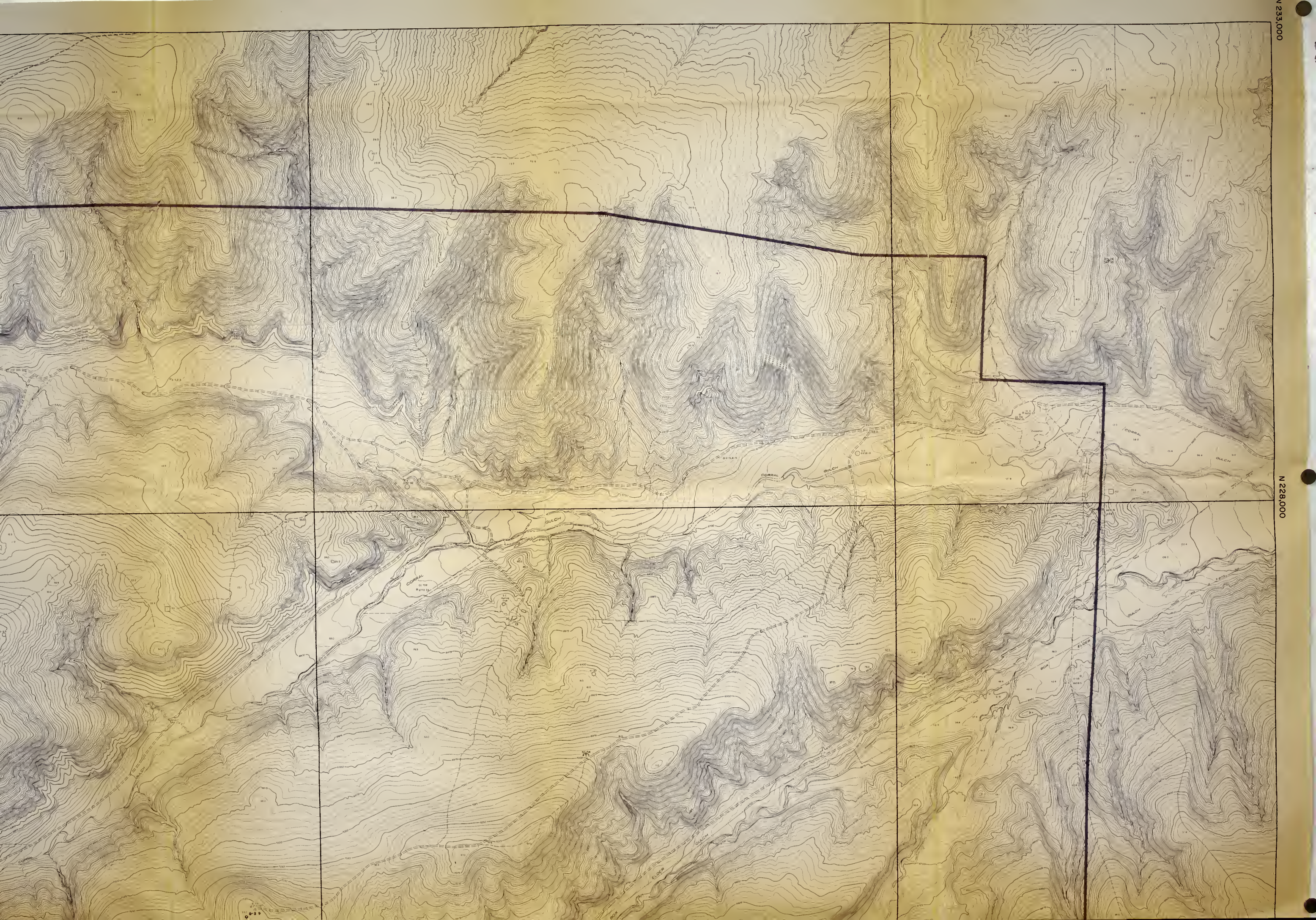
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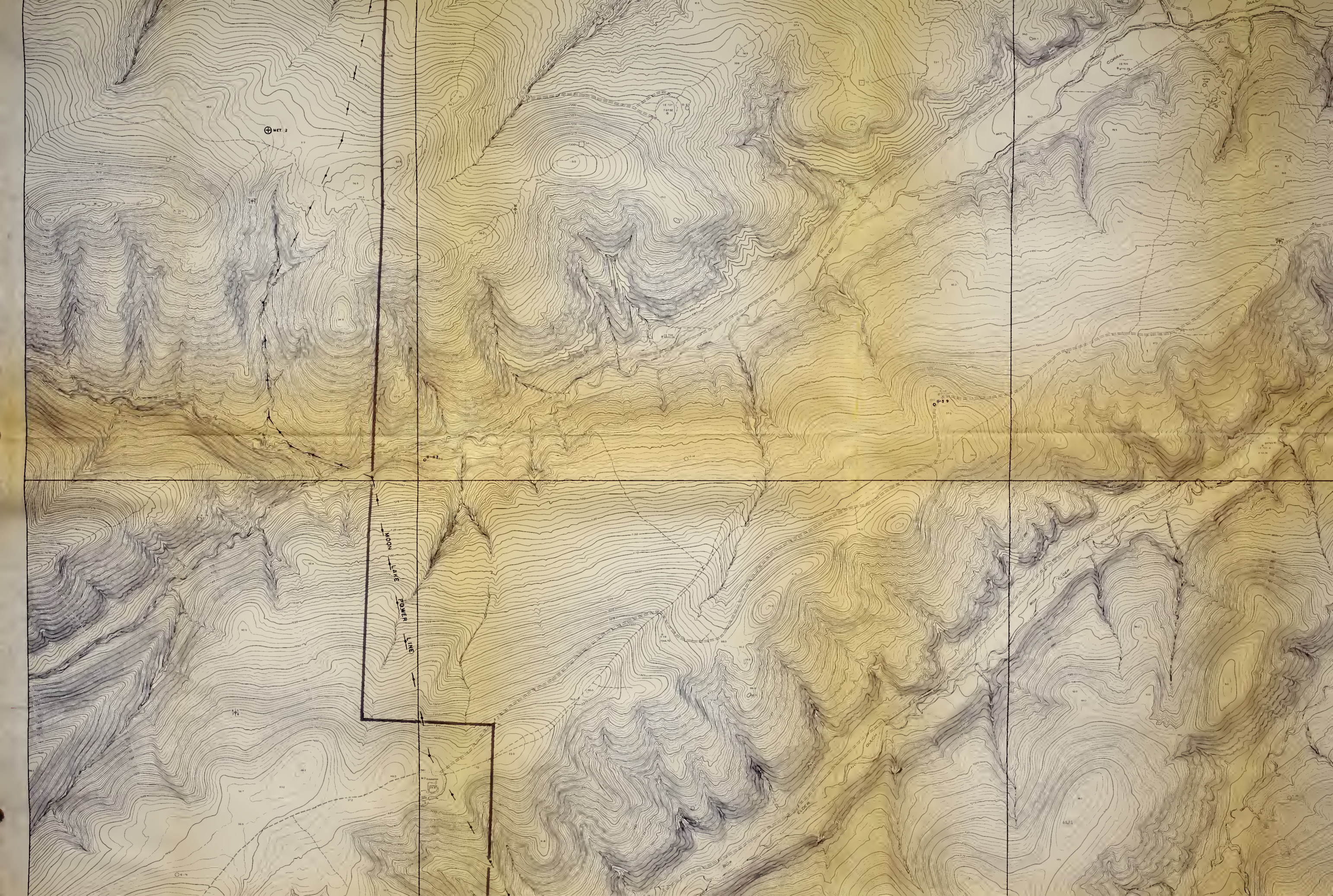
**TOPOGRAPHIC MAPPING
OF
TRACT C-a
FEDERAL OIL SHALE LEASE NO. C-20046
AND PORTIONS OF
TOWNSHIPS 1&2 SOUTH,
RANGES 98, 99&100 WEST
RIO BLANCO COUNTY, COLORADO**

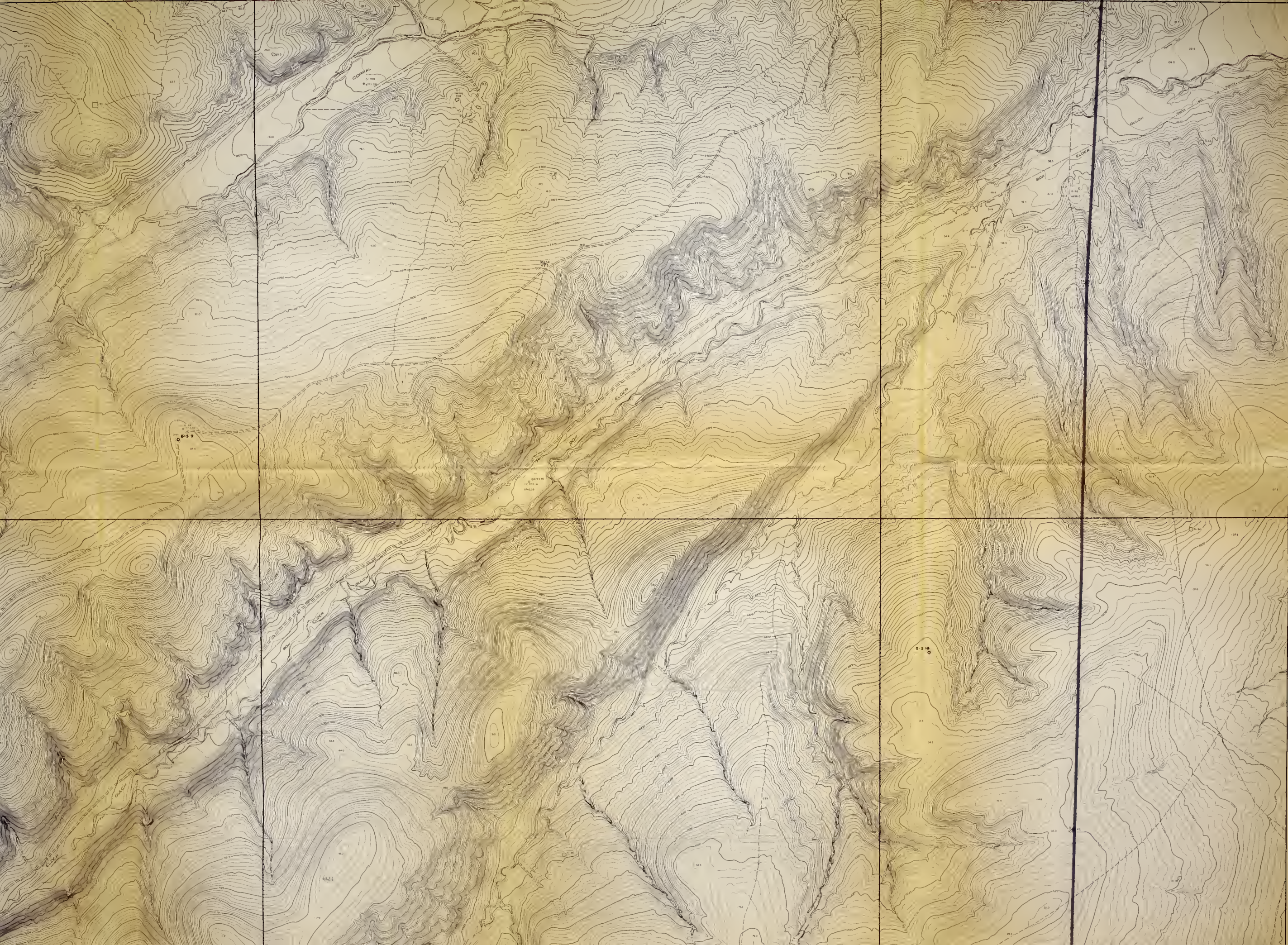
NOTE: COMPILED BY PHOTOGRAMMETRIC METHODS FROM 1:12,000 PHOTOGRAPHY OBTAINED JUNE 1974 WITH AN RC 8 CAMERA OF 152.74mm FOCAL LENGTH HORIZONTAL CONTROL SURVEYS REFERRED TO THE COLORADO STATE PLANE COORDINATE SYSTEM, NORTH ZONE MODIFIED TO A 7700 FT. DATUM, LAMBERT CONFORMAL CONIC PROJECTION VERTICAL CONTROL SURVEYS RELATED TO MEAN SEA LEVEL.

3971
LIMBAUGH ENGINEERS, INC.
SHEET 4 OF 9



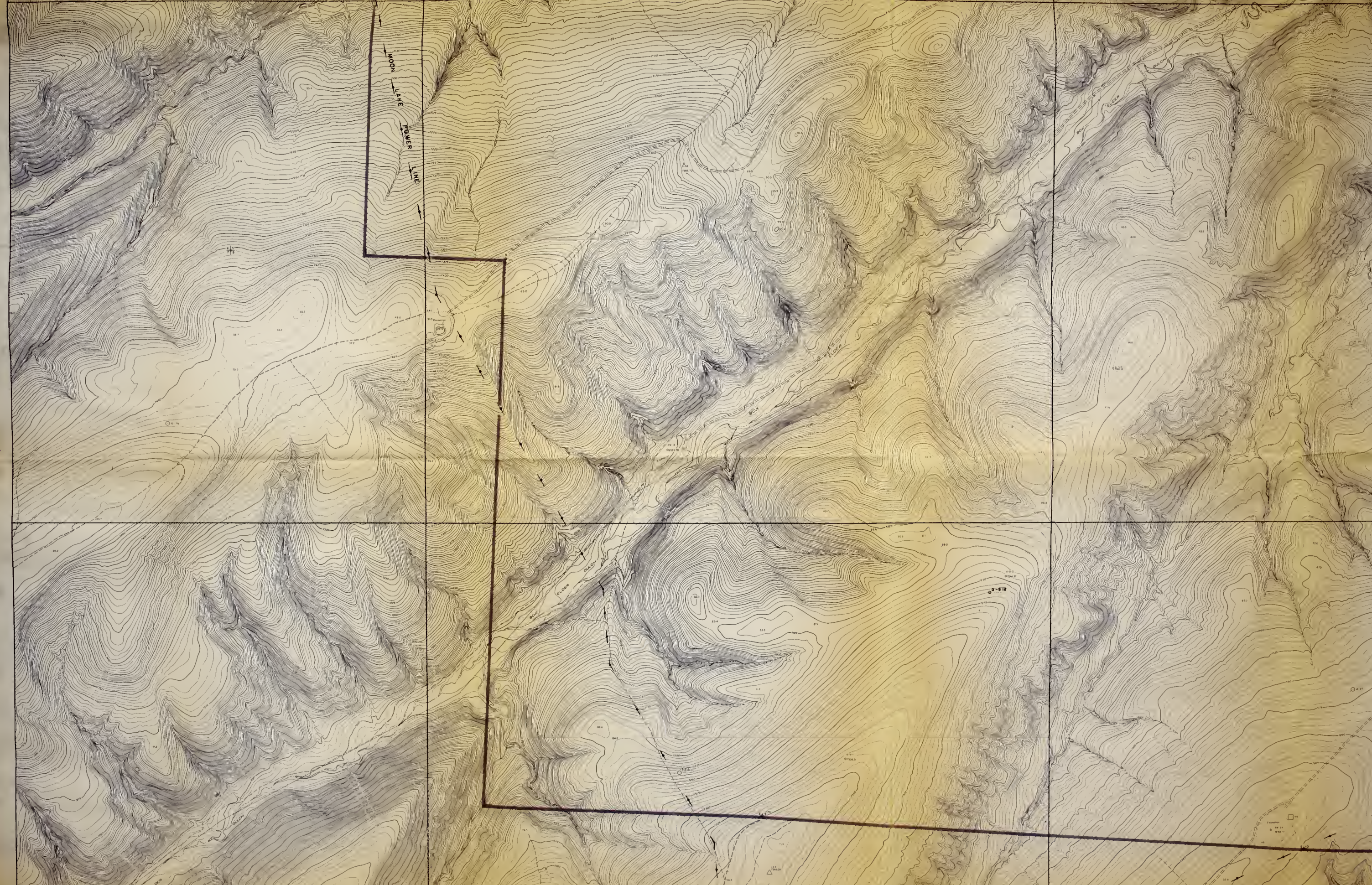


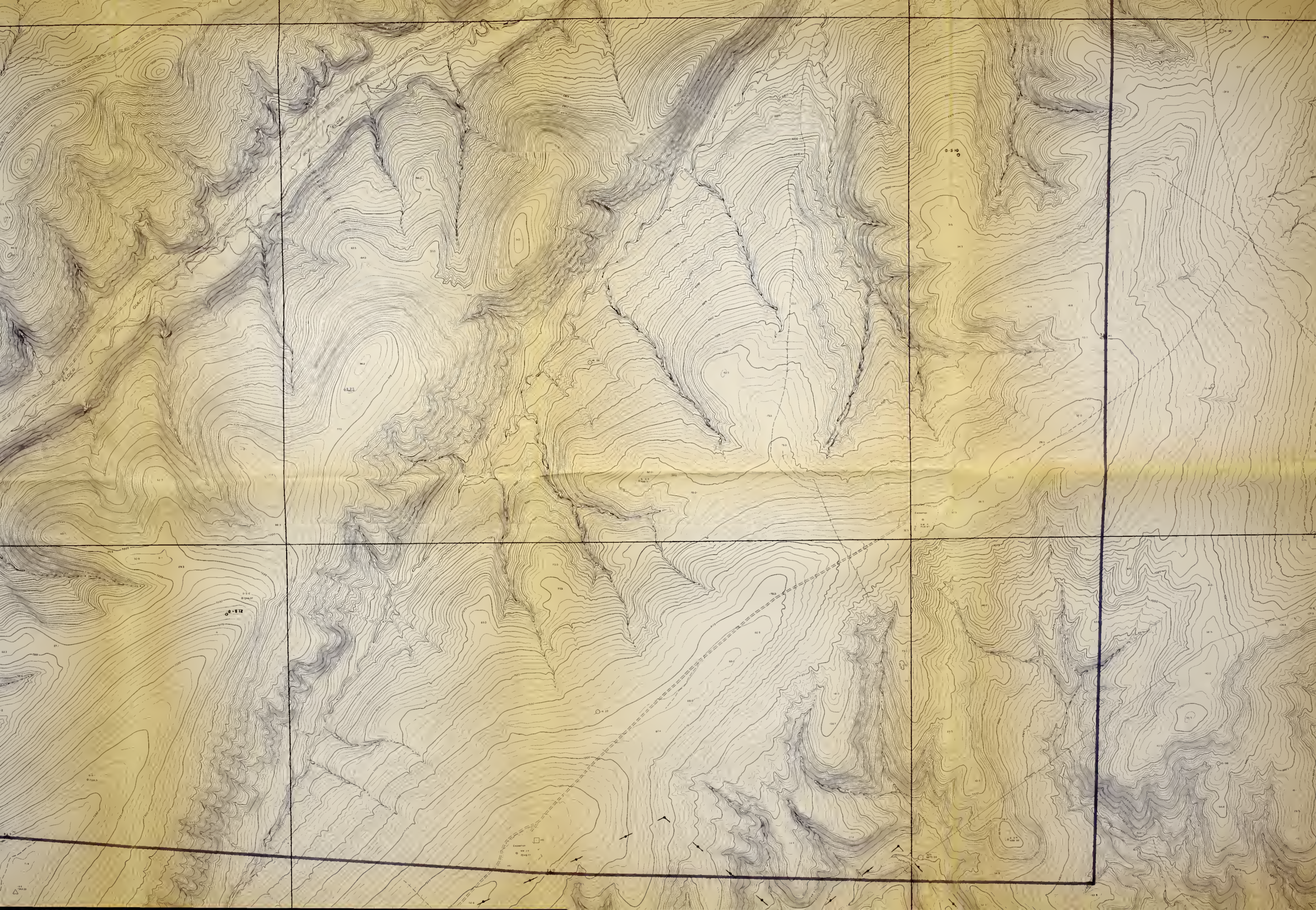


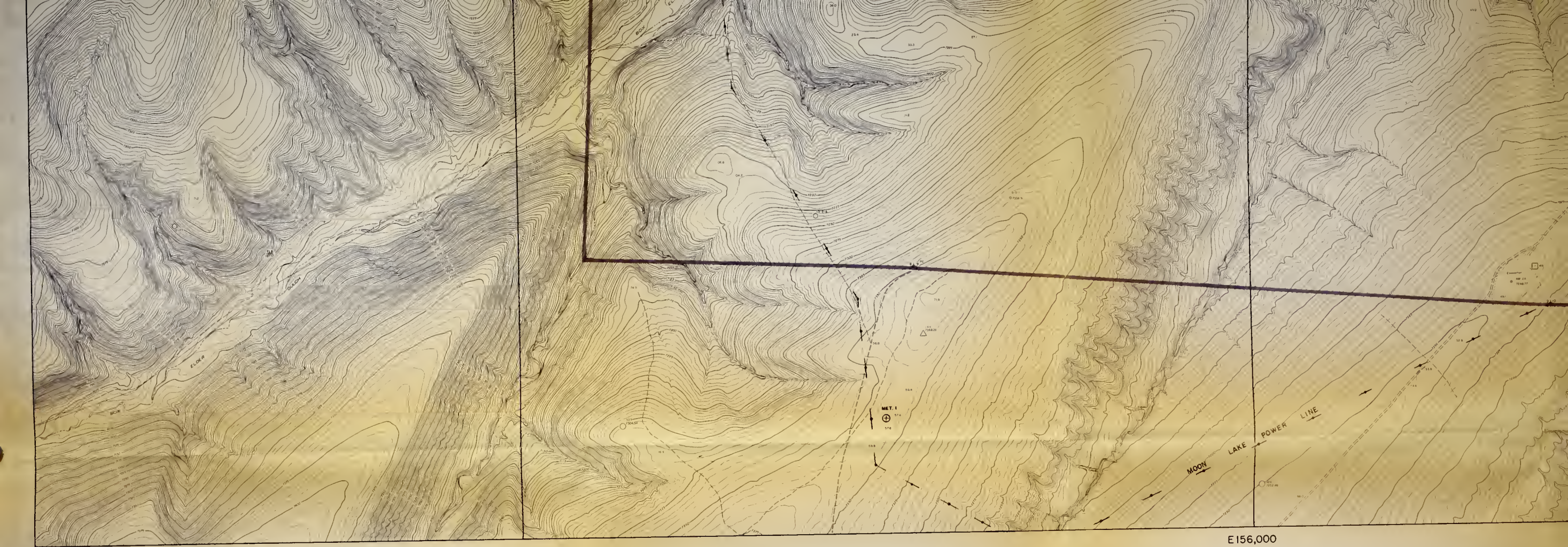


N 223,000

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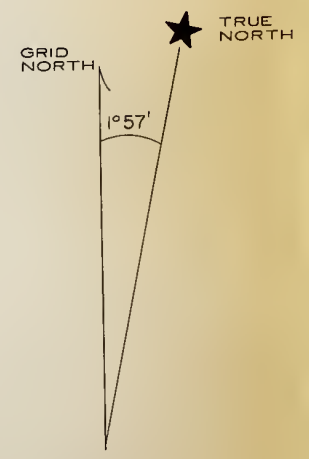
E 146,000

E 150,000

E 156,000

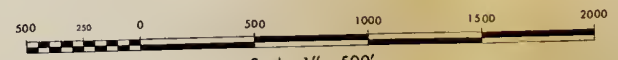
SHEET LAYOUT

			1			2			3					
	1	2	3	4	5	6	7	8	9					
	10	11	12	13	14	15	16	17	18					
19	20	21	22	23	24	25	26	27	28					
29	30	31	32	33	34	35	36	37	38	T. 1 S.				
	4			5			6			T. 2 S.				
39	40	41	42	43	44	45	46	47	48					
49	50	51	52	53	54	55	56	57	58					
59	60	61	62	63	64	65	66	67	68					
69	70	71	72	73	74	75	76	77	78					
79	80	81	82	83	84					R. 99 W.	R. 98 W.			
R. 100 W.			R. 99 W.											



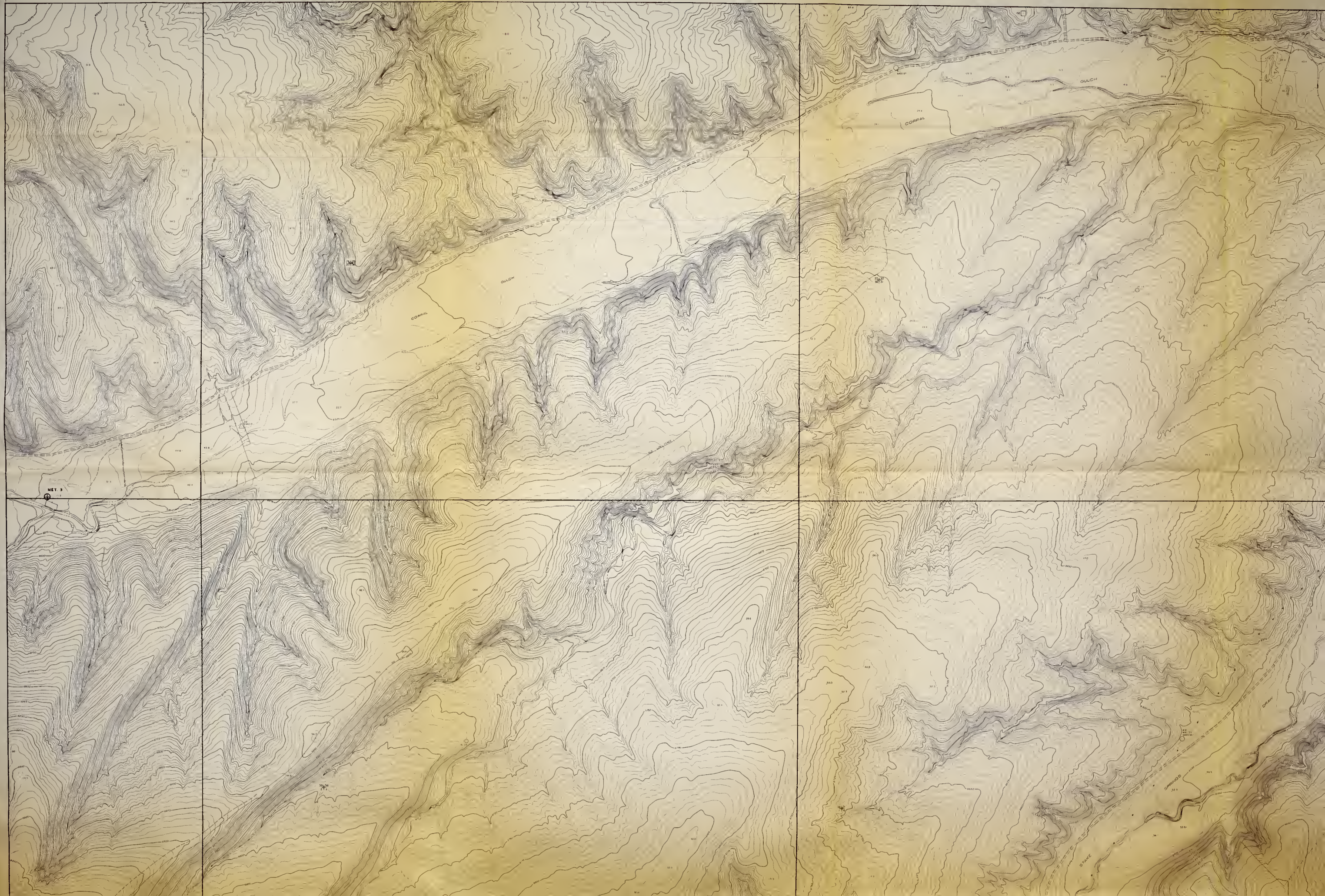
LEGEND

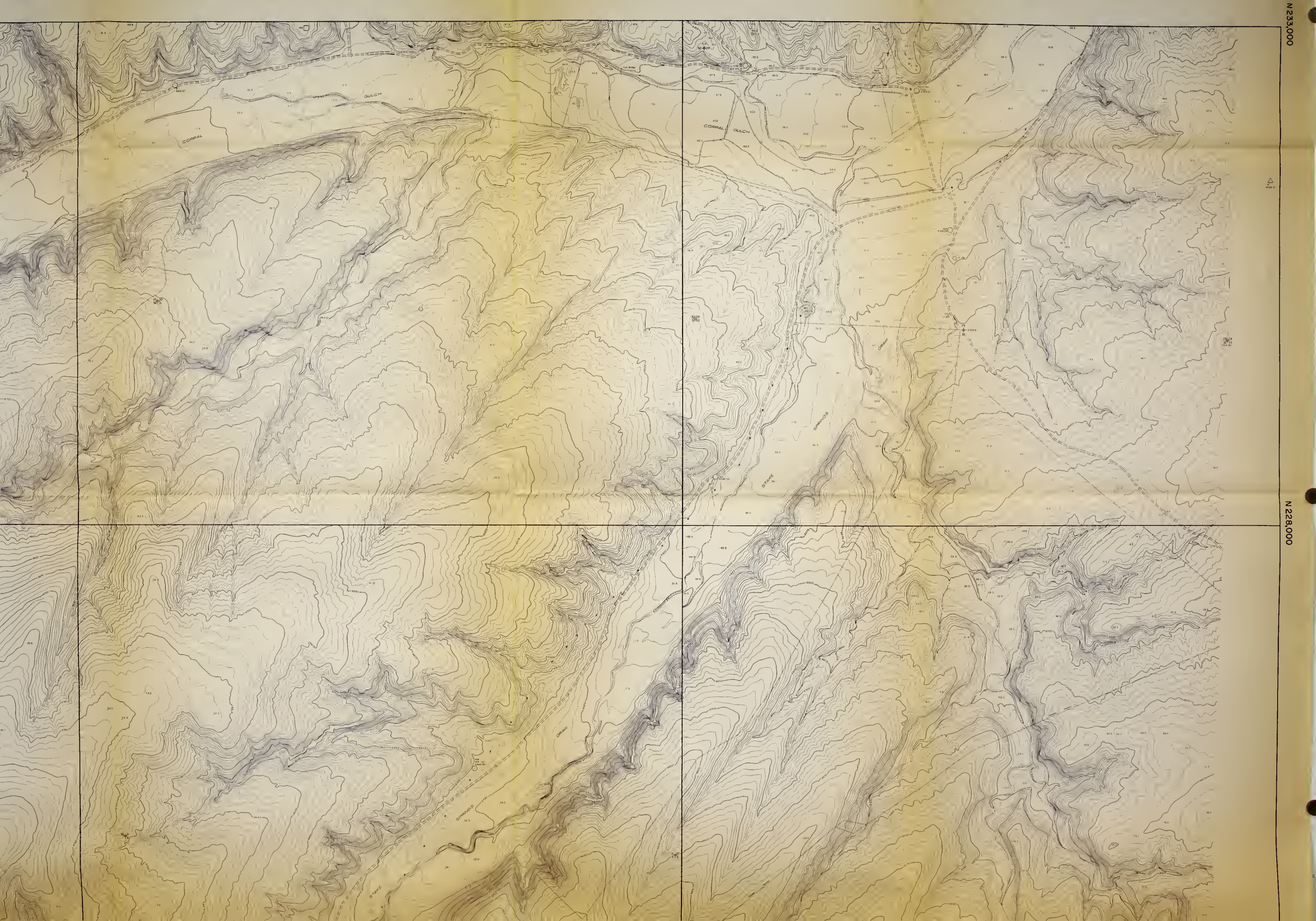
- HORIZONTAL & VERTICAL CONTROL
- VERTICAL CONTROL
- HORIZONTAL CONTROL
- DRILL HOLE
- PROPERTY CORNER
- PICTURE CENTER
- SECTION CORNER
- 1/4 CORNER
- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- CONTOUR THRU HEAVY VEGETATION
- DEPRESSION
- PERENNIAL STREAM
- INTERMITTENT STREAM
- DITCH
- POND
- WASH
- CULTIVATION

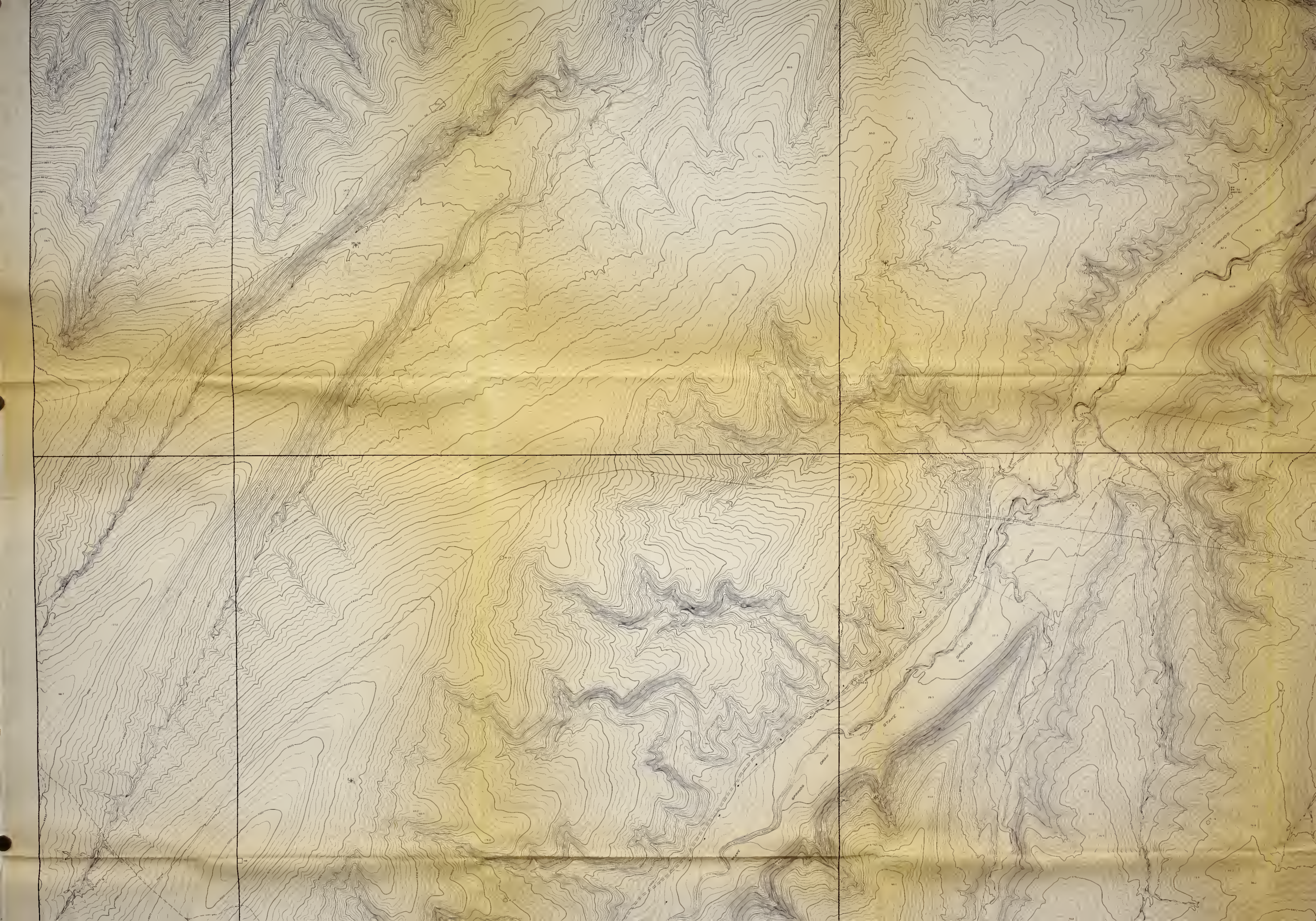


Scale: 1" = 500'

CONTOUR INTERVAL 5 ft.



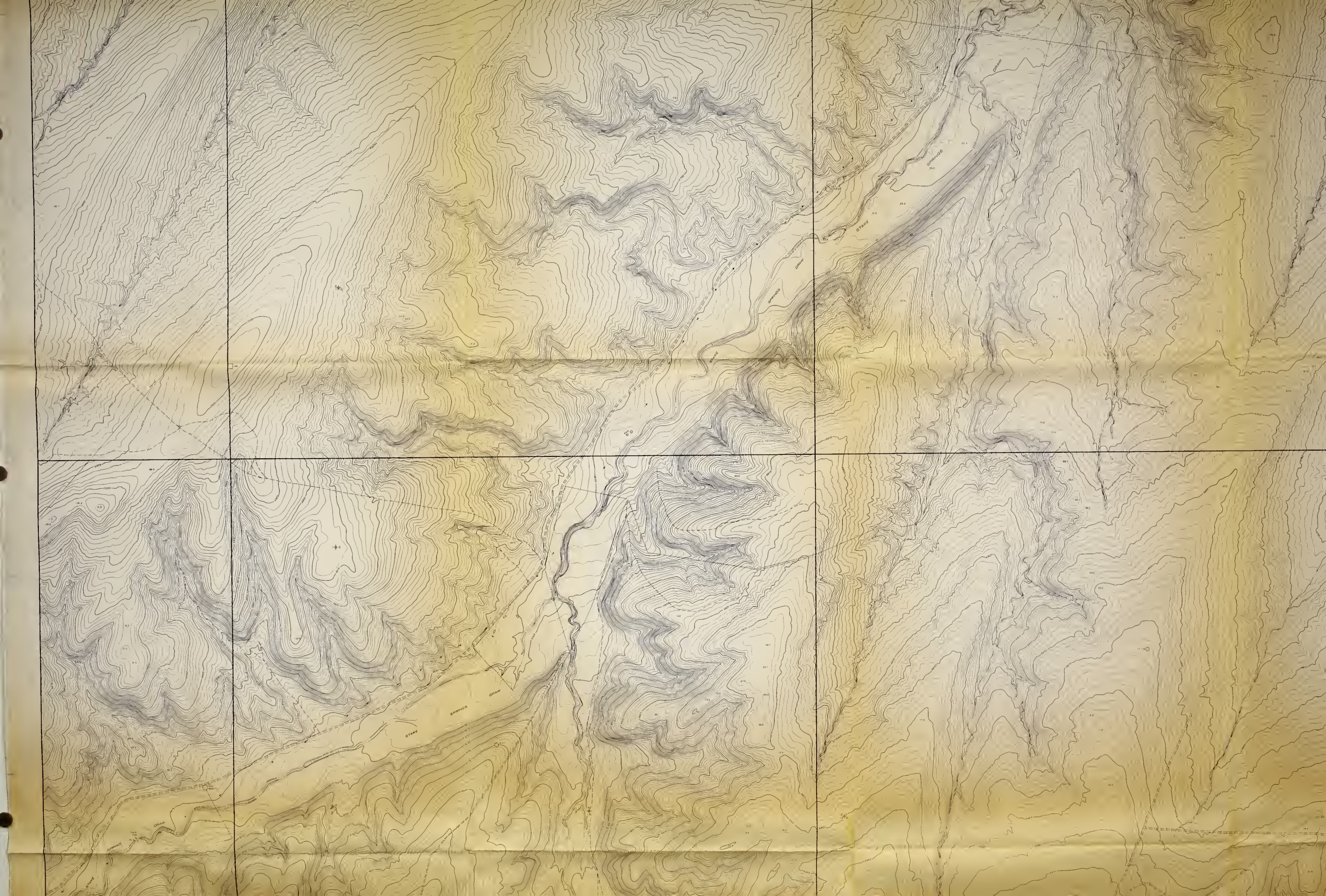


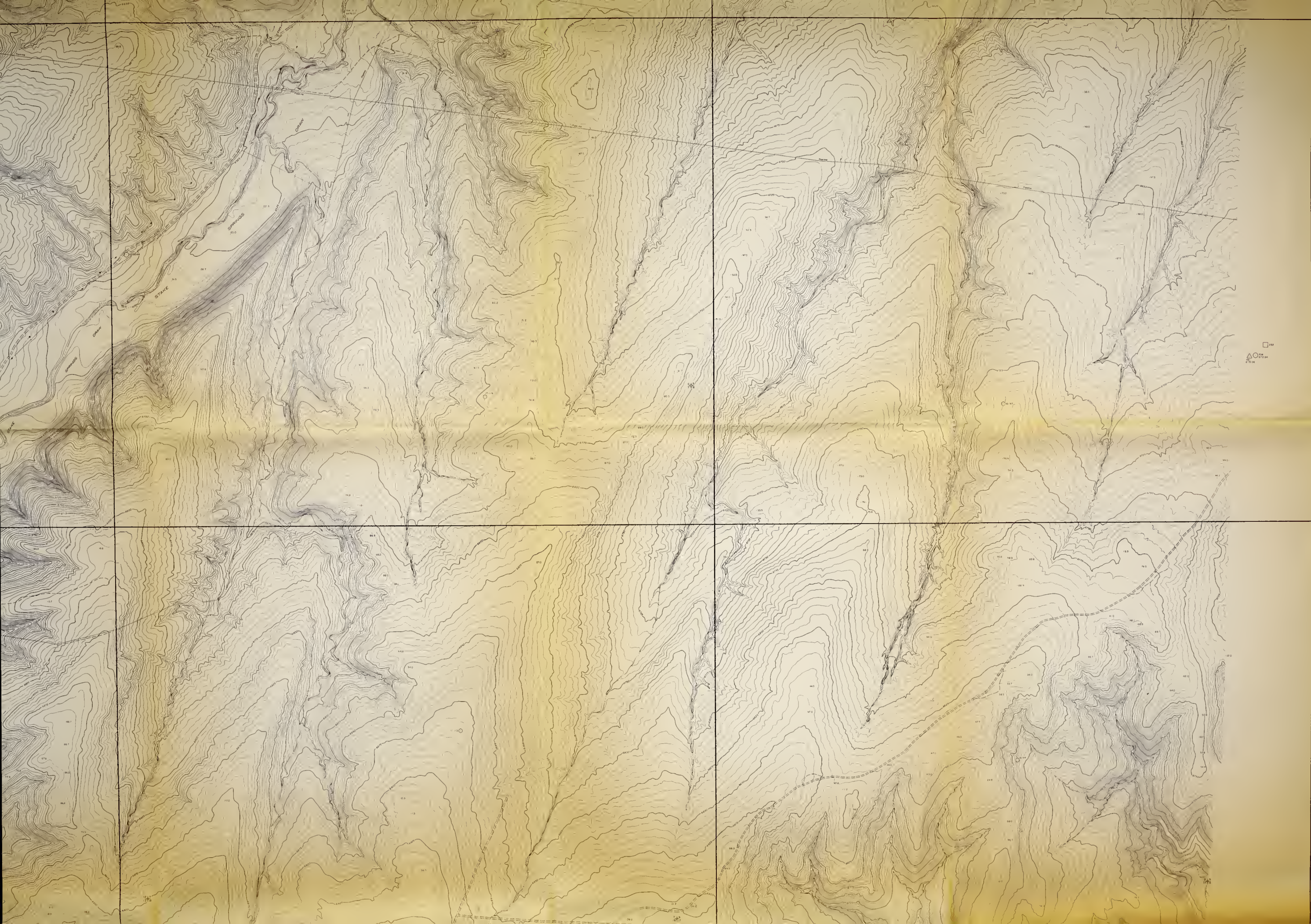




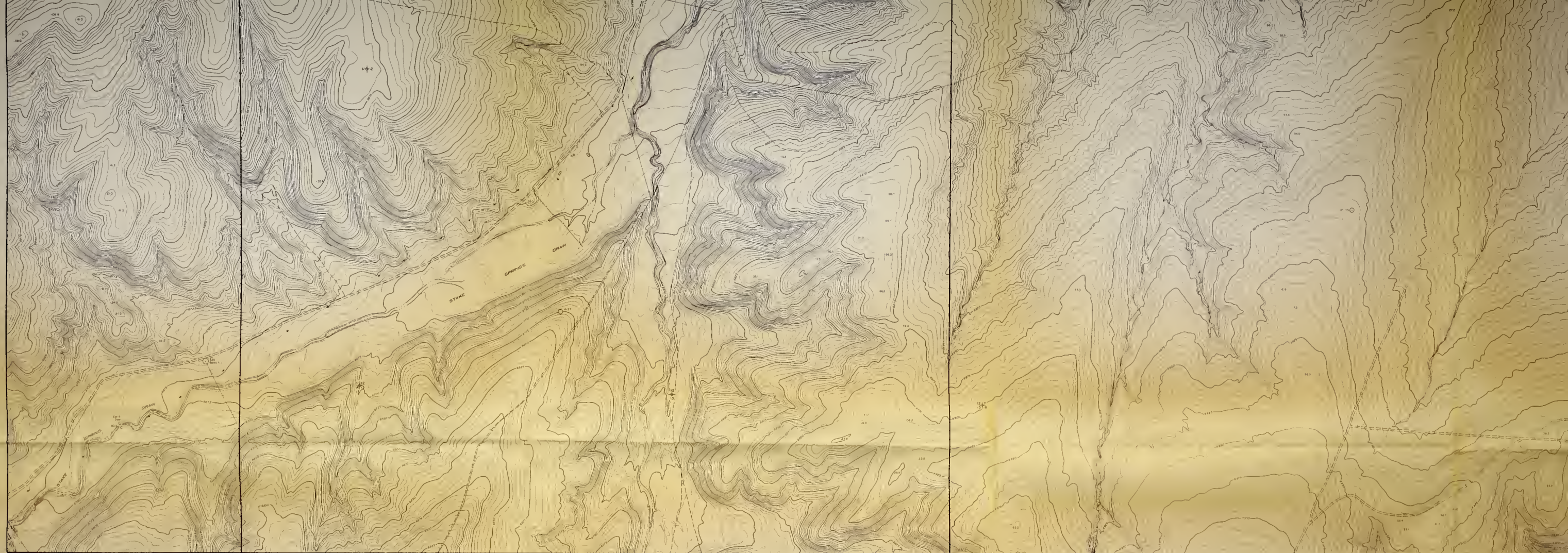
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N 223,000





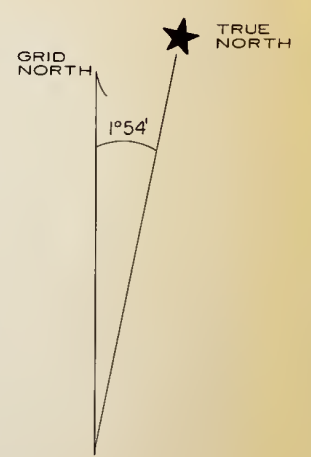
□ 110
△ 107
1/4 in



E 166,000 E 168,000 E 174,000

SHEET LAYOUT

			1			2			3						
	1	2	3	4	5	6	7	8	9						
	10	11	12	13	14	15	16	17	18						
19	20	21	22	23	24	25	26	27	28						
29	30	31	32	33	34	35	36	37	38	T. 1 S.					
39	40	41	42	43	44	45	46	47	48	T. 2 S.					
49	50	51	52	53	54	55	56	57	58						
59	60	61	62	63	64	65	66	67	68						
69	70	71	72	73	74	75	76	77	78						
79	80	81	82	83	84		R. 99 W.	R. 98 W.							
	R. 100 W.		R. 99 W.												



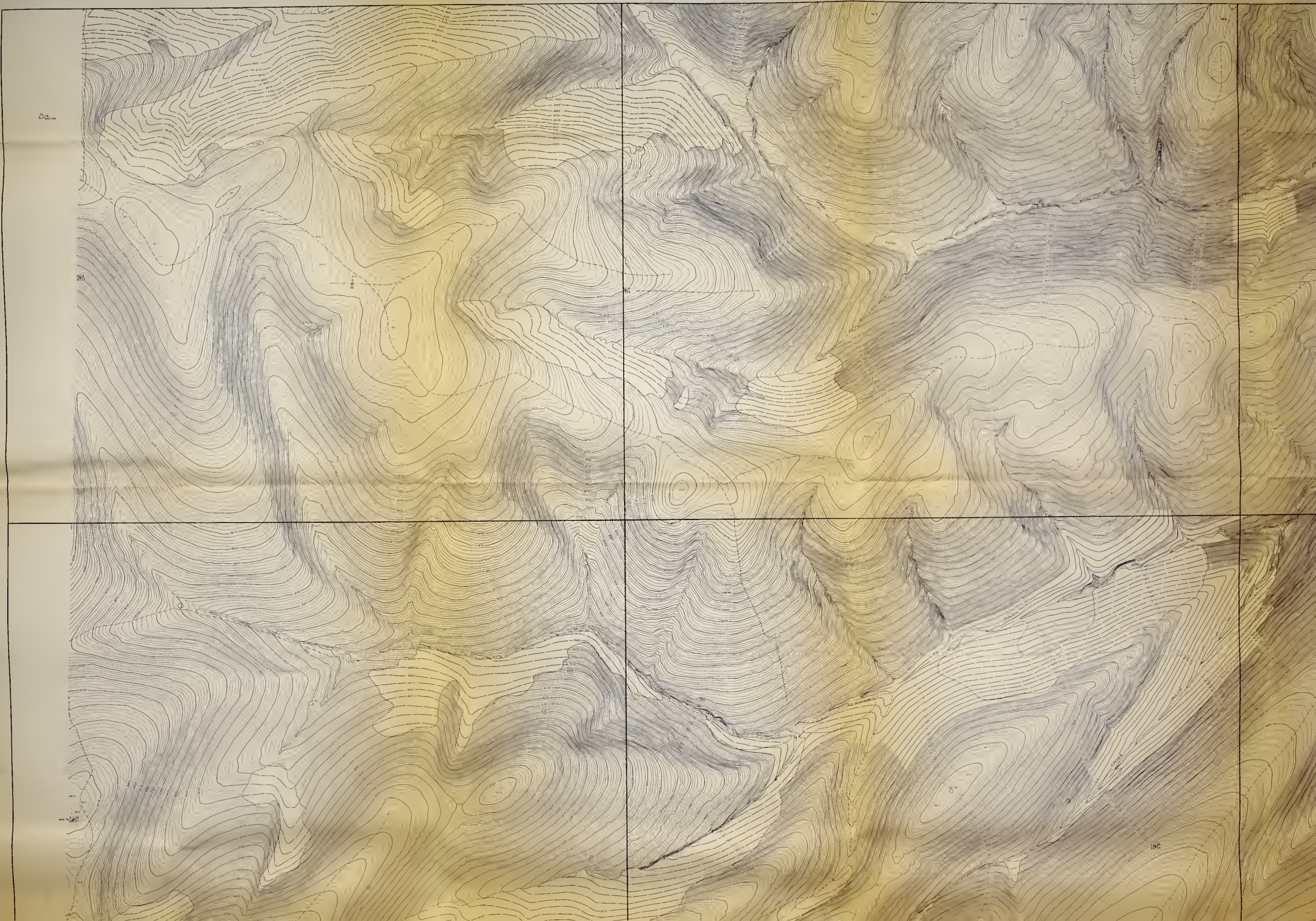
LEGEND

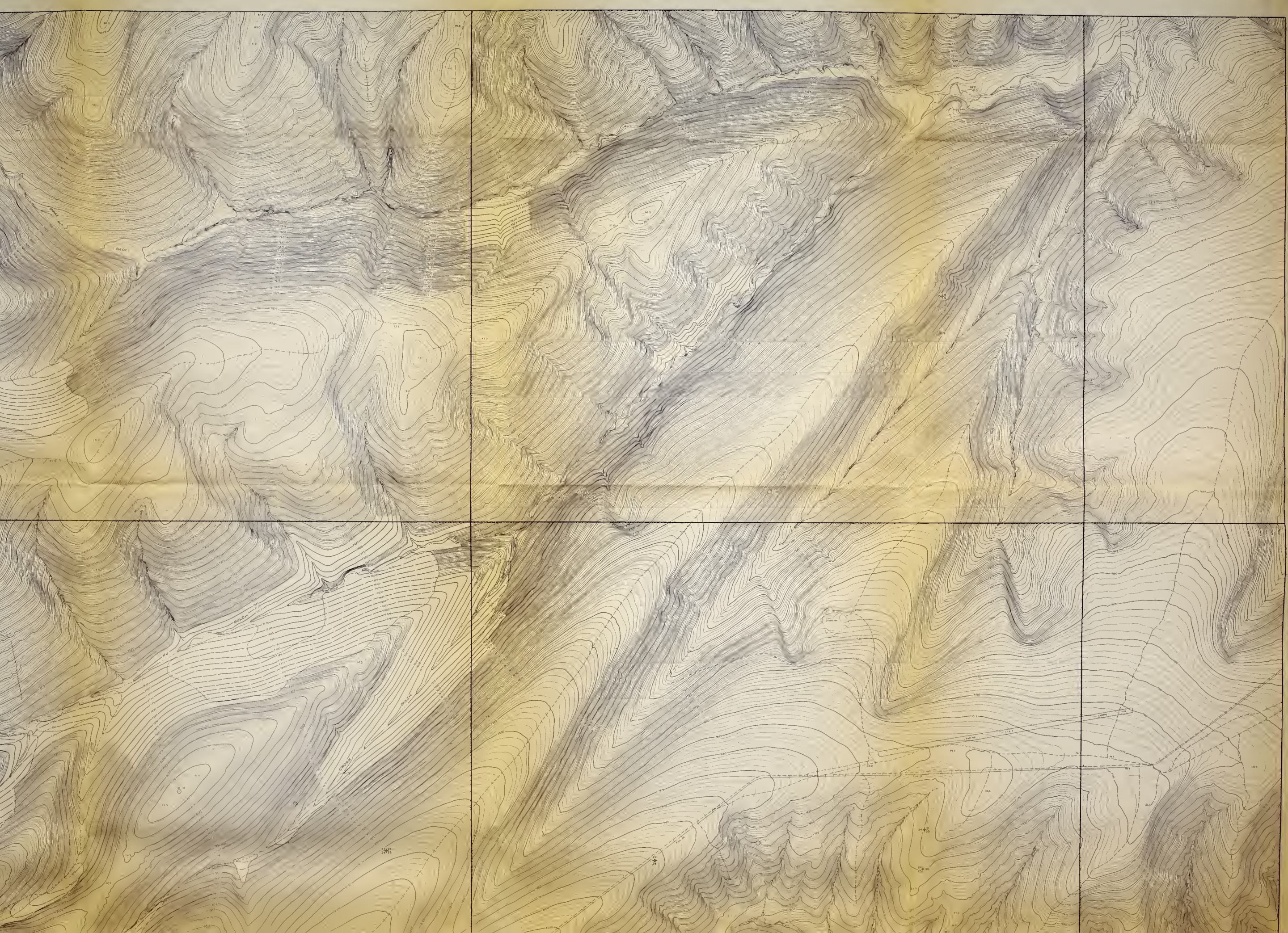
- | | | | |
|--|-------------------------------|--|------------------|
| | HORIZONTAL & VERTICAL CONTROL | | GRADED ROAD |
| | VERTICAL CONTROL | | DIRT ROAD |
| | HORIZONTAL CONTROL | | JEEP TRAIL |
| | DRILL HDLE | | TRAIL |
| | PROPERTY CORNER | | CULVERT |
| | PICTURE CENTER | | FENCE |
| | SECTION CORNER | | FENCE (POSSIBLE) |
| | 1/4 CORNER | | GATE |
| | SPOT ELEVATION | | CORRAL |
| | INDEX CONTOUR | | PIPE LINE |
| | INTERMEDIATE CONTOUR | | BUILDING |
| | CONTOUR THRU HEAVY VEGETATION | | FOUNDATION |
| | DEPRESSION | | EARTH DAM |
| | PERENNIAL STREAM | | UTILITY POLE |
| | INTERMITTENT STREAM | | TREES |
| | OITCH | | SCATTERED TREES |
| | POND | | |
| | WASH | | |
| | CULTIVATION | | |

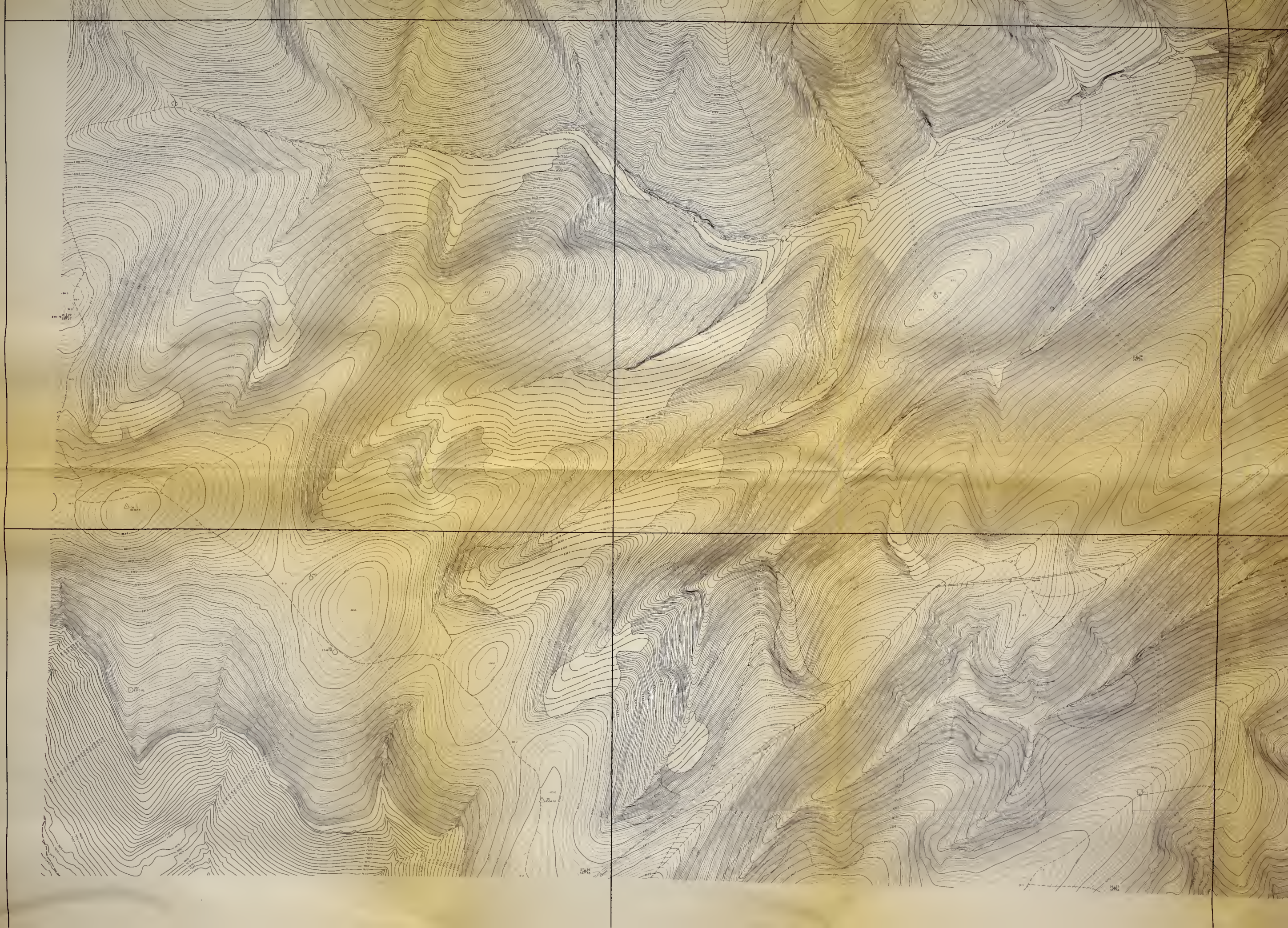


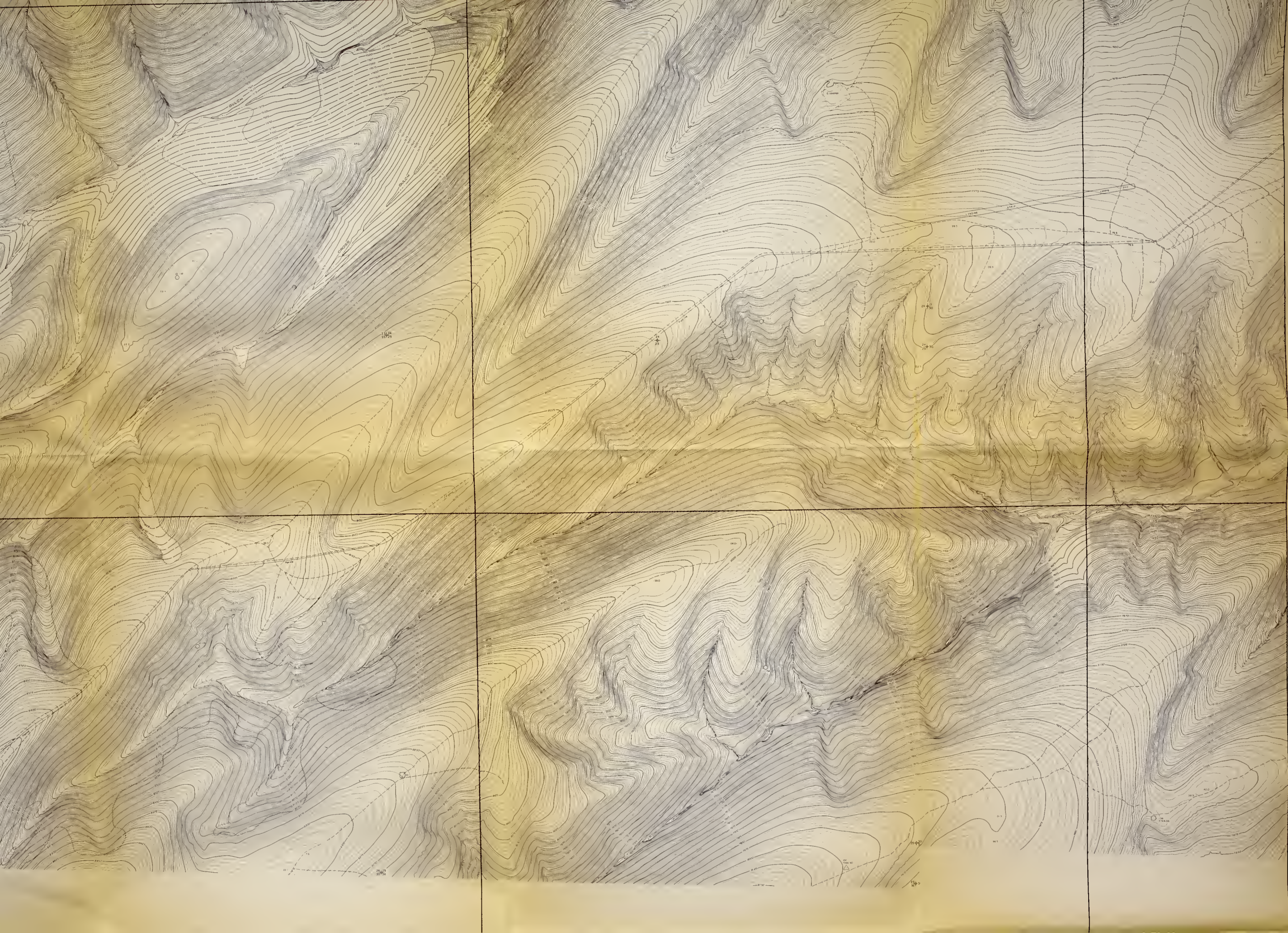
Scale. 1" = 500'

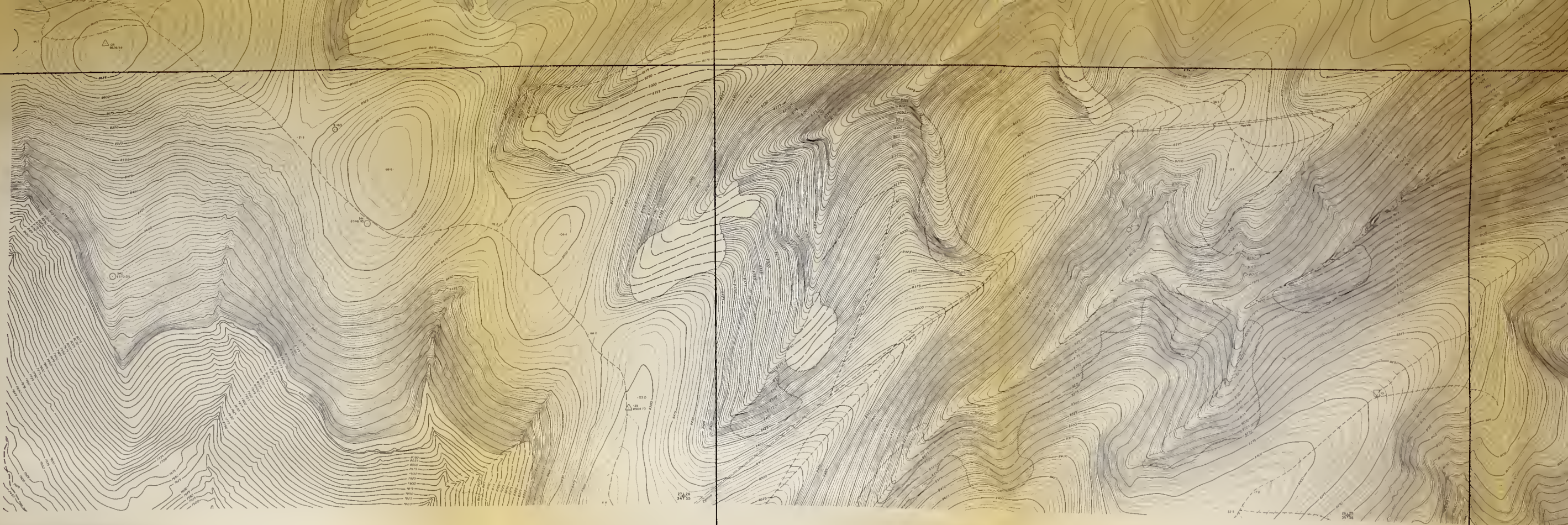
CONTOUR INTERVAL 5 ft.





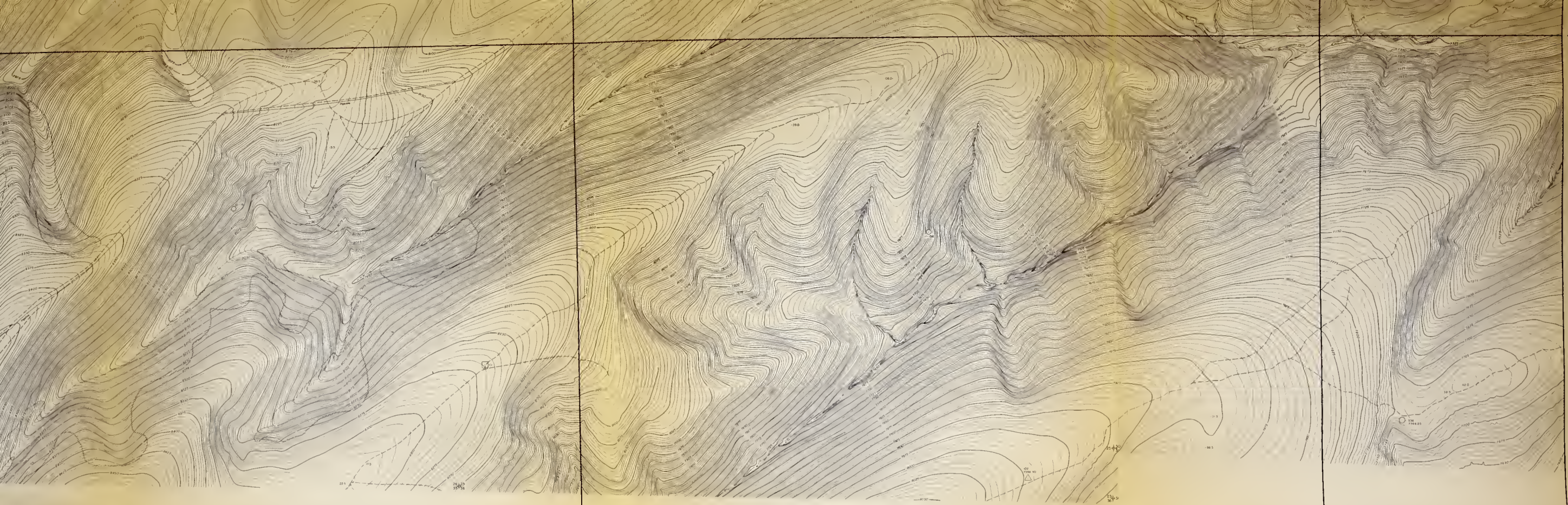






△ 2500

○ 2500



N 203,000

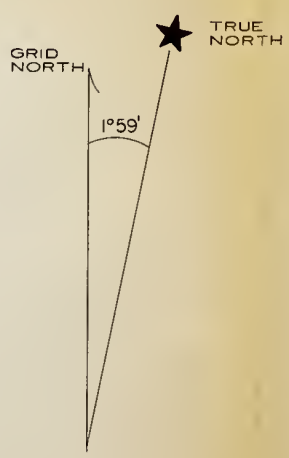
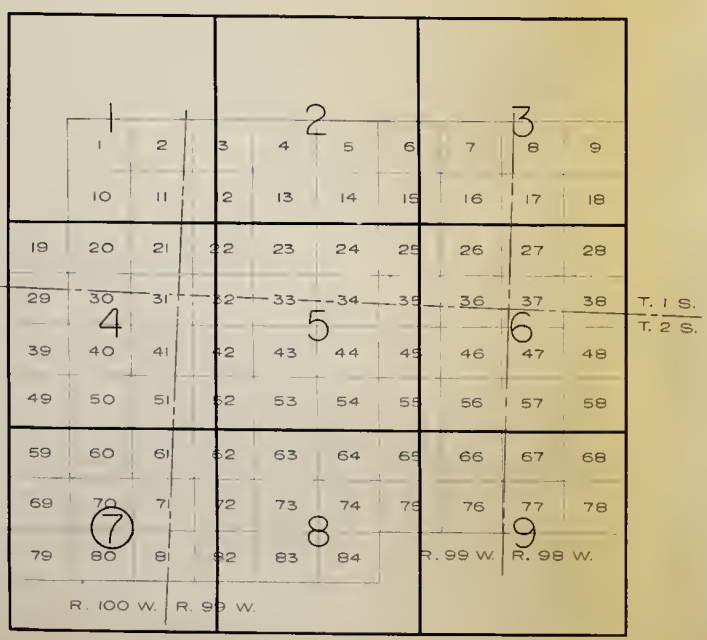
N 198,000

E 126,000

E 132,000

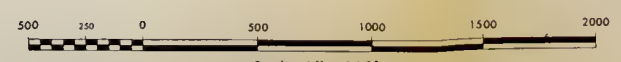
E 138,000

SHEET LAYOUT



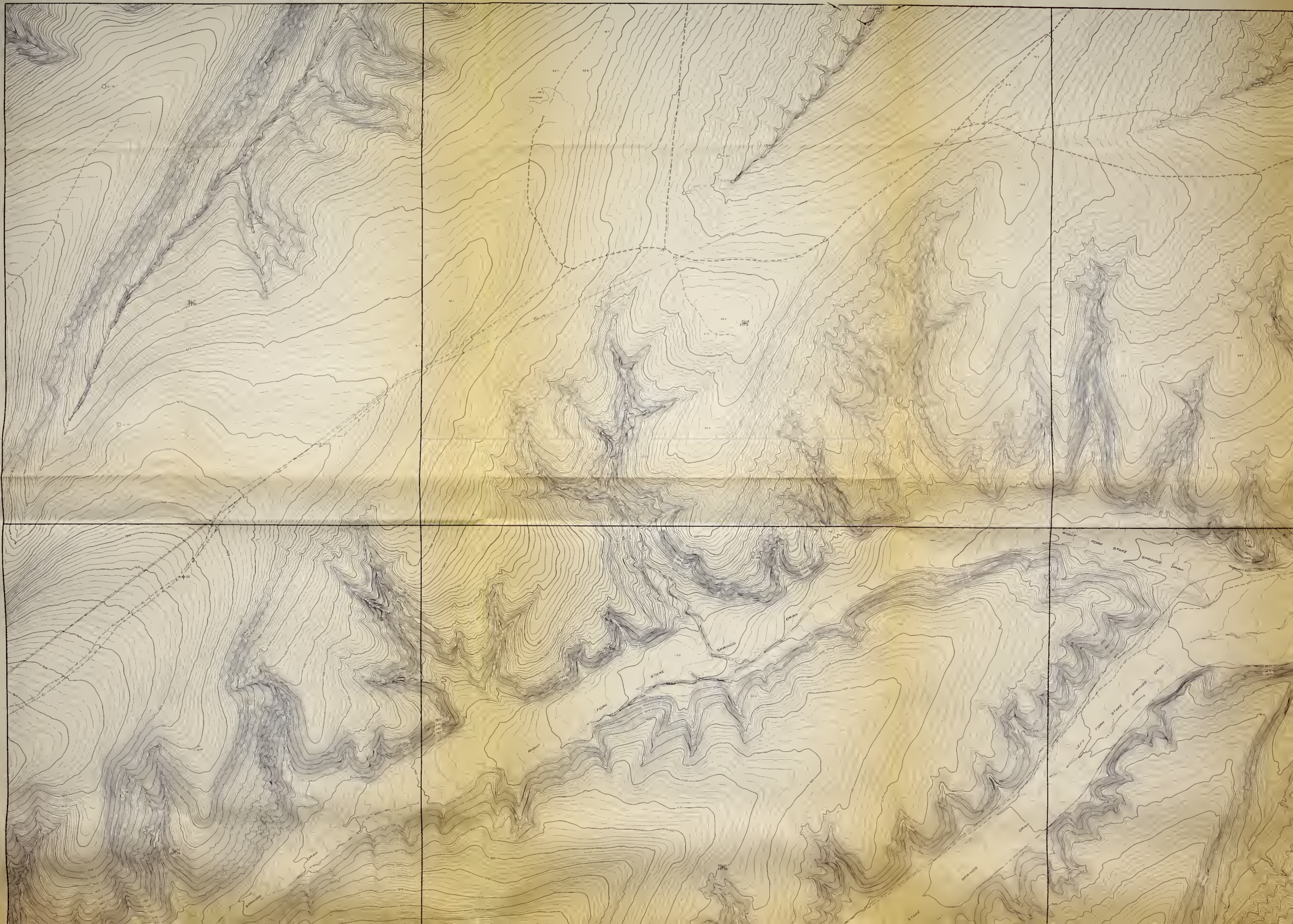
LEGEND

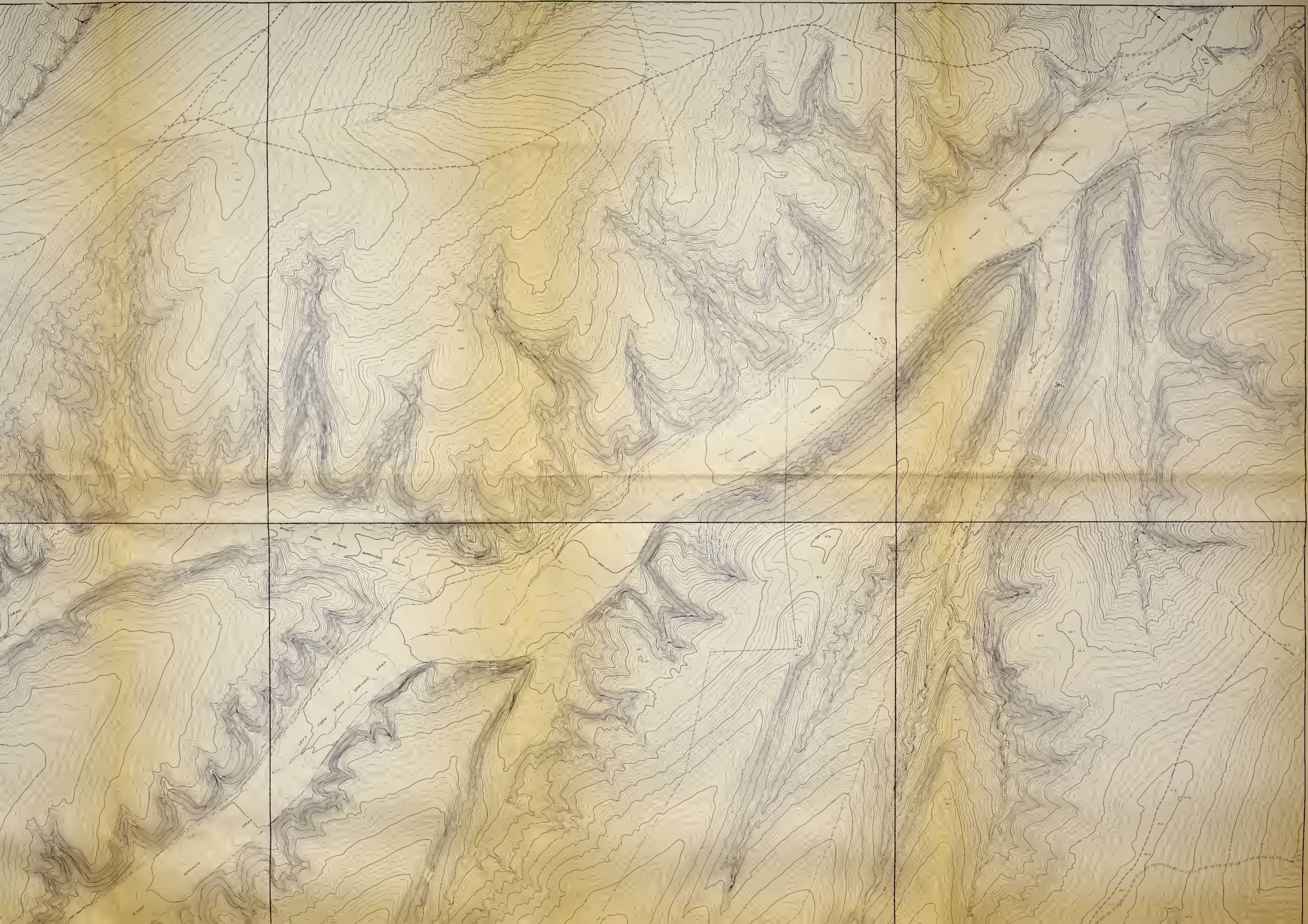
- HORIZONTAL & VERTICAL CONTROL
- VERTICAL CONTROL
- HORIZONTAL CONTROL
- DRILL HOLE
- PROPERTY CORNER
- PICTURE CENTER
- SECTION CORNER
- 1/4 CORNER
- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- CONTOUR THRU HEAVY VEGETATION
- DEPRESSION
- PERENNIAL STREAM
- INTERMITTENT STREAM
- DITCH
- POND
- WASH
- CULTIVATION



Scale: 1" = 500'

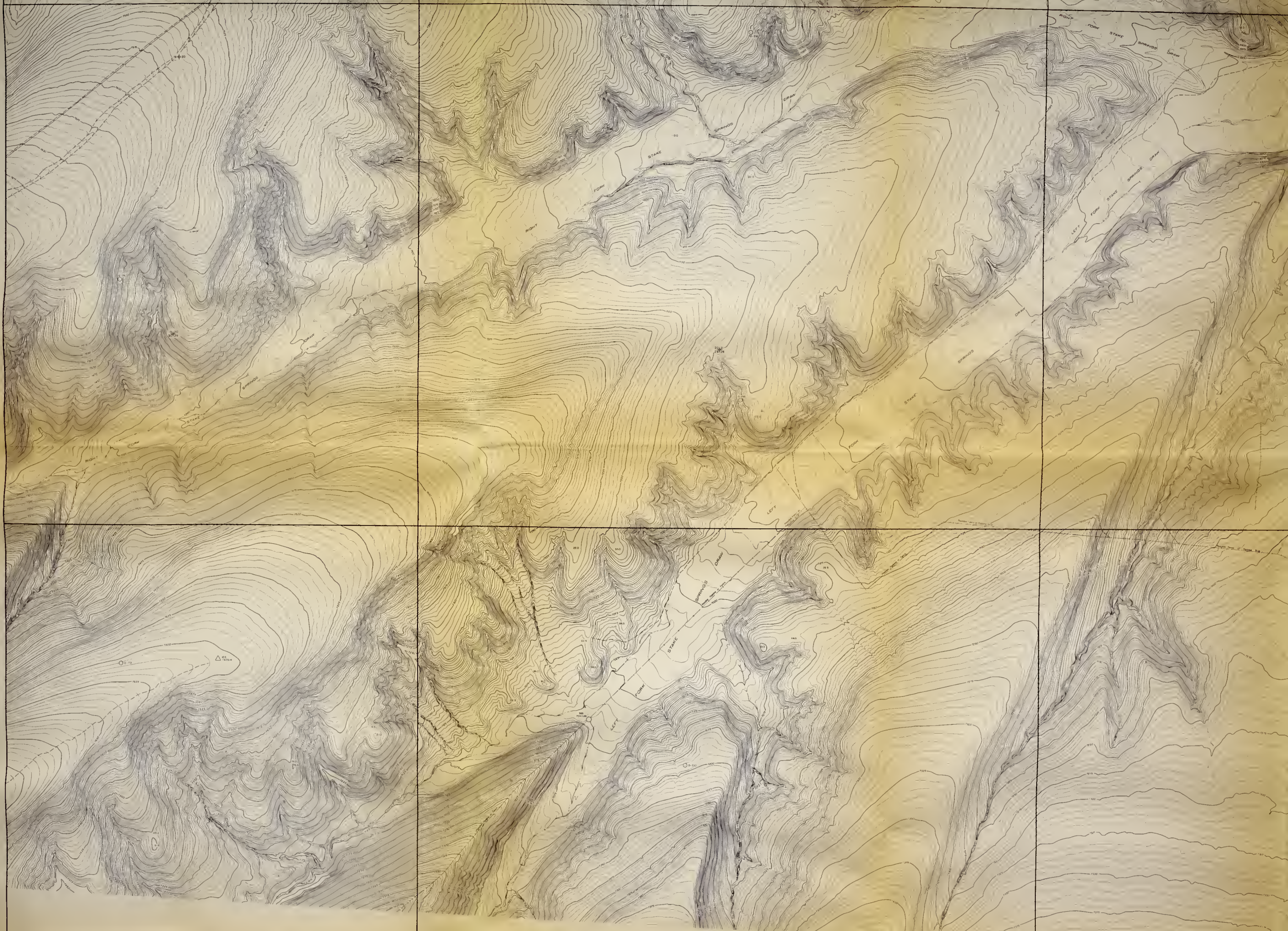
CONTOUR INTERVAL 5 ft.

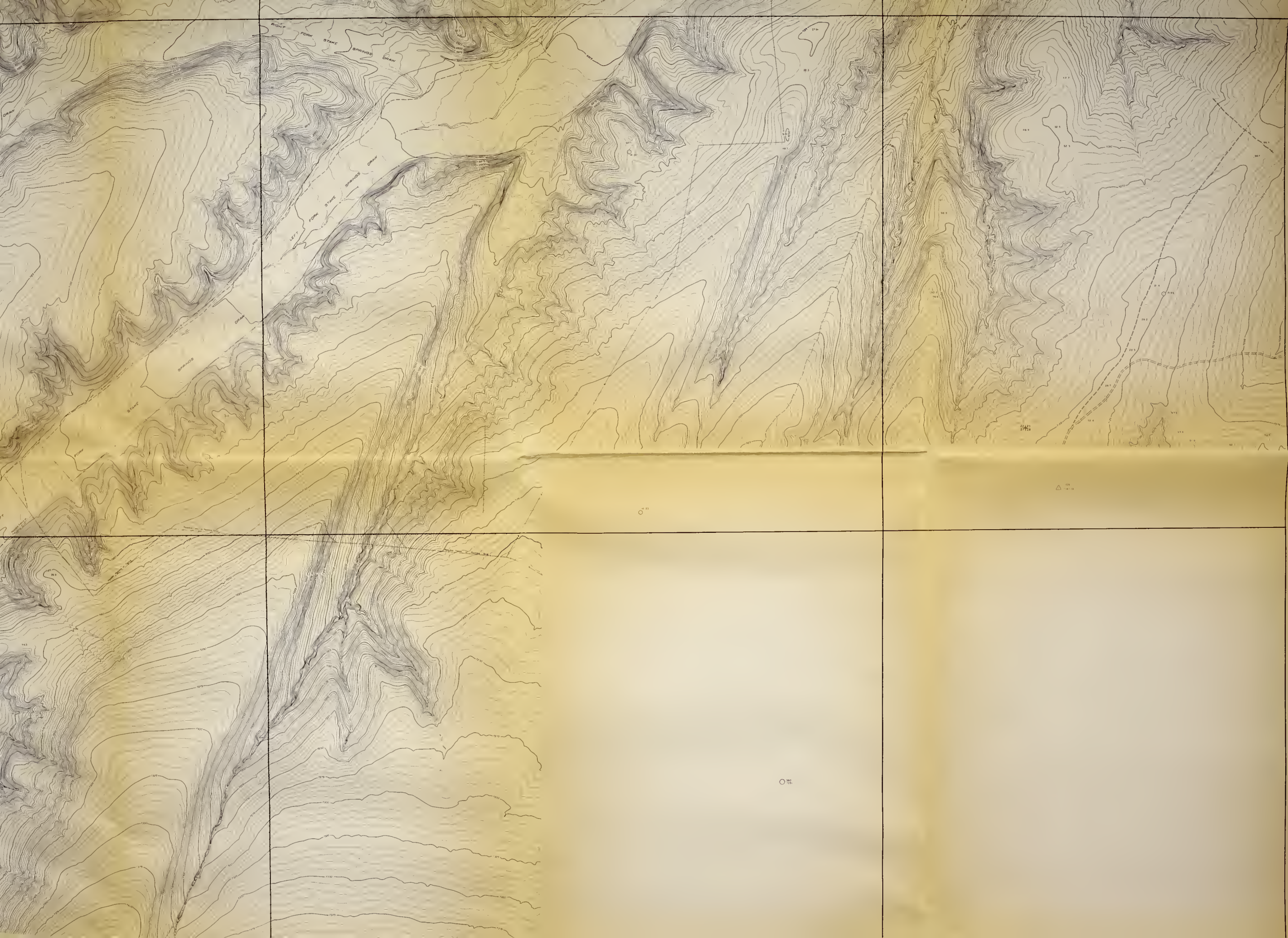


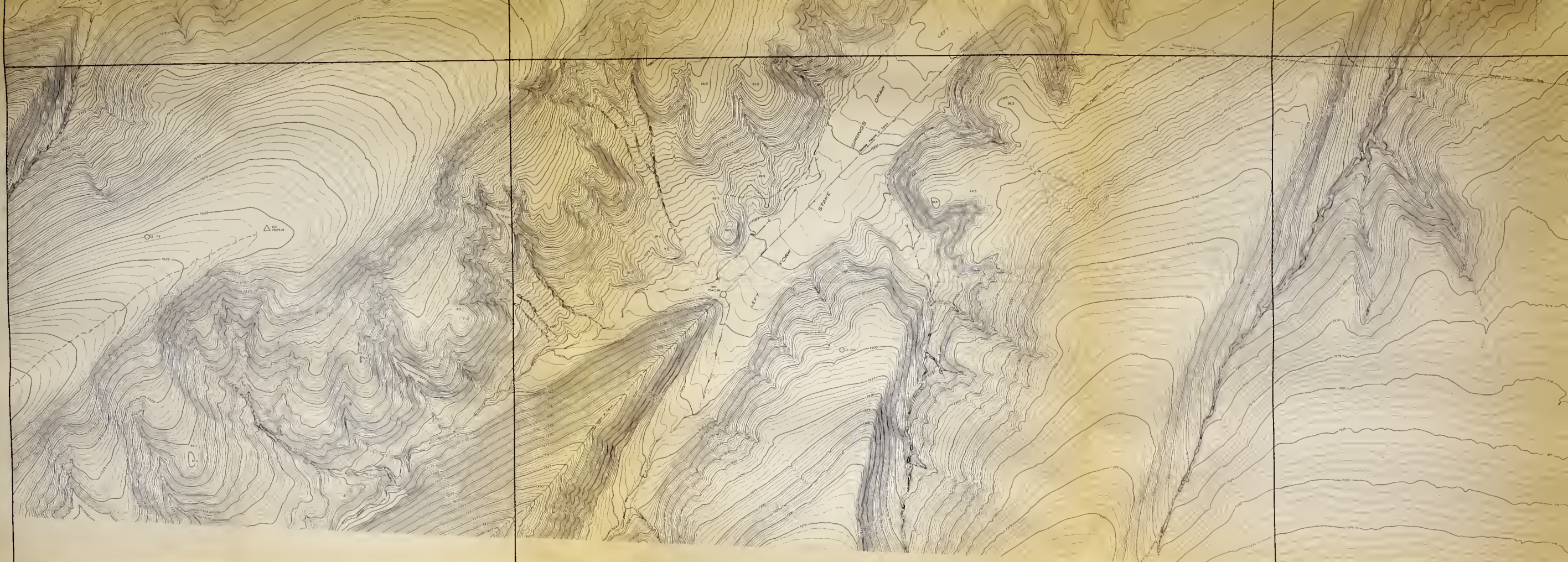


N 213,000

N 208,000

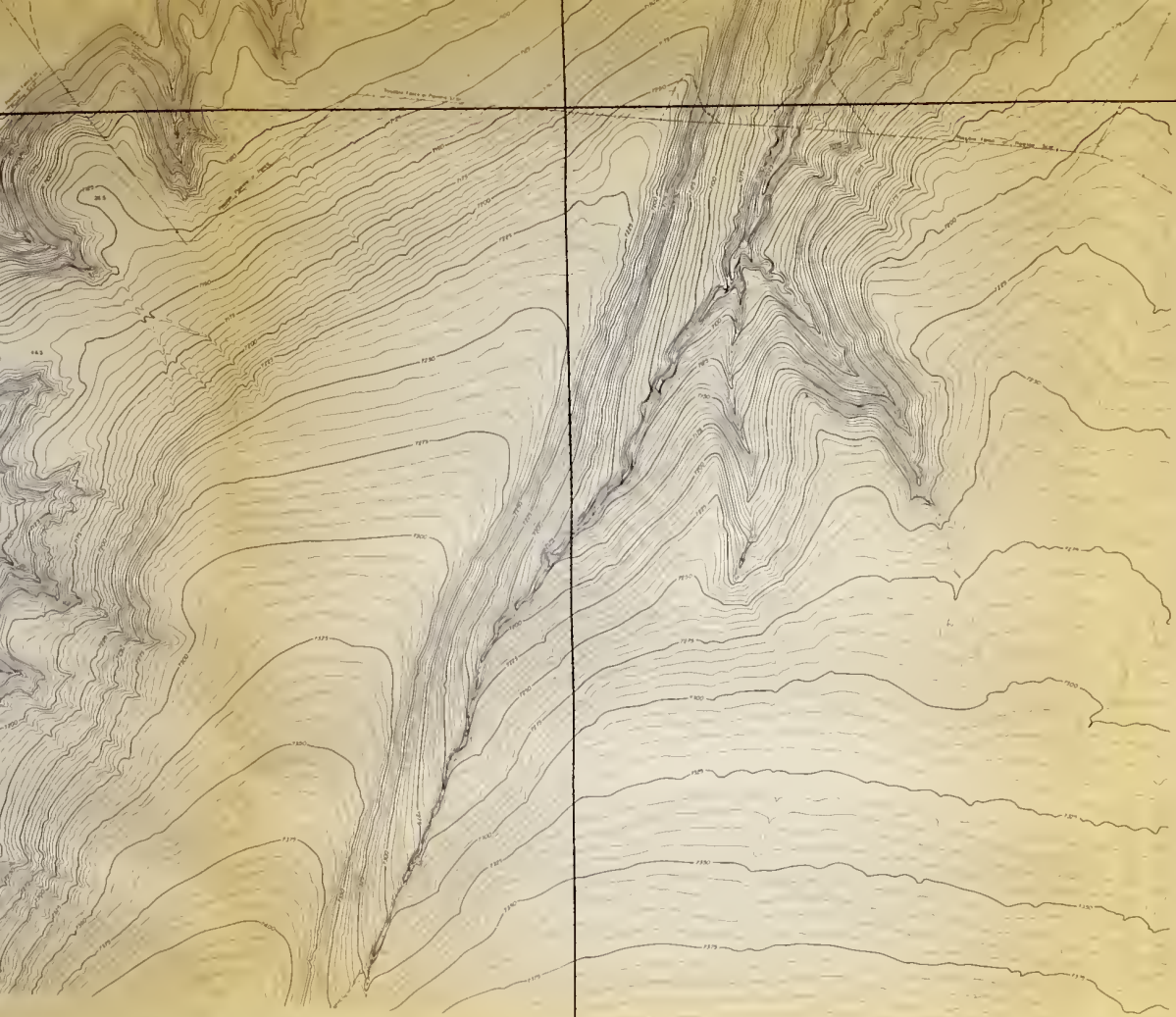






11

11



0

0

N 203,000

N 198,000

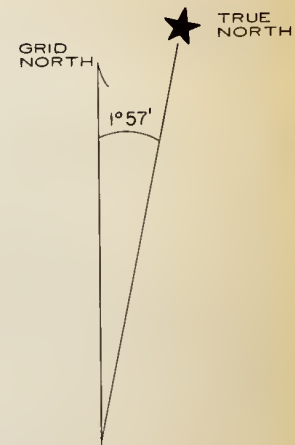
E 146,000

E 150,000

E 156,000

SHEET LAYOUT

			1						2			3					
	1	2	3	4	5	6	7	8	9								
	10	11	12	13	14	15	16	17	18								
19	20	21	22	23	24	25	26	27	28								
29	30	31	32	33	34	35	36	37	38	T. 1 S.							
	4			5			6			T. 2 S.							
39	40	41	42	43	44	45	46	47	48								
49	50	51	52	53	54	55	56	57	58								
59	60	61	62	63	64	65	66	67	68								
69	70	71	72	73	74	75	76	77	78								
79	80	81	82	83	84	R. 99 W.	R. 98 W.										
	R. 100 W.	R. 99 W.															

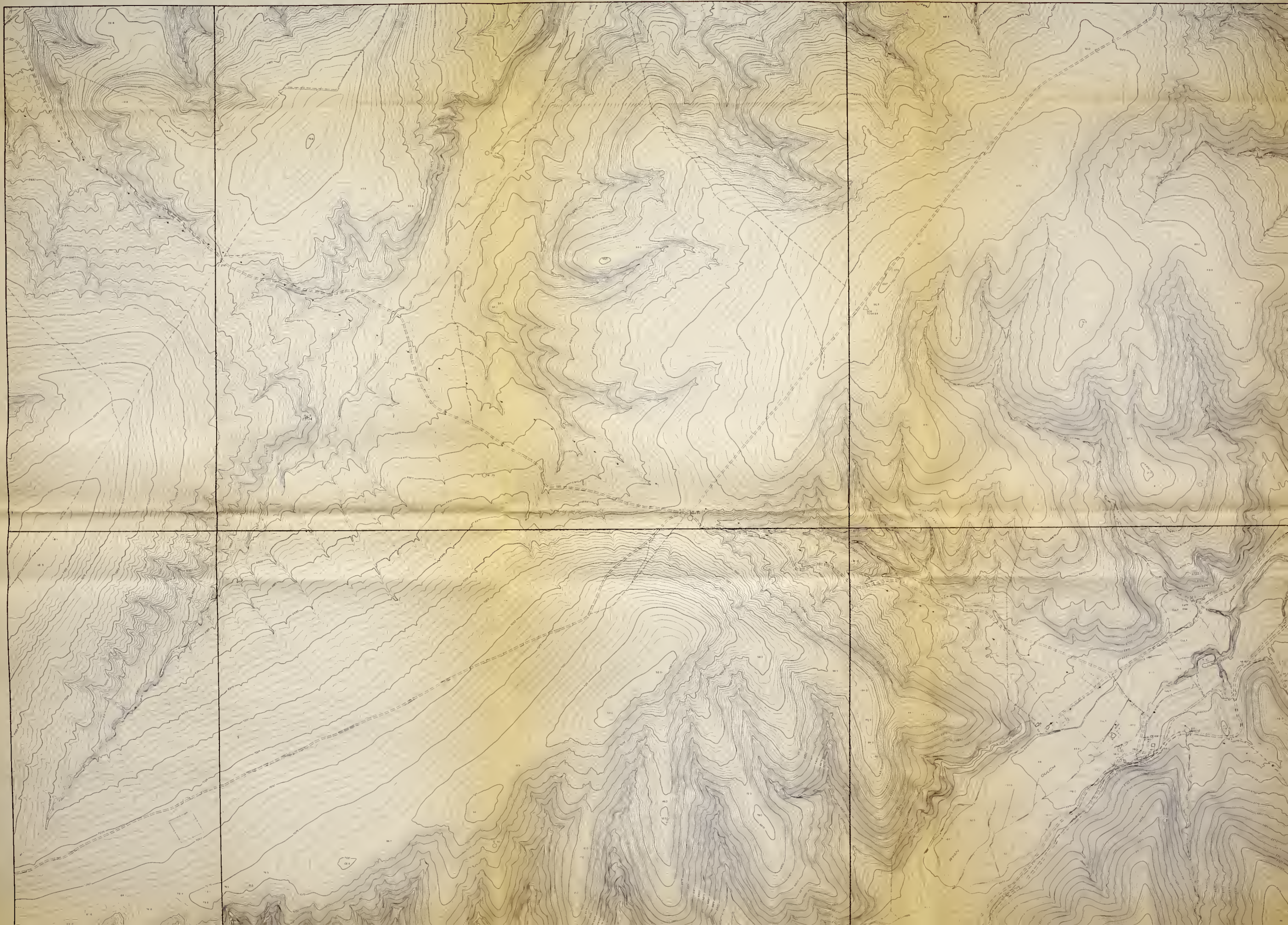


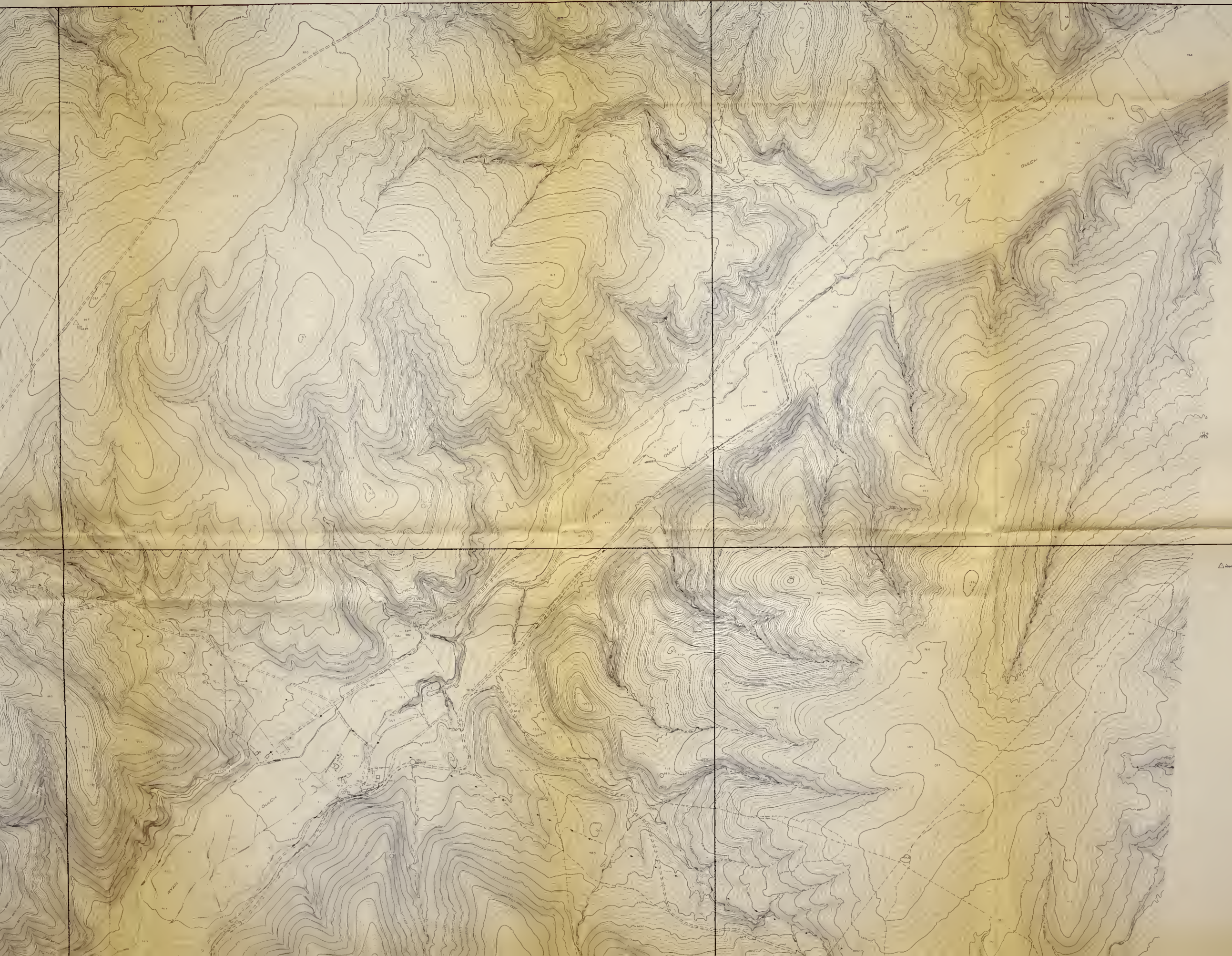
Scale: 1" = 500'

CONTOUR INTERVAL 5 ft.

LEGEND

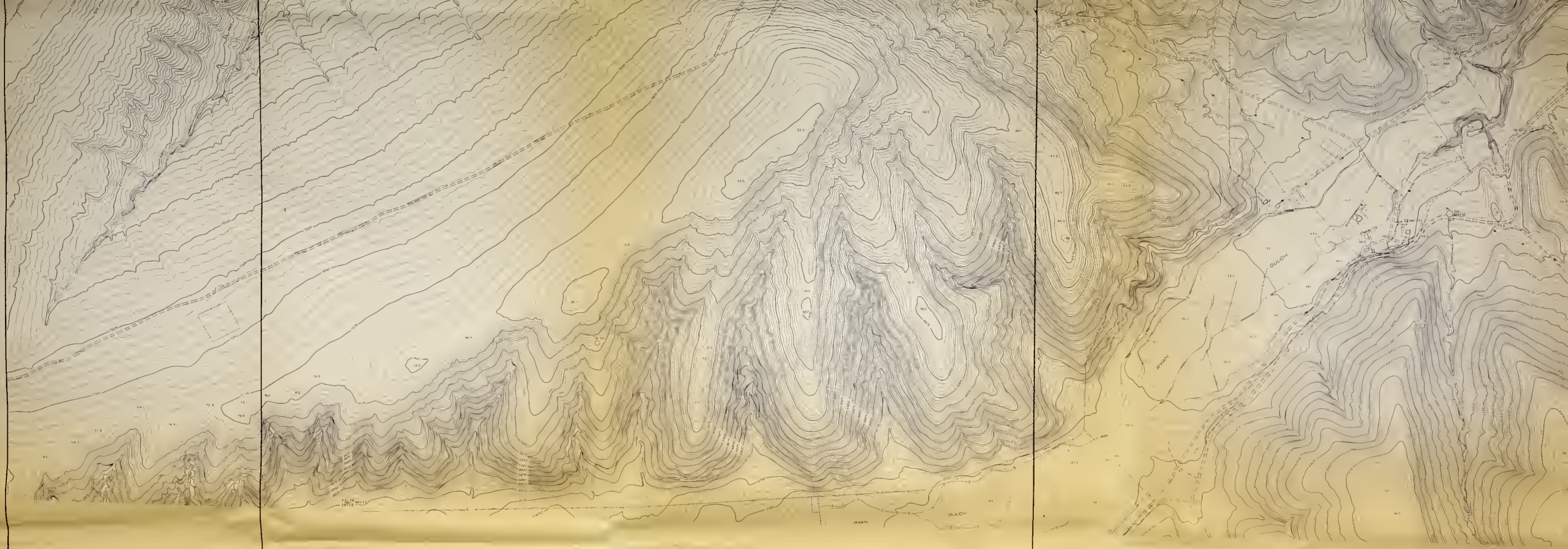
- HORIZONTAL & VERTICAL CONTROL
- VERTICAL CONTROL
- HORIZONTAL CONTROL
- ORILL HOLE
- PROPERTY CORNER
- PICTURE CENTER
- SECTION CORNER
- 1/4 CORNER
- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- CONTOUR THRU HEAVY VEGETATION
- DEPRESSION
- PERENNIAL STREAM
- INTERMITTENT STREAM
- DITCH
- PONO
- WASH
- CULTIVATION

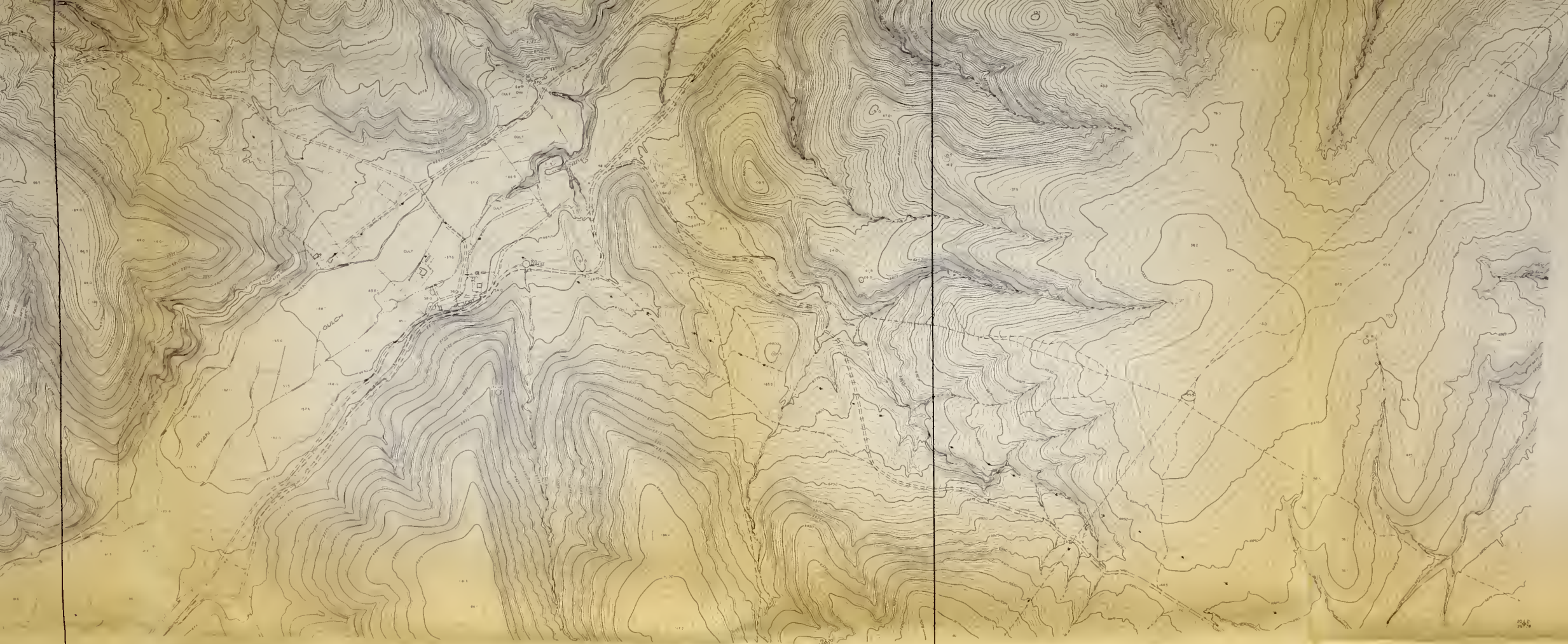




N 213,000

N 208,000





N 203,000





N 198,000

N 193,000

E 174,000

E 180,000

E 186,000

E 166,000

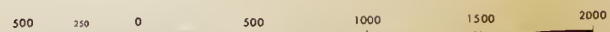
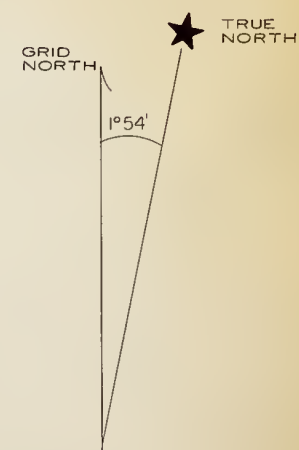
E 168,000

E 174,000

SHEET LAYOUT

1			2			3			
1	2	3	4	5	6	7	8	9	
10	11	12	13	14	15	16	17	18	
19	20	21	22	23	24	25	26	27	28
29	30	31	32	33	34	35	36	37	38
4			5			6			
39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58
59	60	61	62	63	64	65	66	67	68
69	70	71	72	73	74	75	76	77	78
7			8			9			
79	80	81	82	83	84	R. 99 W.	R. 98 W.		
R. 100 W.		R. 99 W.							

T. 1 S.
T. 2 S.



Scale: 1" = 500'

CONTOUR INTERVAL 5 ft.

LEGEND

- HORIZONTAL & VERTICAL CONTROL
- VERTICAL CONTROL
- HORIZONTAL CONTROL
- DRILL HOLE
- PROPERTY CORNER
- PICTURE CENTER
- SECTION CORNER
- 1/4 CORNER
- SPOT ELEVATION
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
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- POND
- WASH
- CULTIVATION

